

# **HUNTER VALLEY OPERATIONS**

## **Monthly Environmental Monitoring Report**

### **February 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 1 February to 29 February 2020.

## 2.0 AIR QUALITY

### 2.1 Meteorological Monitoring

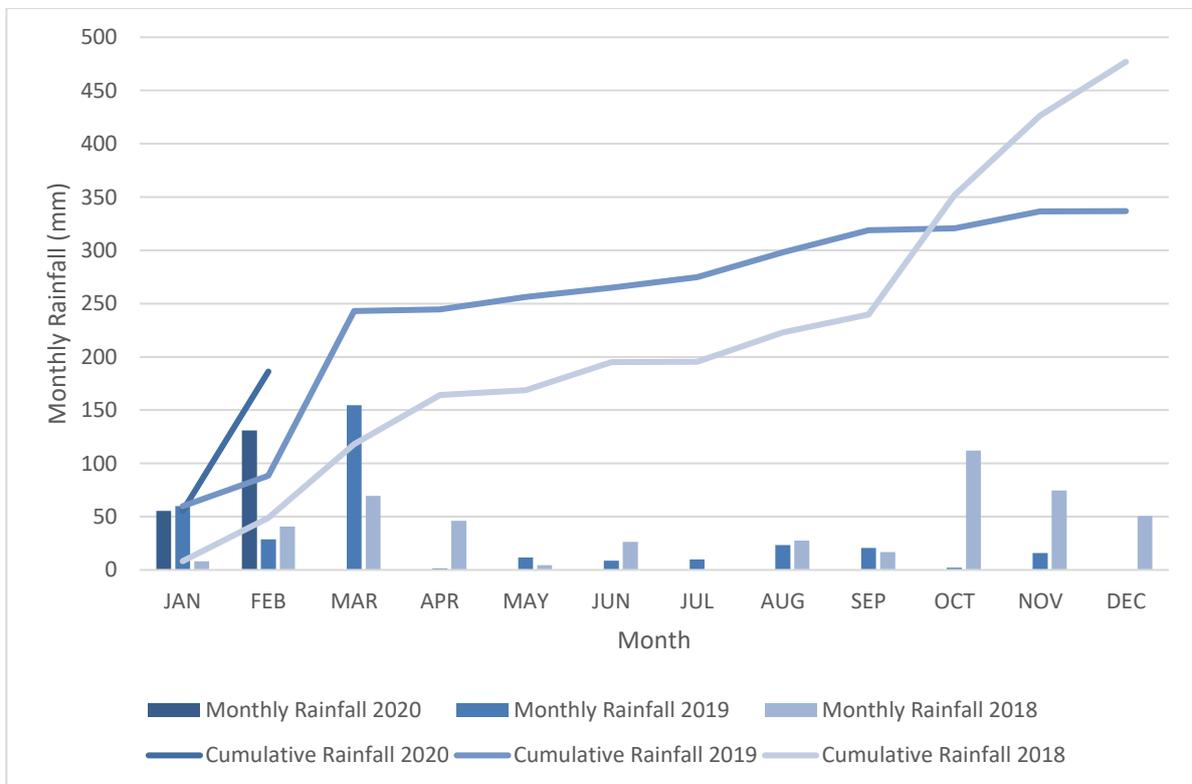
HVO maintains two meteorological stations; 'HVO Corporate' and 'Cheshunt' (Refer to Figure 4: Air Quality Monitoring Location Plan).

#### 2.1.1 Rainfall

Rainfall for the period is summarised in Table 1, the 2020 trend and historical trend are shown in Figure 1. The majority of February's rainfall fell between 6 – 9 February, as shown in Table 13 (Appendix A).

**Table 1: Rainfall data – February 2020**

2020	Monthly Rainfall (mm)	Cumulative Rainfall (mm)
<i>February</i>	130.8	186.2



**Figure 1: Rainfall Summary 2020**

### 2.1.2 Wind Speed and Direction

Easterly and South Easterly winds were dominant during February as shown in Figure 2 (HVO Corporate) and Figure 3 (HVO Cheshunt).

