

DEPARTMENT OF FISH AND GAME **FISH AND WILDLIFE** WATER POLLUTION CONTROL LABORATORY

2005 NIMBUS ROAD RANCHO CORDOVA, CA 95670 PHONE (916) 358-2858 ATSS 8-434-2858 FAX (916) 985-4301

LABORATORY REPORT

Name:

Linda Prendergast

Lab Number:

L-439_542-09*

Agency:

Other Number:

Address:

825 NE Multnomah, Suite 1500

Date Sampled:

07/14 8/25/09

City:

Portland, OR 97232

Date Received:

07/15_8/27/09 09/18/09

Date Completed: Index-PCA Code:

Pacific Corp. Contract

RE:

Microcystins analysis

RESULTS OF CHEMICAL ANALYSIS:

Three water samples, twenty-three tissue samples and two liver composites were extracted and analyzed for microcystins by LC-MSMS (QqQ). Results of the analyses are attached.

*L-439-09, 1 water

L-471-09, 1 water

L-490-09, 23 yellow perch and 2 liver composites

L-542-09, 1 water

NA

Not Applicable Not Detected

ND MDL

RL

Method Detection Limit

Reporting Limit

MBLK

Method Blank

LCS

Laboratory Control Spike

LCSD

Laboratory Control Spike Duplicate

MS

Matrix Spike

MSD

Matrix Spike Duplicate

Cost of Analysis: To be invoiced.

CC: Rick Carlson, Bureau of Reclamation, 6600 Washburn Way, Klamath Falls, OR, 97603

Lead Pesticide Chemist

Laboratory Director For Jake Craw

WPCL Lab#	Estimated MDL	Reporting Limit	L-439-09-1	L-439-09-1Dup	L-471-09-1	L-542-09-1	L-542-09-1Dup
Sample Identification			2009AIP-018	2009AIP-018	2009AIP-024	2009AIP-038	2009AIP-038
Date Collected			14/Jul/2009	14/Jul/2009	28/Jul/2009	25/Aug/2009	25/Aug/2009
Time Collected	POPP A CHARLES PROGRAMMA AND AND AND AND AND AND AND AND AND AN		8:30	8:30	7:40	7:05	7:05
Date Received	!		15/Jul/2009	15/Jul/2009	30/Jul/2009	27/Aug/2009	27/Aug/2009
Date Extracted			16/Jul/2009	16/Jul/2009	04/Aug/2009	27/Aug/2009	27/Aug/2009
Date Analyzed			23/Aug/2009	23/Aug/2009	23/Aug/2009	27/Aug/2009	27/Aug/2009
Matrix			water	water	water	water	water
Biotoxin Analytes	ppb	ppb	ppb (µg/L)	ppb (µg/L)	ppb (µg/L)	ppb (µg/L)	ppb (µg/L)
MC-RR	0.500	1.00	ND	ND	ND	· ND	ND
MC-Desmethyl-RR*	0.500	1.00	ND	ND	ND	ND	ND
MC-LR	0.500	1.00	ND	ND	1.08	1.35	1.37
MC-Desmethyl-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-YR	0.500	1.00	ND	· ND	ND	ND	ND
MC-LA	0.500	1.00	ND	ND	1.38	2.73	2.85
MC-LW	0.500	1.00	ND	ND	ND	ND	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND	ND
Anatoxin A	2.00	5.00	ND	ND	ND	ND	ND
Domoic acid	1.00	2.00	ND	ND	ND	ND	ND
Okadaic acid	0.500	1.00	ND	NĎ	ND	ND	ND
* Desmethyl-RR quantifie	ed as parent analog	compound.					

