

**HUNTER VALLEY
OPERATIONS**



**Monthly
Environmental
Monitoring Report**

Hunter Valley Operations

January 2019

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Revision History

Version No.	Person Responsible	Document Status	Date
1.0	Environment & Community Officer	Draft	19/3/2019
1.1	Environment & Community Coordinator	Final	20/03/2019

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 January to 31 January 2019.

2.0 AIR QUALITY

2.1 Meteorological Monitoring

HVO maintains two meteorological stations; '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 2019 trend and historical trend are shown in Figure 1.

Table 1: Monthly Rainfall HVO

2019	Monthly Rainfall (mm)	Cumulative Rainfall (mm)
January	59.8	59.8

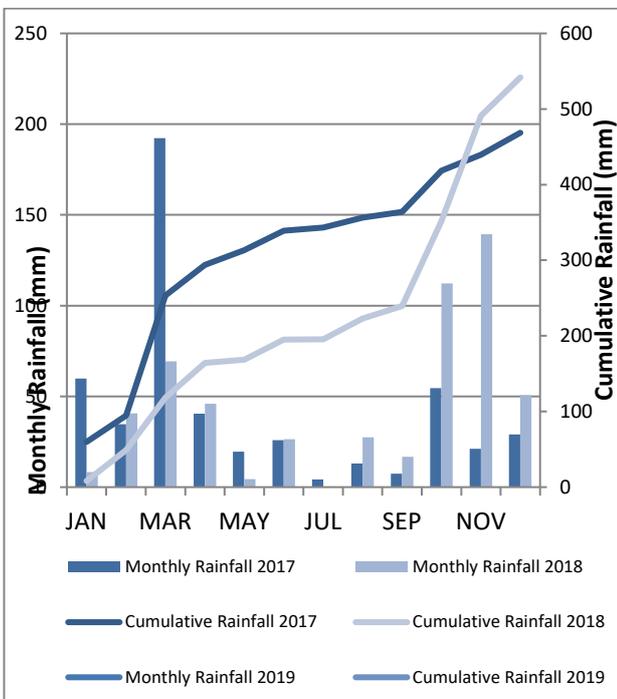


Figure 1: Rainfall Summary 2019

2.1.2 Wind Speed and Direction

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

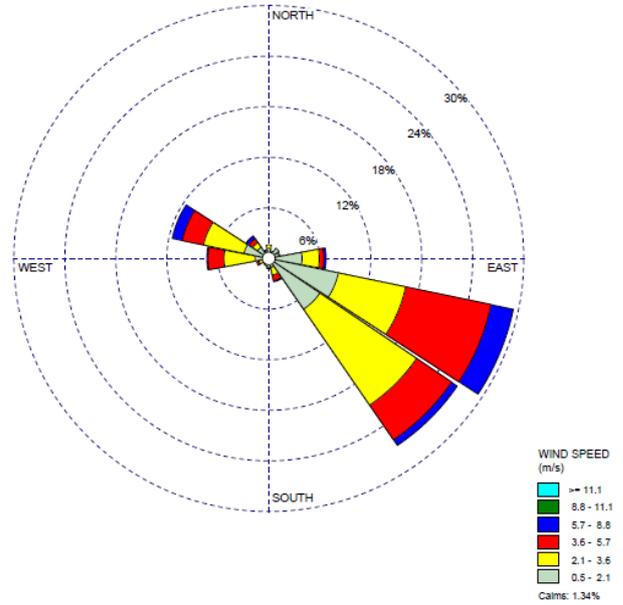


Figure 2: HVO Corporate Wind Rose – January 2019

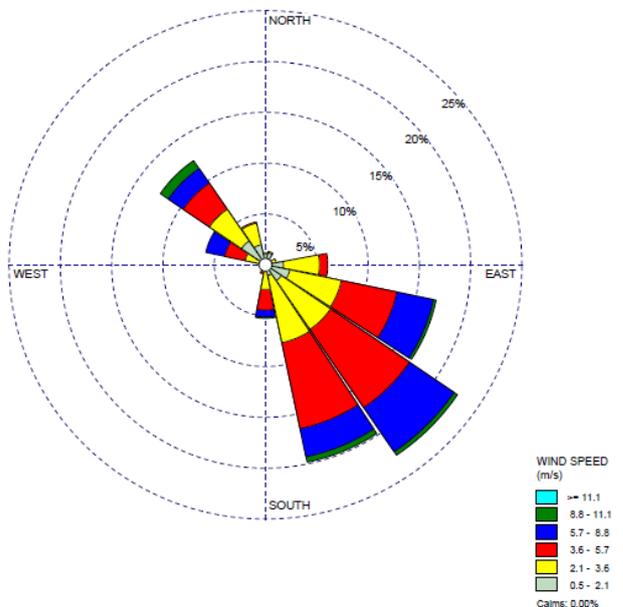


Figure 3: HVO Cheshunt Wind Rose – January 2019

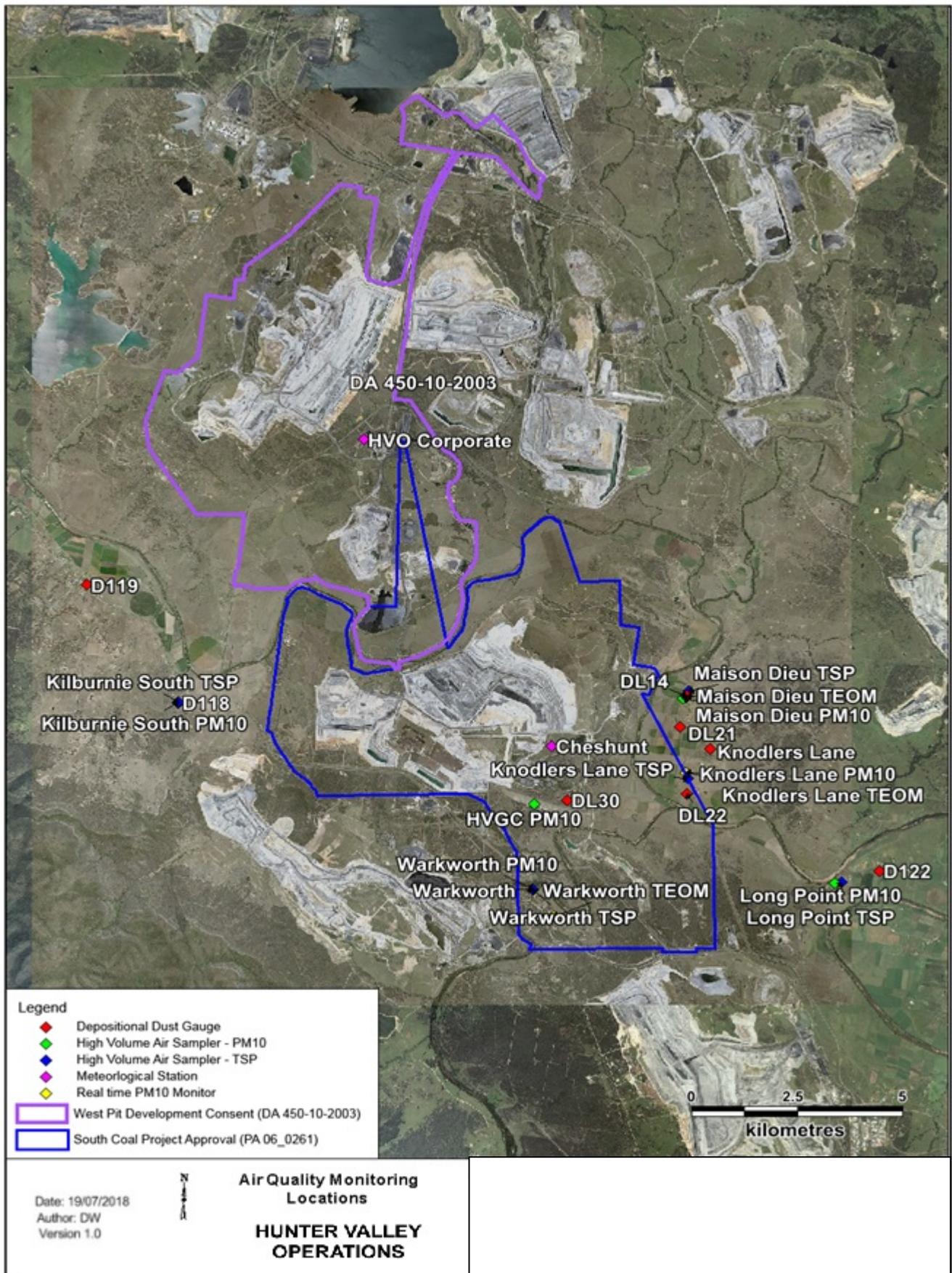


Figure 4: Air Quality Monitoring Location Plan

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 year-to-date average and the annual impact assessment criteria.

During the reporting period the D118, DL30, Knodlers Lane and Warkworth monitors recorded a monthly result above the long term impact assessment criteria of 4.0 g/m² per month. Both Knodlers Lane and Warkworth were deemed contaminated samples due to the presence of insects and spiders.

