



## VICKERY COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 21283

**EPA Website Link:**

<https://whitehavencoal.com.au/Documentations/Vickery%20Extension%20Project/Approvals/Environment%20Protection%20Licence/VIC%20-%20Environmental%20Protection%20Licence.pdf?v=1702936903>

**Licensee:** Vickery Coal Pty Ltd

**Licensee Address:** Vickery Coal Mine, Blue Vale Road, BOGGABRI NSW 2382

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** August 2024

**Obtained Date:** 11/09/2024

**Publication Date:** 18/09/2024

| Name        | Role                  | Signature                            | Date                              |
|-------------|-----------------------|--------------------------------------|-----------------------------------|
| Harry Mills | Environmental Advisor | DocuSigned by:<br><i>Harry Mills</i> | September 19, 2024   7:44 AM AEST |

**Table 1: Surface Water – No Pollutant Limits Apply**

| EPL ID | Pollutant    | Units of Measure | Monitoring Frequency            | No. of Samples for the Period | Date Sampled | Date of Max. Value Obtained | Min Value | Mean Value | Median Value | Max or Only Value | Comment/s    |
|--------|--------------|------------------|---------------------------------|-------------------------------|--------------|-----------------------------|-----------|------------|--------------|-------------------|--------------|
| 2      | TSS          | mg/L             | Quarterly (Mar, Jun, Sep & Dec) | -                             | -            | -                           | -         | -          | -            | -                 | -            |
|        | Conductivity | µS/cm            |                                 | -                             | -            | -                           | -         | -          | -            | -                 |              |
|        | Oil & Grease | mg/L             |                                 | -                             | -            | -                           | -         | -          | -            | -                 |              |
|        | pH           | pH               |                                 | -                             | -            | -                           | -         | -          | -            | -                 |              |
| 3      | TSS          | mg/L             | Quarterly (Mar, Jun, Sep & Dec) | -                             | -            | -                           | -         | -          | -            | -                 | -            |
|        | Conductivity | µS/cm            |                                 | -                             | -            | -                           | -         | -          | -            | -                 |              |
|        | Oil & Grease | mg/L             |                                 | -                             | -            | -                           | -         | -          | -            | -                 |              |
|        | pH           | pH               |                                 | -                             | -            | -                           | -         | -          | -            | -                 |              |
| 9      | TSS          | mg/L             | Quarterly (Mar, Jun, Sep & Dec) | -                             | -            | -                           | -         | -          | -            | -                 | -            |
|        | Conductivity | µS/cm            |                                 | -                             | -            | -                           | -         | -          | -            | -                 |              |
|        | Oil & Grease | mg/L             |                                 | -                             | -            | -                           | -         | -          | -            | -                 |              |
|        | pH           | pH               |                                 | -                             | -            | -                           | -         | -          | -            | -                 |              |
| 10     | TSS          | mg/L             | Upon discharge                  | -                             | -            | -                           | -         | -          | -            | -                 | No discharge |
|        | Conductivity | µS/cm            |                                 | -                             | -            | -                           | -         | -          | -            | -                 |              |
|        | Oil & Grease | mg/L             |                                 | -                             | -            | -                           | -         | -          | -            | -                 |              |
|        | pH           | pH               |                                 | -                             | -            | -                           | -         | -          | -            | -                 |              |

