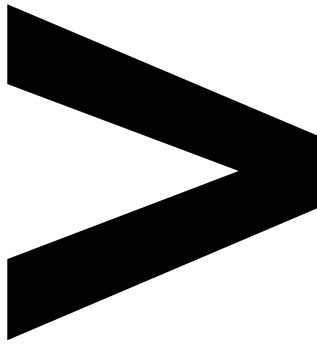




HUNTER VALLEY OPERATIONS

ENVIRONMENT PROTECTION LICENCE 640 MONITORING DATA - FEBRUARY 2025

DOCUMENT NUMBER

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VERSION

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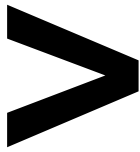
11/04/2025

REVIEW

[Planned Review Date]

OWNER

Superintendent - Environment and Community



MONITORING DATA - FEBRUARY 2025

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1 | OVERVIEW

Environmental Protection Licence Number: 640
Licence Holder: HV Operations Pty Ltd (HVO)
Address of Premises: Hunter Valley Operations, Lemington Road, Singleton, NSW, 2330
Licence Holder Postal Address: PO Box 315, Singleton, NSW, 2330
EPA Public Register Link: <https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=640&id=640&option=licence&searchrange=licence&range=POEO%20licence&prp=no&status=Issued>

The locations of each sampling or monitoring point number identified in EPL 640 are displayed in Figure 1.

2 | DEFINITIONS

Abbreviation	Explanation
DNR	Data Not Received
mm/s	Millimetres per Second
dB	Decibels
g/m ² /month	Grams per Metre Square per Month
µg/m ³	Micrograms per Cubic Meter of Air
µS/cm	Microsiemens per Centimetre
pH	A measure of the acidity or alkalinity of a solution
mg/L	Milligrams per Litre
NTU	Nephelometric Turbidity Units
ML/day	Megalitres per Day (1ML = 1,000,000L)
KL/day	Kilolitres per Day
PM10	Particulate Matter of 10 Microns in diameter or smaller
HVAS	High Volume Air Sampler
TEOM	Tapered Element Oscillating Microbalance
TSP	Total Suspended Particles
TSS	Total Suspended Solids
t	tonnes
YTD	Year To Date - rolling 12 month average

