

HUNTER VALLEY OPERATIONS

Monthly Environmental Monitoring Report

May 2020

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1.0 INTRODUCTION

This report has been compiled to provide a monthly summary of environmental monitoring results for Hunter Valley Operations (HVO). This report includes all monitoring data collected for the period 1st - 31st May.

2.0 AIR QUALITY

2.1 Meteorological Monitoring

HVO maintains two meteorological stations; 'HVO Corporate' and 'Cheshunt' (Refer to Figure 4: Air Quality Monitoring Location Plan).

2.1.1 Rainfall

Rainfall for the period is summarised in Table 1. The 2020 trend and historical trends are shown in Figure 1.

Table 1: Rainfall data - May 2020

2020	Monthly Rainfall (mm)	Cumulative Rainfall (mm)
May	19.8	344.2

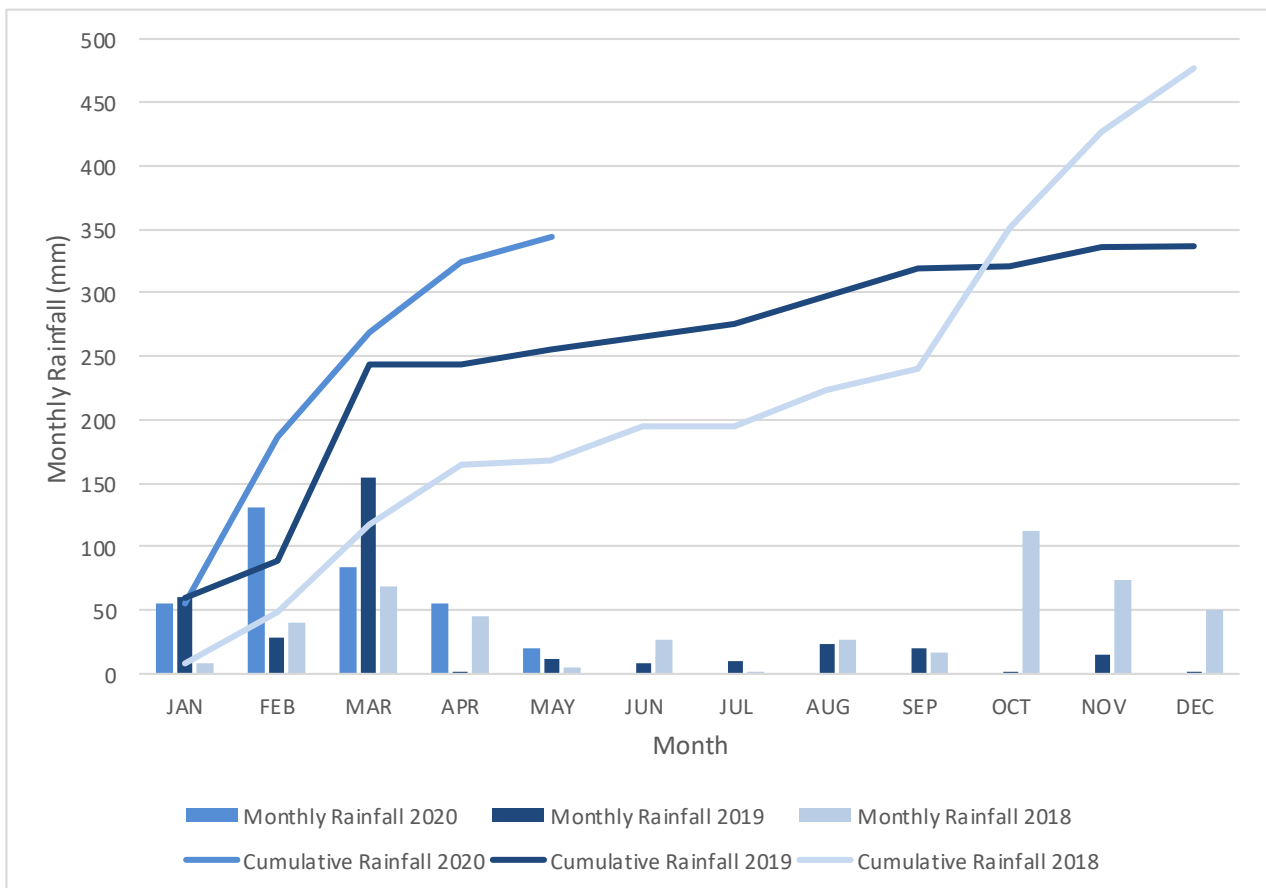


Figure 1: Rainfall Summary 2020

2.1.2 Wind Speed and Direction

West to North Westerly winds were dominant during May as shown in Figure 2 (HVO Corporate) and Figure 3 (HVO Cheshunt).

