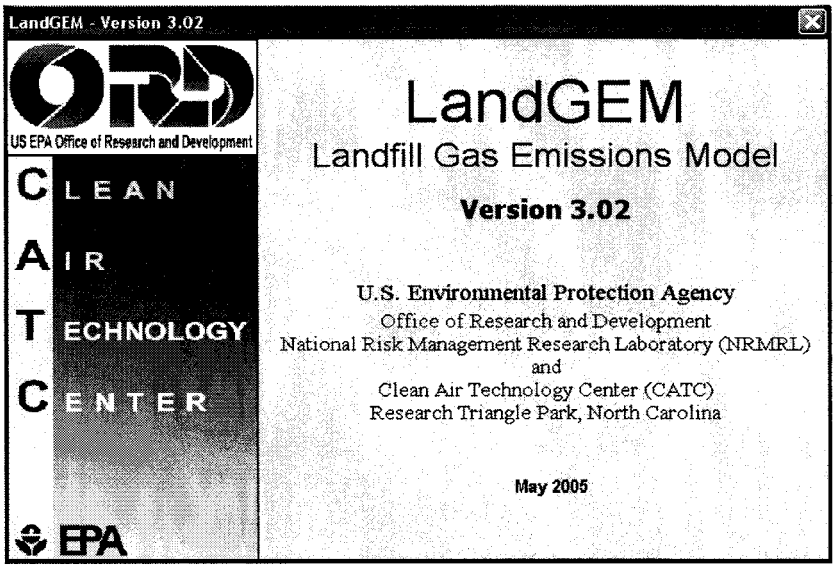
ANNEXE I

FICHIERS DE SORTIE DU MODÈLE LANDGEM



Summary Report

Landfill Name or Identifier: St-Nicéphore phase 1

Date: 7 octobre 2010

Description/Comments:

About LandGEM:

First-Order Decomposition Rate Equation:

$$Q_{CH_4} = \sum_{i=1}^{n} \sum_{j=0.1}^{1} kL_o \left(\frac{M_i}{10} \right) e^{-kt_{ij}}$$

Where,

Q_{CH_4} = annual methane generation in the year of the calculation ($m^3/year$)
i = 1-year time increment
n = (year of the calculation) - (initial year of waste acceptance)
j = 0.1-year time increment
k = methane generation rate ($year^{-1}$)
L_o = potential methane generation capacity (m^3/Mg)
M_i = mass of waste accepted in the i^{th} year (Mg)
t_{ij} = age of the j^{th} section of waste mass M_i accepted in the i^{th} year (decimal years, e.g., 3.2 years)

LandGEM is based on a first-order decomposition rate equation for quantifying emissions from the decomposition of landfilled waste in municipal solid waste (MSW) landfills. The software provides a relatively simple approach to estimating landfill gas emissions. Model defaults are based on empirical data from U.S. landfills. Field test data can also be used in place of model defaults when available. Further guidance on EPA test methods, Clean Air Act (CAA) regulations, and other guidance regarding landfill gas emissions and control technology requirements can be found at http://www.epa.gov/ttnatw01/landfill/landflpg.html.

LandGEM is considered a screening tool — the better the input data, the better the estimates. Often, there are limitations with the available data regarding waste quantity and composition, variation in design and operating practices over time, and changes occurring over time that impact the emissions potential. Changes to landfill operation, such as operating under wet conditions through leachate recirculation or other liquid additions, will result in generating more gas at a faster rate. Defaults for estimating emissions for this type of operation are being developed to include in LandGEM along with defaults for convential landfills (no leachate or liquid additions) for developing emission inventories and determining CAA applicability. Refer to the Web site identified above for future updates.

Input Review

LANDFILL CHARACTERISTICS

Landfill Open Year	**1984**	
Landfill Closure Year (with 80-year limit)	**1996**	
Actual Closure Year (without limit)	***1996***	
Have Model Calculate Closure Year?	**No**	
Waste Design Capacity	**3 059 000**	*megagrams*

MODEL PARAMETERS

Methane Generation Rate, k	**0,040**	$year^{-1}$
Potential Methane Generation Capacity, L_o	**135**	m^3/Mg
NMOC Concentration	**600**	*ppmv as hexane*
Methane Content	**50**	*% by volume*

GASES / POLLUTANTS SELECTED

Gas / Pollutant #1:	**Total landfill gas**
Gas / Pollutant #2:	**Methane**
Gas / Pollutant #3:	**Carbon dioxide**
Gas / Pollutant #4:	**NMOC**

WASTE ACCEPTANCE RATES

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
1984	30 000	33 000	0	0
1985	30 000	33 000	30 000	33 000
1986	30 000	33 000	60 000	66 000
1987	30 000	33 000	90 000	99 000
1988	30 000	33 000	120 000	132 000
1989	50 000	55 000	150 000	165 000
1990	246 000	270 600	200 000	220 000
1991	315 000	346 500	446 000	490 600
1992	478 000	525 800	761 000	837 100
1993	577 000	634 700	1 239 000	1 362 900
1994	643 000	707 300	1 816 000	1 997 600
1995	600 000	660 000	2 459 000	2 704 900
1996	0	0	3 059 000	3 364 900
1997	0	0	3 059 000	3 364 900
1998	0	0	3 059 000	3 364 900
1999	0	0	3 059 000	3 364 900
2000	0	0	3 059 000	3 364 900
2001	0	0	3 059 000	3 364 900
2002	0	0	3 059 000	3 364 900
2003	0	0	3 059 000	3 364 900
2004	0	0	3 059 000	3 364 900
2005	0	0	3 059 000	3 364 900
2006	0	0	3 059 000	3 364 900
2007	0	0	3 059 000	3 364 900
2008	0	0	3 059 000	3 364 900
2009	0	0	3 059 000	3 364 900
2010	0	0	3 059 000	3 364 900
2011	0	0	3 059 000	3 364 900
2012	0	0	3 059 000	3 364 900
2013	0	0	3 059 000	3 364 900
2014	0	0	3 059 000	3 364 900
2015	0	0	3 059 000	3 364 900
2016	0	0	3 059 000	3 364 900
2017	0	0	3 059 000	3 364 900
2018	0	0	3 059 000	3 364 900
2019	0	0	3 059 000	3 364 900
2020	0	0	3 059 000	3 364 900
2021	0	0	3 059 000	3 364 900
2022	0	0	3 059 000	3 364 900
2023	0	0	3 059 000	3 364 900

WASTE ACCEPTANCE RATES (Continued)

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
2024	0	0	3 059 000	3 364 900
2025	0	0	3 059 000	3 364 900
2026	0	0	3 059 000	3 364 900
2027	0	0	3 059 000	3 364 900
2028	0	0	3 059 000	3 364 900
2029	0	0	3 059 000	3 364 900
2030	0	0	3 059 000	3 364 900
2031	0	0	3 059 000	3 364 900
2032	0	0	3 059 000	3 364 900
2033	0	0	3 059 000	3 364 900
2034	0	0	3 059 000	3 364 900
2035	0	0	3 059 000	3 364 900
2036	0	0	3 059 000	3 364 900
2037	0	0	3 059 000	3 364 900
2038	0	0	3 059 000	3 364 900
2039	0	0	3 059 000	3 364 900
2040	0	0	3 059 000	3 364 900
2041	0	0	3 059 000	3 364 900
2042	0	0	3 059 000	3 364 900
2043	0	0	3 059 000	3 364 900
2044	0	0	3 059 000	3 364 900
2045	0	0	3 059 000	3 364 900
2046	0	0	3 059 000	3 364 900
2047	0	0	3 059 000	3 364 900
2048	0	0	3 059 000	3 364 900
2049	0	0	3 059 000	3 364 900
2050	0	0	3 059 000	3 364 900
2051	0	0	3 059 000	3 364 900
2052	0	0	3 059 000	3 364 900
2053	0	0	3 059 000	3 364 900
2054	0	0	3 059 000	3 364 900
2055	0	0	3 059 000	3 364 900
2056	0	0	3 059 000	3 364 900
2057	0	0	3 059 000	3 364 900
2058	0	0	3 059 000	3 364 900
2059	0	0	3 059 000	3 364 900
2060	0	0	3 059 000	3 364 900
2061	0	0	3 059 000	3 364 900
2062	0	0	3 059 000	3 364 900
2063	0	0	3 059 000	3 364 900

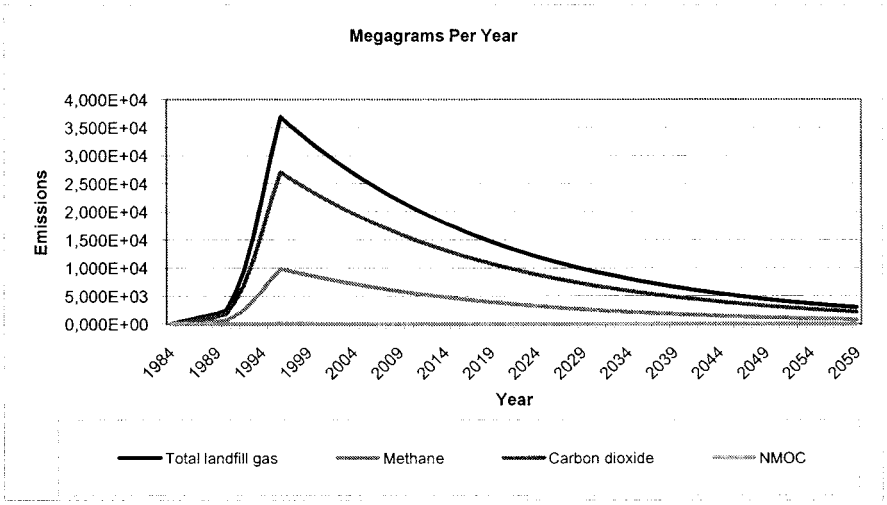
Pollutant Parameters

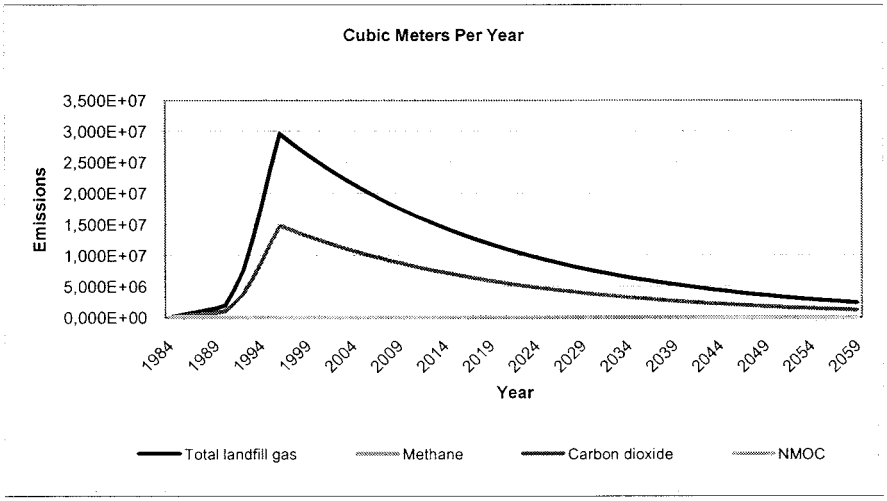
		Gas / Pollutant Default Parameters:		*User-specified Pollutant Parameters:*	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Gases	Total landfill gas		0,00		
	Methane		16,04		
	Carbon dioxide		44,01		
	NMOC	4 000	86,18		
Pollutants	1,1,1-Trichloroethane (methyl chloroform) - HAP	0,48	133,41		
	1,1,2,2-Tetrachloroethane - HAP/VOC	1,1	167,85		
	1,1-Dichloroethane (ethylidene dichloride) - HAP/VOC	2,4	98,97		
	1,1-Dichloroethene (vinylidene chloride) - HAP/VOC	0,20	96,94		
	1,2-Dichloroethane (ethylene dichloride) - HAP/VOC	0,41	98,96		
	1,2-Dichloropropane (propylene dichloride) - HAP/VOC	0,18	112,99		
	2-Propanol (isopropyl alcohol) - VOC	50	60,11		
	Acetone	7,0	58,08		
	Acrylonitrile - HAP/VOC	6,3	53,06		
	Benzene - No or Unknown Co-disposal - HAP/VOC	1,9	78,11		
	Benzene - Co-disposal - HAP/VOC	11	78,11		
	Bromodichloromethane - VOC	3,1	163,83		
	Butane - VOC	5,0	58,12		
	Carbon disulfide - HAP/VOC	0,58	76,13		
	Carbon monoxide	140	28,01		
	Carbon tetrachloride - HAP/VOC	4,0E-03	153,84		
	Carbonyl sulfide - HAP/VOC	0,49	60,07		
	Chlorobenzene - HAP/VOC	0,25	112,56		
	Chlorodifluoromethane	1,3	86,47		
	Chloroethane (ethyl chloride) - HAP/VOC	1,3	64,52		
	Chloroform - HAP/VOC	0,03	119,39		
	Chloromethane - VOC	1,2	50,49		
	Dichlorobenzene - (HAP for para isomer/VOC)	0,21	147		
	Dichlorodifluoromethane	16	120,91		
	Dichlorofluoromethane - VOC	2,6	102,92		
	Dichloromethane (methylene chloride) - HAP	14	84,94		
	Dimethyl sulfide (methyl sulfide) - VOC	7,8	62,13		
	Ethane	890	30,07		
	Ethanol - VOC	27	46,08		

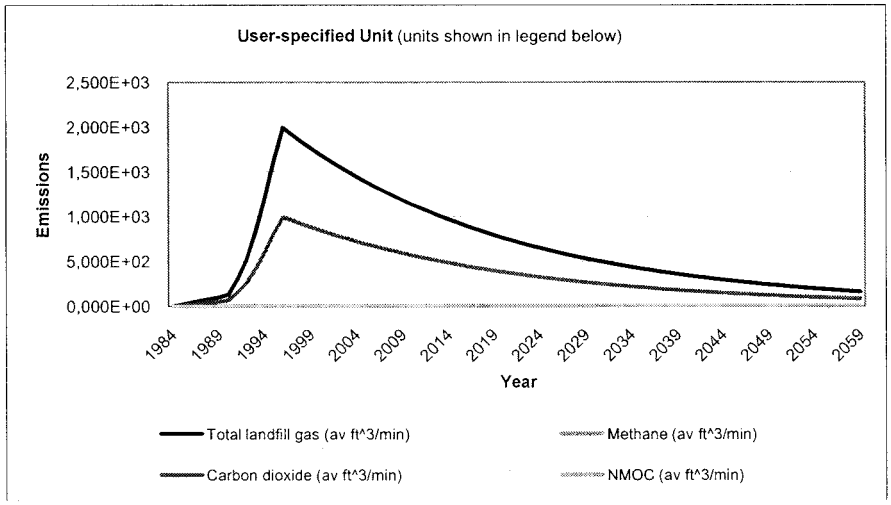
Pollutant Parameters (Continued)

		Gas / Pollutant Default Parameters:		*User-specified Pollutant Parameters:*	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Pollutants	Ethyl mercaptan (ethanethiol) - VOC	2,3	62,13		
	Ethylbenzene - HAP/VOC	4,6	106,16		
	Ethylene dibromide - HAP/VOC	1,0E-03	187,88		
	Fluorotrichloromethane - VOC	0,76	137,38		
	Hexane - HAP/VOC	6,6	86,18		
	Hydrogen sulfide	36	34,08		
	Mercury (total) - HAP	2,9E-04	200,61		
	Methyl ethyl ketone - HAP/VOC	7,1	72,11		
	Methyl isobutyl ketone - HAP/VOC	1,9	100,16		
	Methyl mercaptan - VOC	2,5	48,11		
	Pentane - VOC	3,3	72,15		
	Perchloroethylene (tetrachloroethylene) - HAP	3,7	165,83		
	Propane - VOC	11	44,09		
	t-1,2-Dichloroethene - VOC	2,8	96,94		
	Toluene - No or Unknown Co-disposal - HAP/VOC	39	92,13		
	Toluene - Co-disposal - HAP/VOC	170	92,13		
	Trichloroethylene (trichloroethene) - HAP/VOC	2,8	131,40		
	Vinyl chloride - HAP/VOC	7,3	62,50		
	Xylenes - HAP/VOC	12	106,16		

Graphs


Megagrams Per Year
Emissions
4,000E+04
3,500E+04
3,000E+04
2,500E+04
2,000E+04
1,500E+04
1,000E+04
5,000E+03
0,000E+00
1984 1989 1994 1999 2004 2009 2014 2019 2024 2029 2034 2039 2044 2049 2054 2059
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


Cubic Meters Per Year
Emissions
3,500E+07
3,000E+07
2,500E+07
2,000E+07
1,500E+07
1,000E+07
5,000E+06
0,000E+00
1984 1989 1994 1999 2004 2009 2014 2019 2024 2029 2034 2039 2044 2049 2054 2059
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


User-specified Unit (units shown in legend below)
Emissions
2,500E+03
2,000E+03
1,500E+03
1,000E+03
5,000E+02
0,000E+00
1984 1989 1994 1999 2004 2009 2014 2019 2024 2029 2034 2039 2044 2049 2054 2059
Year
Total landfill gas (av ft^3/min)
Methane (av ft^3/min)
Carbon dioxide (av ft^3/min)
NMOC (av ft^3/min)

Results

Year	Total landfill gas			Methane		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
1984	0	0	0	0	0	0
1985	3,974E+02	3,182E+05	2,138E+01	1,062E+02	1,591E+05	1,069E+01
1986	7,793E+02	6,240E+05	4,193E+01	2,082E+02	3,120E+05	2,096E+01
1987	1,146E+03	9,178E+05	6,167E+01	3,061E+02	4,589E+05	3,083E+01
1988	1,499E+03	1,200E+06	8,063E+01	4,003E+02	6,000E+05	4,032E+01
1989	1,837E+03	1,471E+06	9,885E+01	4,908E+02	7,356E+05	4,943E+01
1990	2,428E+03	1,944E+06	1,306E+02	6,484E+02	9,720E+05	6,531E+01
1991	5,591E+03	4,477E+06	3,008E+02	1,494E+03	2,239E+06	1,504E+02
1992	9,545E+03	7,643E+06	5,135E+02	2,550E+03	3,822E+06	2,568E+02
1993	1,550E+04	1,241E+07	8,341E+02	4,141E+03	6,207E+06	4,171E+02
1994	2,254E+04	1,805E+07	1,213E+03	6,020E+03	9,024E+06	6,063E+02
1995	3,017E+04	2,416E+07	1,623E+03	8,060E+03	1,208E+07	8,117E+02
1996	3,694E+04	2,958E+07	1,987E+03	9,867E+03	1,479E+07	9,937E+02
1997	3,549E+04	2,842E+07	1,909E+03	9,480E+03	1,421E+07	9,547E+02
1998	3,410E+04	2,730E+07	1,835E+03	9,108E+03	1,365E+07	9,173E+02
1999	3,276E+04	2,623E+07	1,763E+03	8,751E+03	1,312E+07	8,813E+02
2000	3,148E+04	2,521E+07	1,694E+03	8,408E+03	1,260E+07	8,468E+02
2001	3,024E+04	2,422E+07	1,627E+03	8,078E+03	1,211E+07	8,136E+02
2002	2,906E+04	2,327E+07	1,563E+03	7,761E+03	1,163E+07	7,817E+02
2003	2,792E+04	2,236E+07	1,502E+03	7,457E+03	1,118E+07	7,510E+02
2004	2,682E+04	2,148E+07	1,443E+03	7,165E+03	1,074E+07	7,216E+02
2005	2,577E+04	2,064E+07	1,387E+03	6,884E+03	1,032E+07	6,933E+02
2006	2,476E+04	1,983E+07	1,332E+03	6,614E+03	9,914E+06	6,661E+02
2007	2,379E+04	1,905E+07	1,280E+03	6,355E+03	9,525E+06	6,400E+02
2008	2,286E+04	1,830E+07	1,230E+03	6,105E+03	9,151E+06	6,149E+02
2009	2,196E+04	1,759E+07	1,182E+03	5,866E+03	8,793E+06	5,908E+02
2010	2,110E+04	1,690E+07	1,135E+03	5,636E+03	8,448E+06	5,676E+02
2011	2,027E+04	1,623E+07	1,091E+03	5,415E+03	8,117E+06	5,454E+02
2012	1,948E+04	1,560E+07	1,048E+03	5,203E+03	7,798E+06	5,240E+02
2013	1,871E+04	1,499E+07	1,007E+03	4,999E+03	7,493E+06	5,034E+02
2014	1,798E+04	1,440E+07	9,674E+02	4,803E+03	7,199E+06	4,837E+02
2015	1,728E+04	1,383E+07	9,294E+02	4,614E+03	6,917E+06	4,647E+02
2016	1,660E+04	1,329E+07	8,930E+02	4,433E+03	6,645E+06	4,465E+02
2017	1,595E+04	1,277E+07	8,580E+02	4,260E+03	6,385E+06	4,290E+02
2018	1,532E+04	1,227E+07	8,243E+02	4,093E+03	6,134E+06	4,122E+02
2019	1,472E+04	1,179E+07	7,920E+02	3,932E+03	5,894E+06	3,960E+02
2020	1,414E+04	1,133E+07	7,610E+02	3,778E+03	5,663E+06	3,805E+02
2021	1,359E+04	1,088E+07	7,311E+02	3,630E+03	5,441E+06	3,656E+02
2022	1,306E+04	1,045E+07	7,025E+02	3,487E+03	5,227E+06	3,512E+02
2023	1,254E+04	1,004E+07	6,749E+02	3,351E+03	5,022E+06	3,375E+02
2024	1,205E+04	9,651E+06	6,485E+02	3,219E+03	4,826E+06	3,242E+02
2025	1,158E+04	9,273E+06	6,230E+02	3,093E+03	4,636E+06	3,115E+02
2026	1,113E+04	8,909E+06	5,986E+02	2,972E+03	4,455E+06	2,993E+02
2027	1,069E+04	8,560E+06	5,751E+02	2,855E+03	4,280E+06	2,876E+02
2028	1,027E+04	8,224E+06	5,526E+02	2,743E+03	4,112E+06	2,763E+02
2029	9,868E+03	7,902E+06	5,309E+02	2,636E+03	3,951E+06	2,655E+02
2030	9,481E+03	7,592E+06	5,101E+02	2,532E+03	3,796E+06	2,550E+02
2031	9,109E+03	7,294E+06	4,901E+02	2,433E+03	3,647E+06	2,450E+02
2032	8,752E+03	7,008E+06	4,709E+02	2,338E+03	3,504E+06	2,354E+02
2033	8,409E+03	6,733E+06	4,524E+02	2,246E+03	3,367E+06	2,262E+02

Results (Continued)

Year	Total landfill gas			Methane		
	(Mg/year)	(m^3/year)	(av ft^3/min)	(Mg/year)	(m^3/year)	(av ft^3/min)
2034	8,079E+03	6,469E+06	4,347E+02	2,158E+03	3,235E+06	2,173E+02
2035	7,762E+03	6,216E+06	4,176E+02	2,073E+03	3,108E+06	2,088E+02
2036	7,458E+03	5,972E+06	4,013E+02	1,992E+03	2,986E+06	2,006E+02
2037	7,165E+03	5,738E+06	3,855E+02	1,914E+03	2,869E+06	1,928E+02
2038	6,884E+03	5,513E+06	3,704E+02	1,839E+03	2,756E+06	1,852E+02
2039	6,615E+03	5,297E+06	3,559E+02	1,767E+03	2,648E+06	1,779E+02
2040	6,355E+03	5,089E+06	3,419E+02	1,698E+03	2,544E+06	1,710E+02
2041	6,106E+03	4,889E+06	3,285E+02	1,631E+03	2,445E+06	1,643E+02
2042	5,867E+03	4,698E+06	3,156E+02	1,567E+03	2,349E+06	1,578E+02
2043	5,637E+03	4,513E+06	3,033E+02	1,506E+03	2,257E+06	1,516E+02
2044	5,416E+03	4,336E+06	2,914E+02	1,447E+03	2,168E+06	1,457E+02
2045	5,203E+03	4,166E+06	2,799E+02	1,390E+03	2,083E+06	1,400E+02
2046	4,999E+03	4,003E+06	2,690E+02	1,335E+03	2,002E+06	1,345E+02
2047	4,803E+03	3,846E+06	2,584E+02	1,283E+03	1,923E+06	1,292E+02
2048	4,615E+03	3,695E+06	2,483E+02	1,233E+03	1,848E+06	1,241E+02
2049	4,434E+03	3,550E+06	2,386E+02	1,184E+03	1,775E+06	1,193E+02
2050	4,260E+03	3,411E+06	2,292E+02	1,138E+03	1,706E+06	1,146E+02
2051	4,093E+03	3,277E+06	2,202E+02	1,093E+03	1,639E+06	1,101E+02
2052	3,932E+03	3,149E+06	2,116E+02	1,050E+03	1,574E+06	1,058E+02
2053	3,778E+03	3,025E+06	2,033E+02	1,009E+03	1,513E+06	1,016E+02
2054	3,630E+03	2,907E+06	1,953E+02	9,696E+02	1,453E+06	9,765E+01
2055	3,488E+03	2,793E+06	1,877E+02	9,316E+02	1,396E+06	9,383E+01
2056	3,351E+03	2,683E+06	1,803E+02	8,951E+02	1,342E+06	9,015E+01
2057	3,220E+03	2,578E+06	1,732E+02	8,600E+02	1,289E+06	8,661E+01
2058	3,093E+03	2,477E+06	1,664E+02	8,263E+02	1,239E+06	8,322E+01
2059	2,972E+03	2,380E+06	1,599E+02	7,939E+02	1,190E+06	7,995E+01
2060	2,856E+03	2,287E+06	1,536E+02	7,627E+02	1,143E+06	7,682E+01
2061	2,744E+03	2,197E+06	1,476E+02	7,328E+02	1,098E+06	7,381E+01
2062	2,636E+03	2,111E+06	1,418E+02	7,041E+02	1,055E+06	7,091E+01
2063	2,533E+03	2,028E+06	1,363E+02	6,765E+02	1,014E+06	6,813E+01
2064	2,433E+03	1,949E+06	1,309E+02	6,500E+02	9,743E+05	6,546E+01
2065	2,338E+03	1,872E+06	1,258E+02	6,245E+02	9,361E+05	6,289E+01
2066	2,246E+03	1,799E+06	1,209E+02	6,000E+02	8,994E+05	6,043E+01
2067	2,158E+03	1,728E+06	1,161E+02	5,765E+02	8,641E+05	5,806E+01
2068	2,074E+03	1,660E+06	1,116E+02	5,539E+02	8,302E+05	5,578E+01
2069	1,992E+03	1,595E+06	1,072E+02	5,322E+02	7,977E+05	5,359E+01
2070	1,914E+03	1,533E+06	1,030E+02	5,113E+02	7,664E+05	5,149E+01
2071	1,839E+03	1,473E+06	9,895E+01	4,912E+02	7,363E+05	4,947E+01
2072	1,767E+03	1,415E+06	9,507E+01	4,720E+02	7,075E+05	4,753E+01
2073	1,698E+03	1,359E+06	9,134E+01	4,535E+02	6,797E+05	4,567E+01
2074	1,631E+03	1,306E+06	8,776E+01	4,357E+02	6,531E+05	4,388E+01
2075	1,567E+03	1,255E+06	8,432E+01	4,186E+02	6,275E+05	4,216E+01
2076	1,506E+03	1,206E+06	8,101E+01	4,022E+02	6,029E+05	4,051E+01
2077	1,447E+03	1,158E+06	7,783E+01	3,864E+02	5,792E+05	3,892E+01
2078	1,390E+03	1,113E+06	7,478E+01	3,713E+02	5,565E+05	3,739E+01
2079	1,335E+03	1,069E+06	7,185E+01	3,567E+02	5,347E+05	3,593E+01
2080	1,283E+03	1,027E+06	6,903E+01	3,427E+02	5,137E+05	3,452E+01
2081	1,233E+03	9,871E+05	6,633E+01	3,293E+02	4,936E+05	3,316E+01
2082	1,184E+03	9,484E+05	6,373E+01	3,164E+02	4,742E+05	3,186E+01
2083	1,138E+03	9,113E+05	6,123E+01	3,040E+02	4,556E+05	3,061E+01
2084	1,093E+03	8,755E+05	5,883E+01	2,921E+02	4,378E+05	2,941E+01

Results (Continued)