WPCL Lab#	Estimated MDL	Reporting Limit		L-431-09-MBLK	L-447-09-MBLK	L-538-09-MBLK	L-431-09-LCS
Sample Identification							
Date Collected							
Time Collected							7777887770884
Date Received							
Date Extracted				13/Jul/2009	04/Aug/2009	26/Aug/2009	13/Jul/2009
Date Analyzed		The second secon		23/Aug/2009	23/Aug/2009	27/Aug/2009	23/Aug/2009
Matrix				water	water	water	water
Biotoxin Analytes	ppb	ppb		ppb (µg/L)	ppb (μg/L)	ppb (µg/L)	% Recovery
MC-RR	0.500	1.00	ø	ND	ND	ND	107
MC-Desmethyl-RR*	0.500	1.00	esult	ND	ND	ND	NA
MC-LR	0.500	1.00	Quality Control Results	ND	ND	ND	103
MC-Desmethyl-LR	0.500	1.00	Con	ND	ND	ND	NA
MC-YR	0.500	1.00	uality	ND	ND	ND	93.7
MC-LA	0.500	1.00	G	ND	ND	ND	82.7
MC-LW	0.500	1.00		ND	ND	ND	NA
MC-LF	0.500	1.00		ND	ND	ND	NA
MC-LY	0.500	1.00		ND	ND	ND	113
Anatoxin A	2.00	5.00		ND	ND	ND	84.8
Domoic acid	1.00	2.00		ND	ND	ND	NA
Okadaic acid	0.500 ed as parent analog	1.00		ND	ND	. ND	102

WPCL Lab#	Estimated MDL	Reporting Limit	L-447-09-LCS	L-447-09-LCSD	L-538-09-LCS	L-431-09-2MS	L-431-09-2MSD
Sample Identification					*	IG070909-IG	IG070909-IG
Date Collected						09/Jul/2009	09/Jul/2009
Time Collected						12:48	12:48
Date Received						10/Jul/2009	10/Jul/2009
Date Extracted			04/Aug/2009	04/Aug/2009	26/Aug/2009	13/Jul/2009	13/Jul/2009
Date Analyzed			23/Aug/2009	23/Aug/2009	27/Aug/2009	23/Aug/2009	23/Aug/2009
Matrix			water	water	water	water	water
Biotoxin Analytes	ppb	ppb	% Recovery	% Recovery	% Recovery	% Recovery	% Recovery
MC-RR	0.500	1.00	86.8	88.5	117	109	111
MC-Desmethyl-RR*	0.500	1.00	NA	. NA	NA	NA	NA
MC-LR	0.500	1.00	87.1	85.3	92.5	99.2	101
MC-Desmethyl-LR	0.500	1.00	NA	NA	NA	NA	NA
MC-YR	0.500	1.00	90.6	97.0	86.7	100	105
MC-LA	0.500	1.00	101	106	74.6	80.3	81.2
MC-LW	0.500	1.00	NA	NA	NA	NA NA	NA
MC-LF	0.500	1.00	NA	NA	NA	NA	NA
MC-LY	0.500	1.00	86.3	95.0	77.5	93.6	104
Anatoxin A	2.00	5.00	73.0	75.0	68.0	85.2	88.4
Domoic acid	1.00	2.00	NA	NA	NA	NA	NA
Okadaic acid	0.500	1.00	117	112	ΝA	96.4	111

WPCL Lab#	Estimated MDL	Reporting Limit	L-456-09-2MS	L-467-09-2MS
Sample Identification			SV072209-OC	KR9033
Date Collected			22/Jul/2009	21/Jul/2009
Time Collected			11:56	17:10
Date Received			23/Jul/2009	28/Jul/2009
Date Extracted			04/Aug/2009	04/Aug/2009
Date Analyzed			23/Aug/2009	23/Aug/2009
Matrix			water	water
Biotoxin Analytes	ppb	ppb	% Recovery	% Recovery
MC-RR	0.500	1.00	93.5	101
MC-Desmethyl-RR*	0.500	1.00	NA	NA
MC-LR	0.500	1.00	89.6	93.7
MC-Desmethyl-LR	0.500	1.00	NA	NA
MC-YR	0.500	1.00	92.0	91.4
MC-LA	0.500	1.00	107	82.7
MC-LW	0.500	1.00	NA	NA
MC-LF	0.500	1.00	NA	NA
MC-LY	0.500	1.00	90.1	94.0
Anatoxin A	2.00	5.00	81.2	77.1
Domoic acid	1.00	2.00	NA	NA
Okadaic acid	0.500	1.00	101	81.3
* Desmethyl-RR quantifie	ed as parent analog	compound.		

