



**CARBON BASED ENVIRONMENTAL
PTY LIMITED**
ABN 74 102 920 285

**ROCLA QUARRY PRODUCTS
CALGA QUARRY**

ENVIRONMENTAL MONITORING

**DUST DEPOSITION GAUGES, SURFACE AND
GROUND WATERS AND METEOROLOGICAL
STATION**

APRIL 2008

A handwritten signature in black ink that reads 'Colin Davies'.

Colin Davies BSc MEIA CENVP
Environmental Scientist
16 May 2008

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EXECUTIVE SUMMARY

Carbon Based Environmental is contracted by Rocla Quarry Products to conduct environmental monitoring at the Calga Sand Quarry.

The monitoring includes;

- Dust Deposition Gauges;
- Surface Waters;
- Ground Waters; and
- Meteorological Station.

This report was prepared by Carbon Based Environmental and includes the following;

- Dust Deposition results for April 2008;
- Surface Water quality results for April 2008;
- Ground Water depth and quality results for April 2008; and
- Meteorological report for April 2008.

The April 2008 dust deposition results show a slight decrease in dust deposition rates this month. All sites, on a year to date average basis, are currently below the Air Quality Management Plan exceedence level of 3.7g/m².month. Results were found to be representative of dust levels as determined by the Australian Standard.

Surface water samples were collected for the normal monthly sampling event on the 1 May 2008 at sites F and the small dam below site F, as the other sites were not flowing. At the time of sample collection, there was no water discharge observed from the site. Results show generally good quality water with the two sites maintaining slightly acidic pH and low Electrical Conductivity. Total Suspended Solids were lower than last month at site F (F Dam 7 B/C) however still slightly elevated. Results at the dam below site F were also slightly elevated. No Total Oil and Grease was detected at either site.

Groundwaters were sampled for normal monthly monitoring on 1 May 2008. Groundwater depths decreased at the majority of monitoring bores this month, indicating water moving towards the surface. There was a slight decrease in pH at all monitoring bores this month, while EC levels remained stable.

The meteorological station continued to return high data recovery and operated well in April 2008. The predominant winds were SSW-SW, with strongest winds from the SW-W. Recorded rainfall on site for April 2008 was 185.2mm, lower than that recorded at the BOM Peats Ridge Station but higher than the Peats Ridge long-term average for April. Results are detailed below:

Rocla Calga Quarry	185.2mm
BOM Peats Ridge*	290.0mm
BOM Gosford*	251.6mm
BOM Peats Ridge Long term mean for April*	130.1mm

*Data sourced from Bureau of Meteorology (BOM) website (www.bom.gov.au)

Note: Differences in the daily rainfall readings between BOM and the Rocla station may occur due to BOM stations reporting rainfall at 9am and the Rocla station recording rainfall at midnight.

1.0 SAMPLING PROGRAM

Rocla Calga Quarry conducts environmental monitoring in accordance to Development Consent, DEC (EPA) licence and Environmental Management Plans. Carbon Based Environmental are contracted to undertake dust deposition gauge, surface and groundwater and meteorological monitoring for the project. Carbon Based 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 10.1 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.

Surface water sites include local streams and dams. Basic analysis including pH, Electrical Conductivity, Total Suspended Solids and Total Oil and Grease is conducted monthly when sites A to D are flowing and Site F, a dam. Additional samples are collected when daily rainfall exceeds 50mm.

Groundwater sites are monitored at least bi-monthly for water quality and at least quarterly for water level. 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. Wind parameters are measured according to Australian Standard AS 2923 “Ambient Air— Guide for Measurement of Horizontal Wind for Air Quality Applications”.

The weather stations have the following sensor configuration;

- Air temperature
- Humidity
- Rainfall
- Atmospheric pressure
- Evaporation
- Solar radiation
- Wind speed
- Wind direction

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

2.0 MONTHLY RESULTS

2.1 DUST DEPOSITION GAUGES

Table 1 displays the results for April 2008 and the project average. Results are in g/m².month.

Table 1: Dust Deposition results: 01-Apr-2008 to 01-May-2008 (30 days)

Site	Monthly Insoluble Solids	Monthly Ash Residue	Monthly Combustible Matter	Monthly Ash Residue/ Insoluble Solids %	Current Project Average Insoluble Solids
CD1	0.6	0.3	0.3	50	1.3
CD2b	1.8	0.7	1.1	39	1.6
CD3	0.4	0.1	0.3	25	0.8
CD4	0.3	0.2	0.1	67	1.0
CD5	0.4	0.2	0.2	50	1.0
CD6	0.3	0.1	0.2	33	1.0

Insoluble Solids marked with an * indicate an excessively contaminated gauge. Contamination can include bird droppings, vegetation (such as plant matter, algae, pollen, seeds), and insects. Results in bold indicate insoluble solids levels above 3.7 g/m².month, the Development Consent annual average amenity criteria at residential locations. Project average was calculated from the 28 October 2005 (start of the Development Consent period) from results supplied by Rocla or from the installation date of the gauges.

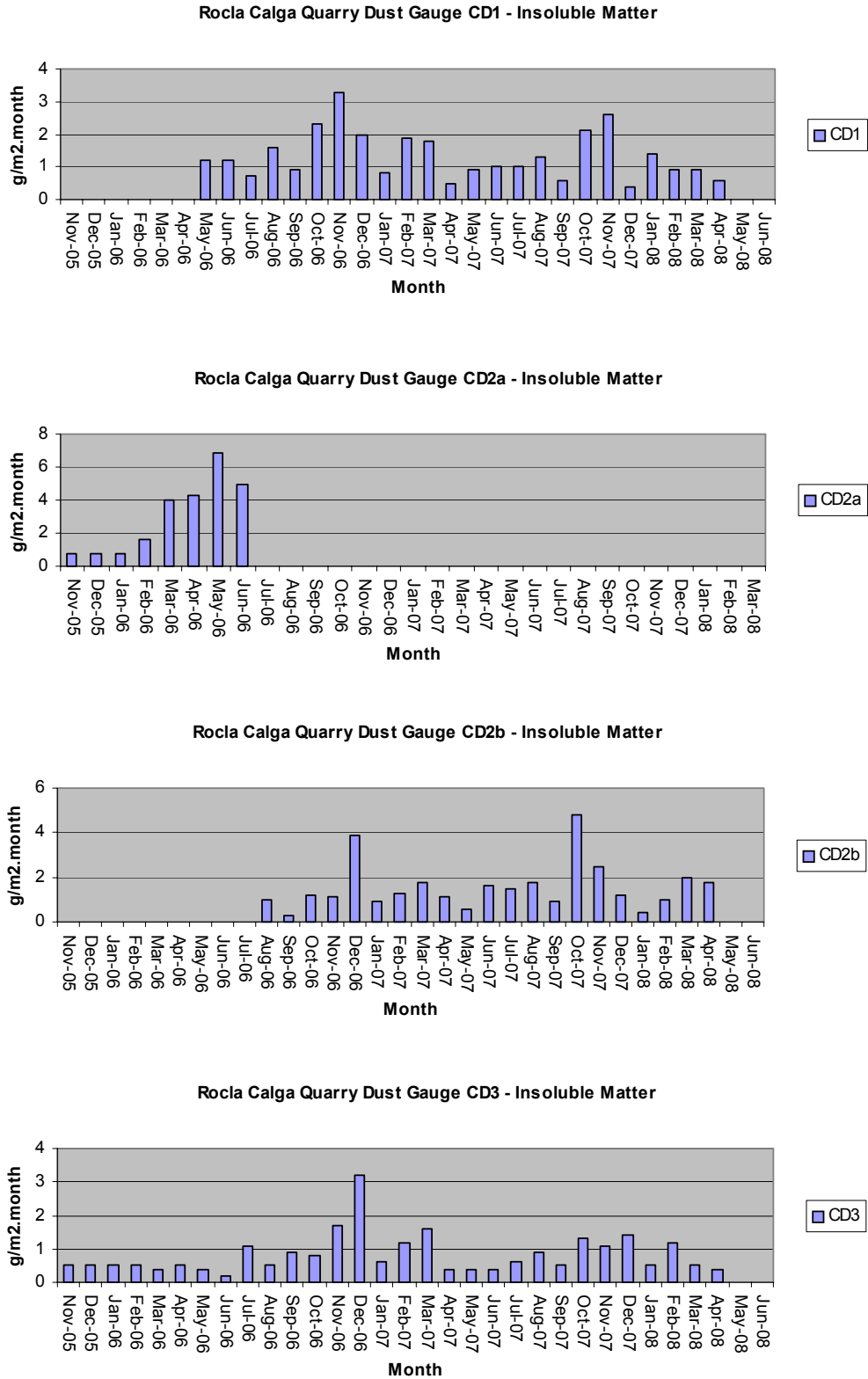
NA= Not Available.