Year	Total landfill gas			Methane		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2085	1,051E+03	8,412E+05	5,652E+01	2,806E+02	4,206E+05	2,826E+01
2086	1,009E+03	8,082E+05	5,430E+01	2,696E+02	4,041E+05	2,715E+01
2087	9,697E+02	7,765E+05	5,217E+01	2,590E+02	3,883E+05	2,609E+01
2088	9,317E+02	7,461E+05	5,013E+01	2,489E+02	3,730E+05	2,506E+01
2089	8,952E+02	7,168E+05	4,816E+01	2,391E+02	3,584E+05	2,408E+01
2090	8,601E+02	6,887E+05	4,627E+01	2,297E+02	3,444E+05	2,314E+01
2091	8,264E+02	6,617E+05	4,446E+01	2,207E+02	3,309E+05	2,223E+01
2092	7,940E+02	6,358E+05	4,272E+01	2,121E+02	3,179E+05	2,136E+01
2093	7,628E+02	6,108E+05	4,104E+01	2,038E+02	3,054E+05	2,052E+01
2094	7,329E+02	5,869E+05	3,943E+01	1,958E+02	2,934E+05	1,972E+01
2095	7,042E+02	5,639E+05	3,789E+01	1,881E+02	2,819E+05	1,894E+01
2096	6,766E+02	5,418E+05	3,640E+01	1,807E+02	2,709E+05	1,820E+01
2097	6,500E+02	5,205E+05	3,497E+01	1,736E+02	2,603E+05	1,749E+01
2098	6,245E+02	5,001E+05	3,360E+01	1,668E+02	2,501E+05	1,680E+01
2099	6,001E+02	4,805E+05	3,228E+01	1,603E+02	2,402E+05	1,614E+01
2100	5,765E+02	4,617E+05	3,102E+01	1,540E+02	2,308E+05	1,551E+01
2101	5,539E+02	4,436E+05	2,980E+01	1,480E+02	2,218E+05	1,490E+01
2102	5,322E+02	4,262E+05	2,863E+01	1,422E+02	2,131E+05	1,432E+01
2103	5,113E+02	4,095E+05	2,751E+01	1,366E+02	2,047E+05	1,376E+01
2104	4,913E+02	3,934E+05	2,643E+01	1,312E+02	1,967E+05	1,322E+01
2105	4,720E+02	3,780E+05	2,540E+01	1,261E+02	1,890E+05	1,270E+01
2106	4,535E+02	3,632E+05	2,440E+01	1,211E+02	1,816E+05	1,220E+01
2107	4,357E+02	3,489E+05	2,344E+01	1,164E+02	1,745E+05	1,172E+01
2108	4,186E+02	3,352E+05	2,252E+01	1,118E+02	1,676E+05	1,126E+01
2109	4,022E+02	3,221E+05	2,164E+01	1,074E+02	1,610E+05	1,082E+01
2110	3,865E+02	3,095E+05	2,079E+01	1,032E+02	1,547E+05	1,040E+01
2111	3,713E+02	2,973E+05	1,998E+01	9,918E+01	1,487E+05	9,989E+00
2112	3,567E+02	2,857E+05	1,919E+01	9,529E+01	1,428E+05	9,597E+00
2113	3,428E+02	2,745E+05	1,844E+01	9,155E+01	1,372E+05	9,221E+00
2114	3,293E+02	2,637E+05	1,772E+01	8,796E+01	1,319E+05	8,859E+00
2115	3,164E+02	2,534E+05	1,702E+01	8,452E+01	1,267E+05	8,512E+00
2116	3,040E+02	2,434E+05	1,636E+01	8,120E+01	1,217E+05	8,178E+00
2117	2,921E+02	2,339E+05	1,571E+01	7,802E+01	1,169E+05	7,857E+00
2118	2,806E+02	2,247E+05	1,510E+01	7,496E+01	1,124E+05	7,549E+00
2119	2,696E+02	2,159E+05	1,451E+01	7,202E+01	1,080E+05	7,253E+00
2120	2,591E+02	2,074E+05	1,394E+01	6,920E+01	1,037E+05	6,969E+00
2121	2,489E+02	1,993E+05	1,339E+01	6,648E+01	9,965E+04	6,696E+00
2122	2,391E+02	1,915E+05	1,287E+01	6,388E+01	9,574E+04	6,433E+00
2123	2,298E+02	1,840E+05	1,236E+01	6,137E+01	9,199E+04	6,181E+00
2124	2,207E+02	1,768E+05	1,188E+01	5,896E+01	8,838E+04	5,938E+00

Results (Continued)

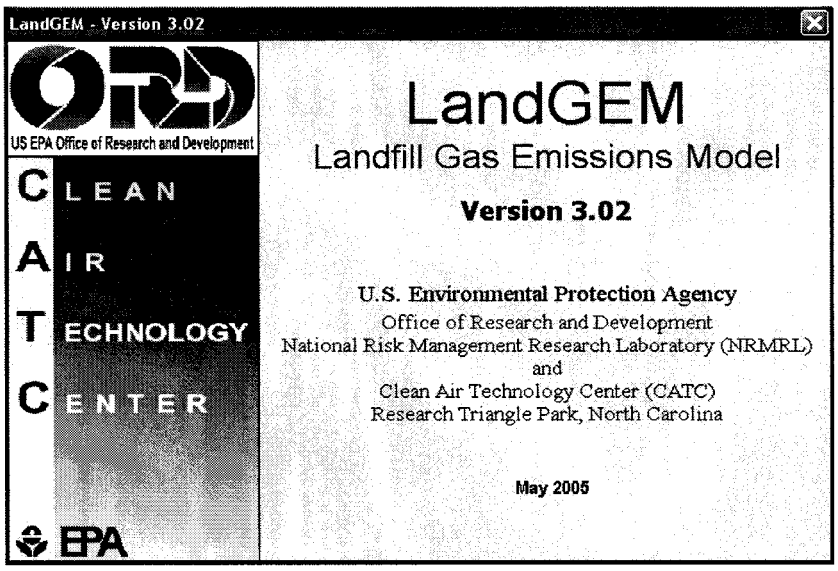
Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
1984	0	0	0	0	0	0
1985	2,913E+02	1,591E+05	1,069E+01	6,844E-01	1,909E+02	1,283E-02
1986	5,711E+02	3,120E+05	2,096E+01	1,342E+00	3,744E+02	2,516E-02
1987	8,400E+02	4,589E+05	3,083E+01	1,974E+00	5,507E+02	3,700E-02
1988	1,098E+03	6,000E+05	4,032E+01	2,581E+00	7,200E+02	4,838E-02
1989	1,347E+03	7,356E+05	4,943E+01	3,164E+00	8,827E+02	5,931E-02
1990	1,779E+03	9,720E+05	6,531E+01	4,181E+00	1,166E+03	7,837E-02
1991	4,098E+03	2,239E+06	1,504E+02	9,629E+00	2,686E+03	1,805E-01
1992	6,995E+03	3,822E+06	2,568E+02	1,644E+01	4,586E+03	3,081E-01
1993	1,136E+04	6,207E+06	4,171E+02	2,670E+01	7,449E+03	5,005E-01
1994	1,652E+04	9,024E+06	6,063E+02	3,882E+01	1,083E+04	7,276E-01
1995	2,211E+04	1,208E+07	8,117E+02	5,196E+01	1,450E+04	9,740E-01
1996	2,707E+04	1,479E+07	9,937E+02	6,361E+01	1,775E+04	1,192E+00
1997	2,601E+04	1,421E+07	9,547E+02	6,112E+01	1,705E+04	1,146E+00
1998	2,499E+04	1,365E+07	9,173E+02	5,872E+01	1,638E+04	1,101E+00
1999	2,401E+04	1,312E+07	8,813E+02	5,642E+01	1,574E+04	1,058E+00
2000	2,307E+04	1,260E+07	8,468E+02	5,421E+01	1,512E+04	1,016E+00
2001	2,216E+04	1,211E+07	8,136E+02	5,208E+01	1,453E+04	9,763E-01
2002	2,130E+04	1,163E+07	7,817E+02	5,004E+01	1,396E+04	9,380E-01
2003	2,046E+04	1,118E+07	7,510E+02	4,808E+01	1,341E+04	9,012E-01
2004	1,966E+04	1,074E+07	7,216E+02	4,619E+01	1,289E+04	8,659E-01
2005	1,889E+04	1,032E+07	6,933E+02	4,438E+01	1,238E+04	8,319E-01
2006	1,815E+04	9,914E+06	6,661E+02	4,264E+01	1,190E+04	7,993E-01
2007	1,744E+04	9,525E+06	6,400E+02	4,097E+01	1,143E+04	7,680E-01
2008	1,675E+04	9,151E+06	6,149E+02	3,936E+01	1,098E+04	7,379E-01
2009	1,609E+04	8,793E+06	5,908E+02	3,782E+01	1,055E+04	7,089E-01
2010	1,546E+04	8,448E+06	5,676E+02	3,634E+01	1,014E+04	6,811E-01
2011	1,486E+04	8,117E+06	5,454E+02	3,491E+01	9,740E+03	6,544E-01
2012	1,427E+04	7,798E+06	5,240E+02	3,354E+01	9,358E+03	6,288E-01
2013	1,372E+04	7,493E+06	5,034E+02	3,223E+01	8,991E+03	6,041E-01
2014	1,318E+04	7,199E+06	4,837E+02	3,096E+01	8,639E+03	5,804E-01
2015	1,266E+04	6,917E+06	4,647E+02	2,975E+01	8,300E+03	5,577E-01
2016	1,216E+04	6,645E+06	4,465E+02	2,858E+01	7,974E+03	5,358E-01
2017	1,169E+04	6,385E+06	4,290E+02	2,746E+01	7,662E+03	5,148E-01
2018	1,123E+04	6,134E+06	4,122E+02	2,639E+01	7,361E+03	4,946E-01
2019	1,079E+04	5,894E+06	3,960E+02	2,535E+01	7,073E+03	4,752E-01
2020	1,037E+04	5,663E+06	3,805E+02	2,436E+01	6,795E+03	4,566E-01
2021	9,959E+03	5,441E+06	3,656E+02	2,340E+01	6,529E+03	4,387E-01
2022	9,569E+03	5,227E+06	3,512E+02	2,249E+01	6,273E+03	4,215E-01
2023	9,194E+03	5,022E+06	3,375E+02	2,160E+01	6,027E+03	4,049E-01
2024	8,833E+03	4,826E+06	3,242E+02	2,076E+01	5,791E+03	3,891E-01
2025	8,487E+03	4,636E+06	3,115E+02	1,994E+01	5,564E+03	3,738E-01
2026	8,154E+03	4,455E+06	2,993E+02	1,916E+01	5,345E+03	3,592E-01
2027	7,834E+03	4,280E+06	2,876E+02	1,841E+01	5,136E+03	3,451E-01
2028	7,527E+03	4,112E+06	2,763E+02	1,769E+01	4,934E+03	3,315E-01
2029	7,232E+03	3,951E+06	2,655E+02	1,699E+01	4,741E+03	3,185E-01
2030	6,948E+03	3,796E+06	2,550E+02	1,633E+01	4,555E+03	3,061E-01
2031	6,676E+03	3,647E+06	2,450E+02	1,569E+01	4,376E+03	2,941E-01
2032	6,414E+03	3,504E+06	2,354E+02	1,507E+01	4,205E+03	2,825E-01
2033	6,163E+03	3,367E+06	2,262E+02	1,448E+01	4,040E+03	2,714E-01

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	(m^3/year)	(av ft^3/min)	(Mg/year)	(m^3/year)	(av ft^3/min)
2034	5,921E+03	3,235E+06	2,173E+02	1,391E+01	3,882E+03	2,608E-01
2035	5,689E+03	3,108E+06	2,088E+02	1,337E+01	3,729E+03	2,506E-01
2036	5,466E+03	2,986E+06	2,006E+02	1,284E+01	3,583E+03	2,408E-01
2037	5,251E+03	2,869E+06	1,928E+02	1,234E+01	3,443E+03	2,313E-01
2038	5,046E+03	2,756E+06	1,852E+02	1,186E+01	3,308E+03	2,222E-01
2039	4,848E+03	2,648E+06	1,779E+02	1,139E+01	3,178E+03	2,135E-01
2040	4,658E+03	2,544E+06	1,710E+02	1,094E+01	3,053E+03	2,052E-01
2041	4,475E+03	2,445E+06	1,643E+02	1,052E+01	2,934E+03	1,971E-01
2042	4,300E+03	2,349E+06	1,578E+02	1,010E+01	2,819E+03	1,894E-01
2043	4,131E+03	2,257E+06	1,516E+02	9,707E+00	2,708E+03	1,820E-01
2044	3,969E+03	2,168E+06	1,457E+02	9,326E+00	2,602E+03	1,748E-01
2045	3,813E+03	2,083E+06	1,400E+02	8,961E+00	2,500E+03	1,680E-01
2046	3,664E+03	2,002E+06	1,345E+02	8,609E+00	2,402E+03	1,614E-01
2047	3,520E+03	1,923E+06	1,292E+02	8,272E+00	2,308E+03	1,551E-01
2048	3,382E+03	1,848E+06	1,241E+02	7,947E+00	2,217E+03	1,490E-01
2049	3,250E+03	1,775E+06	1,193E+02	7,636E+00	2,130E+03	1,431E-01
2050	3,122E+03	1,706E+06	1,146E+02	7,336E+00	2,047E+03	1,375E-01
2051	3,000E+03	1,639E+06	1,101E+02	7,049E+00	1,966E+03	1,321E-01
2052	2,882E+03	1,574E+06	1,058E+02	6,772E+00	1,889E+03	1,269E-01
2053	2,769E+03	1,513E+06	1,016E+02	6,507E+00	1,815E+03	1,220E-01
2054	2,660E+03	1,453E+06	9,765E+01	6,252E+00	1,744E+03	1,172E-01
2055	2,556E+03	1,396E+06	9,383E+01	6,007E+00	1,676E+03	1,126E-01
2056	2,456E+03	1,342E+06	9,015E+01	5,771E+00	1,610E+03	1,082E-01
2057	2,360E+03	1,289E+06	8,661E+01	5,545E+00	1,547E+03	1,039E-01
2058	2,267E+03	1,239E+06	8,322E+01	5,327E+00	1,486E+03	9,986E-02
2059	2,178E+03	1,190E+06	7,995E+01	5,118E+00	1,428E+03	9,594E-02
2060	2,093E+03	1,143E+06	7,682E+01	4,918E+00	1,372E+03	9,218E-02
2061	2,011E+03	1,098E+06	7,381E+01	4,725E+00	1,318E+03	8,857E-02
2062	1,932E+03	1,055E+06	7,091E+01	4,540E+00	1,266E+03	8,509E-02
2063	1,856E+03	1,014E+06	6,813E+01	4,362E+00	1,217E+03	8,176E-02
2064	1,783E+03	9,743E+05	6,546E+01	4,191E+00	1,169E+03	7,855E-02
2065	1,713E+03	9,361E+05	6,289E+01	4,026E+00	1,123E+03	7,547E-02
2066	1,646E+03	8,994E+05	6,043E+01	3,868E+00	1,079E+03	7,251E-02
2067	1,582E+03	8,641E+05	5,806E+01	3,717E+00	1,037E+03	6,967E-02
2068	1,520E+03	8,302E+05	5,578E+01	3,571E+00	9,962E+02	6,694E-02
2069	1,460E+03	7,977E+05	5,359E+01	3,431E+00	9,572E+02	6,431E-02
2070	1,403E+03	7,664E+05	5,149E+01	3,296E+00	9,197E+02	6,179E-02
2071	1,348E+03	7,363E+05	4,947E+01	3,167E+00	8,836E+02	5,937E-02
2072	1,295E+03	7,075E+05	4,753E+01	3,043E+00	8,489E+02	5,704E-02
2073	1,244E+03	6,797E+05	4,567E+01	2,924E+00	8,157E+02	5,480E-02
2074	1,195E+03	6,531E+05	4,388E+01	2,809E+00	7,837E+02	5,266E-02
2075	1,149E+03	6,275E+05	4,216E+01	2,699E+00	7,529E+02	5,059E-02
2076	1,104E+03	6,029E+05	4,051E+01	2,593E+00	7,234E+02	4,861E-02
2077	1,060E+03	5,792E+05	3,892E+01	2,491E+00	6,951E+02	4,670E-02
2078	1,019E+03	5,565E+05	3,739E+01	2,394E+00	6,678E+02	4,487E-02
2079	9,787E+02	5,347E+05	3,593E+01	2,300E+00	6,416E+02	4,311E-02
2080	9,404E+02	5,137E+05	3,452E+01	2,210E+00	6,165E+02	4,142E-02
2081	9,035E+02	4,936E+05	3,316E+01	2,123E+00	5,923E+02	3,980E-02
2082	8,681E+02	4,742E+05	3,186E+01	2,040E+00	5,691E+02	3,824E-02
2083	8,340E+02	4,556E+05	3,061E+01	1,960E+00	5,468E+02	3,674E-02
2084	8,013E+02	4,378E+05	2,941E+01	1,883E+00	5,253E+02	3,530E-02

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2085	7,699E+02	4,206E+05	2,826E+01	1,809E+00	5,047E+02	3,391E-02
2086	7,397E+02	4,041E+05	2,715E+01	1,738E+00	4,849E+02	3,258E-02
2087	7,107E+02	3,883E+05	2,609E+01	1,670E+00	4,659E+02	3,130E-02
2088	6,828E+02	3,730E+05	2,506E+01	1,605E+00	4,476E+02	3,008E-02
2089	6,561E+02	3,584E+05	2,408E+01	1,542E+00	4,301E+02	2,890E-02
2090	6,303E+02	3,444E+05	2,314E+01	1,481E+00	4,132E+02	2,776E-02
2091	6,056E+02	3,309E+05	2,223E+01	1,423E+00	3,970E+02	2,668E-02
2092	5,819E+02	3,179E+05	2,136E+01	1,367E+00	3,815E+02	2,563E-02
2093	5,591E+02	3,054E+05	2,052E+01	1,314E+00	3,665E+02	2,462E-02
2094	5,371E+02	2,934E+05	1,972E+01	1,262E+00	3,521E+02	2,366E-02
2095	5,161E+02	2,819E+05	1,894E+01	1,213E+00	3,383E+02	2,273E-02
2096	4,958E+02	2,709E+05	1,820E+01	1,165E+00	3,251E+02	2,184E-02
2097	4,764E+02	2,603E+05	1,749E+01	1,119E+00	3,123E+02	2,098E-02
2098	4,577E+02	2,501E+05	1,680E+01	1,076E+00	3,001E+02	2,016E-02
2099	4,398E+02	2,402E+05	1,614E+01	1,033E+00	2,883E+02	1,937E-02
2100	4,225E+02	2,308E+05	1,551E+01	9,929E-01	2,770E+02	1,861E-02
2101	4,060E+02	2,218E+05	1,490E+01	9,539E-01	2,661E+02	1,788E-02
2102	3,900E+02	2,131E+05	1,432E+01	9,165E-01	2,557E+02	1,718E-02
2103	3,748E+02	2,047E+05	1,376E+01	8,806E-01	2,457E+02	1,651E-02
2104	3,601E+02	1,967E+05	1,322E+01	8,461E-01	2,360E+02	1,586E-02
2105	3,459E+02	1,890E+05	1,270E+01	8,129E-01	2,268E+02	1,524E-02
2106	3,324E+02	1,816E+05	1,220E+01	7,810E-01	2,179E+02	1,464E-02
2107	3,193E+02	1,745E+05	1,172E+01	7,504E-01	2,093E+02	1,407E-02
2108	3,068E+02	1,676E+05	1,126E+01	7,210E-01	2,011E+02	1,351E-02
2109	2,948E+02	1,610E+05	1,082E+01	6,927E-01	1,933E+02	1,298E-02
2110	2,832E+02	1,547E+05	1,040E+01	6,655E-01	1,857E+02	1,248E-02
2111	2,721E+02	1,487E+05	9,989E+00	6,394E-01	1,784E+02	1,199E-02
2112	2,615E+02	1,428E+05	9,597E+00	6,144E-01	1,714E+02	1,152E-02
2113	2,512E+02	1,372E+05	9,221E+00	5,903E-01	1,647E+02	1,106E-02
2114	2,414E+02	1,319E+05	8,859E+00	5,671E-01	1,582E+02	1,063E-02
2115	2,319E+02	1,267E+05	8,512E+00	5,449E-01	1,520E+02	1,021E-02
2116	2,228E+02	1,217E+05	8,178E+00	5,235E-01	1,461E+02	9,814E-03
2117	2,141E+02	1,169E+05	7,857E+00	5,030E-01	1,403E+02	9,429E-03
2118	2,057E+02	1,124E+05	7,549E+00	4,833E-01	1,348E+02	9,059E-03
2119	1,976E+02	1,080E+05	7,253E+00	4,643E-01	1,295E+02	8,704E-03
2120	1,899E+02	1,037E+05	6,969E+00	4,461E-01	1,245E+02	8,363E-03
2121	1,824E+02	9,965E+04	6,696E+00	4,286E-01	1,196E+02	8,035E-03
2122	1,753E+02	9,574E+04	6,433E+00	4,118E-01	1,149E+02	7,720E-03
2123	1,684E+02	9,199E+04	6,181E+00	3,957E-01	1,104E+02	7,417E-03
2124	1,618E+02	8,838E+04	5,938E+00	3,802E-01	1,061E+02	7,126E-03



Summary Report

Landfill Name or Identifier: St-Nicéphore cellules 1 à 4

Date: 7 octobre 2010

Description/Comments:

About LandGEM:

First-Order Decomposition Rate Equation:

$$Q_{CH_4} = \sum_{i=1}^{n} \sum_{j=0.1}^{1} kL_o \left(\frac{M_i}{10} \right) e^{-kt_{ij}}$$

Where,

Q_{CH_4} = annual methane generation in the year of the calculation ($m^3/year$)
i = 1-year time increment
n = (year of the calculation) - (initial year of waste acceptance)
j = 0.1-year time increment
k = methane generation rate ($year^{-1}$)
L_o = potential methane generation capacity (m^3/Mg)
M_i = mass of waste accepted in the i^{th} year (Mg)
t_{ij} = age of the j^{th} section of waste mass M_i accepted in the i^{th} year (decimal years, e.g., 3.2 years)

LandGEM is based on a first-order decomposition rate equation for quantifying emissions from the decomposition of landfilled waste in municipal solid waste (MSW) landfills. The software provides a relatively simple approach to estimating landfill gas emissions. Model defaults are based on empirical data from U.S. landfills. Field test data can also be used in place of model defaults when available. Further guidance on EPA test methods, Clean Air Act (CAA) regulations, and other guidance regarding landfill gas emissions and control technology requirements can be found at http://www.epa.gov/ttnatw01/landfill/landflpg.html.

LandGEM is considered a screening tool — the better the input data, the better the estimates. Often, there are limitations with the available data regarding waste quantity and composition, variation in design and operating practices over time, and changes occurring over time that impact the emissions potential. Changes to landfill operation, such as operating under wet conditions through leachate recirculation or other liquid additions, will result in generating more gas at a faster rate. Defaults for estimating emissions for this type of operation are being developed to include in LandGEM along with defaults for convential landfills (no leachate or liquid additions) for developing emission inventories and determining CAA applicability. Refer to the Web site identified above for future updates.

Input Review

LANDFILL CHARACTERISTICS

Landfill Open Year	**1996**	
Landfill Closure Year (with 80-year limit)	**2004**	
Actual Closure Year (without limit)	***2004***	
Have Model Calculate Closure Year?	**No**	
Waste Design Capacity	**5 336 651**	*megagrams*

MODEL PARAMETERS

Methane Generation Rate, k	**0,045**	$year^{-1}$
Potential Methane Generation Capacity, L_o	**135**	m^3/Mg
NMOC Concentration	**600**	*ppmv as hexane*
Methane Content	**50**	*% by volume*

GASES / POLLUTANTS SELECTED

Gas / Pollutant #1:	**Total landfill gas**
Gas / Pollutant #2:	**Methane**
Gas / Pollutant #3:	**Carbon dioxide**
Gas / Pollutant #4:	**NMOC**

WASTE ACCEPTANCE RATES

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
1996	721 257	793 383	0	0
1997	800 563	880 619	721 257	793 383
1998	679 296	747 226	1 521 820	1 674 002
1999	683 435	751 779	2 201 116	2 421 228
2000	747 458	822 204	2 884 551	3 173 006
2001	449 582	494 540	3 632 009	3 995 210
2002	647 814	712 595	4 081 591	4 489 750
2003	637 246	700 971	4 729 405	5 202 346
2004	0	0	5 366 651	5 903 316
2005	0	0	5 366 651	5 903 316
2006	0	0	5 366 651	5 903 316
2007	0	0	5 366 651	5 903 316
2008	0	0	5 366 651	5 903 316
2009	0	0	5 366 651	5 903 316
2010	0	0	5 366 651	5 903 316
2011	0	0	5 366 651	5 903 316
2012	0	0	5 366 651	5 903 316
2013	0	0	5 366 651	5 903 316
2014	0	0	5 366 651	5 903 316
2015	0	0	5 366 651	5 903 316
2016	0	0	5 366 651	5 903 316
2017	0	0	5 366 651	5 903 316
2018	0	0	5 366 651	5 903 316
2019	0	0	5 366 651	5 903 316
2020	0	0	5 366 651	5 903 316
2021	0	0	5 366 651	5 903 316
2022	0	0	5 366 651	5 903 316
2023	0	0	5 366 651	5 903 316
2024	0	0	5 366 651	5 903 316
2025	0	0	5 366 651	5 903 316
2026	0	0	5 366 651	5 903 316
2027	0	0	5 366 651	5 903 316
2028	0	0	5 366 651	5 903 316
2029	0	0	5 366 651	5 903 316
2030	0	0	5 366 651	5 903 316
2031	0	0	5 366 651	5 903 316
2032	0	0	5 366 651	5 903 316
2033	0	0	5 366 651	5 903 316
2034	0	0	5 366 651	5 903 316
2035	0	0	5 366 651	5 903 316

WASTE ACCEPTANCE RATES (Continued)

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
2036	0	0	5 366 651	5 903 316
2037	0	0	5 366 651	5 903 316
2038	0	0	5 366 651	5 903 316
2039	0	0	5 366 651	5 903 316
2040	0	0	5 366 651	5 903 316
2041	0	0	5 366 651	5 903 316
2042	0	0	5 366 651	5 903 316
2043	0	0	5 366 651	5 903 316
2044	0	0	5 366 651	5 903 316
2045	0	0	5 366 651	5 903 316
2046	0	0	5 366 651	5 903 316
2047	0	0	5 366 651	5 903 316
2048	0	0	5 366 651	5 903 316
2049	0	0	5 366 651	5 903 316
2050	0	0	5 366 651	5 903 316
2051	0	0	5 366 651	5 903 316
2052	0	0	5 366 651	5 903 316
2053	0	0	5 366 651	5 903 316
2054	0	0	5 366 651	5 903 316
2055	0	0	5 366 651	5 903 316
2056	0	0	5 366 651	5 903 316
2057	0	0	5 366 651	5 903 316
2058	0	0	5 366 651	5 903 316
2059	0	0	5 366 651	5 903 316
2060	0	0	5 366 651	5 903 316
2061	0	0	5 366 651	5 903 316
2062	0	0	5 366 651	5 903 316
2063	0	0	5 366 651	5 903 316
2064	0	0	5 366 651	5 903 316
2065	0	0	5 366 651	5 903 316
2066	0	0	5 366 651	5 903 316
2067	0	0	5 366 651	5 903 316
2068	0	0	5 366 651	5 903 316
2069	0	0	5 366 651	5 903 316
2070	0	0	5 366 651	5 903 316
2071	0	0	5 366 651	5 903 316
2072	0	0	5 366 651	5 903 316
2073	0	0	5 366 651	5 903 316
2074	0	0	5 366 651	5 903 316
2075	0	0	5 366 651	5 903 316

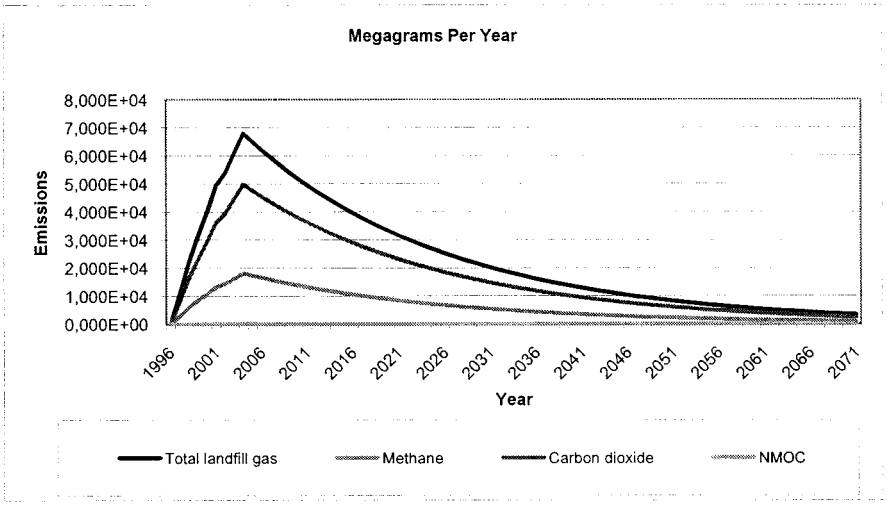
Pollutant Parameters

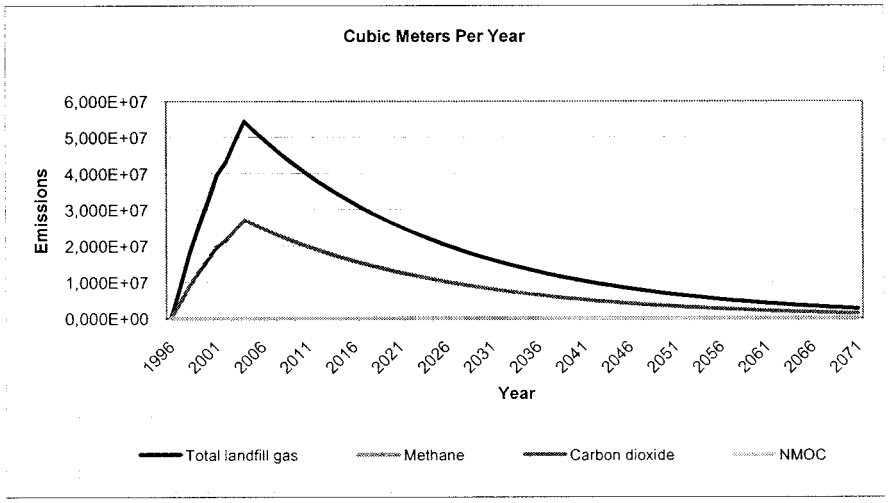
		Gas / Pollutant Default Parameters:		*User-specified Pollutant Parameters:*	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Gases	Total landfill gas		0,00		
	Methane		16,04		
	Carbon dioxide		44,01		
	NMOC	4 000	86,18		
Pollutants	1,1,1-Trichloroethane (methyl chloroform) - HAP	0,48	133,41		
	1,1,2,2-Tetrachloroethane - HAP/VOC	1,1	167,85		
	1,1-Dichloroethane (ethylidene dichloride) - HAP/VOC	2,4	98,97		
	1,1-Dichloroethene (vinylidene chloride) - HAP/VOC	0,20	96,94		
	1,2-Dichloroethane (ethylene dichloride) - HAP/VOC	0,41	98,96		
	1,2-Dichloropropane (propylene dichloride) - HAP/VOC	0,18	112,99		
	2-Propanol (isopropyl alcohol) - VOC	50	60,11		
	Acetone	7,0	58,08		
	Acrylonitrile - HAP/VOC	6,3	53,06		
	Benzene - No or Unknown Co-disposal - HAP/VOC	1,9	78,11		
	Benzene - Co-disposal - HAP/VOC	11	78,11		
	Bromodichloromethane - VOC	3,1	163,83		
	Butane - VOC	5,0	58,12		
	Carbon disulfide - HAP/VOC	0,58	76,13		
	Carbon monoxide	140	28,01		
	Carbon tetrachloride - HAP/VOC	4,0E-03	153,84		
	Carbonyl sulfide - HAP/VOC	0,49	60,07		
	Chlorobenzene - HAP/VOC	0,25	112,56		
	Chlorodifluoromethane	1,3	86,47		
	Chloroethane (ethyl chloride) - HAP/VOC	1,3	64,52		
	Chloroform - HAP/VOC	0,03	119,39		
	Chloromethane - VOC	1,2	50,49		
	Dichlorobenzene - (HAP for para isomer/VOC)	0,21	147		
	Dichlorodifluoromethane	16	120,91		
	Dichlorofluoromethane - VOC	2,6	102,92		
	Dichloromethane (methylene chloride) - HAP	14	84,94		
	Dimethyl sulfide (methyl sulfide) - VOC	7,8	62,13		
	Ethane	890	30,07		
	Ethanol - VOC	27	46,08		