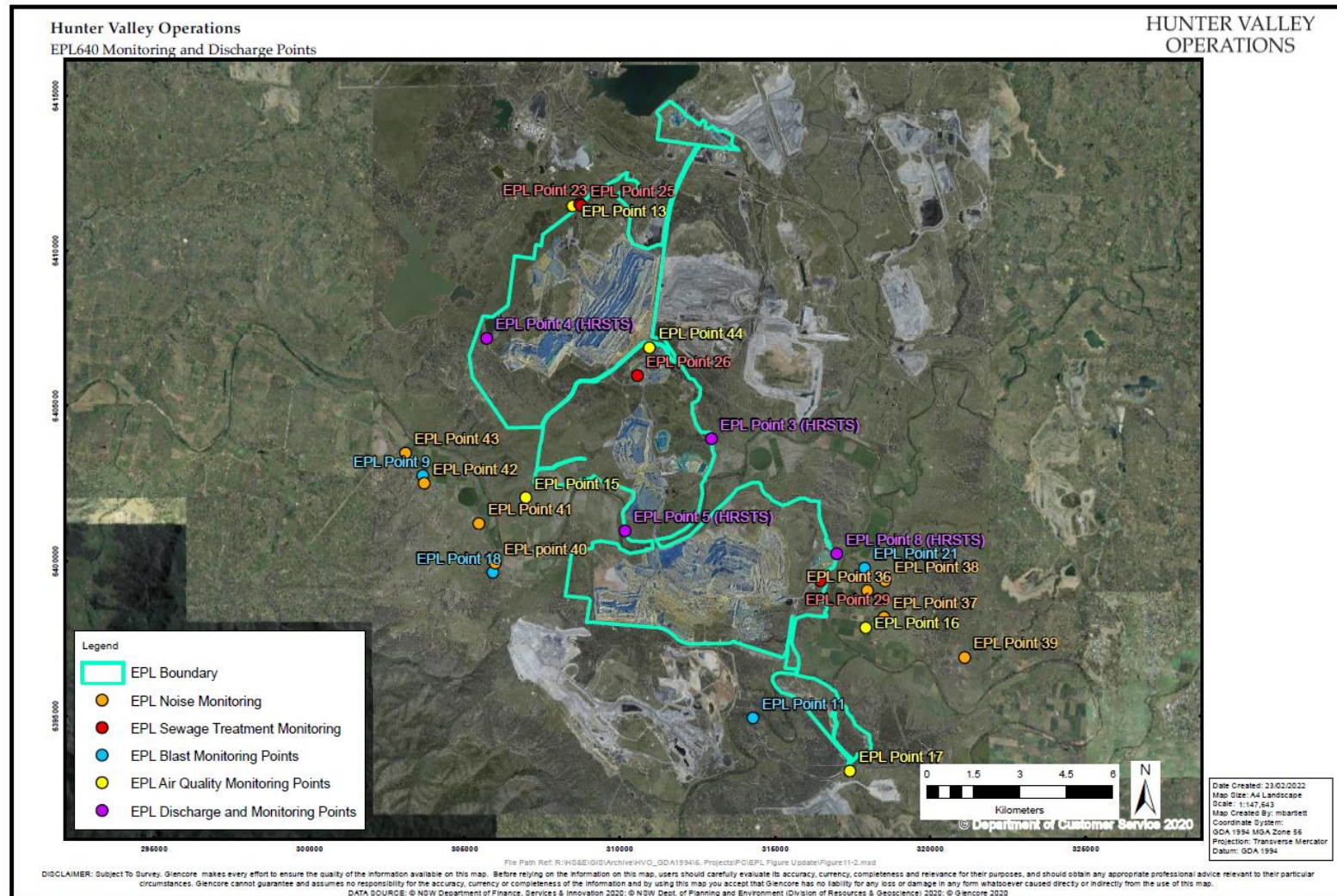
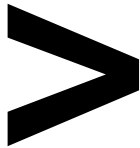


Figure 1: EPL 640 Monitoring Location

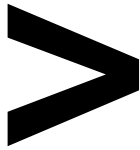
3 | AIR QUALITY

Date Last Sampled: 28/02/2025

Date Obtained: 28/03/2025

Table 1 - Particulate Matter Monitoring (<10µm)

Date	Unit of Measure	Monitoring Frequency & Capture	Monitoring Point				
			EPL ID 13 (Howick)	EPL ID 15 (Wandewoi)	EPL ID 16 (Knodlers Lane)	EPL ID 17 (Golden Highway)	EPL ID 44 (West Pit)
1/02/2025	µg/m ³	Continuous	30.1	17.1	*	15.4	13.5
2/02/2025	µg/m ³		31.0	22.1	12.0	17.2	19.3
3/02/2025	µg/m ³		30.9	20.6	12.5	18.9	17.8
4/02/2025	µg/m ³		38.3	37.0	19.4	23.6	59.3
5/02/2025	µg/m ³		27.6	*	22.8	36.8	69.5
6/02/2025	µg/m ³		34.8	*	18.7	27.8	20.6
7/02/2025	µg/m ³		29.2	*	11.9	21.6	23.4
8/02/2025	µg/m ³		24.6	23.2	16.4	23.4	46.1
9/02/2025	µg/m ³		34.7	27.4	26.6	28.6	29.3
10/02/2025	µg/m ³		21.5	15.0	11.9	19.6	19.6
11/02/2025	µg/m ³		20.0	9.5	9.3	17.2	16.8
12/02/2025	µg/m ³		19.4	17.5	11.5	18.6	22.1
13/02/2025	µg/m ³		19.5	17.2	10.0	12.2	17.5
14/02/2025	µg/m ³		34.8	21.0	17.4	25.0	34.7
15/02/2025	µg/m ³		18.1	13.5	15.8	20.6	*
16/02/2025	µg/m ³		23.6	20.6	15.2	37.9	*