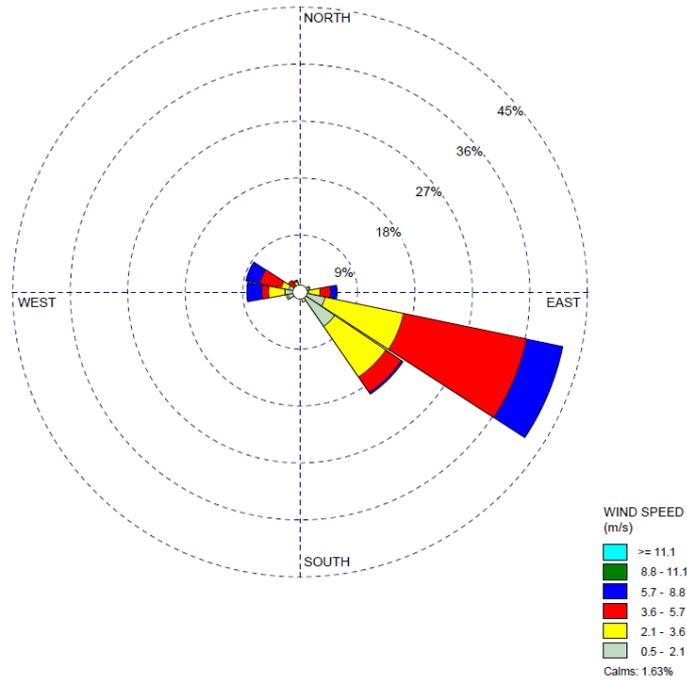


Figure 2: HVO Corporate Wind Rose – February 2020

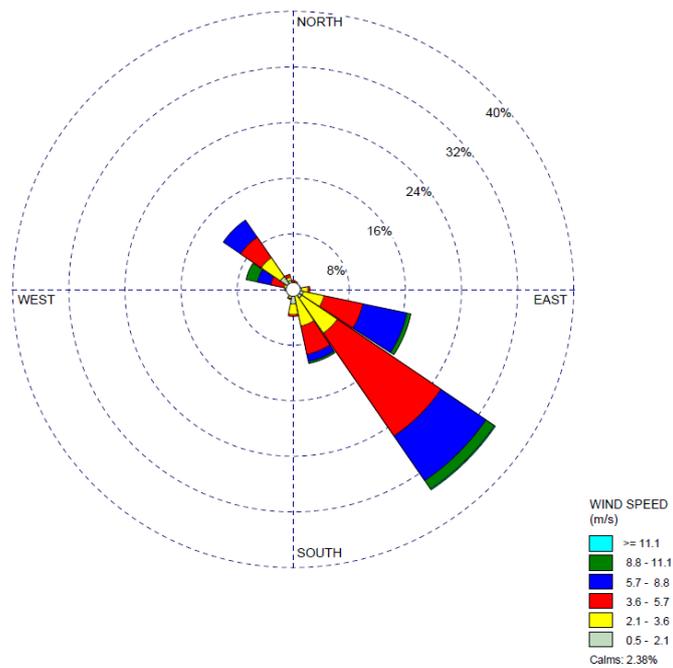


Figure 3: HVO Cheshunt Wind Rose – February 2020

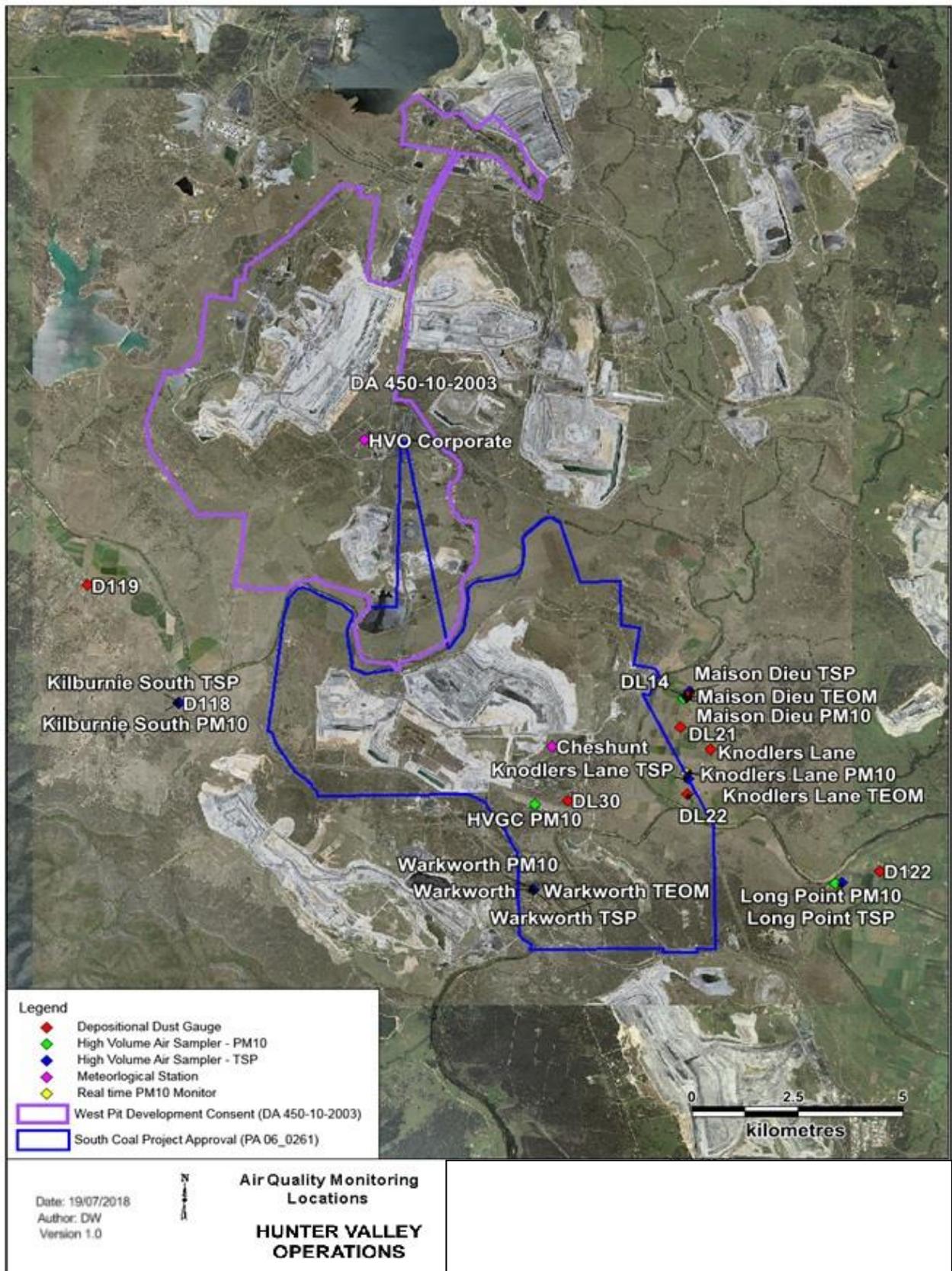


Figure 4: Air Quality Monitoring Location Plan

## 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, D119, D122, DL21, DL30 and Warkworth monitors recorded a monthly result above the long term impact assessment criteria of 4.0 g/m<sup>2</sup> per month.