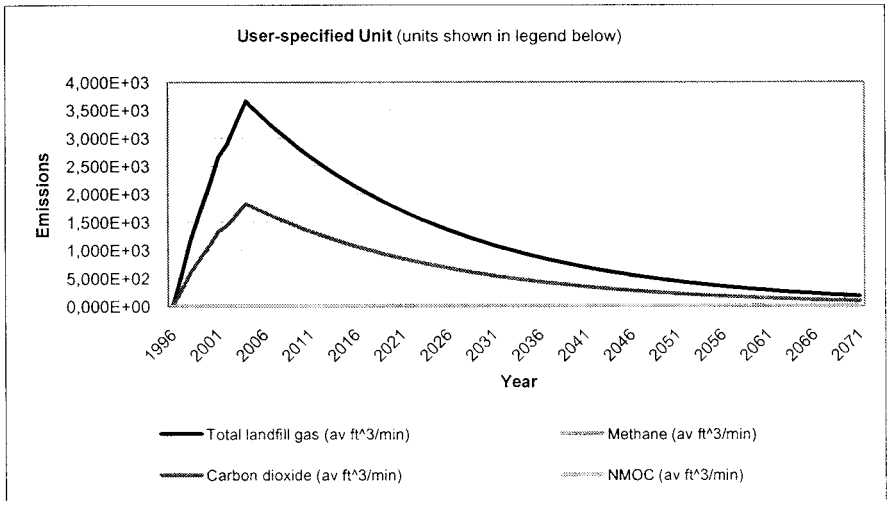
Pollutant Parameters (Continued)

		Gas / Pollutant Default Parameters:		*User-specified Pollutant Parameters:*	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Pollutants	Ethyl mercaptan (ethanethiol) - VOC	2,3	62,13		
	Ethylbenzene - HAP/VOC	4,6	106,16		
	Ethylene dibromide - HAP/VOC	1,0E-03	187,88		
	Fluorotrichloromethane - VOC	0,76	137,38		
	Hexane - HAP/VOC	6,6	86,18		
	Hydrogen sulfide	36	34,08		
	Mercury (total) - HAP	2,9E-04	200,61		
	Methyl ethyl ketone - HAP/VOC	7,1	72,11		
	Methyl isobutyl ketone - HAP/VOC	1,9	100,16		
	Methyl mercaptan - VOC	2,5	48,11		
	Pentane - VOC	3,3	72,15		
	Perchloroethylene (tetrachloroethylene) - HAP	3,7	165,83		
	Propane - VOC	11	44,09		
	t-1,2-Dichloroethene - VOC	2,8	96,94		
	Toluene - No or Unknown Co-disposal - HAP/VOC	39	92,13		
	Toluene - Co-disposal - HAP/VOC	170	92,13		
	Trichloroethylene (trichloroethene) - HAP/VOC	2,8	131,40		
	Vinyl chloride - HAP/VOC	7,3	62,50		
	Xylenes - HAP/VOC	12	106,16		

Graphs


Megagrams Per Year
Emissions
8,000E+04
7,000E+04
6,000E+04
5,000E+04
4,000E+04
3,000E+04
2,000E+04
1,000E+04
0,000E+00
1996 2001 2006 2011 2016 2021 2026 2031 2036 2041 2046 2051 2056 2061 2066 2071
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


Cubic Meters Per Year
Emissions
6,000E+07
5,000E+07
4,000E+07
3,000E+07
2,000E+07
1,000E+07
0,000E+00
1996 2001 2006 2011 2016 2021 2026 2031 2036 2041 2046 2051 2056 2061 2066 2071
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


User-specified Unit (units shown in legend below)
Emissions
4,000E+03
3,500E+03
3,000E+03
2,500E+03
2,000E+03
1,500E+03
1,000E+03
5,000E+02
0,000E+00
1996 2001 2006 2011 2016 2021 2026 2031 2036 2041 2046 2051 2056 2061 2066 2071
Year
Total landfill gas (av ft^3/min)
Methane (av ft^3/min)
Carbon dioxide (av ft^3/min)
NMOC (av ft^3/min)

Results

Year	Total landfill gas			Methane		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
1996	0	0	0	0	0	0
1997	1,073E+04	8,588E+06	5,770E+02	2,865E+03	4,294E+06	2,885E+02
1998	2,216E+04	1,774E+07	1,192E+03	5,919E+03	8,872E+06	5,961E+02
1999	3,128E+04	2,505E+07	1,683E+03	8,356E+03	1,253E+07	8,416E+02
2000	4,007E+04	3,209E+07	2,156E+03	1,070E+04	1,604E+07	1,078E+03
2001	4,942E+04	3,958E+07	2,659E+03	1,320E+04	1,979E+07	1,330E+03
2002	5,393E+04	4,319E+07	2,902E+03	1,441E+04	2,159E+07	1,451E+03
2003	6,119E+04	4,900E+07	3,292E+03	1,635E+04	2,450E+07	1,646E+03
2004	6,798E+04	5,443E+07	3,657E+03	1,816E+04	2,722E+07	1,829E+03
2005	6,499E+04	5,204E+07	3,496E+03	1,736E+04	2,602E+07	1,748E+03
2006	6,213E+04	4,975E+07	3,343E+03	1,659E+04	2,487E+07	1,671E+03
2007	5,939E+04	4,756E+07	3,195E+03	1,586E+04	2,378E+07	1,598E+03
2008	5,678E+04	4,547E+07	3,055E+03	1,517E+04	2,273E+07	1,527E+03
2009	5,428E+04	4,347E+07	2,920E+03	1,450E+04	2,173E+07	1,460E+03
2010	5,189E+04	4,155E+07	2,792E+03	1,386E+04	2,078E+07	1,396E+03
2011	4,961E+04	3,972E+07	2,669E+03	1,325E+04	1,986E+07	1,335E+03
2012	4,743E+04	3,798E+07	2,552E+03	1,267E+04	1,899E+07	1,276E+03
2013	4,534E+04	3,631E+07	2,439E+03	1,211E+04	1,815E+07	1,220E+03
2014	4,334E+04	3,471E+07	2,332E+03	1,158E+04	1,735E+07	1,166E+03
2015	4,144E+04	3,318E+07	2,229E+03	1,107E+04	1,659E+07	1,115E+03
2016	3,961E+04	3,172E+07	2,131E+03	1,058E+04	1,586E+07	1,066E+03
2017	3,787E+04	3,032E+07	2,038E+03	1,012E+04	1,516E+07	1,019E+03
2018	3,620E+04	2,899E+07	1,948E+03	9,670E+03	1,450E+07	9,739E+02
2019	3,461E+04	2,771E+07	1,862E+03	9,245E+03	1,386E+07	9,311E+02
2020	3,309E+04	2,650E+07	1,780E+03	8,838E+03	1,325E+07	8,901E+02
2021	3,163E+04	2,533E+07	1,702E+03	8,449E+03	1,266E+07	8,509E+02
2022	3,024E+04	2,421E+07	1,627E+03	8,077E+03	1,211E+07	8,135E+02
2023	2,891E+04	2,315E+07	1,555E+03	7,722E+03	1,157E+07	7,777E+02
2024	2,764E+04	2,213E+07	1,487E+03	7,382E+03	1,107E+07	7,435E+02
2025	2,642E+04	2,116E+07	1,422E+03	7,057E+03	1,058E+07	7,108E+02
2026	2,526E+04	2,023E+07	1,359E+03	6,747E+03	1,011E+07	6,795E+02
2027	2,415E+04	1,934E+07	1,299E+03	6,450E+03	9,668E+06	6,496E+02
2028	2,308E+04	1,848E+07	1,242E+03	6,166E+03	9,242E+06	6,210E+02
2029	2,207E+04	1,767E+07	1,187E+03	5,895E+03	8,836E+06	5,937E+02
2030	2,110E+04	1,689E+07	1,135E+03	5,635E+03	8,447E+06	5,676E+02
2031	2,017E+04	1,615E+07	1,085E+03	5,387E+03	8,075E+06	5,426E+02
2032	1,928E+04	1,544E+07	1,037E+03	5,150E+03	7,720E+06	5,187E+02
2033	1,843E+04	1,476E+07	9,918E+02	4,924E+03	7,380E+06	4,959E+02
2034	1,762E+04	1,411E+07	9,481E+02	4,707E+03	7,056E+06	4,741E+02
2035	1,685E+04	1,349E+07	9,064E+02	4,500E+03	6,745E+06	4,532E+02
2036	1,611E+04	1,290E+07	8,665E+02	4,302E+03	6,448E+06	4,333E+02
2037	1,540E+04	1,233E+07	8,284E+02	4,113E+03	6,165E+06	4,142E+02
2038	1,472E+04	1,179E+07	7,919E+02	3,932E+03	5,893E+06	3,960E+02
2039	1,407E+04	1,127E+07	7,571E+02	3,759E+03	5,634E+06	3,785E+02
2040	1,345E+04	1,077E+07	7,238E+02	3,593E+03	5,386E+06	3,619E+02
2041	1,286E+04	1,030E+07	6,919E+02	3,435E+03	5,149E+06	3,460E+02
2042	1,229E+04	9,845E+06	6,615E+02	3,284E+03	4,922E+06	3,307E+02
2043	1,175E+04	9,412E+06	6,324E+02	3,140E+03	4,706E+06	3,162E+02
2044	1,124E+04	8,998E+06	6,045E+02	3,001E+03	4,499E+06	3,023E+02
2045	1,074E+04	8,602E+06	5,779E+02	2,869E+03	4,301E+06	2,890E+02

Results (Continued)

Year	Total landfill gas			Methane		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2046	1,027E+04	8,223E+06	5,525E+02	2,743E+03	4,112E+06	2,763E+02
2047	9,817E+03	7,861E+06	5,282E+02	2,622E+03	3,931E+06	2,641E+02
2048	9,385E+03	7,515E+06	5,050E+02	2,507E+03	3,758E+06	2,525E+02
2049	8,972E+03	7,185E+06	4,827E+02	2,397E+03	3,592E+06	2,414E+02
2050	8,578E+03	6,869E+06	4,615E+02	2,291E+03	3,434E+06	2,307E+02
2051	8,200E+03	6,566E+06	4,412E+02	2,190E+03	3,283E+06	2,206E+02
2052	7,839E+03	6,277E+06	4,218E+02	2,094E+03	3,139E+06	2,109E+02
2053	7,494E+03	6,001E+06	4,032E+02	2,002E+03	3,001E+06	2,016E+02
2054	7,165E+03	5,737E+06	3,855E+02	1,914E+03	2,869E+06	1,927E+02
2055	6,849E+03	5,485E+06	3,685E+02	1,830E+03	2,742E+06	1,843E+02
2056	6,548E+03	5,243E+06	3,523E+02	1,749E+03	2,622E+06	1,761E+02
2057	6,260E+03	5,013E+06	3,368E+02	1,672E+03	2,506E+06	1,684E+02
2058	5,984E+03	4,792E+06	3,220E+02	1,599E+03	2,396E+06	1,610E+02
2059	5,721E+03	4,581E+06	3,078E+02	1,528E+03	2,291E+06	1,539E+02
2060	5,469E+03	4,380E+06	2,943E+02	1,461E+03	2,190E+06	1,471E+02
2061	5,229E+03	4,187E+06	2,813E+02	1,397E+03	2,093E+06	1,407E+02
2062	4,999E+03	4,003E+06	2,689E+02	1,335E+03	2,001E+06	1,345E+02
2063	4,779E+03	3,827E+06	2,571E+02	1,276E+03	1,913E+06	1,286E+02
2064	4,568E+03	3,658E+06	2,458E+02	1,220E+03	1,829E+06	1,229E+02
2065	4,367E+03	3,497E+06	2,350E+02	1,167E+03	1,749E+06	1,175E+02
2066	4,175E+03	3,343E+06	2,246E+02	1,115E+03	1,672E+06	1,123E+02
2067	3,991E+03	3,196E+06	2,148E+02	1,066E+03	1,598E+06	1,074E+02
2068	3,816E+03	3,056E+06	2,053E+02	1,019E+03	1,528E+06	1,027E+02
2069	3,648E+03	2,921E+06	1,963E+02	9,744E+02	1,461E+06	9,813E+01
2070	3,487E+03	2,793E+06	1,876E+02	9,315E+02	1,396E+06	9,382E+01
2071	3,334E+03	2,670E+06	1,794E+02	8,905E+02	1,335E+06	8,969E+01
2072	3,187E+03	2,552E+06	1,715E+02	8,513E+02	1,276E+06	8,574E+01
2073	3,047E+03	2,440E+06	1,639E+02	8,139E+02	1,220E+06	8,197E+01
2074	2,913E+03	2,333E+06	1,567E+02	7,781E+02	1,166E+06	7,836E+01
2075	2,785E+03	2,230E+06	1,498E+02	7,438E+02	1,115E+06	7,491E+01
2076	2,662E+03	2,132E+06	1,432E+02	7,111E+02	1,066E+06	7,162E+01
2077	2,545E+03	2,038E+06	1,369E+02	6,798E+02	1,019E+06	6,847E+01
2078	2,433E+03	1,948E+06	1,309E+02	6,499E+02	9,742E+05	6,545E+01
2079	2,326E+03	1,863E+06	1,251E+02	6,213E+02	9,313E+05	6,257E+01
2080	2,224E+03	1,781E+06	1,196E+02	5,940E+02	8,903E+05	5,982E+01
2081	2,126E+03	1,702E+06	1,144E+02	5,678E+02	8,511E+05	5,719E+01
2082	2,032E+03	1,627E+06	1,093E+02	5,428E+02	8,137E+05	5,467E+01
2083	1,943E+03	1,556E+06	1,045E+02	5,190E+02	7,779E+05	5,227E+01
2084	1,857E+03	1,487E+06	9,993E+01	4,961E+02	7,436E+05	4,997E+01
2085	1,776E+03	1,422E+06	9,553E+01	4,743E+02	7,109E+05	4,777E+01
2086	1,698E+03	1,359E+06	9,133E+01	4,534E+02	6,796E+05	4,567E+01
2087	1,623E+03	1,299E+06	8,731E+01	4,335E+02	6,497E+05	4,366E+01
2088	1,551E+03	1,242E+06	8,347E+01	4,144E+02	6,211E+05	4,173E+01
2089	1,483E+03	1,188E+06	7,980E+01	3,962E+02	5,938E+05	3,990E+01
2090	1,418E+03	1,135E+06	7,629E+01	3,787E+02	5,677E+05	3,814E+01
2091	1,355E+03	1,085E+06	7,293E+01	3,621E+02	5,427E+05	3,646E+01
2092	1,296E+03	1,038E+06	6,972E+01	3,461E+02	5,188E+05	3,486E+01
2093	1,239E+03	9,920E+05	6,665E+01	3,309E+02	4,960E+05	3,333E+01
2094	1,184E+03	9,483E+05	6,372E+01	3,163E+02	4,742E+05	3,186E+01
2095	1,132E+03	9,066E+05	6,092E+01	3,024E+02	4,533E+05	3,046E+01
2096	1,082E+03	8,667E+05	5,823E+01	2,891E+02	4,334E+05	2,912E+01

Results (Continued)

Year	Total landfill gas			Methane		
	(Mg/year)	(m^3/year)	(av ft^3/min)	(Mg/year)	(m^3/year)	(av ft^3/min)
2097	1,035E+03	8,286E+05	5,567E+01	2,764E+02	4,143E+05	2,784E+01
2098	9,892E+02	7,921E+05	5,322E+01	2,642E+02	3,961E+05	2,661E+01
2099	9,457E+02	7,573E+05	5,088E+01	2,526E+02	3,786E+05	2,544E+01
2100	9,041E+02	7,239E+05	4,864E+01	2,415E+02	3,620E+05	2,432E+01
2101	8,643E+02	6,921E+05	4,650E+01	2,309E+02	3,460E+05	2,325E+01
2102	8,263E+02	6,616E+05	4,446E+01	2,207E+02	3,308E+05	2,223E+01
2103	7,899E+02	6,325E+05	4,250E+01	2,110E+02	3,163E+05	2,125E+01
2104	7,551E+02	6,047E+05	4,063E+01	2,017E+02	3,023E+05	2,031E+01
2105	7,219E+02	5,781E+05	3,884E+01	1,928E+02	2,890E+05	1,942E+01
2106	6,902E+02	5,526E+05	3,713E+01	1,843E+02	2,763E+05	1,857E+01
2107	6,598E+02	5,283E+05	3,550E+01	1,762E+02	2,642E+05	1,775E+01
2108	6,308E+02	5,051E+05	3,394E+01	1,685E+02	2,525E+05	1,697E+01
2109	6,030E+02	4,829E+05	3,244E+01	1,611E+02	2,414E+05	1,622E+01
2110	5,765E+02	4,616E+05	3,102E+01	1,540E+02	2,308E+05	1,551E+01
2111	5,511E+02	4,413E+05	2,965E+01	1,472E+02	2,206E+05	1,483E+01
2112	5,268E+02	4,219E+05	2,835E+01	1,407E+02	2,109E+05	1,417E+01
2113	5,037E+02	4,033E+05	2,710E+01	1,345E+02	2,017E+05	1,355E+01
2114	4,815E+02	3,856E+05	2,591E+01	1,286E+02	1,928E+05	1,295E+01
2115	4,603E+02	3,686E+05	2,477E+01	1,230E+02	1,843E+05	1,238E+01
2116	4,401E+02	3,524E+05	2,368E+01	1,175E+02	1,762E+05	1,184E+01
2117	4,207E+02	3,369E+05	2,263E+01	1,124E+02	1,684E+05	1,132E+01
2118	4,022E+02	3,221E+05	2,164E+01	1,074E+02	1,610E+05	1,082E+01
2119	3,845E+02	3,079E+05	2,069E+01	1,027E+02	1,539E+05	1,034E+01
2120	3,676E+02	2,943E+05	1,978E+01	9,818E+01	1,472E+05	9,888E+00
2121	3,514E+02	2,814E+05	1,891E+01	9,386E+01	1,407E+05	9,453E+00
2122	3,359E+02	2,690E+05	1,807E+01	8,973E+01	1,345E+05	9,037E+00
2123	3,212E+02	2,572E+05	1,728E+01	8,578E+01	1,286E+05	8,639E+00
2124	3,070E+02	2,458E+05	1,652E+01	8,201E+01	1,229E+05	8,259E+00
2125	2,935E+02	2,350E+05	1,579E+01	7,840E+01	1,175E+05	7,896E+00
2126	2,806E+02	2,247E+05	1,510E+01	7,495E+01	1,123E+05	7,548E+00
2127	2,682E+02	2,148E+05	1,443E+01	7,165E+01	1,074E+05	7,216E+00
2128	2,564E+02	2,053E+05	1,380E+01	6,850E+01	1,027E+05	6,899E+00
2129	2,452E+02	1,963E+05	1,319E+01	6,549E+01	9,816E+04	6,595E+00
2130	2,344E+02	1,877E+05	1,261E+01	6,260E+01	9,384E+04	6,305E+00
2131	2,241E+02	1,794E+05	1,206E+01	5,985E+01	8,971E+04	6,028E+00
2132	2,142E+02	1,715E+05	1,152E+01	5,722E+01	8,576E+04	5,762E+00
2133	2,048E+02	1,640E+05	1,102E+01	5,470E+01	8,199E+04	5,509E+00
2134	1,958E+02	1,568E+05	1,053E+01	5,229E+01	7,838E+04	5,266E+00
2135	1,872E+02	1,499E+05	1,007E+01	4,999E+01	7,493E+04	5,035E+00
2136	1,789E+02	1,433E+05	9,626E+00	4,779E+01	7,163E+04	4,813E+00

Results (Continued)

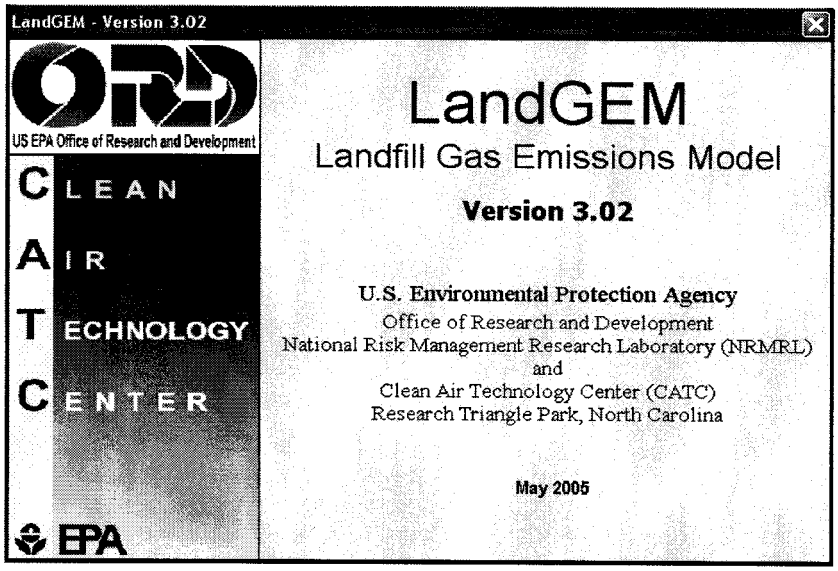
Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
1996	0	0	0	0	0	0
1997	7,860E+03	4,294E+06	2,885E+02	1,847E+01	5,153E+03	3,462E-01
1998	1,624E+04	8,872E+06	5,961E+02	3,816E+01	1,065E+04	7,153E-01
1999	2,293E+04	1,253E+07	8,416E+02	5,388E+01	1,503E+04	1,010E+00
2000	2,937E+04	1,604E+07	1,078E+03	6,901E+01	1,925E+04	1,294E+00
2001	3,622E+04	1,979E+07	1,330E+03	8,511E+01	2,375E+04	1,595E+00
2002	3,953E+04	2,159E+07	1,451E+03	9,288E+01	2,591E+04	1,741E+00
2003	4,485E+04	2,450E+07	1,646E+03	1,054E+02	2,940E+04	1,975E+00
2004	4,982E+04	2,722E+07	1,829E+03	1,171E+02	3,266E+04	2,194E+00
2005	4,763E+04	2,602E+07	1,748E+03	1,119E+02	3,122E+04	2,098E+00
2006	4,553E+04	2,487E+07	1,671E+03	1,070E+02	2,985E+04	2,006E+00
2007	4,353E+04	2,378E+07	1,598E+03	1,023E+02	2,854E+04	1,917E+00
2008	4,161E+04	2,273E+07	1,527E+03	9,778E+01	2,728E+04	1,833E+00
2009	3,978E+04	2,173E+07	1,460E+03	9,348E+01	2,608E+04	1,752E+00
2010	3,803E+04	2,078E+07	1,396E+03	8,937E+01	2,493E+04	1,675E+00
2011	3,636E+04	1,986E+07	1,335E+03	8,543E+01	2,383E+04	1,601E+00
2012	3,476E+04	1,899E+07	1,276E+03	8,167E+01	2,279E+04	1,531E+00
2013	3,323E+04	1,815E+07	1,220E+03	7,808E+01	2,178E+04	1,464E+00
2014	3,177E+04	1,735E+07	1,166E+03	7,464E+01	2,082E+04	1,399E+00
2015	3,037E+04	1,659E+07	1,115E+03	7,136E+01	1,991E+04	1,338E+00
2016	2,903E+04	1,586E+07	1,066E+03	6,822E+01	1,903E+04	1,279E+00
2017	2,775E+04	1,516E+07	1,019E+03	6,522E+01	1,819E+04	1,223E+00
2018	2,653E+04	1,450E+07	9,739E+02	6,235E+01	1,739E+04	1,169E+00
2019	2,537E+04	1,386E+07	9,311E+02	5,961E+01	1,663E+04	1,117E+00
2020	2,425E+04	1,325E+07	8,901E+02	5,698E+01	1,590E+04	1,068E+00
2021	2,318E+04	1,266E+07	8,509E+02	5,447E+01	1,520E+04	1,021E+00
2022	2,216E+04	1,211E+07	8,135E+02	5,208E+01	1,453E+04	9,762E-01
2023	2,119E+04	1,157E+07	7,777E+02	4,979E+01	1,389E+04	9,332E-01
2024	2,025E+04	1,107E+07	7,435E+02	4,760E+01	1,328E+04	8,922E-01
2025	1,936E+04	1,058E+07	7,108E+02	4,550E+01	1,269E+04	8,529E-01
2026	1,851E+04	1,011E+07	6,795E+02	4,350E+01	1,214E+04	8,154E-01
2027	1,770E+04	9,668E+06	6,496E+02	4,159E+01	1,160E+04	7,795E-01
2028	1,692E+04	9,242E+06	6,210E+02	3,976E+01	1,109E+04	7,452E-01
2029	1,617E+04	8,836E+06	5,937E+02	3,801E+01	1,060E+04	7,124E-01
2030	1,546E+04	8,447E+06	5,676E+02	3,633E+01	1,014E+04	6,811E-01
2031	1,478E+04	8,075E+06	5,426E+02	3,473E+01	9,690E+03	6,511E-01
2032	1,413E+04	7,720E+06	5,187E+02	3,321E+01	9,264E+03	6,224E-01
2033	1,351E+04	7,380E+06	4,959E+02	3,175E+01	8,856E+03	5,951E-01
2034	1,292E+04	7,056E+06	4,741E+02	3,035E+01	8,467E+03	5,689E-01
2035	1,235E+04	6,745E+06	4,532E+02	2,901E+01	8,094E+03	5,438E-01
2036	1,180E+04	6,448E+06	4,333E+02	2,774E+01	7,738E+03	5,199E-01
2037	1,128E+04	6,165E+06	4,142E+02	2,652E+01	7,397E+03	4,970E-01
2038	1,079E+04	5,893E+06	3,960E+02	2,535E+01	7,072E+03	4,752E-01
2039	1,031E+04	5,634E+06	3,785E+02	2,423E+01	6,761E+03	4,543E-01
2040	9,859E+03	5,386E+06	3,619E+02	2,317E+01	6,463E+03	4,343E-01
2041	9,425E+03	5,149E+06	3,460E+02	2,215E+01	6,179E+03	4,152E-01
2042	9,011E+03	4,922E+06	3,307E+02	2,117E+01	5,907E+03	3,969E-01
2043	8,614E+03	4,706E+06	3,162E+02	2,024E+01	5,647E+03	3,794E-01
2044	8,235E+03	4,499E+06	3,023E+02	1,935E+01	5,399E+03	3,627E-01
2045	7,873E+03	4,301E+06	2,890E+02	1,850E+01	5,161E+03	3,468E-01