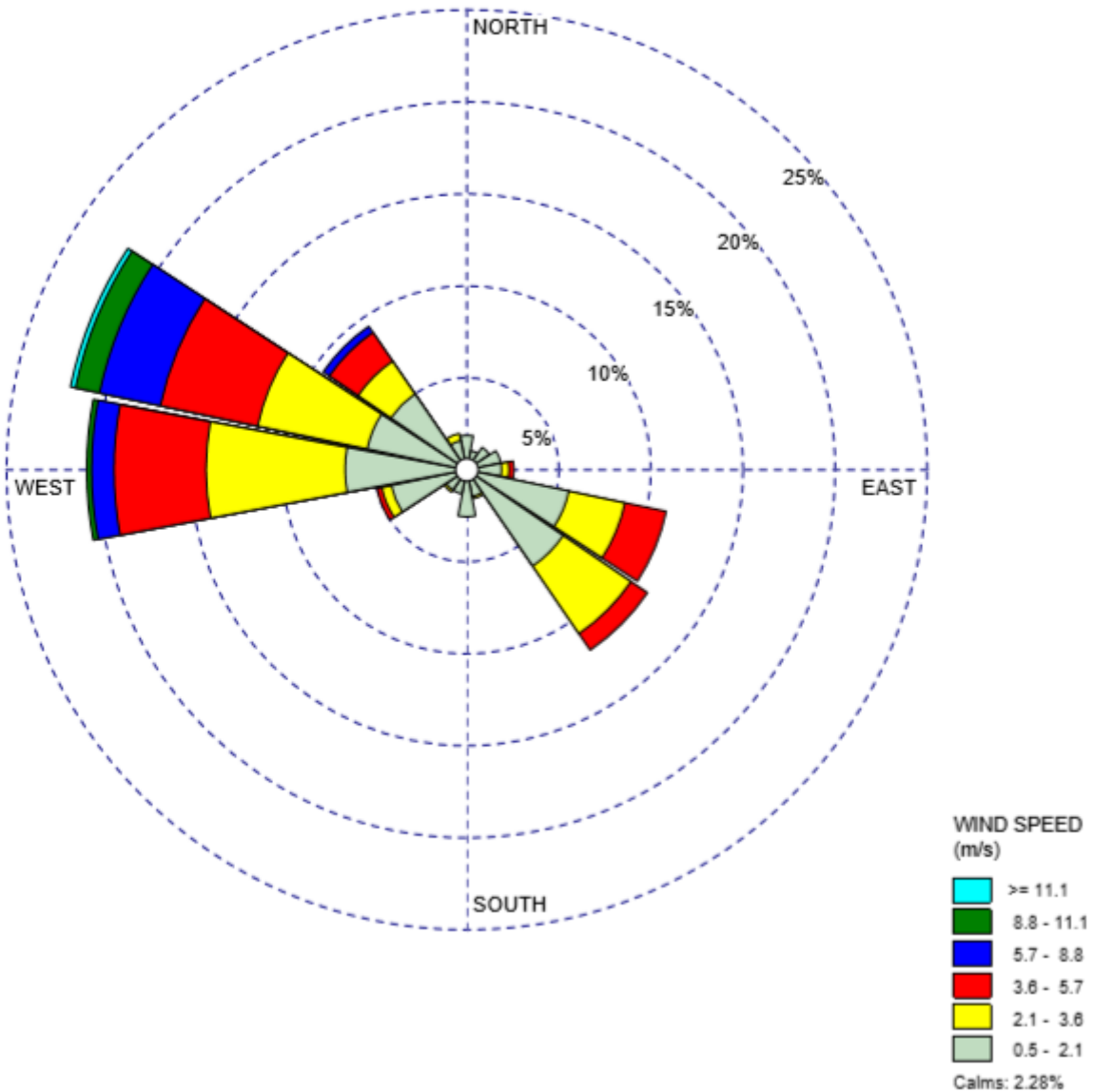


Figure 2: HVO Corporate Wind Rose – May 2020

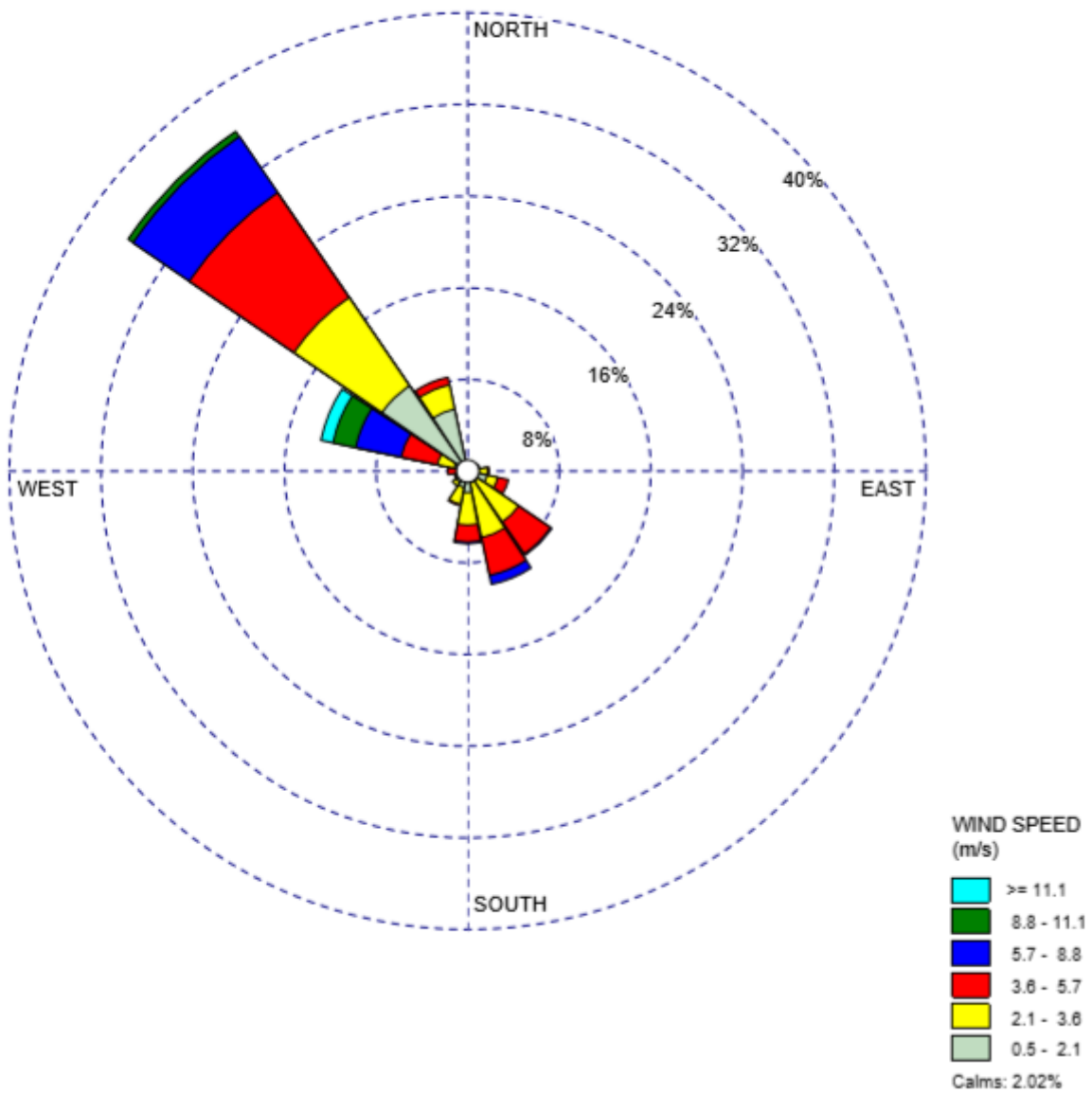


Figure 3: HVO Cheshunt Wind Rose – May 2020

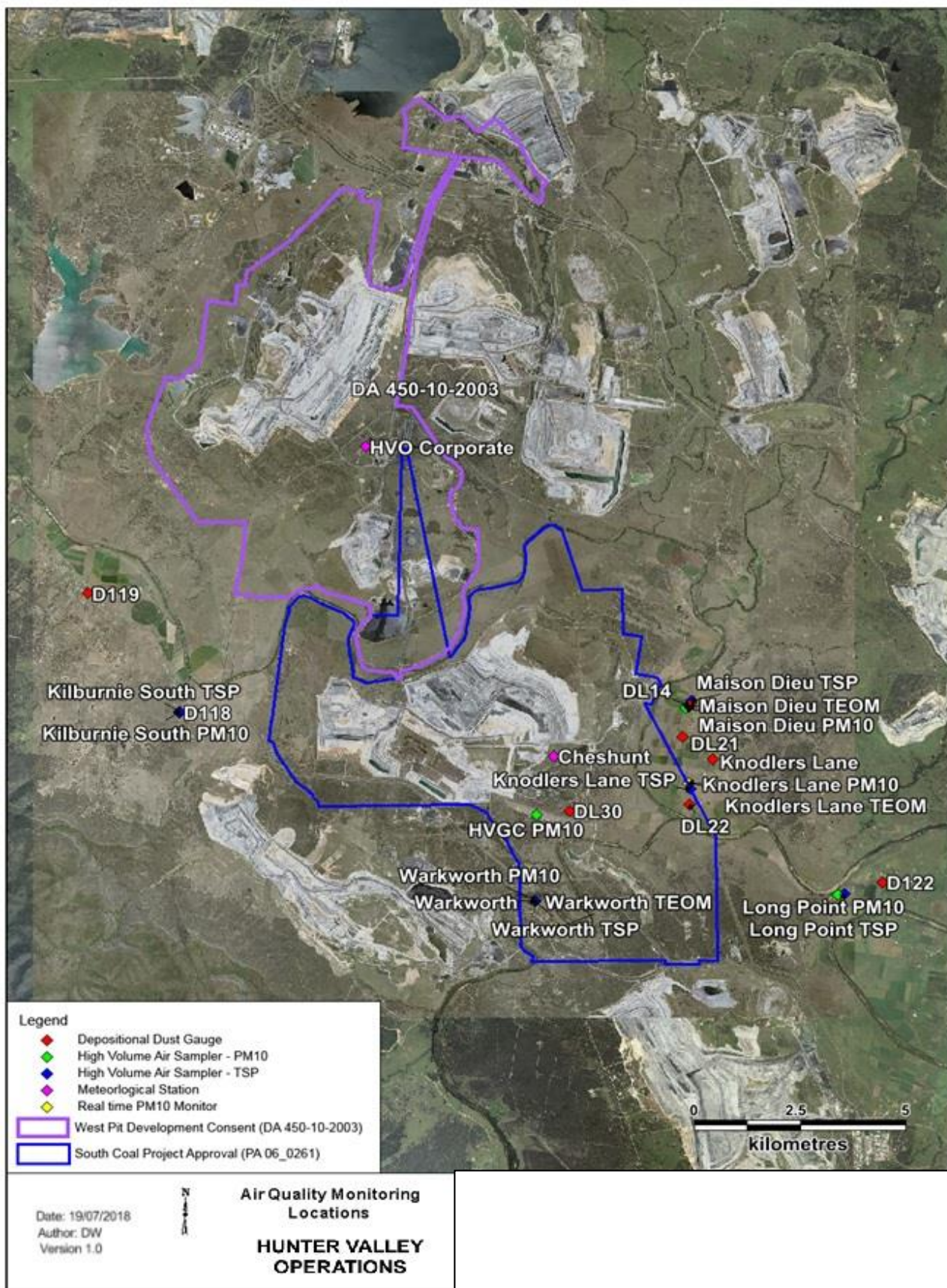


Figure 4: Air Quality Monitoring Location Plan

2.2 Depositional Dust

To monitor regional air quality, HVO operates and maintains a network of nine depositional dust gauges, situated on private and mine owned land surrounding HVO.

Figure 5 displays insoluble solids results from depositional dust gauges during the reporting period compared against the annual impact assessment criteria.

During the reporting period the D118, DL122, DL14, DL21, DL30 and Warkworth monitors recorded monthly results above the long term impact assessment criteria of 4.0 g/m² per month.

An assessment of HVO's contribution against the long term impact assessment criteria will be provided in the 2020 Annual Review.

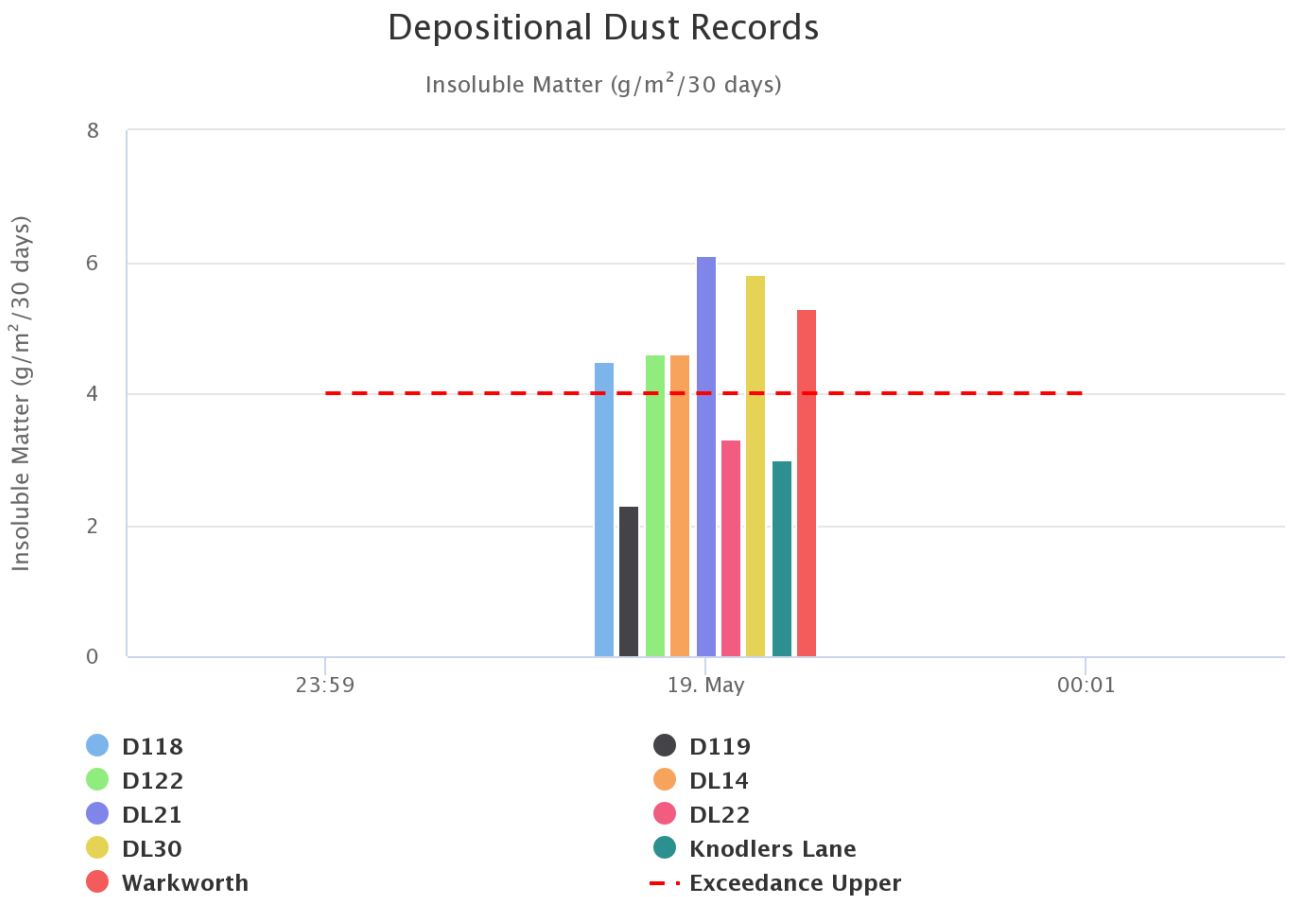


Figure 5: Depositional Dust Results – May 2020

2.3 Suspended Particulates

Suspended particulates are measured by a network of High Volume Air Samplers (HVAS) measuring Total Suspended Particulates (TSP) and Particulate Matter $10\mu\text{m}$ (PM_{10}). The Kilburnie South and Maison Dieu HVAS also monitor Particulate Matter $2.5\mu\text{m}$ ($\text{PM}_{2.5}$). The location of these monitors can be found in Figure 4. Each HVAS runs for 24 hours on a six-day cycle.

