

Inventory of Landfill Gas Recovery and Utilization in Canada

December 2003

Prepared with the Support of:



**Environment Environnement
Canada Canada**

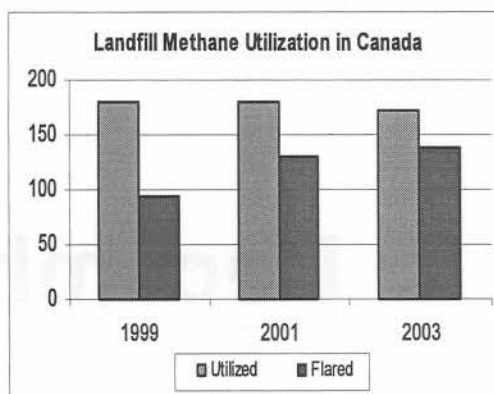
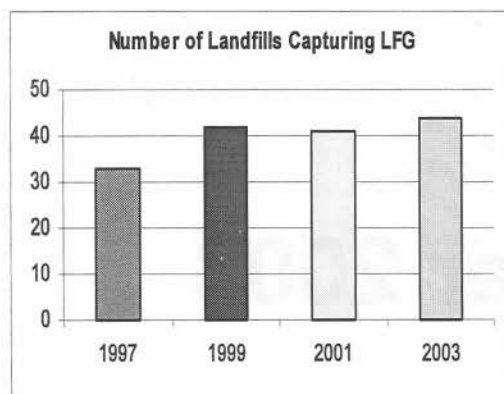
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Summary

This inventory is comprised of data provided by the landfill owners and operators on the operation of their landfill gas recovery, flaring and utilization systems effective December 31, 2003. Environment Canada does not make any warranty nor assumes any legal responsibility for the accuracy of this inventory. Mention of trade names, commercial products or commercial establishments does not constitute recommendation or endorsement by Environment Canada.

For 2003, the density of landfill gas used for Inventory calculations has been changed to reflect standard temperature and pressure (STP). STP refers to a temperature of 25°C and pressure of 101.325 kPa (1 atmosphere). Previously, the density was calculated using a temperature of 0°C and a pressure of 101.325 kPa. Based on a temperature of 0°C and a pressure of 101.325 kPa, the density of methane is 0.717 kg/m³, while at STP the density of methane is 0.6557 kg/m³. To maintain consistency, these changes have also been made to the previous Inventories and they have been re-issued.

In Canada, there were 44 landfills involved in capturing landfill gas in 2003. In total, 312 kilotonnes (kt) of landfill methane (CH₄) (6.56 Mt eCO₂) was captured. From this total, 55% (173 kt CH₄) of the captured methane was utilized at 16 sites and the remaining 45% (139 kt/year of CH₄) was flared at 28 sites.

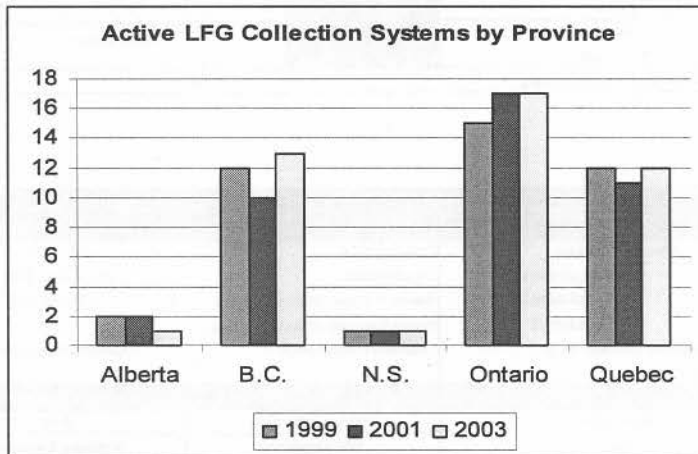


Of the 16 installations which utilized the gas, 9 facilities generated a total of 80 MW of electricity from 171 kt/year of CH₄. The other 7 facilities utilized the 12 kt/year of CH₄ for heating applications ranging from simply heating buildings, to providing fuel for a gypsum manufacturing plant, a steel refinery, a greenhouse and a recycling plant.

Inventories for the years 1997, 1999, 2001, and 2003 have now been completed. The revised total quantity of CH₄ and eCO₂ reductions for each year is outlined below:

Year	Kilotonnes/year	eCO ₂ Reduced (Mt)/year
1997	268	5.62
1999	276	5.79
2001	313	6.57
2003	312	6.56

Landfills within five Canadian provinces account for all of the LFG captured in Canada. The number of landfills capturing LFG in each of these provinces over the last three inventory years (1999, 2001, 2003) is listed below:



The following pages of the Inventory contain detailed information relating to each known landfill gas recovery system in Canada as of December 31, 2003.

Landfill: Highway 101 Landfill		Landfill Location: Upper Sackville	
Landfill Owner		LFG Site Operator	
Province of Nova Scotia		Halifax Regional Municipality	
Contact:	Jim Bauld	Contact:	Robert Orr
Phone:	(902) 490-6606	Phone:	(902) 490-6698
Fax:	(902) 490-6690	Fax:	N/A
bauldj@region.halifax.ns.ca		orr@region.halifax.ns.ca	
www.halifax.ca/wrms/		www.halifax.ca/wrms/	
LFG Collection		Landfill Information	
Gas Collection System Installation:	1994	Opening Date:	November 1977
Number of Horizontal Wells:	0	Closing Date:	December 1996
Number of Vertical Wells:	22	Waste in Place (Million Tonnes):	4 (closed)
Gas Treatment:	Condensate traps	Waste Capacity (Million Tonnes):	4
Type of Flare (Open or Enclosed):	Open	Leachate Recirculation:	Yes
Flared		LFG	
LFG		Methane Content	
25 cfm		40%	
1,019 m ³ /day		LFG Captured	
372,085 m ³ /year		25 cfm	
		10 cfm	
		1,019 m ³ /day	
		408 m ³ /day	
		372,085 m ³ /year	
		98 tonnes/year	
Flared		Utilized	
LFG		Methane	
25 cfm		10 cfm	
1,019 m ³ /day		408 m ³ /day	
372,085 m ³ /year		148,834 m ³ /year	
Electricity Production (MW):		Heat Production (BTU/yr):	
N/A		N/A	
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
e CO ₂ Reduced (t/yr):		Website:	
2,049		N/A	
Annual CO₂ Equivalents		Comments:	
457 Cars		High water level in wells. System operates intermittently, needs maintenance and upgrade. Upgrade planned with Private contractor.	
118 Houses			
Other:	22 Wells spaced at 50 meters and gas collection layer in final cells (10 hectares)		

Landfill: Cook Landfill		Landfill Location: 1050 chemin Cook, Aylmer	
Landfill Owner		LFG Site Operator	
Ville de Gatineau		Ville de Gatineau	
Contact:	Larry Gangur	Contact:	Daniel Laviolette
Phone:	(819) 595-4081	Phone:	(819) 663-5585 ext. 266
Fax:	(819) 770-8479	Fax:	(819) 663-0192
gangur.lawrence@ville.gatineau.qc.ca		laviolette.daniel@ville.gatineau.qc.ca	
www.ville.gatineau.qc.ca		www.ville.gatineau.qc.ca	
LFG Collection		Landfill Information	
Gas Collection System Installation:	April 1994	Opening Date:	July 1975
Number of Horizontal Wells:	N/A	Closing Date:	December 1991
Number of Vertical Wells:	33	Waste in Place (Million Tonnes):	1.58 (closed)
Gas Treatment:	Condensate trap	Waste Capacity (Million Tonnes):	1.58
Type of Flare (Open or Enclosed):	N/A	Leachate Recirculation:	Chemical treatment
Flared		LFG	
LFG		Methane Content	
177 cfm		51%	
7,217 m ³ /day		LFG Captured	
2,634,363 m ³ /year		177 cfm	
		90 cfm	
		7,217 m ³ /day	
		3,681 m ³ /day	
		2,634,363 m ³ /year	
		881 tonnes/year	
Flared		Utilized	
LFG		Methane	
177 cfm		90 cfm	
7,217 m ³ /day		3,681 m ³ /day	
2,634,363 m ³ /year		1,343,525 m ³ /year	
Electricity Production (MW):		Heat Production (BTU/yr):	
N/A		N/A	
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
e CO ₂ Reduced (t/yr):		Website:	
18,500		N/A	
Annual CO₂ Equivalents		Comments:	
4,129 Cars			
1,069 Houses			
Other:	Leachate chemically treated before discharged into sanitary sewer		

Landfill: CESH		Landfill Location: Montréal			
Landfill Owner		LFG Site Operator		Landfill Information	
Ville de Montreal		CESM		Opening Date: 1968	
Contact:	Marcel Caron	Contact:	Sylvain Leroux ing.	Closing Date: 2005	
Phone:	(514) 872-1264	Phone:	(514) 872-7688	Waste in Place (Million Tonnes): 32 (2001)	
Fax:	(514) 872-9571	Fax:	N/A	Waste Capacity (Million Tonnes): 33	
Mcaron_2@ville.montreal.qc.ca		sleroux@ville.montreal.qc.ca		Leachate Recirculation: N/A	
ville.montreal.qc.ca					
LFG Collection			LFG		
Gas Collection System Installation: 1988			Methane Content: 38%		
Number of Horizontal Wells: N/A			LFG Captured		
Number of Vertical Wells: 362			Methane Captured		
Gas Treatment: Condensate trap			13,194 cfm		
Type of Flare (Open or Enclosed): 4 Open			538,005 m ³ /day		
			201,752 m ³ /day		
			196,371,643 m ³ /year		
			48,285 tonnes/year		
Flared			Utilized		
LFG		Methane		LFG	
3,694 cfm		1,385 cfm		9,500 cfm	
150,628 m ³ /day		56,486 m ³ /day		387,376 m ³ /day	
54,979,297 m ³ /year		20,617,237 m ³ /year		141,392,346 m ³ /year	
				3,563 cfm	
				145,266 m ³ /day	
				53,022,130 m ³ /year	
Electricity Production (MW): 16			Heat Production (BTU/yr): N/A		
Power Production:	Steam turbines	Buyer of Electricity:	Gazmont	End User:	N/A
Contact:	Sylvain Landry	N/A		Website:	N/A
e CO ₂ Reduced (t/yr): 1,013,992			360 Wells in use.		
Annual CO ₂ Equivalents			Comments:		
226,337 Cars					
58,612 Houses					
Other:	No residential waste				

