

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)



Laboratory Report

for

Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, AZ 85007
Attention: David Burchard

Date of Issue
04/07/2017


Eurofins Eaton
Analytical

TDF: Thomas.D.French
Project Manager



Report: 649123
Project: CROWNKING-ED
ADHS License #: AZ0778
Group: Crown King Elementary
PO#: School
PO#: ADEQ16-116686:3

* Accredited in accordance with TNI 2009 and ISO/IEC 17025:2005.

* Laboratory certifies that the test results meet all **TNI 2009 and ISO/IEC 17025:2005** requirements unless noted under the individual analysis.

* Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.

* Test results relate only to the sample(s) tested.

* This report shall not be reproduced except in full, without the written approval of the laboratory.

STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Mississippi	Certified
Arizona	AZ0778	Montana	Cert 0035
Arkansas	Certified	Nebraska	Certified
California-Monrovia-ELAP	2813	Nevada	CA00006-2016
California-Colton- ELAP	2812	New Hampshire *	2959
California-Folsom- ELAP	2820	New Jersey *	CA 008
California-Fresno- ELAP	2966	New Mexico	Certified
Colorado	Certified	New York *	11320
Connecticut	PH-0107	North Carolina	06701
Delaware	CA 006	North Dakota	R-009
Florida *	E871024	Oregon (Primary AB) *	ORELAP 4034
Georgia	947	Pennsylvania *	68-565
Guam	16-003r	Puerto Rico	Certified
Hawaii	Certified	Rhode Island	LAO00326
Idaho	Certified	South Carolina	87016
Illinois *	200033	South Dakota	Certified
Indiana	C-CA-01	Tennessee	TN02839
Kansas *	E-10268	Texas *	T104704230-15-9
Kentucky	90107	Utah *	CA000062016-10
Louisiana *	LA16003	Vermont	VT0114
Maine	CA0006	Virginia *	460260
Maryland	224	Washington	C838
Commonwealth of Northern Marianas Is.	MP0004	Wyoming	Certified
Massachusetts	M-CA006	EPA Region 5	Certified
Michigan	9906	Los Angeles County Sanitation Districts	10264

* NELAP/TNI Recognized Accreditation Bodies

ISO 17025 Accredited Method List

The tests listed below are accredited and meet the requirements of ISO 17025 as verified by the ANSI-ASQ National Accreditation Board/ANAB.

Refer to Certificate and scope of accreditation (AT 1807) found at: <http://www.eatonanalytical.com>

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Environmental (Drinking Water)	Environmental (Waste Water)	Water as a Component of Food and Bev/Bev/ Bottled Water
1,4-Dioxane	EPA 522	x		x
2,3,7,8-TCDD	Modified EPA 1613B	x		x
Acrylamide	In House Method (2440)	x		x
Alkalinity	SM 2320B	x	x	x
Ammonia	EPA 350.1		x	x
Ammonia	SM 4500-NH3 H		x	x
Anions and DBPs by IC	EPA 300.0	x	x	x
Anions and DBPs by IC	EPA 300.1	x		x
Asbestos	EPA 100.2	x	x	
Bicarbonate Alkalinity as HCO3	SM 2320B	x	x	x
BOD / CBOD	SM 5210B		x	x
Bromate	In House Method (2447)	x		x
Carbamates	EPA 531.2	x		x
Carbonate as CO3	SM 2330B	x	x	x
Carbonyls	EPA 556	x		x
COD	EPA 410.4 / SM 5220D		x	
Chloramines	SM 4500-CL G	x	x	x
Chlorinated Acids	EPA 515.4	x		x
Chlorinated Acids	EPA 555	x		x
Chlorine Dioxide	SM 4500-CLO2 D	x		x
Chlorine -Total/Free/ Combined Residual	SM 4500-Cl G	x	x	x
Conductivity	EPA 120.1		x	
Conductivity	SM 2510B	x	x	x
Corrosivity (Langelier Index)	SM 2330B	x		x
Cryptosporidium	EPA 1623	x		x
Cyanide, Amenable	SM 4500-CN G	x	x	
Cyanide, Free	SM 4500CN F	x	x	x
Cyanide, Total	EPA 335.4	x	x	x
Cyanogen Chloride (screen)	In House Method (2470)	x		x
Diquat and Paraquat	EPA 549.2	x		x
DBP/HAA	SM 6251B	x		x
Dissolved Oxygen	SM 4500-O G		x	x
DOC	SM 5310C	x		x
E. Coli (MTF/EC+MUG)		x		x
E. Coli	CFR 141.21(f)(6)(i)	x		x
E. Coli	SM 9223		x	
E. Coli (Enumeration)	SM 9221B.1/ SM 9221F	x		x
E. Coli (Enumeration)	SM 9223B	x		x
EDB/DCBP	EPA 504.1	x		
EDB/DBCP and DBP	EPA 551.1	x		x
EDTA and NTA	In House Method (2454)	x		x
Endothall	EPA 548.1	x		x
Endothall	In-house Method (2445)	x		x
Enterococci	SM 9230B	x	x	
Fecal Coliform	SM 9221 E (MTF/EC)	x		
Fecal Coliform	SM 9221C, E (MTF/EC)		x	
Fecal Coliform (Enumeration)	SM 9221E (MTF/EC)	x		x
Fecal Coliform with Chlorine Present	SM 9221E		x	
Fecal Streptococci	SM 9230B	x	x	
Fluoride	SM 4500-F C	x	x	x
Giardia	EPA 1623	x		x
Glyphosate	EPA 547	x		x
Gross Alpha/Beta	EPA 900.0	x	x	x
Gross Alpha Coprecipitation	SM 7110 C	x	x	x
Hardness	SM 2340B	x	x	x
Heterotrophic Bacteria	In House Method (2439)	x		x
Heterotrophic Bacteria	SM 9215 B	x		x
Hexavalent Chromium	EPA 218.6	x	x	x