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

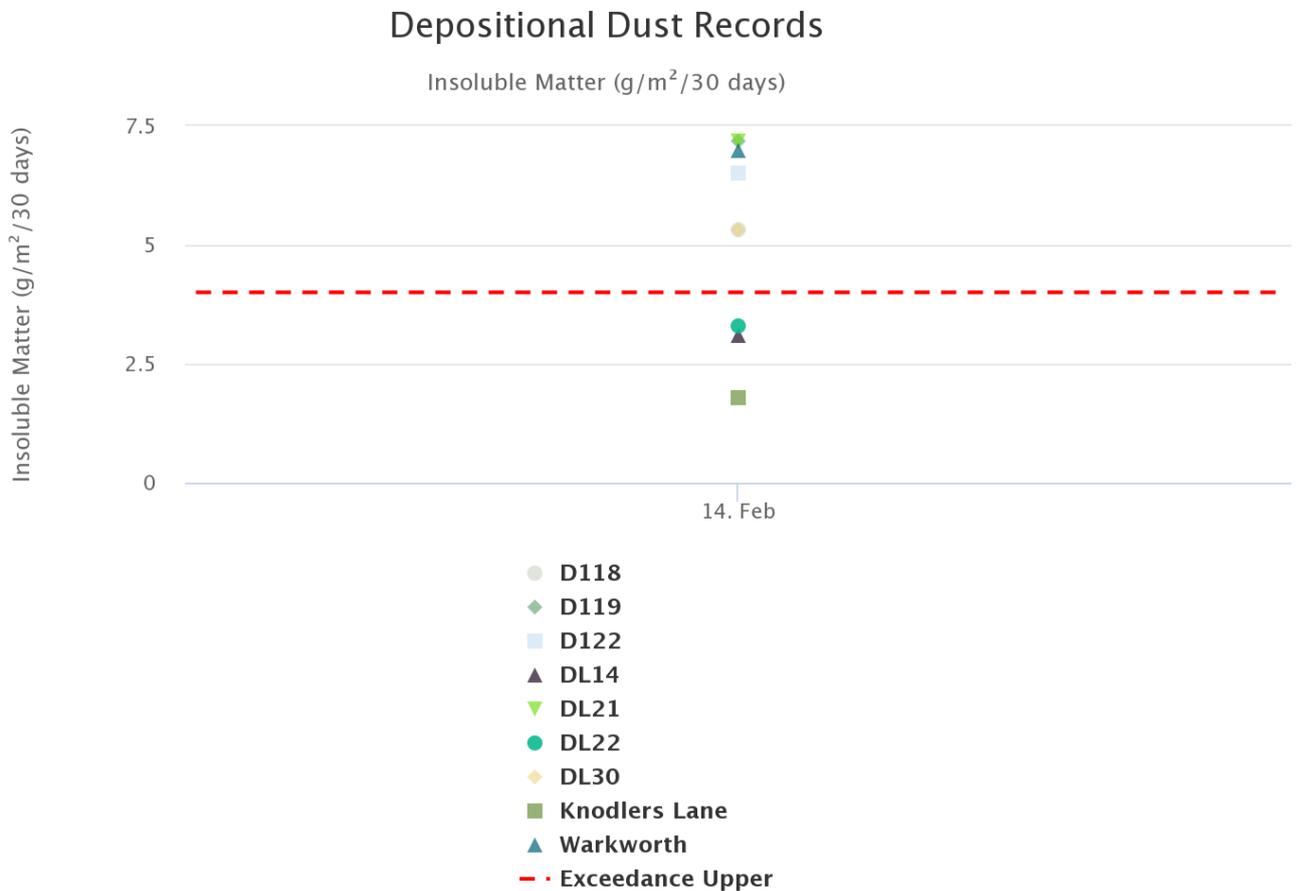


Figure 5: Depositional Dust Results – February 2020

### 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 <10µm (PM<sub>10</sub>). Two HVAS's also monitor Particulate Matter <2.5µm (PM<sub>2.5</sub>) i.e. Kilburnie South and Maison Dieu. The location of these monitors can be found in Figure 4. Each HVAS was run for 24 hours on a six-day cycle.

#### 2.3.1 HVAS PM<sub>10</sub> Results

Figure 6 shows individual PM<sub>10</sub> results at each monitoring station against the short term impact assessment criteria of 50 µg/m<sup>3</sup>.

During the reporting period all monitors recorded an exceedance above the short term impact assessment criteria of 50 µg/m<sup>3</sup>. Results of the investigations are presented in Table 2.

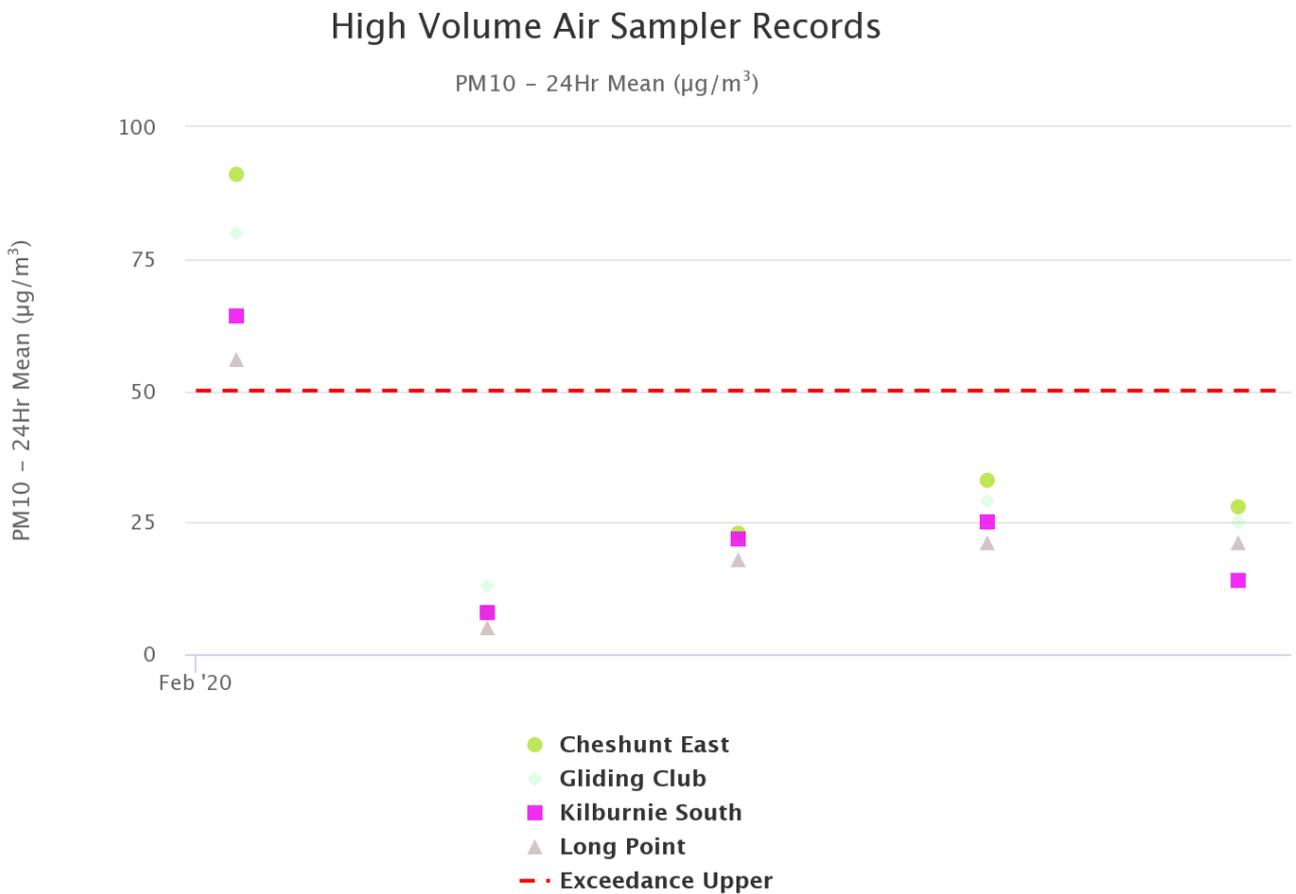


Figure 6: Individual PM<sub>10</sub> Results – February 2020

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

**Table 2: PM10 HVAS Investigation Results**

Date	Site	Total Measured Result ( $\mu\text{g}/\text{m}^3$ )	Estimated contribution from HVO ( $\mu\text{g}/\text{m}^3$ )	Discussion
02/02/2020	Cheshunt East (North)	91	27.0	An investigation determined HVO North's maximum potential contribution to be in the order of $27.0\mu\text{g}/\text{m}^3$ based on prevailing wind conditions.
02/02/2020	Cheshunt East (South)	91	NA	HVO South was not a significant contributor given that wind direction during the 24 hour period was only within the arc of influence for 0.0% of the period.
02/02/2020	Glider Club	80	16.0	An investigation determined HVO South's maximum potential contribution to be in the order of $16.0\mu\text{g}/\text{m}^3$ based on prevailing wind conditions
02/02/2020	Kilburnie South (North)	64	26.1	HVO North was not a significant contributor given that wind direction during the 24 hour period was only within the arc of influence for 4.2% of the period.
02/02/2020	Kilburnie South (South)	64	NA	HVO South was not a significant contributor given that wind direction during the 24 hour period was only within the arc of influence for 3.5% of the period.
02/02/2020	Long Point	56	14.0	An investigation determined HVO South's maximum potential contribution to be in the order of $14.0\mu\text{g}/\text{m}^3$ based on prevailing wind conditions.

