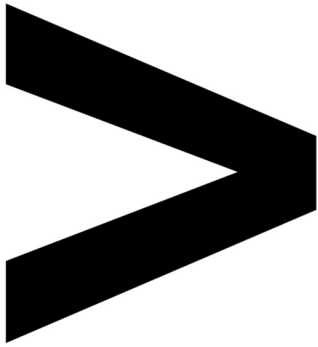




**HUNTER VALLEY
OPERATIONS**

ENVIRONMENT PROTECTION LICENCE 640 MONITORING DATA - JULY 2025

DOCUMENT NUMBER

HVOOC-1797567310-5368

STATUS

Approved

VERSION

1.0

EFFECTIVE

01/10/2025

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

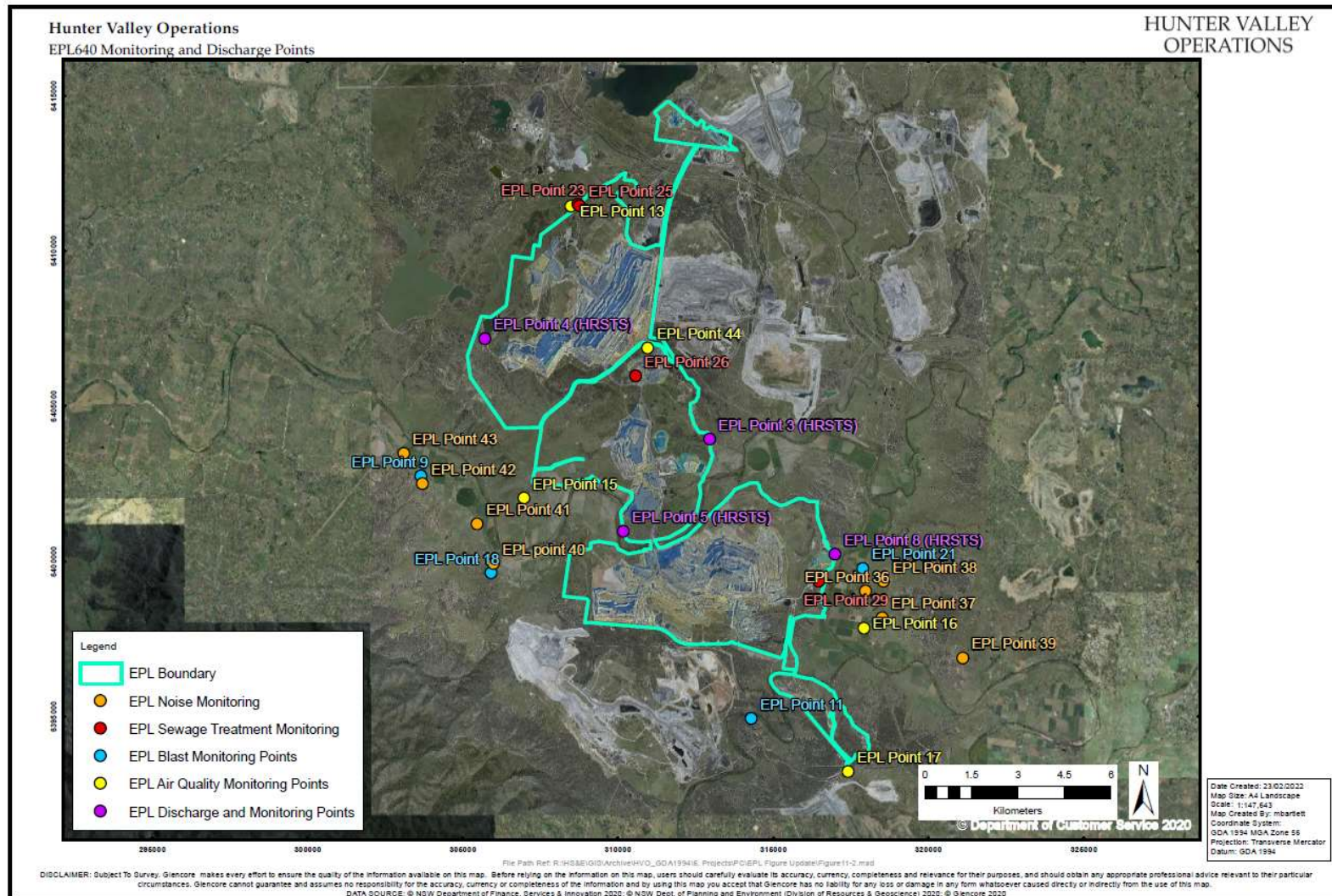


Figure 1: EPL 640 Monitoring Location

3 | AIR QUALITY

Date Last Sampled: 31/07/2025

Date Obtained: 19/09/2025

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)
1/07/2025	µg/m ³	Continuous	5.4	3.8	4.9	5.3	*
2/07/2025	µg/m ³		5.2	4.8	7.9	8.3	20.5
3/07/2025	µg/m ³		9.7	5.9	8.4	8.9	39.8
4/07/2025	µg/m ³		10.1	6.0	10.3	28.4	42.8
5/07/2025	µg/m ³		30.9	14.3	29.1	36.8	92.0
6/07/2025	µg/m ³		18.9	14.2	20.9	31.4	66.5
7/07/2025	µg/m ³		13.2	6.8	11.5	*	74.5
8/07/2025	µg/m ³		*	9.4	19.4	17.3	66.4
9/07/2025	µg/m ³		17.4	12.5	27.0	21.9	54.1
10/07/2025	µg/m ³		23.5	18.4	45.1	33.3	133.4
11/07/2025	µg/m ³		13.5	8.4	55.5	14.5	64.6
12/07/2025	µg/m ³		15.6	8.1	26.8	21.5	69.3
13/07/2025	µg/m ³		16.9	6.4	27.0	15.7	62.5
14/07/2025	µg/m ³		20.9	8.5	26.5	18.0	94.2
15/07/2025	µg/m ³		22.9	11.0	31.2	21.3	80.1
16/07/2025	µg/m ³		14.1	7.8	22.8	16.9	66.9

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17/07/2025	µg/m ³		24.2	10.7	28.4	28.8	101.0
18/07/2025	µg/m ³		43.7	22.6	36.5	40.3	95.8
19/07/2025	µg/m ³		19.8	12.1	25.7	40.9	89.4
20/07/2025	µg/m ³		41.7	25.8	23.7	48.6	67.4
21/07/2025	µg/m ³		26.8	28.8	36.8	44.0	94.3
22/07/2025	µg/m ³		31.8	18.6	15.8	51.7	133.0
23/07/2025	µg/m ³		11.3	8.3	19.7	22.7	79.1
24/07/2025	µg/m ³		16.0	8.0	16.6	17.0	57.2
25/07/2025	µg/m ³		32.4	16.7	16.7	15.3	48.2
26/07/2025	µg/m ³		14.6	7.8	17.5	31.7	41.6
27/07/2025	µg/m ³		9.3	5.2	10.7	10.5	42.1
28/07/2025	µg/m ³		10.4	5.4	12.1	11.6	55.3
29/07/2025	µg/m ³		11.7	4.8	17.3	14.4	61.3