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2046	7,526E+03	4,112E+06	2,763E+02	1,769E+01	4,934E+03	3,315E-01
2047	7,195E+03	3,931E+06	2,641E+02	1,691E+01	4,717E+03	3,169E-01
2048	6,878E+03	3,758E+06	2,525E+02	1,616E+01	4,509E+03	3,030E-01
2049	6,576E+03	3,592E+06	2,414E+02	1,545E+01	4,311E+03	2,896E-01
2050	6,286E+03	3,434E+06	2,307E+02	1,477E+01	4,121E+03	2,769E-01
2051	6,010E+03	3,283E+06	2,206E+02	1,412E+01	3,940E+03	2,647E-01
2052	5,745E+03	3,139E+06	2,109E+02	1,350E+01	3,766E+03	2,531E-01
2053	5,493E+03	3,001E+06	2,016E+02	1,291E+01	3,601E+03	2,419E-01
2054	5,251E+03	2,869E+06	1,927E+02	1,234E+01	3,442E+03	2,313E-01
2055	5,020E+03	2,742E+06	1,843E+02	1,180E+01	3,291E+03	2,211E-01
2056	4,799E+03	2,622E+06	1,761E+02	1,128E+01	3,146E+03	2,114E-01
2057	4,588E+03	2,506E+06	1,684E+02	1,078E+01	3,008E+03	2,021E-01
2058	4,386E+03	2,396E+06	1,610E+02	1,031E+01	2,875E+03	1,932E-01
2059	4,193E+03	2,291E+06	1,539E+02	9,853E+00	2,749E+03	1,847E-01
2060	4,008E+03	2,190E+06	1,471E+02	9,419E+00	2,628E+03	1,766E-01
2061	3,832E+03	2,093E+06	1,407E+02	9,005E+00	2,512E+03	1,688E-01
2062	3,663E+03	2,001E+06	1,345E+02	8,608E+00	2,402E+03	1,614E-01
2063	3,502E+03	1,913E+06	1,286E+02	8,230E+00	2,296E+03	1,543E-01
2064	3,348E+03	1,829E+06	1,229E+02	7,868E+00	2,195E+03	1,475E-01
2065	3,201E+03	1,749E+06	1,175E+02	7,521E+00	2,098E+03	1,410E-01
2066	3,060E+03	1,672E+06	1,123E+02	7,190E+00	2,006E+03	1,348E-01
2067	2,925E+03	1,598E+06	1,074E+02	6,874E+00	1,918E+03	1,289E-01
2068	2,797E+03	1,528E+06	1,027E+02	6,571E+00	1,833E+03	1,232E-01
2069	2,674E+03	1,461E+06	9,813E+01	6,282E+00	1,753E+03	1,178E-01
2070	2,556E+03	1,396E+06	9,382E+01	6,006E+00	1,676E+03	1,126E-01
2071	2,443E+03	1,335E+06	8,969E+01	5,742E+00	1,602E+03	1,076E-01
2072	2,336E+03	1,276E+06	8,574E+01	5,489E+00	1,531E+03	1,029E-01
2073	2,233E+03	1,220E+06	8,197E+01	5,247E+00	1,464E+03	9,836E-02
2074	2,135E+03	1,166E+06	7,836E+01	5,017E+00	1,400E+03	9,403E-02
2075	2,041E+03	1,115E+06	7,491E+01	4,796E+00	1,338E+03	8,990E-02
2076	1,951E+03	1,066E+06	7,162E+01	4,585E+00	1,279E+03	8,594E-02
2077	1,865E+03	1,019E+06	6,847E+01	4,383E+00	1,223E+03	8,216E-02
2078	1,783E+03	9,742E+05	6,545E+01	4,190E+00	1,169E+03	7,854E-02
2079	1,705E+03	9,313E+05	6,257E+01	4,006E+00	1,118E+03	7,509E-02
2080	1,630E+03	8,903E+05	5,982E+01	3,830E+00	1,068E+03	7,178E-02
2081	1,558E+03	8,511E+05	5,719E+01	3,661E+00	1,021E+03	6,862E-02
2082	1,489E+03	8,137E+05	5,467E+01	3,500E+00	9,764E+02	6,561E-02
2083	1,424E+03	7,779E+05	5,227E+01	3,346E+00	9,334E+02	6,272E-02
2084	1,361E+03	7,436E+05	4,997E+01	3,199E+00	8,924E+02	5,996E-02
2085	1,301E+03	7,109E+05	4,777E+01	3,058E+00	8,531E+02	5,732E-02
2086	1,244E+03	6,796E+05	4,567E+01	2,923E+00	8,156E+02	5,480E-02
2087	1,189E+03	6,497E+05	4,366E+01	2,795E+00	7,797E+02	5,239E-02
2088	1,137E+03	6,211E+05	4,173E+01	2,672E+00	7,454E+02	5,008E-02
2089	1,087E+03	5,938E+05	3,990E+01	2,554E+00	7,126E+02	4,788E-02
2090	1,039E+03	5,677E+05	3,814E+01	2,442E+00	6,812E+02	4,577E-02
2091	9,934E+02	5,427E+05	3,646E+01	2,334E+00	6,512E+02	4,376E-02
2092	9,497E+02	5,188E+05	3,486E+01	2,232E+00	6,226E+02	4,183E-02
2093	9,079E+02	4,960E+05	3,333E+01	2,133E+00	5,952E+02	3,999E-02
2094	8,680E+02	4,742E+05	3,186E+01	2,040E+00	5,690E+02	3,823E-02
2095	8,298E+02	4,533E+05	3,046E+01	1,950E+00	5,440E+02	3,655E-02
2096	7,933E+02	4,334E+05	2,912E+01	1,864E+00	5,200E+02	3,494E-02

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2097	7,584E+02	4,143E+05	2,784E+01	1,782E+00	4,971E+02	3,340E-02
2098	7,250E+02	3,961E+05	2,661E+01	1,704E+00	4,753E+02	3,193E-02
2099	6,931E+02	3,786E+05	2,544E+01	1,629E+00	4,544E+02	3,053E-02
2100	6,626E+02	3,620E+05	2,432E+01	1,557E+00	4,344E+02	2,918E-02
2101	6,334E+02	3,460E+05	2,325E+01	1,488E+00	4,153E+02	2,790E-02
2102	6,056E+02	3,308E+05	2,223E+01	1,423E+00	3,970E+02	2,667E-02
2103	5,789E+02	3,163E+05	2,125E+01	1,360E+00	3,795E+02	2,550E-02
2104	5,534E+02	3,023E+05	2,031E+01	1,300E+00	3,628E+02	2,438E-02
2105	5,291E+02	2,890E+05	1,942E+01	1,243E+00	3,468E+02	2,330E-02
2106	5,058E+02	2,763E+05	1,857E+01	1,189E+00	3,316E+02	2,228E-02
2107	4,835E+02	2,642E+05	1,775E+01	1,136E+00	3,170E+02	2,130E-02
2108	4,623E+02	2,525E+05	1,697E+01	1,086E+00	3,030E+02	2,036E-02
2109	4,419E+02	2,414E+05	1,622E+01	1,038E+00	2,897E+02	1,947E-02
2110	4,225E+02	2,308E+05	1,551E+01	9,928E-01	2,770E+02	1,861E-02
2111	4,039E+02	2,206E+05	1,483E+01	9,491E-01	2,648E+02	1,779E-02
2112	3,861E+02	2,109E+05	1,417E+01	9,073E-01	2,531E+02	1,701E-02
2113	3,691E+02	2,017E+05	1,355E+01	8,674E-01	2,420E+02	1,626E-02
2114	3,529E+02	1,928E+05	1,295E+01	8,292E-01	2,313E+02	1,554E-02
2115	3,374E+02	1,843E+05	1,238E+01	7,927E-01	2,212E+02	1,486E-02
2116	3,225E+02	1,762E+05	1,184E+01	7,579E-01	2,114E+02	1,421E-02
2117	3,083E+02	1,684E+05	1,132E+01	7,245E-01	2,021E+02	1,358E-02
2118	2,948E+02	1,610E+05	1,082E+01	6,926E-01	1,932E+02	1,298E-02
2119	2,818E+02	1,539E+05	1,034E+01	6,622E-01	1,847E+02	1,241E-02
2120	2,694E+02	1,472E+05	9,888E+00	6,330E-01	1,766E+02	1,187E-02
2121	2,575E+02	1,407E+05	9,453E+00	6,052E-01	1,688E+02	1,134E-02
2122	2,462E+02	1,345E+05	9,037E+00	5,785E-01	1,614E+02	1,084E-02
2123	2,354E+02	1,286E+05	8,639E+00	5,531E-01	1,543E+02	1,037E-02
2124	2,250E+02	1,229E+05	8,259E+00	5,287E-01	1,475E+02	9,911E-03
2125	2,151E+02	1,175E+05	7,896E+00	5,055E-01	1,410E+02	9,475E-03
2126	2,056E+02	1,123E+05	7,548E+00	4,832E-01	1,348E+02	9,058E-03
2127	1,966E+02	1,074E+05	7,216E+00	4,620E-01	1,289E+02	8,659E-03
2128	1,879E+02	1,027E+05	6,899E+00	4,416E-01	1,232E+02	8,278E-03
2129	1,797E+02	9,816E+04	6,595E+00	4,222E-01	1,178E+02	7,914E-03
2130	1,718E+02	9,384E+04	6,305E+00	4,036E-01	1,126E+02	7,566E-03
2131	1,642E+02	8,971E+04	6,028E+00	3,859E-01	1,077E+02	7,233E-03
2132	1,570E+02	8,576E+04	5,762E+00	3,689E-01	1,029E+02	6,915E-03
2133	1,501E+02	8,199E+04	5,509E+00	3,527E-01	9,838E+01	6,610E-03
2134	1,435E+02	7,838E+04	5,266E+00	3,371E-01	9,406E+01	6,320E-03
2135	1,372E+02	7,493E+04	5,035E+00	3,223E-01	8,992E+01	6,042E-03
2136	1,311E+02	7,163E+04	4,813E+00	3,081E-01	8,596E+01	5,776E-03



Summary Report

Landfill Name or Identifier: St-Nicéphore - cellules 5@8

Date: 7 octobre 2010

Description/Comments:

About LandGEM:

First-Order Decomposition Rate Equation:

$$Q_{CH_4} = \sum_{i=1}^{n} \sum_{j=0.1}^{1} kL_o \left(\frac{M_i}{10} \right) e^{-kt_{ij}}$$

Where,

Q_{CH_4} = annual methane generation in the year of the calculation (m^3/year)
i = 1-year time increment
n = (year of the calculation) - (initial year of waste acceptance)
j = 0.1-year time increment
k = methane generation rate ($year^{-1}$)
L_o = potential methane generation capacity (m^3/Mg)
M_i = mass of waste accepted in the i^{th} year (Mg)
t_{ij} = age of the j^{th} section of waste mass M_i accepted in the i^{th} year (decimal years, e.g., 3.2 years)

LandGEM is based on a first-order decomposition rate equation for quantifying emissions from the decomposition of landfilled waste in municipal solid waste (MSW) landfills. The software provides a relatively simple approach to estimating landfill gas emissions. Model defaults are based on empirical data from U.S. landfills. Field test data can also be used in place of model defaults when available. Further guidance on EPA test methods, Clean Air Act (CAA) regulations, and other guidance regarding landfill gas emissions and control technology requirements can be found at http://www.epa.gov/ttnatw01/landfill/landflpg.html.

LandGEM is considered a screening tool — the better the input data, the better the estimates. Often, there are limitations with the available data regarding waste quantity and composition, variation in design and operating practices over time, and changes occurring over time that impact the emissions potential. Changes to landfill operation, such as operating under wet conditions through leachate recirculation or other liquid additions, will result in generating more gas at a faster rate. Defaults for estimating emissions for this type of operation are being developed to include in LandGEM along with defaults for convential landfills (no leachate or liquid additions) for developing emission inventories and determining CAA applicability. Refer to the Web site identified above for future updates.

Input Review

LANDFILL CHARACTERISTICS

Landfill Open Year	**2003**	
Landfill Closure Year (with 80-year limit)	**2014**	
Actual Closure Year (without limit)	***2014***	
Have Model Calculate Closure Year?	**No**	
Waste Design Capacity	**4 850 734**	*megagrams*

MODEL PARAMETERS

Methane Generation Rate, k	**0,045**	*year^{-1}*
Potential Methane Generation Capacity, L_o	**135**	*m^3/Mg*
NMOC Concentration	**600**	*ppmv as hexane*
Methane Content	**50**	*% by volume*

GASES / POLLUTANTS SELECTED

Gas / Pollutant #1:	**Total landfill gas**
Gas / Pollutant #2:	**Methane**
Gas / Pollutant #3:	**Carbon dioxide**
Gas / Pollutant #4:	**NMOC**

WASTE ACCEPTANCE RATES

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
2003	94 374	103 811	0	0
2004	679 755	747 731	94 374	103 811
2005	579 630	637 593	774 129	851 542
2006	641 175	705 293	1 353 759	1 489 135
2007	684 395	752 835	1 994 934	2 194 427
2008	542 857	597 143	2 679 329	2 947 262
2009	468 548	515 403	3 222 186	3 544 405
2010	490 000	539 000	3 690 734	4 059 807
2011	370 000	407 000	4 180 734	4 598 807
2012	200 000	220 000	4 550 734	5 005 807
2013	100 000	110 000	4 750 734	5 225 807
2014	0	0	4 850 734	5 335 807
2015	0	0	4 850 734	5 335 807
2016	0	0	4 850 734	5 335 807
2017	0	0	4 850 734	5 335 807
2018	0	0	4 850 734	5 335 807
2019	0	0	4 850 734	5 335 807
2020	0	0	4 850 734	5 335 807
2021	0	0	4 850 734	5 335 807
2022	0	0	4 850 734	5 335 807
2023	0	0	4 850 734	5 335 807
2024	0	0	4 850 734	5 335 807
2025	0	0	4 850 734	5 335 807
2026	0	0	4 850 734	5 335 807
2027	0	0	4 850 734	5 335 807
2028	0	0	4 850 734	5 335 807
2029	0	0	4 850 734	5 335 807
2030	0	0	4 850 734	5 335 807
2031	0	0	4 850 734	5 335 807
2032	0	0	4 850 734	5 335 807
2033	0	0	4 850 734	5 335 807
2034	0	0	4 850 734	5 335 807
2035	0	0	4 850 734	5 335 807
2036	0	0	4 850 734	5 335 807
2037	0	0	4 850 734	5 335 807
2038	0	0	4 850 734	5 335 807
2039	0	0	4 850 734	5 335 807
2040	0	0	4 850 734	5 335 807
2041	0	0	4 850 734	5 335 807
2042	0	0	4 850 734	5 335 807

WASTE ACCEPTANCE RATES (Continued)

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
2043	0	0	4 850 734	5 335 807
2044	0	0	4 850 734	5 335 807
2045	0	0	4 850 734	5 335 807
2046	0	0	4 850 734	5 335 807
2047	0	0	4 850 734	5 335 807
2048	0	0	4 850 734	5 335 807
2049	0	0	4 850 734	5 335 807
2050	0	0	4 850 734	5 335 807
2051	0	0	4 850 734	5 335 807
2052	0	0	4 850 734	5 335 807
2053	0	0	4 850 734	5 335 807
2054	0	0	4 850 734	5 335 807
2055	0	0	4 850 734	5 335 807
2056	0	0	4 850 734	5 335 807
2057	0	0	4 850 734	5 335 807
2058	0	0	4 850 734	5 335 807
2059	0	0	4 850 734	5 335 807
2060	0	0	4 850 734	5 335 807
2061	0	0	4 850 734	5 335 807
2062	0	0	4 850 734	5 335 807
2063	0	0	4 850 734	5 335 807
2064	0	0	4 850 734	5 335 807
2065	0	0	4 850 734	5 335 807
2066	0	0	4 850 734	5 335 807
2067	0	0	4 850 734	5 335 807
2068	0	0	4 850 734	5 335 807
2069	0	0	4 850 734	5 335 807
2070	0	0	4 850 734	5 335 807
2071	0	0	4 850 734	5 335 807
2072	0	0	4 850 734	5 335 807
2073	0	0	4 850 734	5 335 807
2074	0	0	4 850 734	5 335 807
2075	0	0	4 850 734	5 335 807
2076	0	0	4 850 734	5 335 807
2077	0	0	4 850 734	5 335 807
2078	0	0	4 850 734	5 335 807
2079	0	0	4 850 734	5 335 807
2080	0	0	4 850 734	5 335 807
2081	0	0	4 850 734	5 335 807
2082	0	0	4 850 734	5 335 807

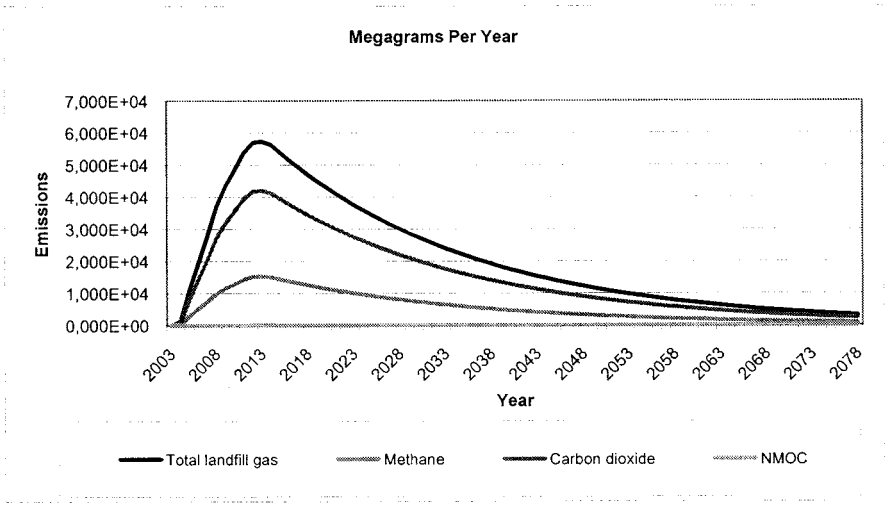
Pollutant Parameters

		Gas / Pollutant Default Parameters:		*User-specified Pollutant Parameters:*	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Gases	Total landfill gas		0,00		
	Methane		16,04		
	Carbon dioxide		44,01		
	NMOC	4 000	86,18		
Pollutants	1,1,1-Trichloroethane (methyl chloroform) - HAP	0,48	133,41		
	1,1,2,2-Tetrachloroethane - HAP/VOC	1,1	167,85		
	1,1-Dichloroethane (ethylidene dichloride) - HAP/VOC	2,4	98,97		
	1,1-Dichloroethene (vinylidene chloride) - HAP/VOC	0,20	96,94		
	1,2-Dichloroethane (ethylene dichloride) - HAP/VOC	0,41	98,96		
	1,2-Dichloropropane (propylene dichloride) - HAP/VOC	0,18	112,99		
	2-Propanol (isopropyl alcohol) - VOC	50	60,11		
	Acetone	7,0	58,08		
	Acrylonitrile - HAP/VOC	6,3	53,06		
	Benzene - No or Unknown Co-disposal - HAP/VOC	1,9	78,11		
	Benzene - Co-disposal - HAP/VOC	11	78,11		
	Bromodichloromethane - VOC	3,1	163,83		
	Butane - VOC	5,0	58,12		
	Carbon disulfide - HAP/VOC	0,58	76,13		
	Carbon monoxide	140	28,01		
	Carbon tetrachloride - HAP/VOC	4,0E-03	153,84		
	Carbonyl sulfide - HAP/VOC	0,49	60,07		
	Chlorobenzene - HAP/VOC	0,25	112,56		
	Chlorodifluoromethane	1,3	86,47		
	Chloroethane (ethyl chloride) - HAP/VOC	1,3	64,52		
	Chloroform - HAP/VOC	0,03	119,39		
	Chloromethane - VOC	1,2	50,49		
	Dichlorobenzene - (HAP for para isomer/VOC)	0,21	147		
	Dichlorodifluoromethane	16	120,91		
	Dichlorofluoromethane - VOC	2,6	102,92		
	Dichloromethane (methylene chloride) - HAP	14	84,94		
	Dimethyl sulfide (methyl sulfide) - VOC	7,8	62,13		
	Ethane	890	30,07		
	Ethanol - VOC	27	46,08		

Pollutant Parameters (Continued)

		Gas / Pollutant Default Parameters:		*User-specified Pollutant Parameters:*	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Pollutants	Ethyl mercaptan (ethanethiol) - VOC	2,3	62,13		
	Ethylbenzene - HAP/VOC	4,6	106,16		
	Ethylene dibromide - HAP/VOC	1,0E-03	187,88		
	Fluorotrichloromethane - VOC	0,76	137,38		
	Hexane - HAP/VOC	6,6	86,18		
	Hydrogen sulfide	36	34,08		
	Mercury (total) - HAP	2,9E-04	200,61		
	Methyl ethyl ketone - HAP/VOC	7,1	72,11		
	Methyl isobutyl ketone - HAP/VOC	1,9	100,16		
	Methyl mercaptan - VOC	2,5	48,11		
	Pentane - VOC	3,3	72,15		
	Perchloroethylene (tetrachloroethylene) - HAP	3,7	165,83		
	Propane - VOC	11	44,09		
	t-1,2-Dichloroethene - VOC	2,8	96,94		
	Toluene - No or Unknown Co-disposal - HAP/VOC	39	92,13		
	Toluene - Co-disposal - HAP/VOC	170	92,13		
	Trichloroethylene (trichloroethene) - HAP/VOC	2,8	131,40		
	Vinyl chloride - HAP/VOC	7,3	62,50		
	Xylenes - HAP/VOC	12	106,16		

Graphs


Megagrams Per Year
Emissions
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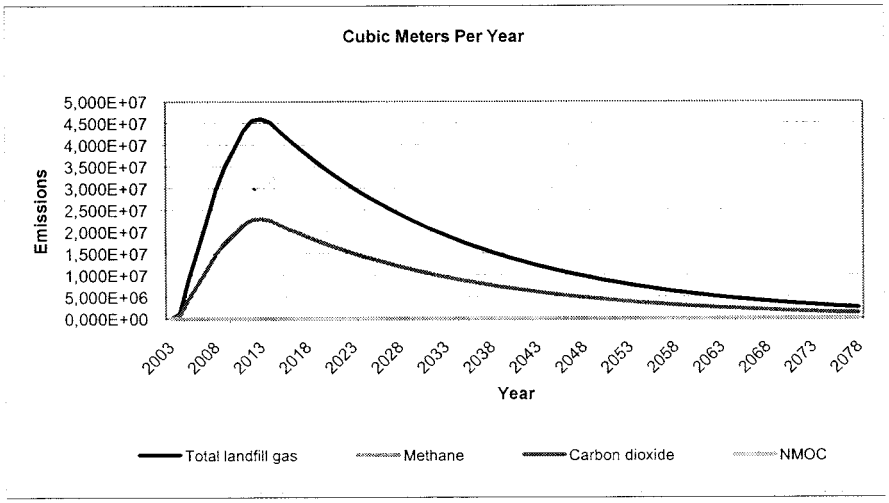
6,000E+04
5,000E+04
4,000E+04
3,000E+04
2,000E+04
1,000E+04
0,000E+00
2003
2008
2013
2018
2023
2028
2033
2038
2043
2048
2053
2058
2063
2068
2073
2078
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


Cubic Meters Per Year
Emissions
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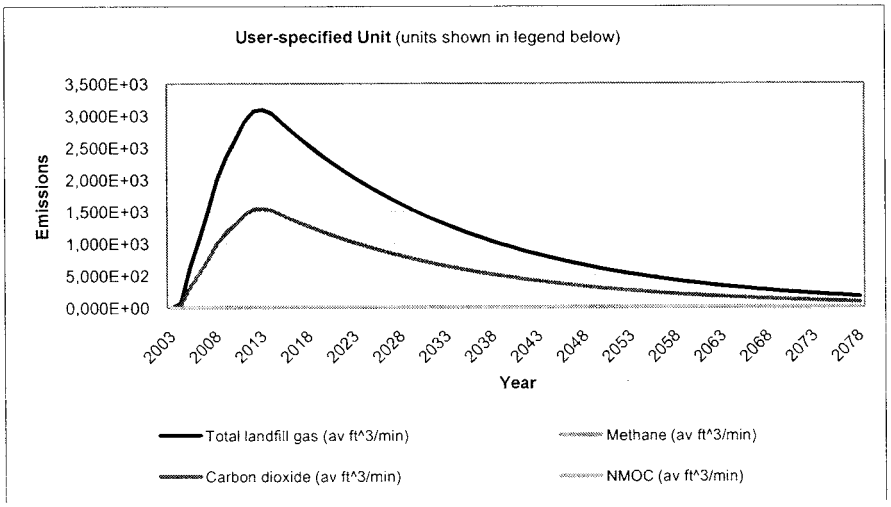
4,500E+07
4,000E+07
3,500E+07
3,000E+07
2,500E+07
2,000E+07
1,500E+07
1,000E+07
5,000E+06
0,000E+00
2003
2008
2013
2018
2023
2028
2033
2038
2043
2048
2053
2058
2063
2068
2073
2078
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


User-specified Unit (units shown in legend below)
Emissions
3,500E+03
3,000E+03
2,500E+03
2,000E+03
1,500E+03
1,000E+03
5,000E+02
0,000E+00
2003
2008
2013
2018
2023
2028
2033
2038
2043
2048
2053
2058
2063
2068
2073
2078
Year
Total landfill gas (av ft^3/min)
Methane (av ft^3/min)
Carbon dioxide (av ft^3/min)
NMOC (av ft^3/min)

Results

Year	Total landfill gas			Methane		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2003	0	0	0	0	0	0
2004	1,403E+03	1,124E+06	7,550E+01	3,749E+02	5,619E+05	3,775E+01
2005	1,145E+04	9,168E+06	6,160E+02	3,058E+03	4,584E+06	3,080E+02
2006	1,957E+04	1,567E+07	1,053E+03	5,226E+03	7,833E+06	5,263E+02
2007	2,824E+04	2,261E+07	1,519E+03	7,543E+03	1,131E+07	7,597E+02
2008	3,717E+04	2,977E+07	2,000E+03	9,929E+03	1,488E+07	1,000E+03
2009	4,361E+04	3,492E+07	2,346E+03	1,165E+04	1,746E+07	1,173E+03
2010	4,866E+04	3,896E+07	2,618E+03	1,300E+04	1,948E+07	1,309E+03
2011	5,380E+04	4,308E+07	2,895E+03	1,437E+04	2,154E+07	1,447E+03
2012	5,694E+04	4,559E+07	3,063E+03	1,521E+04	2,280E+07	1,532E+03
2013	5,741E+04	4,597E+07	3,089E+03	1,533E+04	2,298E+07	1,544E+03
2014	5,637E+04	4,514E+07	3,033E+03	1,506E+04	2,257E+07	1,516E+03
2015	5,389E+04	4,315E+07	2,899E+03	1,439E+04	2,158E+07	1,450E+03
2016	5,152E+04	4,125E+07	2,772E+03	1,376E+04	2,063E+07	1,386E+03
2017	4,925E+04	3,944E+07	2,650E+03	1,316E+04	1,972E+07	1,325E+03
2018	4,708E+04	3,770E+07	2,533E+03	1,258E+04	1,885E+07	1,267E+03
2019	4,501E+04	3,604E+07	2,422E+03	1,202E+04	1,802E+07	1,211E+03
2020	4,303E+04	3,446E+07	2,315E+03	1,149E+04	1,723E+07	1,158E+03
2021	4,114E+04	3,294E+07	2,213E+03	1,099E+04	1,647E+07	1,107E+03
2022	3,933E+04	3,149E+07	2,116E+03	1,050E+04	1,575E+07	1,058E+03
2023	3,760E+04	3,011E+07	2,023E+03	1,004E+04	1,505E+07	1,011E+03
2024	3,594E+04	2,878E+07	1,934E+03	9,600E+03	1,439E+07	9,669E+02
2025	3,436E+04	2,751E+07	1,849E+03	9,178E+03	1,376E+07	9,243E+02
2026	3,285E+04	2,630E+07	1,767E+03	8,774E+03	1,315E+07	8,837E+02
2027	3,140E+04	2,515E+07	1,690E+03	8,388E+03	1,257E+07	8,448E+02
2028	3,002E+04	2,404E+07	1,615E+03	8,019E+03	1,202E+07	8,076E+02
2029	2,870E+04	2,298E+07	1,544E+03	7,666E+03	1,149E+07	7,721E+02
2030	2,744E+04	2,197E+07	1,476E+03	7,329E+03	1,099E+07	7,381E+02
2031	2,623E+04	2,100E+07	1,411E+03	7,006E+03	1,050E+07	7,056E+02
2032	2,508E+04	2,008E+07	1,349E+03	6,698E+03	1,004E+07	6,746E+02
2033	2,397E+04	1,920E+07	1,290E+03	6,403E+03	9,598E+06	6,449E+02
2034	2,292E+04	1,835E+07	1,233E+03	6,122E+03	9,176E+06	6,165E+02
2035	2,191E+04	1,754E+07	1,179E+03	5,852E+03	8,772E+06	5,894E+02
2036	2,095E+04	1,677E+07	1,127E+03	5,595E+03	8,386E+06	5,634E+02
2037	2,002E+04	1,603E+07	1,077E+03	5,348E+03	8,017E+06	5,387E+02
2038	1,914E+04	1,533E+07	1,030E+03	5,113E+03	7,664E+06	5,150E+02
2039	1,830E+04	1,465E+07	9,846E+02	4,888E+03	7,327E+06	4,923E+02
2040	1,749E+04	1,401E+07	9,413E+02	4,673E+03	7,004E+06	4,706E+02
2041	1,672E+04	1,339E+07	8,998E+02	4,467E+03	6,696E+06	4,499E+02
2042	1,599E+04	1,280E+07	8,602E+02	4,271E+03	6,402E+06	4,301E+02
2043	1,529E+04	1,224E+07	8,224E+02	4,083E+03	6,120E+06	4,112E+02
2044	1,461E+04	1,170E+07	7,862E+02	3,903E+03	5,851E+06	3,931E+02
2045	1,397E+04	1,119E+07	7,516E+02	3,731E+03	5,593E+06	3,758E+02
2046	1,336E+04	1,069E+07	7,185E+02	3,567E+03	5,347E+06	3,593E+02
2047	1,277E+04	1,022E+07	6,869E+02	3,410E+03	5,112E+06	3,435E+02
2048	1,221E+04	9,774E+06	6,567E+02	3,260E+03	4,887E+06	3,283E+02
2049	1,167E+04	9,344E+06	6,278E+02	3,117E+03	4,672E+06	3,139E+02
2050	1,116E+04	8,933E+06	6,002E+02	2,980E+03	4,466E+06	3,001E+02
2051	1,066E+04	8,539E+06	5,738E+02	2,849E+03	4,270E+06	2,869E+02
2052	1,020E+04	8,164E+06	5,485E+02	2,723E+03	4,082E+06	2,743E+02

Results (Continued)

