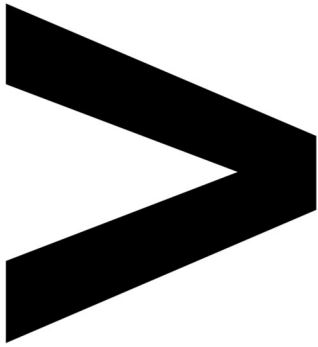




HUNTER VALLEY OPERATIONS

EPL 640 MONITORING DATA – AUGUST 2025

DOCUMENT NUMBER

HVOOC-1797567310-5375

STATUS

Approved

VERSION

1.0

EFFECTIVE

17/10/2025

REVIEW

[Planned Review Date]

OWNER

Superintendent - Environment and Community



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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

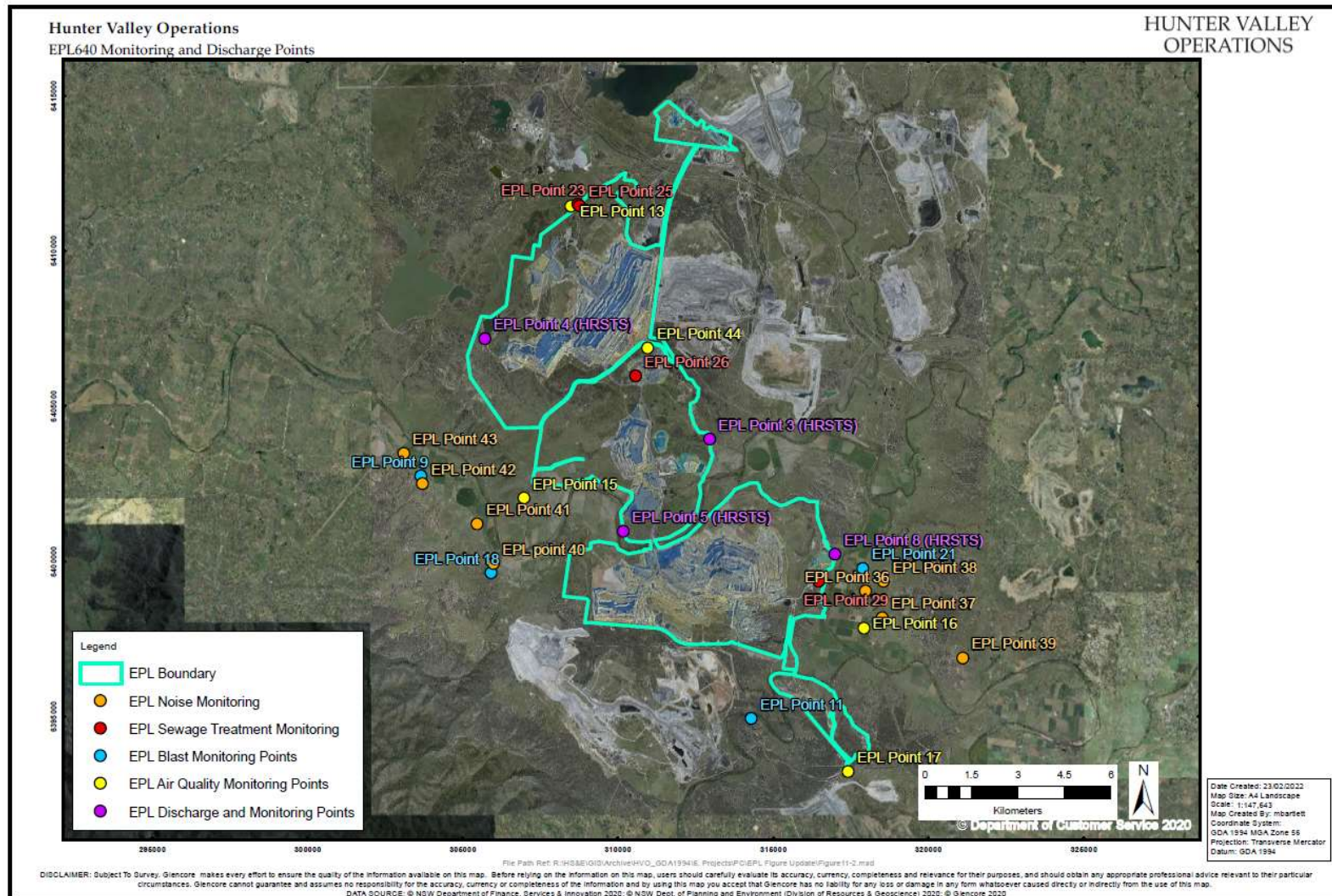


Figure 1: EPL 640 Monitoring Location

3 | AIR QUALITY

Date Last Sampled: 31/08/2025

Date Obtained: 15/10/2025

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)
1/08/2025	µg/m ³	Continuous	23.9	6.3	12.4	12.8	14.2
2/08/2025	µg/m ³		10.1	5.7	7.2	7.0	6.7
3/08/2025	µg/m ³		10.1	7.3	9.1	8.4	12.2
4/08/2025	µg/m ³		19.4	13.3	12.3	12.8	13.0
5/08/2025	µg/m ³		12.0	8.0	13.4	18.3	29.8
6/08/2025	µg/m ³		13.6	6.8	9.3	13.8	39.6
7/08/2025	µg/m ³		13.0	12.1	10.5	17.7	38.6
8/08/2025	µg/m ³		21.3	16.2	14.3	20.6	10.6
9/08/2025	µg/m ³		13.6	5.6	6.9	9.1	7.9
10/08/2025	µg/m ³		13.7	5.4	7.0	11.7	7.5
11/08/2025	µg/m ³		21.4	11.6	11.2	12.7	19.6
12/08/2025	µg/m ³		18.2	14.2	11.5	27.5	52.3
13/08/2025	µg/m ³		25.4	8.4	16.2	28.2	46.1
14/08/2025	µg/m ³		27.6	10.4	13.3	17.4	39.5
15/08/2025	µg/m ³		14.5	10.2	14.3	15.5	28.8

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16/08/2025	µg/m ³		14.2	7.7	20.1	14.3	48.6
17/08/2025	µg/m ³		13.4	5.6	15.0	21.1	66.1
18/08/2025	µg/m ³		31.8	11.9	16.3	20.3	58.1
19/08/2025	µg/m ³		24.0	17.6	9.4	12.8	20.5
20/08/2025	µg/m ³		14.5	8.4	6.8	9.2	9.0
21/08/2025	µg/m ³		8.7	8.4	5.2	6.2	7.2
22/08/2025	µg/m ³		8.7	7.0	7.7	14.0	14.8
23/08/2025	µg/m ³		14.4	9.9	11.1	16.0	29.0
24/08/2025	µg/m ³		22.0	9.5	19.1	25.5	54.1