2.3.1 HVAS PM_{10} Results

Performance against Short Term Impact Assessment Criteria

Figure 6 shows individual PM_{10} results at each monitoring station against the short term impact assessment criteria of $50\mu\text{g}/\text{m}^3$. During the reporting period, no monitors recorded an exceedance above the short term impact assessment criteria of $50\mu\text{g}/\text{m}^3$.

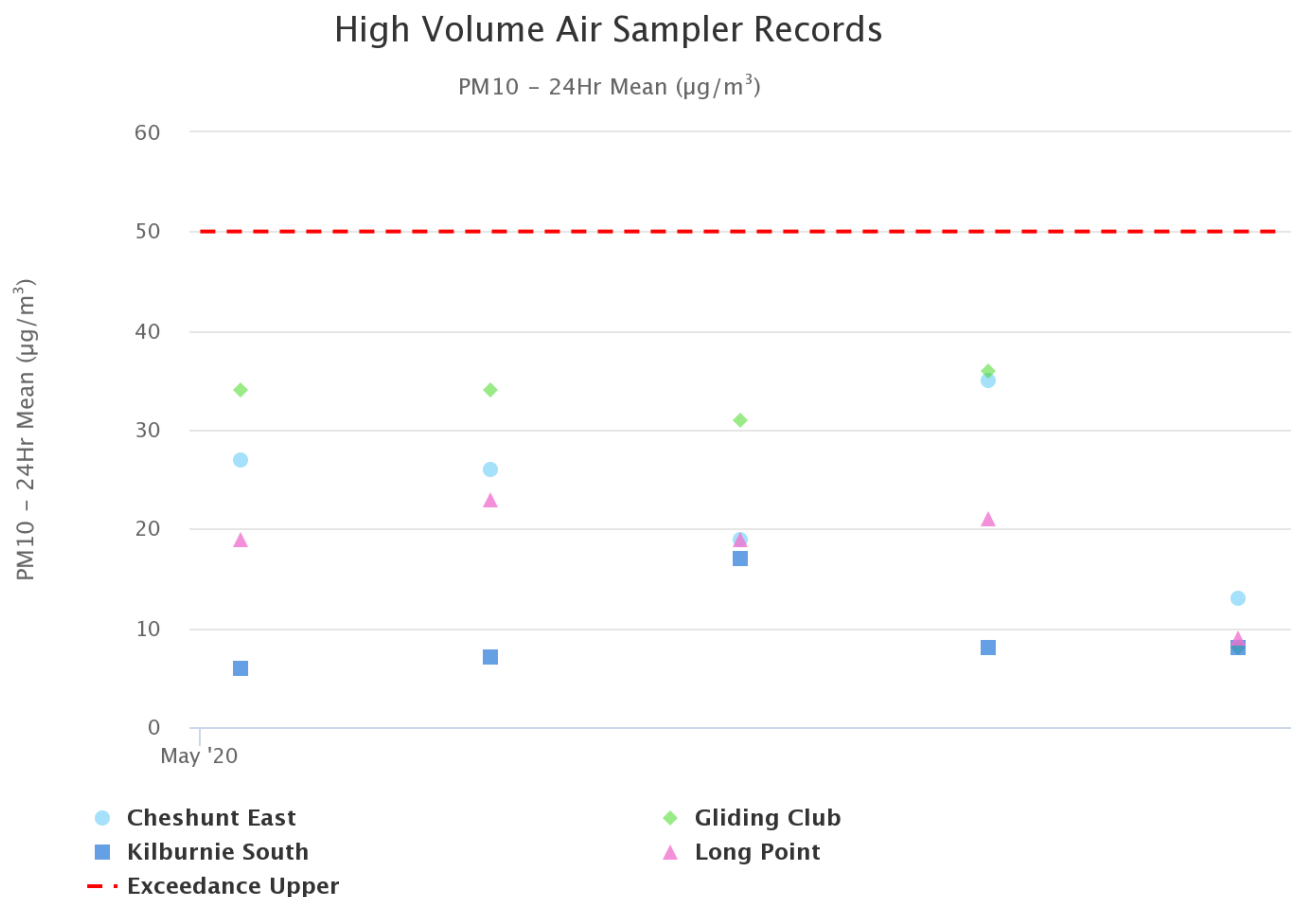


Figure 6: Individual PM_{10} Results – May 2020

Performance against Long Term Impact Assessment Criteria

Figure 7 shows the year to date annual average PM_{10} results. During the reporting period all monitors recorded an annual average above the PM_{10} Annual Rolling Mean of $30\mu\text{g}/\text{m}^3$.

This is likely to be due to the bushfires experienced earlier in 2020 and is expected to decrease over the remainder of the reporting period. However, an assessment of HVO’s contribution against the long term impact assessment criteria will be provided in the 2020 Annual Review.

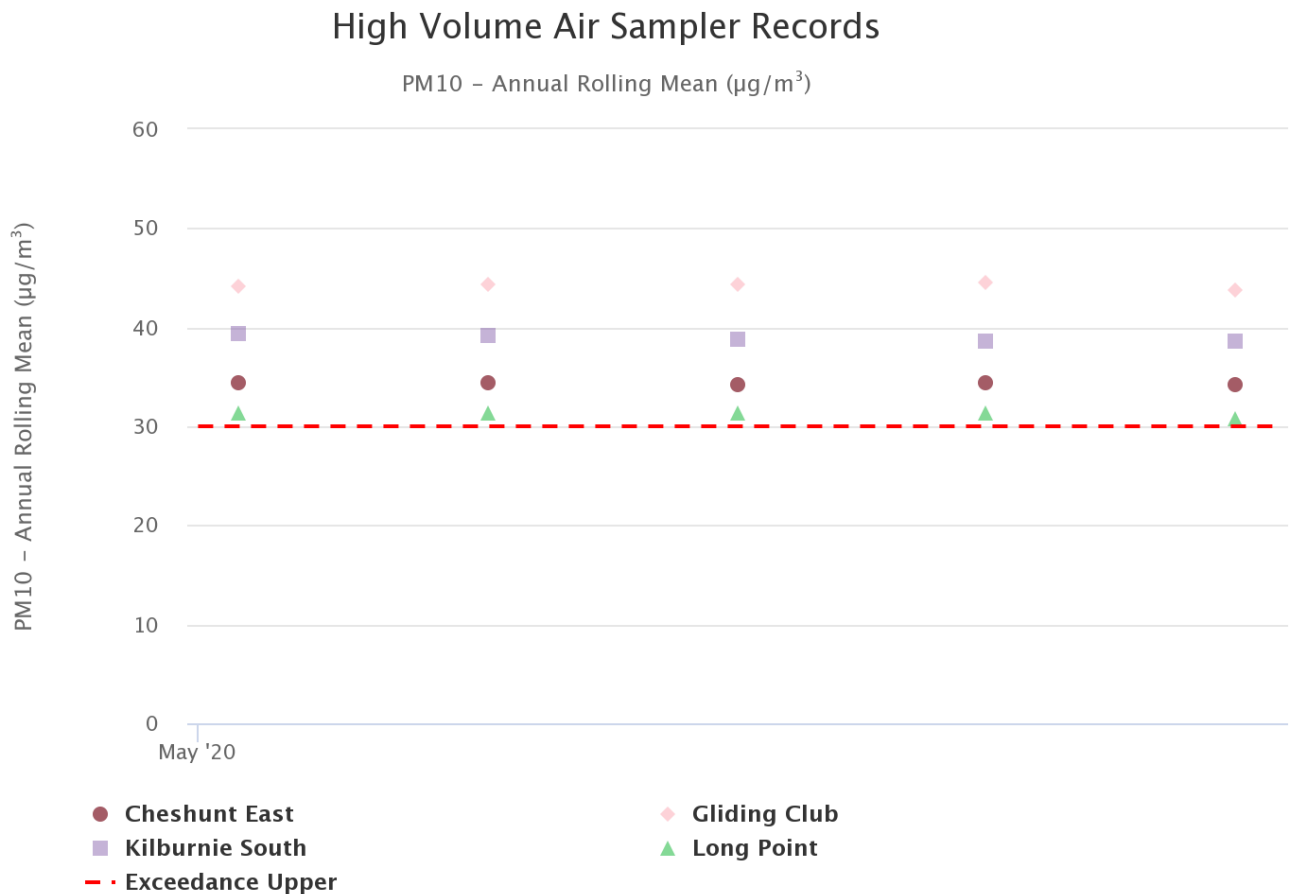


Figure 7: Year to Date Average PM₁₀ – as at end of May 2020

2.3.2 HVAS PM_{2.5} Results

HVO monitors PM_{2.5} at two HVAS locations i.e. Kilburnie South and Maison Dieu.

Performance against Short Term Impact Assessment Criteria

Figure 8 shows individual PM_{2.5} results at each monitoring station against the HVO South short term impact assessment criteria of 25 $\mu\text{g}/\text{m}^3$.

During the reporting period, no monitors recorded an exceedance above the short term impact assessment criteria of 25 $\mu\text{g}/\text{m}^3$.

