

Mt Arthur Coal Community Consultative Committee

Planned meeting date:

14 February 2024

Information provided:

1 Oct 2023 to 31 Dec 2023

Environmental Management

FY24 Rehabilitation Update



The rehabilitation target for the FY24 year is 145ha. 8ha of the OOPD was topsoiled and seeded with a pasture species mix during the reporting period. Bulk shaping in at the Visual Dump 5 (VD5) was ongoing throughout the reporting period.

Land Management

Weed treatment continues to focus on the species within the table below. MAC has been in contact with local weed management officials to ensure there is alignment on focus species. Work in the following areas was completed during the reporting period:

- Drayton Void – *Acacia saligna* removed and coolatai grass sprayed
- VD4/5 – exotic grasses, inkweed, galenia and box thorn sprayed
- OOPD – follow up spraying of exotic grasses
- VD1 – slashing and spraying of exotic grasses
- CD1 – coolatai grass sprayed

Species	Common Name
<i>Acacia saligna</i>	Western Australian golden wattle
<i>Galenia pubescens</i>	Galenia (Carpet Weed)
<i>Hyparrhenia hirta</i>	Coolatai Grass
<i>Lycium ferocissimum</i>	African Box Thorn
<i>Phytolacca octandra</i>	Inkweed

Environmental Performance

Air Quality Monitoring (1 October 2023 to 31 December 2023)

- This paper covers the performance of all six statutory PM10 monitoring sites using TEOMs, and the two dust deposition gauges.

During the reporting period, the absolute impact assessment criteria was exceeded 31 times at statutory TEOM monitoring sites over 18 days. However, MAC contribution PM10 levels remained below limit. Further information provided on the Section *Environmental Incidents*.

All exceedances recorded were notified to the Department of Planning, Housing and Infrastructure (NSW Planning) (previous Department of Planning and Environment) as per Project Approval. NSW Planning has closed out all those events, requiring no further actions.

- 2 October at Roxburgh Rd – DC05, Edderton Rd – DC06, Antiene – DC07 and Wellbrook – DC09
 - 10 October at Roxburgh Rd – DC05
 - 15 October at Edderton Rd – DC06
 - 16 October at Sheppard Avenue – DC02 and Wellbrook – DC09
 - 21 October at Roxburgh Rd – DC05 and Wellbrook – DC09
 - 22 October at Sheppard Avenue – DC02 and South Muswellbrook – DC04
 - 25 October at South Muswellbrook – DC04, Edderton Rd – DC06 and Antiene – DC07
 - 13 November at Roxburgh Rd – DC05
 - 6 December at Roxburgh Rd – DC05 and Wellbrook – DC09
 - 7 December at Roxburgh Rd – DC05
 - 9 December at Roxburgh Rd – DC05
 - 10 December at Roxburgh Rd – DC05
 - 11 December at Roxburgh Rd – DC05 and Wellbrook – DC09
 - 12 December at Roxburgh Rd – DC05
 - 15 December at Roxburgh Rd – DC05
 - 17 December at Roxburgh Rd – DC05
 - 18 December at Roxburgh Rd – DC05 and Edderton Rd – DC06
 - 19 December at Roxburgh Rd – DC05, Edderton Rd – DC06 and Wellbrook – DC09
- Over 95% of dust data captured from all six statutory PM10 monitoring sites during the reporting period. Uptime percentages have continued to improve on the back of several improvement initiatives including the purchase of new TEOMs, UPS battery units & communication loggers.

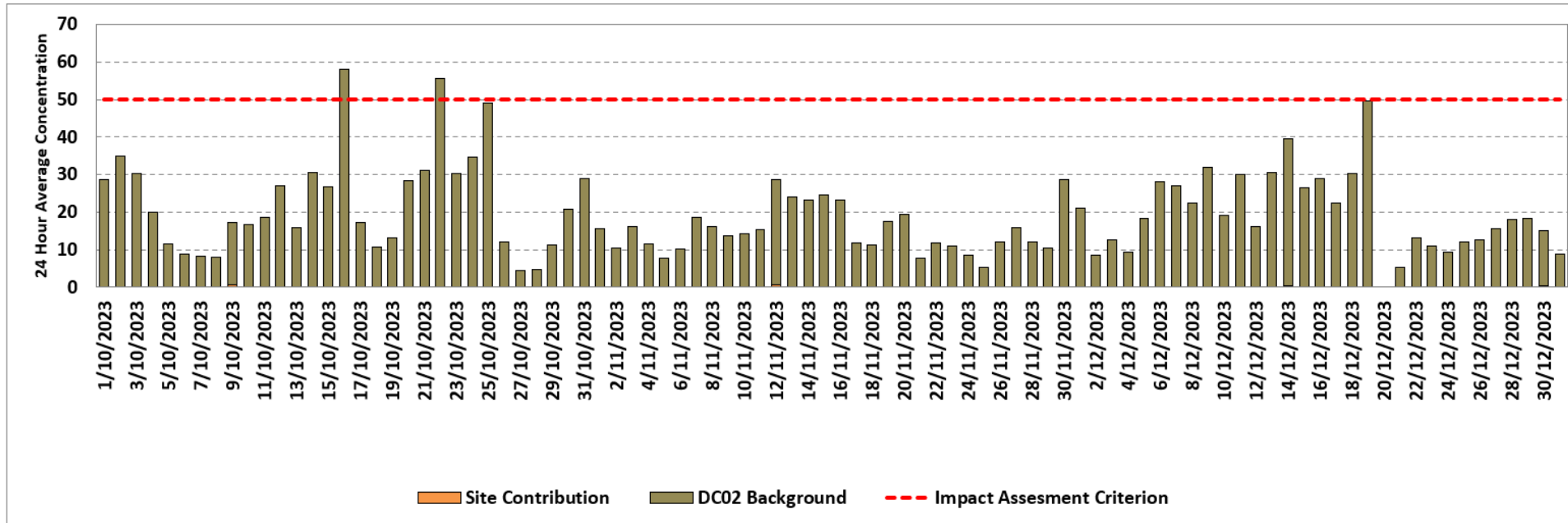
Table 1. Equipment Performance Summary

Site	Date/s	Reason
DC02	20/12/2023	During the period listed <75% data captured due to power or equipment connectivity issues.
DC05	27/11/2023, 28/11/2023, 20/12/2023	During the period listed <75% data captured due to equipment connectivity issues.
DC07	27/12/2023	During the period listed <75% data captured due to power or equipment connectivity issues.

- A guide has been provided at the end of this section to assist in the interpretation of the results and figures. The figures within this section have been developed in line with consultation with members of the CCC.