WPCL Lab#	Estimated MDL	Reporting Limit	L-490-09-1	L-490-09-2	L-490-09-3	L-490-09-4	L-490-09-5
Sample Identification			Copco Res. #1	Copco Res. #2	Copco Res. #3	Copco Res. #4	Copco Res. #5
Date Collected			03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009
Time Collected		To your					,
Date Received			05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009
Date Extracted			26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009
Date Analyzed			27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009
Matrix			yellow perch				
98 War P. L. V. J. 198 A. V. J. W. J			fresh weight				
Biotoxin Analytes	ppb	ppb	ppb (ng/g)				
MC-RR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-RR*	0.500	1.00	ND	ND	ND	ND	ND
MC-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-YR	0.500	1.00	ND	ND	ND	ND	ND ·
MC-LA	0.500	1.00	ND	ND	ND	ND	ND
MC-LW	0.500	1.00	ND	ND	ND	ND	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND	ND
Anatoxin A	5.00	10.0	ND	ND	ND	ND	ND
Domoic acid	2.00	5.00	ND	ND	ND	ND	ND
Okadaic acid	1.00	2.00	ND	ND	ND	ND	ND
* Desmethyl-RR quantifie	ed as parent analog	compound.					

WPCL Lab#	Estimated MDL	Reporting Limit	L-490-09-6	L-490-09-7	L-490-09-8	L-490-09-9	L-490-09-9Dup
Sample Identification			Copco Res. #6	Copco Res. #7	Copco Res. #8	Copco Res. #9	Copco Res. #9
Date Collected			03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009
Time Collected							
Date Received			05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009
Date Extracted			26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009
Date Analyzed			27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009
Matrix			yellow perch				
			fresh weight				
Biotoxin Analytes	ppb	ppb	ppb (ng/g)				
MC-RR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-RR*	0.500	1.00	ND	ND	ND	ND	ND
MC-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-LR	0.500	1.00	ND	ND .	ND	ND	ND
MC-YR	0.500	1.00	ND	ND	ND .	ND	ND
MC-LA	0.500	1.00	ND	ND	ND	ND	ND
MC-LW	0.500	1.00	ND	ND	ND	ND	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND	ND
Anatoxin A	5.00	10.0	ND	ND	ND	ND	ND
Domoic acid	2.00	5.00	ND	ND	ND	ND	ND
Okadaic acid	1.00	2.00	ND	ND	. N D	ND	ND
* Desmethyl-RR quantifie	ed as parent analog	compound.			 		

WPCL Lab#	Estimated MDL	Reporting Limit	L-490-09-10	L-490-09-11	L-490-09-12	L-490-09-13	L-490-09-14
Sample Identification			Copco Res. #10	Copco Res. #11	Iron Gate Res. #1	Iron Gate Res. #2	Iron Gate Res. #3
Date Collected			03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009
Time Collected						1	
Date Received	i .		05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009
Date Extracted			26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009
Date Analyzed	:		27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009
Matrix	:		yellow perch	yellow perch	yellow perch	yellow perch	yellow perch
			fresh weight	fresh weight	fresh weight	fresh weight	fresh weight
Biotoxin Analytes	ppb	ppb	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)
MC-RR	0.500	1.00	ND	ND	ND	ND.	ND
MC-Desmethyl-RR*	0.500	1.00	ND	ND ND	ND	ND ND	ND
MC-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-LR	0.500	1.00	ND	ND	ND	ND	ND .
MC-YR	0.500	1.00	ND	ND	ND	ND	ND
MC-LA	0.500	1.00	ND	ND	ND	ND	ND
MC-LW	0.500	1.00	ND	ND	ND	ND	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND	ND
Anatoxin A	5.00	10.0	ND	ND	ND	ND	ND
Domoic acid	2.00	5.00	ND	ND	ND	ND	ND
Okadaic acid	1.00	2.00	ND	ND	ND	ND	ND
* Desmethyl-RR quantifie	ed as parent analog	compound.					