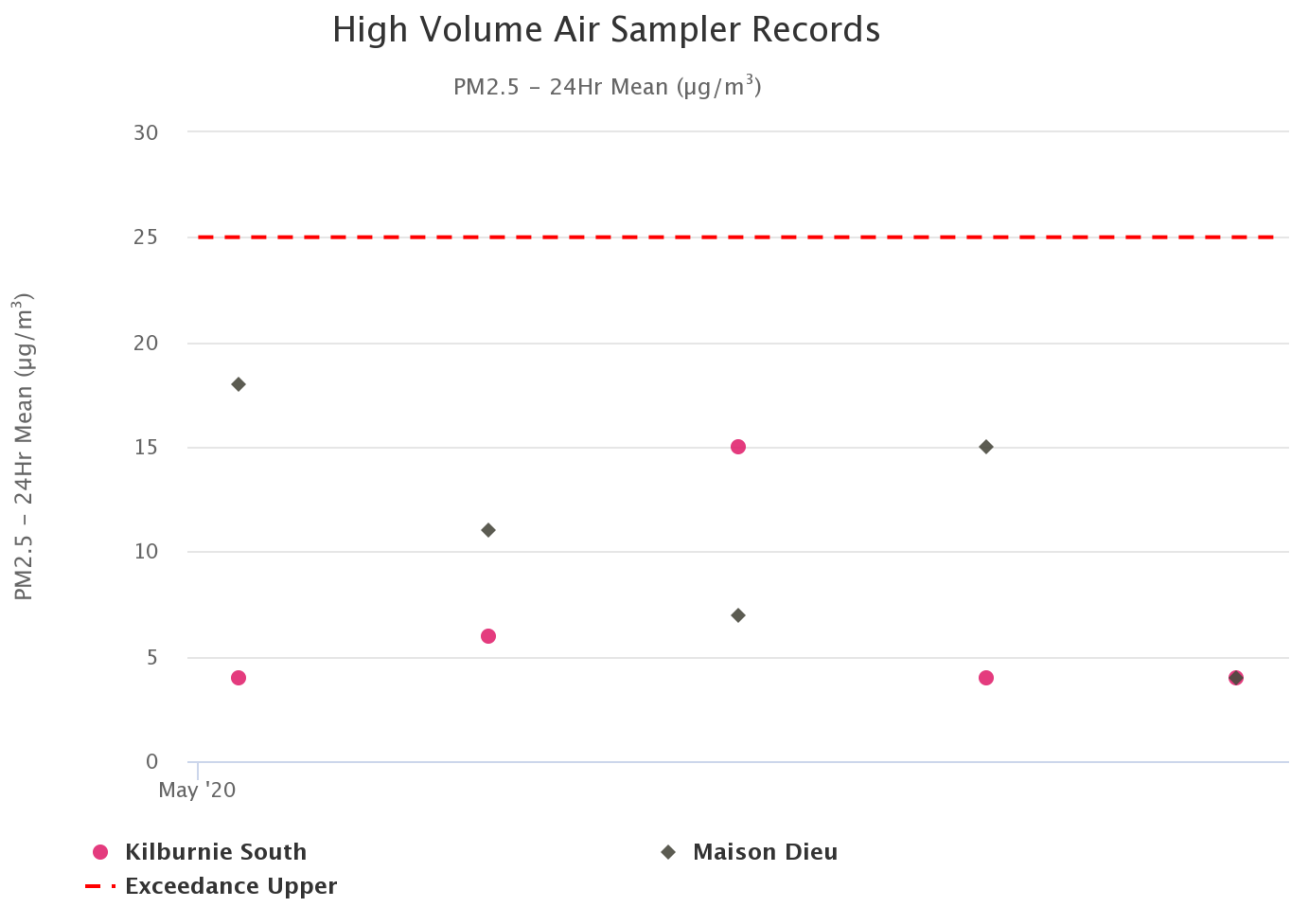


Figure 8: Individual PM_{2.5} Results – May 2020

Performance against Long Term Impact Assessment Criteria

Figure 9 shows the year to date annual average PM_{2.5} results. During the reporting period, both the Maison Dieu and Kilburnie South monitors recorded an annual average above the PM_{2.5} Annual Rolling Mean of 8µg/m³.

This is likely to be due to the bushfires experienced earlier in 2020 and is expected to decrease over the remainder of the reporting period. However, an assessment of HVO’s contribution against the long term impact assessment criteria will be provided in the 2020 Annual Review.

High Volume Air Sampler Records PM2.5 - Annual Rolling Mean ($\mu\text{g}/\text{m}^3$)

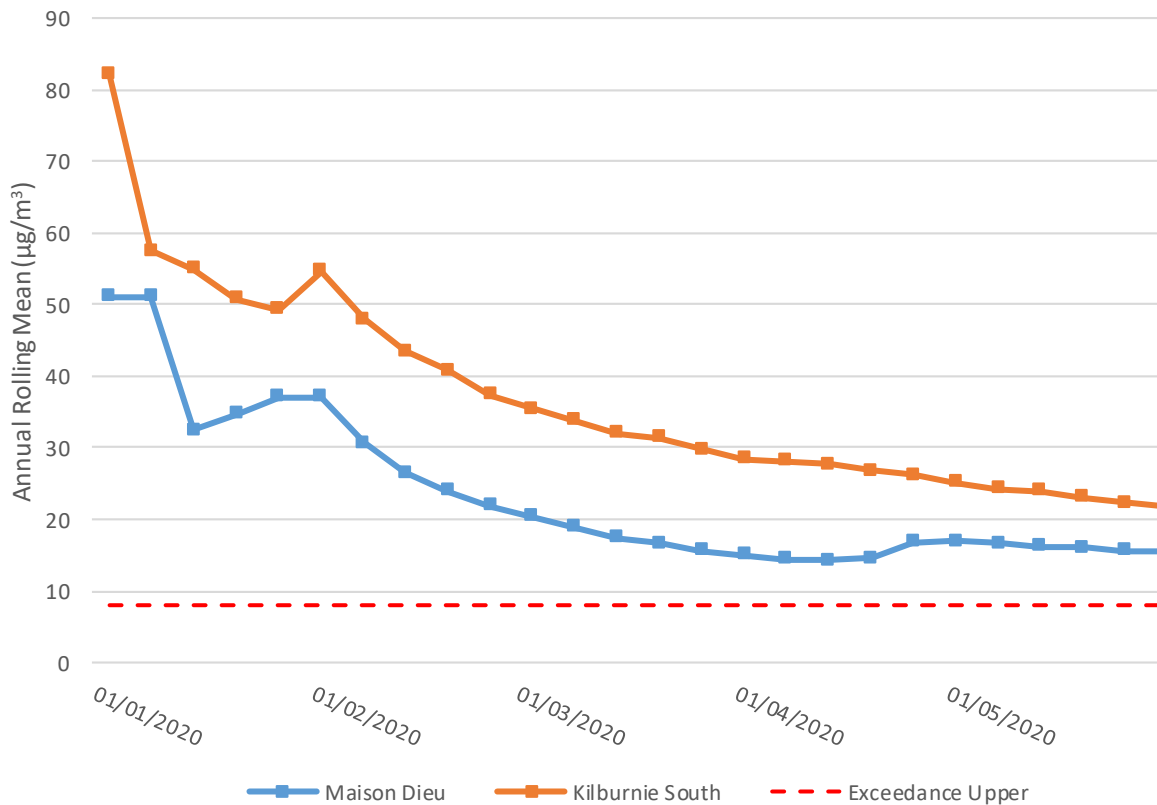


Figure 9: Year to Date Average PM_{2.5} – as at end of May 2020

2.3.3 TSP Results

Performance against Long Term Impact Assessment Criteria

Figure 10 shows the annual average TSP results compared against the long term impact assessment criteria of $90\mu\text{g}/\text{m}^3$.

During the reporting period, the Kilburnie South, Maison Dieu, Knodlers Lane and Warkworth monitors recorded annual averages above the long term impact assessment criteria of $90\mu\text{g}/\text{m}^3$.

This is likely to be due to the bushfires experienced earlier in 2020 and is expected to decrease over the remainder of the reporting period. However, an assessment of HVO’s contribution against the long term impact assessment criteria will be provided in the 2020 Annual Review.

High Volume Air Sampler Records

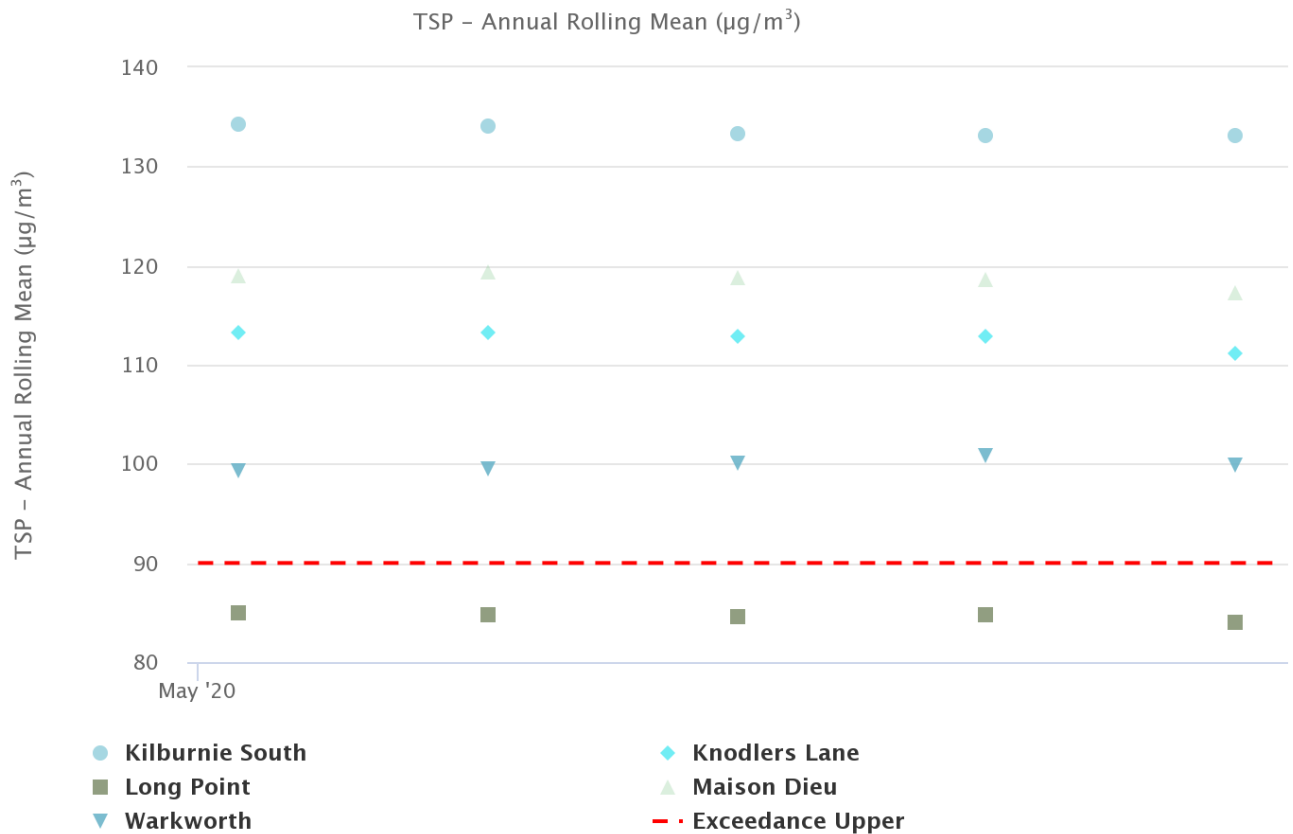


Figure 10: Year to Date Average Total Suspended Particulates – as at end of May 2020

2.3.4 Real Time PM₁₀ Results

Hunter Valley Operations maintains a network of real time PM₁₀ monitors. The real time air quality monitoring stations continuously log information and transmit data to a central database, generating alarms when particulate matter levels exceed internal trigger limits. Results from real time PM₁₀ monitoring are used as a reactive measure to guide mining operations to help achieve compliance with the relevant conditions of the project approval.