### 2.3.2 HVAS PM<sub>2.5</sub> Results

PM<sub>2.5</sub> monitoring commenced in 2020 at two locations i.e. Kilburnie South and Maison Dieu. **Figure 7** shows individual PM<sub>2.5</sub> 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 the Kilburnie South monitor recorded an exceedance above the short term impact assessment criteria of  $25 \mu\text{g}/\text{m}^3$ . Details of the exceedance are included in Table 3. The exceedance is currently being investigated.

## High Volume Air Sampler Records

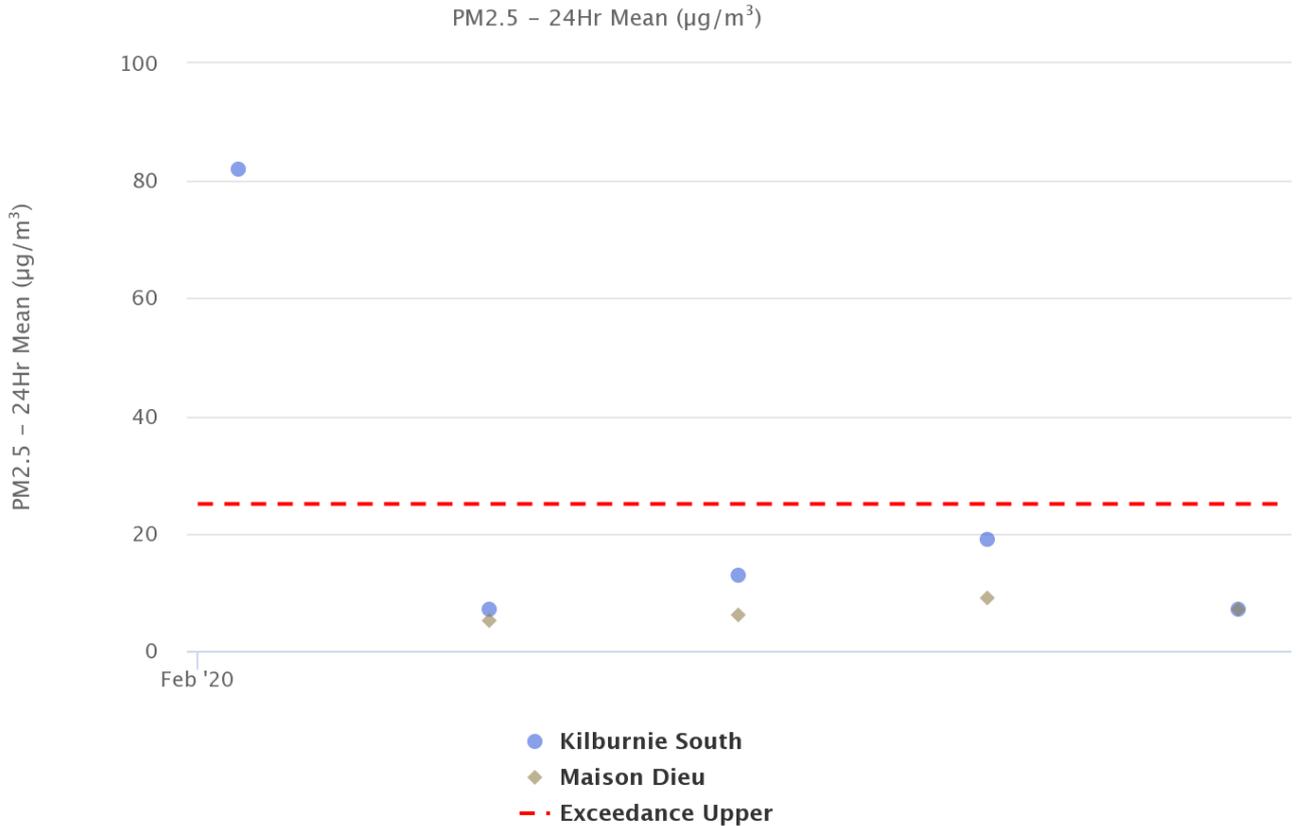


Figure 7: Individual PM<sub>2.5</sub> Results – February 2020

Table 3: PM<sub>2.5</sub> HVAS Investigation Results

Date	Site	Total Measured Result ( $\mu\text{g}/\text{m}^3$ )	Estimated contribution from HVO ( $\mu\text{g}/\text{m}^3$ )	Discussion
02/02/2020	Kilburnie South	82	TBD	Investigation in progress to determine HVO's contribution.

### 2.3.3 Real Time PM<sub>10</sub> Results

Hunter Valley Operations maintains a network of real time PM<sub>10</sub> 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 PM<sub>10</sub> 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 8, including the daily 24 hour average PM10 result and the year to date 24 hour PM<sub>10</sub> annual average.

During the reporting period, the Maison Dieu and Jerrys Plains monitors exceeded the daily 24 hour average PM10 result (50µg/m<sup>3</sup>). Results of the investigations are presented in Table 4.