CD1 was installed on the 1 May 2006. CD2a was discontinued at the start of August 2006 due to quarry operations “mining out” the site of the gauge. The replacement gauge, Site 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. CD4 was installed on 3 October 2006, to gauge air quality impacts to the south of the site operations, as were CD5 and CD6 which were installed on the 14 December 2006.

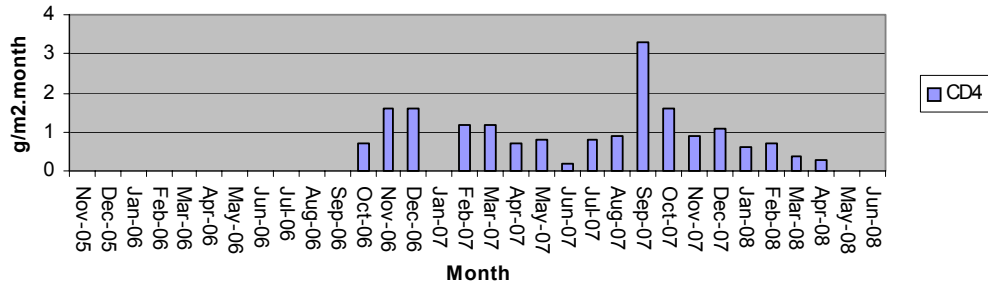
Dust deposition charts for all dust gauge sites appear in **Figure 1** below. The laboratory analysis is provided in **Appendix 1**.

The predominant winds were SSW-SW, with strongest winds from the SW-W.

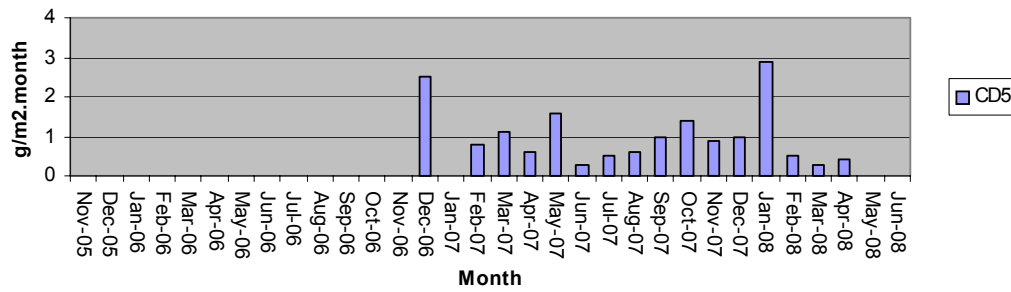
Figure 1: Dust Deposition Charts



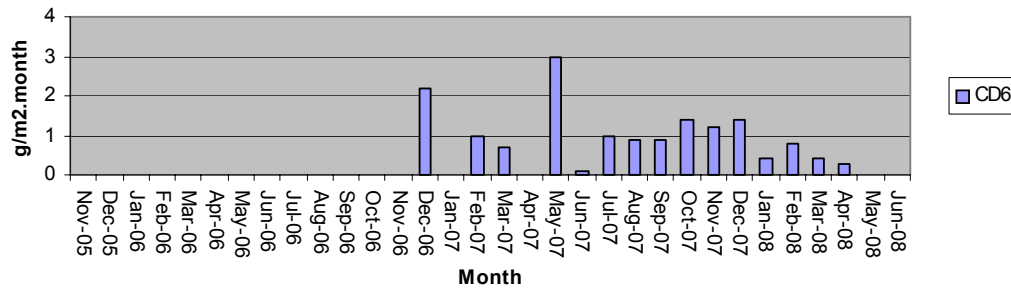
Rocla Calga Quarry Dust Gauge CD4 - Insoluble Matter



Rocla Calga Quarry Dust Gauge CD5 - Insoluble Matter



Rocla Calga Quarry Dust Gauge CD6 - Insoluble Matter



2.2 WATER MONITORING

2.2.1 Surface Waters

Monthly surface water monitoring was conducted on the 1 May 2008 and results are listed in **Table 2**. The laboratory analysis sheets are provided in **Appendix 1**.

Table 2: Monthly surface water monitoring (April) - grab sample results

Site	Observed Flow Rate	Water Colour	Turbidity	pH	EC (uS/cm)	TSS (mg/l)	Oil and Grease (mg/l)
A	Not Flowing	--	--	--	--	--	--
B	Not Flowing	--	--	--	--	--	--
C	Not Flowing	--	--	--	--	--	--
D	Not Flowing	--	--	--	--	--	--
F	Dam	Clear	Clear	5.70	56	64	<5
Dam below F (Lower dam)*	Dam	Clear	Clear	5.36	57	46	<5

At the time of sampling, there were no water discharges off site from any sampling location.

* The dam below Site F is not a requirement of the Site Water Management Plan.

There was no flow from any site at the time of sampling with two samples collected from dams; these were Site F and a small dam below site F, additional to the Site Water Management Plan requirements. The samples were collected and analysed for a monthly sampling event. Results show generally good water quality with slightly acidic pH and low Electrical Conductivity. Total Suspended Solids were slightly elevated. Total Oil and Grease was not detected at either site.

2.2.2 Ground Waters

Groundwaters were sampled on 1 May 2008. Water quality tests for pH and electrical conductivity were conducted by Carbon Based Environmental Pty Limited. For water quality purposes, water was purged from the bore until constant pH (+/- 0.1 pH units) and Electrical Conductivity (+/- 5%) was obtained between samples. Data is displayed in **Table 3** and **Figures 2 to 5**.