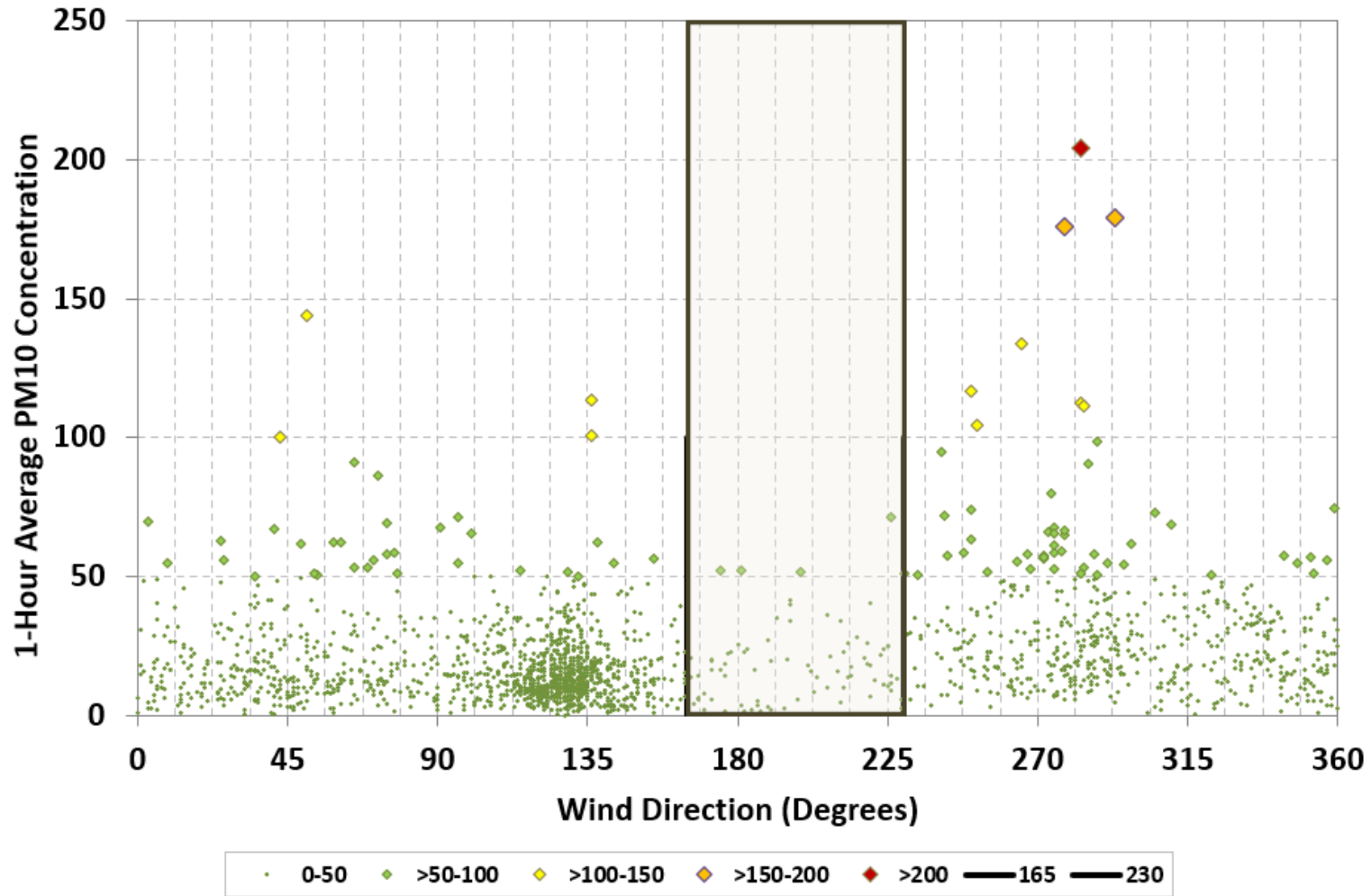
Sheppard Avenue – DC02

Data capture – 98.91%



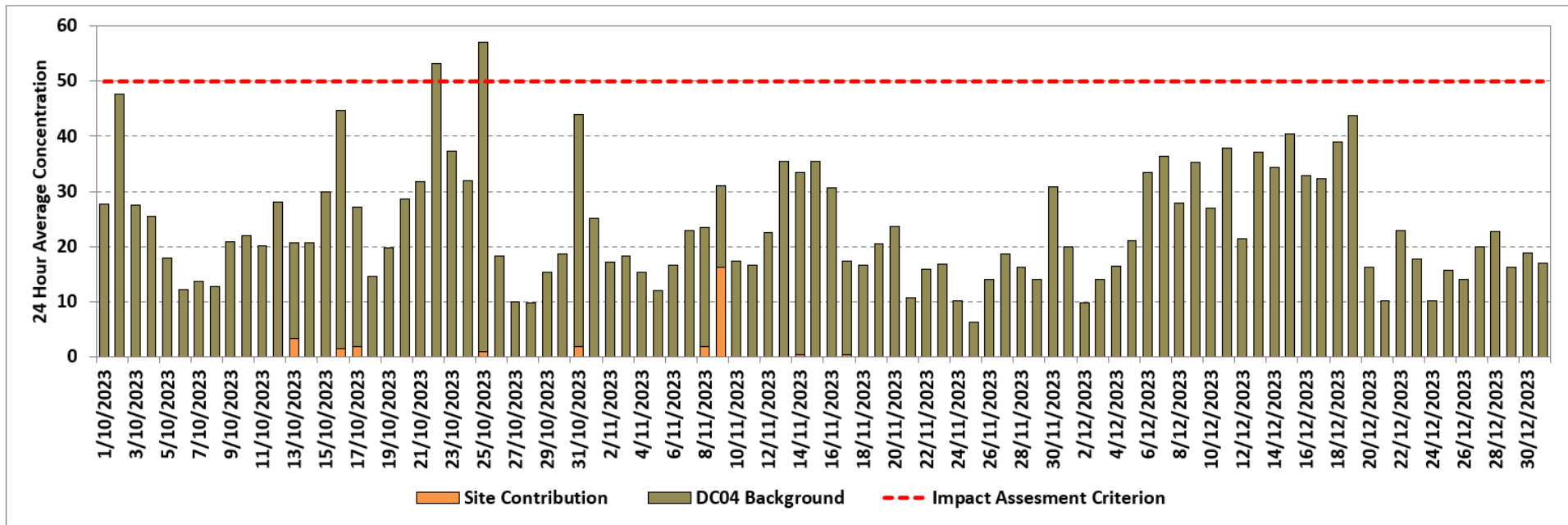
Sheppard Avenue – DC02

DC02



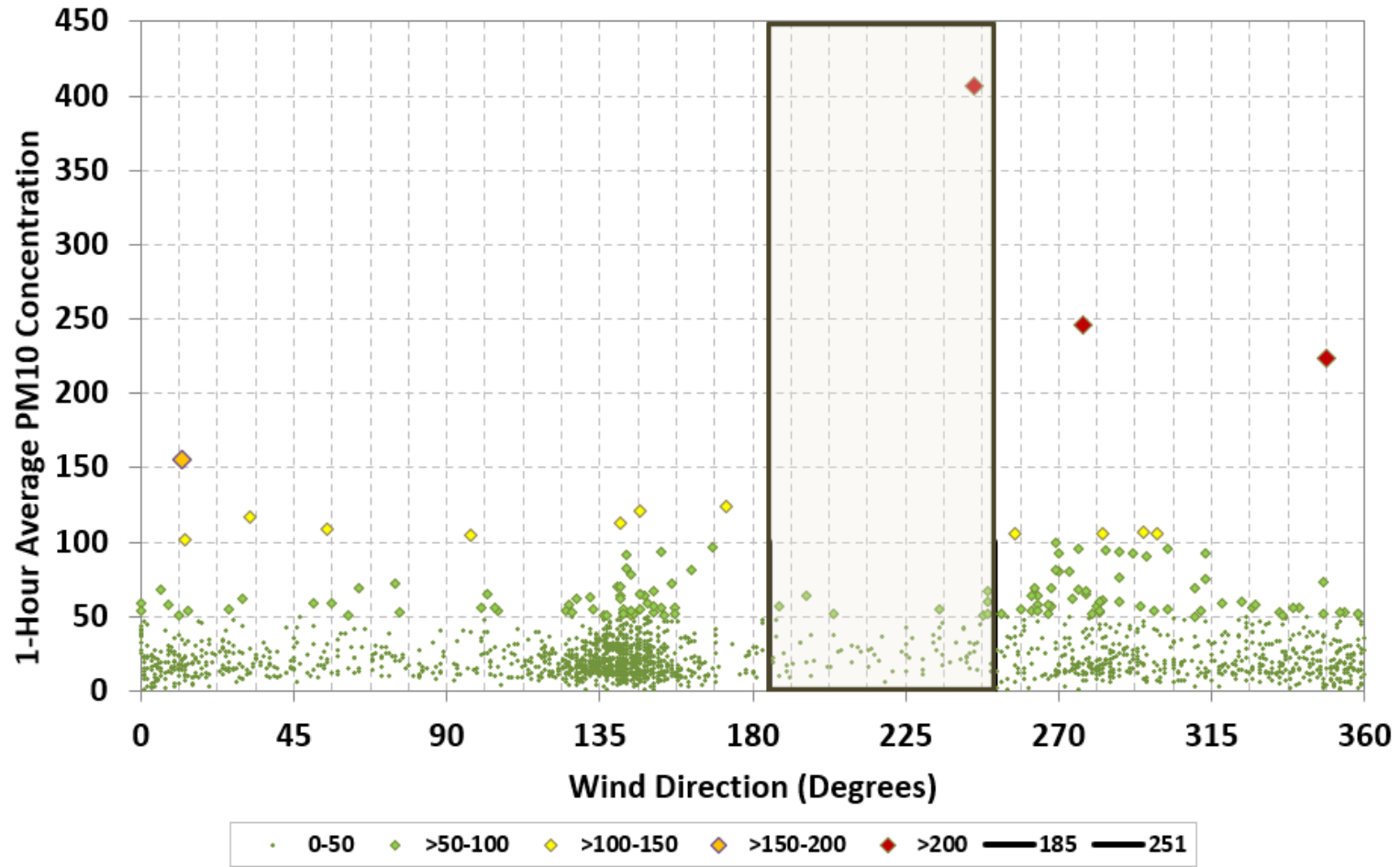
South Muswellbrook – DC04

Data capture – 100%



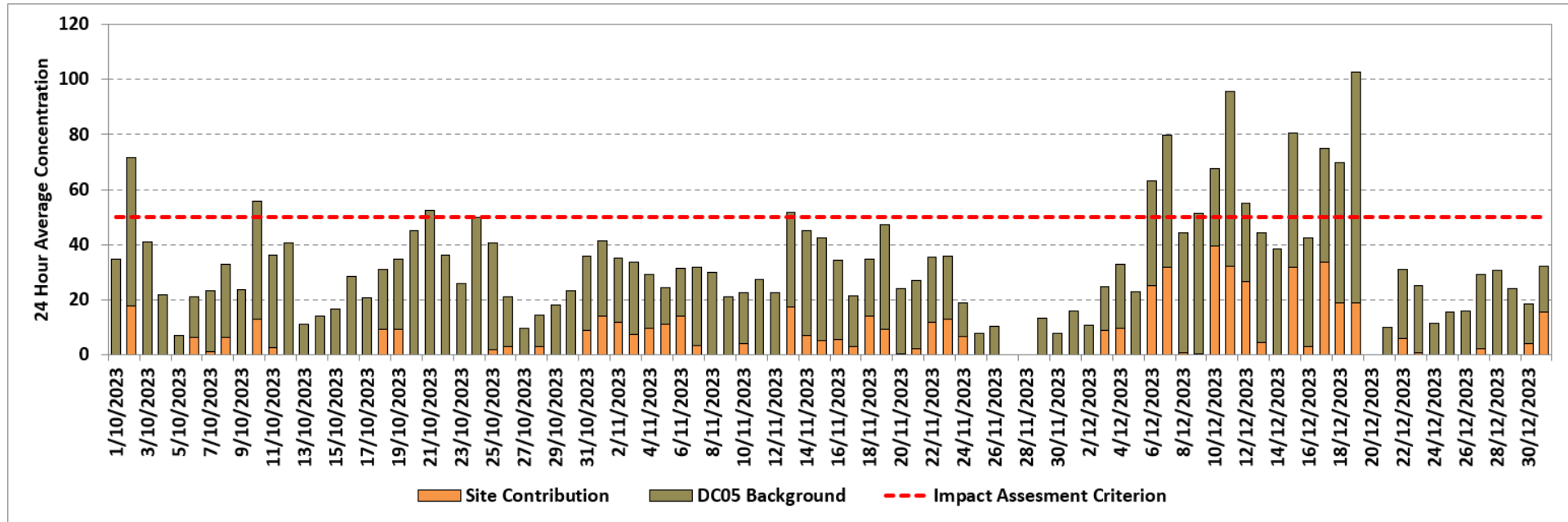
South Muswellbrook – DC04

DC04

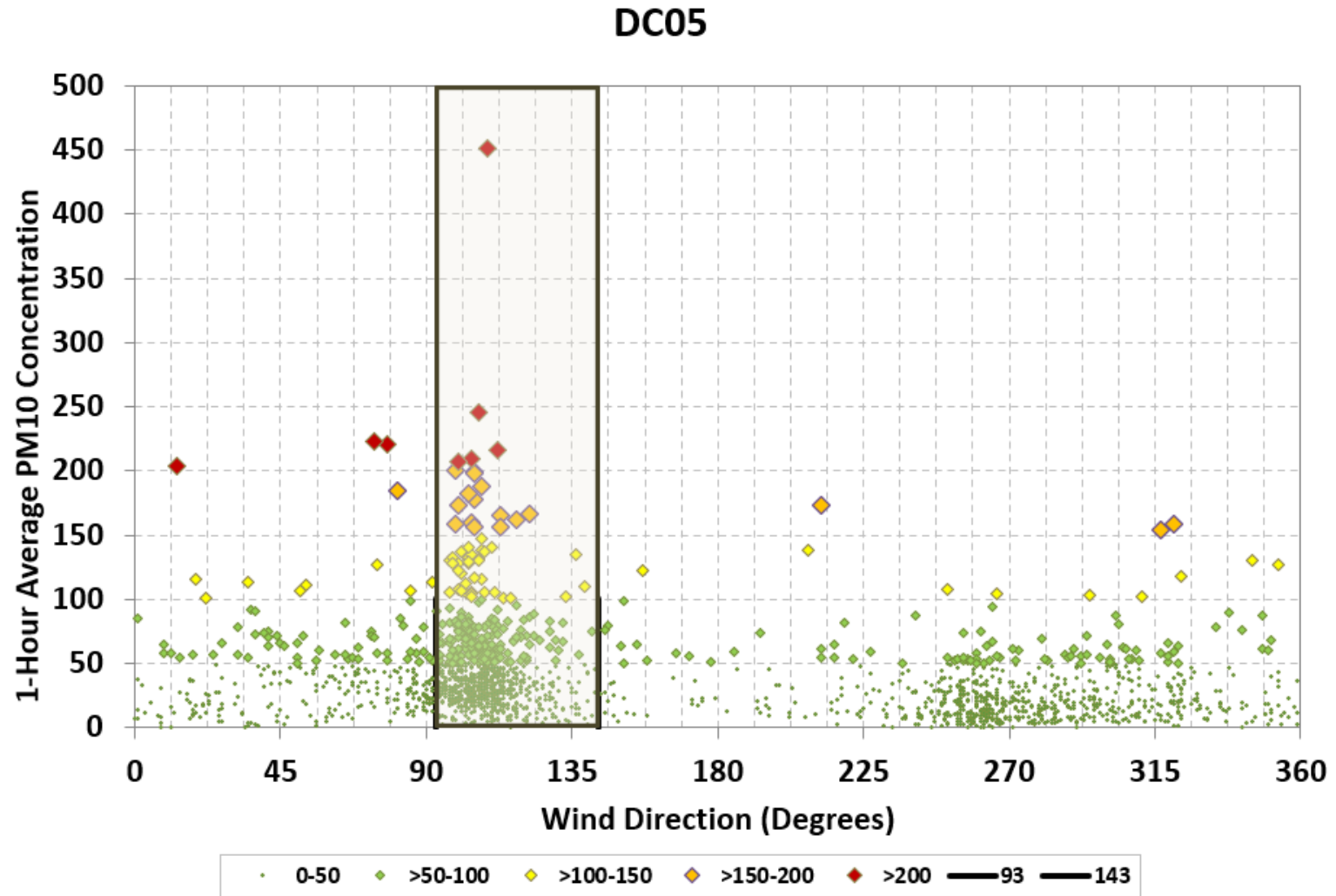