Results for real time dust sampling is shown in Figure 11, including the daily 24 hour average PM₁₀ result and the year to date 24 hour PM₁₀ annual average.

During the reporting period, no monitors exceeded the daily 24 hour average PM₁₀ result ($50\mu\text{g}/\text{m}^3$).

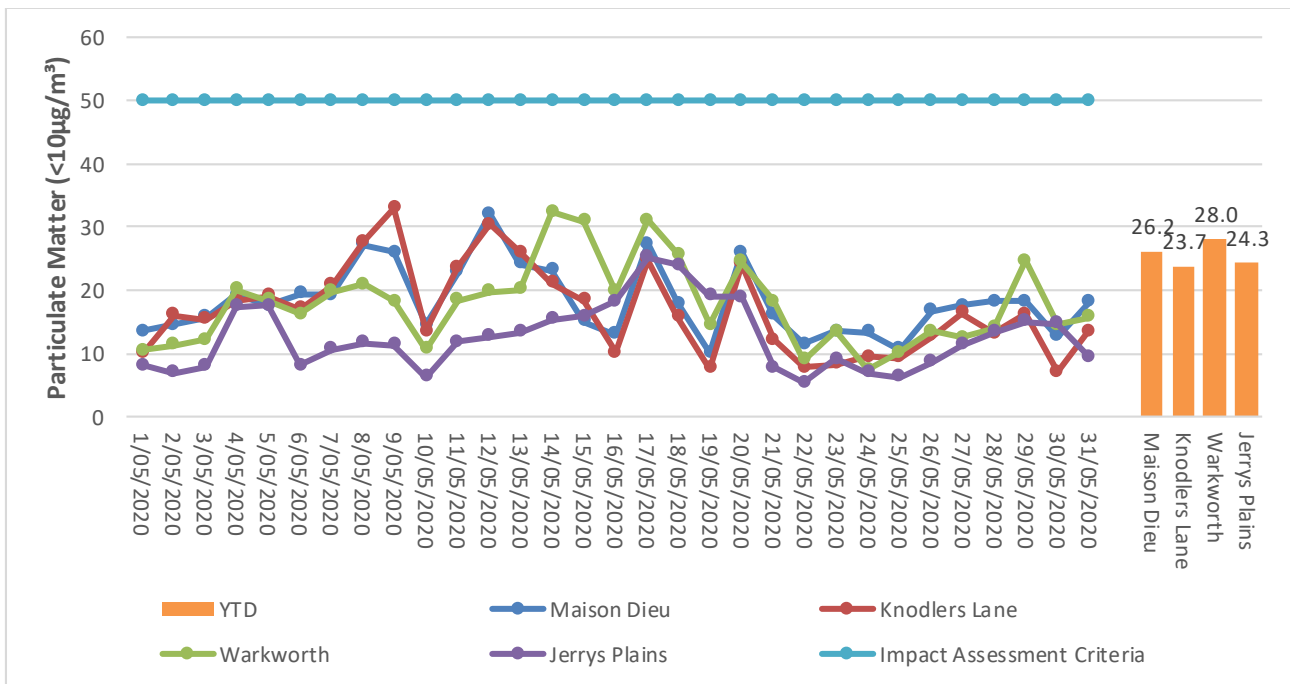


Figure 11: Real Time PM₁₀ 24hr average and YTD average – May 2020

2.3.5 Real Time Alarms for Air Quality

During May the real time monitoring system generated 104 automated air quality related alarms; 61 alarms were related to adverse weather conditions and 43 alarms related to PM₁₀.

3.0 WATER QUALITY

HVO maintains a network of surface water and groundwater monitoring sites.

3.1 Surface Water

Surface water courses are sampled on a quarterly sampling regime. Water quality is assessed through the parameters of pH, Electrical Conductivity (EC) and Total Suspended Solids (TSS). Results of monitoring on Site Dams and the Hunter River as well as other natural tributaries are provided on a quarterly basis, results will appear in the June 2020 report.

3.2 Site Water Use

Under water allocation licenses issued by the Water NSW, HVO is permitted to extract water from the Hunter River. During the reporting period, HVO extracted 553.3 ML of water from the Hunter River.

3.3 HRSTS Discharge

HVO participates in the Hunter River Salinity Trading Scheme (HRSTS), allowing discharge from licensed discharge points Dam 11N (to Farrell's Creek), Lake James (to the Hunter River) and Parnell's Dam (to Parnell's Creek). Discharges can only take place subject to HRSTS regulations.

During the reporting period no water was discharged under the HRSTS.

3.4 Groundwater Monitoring Results

Groundwater monitoring is undertaken on a quarterly basis in accordance with the HVO Water Management Plan and Ground Water Monitoring Programme. Results of groundwater monitoring are reported quarterly and as such will be reported in the June 2020 monthly report

4.0 BLASTING

HVO have a network of five blast monitoring units. These are located at nearby privately owned residences and function as regulatory compliance monitors. The location of these monitors can be found in Figure 14. Blasting criteria are summarised in Table 2.

Table 2: Blasting Criteria

Airblast Overpressure (dB(L))	Comments
115	<i>5% of the total number of blasts in a 12 month period</i>
120	<i>0%</i>
Ground Vibration (mm/s)	Comments
5	<i>5% of the total number of blasts in a 12 month period</i>
10	<i>0%</i>

4.1 Blast Monitoring Results

During May 18 blasts were initiated at HVO. Figure 12 and Figure 13 show the blast monitoring results for the reporting period against the impact assessment criteria.