Groundwater depths decreased at the majority of monitoring bores this month, indicating water moving towards the surface. The CP series of bores generally show larger increases and decreases in depth to water due to pumping from the bores. Longer term monitoring is required to fully evaluate groundwater depth trends.

Groundwater quality results indicated a slight decrease in pH across all bores this month. EC remained generally stable and low. Detailed biannual water quality monitoring was conducted in April 2008 and is next due in October 2008.

Table 3: Ground Water Quality Data

Reference	Bore	Type	Depth to water TOC (m) April 06	Depth to water TOC (m) This report	pH This report	Electrical Conductivity (uS/cm) This report
CQ1	Voutos	* Monitor	20.59	19.22	4.7	135
CQ2	Voutos	DIP Only	6.23	NO LONGER REQUIRED – REMOVED		
CQ3	Voutos	* Monitor	10.53	10.01	6.3	125
CQ4	Voutos	* Monitor	8.78	5.29	5.4	95
CQ5	Gazzana	DIP Only	8.69	4.24	4.6	175
CQ6	Gazzana	DIP Only	16.00	10.01	4.6	270
CQ7	Gazzana	* Monitor	6.89	5.49	4.9	100
CQ8	Gazzana	* Monitor	11.03	5.23	4.9	170
CQ9	Gazzana	DIP Only	10.10	8.67	4.8	125
CQ10	Voutos	* Monitor	NI	22.47	4.9	150
CQ11S	Gazzana	* Monitor	NI	6.59	4.7	165
CQ11D	Gazzana	* Monitor	NI	8.02	6.0	125
CQ12	Gazzana	* Monitor	NI	3.38	4.6	145
CQ13	Kashouli	* Monitor	NI	10.64	5.3	190
CP3	Gazzana	Domestic	10.40	5.17	4.3	160
CP4	Kashouli	Domestic	13.63	3.44	4.9	225
CP5	Kashouli	Domestic	16.61	4.94	4.6	275
CP6	Kashouli	Domestic	16.27	7.75	4.6	235
CP7	Kashouli	Production	8.56	0.95	5.0	280
CP8	Rozmanec	Domestic	22.17	NR	NR	NR
MW7	Rocla Bore	* Monitor	15.76	13.85	4.8	105
MW8	Rocla Bore	* Monitor	9.82	6.56	5.1	105
MW9	Rocla Bore	* Monitor	22.44	21.42	4.8	90
MW10	Rocla Bore	* Monitor	15.41	12.80	5.0	125

Notes:

TOC = Water level measured from top of bore case to water.

NM = Not Monitored – unable to sample water due to access restrictions.

NA = Parameter not available.

NR = Not Required by resident.

* = Logger Installed.

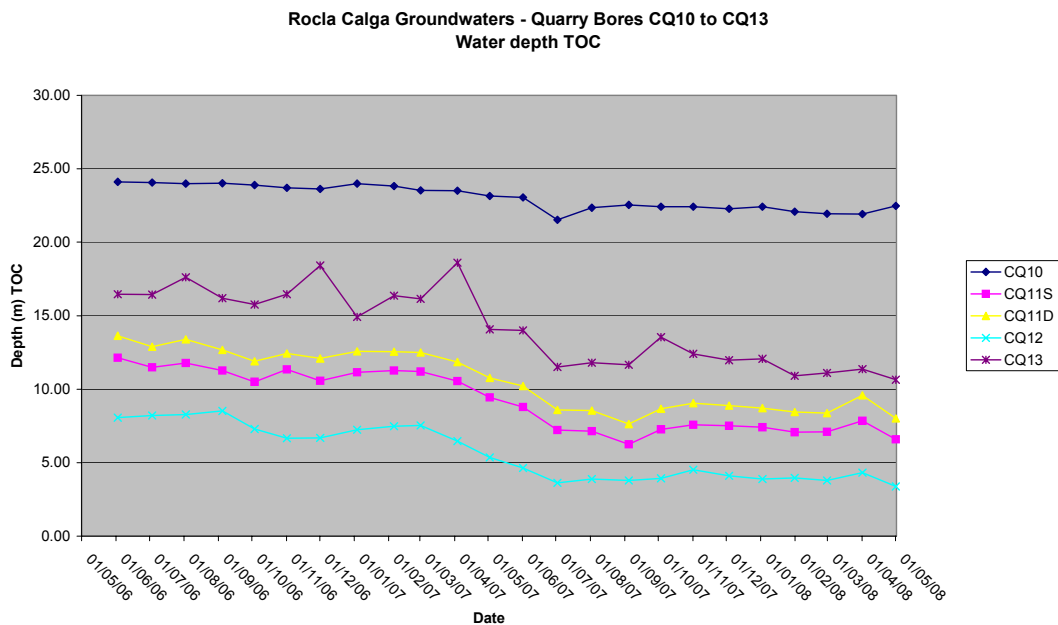
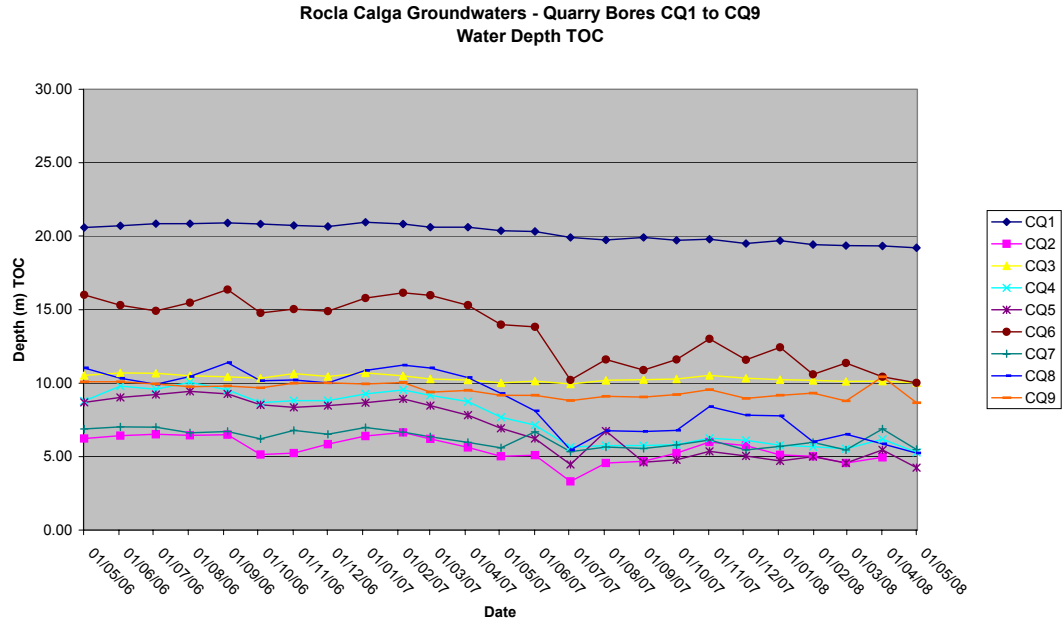
NI = These bores were not installed in April 2006 but are now operational. April 2006 was the first set of measurements taken by Carbon Based Environmental Pty Limited.