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Environmental (Drinking Water)	Environmental (Waste Water)	Water as a Component of Food and Bev/Bev/ Bottled Water
Hexavalent Chromium	EPA 218.7	x		x
Hexavalent Chromium	SM 3500-Cr B		x	
Hormones	EPA 539	x		x
Hydroxide as OH Calc.	SM 2330B	x		x
Kjeldahl Nitrogen	EPA 351.2		x	
Legionella	CDC Legionella	x		x
Mercury	EPA 245.1	x	x	x
Metals	EPA 200.7 / 200.8	x	x	x
Microcystin LR	ELISA (2360)	x		x
NDMA	EPA 521	x		x
NDMA	TQ In house method based on EPA 521 (2425)	x		x
Nitrate/Nitrite Nitrogen	EPA 353.2	x	x	x
OCL, Pesticides/PCB	EPA 505	x		x
Ortho Phosphate	EPA 365.1	x	x	x
Ortho Phosphate	SM 4500P E			x
Ortho Phosphorous	SM 4500P E	x		
Oxyhalides Disinfection Byproducts	EPA 317.0	x		x
Perchlorate	EPA 331.0	x		x
Perchlorate (low and high)	EPA 314.0	x		x
Perfluorinated Alkyl Acids	EPA 537	x		x
pH	EPA 150.1	x		
pH	SM 4500-H+B	x	x	x
Phenylurea Pesticides/ Herbicides	In House Method, based on EPA 532 (2448)	x		x
Pseudomonas	IDEXX Pseudalert (2461)	x		x
Radium-226	GA Institute of Tech	x		x
Radium-228	GA Institute of Tech	x		x
Radon-222	SM 7500RN	x		x
Residue, Filterable	SM 2540C	x	x	x
Residue, Non-filterable	SM 2540D		x	
Residue, Total	SM 2540B		x	x
Residue, Volatile	EPA 160.4		x	
Semi-VOC	EPA 525.2	x		x
Semi-VOC	EPA 625		x	x
Silica	SM 4500-Si D	x	x	
Silica	SM 4500-SiO2 C	x	x	
Sulfide	SM 4500-S ⁻ D		x	
Sulfite	SM 4500-SO ³ B	x	x	x
Surfactants	SM 5540C	x	x	x
Taste and Odor Analytes	SM 6040E	x		x
Total Coliform (P/A)	SM 9221 A, B	x		x
Total Coliform (Enumeration)	SM 9221 A, B, C	x		x
Total Coliform / E. coli	Colisure SM 9223	x		x
Total Coliform	SM 9221B		x	
Total Coliform with Chlorine Present	SM 9221B		x	
Total Coliform / E.coli (P/A and Enumeration)	SM 9223	x		x
TOC	SM 5310C	x	x	x
TOX	SM 5320B		x	
Total Phenols	EPA 420.1		x	
Total Phenols	EPA 420.4	x	x	x
Total Phosphorous	SM 4500 P E		x	
Turbidity	EPA 180.1	x	x	x
Turbidity	SM 2130B	x	x	
Uranium by ICP/MS	EPA 200.8	x		x
UV 254	SM 5910B	x		
VOC	EPA 524.2/EPA 524.3	x		x
VOC	EPA 624		x	x
VOC	EPA SW 846 8260	x		x
VOC	In House Method (2411)	x		x
Yeast and Mold	SM 9610	x		x