An assessment of HVO's contribution against the long term impact assessment criteria will be provided in the 2019 Annual Review.

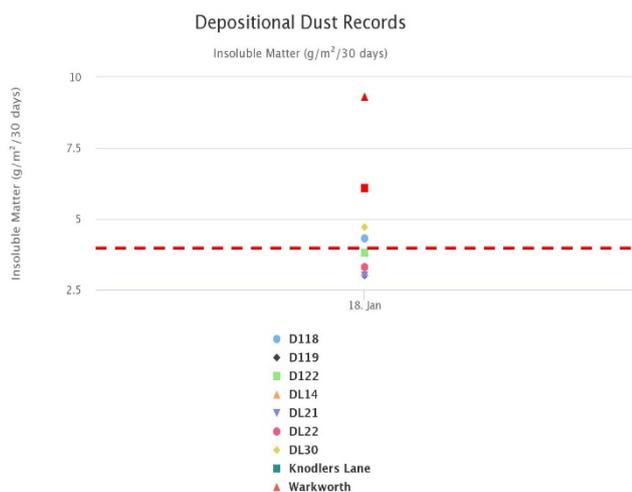


Figure 5: Depositional Dust Results – January 2019

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 (PM₁₀). 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 PM₁₀ Results

Figure 6 shows individual PM₁₀ results at each monitoring station against the short term impact assessment criteria of 50 µg/m³.

On 2 January 2019, three HVAS units recorded elevated 24 hour averages, Kilburnie South (80µg/m³), Warkworth (68µg/m³) and Glider Club (51 µg/m³). An assessment of HVO's maximum contribution concluded the following:

- Kilburnie South: 41.0 µg/m³ or 51.3% of the total measured result.
- Warkworth: deemed to be minimal HVO contribution due to prevailing wind conditions.
- Glider Club: deemed to be minimal HVO contribution due to prevailing wind conditions.

On 8 January 2019, one HVAS unit Knodlers Lane recorded 59.0 µg/m³ with HVO's maximum contribution was calculated to be 23.5 µg/m³ or the 39.8% of the total measured result.

On 26 January 2019, two HVAS units recorded elevated 24 hour averages including Kilburnie South (57µg/m³) and Knodlers Lane (56µg/m³). An assessment of HVO's maximum contribution concluded the following:

- Kilburnie South: 14.5 µg/m³ or 25.4% of the total measured result.
- Knodlers Lane: 20.6 µg/m³ or 43.3% of the total measured result.

