

CBased Environmental Pty Limited ABN 62 611 924 264



Calga Quarry

Environmental Monitoring

Dust Deposition, Surface Water, Groundwater and Meteorological Data

September 2022

Colin Davies BSc MEIA CENVP

Environmental Scientist Date: 20 October 2022

© CBased Environmental Pty Limited 2020. This document was prepared solely for the original recipient and no third party must rely on or use any information without the consent of CBased Environmental Pty Limited. CBased Environmental Pty Limited and the author accept no responsibility to any third party who uses or relies upon the information contained in this report.

Executive Summary

CBased Environmental is contracted by Hanson Quarry Products to conduct environmental monitoring at the Calga Sand Quarry.

The monitoring includes:

- Dust deposition;
- Surface water:
- Ground water and
- Meteorological data.

This report was prepared by CBased Environmental and includes the following results for September 2022:

- Dust deposition;
- Surface water quality; and
- Meteorological parameters;

The September 2022 dust deposition results for insoluble solids showed:

- Similar levels when compared to August 2022.
- Rolling annual averages below the Air Quality Management Plan criteria of 3.7g/m².month.

Monthly surface water samples were collected at sites A, C1, C2, D and F. Surface water site B was too low at the time of sampling. The samples that were collected were analysed for a monthly sampling event. Results show pH within the slightly acidic range, low electrical conductivity, low total dissolved solids and low total suspended solids. Oil and grease were not detected at sites A, C1, C2, D and F in September 2022.

The Calga Quarry weather station data recovery in September 2022 was approximately 0% due to site outages. A summary of rainfall comparison is provided below.

Location	Rainfall (mm)
Calga Quarry	No Data
BOM Gosford*	149.4mm

Notes: NA = Not Available

*Data sourced from Bureau of Meteorology (BOM) website: www.bom.gov.au BOM stations report rainfall at 9am

Calga Quarry station reports rainfall at midnight.

1.0 Sampling Programme

Hanson Calga Quarry conducts environmental monitoring in accordance with Development Consent, OEH (EPA) licence and Environmental Management Plans. CBased Environmental are contracted to undertake dust deposition gauge, surface water, groundwater and meteorological monitoring for the project. CBased Environmental commenced monitoring from the April 2006 monitoring period.

Dust deposition gauges are operated to the Australian Standard AS3580.10.1 "Methods for sampling and analysis of ambient air method. Determination of particulates- deposited matter- gravimetric method". Sampling is undertaken every 30 +/- 2 days and each gauge is analysed for insoluble solids and ash residue. The results are reported as g/m².month.

Six (6) dust deposition gauges are monitored as follows:

- CD1 installed 1 May 2006. Gauges air quality impacts to the east of site operations;
- CD2c located on a rehabilitated section of land between the extraction area and adjacent resident. Gauges air quality impacts to the north of site operations. Replaces former gauges CD2a and CD2b;
- CD3 installed prior to May 2006. Gauges air quality impacts to the south of site operations;
- CD4 installed 3 October 2006. Gauges air quality impacts to the south of site operations;
- CD5 installed 14 December 2006. Gauges air quality impacts to the south of site operations; and
- CD6 installed 14 December 2006. Gauges air quality impacts to the south of the operations.

Dust gauge CD2a was discontinued at the start of August 2006 due to quarry operations "mining out" the site of the gauge. The replacement gauge, CD2b, was located in a position adjacent to the boundary between B. Kashouli and F. & J. Gazzana in conformance with the Air Quality Management Plan. CD2b was discontinued at the end of January 2010 due to contamination of the gauge by non-quarry related vehicle movements on a track adjacent to the gauge. CD2b was replacement by dust gauge CD2c.

Surface water is sampled in accordance with Australian Standards:

- AS5667.1 "Guidance on the design of sample programs, sampling techniques and the preservation and handling of samples";
- AS5667.6 "Water quality sampling—guidance on sampling of rivers and streams"; and
- AS5667.4 "Water quality sampling—guidance on sampling from lakes, natural and man-made".