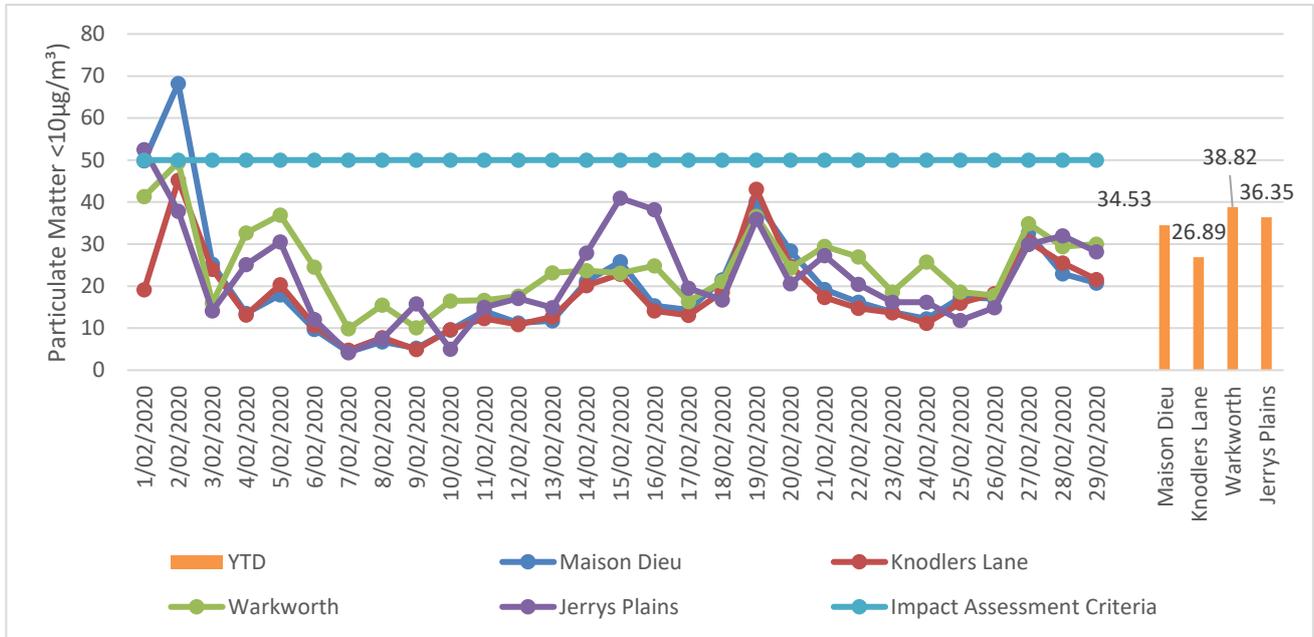


Figure 8: Real Time PM<sub>10</sub> 24hr average and YTD average – February 2020

Table 4: Real-time PM10 TEOM Investigation Results

Date	Site	Total Measured Result (µg/m <sup>3</sup> )	Estimated contribution from HVO (µg/m <sup>3</sup> )	Discussion
01/02/2020	Jerrys Plains South TEOM	52.5	2.3	An investigation determined HVO maximum potential contribution to be in the order of 2.3ug/m <sup>3</sup> based on prevailing wind conditions
02/02/2020	Maison Dieu TEOM	68.2	28.2	An investigation determined HVO maximum potential contribution to be in the order of 28.2ug/m <sup>3</sup> based on prevailing wind conditions.

### 2.3.4 Real Time Alarms for Air Quality

During February the real time monitoring system generated 135 automated air quality related alarms. 47 alarms were related to adverse weather conditions and 88 alarms relating to PM<sub>10</sub>.

### 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 evaluated 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 March 2020 report.

#### 3.2 Site Water Use

Under water allocation licences issued by the Water NSW, HVO is permitted to extract water from the Hunter River. During the reporting period, HVO extracted 233.8 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 March 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 11. Blasting criteria are summarised in Table 5.

**Table 5: Blasting Criteria**

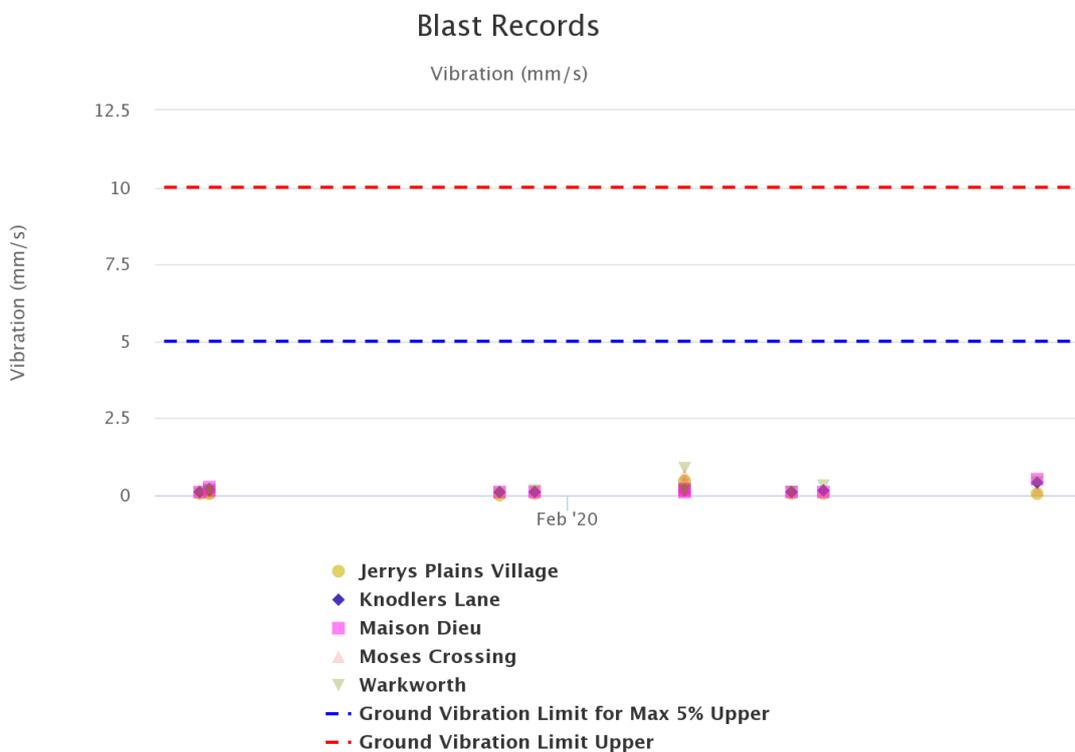
<b>Airblast Overpressure (dB(L))</b>	<b>Comments</b>
115	<i>5% of the total number of blasts in a 12 month period</i>
120	<i>0%</i>
<b>Ground Vibration (mm/s)</b>	<b>Comments</b>
5	<i>5% of the total number of blasts in a 12 month period</i>
10	<i>0%</i>

#### 4.1 Blast Monitoring Results

During February, there were 11 blasts fired from HVO. Figure 9 and Figure 10 show the blast monitoring results for the reporting period against the impact assessment criteria.



**Figure 9: Overpressure Blast Monitoring Results – February 2020**



**Figure 10: Ground Vibration Blast Monitoring Results – February 2020**



Figure 11: 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 12.

### 5.1 Attended Noise Monitoring Results

Attended monitoring was conducted at receiver locations surrounding HVO on the night of 19 February 2020 with no non-compliances recorded. Monitoring results are detailed in Table 6 to Table 10.

**Table 6: L<sub>Aeq, 15 minute</sub> HVO South - Impact Assessment Criteria – February 2020**

Location	Date and Time	Wind Speed (m/s) <sup>1</sup>	Stability Class <sup>1</sup>	Criterion dB (A)	Criterion Applies? <sup>2</sup>	HVO South L <sub>Aeq</sub> dB <sup>3,4</sup>	Exceedance <sup>4,5</sup>
Knodlers Lane	19/02/2020 21:51	2.7	D	39	Yes	32	Nil
Maison Dieu	19/02/2020 21:00	2.2	E	39	Yes	30	Nil
Shearers Lane	19/02/2020 22:15	2.3	E	41	Yes	34	Nil
Kilburnie South	19/02/2020 23:13	2.0	F	39	Yes	IA	Nil
Jerrys Plains Village	19/02/2020 21:31	1.6	E	35	Yes	IA	Nil
Jerrys Plains East	19/02/2020 21:06	2.2	E	35	Yes	IA	Nil
Long Point Road	19/02/2020 21:00	4.7	D	35	No	IA	NA
HVGC	19/02/2020 23:45	3.3	D	55	No	IA	NA

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 L<sub>Aeq, 15minute</sub> attributed to HVO South Pit Area, including modifying factors if applicable;
4. Bold results in red indicate exceedance of criterion; and
5. NA in exceedance column means atmospheric conditions outside specified in approval, therefore criterion was not applicable.