Year	Total landfill gas			Methane		
	(Mg/year)	(m^3/year)	(av ft^3/min)	(Mg/year)	(m^3/year)	(av ft^3/min)
2053	9,746E+03	7,804E+06	5,244E+02	2,603E+03	3,902E+06	2,622E+02
2054	9,318E+03	7,461E+06	5,013E+02	2,489E+03	3,731E+06	2,507E+02
2055	8,908E+03	7,133E+06	4,792E+02	2,379E+03	3,566E+06	2,396E+02
2056	8,516E+03	6,819E+06	4,582E+02	2,275E+03	3,409E+06	2,291E+02
2057	8,141E+03	6,519E+06	4,380E+02	2,175E+03	3,259E+06	2,190E+02
2058	7,783E+03	6,232E+06	4,187E+02	2,079E+03	3,116E+06	2,094E+02
2059	7,440E+03	5,958E+06	4,003E+02	1,987E+03	2,979E+06	2,002E+02
2060	7,113E+03	5,696E+06	3,827E+02	1,900E+03	2,848E+06	1,913E+02
2061	6,800E+03	5,445E+06	3,658E+02	1,816E+03	2,723E+06	1,829E+02
2062	6,501E+03	5,205E+06	3,498E+02	1,736E+03	2,603E+06	1,749E+02
2063	6,215E+03	4,976E+06	3,344E+02	1,660E+03	2,488E+06	1,672E+02
2064	5,941E+03	4,757E+06	3,196E+02	1,587E+03	2,379E+06	1,598E+02
2065	5,680E+03	4,548E+06	3,056E+02	1,517E+03	2,274E+06	1,528E+02
2066	5,430E+03	4,348E+06	2,921E+02	1,450E+03	2,174E+06	1,461E+02
2067	5,191E+03	4,157E+06	2,793E+02	1,387E+03	2,078E+06	1,396E+02
2068	4,962E+03	3,974E+06	2,670E+02	1,326E+03	1,987E+06	1,335E+02
2069	4,744E+03	3,799E+06	2,552E+02	1,267E+03	1,899E+06	1,276E+02
2070	4,535E+03	3,632E+06	2,440E+02	1,211E+03	1,816E+06	1,220E+02
2071	4,336E+03	3,472E+06	2,333E+02	1,158E+03	1,736E+06	1,166E+02
2072	4,145E+03	3,319E+06	2,230E+02	1,107E+03	1,660E+06	1,115E+02
2073	3,963E+03	3,173E+06	2,132E+02	1,058E+03	1,587E+06	1,066E+02
2074	3,788E+03	3,033E+06	2,038E+02	1,012E+03	1,517E+06	1,019E+02
2075	3,622E+03	2,900E+06	1,948E+02	9,674E+02	1,450E+06	9,742E+01
2076	3,462E+03	2,772E+06	1,863E+02	9,248E+02	1,386E+06	9,314E+01
2077	3,310E+03	2,650E+06	1,781E+02	8,841E+02	1,325E+06	8,904E+01
2078	3,164E+03	2,534E+06	1,702E+02	8,452E+02	1,267E+06	8,512E+01
2079	3,025E+03	2,422E+06	1,628E+02	8,080E+02	1,211E+06	8,138E+01
2080	2,892E+03	2,316E+06	1,556E+02	7,724E+02	1,158E+06	7,779E+01
2081	2,765E+03	2,214E+06	1,487E+02	7,385E+02	1,107E+06	7,437E+01
2082	2,643E+03	2,116E+06	1,422E+02	7,060E+02	1,058E+06	7,110E+01
2083	2,527E+03	2,023E+06	1,359E+02	6,749E+02	1,012E+06	6,797E+01
2084	2,415E+03	1,934E+06	1,300E+02	6,452E+02	9,671E+05	6,498E+01
2085	2,309E+03	1,849E+06	1,242E+02	6,168E+02	9,245E+05	6,212E+01
2086	2,208E+03	1,768E+06	1,188E+02	5,897E+02	8,839E+05	5,939E+01
2087	2,110E+03	1,690E+06	1,135E+02	5,637E+02	8,450E+05	5,677E+01
2088	2,018E+03	1,616E+06	1,086E+02	5,389E+02	8,078E+05	5,428E+01
2089	1,929E+03	1,544E+06	1,038E+02	5,152E+02	7,722E+05	5,189E+01
2090	1,844E+03	1,477E+06	9,921E+01	4,925E+02	7,383E+05	4,960E+01
2091	1,763E+03	1,412E+06	9,484E+01	4,709E+02	7,058E+05	4,742E+01
2092	1,685E+03	1,349E+06	9,067E+01	4,501E+02	6,747E+05	4,533E+01
2093	1,611E+03	1,290E+06	8,668E+01	4,303E+02	6,450E+05	4,334E+01
2094	1,540E+03	1,233E+06	8,287E+01	4,114E+02	6,167E+05	4,143E+01
2095	1,472E+03	1,179E+06	7,922E+01	3,933E+02	5,895E+05	3,961E+01
2096	1,408E+03	1,127E+06	7,573E+01	3,760E+02	5,636E+05	3,787E+01
2097	1,346E+03	1,078E+06	7,240E+01	3,594E+02	5,388E+05	3,620E+01
2098	1,286E+03	1,030E+06	6,922E+01	3,436E+02	5,151E+05	3,461E+01
2099	1,230E+03	9,848E+05	6,617E+01	3,285E+02	4,924E+05	3,308E+01
2100	1,176E+03	9,415E+05	6,326E+01	3,141E+02	4,707E+05	3,163E+01
2101	1,124E+03	9,001E+05	6,047E+01	3,002E+02	4,500E+05	3,024E+01
2102	1,075E+03	8,604E+05	5,781E+01	2,870E+02	4,302E+05	2,891E+01
2103	1,027E+03	8,226E+05	5,527E+01	2,744E+02	4,113E+05	2,763E+01

Results (Continued)

Year	Total landfill gas			Methane		
	(Mg/year)	(m^3/year)	(av ft^3/min)	(Mg/year)	(m^3/year)	(av ft^3/min)
2104	9,821E+02	7,864E+05	5,284E+01	2,623E+02	3,932E+05	2,642E+01
2105	9,389E+02	7,518E+05	5,051E+01	2,508E+02	3,759E+05	2,526E+01
2106	8,975E+02	7,187E+05	4,829E+01	2,397E+02	3,594E+05	2,414E+01
2107	8,580E+02	6,871E+05	4,616E+01	2,292E+02	3,435E+05	2,308E+01
2108	8,203E+02	6,568E+05	4,413E+01	2,191E+02	3,284E+05	2,207E+01
2109	7,842E+02	6,279E+05	4,219E+01	2,095E+02	3,140E+05	2,110E+01
2110	7,497E+02	6,003E+05	4,034E+01	2,002E+02	3,002E+05	2,017E+01
2111	7,167E+02	5,739E+05	3,856E+01	1,914E+02	2,869E+05	1,928E+01
2112	6,852E+02	5,486E+05	3,686E+01	1,830E+02	2,743E+05	1,843E+01
2113	6,550E+02	5,245E+05	3,524E+01	1,750E+02	2,623E+05	1,762E+01
2114	6,262E+02	5,014E+05	3,369E+01	1,673E+02	2,507E+05	1,685E+01
2115	5,986E+02	4,794E+05	3,221E+01	1,599E+02	2,397E+05	1,610E+01
2116	5,723E+02	4,583E+05	3,079E+01	1,529E+02	2,291E+05	1,540E+01
2117	5,471E+02	4,381E+05	2,944E+01	1,461E+02	2,191E+05	1,472E+01
2118	5,230E+02	4,188E+05	2,814E+01	1,397E+02	2,094E+05	1,407E+01
2119	5,000E+02	4,004E+05	2,690E+01	1,336E+02	2,002E+05	1,345E+01
2120	4,780E+02	3,828E+05	2,572E+01	1,277E+02	1,914E+05	1,286E+01
2121	4,570E+02	3,659E+05	2,459E+01	1,221E+02	1,830E+05	1,229E+01
2122	4,369E+02	3,498E+05	2,351E+01	1,167E+02	1,749E+05	1,175E+01
2123	4,177E+02	3,344E+05	2,247E+01	1,116E+02	1,672E+05	1,124E+01
2124	3,993E+02	3,197E+05	2,148E+01	1,067E+02	1,599E+05	1,074E+01
2125	3,817E+02	3,057E+05	2,054E+01	1,020E+02	1,528E+05	1,027E+01
2126	3,649E+02	2,922E+05	1,963E+01	9,747E+01	1,461E+05	9,817E+00
2127	3,489E+02	2,793E+05	1,877E+01	9,318E+01	1,397E+05	9,385E+00
2128	3,335E+02	2,671E+05	1,794E+01	8,908E+01	1,335E+05	8,972E+00
2129	3,188E+02	2,553E+05	1,715E+01	8,516E+01	1,277E+05	8,577E+00
2130	3,048E+02	2,441E+05	1,640E+01	8,142E+01	1,220E+05	8,200E+00
2131	2,914E+02	2,333E+05	1,568E+01	7,783E+01	1,167E+05	7,839E+00
2132	2,786E+02	2,231E+05	1,499E+01	7,441E+01	1,115E+05	7,494E+00
2133	2,663E+02	2,132E+05	1,433E+01	7,113E+01	1,066E+05	7,164E+00
2134	2,546E+02	2,039E+05	1,370E+01	6,800E+01	1,019E+05	6,849E+00
2135	2,434E+02	1,949E+05	1,309E+01	6,501E+01	9,745E+04	6,547E+00
2136	2,327E+02	1,863E+05	1,252E+01	6,215E+01	9,316E+04	6,259E+00
2137	2,224E+02	1,781E+05	1,197E+01	5,942E+01	8,906E+04	5,984E+00
2138	2,127E+02	1,703E+05	1,144E+01	5,680E+01	8,514E+04	5,721E+00
2139	2,033E+02	1,628E+05	1,094E+01	5,430E+01	8,139E+04	5,469E+00
2140	1,943E+02	1,556E+05	1,046E+01	5,191E+01	7,781E+04	5,228E+00
2141	1,858E+02	1,488E+05	9,996E+00	4,963E+01	7,439E+04	4,998E+00
2142	1,776E+02	1,422E+05	9,556E+00	4,744E+01	7,112E+04	4,778E+00
2143	1,698E+02	1,360E+05	9,136E+00	4,536E+01	6,799E+04	4,568E+00

Results (Continued)

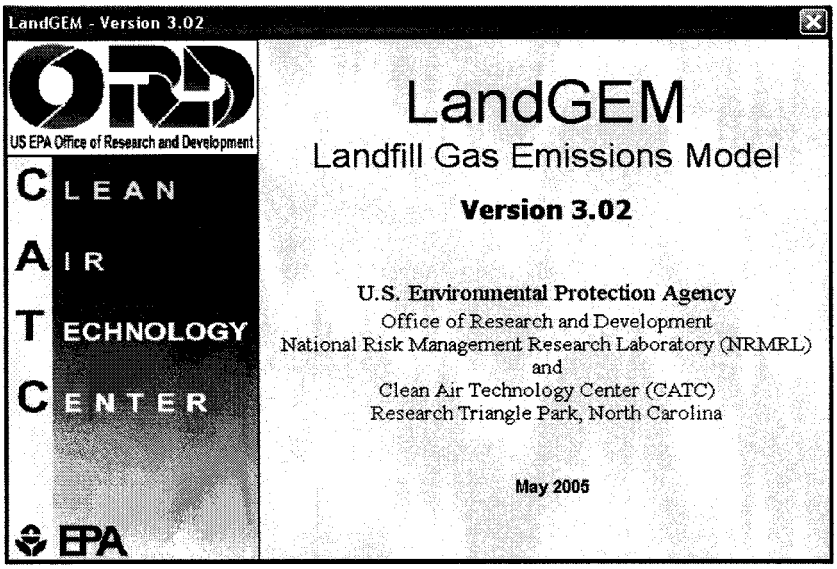
Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2003	0	0	0	0	0	0
2004	1,029E+03	5,619E+05	3,775E+01	2,417E+00	6,743E+02	4,530E-02
2005	8,391E+03	4,584E+06	3,080E+02	1,972E+01	5,501E+03	3,696E-01
2006	1,434E+04	7,833E+06	5,263E+02	3,369E+01	9,400E+03	6,316E-01
2007	2,070E+04	1,131E+07	7,597E+02	4,863E+01	1,357E+04	9,116E-01
2008	2,724E+04	1,488E+07	1,000E+03	6,402E+01	1,786E+04	1,200E+00
2009	3,196E+04	1,746E+07	1,173E+03	7,510E+01	2,095E+04	1,408E+00
2010	3,566E+04	1,948E+07	1,309E+03	8,380E+01	2,338E+04	1,571E+00
2011	3,943E+04	2,154E+07	1,447E+03	9,266E+01	2,585E+04	1,737E+00
2012	4,173E+04	2,280E+07	1,532E+03	9,806E+01	2,736E+04	1,838E+00
2013	4,207E+04	2,298E+07	1,544E+03	9,886E+01	2,758E+04	1,853E+00
2014	4,131E+04	2,257E+07	1,516E+03	9,707E+01	2,708E+04	1,820E+00
2015	3,949E+04	2,158E+07	1,450E+03	9,280E+01	2,589E+04	1,740E+00
2016	3,776E+04	2,063E+07	1,386E+03	8,872E+01	2,475E+04	1,663E+00
2017	3,609E+04	1,972E+07	1,325E+03	8,482E+01	2,366E+04	1,590E+00
2018	3,451E+04	1,885E+07	1,267E+03	8,108E+01	2,262E+04	1,520E+00
2019	3,299E+04	1,802E+07	1,211E+03	7,752E+01	2,163E+04	1,453E+00
2020	3,154E+04	1,723E+07	1,158E+03	7,411E+01	2,067E+04	1,389E+00
2021	3,015E+04	1,647E+07	1,107E+03	7,084E+01	1,976E+04	1,328E+00
2022	2,882E+04	1,575E+07	1,058E+03	6,773E+01	1,889E+04	1,270E+00
2023	2,755E+04	1,505E+07	1,011E+03	6,475E+01	1,806E+04	1,214E+00
2024	2,634E+04	1,439E+07	9,669E+02	6,190E+01	1,727E+04	1,160E+00
2025	2,518E+04	1,376E+07	9,243E+02	5,917E+01	1,651E+04	1,109E+00
2026	2,407E+04	1,315E+07	8,837E+02	5,657E+01	1,578E+04	1,060E+00
2027	2,301E+04	1,257E+07	8,448E+02	5,408E+01	1,509E+04	1,014E+00
2028	2,200E+04	1,202E+07	8,076E+02	5,170E+01	1,442E+04	9,691E-01
2029	2,103E+04	1,149E+07	7,721E+02	4,943E+01	1,379E+04	9,265E-01
2030	2,011E+04	1,099E+07	7,381E+02	4,725E+01	1,318E+04	8,857E-01
2031	1,922E+04	1,050E+07	7,056E+02	4,517E+01	1,260E+04	8,467E-01
2032	1,838E+04	1,004E+07	6,746E+02	4,318E+01	1,205E+04	8,095E-01
2033	1,757E+04	9,598E+06	6,449E+02	4,128E+01	1,152E+04	7,739E-01
2034	1,680E+04	9,176E+06	6,165E+02	3,947E+01	1,101E+04	7,398E-01
2035	1,606E+04	8,772E+06	5,894E+02	3,773E+01	1,053E+04	7,073E-01
2036	1,535E+04	8,386E+06	5,634E+02	3,607E+01	1,006E+04	6,761E-01
2037	1,467E+04	8,017E+06	5,387E+02	3,448E+01	9,620E+03	6,464E-01
2038	1,403E+04	7,664E+06	5,150E+02	3,297E+01	9,197E+03	6,179E-01
2039	1,341E+04	7,327E+06	4,923E+02	3,152E+01	8,792E+03	5,908E-01
2040	1,282E+04	7,004E+06	4,706E+02	3,013E+01	8,405E+03	5,648E-01
2041	1,226E+04	6,696E+06	4,499E+02	2,880E+01	8,036E+03	5,399E-01
2042	1,172E+04	6,402E+06	4,301E+02	2,754E+01	7,682E+03	5,161E-01
2043	1,120E+04	6,120E+06	4,112E+02	2,632E+01	7,344E+03	4,934E-01
2044	1,071E+04	5,851E+06	3,931E+02	2,517E+01	7,021E+03	4,717E-01
2045	1,024E+04	5,593E+06	3,758E+02	2,406E+01	6,712E+03	4,510E-01
2046	9,788E+03	5,347E+06	3,593E+02	2,300E+01	6,417E+03	4,311E-01
2047	9,357E+03	5,112E+06	3,435E+02	2,199E+01	6,134E+03	4,122E-01
2048	8,945E+03	4,887E+06	3,283E+02	2,102E+01	5,864E+03	3,940E-01
2049	8,552E+03	4,672E+06	3,139E+02	2,010E+01	5,606E+03	3,767E-01
2050	8,175E+03	4,466E+06	3,001E+02	1,921E+01	5,360E+03	3,601E-01
2051	7,816E+03	4,270E+06	2,869E+02	1,837E+01	5,124E+03	3,443E-01
2052	7,472E+03	4,082E+06	2,743E+02	1,756E+01	4,898E+03	3,291E-01

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	(m^3/year)	(av ft^3/min)	(Mg/year)	(m^3/year)	(av ft^3/min)
2053	7,143E+03	3,902E+06	2,622E+02	1,678E+01	4,683E+03	3,146E-01
2054	6,829E+03	3,731E+06	2,507E+02	1,605E+01	4,477E+03	3,008E-01
2055	6,528E+03	3,566E+06	2,396E+02	1,534E+01	4,280E+03	2,875E-01
2056	6,241E+03	3,409E+06	2,291E+02	1,467E+01	4,091E+03	2,749E-01
2057	5,966E+03	3,259E+06	2,190E+02	1,402E+01	3,911E+03	2,628E-01
2058	5,704E+03	3,116E+06	2,094E+02	1,340E+01	3,739E+03	2,512E-01
2059	5,453E+03	2,979E+06	2,002E+02	1,281E+01	3,575E+03	2,402E-01
2060	5,213E+03	2,848E+06	1,913E+02	1,225E+01	3,417E+03	2,296E-01
2061	4,984E+03	2,723E+06	1,829E+02	1,171E+01	3,267E+03	2,195E-01
2062	4,764E+03	2,603E+06	1,749E+02	1,120E+01	3,123E+03	2,099E-01
2063	4,555E+03	2,488E+06	1,672E+02	1,070E+01	2,986E+03	2,006E-01
2064	4,354E+03	2,379E+06	1,598E+02	1,023E+01	2,854E+03	1,918E-01
2065	4,163E+03	2,274E+06	1,528E+02	9,781E+00	2,729E+03	1,833E-01
2066	3,979E+03	2,174E+06	1,461E+02	9,351E+00	2,609E+03	1,753E-01
2067	3,804E+03	2,078E+06	1,396E+02	8,940E+00	2,494E+03	1,676E-01
2068	3,637E+03	1,987E+06	1,335E+02	8,546E+00	2,384E+03	1,602E-01
2069	3,477E+03	1,899E+06	1,276E+02	8,170E+00	2,279E+03	1,531E-01
2070	3,324E+03	1,816E+06	1,220E+02	7,811E+00	2,179E+03	1,464E-01
2071	3,178E+03	1,736E+06	1,166E+02	7,467E+00	2,083E+03	1,400E-01
2072	3,038E+03	1,660E+06	1,115E+02	7,138E+00	1,991E+03	1,338E-01
2073	2,904E+03	1,587E+06	1,066E+02	6,824E+00	1,904E+03	1,279E-01
2074	2,776E+03	1,517E+06	1,019E+02	6,524E+00	1,820E+03	1,223E-01
2075	2,654E+03	1,450E+06	9,742E+01	6,237E+00	1,740E+03	1,169E-01
2076	2,537E+03	1,386E+06	9,314E+01	5,962E+00	1,663E+03	1,118E-01
2077	2,426E+03	1,325E+06	8,904E+01	5,700E+00	1,590E+03	1,068E-01
2078	2,319E+03	1,267E+06	8,512E+01	5,449E+00	1,520E+03	1,021E-01
2079	2,217E+03	1,211E+06	8,138E+01	5,209E+00	1,453E+03	9,765E-02
2080	2,119E+03	1,158E+06	7,779E+01	4,980E+00	1,389E+03	9,335E-02
2081	2,026E+03	1,107E+06	7,437E+01	4,761E+00	1,328E+03	8,925E-02
2082	1,937E+03	1,058E+06	7,110E+01	4,552E+00	1,270E+03	8,532E-02
2083	1,852E+03	1,012E+06	6,797E+01	4,351E+00	1,214E+03	8,156E-02
2084	1,770E+03	9,671E+05	6,498E+01	4,160E+00	1,161E+03	7,798E-02
2085	1,692E+03	9,245E+05	6,212E+01	3,977E+00	1,109E+03	7,454E-02
2086	1,618E+03	8,839E+05	5,939E+01	3,802E+00	1,061E+03	7,126E-02
2087	1,547E+03	8,450E+05	5,677E+01	3,635E+00	1,014E+03	6,813E-02
2088	1,479E+03	8,078E+05	5,428E+01	3,475E+00	9,694E+02	6,513E-02
2089	1,414E+03	7,722E+05	5,189E+01	3,322E+00	9,267E+02	6,226E-02
2090	1,351E+03	7,383E+05	4,960E+01	3,176E+00	8,859E+02	5,952E-02
2091	1,292E+03	7,058E+05	4,742E+01	3,036E+00	8,469E+02	5,691E-02
2092	1,235E+03	6,747E+05	4,533E+01	2,902E+00	8,097E+02	5,440E-02
2093	1,181E+03	6,450E+05	4,334E+01	2,775E+00	7,740E+02	5,201E-02
2094	1,129E+03	6,167E+05	4,143E+01	2,652E+00	7,400E+02	4,972E-02
2095	1,079E+03	5,895E+05	3,961E+01	2,536E+00	7,074E+02	4,753E-02
2096	1,032E+03	5,636E+05	3,787E+01	2,424E+00	6,763E+02	4,544E-02
2097	9,862E+02	5,388E+05	3,620E+01	2,317E+00	6,465E+02	4,344E-02
2098	9,428E+02	5,151E+05	3,461E+01	2,216E+00	6,181E+02	4,153E-02
2099	9,014E+02	4,924E+05	3,308E+01	2,118E+00	5,909E+02	3,970E-02
2100	8,617E+02	4,707E+05	3,163E+01	2,025E+00	5,649E+02	3,795E-02
2101	8,238E+02	4,500E+05	3,024E+01	1,936E+00	5,400E+02	3,628E-02
2102	7,875E+02	4,302E+05	2,891E+01	1,851E+00	5,163E+02	3,469E-02
2103	7,529E+02	4,113E+05	2,763E+01	1,769E+00	4,936E+02	3,316E-02

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	(m^3/year)	(av ft^3/min)	(Mg/year)	(m^3/year)	(av ft^3/min)
2104	7,197E+02	3,932E+05	2,642E+01	1,691E+00	4,718E+02	3,170E-02
2105	6,881E+02	3,759E+05	2,526E+01	1,617E+00	4,511E+02	3,031E-02
2106	6,578E+02	3,594E+05	2,414E+01	1,546E+00	4,312E+02	2,897E-02
2107	6,289E+02	3,435E+05	2,308E+01	1,478E+00	4,122E+02	2,770E-02
2108	6,012E+02	3,284E+05	2,207E+01	1,413E+00	3,941E+02	2,648E-02
2109	5,747E+02	3,140E+05	2,110E+01	1,351E+00	3,768E+02	2,531E-02
2110	5,494E+02	3,002E+05	2,017E+01	1,291E+00	3,602E+02	2,420E-02
2111	5,253E+02	2,869E+05	1,928E+01	1,234E+00	3,443E+02	2,314E-02
2112	5,021E+02	2,743E+05	1,843E+01	1,180E+00	3,292E+02	2,212E-02
2113	4,801E+02	2,623E+05	1,762E+01	1,128E+00	3,147E+02	2,114E-02
2114	4,589E+02	2,507E+05	1,685E+01	1,078E+00	3,009E+02	2,021E-02
2115	4,387E+02	2,397E+05	1,610E+01	1,031E+00	2,876E+02	1,932E-02
2116	4,194E+02	2,291E+05	1,540E+01	9,856E-01	2,750E+02	1,847E-02
2117	4,010E+02	2,191E+05	1,472E+01	9,422E-01	2,629E+02	1,766E-02
2118	3,833E+02	2,094E+05	1,407E+01	9,008E-01	2,513E+02	1,688E-02
2119	3,665E+02	2,002E+05	1,345E+01	8,611E-01	2,402E+02	1,614E-02
2120	3,503E+02	1,914E+05	1,286E+01	8,232E-01	2,297E+02	1,543E-02
2121	3,349E+02	1,830E+05	1,229E+01	7,870E-01	2,196E+02	1,475E-02
2122	3,202E+02	1,749E+05	1,175E+01	7,524E-01	2,099E+02	1,410E-02
2123	3,061E+02	1,672E+05	1,124E+01	7,193E-01	2,007E+02	1,348E-02
2124	2,926E+02	1,599E+05	1,074E+01	6,876E-01	1,918E+02	1,289E-02
2125	2,797E+02	1,528E+05	1,027E+01	6,574E-01	1,834E+02	1,232E-02
2126	2,674E+02	1,461E+05	9,817E+00	6,284E-01	1,753E+02	1,178E-02
2127	2,557E+02	1,397E+05	9,385E+00	6,008E-01	1,676E+02	1,126E-02
2128	2,444E+02	1,335E+05	8,972E+00	5,743E-01	1,602E+02	1,077E-02
2129	2,337E+02	1,277E+05	8,577E+00	5,491E-01	1,532E+02	1,029E-02
2130	2,234E+02	1,220E+05	8,200E+00	5,249E-01	1,464E+02	9,839E-03
2131	2,136E+02	1,167E+05	7,839E+00	5,018E-01	1,400E+02	9,406E-03
2132	2,042E+02	1,115E+05	7,494E+00	4,797E-01	1,338E+02	8,993E-03
2133	1,952E+02	1,066E+05	7,164E+00	4,586E-01	1,279E+02	8,597E-03
2134	1,866E+02	1,019E+05	6,849E+00	4,384E-01	1,223E+02	8,219E-03
2135	1,784E+02	9,745E+04	6,547E+00	4,192E-01	1,169E+02	7,857E-03
2136	1,705E+02	9,316E+04	6,259E+00	4,007E-01	1,118E+02	7,511E-03
2137	1,630E+02	8,906E+04	5,984E+00	3,831E-01	1,069E+02	7,181E-03
2138	1,559E+02	8,514E+04	5,721E+00	3,662E-01	1,022E+02	6,865E-03
2139	1,490E+02	8,139E+04	5,469E+00	3,501E-01	9,767E+01	6,563E-03
2140	1,424E+02	7,781E+04	5,228E+00	3,347E-01	9,338E+01	6,274E-03
2141	1,362E+02	7,439E+04	4,998E+00	3,200E-01	8,927E+01	5,998E-03
2142	1,302E+02	7,112E+04	4,778E+00	3,059E-01	8,534E+01	5,734E-03
2143	1,244E+02	6,799E+04	4,568E+00	2,924E-01	8,158E+01	5,482E-03



Summary Report

Landfill Name or Identifier: Phase 3A - LET de St-Nicéphore

Date: 20 octobre 2010

Description/Comments:

About LandGEM:

First-Order Decomposition Rate Equation:

$$Q_{CH_4} = \sum_{i=1}^{n} \sum_{j=0.1}^{1} kL_o \left(\frac{M_i}{10} \right) e^{-kt_{ij}}$$

Where,

Q_{CH_4} = annual methane generation in the year of the calculation ($m^3/year$)
i = 1-year time increment
n = (year of the calculation) - (initial year of waste acceptance)
j = 0.1-year time increment
k = methane generation rate ($year^{-1}$)
L_o = potential methane generation capacity (m^3/Mg)
M_i = mass of waste accepted in the i^{th} year (Mg)
t_{ij} = age of the j^{th} section of waste mass M_i accepted in the i^{th} year (decimal years, e.g., 3.2 years)

LandGEM is based on a first-order decomposition rate equation for quantifying emissions from the decomposition of landfilled waste in municipal solid waste (MSW) landfills. The software provides a relatively simple approach to estimating landfill gas emissions. Model defaults are based on empirical data from U.S. landfills. Field test data can also be used in place of model defaults when available. Further guidance on EPA test methods, Clean Air Act (CAA) regulations, and other guidance regarding landfill gas emissions and control technology requirements can be found at http://www.epa.gov/ttnatw01/landfill/landflpg.html.

LandGEM is considered a screening tool — the better the input data, the better the estimates. Often, there are limitations with the available data regarding waste quantity and composition, variation in design and operating practices over time, and changes occurring over time that impact the emissions potential. Changes to landfill operation, such as operating under wet conditions through leachate recirculation or other liquid additions, will result in generating more gas at a faster rate. Defaults for estimating emissions for this type of operation are being developed to include in LandGEM along with defaults for convential landfills (no leachate or liquid additions) for developing emission inventories and determining CAA applicability. Refer to the Web site identified above for future updates.