Roxburgh Road – DC05

Data capture – 96.74%

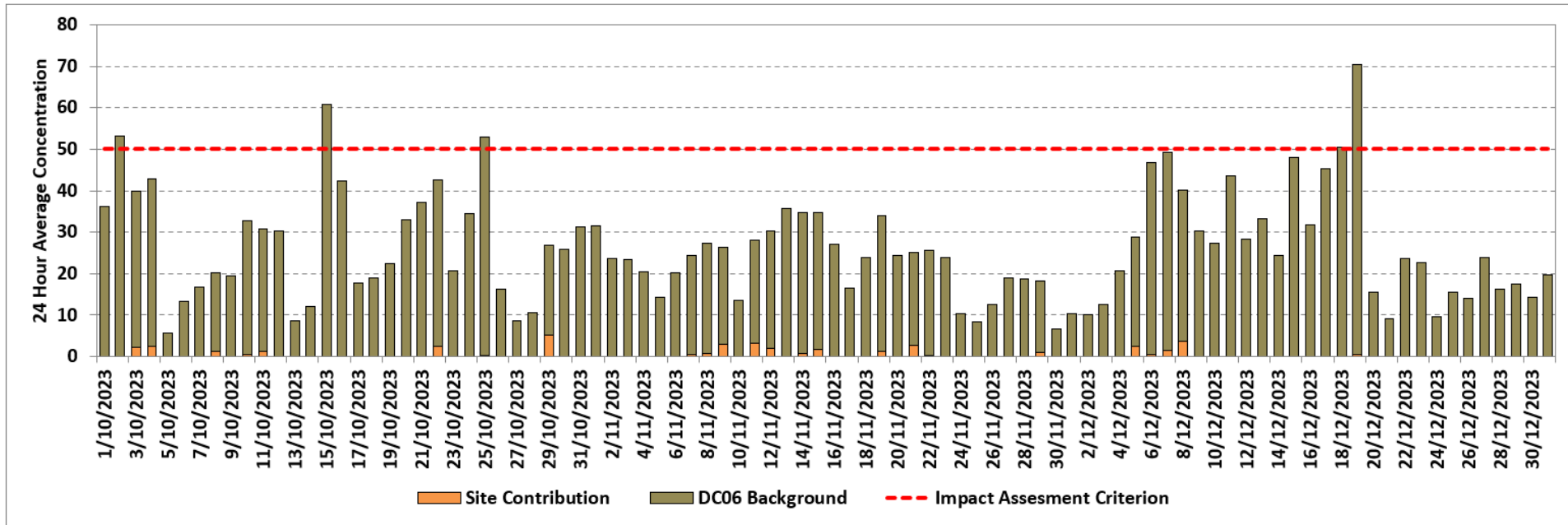


Roxburgh Road – DC05

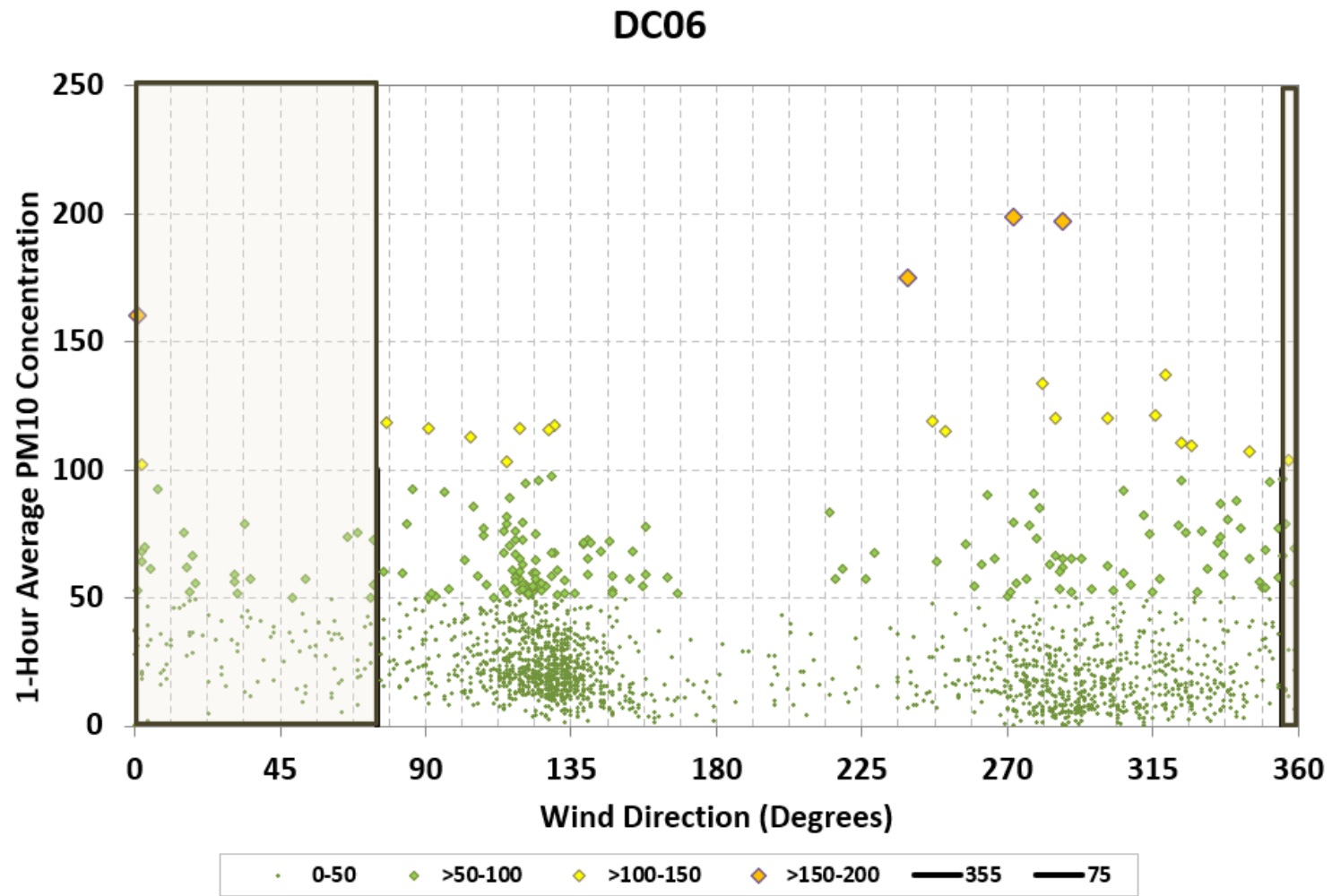


Edderton Homestead - DC06

Data capture – 100%

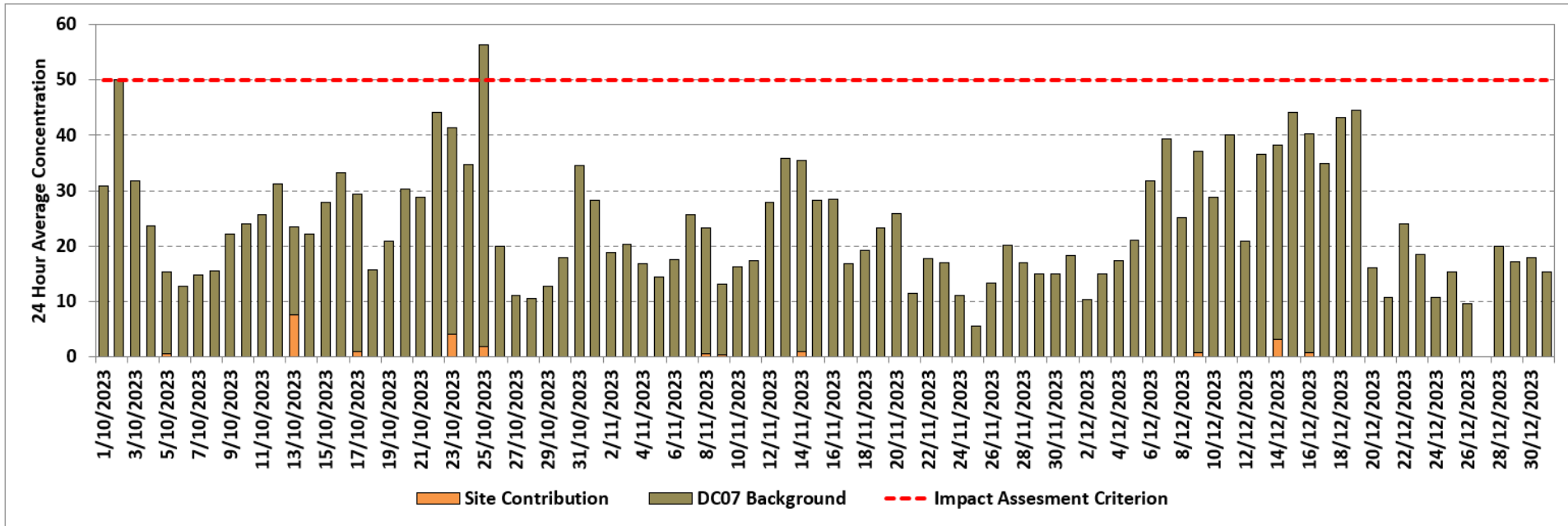


Edderton Homestead - DC06



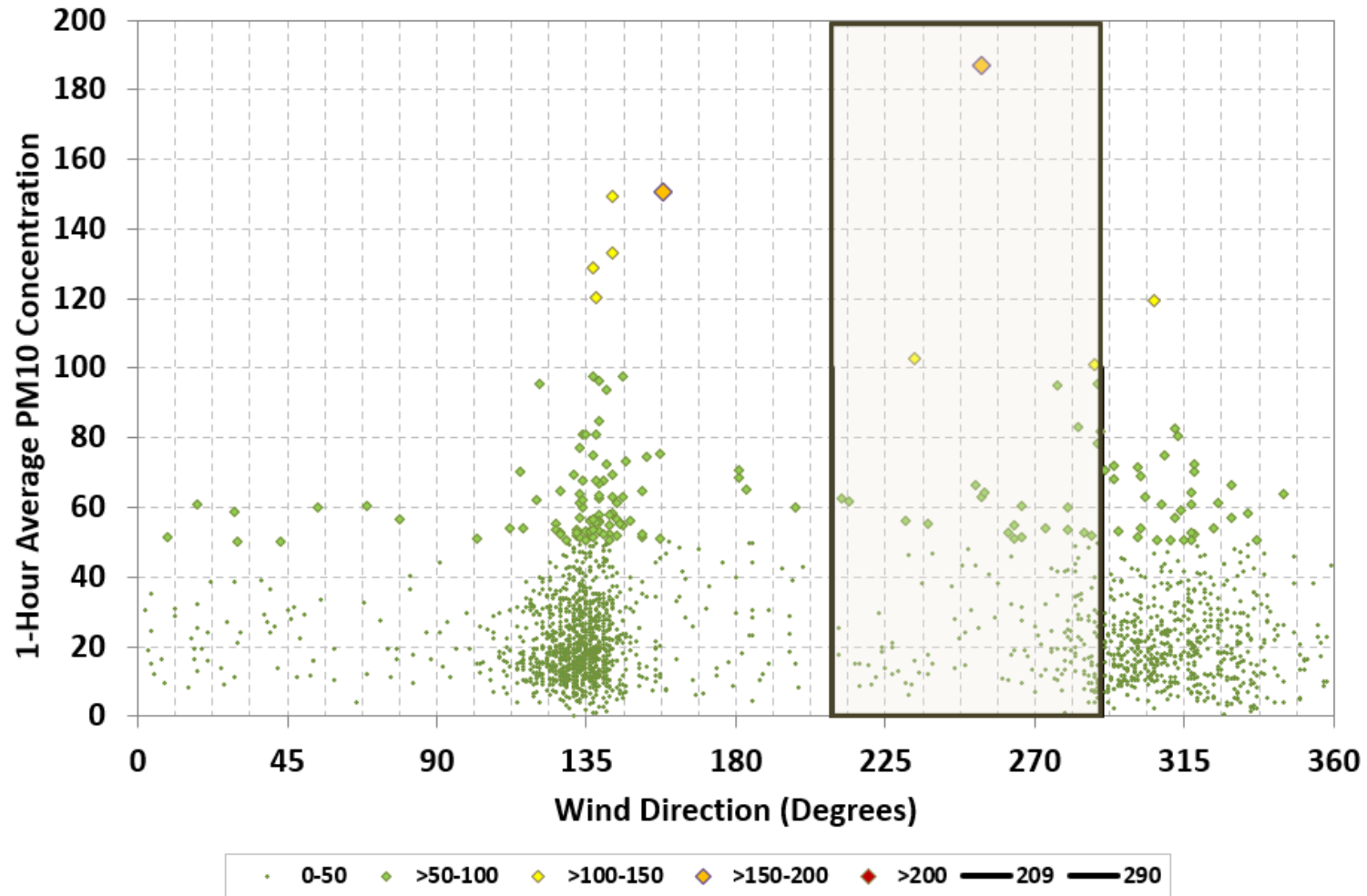
Antiene - DC07

Data capture – 98.91%



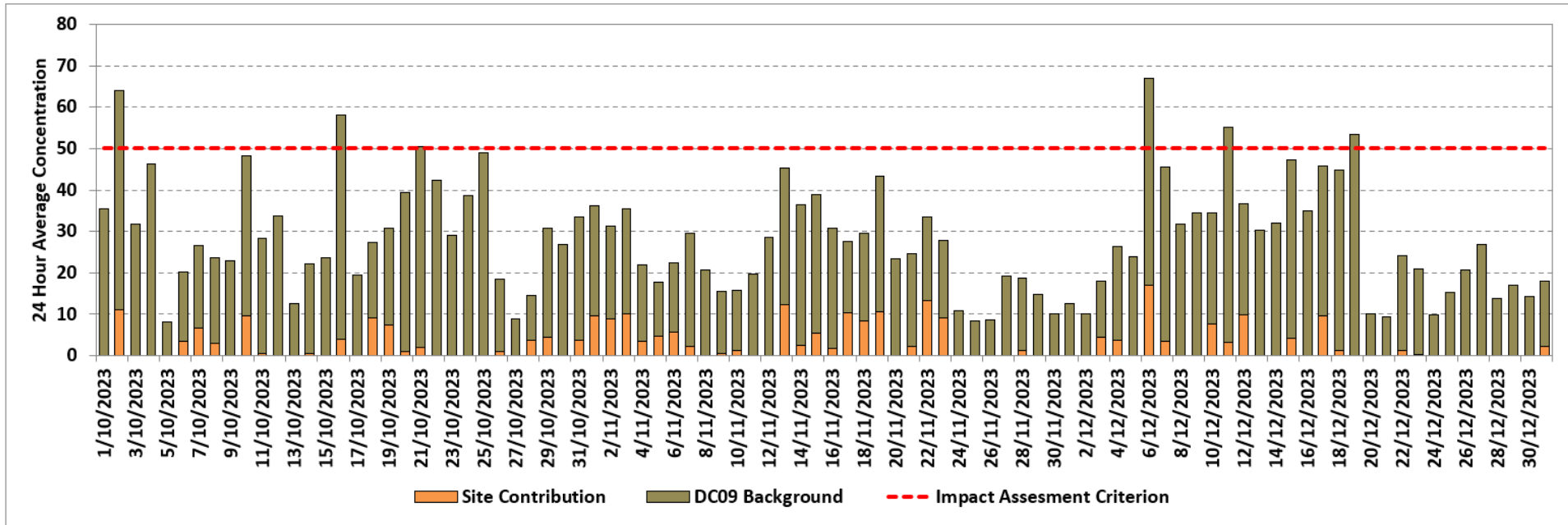
