

COFFS HARBOUR LABORATORY

Environmental Analysis

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GALINTEL
KEVINELKS
P. O. BOX 396
COFFS HARBOUR NSW 2450

BATCHNUMBER: 19/0710
No. of SAMPLES: 7
DATE COLLECTED: 19/03/19
DATE RECEIVED: 20/03/19
TIME RECEIVED: 13:35
DATE TESTING COMMENCED:
20/03/19

REPORT OF ANALYSIS

SAMPLE REFERENCE	SAMPLE DESCRIPTION
19/0710/1	POINT 1
19/0710/2	POINT 3
19/0710/3	POINT 4
19/0710/4	POINT 5
19/0710/5	POINT 6
19/0710/6	POINT 7
19/0710/7	POINT 8

ANALYSIS	UNITS	19/0710/1	19/0710/2	19/0710/3	19/0710/4	METHODNO
pH	pH unit	6.5	7.3	7.0	5.8	APHA 4500-H+ B
Conductivity	µS/cm	109	111	68	24	APHA 2510 B
Total Suspended Solids	mg/L	16	27	21	1,108	APHA 2540 D
Total Dissolved Solids	mg/L	70	71	44	15	EL7B
Total Hardness	mg CaCO ₃ /L	18	37	15	21	EL9A
Alkalinity	mg CaCO ₃ /L	5	31	14	4	APHA 2320 B
Chloride	mg/L	26	9.1	7.2	3.3	EL10A
Sulfate	mg/L	1.5	4.4	4.0	16	EL9A
Calcium	mg/L	5.9	13	4.6	2.5	EL9A
Magnesium	mg/L	0.74	0.97	0.93	3.6	EL9A
Sodium	mg/L	5.5	4.4	3.6	2.0	EL9A
Potassium	mg/L	0.90	1.7	2.1	3.5	EL9A
Zinc	mg/L	6.6	1.8	0.13	10.7	EL9A
Zinc - Filtered	mg/L	5.9	1.0	0.11	0.36	EL9A
Copper	mg/L	0.045	0.064	0.018	0.39	EL9A
Copper - Filtered	mg/L	0.019	0.030	0.013	<0.004	EL9A
Nickel	mg/L	0.016	0.007	<0.005	0.023	EL9A
Nickel - Filtered	mg/L	0.014	<0.005	<0.005	<0.005	EL9A



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[Accreditation Numbers: 12359 (Chemical) & 14565 (Microbiological)]

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian and International standards.

ANALYSIS	UNITS	19/0710/1	19/0710/2	19/0710/3	19/0710/4	METHODNO
Manganese	mg/L	0.48	0.064	0.039	0.29	EL9A
Manganese - Filtered	mg/L	0.45	0.027	0.022	0.025	EL9A
Iron	mg/L	4.01	2.20	0.72	31.3	EL9A
Iron - Filtered	mg/L	<0.004	0.062	0.054	0.011	EL9A
Lead	mg/L	0.081	0.020	<0.010	0.13	EL9A
Lead - Filtered	mg/L	<0.010	<0.010	<0.010	<0.010	EL9A
Cobalt#	mg/L	<0.008	<0.008	<0.008	<0.008	EL9A
Cobalt - Filtered#	mg/L	<0.008	<0.008	<0.008	<0.008	EL9A
Chromium Trivalent	mg/L	0.007	0.011	<0.003	0.060	EL9A
Chromium - Hexavalent*	mg/L	<0.001	<0.001	<0.001	<0.001	NW_D2
Chromium	mg/L	0.007	0.011	<0.003	0.060	EL9A
Ammonia Nitrogen	mg/L	0.15	0.21	0.26	0.39	EL13F