Surface water monitoring sites include local streams and dams. Laboratory analysis includes pH, electrical conductivity, total suspended solids, total dissolved solids and total oil and grease. Monitoring is conducted monthly at Sites A and F (dams) and

when Sites B, C and D are flowing. Additional samples are collected when daily rainfall exceeds 50mm.

Groundwater is sampled in accordance with Australian Standards:

- AS5667.1 "Guidance on the design of sample programs, sampling techniques and the preservation and handling of samples"; and
- AS5667.11 "Water quality sampling—guidance on sampling of ground waters".

Groundwater monitoring sites are sampled bi-monthly for depth and water quality. Groundwater monitoring loggers continuously record water levels in a selection of bores.

Meteorological monitoring is conducted at the quarry and displayed on the site computer with a real-time display. Metrological parameters are measured according to Australian Standard AS3580.14 "Methods for sampling and analysis of ambient air. Meteorological monitoring for ambient air quality monitoring applications".

The weather station has the following sensor configuration:

- Air temperature;
- Humidity;
- Rainfall:
- Atmospheric pressure;
- Evaporation;
- Solar radiation;
- Wind speed; and
- Wind direction.

CBased Environmental continued to operate the monitoring equipment and utilise site collections at their existing locations.

The locations of monitoring points are provided in Figure 1.

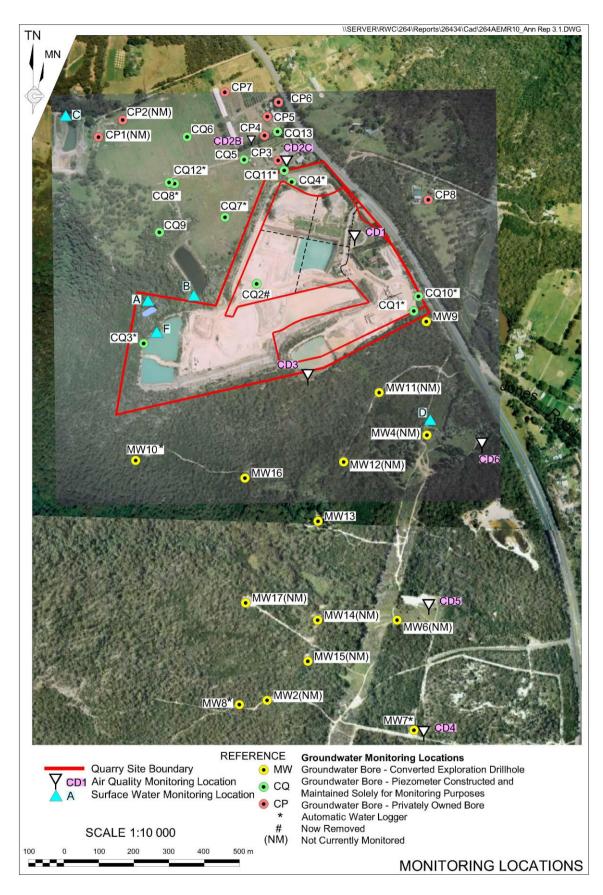


Figure 1: Hanson Calga Quarry Environmental Monitoring Locations

2.0 Results

2.1 Dust Deposition

The results for September 2022 and the project 12-month rolling average are provided **Table 1**.

Dust deposition charts for all dust gauge sites appear in **Figure 2** below. The field sheet, Chain of Custody documentation and laboratory analysis certificates are provided in **Appendix 1**.

Table 1: Dust Deposition Results: 01 September 2022 – 30 September 2022 (29 days)

Site	Monthly Insoluble Solids	Monthly Ash Residue	Monthly Combustible Matter	Monthly Ash Residue/ Insoluble Solids %	Rolling Annual Average Insoluble Solids
CD1	1.2	0.4	0.8	33	2.1
CD2c	1.2	0.2	1.0	17	1.0
CD3	1.4	0.2	1.2	14	1.4
CD4	0.7	0.3	0.4	43	8.0
CD5	0.1	0.1	<0.1	100	0.6
CD6	0.4	0.2	0.2	50	0.5

Notes:

Units in g/m².month unless indicated

Insoluble solid results marked with an * indicate an excessively contaminated gauge. Contamination can include bird droppings, vegetation (such as plant matter, algae, pollen and seeds) and insects Results in **bold** indicate insoluble solids levels above 3.7g/m².month; the Development Consent's annual average amenity criteria at residential locations

The current rolling annual average is calculated from October 2021 to September 2022

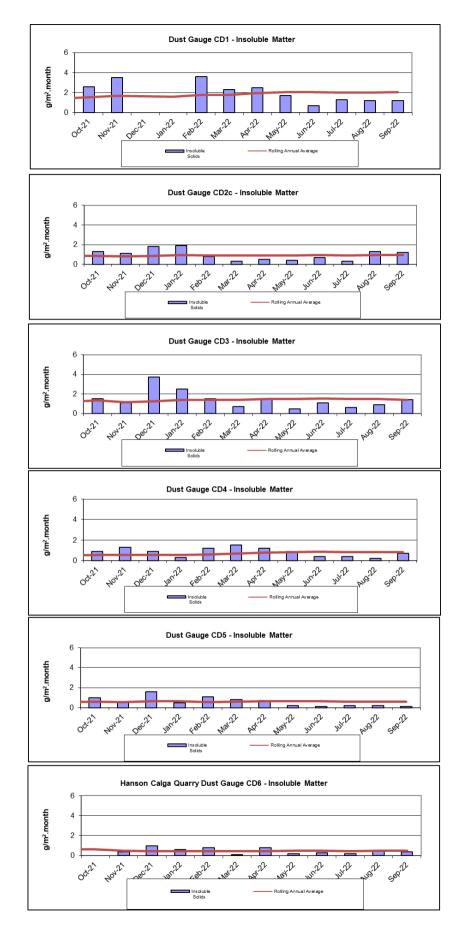


Figure 2: Summary Monthly/Annual Dust Deposition Results for Insoluble Solids

2.2 Surface Water (Monthly)

Monthly surface water monitoring was conducted on 01 September 2022 and results are provided in **Table 2**. The field sheet, chain of custody documentation and laboratory analysis certificates are provided in **Appendix 1**.

Samples were collected at sites A, C1, C2, D and F.

 Table 2:
 Monthly Surface Water Monitoring Results – September 2022

Site	Observed Flow Rate* (visual)	Water Colour* (visual)	Turbidity* (visual)	рН	EC (µS/cm)	TDS (mg/L)	TSS (mg/L)	Oil and Grease (mg/L)
Α	Trickle	Colourless	Clear	6.15	52	64	<5	<5
В			Т	oo Low To	o Sample			
C1	Dam	Brown	Clear	7.52	67	75	14	<5
C2	Moderate	Brown	Clear	6.70	89	53	8	<5
D	Trickle	Brown	Clear	5.75	84	58	7	<5
F	Dam	Colourless	Slight	6.07	55	46	20	<5

^{*} Indicates field measurements. All other results are laboratory analysed

2.2.1 Non-Routine Surface Water Sampling

No non-routine surface water sampling was completed in September 2022.

EC = Electrical conductivity

TDS = Total dissolved solids

TSS = Total suspended solids

2.3 Meteorological Data

The Calga Quarry weather station data recovery for September 2022 was approximately 0% due to site issues.

Appendix 1

Field Sheets
Chain of Custody Documentation
Laboratory Analysis Certificates



Client: Hanson Calga Quarry

Date Installed: 1 . 6 . 22
Date Collected: 30 . 9 - 22

Sampled By: Leesa 1 store
Signed: Response

Site	Time	Water	Insolut	ole Material (🗸 = s		nod etc)	Water	Water	Stand Level	Funnel Level	Funnel	New Funnel	Comments
	Collected	Level (mL)	Insects	Bird droppings	Vegetation	Dust	Turbidity	Colour	(Y/N)	(Y/N)	Diameter (mm)	Diameter (mm)*	
CD1	14.25	1999			1			🕼 O Bn Gn Gy		4	150		
CD2C	11-10					/		©O Bn Gn Gy		V	150		ta a
CD3	14.30	1999				/		O Bn Gn Gy		4	150		
CD4	11.55	1999	111		/	/	С €)т	O Bn Gn Gy	7	Ŋ	150		
CD5	13-10	(999			/	/	© S T	O Bn Gn Gy	7	V	150		
CD6	11-15	1900	1/			1	ОЗТ	🖉 O Bn Gn Gy	Ÿ	ý	150		
	,												
													(*)
												ji	
							-						
		/											