25/08/2025	µg/m ³		23.6	14.5	17.6	21.6	40.2
26/08/2025	µg/m ³		21.2	10.7	15.9	32.5	85.3
27/08/2025	µg/m ³		15.8	8.7	24.4	19.5	64.8
28/08/2025	µg/m ³		15.7	7.7	13.9	13.3	86.6
29/08/2025	µg/m ³		16.7	9.3	23.0	17.1	114.9
30/08/2025	µg/m ³		13.1	7.5	15.0	12.0	61.4
31/08/2025	µg/m ³		15.2	8.5	17.4	23.1	60.6
Monthly Meaningful Data							
August	µg/m ³	Minimum	8.7	5.4	5.2	6.2	6.7
	µg/m ³	Mean	17.1	9.5	13.1	16.5	38.3
	µg/m ³	Maximum	31.8	17.6	24.4	32.5	114.9
	µg/m ³	Median	15.2	8.5	13.3	15.5	38.6

* Less than 75% 24-hour data capture



4 | SURFACE WATER MONITORING DATA

Date/s Sampled:

EPL ID 8: 04-06/08/2025

EPL ID 3: 05-06/08/2025 and 27-28/08/2025

EPL ID 4: 13-15/08/2025

Date Obtained: 06-07/08/2025, 12/08/2025, 15/08/2025, 18/08/2025, 29/08/2025 and 01/09/2025

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	4	4
	Total Suspended Solids	Milligrams per Litre	120	4	4
EPL ID 4 (Dam 9W)	pH	pH	6.5-9.5	3	3
	Total Suspended Solids	Milligrams per Litre	120	3	3
EPL ID 8 (Dam 15S)	pH	pH	6.5-9.5	3	3
	Total Suspended Solids	Milligrams per Litre	120	3	3

5 | BLAST MONITORING DATA

Date Last Sampled: 31/08/2025

Date Obtained: 03/09/2025

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		
				95% of Blasts	100% of Blasts		Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
P102WKW501A	2/08/2025 15:00	dB(L)	All blasts 100%	115	120	105.16	101.87	106.55	111.59
P210PCF302A	4/08/2025 13:10	dB(L)		115	120	83.57	86.56	89.33	100.25
WS49LDU101E	6/08/2025 14:50	dB(L)		115	120	88.98	89.77	100.32	101.90
P102WKW1001C	8/08/2025 13:26	dB(L)		115	120	96.22	92.53	90.10	93.02
P101VAX107C	8/08/2025 13:28	dB(L)		115	120	90.78	84.53	93.24	97.74
P210BRN102A	8/08/2025 13:30	dB(L)		115	120	96.76	86.21	94.46	104.66