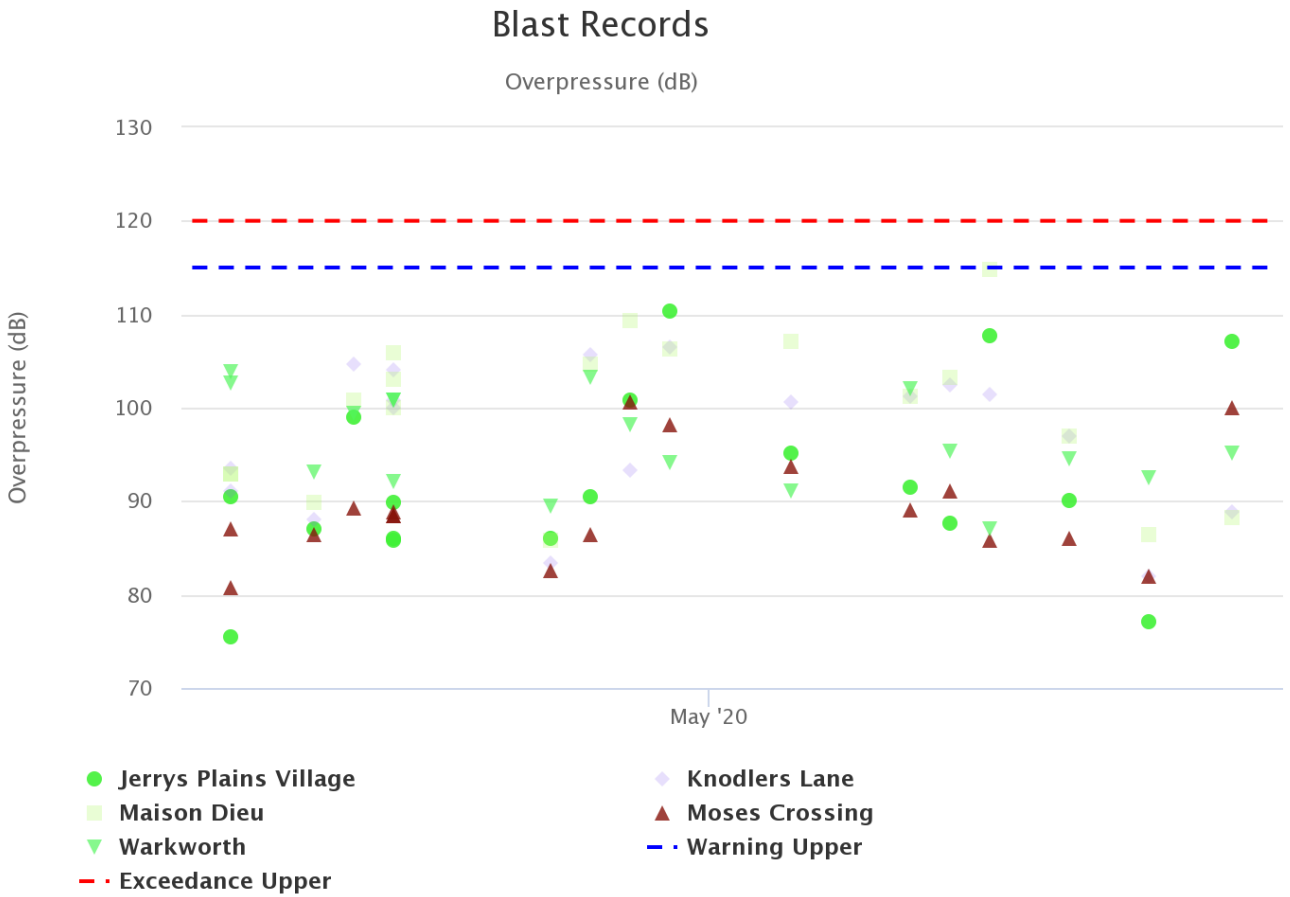


Figure 12: Overpressure Blast Monitoring Results – May 2020

Blast Records

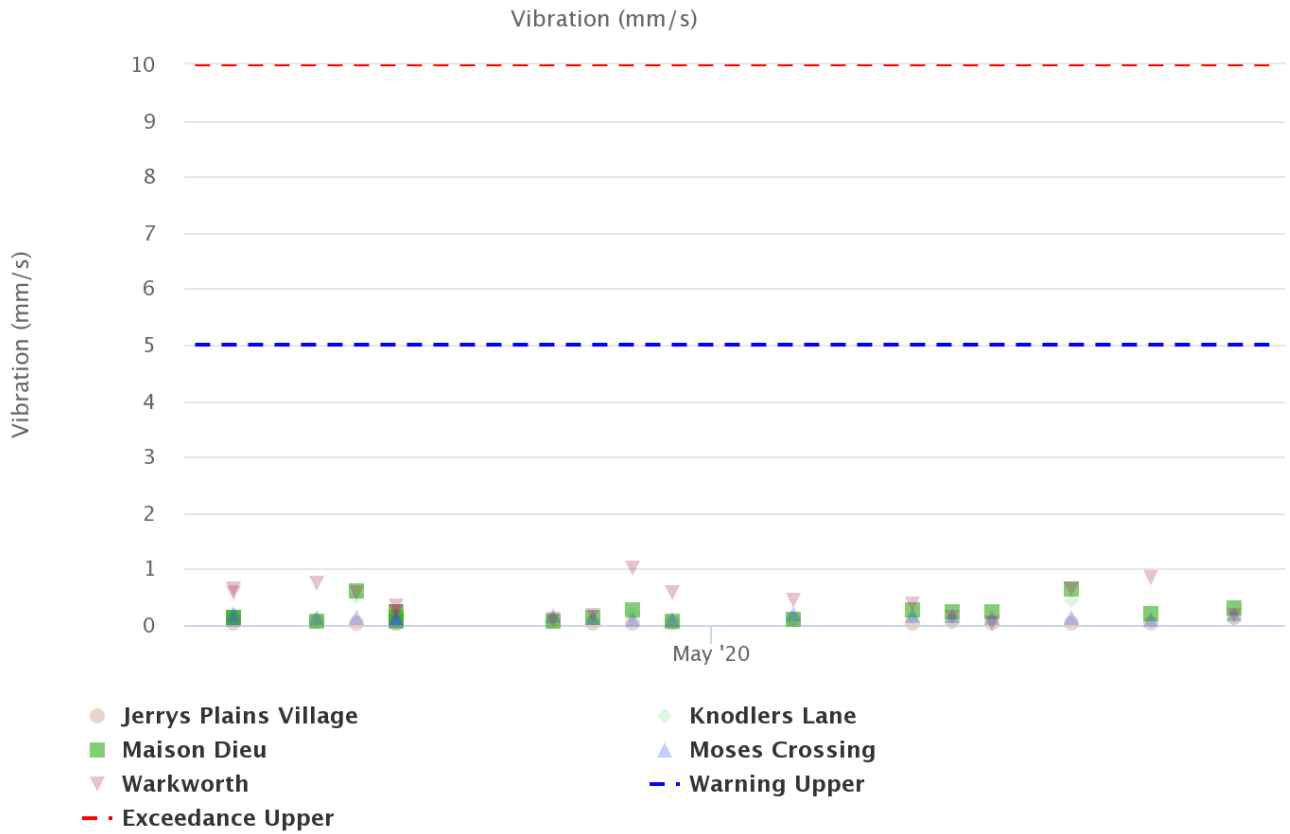


Figure 13: Ground Vibration Blast Monitoring Results – May 2020



Figure 14: Blast Monitoring Location Plan

5.0 NOISE

Routine attended noise monitoring is carried out at defined locations around HVO as described in the HVO Noise Monitoring Programme. The purpose of the noise surveys is to quantify and describe the acoustic environment around the site and compare results with specified limits. Unattended monitoring (real time noise monitoring) also occurs at five sites surrounding HVO. The attended noise monitoring locations are displayed in Figure 15.

5.1 Attended Noise Monitoring Results

Attended monitoring was conducted at receiver locations surrounding HVO on the nights of the 7th and 19th May 2020, with no non-compliances recorded. Monitoring results are detailed in Table 3 to Table 7.

Table 3: LAeq, 15 minute HVO South - Impact Assessment Criteria – May 2020

Location	Date and Time	Wind Speed (m/s) ¹	Stability Class ¹	Criterion dB (A)	Criterion Applies? ²	HVO South LAeq dB ^{3,4,6,7}	Exceedance ^{4,5}
Knodlers Lane	07/05/2020 21:41	1.9	D	39	Yes	<30	Nil
Maison Dieu	07/05/2020 21:20	1.9	D	39	Yes	IA	Nil
Shearers Lane	07/05/2020 21:00	1.3	D	41	Yes	NM	Nil
Kilburnie South	07/05/2020 23:17	1.7	E	39	Yes	IA	Nil
Jerrys Plains Village	07/05/2020 21:37	1.9	D	35	Yes	IA	Nil
Jerrys Plains East	07/05/2020 21:05	1.3	D	35	Yes	IA	Nil
Long Point Road	07/05/2020 21:01	1.9	E	35	Yes	IA	Nil
HVGC	07/05/2020 23:53	2.2	E	35	Yes	37	Nil

Notes:

1. Atmospheric data is sourced from the HVO Cheshunt (or MTW Charlton Ridge for Long Point) AWS using logged meteorological data;
2. Noise criteria apply for wind speeds up to 3 metres per second (at a height of 10m), or during stability class G conditions. Criterion may or may not apply due to rounding of meteorological data values;
3. Site-only LAeq, 15 minute attributed to HVO South Pit Area, including modifying factors if applicable;
4. Bold results in red indicate exceedance of relevant criterion;
5. NA in exceedance column means atmospheric conditions outside specified in approval and so criterion is not applicable;
6. IA means inaudible, there was no site noise at the monitoring location; and
7. NM means not measurable, noise was audible but could not be quantified.

Table 4: LA1, 1 minute HVO South - Impact Assessment Criteria – May 2020

Location	Date and Time	Wind Speed (m/s) ¹	Stability Class ¹	Criterion dB (A)	Criterion Applies? ²	HVO South L _{A1, 1min} dB ^{3,4,6,7}	Exceedance ^{4,5}
Knodlers Lane	07/05/2020 21:41	1.9	D	45	Yes	<30	Nil
Maison Dieu	07/05/2020 21:20	1.9	D	45	Yes	IA	Nil
Shearers Lane	07/05/2020 21:00	1.3	D	45	Yes	25	Nil
Kilburnie South	07/05/2020 23:17	1.7	E	45	Yes	IA	Nil
Jerrys Plains Village	07/05/2020 21:37	1.9	D	45	Yes	IA	Nil
Jerrys Plains East	07/05/2020 21:05	1.3	D	45	Yes	IA	Nil
Long Point Road	07/05/2020 21:01	1.9	E	45	Yes	IA	Nil
HVGC	07/05/2020 23:53	2.2	E	NA	Yes	41	Nil

Notes:

1. Atmospheric data is sourced from the HVO Cheshunt (or MTW Charlton Ridge for Long Point) AWS using logged meteorological data;
2. Noise criteria apply for wind speeds up to 3 metres per second (at a height of 10m), or during stability class G conditions. Criterion may or may not apply due to rounding of meteorological data values;
3. Site-only LA1, 1 minute attributed to HVO South Pit Area;
4. Bold results in red indicate exceedance of relevant criterion;
5. NA in criterion column indicates no criterion is applicable at this location. NA in exceedance column means atmospheric conditions outside specified in approval and so criterion is not applicable;
6. IA means inaudible, there was no site noise at the monitoring location; and
7. NM means not measurable, noise was audible but could not be quantified.

Table 5: LAeq, 15 minute HVO North – Impact Assessment Criteria – May 2020

Location	Date and Time	Wind Speed (m/s) ¹	Stability Class ¹	Criterion dB (A)	Criterion Applies? ²	HVO North L _{Aeq} dB ^{3,4,6,7}	Exceedance ^{4,5}
<i>Knodlers Lane</i>	<i>07/05/2020 21:41</i>	<i>2.3</i>	<i>E</i>	<i>35</i>	<i>Yes</i>	<i>IA</i>	<i>Nil</i>
<i>Maison Dieu</i>	<i>07/05/2020 21:20</i>	<i>1.0</i>	<i>F</i>	<i>35</i>	<i>Yes</i>	<i>IA</i>	<i>Nil</i>
<i>Shearers Lane</i>	<i>07/05/2020 21:00</i>	<i>0.4</i>	<i>F</i>	<i>35</i>	<i>Yes</i>	<i>IA</i>	<i>Nil</i>
<i>Kilburnie South</i>	<i>07/05/2020 23:17</i>	<i>2.9</i>	<i>E</i>	<i>39</i>	<i>Yes</i>	<i>30</i>	<i>Nil</i>
<i>Jerrys Plains Village</i>	<i>07/05/2020 21:37</i>	<i>2.3</i>	<i>E</i>	<i>36</i>	<i>Yes</i>	<i>31</i>	<i>Nil</i>
<i>Jerrys Plains East</i>	<i>07/05/2020 21:05</i>	<i>0.4</i>	<i>F</i>	<i>39</i>	<i>Yes</i>	<i>28</i>	<i>Nil</i>
<i>Long Point Road</i>	<i>07/05/2020 21:01</i>	<i>1.9</i>	<i>E</i>	<i>35</i>	<i>Yes</i>	<i>IA</i>	<i>Nil</i>
<i>HVGC</i>	<i>07/05/2020 23:53</i>	<i>1.5</i>	<i>E</i>	<i>NA</i>	<i>Yes</i>	<i>IA</i>	<i>NAI</i>
<i>Kilburnie South</i>	<i>19/05/2020 21:00</i>	<i>2.1</i>	<i>E</i>	<i>39</i>	<i>Yes</i>	<i>NM</i>	<i>Nil</i>
<i>Jerrys Plains Village</i>	<i>19/05/2020 21:55</i>	<i>1.1</i>	<i>E</i>	<i>36</i>	<i>Yes</i>	<i>34</i>	<i>Nil</i>
<i>Jerrys Plains East</i>	<i>19/05/2020 21:26</i>	<i>1.1</i>	<i>E</i>	<i>39</i>	<i>Yes</i>	<i>33</i>	<i>Nil</i>

Notes:

1. Atmospheric data is sourced from the HVO Corporate (or MTW Charlton Ridge for Long Point) AWS using logged meteorological data;
2. Noise emission limits apply under all meteorological conditions, except during periods of rain or hail, when average winds speed at microphone heights exceeds 5 metres per second, when wind speeds greater than 3 metres per second are measured at 10m above ground level, or during stability class G conditions. Criterion may or may not apply due to rounding of meteorological data values;
3. Site-only LAeq, 15 minute attributed to HVO North Pit Area, including modifying factors if applicable;
4. Bold results in red indicate exceedance of criteria;
5. NA in criterion column indicates no criterion is applicable at this location. NA in exceedance column means atmospheric conditions outside specified in approval and so criterion is not applicable;
6. IA means inaudible, there was no site noise at the monitoring location; and
7. NM means not measurable, noise was audible but could not be quantified.