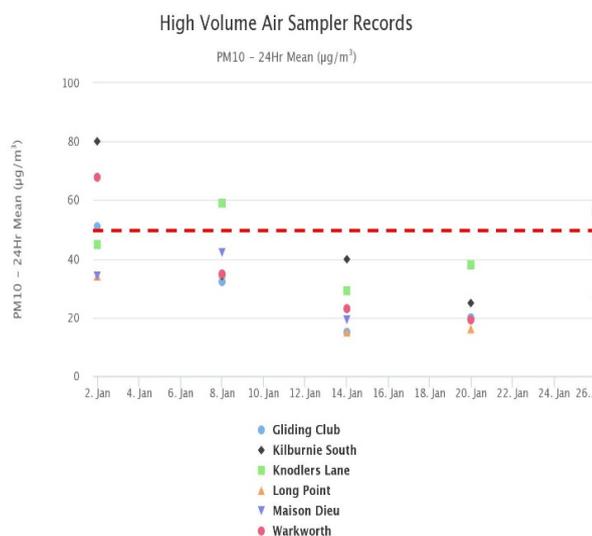


Figure 6: Individual PM₁₀ Results – January 2019

Figure 7 shows the year to date annual average PM₁₀ results.

An assessment of HVO's contribution against the long term impact assessment criteria will be provided in the 2019 Annual Review.

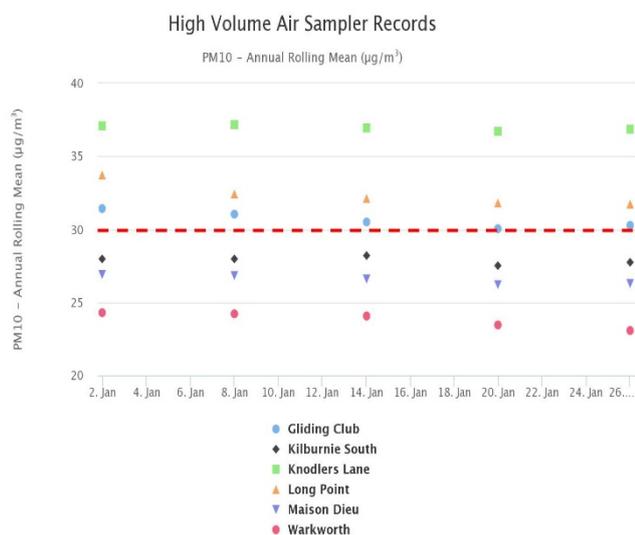


Figure 7: Year to Date Average PM₁₀ – January 2019

2.3.2 TSP Results

Figure 8 shows the annual average TSP results compared against the long term impact assessment criteria of 90µg/m³.

An assessment of HVO's contribution against the long term impact assessment criteria will be provided in the 2019 Annual Review.

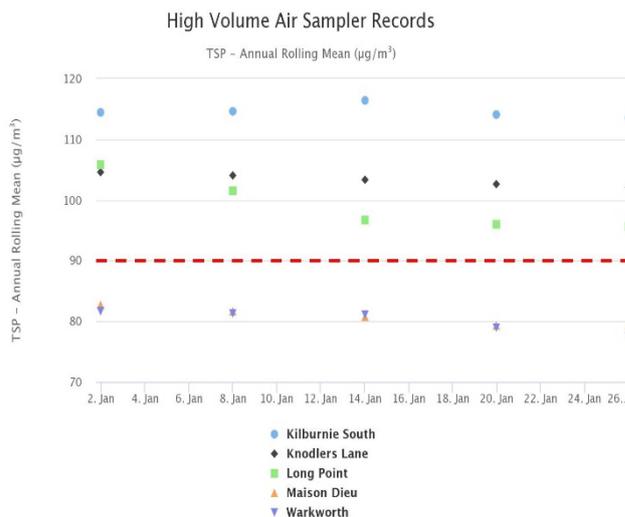


Figure 8: Year to Date Average Total Suspended Particulates – January 2019

2.3.3 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 9, including the daily 24 hour average PM₁₀ result and the year to date 24 hour PM₁₀ annual average.

Results from investigations of elevated results are presented in Table 2.

2.3.4 Real Time Alarms for Air Quality

During January the real time monitoring system generated 214 automated air quality related alarms. 75 were related to adverse weather conditions and 141 alarms relating to PM₁₀.