Antiene - DC07

DC07

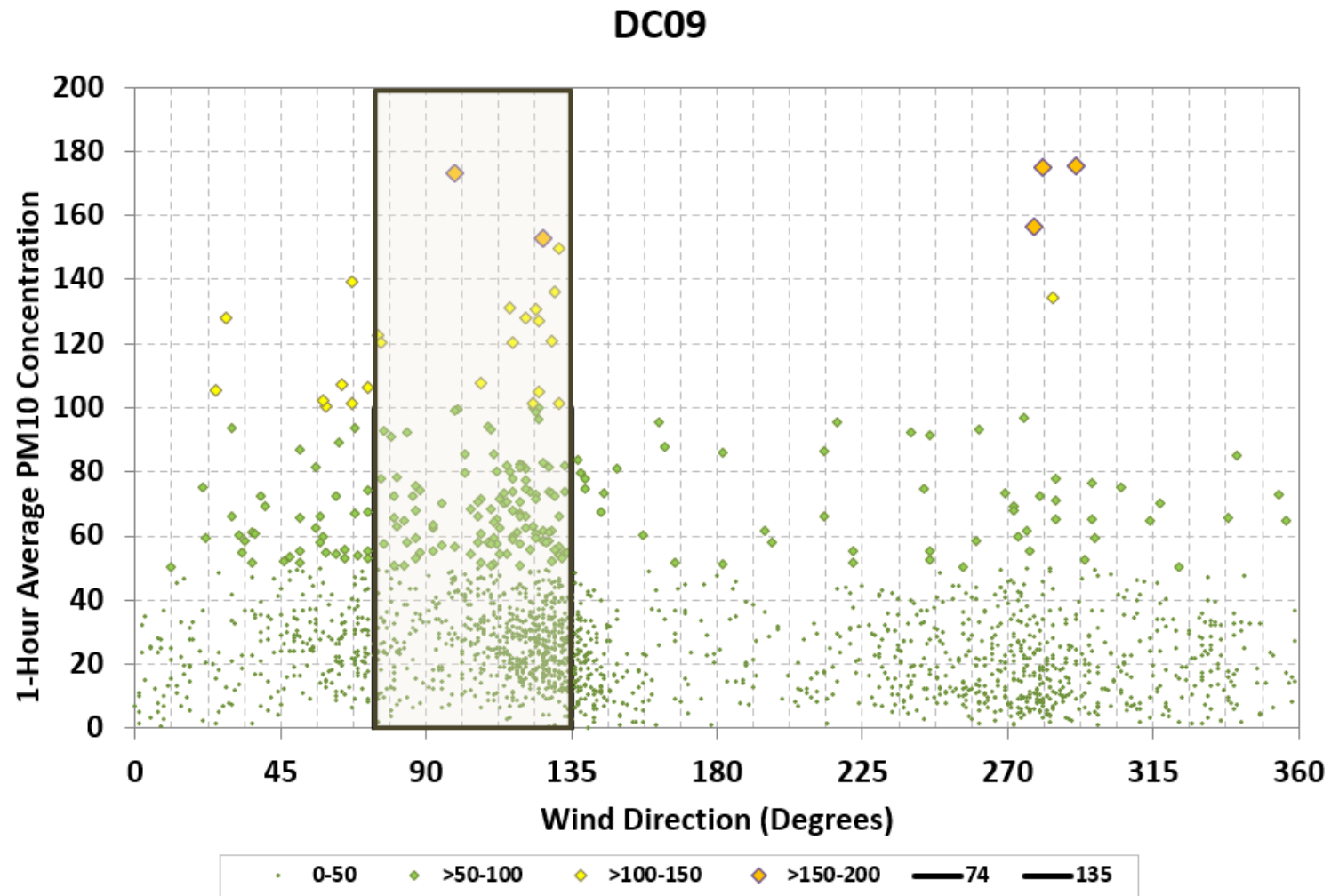


Wellbrook – DC09

Data capture – 100%

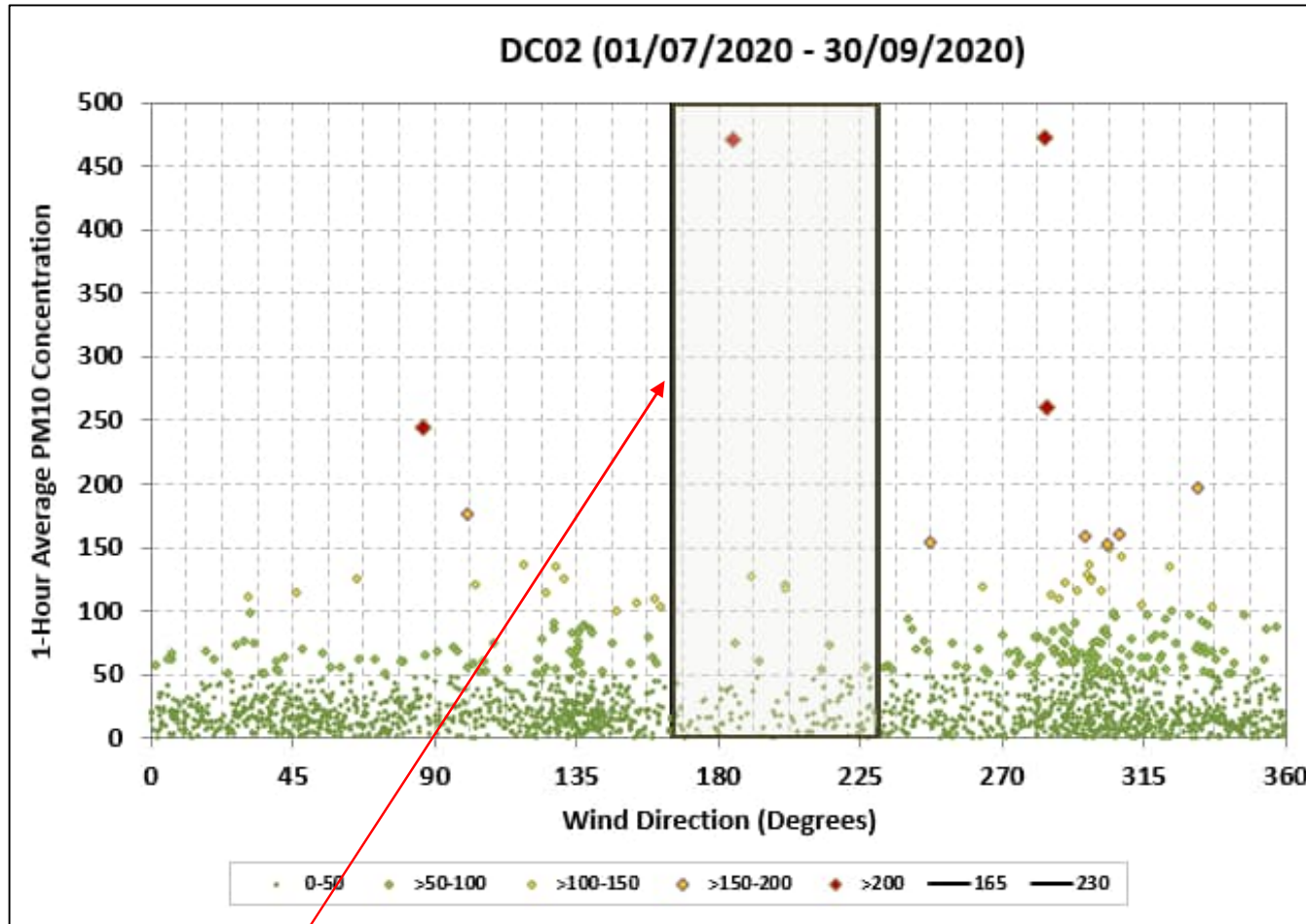


Wellbrook – DC09



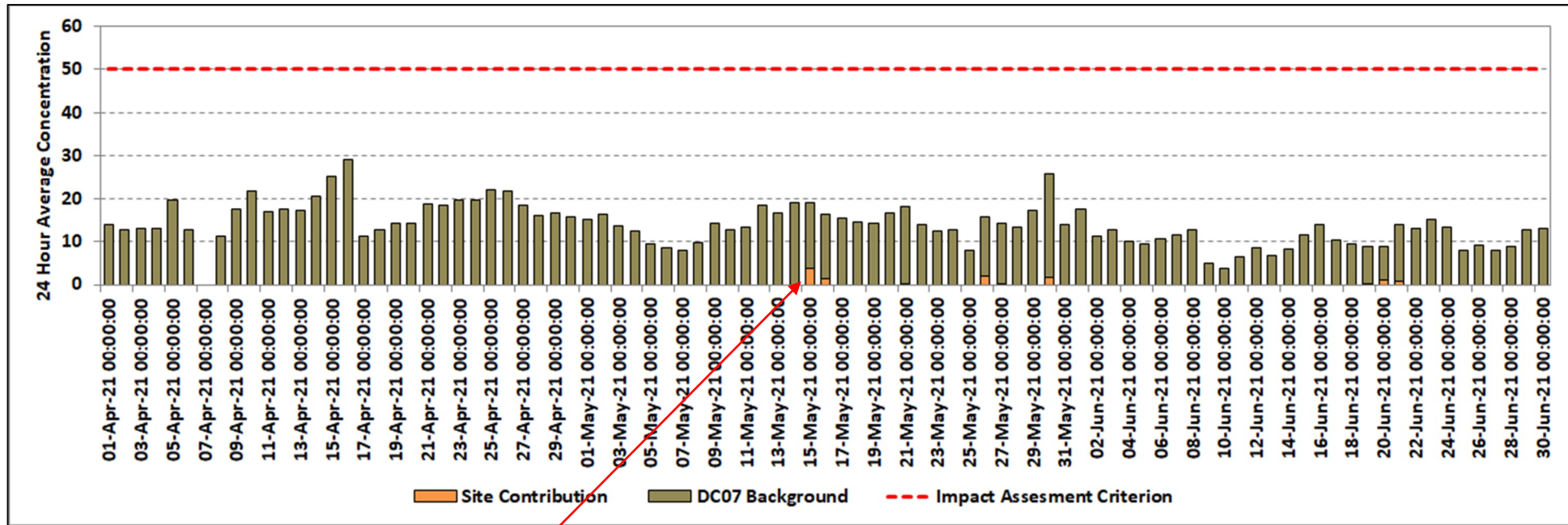
Air Quality Monitoring Interpretation Guidance

This information has been provided to assist with the interpretation of the air quality monitoring results and figures within this report.



This graphic shows the window where the Mt Arthur Coal contribution is at risk of influencing the DC02 dust monitor based on the wind direction. This window can be referred to as the Arc of Influence. All 1- Hour Average Concentrations have been plotted for the reporting period to give an indication of Mt Arthur's influence on DC02.