Table 6: LAeq,15 minute HVO North - Land Acquisition Criteria – May 2020

Location	Date and Time	Wind Speed (m/s) ¹	Stability Class ¹	Criterion dB (A)	Criterion Applies? ²	HVO North L _{Aeq} dB ^{3,4,6,7}	Exceedance ^{4,5}
Knodlers Lane	07/05/2020 21:41	2.3	E	41	Yes	IA	Nil
Maison Dieu	07/05/2020 21:20	1.0	F	41	Yes	IA	Nil
Shearers Lane	07/05/2020 21:00	0.4	F	41	Yes	IA	Nil
Kilburnie South	07/05/2020 23:17	2.9	E	41	Yes	30	Nil
Jerrys Plains Village	07/05/2020 21:37	2.3	E	41	Yes	31	Nil
Jerrys Plains East	07/05/2020 21:05	0.4	F	41	Yes	28	Nil
Long Point Road	07/05/2020 21:01	1.9	E	41	Yes	IA	Nil
HVGC	07/05/2020 23:53	1.5	E	NA	Yes	IA	NA
Kilburnie South	19/05/2020 21:00	2.1	E	41	Yes	NM	Nil
Jerrys Plains Village	19/05/2020 21:55	1.1	E	41	Yes	34	Nil
Jerrys Plains East	19/05/2020 21:26	1.1	E	41	Yes	33	Nil

Notes:

1. Atmospheric data is sourced from the HVO Corporate (or MTW Charlton Ridge for Long Point) AWS using logged meteorological data;
2. Noise emission limits apply under all meteorological conditions, except during periods of rain or hail, when average winds speed at microphone heights exceeds 5 metres per second, when wind speeds greater than 3 metres per second are measured at 10m above ground level, or during stability class G conditions. Criterion may or may not apply due to rounding of meteorological data values;
3. Site-only LAeq, 15minute attributed to HVO North Pit Area, including modifying factors if applicable;
4. Bold results in red indicate exceedance of relevant criterion;
5. NA in criterion column indicates no criterion is applicable at this location. NA in exceedance column means atmospheric conditions outside specified in approval and so criterion is not applicable;
6. IA means inaudible, there was no site noise at the monitoring location; and
7. NM means not measurable, noise was audible but could not be quantified.

Table 7: LA1, 1 Minute HVO North - Impact Assessment Criteria – May 2020

Location	Date and Time	Wind Speed (m/s) ¹	Stability Class ¹	Criterion dB (A)	Criterion Applies? ²	HVO North L _{A1} , 1min dB ^{3,4,6,7}	Exceedance ^{4,5}
Knodlers Lane	07/05/2020 21:41	2.3	E	46	Yes	IA	Nil
Maison Dieu	07/05/2020 21:20	1.0	F	46	Yes	IA	Nil
Shearers Lane	07/05/2020 21:00	0.4	F	46	Yes	IA	Nil
Kilburnie South	07/05/2020 23:17	2.9	E	46	Yes	31	Nil
Jerrys Plains Village	07/05/2020 21:37	2.3	E	46	Yes	39	Nil
Jerrys Plains East	07/05/2020 21:05	0.4	F	46	Yes	32	Nil
Long Point Road	07/05/2020 21:01	1.9	E	46	Yes	IA	Nil
HVGC	07/05/2020 23:53	1.5	E	NA	Yes	IA	NA
Kilburnie South	19/05/2020 21:00	2.1	E	46	Yes	NM	Nil
Jerrys Plains Village	19/05/2020 21:55	1.1	E	46	Yes	38	Nil
Jerrys Plains East	19/05/2020 21:26	1.1	E	46	Yes	43	Nil

Notes:

1. Atmospheric data is sourced from the HVO Corporate (or MTW Charlton Ridge for Long Point) AWS using logged meteorological data;
2. Noise emission limits apply under all meteorological conditions, except during periods of rain or hail, when average winds speed at microphone heights exceeds 5 metres per second, when wind speeds greater than 3 metres per second are measured at 10m above ground level, or during stability class G conditions. Criterion may or may not apply due to rounding of meteorological data values;
3. Site-only LA1, 1 minute attributed to HVO North Pit Area;
4. Bold results in red indicate exceedance of relevant criterion;
5. NA in criterion column indicates no criterion is applicable at this location. NA in exceedance column means atmospheric conditions outside specified in approval and so criterion is not applicable;
6. IA means inaudible, there was no site noise at the monitoring location; and
7. NM means not measurable, noise was audible but could not be quantified.

5.2 NPfI Low Frequency Assessment

In accordance with the requirements of the EPA's Noise Policy for Industry (NPfI), the applicability of the low frequency modification penalty has been assessed. During May 2020 no penalties were applied. The assessment for low frequency noise is shown in Table 8.

Table 8: Low Frequency Noise Assessment – May 2020

Location	Date and Time	Measured Site Only LA _{eq} dB (Sth/Nth) ^{4,5}	Site Only LC _{eq} dB ¹ (Sth/Nth)	Site-Only LC _{eq} – LA _{eq} dB ^{1,2} (Sth/Nth)	Result Max exceedance of ref spectrum dB ^{1,3} (Sth/Nth)	Penalty dB(A) ^{1,6} (Sth/Nth)
Knodlers Lane	07/05/2020 21:41	<30/IA	NA/NA	NA/NA	NA/NA	NA/NA
Maison Dieu	07/05/2020 21:20	IA/IA	NA/NA	NA/NA	NA/NA	NA/NA
Shearers Lane	07/05/2020 21:00	NM/IA	NA/NA	NA/NA	NA/NA	NA/NA
Kilburnie South	07/05/2020 23:17	IA/30	NA/No	NA/No	NA/NA	NA/Nil
Jerrys Plains Village	07/05/2020 21:37	IA/31	NA/No	NA/No	NA/NA	NA/Nil
Jerrys Plains East	07/05/2020 21:05	IA/28	NA/No	NA/No	NA/NA	NA/Nil
Long Point Road	07/05/2020 21:01	IA/IA	NA	NA/NA	NA/NA	NA/NA
HVGC	07/05/2020 23:53	37/IA	No	No/NA	NA/NA	Nil/NA
Kilburnie South	19/05/2020 21:00	NM	NA	NA	NA	NA
Jerrys Plains Village	19/05/2020 21:55	34	No	No	NA	Nil
Jerrys Plains East	19/05/2020 21:26	33	No	No	NA	Nil

Notes:

1. Where it is not possible to determine the site-only result due to the presence of other low-frequency noise sources occurring during the measurement, or where criteria were not applicable due to meteorological conditions, or where site-only contributions were more than 5 dB less than the relevant LA_{eq} criterion this is noted as NA (not available) and no further assessment has been undertaken;
2. As per NPfI, if LC_{eq} – LA_{eq} ≥ 15 dB further assessment of low-frequency noise required;
3. As per NPfI, compare measured spectrum against reference spectrum to determine if the low-frequency modifying factor is triggered and application of penalty is required; and
4. IA means inaudible, there was no site noise at the monitoring location;
5. NM means not measurable, noise was audible but could not be quantified; and
6. Bold results indicate that NPfI low-frequency modifying factor has been triggered and application of correction is required.

5.3 Real Time Noise Monitoring

HVO utilises a network of real-time directional noise monitors to manage noise impacts on a continuous basis. Noise alarms are in place at five monitoring locations (Knodlers Lane, Maison Dieu, Jerrys Plains, Moses Crossing, and Long Point), which alert HVO staff to elevated noise levels likely to be attributable to HVO.

Noise alarms are investigated and responded to with the appropriate level of operational modification. Changes in response to a noise alarm can include replacing equipment with quieter (noise attenuated) units, changing or relocating tasks, and shutting down equipment. It should be noted that this assessment does not compliment or conflict with attended noise monitoring detailed in Section 5.1, and that real time monitoring data includes non-mine noise sources such as dogs, cows, or more commonly, road traffic.