Shading is used to indicate the following trends in water depth (compared to last reading):

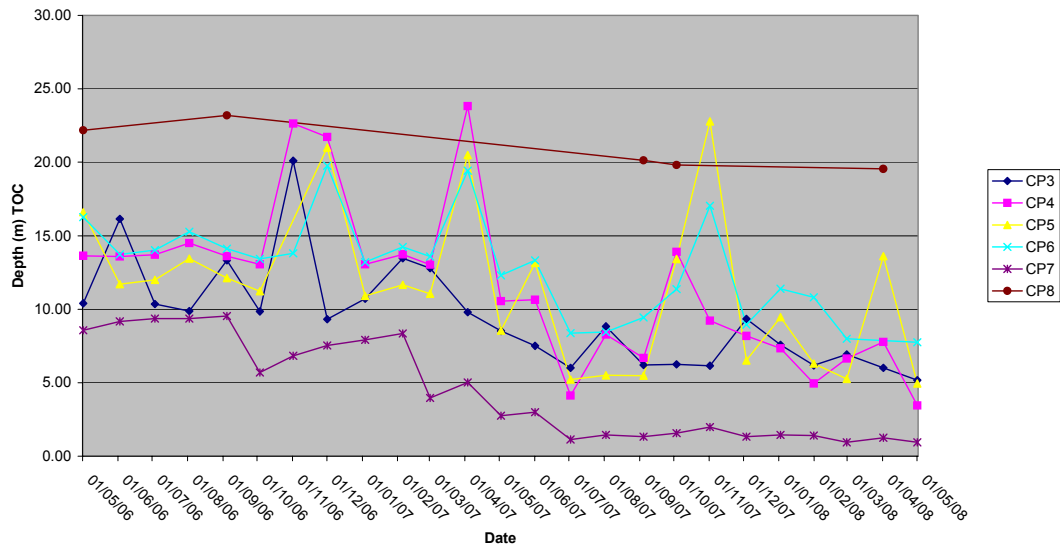
	Increase to ground water depth (water moved away from surface)
	Decrease to ground water depth (water moved towards surface)
	Stable water depth (+/- 0.01m)

Available groundwater loggers were downloaded and forwarded to the Rocla Calga Quarry groundwater consultant.

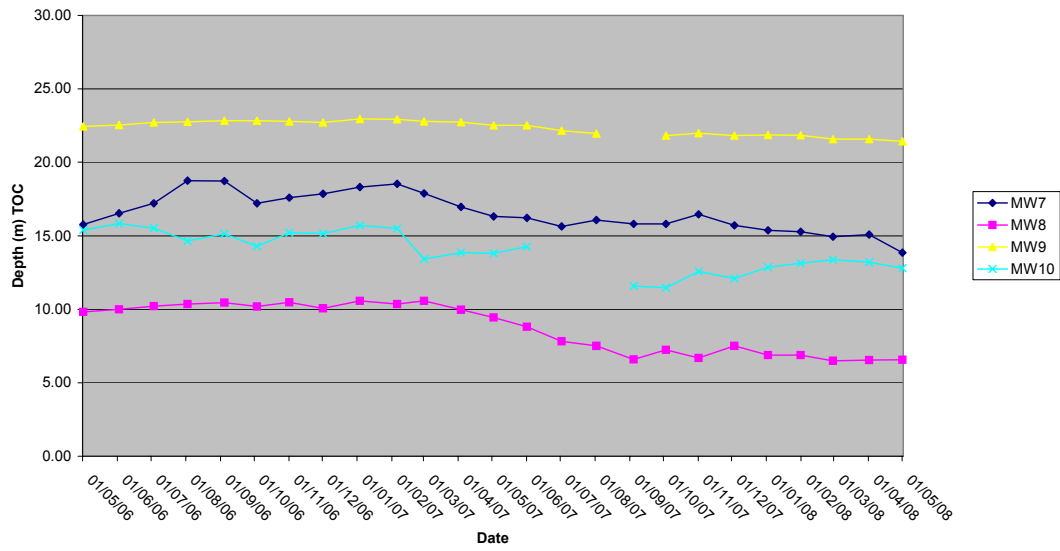
Figures 2 to 5: Groundwater Depth Charts.



Rocla Calga Groundwaters - Quarry Bores CP3 to CP8
Water Depth TOC



Rocla Calga Groundwaters - Quarry Bores MW7 to MW10
Water Depth TOC



2.3 METEOROLOGICAL MONITORING

The Rocla Calga Quarry weather station was fully operational in April 2008 with approximately 100% data recovery. The weather station data follows and includes;

- Monthly data numerical summary;
- Weather charts of air temperature, humidity, heat index and wind chill, atmospheric pressure, solar radiation, evapotranspiration, rain, wind speed and data reception; and
- Wind rose (frequency distribution diagram of wind speed and direction).

Monthly weather statistics from two nearby Bureau of Meteorology (BOM) stations, Peats Ridge and Gosford are included in **Appendix 2** for comparison purposes.

Data for April 2008 shows lower rainfall at the Rocla Calga Quarry station compared to the nearby Peats Ridge BOM station and Gosford BOM station. The rainfall comparison is provided below:

Rocla Calga Quarry	185.2mm
BOM Peats Ridge*	290.0mm
BOM Gosford*	251.6mm
BOM Peats Ridge Long term mean for April*	130.1mm

*Data sourced from Bureau of Meteorology (BOM) website (www.bom.gov.au)