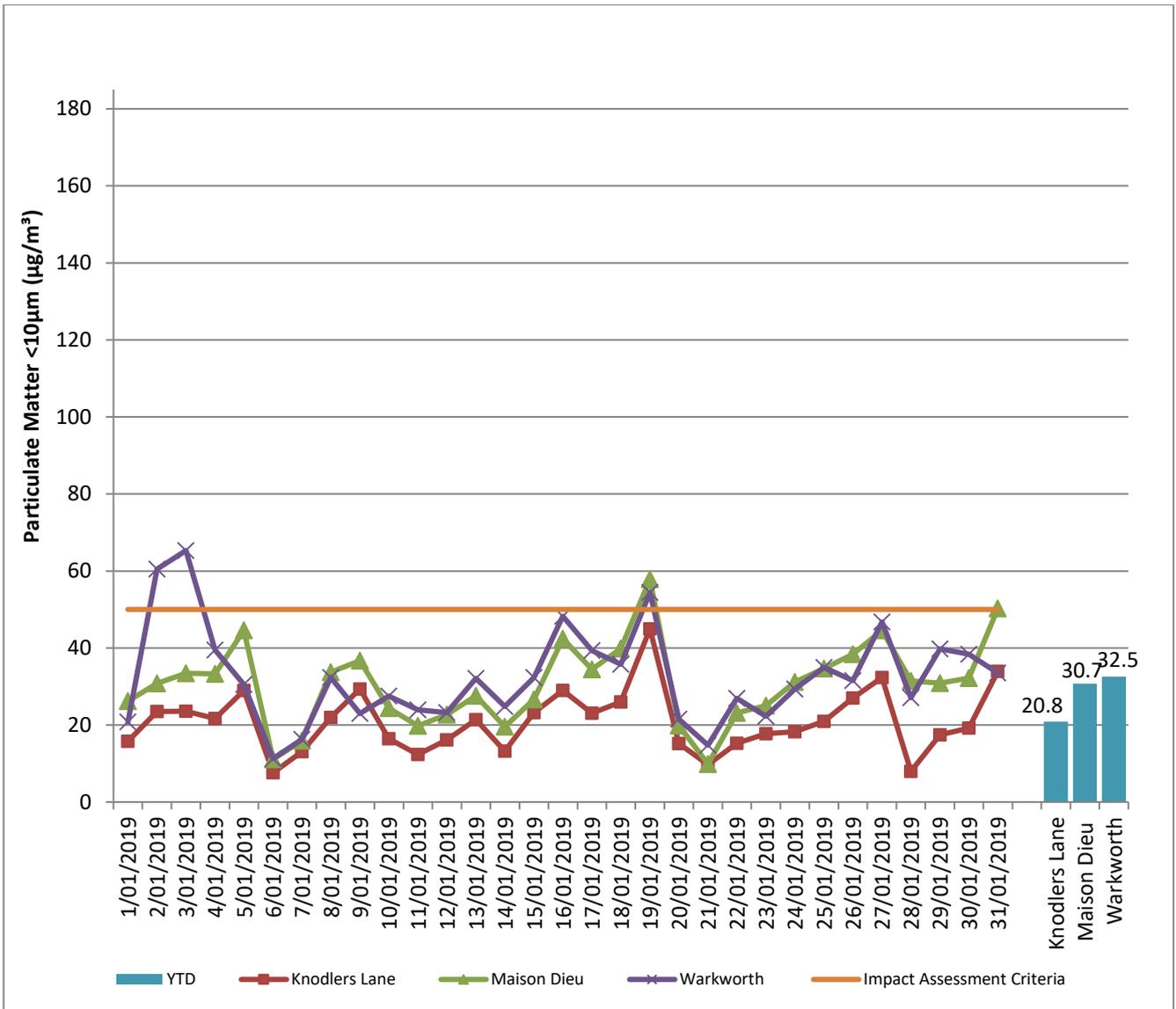


Figure 9: Real Time PM₁₀ 24hr average and YTD average – January 2019

Table 2: Real-time PM10 Investigation Results

Date	Site	Total Measured Result (µg/m3)	Estimated contribution from HVO (µg/m3 / %)	Discussion
2/1/2019	Warkworth TEOM	60.5	30.8 µg/m3 Or 50.8%	An internal investigation determined HVO maximum potential contribution to be in the order of 30.8 ug/m3 or 50.8% of the total measured based on prevailing wind conditions and upwind TEOM monitoring results.
3/1/2019	Warkworth TEOM	65.3	27.3 µg/m3 Or 41.8%	An internal investigation determined HVO maximum potential contribution to be in the order of 27.3 ug/m3 or 41.8% of the total measured based on prevailing wind conditions and upwind TEOM monitoring results.
16/1/2019	Jerrys Plains TEOM	53.7	8.6 µg/m3 Or 15.9%	An internal investigation determined HVO maximum potential contribution to be in the order of 8.6 ug/m3 or 15.9% of the total measured based on prevailing wind conditions and upwind TEOM monitoring results.
17/1/2019	Jerrys Plains TEOM	57.3	20.2 µg/m3 Or 35.3%	An internal investigation determined HVO maximum potential contribution to be in the order of 20.2 ug/m3 or 35.3% of the total measured based on prevailing wind conditions and upwind TEOM monitoring results.
19/1/2019	Maison Dieu TEOM	57.8	20.3 µg/m3 Or 35.2%	An internal investigation determined HVO maximum potential contribution to be in the order of 20.3 ug/m3 or 35.2% of the total measured based on prevailing wind conditions and upwind TEOM monitoring results.
19/1/2019	Warkworth TEOM	54.4	NA	An internal investigation revealed that when wind was blowing from the HVO arc of influence, upwind monitoring locations recorded significantly higher monitoring results. This could be due to local influences at the monitoring locations. However monitoring data indicates that air quality improved

				between the upwind and down wind monitoring locations. HVO's contribution would be considered minimal on this day.
31/1/2019	Maison Dieu TEOM	50.3	16.1 µg/m ³ Or 31.9%	An internal investigation determined HVO maximum potential contribution to be in the order of 16.1 ug/m ³ or 31.9% of the total measured based on prevailing wind conditions and upwind TEOM monitoring results.

3.0 WATER QUALITY

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

3.1.1 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 2019 report.

3.1.2 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 243.5ML of water from the Hunter River.

3.1.3 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.

3.2.1 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 2019 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 12.

Blasting criteria are summarised in Table 3.

Table 3: Blasting Criteria

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

4.1 Blast Monitoring Results

During January, 19 blasts were initiated at HVO Figure 10 and 11 show the blast monitoring results for the reporting period against the impact assessment criteria. The criteria are summarised in Table 3.

