Machine Translated by Google

SIMPLIFIED TEST REPORT

Laboratorio de Ensayo
Alcance de Acreditación N° LE-002
Acreditado a partir de: 1997.04.16
Alcance disponible en www.eca.or.cr

Reference No.: **A-23/013094**
Registered in: AGQ Lambda
Client (^): Technological Institute of COSTA RICA
Analysis: CR02-00002304-1
Analysis Center: AGQ Lambda
Address (^): CARTAGO CARTAGO STREET 15, AVENUE 14, 1 KM SOUTH OF THE Basilica of Our Lady of the Angels
Sample Type: SURFACE WATER 04/02/2023
Date Received: 03/02/2023 24/02/2023
Contract: QSP-LA230100247
Start Date:
End Date:
Description(^):
Third-Party Client(^):----

3 Subsamples in Lake 2 and 3 Subsamples in Lake 1. A composite sample is made from

Date/Time Sampling: 03/02/2023 09:17
Sampled by: José E Ramirez
Sampling Site: La Paz Park, San Joseph, Saint Joseph, Saint Sebastian
SOP Sampling: PICR-211 SM 1060 A,B,C Ed 23

The results in this report apply only to the sample as received by the laboratory. Partial reproduction of this report is prohibited without the laboratory's written approval. AGQ is not responsible for information provided by the client related to sample collection and other descriptive data marked with (^). The results presented in this report have not been adjusted using recovery factors.

ANALYTICAL RESULTS

	Parameter	Result	Units	Uncertain	CMA	PNT	Quantifiable Limit/Detective (#)
	Total Metals						
	Aluminum	0.30357	mg/L	±0.08500		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00250 mg/L
	Antimony	0.00023	mg/L	±0.00004		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00010 mg/L
	Arsenic	0.00087	mg/L	±0.00013		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00010 mg/L
*	Sulfur	12	mg/L	±1.8		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	2.0 mg/L
	Barium	0.016911	mg/L	±0.001353		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.000250 mg/L
*	Beryllium	< 0.00025	mg/L	-		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00025 mg/L
	Boron	0.0539	mg/L	±0.0108		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.0050 mg/L
	Cadmium	< 0.00010	mg/L	-		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00010 mg/L
	Calcium	25	mg/L	±0.76		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.50 mg/L

Machine Translated by Google

SIMPLIFIED TEST REPORT

ilac-MRA ECA
Laboratorio de Ensayo
Alcance de Acreditación N° LE-002
Acreditado a partir de: 1997.04.16
Alcance disponible en www.eca.or.cr

Reference No.: A-23/013094
Description(^): 3 subsamples in Lake 2 and 3 subsamples in Lake 1. A composite sample is made from
Sample Type: SURFACE WATER
End Date: 24/02/2023

	Parameter	Result	Units	Uncertain	CMA	PNT	Quantifiable Limit/Detective (#)
	Total Metals						
*	Cobalt	0.00012	mg/L	±0.00001		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00010 mg/L
	Copper	0.01474	mg/L	±0.00133		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00010 mg/L
	Chrome	0.00110	mg/L	±0.00025		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00010 mg/L
	Tin	0.00107	mg/L	±0.00010		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00010 mg/L
*	Strontium	0.21145	mg/L	±0.01057		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00010 mg/L
*	Phosphorus	4.34	mg/L	±0.217		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.050 mg/L
	Iron	0.1753	mg/L	±0.0088		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.0010 mg/L
*	Lithium	< 0.0050	mg/L	-		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.0050 mg/L
	Magnesium	12	mg/L	±0.58		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.50 mg/L
	Manganese	0.00876	mg/L	±0.00149		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00010 mg/L
	Mercury	0.00013	mg/L	±0.00001		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00010 mg/L
*	Molybdenum	0.00155	mg/L	±0.00017		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00010 mg/L
	Nickel	0.00295	mg/L	±0.00059		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00010 mg/L

Machine Translated by Google

SIMPLIFIED TEST REPORT

ilac-MRA ECA.
Laboratorio de Ensayo
Alcance de Acreditación N° LE-002
Acreditado a partir de: 1997.04.16
Alcance disponible en www.eca.or.cr

Reference No.: A-23/013094
Sample Type: SURFACE WATER
Description(^): 3 subsamples in Lake 2 and 3 subsamples in Lake 1. A composite sample is made from
End Date: 24/02/2023

	Parameter	Result	Units	Uncertain	CMA	PNT	Quantifiable Limit/Detective (#)
	Total Metals						
	Silver	< 0.0010	mg/L	-		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.0010 mg/L
	Lead	0.00156	mg/L	±0.00028		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00010 mg/L
	Potassium	19	mg/L	±0.38		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.50 mg/L
	Selenium	< 0.010	mg/L	-		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.010 mg/L
*	Silica	75	mg/L	±6.7		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	2.1 mg/L
*	Silicon	35	mg/L	±3.1		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	1.0 mg/L
	Sodium	36,536	mg/L	±3.6536		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.50000 mg/L
*	Thallium	< 0.00010	mg/L	-		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00010 mg/L
*	Titanium	0.00401	mg/L	±0.00104		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00050 mg/L
*	Vanadium	0.00699	mg/L	±0.00035		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.00010 mg/L
	Zinc	0.0763	mg/L	±0.0061		IT-399 SM 3125 Ed 23/ EPA200.8/ EPA 6020 B	0.0010 mg/L
	Trihalomethanes (THM)						
	Bromodichloromethane	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
	Bromoform	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
	Chloroform	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
	Dibromochloromethane	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L

Machine Translated by Google

SIMPLIFIED TEST REPORT

Laboratorio de Ensayo
Alcance de Acreditación N° LE-002
Acreditado a partir de: 1997.04.16
Alcance disponible en www.eca.or.cr