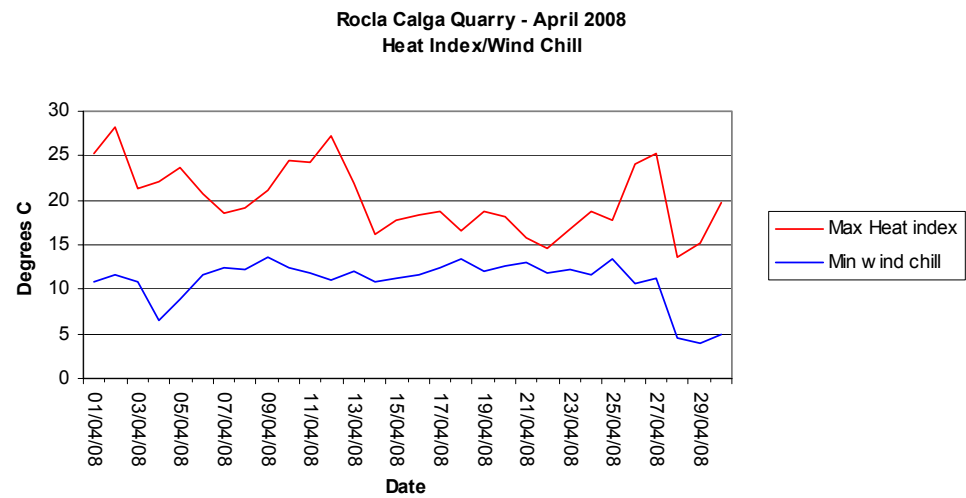
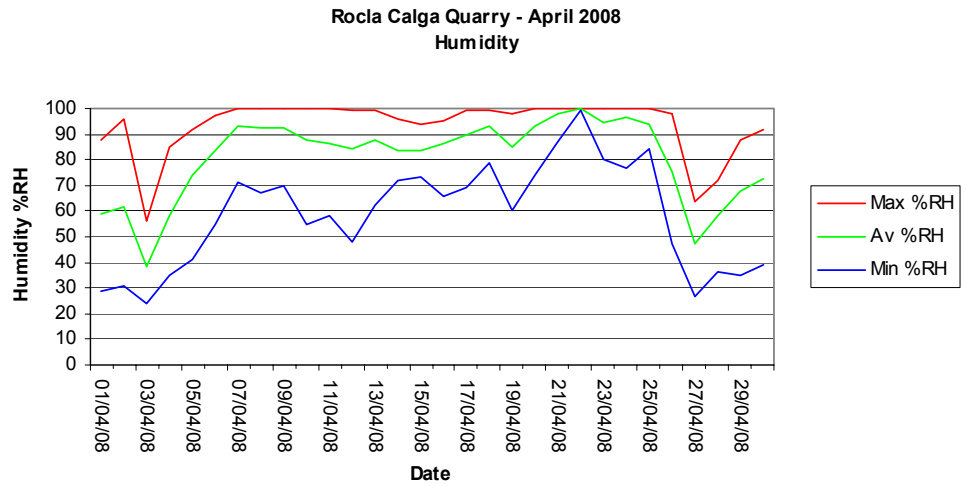
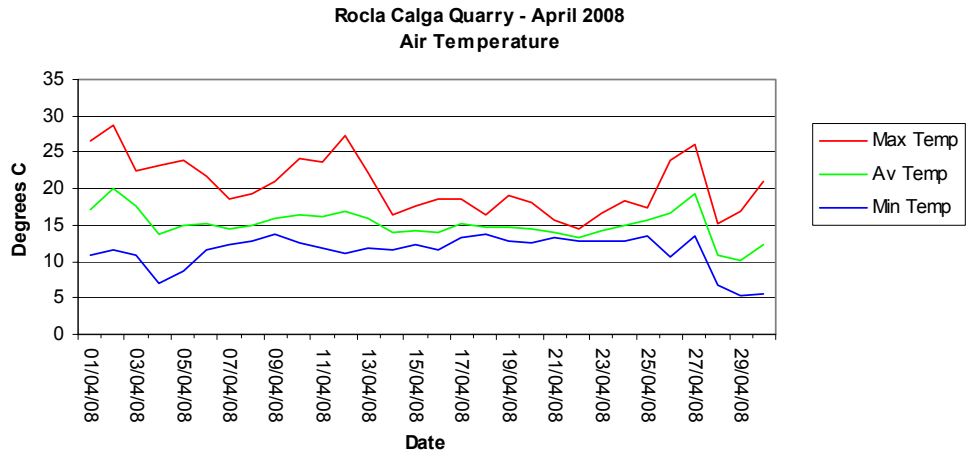
Results are displayed in the following table and figures.

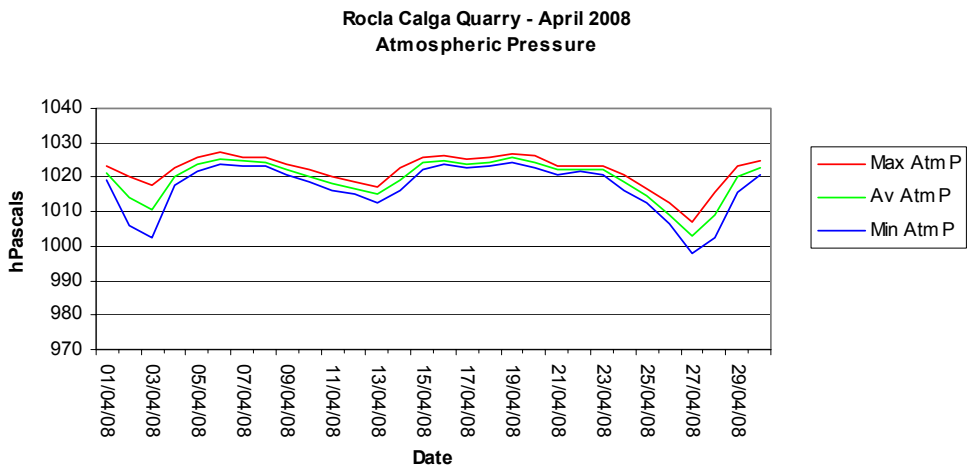
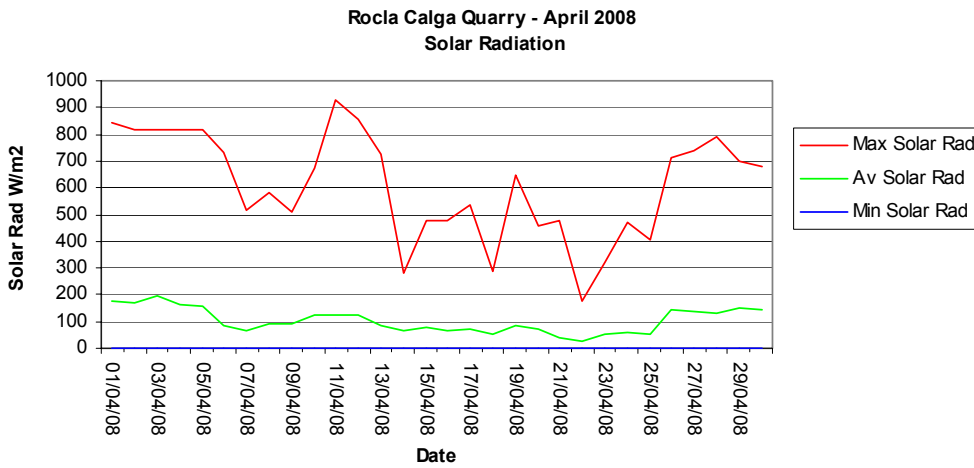
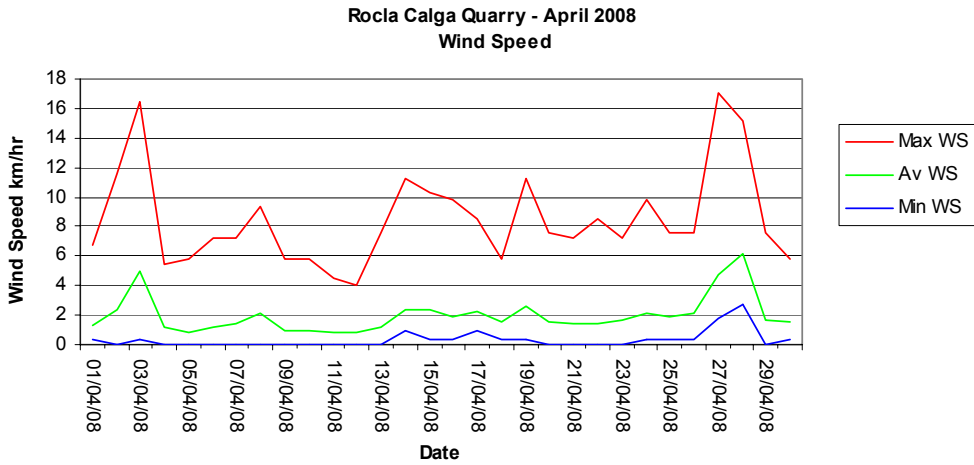
2.3.1 Monthly meteorological data summary