WPCL Lab#	Estimated MDL	Reporting Limit	L-490-09-15	L-490-09-16	L-490-09-17	L-490-09-18	L-490-09-19
Sample Identification			Iron Gate Res. #4	Iron Gate Res. #5	Iron Gate Res. #6	Iron Gate Res. #7	Iron Gate Res. #8
Date Collected			03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009
Time Collected							
Date Received			05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009
Date Extracted			26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009
Date Analyzed			27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009
Matrix			yellow perch				
		2	fresh weight				
Biotoxin Analytes	ppb	ppb	ppb (ng/g)				
MC-RR	0.500	1.00	ND	·ND	ND	ND	· ND
MC-Desmethyl-RR*	0.500	1.00	ND	ND	ND	ND	ND
MC-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-LR	0.500	1.00	. ND	ND	ND	ND	ND
MC-YR	0.500	1.00	ND	ND	ND	ND	ND
MC-LA	0.500	1.00	ND	ND	ND	ND	ND
MC-LW	0.500	1.00	ND	ND	ND	ND -	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND	ND
Anatoxin A	5.00	10.0	ND	ND	ND	ND	ND
Domoic acid	2.00	5.00	ND	ND	ND	ND	ND
Okadaic acid	1.00	2.00	ND .	ND	ND	ND	ND
* Desmethyl-RR quantifie	ed as parent analog	compound.					

WPCL Lab#	Estimated MDL	Reporting Limit	L-490-09-20	L-490-09-21	L-490-09-22	L-490-09-23	L-490-09-24
Sample Identification			Iron Gate Res. #9	Iron Gate Res. #10	Iron Gate Res. #11	Iron Gate Res. #12	Copco Res.
Date Collected			03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009
Time Collected		:					
Date Received			05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009
Date Extracted			26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009
Date Analyzed			27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009
Matrix			yellow perch	yellow perch	yellow perch	yellow perch	liver composite
			fresh weight	fresh weight	fresh weight	fresh weight	fresh weight
Biotoxin Analytes	ppb	ppb	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)
MC-RR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-RR*	0.500	1.00	ND	ND	ND	ND	ND
MC-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-YR	0.500	1.00	ND	ND	ND	ND	ND
MC-LA	0.500	1.00	ND	ND	ND	ND	ND
MC-LW	0.500	1.00	ND	ND	ND	ND	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND .	ND
Anatoxin A	5.00	10.0	ND	ND	· ND	ND	ND
Domoic acid	2.00	5.00	ND	ND	ND	ND	ND
Okadaic acid	1.00	2.00	. ND	ND	ND	ND	ND
* Desmethyl-RR quantifie	ed as parent analog	compound.					

WPCL Lab#	Estimated MDL	Reporting Limit	L-490-09-25		L-490-09-MBLK	L-537-09-MBLK2	L-490-09-LCS
Sample Identification			Iron Gate Res.				
Date Collected			03/Aug/2009				
Time Collected			NA				The state of the s
Date Received			05/Aug/2009				
Date Extracted			26/Aug/2009		26/Aug/2009	26/Aug/2009	26/Aug/2009
Date Analyzed			27/Aug/2009		27/Aug/2009	27/Aug/2009	27/Aug/2009
Matrix			liver composite		tissue	tissue	tissue
			fresh weight		fresh weight	fresh weight	fresh weight
Biotoxin Analytes	ppb	ppb	ppb (ng/g)		ppb (ng/g)	ppb (ng/g)	% Recovery
MC-RR	0.500	1.00	ND	lts	ND	ND	103
MC-Desmethyl-RR*	0.500	1.00	ND	Resu	ND	ND	NA
MC-LR	0.500	1.00	ND	ntrol	ND	ND	103
MC-Desmethyl-LR	0.500	1.00	ND ·	c S	ND	ND	NA
MC-YR	0.500	1.00	ND	Quality Control Results	ND	ND	65.6
MC-LA	0.500	1.00	ND	G	ND	ND	79.0
MC-LW	0.500	1.00	ND		ND	ND	NA
MC-LF	0.500	1.00	ND		ND 1	ND	NA
MC-LY	0.500	1.00	ND		ND	ND	67.8
Anatoxin A	5.00	10.0	ND		ND	ND	52.5
Domoic acid	2.00	5.00	ND		ND	ND	NA
Okadaic acid	1.00	2.00	ND		ND	ND	NA
* Desmethyl-RR quantifie	ed as parent analog	compound.	<u> </u>				The second secon

