ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



Environmental Division

CERTIFICATE OF ANALYSIS

Work Order : **EP1205982** Page : 1 of 3

Client : ORD RIVER RESOURCES LIMITED Laboratory : Environmental Division Perth

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Project : Suplejack NT QC Level : NEPM 1999 Schedule B(3) and ALS QCS3 requirement

Order number : ----

 C-O-C number
 : -- Date Samples Received
 : 24-JUL-2012

 Sampler
 : -- Issue Date
 : 31-JUL-2012

Site : ---

Quote number : --- No. of samples received : 2

Quote number : --- No. of samples analysed : 2

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results



NATA Accredited Laboratory 825

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Canhuang Ke	Metals Instrument Chemist	Perth Inorganics
Chas Tucker	Inorganic Chemist	Perth Inorganics
Cicelia Bartels	Metals Instrument Chemist	Perth Inorganics

Page : 2 of 3
Work Order : EP1205982

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General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Key: CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

Page : 3 of 3 Work Order : EP1205982

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Analytical Results



Analytical Nesalts								
Sub-Matrix: BORE WATER		Clie	ent sample ID	TRD 600	TRD 611			
	Client sampling date / time		23-JUL-2012 16:19	23-JUL-2012 16:19				
Compound	CAS Number	LOR	Unit	EP1205982-001	EP1205982-002			
EA015: Total Dissolved Solids								
Total Dissolved Solids @180°C	GIS-210-010	10	mg/L		4240			
EA025: Suspended Solids								
Suspended Solids (SS)		5	mg/L	4120	26			
EA065: Total Hardness as CaCO3								
Total Hardness as CaCO3		1	mg/L	2320	1190			
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1			
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1			
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	671	707			
Total Alkalinity as CaCO3		1	mg/L	671	707			
ED041G: Sulfate (Turbidimetric) as SO4	2- by DA							
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	869	381			
ED045G: Chloride Discrete analyser								
Chloride	16887-00-6	1	mg/L	2810	1150			
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	164	93			
Magnesium	7439-95-4	1	mg/L	464	232			
Sodium	7440-23-5	1	mg/L	1190	572			
Potassium	7440-09-7	1	mg/L	122	73			
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	<0.001	0.001			
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001			
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001			
Copper	7440-50-8	0.001	mg/L	0.004	0.003			
Nickel Lead	7440-02-0	0.001	mg/L mg/L	0.002 <0.001	<0.001 <0.001			
Zinc	7439-92-1 7440-66-6	0.001	mg/L	0.077	0.025			
	7 440-00-0	3.000	g, =	0.011	0.020			
EG035F: Dissolved Mercury by FIMS Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001			
-	7439-97-0	0.0001	mg/L	~0.000 i	NO.000 I			
EN055: Ionic Balance Total Anions		0.01	meq/L	111	54.5			
Total Cations		0.01	meq/L	101	50.5			
Ionic Balance		0.01	%	4.50	3.84			
ionio Bulunoo		0.01	,,		2.04	1	I	