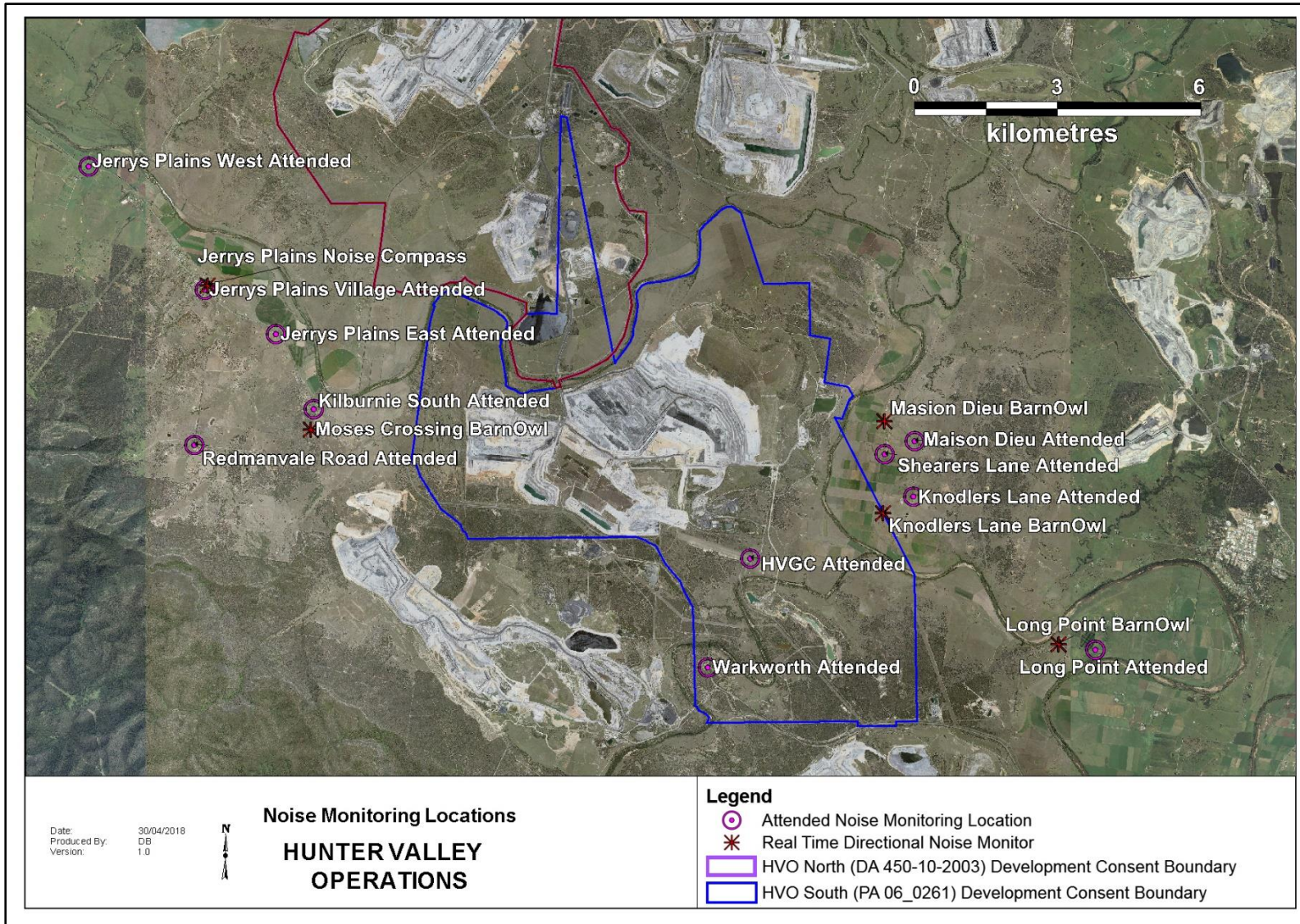


Figure 15: Noise Monitoring Location Plan

6.0 OPERATIONAL DOWNTIME

During May, a total of 59 hours of equipment downtime was logged in response to real time monitoring and visual inspections for environmental reasons such as dust, noise and meteorological conditions. Operational downtime by equipment type and reason is shown in Figure 16.

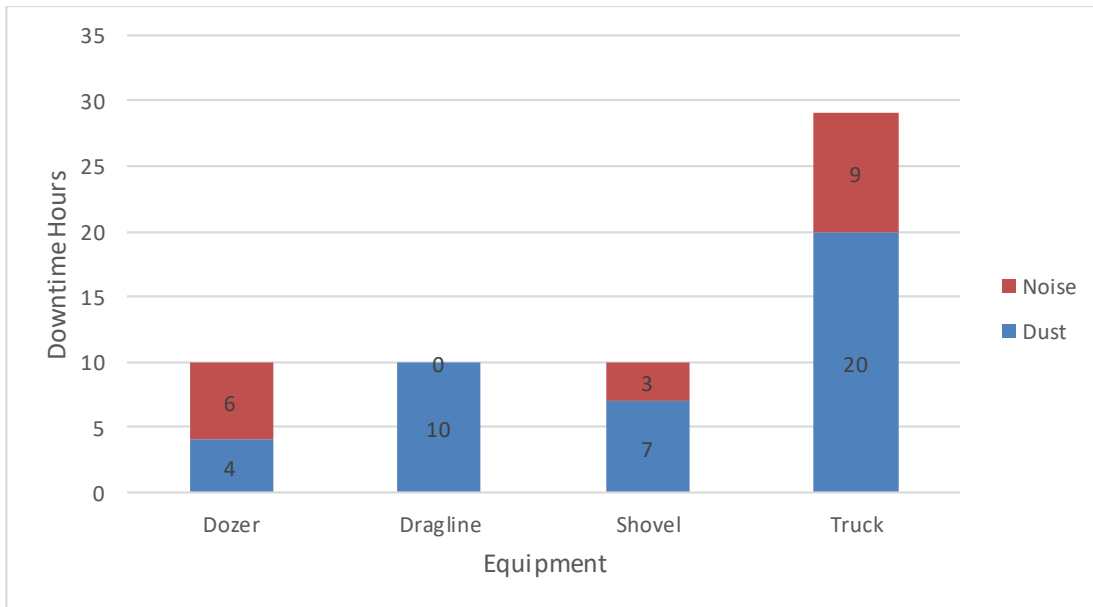


Figure 16: Operational Downtime by Equipment Type – May 2020

7.0 REHABILITATION

During May, 7.59 Ha of land was bulk shaped, no land was rehabilitated, 16.98 Ha of land was released and no land was topsoiled. Year to date progress can be viewed in Figure 17.

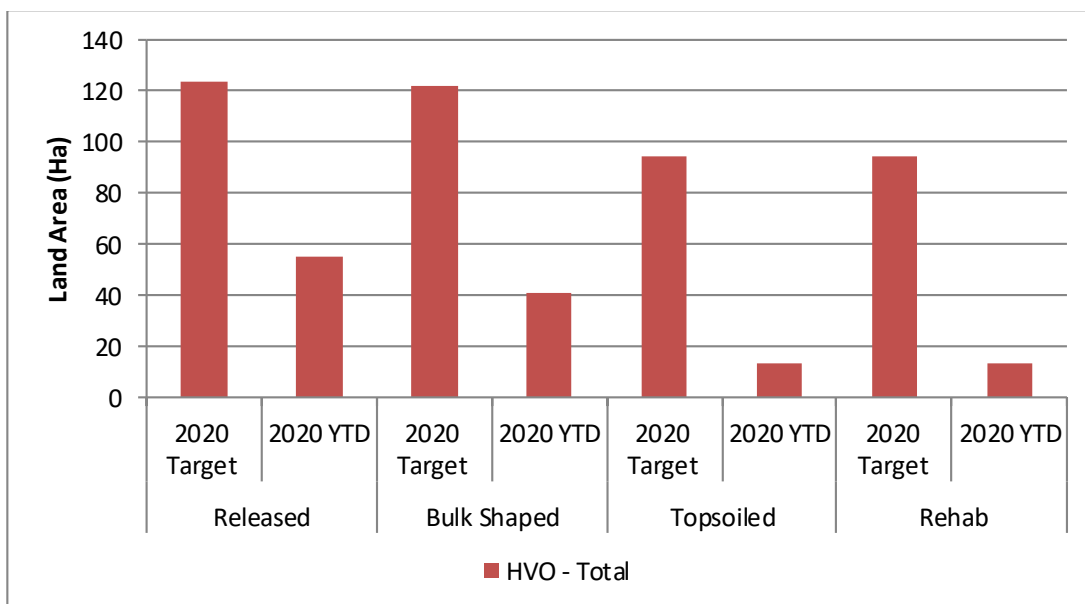


Figure 17: Rehabilitation YTD – May 2020

8.0 COMPLAINTS

Three complaints were received during May 2020. A total of three complaints have been received for 2020. Details of complaints received are shown in Table 9 below.

Table 9: Complaints Summary 2020

Month	Noise	Dust	Blast	Lighting	Other	Total
January	-	-	-	-	-	-
February	-	-	-	-	-	-
March	-	-	-	-	-	-
April	-	-	-	-	-	-
May	3	-	-	-	-	3
June						
July						
August						
September						
October						
November						
December						
Total	3	0	0	0	0	3

9.0 ENVIRONMENTAL INCIDENTS

During the reporting period there were two reportable environmental incidents:

- 06/05/2020 – Late Submission of Quarterly EPL Report**
 The quarterly report due 30/04/2020 was submitted late on 06/05/2020.
 Environmental Consequence: Nil Category
- 21/05/2020 – Missed Sample at HC1 TEOM**
 The TEOM air quality monitor lost power, resulting in insufficient data capture on the 21st and 22nd May.
 Environmental Consequence: Cat 1 Negligible

APPENDIX A: METEOROLOGICAL DATA

Table 10: Meteorological Data - HVO Corporate Meteorological Station – May 2020

Date	Air Temp Max (°C)	Air Temp Min (°C)*	Relative Humidity Max (%)	Relative Humidity Min (%)*	Solar Radiation Maximum (W/Sq. M)	Wind Dir. Avg (°)	Wind Speed Avg (m/sec)	Rainfall (mm)
1/05/2020	14.77	4.91	89.8	46.02	1010	285.3	7.342	0
2/05/2020	15.87	7.125	100	53.38	994	284	8.25	0
3/05/2020	19.12	4.235	88.5	40.2	806	266.2	2.359	0
4/05/2020	19.07	3.031	97.2	42.05	642.4	206.4	1.851	0
5/05/2020	17.95	5.605	109.1	73.58	829	166	1.37	0
6/05/2020	21.64	9.81	87	49.88	568.4	252.6	1.337	0
7/05/2020	21.56	6.422	97.8	53.08	515.4	278.1	2.952	0
8/05/2020	25.23	8.02	90.2	34.1	614.1	255.6	2.194	0
9/05/2020	23.57	10.27	87.2	49.73	851	274	3.601	0.4
10/05/2020	17.13	3.052	89.4	27.96	625.4	278	3.058	0
11/05/2020	17.75	0.366	86.6	32.61	625.4	197.9	1.588	0
12/05/2020	20	0.162	92.7	41.98	664.9	226.1	1.216	0
13/05/2020	18.28	2.951	95.4	42.08	676.9	256.2	2.028	0
14/05/2020	17.4	1.14	100	54.84	812	178.9	1.886	0
15/05/2020	16.86	5.671	109	58.89	809	122.8	2.308	0
16/05/2020	19.71	5.234	110.9	45.71	709.1	126.3	1.848	0
17/05/2020	20.28	4.29	100	46.56	768.1	136.8	1.779	0
18/05/2020	17.98	6.44	111.7	75.75	780.9	127.3	2.302	0
19/05/2020	19.83	6.109	113.6	61.52	754.3	144.7	1.214	0
20/05/2020	22.69	6.003	110.7	47.13	681.1	278.6	2.572	0
21/05/2020	16.78	3.424	108.9	64.91	382.9	262.6	2.382	2.4
22/05/2020	17.38	2.324	94.2	43.87	881	277.9	4.763	0.4
23/05/2020	12.02	2.661	100	75.57	868	292.8	4.713	3
24/05/2020	15.6	4.91	100	56.47	637.2	250.6	2.69	0
25/05/2020	14.74	6.75	100	58.81	452.9	221.8	1.807	12.8
26/05/2020	17.27	6.507	100	71.44	788.4	140.6	2.458	0.6
27/05/2020	18.53	7.006	100	65.25	778.8	152.2	0.893	0
28/05/2020	20.47	5.333	109.3	50.43	538.6	247.9	1.565	0
29/05/2020	19.31	4.76	110.2	57.27	664.9	177.7	1.109	0
30/05/2020	18.63	4.22	113.4	64.63	696.4	151.3	1.12	0.2
31/05/2020	21.63	4.124	113.3	45.6	664.5	245.3	2.028	0