Acknowledgement of Samples Received

Addr: **Arizona Department of Environmental Quality**
1110 West Washington Street
Phoenix, AZ 85007

Attn: David Burchard
Phone: (602) 771-4298

Client ID: ADEQ-LEAD
Folder #: 649123
Project: CROWNKING-ED
Sample Group: Crown King Elementary School

Project Manager: Thomas.D.French
Phone: (480) 778-1558
PO #: ADEQ16-116686:3
Sampler: George Lindell

The following samples were received from you on **April 04, 2017 at 1206**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical.

Sample #	Sample ID	Sample Date
<u>201704041227</u>	1234-1	03/29/2017 0745
	Sample Type: Tap Facility ID: 1001 Sample Point ID: Kitchen	
	@ICPMS	Freight - Outbound
		Freight - Return
<u>201704041228</u>	1234-2	03/29/2017 0745
	Sample Type: Tap Facility ID: 1001 Sample Point ID: Kitchen	
	@ICPMS	

Test Description

@ICPMS -- ICPMS Metals

Collection Log

for experienced sample collectors

649123

Complete copy of this form for each sample collected. Your drinking water sample cannot be tested unless a copy of this form is shipped to the lab with each sample. In addition, the sample cannot be tested unless the Sample Identification Number matches the number on the sample container label.

- ☒ Check this box to confirm that **water had not been used at this tap or other taps in the area for 6 hours** and **no** flushing was done prior to sampling

Name of School District	Crown King Elem
School Name	Crown King
Building (name/number)	1001
Type of Fixture (tap, drinking fountain etc.)	Tap
Location of Fixture (example, room number)	Kitchen
Sample Identification Number (Write this number on the sample container and on this sheet)	1234
Date of Collection	3/29/2017
Time of Collection	7:45 am
Printed Name of Sample Collector	GEORGE LINDELL
Signature Sample Collector	George Lindell

Notes Sample collector: school only has 2 taps (one in kitchen/one in bathroom). No drinking fountains.

For Lab use only	
Analyze this drinking water sample for lead	
Date and Time Lab received	4-4-17 12:06
Signature	MAN
Notes: 20.1 °C	

For relinquishing samples upon delivery to labs only

Relinquished date and signature _____

These samples were collected for lead screening purposes only and cannot be used for compliance.

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
(626) 386-1100 FAX (626) 386-1101

Kit #: 163185



Created By: Thomas.D.French - [TDF]
Deliver By: 03/28/2017

STG: Bottle Orders

Ice Type: W

Note: Sampler Please return this paper with your samples

Client ID: ADEQ-LEAD
Project Code: CROWNKING-ED Bottle Orders
Group Name: Crown King Elementary School
PO#JOB#:

Ship Sample Kits to
Crown King Elementary District
1 Main Street
Crown King, AZ 86343

Attr: Susan Hite
Phone: (928) 632-5207

Send Report to
Arizona Department of Environmental
Quality
1110 West Washington Street
Phoenix, AZ 85007

Attr: David Burchard
Phone: (602) 771-4298

Billing Address
Arizona Department of Environmental
Quality
1110 West Washington Street
Phoenix, AZ 85007

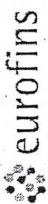
Attr: ADEQ
Phone: (602) 771-1936

# of Sample	Tests	Bottle Qty - Type [preservative information]	UN DOT #
2	@ICPMS	1 - 250ml poly [no preservative]	

Comments

Crown King Elementary School - Include Crown King Elementary District Sample list, 2 Lead Sampling Plan Records, packing instructions for return shipment to Eurofins Eaton Analytical, Inc. 750 Royal Oaks Drive, Suite C, Monrovia, CA 91016. 2 sample containers. Return Shipment

Sampler - please refer to Sampling Plan Records for instructions on completing paperwork and what to include with return shipment of the samples.



