William Charles Waste Companies

5450 Wansford Way, Ste 201 • Rockford, IL 61109 • Phone: 815.963.7511 • Fax: 815.381.5647

201801AAF

Title V ID

38319

NFA

August 25, 2009

Illinois Environmental Protection Agency (IEPA)
Bureau of Air
Office of Air Quality
Compliance Section (MC-40)
P.O. Box 19276
1021 North Grand Avenue East
Springfield, IL 62794-9276

RECEIVED
AUG 31 2009
Environmental Protection Agency
Bureau of Air
STATE OF ILLINOIS

Re: Semi-annual Gas Collection and control System Report
Reporting Period: January 1, 2009 through June 30, 2009
Winnebago Landfill
CAAPP Application No. 99020102
Facility I.D. No. 201801AAF

Winnebago Reclamation Service respectfully submits the enclosed report to meet compliance with 40 CFR Part 60, Subpart WWW, New Source Performance Standards for municipal solid waste landfills and 40 CFR 63 Subparts A and AAAA, National Emission Standard for Hazardous Air Pollutants for municipal solid waste landfills.

Enclosed is the Landfill Gas Collection and Control System (GCCS) Semi-Annual Report covering the period from January 1, 2009 through June 30, 2009. If you have any questions, please do not hesitate to contact me at 815-963-7533.

Sincerely,

Winnebago Reclamation Service

Evan Buskohl
Environmental Manager

Enclosure: Form 400-CAAPP
Semi-Annual GCCS Report

cc: Peoria Regional Office – IEPA-DAPC
Winnebago Landfill Site File
Sultana Haque – Cornerstone Environmental Group, LLC

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL -- PERMIT SECTION
P.O. BOX 19506
SPRINGFIELD, ILLINOIS 62794-9506

FOR APPLICANT'S USE
Revision #: _____
Date: ____ / ____ / ____
Page _____ of _____
Source Designation: _____

COMPLIANCE AND GENERAL REPORTING FORM	FOR AGENCY USE ONLY
	ID NUMBER:
	PERMIT #:
	DATE:

THIS FORM IS USED FOR EITHER OF THE FOLLOWING:

- TO REPORT AND CERTIFY COMPLIANCE OF AN ENTIRE SOURCE OR SPECIFIC ITEMS OF EQUIPMENT WITH ALL APPLICABLE REQUIREMENTS DURING A REPORTING PERIOD, OR
- TO IDENTIFY AND ENSURE PROPER PROCESSING OF A SUBMITTED REPORT. THIS FORM SHOULD BE USED AS THE COVER SHEET OF THE SUBMITTED REPORT.

SOURCE INFORMATION

1) SOURCE NAME: Winnebago Landfill

2) DATE FORM PREPARED: August 25, 2009

3) SOURCE ID NO. (IF KNOWN): 201801AAF

GENERAL INFORMATION

4) INDICATE FOR WHICH OF THE FOLLOWING THIS FORM IS BEING COMPLETED:

☐ **TO REPORT AND CERTIFY COMPLIANCE OF THE SOURCE OR SPECIFIC ITEMS OF EQUIPMENT WITH ALL APPLICABLE REQUIREMENTS**

☒ **TO IDENTIFY AND ENSURE PROPER PROCESSING OF A SUBMITTED REPORT**

5) PERIOD COVERED BY THIS REPORT:

FROM: 01/01/2009 TO: 06/30/2009

6) NAME AND PHONE NUMBER OF PERSON TO CONTACT FOR QUESTIONS REGARDING THIS REPORT:

NAME: Evan Buskohl TITLE: Environmental Manager

PHONE#: (815) 963 - 7,533 EXT: _____

THIS AGENCY IS AUTHORIZED TO REQUIRE THIS INFORMATION UNDER ILLINOIS REVISED STATUTES, 1991, AS AMENDED 1992, CHAPTER 111 1/2, PAR. 1039.5. DISCLOSURE OF THIS INFORMATION IS REQUIRED UNDER THAT SECTION. FAILURE TO DO SO MAY PREVENT THIS FORM FROM BEING PROCESSED AND COULD RESULT IN THE APPLICATION BEING DENIED. THIS FORM HAS BEEN APPROVED BY THE FORMS MANAGEMENT CENTER.

FOR APPLICANT'S USE
_____

APPLICATION PAGE _____

Printed on Recycled Paper
400-CAAPP

COMPLIANCE OF SOURCE OR EQUIPMENT DURING REPORTING PERIOD

- COMPLETE ITEM 7 BELOW IF THIS FORM IS BEING USED TO REPORT AND CERTIFY COMPLIANCE OF THE ENTIRE SOURCE.
- COMPLETE ITEM 8 BELOW IF THIS FORM IS BEING USED TO REPORT AND CERTIFY COMPLIANCE OF SPECIFIC ITEMS OF EQUIPMENT ONLY.

