



One Cambridge Place, 50 Hampshire Street  
Cambridge, Massachusetts 02139  
tel: 617 452-6000  
fax: 617 452-8000

March 8, 2004

Mr. David Ellis  
Department of Environmental Protection  
Southeast Regional Office  
20 Riverside Drive  
Lakeville, Massachusetts 02347

Subject: Summary of Landfill Gas Sampling Results  
Nantucket Landfill - February 2004

Dear Mr. Ellis:

On February 24, 2004 personnel from Camp Dresser & McKee Inc. (CDM) conducted environmental monitoring at the Nantucket Landfill. The environmental monitoring included field screening of landfill gas. The environmental sampling was conducted in accordance with the approved Environmental Monitoring Plan, prepared by SECOR International Inc. in July 1999 and in conformance with the Solid Waste Management Regulations (310 CMR 19.132).

As part of the closure construction at the landfill, the environmental monitoring network was expanded by the addition of thirteen landfill gas wells (LGW-1 through LGW-13). See the site plan for locations of the landfill gas monitoring locations.

Landfill gas wells were screened in the field for the following parameters:

- Hydrogen Sulfide (H<sub>2</sub>S);
- Methane (CH<sub>4</sub>)
- Lower Explosive Limit (LEL);
- Carbon Dioxide (CO<sub>2</sub>);
- Oxygen (O<sub>2</sub>) and
- Volatile Organics



Mr. David Ellis  
March 8, 2004  
Page 2

## Evaluation of Results

Landfill gas wells were screened for the parameters indicated previously in this report. Landfill gas wells LGW-6, LGW-8, LGW-10, and LGW-11 could not be located and were not sampled. These locations could not be located during previous screening rounds. It is assumed that these wells have been destroyed. LGW-9 was not sampled this round due to site conditions.

Prior to purging the wells, initial readings were taken at each location. Following recording of the initial readings, approximately 10 minutes was allowed for purging before final readings were recorded. As summarized in Table 1, methane was not detected at any of the sampling locations. Carbon dioxide concentrations ranged from 0.2 to 2.0 percent. There were no volatile organic compounds (VOCs) detected at the wells. No hydrogen sulfide was detected in any sampling location. These concentrations are extremely low and show no indication of landfill gas migration towards the site property boundaries.

The next quarterly landfill gas screening is scheduled for June 2004.

Please do not hesitate to call me at (617) 452-6541 if you have any questions or require additional information.

Very truly yours,

A handwritten signature in cursive script that reads "Bruce W. Haskell".

Bruce W. Haskell, P.E.  
Camp Dresser & McKee Inc.

## Attachments

c: Jeff Willet, Nantucket  
Tracy Sundell, Nantucket  
Whitney Hall, Waste Options

**TABLE 1  
 NANTUCKET LANDFILL  
 NANTUCKET, MASSACHUSETTS  
 LANDFILL GAS MONITORING SUMMARY - FEBRUARY 2004**

Sample Location	Date	Methane <sup>2</sup>	% LEL	CO <sub>2</sub>	O <sub>2</sub>	OVM	H <sub>2</sub> S
		(% vol.)	(% vol.)	(% vol.)	(% vol.)	(ppm)	(ppm)
LGW-1	2/24/2004	0.0	0.0	1.0	18.3	0.0	0.0
LGW-2	2/24/2004	0.0	0.0	2.0	17.9	0.0	0.0
LGW-3	2/24/2004	0.0	0.0	0.2	19.8	0.0	0.0
LGW-4	2/24/2004	0.0	0.0	0.9	20.4	0.0	0.0
LGW-5	2/24/2004	0.0	0.0	0.0	18.8	0.0	0.0
LGW-6	2/24/2004	NS	NS	NS	NS	NS	NS
LGW-7	2/24/2004	0.0	0.0	1.4	16.8	0.0	0.0
LGW-8	2/24/2004	NS	NS	NS	NS	NS	NS
LGW-9	2/24/2004	NS	NS	NS	NS	NS	NS
LGW-10	2/24/2004	NS	NS	NS	NS	NS	NS
LGW-11	2/24/2004	NS	NS	NS	NS	NS	NS
LGW-12	2/24/2004	0.0	0.0	1.7	18.5	0.0	0.0
LGW-13	2/24/2004	0.0	0.0	0.1	20.2	0.0	0.0

Notes:

1. WELLS WERE PURGED FOR APPROXIMATELY 10 MINUTES BEFORE FINAL READINGS WERE RECORDED.  
 NS NOT SAMPLED