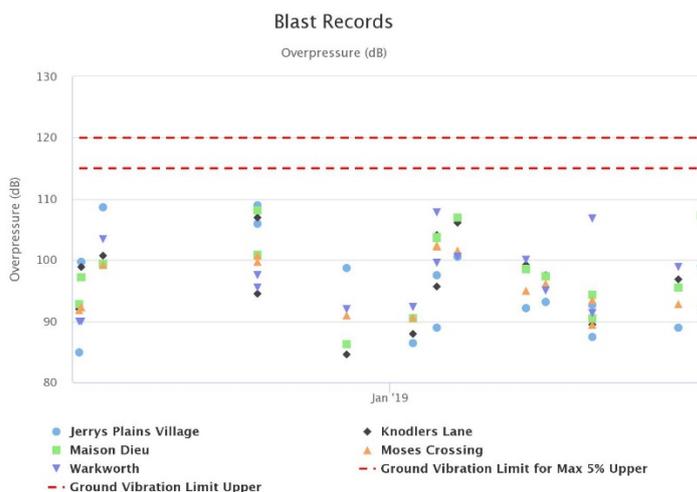


Figure 10: Overpressure Blast Monitoring Results – January 2019

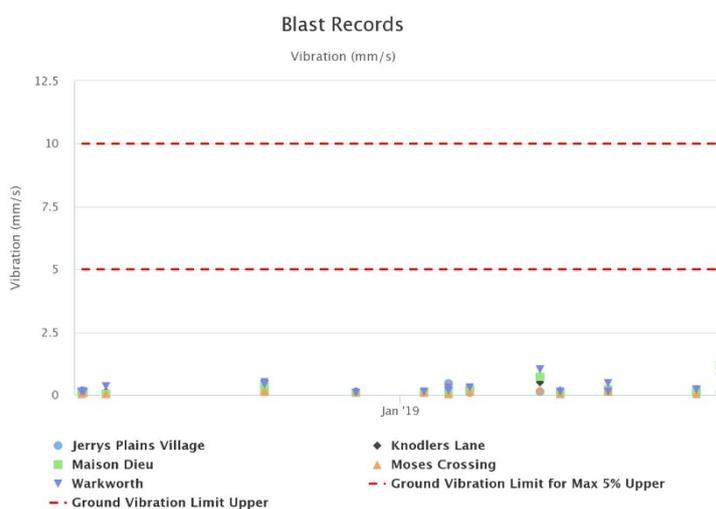


Figure 11: Ground Vibration Blast Monitoring Results – January 2019

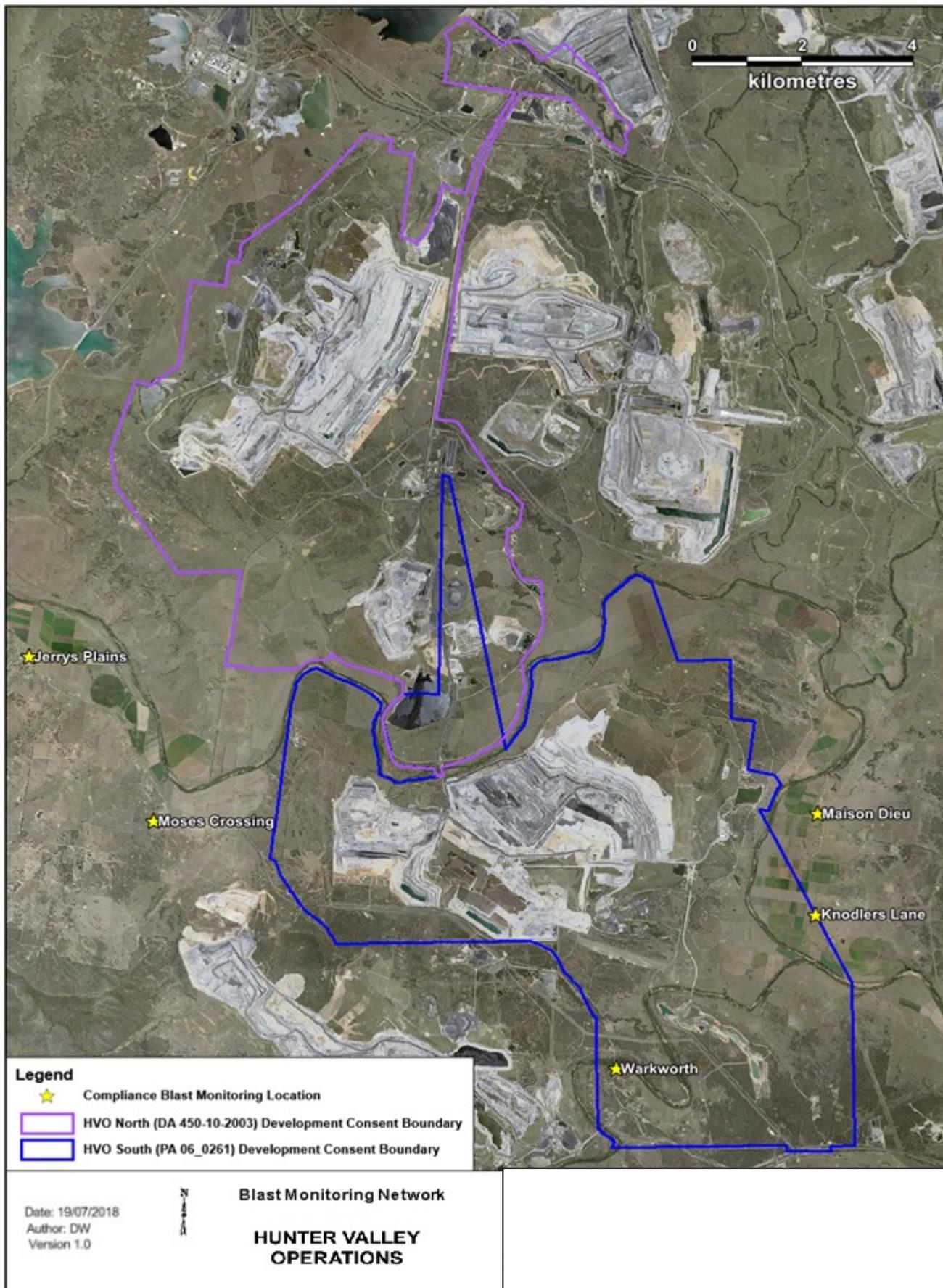


Figure 12: Blast Monitoring Location Plan

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 13.

5.1 Attended Noise Monitoring Results

Attended monitoring was conducted at receiver locations surrounding HVO on the night of 17-18 January 2019. Monitoring results are detailed in Table 4 to Table 9 . During January attended noise monitoring, noise levels complied with the relevant development consent noise limits at all monitoring locations.

Table 4: LAeq, 15 minute HVO South - Impact Assessment Criteria – January 2019

Location	Date and Time	Wind Speed (m/s) ¹	VTG °C/100m ¹	Criterion dB (A)	Criterion Applies? ²	HVO South LAeq dB ^{3,4}	Exceedance ^{4,5}
Knodlers Lane	17/01/2019 21:00	4.1	0.5	37	No	IA	NA
Maison Dieu	17/01/2019 21:24	4.4	-1	37	No	IA	NA
Shearers Lane	17/01/2019 21:47	4.3	0.5	41	No	IA	NA
Kilburnie South	17/01/2019 23:20	3.7	0.5	36	No	IA	NA
Jerrys Plains	17/01/2019 21:43	4.3	0.5	35	No	IA	NA
Jerrys Plains East	17/01/2019 21:01	4.1	0.5	35	No	IA	NA
Long Point Road	17/01/2019 22:46	1.5	3	35	Yes	IA	Nil
HVGC	18/01/2019 0:02	3.2	0.5	55	No	33	NA