Air Quality Monitoring Interpretation Guidance continued

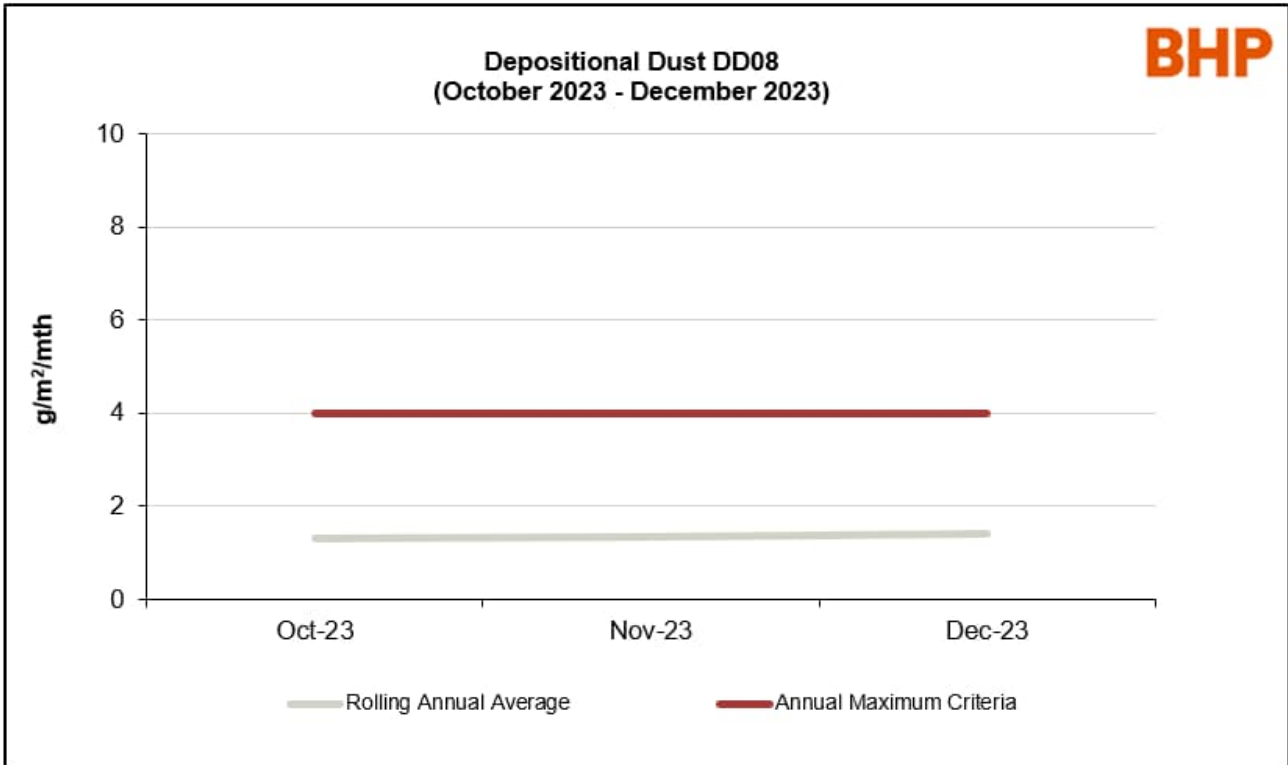


This graphic shows the cumulative Daily 24hr PM10 concentrations along with the incremental Mt Arthur Coal concentrations. This example shows that the cumulative 24hr concentration ('Background') of approximately 20 $\mu\text{g}/\text{m}^3$; the Mt Arthur incremental concentration ('Site Contribution') is represented by the orange coloured portion.

Deposited Dust

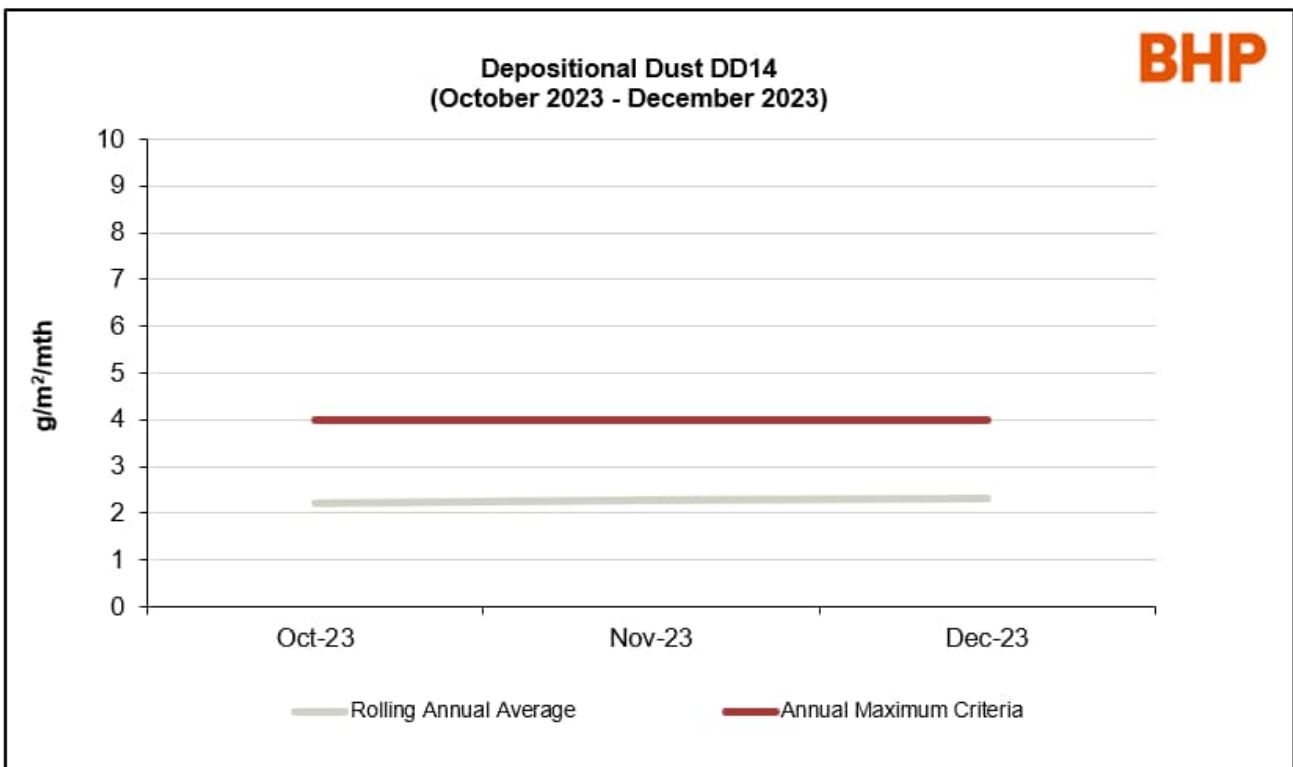
DD08

Data capture – 100%



DD14

Data capture – 100%



Water Monitoring (1 October 2023 to 31 December 2023)*Groundwater*

Groundwater monitoring was undertaken in December 2023 with results currently being analysed. Results from the December 2023 monitoring round will be communicated at the next CCC. The groundwater monitoring that was undertaken in September 2023 has been analysed with no exceedances of the criteria detected.

Surface water

Surface water monitoring was conducted monthly during the three-month period. An exceedance of Electrical Conductivity (EC) was recorded at SW12 monitoring site during the November and December 2023 monitoring rounds. The two consecutive exceedances of EC triggered the notification to the DPE, followed by an investigation into the exceedances. This investigation report satisfied the reporting requirements of the consent and the approved WMP, with DPE advising that no further information or action is required.

Blast Monitoring (1 October 2023 to 31 December 2023)

There were no exceedances of the upper or lower vibration limits during the reporting period.

There were three exceedances of the lower overpressure limit of 155dBL reported on:

- Thursday 5 October 2023, 11:10am at the Denman Road West Monitor (118.5dBL);
- Saturday 4 November 2023, 3:29pm at the Balmoral Road Monitor (115.3dBL); and
- Thursday 21 December 2023, 3:55pm at the Edinglassie Monitor (119.4dBL).

No complaints were received for these events.

Noting that a number of shots exceeding the lower limit were investigated by third party consultant (Terrock Consulting Engineers). The investigations reported results at Denman Road West (5 October 23) and Balmoral Road (4 November 2023) monitors were wind affected and accurate airblast overpressure results for the blasts would have been below the lower limit (97.0dBL and 109.5dBL, respectively).

An investigation was also conducted on the blast event that reported two exceedances of the lower limit which was reported during the Q1 meeting. The investigation also reported the results were wind affected and accurate airblast overpressure results for the blasts would have been below the lower limit.

Note that exceedances of the lower limit are within the 5% of allowable exceedances for FY24 and not considered an environmental incident.

There were no exceedances of the upper overpressure limit.

Operational Noise Monitoring (1 October 2023 to 31 December 2023)

Monthly night-time compliance monitoring (attended) was completed to schedule by MAC's external expert consultant. MAC is not informed of when this monitoring is scheduled for completion to ensure there is a true representation of operational activities on any given night.

There were no exceedances of the threshold levels reported for any noise monitoring locations during the reporting period.

Environmental Incidents (1 October 2023 to 31 December 2023)

Environmental Protection Licence (EPL) Annual Return <95% Data Capture

Over resulted in a non-compliance to Condition M9.6 of the EPL. the 2023 Annual Return reporting period, HVEC captured less than 95% of the required monitoring data from EPL Monitoring Points 13 and 14, 89.9% and 94.8% respectively which

There was no environmental harm caused due to this incident and no action has been proposed to the EPA. HVEC currently undertakes daily system checks on the air quality monitoring units and regular maintenance and calibrations are also carried out in accordance with the manufacturer's specifications. In addition to this, during the reporting period seven new TEOMs were installed to replace old equipment and eleven new UPA battery units were installed to improve data capture during periods of power interruption.

Surface Water Exceedance

There was one occurrence within the reporting period whereby a surface water monitoring site (SW12) exceeded the electrical conductivity (EC) Stage 2 trigger level. This event was investigated accordingly, resulting in the determination that MAC operations was not a contributing factor. It was deemed that the current period of low rainfall, and subsequent low/absent flow events were contributing factors to the elevated EC levels at SW12. The investigation was provided to the DPE with the event closed out and no further action required.

Date	Monitoring Location	Details
18/12/2023	SW12 - Surface Water	Stage 2 trigger level for electrical conductivity (EC) for two consecutive monitoring rounds. Investigation determined that low rainfall (absent flow events) and regional geology all contributed to elevated EC levels. Exceedance was unrelated to mining activities.

Dust Level Exceedances

HVEC recorded 31 exceedances of the impact assessment criteria on 18 separate days throughout the period. Detailed investigation reports were provided to DPE after each exceedance which outlined the project's contribution and the actions taken by the operation in line with the MAC Air Quality Management Plan. The table below provides a summary of each exceedance.