**Table 7: LA1, 1 minute HVO South - Impact Assessment Criteria – February 2020**

Location	Date Time and	Wind Speed (m/s) <sup>1</sup>	Stability Class	Criterion dB (A)	Criterion Applies? <sup>2</sup>	HVO South LA1, 1min dB <sup>3,4</sup>	Exceedance <sup>4,5</sup>
<i>Knodlers Lane</i>	<i>19/02/2020 21:51</i>	<i>2.7</i>	<i>D</i>	<i>45</i>	<i>Yes</i>	<i>33</i>	<i>Nil</i>
<i>Maison Dieu</i>	<i>19/02/2020 21:00</i>	<i>2.2</i>	<i>E</i>	<i>45</i>	<i>Yes</i>	<i>33</i>	<i>Nil</i>
<i>Shearers Lane</i>	<i>19/02/2020 22:15</i>	<i>2.3</i>	<i>E</i>	<i>45</i>	<i>Yes</i>	<i>35</i>	<i>Nil</i>
<i>Kilburnie South</i>	<i>19/02/2020 23:13</i>	<i>2.0</i>	<i>F</i>	<i>45</i>	<i>Yes</i>	<i>IA</i>	<i>Nil</i>
<i>Jerrys Plains Village</i>	<i>19/02/2020 21:31</i>	<i>1.6</i>	<i>E</i>	<i>45</i>	<i>Yes</i>	<i>IA</i>	<i>Nil</i>
<i>Jerrys Plains East</i>	<i>19/02/2020 21:06</i>	<i>2.2</i>	<i>E</i>	<i>45</i>	<i>Yes</i>	<i>IA</i>	<i>Nil</i>
<i>Long Point Road</i>	<i>19/02/2020 21:00</i>	<i>4.7</i>	<i>D</i>	<i>45</i>	<i>No</i>	<i>IA</i>	<i>NA</i>
<i>HVGC</i>	<i>19/02/2020 23:45</i>	<i>3.3</i>	<i>D</i>	<i>NA</i>	<i>No</i>	<i>IA</i>	<i>NA</i>

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, 1minute attributed to HVO South Pit Area;
4. Bold results in red indicate exceedance of criterion; and
5. NA in criterion column indicates no criterion is applicable at this location. NA in exceedance column means atmospheric conditions outside specified in approval, therefore criterion was not applicable.

**Table 8: LAeq, 15 minute HVO North – Impact Assessment Criteria – February 2020**

Location	Date and Time	Wind Speed (m/s) <sup>1</sup>	Stability Class <sup>1</sup>	Criterion dB (A)	Criterion Applies? <sup>2</sup>	HVO North LAeq dB <sup>3,4</sup>	Exceedance <sup>4,5</sup>
Knodlers Lane	19/02/2020 21:51	2.0	E	35	Yes	IA	Nil
Maison Dieu	19/02/2020 21:00	3.5	D	35	No	IA	NA
Shearers Lane	19/02/2020 22:15	1.5	D	35	Yes	IA	Nil
Kilburnie South	19/02/2020 23:13	0.6	E	39	Yes	IA	Nil
Jerrys Plains Village	19/02/2020 21:31	1.8	D	36	Yes	IA	Nil
Jerrys Plains East	19/02/2020 21:06	3.5	D	39	No	IA	NA
Long Point Road	19/02/2020 21:00	4.7	D	35	No	IA	NA
HVGC	19/02/2020 23:45	1.6	E	NA	Yes	IA	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 criteria 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 criterion; and
5. NA in criterion column indicates no criterion is applicable at this location. NA in exceedance column means atmospheric conditions outside specified in approval, therefore criterion was not applicable.

**Table 9: LAeq,15 minute HVO North - Land Acquisition Criteria – February 2020**

Location	Date and Time	Wind Speed (m/s) <sup>1</sup>	Stability Class <sup>1</sup>	Criterion dB (A)	Criterion Applies? <sup>2</sup>	HVO North LAeq dB <sup>3,4</sup>	Exceedance <sup>4,5</sup>
<i>Knodlers Lane</i>	<i>19/02/2020 21:51</i>	<i>2.0</i>	<i>E</i>	<i>41</i>	<i>Yes</i>	<i>IA</i>	<i>Nil</i>
<i>Maison Dieu</i>	<i>19/02/2020 21:00</i>	<i>3.5</i>	<i>D</i>	<i>41</i>	<i>No</i>	<i>IA</i>	<i>NA</i>
<i>Shearers Lane</i>	<i>19/02/2020 22:15</i>	<i>1.5</i>	<i>D</i>	<i>41</i>	<i>Yes</i>	<i>IA</i>	<i>Nil</i>
<i>Kilburnie South</i>	<i>19/02/2020 23:13</i>	<i>0.6</i>	<i>E</i>	<i>41</i>	<i>Yes</i>	<i>IA</i>	<i>Nil</i>
<i>Jerrys Plains Village</i>	<i>19/02/2020 21:31</i>	<i>1.8</i>	<i>D</i>	<i>41</i>	<i>Yes</i>	<i>IA</i>	<i>Nil</i>
<i>Jerrys Plains East</i>	<i>19/02/2020 21:06</i>	<i>3.5</i>	<i>D</i>	<i>41</i>	<i>No</i>	<i>IA</i>	<i>NA</i>
<i>Long Point Road</i>	<i>19/02/2020 21:00</i>	<i>4.7</i>	<i>D</i>	<i>41</i>	<i>No</i>	<i>IA</i>	<i>NA</i>
<i>HVGC</i>	<i>19/02/2020 23:45</i>	<i>1.6</i>	<i>E</i>	<i>NA</i>	<i>Yes</i>	<i>IA</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 criteria 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 criterion; and
5. NA in criterion column indicates no criterion is applicable at this location. NA in exceedance column means atmospheric conditions outside specified in approval, therefore criterion was not applicable.

**Table 10: LA1, 1 Minute HVO North - Impact Assessment Criteria – February 2020**

<b>Location</b>	<b>Date and Time</b>	<b>Wind Speed (m/s)<sup>1</sup></b>	<b>Stability Class<sup>1</sup></b>	<b>Criterion dB (A)</b>	<b>Criterion Applies?<sup>2</sup></b>	<b>HVO North LA1, 1min dB<sup>3,4</sup></b>	<b>Exceedance<sup>4,5</sup></b>
Knodlers Lane	19/02/2020 21:51	2.0	E	46	Yes	IA	Nil
Maison Dieu	19/02/2020 21:00	3.5	D	46	No	IA	NA
Shearers Lane	19/02/2020 22:15	1.5	D	46	Yes	IA	Nil
Kilburnie South	19/02/2020 23:13	0.6	E	46	Yes	IA	Nil
Jerrys Plains Village	19/02/2020 21:31	1.8	D	46	Yes	IA	Nil
Jerrys Plains East	19/02/2020 21:06	3.5	D	46	No	IA	NA
Long Point Road	19/02/2020 21:00	4.7	D	46	No	IA	NA
HVGC	19/02/2020 23:45	1.6	E	NA	Yes	IA	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 criteria 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, 1minute attributed to HVO North Pit Area;
4. Bold results in red indicate exceedance of criterion; and
5. NA in criterion column indicates no criterion is applicable at this location. NA in exceedance column means atmospheric conditions outside specified in approval, therefore criterion was not applicable.