Landfill: RIEDSBM		Landfill Location: Cowansville			
Landfill Owner		LFG Site Operator		Landfill Information	
RIEDSBM		RIEDSBM		Opening Date: 1978	
Contact:	Caroline Lasnier	Contact:	Caroline Lasnier	Closing Date: N/A	
Phone:	(450) 263-2351	Phone:	(450) 263-2351	Waste in Place (Million Tonnes): 1.3	
Fax:	(450) 263-4977	Fax:	(450) 263-4977	Waste Capacity (Million Tonnes): 3.5	
riedsbm@qc.aira.com		riedsbm@qc.aira.com		Leachate Recirculation: N/A	
LFG Collection			LFG		
Gas Collection System Installation: 1999			Methane Content: 52%		
Number of Horizontal Wells: N/A			LFG Captured		
Number of Vertical Wells: 18			Methane Captured		
Gas Treatment: None			247 cfm		
Type of Flare (Open or Enclosed): Open			128 cfm		
			10,072 m ³ /day		
			5,237 m ³ /day		
			3,676,201 m ³ /year		
			1,253 tonnes/year		
			0 cfm		
			0 m ³ /day		
			0 m ³ /year		
			0 m ³ /year		
Electricity Production (MW): N/A			Heat Production (BTU/yr): N/A		
Power Production:	N/A	Buyer of Electricity:	N/A	End User:	N/A
Contact:	N/A	N/A		Website:	N/A
e CO ₂ Reduced (t/yr): 26,322			Comments:		
Annual CO ₂ Equivalents					
5,876 Cars					
1,522 Houses					
Other:					

Landfill: La Compagnie Meloche Inc.		Landfill Location: Kirkland	
Landfill Owner		LFG Site Operator	
La Compagnie Meloche Inc.		Optigaz Inc.	
Contact: Michel Meloche	Contact: Denis Létourneau	Opening Date: November 1980	
Phone: (514) 695-3395	Phone: (514) 426-3890	Closing Date: June 1990	
Fax: (514) 695-2316	Fax: N/A	Waste in Place (Million Tonnes): 3.5 (closed)	
michelmeeloche@hotmail.com		Waste Capacity (Million Tonnes): 3.5	
		Leachate Recirculation: N/A	
LFG Collection		LFG	
Gas Collection System Installation:	1985 and rebuilt in 1997	Methane Content	50%
Number of Horizontal Wells:	N/A	LFG Captured	Methane Captured
Number of Vertical Wells:	84	490 cfm	245 cfm
Gas Treatment:	Moisture and particulate removal	19,980 m ³ /day	9,990 m ³ /day
Type of Flare (Open or Enclosed):	2 Open	7,292,868 m ³ /year	2,391 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
0 cfm	0 cfm	490 cfm	245 cfm
0 m ³ /day	0 m ³ /day	19,980 m ³ /day	9,990 m ³ /day
0 m ³ /year	0 m ³ /year	7,292,868 m ³ /year	3,646,434 m ³ /year
Electricity Production (MW):	1.6	Heat Production (BTU/yr):	N/A
Power Production: Hydro-Québec	Buyer of Electricity: N/A	End User:	N/A
Contact: N/A	N/A	Website:	N/A
e CO ₂ Reduced (t/yr):	50,210		84 Wells in use
Annual CO ₂ Equivalents	11,208 Cars 2,902 Houses	Comments:	
Other:	Reciprocating engines (800 kW each)		

Landfill: Mirabel		Landfill Location: Lachute	
Landfill Owner		LFG Site Operator	
RIADM		RIADM	
Contact: Pierre Gionet	Contact: Joseph Nadim	Opening Date: 1976	
Phone: (450) 562-0778	Phone: (450) 562-0778	Closing Date: 2004	
Fax: (450) 562-8482	Fax: (450) 562-8482	Waste in Place (Million Tonnes): 3.4	
pierre.gionet@riadm.ca	joseph.nadim@riadm.ca	Waste Capacity (Million Tonnes): 2.2	
www.riadm.ca	www.riadm.ca	Leachate Recirculation: N/A	
LFG Collection		LFG	
Gas Collection System Installation:	1997 and expanded 1998	Methane Content	50%
Number of Horizontal Wells:	10	LFG Captured	Methane Captured
Number of Vertical Wells:	13	2,000 cfm	1,000 cfm
Gas Treatment:	Condensate traps	81,553 m ³ /day	40,776 m ³ /day
Type of Flare (Open or Enclosed):	N/A	29,766,810 m ³ /year	9,759 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
2,000 cfm	1,000 cfm	0 cfm	0 cfm
81,553 m ³ /day	40,776 m ³ /day	0 m ³ /day	0 m ³ /day
29,766,810 m ³ /year	14,883,405 m ³ /year	0 m ³ /year	0 m ³ /year
Electricity Production (MW):	N/A	Heat Production (BTU/yr):	N/A
Power Production: N/A	Buyer of Electricity: N/A	End User:	N/A
Contact: N/A	N/A	Website:	N/A
e CO ₂ Reduced (t/yr):	204,940		Water in wells
Annual CO ₂ Equivalents	45,746 Cars 11,846 Houses	Comments:	
Other:	Main header pipe replaced, expansion which will operate to 2050 planned		

Landfill: Sherbrooke		Landfill Location: Sherbrooke									
Landfill Owner		LFG Site Operator		Landfill Information							
Ville de Sherbrooke Contact: Guy Labbé Phone: 819-821-5798 Fax: (819) 822-6070 guy.labbe@ville.sherbrooke.qc.ca www.ville.sherbrooke.qc.ca		Ville de Sherbrooke Contact: Odile Goulet Phone: (819) 823-5175 Fax: N/A odile.goulet@ville.sherbrooke.qc.ca www.ville.sherbrooke.qc.ca		Opening Date: 1954 Closing Date: unknown Waste in Place (Million Tonnes): 2.36 Waste Capacity (Million Tonnes): 2.24 Leachate Recirculation: Partial treatment							
LFG Collection			LFG								
Gas Collection System Installation:			1999								
Number of Horizontal Wells:			0								
Number of Vertical Wells:			50								
Gas Treatment:			N/A								
Type of Flare (Open or Enclosed):			Enclosed								
Flared			Utilized								
LFG		Methane		LFG		Methane					
750 cfm		274 cfm		0 cfm		0 cfm					
30,582 m ³ /day		11,163 m ³ /day		0 m ³ /day		0 m ³ /day					
11,162,554 m ³ /year		4,074,332 m ³ /year		0 m ³ /year		0 m ³ /year					
Electricity Production (MW):			N/A			Heat Production (BTU/yr):			N/A		
Power Production:		N/A		Buyer of Electricity:		N/A		End User:		N/A	
Contact:		N/A		Buyer of Electricity:		N/A		Website:		N/A	
e CO ₂ Reduced (t/yr):			56,102			Comments:					
Annual CO ₂ Equivalents			12,523 Cars			Comments:					
			3,243 Houses								
Other:		New wells to be built in 2004									

Landfill: Ste-Cécile-de-Milton		Landfill Location: Ste-Cécile-de-Milton									
Landfill Owner		LFG Site Operator		Landfill Information							
Roland Thibault Inc. Contact: Pierre Parent Phone: (450) 372-2399 Fax: (450) 372-2287 rolandthibault@qc.aira.com None		Roland Thibault Inc. Contact: Pierre Parent Phone: (450) 372-2399 Fax: (450) 372-2287 rolandthibault@qc.aira.com None		Opening Date: 1954 Closing Date: 2025 Waste in Place (Million Tonnes): 1.5 (1999) Waste Capacity (Million Tonnes): 4 Leachate Recirculation: Yes							
LFG Collection			LFG								
Gas Collection System Installation:			1976								
Number of Horizontal Wells:			0								
Number of Vertical Wells:			9								
Gas Treatment:			None								
Type of Flare (Open or Enclosed):			N/A								
Flared			Utilized								
LFG		Methane		LFG		Methane					
186 cfm		104 cfm		47 cfm		26 cfm					
7,584 m ³ /day		4,247 m ³ /day		1,916 m ³ /day		1,073 m ³ /day					
2,768,313 m ³ /year		1,550,255 m ³ /year		699,520 m ³ /year		391,731 m ³ /year					
Electricity Production (MW):			N/A			Heat Production (BTU/yr):			N/A		
Power Production:		N/A		Buyer of Electricity:		N/A		End User:		Roland Thibault Inc.	
Contact:		N/A		Buyer of Electricity:		N/A		Website:		N/A	
e CO ₂ Reduced (t/yr):			26,741			Comments:					
Annual CO ₂ Equivalents			5,969 Cars			Comments:					
			1,546 Houses								
Other:		On site heating and hot water at Roland Thibault Inc.									

Landfill: Bestan Inc.		Landfill Location: Magog			
Landfill Owner		LFG Site Operator		Landfill Information	
Waste Management		Bestan Inc.		Opening Date: 1970	
Contact:	Daniel Brien	Contact:	Daniel Brien	Closing Date:	August 2005
Phone:	(819) 843-9522	Phone:	(819) 843-9522	Waste in Place (Million Tonnes):	2.27
Fax:	(819) 847-3597	Fax:	N/A	Waste Capacity (Million Tonnes):	2.3
dbrien@wm.com		dbrien@wm.com		Leachate Recirculation:	N/A
www.intersan.qc.ca		www.intersan.qc.ca			
LFG Collection			LFG		
Gas Collection System Installation:		1994		Methane Content 50%	
Number of Horizontal Wells:		N/A		LFG Captured Methane Captured	
Number of Vertical Wells:		N/A		118 cfm 59 cfm	
Gas Treatment:		N/A		4,812 m ³ /day 2,406 m ³ /day	
Type of Flare (Open or Enclosed):		Enclosed/open		1,756,242 m ³ /year 576 tonnes/year	
Flared			Utilized		
LFG		Methane		LFG	
118 cfm		59 cfm		0 cfm	
4,812 m ³ /day		2,404 m ³ /day		0 m ³ /day	
1,756,242 m ³ /year		877,594 m ³ /year		0 m ³ /year	
Electricity Production (MW):		N/A		Heat Production (BTU/yr): 1.6 (million BTU)	
Power Production:	N/A	Buyer of Electricity:	N/A	End User:	N/A
Contact:	N/A		N/A	Website:	N/A
e CO₂ Reduced (t/yr):		12,091		Comments: 5 small open flares and 1 small enclosed flare. Small amount of gas used for heating of maintenance garage (4 x 400,000 BTU heating units)	
Annual CO₂ Equivalents		2,699 Cars 699 Houses			
Other:		Expansion plan in progress, active extraction system, bioreactor			