Summary Apr-08 Rocla - Calga

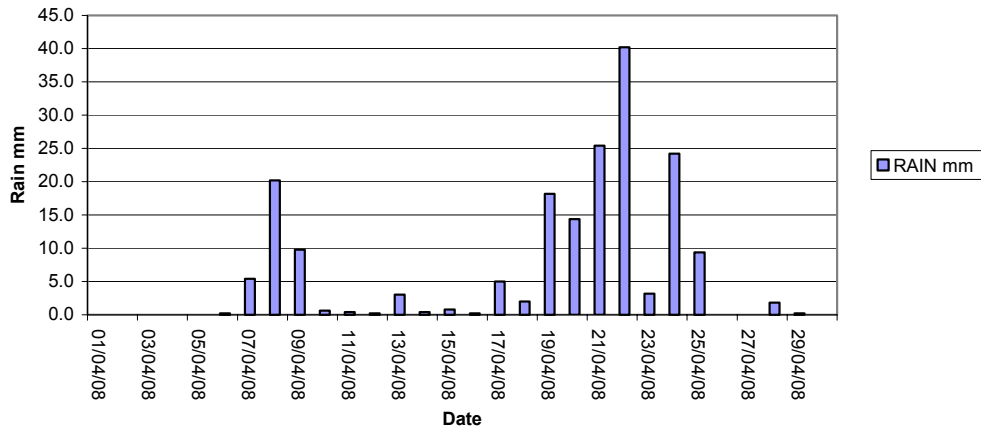
Date	Min Temp	Av Temp	Max Temp	Min %RH	Av %RH	Max %RH	RAIN mm	ET mm	Min WS	Av WS	Max WS	Min wind chill	Max Heat index	Min Atm P	Av Atm P	Max Atm P	Min Solar Rad	Av Solar Rad	Max Solar Rad	Min Data %	Av data %	Max Data %
01/04/08	10.9	17.2	28.6	29	59	88	0.0	3.7	0.4	1.3	6.7	10.9	25.3	1019.1	1021.1	1023.4	0	176.6	846	85.7	98.1	100
02/04/08	11.7	19.9	28.8	31	62	96	0.0	4.4	0	2.4	11.6	11.7	28.3	1006	1014.0	1020.2	0	171.0	819	95.3	99.9	100
03/04/08	10.9	17.7	22.4	24	38	56	0.0	6.5	0.4	5.0	16.5	10.9	21.3	1002.3	1010.5	1017.6	0	193.3	816	96.2	99.1	100
04/04/08	7.1	13.8	23.1	35	59	85	0.0	3.3	0	1.2	5.4	6.6	22.2	1017.6	1020.1	1022.7	0	166.3	816	93.6	98.8	100
05/04/08	8.8	15.0	23.9	41	74	92	0.0	2.8	0	0.8	5.8	8.8	23.6	1021.6	1023.7	1025.7	0	159.5	815	93	99.3	100
06/04/08	11.6	15.2	21.7	55	84	97	0.2	1.5	0	1.2	7.2	11.6	20.8	1024	1025.4	1027.1	0	82.6	732	89.8	99.6	100
07/04/08	12.4	14.6	18.7	71	93	100	5.4	1.0	0	1.4	7.2	12.4	18.5	1023.5	1024.7	1026	0	66.7	515	86.5	99.3	100
08/04/08	12.9	14.9	19.2	67	92	100	20.2	1.5	0	2.1	9.4	12.2	19.2	1023.1	1024.3	1025.9	0	92.9	580	91.2	98.5	100
09/04/08	13.7	15.9	21	70	92	100	9.8	1.4	0	1.0	5.8	13.7	21.1	1020.5	1022.2	1024	0	92.4	510	90.4	98.2	100
10/04/08	12.5	16.3	24.1	55	88	100	0.6	2.0	0	0.9	5.8	12.5	24.4	1018.5	1020.4	1022.2	0	121.3	674	88.3	98.9	100
11/04/08	11.8	16.1	23.7	58	86	100	0.4	2.0	0	0.9	4.5	11.8	24.2	1016.4	1018.3	1020.1	0	126.1	927	95.3	99.4	100
12/04/08	11.1	16.9	27.3	48	84	99	0.2	2.0	0	0.8	4	11.1	27.3	1014.9	1016.7	1018.5	0	122.9	858	73.1	94.9	100
13/04/08	11.9	15.8	22.3	62	88	99	3.0	1.6	0	1.2	7.6	12	21.9	1012.5	1015.1	1017	0	87.7	723	92.1	98.8	100
14/04/08	11.7	13.9	16.3	72	84	96	0.4	1.2	0.9	2.4	11.2	10.8	16.2	1016.3	1019.4	1022.7	0	62.2	282	79.5	94.5	100
15/04/08	12.2	14.3	17.7	73	83	94	0.8	1.7	0.4	2.3	10.3	11.2	17.7	1022.1	1024.2	1025.7	0	76.4	476	78.4	92.2	100
16/04/08	11.7	14.1	18.6	66	86	95	0.2	1.3	0.4	1.9	9.8	11.7	18.4	1023.6	1024.7	1026.3	0	65.2	479	86.5	96.7	100
17/04/08	13.3	15.1	18.7	69	89	99	5.0	1.3	0.9	2.3	8.5	12.4	18.8	1022.6	1023.8	1025.2	0	71.0	534	88	97.8	100
18/04/08	13.7	14.7	16.4	79	93	99	2.0	0.7	0.4	1.5	5.8	13.5	16.6	1023.1	1024.3	1026	0	50.2	288	84.8	96.8	100
19/04/08	12.9	14.8	19.1	60	85	98	18.2	1.9	0.4	2.6	11.2	12	18.7	1024.5	1025.8	1026.9	0	85.6	647	82.2	94.9	100
20/04/08	12.6	14.4	18.1	74	93	100	14.4	1.1	0	1.6	7.6	12.7	18.1	1022.6	1024.4	1026.2	0	73.1	460	98	99.8	100
21/04/08	13.3	14.1	15.6	87	98	100	25.4	0.5	0	1.4	7.2	13	15.8	1020.9	1022.2	1023.2	0	37.0	476	83.6	97.2	100
22/04/08	12.8	13.4	14.4	99	100	100	40.2	0.3	0	1.5	8.5	11.8	14.7	1021.5	1022.5	1023.5	0	26.3	175	78.7	96.1	100
23/04/08	12.8	14.4	16.7	80	94	100	3.2	0.8	0	1.7	7.2	12.3	16.8	1020.9	1022.2	1023.5	0	53.6	323	89.2	98.8	100
24/04/08	12.9	15.0	18.4	77	97	100	24.2	0.8	0.4	2.1	9.8	11.7	18.7	1016.1	1018.9	1020.9	0	60.9	469	82.5	95.1	100
25/04/08	13.5	15.7	17.4	84	94	100	9.4	0.9	0.4	1.9	7.6	13.5	17.7	1012.8	1014.6	1016.6	0	52.9	403	82.7	94.2	100
26/04/08	10.6	16.6	23.9	47	75	98	0.0	2.9	0.4	2.1	7.6	10.6	24	1006.7	1009.2	1012.7	0	145.4	715	90.9	98.6	100
27/04/08	13.4	19.4	26.1	27	48	64	0.0	5.0	1.8	4.7	17	11.3	25.2	997.8	1002.9	1006.8	0	137.3	740	90.6	99.0	100
28/04/08	6.8	10.8	15.2	36	58	72	1.8	4.3	2.7	6.2	15.2	4.6	13.6	1002.4	1009.1	1015.8	0	129.3	788	84.2	95.1	100
29/04/08	5.4	10.2	17	35	68	88	0.2	2.7	0	1.7	7.6	3.9	15.2	1015.9	1020.4	1023.5	0	151.6	701	90.4	98.1	100
30/04/08	5.6	12.3	21.1	39	73	92	0.0	2.3	0.4	1.5	5.8	5	19.8	1020.6	1022.7	1025	0	140.9	677	83	95.0	100
Monthly	5.4	15.1	28.8	24	81	100	185.2	63.5	0	2.0	17	3.9	28.3	997.8	1019.6	1027.1	0	102.6	927	73.1	97.4	100