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17/02/2025	µg/m ³		46.6	35.0	17.9	36.1	*
18/02/2025	µg/m ³		43.2	33.3	21.5	37.5	36.3
19/02/2025	µg/m ³		44.3	29.5	16.9	27.2	19.8
20/02/2025	µg/m ³		31.9	15.3	17.4	32.5	20.2
21/02/2025	µg/m ³		33.6	21.9	22.0	33.5	26.3
22/02/2025	µg/m ³		27.4	15.9	13.6	9.6	11.4
23/02/2025	µg/m ³		37.6	31.6	24.0	31.7	46.8
24/02/2025	µg/m ³		47.6	30.9	33.0	37.8	*
25/02/2025	µg/m ³		32.8	16.0	27.3	36.6	*
26/02/2025	µg/m ³		40.4	27.1	23.6	24.7	*
27/02/2025	µg/m ³		27.6	25.2	30.3	22.3	33.6
28/02/2025	µg/m ³		51.0	27.3	32.5	32.7	54.6
Monthly Meaningful Data							
February	µg/m ³	Minimum	18.1	9.5	9.3	9.6	11.4
	µg/m ³	Mean	32.2	22.8	18.9	26.0	29.9
	µg/m ³	Maximum	51.0	37.0	33.0	37.9	69.5
	µg/m ³	Median	31.5	21.9	17.4	24.9	22.8

* < 75% data available

4 | SURFACE WATER MONITORING DATA

No discharges under the HRSTS occurred during February.

Table 2 - HRSTS Discharge Monitoring

Discharge Point	Pollutant	Unit of Measure	Licence Limits	No. Samples Required by Licence	No. Samples Collected and Analysed
EPL ID 3 (Dam 11N)	pH	pH	6.5-9.5	0	0
	Total Suspended Solids	Milligrams per Litre	120	0	0
EPL ID 4 (Dam 9W)	pH	pH	6.5-9.5	0	0
	Total Suspended Solids	Milligrams per Litre	120	0	0
EPL ID 8 (Dam 15S)	pH	pH	6.5-9.5	0	0
	Total Suspended Solids	Milligrams per Litre	120	0	0

5 | BLAST MONITORING DATA

Date Last Sampled: 27/02/2025

Date Obtained: 06/03/2025

Table 3 – Blast Monitoring (Air Blast Overpressure)

Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Moses Crossing EPL ID 18	Monitoring Point		Warkworth EPL ID 11
				95% of Blasts	100% of Blasts		Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	
WS49LEC12B	1/02/2025 10:20	dB(L)	All blasts 100%	115	120	103.85	95.99	104.23	87.26
P210PCF101C_P210V3P01B	1/02/2025 13:19	dB(L)		115	120	102.18	97.56	103.78	91.36
P210N2007A	3/02/2025 12:28	dB(L)		115	120	105.83	98.78	100.76	93.17
WS49PGU06B	4/02/2025 13:09	dB(L)		115	120	93.30	83.57	92.52	91.89
WN49BAR02A	4/02/2025 13:11	dB(L)		115	120	85.89	87.20	88.06	84.10
P101VAX104A	6/02/2025 13:02	dB(L)		115	120	101.99	100.86	91.62	86.69
P210N2006A	8/02/2025 14:31	dB(L)		115	120	95.71	101.07	93.93	93.78
P101PCF105A_P101V1P01A_P101MTA304B	8/02/2025 14:33	dB(L)		115	120	94.34	100.88	102.09	99.04
WS49ARU303A	13/02/2025 13:45	dB(L)		115	120	93.63	89.49	92.57	80.03
WS49ARU3P02A	13/02/2025 16:11	dB(L)		115	120	89.52	90.61	93.15	85.87

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Effective: 11/04/2025

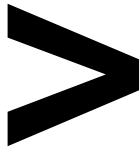
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MONITORING DATA - FEBRUARY 2025

Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits			Monitoring Point		
				95% of Blasts	100% of Blasts	Moses Crossing EPL ID 18	Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
P210PCF401A	15/02/2025 11:58	dB(L)	All Blasts 100%	115	120	87.95	89.10	95.87	96.72
M1T780P01A	17/02/2025 13:03	dB(L)		115	120	93.80	93.78	77.80	92.68
P209BRN503A_P209BYP03A	17/02/2025 16:13	dB(L)		115	120	84.31	93.54	93.94	91.24
WS49ARU303B	19/02/2025 13:14	dB(L)		115	120	99.35	95.90	87.90	81.21
WS49LEB15C	21/02/2025 16:09	dB(L)		115	120	98.67	102.93	103.03	83.61
WN49BAR02B	21/02/2025 16:15	dB(L)		115	120	96.94	107.51	98.23	96.06
P101VAX105A	24/02/2025 13:04	dB(L)		115	120	100.31	102.33	96.13	96.87
P101PCF105B_P101V1P03A	24/02/2025 13:07	dB(L)		115	120	91.91	88.76	98.03	103.73
P102W6P01A	25/02/2025 13:10	dB(L)		115	120	96.55	95.78	98.01	88.37
P209BYP03B	26/02/2025 13:02	dB(L)		115	120	90.03	83.75	106.27	95.06
M1T307001A	26/02/2025 15:06	dB(L)		115	120	94.40	100.70	89.96	91.61
WS49LEB15D	27/02/2025 13:20	dB(L)		115	120	93.57	90.76	85.09	84.23
Monthly Meaningful Data									
February		dB(L)	Minimum	115	120	84.31	83.57	77.80	80.03
		dB(L)	Mean	115	120	95.18	95.04	95.14	90.66
		dB(L)	Maximum	115	120	105.83	107.51	106.27	103.73

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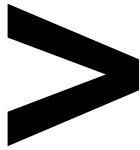
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MONITORING DATA - FEBRUARY 2025

Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Moses Crossing EPL ID 18	Monitoring Point		
				95% of Blasts	100% of Blasts		Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
		dB(L)	Median	115	120	94.37	95.84	94.91	91.49

Table 4 – Blast Monitoring (Ground Vibration)

Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Moses Crossing EPL ID 18	Monitoring Point		
				95% of Blasts	100% of Blasts		Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
WS49LEC12B	1/02/2025 10:20	mm/s	All Blasts 100%	5	10	0.10	0.08	0.1	0.21
P210PCF101C_P210V3P01B	1/02/2025 13:19	mm/s		5	10	0.11	0.17	0.11	0.08
P210N2007A	3/02/2025 12:28	mm/s		5	10	0.19	0.11	0.15	0.08
WS49PGU06B	4/02/2025 13:09	mm/s		5	10	0.04	0.05	0.07	0.20
WN49BAR02A	4/02/2025 13:11	mm/s		5	10	0.04	0.11	0.13	0.23
P101VAX104A	6/02/2025 13:02	mm/s		5	10	0.05	0.08	0.07	0.23
P210N2006A	8/02/2025 14:31	mm/s		5	10	0.17	0.11	0.14	0.09
P101PCF105A_P101V1P01A_P101MTA304B	8/02/2025 14:33	mm/s		5	10	0.05	0.07	0.06	0.07
WS49ARU303A	13/02/2025 13:45	mm/s		5	10	0.07	0.06	0.09	0.19