Landfill: Intersan (L.E.S. Saint-Nicéphore)		Landfill Location: Saint-Nicéphore			
Landfill Owner		LFG Site Operator		Landfill Information	
Waste Management		Intersan		Opening Date: 1984	
Contact:	Daniel Brien	Contact:	Daniel Brien	Closing Date:	2010
Phone:	(819) 477-5714	Phone:	(819) 477-5714	Waste in Place (Million Tonnes):	7.26
Fax:	(819) 477-2146	Fax:	(819) 477-2146	Waste Capacity (Million Tonnes):	10.8
dbrien@wm.com		dbrien@wm.com		Leachate Recirculation:	Yes
www.intersan.qc.ca		www.intersan.qc.ca			
LFG Collection			LFG		
Gas Collection System Installation:		September 1996		Methane Content 53%	
Number of Horizontal Wells:		34		LFG Captured Methane Captured	
Number of Vertical Wells:		51		2,500 cfm 1,325 cfm	
Gas Treatment:		N/A		101,941 m ³ /day 54,029 m ³ /day	
Type of Flare (Open or Enclosed):		N/A		37,208,512 m ³ /year 12,931 tonnes/year	
Flared			Utilized		
LFG		Methane		LFG	
2,500 cfm		1,325 cfm		0 cfm	
101,941 m ³ /day		54,029 m ³ /day		0 m ³ /day	
37,208,512 m ³ /year		19,720,511 m ³ /year		0 m ³ /year	
Electricity Production (MW):		N/A		Heat Production (BTU/yr): N/A	
Power Production:	N/A	Buyer of Electricity:	N/A	End User:	N/A
Contact:	N/A		N/A	Website:	N/A
e CO₂ Reduced (t/yr):		271,546		Comments: Plan to install additional horizontal collectors	
Annual CO₂ Equivalents		60,613 Cars 15,696 Houses			
Other:					

Landfill: L.E.T. Sainte-Sophie		Landfill Location: Sainte-Sophie	
Landfill Owner		LFG Site Operator	
Waste Management		Intersan	
Contact:	Daniel Brien	Contact:	Daniel Brien
Phone:	(450) 438-5604	Phone:	(450) 438-5604
Fax:	(450) 438-4342	Fax:	N/A
dbrien@wm.com		dbrien@wm.com	
www.intersan.qc.ca		www.intersan.qc.ca	
LFG Collection		Landfill Information	
Gas Collection System Installation:	1995	Opening Date:	1964
Number of Horizontal Wells:	64	Closing Date:	2015
Number of Vertical Wells:	77	Waste in Place (Million Tonnes):	8.58
Gas Treatment:	None	Waste Capacity (Million Tonnes):	13.5
Type of Flare (Open or Enclosed):	2 Enclosed	Leachate Recirculation:	Yes
Flared		LFG	
LFG		Methane Content	
3,703 cfm		50%	
150,995 m ³ /day		LFG Captured	
55,113,248 m ³ /year		3,703 cfm	
		150,995 m ³ /day	
		55,113,248 m ³ /year	
		1,852 cfm	
		75,498 m ³ /day	
		18,069 tonnes/year	
		27,556,624 m ³ /year	
Utilized		Methane	
LFG		LFG	
0 cfm		0 cfm	
0 m ³ /day		0 m ³ /day	
0 m ³ /year		0 m ³ /year	
Electricity Production (MW):		Heat Production (BTU/yr):	
N/A		N/A	
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
e CO ₂ Reduced (t/yr):		Website:	
379,446		N/A	
Annual CO₂ Equivalents		Comments:	
84,698 Cars			
21,933 Houses			
Other:		Signed contract with Cascades Pulp and Paper Mills to supply landfill gas	

Landfill: Lachenaie		Landfill Location: 3779, route 640, Lachenaie	
Landfill Owner		LFG Site Operator	
Browning-Ferris Industries Ltd.		BFI Usine de triage Lachenaie Ltd.	
Contact:	Jean-Marc Viau	Contact:	Jean-Marc Viau
Phone:	(450) 474-2423	Phone:	(450) 474-2423
Fax:	(450) 474-1871	Fax:	(450) 474-1871
www.bficanada.com		www.bficanada.com	
LFG Collection		Landfill Information	
Gas Collection System Installation:	1994	Opening Date:	1968
Number of Horizontal Wells:	0	Closing Date:	2004
Number of Vertical Wells:	250	Waste in Place (Million Tonnes):	9.7
Gas Treatment:	Condensate trap	Waste Capacity (Million Tonnes):	10.8
Type of Flare (Open or Enclosed):	2 Enclosed	Leachate Recirculation:	Yes
Flared		LFG	
LFG		Methane Content	
4,000 cfm		55%	
163,106 m ³ /day		LFG Captured	
59,533,619 m ³ /year		5,500 cfm	
		224,270 m ³ /day	
		81,858,727 m ³ /year	
		3,025 cfm	
		123,349 m ³ /day	
		29,521 tonnes/year	
		825 cfm	
		61,165 m ³ /day	
		12,278,809 m ³ /year	
Utilized		Methane	
LFG		LFG	
1,500 cfm		1,500 cfm	
61,165 m ³ /day		61,165 m ³ /day	
22,325,107 m ³ /year		22,325,107 m ³ /year	
Electricity Production (MW):		Heat Production (BTU/yr):	
4		N/A	
Power Production:	4 Engines	Buyer of Electricity:	Hydro-Québec
Contact:	N/A	End User:	N/A
e CO ₂ Reduced (t/yr):		Website:	
619,944		N/A	
Annual CO₂ Equivalents		Comments:	
138,380 Cars			
35,835 Houses			
Other:			

Landfill: Ste-Geneviève-de-Berthier		Landfill Location: Berthierville			
Landfill Owner		LFG Site Operator		Landfill Information	
Services Sanitaire R.S. Inc		Services Sanitaire R.S. Inc		Opening Date: 1978	
Contact:	Luc Turcotte	Contact:	Luc Turcotte	Closing Date: 2005	
Phone:	(450) 836-8111	Phone:	1-800-486-0225	Waste in Place (Million Tonnes): 6.6	
Fax:	(450) 836-1145	Fax:	N/A	Waste Capacity (Million Tonnes): 8.2	
lturcotte@groupe-ebi.com		lturcotte@groupe-ebi.com		Leachate Recirculation: N/A	
www.groupe-ebi.com		www.groupe-ebi.com			
LFG Collection			LFG		
Gas Collection System Installation:			1999		
Number of Horizontal Wells:			N/A		
Number of Vertical Wells:			180		
Gas Treatment:			Water removal		
Type of Flare (Open or Enclosed):			Open		
Flared			Utilized		
LFG		Methane		LFG	
2,400 cfm		1,008 cfm		0 cfm	
97,863 m ³ /day		41,103 m ³ /day		0 m ³ /day	
35,720,172 m ³ /year		15,002,472 m ³ /year		0 m ³ /year	
Electricity Production (MW):			N/A		
Power Production:	N/A	Buyer of Electricity:	N/A	Heat Production (BTU/yr): N/A	
Contact:	N/A	N/A		End User: N/A	
e CO ₂ Reduced (t/yr):			206,580		
Annual CO ₂ Equivalents			46,112 Cars		
			11,941 Houses		
Other:					

Landfill: Carp Rd.		Landfill Location: Ottawa			
Landfill Owner		LFG Site Operator		Landfill Information	
Canadian Waste Services		Canadian Waste		Opening Date: 1970	
Contact:	Remi Godin	Contact:	Remi Godin	Closing Date: 2010	
Phone:	613 831-5363 x406	Phone:	613 831-5363 x406	Waste in Place (Million Tonnes): 4.8	
Fax:	613 831-8928	Fax:	613 831-8928	Waste Capacity (Million Tonnes): 6	
rgodin@wm.com		rgodin@wm.com		Leachate Recirculation: N/A	
www.wm.com		www.wm.com			
LFG Collection			LFG		
Gas Collection System Installation:			March 2001		
Number of Horizontal Wells:			N/A		
Number of Vertical Wells:			34		
Gas Treatment:			Condensation trap		
Type of Flare (Open or Enclosed):			John Zink enclosed 7'x40'		
Flared			Utilized		
LFG		Methane		LFG	
800 cfm		480 cfm		0 cfm	
32,621 m ³ /day		19,573 m ³ /day		0 m ³ /day	
11,906,724 m ³ /year		7,144,034 m ³ /year		0 m ³ /year	
Electricity Production (MW):			N/A		
Power Production:	N/A	Buyer of Electricity:	N/A	Heat Production (BTU/yr): N/A	
Contact:	N/A	N/A		End User: N/A	
e CO ₂ Reduced (t/yr):			98,371		
Annual CO ₂ Equivalents			21,958 Cars		
			5,686 Houses		
Other:			34 Gas Wells		

Landfill: Keele Valley (Vaughan)		Landfill Location: Vaughan					
Landfill Owner		LFG Site Operator		Landfill Information			
City of Toronto		City of Toronto		Opening Date:	1983		
Contact:	Lou Ciardullo	Contact:	Lou Ciardullo	Closing Date:	2002		
Phone:	(905) 832-0682 ext. 235	Phone:	(905) 832-0682 ext. 235	Waste in Place (Million Tonnes):	27		
Fax:	(905) 832-4944	Fax:	N/A	Waste Capacity (Million Tonnes):	27		
lcardhu@toronto.ca		lcardhu@toronto.ca		Leachate Recirculation:	No		
www.toronto.ca		www.toronto.ca					
LFG Collection			LFG				
Gas Collection System Installation:	1987	Methane Content		47%			
Number of Horizontal Wells:	50	LFG Captured		Methane Captured			
Number of Vertical Wells:	55	15,100 cfm	7,097 cfm				
Gas Treatment:	Condensate traps	615,724 m ³ /day	289,390 m ³ /day				
Type of Flare (Open or Enclosed):	4 Enclosed	224,739,413 m ³ /year	69,260 tonnes/year				
Flared			Utilized				
LFG		Methane		LFG		Methane	
800 cfm		376 cfm		14,300 cfm		6,721 cfm	
32,621 m ³ /day		15,332 m ³ /day		583,103 m ³ /day		274,059 m ³ /day	
11,906,724 m ³ /year		5,596,160 m ³ /year		212,832,689 m ³ /year		100,031,364 m ³ /year	
Electricity Production (MW):		33		Heat Production (BTU/yr):		N/A	
Power Production:	Steam turbine	Buyer of Electricity:	Hydro One	End User:	N/A		
Contact:	N/A	Contact:	N/A	Website:	N/A		
e CO ₂ Reduced (t/yr):		1,454,459		N/A			
Annual CO ₂ Equivalents		324,656 Cars 84,073 Houses		Comments:			
Other:		Eastern Power Limited owns and operates power plant at site. Power purchase agreement with Hydro One. Royalty agreement with City of Toronto.					

