



Centro de Biologia Experimental Oceanus Ltda

Laboratory of water analyses

REG.INEA:UN015590/55.11.10 CCL N°IN018913
CNPJ 28383198/0001-59. INSC. MUN. 313818-6 Almirante Cochrane street, 37, Tijuca, CEP 20550-040
- Rio de Janeiro, RJ, Tel-Fax- (55 - 21) 2567-0819 / 2567-3871

CERTIFICATION OF MEASUREMENT FOR WATER'S QUALITY

N° 66059

ESTABLISHMENT'S DATA	
CORPORATE NAME: C & C TECHNOLOGIES DO BRASIL LTDA	
NICKNAME: C & C TECHNOLOGIES	
ADDRESS: MAURÍCIO SILVA TELES STREET, 95 / 230	
NEIGHBORHOOD: BARRA DA TIJUCA	DISTRICT: RJ/RJ
CITY: RIO DE JANEIRO	CEP:
TELEPHONE: (21) 2408-6006	FAX:

DATA SAMPLE
SHIP: RIG SUPPORTER
HARBOR: NITSHORE

SAMPLE DATA	
SAMPLE ORIGIN: TRATED WATER	
COLLECTION POINT: MAIN TANK WITH FILTER	
COLLECTION RESPONSABLE NAME: HAMILTON BARBOSA	VOLUME: 1000mL
SAMPLING HOUR: 13:25	SAMPLING DATE: 11.14.12
ARRIVAL HOUR IN LABORATORY: 19:00	ARRIVAL DATE IN LABORATORY: 11.14.12

ANALYTICAL RESEULTS OF THE SAMPLE				
Physico-chemical Analysis				
Parameters	Unit	Results ¹	MVA ²⁻³	QL
pH	-	6,8	6,0 – 9,5	-
Residual Chlorine(Cl ₂)	mg/L	< 0,01*	0,2 – 5,0	0,01
Total Iron (Fe)	mg/L	0,639	0,3	0,047
Chloride	mg/L	107,5	250	0,1
Total Alkalinity	mg/L	10	-	2

ADOPTED METHODS
Physical and Chemical Analyses: pH: SMEWW 4500 H B – Eletrometric Method; Residual Chlorine: SMEWW 4500 G – Colorimetric Method; Iron: SMEWW 3500 Fe – Phenanthroline Method; Chloride: SMEWW 4500 - Chloride; Alkalinity: SMEWW 2320 B – Titration Method.



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REFERENCES

- 1- Officers: MS n^o 2914 ANVISA of Health Department of 12th December, 2011. Standard of water potability destined to the human consumption.
- 2- Analytical methodology: Standard Methods for Examination of Water and Wastewater 20th Edition – American Public Health Association – APHA.
- 3- Agriculture Department. National Secretariat of Farming Defense. Methods for Control of Products of Animal Origin and its ingredients. II Methods Physical and Chemical, 1981.

OBSERVATIONS

SUBTITLE:

- 1- Collected water referring results.
- 2- N^o 2914 ANVISA/MS limits
- 3 - MVA: Maximum value allowed

QL: Quantification limit
NUT – Unit of turbidity

- Note 1: These results restrict only the analyzed water.
Note 2: This report can only be reproduced if complete.
Note 3: The sample's collection follows the described procedures in POP COL – 001.
Note 4: The sample data provided are the responsibility of the applicant.
Note 5: * Notice that the chlorine analysis of water coming from the filtration system is at concentrations below the reference according to MS n^o 2914 ANVISA. These concentrations are normal due to the components of filter system.

ANALYSES FINDING

The analyzed water is not in the limits established for MS N.^o 2914 ANVISA

Rio de Janeiro, November 21th, 2012.

PhD Ronaldo Leão
Technical responsible
CRBio-02339/85