2.3.2 Monthly weather charts

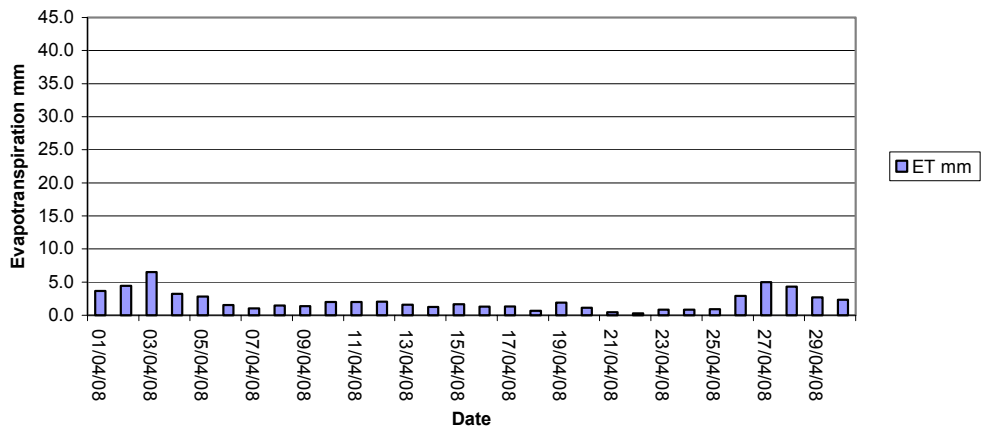




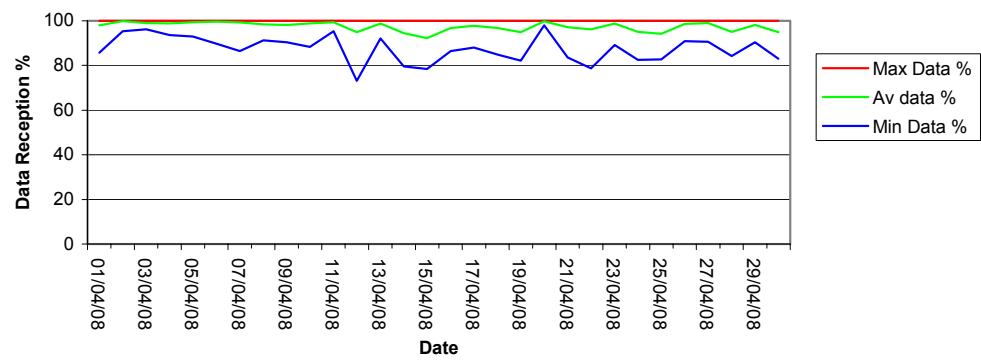
Rocla Calga Quarry - April 2008
Rainfall



Rocla Calga Quarry - April 2008
Evapotranspiration



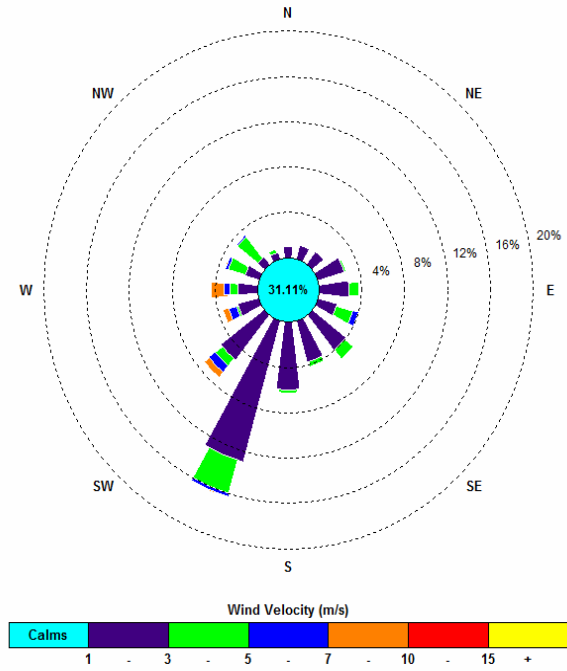
Rocla Calga Quarry - April 2008
Data Reception



2.3.3 Windrose plot

Frequency plot of the average wind speed and average direction over each 15 minute sampling period. Wind is considered calm when less than a 15 minute average of 1m/s.