Landfill: Waterloo Landfill		Landfill Location: City of Waterloo					
Landfill Owner		LFG Site Operator		Landfill Information			
Region of Waterloo		Region of Waterloo		Opening Date	1972		
Contact:	Jim Archibald	Contact:	Dave McCaughan	Closing Date	2026+		
Phone:	(519) 575-4774	Phone:	(519) 883-5150 x 242	Waste in Place (Million Tonnes):	6.5		
Fax:	(519) 575-4452	Fax:	(519) 747-4944	Waste Capacity (Million Tonnes):	12		
ajames@region.waterloo.on.ca		mdave@region.waterloo.on.ca		Leachate Recirculation:	No		
www.region.waterloo.on.ca		www.region.waterloo.on.ca					
LFG Collection			LFG				
Gas Collection System Installation:	1995	Methane Content		50%			
Number of Horizontal Wells:	2	LFG Captured		Methane Captured			
Number of Vertical Wells:	103	1,450 cfm	718 cfm				
Gas Treatment:	Yes - moisture & particulates removed	59,126 m ³ /day	29,267 m ³ /day				
Type of Flare (Open or Enclosed):	enclosed	21,580,937 m ³ /year	7,005 tonnes/year				
Flared			Utilized				
LFG		Methane		LFG		Methane	
0 cfm		0 cfm		1,450 cfm		718 cfm	
0 m ³ /day		0 m ³ /day		59,126 m ³ /day		29,267 m ³ /day	
0 m ³ /year		0 m ³ /year		21,580,937 m ³ /year		10,682,564 m ³ /year	
Electricity Production (MW):		4.625 (max.)		Heat Production (BTU/yr):		0	
Power Production:	5 engines	Buyer of Electricity:	Ontario Power Generation	End User:	N/A		
Contact:	TOROMONT	Contact:	TOROMONT	Website:	N/A		
e CO ₂ Reduced (t/yr):		147,096		Comments:			
Annual CO ₂ Equivalents		32,834 Cars 8,503 Houses					
Other:		103 vertical & 2 horizontal with temp. connections					

Landfill: East Quarry Landfill		Landfill Location: Niagara Falls (Thorold)	
Landfill Owner		LFG Site Operator	
Niagara Waste Systems		Integrated Gas Recovery Services Inc.	
Contact:	Tim McVicar	Contact:	Dympna Scullion
Phone:	(905) 680-1980	Phone:	(905) 680-3764
Fax:	(905) 680-1916	Fax:	N/A
tmcvicar@walkerind.com		dscullion@walkerind.com	
walkerind.com		N/A	
LFG Collection		Landfill Information	
Gas Collection System Installation:	1996	Opening Date:	1981
Number of Horizontal Wells:	0	Closing Date:	N/A
Number of Vertical Wells:	34	Waste in Place (Million Tonnes):	10.4
Gas Treatment:	Moisture removal	Waste Capacity (Million Tonnes):	13.7
Type of Flare (Open or Enclosed):	Enclosed	Leachate Recirculation:	No (treated in lagoons)
LFG		LFG	
		Methane Content	55%
		LFG Captured	Methane Captured
		1,200 cfm	660 cfm
		48,932 m ³ /day	26,912 m ³ /day
		17,860,086 m ³ /year	6,441 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
0 cfm	0 cfm	1,200 cfm	660 cfm
0 m ³ /day	0 m ³ /day	48,932 m ³ /day	26,912 m ³ /day
0 m ³ /year	0 m ³ /year	17,860,086 m ³ /year	9,823,047 m ³ /year
Electricity Production (MW):		Heat Production (BTU/yr):	
N/A		275,000 (million BTU)	
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
		Website:	abicon.com
e CO₂ Reduced (t/yr):		Comments:	
135,260		N/A	
Annual CO₂ Equivalents			
30,192 Cars			
7,819 Houses			
Other:	24 Manhole connections		

Landfill: North Sheridan		Landfill Location: 1875 North Sheridan Way Mississauga	
Landfill Owner		LFG Site Operator	
Regional Municipality of Peel		Regional Municipality of Peel	
Contact:	Todd Gregg	Contact:	Rick Maj
Phone:	(905) 791-7800 ext. 4399	Phone:	(905) 791-7800 ext. 4242
Fax:	(905) 791-2398	Fax:	(905) 855-2641
todd.gregg@peelregion.ca		rick.maj@peelregion.ca	
www.peelregion.ca		www.peelregion.ca	
LFG Collection		Landfill Information	
Gas Collection System Installation:	1978	Opening Date:	1965
Number of Horizontal Wells:	1	Closing Date:	1979
Number of Vertical Wells:	150	Waste in Place (Million Tonnes):	2.5 (closed)
Gas Treatment:	None	Waste Capacity (Million Tonnes):	2.5
Type of Flare (Open or Enclosed):	Enclosed	Leachate Recirculation:	N/A
LFG		LFG	
		Methane Content	10%
		LFG Captured	Methane Captured
		2,500 cfm	250 cfm
		101,941 m ³ /day	10,194 m ³ /day
		37,208,512 m ³ /year	2,440 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
2,500 cfm	250 cfm	0 cfm	0 cfm
101,941 m ³ /day	10,194 m ³ /day	0 m ³ /day	0 m ³ /day
37,208,512 m ³ /year	3,720,851 m ³ /year	0 m ³ /year	0 m ³ /year
Electricity Production (MW):		Heat Production (BTU/yr):	
N/A		N/A	
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
		Website:	N/A
e CO₂ Reduced (t/yr):		Comments:	
51,235		N/A	
Annual CO₂ Equivalents			
11,436 Cars			
2,962 Houses			
Other:	perimeter collection system		

Landfill: Glenridge Quarry Landfill		Landfill Location: St. Catharines	
Landfill Owner		LFG Site Operator	
Regional Municipality of Niagara		Comcor Environmental	
Contact:	Dave Smith, P.Eng	Contact:	Walter M. Graziani, P.Eng
Phone:	(905) 685-4225 ext. 3209	Phone:	(519) 621-6669 ext. 225
Fax:	(905) 687-8056	Fax:	N/A
david.smith@regional.niagara.on.ca		graziani@grsi.net	
www.regional.niagara.on.ca			
LFG Collection		LFG	
Gas Collection System Installation:	May 2001 (temp. system)	Methane Content	40%
Number of Horizontal Wells:	N/A	LFG Captured	Methane Captured
Number of Vertical Wells:	N/A	220 cfm	88 cfm
Gas Treatment:	Condensate removal	8,971 m ³ /day	3,588 m ³ /day
Type of Flare (Open or Enclosed):	Enclosed	3,274,349 m ³ /year	859 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
220 cfm	88 cfm	0 cfm	0 cfm
8,971 m ³ /day	3,588 m ³ /day	0 m ³ /day	0 m ³ /day
3,274,349 m ³ /year	1,309,740 m ³ /year	0 m ³ /year	0 m ³ /year
Electricity Production (MW):	N/A	Heat Production (BTU/yr):	N/A
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
		Website:	N/A
e CO₂ Reduced (t/yr):	18,035	Comments:	
Annual CO₂ Equivalents	4,026 Cars		
	1,042 Houses		
Other:	30 Wells (95% of production) and 3 leachate sewer manholes (5% of production)		

Landfill: Cambridge Landfill		Landfill Location: Cambridge	
Landfill Owner		LFG Site Operator	
Region of Waterloo		Region of Waterloo	
Contact:	Mike Greenhill	Contact:	Mike Greenhill
Phone:	(519) 740-3601	Phone:	(519) 740-3601
Fax:	(519) 740-0822	Fax:	(519) 740-0822
gpmike@region.waterloo.on.ca		gpmike@region.waterloo.on.ca	
www.region.waterloo.on.ca		www.region.waterloo.on.ca	
LFG Collection		LFG	
Gas Collection System Installation:	November 1996	Methane Content	52%
Number of Horizontal Wells:	5	LFG Captured	Methane Captured
Number of Vertical Wells:	62	1,500 cfm	780 cfm
Gas Treatment:	None	61,165 m ³ /day	31,806 m ³ /day
Type of Flare (Open or Enclosed):	Enclosed	22,325,107 m ³ /year	7,612 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
500 cfm	260 cfm	1,000 cfm	520 cfm
20,388 m ³ /day	10,602 m ³ /day	40,776 m ³ /day	21,204 m ³ /day
7,441,702 m ³ /year	3,869,685 m ³ /year	14,883,405 m ³ /year	7,739,371 m ³ /year
Electricity Production (MW):	N/A	Heat Production (BTU/yr):	155,000 (Million BTU)
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	Gerdau Ameristeel
		Website:	www.gerdauameristeel.com
e CO₂ Reduced (t/yr):	159,853	Comments:	
Annual CO₂ Equivalents	35,682 Cars		
	9,240 Houses		
Other:	Investigation into utilization upgrade underway		

Landfill: Richmond		Landfill Location: Napanee	
Landfill Owner		LFG Site Operator	
Canadian Waste Services		Canadian Waste Service	
Contact:	Remi Godin	Contact:	Remi Godin
Phone:	613 831-5363 x 406	Phone:	613 831-5363 x 406
Fax:	613 831-8928	Fax:	N/A
rgodin@wm.com		rgodin@wm.com	
www.wm.com		www.wm.com	
Opening Date:		1954	
Closing Date:		June 2004	
Waste in Place (Million Tonnes):		1.65	
Waste Capacity (Million Tonnes):		1.7	
Leachate Recirculation:		No	
LFG Collection		LFG	
Gas Collection System Installation:	February 2001	Methane Content	48%
Number of Horizontal Wells:	2	LFG Captured	Methane Captured
Number of Vertical Wells:	38	650 cfm	312 cfm
Gas Treatment:	Flared	26,505 m ³ /day	12,722 m ³ /day
Type of Flare (Open or Enclosed):	John Zink 7' x 40'	9,674,213 m ³ /year	3,045 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
650 cfm	312 cfm	0 cfm	0 cfm
26,505 m ³ /day	12,715 m ³ /day	0 m ³ /day	0 m ³ /day
9,674,213 m ³ /year	4,640,838 m ³ /year	0 m ³ /year	0 m ³ /year
Electricity Production (MW):	N/A	Heat Production (BTU/yr):	N/A
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
		Website:	N/A
e CO ₂ Reduced (t/yr):	63,941		
Annual CO ₂ Equivalents	14,273 Cars 3,696 Houses	Comments:	
Other:	38 wells, 12 Manholes, 9 CO.		