Reference No.: A-23/013094
Description(^): 3 subsamples in Lake 2 and 3 subsamples in Lake 1. A composite sample is made from
Sample Type: SURFACE WATER
End Date: 24/02/2023

Parameter	Result	Units	Uncertain	CMA	PNT	Quantifiable Limit/Detective (#)
BTEX						
Benzene	< 0.50	µg/L	-		IT-383 / EPA 8260 D	0.50 µg/L
Ethylbenzene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
m,p-Xylene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
o-Xylene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
Toluene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
VOCs						
1,1,1,2-tetrachloroethane	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,1,1-Trichloroethane	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,1,2,2-Tetrachloroethane	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,1,2-Trichloroethane	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,1,2-Trichloroethene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,1-Dichloroethane	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,1-Dichloroethene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,1-Dichloropropene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,2,3-Trichlorobenzene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,2,3-Trichloropropane	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,2,4-Trichlorobenzene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,2,4-Trimethylbenzene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,2-Dibromo-3-chloropropane	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,2-Dibromoethane	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,2-Dichlorobenzene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,2-Dichloroethane	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,2-Dichloropropane	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,3,5-Trimethylbenzene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,3-Cis-Dichloropropene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,3-Dichlorobenzene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,3-Dichloropropane	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,3-Trans-Dichloropropene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
1,4-Dichlorobenzene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
2,2-Dichloropropane	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
2-Chlorotoluene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L

Machine Translated by Google

Reference No.: A-23/013094
Description(^): 3 subsamples in Lake 2 and 3 subsamples in Lake 1. A composite sample is made from
Sample Type: SURFACE WATER
End Date: 24/02/2023

Parameter	Result	Units	Uncertain	CMA	PNT	Quantifiable Limit/Detective (#)
VOCs						
4-Chlorotoluene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
Bromobenzene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
cis-1,2-Dichloroethene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
Chlorobenzene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
Dibromomethane	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
Dichloromethane	< 5.00	µg/L	-		IT-383 / EPA 8260 D	5.00 µg/L
Styrene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
Hexachlorobutadiene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
Isopropylbenzene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
* Methyl-t-Butyl ether (MTBE)	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
Naphthalene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
n-Butylbenzene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
n-Propylbenzene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
p-Isopropyltoluene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
sec-Butylbenzene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
tert-Butylbenzene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
Tetrachloroethene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
Carbon tetrachloride	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
trans-1,2-Dichloroethene	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
VOCs	< 1.00	µg/L	-		IT-383 / EPA 8260 D	1.00 µg/L
Other Pesticides						
*2 Acetamiprid	< 0.0050	µg/L	±30%		PE-678	0.0050 µg/L
* Azithromycin	< 0.0050	µg/L	±30%		PE-678	0.0050 µg/L
* Clarithromycin	< 0.0050	µg/L	±30%		PE-678	0.0050 µg/L
*2 Clothianidin	< 0.0050	µg/L	±30%		PE-678	0.0050 µg/L
* Erythromycin A	< 0.0050	µg/L	±30%		PE-678	0.0050 µg/L
*2 Imidacloprid	< 0.0050	µg/L	±30%		PE-678	0.0050 µg/L
*2 Thiamethoxam (Sum)	< 0.0050	µg/L	±30%		PE-678	0.0050 µg/L
*2 Thiacloprid	< 0.0050	µg/L	±30%		PE-678	0.0050 µg/L

Note. A: Subcontracted and accredited test. N: Subcontracted and non-accredited test. RE: Estimated plate count. The uncertainties of the accredited parameters are calculated and available to the client. The uncertainty applied to the result does not apply to values below the Limit of Quantification (LOQ). The Exp. Uncertainty (U) has been reported with a Coverage Factor k = 2, for an approximate confidence level of 95%.

(2) Test covered by Accreditation No. TL-475 issued by IAS.
(*) Parameter not accredited by ECA No. LE-002
Full information regarding the trials is available to the client.

Machine Translated by Google

SIMPLIFIED TEST REPORT

Laboratorio de Ensayo
Alcance de Acreditación N° LE-002
Acreditado a partir de: 1997.04.16
Alcance disponible en www.eca.or.cr

Reference No.: A-23/013094
Description(^): 3 subsamples in Lake 2 and 3 subsamples in Lake 1. A composite sample is made from
Sample Type: SURFACE WATER
End Date: 24/02/2023

Pamela Badilla Escalante
Chemistry NI 2997

Anthony Crisanto Ramirez Mendez
NI 3101 Chemical

José Luis Malvar Guzman

ISSUE DATE: 27/02/2023

OBSERVATIONS (*):
Sampling carried out from 09:00 to 10:45
Attention: Mauricio Chicas

Machine Translated by Google

SIMPLIFIED TEST REPORT

Laboratorio de Ensayo
Alcance de Acreditación N° LE-002
Acreditado a partir de: 1997.04.16
Alcance disponible en www.eca.or.cr

Reference No.:	A-23/013094	Sample Type:	SURFACE WATER
Description(^):	3 subsamples in Lake 2 and 3 subsamples in Lake 1. A composite sample is made from	End Date:	24/02/2023

AGQ Lambda SA reports its results based on the Limit of Quantification (LC). AGQ Lambda SA Operating Permit CS-ARSSEM-891-2018 expiring on 04/07/2023. The parameters accredited by IAS are approved by ECA according to recognition ECA-RECA-020-2022, expiring on 09/03/2023. The parameters accredited by ECA are approved by the CNA of Panama according to recognition CNA-498-2021, expiring on 30/09/2022.