Notes:

1. Atmospheric data is sourced from the HVO Cheshunt weather station (MTW Charlton Ridge for Long Point) using logged meteorological data;
2. Assumed noise emission limits apply for wind speeds up to 3 metres per second (at a height of 10m), or temperature inversion conditions of up to 3 degrees/100m (at a height of 10m). Criterion may or may not apply due to rounding of meteorological data values;
3. Estimated or measured LAeq, 15minute attributed to HVO South Pit Area;
4. Bold results in red indicate exceedance of criteria;
5. NA in exceedance column means atmospheric conditions outside specified in approval and so criterion is not applicable;

Table 5: LA1, 1minute HVO South - Impact Assessment Criteria – January 2019

Location	Date and Time	Wind Speed (m/s) ¹	VTG °C/100m ¹	Criterion dB (A)	Criterion Applies? ²	HVO South LA1, 1min dB ^{3,4}	Exceedance ^{4,5}
Knodlers Lane	17/01/2019 21:00	4.1	0.5	45	No	IA	NA
Maison Dieu	17/01/2019 21:24	4.4	-1	45	No	IA	NA
Shearers Lane	17/01/2019 21:47	4.3	0.5	45	No	IA	NA
Kilburnie South	17/01/2019 23:20	3.7	0.5	45	No	IA	NA
Jerrys Plains Village	17/01/2019 21:43	4.3	0.5	45	No	IA	NA
Jerrys Plains East	17/01/2019 21:01	4.1	0.5	45	No	IA	NA
Long Point Road	17/01/2019 22:46	1.5	3	45	Yes	IA	Nil
HVGC	18/01/2019 0:02	3.2	0.5	Nil	No	39	NA

Notes:

1. Atmospheric data is sourced from the HVO Cheshunt weather station (or MTW Chariton Ridge for Long Point) using logged meteorological data;
2. Assumed noise emission limits (see Section 2.3 of this report for more information) apply for wind speeds up to 3 metres per second (at a height of 10m), or temperature inversion conditions of up to 3 degrees/100m (at a height of 10m). Criterion may or may not apply due to rounding of meteorological data values;
3. These are results for HVO South Pit Area in the absence of all other noise sources;
4. Bold results in red indicate exceedance of criteria; and
5. NA in exceedance column means atmospheric conditions outside specified in approval and so criterion is not applicable;

Table 6: LAeq, 15minute HVO North – Impact Assessment Criteria – January 2019

Location	Date and Time	Wind Speed (m/s) ¹	VTG °C/100m ¹	Criterion dB (A)	Criterion Applies? ²	HVO North LAeq dB ^{3,4}	Exceedance ^{4,5}
Knodlers Lane	17/01/2019 21:00	3.5	-1	35	No	IA	NA
Maison Dieu	17/01/2019 21:24	2.8	-1	35	Yes	IA	Nil
Shearers Lane	17/01/2019 21:47	2.5	-1	35	Yes	IA	Nil
Kilburnie South	17/01/2019 23:20	1.4	0.5	39	Yes	NM	Nil
Jerrys Plains	17/01/2019 21:43	2.5	-1	36	Yes	34	Nil
Jerrys Plains East	17/01/2019 21:01	3.5	-1	39	No	37 ⁶	NA
Long Point Road	17/01/2019 22:46	1.5	3	35	Yes	IA	Nil
HVGC	18/01/2019 0:02	2.1	0.5	Nil	Yes	IA	Nil

Notes:

1. Atmospheric data is sourced from the HVO Corp. weather station (or MTW Charlton Ridge for Long Point) 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 temperature inversion conditions greater than 3 degrees C/100m. Criterion may or may not apply due to rounding of meteorological data values;
3. Estimated or measured LAeq, 15minute attributed to HVO North Pit Area;
4. Bold results in red indicate exceedance of criteria; and
5. NA in exceedance column means atmospheric conditions outside specified in approval and so criterion is not applicable and
6. LAeq includes a 2dB low frequency modifying factor

Table 7: LAeq,15minute HVO North - Land Acquisition Criteria – January 2019

Location	Date and Time	Wind Speed (m/s) ¹	VTG °C/100m ¹	Criterion dB (A)	Criterion Applies? ²	HVO North LAeq dB ^{3,4}	Exceedance ^{4,5}
Knodlers Lane	17/01/2019 21:00	3.5	-1	41	No	IA	NA
Maison Dieu	17/01/2019 21:24	2.8	-1	41	Yes	IA	Nil
Shearers Lane	17/01/2019 21:47	2.5	-1	41	Yes	IA	Nil
Kilburnie South	17/01/2019 23:20	1.4	0.5	41	Yes	NM	Nil
Jerrys Plains	17/01/2019 21:43	2.5	-1	41	Yes	34	Nil
Jerrys Plains East	17/01/2019 21:01	3.5	-1	41	No	37 ⁶	NA
Long Point Road	17/01/2019 22:46	1.5	3	41	Yes	IA	Nil
HVGC	18/01/2019 0:02	2.1	0.5	NA	Yes	IA	Nil

Notes:

1. Atmospheric data is sourced from the HVO Corp. weather station (or MTW Charlton Ridge for Long Point) 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 temperature inversion conditions greater than 3 degrees C/100m. Criterion may or may not apply due to rounding of meteorological data values;
3. Estimated or measured LAeq, 15minute attributed to HVO North Pit Area;
4. Bold results in red indicate exceedance of criteria; and
5. NA in exceedance column means atmospheric conditions outside specified in approval and so criterion is not applicable and
6. LAeq includes a 2dB low frequency modifying factor