Eaton Analytical

INTERNAL CHAIN OF CUSTODY RECORD

IEEA Folder Number:

SAMPLE TEMP RECEIVED:

IR Gun ID = 569A (Observation = 20.3 °C) (Corr. Factor 0.2 °C) (Final = 20.1 °C)

SAMPLES REC'D DAY OF COLLECTION? ☐

TYPE OF ICE: Real ☒ Synthetic ☐ No Ice ☒

CONDITION OF ICE: Frozen ☐ Partially Frozen ☐ Thawed ☒ N/A ☒

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: UPS

Compliance Acceptance Criteria:

- 1) Chemistry: >0, ≤6°C, not frozen (NELAP) (if received after 24 hrs of sample collection)
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (if received after 2 hours of sample collection)

If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants

1 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	2 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)
3 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	4 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)

4) UCMR3: 524.3: (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)
(non-GLEC)

522: (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)

≤10°C if received within 48 hours of sample collection (not the same business day); ≤6°C if received after 48 hours of sample collection. Measure temperature for each method above.

5) LT2: Giardia /Cryptosporidium: <20 °C, not frozen (received after 8 hours of sample collection)

E. Coli: < 10°C, not frozen (if received after 2 hours of sample collection)

Giardia/Crypto: (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)

E.Coli: (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)

6) Dioxin (1613 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (if received after 24 hrs of sample collection)

Note: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.

RECEIVED BY: <u>MAN</u>	PRINT NAME <u>MAN</u>	COMPANY/TITLE <u>Eurofins Eaton Analytical</u>	DATE <u>4-4-17</u>	TIME <u>12:06</u>
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Crown King Elementary District	Crown King Elementary School	1001	One Room School	Classroom	1916	P O Box 188	Crown King	86343- 0188	Yavapai	2
Total Containers										2

NOTE !!!

Mr. Lindell filled
both bottles
from the same
tap - one right
after the
other. (Not sure
why).

Susan Hite
Admin. Asst.

Tel: (626) 386-1100
Fax: (626) 386-1101
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Laboratory Comments
Report: 649123

Arizona Department of Environmental Quality
David Burchard
1110 West Washington Street
Phoenix, AZ 85007

Tel: (626) 386-1100
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Laboratory Hits
Report: 649123

Arizona Department of Environmental Quality
David Burchard
1110 West Washington Street
Phoenix, AZ 85007

Samples Received on:
04/04/2017 1206

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
04/06/2017 13:27	Lead Total ICAP/MS	201704041227 <u>1234-1</u>	0.87	15	ug/L	0.5

SUMMARY OF POSITIVE DATA ONLY

Tel: (626) 386-1100
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1 800 566 LABS (1 800 566 5227)

Laboratory Data
Report: 649123

Arizona Department of Environmental Quality
David Burchard
1110 West Washington Street
Phoenix, AZ 85007

Samples Received on:
04/04/2017 1206

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
1234-1 (201704041227)						Sampled on 03/29/2017 0745			
Sample Type: Tap									
Facility ID: 1001									
Sample Point ID: Kitchen									
EPA 200.8 - ICPMS Metals									
04/05/17	04/06/17 13:27	983728	984548	(EPA 200.8)	Lead Total ICAP/MS	0.87	ug/L	0.5	1
1234-2 (201704041228)						Sampled on 03/29/2017 0745			
Sample Type: Tap									
Facility ID: 1001									
Sample Point ID: Kitchen									
EPA 200.8 - ICPMS Metals									
04/05/17	04/06/17 13:29	983728	984548	(EPA 200.8)	Lead Total ICAP/MS	ND	ug/L	0.5	1

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Arizona Department of Environmental Quality

ICPMS Metals

Prep Batch: 983728 Analytical Batch: 984548

201704041227	1234-1
201704041228	1234-2

Analysis Date: 04/06/2017

Analyzed by: RPD
Analyzed by: RPD

Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

Arizona Department of Environmental Quality

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
ICPMS Metals by EPA 200.8									
Analytical Batch: 984548					Analysis Date: 04/06/2017				
LCS1	Lead Total ICAP/MS		20	20.1	ug/L	101	(85-115)		
LCS2	Lead Total ICAP/MS		20	20.2	ug/L	101	(85-115)	20	0.50
MBLK	Lead Total ICAP/MS			<0.25	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.527	ug/L	105	(50-150)		
MS_201703310363	Lead Total ICAP/MS	ND	20	21.4	ug/L	107	(70-130)		
MS2_201704041074	Lead Total ICAP/MS	0.93	20	22.2	ug/L	106	(70-130)		
MSD_201703310363	Lead Total ICAP/MS	ND	20	21.2	ug/L	106	(70-130)	20	0.94
MSD2_201704041074	Lead Total ICAP/MS	0.93	20	22.6	ug/L	109	(70-130)	20	2.2

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.