Landfill: Eastview Road Landfill Site		Landfill Location: Guelph	
Landfill Owner		LFG Site Operator	
City of Guelph		City of Guelph	
Contact:	Robert Conley	Contact:	Janet Laird
Phone:	(519) 822-1260 ext. 2481	Phone:	(519) 937-5638
Fax:	(519) 766-4794	Fax:	(519) 766-4794
rconley@city.guelph.on.ca		jlaird@city.guelph.on.ca	
www.city.guelph.on.ca/wetdry		www.city.guelph.on.ca	
Opening Date:		1962	
Closing Date:		2003-2004	
Waste in Place (Million Tonnes):		3.9 (Dec. 2000)	
Waste Capacity (Million Tonnes):		N/A	
Leachate Recirculation:		No	
LFG Collection		LFG	
Gas Collection System Installation:	May 2001 (temp. system)	Methane Content	53%
Number of Horizontal Wells:	N/A	LFG Captured	Methane Captured
Number of Vertical Wells:	58	800 cfm	424 cfm
Gas Treatment:	N/A	32,621 m ³ /day	17,289 m ³ /day
Type of Flare (Open or Enclosed):	Open	11,906,724 m ³ /year	4,138 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
800 cfm	424 cfm	0 cfm	0 cfm
32,621 m ³ /day	17,289 m ³ /day	0 m ³ /day	0 m ³ /day
11,906,724 m ³ /year	6,310,564 m ³ /year	0 m ³ /year	0 m ³ /year
Electricity Production (MW):	N/A	Heat Production (BTU/yr):	N/A
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
		Website:	N/A
e CO ₂ Reduced (t/yr):	86,895		
Annual CO ₂ Equivalents	19,396 Cars 5,023 Houses	Comments:	
Other:	Gas Collection & Flare System commissioned January 2004. Gas Utilization Facility to be constructed summer 2004.		

Landfill: Beare Road Landfill		Landfill Location: Scarborough			
Landfill Owner		LFG Site Operator		Landfill Information	
City of Toronto		E.S. Fox Limited		Opening Date:	1968
Contact:	Andrew Heit	Contact:	Spencer Fox	Closing Date:	1983
Phone:	(905) 832-0682 ext. 229	Phone:	(905) 354-3700	Waste in Place (Million Tonnes):	9
Fax:	(905) 832-4944	Fax:	N/A	Waste Capacity (Million Tonnes):	9
aheit@toronto.ca				Leachate Recirculation:	N/A
LFG Collection			LFG		
Gas Collection System Installation:		1995		Methane Content	45%
Number of Horizontal Wells:		N/A		LFG Captured	Methane Captured
Number of Vertical Wells:		100		1,100 cfm	495 cfm
Gas Treatment:		See comments		44,854 m ³ /day	20,184 m ³ /day
Type of Flare (Open or Enclosed):		Enclosed		16,371,745 m ³ /year	4,831 tonnes/year
Flared			Utilized		
LFG		Methane		LFG	Methane
0 cfm		0 cfm		1,100 cfm	495 cfm
0 m ³ /day		0 m ³ /day		44,854 m ³ /day	20,184 m ³ /day
0 m ³ /year		0 m ³ /year		16,371,745 m ³ /year	7,367,285 m ³ /year
Electricity Production (MW):		2.8		Heat Production (BTU/yr):	
Power Production: Reciprocating engines		Buyer of Electricity: Ontario Power Generation		End User: N/A	
Contact:	N/A	N/A		Website: N/A	
e CO₂ Reduced (t/yr):		101,445		Comments: Condensate trap, water scrubber, cooling and reheating	
Annual CO₂ Equivalents		22,644 Cars		Comments:	
		5,864 Houses			
Other:		7 Reciprocating engines (@ 0.8 MW) 5 in use at a time. Gas production decreasing			

Landfill: Brock West		Landfill Location: Pickering			
Landfill Owner		LFG Site Operator		Landfill Information	
City of Toronto		Eastern Power		Opening Date	1975
Contact:	Andrew Heit	Contact:	Andrew Heit	Closing Date	November 1996
Phone:	(905) 832-0682 ext. 229	Phone:	(905) 832-0682 ext. 229	Waste in Place (Million Tonnes):	18
Fax:	(905) 832-4944	Fax:	(905) 832-4944	Waste Capacity (Million Tonnes):	18
aheit@toronto.ca		N/A		Leachate Recirculation:	N/A
N/A		N/A			
LFG Collection			LFG		
Gas Collection System Installation:		1986		Methane Content	39%
Number of Horizontal Wells:		21		LFG Captured	Methane Captured
Number of Vertical Wells:		110		5,000 cfm	1,950 cfm
Gas Treatment:		Condensate traps		203,882 m ³ /day	79,514 m ³ /day
Type of Flare (Open or Enclosed):		Enclosed		74,417,024 m ³ /year	19,030 tonnes/year
Flared			Utilized		
LFG		Methane		LFG	Methane
0 cfm		0 cfm		5,000 cfm	1,950 cfm
0 m ³ /day		0 m ³ /day		203,882 m ³ /day	79,514 m ³ /day
0 m ³ /year		0 m ³ /year		74,417,024 m ³ /year	29,022,639 m ³ /year
Electricity Production (MW):		7.5		Heat Production (BTU/yr):	
Power Production: Steam turbine		Buyer of Electricity: Ontario Power Generation		End User: N/A	
Contact:	N/A	N/A		Website: N/A	
e CO₂ Reduced (t/yr):		399,633		Comments:	
Annual CO₂ Equivalents		89,204 Cars			
		23,100 Houses			
Other:		Gas production decreasing			

Landfill: Storrington Landfill (Kingston)		Landfill Location: Storrington Township	
Landfill Owner		LFG Site Operator	
Canadian Waste Services		Canadian Waste Services	
Contact:	Remi Godin	Contact:	Remi Godin
Phone:	613 831-5363 x 406	Phone:	613 831-5363 x 406
Fax:	613 831-8928	Fax:	N/A
rgodin@wm.com		rgodin@wm.com	
www.wm.com		www.wm.com	
LFG Collection		Landfill Information	
Gas Collection System Installation:	1994	Opening Date:	1974
Number of Horizontal Wells:	N/A	Closing Date:	April 1991
Number of Vertical Wells:	18	Waste in Place (Million Tonnes):	1 (closed)
Gas Treatment:	None	Waste Capacity (Million Tonnes):	1
Type of Flare (Open or Enclosed):	Enclosed	Leachate Recirculation:	N/A
Flared		LFG	
LFG	Methane	Methane Content	45%
450 cfm	203 cfm	LFG Captured	Methane Captured
18,349 m ³ /day	8,257 m ³ /day	450 cfm	203 cfm
6,697,532 m ³ /year	3,013,889 m ³ /year	18,349 m ³ /day	8,257 m ³ /day
		6,697,532 m ³ /year	1,976 tonnes/year
Utilized		LFG	Methane
		0 cfm	0 cfm
		0 m ³ /day	0 m ³ /day
		0 m ³ /year	0 m ³ /year
Electricity Production (MW):	N/A	Heat Production (BTU/yr):	N/A
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
		Website:	N/A
e CO₂ Reduced (t/yr):	41,500	Comments:	
Annual CO₂ Equivalents	9,263 Cars		
	2,399 Houses		
Other:	18 Vertical wells and 8 manholes		

Landfill: Aurora Landfill		Landfill Location: Aurora	
Landfill Owner		LFG Site Operator	
WMI Waste Management of Canada Inc.		Earth Tech Canada Inc.	
Contact:	Jim Forney	Contact:	Paul Passalent
Phone:	(517) 381-0177	Phone:	0
Fax:	(517) 381-0176	Fax:	0
jforney@wm.com		paul.passalent@earthtech.ca	
0		N/A	
LFG Collection		Landfill Information	
Gas Collection System Installation:	April 1991	Opening Date:	1938
Number of Horizontal Wells:	N/A	Closing Date:	July 1986
Number of Vertical Wells:	30	Waste in Place (Million Tonnes):	2
Gas Treatment:	None	Waste Capacity (Million Tonnes):	2
Type of Flare (Open or Enclosed):	Enclosed	Leachate Recirculation:	N/A
Flared		LFG	
LFG	Methane	Methane Content	50%
450 cfm	225 cfm	LFG Captured	Methane Captured
18,349 m ³ /day	9,175 m ³ /day	450 cfm	225 cfm
6,697,532 m ³ /year	3,348,766 m ³ /year	18,349 m ³ /day	9,175 m ³ /day
		6,697,532 m ³ /year	2,196 tonnes/year
Utilized		LFG	Methane
		0 cfm	0 cfm
		0 m ³ /day	0 m ³ /day
		0 m ³ /year	0 m ³ /year
Electricity Production (MW):	N/A	Heat Production (BTU/yr):	N/A
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
		Website:	N/A
e CO₂ Reduced (t/yr):	46,112	Comments:	
Annual CO₂ Equivalents	10,293 Cars		
	2,665 Houses		
Other:	30 Vertical extraction wells		