30/07/2025	µg/m ³		18.7	12.5	20.7	40.5	29.2
31/07/2025	µg/m ³		16.0	7.3	13.1	13.7	13.0
Monthly Meaningful Data							
July	µg/m ³	Minimum	5.2	3.8	4.9	5.3	13.0
	µg/m ³	Mean	18.9	11.0	22.1	24.4	67.9
	µg/m ³	Maximum	43.7	28.8	55.5	51.7	133.4
	µg/m ³	Median	16.5	8.4	20.7	21.4	66.5

* Less than 75% 24-hour data capture

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4 | SURFACE WATER MONITORING DATA

No discharges under the HRSTS occurred during July.

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: 29/07/2025

Date Obtained: 12/08/2025

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
P210N1002B-P210N1003A	1/07/2025 15:56	dB(L)	All blasts 100%	115	120	94.02	97.16	108.95	109.91
P101BRN301A	3/07/2025 13:07	dB(L)		115	120	101.06	99.51	102.59	106.67
WS49PGL07A	7/07/2025 13:06	dB(L)		115	120	105.74	99.04	111.88	90.74
P210N1004A	7/07/2025 14:54	dB(L)		115	120	100.40	100.89	104.39	112.50
WN49LDU702C	8/07/2025 13:14	dB(L)		115	120	88.11	84.71	104.42	94.05
WS49LDUP01A	9/07/2025 13:03	dB(L)		115	120	94.75	88.88	90.71	92.30



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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
P10203602A	12/07/2025 11:38	dB(L)	All Blasts 100%	115	120	103.01	94.96	101.03	103.14
WS49LED12A	12/07/2025 14:25	dB(L)		115	120	94.64	85.50	89.91	101.40
WS49LDU101A	12/07/2025 14:27	dB(L)		115	120	91.60	87.42	94.06	102.47
P210WKW908A	14/07/2025 13:10	dB(L)		115	120	100.51	99.25	103.90	105.75
P210N1002C_P210N1005A_P210WKW906B	14/07/2025 13:11	dB(L)		115	120	100.72	106.28	105.51	109.42
WS49LDU101B	16/07/2025 13:11	dB(L)		115	120	89.23	86.94	90.53	92.85
P101BRN301B	18/07/2025 10:04	dB(L)		115	120	101.69	96.14	101.99	99.84
P101BRN301C	19/07/2025 15:16	dB(L)		115	120	97.20	89.09	92.15	98.34
P102M3P01A	22/07/2025 11:00	dB(L)		115	120	81.73	83.21	82.24	91.70

