

Bend Genetics, LLC
87 Scripps Drive, Ste. 301
Sacramento, CA 95825
Tel: (916) 550-1048

Date: 6/26/2018

Subject: Cyanobacteria testing results

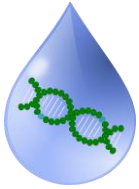
From: Tim Otten, Laboratory Director

To: Greg Hoover
Tahoe Keys Property Owners Association

Attached are the testing results for ELISA and QPCR analyses conducted on four samples collected from the Tahoe Keys on 6/21/2018. These data have been reviewed and are considered final.

Analyses included in this report:

- Quantification of specific cyanobacterial toxins (anatoxin-a and microcystin/nodularin) using enzyme linked immunosorbent assay (ELISA).
- Quantification of toxigenic cyanobacteria (anatoxin-a and microcystin-producing cells) based on cyanobacterial gene abundances inferred by real-time quantitative polymerase chain reaction (QPCR) method.

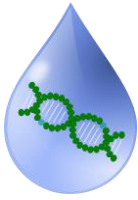


Bend Genetics, LLC
87 Scripps Drive, Ste. 301
Sacramento, CA 95825
Tel: (916) 550-1048

Project: SWAMP_FHAB_2018
Analysis for Toxigenic Cyanobacteria
Project #: Tahoe Keys POA
Reported: 6/26/2018 14:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	BG_ID	Date Collected	Date Received	Matrix	Preserved
CY-04-03	TK31	6/21/2018 8:44	6/22/2018 9:00	Water	N
CY-04-16	TK32	6/21/2018 10:06	6/22/2018 9:00	Water	N
CY-04-14	TK33	6/21/2018 10:30	6/22/2018 9:00	Water	N
CY-04-06	TK34	6/21/2018 10:54	6/22/2018 9:00	Water	N

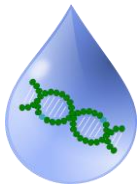


Bend Genetics, LLC
87 Scripps Drive, Ste. 301
Sacramento, CA 95825
Tel: (916) 550-1048

Project: SWAMP_FHAB_2018
Analysis for Toxicogenic Cyanobacteria
Project #: Tahoe Keys POA
Reported: 6/26/2018 14:45

SAMPLE RESULTS

Sample ID	Method	Target	Result	Units	Quantitation	
					Limit	Notes
CY-04-03	ELISA	Anatoxin-a	ND	µg/L	0.15	U
CY-04-03	ELISA	Microcystin/Nod.	ND	µg/L	0.15	U
CY-04-03	QPCR	Anatoxin-a	ND	copies/mL	100	U
CY-04-03	QPCR	Microcystin/Nod.	ND	copies/mL	100	U
CY-04-16	ELISA	Anatoxin-a	ND	µg/L	0.15	U
CY-04-16	ELISA	Microcystin/Nod.	ND	µg/L	0.15	U
CY-04-16	QPCR	Anatoxin-a	ND	copies/mL	100	U
CY-04-16	QPCR	Microcystin/Nod.	ND	copies/mL	100	U
CY-04-14	ELISA	Anatoxin-a	ND	µg/L	0.15	U
CY-04-14	ELISA	Microcystin/Nod.	ND	µg/L	0.15	U
CY-04-14	QPCR	Anatoxin-a	ND	copies/mL	100	U
CY-04-14	QPCR	Microcystin/Nod.	ND	copies/mL	100	U
CY-04-06	ELISA	Anatoxin-a	ND	µg/L	0.15	U
CY-04-06	ELISA	Microcystin/Nod.	ND	µg/L	0.15	U
CY-04-06	QPCR	Anatoxin-a	ND	copies/mL	100	U
CY-04-06	QPCR	Microcystin/Nod.	ND	copies/mL	100	U



Bend Genetics, LLC
87 Scripps Drive, Ste. 301
Sacramento, CA 95825
Tel: (916) 550-1048

Project: SWAMP_FHAB_2018
Analysis for Toxigenic Cyanobacteria
Project #: Tahoe Keys POA
Reported: 6/26/2018 14:45

QUALITY CONTROL

Method	Analyte	Result	Qualifiers / Comments	Units	Spike Level	%REC	%REC Limits
ELISA	ATX - Blank	ND	U	µg/L	0		
ELISA	ATX - Positive	0.64		µg/L	0.75	84.8	70-130
ELISA	ATX - Matrix Sp	1.29		µg/L	1.25	103.0	70-130
ELISA	MC - Blank	ND	U	µg/L	0		
ELISA	MC - Positive	0.56		µg/L	0.75	75.3	70-130
ELISA	MC - Matrix Sp	0.85		µg/L	1.00	85.4	70-130
QPCR	anaC - Blank	ND	U	copies/mL	0		
QPCR	anaC - Spike	38,463		copies/mL	50,000	76.9	70-130
QPCR	mcyE - Blank	ND	U	copies/mL	0		

QUALIFIERS/COMMENTS/NOTES

- C1 The reported concentration for this analyte is below the quantification limit.
- C2 The reported concentration for this analyte is above the calibration range of the instrument.
- J The reported result for this analyte should be considered an estimated value.
- U Undetected