**Table 2: Surface Water - Pollutant Limits Apply**

| EPL ID | Pollutant    | Units of Measure | Monitoring Frequency | No. of Samples for the Month | Date Sampled | Date of Max. Value Obtained | Min Value | Max or Only Value | 100%ile Limit | Exceed -ance (Yes/ No) | Comment/s    |
|--------|--------------|------------------|----------------------|------------------------------|--------------|-----------------------------|-----------|-------------------|---------------|------------------------|--------------|
| 14     | TSS          | mg/L             | Upon discharge       | -                            | -            | -                           | -         | -                 | 50            | -                      | No discharge |
|        | Conductivity | µS/cm            |                      |                              |              |                             |           |                   | NA            |                        |              |
|        | Oil & Grease | mg/L             |                      | -                            | -            | -                           | -         | -                 | 10            | -                      |              |
|        | pH           | pH               |                      | -                            | -            | -                           | -         | -                 | 8.5           | -                      |              |
| 20     | TSS          | mg/L             | Upon discharge       | -                            | -            | -                           | -         | -                 | 50            | -                      | No discharge |
|        | Conductivity | µS/cm            |                      |                              |              |                             |           |                   | NA            |                        |              |
|        | Oil & Grease | mg/L             |                      | -                            | -            | -                           | -         | -                 | 10            | -                      |              |
|        | pH           | pH               |                      | -                            | -            | -                           | -         | -                 | 8.5           | -                      |              |
| 21     | TSS          | mg/L             | Upon discharge       | -                            | -            | -                           | -         | -                 | 50            | -                      | No discharge |
|        | Conductivity | µS/cm            |                      | -                            | -            | -                           | -         | -                 | NA            | -                      |              |
|        | Oil & Grease | mg/L             |                      | -                            | -            | -                           | -         | -                 | 10            | -                      |              |
|        | pH           | pH               |                      | -                            | -            | -                           | -         | -                 | 8.5           | -                      |              |

**Table 3: Groundwater – No Limits apply**

| EPL ID | Pollutant            | Units of Measure | Monitoring Frequency      | No. of Samples for the Period | Date Sampled | Date of Max. Value Obtained | Min Value | Mean Value | Median Value | Max or Only Value |
|--------|----------------------|------------------|---------------------------|-------------------------------|--------------|-----------------------------|-----------|------------|--------------|-------------------|
| 15     | Conductivity         | µS/cm            | Six Monthly (April & Oct) | -                             | -            | -                           | -         | -          | -            | -                 |
|        | Lead                 | mg/L             |                           | -                             | -            | -                           | -         | -          | -            | -                 |
|        | pH                   | pH               |                           | -                             | -            | -                           | -         | -          | -            | -                 |
|        | Standing Water Level | metres           |                           | -                             | -            | -                           | -         | -          | -            | -                 |
| 16     | Conductivity         | µS/cm            | Six Monthly (April & Oct) | -                             | -            | -                           | -         | -          | -            | -                 |
|        | Lead                 | mg/L             |                           | -                             | -            | -                           | -         | -          | -            | -                 |
|        | pH                   | pH               |                           | -                             | -            | -                           | -         | -          | -            | -                 |
|        | Standing Water Level | metres           |                           | -                             | -            | -                           | -         | -          | -            | -                 |
| 17     | Conductivity         | µS/cm            | Six Monthly (April & Oct) | -                             | -            | -                           | -         | -          | -            | -                 |
|        | Lead                 | mg/L             |                           | -                             | -            | -                           | -         | -          | -            | -                 |
|        | pH                   | pH               |                           | -                             | -            | -                           | -         | -          | -            | -                 |
|        | Standing Water Level | metres           |                           | -                             | -            | -                           | -         | -          | -            | -                 |
| 18     | Conductivity         | µS/cm            | Six Monthly (April & Oct) | -                             | -            | -                           | -         | -          | -            | -                 |
|        | Lead                 | mg/L             |                           | -                             | -            | -                           | -         | -          | -            | -                 |
|        | pH                   | pH               |                           | -                             | -            | -                           | -         | -          | -            | -                 |
|        | Standing Water Level | metres           |                           | -                             | -            | -                           | -         | -          | -            | -                 |

| EPL ID | Pollutant            | Units of Measure | Monitoring Frequency      | No. of Samples for the Period | Date Sampled | Date of Max. Value Obtained | Min Value | Mean Value | Median Value | Max or Only Value |
|--------|----------------------|------------------|---------------------------|-------------------------------|--------------|-----------------------------|-----------|------------|--------------|-------------------|
| 19     | Conductivity         | µS/cm            | Six Monthly (April & Oct) | -                             | -            | -                           | -         | -          | -            | -                 |
|        | Lead                 | mg/L             |                           | -                             | -            | -                           | -         | -          | -            | -                 |
|        | pH                   | pH               |                           | -                             | -            | -                           | -         | -          | -            | -                 |
|        | Standing Water Level | metres           |                           | -                             | -            | -                           | -         | -          | -            | -                 |