Turbidity: C=Clear, S= Slight, T=Turbid (CIRCLE)

Colour: C=Colourless, O=Orange, Bn=Brown, Gn=Green, Gy = Grey (CIRCLE)

*Record new funnel diameter whenever funnel is replaced and update on COC

CHAIN OF CUSTO	DDY DC	CUMI	ENTAT	ION															alian Laboratory
CLIENT: CBased Environmental Pty L	td					LABO	RATO	N/B	HCH N	0.		100						Servi	ces Pty Ltd
POSTAL ADDRESS: PO Box 245 Ces		325				SAMP	LERS	:	SIA	L	<u> </u>								
SEND REPORT TO: monitoringresults@cbased.com.au		SEND INVO	DICE TO: acc	ounts@cbased.com.au		PHON	IE: 026	55713	334		E-MA	IL: monit	oringresults	@cbase	d.com.a	ıu			
DATA NEEDED BY: 7 working days		REPORT N	EEDED BY: 7	working days		REPO	RT F	ORMA	T: HAF	RD: Yes	s F	AX:	DI\$K:		ETIN B	OARD:			: Yes
	QUOTE NO.:	SYBQ 403-1	8			QC LE	VEL:		QCS1:			QCS2:		2CS3: Y			QCS	34:	
PO NO:	COMMENTS/	SPECIAL HA	NDLING/STO	DRAGE OR DIPOSAL:				- • •					ANALYS	S REQU	IRED				
FOREIGE USE ONLY COCKER SEAL VIEW THOSE THOSE THOSE						Insoluable Soldi	a	Combustable Matt										i	
CONTERNSEAL (Q						e S	Ash Residue	훓											
Yes a langua Tali News	Total unless s	pecified				dab	Ses	usts						- 1					
Broker : Prince : triace : COSEER TELIES : deg.C						losi	- LS	Ë	}										NOTES
CATCHER Trust 1: . 000 FIFTH THE FI	FDATA			CONTAINER	DATA	┝╧	- ₹	. 0			╁┈┟	+			+	 			
SAMPI	LE DATA	T	***	CONTAINER	Funnel Diameter					_	+	1				†	·		
SAMPLE ID	MATRIX	DATE ON	DATE OFF	TYPE & PRESERVATIVE	(mm)														
CD1	Dust	30-9-11	14.25	1x dust gauge jar	150	х	х	х											
CD2c	Dust	1	11-10	1x dust gauge jar	150	х	х	х											
CD3	Dust		14.30	1x dust gauge jar	150	Х	х	х										1	
CD4	Dust		11-55	1x dust gauge jar	150	х	х	х											
CD5	Dust		13/10	1x dust gauge jar	150	х	х	х				\perp				\perp			
CD6	Dust		11.15	1x dust gauge jar	150	х	х	х		ļ		+				_		\vdash	
										-	+	-	_		┥—	+			
		<u> </u>							+		 	+++	-	-	+	+			
		<u> </u>									+	+			+	+	-		
											+ +		<u> </u>		 	†			
		· · · · · ·								<u> </u>	1				1				-
		 											1						
					-														
											1			<u>.</u>					
																lL			
	i	RELINQUISH									R	ECEIVE	D BY		4.55	1.0	/22		HOD OF SHIPMENT
NAME: AHRMS			DA		<u>م</u>	NAME	<u> X</u>	<u> </u>		•••					TIME:	1510	122 7pm	100M	SIGNMENT NOTE NO.
OF: CBased Environmental			TIME			OF:		<u> </u>							ATE:	2.3	ipin	TRAP	ISPORT CO. NAME.
NAME:			DA [*]			OF:	<u> </u>								TIME:			`` ``	10. 0.11 00. 10 MIL.
OF: *Container Type and Preservative Cod	las. D No: 4-	of Dination N :		ME:	ovide Preserved		rent M	ashe	LAcid R	inced Ja	ar: S = So	olvent W	ashed Acid			ttle:			
*Container Type and Preservative Cox VC = Hydrochloric Acid Preserved Via	ies: m = Neutri I: VS = Sofforia	ai Flastic; IN : • Acid Prese	- Niulo Acid P rved Vial: RS:	= Sulfuric Acid Preserved (Glass Bottle: Z = Z	inc Ace	etate F	reser	ved Bott	le; E = E	EDTA Pre	eserved f	Bottles; ST	= Sterile	Bottle;				
O = Other.	n, vo – condin																		