Input Review

LANDFILL CHARACTERISTICS

Landfill Open Year	**2013**	
Landfill Closure Year (with 80-year limit)	**2018**	
Actual Closure Year (without limit)	***2018***	
Have Model Calculate Closure Year?	**No**	
Waste Design Capacity	**2 348 235**	*megagrams*

MODEL PARAMETERS

Methane Generation Rate, k	**0,045**	$year^{-1}$
Potential Methane Generation Capacity, L_o	**135**	m^3/Mg
NMOC Concentration	**600**	*ppmv as hexane*
Methane Content	**50**	*% by volume*

GASES / POLLUTANTS SELECTED

Gas / Pollutant #1:	**Total landfill gas**
Gas / Pollutant #2:	**Methane**
Gas / Pollutant #3:	**Carbon dioxide**
Gas / Pollutant #4:	**NMOC**

WASTE ACCEPTANCE RATES

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
2013	312 500	343 750	0	0
2014	625 000	687 500	312 500	343 750
2015	625 000	687 500	937 500	1 031 250
2016	625 000	687 500	1 562 500	1 718 750
2017	160 735	176 809	2 187 500	2 406 250
2018	0	0	2 348 235	2 583 059
2019	0	0	2 348 235	2 583 059
2020	0	0	2 348 235	2 583 059
2021	0	0	2 348 235	2 583 059
2022	0	0	2 348 235	2 583 059
2023	0	0	2 348 235	2 583 059
2024	0	0	2 348 235	2 583 059
2025	0	0	2 348 235	2 583 059
2026	0	0	2 348 235	2 583 059
2027	0	0	2 348 235	2 583 059
2028	0	0	2 348 235	2 583 059
2029	0	0	2 348 235	2 583 059
2030	0	0	2 348 235	2 583 059
2031	0	0	2 348 235	2 583 059
2032	0	0	2 348 235	2 583 059
2033	0	0	2 348 235	2 583 059
2034	0	0	2 348 235	2 583 059
2035	0	0	2 348 235	2 583 059
2036	0	0	2 348 235	2 583 059
2037	0	0	2 348 235	2 583 059
2038	0	0	2 348 235	2 583 059
2039	0	0	2 348 235	2 583 059
2040	0	0	2 348 235	2 583 059
2041	0	0	2 348 235	2 583 059
2042	0	0	2 348 235	2 583 059
2043	0	0	2 348 235	2 583 059
2044	0	0	2 348 235	2 583 059
2045	0	0	2 348 235	2 583 059
2046	0	0	2 348 235	2 583 059
2047	0	0	2 348 235	2 583 059
2048	0	0	2 348 235	2 583 059
2049	0	0	2 348 235	2 583 059
2050	0	0	2 348 235	2 583 059
2051	0	0	2 348 235	2 583 059
2052	0	0	2 348 235	2 583 059

WASTE ACCEPTANCE RATES (Continued)

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
2053	0	0	2 348 235	2 583 059
2054	0	0	2 348 235	2 583 059
2055	0	0	2 348 235	2 583 059
2056	0	0	2 348 235	2 583 059
2057	0	0	2 348 235	2 583 059
2058	0	0	2 348 235	2 583 059
2059	0	0	2 348 235	2 583 059
2060	0	0	2 348 235	2 583 059
2061	0	0	2 348 235	2 583 059
2062	0	0	2 348 235	2 583 059
2063	0	0	2 348 235	2 583 059
2064	0	0	2 348 235	2 583 059
2065	0	0	2 348 235	2 583 059
2066	0	0	2 348 235	2 583 059
2067	0	0	2 348 235	2 583 059
2068	0	0	2 348 235	2 583 059
2069	0	0	2 348 235	2 583 059
2070	0	0	2 348 235	2 583 059
2071	0	0	2 348 235	2 583 059
2072	0	0	2 348 235	2 583 059
2073	0	0	2 348 235	2 583 059
2074	0	0	2 348 235	2 583 059
2075	0	0	2 348 235	2 583 059
2076	0	0	2 348 235	2 583 059
2077	0	0	2 348 235	2 583 059
2078	0	0	2 348 235	2 583 059
2079	0	0	2 348 235	2 583 059
2080	0	0	2 348 235	2 583 059
2081	0	0	2 348 235	2 583 059
2082	0	0	2 348 235	2 583 059
2083	0	0	2 348 235	2 583 059
2084	0	0	2 348 235	2 583 059
2085	0	0	2 348 235	2 583 059
2086	0	0	2 348 235	2 583 059
2087	0	0	2 348 235	2 583 059
2088	0	0	2 348 235	2 583 059
2089	0	0	2 348 235	2 583 059
2090	0	0	2 348 235	2 583 059
2091	0	0	2 348 235	2 583 059
2092	0	0	2 348 235	2 583 059

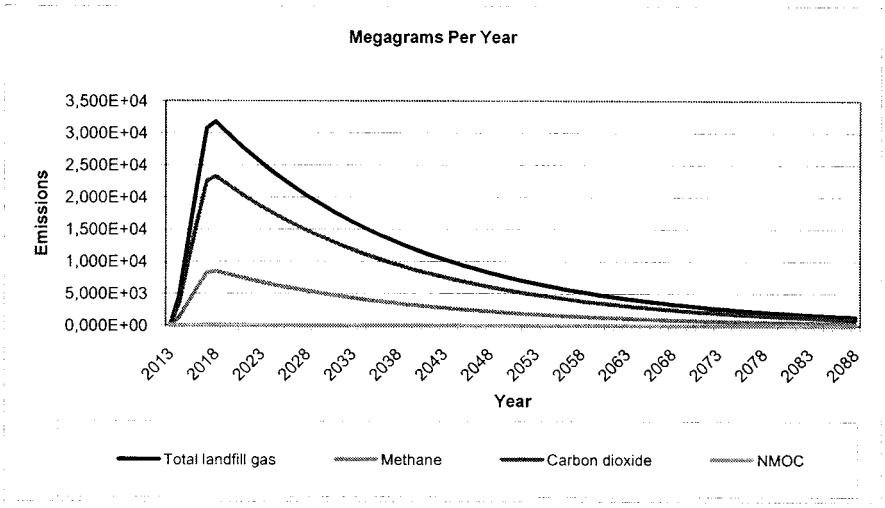
Pollutant Parameters

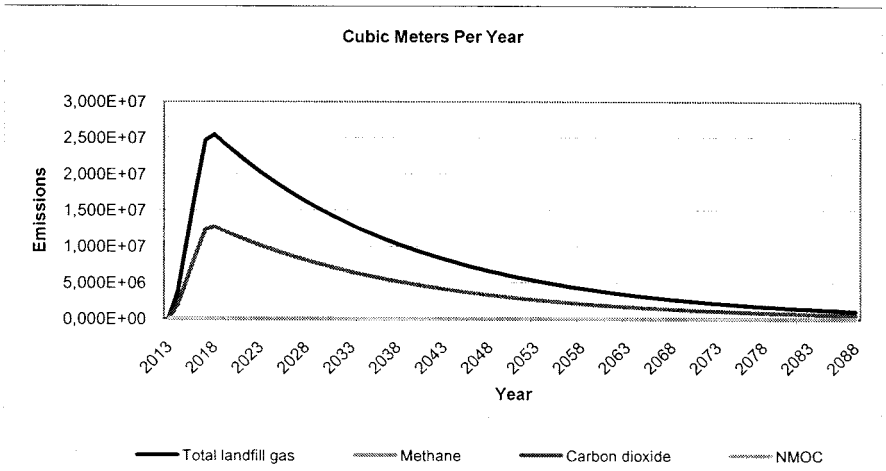
		Gas / Pollutant Default Parameters:		*User-specified Pollutant Parameters:*	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Gases	Total landfill gas		0,00		
	Methane		16,04		
	Carbon dioxide		44,01		
	NMOC	4 000	86,18		
Pollutants	1,1,1-Trichloroethane (methyl chloroform) - HAP	0,48	133,41		
	1,1,2,2-Tetrachloroethane - HAP/VOC	1,1	167,85		
	1,1-Dichloroethane (ethylidene dichloride) - HAP/VOC	2,4	98,97		
	1,1-Dichloroethene (vinylidene chloride) - HAP/VOC	0,20	96,94		
	1,2-Dichloroethane (ethylene dichloride) - HAP/VOC	0,41	98,96		
	1,2-Dichloropropane (propylene dichloride) - HAP/VOC	0,18	112,99		
	2-Propanol (isopropyl alcohol) - VOC	50	60,11		
	Acetone	7,0	58,08		
	Acrylonitrile - HAP/VOC	6,3	53,06		
	Benzene - No or Unknown Co-disposal - HAP/VOC	1,9	78,11		
	Benzene - Co-disposal - HAP/VOC	11	78,11		
	Bromodichloromethane - VOC	3,1	163,83		
	Butane - VOC	5,0	58,12		
	Carbon disulfide - HAP/VOC	0,58	76,13		
	Carbon monoxide	140	28,01		
	Carbon tetrachloride - HAP/VOC	4,0E-03	153,84		
	Carbonyl sulfide - HAP/VOC	0,49	60,07		
	Chlorobenzene - HAP/VOC	0,25	112,56		
	Chlorodifluoromethane	1,3	86,47		
	Chloroethane (ethyl chloride) - HAP/VOC	1,3	64,52		
	Chloroform - HAP/VOC	0,03	119,39		
	Chloromethane - VOC	1,2	50,49		
	Dichlorobenzene - (HAP for para isomer/VOC)	0,21	147		
	Dichlorodifluoromethane	16	120,91		
	Dichlorofluoromethane - VOC	2,6	102,92		
	Dichloromethane (methylene chloride) - HAP	14	84,94		
	Dimethyl sulfide (methyl sulfide) - VOC	7,8	62,13		
	Ethane	890	30,07		
	Ethanol - VOC	27	46,08		

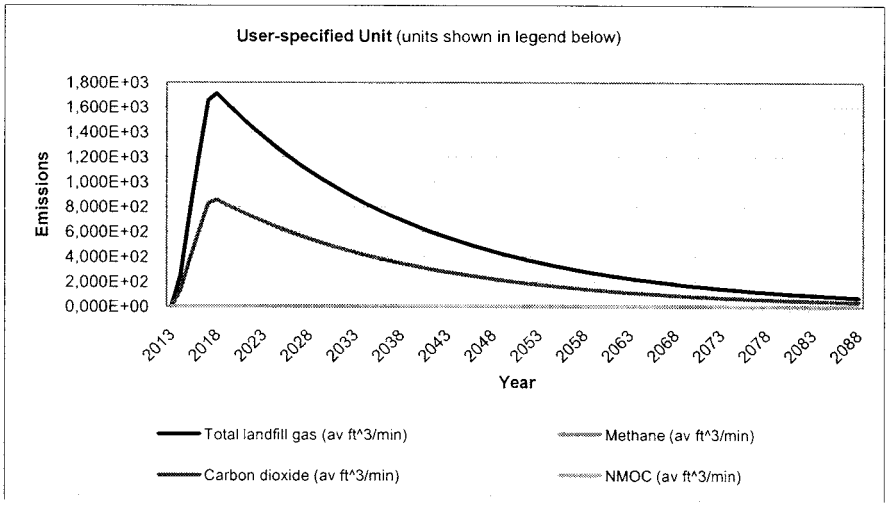
Pollutant Parameters (Continued)

		Gas / Pollutant Default Parameters:		*User-specified Pollutant Parameters:*	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Pollutants	Ethyl mercaptan (ethanethiol) - VOC	2,3	62,13		
	Ethylbenzene - HAP/VOC	4,6	106,16		
	Ethylene dibromide - HAP/VOC	1,0E-03	187,88		
	Fluorotrichloromethane - VOC	0,76	137,38		
	Hexane - HAP/VOC	6,6	86,18		
	Hydrogen sulfide	36	34,08		
	Mercury (total) - HAP	2,9E-04	200,61		
	Methyl ethyl ketone - HAP/VOC	7,1	72,11		
	Methyl isobutyl ketone - HAP/VOC	1,9	100,16		
	Methyl mercaptan - VOC	2,5	48,11		
	Pentane - VOC	3,3	72,15		
	Perchloroethylene (tetrachloroethylene) - HAP	3,7	165,83		
	Propane - VOC	11	44,09		
	t-1,2-Dichloroethene - VOC	2,8	96,94		
	Toluene - No or Unknown Co-disposal - HAP/VOC	39	92,13		
	Toluene - Co-disposal - HAP/VOC	170	92,13		
	Trichloroethylene (trichloroethene) - HAP/VOC	2,8	131,40		
	Vinyl chloride - HAP/VOC	7,3	62,50		
	Xylenes - HAP/VOC	12	106,16		

Graphs


Megagrams Per Year
Emissions
3,500E+04
3,000E+04
2,500E+04
2,000E+04
1,500E+04
1,000E+04
5,000E+03
0,000E+00
2013 2018 2023 2028 2033 2038 2043 2048 2053 2058 2063 2068 2073 2078 2083 2088
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


Cubic Meters Per Year
Emissions
3,000E+07
2,500E+07
2,000E+07
1,500E+07
1,000E+07
5,000E+06
0,000E+00
2013 2018 2023 2028 2033 2038 2043 2048 2053 2058 2063 2068 2073 2078 2083 2088
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


User-specified Unit (units shown in legend below)
Emissions
1,800E+03
1,600E+03
1,400E+03
1,200E+03
1,000E+03
8,000E+02
6,000E+02
4,000E+02
2,000E+02
0,000E+00
2013 2018 2023 2028 2033 2038 2043 2048 2053 2058 2063 2068 2073 2078 2083 2088
Year
Total landfill gas (av ft^3/min)
Methane (av ft^3/min)
Carbon dioxide (av ft^3/min)
NMOC (av ft^3/min)

Results

Year	Total landfill gas			Methane		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2013	0	0	0	0	0	0
2014	4,647E+03	3,721E+06	2,500E+02	1,241E+03	1,861E+06	1,250E+02
2015	1,374E+04	1,100E+07	7,391E+02	3,669E+03	5,500E+06	3,695E+02
2016	2,243E+04	1,796E+07	1,207E+03	5,990E+03	8,979E+06	6,033E+02
2017	3,073E+04	2,461E+07	1,654E+03	8,209E+03	1,230E+07	8,268E+02
2018	3,177E+04	2,544E+07	1,709E+03	8,486E+03	1,272E+07	8,547E+02
2019	3,037E+04	2,432E+07	1,634E+03	8,113E+03	1,216E+07	8,171E+02
2020	2,904E+04	2,325E+07	1,562E+03	7,756E+03	1,163E+07	7,811E+02
2021	2,776E+04	2,223E+07	1,493E+03	7,415E+03	1,111E+07	7,467E+02
2022	2,654E+04	2,125E+07	1,428E+03	7,088E+03	1,062E+07	7,139E+02
2023	2,537E+04	2,031E+07	1,365E+03	6,776E+03	1,016E+07	6,825E+02
2024	2,425E+04	1,942E+07	1,305E+03	6,478E+03	9,710E+06	6,524E+02
2025	2,319E+04	1,857E+07	1,247E+03	6,193E+03	9,283E+06	6,237E+02
2026	2,217E+04	1,775E+07	1,193E+03	5,921E+03	8,875E+06	5,963E+02
2027	2,119E+04	1,697E+07	1,140E+03	5,660E+03	8,484E+06	5,700E+02
2028	2,026E+04	1,622E+07	1,090E+03	5,411E+03	8,111E+06	5,450E+02
2029	1,937E+04	1,551E+07	1,042E+03	5,173E+03	7,754E+06	5,210E+02
2030	1,851E+04	1,483E+07	9,961E+02	4,945E+03	7,413E+06	4,981E+02
2031	1,770E+04	1,417E+07	9,523E+02	4,728E+03	7,087E+06	4,761E+02
2032	1,692E+04	1,355E+07	9,104E+02	4,520E+03	6,775E+06	4,552E+02
2033	1,618E+04	1,295E+07	8,703E+02	4,321E+03	6,477E+06	4,352E+02
2034	1,546E+04	1,238E+07	8,320E+02	4,131E+03	6,192E+06	4,160E+02
2035	1,478E+04	1,184E+07	7,954E+02	3,949E+03	5,919E+06	3,977E+02
2036	1,413E+04	1,132E+07	7,604E+02	3,775E+03	5,659E+06	3,802E+02
2037	1,351E+04	1,082E+07	7,270E+02	3,609E+03	5,410E+06	3,635E+02
2038	1,292E+04	1,034E+07	6,950E+02	3,450E+03	5,172E+06	3,475E+02
2039	1,235E+04	9,888E+06	6,644E+02	3,298E+03	4,944E+06	3,322E+02
2040	1,181E+04	9,453E+06	6,352E+02	3,153E+03	4,727E+06	3,176E+02
2041	1,129E+04	9,037E+06	6,072E+02	3,015E+03	4,519E+06	3,036E+02
2042	1,079E+04	8,640E+06	5,805E+02	2,882E+03	4,320E+06	2,902E+02
2043	1,031E+04	8,259E+06	5,549E+02	2,755E+03	4,130E+06	2,775E+02
2044	9,861E+03	7,896E+06	5,305E+02	2,634E+03	3,948E+06	2,653E+02
2045	9,427E+03	7,548E+06	5,072E+02	2,518E+03	3,774E+06	2,536E+02
2046	9,012E+03	7,216E+06	4,849E+02	2,407E+03	3,608E+06	2,424E+02
2047	8,615E+03	6,899E+06	4,635E+02	2,301E+03	3,449E+06	2,318E+02
2048	8,236E+03	6,595E+06	4,431E+02	2,200E+03	3,298E+06	2,216E+02
2049	7,874E+03	6,305E+06	4,236E+02	2,103E+03	3,153E+06	2,118E+02
2050	7,527E+03	6,028E+06	4,050E+02	2,011E+03	3,014E+06	2,025E+02
2051	7,196E+03	5,762E+06	3,872E+02	1,922E+03	2,881E+06	1,936E+02
2052	6,880E+03	5,509E+06	3,701E+02	1,838E+03	2,754E+06	1,851E+02
2053	6,577E+03	5,266E+06	3,538E+02	1,757E+03	2,633E+06	1,769E+02
2054	6,287E+03	5,035E+06	3,383E+02	1,679E+03	2,517E+06	1,691E+02
2055	6,011E+03	4,813E+06	3,234E+02	1,606E+03	2,407E+06	1,617E+02
2056	5,746E+03	4,601E+06	3,092E+02	1,535E+03	2,301E+06	1,546E+02
2057	5,493E+03	4,399E+06	2,956E+02	1,467E+03	2,199E+06	1,478E+02
2058	5,252E+03	4,205E+06	2,826E+02	1,403E+03	2,103E+06	1,413E+02
2059	5,021E+03	4,020E+06	2,701E+02	1,341E+03	2,010E+06	1,351E+02
2060	4,800E+03	3,843E+06	2,582E+02	1,282E+03	1,922E+06	1,291E+02
2061	4,588E+03	3,674E+06	2,469E+02	1,226E+03	1,837E+06	1,234E+02
2062	4,387E+03	3,513E+06	2,360E+02	1,172E+03	1,756E+06	1,180E+02

Results (Continued)

Year	Total landfill gas			Methane		
	(Mg/year)	(m^3/year)	(av ft^3/min)	(Mg/year)	(m^3/year)	(av ft^3/min)
2063	4,194E+03	3,358E+06	2,256E+02	1,120E+03	1,679E+06	1,128E+02
2064	4,009E+03	3,210E+06	2,157E+02	1,071E+03	1,605E+06	1,078E+02
2065	3,833E+03	3,069E+06	2,062E+02	1,024E+03	1,534E+06	1,031E+02
2066	3,664E+03	2,934E+06	1,971E+02	9,787E+02	1,467E+06	9,857E+01
2067	3,503E+03	2,805E+06	1,885E+02	9,356E+02	1,402E+06	9,423E+01
2068	3,349E+03	2,681E+06	1,802E+02	8,945E+02	1,341E+06	9,008E+01
2069	3,201E+03	2,563E+06	1,722E+02	8,551E+02	1,282E+06	8,612E+01
2070	3,060E+03	2,451E+06	1,647E+02	8,175E+02	1,225E+06	8,233E+01
2071	2,926E+03	2,343E+06	1,574E+02	7,815E+02	1,171E+06	7,871E+01
2072	2,797E+03	2,240E+06	1,505E+02	7,471E+02	1,120E+06	7,524E+01
2073	2,674E+03	2,141E+06	1,439E+02	7,142E+02	1,071E+06	7,193E+01
2074	2,556E+03	2,047E+06	1,375E+02	6,828E+02	1,023E+06	6,877E+01
2075	2,444E+03	1,957E+06	1,315E+02	6,528E+02	9,784E+05	6,574E+01
2076	2,336E+03	1,871E+06	1,257E+02	6,240E+02	9,354E+05	6,285E+01
2077	2,233E+03	1,788E+06	1,202E+02	5,966E+02	8,942E+05	6,008E+01
2078	2,135E+03	1,710E+06	1,149E+02	5,703E+02	8,549E+05	5,744E+01
2079	2,041E+03	1,635E+06	1,098E+02	5,452E+02	8,173E+05	5,491E+01
2080	1,951E+03	1,563E+06	1,050E+02	5,212E+02	7,813E+05	5,250E+01
2081	1,866E+03	1,494E+06	1,004E+02	4,983E+02	7,469E+05	5,019E+01
2082	1,783E+03	1,428E+06	9,595E+01	4,764E+02	7,141E+05	4,798E+01
2083	1,705E+03	1,365E+06	9,173E+01	4,554E+02	6,826E+05	4,587E+01
2084	1,630E+03	1,305E+06	8,770E+01	4,354E+02	6,526E+05	4,385E+01
2085	1,558E+03	1,248E+06	8,384E+01	4,162E+02	6,239E+05	4,192E+01
2086	1,490E+03	1,193E+06	8,015E+01	3,979E+02	5,964E+05	4,007E+01
2087	1,424E+03	1,140E+06	7,662E+01	3,804E+02	5,702E+05	3,831E+01
2088	1,361E+03	1,090E+06	7,325E+01	3,637E+02	5,451E+05	3,662E+01
2089	1,302E+03	1,042E+06	7,003E+01	3,477E+02	5,211E+05	3,501E+01
2090	1,244E+03	9,964E+05	6,694E+01	3,324E+02	4,982E+05	3,347E+01
2091	1,190E+03	9,525E+05	6,400E+01	3,177E+02	4,763E+05	3,200E+01
2092	1,137E+03	9,106E+05	6,118E+01	3,038E+02	4,553E+05	3,059E+01
2093	1,087E+03	8,705E+05	5,849E+01	2,904E+02	4,353E+05	2,925E+01
2094	1,039E+03	8,322E+05	5,592E+01	2,776E+02	4,161E+05	2,796E+01
2095	9,936E+02	7,956E+05	5,346E+01	2,654E+02	3,978E+05	2,673E+01
2096	9,499E+02	7,606E+05	5,110E+01	2,537E+02	3,803E+05	2,555E+01
2097	9,081E+02	7,271E+05	4,886E+01	2,426E+02	3,636E+05	2,443E+01
2098	8,681E+02	6,951E+05	4,671E+01	2,319E+02	3,476E+05	2,335E+01
2099	8,299E+02	6,645E+05	4,465E+01	2,217E+02	3,323E+05	2,233E+01
2100	7,934E+02	6,353E+05	4,269E+01	2,119E+02	3,177E+05	2,134E+01
2101	7,585E+02	6,073E+05	4,081E+01	2,026E+02	3,037E+05	2,040E+01
2102	7,251E+02	5,806E+05	3,901E+01	1,937E+02	2,903E+05	1,951E+01
2103	6,932E+02	5,551E+05	3,730E+01	1,852E+02	2,775E+05	1,865E+01
2104	6,627E+02	5,307E+05	3,565E+01	1,770E+02	2,653E+05	1,783E+01
2105	6,335E+02	5,073E+05	3,409E+01	1,692E+02	2,537E+05	1,704E+01
2106	6,057E+02	4,850E+05	3,259E+01	1,618E+02	2,425E+05	1,629E+01
2107	5,790E+02	4,636E+05	3,115E+01	1,547E+02	2,318E+05	1,558E+01
2108	5,535E+02	4,432E+05	2,978E+01	1,479E+02	2,216E+05	1,489E+01
2109	5,292E+02	4,237E+05	2,847E+01	1,413E+02	2,119E+05	1,424E+01
2110	5,059E+02	4,051E+05	2,722E+01	1,351E+02	2,025E+05	1,361E+01
2111	4,836E+02	3,873E+05	2,602E+01	1,292E+02	1,936E+05	1,301E+01
2112	4,623E+02	3,702E+05	2,488E+01	1,235E+02	1,851E+05	1,244E+01
2113	4,420E+02	3,539E+05	2,378E+01	1,181E+02	1,770E+05	1,189E+01

Results (Continued)

Year	Total landfill gas			Methane		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2114	4,225E+02	3,384E+05	2,273E+01	1,129E+02	1,692E+05	1,137E+01
2115	4,040E+02	3,235E+05	2,173E+01	1,079E+02	1,617E+05	1,087E+01
2116	3,862E+02	3,092E+05	2,078E+01	1,032E+02	1,546E+05	1,039E+01
2117	3,692E+02	2,956E+05	1,986E+01	9,861E+01	1,478E+05	9,932E+00
2118	3,529E+02	2,826E+05	1,899E+01	9,427E+01	1,413E+05	9,495E+00
2119	3,374E+02	2,702E+05	1,815E+01	9,013E+01	1,351E+05	9,077E+00
2120	3,226E+02	2,583E+05	1,735E+01	8,616E+01	1,291E+05	8,677E+00
2121	3,084E+02	2,469E+05	1,659E+01	8,237E+01	1,235E+05	8,296E+00
2122	2,948E+02	2,361E+05	1,586E+01	7,874E+01	1,180E+05	7,931E+00
2123	2,818E+02	2,257E+05	1,516E+01	7,528E+01	1,128E+05	7,582E+00
2124	2,694E+02	2,157E+05	1,450E+01	7,197E+01	1,079E+05	7,248E+00
2125	2,576E+02	2,063E+05	1,386E+01	6,880E+01	1,031E+05	6,929E+00
2126	2,462E+02	1,972E+05	1,325E+01	6,577E+01	9,859E+04	6,624E+00
2127	2,354E+02	1,885E+05	1,267E+01	6,288E+01	9,425E+04	6,333E+00
2128	2,250E+02	1,802E+05	1,211E+01	6,011E+01	9,010E+04	6,054E+00
2129	2,151E+02	1,723E+05	1,158E+01	5,747E+01	8,614E+04	5,788E+00
2130	2,057E+02	1,647E+05	1,107E+01	5,494E+01	8,235E+04	5,533E+00
2131	1,966E+02	1,574E+05	1,058E+01	5,252E+01	7,872E+04	5,289E+00
2132	1,880E+02	1,505E+05	1,011E+01	5,021E+01	7,526E+04	5,057E+00
2133	1,797E+02	1,439E+05	9,668E+00	4,800E+01	7,195E+04	4,834E+00
2134	1,718E+02	1,376E+05	9,243E+00	4,589E+01	6,878E+04	4,622E+00
2135	1,642E+02	1,315E+05	8,836E+00	4,387E+01	6,576E+04	4,418E+00
2136	1,570E+02	1,257E+05	8,448E+00	4,194E+01	6,286E+04	4,224E+00
2137	1,501E+02	1,202E+05	8,076E+00	4,009E+01	6,010E+04	4,038E+00
2138	1,435E+02	1,149E+05	7,720E+00	3,833E+01	5,745E+04	3,860E+00
2139	1,372E+02	1,098E+05	7,381E+00	3,664E+01	5,492E+04	3,690E+00
2140	1,311E+02	1,050E+05	7,056E+00	3,503E+01	5,251E+04	3,528E+00
2141	1,254E+02	1,004E+05	6,745E+00	3,349E+01	5,020E+04	3,373E+00
2142	1,199E+02	9,598E+04	6,449E+00	3,202E+01	4,799E+04	3,224E+00
2143	1,146E+02	9,175E+04	6,165E+00	3,061E+01	4,588E+04	3,082E+00
2144	1,095E+02	8,772E+04	5,894E+00	2,926E+01	4,386E+04	2,947E+00
2145	1,047E+02	8,386E+04	5,634E+00	2,797E+01	4,193E+04	2,817E+00
2146	1,001E+02	8,017E+04	5,386E+00	2,674E+01	4,008E+04	2,693E+00
2147	9,571E+01	7,664E+04	5,149E+00	2,556E+01	3,832E+04	2,575E+00
2148	9,150E+01	7,327E+04	4,923E+00	2,444E+01	3,663E+04	2,461E+00
2149	8,747E+01	7,004E+04	4,706E+00	2,336E+01	3,502E+04	2,353E+00
2150	8,362E+01	6,696E+04	4,499E+00	2,234E+01	3,348E+04	2,250E+00
2151	7,994E+01	6,401E+04	4,301E+00	2,135E+01	3,201E+04	2,151E+00
2152	7,642E+01	6,120E+04	4,112E+00	2,041E+01	3,060E+04	2,056E+00
2153	7,306E+01	5,850E+04	3,931E+00	1,952E+01	2,925E+04	1,965E+00

Results (Continued)