**Table 4 – Monthly Attended Noise Monitoring**

(Noise Limits Apply - 40dB LAeq(15min) -Day, 37dB LAeq(15min) Evening and Night; 52dB LA1(1min) -Night)

| Table 4  |        |               |                                  |                        |                            |                    |  |                        |
|--|--------|---------------|----------------------------------|------------------------|----------------------------|--------------------|--|------------------------|
| VCM Operational Noise Monitoring Results Leq(15min) – 15 <sup>th</sup> August 2024 (Day)     |        |               |                                  |                        |                            |                    |  |                        |
| Location   | Time   | dB(A),<br>Leq | VCM<br>Contribution<br>dB(A),Leq | Criterion<br>dB(A),Leq | Wind<br>speed<br>(m/s),dir | Stability<br>Class | Identified Noise Sources<br>dB(A),Leq                    | Exceedance<br>(Yes/No) |
| N-AT1 / 7  | 1:57pm | 45            | IA                               | 40                     | 1.4 / 216                  | C                  | Birds (43), frogs (38),<br>traffic (35), <b>VCM (IA)</b> | No                     |
| N-AT2 / 8  | 4:12pm | 48            | IA                               | 40                     | 1.4 / 173                  | C                  | Traffic (45), frogs (43),<br><b>VCM (IA)</b>             | No                     |
| Table 5  |        |               |                                  |                        |                            |                    |  |                        |
| VCM Operational Noise Monitoring Results Leq(15min) – 15 <sup>th</sup> August 2024 (Evening) |        |               |                                  |                        |                            |                    |  |                        |
| Location   | Time   | dB(A),<br>Leq | VCM<br>Contribution<br>dB(A),Leq | Criterion<br>dB(A),Leq | Wind<br>speed<br>(m/s),dir | Stability<br>Class | Identified Noise Sources<br>dB(A),Leq                    | Exceedance<br>(Yes/No) |
| N-AT1 / 7  | 9:28pm | 32            | IA                               | 35                     | 1.7 / 155                  | D                  | Traffic (30), wind (26),<br><b>VCM (IA)</b>              | No                     |
| N-AT2 / 8  | 8:19pm | 43            | IA                               | 37                     | 2.3 / 88                   | E                  | Frogs (41), Traffic (37),<br><b>VCM (IA)</b>             | No                     |

| Table 6  |         |               |                                  |                        |                            |                    |   |                        |
|--|---------|---------------|----------------------------------|------------------------|----------------------------|--------------------|---|------------------------|
| VCM Operational Noise Monitoring Results Leq(15min) – 15 <sup>th</sup> August 2024 (Night) |         |               |                                  |                        |                            |                    |   |                        |
| Location   | Time    | dB(A),<br>Leq | VCM<br>Contribution<br>dB(A),Leq | Criterion<br>dB(A),Leq | Wind<br>speed<br>(m/s),dir | Stability<br>Class | Identified Noise Sources<br>dB(A),Leq         | Exceedance<br>(Yes/No) |
| N-AT1 / 7  | 10:01pm | 33            | 22                               | 35                     | 0.9 / 158                  | D                  | Traffic (30), cattle (30),<br><b>VCM (22)</b> | No                     |
| N-AT2 / 8  | 11:48pm | 39            | IA                               | 37                     | 1.2 / 165                  | D                  | Traffic (37), frogs (34),<br><b>VCM (IA)</b>  | No                     |

| Table 7   |         |                             |   |  |                         |                    |                                |                        |
|---|---------|-----------------------------|---|--|-------------------------|--------------------|--------------------------------|------------------------|
| VCM Operational Noise Monitoring Results LA <sub>max</sub> – 15 <sup>th</sup> August 2024 |         |                             |   |  |                         |                    |                                |                        |
| Location  | Time    | dB(A),<br>LA <sub>max</sub> | VCM<br>Contribution<br>dB(A), LA <sub>max</sub> | Criterion<br>dB(A),<br>LA <sub>max</sub> | Wind speed<br>(m/s),dir | Stability<br>Class | LA <sub>max</sub> Noise Source | Exceedance<br>(Yes/No) |
| N-AT1 / 7   | 10:01pm | 55                          | 26  | 52                                       | 0.9 / 158               | D                  | Bird                           | No                     |
| N-AT2 / 8   | 11:48pm | 61                          | IA  | 52                                       | 1.2 / 165               | D                  | Horse                          | No                     |