Date	Site	Absolute PM10 level (24-hr average µg/m3)	MAC Contribution (24-hr average µg/m3)	Other details
02/10/2023	DC05	71.7	20.5	No complaints. Appropriate actions taken by OCEs. Exceedance report closed out by the DPE with no further information required.
	DC06	53.1	2	
	DC07	50	0	
	DC09	64.1	13	
10/10/2023	DC05	55.6	24.6	No complaints. Appropriate actions taken by OCEs. Exceedance report closed out by the DPE with no further information required.
15/10/2023	DC06	60.8	25.8	No complaints. Appropriate actions taken by OCEs. Exceedance report closed out by the DPE with no further information required.
16/10/2023	DC02	58	13.3	Appropriate actions taken by OCEs. Exceedance report closed out by
	DC09	58	13.3	

				the DPE with no further information required.
21/10/2023	DC05	52.5	8.8	No complaints. Appropriate actions taken by OCEs. Exceedance report closed out by the DPE with no further information required.
	DC09	50.4	6.8	
22/10/2023	DC02	55.6	8.2	No complaints. Appropriate actions taken by OCEs. Exceedance report closed out by the DPE with no further information required.
	DC04	53.2	5.8	
25/10/2023	DC04	57	3.3	No complaints. Appropriate actions taken by OCEs. Exceedance report closed out by the DPE with no further information required.
	DC06	52.9	0	
	DC07	56.3	2.6	
13/11/2023	DC05	51.8	17.5	No complaints. Appropriate actions taken by OCEs. Exceedance report closed out by the DPE with no further information required.
06/12/2023	DC05	63.2	25.3	No complaints. Appropriate actions taken by OCEs. Exceedance report closed out by the DPE with no further information required.
	DC09	67	17.1	
07/12/2023	DC05	79.6	31.8	No complaints. Appropriate actions taken by OCEs. Exceedance report closed out by the DPE with no further information required.
09/12/2023	DC05	51.5	0.5	No complaints. Appropriate actions taken by OCEs. Exceedance report closed out by the DPE with no further information required.
10/12/2023	DC05	67.6	39.4	No complaints. Appropriate actions taken by OCEs. Exceedance report closed out by the DPE with no further information required.
11/12/2023	DC05	95.7	32.1	No complaints. Appropriate actions taken by OCEs. Exceedance report closed out by the DPE with no further information required.
	DC09	55.1	3.2	
12/12/2023	DC05	55	26.7	No complaints. Appropriate actions taken by OCEs. Exceedance report closed out by the DPE with no further information required.
15/12/2023	DC05	80.5	31.6	No complaints. Appropriate actions taken by OCEs. Exceedance report closed out by the DPE with no further information required.
17/12/2023	DC05	74.8	33.5	No complaints. Appropriate actions taken by OCEs. Exceedance report closed out by the DPE with no further information required.
18/12/2023	DC05	69.7	18.9	No complaints. Appropriate actions taken by OCEs. Exceedance report closed out by the DPE with no further information required.
	DC06	50.5	0.1	
19/12/2023	DC05	102.5	18.7	No complaints. Appropriate actions taken by OCEs. Exceedance report closed out by the DPE with no further information required.
	DC06	70.3	0.6	
	DC09	53.5	0	

Environmental Reporting (1 October 2023 to 31 December 2023)

Monthly Reporting

Historical information and reporting is available to view on the BHP website using the following link:

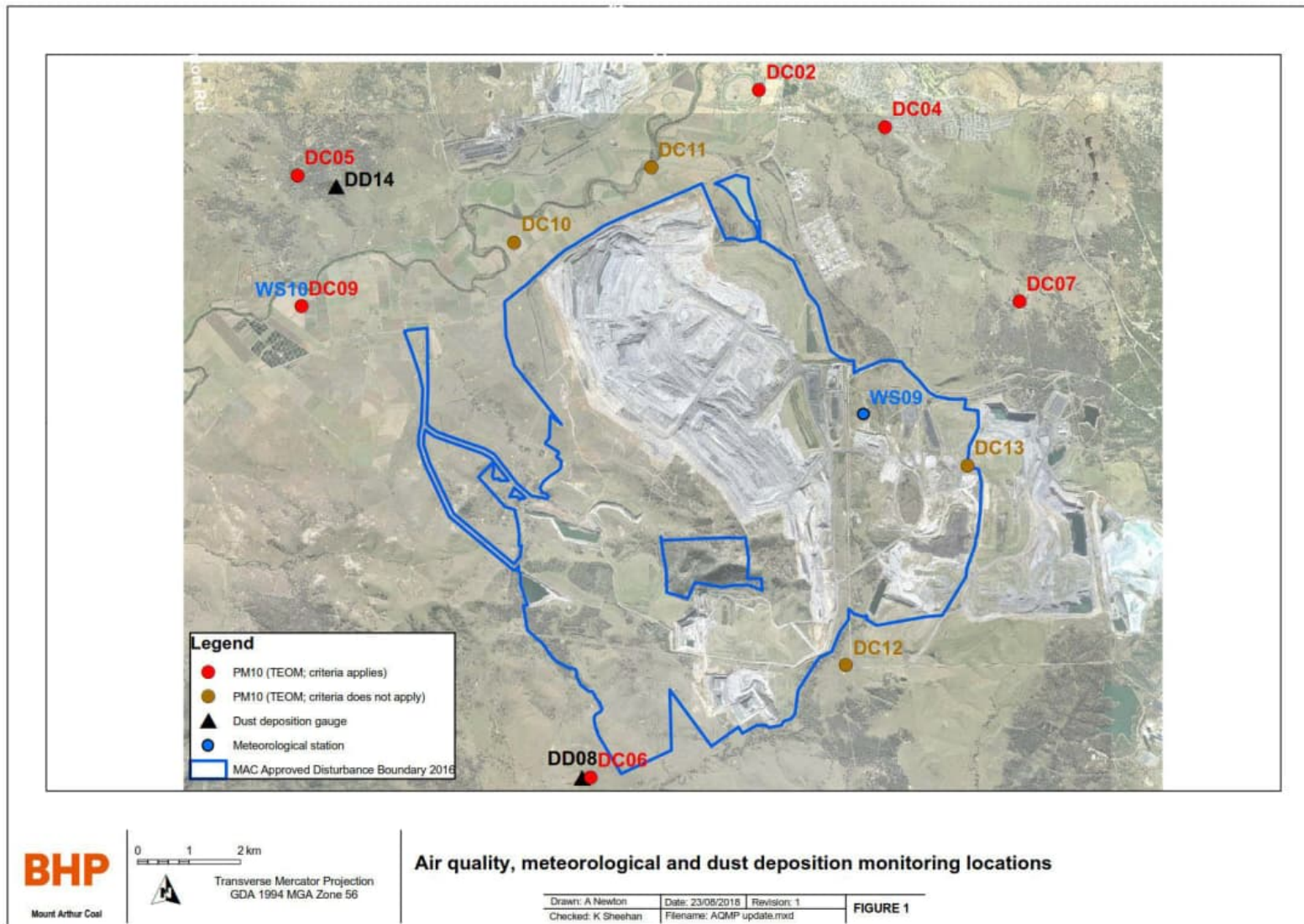
<https://www.bhp.com/sustainability/environment/regulatory-information>

EPA Site Inspections

The EPA conducted two on-site inspections during the reporting period, approximately 8 weeks apart, with the focus on bunding for Intermediate-Bulk Containers (IBCs), the workshop area, and the generation of dust. During the second site visit (1 December 2023), the EPA were unsatisfied with the drainage pits within the workshop area, with some pits partially clogged with dried dirt and workshop related rubbish. Subsequently, a Warning Letter was issued by the EPA on 19 January 2024 in relation to the partially blocked drainage pits. The EPA does not propose to take enforcement action on this occasion. A review of internal processes confirmed that drains do receive sediment from washdown activities after maintenance work is finished. This practice is required to ensure the workshop surface is clean and safe to work on. The drains are then inspected on established schedule and cleaned when required. There was no risk to the environment as the drains report to oily water separators within the main washdown facility.

Environmental Monitoring Plans (for reference)

Air Quality and Meteorological Monitoring Locations (Source: Air Quality Management Plan)