WPCL Lab#	Estimated MDL	Reporting Limit	L-537-09-LCS2	L-490-09-6MS	L-490-09-6MSD	L-537-09-28MS	L-537-09-28MSD
Sample Identification				Copco Res. #6	Copco Res. #6	IB081909-1	IB081909-1
Date Collected				03/Aug/2009	03/Aug/2009	19/Aug/2009	19/Aug/2009
Time Collected						15:30	15:30
Date Received				05/Aug/2009	05/Aug/2009	21/Aug/2009	21/Aug/2009
Date Extracted			26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009
Date Analyzed			27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009
Matrix			tissue	yellow perch	yellow perch	tissue	tissue
			fresh weight				
Biotoxin Analytes	ppb	ppb	% Recovery	% Recovery	% Recovery	ppb (ng/g)	ppb (ng/g)
MC-RR	0.500	1.00	101	67.3	81.7	83.5	89.0
MC-Desmethyl-RR*	0.500	1.00	NA	NA	NA	NA	NA
MC-LR	0.500	1.00	104	66.0	74.7	72.4	78.3
MC-Desmethyl-LR	0.500	1.00	NA	NA	NA	NA	NA
MC-YR	0.500	1.00	76.7	59.3	77.5	78.8	82.9
MC-LA	0.500	1.00	68.2	NA	NA	. 58.8	57.3
MC-LW	0.500	1.00	NA	NA	NA	NA	NA
MC-LF	0.500	1.00	NA	NA	NA	NA	NA
MC-LY	0.500	1.00	NA	59.2	73.9	NA	NA
Anatoxin A	5.00	10.0	111	55.9	59.5	119	115
Domoic acid	2.00	5.00	NA	NA	NA	NA	NA
Okadaic acid	1.00	2.00	NA NA	NA	NA	NA	NA
* Desmethyl-RR quantific	ed as parent analog	compound.					



DEPARTMENT OF FISH AND GAME FISH AND WILDLIFE WATER POLLUTION CONTROL LABORATORY



2005 NIMBUS ROAD RANCHO CORDOVA, CA 95670 PHONE (916) 358-2858 ATSS 8-434-2858 FAX (916) 985-4301

LABORATORY REPORT

Name:

Linda Prendergast

Agency:

Address:

825 NE Multnomah, Suite 1500

Portland, OR 97232

Lab Number:

Other Number:

Date Sampled:

Date Received:

Date Completed:

Index-PCA Code:

L-593_611-09*

09/9 22/09

09/17 25/09 10/08/09

Pacific Corp. Contract

RE:

City:

Microcystins analysis

RESULTS OF CHEMICAL ANALYSIS:

One water sample, twenty-two tissue samples and two liver composites were extracted and analyzed for microcystins by LC-MSMS (QqQ). Results of the analyses are attached.

*L-593-09, 22 fish tissue and 2 liver composites L-611-09, 1 water

NA

Not Applicable Not Detected

ND MDL

Method Detection Limit

RL MBLK Reporting Limit Method Blank

LCS

Laboratory Control Spike

LCSD

Laboratory Control Spike Duplicate

MS

Matrix Spike

MSD

Matrix Spike Duplicate

Cost of Analysis: To be invoiced.

CC: Rick Carlson, Bureau of Reclamation, 6600 Washburn Way, Klamath Falls, OR, 97603

Lead Pesticide Chemist

Laboratory Director

U.S. Bureau of Reclamations AIP 2009 L-611-09

WPCL Lab#	Estimated MDL	Reporting Limit	L-611-09-1	L-611-09-1Dup		601-611-09-MBL	L-601-611-09-LCS	L-601-611-09-LCSE
Sample Identification			2009AIP-050	2009AIP-050				
Date Collected			22/Sep/2009	22/Sep/2009				
Time Collected		The state of the s	7:40	7:40				
Date Received			25/Sep/2009	25/Sep/2009	7			
Date Extracted			25/Sep/2009	25/Sep/2009		25/Sep/2009	25/Sep/2009	25/Sep/2009
Date Analyzed			25/Sep/2009	25/Sep/2009		25/Sep/2009	25/Sep/2009	25/Sep/2009
Matrix			water	water	-	water	water	water
Biotoxin Analytes	ppb	ppb	ppb (μg/L)	ppb (µg/L)	1	ppb (µg/L)	% Recovery	% Recovery
MC-RR	0.500	1.00	ND	ND	ılts	ND	110	107
MC-Desmethyl-RR*	0.500	1.00	ND	ND	Resi	ND	NA	NA
MC-LR	0.500	1.00	1.38	1.34	Control Results	ND	78.7	87.7
MC-Desmethyl-LR	0.500	1.00	ND	ND	:	ND	NA	NA
MC-YR	0.500	1.00	ND	ND	Quality	ND	117	115
MC-LA	0.500	1.00	ND	ND		ND	100	119
MC-LW	0.500	1.00	ND	ND		ND	NA	NA
MC-LF	0.500	1.00	ND	ND		ND	NA	NA
MC-LY	0.500	1.00	ND	ND		ND	NA	NA
Domoic acid	1.00	2.00	ND	ND		ND	NA	NA
Okadaic acid	0.500	1.00	ND	ND		ND	·NA	NA
* Desmethyl-RR quantifi	ed as parent analog	compound.					Comments of the comments of th	