**Table 5 – Monthly Monitoring (Blasts – Limits Apply)**

| Location | Parameter       | Units of Measure | Frequency   | No. of Blasts for the Month | Average Value | Max Value | 100%ile Limit | (Potential) Non-compliance /breach | Date of Max. Value Obtained |
|----------|-----------------|------------------|-------------|-----------------------------|---------------|-----------|---------------|------------------------------------|-----------------------------|
| B-01     | Blast Noise     | dB (Lin Peak)    | Every Blast | 5                           | 101.7         | 109.70    | N/A           | Nil                                | 14/08/2024                  |
|          | Blast Vibration | mm/s             | Every Blast | 5                           | 0.87          | 1.61      | N/A           | Nil                                | 5/08/2024                   |

| Location | Parameter       | Units of Measure | Frequency   | No. of Blasts for the Month | Average Value | Max Value | 100%ile Limit | (Potential) Non-compliance /breach | Date of Max. Value Obtained |
|----------|-----------------|------------------|-------------|-----------------------------|---------------|-----------|---------------|------------------------------------|-----------------------------|
| B-02     | Blast Noise     | dB (Lin Peak)    | Every Blast | 5                           | 105.84        | 115.20    | N/A           | Nil                                | 14/08/2024                  |
|          | Blast Vibration | mm/s             | Every Blast | 5                           | 1.27          | 1.86      | N/A           | Nil                                | 5/08/2024                   |

| Location | Parameter       | Units of Measure | Frequency   | No. of Blasts for the Month | Average Value | Max Value | 100%ile Limit | (Potential) Non-compliance /breach | Date of Max. Value Obtained |
|----------|-----------------|------------------|-------------|-----------------------------|---------------|-----------|---------------|------------------------------------|-----------------------------|
| B-03     | Blast Noise     | dB (Lin Peak)    | Every Blast | 5                           | 98.18         | 105.10    | 120           | N/A                                | 14/08/2024                  |
|          | Blast Vibration | mm/s             | Every Blast | 5                           | 0.47          | 0.93      | 10            | N/A                                | 5/08/2024                   |



**Table 6- PM1 Monthly Monitoring (Limits apply)**

| Location                                   | No. of samples required by licence | Lowest sample value | Mean of sample | Highest sample value |
|--|------------------------------------|---------------------|----------------|----------------------|
| PM10<br>TEOM ( $\mu\text{g}/\text{m}^3$ )  | Continuous                         | 5.1                 | 10.4           | 19.7                 |
| PM2.5<br>TEOM ( $\mu\text{g}/\text{m}^3$ ) | Continuous                         | 2.3                 | 4.9            | 8.4                  |

**Table 7- PM2 Monthly Monitoring (Limits apply)**

| Location                                   | No. of samples required by licence | Lowest sample value | Mean of sample | Highest sample value |
|--|------------------------------------|---------------------|----------------|----------------------|
| PM10<br>TEOM ( $\mu\text{g}/\text{m}^3$ )  | Continuous                         | 2.4                 | 8.2            | 17.9                 |
| PM2.5<br>TEOM ( $\mu\text{g}/\text{m}^3$ ) | Continuous                         | 1.1                 | 4.6            | 12.6                 |

Figure 1 – EPL 21283 Monitoring Locations



**EPL Monitoring Locations**

|                  |                             |
|------------------|-----------------------------|
| ● Atended Noise  | ● TEOM                      |
| ● Blast Monitor  | □ Approved Disturbance Area |
| ● Groundwater    | — Mining Lease              |
| ● Meteorological |                             |
| ● Surface Water  |                             |



**Vickery Coal Mine  
EPL Monitoring Locations**

Date: Sept 2023  
MGA Zone 56  
Scale: 1:68,000  
Author: A. Quiroz