## 5.2 NPfl Low Frequency Assessment

In accordance with the requirements of the EPA’s Noise Policy for Industry (NPfl), the applicability of the low frequency modification penalty has been assessed. During February 2020 no penalties were applied. The assessment for low frequency noise is shown in Table 11.

**Table 11: Low Frequency Noise Assessment – February 2020**

<b>Location</b>	<b>Date and Time</b>	<b>Measured Site Only LAeq dB (Sth/Nth)</b>	<b>Site Only LCeq dB<sup>1</sup> (Sth/Nth)</b>	<b>Site-Only LCEq – LAeq dB<sup>2</sup> (Sth/Nth)</b>	<b>Result Max exceedance of ref spectrum dB<sup>3</sup> (Sth/Nth)</b>	<b>Penalty dB(A)<sup>4</sup> (Sth/Nth)</b>
Knodlers Lane	19/02/2020 21:51	IA/32	NA/NA	NA/NA	NA/NA	NA/NA
Maison Dieu	19/02/2020 21:00	IA/30	NA/NA	NA/NA	NA/NA	NA/NA
Shearers Lane	19/02/2020 22:15	IA/34	NA/NA	NA/NA	NA/NA	NA/NA
Kilburnie South	19/02/2020 23:13	IA/IA	NA/NA	NA/NA	NA/NA	NA/NA
Jerrys Plains Village	19/02/2020 21:31	IA/IA	NA/NA	NA/NA	NA/NA	NA/NA
Jerrys Plains East	19/02/2020 21:06	IA/IA	NA/NA	NA/NA	NA/NA	NA/NA
Long Point Road	19/02/2020 21:00	IA/IA	NA/NA	NA/NA	NA/NA	NA/NA
HVGC	19/02/2020	IA/IA	NA/NA	NA/NA	NA/NA	NA/NA

**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 LAeq criterion this is noted as NA (not available) and no further assessment has been undertaken;
2. As per NPfl, if LCEq – LAeq ≥ 15 dB further assessment of low-frequency noise required;
3. As per NPfl, compare measured spectrum against reference spectrum to determine if the low-frequency modifying factor is triggered and application of penalty is required; and
4. Bold results indicate that NPfl low-frequency modifying factor has been triggered and application of correction is required.

### 5.2.1 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.

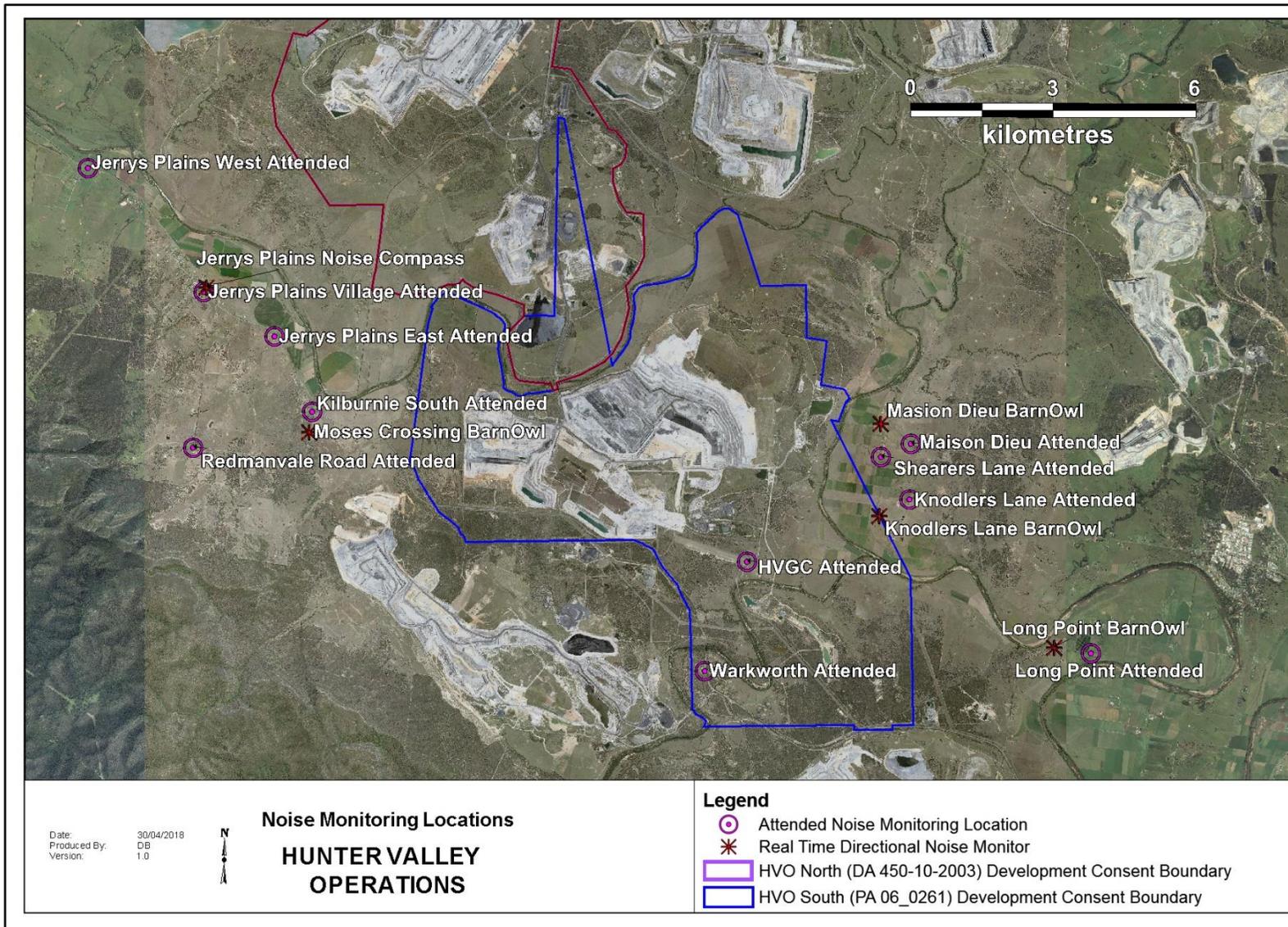


Figure 12: Noise Monitoring Location Plan

### 6.0 OPERATIONAL DOWNTIME

During February, a total of 82.59 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 is shown in Figure 13.