WPCL Lab#	Estimated MDL	Reporting Limit	L-593-09-1	L-593-09-1Dup	L-593-09-2	L-593-09-3	L-593-09-4	L-593-09-5
As a contraction of the state o		:	Irongate	Irongate	Irongate	Irongate	Irongate	Irongate
Sample Identification		L	Reservoir CR-1	Reservoir CR-1	Reservoir CR-2	Reservoir YP-1	Reservoir YP-2	Reservoir YP-3
Date Collected			09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009
Time Collected			NA	NA	NA	NA	NA	NA
Date Received			17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009
Date Extracted	Ì		29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
Date Analyzed			29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
Matrix			tissue	tissue	tissue	tissue	tissue	tissue
		 	fresh weight					
Biotoxin Analytes	ppb	ppb	ppb (ng/g)					
MC-RR	0.500	1.00	. ND	ND	ND	ND	ND	ND
MC-Desmethyl-RR*	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-Desmethyl-LR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-YR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LA	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LW	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND	ND	ND
Domoic acid	2.00	5.00	ND	ND	ND	ND	ND	ND
Okadaic acid	1.00	2.00	ND	ND	ND	ND	ND	ND
* Desmethyl-RR quantific	ed as parent analog	compound.	1					

ppb 1.00	Irongate Reservoir YP-4 09/Sep/2009 NA 17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue fresh weight ppb (ng/g)	Irongate Reservoir YP-5 09/Sep/2009 NA 17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue fresh weight ppb (ng/g)	Irongate Reservoir YP-6 09/Sep/2009 NA 17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue fresh weight ppb (ng/g)	Irongate Reservoir YP-7 09/Sep/2009 NA 17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue fresh weight	Irongate Reservoir YP-8 09/Sep/2009 NA 17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue fresh weight	Irongate Reservoir YP-9 09/Sep/2009 NA 17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue fresh weight
	NA 17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue fresh weight ppb (ng/g)	NA 17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue fresh weight	NA 17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue fresh weight	NA 17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue fresh weight	NA 17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue	NA 17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue
	17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue fresh weight ppb (ng/g)	17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue fresh weight	17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue fresh weight	17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue fresh weight	17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue	17/Sep/2009 29/Sep/2009 29/Sep/2009 tissue
	29/Sep/2009 29/Sep/2009 tissue fresh weight ppb (ng/g)	29/Sep/2009 29/Sep/2009 tissue fresh weight	29/Sep/2009 29/Sep/2009 tissue fresh weight	29/Sep/2009 29/Sep/2009 tissue fresh weight	29/Sep/2009 29/Sep/2009 tissue	29/Sep/2009 29/Sep/2009 tissue
	29/Sep/2009 tissue fresh weight ppb (ng/g)	29/Sep/2009 tissue fresh weight	29/Sep/2009 tissue fresh weight	29/Sep/2009 tissue fresh weight	29/Sep/2009 tissue	29/Sep/2009 tissue
	tissue fresh weight ppb (ng/g)	tissue fresh weight	tissue fresh weight	tissue fresh weight	tissue	tissue
	fresh weight ppb (ng/g)	fresh weight	fresh weight	fresh weight		tīssue
	ppb (ng/g)				fresh weight	fresh weight
		ppb (ng/g)	ppb (ng/g)			i
1.00	ND			ppb (ng/g)	ppb (ng/g)	ppb (ng/g)
	i ND	ND	ND	ND	ND	ND
1.00	ND	ND	ND	ND	ND	ND
1.00	ND	ND	ND	ND	ND	ND
1.00	ND	ND	ND	ND	ND	ND
1.00	ND	ND	ND	ND	ND	ND
1.00	ND	ND	ND	ND	ND	ND
1.00	ND	ND	ND	ND .	ND	ND
1.00	ND	. ND	ND	ND	ND	ND
1.00	ND	ND	ND	ND	ND	ND
5.00	ND	ND	ND	ND	ND	ND
2 00	ND	ND	ND	ND	ND	ND
	1.00 1.00 1.00 5.00	1.00 ND 1.00 ND 1.00 ND 5.00 ND	1.00 ND ND 1.00 ND ND 1.00 ND ND 5.00 ND ND 2.00 ND ND	1.00 ND ND ND 1.00 ND ND ND 1.00 ND ND ND 5.00 ND ND ND ND 2.00 ND ND ND ND	1.00 ND ND ND ND ND 1.00 ND ND ND ND ND 1.00 ND ND ND ND ND 5.00 ND ND ND ND ND ND 2.00 ND ND ND ND ND	1.00 ND