Table 8: LA1, 1Minute HVO North - Impact Assessment Criteria – January 2019

Location	Date and Time	Wind Speed (m/s) ¹	VTG °C/100m ¹	Criterion dB (A)	Criterion Applies? ²	HVO North LA1, 1min dB ^{3,4}	Exceedance ^{4,5}
Knodlers Lane	17/01/2019 21:00	3.5	-1	46	No	IA	NA
Maison Dieu	17/01/2019 21:24	2.8	-1	46	Yes	IA	Nil
Shearers Lane	17/01/2019 21:47	2.5	-1	46	Yes	IA	Nil
Kilburnie South	17/01/2019 23:20	1.4	0.5	46	Yes	NM	Nil
Jerrys Plains Village	17/01/2019 21:43	2.5	-1	46	Yes	42	Nil
Jerrys Plains East	17/01/2019 21:01	3.5	-1	46	No	43	NA
Long Point Road	17/01/2019 22:46	1.5	3	46	Yes	IA	Nil
HVGC	18/01/2019 0:02	2.1	0.5	NA	Yes	IA	Nil

Notes:

1. Atmospheric data is sourced from the HVO Corp. (or MTW Chariton Ridge for Long Point) weather station 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 temperature inversion conditions greater than 3 degrees C/100m. Criterion may or may not apply due to rounding of meteorological data values;
3. These are results for HVO North Pit Area in the absence of all other noise sources;
4. Bold results in red indicate exceedance of criteria;
5. NA in exceedance column means atmospheric conditions outside specified in approval and so criterion is 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 January 2019 one measurement at Jerrys Plains East required the penalty to be applied however remained compliant. The assessment for low frequency noise is shown in Table 10.

Table 9: Low Frequency Noise Assessment – January 2019

Location	Date and Time	Measured Site Only LA _{eq} dB (Sth/Nth)	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 (Sth/Nth)
Knodlers Lane	17/01/2019 21:00	IA/IA	NA/NA	NA/NA	NA/NA	NA/NA
Maison Dieu	17/01/2019 21:24	IA/IA	NA/NA	NA/NA	NA/NA	NA/NA
Shearers Lane	17/01/2019 21:47	IA/IA	NA/NA	NA/NA	NA/NA	NA/NA
Kilburnie South	17/01/2019 23:20	IA/IM	NA/NA	NA/NA	NA/NA	NA/NA
Jerrys Plains	17/01/2019 21:43	IA/34	NA/52	NA/17	NA/Nil	NA/Nil
Jerrys Plains East	17/01/2019 21:01	IA/35	NA/56	NA/21	NA/2.3 @ 80 Hertz	NA/2
Long Point Road	17/01/2019 22:46	IA/IA	NA/NA	NA/NA	NA/NA	NA/NA
HVGC	18/01/2019 0:02	33/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, this is noted as NA (not available) and no further assessment has been undertaken;
2. As per NPfl, if LC_{eq} – LA_{eq} ≥ 15 dB further assessment of low frequency noise required as detailed in Sections 2.4 and 3.3 of the attended noise report;
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.

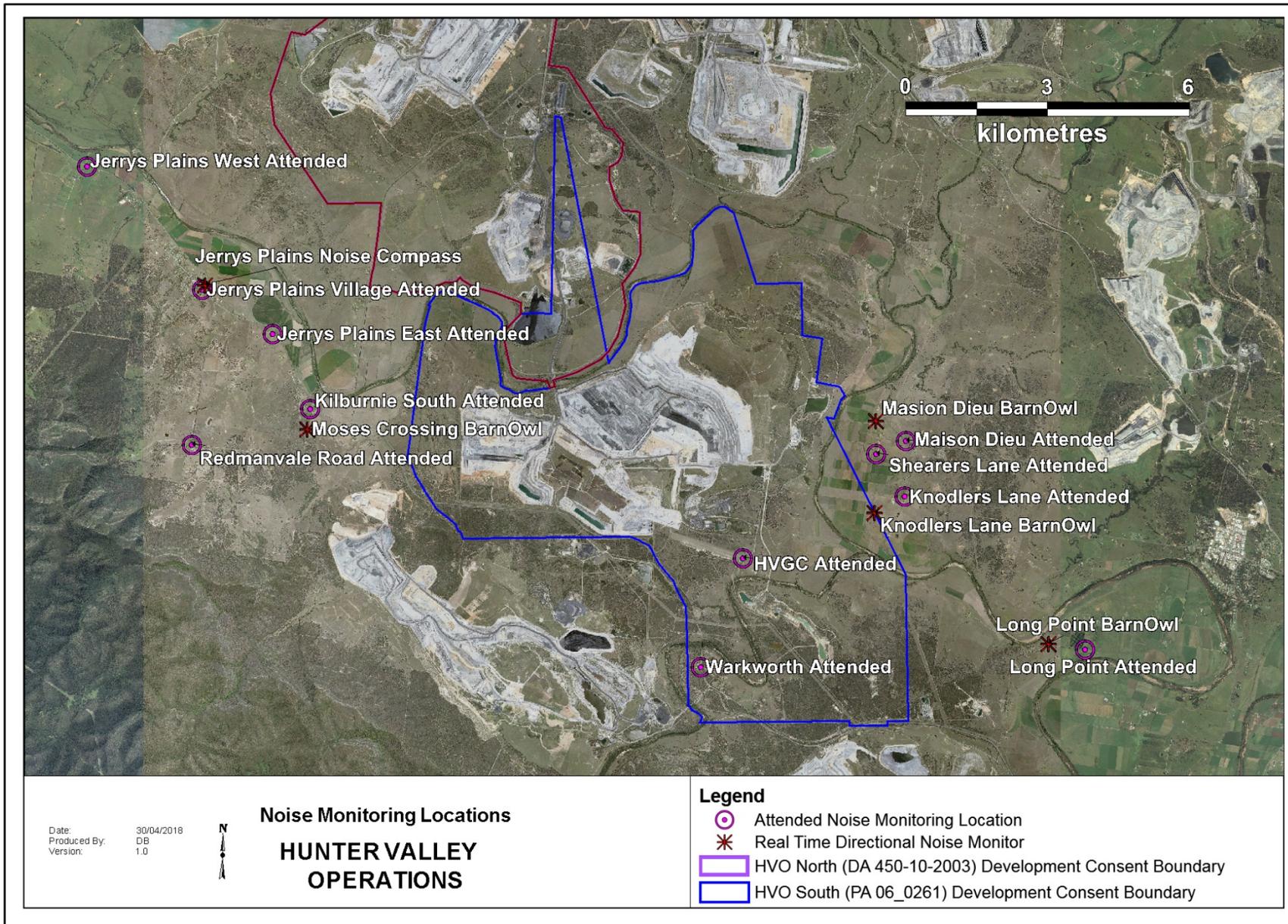


Figure 13: Noise Monitoring Location Plan

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.

