



**Licence No 4627 Publication of Monitoring Data  
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**Landfill Gas Monitoring – Subsurface Gas**

**EPL No:** 4627

**Date of Sampling** 21, 22, 25, 26 and 27 September 2023

**Date Received** 8 February 2024

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Subsurface landfill gas monitoring is usually a number of measurements taken over time with two events. The first event is initial measurements and the second event is measurements after the air space in the well has been pumped out. The highest measurement in the first (initial) and second (post-purge) events are reported in the following table.

Where the groundwater level is above the well screen the high water level can interfere with the monitoring equipment and no measurement/s can be taken.

| Monitoring Point | EPA Identification Number | Frequency | Pollutant             |            |                       |            |                         |            |                |            |               |            |
|------------------|---------------------------|-----------|-----------------------|------------|-----------------------|------------|-------------------------|------------|----------------|------------|---------------|------------|
|                  |                           |           | Carbon Dioxide (%v/v) |            | Carbon Monoxide (ppm) |            | Hydrogen Sulphide (ppm) |            | Methane (%v/v) |            | Oxygen (%v/v) |            |
|                  |                           |           | Initial               | Post Purge | Initial               | Post Purge | Initial                 | Post Purge | Initial        | Post Purge | Initial       | Post Purge |
| LDS-GM-001       | 22                        | Quarterly | 3.7                   | 3.5        | 0                     | 1          | 0                       | 0          | 0.0            | 0.0        | 22.2          | 6.9        |
| LDS-GM-002       | 23                        | Quarterly | Well destroyed        |            |                       |            |                         |            |                |            |               |            |
| LDS-GM-002C      |                           | Quarterly | 10.6                  | 9.3        | 0                     | 0          | 0                       | 0          | 0.0            | 0.0        | 14.5          | 15.1       |
| LDS-GM-003A      | 24                        | Quarterly | Well destroyed        |            |                       |            |                         |            |                |            |               |            |
| LDS-GM-003B      | 25                        | Quarterly | Well destroyed        |            |                       |            |                         |            |                |            |               |            |

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|------------------|---------------------------|-----------|---|------------|-----------------------|------------|-------------------------|------------|----------------|------------|---------------|------------|
|                  |                           |           | Carbon Dioxide (%v/v)                                 |            | Carbon Monoxide (ppm) |            | Hydrogen Sulphide (ppm) |            | Methane (%v/v) |            | Oxygen (%v/v) |            |
|                  |                           |           | Initial   | Post Purge | Initial               | Post Purge | Initial                 | Post Purge | Initial        | Post Purge | Initial       | Post Purge |
| LDS-GM-003C      |                           | Quarterly | 9.7   | 8.0        | 0                     | 1          | 0                       | 0          | 0.0            | 0.0        | 15.0          | 16.2       |
| LDS-GM-004       | 26                        | Quarterly | 4.9   | 5.3        | 1                     | 1.0        | 0                       | 0.0        | 12.7           | 11.2       | 3.3           | 1.0        |
| LDS-GM-005       | 27                        | Quarterly | 8.0   | 7.8        | 1                     | 0          | 0                       | 0          | 0.0            | 0.0        | 21.0          | 15.5       |
| LDS-GM-006A      | 28                        | Quarterly | 11.1  | NR1        | 5                     | NR1        | 0                       | NR1        | 0.0            | NR1        | 10.7          | NR1        |
| LDS-GM-006B      | 29                        | Quarterly | 11.7  | NR1        | 0                     | NR1        | 0                       | NR1        | 0.0            | NR1        | 8.8           | NR1        |
| LDS-GM-007A      | 30                        | Quarterly | NR2 - the water level too high to take measurement.   |            |                       |            |                         |            |                |            |               |            |
| LDS-GM-007B      | 31                        | Quarterly | NR2 - the water level too high to take measurement.   |            |                       |            |                         |            |                |            |               |            |
| LDS-GM-008A      | 32                        | Quarterly | NR3 - Tubing kinked and broken. Could not be sampled. |            |                       |            |                         |            |                |            |               |            |
| LDS-GM-008B      | 33                        | Quarterly | NR4 - Waterlogged, unable to be sampled.              |            |                       |            |                         |            |                |            |               |            |
| LDS-GM-009C      | 34                        | Quarterly | 16.8  | 5.2        | 4                     | 1          | 0                       | 0          | 0.0            | 0.0        | 12.0          | 19.3       |
| LDS-GM-009D      | 35                        | Quarterly | 10.6  | 0.5        | 1                     | 0          | 0                       | 0          | 0.0            | 0.0        | 20.2          | 21.1       |
| LDS-GM-010A      | 36                        | Quarterly | 9.0   | 0.5        | 1                     | 0          | 1                       | 0          | 0.0            | 0.0        | 13.8          | 20.8       |
| LDS-GM-010B      | 37                        | Quarterly | 1.6   | 0.7        | 0                     | 0          | 0                       | 0          | 0.0            | 0.0        | 21.0          | 20.8       |
| LDS-GM-011A      | 38                        | Quarterly | 0.0   | 0.0        | 1                     | 0          | 0                       | 0          | 0.0            | 0.0        | 20.1          | 18.2       |
| LDS-GM-012C      | 39                        | Quarterly | 5.9   | 5.9        | 0                     | 0.0        | 0                       | 0.0        | 0.0            | 0.0        | 20.8          | 16.7       |
| LDS-GM-012D      | 40                        | Quarterly | 1.8   | 0.1        | 1                     | 0          | 0                       | 0          | 0.0            | 0.0        | 18.7          | 20.7       |
| LDS-GM-013       | 41                        | Quarterly | 0.8   | NR1        | 1                     | NR1        | 0                       | NR1        | 0.0            | NR1        | 20.7          | NR1        |
| LDS-GM-014       | 42                        | Quarterly | 0.2   | 0.1        | 0                     | 0          | 0                       | 0          | 0.0            | 0.0        | 21.4          | 21.4       |
| LDS-GM-015       | 43                        | Quarterly | 1.0   | 1.0        | 1                     | 0          | 0                       | 0          | 0.0            | <<<        | 20.6          | 15.7       |