AUSTRALIAN LABORATORY SERVICES P/L

Environmental Division
Newcastle
Work Order Reference
EN2209586



Telephone: +61 2 4014 2500



CERTIFICATE OF ANALYSIS

Work Order : EN2209586

: CBASED ENVIRONMENTAL PTY LTD

Contact : All Deliverables

Address : Unit 3 2 Enterprise Cres

Singleton NSW 2330

Telephone : +61 02 6571 3334 Project : Hanson Calga Dusts

Order number C-O-C number

Sampler : SM LK

Site

Client

Quote number : SYBQ/403/21 and PLANNED EVENTS

No. of samples received : 6 : 6 No. of samples analysed

Page : 1 of 4

> Laboratory : Environmental Division Newcastle

Contact

Address : 5/585 Maitland Road Mayfield West NSW Australia 2304

Telephone : +61 2 4014 2500 **Date Samples Received** : 04-Oct-2022 12:57

Date Analysis Commenced : 06-Oct-2022

Issue Date : 13-Oct-2022 14:18



ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with **Quality Review and Sample Receipt Notification.**

Signatories

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

Signatories Position Accreditation Category

Thomas Regan Laboratory Technician Newcastle - Inorganics, Mayfield West, NSW Page : 2 of 4

Work Order : EN2209586

Client : CBASED ENVIRONMENTAL PTY LTD

Project : Hanson Calga Dusts



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the 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.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

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

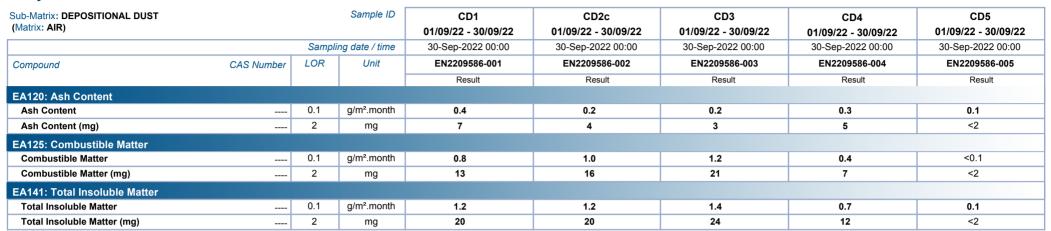
- ^ = This result is computed from individual analyte detections at or above the level of reporting
- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- Analysis as per AS3580.10.1-2016. Samples passed through a 1mm sieve prior to analysis. NATA accreditation does not apply for results reported in g/m².mth as sampling data was provided by the client.
- The dust gauges for all samples were full when received by the laboratory. They may have overflowed in the field. Results for these gauges are thus reported on an 'as received' basis.
- For dust analysis, the Limit of Reporting (LOR) referenced in the reports for deposited matter parameters represents the reporting increment rather than reporting limit.