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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
WS49ARL1P4A	9/08/2025 13:29	dB(L)	All Blasts 100%	115	120	83.46	98.73	105.28	101.80
WT12BAYSP1A	11/08/2025 12:55	dB(L)		115	120	87.38	105.69	85.28	86.10
P210BRN102B_P210PCF302B	13/08/2025 11:09	dB(L)		115	120	93.29	92.79	99.66	100.50
WS49ARU101A_WS49ARU102A	13/08/2025 13:28	dB(L)		115	120	89.78	99.38	96.92	90.89
WS49ARU101B_WS49ARU102B	20/08/2025 13:12	dB(L)		115	120	93.26	85.67	92.96	109.73
M1B2BP701A	21/08/2025 13:19	dB(L)		115	120	85.53	90.20	92.97	104.96
M1T3BP801A	21/08/2025 13:22	dB(L)		115	120	99.76	94.84	86.03	95.21
M1B1BP7P01A	23/08/2025 13:05	dB(L)		115	120	84.43	87.94	80.42	84.16
WT12BRN601A	25/08/2025 13:51	dB(L)		115	120	93.67	93.64	83.91	83.51

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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
Monthly Meaningful Data									
August		dB(L)	Minimum	115	120	83.46	84.53	80.42	83.51
		dB(L)	Mean	115	120	91.47	92.69	93.16	97.73
		dB(L)	Maximum	115	120	105.16	105.69	106.55	111.59
		dB(L)	Median	115	120	90.78	92.53	92.97	100.25



Table 4 – Blast Monitoring (Ground Vibration)

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
P102WKW501A	2/08/2025 15:00	mm/s	All Blasts 100%	5	10	0.05	0.09	0.11	0.57
P210PCF302A	4/08/2025 13:10	mm/s		5	10	0.04	0.08	0.10	0.70
WS49LDU101E	6/08/2025 14:50	mm/s		5	10	0.23	0.20	0.20	0.61
P102WKW1001C	8/08/2025 13:26	mm/s		5	10	0.06	0.08	0.11	0.11
P101VAX107C	8/08/2025 13:28	mm/s		5	10	0.04	0.08	0.12	0.45
P210BRN102A	8/08/2025 13:30	mm/s		5	10	0.06	0.08	0.35	0.45
WS49ARL1P4A	9/08/2025 13:29	mm/s		5	10	0.08	0.12	0.14	0.1
WT12BAYSP1A	11/08/2025 12:55	mm/s		5	10	0.09	0.14	0.12	0.16
P210BRN102B_P210PCF302B	13/08/2025 11:09	mm/s		5	10	0.06	0.13	0.2	0.36
WS49ARU101A_WS49ARU102A	13/08/2025 13:28	mm/s		5	10	0.46	0.46	0.37	0.56
WS49ARU101B_WS49ARU102B	20/08/2025 13:12	mm/s		5	10	0.48	0.21	0.55	0.55
M1B2BP701A	21/08/2025 13:19	mm/s		5	10	0.03	0.08	0.16	0.7
M1T3BP801A	21/08/2025 13:22	mm/s		5	10	0.11	0.21	0.12	0.11
M1B1BP7P01A	23/08/2025 13:05	mm/s		5	10	0.1	0.26	0.1	0.16

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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
WT12BRN601A	25/08/2025 13:51	mm/s		5	10	0.09	0.11	0.1	0.04
Monthly Meaningful Data									
August		mm/s	Minimum	5	10	0.03	0.08	0.10	0.04
		mm/s	Mean	5	10	0.13	0.16	0.19	0.38
		mm/s	Maximum	5	10	0.48	0.46	0.55	0.70
		mm/s	Median	5	10	0.08	0.12	0.12	0.45



6 | SEWAGE TREATMENT PLANT MONITORING DATA

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

7 | NOISE MONITORING DATA

Date Sampled: 25-26/08/2025

Date Obtained: 18/09/2025

Table 6 – Night $L_{Aeq,15minute}$ and 1minute 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			$L_{Aeq,15minute}$	$L_{A1,1min}$	$L_{Aeq,15minute}$ ²	$L_{A1,1min}$	$L_{Aeq,15minute}$	$L_{A1,1min}$
Shearers Lane	25/08/2025 22:00	1.3	129	E	Yes	35	46	IA	IA	Nil	Nil
Knodlers Lane	25/08/2025 22:40	1.8	153	D	Yes	35	46	IA	IA	Nil	Nil
Maison Dieu	25/08/2025 22:20	1.7	137	D	Yes	35	46	IA	IA	Nil	Nil
Long Point (Dights Crossing)	25/08/2025 23:10	0.9	139	D	Yes	35	46	IA	IA	Nil	Nil
Moses Crossing	25/08/2025 23:58	1.4	147	D	Yes	39	46	28	35	Nil	Nil
Jerrys Plains East	25/08/2025 23:38	1.1	136	D	Yes	39	46	<25	27	Nil	Nil
Jerrys Plains Village	25/08/2025 22:19	1.7	137	D	Yes	40	46	<25	28	Nil	Nil
Jerrys Plains West	25/08/2025 22:00	1.3	129	E	Yes	40	46	<25	29	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 $L_{Aeq,15minute}$, includes modifying factor penalties if applicable.

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