Landfill: Britannia Sanitary Landfill Site		Landfill Location: 5700 Terry Fox Way, Mississauga	
Landfill Owner		LFG Site Operator	
The Regional Municipality of Peel		The Regional Municipality of Peel	
Contact: Larry Conrad	Contact: Rick Maj	Opening Date:	1980
Phone: (905) 791-7800 ext. 3502	Phone: (905) 791-7800 ext. 4242	Closing Date:	2002
Fax: (905) 791-2398	Fax: N/A	Waste in Place (Million Tonnes):	11
larry.conrad@peelregion.ca	rick.maj@peelregion.ca	Waste Capacity (Million Tonnes):	11
www.peelregion.ca	www.peelregion.ca	Leachate Recirculation:	N/A
LFG Collection		LFG	
Gas Collection System Installation:	1995	Methane Content	50%
Number of Horizontal Wells:	6	LFG Captured	Methane Captured
Number of Vertical Wells:	1	900 cfm	450 cfm
Gas Treatment:	N/A	36,699 m ³ /day	18,349 m ³ /day
Type of Flare (Open or Enclosed):	Enclosed	13,395,064 m ³ /year	4,392 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
900 cfm	450 cfm	0 cfm	0 cfm
36,699 m ³ /day	18,349 m ³ /day	0 m ³ /day	0 m ³ /day
13,395,064 m ³ /year	6,697,532 m ³ /year	0 m ³ /year	0 m ³ /year
Electricity Production (MW):		Heat Production (BTU/yr):	N/A
Power Production: IGRS	Buyer of Electricity: Region of Peel	End User:	N/A
Contact: Larry Conrad	www.peelregion.ca	Website:	N/A
e CO ₂ Reduced (t/yr):	92,223	Expect 4-5MW of Power Production.	
Annual CO₂ Equivalents	20,585 Cars	Comments:	
	5,331 Houses		
Other:	Collect gas from leachate collection system		

Landfill: Trail Road and Nepean Landfills		Landfill Location: City of Nepean	
Landfill Owner		LFG Site Operator	
Transportation Utilities and Public Works		Transportation Utilities and Public Works	
Contact: Trish Johnston	Contact: Peter Filipowich	Opening Date	May 1980 & 1960
Phone: (613) 580-2424 ext. 21528	Phone: (613) 580-2424 ext. 22843	Closing Date	2009 & 1980s
Fax: (613) 838-4388	Fax: (613) 838-4388	Waste in Place (Million Tonnes):	6.7 & 1.5
patricia.johnson@ottawa.ca	peter.filipowich@ottawa.ca	Waste Capacity (Million Tonnes):	8.7 and 1.5
www.ottawa.ca	www.ottawa.ca	Leachate Recirculation:	Yes (recirculation)
LFG Collection		LFG	
Gas Collection System Installation:	November 1991	Methane Content	40%
Number of Horizontal Wells:	0	LFG Captured	Methane Captured
Number of Vertical Wells:	34	1,000 cfm	400 cfm
Gas Treatment:	Moisture separator	40,776 m ³ /day	16,311 m ³ /day
Type of Flare (Open or Enclosed):	Enclosed	14,883,405 m ³ /year	3,904 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
1,000 cfm	400 cfm	0 cfm	0 cfm
40,776 m ³ /day	16,311 m ³ /day	0 m ³ /day	0 m ³ /day
14,883,405 m ³ /year	5,953,362 m ³ /year	0 m ³ /year	0 m ³ /year
Electricity Production (MW):	N/A	Heat Production (BTU/yr):	N/A
Power Production: N/A	Buyer of Electricity: N/A	End User:	N/A
Contact: N/A	N/A	Website:	N/A
e CO ₂ Reduced (t/yr):	81,976	Differential settlement	
Annual CO₂ Equivalents	18,298 Cars	Comments:	
	4,738 Houses		
Other:	Active collection from 34 vertical wells, horizontal wells and trenches.		

Landfill: Tom Howe Landfill		Landfill Location: City of Nanticoke	
Landfill Owner		LFG Site Operator	
County of Haldimand		County of Haldimand	
Contact:	Ed Martin	Contact:	Ed Martin
Phone:	(905) 318-5962 ext. 156	Phone:	(905) 318-5962 ext. 156
Fax:	(905) 772-3779	Fax:	N/A
emartin@haldimandcounty.on.ca		emartin@haldimandcounty.on.ca	
www.haldimandcounty.on.ca		www.haldimandcounty.on.ca	
LFG Collection		LFG	
Gas Collection System Installation:	April 1998	Methane Content	49%
Number of Horizontal Wells:	4 trenches	LFG Captured	Methane Captured
Number of Vertical Wells:	18	500 cfm	245 cfm
Gas Treatment:	N/A	20,388 m ³ /day	9,990 m ³ /day
Type of Flare (Open or Enclosed):	Enclosed	7,441,702 m ³ /year	2,391 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
500 cfm	245 cfm	0 cfm	0 cfm
20,388 m ³ /day	9,990 m ³ /day	0 m ³ /day	0 m ³ /day
7,441,702 m ³ /year	3,646,434 m ³ /year	0 m ³ /year	0 m ³ /year
Electricity Production (MW):	N/A	Heat Production (BTU/yr):	N/A
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
e CO₂ Reduced (t/yr):		Website:	
50,210		N/A	
Annual CO₂ Equivalents	11,208 Cars	Comments:	High H ₂ S and moisture
	2,902 Houses		
Other:	new wells and expanded system under construction		

Landfill: Cornwall Landfill		Landfill Location: City of Cornwall	
Landfill Owner		LFG Site Operator	
City of Cornwall		City of Cornwall	
Contact:	Neil Dixon	Contact:	Neil Dixon
Phone:	(613) 937-1377	Phone:	(613) 937-1377
Fax:	(613) 932-4506	Fax:	(613) 932-4506
ndixon@city.cornwall.on.ca		ndixon@city.cornwall.on.ca	
www.city.cornwall.on.ca		www.city.cornwall.on.ca	
LFG Collection		LFG	
Gas Collection System Installation:	April 1998	Methane Content	44%
Number of Horizontal Wells:	N/A	LFG Captured	Methane Captured
Number of Vertical Wells:	24	466 cfm	205 cfm
Gas Treatment:	N/A	19,002 m ³ /day	8,361 m ³ /day
Type of Flare (Open or Enclosed):	open	6,935,667 m ³ /year	2,001 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
466 cfm	205 cfm	0 cfm	0 cfm
19,002 m ³ /day	8,361 m ³ /day	0 m ³ /day	0 m ³ /day
6,935,667 m ³ /year	3,051,693 m ³ /year	0 m ³ /year	0 m ³ /year
Electricity Production (MW):	N/A	Heat Production (BTU/yr):	N/A
Power Production:	n/a	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
e CO₂ Reduced (t/yr):		Website:	
42,021		N/A	
Annual CO₂ Equivalents	9,380 Cars	Comments:	
	2,429 Houses		
Other:	24 vertical wells with collection header		

Landfill: Clover Bar		Landfill Location: East Edmonton	
Landfill Owner		LFG Site Operator	
City of Edmonton		EPCOR Generation	
Contact:	Rick Lewin	Contact:	Ken Warren (Jan. 04)
Phone:	(780) 496-5411	Phone:	(780) 412-3506
Fax:	(780) 496-5668	Fax:	N/A
www.edmonton.ca		kwarren@epcor.ca www.epcor.ca	
LFG Collection		Landfill Information	
Gas Collection System Installation:		Opening Date: September 1975	
Number of Horizontal Wells:		Closing Date: 2013	
Number of Vertical Wells:		Waste in Place (Million Tonnes): 12	
Gas Treatment:		Waste Capacity (Million Tonnes): 13.2	
Type of Flare (Open or Enclosed):		Leachate Recirculation: No	
1991		Methane Content 51%	
N/A		LFG Captured	
60		1,668 cfm	
Diethylene glycol		68,015 m ³ /day	
Open		24,825,519 m ³ /year	
Flared		Utilized	
LFG		Methane	
0 cfm		1,668 cfm	
0 m ³ /day		68,015 m ³ /day	
0 m ³ /year		24,825,519 m ³ /year	
Methane		Methane	
0 cfm		842 cfm	
0 m ³ /day		34,348 m ³ /day	
0 m ³ /year		12,536,887 m ³ /year	
Electricity Production (MW):		Heat Production (BTU/yr):	
5		N/A	
Power Production:	Steam turbine	Buyer of Electricity:	EPCOR Generation
Contact:	N/A	End User:	N/A
www.epcor.ca		Website:	N/A
e CO₂ Reduced (t/yr):		Comments:	
172,629		Did not continuously flare or utilize due to several plant closures	
Annual CO₂ Equivalents			
38,533 Cars			
9,979 Houses			
Other:			

Landfill: Foothills Boulevard Regional Landfill		Landfill Location: 6595 Foothills Blvd, Prince George	
Landfill Owner		LFG Site Operator	
Regional District of Fraser-Fort George		RDFFG	
Contact:	Jim Martin	Contact:	Jim Martin
Phone:	(250) 960-4486	Phone:	(250) 960-4486
Fax:	(250) 563-7848	Fax:	(250) 563-7848
jmartin@rdffg.bc.ca www.rdffg.bc.ca		jmartin@rdffg.bc.ca www.rdffg.bc.ca	
LFG Collection		Landfill Information	
Gas Collection System Installation:		Opening Date: 1974	
Number of Horizontal Wells:		Closing Date: 2021	
Number of Vertical Wells:		Waste in Place (Million Tonnes): 1.4	
Gas Treatment:		Waste Capacity (Million Tonnes): 3	
Type of Flare (Open or Enclosed):		Leachate Recirculation: Yes	
2002		Methane Content 43%	
16		LFG Captured	
N/A		213 cfm	
Condensate Removal		8,685 m ³ /day	
Enclosed		3,170,165 m ³ /year	
Flared		Utilized	
LFG		Methane	
213 cfm		0 cfm	
8,685 m ³ /day		0 m ³ /day	
3,170,165 m ³ /year		0 m ³ /year	
Methane		Methane	
92 cfm		0 cfm	
3,743 m ³ /day		0 m ³ /day	
1,366,341 m ³ /year		0 m ³ /year	
Electricity Production (MW):		Heat Production (BTU/yr):	
N/A		N/A	
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
www.rdffg.bc.ca		Website:	N/A
e CO₂ Reduced (t/yr):		Comments:	
18,814			
Annual CO₂ Equivalents			
4,200 Cars			
1,088 Houses			
Other: Gas Collection system constructed in 2002, commissioned in Dec. 2002			

Landfill: Fraser Port Landfill		Landfill Location: Richmond	
Landfill Owner		LFG Site Operator	
Contact:	FRPA Capt. Tom Corsie	Contact:	E.H. Hanson Len Hanson, P. Eng.
Phone:	(604) 524-6655	Phone:	(604) 946-0111
Fax:	(604) 524-1127	Fax:	N/A ehanson@direct.ca
Landfill Information		Opening Date: April 1976	
		Closing Date: June 1987	
		Waste in Place (Million Tonnes): 1 (closed)	
		Waste Capacity (Million Tonnes): 1	
		Leachate Recirculation: Yes	
LFG Collection		LFG	
Gas Collection System Installation:	October 1986	Methane Content	32%
Number of Horizontal Wells:	N/A	LFG Captured	Methane Captured
Number of Vertical Wells:	50	180 cfm	58 cfm
Gas Treatment:	N/A	7,340 m ³ /day	2,349 m ³ /day
Type of Flare (Open or Enclosed):	N/A	2,679,013 m ³ /year	562 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
180 cfm	58 cfm	0 cfm	0 cfm
7,340 m ³ /day	2,349 m ³ /day	0 m ³ /day	0 m ³ /day
2,679,013 m ³ /year	857,284 m ³ /year	0 m ³ /year	0 m ³ /year
Electricity Production (MW):	N/A	Heat Production (BTU/yr):	N/A
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
e CO ₂ Reduced (t/yr):	11,805	Website:	N/A
Annual CO₂ Equivalents	2,635 Cars 682 Houses	Comments:	New user for heat as of 2002.
Other:	320 H.P. engine on site for power production.		