7) WAS THE SOURCE IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS FOR THE ENTIRE REPORTING PERIOD? ☒ YES ☐ NO

IF YES, THEN THE "REPORT INFORMATION" SECTION ON PAGE 3 OF THIS FORM DOES NOT NEED TO BE COMPLETED.

IF NO, THEN COMPLETE AND SUBMIT FORM CAAPP-405 -"EXCESS EMISSIONS, MONITORING EQUIPMENT DOWNTIME, AND MISCELLANEOUS REPORTING FORM."

8a) LIST THE EMISSION UNIT(S) AND CONTROL EQUIPMENT FOR WHICH THIS FORM IS BEING COMPLETED TO REPORT AND CERTIFY COMPLIANCE WITH (IF ADDITIONAL SPACE IS NEEDED FOR ITEM 10, ATTACH AND LABEL AS EXHIBIT 400-A):

b) IDENTIFY THE APPLICABLE REQIREMENT(S) FOR WHICH THIS FORM IS BEING USED TO REPORT AND CERTIFY COMPLIANCE WITH:

c) IDENTIFY THE APPLICABLE REQIREMENT(S) WHICH REQUIRE THAT THIS REPORT OR CERTIFICATION BE SUBMITTED:

d) WERE THE ABOVE REFERENCED ITEMS IN 8(a) IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS FOR THE ENTIRE REPORTING PERIOD? ☐ YES ☐ NO

IF YES, THEN THE "REPORT INFORMATION" SECTION ON PAGE 3 OF THIS FORM DOES NOT NEED TO BE COMPLETED.

IF NO, THEN COMPLETE AND SUBMIT FORM CAAPP-405 - "EXCESS EMISSIONS, MONITORING EQUIPMENT DOWNTIME, AND MISCELLANEOUS REPORTING FORM."

REPORT INFORMATION

9) TITLE OF REPORT BEING SUBMITTED:

Semi-Annual NSPS Compliance Report

10) IDENTIFY THE APPLICABLE REQIREMENT(S) WHICH REQUIRES THIS REPORT (IF APPLICABLE):

Permit Condition 7.1.3 and 7.1.10 of CAAPP Permit No. 99020102.
Permit Condition 5.2.5 of CAAPP Permit No. 99020102.

11) BRIEFLY EXPLAIN WHAT THIS REPORT COVERS:

Semi-annual NSPS compliance monitoring and reporting requirements for the GCCS at the facility as required by 40 CFR 60 Subpart WWW and 40 CFR 63 Subpart AAAA

12) ATTACH THE REPORT TO THIS FORM.

SIGNATURE BLOCK

NOTE: THIS CERTIFICATION MUST BE SIGNED BY A RESPONSIBLE OFFICIAL. APPLICATIONS WITHOUT A SIGNED CERTIFICATION WILL BE RETURNED AS INCOMPLETE.

13) I CERTIFY UNDER PENALTY OF LAW THAT, BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE STATEMENTS AND INFORMATION CONTAINED IN THIS APPLICATION ARE TRUE, ACCURATE AND COMPLETE.

AUTHORIZED SIGNATURE:

BY:

AUTHORIZED SIGNATURE	Vice President TITLE OF SIGNATORY
Thomas Hilbert TYPED OR PRINTED NAME OF SIGNATORY	08 / 27 / 2009 DATE

APPLICATION PAGE _____

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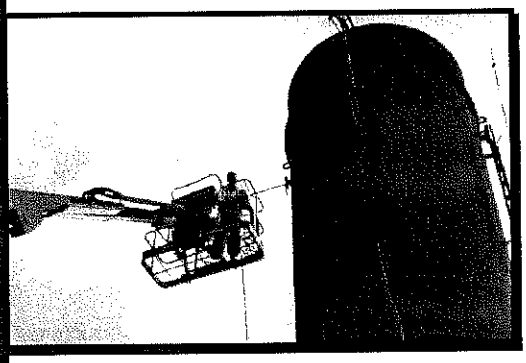
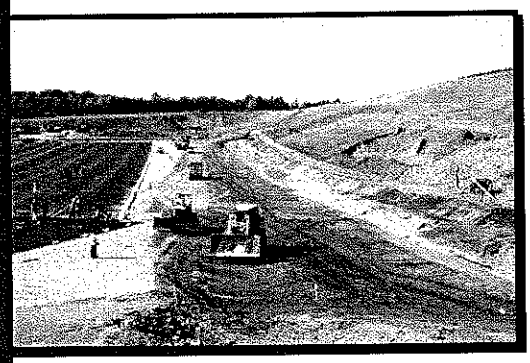
400-CAAPP





Winnebago Landfill Landfill Gas Collection and Control System Semi-annual Report January 1, 2009 – June 30, 2009

Project 90069.001
August 2009

Prepared for:
Winnebago Reclamation Services

Winnebago Landfill
8403 Lindenwood Road
Rockford, Illinois 61109

CORNERSTONE
Environmental Group, LLC

39395 W. Twelve Mile Rd., Suite 103, Farmington Hills, MI 48331

Building lifetime relationships with our clients and employees.