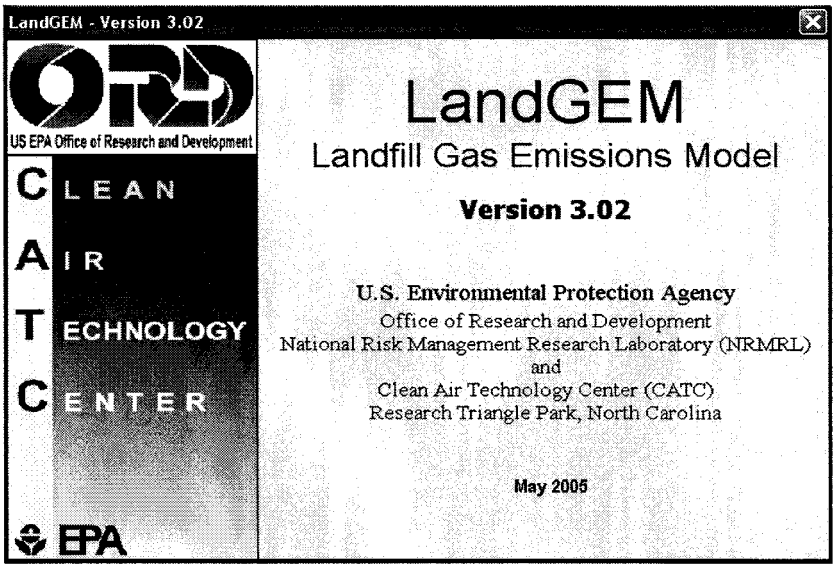
Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2013	0	0	0	0	0	0
2014	3,406E+03	1,861E+06	1,250E+02	8,003E+00	2,233E+03	1,500E-01
2015	1,007E+04	5,500E+06	3,695E+02	2,366E+01	6,600E+03	4,434E-01
2016	1,644E+04	8,979E+06	6,033E+02	3,862E+01	1,077E+04	7,239E-01
2017	2,252E+04	1,230E+07	8,268E+02	5,293E+01	1,477E+04	9,921E-01
2018	2,328E+04	1,272E+07	8,547E+02	5,471E+01	1,526E+04	1,026E+00
2019	2,226E+04	1,216E+07	8,171E+02	5,231E+01	1,459E+04	9,805E-01
2020	2,128E+04	1,163E+07	7,811E+02	5,001E+01	1,395E+04	9,373E-01
2021	2,034E+04	1,111E+07	7,467E+02	4,781E+01	1,334E+04	8,961E-01
2022	1,945E+04	1,062E+07	7,139E+02	4,570E+01	1,275E+04	8,567E-01
2023	1,859E+04	1,016E+07	6,825E+02	4,369E+01	1,219E+04	8,190E-01
2024	1,777E+04	9,710E+06	6,524E+02	4,177E+01	1,165E+04	7,829E-01
2025	1,699E+04	9,283E+06	6,237E+02	3,993E+01	1,114E+04	7,485E-01
2026	1,625E+04	8,875E+06	5,963E+02	3,817E+01	1,065E+04	7,155E-01
2027	1,553E+04	8,484E+06	5,700E+02	3,649E+01	1,018E+04	6,841E-01
2028	1,485E+04	8,111E+06	5,450E+02	3,489E+01	9,733E+03	6,540E-01
2029	1,419E+04	7,754E+06	5,210E+02	3,335E+01	9,305E+03	6,252E-01
2030	1,357E+04	7,413E+06	4,981E+02	3,188E+01	8,895E+03	5,977E-01
2031	1,297E+04	7,087E+06	4,761E+02	3,048E+01	8,504E+03	5,714E-01
2032	1,240E+04	6,775E+06	4,552E+02	2,914E+01	8,130E+03	5,462E-01
2033	1,186E+04	6,477E+06	4,352E+02	2,786E+01	7,772E+03	5,222E-01
2034	1,133E+04	6,192E+06	4,160E+02	2,663E+01	7,430E+03	4,992E-01
2035	1,084E+04	5,919E+06	3,977E+02	2,546E+01	7,103E+03	4,773E-01
2036	1,036E+04	5,659E+06	3,802E+02	2,434E+01	6,790E+03	4,563E-01
2037	9,903E+03	5,410E+06	3,635E+02	2,327E+01	6,492E+03	4,362E-01
2038	9,467E+03	5,172E+06	3,475E+02	2,225E+01	6,206E+03	4,170E-01
2039	9,050E+03	4,944E+06	3,322E+02	2,127E+01	5,933E+03	3,986E-01
2040	8,652E+03	4,727E+06	3,176E+02	2,033E+01	5,672E+03	3,811E-01
2041	8,271E+03	4,519E+06	3,036E+02	1,944E+01	5,422E+03	3,643E-01
2042	7,907E+03	4,320E+06	2,902E+02	1,858E+01	5,184E+03	3,483E-01
2043	7,559E+03	4,130E+06	2,775E+02	1,776E+01	4,956E+03	3,330E-01
2044	7,227E+03	3,948E+06	2,653E+02	1,698E+01	4,738E+03	3,183E-01
2045	6,909E+03	3,774E+06	2,536E+02	1,623E+01	4,529E+03	3,043E-01
2046	6,605E+03	3,608E+06	2,424E+02	1,552E+01	4,330E+03	2,909E-01
2047	6,314E+03	3,449E+06	2,318E+02	1,484E+01	4,139E+03	2,781E-01
2048	6,036E+03	3,298E+06	2,216E+02	1,418E+01	3,957E+03	2,659E-01
2049	5,771E+03	3,153E+06	2,118E+02	1,356E+01	3,783E+03	2,542E-01
2050	5,517E+03	3,014E+06	2,025E+02	1,296E+01	3,617E+03	2,430E-01
2051	5,274E+03	2,881E+06	1,936E+02	1,239E+01	3,457E+03	2,323E-01
2052	5,042E+03	2,754E+06	1,851E+02	1,185E+01	3,305E+03	2,221E-01
2053	4,820E+03	2,633E+06	1,769E+02	1,133E+01	3,160E+03	2,123E-01
2054	4,608E+03	2,517E+06	1,691E+02	1,083E+01	3,021E+03	2,030E-01
2055	4,405E+03	2,407E+06	1,617E+02	1,035E+01	2,888E+03	1,940E-01
2056	4,211E+03	2,301E+06	1,546E+02	9,896E+00	2,761E+03	1,855E-01
2057	4,026E+03	2,199E+06	1,478E+02	9,461E+00	2,639E+03	1,773E-01
2058	3,849E+03	2,103E+06	1,413E+02	9,044E+00	2,523E+03	1,695E-01
2059	3,680E+03	2,010E+06	1,351E+02	8,646E+00	2,412E+03	1,621E-01
2060	3,518E+03	1,922E+06	1,291E+02	8,266E+00	2,306E+03	1,549E-01
2061	3,363E+03	1,837E+06	1,234E+02	7,902E+00	2,205E+03	1,481E-01
2062	3,215E+03	1,756E+06	1,180E+02	7,554E+00	2,108E+03	1,416E-01

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2063	3,073E+03	1,679E+06	1,128E+02	7,222E+00	2,015E+03	1,354E-01
2064	2,938E+03	1,605E+06	1,078E+02	6,904E+00	1,926E+03	1,294E-01
2065	2,809E+03	1,534E+06	1,031E+02	6,600E+00	1,841E+03	1,237E-01
2066	2,685E+03	1,467E+06	9,857E+01	6,310E+00	1,760E+03	1,183E-01
2067	2,567E+03	1,402E+06	9,423E+01	6,032E+00	1,683E+03	1,131E-01
2068	2,454E+03	1,341E+06	9,008E+01	5,767E+00	1,609E+03	1,081E-01
2069	2,346E+03	1,282E+06	8,612E+01	5,513E+00	1,538E+03	1,033E-01
2070	2,243E+03	1,225E+06	8,233E+01	5,271E+00	1,470E+03	9,879E-02
2071	2,144E+03	1,171E+06	7,871E+01	5,039E+00	1,406E+03	9,445E-02
2072	2,050E+03	1,120E+06	7,524E+01	4,817E+00	1,344E+03	9,029E-02
2073	1,960E+03	1,071E+06	7,193E+01	4,605E+00	1,285E+03	8,632E-02
2074	1,873E+03	1,023E+06	6,877E+01	4,402E+00	1,228E+03	8,252E-02
2075	1,791E+03	9,784E+05	6,574E+01	4,209E+00	1,174E+03	7,889E-02
2076	1,712E+03	9,354E+05	6,285E+01	4,023E+00	1,122E+03	7,542E-02
2077	1,637E+03	8,942E+05	6,008E+01	3,846E+00	1,073E+03	7,210E-02
2078	1,565E+03	8,549E+05	5,744E+01	3,677E+00	1,026E+03	6,893E-02
2079	1,496E+03	8,173E+05	5,491E+01	3,515E+00	9,807E+02	6,589E-02
2080	1,430E+03	7,813E+05	5,250E+01	3,361E+00	9,376E+02	6,299E-02
2081	1,367E+03	7,469E+05	5,019E+01	3,213E+00	8,963E+02	6,022E-02
2082	1,307E+03	7,141E+05	4,798E+01	3,071E+00	8,569E+02	5,757E-02
2083	1,250E+03	6,826E+05	4,587E+01	2,936E+00	8,192E+02	5,504E-02
2084	1,195E+03	6,526E+05	4,385E+01	2,807E+00	7,831E+02	5,262E-02
2085	1,142E+03	6,239E+05	4,192E+01	2,684E+00	7,487E+02	5,030E-02
2086	1,092E+03	5,964E+05	4,007E+01	2,565E+00	7,157E+02	4,809E-02
2087	1,044E+03	5,702E+05	3,831E+01	2,453E+00	6,842E+02	4,597E-02
2088	9,978E+02	5,451E+05	3,662E+01	2,345E+00	6,541E+02	4,395E-02
2089	9,539E+02	5,211E+05	3,501E+01	2,241E+00	6,253E+02	4,202E-02
2090	9,119E+02	4,982E+05	3,347E+01	2,143E+00	5,978E+02	4,017E-02
2091	8,718E+02	4,763E+05	3,200E+01	2,049E+00	5,715E+02	3,840E-02
2092	8,334E+02	4,553E+05	3,059E+01	1,958E+00	5,464E+02	3,671E-02
2093	7,968E+02	4,353E+05	2,925E+01	1,872E+00	5,223E+02	3,509E-02
2094	7,617E+02	4,161E+05	2,796E+01	1,790E+00	4,993E+02	3,355E-02
2095	7,282E+02	3,978E+05	2,673E+01	1,711E+00	4,774E+02	3,207E-02
2096	6,961E+02	3,803E+05	2,555E+01	1,636E+00	4,564E+02	3,066E-02
2097	6,655E+02	3,636E+05	2,443E+01	1,564E+00	4,363E+02	2,931E-02
2098	6,362E+02	3,476E+05	2,335E+01	1,495E+00	4,171E+02	2,802E-02
2099	6,082E+02	3,323E+05	2,233E+01	1,429E+00	3,987E+02	2,679E-02
2100	5,815E+02	3,177E+05	2,134E+01	1,366E+00	3,812E+02	2,561E-02
2101	5,559E+02	3,037E+05	2,040E+01	1,306E+00	3,644E+02	2,448E-02
2102	5,314E+02	2,903E+05	1,951E+01	1,249E+00	3,484E+02	2,341E-02
2103	5,080E+02	2,775E+05	1,865E+01	1,194E+00	3,330E+02	2,238E-02
2104	4,857E+02	2,653E+05	1,783E+01	1,141E+00	3,184E+02	2,139E-02
2105	4,643E+02	2,537E+05	1,704E+01	1,091E+00	3,044E+02	2,045E-02
2106	4,439E+02	2,425E+05	1,629E+01	1,043E+00	2,910E+02	1,955E-02
2107	4,243E+02	2,318E+05	1,558E+01	9,971E-01	2,782E+02	1,869E-02
2108	4,057E+02	2,216E+05	1,489E+01	9,533E-01	2,659E+02	1,787E-02
2109	3,878E+02	2,119E+05	1,424E+01	9,113E-01	2,542E+02	1,708E-02
2110	3,708E+02	2,025E+05	1,361E+01	8,712E-01	2,431E+02	1,633E-02
2111	3,544E+02	1,936E+05	1,301E+01	8,329E-01	2,324E+02	1,561E-02
2112	3,388E+02	1,851E+05	1,244E+01	7,962E-01	2,221E+02	1,493E-02
2113	3,239E+02	1,770E+05	1,189E+01	7,612E-01	2,124E+02	1,427E-02

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2114	3,097E+02	1,692E+05	1,137E+01	7,277E-01	2,030E+02	1,364E-02
2115	2,961E+02	1,617E+05	1,087E+01	6,957E-01	1,941E+02	1,304E-02
2116	2,830E+02	1,546E+05	1,039E+01	6,651E-01	1,855E+02	1,247E-02
2117	2,706E+02	1,478E+05	9,932E+00	6,358E-01	1,774E+02	1,192E-02
2118	2,587E+02	1,413E+05	9,495E+00	6,078E-01	1,696E+02	1,139E-02
2119	2,473E+02	1,351E+05	9,077E+00	5,811E-01	1,621E+02	1,089E-02
2120	2,364E+02	1,291E+05	8,677E+00	5,555E-01	1,550E+02	1,041E-02
2121	2,260E+02	1,235E+05	8,296E+00	5,311E-01	1,482E+02	9,955E-03
2122	2,161E+02	1,180E+05	7,931E+00	5,077E-01	1,416E+02	9,517E-03
2123	2,066E+02	1,128E+05	7,582E+00	4,854E-01	1,354E+02	9,098E-03
2124	1,975E+02	1,079E+05	7,248E+00	4,640E-01	1,294E+02	8,698E-03
2125	1,888E+02	1,031E+05	6,929E+00	4,436E-01	1,238E+02	8,315E-03
2126	1,805E+02	9,859E+04	6,624E+00	4,241E-01	1,183E+02	7,949E-03
2127	1,725E+02	9,425E+04	6,333E+00	4,054E-01	1,131E+02	7,599E-03
2128	1,649E+02	9,010E+04	6,054E+00	3,876E-01	1,081E+02	7,265E-03
2129	1,577E+02	8,614E+04	5,788E+00	3,705E-01	1,034E+02	6,945E-03
2130	1,507E+02	8,235E+04	5,533E+00	3,542E-01	9,882E+01	6,640E-03
2131	1,441E+02	7,872E+04	5,289E+00	3,386E-01	9,447E+01	6,347E-03
2132	1,378E+02	7,526E+04	5,057E+00	3,237E-01	9,031E+01	6,068E-03
2133	1,317E+02	7,195E+04	4,834E+00	3,095E-01	8,634E+01	5,801E-03
2134	1,259E+02	6,878E+04	4,622E+00	2,959E-01	8,254E+01	5,546E-03
2135	1,204E+02	6,576E+04	4,418E+00	2,828E-01	7,891E+01	5,302E-03
2136	1,151E+02	6,286E+04	4,224E+00	2,704E-01	7,544E+01	5,069E-03
2137	1,100E+02	6,010E+04	4,038E+00	2,585E-01	7,212E+01	4,845E-03
2138	1,052E+02	5,745E+04	3,860E+00	2,471E-01	6,894E+01	4,632E-03
2139	1,005E+02	5,492E+04	3,690E+00	2,362E-01	6,591E+01	4,428E-03
2140	9,611E+01	5,251E+04	3,528E+00	2,259E-01	6,301E+01	4,234E-03
2141	9,189E+01	5,020E+04	3,373E+00	2,159E-01	6,024E+01	4,047E-03
2142	8,784E+01	4,799E+04	3,224E+00	2,064E-01	5,759E+01	3,869E-03
2143	8,398E+01	4,588E+04	3,082E+00	1,973E-01	5,505E+01	3,699E-03
2144	8,028E+01	4,386E+04	2,947E+00	1,886E-01	5,263E+01	3,536E-03
2145	7,675E+01	4,193E+04	2,817E+00	1,803E-01	5,031E+01	3,381E-03
2146	7,337E+01	4,008E+04	2,693E+00	1,724E-01	4,810E+01	3,232E-03
2147	7,014E+01	3,832E+04	2,575E+00	1,648E-01	4,598E+01	3,090E-03
2148	6,706E+01	3,663E+04	2,461E+00	1,576E-01	4,396E+01	2,954E-03
2149	6,411E+01	3,502E+04	2,353E+00	1,506E-01	4,203E+01	2,824E-03
2150	6,129E+01	3,348E+04	2,250E+00	1,440E-01	4,018E+01	2,699E-03
2151	5,859E+01	3,201E+04	2,151E+00	1,377E-01	3,841E+01	2,581E-03
2152	5,601E+01	3,060E+04	2,056E+00	1,316E-01	3,672E+01	2,467E-03
2153	5,355E+01	2,925E+04	1,965E+00	1,258E-01	3,510E+01	2,359E-03



Summary Report

Landfill Name or Identifier: Phase 3B - LET de St-Nicéphore

Date: 25 octobre 2010

Description/Comments:

About LandGEM:

First-Order Decomposition Rate Equation:

$$Q_{CH_4} = \sum_{i=1}^{n} \sum_{j=0.1}^{1} kL_o \left(\frac{M_i}{10} \right) e^{-kt_{ij}}$$

Where,

Q_{CH_4} = annual methane generation in the year of the calculation ($m^3/year$)
i = 1-year time increment
n = (year of the calculation) - (initial year of waste acceptance)
j = 0.1-year time increment
k = methane generation rate ($year^{-1}$)
L_o = potential methane generation capacity (m^3/Mg)
M_i = mass of waste accepted in the i^{th} year (Mg)
t_{ij} = age of the j^{th} section of waste mass M_i accepted in the i^{th} year (decimal years, e.g., 3.2 years)

LandGEM is based on a first-order decomposition rate equation for quantifying emissions from the decomposition of landfilled waste in municipal solid waste (MSW) landfills. The software provides a relatively simple approach to estimating landfill gas emissions. Model defaults are based on empirical data from U.S. landfills. Field test data can also be used in place of model defaults when available. Further guidance on EPA test methods, Clean Air Act (CAA) regulations, and other guidance regarding landfill gas emissions and control technology requirements can be found at http://www.epa.gov/ttnatw01/landfill/landflpg.html.

LandGEM is considered a screening tool — the better the input data, the better the estimates. Often, there are limitations with the available data regarding waste quantity and composition, variation in design and operating practices over time, and changes occurring over time that impact the emissions potential. Changes to landfill operation, such as operating under wet conditions through leachate recirculation or other liquid additions, will result in generating more gas at a faster rate. Defaults for estimating emissions for this type of operation are being developed to include in LandGEM along with defaults for convential landfills (no leachate or liquid additions) for developing emission inventories and determining CAA applicability. Refer to the Web site identified above for future updates.

Input Review

LANDFILL CHARACTERISTICS

Landfill Open Year	**2017**	
Landfill Closure Year (with 80-year limit)	**2033**	
Actual Closure Year (without limit)	***2033***	
Have Model Calculate Closure Year?	**No**	
Waste Design Capacity	**9 737 359**	*megagrams*

MODEL PARAMETERS

Methane Generation Rate, k	**0,045**	$year^{-1}$
Potential Methane Generation Capacity, L_o	**135**	m^3/Mg
NMOC Concentration	**600**	*ppmv as hexane*
Methane Content	**50**	*% by volume*

GASES / POLLUTANTS SELECTED

Gas / Pollutant #1:	**Total landfill gas**
Gas / Pollutant #2:	**Methane**
Gas / Pollutant #3:	**Carbon dioxide**
Gas / Pollutant #4:	**NMOC**

WASTE ACCEPTANCE RATES

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
2017	464 265	510 692	0	0
2018	625 000	687 500	464 265	510 692
2019	625 000	687 500	1 089 265	1 198 192
2020	625 000	687 500	1 714 265	1 885 692
2021	625 000	687 500	2 339 265	2 573 192
2022	625 000	687 500	2 964 265	3 260 692
2023	625 000	687 500	3 589 265	3 948 192
2024	625 000	687 500	4 214 265	4 635 692
2025	625 000	687 500	4 839 265	5 323 192
2026	625 000	687 500	5 464 265	6 010 692
2027	625 000	687 500	6 089 265	6 698 192
2028	625 000	687 500	6 714 265	7 385 692
2029	625 000	687 500	7 339 265	8 073 192
2030	625 000	687 500	7 964 265	8 760 692
2031	625 000	687 500	8 589 265	9 448 192
2032	523 093	575 403	9 214 265	10 135 692
2033	0	0	9 737 359	10 711 094
2034	0	0	9 737 359	10 711 094
2035	0	0	9 737 359	10 711 094
2036	0	0	9 737 359	10 711 094
2037	0	0	9 737 359	10 711 094
2038	0	0	9 737 359	10 711 094
2039	0	0	9 737 359	10 711 094
2040	0	0	9 737 359	10 711 094
2041	0	0	9 737 359	10 711 094
2042	0	0	9 737 359	10 711 094
2043	0	0	9 737 359	10 711 094
2044	0	0	9 737 359	10 711 094
2045	0	0	9 737 359	10 711 094
2046	0	0	9 737 359	10 711 094
2047	0	0	9 737 359	10 711 094
2048	0	0	9 737 359	10 711 094
2049	0	0	9 737 359	10 711 094
2050	0	0	9 737 359	10 711 094
2051	0	0	9 737 359	10 711 094
2052	0	0	9 737 359	10 711 094
2053	0	0	9 737 359	10 711 094
2054	0	0	9 737 359	10 711 094
2055	0	0	9 737 359	10 711 094
2056	0	0	9 737 359	10 711 094

WASTE ACCEPTANCE RATES (Continued)

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
2057	0	0	9 737 359	10 711 094
2058	0	0	9 737 359	10 711 094
2059	0	0	9 737 359	10 711 094
2060	0	0	9 737 359	10 711 094
2061	0	0	9 737 359	10 711 094
2062	0	0	9 737 359	10 711 094
2063	0	0	9 737 359	10 711 094
2064	0	0	9 737 359	10 711 094
2065	0	0	9 737 359	10 711 094
2066	0	0	9 737 359	10 711 094
2067	0	0	9 737 359	10 711 094
2068	0	0	9 737 359	10 711 094
2069	0	0	9 737 359	10 711 094
2070	0	0	9 737 359	10 711 094
2071	0	0	9 737 359	10 711 094
2072	0	0	9 737 359	10 711 094
2073	0	0	9 737 359	10 711 094
2074	0	0	9 737 359	10 711 094
2075	0	0	9 737 359	10 711 094
2076	0	0	9 737 359	10 711 094
2077	0	0	9 737 359	10 711 094
2078	0	0	9 737 359	10 711 094
2079	0	0	9 737 359	10 711 094
2080	0	0	9 737 359	10 711 094
2081	0	0	9 737 359	10 711 094
2082	0	0	9 737 359	10 711 094
2083	0	0	9 737 359	10 711 094
2084	0	0	9 737 359	10 711 094
2085	0	0	9 737 359	10 711 094
2086	0	0	9 737 359	10 711 094
2087	0	0	9 737 359	10 711 094
2088	0	0	9 737 359	10 711 094
2089	0	0	9 737 359	10 711 094
2090	0	0	9 737 359	10 711 094
2091	0	0	9 737 359	10 711 094
2092	0	0	9 737 359	10 711 094
2093	0	0	9 737 359	10 711 094
2094	0	0	9 737 359	10 711 094
2095	0	0	9 737 359	10 711 094
2096	0	0	9 737 359	10 711 094

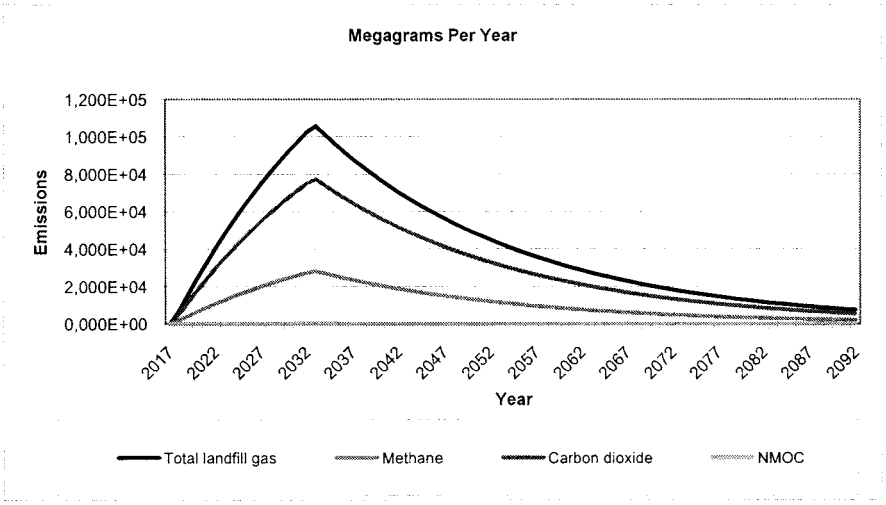
Pollutant Parameters

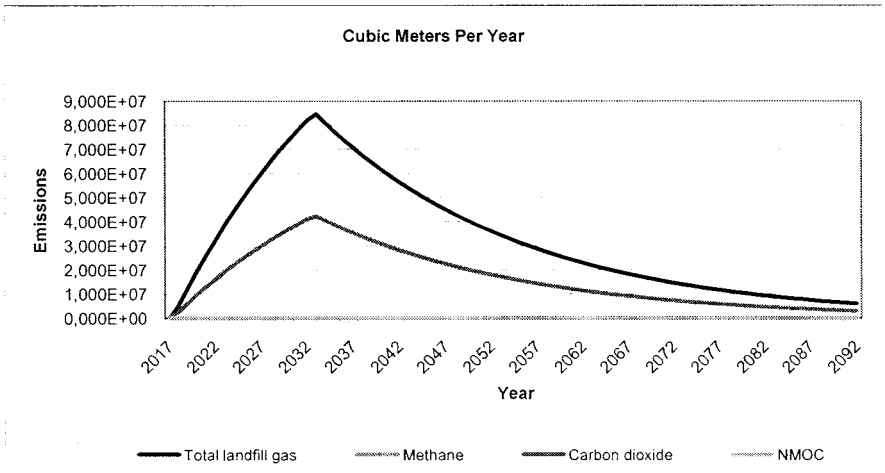
		Gas / Pollutant Default Parameters:		*User-specified Pollutant Parameters:*	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Gases	Total landfill gas		0,00		
	Methane		16,04		
	Carbon dioxide		44,01		
	NMOC	4 000	86,18		
Pollutants	1,1,1-Trichloroethane (methyl chloroform) - HAP	0,48	133,41		
	1,1,2,2-Tetrachloroethane - HAP/VOC	1,1	167,85		
	1,1-Dichloroethane (ethylidene dichloride) - HAP/VOC	2,4	98,97		
	1,1-Dichloroethene (vinylidene chloride) - HAP/VOC	0,20	96,94		
	1,2-Dichloroethane (ethylene dichloride) - HAP/VOC	0,41	98,96		
	1,2-Dichloropropane (propylene dichloride) - HAP/VOC	0,18	112,99		
	2-Propanol (isopropyl alcohol) - VOC	50	60,11		
	Acetone	7,0	58,08		
	Acrylonitrile - HAP/VOC	6,3	53,06		
	Benzene - No or Unknown Co-disposal - HAP/VOC	1,9	78,11		
	Benzene - Co-disposal - HAP/VOC	11	78,11		
	Bromodichloromethane - VOC	3,1	163,83		
	Butane - VOC	5,0	58,12		
	Carbon disulfide - HAP/VOC	0,58	76,13		
	Carbon monoxide	140	28,01		
	Carbon tetrachloride - HAP/VOC	4,0E-03	153,84		
	Carbonyl sulfide - HAP/VOC	0,49	60,07		
	Chlorobenzene - HAP/VOC	0,25	112,56		
	Chlorodifluoromethane	1,3	86,47		
	Chloroethane (ethyl chloride) - HAP/VOC	1,3	64,52		
	Chloroform - HAP/VOC	0,03	119,39		
	Chloromethane - VOC	1,2	50,49		
	Dichlorobenzene - (HAP for para isomer/VOC)	0,21	147		
	Dichlorodifluoromethane	16	120,91		
	Dichlorofluoromethane - VOC	2,6	102,92		
	Dichloromethane (methylene chloride) - HAP	14	84,94		
	Dimethyl sulfide (methyl sulfide) - VOC	7,8	62,13		
	Ethane	890	30,07		
	Ethanol - VOC	27	46,08		

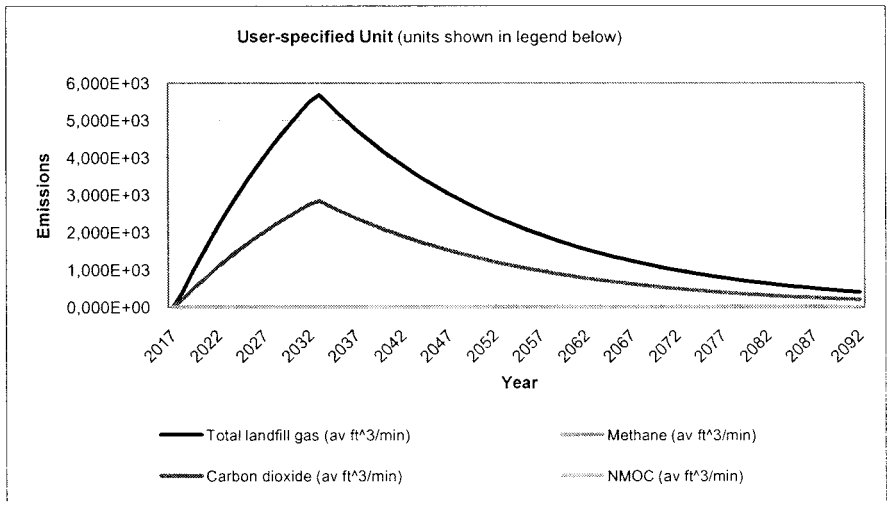
Pollutant Parameters (Continued)

		Gas / Pollutant Default Parameters:		*User-specified Pollutant Parameters:*	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Pollutants	Ethyl mercaptan (ethanethiol) - VOC	2,3	62,13		
	Ethylbenzene - HAP/VOC	4,6	106,16		
	Ethylene dibromide - HAP/VOC	1,0E-03	187,88		
	Fluorotrichloromethane - VOC	0,76	137,38		
	Hexane - HAP/VOC	6,6	86,18		
	Hydrogen sulfide	36	34,08		
	Mercury (total) - HAP	2,9E-04	200,61		
	Methyl ethyl ketone - HAP/VOC	7,1	72,11		
	Methyl isobutyl ketone - HAP/VOC	1,9	100,16		
	Methyl mercaptan - VOC	2,5	48,11		
	Pentane - VOC	3,3	72,15		
	Perchloroethylene (tetrachloroethylene) - HAP	3,7	165,83		
	Propane - VOC	11	44,09		
	t-1,2-Dichloroethene - VOC	2,8	96,94		
	Toluene - No or Unknown Co-disposal - HAP/VOC	39	92,13		
	Toluene - Co-disposal - HAP/VOC	170	92,13		
	Trichloroethylene (trichloroethene) - HAP/VOC	2,8	131,40		
	Vinyl chloride - HAP/VOC	7,3	62,50		
	Xylenes - HAP/VOC	12	106,16		

Graphs


Megagrams Per Year
Emissions
1,200E+05
1,000E+05
8,000E+04
6,000E+04
4,000E+04
2,000E+04
0,000E+00
2017
2022
2027
2032
2037
2042
2047
2052
2057
2062
2067
2072
2077
2082
2087
2092
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


Cubic Meters Per Year
Emissions
9,000E+07
8,000E+07
7,000E+07
6,000E+07
5,000E+07
4,000E+07
3,000E+07
2,000E+07
1,000E+07
0,000E+00
2017
2022
2027
2032
2037
2042
2047
2052
2057
2062
2067
2072
2077
2082
2087
2092
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


User-specified Unit (units shown in legend below)
Emissions
6,000E+03
5,000E+03
4,000E+03
3,000E+03
2,000E+03
1,000E+03
0,000E+00
2017
2022
2027
2032
2037
2042
2047
2052
2057
2062
2067
2072
2077
2082
2087
2092
Year
Total landfill gas (av ft^3/min)
Methane (av ft^3/min)
Carbon dioxide (av ft^3/min)
NMOC (av ft^3/min)