00:00, 1 April 2008 – 23:45, 30 April 2008



APPENDIX 1
LABORATORY CERTIFICATES

APPENDIX 2

ADDITIONAL BUREAU OF METEOROLOGY DATA FROM PEATS RIDGE AND GOSFORD MONITORING STATIONS

**Peats Ridge, New South Wales
April 2008 Daily Weather Observations**



Date	Day	Temps		Rain mm	Evap mm	Sun hours	Max wind gust			9am						3pm					
		Min	Max				Dirn	Spd	Time	Temp	RH	Cld	Dirn	Spd	MSLP	Temp	RH	Cld	Dirn	Spd	MSLP
		°C	°C					km/h	local	°C	%	eighths		km/h	hPa	°C	%	eighths		km/h	hPa
1	Tu	9.8	23.8	0	4.4				15.1	64	0	SW	4		22.8	41	1	NE	4		
2	We	10.7	27.0	0	3.0				17.1	79	1	ESE	4								
3	Th	16.7	20.6	0	5.0				17.1	55	3	S	19		20.2	27	0	SW	28		
4	Fr	6.6	20.6	0	5.2				9.6	65	1	SW	4		19.7	43	4	S	4		
5	Sa	7.2	21.8	0	2.0				14.9	84	0	SW	4		20.4	51	3	E	4		
6	Su	10.6	20.7	0	3.4				14.9	86	7	ENE	4		19.4	59	4	E	4		
7	Mo	10.3	19.1	0	1.2				14.9	96	7	S	4		15.8	98	5	SE	4		
8	Tu	12.7	20.1	16.4	3.4				15.2	97	7	S	4								
9	We	13.8	19.9	17.8	1.0				15.3	98	8	SE	4								
10	Th	11.2	22.6	1.8	1.2				14.3	97	6	ENE	4								
11	Fr	11.2	22.4	0.2	2.4				15.6	94	1	ESE	4		21.2	66	3	ESE	4		
12	Sa	10.6	23.0	0	2.2				19.0	58	5	ENE	4		22.4	65	5	E	4		
13	Su	12.4	24.1	0.2	7.8				18.4	79	2	NE	4		18.8	81	7	ESE	4		
14	Mo	10.8	16.8	7.8	1.4				13.7	89	7	SSW	9		14.9	88	8	SE	9		
15	Tu	11.2	17.9	1.2	0.8				14.6	86	7	S	9		14.8	93	8	S	4		
16	We	11.6	18.2	1.6	2.4				14.6	82	8	SSW	4		17.1	71	7	S	9		
17	Th	11.8	19.1	5.2	1.4				14.8	98	8	SW	4								
18	Fr	12.9	16.8	0.6	1.2				15.9	90	8	S	4		16.0	86	8	S	4		
19	Sa	11.1	19.2	29.2	4.8				14.1	96	7	ENE	4		16.4	86	7	SSW	4		
20	Su	11.7	16.7	18.7	3.1				14.1	97	8	S	9		16.0	86	7	S	4		
21	Mo	13.2	16.0	17.4	3.2				13.8	99	8	S	4		15.7	91	8	S	4		
22	Tu	12.6	14.2	55.2	15.0				13.2	99	8	S	4		13.2	93	8	S	4		
23	We	12.4	17.1	32.4	15.2				13.7	94	8	SSE	9								
24	Th	12.6	17.9	16.0	1.2				14.0	97	8	S	9		15.4	98	8	SSE	4		
25	Fr	13.2	17.8	41.2	8.2				16.1	96	8	S	9		16.8	91	8	S	9		
26	Sa	10.3	22.7	24.4	14.1				15.3	85	2	WSW	9		21.3	57	3	WSW	4		
27	Su	14.8	25.1	0	3.6				20.2	44	3	NW	4		24.7	59	2	NW	19		
28	Mo	9.3	15.2	0	3.8				12.5	52	3	SW	19								
29	Tu	4.3	16.3	3.6	2.8				10.2	64	0	NW	9		14.9	40	0	SSW	4		
30	We	5.7	19.4	0	2.2				12.0	75	0	SW	4								
Statistics for April 2008																					
Mean		11.1	19.7		4.2				14.8	83	4		6		16.1	70	5		6		
Lowest		4.3	14.2		0.8				9.6	44	0	#	4		13.2	27	0	#	4		
Highest		16.7	27.0		55.2				20.2	99	8	#	19		24.7	98	8	SW	28		
Total				290.9	126.6																

Observations were drawn from Peats Ridge (Waralah Road) (station 061351)
The closest station with pressure observations is at Norah Head, about 32 km to the east. The closest station with sunshine observations is at Willamtown, about 82 km to the northeast.

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Gosford, New South Wales
April 2008 Daily Weather Observations



Date	Day	Temps		Rain mm	Evap mm	Sun hours	Max wind gust			9am					3pm							
		Min °C	Max °C				Dirn	Spd km/h	Time local	Temp °C	RH %	Cld eighths	Dirn	Spd km/h	MSLP hPa	Temp °C	RH %	Cld eighths	Dirn	Spd km/h	MSLP hPa	
1	Tu		24.4				SE	19	13:29	12.7	87			Calm		23.2	40		SE	11		
2	We	9.2	28.2	0			NNW	31	14:08	14.5	93			Calm		27.4	33		N	15		
3	Th	12.5	22.1	0			W	35	11:51	17.7	49			S 11		21.6	23		WNW	11		
4	Fr	5.7	21.1	0			SSE	20	13:22	13.6	48			ENE 6		20.1	39		SE	7		
5	Sa	6.2	22.1	0			SE	20	14:24	11.6	96			Calm		21.2	46		ESE	9		
6	Su	9.1	22.5	0			ESE	24	14:10	16.7	85			N 6		20.9	58		SE	13		
7	Mo	10.1	20.9	0.2			SE	24	11:05	17.7	90			S 7		17.3	96			Calm		
8	Tu	13.2	21.9	22.2			SSE	30	16:03	17.1	88			NNE 4		19.6	67		SE	13		
9	We	15.1	21.4	18.0			ENE	19	11:19	17.0	95			W 6		20.1	80		SSW	2		
10	Th	11.2	23.6	4.6			SE	20	13:07	18.3	84			SSE 2		22.4	58		SE	11		
11	Fr	9.8	23.5	0.2			SE	17	10:32	17.8	84			SSW 6		22.5	61		ESE	7		
12	Sa	9.0	24.3	0			S	13	14:13	16.8	90					23.5	67		ESE	7		
13	Su	10.6	23.4	0.2			SSE	28	14:21	18.1	86			Calm		17.2	82		SE	7		
14	Mo	12.6	18.8	2.6			SE	31	12:59	15.3	85			NNW 6		16.9	80		SSE	7		
15	Tu	11.3	19.5	3.4			SE	28	13:59	16.8	84			SSE 6		16.7	82		S	2		
16	We	13.3	20.3	5.6			SE	28	14:50	17.3	77			WNW 7		18.4	68		SSE	15		
17	Th	12.9	21.2	6.2			SSE	24	13:34	16.3	96			N 2		19.5	67		SSE	9		
18	Fr	13.8	18.7	1.0			SSE	26	23:13	18.1	81			WNW 4		17.7	82		SSE	6		
19	Sa	13.8	21.5	16.8			ESE	37	14:29	17.1	86			SSE 9		19.1	63		SE	17		
20	Su	12.3	19.0	21.4			SSE	24	11:25	15.9	99			SSE 7		18.1	74		SE	11		
21	Mo	14.2	18.1	20.0			SSE	20	15:03	15.2	98			NNW 4		17.8	84		SE	9		
22	Tu	14.2	16.5	50.8			SSE	26	09:20	15.0	99			ENE 2		14.3	96		S	4		
23	We	13.1	18.9	26.0			E	50	05:26	16.4	87			SE 4		16.7	91		SSW	2		
24	Th	14.3	20.1	9.6			SSE	26	12:43	16.6	96			SSE 6		17.5	96		SSE	9		
25	Fr	15.6	20.5	32.6			SSE	31	13:23	17.6	95			SE 9		19.4	75		SSE	11		
26	Sa	11.0	24.2	6.6			N	17	09:22	17.2	74			N 9		23.4	47		NW	6		
27	Su	9.1	27.0	0.2			N	35	22:31	19.2	59			N 9		26.4	28		N	15		
28	Mo	11.2	17.2	0			N	35	13:57	14.1	48			WNW 11		16.6	37		NW	11		
29	Tu	5.0	18.2	1.4			NW	24	01:30	12.8	53			NW 11		17.8	33		SW	4		
30	We	4.2	20.3	0			NW	19	11:58	13.1	73			Calm		18.5	48		NE	7		
Statistics for April 2008																						
Mean		11.2	21.3							16.1	82			5		19.7	63			8		
Lowest		4.2	16.5							11.6	48			Calm		14.3	23			Calm		
Highest		15.6	28.2	50.8			E	50		19.2	99			# 11		27.4	96		SE	17		
Total				251.6																		

Observations were drawn from Gosford (Narara Research Station) AWS (station 061087)

The closest station with pressure observations is at Norah Head about 27 km to the northeast. The closest station with cloud and evaporation data is at Peats Ridge about 15 km to the northwest. The closest station with sunshine observations is at Sydney Airport about 59 km to the south.

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