Tullamarine Closed Landfill Landfill Gas Assessments





- ⊂ Landfill Gas Perimeter Monitoring Bore Installation.
- Outer Eastern Bores Risk Assessment (Previously Presented).
- 'Buffer Land' Soil Vapour Assessment (Previously Presented).
- ⊂ LFG Risk Assessment (Draft).

## Perimeter Monitoring Bore Installation:

- Completed over two events:
  - Event 1 Installation of 33 perimeter boreholes September to November 2012
  - $\bigcirc$  Event 2 Installation of 15 additional bores December 2012
- Purpose: To install LFG bores suitable to assess the potential for LFG to migrate from the waste mass beyond the site boundaries (north, south east and west).
- Installations were completed for each geological unit encountered at each boundary.

# Perimeter Monitoring Bore Installation:

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Location			Screened Interval (m bgl)
SG08	SG08a	Fill	1.3 – 2.3
	SG08b	Qvn	3.0 - 4.0
SG20	SG20a	Fill	1.5 – 2.5
	SG20b	Qvn	3.6 - 4.6
	SG20c	Tb	7.0 – 13.0
	SG20d	Tvo	15.8 – 18.0
SG21	SG21a	Fill	1.6 – 2.6
	SG21b	Qvn	4.8 - 6.3
	SG21c	Tb	8.5 – 14.0
	SG21d	Tvo	16.0 – 18.0
SG22	SG22a	Fill	0.8 – 1.8
	SG22b	Qvn	2.9 - 4.2
	SG22c	Tb	6.4 – 17.4
SG23	SG23a	Fill	1.5 – 2.5
	SG23b	Tb	4.0 – 17.0

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## Outer Eastern Borehole Risk Assessment:

### ○ Objective:

- To identify potential risks posed by LFG to potential receptors located both on and off site.
- Assessment comprises:
  - Review of LFG concentrations in the perimeter monitoring bores on the eastern boundary.
  - Assessment of the linkages between source and potential receptors.
- Conclusions and Recommendations:
  - $\ensuremath{\mathbb{C}}$  No methane detected at the site boundary.
  - $\ensuremath{\mathbb{C}}$  No risks detected which would require mitigation.

# Soil Vapour Assessment – Buffer Land:

### ○ Objective:

○ To identify potential risks posed by vapours from groundwater to potential receptors located within and beyond the Buffer Land.

#### ○ Assessment comprises:

- C Review of vapour concentrations reported during four sample events, in nine implants (at five locations).
- C Assessment of the linkages between source and potential receptors.
- Conclusions and Recommendations:
  - $\ensuremath{\mathbb{C}}$  No unacceptable risks from vapours from groundwater.
  - $\bigcirc$  No risks detected which would require mitigation.

# LFG Risk Assessment Draft:

- Objective:
  - ${\mathbb C}$  To identify potential risks posed by LFG to potential receptors located both on and off site.
  - Reviews all LFG data collected since 2012.
  - Focuses on Methane and Carbon Dioxide and relies upon NMOC an assessment which is almost complete.
- Assessment comprises:
  - $\ensuremath{\mathbb{C}}$  Review of LFG concentrations at the site boundaries.
  - C Assessment of the linkages between source and potential receptors.
- Conclusions and Recommendations:
  - Conclusions will be provided on potential risks at and beyond each site boundary identified.
  - $\ensuremath{\mathbb{C}}$  Recommendations will be provided regarding additional works.



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