Results

Year	Total landfill gas			Methane		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2017	0	0	0	0	0	0
2018	6,904E+03	5,528E+06	3,714E+02	1,844E+03	2,764E+06	1,857E+02
2019	1,589E+04	1,273E+07	8,551E+02	4,245E+03	6,364E+06	4,276E+02
2020	2,449E+04	1,961E+07	1,318E+03	6,541E+03	9,805E+06	6,588E+02
2021	3,270E+04	2,619E+07	1,760E+03	8,736E+03	1,309E+07	8,798E+02
2022	4,056E+04	3,248E+07	2,182E+03	1,083E+04	1,624E+07	1,091E+03
2023	4,807E+04	3,849E+07	2,586E+03	1,284E+04	1,925E+07	1,293E+03
2024	5,525E+04	4,424E+07	2,972E+03	1,476E+04	2,212E+07	1,486E+03
2025	6,211E+04	4,974E+07	3,342E+03	1,659E+04	2,487E+07	1,671E+03
2026	6,867E+04	5,499E+07	3,695E+03	1,834E+04	2,749E+07	1,847E+03
2027	7,494E+04	6,001E+07	4,032E+03	2,002E+04	3,001E+07	2,016E+03
2028	8,094E+04	6,481E+07	4,355E+03	2,162E+04	3,241E+07	2,177E+03
2029	8,667E+04	6,940E+07	4,663E+03	2,315E+04	3,470E+07	2,332E+03
2030	9,215E+04	7,379E+07	4,958E+03	2,461E+04	3,690E+07	2,479E+03
2031	9,739E+04	7,799E+07	5,240E+03	2,601E+04	3,899E+07	2,620E+03
2032	1,024E+05	8,200E+07	5,509E+03	2,735E+04	4,100E+07	2,755E+03
2033	1,057E+05	8,462E+07	5,685E+03	2,823E+04	4,231E+07	2,843E+03
2034	1,010E+05	8,089E+07	5,435E+03	2,698E+04	4,045E+07	2,718E+03
2035	9,658E+04	7,733E+07	5,196E+03	2,580E+04	3,867E+07	2,598E+03
2036	9,233E+04	7,393E+07	4,967E+03	2,466E+04	3,697E+07	2,484E+03
2037	8,827E+04	7,068E+07	4,749E+03	2,358E+04	3,534E+07	2,374E+03
2038	8,438E+04	6,757E+07	4,540E+03	2,254E+04	3,378E+07	2,270E+03
2039	8,067E+04	6,460E+07	4,340E+03	2,155E+04	3,230E+07	2,170E+03
2040	7,712E+04	6,175E+07	4,149E+03	2,060E+04	3,088E+07	2,075E+03
2041	7,373E+04	5,904E+07	3,967E+03	1,969E+04	2,952E+07	1,983E+03
2042	7,048E+04	5,644E+07	3,792E+03	1,883E+04	2,822E+07	1,896E+03
2043	6,738E+04	5,395E+07	3,625E+03	1,800E+04	2,698E+07	1,813E+03
2044	6,441E+04	5,158E+07	3,466E+03	1,721E+04	2,579E+07	1,733E+03
2045	6,158E+04	4,931E+07	3,313E+03	1,645E+04	2,466E+07	1,657E+03
2046	5,887E+04	4,714E+07	3,167E+03	1,573E+04	2,357E+07	1,584E+03
2047	5,628E+04	4,507E+07	3,028E+03	1,503E+04	2,253E+07	1,514E+03
2048	5,380E+04	4,308E+07	2,895E+03	1,437E+04	2,154E+07	1,447E+03
2049	5,144E+04	4,119E+07	2,767E+03	1,374E+04	2,059E+07	1,384E+03
2050	4,917E+04	3,938E+07	2,646E+03	1,313E+04	1,969E+07	1,323E+03
2051	4,701E+04	3,764E+07	2,529E+03	1,256E+04	1,882E+07	1,265E+03
2052	4,494E+04	3,599E+07	2,418E+03	1,200E+04	1,799E+07	1,209E+03
2053	4,296E+04	3,440E+07	2,312E+03	1,148E+04	1,720E+07	1,156E+03
2054	4,107E+04	3,289E+07	2,210E+03	1,097E+04	1,644E+07	1,105E+03
2055	3,927E+04	3,144E+07	2,113E+03	1,049E+04	1,572E+07	1,056E+03
2056	3,754E+04	3,006E+07	2,020E+03	1,003E+04	1,503E+07	1,010E+03
2057	3,589E+04	2,874E+07	1,931E+03	9,586E+03	1,437E+07	9,654E+02
2058	3,431E+04	2,747E+07	1,846E+03	9,164E+03	1,374E+07	9,229E+02
2059	3,280E+04	2,626E+07	1,765E+03	8,760E+03	1,313E+07	8,823E+02
2060	3,135E+04	2,511E+07	1,687E+03	8,375E+03	1,255E+07	8,435E+02
2061	2,997E+04	2,400E+07	1,613E+03	8,006E+03	1,200E+07	8,064E+02
2062	2,866E+04	2,295E+07	1,542E+03	7,654E+03	1,147E+07	7,709E+02
2063	2,739E+04	2,194E+07	1,474E+03	7,317E+03	1,097E+07	7,369E+02
2064	2,619E+04	2,097E+07	1,409E+03	6,995E+03	1,049E+07	7,045E+02
2065	2,504E+04	2,005E+07	1,347E+03	6,688E+03	1,002E+07	6,735E+02
2066	2,394E+04	1,917E+07	1,288E+03	6,393E+03	9,583E+06	6,439E+02

Results (Continued)

Year	Total landfill gas			Methane		
	(Mg/year)	(m^3/year)	(av ft^3/min)	(Mg/year)	(m^3/year)	(av ft^3/min)
2067	2,288E+04	1,832E+07	1,231E+03	6,112E+03	9,161E+06	6,156E+02
2068	2,188E+04	1,752E+07	1,177E+03	5,843E+03	8,758E+06	5,885E+02
2069	2,091E+04	1,675E+07	1,125E+03	5,586E+03	8,373E+06	5,626E+02
2070	1,999E+04	1,601E+07	1,076E+03	5,340E+03	8,004E+06	5,378E+02
2071	1,911E+04	1,530E+07	1,028E+03	5,105E+03	7,652E+06	5,142E+02
2072	1,827E+04	1,463E+07	9,831E+02	4,881E+03	7,316E+06	4,915E+02
2073	1,747E+04	1,399E+07	9,398E+02	4,666E+03	6,994E+06	4,699E+02
2074	1,670E+04	1,337E+07	8,984E+02	4,460E+03	6,686E+06	4,492E+02
2075	1,596E+04	1,278E+07	8,589E+02	4,264E+03	6,392E+06	4,295E+02
2076	1,526E+04	1,222E+07	8,211E+02	4,077E+03	6,110E+06	4,106E+02
2077	1,459E+04	1,168E+07	7,850E+02	3,897E+03	5,842E+06	3,925E+02
2078	1,395E+04	1,117E+07	7,504E+02	3,726E+03	5,585E+06	3,752E+02
2079	1,333E+04	1,068E+07	7,174E+02	3,562E+03	5,339E+06	3,587E+02
2080	1,275E+04	1,021E+07	6,859E+02	3,405E+03	5,104E+06	3,429E+02
2081	1,219E+04	9,759E+06	6,557E+02	3,255E+03	4,879E+06	3,278E+02
2082	1,165E+04	9,329E+06	6,268E+02	3,112E+03	4,665E+06	3,134E+02
2083	1,114E+04	8,919E+06	5,992E+02	2,975E+03	4,459E+06	2,996E+02
2084	1,065E+04	8,526E+06	5,729E+02	2,844E+03	4,263E+06	2,864E+02
2085	1,018E+04	8,151E+06	5,477E+02	2,719E+03	4,076E+06	2,738E+02
2086	9,731E+03	7,792E+06	5,236E+02	2,599E+03	3,896E+06	2,618E+02
2087	9,303E+03	7,449E+06	5,005E+02	2,485E+03	3,725E+06	2,503E+02
2088	8,894E+03	7,122E+06	4,785E+02	2,376E+03	3,561E+06	2,393E+02
2089	8,502E+03	6,808E+06	4,574E+02	2,271E+03	3,404E+06	2,287E+02
2090	8,128E+03	6,509E+06	4,373E+02	2,171E+03	3,254E+06	2,187E+02
2091	7,771E+03	6,222E+06	4,181E+02	2,076E+03	3,111E+06	2,090E+02
2092	7,429E+03	5,949E+06	3,997E+02	1,984E+03	2,974E+06	1,998E+02
2093	7,102E+03	5,687E+06	3,821E+02	1,897E+03	2,843E+06	1,910E+02
2094	6,789E+03	5,437E+06	3,653E+02	1,813E+03	2,718E+06	1,826E+02
2095	6,491E+03	5,197E+06	3,492E+02	1,734E+03	2,599E+06	1,746E+02
2096	6,205E+03	4,969E+06	3,338E+02	1,657E+03	2,484E+06	1,669E+02
2097	5,932E+03	4,750E+06	3,192E+02	1,584E+03	2,375E+06	1,596E+02
2098	5,671E+03	4,541E+06	3,051E+02	1,515E+03	2,270E+06	1,526E+02
2099	5,421E+03	4,341E+06	2,917E+02	1,448E+03	2,171E+06	1,458E+02
2100	5,183E+03	4,150E+06	2,788E+02	1,384E+03	2,075E+06	1,394E+02
2101	4,955E+03	3,968E+06	2,666E+02	1,323E+03	1,984E+06	1,333E+02
2102	4,737E+03	3,793E+06	2,548E+02	1,265E+03	1,896E+06	1,274E+02
2103	4,528E+03	3,626E+06	2,436E+02	1,210E+03	1,813E+06	1,218E+02
2104	4,329E+03	3,466E+06	2,329E+02	1,156E+03	1,733E+06	1,165E+02
2105	4,139E+03	3,314E+06	2,227E+02	1,105E+03	1,657E+06	1,113E+02
2106	3,956E+03	3,168E+06	2,129E+02	1,057E+03	1,584E+06	1,064E+02
2107	3,782E+03	3,029E+06	2,035E+02	1,010E+03	1,514E+06	1,017E+02
2108	3,616E+03	2,895E+06	1,945E+02	9,658E+02	1,448E+06	9,727E+01
2109	3,457E+03	2,768E+06	1,860E+02	9,233E+02	1,384E+06	9,299E+01
2110	3,305E+03	2,646E+06	1,778E+02	8,827E+02	1,323E+06	8,890E+01
2111	3,159E+03	2,530E+06	1,700E+02	8,439E+02	1,265E+06	8,499E+01
2112	3,020E+03	2,418E+06	1,625E+02	8,067E+02	1,209E+06	8,125E+01
2113	2,887E+03	2,312E+06	1,553E+02	7,712E+02	1,156E+06	7,767E+01
2114	2,760E+03	2,210E+06	1,485E+02	7,373E+02	1,105E+06	7,426E+01
2115	2,639E+03	2,113E+06	1,420E+02	7,049E+02	1,057E+06	7,099E+01
2116	2,523E+03	2,020E+06	1,357E+02	6,739E+02	1,010E+06	6,786E+01
2117	2,412E+03	1,931E+06	1,298E+02	6,442E+02	9,656E+05	6,488E+01

Results (Continued)

Year	Total landfill gas			Methane		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2118	2,306E+03	1,846E+06	1,240E+02	6,159E+02	9,231E+05	6,202E+01
2119	2,204E+03	1,765E+06	1,186E+02	5,888E+02	8,825E+05	5,929E+01
2120	2,107E+03	1,687E+06	1,134E+02	5,628E+02	8,437E+05	5,669E+01
2121	2,014E+03	1,613E+06	1,084E+02	5,381E+02	8,065E+05	5,419E+01
2122	1,926E+03	1,542E+06	1,036E+02	5,144E+02	7,710E+05	5,181E+01
2123	1,841E+03	1,474E+06	9,905E+01	4,918E+02	7,371E+05	4,953E+01
2124	1,760E+03	1,409E+06	9,470E+01	4,701E+02	7,047E+05	4,735E+01
2125	1,683E+03	1,347E+06	9,053E+01	4,494E+02	6,737E+05	4,526E+01
2126	1,609E+03	1,288E+06	8,655E+01	4,297E+02	6,440E+05	4,327E+01
2127	1,538E+03	1,231E+06	8,274E+01	4,108E+02	6,157E+05	4,137E+01
2128	1,470E+03	1,177E+06	7,910E+01	3,927E+02	5,886E+05	3,955E+01
2129	1,405E+03	1,125E+06	7,562E+01	3,754E+02	5,627E+05	3,781E+01
2130	1,344E+03	1,076E+06	7,229E+01	3,589E+02	5,379E+05	3,614E+01
2131	1,284E+03	1,029E+06	6,911E+01	3,431E+02	5,143E+05	3,455E+01
2132	1,228E+03	9,833E+05	6,607E+01	3,280E+02	4,916E+05	3,303E+01
2133	1,174E+03	9,400E+05	6,316E+01	3,136E+02	4,700E+05	3,158E+01
2134	1,122E+03	8,987E+05	6,038E+01	2,998E+02	4,493E+05	3,019E+01
2135	1,073E+03	8,591E+05	5,772E+01	2,866E+02	4,296E+05	2,886E+01
2136	1,026E+03	8,213E+05	5,518E+01	2,740E+02	4,107E+05	2,759E+01
2137	9,805E+02	7,852E+05	5,276E+01	2,619E+02	3,926E+05	2,638E+01
2138	9,374E+02	7,506E+05	5,043E+01	2,504E+02	3,753E+05	2,522E+01
2139	8,961E+02	7,176E+05	4,821E+01	2,394E+02	3,588E+05	2,411E+01
2140	8,567E+02	6,860E+05	4,609E+01	2,288E+02	3,430E+05	2,305E+01
2141	8,190E+02	6,558E+05	4,406E+01	2,188E+02	3,279E+05	2,203E+01
2142	7,830E+02	6,270E+05	4,213E+01	2,091E+02	3,135E+05	2,106E+01
2143	7,485E+02	5,994E+05	4,027E+01	1,999E+02	2,997E+05	2,014E+01
2144	7,156E+02	5,730E+05	3,850E+01	1,911E+02	2,865E+05	1,925E+01
2145	6,841E+02	5,478E+05	3,681E+01	1,827E+02	2,739E+05	1,840E+01
2146	6,540E+02	5,237E+05	3,519E+01	1,747E+02	2,618E+05	1,759E+01
2147	6,252E+02	5,006E+05	3,364E+01	1,670E+02	2,503E+05	1,682E+01
2148	5,977E+02	4,786E+05	3,216E+01	1,597E+02	2,393E+05	1,608E+01
2149	5,714E+02	4,576E+05	3,074E+01	1,526E+02	2,288E+05	1,537E+01
2150	5,463E+02	4,374E+05	2,939E+01	1,459E+02	2,187E+05	1,470E+01
2151	5,222E+02	4,182E+05	2,810E+01	1,395E+02	2,091E+05	1,405E+01
2152	4,992E+02	3,998E+05	2,686E+01	1,334E+02	1,999E+05	1,343E+01
2153	4,773E+02	3,822E+05	2,568E+01	1,275E+02	1,911E+05	1,284E+01
2154	4,563E+02	3,654E+05	2,455E+01	1,219E+02	1,827E+05	1,227E+01
2155	4,362E+02	3,493E+05	2,347E+01	1,165E+02	1,746E+05	1,173E+01
2156	4,170E+02	3,339E+05	2,244E+01	1,114E+02	1,670E+05	1,122E+01
2157	3,987E+02	3,192E+05	2,145E+01	1,065E+02	1,596E+05	1,072E+01

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2017	0	0	0	0	0	0
2018	5,060E+03	2,764E+06	1,857E+02	1,189E+01	3,317E+03	2,229E-01
2019	1,165E+04	6,364E+06	4,276E+02	2,737E+01	7,636E+03	5,131E-01
2020	1,795E+04	9,805E+06	6,588E+02	4,217E+01	1,177E+04	7,905E-01
2021	2,397E+04	1,309E+07	8,798E+02	5,632E+01	1,571E+04	1,056E+00
2022	2,973E+04	1,624E+07	1,091E+03	6,985E+01	1,949E+04	1,309E+00
2023	3,523E+04	1,925E+07	1,293E+03	8,278E+01	2,309E+04	1,552E+00
2024	4,049E+04	2,212E+07	1,486E+03	9,515E+01	2,654E+04	1,783E+00
2025	4,552E+04	2,487E+07	1,671E+03	1,070E+02	2,984E+04	2,005E+00
2026	5,033E+04	2,749E+07	1,847E+03	1,183E+02	3,299E+04	2,217E+00
2027	5,493E+04	3,001E+07	2,016E+03	1,291E+02	3,601E+04	2,419E+00
2028	5,932E+04	3,241E+07	2,177E+03	1,394E+02	3,889E+04	2,613E+00
2029	6,352E+04	3,470E+07	2,332E+03	1,493E+02	4,164E+04	2,798E+00
2030	6,754E+04	3,690E+07	2,479E+03	1,587E+02	4,427E+04	2,975E+00
2031	7,138E+04	3,899E+07	2,620E+03	1,677E+02	4,679E+04	3,144E+00
2032	7,505E+04	4,100E+07	2,755E+03	1,763E+02	4,920E+04	3,306E+00
2033	7,745E+04	4,231E+07	2,843E+03	1,820E+02	5,077E+04	3,411E+00
2034	7,404E+04	4,045E+07	2,718E+03	1,740E+02	4,854E+04	3,261E+00
2035	7,078E+04	3,867E+07	2,598E+03	1,663E+02	4,640E+04	3,118E+00
2036	6,767E+04	3,697E+07	2,484E+03	1,590E+02	4,436E+04	2,980E+00
2037	6,469E+04	3,534E+07	2,374E+03	1,520E+02	4,241E+04	2,849E+00
2038	6,184E+04	3,378E+07	2,270E+03	1,453E+02	4,054E+04	2,724E+00
2039	5,912E+04	3,230E+07	2,170E+03	1,389E+02	3,876E+04	2,604E+00
2040	5,652E+04	3,088E+07	2,075E+03	1,328E+02	3,705E+04	2,490E+00
2041	5,403E+04	2,952E+07	1,983E+03	1,270E+02	3,542E+04	2,380E+00
2042	5,165E+04	2,822E+07	1,896E+03	1,214E+02	3,386E+04	2,275E+00
2043	4,938E+04	2,698E+07	1,813E+03	1,160E+02	3,237E+04	2,175E+00
2044	4,721E+04	2,579E+07	1,733E+03	1,109E+02	3,095E+04	2,079E+00
2045	4,513E+04	2,466E+07	1,657E+03	1,061E+02	2,959E+04	1,988E+00
2046	4,315E+04	2,357E+07	1,584E+03	1,014E+02	2,828E+04	1,900E+00
2047	4,125E+04	2,253E+07	1,514E+03	9,692E+01	2,704E+04	1,817E+00
2048	3,943E+04	2,154E+07	1,447E+03	9,266E+01	2,585E+04	1,737E+00
2049	3,770E+04	2,059E+07	1,384E+03	8,858E+01	2,471E+04	1,660E+00
2050	3,604E+04	1,969E+07	1,323E+03	8,468E+01	2,363E+04	1,587E+00
2051	3,445E+04	1,882E+07	1,265E+03	8,096E+01	2,259E+04	1,518E+00
2052	3,294E+04	1,799E+07	1,209E+03	7,740E+01	2,159E+04	1,451E+00
2053	3,149E+04	1,720E+07	1,156E+03	7,399E+01	2,064E+04	1,387E+00
2054	3,010E+04	1,644E+07	1,105E+03	7,073E+01	1,973E+04	1,326E+00
2055	2,878E+04	1,572E+07	1,056E+03	6,762E+01	1,887E+04	1,268E+00
2056	2,751E+04	1,503E+07	1,010E+03	6,465E+01	1,804E+04	1,212E+00
2057	2,630E+04	1,437E+07	9,654E+02	6,180E+01	1,724E+04	1,158E+00
2058	2,514E+04	1,374E+07	9,229E+02	5,908E+01	1,648E+04	1,107E+00
2059	2,404E+04	1,313E+07	8,823E+02	5,648E+01	1,576E+04	1,059E+00
2060	2,298E+04	1,255E+07	8,435E+02	5,400E+01	1,506E+04	1,012E+00
2061	2,197E+04	1,200E+07	8,064E+02	5,162E+01	1,440E+04	9,676E-01
2062	2,100E+04	1,147E+07	7,709E+02	4,935E+01	1,377E+04	9,250E-01
2063	2,008E+04	1,097E+07	7,369E+02	4,718E+01	1,316E+04	8,843E-01
2064	1,919E+04	1,049E+07	7,045E+02	4,510E+01	1,258E+04	8,454E-01
2065	1,835E+04	1,002E+07	6,735E+02	4,312E+01	1,203E+04	8,082E-01
2066	1,754E+04	9,583E+06	6,439E+02	4,122E+01	1,150E+04	7,727E-01

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	(m^3/year)	(av ft^3/min)	(Mg/year)	(m^3/year)	(av ft^3/min)
2067	1,677E+04	9,161E+06	6,156E+02	3,941E+01	1,099E+04	7,387E-01
2068	1,603E+04	8,758E+06	5,885E+02	3,767E+01	1,051E+04	7,062E-01
2069	1,533E+04	8,373E+06	5,626E+02	3,601E+01	1,005E+04	6,751E-01
2070	1,465E+04	8,004E+06	5,378E+02	3,443E+01	9,605E+03	6,454E-01
2071	1,401E+04	7,652E+06	5,142E+02	3,291E+01	9,183E+03	6,170E-01
2072	1,339E+04	7,316E+06	4,915E+02	3,147E+01	8,779E+03	5,898E-01
2073	1,280E+04	6,994E+06	4,699E+02	3,008E+01	8,392E+03	5,639E-01
2074	1,224E+04	6,686E+06	4,492E+02	2,876E+01	8,023E+03	5,391E-01
2075	1,170E+04	6,392E+06	4,295E+02	2,749E+01	7,670E+03	5,153E-01
2076	1,119E+04	6,110E+06	4,106E+02	2,628E+01	7,333E+03	4,927E-01
2077	1,069E+04	5,842E+06	3,925E+02	2,513E+01	7,010E+03	4,710E-01
2078	1,022E+04	5,585E+06	3,752E+02	2,402E+01	6,701E+03	4,503E-01
2079	9,773E+03	5,339E+06	3,587E+02	2,296E+01	6,407E+03	4,305E-01
2080	9,343E+03	5,104E+06	3,429E+02	2,195E+01	6,125E+03	4,115E-01
2081	8,931E+03	4,879E+06	3,278E+02	2,099E+01	5,855E+03	3,934E-01
2082	8,538E+03	4,665E+06	3,134E+02	2,006E+01	5,597E+03	3,761E-01
2083	8,163E+03	4,459E+06	2,996E+02	1,918E+01	5,351E+03	3,595E-01
2084	7,804E+03	4,263E+06	2,864E+02	1,834E+01	5,116E+03	3,437E-01
2085	7,460E+03	4,076E+06	2,738E+02	1,753E+01	4,891E+03	3,286E-01
2086	7,132E+03	3,896E+06	2,618E+02	1,676E+01	4,675E+03	3,141E-01
2087	6,818E+03	3,725E+06	2,503E+02	1,602E+01	4,470E+03	3,003E-01
2088	6,518E+03	3,561E+06	2,393E+02	1,532E+01	4,273E+03	2,871E-01
2089	6,231E+03	3,404E+06	2,287E+02	1,464E+01	4,085E+03	2,745E-01
2090	5,957E+03	3,254E+06	2,187E+02	1,400E+01	3,905E+03	2,624E-01
2091	5,695E+03	3,111E+06	2,090E+02	1,338E+01	3,733E+03	2,508E-01
2092	5,444E+03	2,974E+06	1,998E+02	1,279E+01	3,569E+03	2,398E-01
2093	5,205E+03	2,843E+06	1,910E+02	1,223E+01	3,412E+03	2,293E-01
2094	4,976E+03	2,718E+06	1,826E+02	1,169E+01	3,262E+03	2,192E-01
2095	4,757E+03	2,599E+06	1,746E+02	1,118E+01	3,118E+03	2,095E-01
2096	4,548E+03	2,484E+06	1,669E+02	1,069E+01	2,981E+03	2,003E-01
2097	4,347E+03	2,375E+06	1,596E+02	1,022E+01	2,850E+03	1,915E-01
2098	4,156E+03	2,270E+06	1,526E+02	9,766E+00	2,725E+03	1,831E-01
2099	3,973E+03	2,171E+06	1,458E+02	9,336E+00	2,605E+03	1,750E-01
2100	3,798E+03	2,075E+06	1,394E+02	8,926E+00	2,490E+03	1,673E-01
2101	3,631E+03	1,984E+06	1,333E+02	8,533E+00	2,381E+03	1,599E-01
2102	3,471E+03	1,896E+06	1,274E+02	8,157E+00	2,276E+03	1,529E-01
2103	3,319E+03	1,813E+06	1,218E+02	7,798E+00	2,176E+03	1,462E-01
2104	3,173E+03	1,733E+06	1,165E+02	7,455E+00	2,080E+03	1,397E-01
2105	3,033E+03	1,657E+06	1,113E+02	7,127E+00	1,988E+03	1,336E-01
2106	2,900E+03	1,584E+06	1,064E+02	6,814E+00	1,901E+03	1,277E-01
2107	2,772E+03	1,514E+06	1,017E+02	6,514E+00	1,817E+03	1,221E-01
2108	2,650E+03	1,448E+06	9,727E+01	6,227E+00	1,737E+03	1,167E-01
2109	2,533E+03	1,384E+06	9,299E+01	5,953E+00	1,661E+03	1,116E-01
2110	2,422E+03	1,323E+06	8,890E+01	5,691E+00	1,588E+03	1,067E-01
2111	2,315E+03	1,265E+06	8,499E+01	5,441E+00	1,518E+03	1,020E-01
2112	2,214E+03	1,209E+06	8,125E+01	5,201E+00	1,451E+03	9,750E-02
2113	2,116E+03	1,156E+06	7,767E+01	4,973E+00	1,387E+03	9,321E-02
2114	2,023E+03	1,105E+06	7,426E+01	4,754E+00	1,326E+03	8,911E-02
2115	1,934E+03	1,057E+06	7,099E+01	4,545E+00	1,268E+03	8,519E-02
2116	1,849E+03	1,010E+06	6,786E+01	4,345E+00	1,212E+03	8,144E-02
2117	1,768E+03	9,656E+05	6,488E+01	4,153E+00	1,159E+03	7,785E-02

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2118	1,690E+03	9,231E+05	6,202E+01	3,971E+00	1,108E+03	7,443E-02
2119	1,615E+03	8,825E+05	5,929E+01	3,796E+00	1,059E+03	7,115E-02
2120	1,544E+03	8,437E+05	5,669E+01	3,629E+00	1,012E+03	6,802E-02
2121	1,476E+03	8,065E+05	5,419E+01	3,469E+00	9,678E+02	6,503E-02
2122	1,411E+03	7,710E+05	5,181E+01	3,317E+00	9,253E+02	6,217E-02
2123	1,349E+03	7,371E+05	4,953E+01	3,171E+00	8,845E+02	5,943E-02
2124	1,290E+03	7,047E+05	4,735E+01	3,031E+00	8,456E+02	5,682E-02
2125	1,233E+03	6,737E+05	4,526E+01	2,898E+00	8,084E+02	5,432E-02
2126	1,179E+03	6,440E+05	4,327E+01	2,770E+00	7,728E+02	5,193E-02
2127	1,127E+03	6,157E+05	4,137E+01	2,648E+00	7,388E+02	4,964E-02
2128	1,077E+03	5,886E+05	3,955E+01	2,532E+00	7,063E+02	4,746E-02
2129	1,030E+03	5,627E+05	3,781E+01	2,420E+00	6,752E+02	4,537E-02
2130	9,847E+02	5,379E+05	3,614E+01	2,314E+00	6,455E+02	4,337E-02
2131	9,414E+02	5,143E+05	3,455E+01	2,212E+00	6,171E+02	4,146E-02
2132	9,000E+02	4,916E+05	3,303E+01	2,115E+00	5,900E+02	3,964E-02
2133	8,604E+02	4,700E+05	3,158E+01	2,022E+00	5,640E+02	3,790E-02
2134	8,225E+02	4,493E+05	3,019E+01	1,933E+00	5,392E+02	3,623E-02
2135	7,863E+02	4,296E+05	2,886E+01	1,848E+00	5,155E+02	3,463E-02
2136	7,517E+02	4,107E+05	2,759E+01	1,766E+00	4,928E+02	3,311E-02
2137	7,186E+02	3,926E+05	2,638E+01	1,689E+00	4,711E+02	3,165E-02
2138	6,870E+02	3,753E+05	2,522E+01	1,614E+00	4,504E+02	3,026E-02
2139	6,568E+02	3,588E+05	2,411E+01	1,543E+00	4,306E+02	2,893E-02
2140	6,279E+02	3,430E+05	2,305E+01	1,475E+00	4,116E+02	2,766E-02
2141	6,002E+02	3,279E+05	2,203E+01	1,410E+00	3,935E+02	2,644E-02
2142	5,738E+02	3,135E+05	2,106E+01	1,348E+00	3,762E+02	2,528E-02
2143	5,486E+02	2,997E+05	2,014E+01	1,289E+00	3,596E+02	2,416E-02
2144	5,244E+02	2,865E+05	1,925E+01	1,232E+00	3,438E+02	2,310E-02
2145	5,014E+02	2,739E+05	1,840E+01	1,178E+00	3,287E+02	2,208E-02
2146	4,793E+02	2,618E+05	1,759E+01	1,126E+00	3,142E+02	2,111E-02
2147	4,582E+02	2,503E+05	1,682E+01	1,077E+00	3,004E+02	2,018E-02
2148	4,381E+02	2,393E+05	1,608E+01	1,029E+00	2,872E+02	1,929E-02
2149	4,188E+02	2,288E+05	1,537E+01	9,841E-01	2,745E+02	1,845E-02
2150	4,004E+02	2,187E+05	1,470E+01	9,408E-01	2,625E+02	1,763E-02
2151	3,827E+02	2,091E+05	1,405E+01	8,994E-01	2,509E+02	1,686E-02
2152	3,659E+02	1,999E+05	1,343E+01	8,598E-01	2,399E+02	1,612E-02
2153	3,498E+02	1,911E+05	1,284E+01	8,220E-01	2,293E+02	1,541E-02
2154	3,344E+02	1,827E+05	1,227E+01	7,858E-01	2,192E+02	1,473E-02
2155	3,197E+02	1,746E+05	1,173E+01	7,512E-01	2,096E+02	1,408E-02
2156	3,056E+02	1,670E+05	1,122E+01	7,182E-01	2,004E+02	1,346E-02
2157	2,922E+02	1,596E+05	1,072E+01	6,866E-01	1,915E+02	1,287E-02