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|                  |                           |           | Carbon Dioxide (%v/v)  |            | Carbon Monoxide (ppm) |            | Hydrogen Sulphide (ppm) |            | Methane (%v/v) |            | Oxygen (%v/v) |            |
|                  |                           |           | Initial  | Post Purge | Initial               | Post Purge | Initial                 | Post Purge | Initial        | Post Purge | Initial       | Post Purge |
| LDS-GM-016       | 44                        | Quarterly | 4.3  | 4.4        | 0                     | 0          | 0                       | 0          | 0.0            | 0.0        | 3.2           | 3.8        |
| LDS-GM-017       | 45                        | Quarterly | 1.8  | 0.9        | 1                     | 1          | 0                       | 0          | 1.1            | 0.5        | 21.1          | 13.8       |
| LDS-GM-018       | 46                        | Quarterly | 1.6  | 4.7        | 1                     | 0          | 0                       | 0          | 0.0            | 0.0        | 20.5          | 9.3        |
| LDS-GM-019       | 47                        | Quarterly | 3.3  | 3.2        | 1                     | 0          | 0                       | 0          | 0.2            | 0.4        | 13.9          | 1.0        |
| LDS-GM-020       | 48                        | Quarterly | 2.1  | 4.4        | 1                     | 1          | 0                       | 0          | 0.0            | 0.0        | 20.6          | 14.7       |
| LDS-GM-021       | 49                        | Quarterly | 9.1  | 9.0        | 2                     | 0          | 0                       | 0          | 0.0            | 0.0        | 21.5          | 10.6       |
| LDS-GM-022A      | 50                        | Quarterly | NR5 – temporarily inaccessible due to Gateway construction works |            |                       |            |                         |            |                |            |               |            |
| LDS-GM-023       | 51                        | Quarterly | 0.1  | 0.1        | 2                     | 1          | 0                       | 0          | 0              | 0          | 15.7          | 15.5       |
| LDS-GM-024A      | 52                        | Quarterly | NR5 – temporarily inaccessible due to Gateway construction works |            |                       |            |                         |            |                |            |               |            |
| LDS-GM-024B      | 53                        | Quarterly | NR5 – temporarily inaccessible due to Gateway construction works |            |                       |            |                         |            |                |            |               |            |
| LDS-GM-025       | 54                        | Quarterly | NR5 – temporarily inaccessible due to Gateway construction works |            |                       |            |                         |            |                |            |               |            |
| LDS-GM-026       | 55                        | Quarterly | 0.1  | 0.1        | 1                     | 1          | 0                       | 0          | 0.0            | 0.0        | 21.1          | 21.0       |
| LDS-GM-027       | 56                        | Quarterly | 6.5  | 6.8        | 1                     | 1          | 0                       | 0          | 0.0            | 0.0        | 21.0          | 10.5       |
| LDS-GM-028       | 57                        | Quarterly | 31.6   | 31.4       | 1                     | 0          | 0                       | 0          | 69.2           | 68.0       | 20.8          | 0.3        |
| LDS-GM-029       | 58                        | Quarterly | 8.0  | 6.3        | 0                     | 0          | 0                       | 0          | 0.0            | 0.0        | 19.1          | 7.7        |
| LDS-GM-030       | 59                        | Quarterly | 9.1  | 9.5        | 1                     | 1          | 0                       | 0          | 0.0            | 0.0        | 21.4          | 11.8       |
| LDS-BH-10321A    | 17                        | Quarterly | 11.2   | 11.4       | 0                     | 1          | 0                       | 0          | 0.0            | 0.0        | 19.3          | 4.7        |
| LDS-BH-10322     | 18                        | Quarterly | 3.8  | 3.8        | 0                     | 1          | 0                       | 0          | 0.0            | 0.0        | 15.3          | 2.1        |
| LDS-BH-10329     | 19                        | Quarterly | Well destroyed   |            |                       |            |                         |            |                |            |               |            |
| LDS-BH-10329A    |                           | Quarterly | 6.2  | 6.1        | 1                     | 1          | 0                       | 0          | 2.3            | 2.1        | 20.6          | 0.6        |