	Reporting Limit	L-593-09-12	L-593-09-13	L-593-09-14	L-593-09-15	L-593-09-16	L-593-09-17
		Irongate	Copco Reservoir	Copco Reservoir	Copco Reservoir	Copco Reservoir	Copco Reservoir
		Reservoir YP-10	YP-1	YP-2	YP-3	YP-4	YP-5
		09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009
		NA	NA	NA	NA	NA	NA
		17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009
		29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
		29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
		tissue	tissue	tissue	tissue	tissue	tissue
		fresh weight	fresh weight	fresh weight	fresh weight	fresh weight	fresh weight
ob	ppb	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)
500	1.00	ND	ND	ND	ND	ND	ND
500	1.00	ND	ND	ND	ND	ND	ND
500	1.00	ND	ND	ND	ND	ND	ND
i00	1.00	ND	ND	ND	ND	ND	ND
500	1.00	ND	ND	ND	ND	ND	ND
500	1.00	ND	ND	ND	ND	ND	ND
500	1.00	ND	ND	ND	ND	ND	ND
500	1.00	ND	ND	ND	ND	ND	ND
500	1.00	ND	ND	ND	ND	ND	ND
00	5.00	ND	ND	ND	ND .	ND	ND
00			7				
	500 500 500 500 500 500	500 1.00 500 1.00 500 1.00 500 1.00 500 1.00 500 1.00 500 1.00	1.00 ND	500 1.00 ND ND 500 1.00 ND ND	500 1.00 ND ND ND 500 1.00 ND ND ND	500 1.00 ND ND ND ND 500 1.00 ND ND ND ND ND	500 1.00 ND ND

WPCL Lab#	Estimated MDL	Reporting Limit	L-593-09-18	L-593-09-18Dup	L-593-09-19	L-593-09-20	L-593-09-21	L-593-09-22
The last the second control of the second co	The second secon		Copco Reservoir					
Sample Identification			YP-6	YP-6	YP-7	YP-8	YP-9	YP-10
Date Collected			09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009
Time Collected		: 	NA	NA	NA ,	NA	NA	NA
Date Received			17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009
Date Extracted		<u> </u>	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
Date Analyzed	1		29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
Matrix		<u> </u>	tissue	tissue	tissue	tissue	tissue	tissue
The state of the s			fresh weight					
Biotoxin Analytes	ppb	ppb	ppb (ng/g)					
MC-RR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-Desmethyl-RR*	0.500	1.00	. ND	ND	ND	ND	ND	ND
MC-LR	0.500	1.00	ND.	ND	ND	ND	ND ND	ND
MC-Desmethyl-LR	0.500	1.00	i ND	ND	ND	ND	ND ND	ND
MC-YR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LA	0.500	1.00	ND ND	ND	ND	ND	ND	ND
MC-LW	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND	ND	ND
Domoic acid	2.00	5.00	ND	ND	ND	ND	ND	ND
Okadaic acid	1.00	2.00	ND	ND	ND	ND	ND	ND
* Desmethyl-RR quantific	ed as parent analog	compound.	ę		Ì		;	