Landfill: Port Mann		Landfill Location: Surrey	
Landfill Owner		LFG Site Operator	
Contact:	City of Surrey Rob Costanzo	Contact:	Norseman Engineering Len Hanson, P.Eng.
Phone:	(604) 590-7287	Phone:	(604) 946-0111
Fax:	(604) 591-7836	Fax:	(604) 946-6359
Landfill Information		Opening Date: 1969	
		Closing Date: 1998	
		Waste in Place (Million Tonnes): 2	
		Waste Capacity (Million Tonnes): N/A	
		Leachate Recirculation: N/A	
LFG Collection		LFG	
Gas Collection System Installation:	February 1993	Methane Content	57%
Number of Horizontal Wells:	N/A	LFG Captured	Methane Captured
Number of Vertical Wells:	120	190 cfm	108 cfm
Gas Treatment:	Dehydration using ethylene glycol	7,748 m ³ /day	4,416 m ³ /day
Type of Flare (Open or Enclosed):	Enclosed	2,827,847 m ³ /year	1,057 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
0 cfm	0 cfm	190 cfm	108 cfm
0 m ³ /day	0 m ³ /day	7,748 m ³ /day	4,416 m ³ /day
0 m ³ /year	0 m ³ /year	2,827,847 m ³ /year	1,611,873 m ³ /year
Electricity Production (MW):	N/A	Heat Production (BTU/yr):	56900 (million BTU)
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	Georgia Pacific Gypsum Ltd.
e CO ₂ Reduced (t/yr):	22,195	Website:	N/A
Annual CO₂ Equivalents	4,954 Cars 1,283 Houses	Comments:	
Other:	10 wells added.		

Landfill: Jackman Landfill		Landfill Location: 10th & 172nd Street, Langley	
Landfill Owner		LFG Site Operator	
Township of Langley		Norseman Engineering Ltd.	
Contact:	Clive Roberts	Contact:	Len Hanson, P.Eng.
Phone:	(604) 533-6144	Phone:	(604) 946-0111
Fax:	(604) 533-6098	Fax:	N/A
		Opening Date: 1970	
		Closing Date: 1988	
		Waste in Place (Million Tonnes): 0.4	
		Waste Capacity (Million Tonnes): 0.4	
		Leachate Recirculation: No	
LFG Collection		LFG	
Gas Collection System Installation:	April 1993	Methane Content	45%
Number of Horizontal Wells:	N/A	LFG Captured	Methane Captured
Number of Vertical Wells:	45	46 cfm	21 cfm
Gas Treatment:	N/A	1,876 m ³ /day	844 m ³ /day
Type of Flare (Open or Enclosed):	enclosed	684,637 m ³ /year	202 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
46 cfm	21 cfm	0 cfm	0 cfm
1,876 m ³ /day	844 m ³ /day	0 m ³ /day	0 m ³ /day
684,637 m ³ /year	308,086 m ³ /year	0 m ³ /year	0 m ³ /year
Electricity Production (MW):	N/A	Heat Production (BTU/yr):	110 (Billion BTU)
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
Net CO ₂ Reduced (t/yr):	4,242	Website:	N/A
Annual CO₂ Equivalents	947 Cars	Comments:	Type of burner - boiler for heat and CO ₂ .
	245 Houses		
Other:			

Landfill: Premier Street Landfill		Landfill Location: North Vancouver District	
Landfill Owner		LFG Site Operator	
Corporation of the District of North Vancouver		E.H. Hanson	
Contact:	Jerry Stokes	Contact:	Eison Hanson
Phone:	(604) 990-3848	Phone:	(604) 946-0111
Fax:	(604) 990-3801	Fax:	(604) 946-6359
0		N/A	
0		N/A	
LFG Collection		LFG	
Gas Collection System Installation:	August 1991, new May 2002	Methane Content	50%
Number of Horizontal Wells:	N/A	LFG Captured	Methane Captured
Number of Vertical Wells:	15	120 cfm	60 cfm
Gas Treatment:	Moisture removal	4,893 m ³ /day	2,447 m ³ /day
Type of Flare (Open or Enclosed):	Enclosed	1,786,009 m ³ /year	586 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
120 cfm	60 cfm	0 cfm	0 cfm
4,893 m ³ /day	2,447 m ³ /day	0 m ³ /day	0 m ³ /day
1,786,009 m ³ /year	893,004 m ³ /year	0 m ³ /year	0 m ³ /year
Electricity Production (MW):	N/A	Heat Production (BTU/yr):	Shut down
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
Net CO ₂ Reduced (t/yr):	12,296	Website:	N/A
Annual CO₂ Equivalents	2,745 Cars	Comments:	Expansion of collection system is proposed and a new field house is planned
	711 Houses		
Other:	Experimental work on conversion of LFG to Alcohol taking place with Syntec Biofuel Inc.		

Landfill: Coquitlam Landfill		Landfill Location: Coquitlam			
Landfill Owner		LFG Site Operator		Landfill Information	
Greater Vancouver Regional District		Greater Vancouver Regional District		Opening Date:	1975
Contact:	Dennis Ranahan	Contact:	Dennis Ranahan	Closing Date:	1983
Phone:	(604) 451-6138	Phone:	(604) 451-6138	Waste in Place (Million Tonnes):	2.2
Fax:	(604) 451-6180	Fax:	N/A	Waste Capacity (Million Tonnes):	2.5
dranahan@gvrd.bc.ca		dranahan@gvrd.bc.ca		Leachate Recirculation:	N/A
www.gvrd.bc.ca		www.gvrd.bc.ca			
LFG Collection			LFG		
Gas Collection System Installation:	N/A		Methane Content	52%	
Number of Horizontal Wells:	N/A		LFG Captured	Methane Captured	
Number of Vertical Wells:	139		75 cfm	39 cfm	
Gas Treatment:	N/A		3,058 m ³ /day	1,590 m ³ /day	
Type of Flare (Open or Enclosed):	N/A		1,116,255 m ³ /year	381 tonnes/year	
Flared			Utilized		
LFG	Methane		LFG	Methane	
0 cfm	0 cfm		75 cfm	39 cfm	
0 m ³ /day	0 m ³ /day		3,058 m ³ /day	1,590 m ³ /day	
0 m ³ /year	0 m ³ /year		1,116,255 m ³ /year	580,453 m ³ /year	
Electricity Production (MW):	N/A		Heat Production (BTU/yr):	9,478 (Million BTU)	
Power Production:	N/A	Buyer of Electricity:	N/A	End User:	N/A
Contact:	N/A			Website:	www.norskecanada.com
e CO ₂ Reduced (t/yr):	7,993		Comments:	Many of the original 121 wells have been damaged and are not operational, 18 new wells installed in 2002	
Annual CO₂ Equivalents	1,784 Cars 462 Houses				
Other:					

Landfill: Cedar Road Landfill		Landfill Location: Nanaimo			
Landfill Owner		LFG Site Operator		Landfill Information	
Regional District of Nanaimo		Regional District of Nanaimo		Opening Date	1940
Contact:	David Leitch	Contact:	David Leitch	Closing Date	2000
Phone:	(604) 451-6138	Phone:	(250) 390-6546	Waste in Place (Million Tonnes):	1
Fax:	(604) 451-6180	Fax:	(250) 390-1542	Waste Capacity (Million Tonnes):	1.5
				Leachate Recirculation:	N/A (collection)
LFG Collection			LFG		
Gas Collection System Installation:	N/A		Methane Content	50%	
Number of Horizontal Wells:	N/A		LFG Captured	Methane Captured	
Number of Vertical Wells:	N/A		110 cfm	55 cfm	
Gas Treatment:	N/A		4,485 m ³ /day	2,243 m ³ /day	
Type of Flare (Open or Enclosed):	N/A		1,637,175 m ³ /year	537 tonnes/year	
Flared			Utilized		
LFG	Methane		LFG	Methane	
104 cfm	52 cfm		6 cfm	3 cfm	
4,241 m ³ /day	2,120 m ³ /day		245 m ³ /day	122 m ³ /day	
1,547,874 m ³ /year	773,937 m ³ /year		89,300 m ³ /year	44,650 m ³ /year	
Electricity Production (MW):	N/A		Heat Production (BTU/yr):	N/A	
Power Production:	N/A	Buyer of Electricity:	N/A	End User:	N/A
Contact:	N/A			Website:	N/A
e CO ₂ Reduced (t/yr):	11,272		Comments:		
Annual CO₂ Equivalents	2,516 Cars 652 Houses				
Other:					

Landfill: Tretheway Landfill		Landfill Location: Clearbrook	
Landfill Owner		LFG Site Operator	
City of Abbotsford		City of Abbotsford	
Contact:	Roger Ferrant	Contact:	Roger Ferrant
Phone:	(604) 853-5485	Phone:	(604) 853-5485
Fax:	(604) 850-6418	Fax:	N/A
		Landfill Information	
		Opening Date:	1975
		Closing Date:	1984
		Waste in Place (Million Tonnes):	0.5 (closed)
		Waste Capacity (Million Tonnes):	0.5
		Leachate Recirculation:	N/A
LFG Collection		LFG	
Gas Collection System Installation:	Dec. 1983	Methane Content	48%
Number of Horizontal Wells:	N/A	LFG Captured	Methane Captured
Number of Vertical Wells:	N/A	20 cfm	10 cfm
Gas Treatment:	N/A	816 m ³ /day	391 m ³ /day
Type of Flare (Open or Enclosed):	N/A	297,668 m ³ /year	94 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
0 cfm	0 cfm	20 cfm	10 cfm
0 m ³ /day	0 m ³ /day	816 m ³ /day	391 m ³ /day
0 m ³ /year	0 m ³ /year	297,668 m ³ /year	142,881 m ³ /year
Electricity Production (MW):	N/A	Heat Production (BTU/yr):	5.256 (billion BTU)
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
e CO ₂ Reduced (t/yr):	1,967	Website:	N/A
Annual CO₂ Equivalents	439 Cars	Comments:	
	114 Houses		
Other:	Landfill still operates 4 of 6 heaters.		