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Effective: 11/04/2025

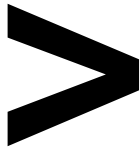
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Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits			Monitoring Point		
				95% of Blasts	100% of Blasts	Moses Crossing EPL ID 18	Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
WS49ARU3P02A	13/02/2025 16:11	mm/s		5	10	0.09	0.06	0.15	0.18
P210PCF401A	15/02/2025 11:58	mm/s		5	10	0.15	0.20	0.10	0.08
M1T780P01A	17/02/2025 13:03	mm/s		5	10	0.16	0.15	0.11	0.07
P209BRN503A_P209BYP03A	17/02/2025 16:13	mm/s		5	10	0.04	0.06	0.05	0.09
WS49ARU303B	19/02/2025 13:14	mm/s		5	10	0.34	0.15	0.13	0.30
WS49LEB15C	21/02/2025 16:09	mm/s		5	10	0.10	0.08	0.56	0.87
WN49BAR02B	21/02/2025 16:15	mm/s		5	10	0.08	0.13	0.06	0.27
P101VAX105A	24/02/2025 13:04	mm/s		5	10	0.10	0.08	0.32	0.49
P101PCF105B_P101V1P03A	24/02/2025 13:07	mm/s		5	10	0.17	0.12	0.38	0.64
P102W6P01A	25/02/2025 13:10	mm/s		5	10	0.04	0.05	0.05	0.31
P209BYP03B	26/02/2025 13:02	mm/s		5	10	0.24	0.18	0.29	1.66
M1T307001A	26/02/2025 15:06	mm/s		5	10	0.04	0.06	0.06	0.05
WS49LEB15D	27/02/2025 13:20	mm/s		5	10	0.11	0.16	0.08	0.06
Monthly Meaningful Data									
		mm/s	Minimum	5	10	0.04	0.05	0.05	0.05

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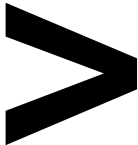
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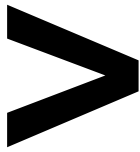
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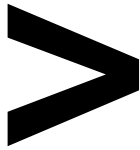
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Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Moses Crossing EPL ID 18	Monitoring Point		
				95% of Blasts	100% of Blasts		Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
February		mm/s	Mean	5	10	0.11	0.11	0.15	0.29
		mm/s	Maximum	5	10	0.34	0.20	0.56	1.66
		mm/s	Median	5	10	0.10	0.10	0.11	0.20



6 | SEWAGE TREATMENT PLANT MONITORING DATA

Sewage treatment plant monitoring results are provided on a quarterly basis. Results will be provided in the March 2025 report.



7 | NOISE MONITORING DATA

Date Sampled: 29/01/2025

Date Obtained: 28/02/2025

Table 6 – Night $L_{Aeq,15\text{minute}}$ and $L_{A1,1\text{minute}}$ Generated by HVO Against EPL Criteria

Location	Start date and time	Wind		Stability class	Very enhancing? ¹	EPL limits, dB ¹		HVO levels, dB		Exceedances, dB	
		Speed m/s	Direction ³			$L_{Aeq,15\text{minute}}$	$L_{A1,1\text{min}}$	$L_{Aeq,15\text{minute}}$ ²	$L_{A1,1\text{min}}$	$L_{Aeq,15\text{minute}}$	$L_{A1,1\text{min}}$
Shearers Lane	12/02/2025 21:00	3.5	151	E	Yes	46	51	IA	IA	Nil	Nil
Knodlers Lane	12/02/2025 21:51	2.9	146	D	No	40	46	IA	IA	Nil	Nil
Maison Dieu	12/02/2025 21:27	2.8	157	E	No	39	46	IA	IA	Nil	Nil
Long Point (Dights Crossing)	12/02/2025 23:09	3.3	149	D	Yes	42	51	IA	IA	Nil	Nil
Kilburnie South	12/02/2025 23:52	4.4	145	D	Yes	44	51	IA	IA	Nil	Nil
Jerrys Plains East	12/02/2025 23:27	3.4	153	D	Yes	44	51	<20	<25	Nil	Nil
Jerrys Plains Village	12/02/2025 21:58	2.9	139	D	No	40	46	34	38	Nil	Nil
Jerrys Plains West	12/02/2025 21:37	2.9	146	D	No	40	46	34	40	Nil	Nil

Notes: 1. Noise limits are adjusted by +5 dB during 'very noise-enhancing meteorological conditions' in accordance with the NPfl.

2. Site-only $L_{Aeq,15\text{minute}}$, includes modifying factor penalties if applicable.

3. Degrees magnetic north, "-" indicates calm conditions.