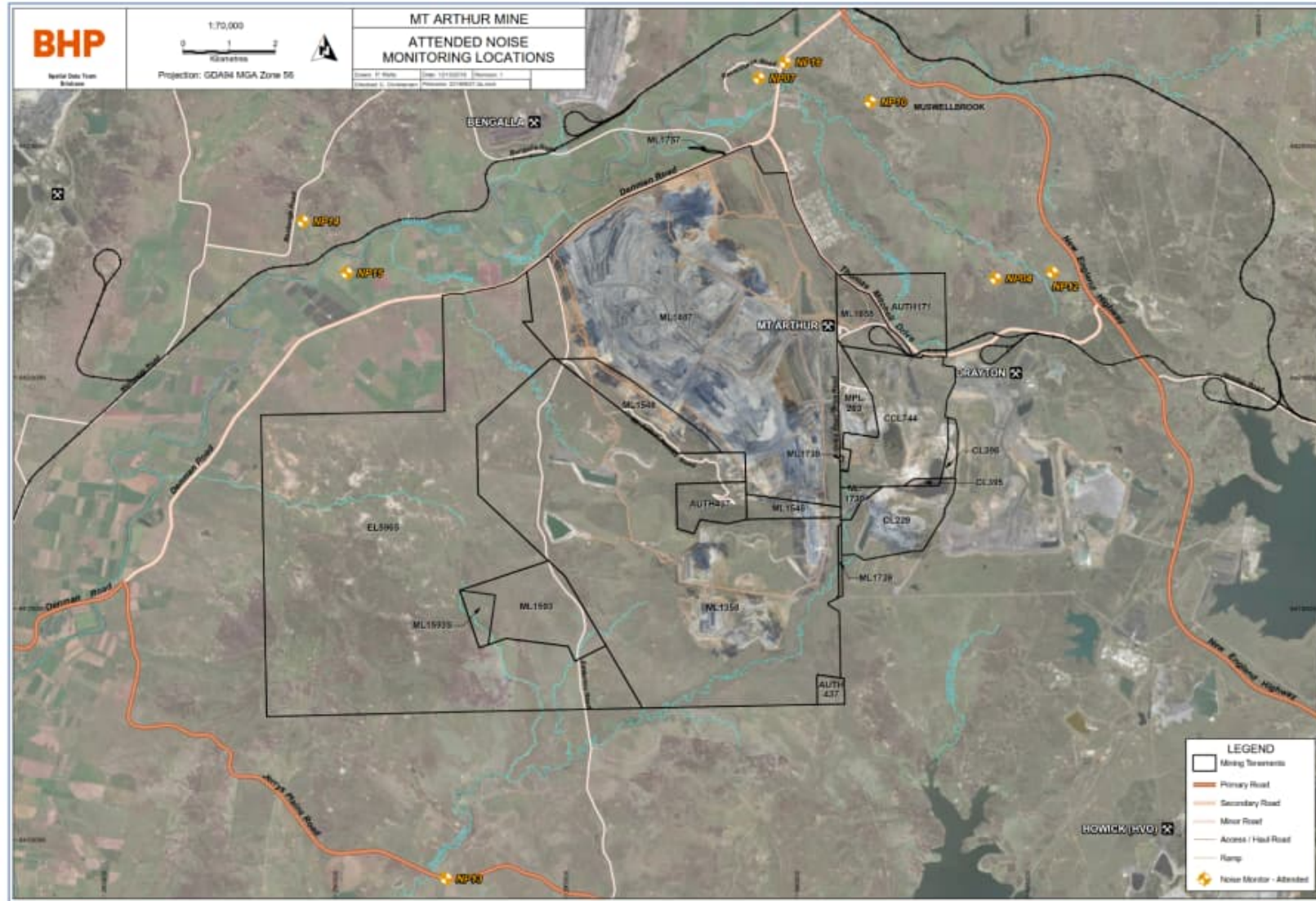


Site Water Monitoring Locations (Sourced and modified from: Site Water Management Plan)

Surface Water and Ground Water Monitoring Locations:

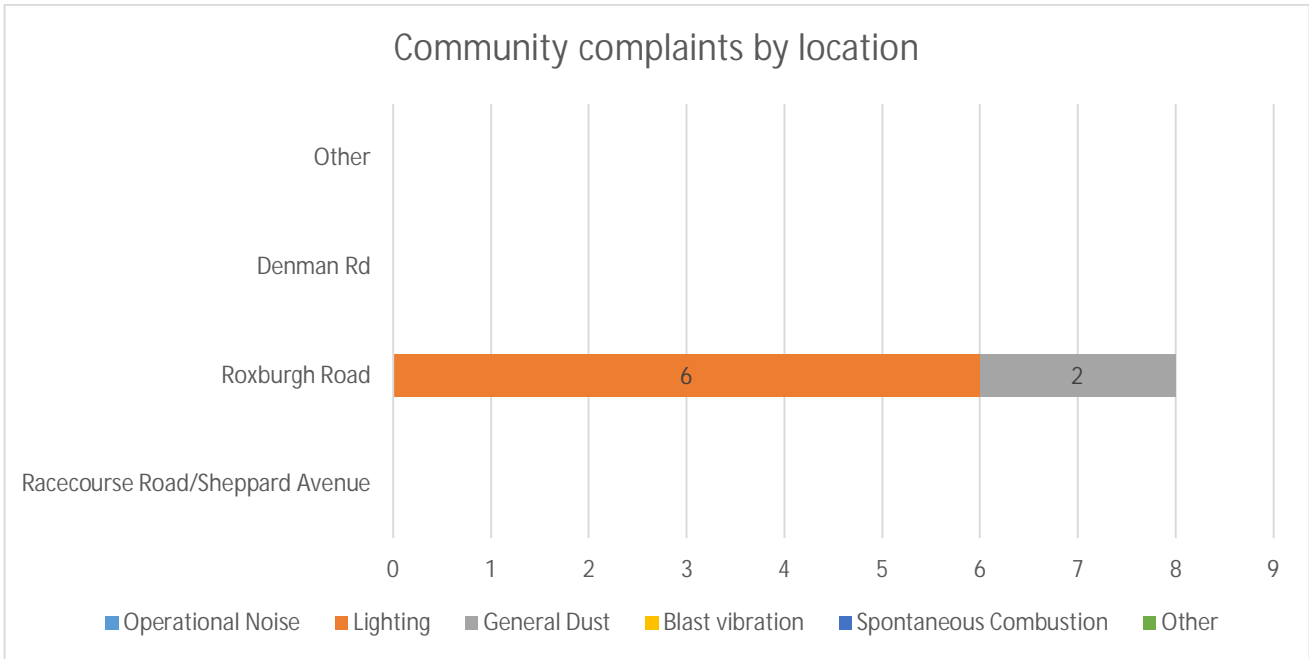


Operational Noise Monitoring (attended) Locations (Source: Noise Management Plan)

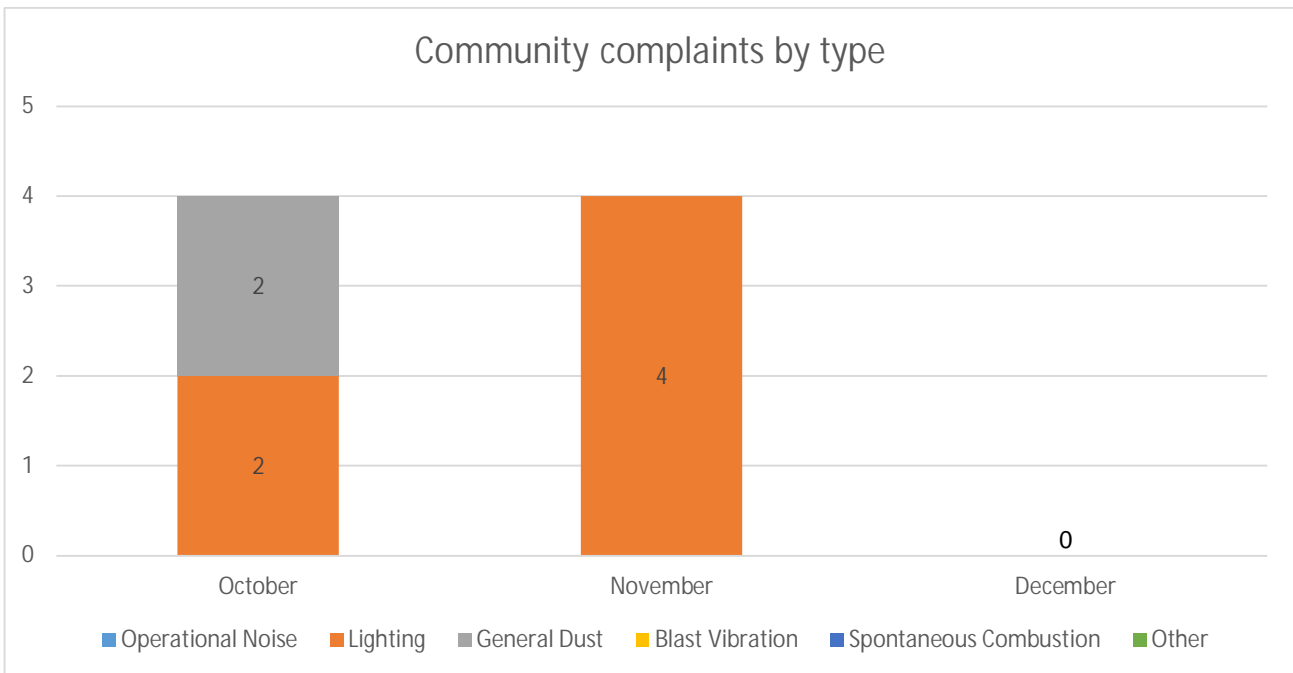


Community Complaints

The Community Complaints included in this report are for the period 1 October to 31 December 2023. Mt Arthur Coal received eight (8) complaints during this period, with all eight complaints from Roxburgh Rd.



Of the 8 complaints, six (6) were for lighting and two (2) were for dust.



Community Complaints Summary: 1 October 2023 to 31 December 2023

Date	Time	From	Issue	Lodgement type	Investigation and response to caller
02/10/23	8:59am	Roxburgh Road	Dust	Community Response Line	Investigation revealed results at the nearest monitor indicated dust levels were elevated at the time, and the 24-hour average for mine incremental contribution remained within regulatory criteria. Operational changes were made in response to conditions, and reasonable and feasible avoidance and mitigation measures regarding particulate matter emissions were in place in accordance with the approved Air Quality Management Plan (AQMP).
16/10/23	8:38am	Roxburgh Road	Dust	Community Response Line	Investigation revealed results at the nearest monitor indicated dust levels were elevated at the time, and the 24-hour average for mine incremental contribution remained within regulatory criteria. Operational changes were made in response to conditions, and reasonable and feasible avoidance and mitigation measures regarding particulate matter emissions were in place in accordance with the approved Air Quality Management Plan (AQMP).
24/10/23	8:30pm	Roxburgh Road	Lighting	Community Response Line	Lighting adjusted in response to the call.
30/10/23	8:00pm	Roxburgh Road	Lighting	Community Response Line	Lighting adjusted in response to the call.
01/11/23	8:00pm	Roxburgh Road	Lighting	Community Response Line	Lighting adjusted in response to the call.
03/11/23	10:47pm	Roxburgh Road	Lighting	Community Response Line	Lighting adjusted in response to the call.
04/11/23	8:26pm	Roxburgh Road	Lighting	Community Response Line	Lighting adjusted in response to the call.
14/11/23	8:59pm	Roxburgh Road	Lighting	Community Response Line	Lighting adjusted in response to the call.

Actions from previous meeting/s

The actions from previous meetings are listed below.

Action	
Actions from 8 November 2023 meeting	
ACTION 1	WP to make contact with Muswellbrook Chamber of Commerce to explain the role of the MAC CCC and ascertain if they could share detail of the current Community and Stakeholder vacancies via their regular Newsletter.
ACTION 2	AW to confirm MAC's official company representatives for the CCC.
ACTION 3	WP to circulate the Code of Conduct Form for CCC sign off and return to Chair.