ANALYSIS	UNITS	19/0710/5	19/0710/6	19/0710/7		METHODNO
pH	pH unit	4.7	4.0	7.4		APHA 4500-H+ B
Conductivity	µS/cm	32	128	57		APHA 2510 B
Total Suspended Solids	mg/L	15	8	27		APHA 2540 D
Total Dissolved Solids	mg/L	20	82	36		EL7B
Total Hardness	mg CaCO ₃ /L	1	5	18		EL9A
Alkalinity	mg CaCO ₃ /L	<2	<2	14		APHA 2320 B
Chloride	mg/L	3.3	23	5.4		EL10A
Sulfate	mg/L	0.73	0.97	1.9		EL9A
Calcium	mg/L	0.20	0.72	6.5		EL9A
Magnesium	mg/L	0.13	0.69	0.32		EL9A
Sodium	mg/L	0.71	5.4	1.7		EL9A
Potassium	mg/L	0.14	0.30	1.2		EL9A
Zinc	mg/L	0.72	5.9	2.4		EL9A
Zinc - Filtered	mg/L	0.74	5.7	0.74		EL9A
Copper	mg/L	0.019	0.093	0.066		EL9A
Copper - Filtered	mg/L	0.015	0.087	0.011		EL9A
Nickel	mg/L	<0.005	0.021	0.006		EL9A
Nickel - Filtered	mg/L	<0.005	0.019	<0.005		EL9A
Manganese	mg/L	0.014	0.56	0.041		EL9A
Manganese - Filtered	mg/L	0.012	0.52	0.011		EL9A
Iron	mg/L	0.53	4.91	3.04		EL9A
Iron - Filtered	mg/L	0.083	0.047	<0.004		EL9A
Lead	mg/L	0.15	0.15	0.016		EL9A
Lead - Filtered	mg/L	0.12	0.14	<0.010		EL9A
Cobalt#	mg/L	<0.008	<0.008	<0.008		EL9A
Cobalt - Filtered#	mg/L	<0.008	<0.008	<0.008		EL9A
Chromium Trivalent	mg/L	<0.003	<0.003	0.017		EL9A
Chromium - Hexavalent*	mg/L	<0.001	<0.001	<0.001		NW_D2
Chromium	mg/L	<0.003	<0.003	0.017		EL9A
Ammonia Nitrogen	mg/L	0.36	0.15	0.11		EL13F



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ANALYSIS	UNITS	19/0710/1	19/0710/2	19/0710/3	19/0710/4	METHODNO
TOTAL RECOVERABLE HYDROCARBONS						
TRHC6-C9*	ug/L	<25	<25	<25	<25	NGCMS 1121
TRHC10-C14*	ug/L	<25	<25	<25	<25	NGCMS 1112
TRHC15-C28*	ug/L	<100	<100	<100	<100	NGCMS 1112
TRHC29-C36*	ug/L	<100	<100	<100	<100	NGCMS 1112
TOTAL RECOVERABLE HYDROCARBON*						
TRHC6-C10	ug/L	<25	<25	<25	<25	NGCMS 1121
TRHC6-C10 less BTEX(F1)	ug/L	<25	<25	<25	<25	NGCMS 1121
TRH>C10-C16	ug/L	<25	<25	<25	<25	NGCMS 1112
TRH>C10 - C16 less Naph (F2)	ug/L	<25	<25	<25	<25	NGCMS_1112
TRH>C16-C34(F3)	ug/L	<100	<100	<100	<100	NGCMS 1112
TRH>C34-C40(F4)	ug/L	<100	<100	<100	<100	NGCMS 1112

ANALYSIS	UNITS	19/0710/5	19/0710/6	19/0710/7		METHODNO
TOTAL RECOVERABLE HYDROCARBONS						
TRHC6-C9*	ug/L	<25	<25	<25		NGCMS 1121
TRHC10-C14*	ug/L	<25	<25	<25		NGCMS 1112
TRHC15-C28*	ug/L	<100	<100	<100		NGCMS 1112
TRHC29-C36*	ug/L	<100	<100	<100		NGCMS 1112
TOTAL RECOVERABLE HYDROCARBON*						
TRHC6-C10	ug/L	<25	<25	<25		NGCMS 1121
TRHC6-C10 less BTEX(F1)	ug/L	<25	<25	<25		NGCMS 1121
TRH>C10-C16	ug/L	<25	<25	<25		NGCMS 1112
TRH>C10 - C16 less Naph (F2)	ug/L	<25	<25	<25		NGCMS_1112
TRH>C16-C34(F3)	ug/L	<100	<100	<100		NGCMS 1112
TRH>C34-C40(F4)	ug/L	<100	<100	<100		NGCMS 1112

Comments

Sample(s) collected by client and analysed as received in accordance with "Standard Methods for the Examination of Water & Wastewater", 23rd Edition, 2017, APHA. Raw data sheets stating analysis dates are available upon request.

Tests marked with '#' are not covered by NATA Accreditation.

Note: Microbiological results are membrane presumptive.

*Analysis conducted by a subcontracted laboratory (NATA Accreditation Number 198) RN1227402.

Report Date: 4/04/19



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Approved:

Stuart
Shane Ewart - Delegate for

The results of the tests, calibrations and/or measurements included in this document are traceable to Australia

B J Wadleigh
Laboratory Manager