L-593-09

WPCL Lab#	Estimated MDL	Reporting Limit	L-593-09-23	L-593-09-24		L-593-09-MBLK1	L-593-09-MBLK2	L-593-09-LCS1
Sample Identification		1	Iron Gate livers	Copco livers				
Date Collected		AND THE RESIDENCE OF THE PARTY	09/Sep/2009	09/Sep/2009	1			
Time Collected	A CONTRACTOR OF THE PROPERTY O	THE PARTY OF THE P	NA	NA	1			
Date Received			17/Sep/2009	17/Sep/2009				
Date Extracted	1		29/Sep/2009	29/Sep/2009		29/Sep/2009	29/Sep/2009	29/Sep/2009
Date Analyzed			29/Sep/2009	29/Sep/2009		29/Sep/2009	29/Sep/2009	29/Sep/2009
Matrix			liver composite	liver composite]	tissue	tissue	tissue
Company (1) (2) and the second of the Mark As Assembly State (1) and the second of the			fresh weight	fresh weight		fresh weight	fresh weight	fresh weight
Biotoxin Analytes	ppb	ppb	ppb (ng/g)	ppb (ng/g)	ts	ppb (ng/g)	ppb (ng/g)	% Recovery
MC-RR	0.500	1.00	ND	ND	Results	ND	ND	70.9
MC-Desmethyl-RR*	0.500	1.00	ND	ND	ntrol F	ND	ND	NA
MC-LR	0.500	1.00	ND	ND	ှဲ ပိ	ND	ND	76.9
MC-Desmethyl-LR	0.500	1.00	ND	ND	Quality	ND	ND	NA
MC-YR	0.500	1.00	ND	ND	o o	ND	ND	91.2
MC-LA	0.500	1.00	ND	ND		ND	ND	72.1
MC-LW	0.500	1.00	ND	ND	1	ND	ND	NA
MC-LF	0.500	1.00	ND	ND		ND	ND	NA
MC-LY	0.500	1.00	ND	ND	-2	ND	ND	NA
Domoic acid	2.00	5.00	ND .	ND ND		ND	ND	NA
Okadaic acid	1.00	2.00	ND	ND		ND	ND	NA
* Desmethyl-RR quantifie	ed as parent analog	compound.			<u> </u>	i		

WPCL Lab#	Estimated MDL	Reporting Limit	L-593-09-LCS2	L-593-09-2MS	L-593-09-2MSD	L-593-09-17MS	L-593-09-17MSD
				Irongate	Irongate	Copco Reservoir	Copco Reservoir
Sample Identification				Reservoir CR-2	Reservoir CR-2	YP-5	YP-5
Date Collected	<u> </u>	THE THE PROPERTY OF MALE AND A SECOND STREET, ST. S.	M. ANNOUNCE . According to 12 years which could be also be an accommon	09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009
Time Collected	1			NA	NA	NA	NA
Date Received	3			17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009
Date Extracted			29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
Date Analyzed			29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
Matrix			tissue	tissue	tissue	tissue	tissue
	The recognition of the second		fresh weight	fresh weight	fresh weight	fresh weight	fresh weight
Biotoxin Analytes	ppb	ppb	% Recovery	% Recovery	% Recovery	ppb (ng/g)	ppb (ng/g)
MC-RR	0.500	1.00	74.3	62.2	60.4	60.1	59.4
MC-Desmethyl-RR*	0.500	1.00	NA	NA	NA NA	NA	NA
MC-LR	0.500	1.00	103	95.2	72.4	64.8	79.3
MC-Desmethyl-LR	0.500	1.00	NA	NA	NA	NA	NA .
MC-YR	0.500	1.00	109	87.0	78.3	76.7	89.8
MC-LA	0.500	1.00	80.2	89.2	78.7	67.1	83.2
MC-LW	0.500	1.00	NA	NA	NA	NA	NA
MC-LF	0.500	1.00	NA	NA	NA	NA	NA
MC-LY	0.500	1.00	NA	NA	NA	NA	NA
Domoic acid	2.00	5.00	NA	NA	NA	NA	NA
Okadaic acid	1.00	2.00	NA	NA	NA	NA	NA
* Desmethyl-RR quantifie	ed as parent analog	compound.	*** **********************************				