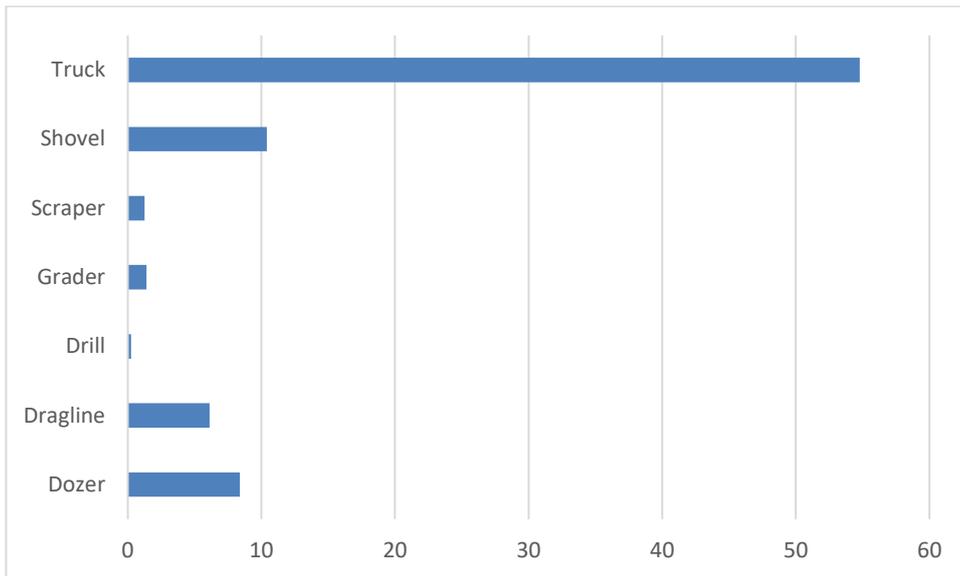


Figure 13: Operational Downtime by Equipment Type – February 2020

### 7.0 REHABILITATION

During February, 35.5 Ha of land was released, 28.5 Ha of land was bulk shaped and 9.8 Ha of land was topsoiled (ready to seed). There was no land rehabilitated during February 2020. Year to date progress can be viewed in Figure 14.

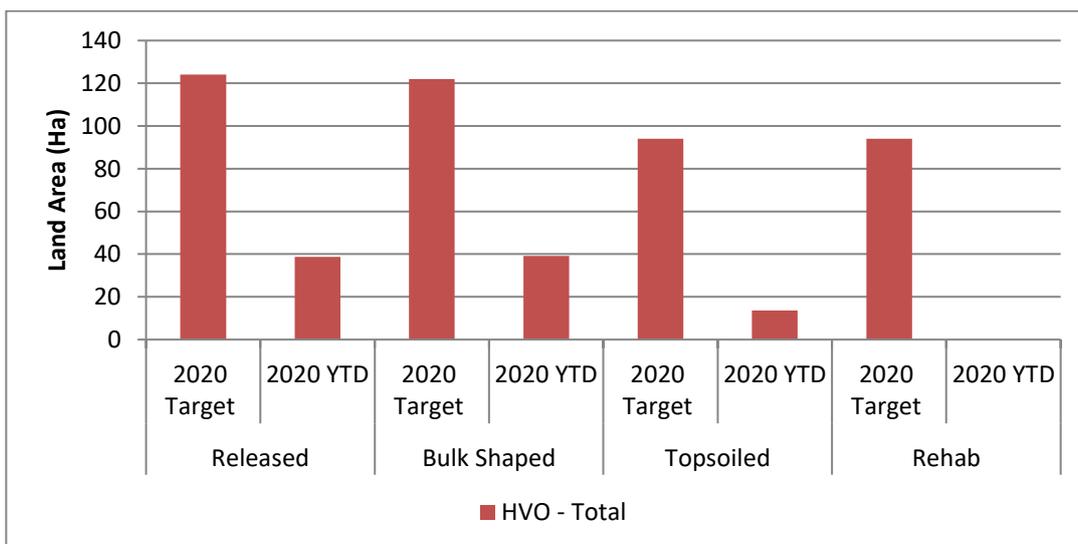


Figure 14: Rehabilitation YTD – February 2020

## 8.0 COMPLAINTS

No complaints were received during February 2020. Details of complaints received YTD are shown in Table 12 below.

**Table 12: Complaints Summary YTD 2020**

<b>Month</b>	<b>Noise</b>	<b>Dust</b>	<b>Blast</b>	<b>Lighting</b>	<b>Other</b>	<b>Total</b>
<i>January</i>	-	-	-	-	-	-
<i>February</i>	-	-	-	-	-	-
<i>Total</i>	-	-	-	-	-	-

## 9.0 ENVIRONMENTAL INCIDENTS

There were no reportable environmental incidents in February 2020,

**APPENDIX A: METEOROLOGICAL DATA**

**Table 13: Meteorological Data - HVO Corporate Meteorological Station – February 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)
1/02/2020	43.6	23.7	81.7	19.65	390.9	254	3.5	0
2/02/2020	42.8	21.1	109.5	18.96	690.9	256	5.4	2.4
3/02/2020	37.4	18.9	109.5	7.702	798.4	188	4.0	0.2
4/02/2020	25.7	15.3	84.9	44.11	235.4	106	6.1	0
5/02/2020	28.6	13.1	94.2	45.01	349.5	121	3.5	0
6/02/2020	21.2	15.9	112.3	70.37	825	120	3.9	20.8
7/02/2020	22.8	15.8	113.3	82	815	123	3.9	17.2
8/02/2020	24.3	16.2	114	70.74	984	112	5.2	30.2
9/02/2020	21.8	15.5	113.8	100	592.3	115	5.0	46.4
10/02/2020	27.2	18.1	98.8	68.12	1188	111	2.6	0.2
11/02/2020	32.1	15.5	112	47.42	510.7	134	1.7	0
12/02/2020	29.9	19.8	109.1	57.51	573	124	2.8	0
13/02/2020	27.6	18.8	108.7	73.19	689.5	113	4.3	0.2
14/02/2020	29.2	16.4	93.2	42.68	1424	111	3.1	0
15/02/2020	25.0	16.9	108.6	83.4	956	109	2.8	5.2
16/02/2020	26.5	15.4	109.5	67.99	1490	113	3.5	0.2
17/02/2020	24.5	15.9	111.7	82	747.6	158	1.6	3
18/02/2020	33.7	15.1	114	50.33	1038	267	2.4	0.2
19/02/2020	28.9	17.2	100	23.2	1063	261	4.5	3.6
20/02/2020	27.6	13.0	90.4	35.36	1133	200	2.3	0
21/02/2020	26.8	16.0	89.9	53.07	1494	114	4.0	0
22/02/2020	25.7	13.8	100	59.01	1315	113	4.1	0
23/02/2020	24.7	14.7	100	53.78	1075	117	3.4	0
24/02/2020	24.3	14.6	100	66.99	1181	131	2.0	1
25/02/2020	30.7	19.0	90	41.11	682.7	130	1.6	0
26/02/2020	31.4	17.8	95.9	53.99	1315	269	3.0	0
27/02/2020	26.5	14.1	100	59.25	1415	131	2.3	0
28/02/2020	29.0	13.1	108.7	24.25	994	182	2.8	0
29/02/2020	28.4	11.6	100	49.88	1240	118	2.9	0

\* Data not recorded