Page : 3 of 4 Work Order : EN2209586

Client : CBASED ENVIRONMENTAL PTY LTD

Project : Hanson Calga Dusts

Analytical Results



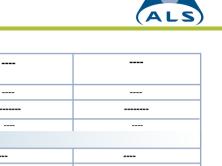


Page : 4 of 4 : EN2209586 Work Order

: CBASED ENVIRONMENTAL PTY LTD Client

Project Hanson Calga Dusts

Analytical Results



Sub-Matrix: DEPOSITIONAL DUST			Sample ID	CD6	 	
(Matrix: AIR)				01/09/22 - 30/09/22		
		Sampli	ng date / time	30-Sep-2022 00:00	 	
Compound	CAS Number	LOR	Unit	EN2209586-006	 	
				Result	 	
EA120: Ash Content						
Ash Content		0.1	g/m².month	0.2	 	
Ash Content (mg)		2	mg	3	 	
EA125: Combustible Matter						
Combustible Matter		0.1	g/m².month	0.2	 	
Combustible Matter (mg)		2	mg	4	 	
EA141: Total Insoluble Matter						
Total Insoluble Matter		0.1	g/m².month	0.4	 	
Total Insoluble Matter (mg)		2	mg	7	 	

CBASED ENVIRONMENTAL PTY LIMITED



Date: 1-9-22

Client: Project: **Hanson Calga**

SURFACE WATERS

Site	Flow Rate	Odour	Sampling Time	Bottles	Water Turbidity	Water Colour	Comments
A	Trickle	N	0940	1x 250ml GP, 1x 500mL GP, 1x PG	(C) S T	CLOOBG	
В		- Commence	0950	1x 250ml GP, 1x 500mL GP, 1x PG	CST	CLO O B G	Too low to sample
C1	Dan 1	N	1150	1x 250ml GP, 1x 500mL GP, 1x PG	©S T	C LO OBG	
C2	Moderate	N	1200	1x 250ml GP, 1x 500mL GP, 1x PG	©S T	C LO OBG	
D	Trule	2	11-10	1x 250ml GP, 1x 500mL GP, 1x PG	C)S T	C LO O(B)G	
F	Dam	N	0930	1x 250ml GP, 1x 500mL GP, 1x PG	CST	©LO O B G	
	=======================================						

Turbidity: C=Clear, S= Slight, T=Turbid (CIRCLE)

Colour: C=Clear, LO=Light Orange, O=Orange, B=Brown, G=Green (CIRCLE)

CHAIN OF CUST	ODY DO	CUM	ENT	ATION														Australian Laboratory
CLIENT: CBased Environmental P	LIENT: CBased Environmental Pty Ltd								BATC	H NO.:				美华等 的			国语篇	Services Pty Ltd
POSTAL ADDRESS: PO Box 245	CESSNOCK NS	N 2325				SAM	PLER	S:CBa	ased E	nvironme	ental Pty	Ltd A	1+5	0				
SEND REPORT TO: monitoringresults@cbased.com.au		SEND INV		r: renae.mikka@cbased.com.au; com.au		РНО	NE: 02	26571	3334		E-M	/IAIL: monit	oringresult	s@cbased	.com.au			
DATA NEEDED BY: 5 working day	s	REPORT	NEEDED	BY: 5 working days		REP	ORTF	ORM	AT: H	HARD: Y	es	FAX:	DISK:	BULL	ETIN BOARD:	E-MAIL:	Yes	
PROJECT ID: Hanson Quarry SW	QUOTE NO.:	SYBQ-403-	18			QC L	EVEL:	:	QCS	31:		QCS2:	(QCS3: Yes	3	QCS4:		
P.O. NO.:	COMMENTS/	SPECIAL H	ANDLING	G/STORAGE OR DIPOSAL:							100000000000000000000000000000000000000	-10-09000000000000000000000000000000000		ANALYSIS	REQUIRED			
FOR LAB USE ONLY COOLER SEAL																		
res 19.9 No.	Total unless s	pecified									1 1					1 1 1		
Broken 1 Intact	3,4152						42474.0	S	S	ڻ +								
COOLER TEMP: deg.C						표	E	TSS	TDS	ŏ								NOTES
SAMP	LE DATA			*CONTAINER DATA														
SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	NO.													
Α	Water			1x 250mIGP,1x 500mLGP,1xPG	i	х	х	х	х	х								
В	Water			1x 250mIGP,1x 500mLGP,1xPG	,	х	х	х	х	х							Er	nvironmental Divisi
C1	Water			1x 250mIGP,1x 500mLGP,1xPG	,	х	х	х	х	х							0	udnev
C2	Water			1x 250mlGP,1x 500mLGP,1xPG		х	Х	х	х	х							5	ydney Work Order Reference ES223129
D	Water_			1x 250mIGP,1x 500mLGP,1xPG	i	Х	х	х	х	х								EC223129
F	Water			1x 250mlGP,1x 500mLGP,1xPG		Х	Х	х	Х	х								LOZZOTZ
																	•	
											+						-	Telephone: +61-2-8784 8555
	_			TOTAL BOTTLES:													-0)	
	RELII	NQUISHED	BY:							_	RE	CEIVED B	Y					METHOD OF SHIPMENT
NAME: AT + 80			DAT			NAME	Ŀ.,	1	100		>				1/9/22			CONSIGNMENT NOTE NO.
DF: CBased Environmental				ME: 14.45		OF:		1	n	/					14:45			
NAME :				ATE:		NAME	::							DATE		-	1	TRANSPORT CO. NAME.
OF:			Т	TME:		OF:								TIME				