Landfill: Cottonwood Landfill		Landfill Location: Maple Ridge	
Landfill Owner		LFG Site Operator	
District of Maple Ridge		District of Maple Ridge	
Contact:	Russ Carmichael	Contact:	Victor Negoita
Phone:	(604) 463-5221	Phone:	(604) 463-9581
Fax:	(604) 467-7360	Fax:	(604) 467-7360
rcarmichael@mapleridge.org		rcarmichael@mapleridge.org	
		Landfill Information	
		Opening Date:	unknown
		Closing Date:	1989
		Waste in Place (Million Tonnes):	Unknown
		Waste Capacity (Million Tonnes):	Unknown
		Leachate Recirculation:	N/A (sent to sanitary sewer)
LFG Collection		LFG	
Gas Collection System Installation:	1985-1989	Methane Content	35%
Number of Horizontal Wells:	N/A	LFG Captured	Methane Captured
Number of Vertical Wells:	N/A	57 cfm	20 cfm
Gas Treatment:	N/A	2,324 m ³ /day	813 m ³ /day
Type of Flare (Open or Enclosed):	Open	848,354 m ³ /year	195 tonnes/year
Flared		Utilized	
LFG	Methane	LFG	Methane
57 cfm	20 cfm	0 cfm	0 cfm
2,324 m ³ /day	813 m ³ /day	0 m ³ /day	0 m ³ /day
848,354 m ³ /year	296,924 m ³ /year	0 m ³ /year	0 m ³ /year
Electricity Production (MW):	N/A	Heat Production (BTU/yr):	N/A
Power Production:	N/A	Buyer of Electricity:	N/A
Contact:	N/A	End User:	N/A
e CO ₂ Reduced (t/yr):	4,089	Website:	N/A
Annual CO₂ Equivalents	913 Cars	Comments:	Operate system during business hours.
	236 Houses		
Other:	7 Vertical wells		

Landfill: Vancouver Landfill		Landfill Location: 5400 72nd Street	
Landfill Owner		LFG Site Operator	
City of Vancouver		City of Vancouver	
Contact:	Paul Henderson	Contact:	Paul Henderson
Phone:	604 940 3201	Phone:	604 940 3201
Fax:	(604) 946-2873	Fax:	N/A
paul_henderson@city.vancouver.bc.ca		paul_henderson@city.vancouver.bc.ca	
www.city.vancouver.bc.ca		www.city.vancouver.bc.ca	
LFG Collection		Landfill Information	
Gas Collection System Installation:	1991, 2000, 2003	Opening Date:	1966
Number of Horizontal Wells:	10 (200 metre wells)	Closing Date:	2040
Number of Vertical Wells:	237	Waste in Place (Million Tonnes):	12
Gas Treatment:	See other	Waste Capacity (Million Tonnes):	30
Type of Flare (Open or Enclosed):	2 enclosed	Leachate Recirculation:	N/A
Flared		LFG	
LFG	Methane	Methane Content	50%
0 cfm	0 cfm	LFG Captured	Methane Captured
0 m ³ /day	0 m ³ /day	2,100 cfm	1,050 cfm
0 m ³ /year	0 m ³ /year	85,631 m ³ /day	42,815 m ³ /day
		31,255,150 m ³ /year	10,247 tonnes/year
Utilized		Utilized	
LFG	Methane	LFG	Methane
0 cfm	0 cfm	2,100 cfm	1,050 cfm
0 m ³ /day	0 m ³ /day	85,631 m ³ /day	42,815 m ³ /day
0 m ³ /year	0 m ³ /year	31,255,150 m ³ /year	15,627,575 m ³ /year
Electricity Production (MW):	5.55	Heat Production (BTU/yr):	100,000 GJ/year
Power Production:	Maxim Power	Buyer of Electricity:	B.C. Hydro
Contact:	N/A	End User:	N/A
www.maximpowercorp.com		Website:	N/A
e CO₂ Reduced (t/yr):	215,187	Comments:	Beneficial Use system operating at 100%, plan to install and additional 1.85 MW in 2004.
Annual CO₂ Equivalents	48,033 Cars 12,439 Houses		
Other:	Condensate removal onsite, electrical generation off-site (CanAgro Greenhouse).		

Landfill: Cache Creek		Landfill Location: Cache Creek	
Landfill Owner		LFG Site Operator	
Wastech Services Ltd. & Cache Creek		Wastech Services	
Contact:	R. Black	Contact:	R. Black
Phone:	(604) 521-1715 ext. 550	Phone:	(604) 521-1715 ext. 550
Fax:	(604) 521-0763	Fax:	(604) 521-0763
rblack@wastech.ca		rblack@wastech.ca	
www.wastech.com		www.wastech.com	
LFG Collection		Landfill Information	
Gas Collection System Installation:	March 1997	Opening Date:	1989
Number of Horizontal Wells:	N/A	Closing Date:	2007
Number of Vertical Wells:	29	Waste in Place (Million Tonnes):	5.6 (2003)
Gas Treatment:	N/A	Waste Capacity (Million Tonnes):	7.6
Type of Flare (Open or Enclosed):	Open	Leachate Recirculation:	Yes
Flared		LFG	
LFG	Methane	Methane Content	45%
565 cfm	254 cfm	LFG Captured	Methane Captured
23,039 m ³ /day	10,367 m ³ /day	565 cfm	254 cfm
8,409,124 m ³ /year	3,784,106 m ³ /year	23,039 m ³ /day	10,367 m ³ /day
		8,409,124 m ³ /year	2,481 tonnes/year
Utilized		Utilized	
LFG	Methane	LFG	Methane
0 cfm	0 cfm	0 cfm	0 cfm
0 m ³ /day	0 m ³ /day	0 m ³ /day	0 m ³ /day
0 m ³ /year	0 m ³ /year	0 m ³ /year	0 m ³ /year
Electricity Production (MW):	N/A	Heat Production (BTU/yr):	N/A
Power Production:	N/A	End User:	N/A
Contact:	N/A	Buyer of Electricity:	N/A
www.wastech.com		Website:	N/A
e CO₂ Reduced (t/yr):	52,106	Comments:	Very dry landfill
Annual CO₂ Equivalents	11,631 Cars 3,012 Houses		
Other:	29 Vertical wells, 3 leachate sumps.		

Landfill: Hartland Landfill		Landfill Location: Victoria			
Landfill Owner		LFG Site Operator		Landfill Information	
Capital Regional District		Capital Regional District		Opening Date: Approx. 1954	
Contact:	Chris Riddell	Contact:	Chris Riddell	Closing Date: Phase I 1998, II 2040	
Phone:	(250) 727-3331	Phone:	(250) 727-3331	Waste in Place (Million Tonnes): 4.8	
Fax:	(250) 727-3328	Fax:	N/A	Waste Capacity (Million Tonnes): 11	
criddell@crd.bc.ca		criddell@crd.bc.ca		Leachate Recirculation: N/A	
www.crd.bc.ca		www.crd.bc.ca			
LFG Collection			LFG		
Gas Collection System Installation: Phase I - Aug. 1991, Phase II - Jan. 1998			Methane Content 45%		
Number of Horizontal Wells: 10			LFG Captured		
Number of Vertical Wells: 105			Methane Captured		
Gas Treatment: Condensate traps (2)			700 cfm 315 cfm		
Type of Flare (Open or Enclosed): Enclosed			28,544 m ³ /day 12,845 m ³ /day		
			10,418,383 m ³ /year 3,074 tonnes/year		
Flared			Utilized		
LFG		Methane		LFG	
700 cfm		315 cfm		0 cfm	
28,544 m ³ /day		12,845 m ³ /day		0 m ³ /day	
10,418,383 m ³ /year		4,688,273 m ³ /year		0 m ³ /year	
Electricity Production (MW): 2			Heat Production (BTU/yr): N/A		
Power Production:	N/A	Buyer of Electricity:	B.C. Hydro	End User:	N/A
Contact:	N/A	www.bchydro.com		Website:	N/A
e CO₂ Reduced (t/yr): 64,556			Utilization beginning Mar. 2004.		
Annual CO₂ Equivalents			Comments:		
14,410 Cars					
3,732 Houses					
Other: High water levels in landfill has created reduction in LFG potential.					

Landfill: Stride Ave. Landfill		Landfill Location: Stride Avenue, Burnaby			
Landfill Owner		LFG Site Operator		Landfill Information	
City of Burnaby		City of Burnaby		Opening Date: Early 1900's	
Contact:	Lambert Chu	Contact:	Nelson Porter	Closing Date: 1969	
Phone:	(604) 294-7460	Phone:	(604)294-7991	Waste in Place (Million Tonnes): 0.6 (closed)	
Fax:	(604) 294-7425	Fax:	(604)294-7540	Waste Capacity (Million Tonnes): 0.6	
chu@city.burnaby.bc.ca		porter@city.burnaby.bc.ca		Leachate Recirculation: N/A	
LFG Collection			LFG		
Gas Collection System Installation: May 1999			Methane Content 28%		
Number of Horizontal Wells: N/A			LFG Captured		
Number of Vertical Wells: 39			Methane Captured		
Gas Treatment: N/A			36 cfm 10 cfm		
Type of Flare (Open or Enclosed): Open			1,468 m ³ /day 411 m ³ /day		
			535,803 m ³ /year 98 tonnes/year		
Flared			Utilized		
LFG		Methane		LFG	
36 cfm		10 cfm		0 cfm	
1,468 m ³ /day		411 m ³ /day		0 m ³ /day	
535,803 m ³ /year		150,025 m ³ /year		0 m ³ /year	
Electricity Production (MW): N/A			Heat Production (BTU/yr): N/A		
Power Production:	N/A	Buyer of Electricity:	N/A	End User:	Field House
Contact:	N/A	N/A		Website:	N/A
e CO₂ Reduced (t/yr): 2,066			System is in start-up testing phase. System operates 3 days per week.		
Annual CO₂ Equivalents			Comments:		
461 Cars					
119 Houses					
Other:					