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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
WS49LED13A	22/07/2025 13:22	dB(L)		115	120	100.68	97.40	97.18	97.67
P102WKW202B	23/07/2025 11:13	dB(L)		115	120	88.93	73.59	85.40	88.46
WS49LDU101C	23/07/2025 13:12	dB(L)		115	120	89.01	87.55	92.81	93.57
P101BRN302A	25/07/2025 13:21	dB(L)		115	120	98.34	89.96	97.71	101.80
P102WKW1001A	25/07/2025 13:23	dB(L)		115	120	98.91	98.14	96.96	104.18
WN49LDL02A_WN49BAP04A	26/07/2025 13:09	dB(L)		115	120	99.73	97.41	105.61	109.99
P210BRN101A	29/07/2025 11:40	dB(L)		115	120	94.61	87.59	106.37	112.18
P102WKW1001B	29/07/2025 11:42	dB(L)		115	120	94.69	88.58	102.78	106.49
WS49LDU101D	29/07/2025 13:16	dB(L)		115	120	90.05	96.69	102.49	100.12

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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									
July		dB(L)	Minimum	115	120	81.73	73.59	82.24	88.46
		dB(L)	Mean	115	120	95.81	92.33	98.82	101.06
		dB(L)	Maximum	115	120	105.74	106.28	111.88	112.50
		dB(L)	Median	115	120	95.98	92.46	101.51	101.60



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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
P210N1002B-P210N1003A	1/07/2025 15:56	mm/s	All Blasts 100%	5	10	0.14	0.09	0.27	0.47
P101BRN301A	3/07/2025 13:07	mm/s		5	10	0.09	0.10	0.13	0.37
WS49PGL07A	7/07/2025 13:06	mm/s		5	10	0.07	0.09	0.12	0.07
P210N1004A	7/07/2025 14:54	mm/s		5	10	0.09	0.08	0.19	0.39
WN49LDU702C	8/07/2025 13:14	mm/s		5	10	0.04	0.08	0.10	0.18
WS49LDUP01A	9/07/2025 13:03	mm/s		5	10	0.16	0.23	0.16	0.76
P10203602A	12/07/2025 11:38	mm/s		5	10	0.09	0.08	0.12	0.08
WS49LED12A	12/07/2025 14:25	mm/s		5	10	0.11	0.11	0.11	0.13
WS49LDU101A	12/07/2025 14:27	mm/s		5	10	0.47	0.38	0.36	0.29
P210WKW908A	14/07/2025 13:10	mm/s		5	10	0.10	0.12	0.22	0.46
P210N1002C_P210N1005A_P210WKW906B	14/07/2025 13:11	mm/s		5	10	0.11	0.12	0.18	0.49
WS49LDU101B	16/07/2025 13:11	mm/s		5	10	0.31	0.37	0.30	0.16
P101BRN301B	18/07/2025 10:04	mm/s		5	10	0.13	0.09	0.15	0.28
P101BRN301C	19/07/2025 15:16	mm/s		5	10	0.11	0.10	0.13	0.23

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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
P102M3P01A	22/07/2025 11:00	mm/s		5	10	0.04	0.03	0.09	0.10
WS49LED13A	22/07/2025 13:22	mm/s		5	10	0.14	0.11	0.30	0.12
P102WKW202B	23/07/2025 11:13	mm/s		5	10	0.04	0.08	2.27	0.06
WS49LDU101C	23/07/2025 13:12	mm/s		5	10	0.35	0.24	0.29	0.30
P101BRN302A	25/07/2025 13:21	mm/s		5	10	0.14	0.12	0.16	0.31
P102WKW1001A	25/07/2025 13:23	mm/s		5	10	0.14	0.10	0.11	0.42
WN49LDL02A_WN49BAP04A	26/07/2025 13:09	mm/s		5	10	0.10	0.15	0.13	0.13
P210BRN101A	29/07/2025 11:40	mm/s		5	10	0.09	0.10	0.41	0.43
P102WKW1001B	29/07/2025 11:42	mm/s		5	10	0.11	0.10	0.11	0.11
WS49LDU101D	29/07/2025 13:16	mm/s		5	10	0.26	0.23	0.28	0.24
Monthly Meaningful Data									
July		mm/s	Minimum	5	10	0.04	0.03	0.09	0.06
		mm/s	Mean	5	10	0.14	0.14	0.28	0.27
		mm/s	Maximum	5	10	0.47	0.38	2.27	0.76
		mm/s	Median	5	10	0.11	0.10	0.16	0.26

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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: 22/23/07/2025

Date Obtained: 29/09/2025

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	22/07/2025 22:00	1.5	188	E	No	41	46	33	38	Nil	Nil
Knodlers Lane	22/07/2025 22:43	0.9	261	F	No	40	46	36	43	Nil	Nil
Maison Dieu	22/07/2025 22:22	1.0	212	D	No	39	46	31	34	Nil	Nil
Long Point (Dights Crossing)	22/07/2025 23:14	0.9	304	F	No	37	46	<25	26	Nil	Nil
Moses Crossing	22/07/2025 22:25	1.0	212	D	No	39	46	34	38	Nil	Nil
Jerrys Plains East	22/07/2025 22:51	0.9	261	F	No	39	46	35	38	Nil	Nil
Jerrys Plains Village	23/07/2025 00:07	0.9	311	F	No	40	46	33	38	Nil	Nil
Jerrys Plains West	23/07/2025 00:29	0.4	255	F	No	40	46	32	I	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.