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|------------------|---------------------------|-----------|--|------------|-----------------------|------------|-------------------------|------------|----------------|------------|---------------|------------|
|                  |                           |           | Carbon Dioxide (%v/v)  |            | Carbon Monoxide (ppm) |            | Hydrogen Sulphide (ppm) |            | Methane (%v/v) |            | Oxygen (%v/v) |            |
|                  |                           |           | Initial  | Post Purge | Initial               | Post Purge | Initial                 | Post Purge | Initial        | Post Purge | Initial       | Post Purge |
| LDS-BH-10331     | 20                        | Quarterly | 0.1  | 0.2        | 0                     | 1          | 0                       | 0          | 0.0            | 0.0        | 21.4          | 21.4       |
| LDS-BH-10332     | 21                        | Quarterly | 5.7  | 5.9        | 1                     | 0          | 0                       | 0          | 0.0            | 0.4        | 15.8          | 20.3       |
| LDS-GV-48        | 60                        | Quarterly | NR5 – temporarily inaccessible due to Gateway construction works |            |                       |            |                         |            |                |            |               |            |
| LDS-GV-49        | 61                        | Quarterly | NR5 – temporarily inaccessible due to Gateway construction works |            |                       |            |                         |            |                |            |               |            |
| LDS-GV-50        | 62                        | Quarterly | NR5 – temporarily inaccessible due to Gateway construction works |            |                       |            |                         |            |                |            |               |            |

NOTES:

- EPL - Environment Protection Licence
- %v/v - percentage by volume
- ppm - parts per million
- NR1 – No post-purge result - Due to tight bore formation not allowing sample extraction
- NR2 - No result - Water level too high to take measurement.
- NR3 - No result - Tubing kinked and broken. Could not be sampled.
- NR4 - No result - Waterlogged, unable to be sampled.
- NR5 - No result - Well temporarily inaccessible due to Gateway construction works

The wells LDS-GM-002, LDS-GM-003A, LDS-GM-003B and LDS-BH-10329 were destroyed before the present monitoring program started in October 2020. Replacement wells LDS-GM-002C and LDS-GM-003C have been installed adjacent to destroyed wells with the same depth and well screens. Replacement well LDS-GM-0329A has been installed at an agreed nearby location.