AUSTRALIAN LABORATORY SERVICES P/L



CERTIFICATE OF ANALYSIS

Work Order : ES2231291

: CBASED ENVIRONMENTAL PTY LTD

Contact : All Deliverables

Address : Unit 3 2 Enterprise Cres

Singleton NSW 2330

Telephone : +61 02 6571 3334 Project : Hanson Quarry SW

Order number

C-O-C number

Sampler : AL + SD, Cbased Environmental Pty Ltd

Site

Client

Quote number : SYBQ/403/18

No. of samples received : 6 : 5 No. of samples analysed

Page : 1 of 2

Laboratory : Environmental Division Sydney

Contact : Helen Simpson

Address : 277-289 Woodpark Road Smithfield NSW Australia 2164

Telephone : +61 2 8784 8555 **Date Samples Received** : 01-Sep-2022 14:46

Date Analysis Commenced : 01-Sep-2022

: 08-Sep-2022 13:16 Issue Date



ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with **Quality Review and Sample Receipt Notification.**

Signatories

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

Signatories Accreditation Category

Ankit Joshi Senior Chemist - Inorganics Sydney Inorganics, Smithfield, NSW Ruby Buller Laboratory Technician Chemistry, Newcastle West, NSW

Page : 2 of 2 Work Order : ES2231291

Client : CBASED ENVIRONMENTAL PTY LTD

Project : Hanson Quarry SW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the 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.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

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

ø = ALS is not NATA accredited for these tests.

~ = Indicates an estimated value.

• TDS by method EA-015 may bias high due to the presence of fine particulate matter, which may pass through the prescribed GF/C paper.

Analytical Results

			0	-				_
Sub-Matrix: WATER (Matrix: WATER)			Sample ID	A	C1	C2	D	F
		Sampli	ng date / time	01-Sep-2022 09:40	01-Sep-2022 11:50	01-Sep-2022 12:00	01-Sep-2022 11:10	01-Sep-2022 09:30
Compound	CAS Number	LOR	Unit	ES2231291-001	ES2231291-003	ES2231291-004	ES2231291-005	ES2231291-006
				Result	Result	Result	Result	Result
EA005: pH								
pH Value		0.01	pH Unit	6.15	7.52	6.70	5.75	6.07
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C		1	μS/cm	52	67	89	84	55
EA015: Total Dissolved Solids dried a	at 180 ± 5 °C							
Total Dissolved Solids @180°C		10	mg/L	64	75	53	58	46
EA025: Total Suspended Solids dried	at 104 ± 2°C							
Suspended Solids (SS)		5	mg/L	<5	14	8	7	20
EP020: Oil and Grease (O&G)								
Oil & Grease		5	mg/L	<5	<5	<5	<5	<5

Inter-Laboratory Testing

Analysis conducted by ALS Newcastle - Water, NATA accreditation no. 825, site no. 1656 (Chemistry) 9854 (Biology).

(WATER) EA005: pH