6.0 OPERATIONAL DOWNTIME

During January, a total of 263 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 14.

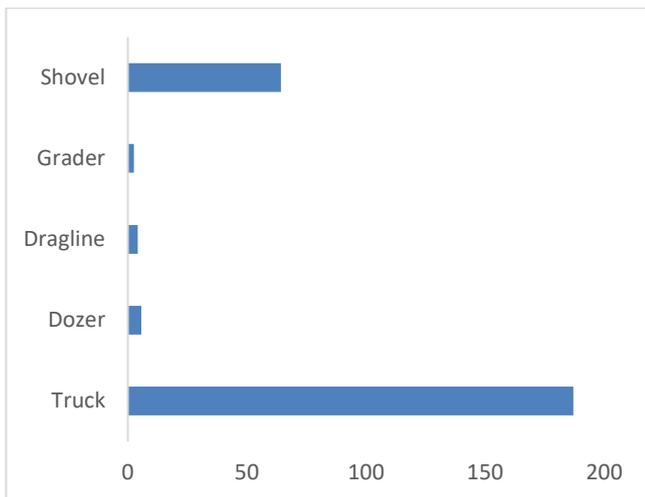


Figure 14: Operational Downtime by Equipment Type – January 2019

7.0 REHABILITATION

During January 0 Ha of land was released, 8.0 Ha of land was bulk shaped and 2.9 Ha of land was rehabilitated.

8.0 COMPLAINTS

No complaints were received during the reporting period. Details of complaints received YTD are shown in Table 11 below.

Table 10: Complaints Summary YTD

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

26 January 2019 – High Volume Air Sampler failed to run

The Warkworth TSP and PM10 HVAS units were identified to have no power supply as they had tripped due to a fault with the PM10 sampler. A replacement unit was calibrated and installed to temporarily replace the faulty unit whilst repairs were undertaken.

9.0 ENVIRONMENTAL INCIDENTS

During the reporting period there were three recordable environmental incidents;

2 January 2019 – Class 3 Fume Event

West Pit North LED Blast WN45LED01A was fired at 13:10 and produced a Class 3 Fume Event that did not leave site. The fume event was investigated to determine the potential causes to assist in preventing reoccurrence.

3 January 2019 – High Volume Air Sampler failed to run

The Hunter Valley Glider Club High Volume Air Sampler (PM10) was identified as faulty and had run approximately 2 hours over the 24 hour sample time and therefore was an invalid sample. The replacement sampler was installed whilst the fault was being repaired.

Appendix A: Meteorological Data

Table 11: Meteorological Data - HVO Corporate Meteorological Station – January 2019

Date	Air Temperature Maximum (°C)	Air Temperature Minimum (°C)	Relative Humidity Maximum (%)	Relative Humidity Minimum (%)	Solar Radiation Maximum (W/Sq. M)	Wind Direction Average (°)	Wind Speed Average (m/sec)	Rainfall(mm)
1/1/2019	37.2	15.0	91.2	12.2	1404	192.4	2.5	0.2
2/1/2019	38.1	16.2	74.3	5.1	1050	122.8	2.2	0
3/1/2019	34.7	15.9	77.97	13.7	1085	117.7	3	0
4/1/2019	39.2	14.7	97.9	5.8	1054	140.9	1.9	0
5/1/2019	39.5	15.8	90.8	12.0	1021	255	4.8	0.2
6/1/2019	21.8	12.8	98.8	63.7	418.6	125.7	3.8	0.2
7/1/2019	25.6	11.9	100	60.7	1300	125.2	3.8	0.6
8/1/2019	36.3	14.9	98.3	11.1	1162	-	2.4	0
9/1/2019	37.4	13.8	100	13.9	1122	203.7	3.3	16.2
10/1/2019	30.4	14.9	100	41.3	1389	124.1	3.2	18.6
11/1/2019	32.4	14.9	100	36.3	1557	125.9	2.9	9.4
12/1/2019	36.6	13.8	100	21.0	1064	222.5	2.4	0.2
13/1/2019	31.5	15.3	86.8	33.8	1304	111	4.0	0
14/1/2019	34	15.3	97.2	21.1	1286	122.7	2.4	0
15/1/2019	41.0	15.5	83.2	7.7	1037	167.6	1.8	0
16/1/2019	41.0	17.4	80.1	8.3	1034	139.6	2.1	0
17/1/2019	41.0	17.1	84.9	8.2	1036	118.1	2.1	0
18/1/2019	41.3	16.9	73.78	8.3	1044	196.1	2.0	0
19/1/2019	39.7	16.3	88.1	7.8	1403	200.6	3.8	0
20/1/2019	28.6	14.5	100	54.5	1337	120.7	3.7	0
21/1/2019	27.7	16.2	100	53.3	1127	139.6	1.7	2.2
22/1/2019	35.8	18.0	82.8	26.1	1422	171.5	2.0	0
23/1/2019	37.4	16.3	97.3	13.4	1413	211.3	3.1	6
24/1/2019	32.2	16.0	87.6	34.7	1376	122.3	3.7	0
25/1/2019	39.2	17.0	90.2	7.7	1013	149.2	1.6	0
26/1/2019	41.4	19.4	76.05	7.3	1016	215	2.8	0
27/1/2019	41.5	18.2	90.2	8.7	1323	176.9	2.9	6
28/1/2019	32.9	19.3	72.11	40.6	1075	123.8	4.4	0
29/1/2019	38.3	15.6	91.6	15.8	1013	147.7	2.2	0
30/1/2019	36.3	18.5	74.39	17.8	1440	175.6	1.8	0
31/1/2019	35.7	16.9	73.19	16.9	875	249.7	3.7	0

“-“ Indicates that data was not available due to technical issues.