LANDFILL GAS COLLECTION AND CONTROL SYSTEM SEMI-ANNUAL REPORT JANUARY 1, 2009 - JUNE 30, 2009

WINNEBAGO LANDFILL

ROCKFORD, ILLINOIS

Prepared for
Winnebago Reclamation Service
August 2009

Prepared by

CORNERSTONE
Environmental Group, LLC
39395 W. Twelve Mile Road
Farmington Hills, Michigan 48331

Project 090069.001

Landfill Gas Collection and Control System Semi-annual Report
January 1, 2009 - June 30, 2009
Winnebago Landfill
Rockford, Illinois

The material and data in this report were prepared under the supervision and direction of the undersigned.

Cornerstone Environmental Group, LLC

Sultana Haque

Sultana Haque, P.E.
Project Engineer

Khaled Mahmood

Khaled Mahmood, P.E.
Senior Project Manager

TABLE OF CONTENTS

1 INTRODUCTION 1-1

1.1 PURPOSE 1-1
1.2 RECORD KEEPING AND REPORTING 1-1

2 EXISTING SITE CONDITIONS 2-1

2.1 LANDFILL DESCRIPTION 2-1
2.2 LANDFILL GAS COLLECTION AND CONTROL SYSTEM 2-1

3 SEMI-ANNUAL REPORT REQUIREMENTS 3-1

3.1 SEMI-ANNUAL REPORT REQUIREMENTS 3-1

4 SEMI-ANNUAL REPORT 4-1

4.1 WELLFIELD MONITORING 4-1
4.2 LFG BYPASS OPERATIONS 4-1
4.3 CONTROL DEVICE OPERATION 4-1
4.4 COLLECTION SYSTEM OPERATION 4-2
4.5 SURFACE EMISSIONS MONITORING 4-2
4.6 COLLECTION SYSTEM EXPANSION 4-3

LIMITATIONS 1

APPENDICES

APPENDIX A AS-BUILT GCCS DRAWING

APPENDIX B MONTHLY WELLHEAD MONITORING RESULTS

APPENDIX C CONTROL DEVICE DOWNTIME RECORDS

APPENDIX D QUARTERLY SURFACE EMISSIONS MONITORING RESULTS

1 INTRODUCTION

1.1 Purpose

This document serves as a landfill gas collection and control system (GCCS) semi-annual report for the Winnebago Landfill pursuant to 40 Code of Federal Regulations (CFR) Part 60, Subpart WWW, New Source Performance Standards (NSPS) for municipal solid waste landfill and 40 CFR Part 63, Subparts A and AAAA, National Emissions Standards for Hazardous Air Pollutants (NESHAP) for municipal solid waste landfills. The purpose of this report is to provide performance documentation in accordance with the NSPS requirements for the GCCS at Winnebago Landfill for the referenced reporting period.

1.2 Record Keeping and Reporting

This report is being submitted pursuant to 40 CFR §60.757(f) and 40 CFR §63.1980. Records will be prepared and maintained in accordance with 40 CFR §60.758 and 40 CFR §63.1980. The primary location for records storage will be at the Winnebago Landfill facility.

2 EXISTING SITE CONDITIONS

2.1 Landfill Description

Winnebago Landfill, owned and operated by Winnebago Reclamation Service (WRS), is located in Rockford, Illinois and accepts municipal and other wastes under operating permit numbers 1991-138-LF and 2006-221-LF issued by the Illinois Environmental Protection Agency (IEPA).

The Winnebago Landfill contains several separate fill areas as follows:

- The area filled to final grade, known as the North Unit, is approximately 42.7 acres with an active GCCS.
- The active waste filling area, known as the South Unit, is approximately 27.5 acres. An active GCCS is installed in portions of the south unit.
- The Northern Expansion Area is approximately 66.6 acres where waste placement began in 2008 and does not have a GCCS.

2.2 Landfill Gas Collection and Control System

A GCCS has been installed and currently operates in the areas filled to final grade or in active areas where the waste is five or more years old. The existing GCCS consists of approximately thirty two (32) vertical extraction wells and three (3) horizontal collectors in the North Unit, thirty five (35) vertical extraction wells and six (6) horizontal collectors in South Unit. These extraction wells convey the landfill gas (LFG) from the refuse, through a series of lateral and header pipes to LFG control devices for energy production or destruction.

The primary control device for Winnebago Landfill consists of LFG treatment system, two backup open flares (North Unit and South Unit flares) and one backup enclosed flare. The LFG treatment system and the LFG fired engines are owned and operated by the Winnebago Energy Center, LLC that utilizes the LFG collected from the Winnebago Landfill to generate electricity. The engines started operating from December 28, 2007. The Open flares and the enclosed flare are owned and operated by the Winnebago Reclamation Service and they are operated when treatment system is not in service or flow of FLG is greater than the energy facility can handle. A copy of the GCCS drawing has been included in Appendix A.

3 SEMI-ANNUAL REPORT REQUIREMENTS

In accordance with §60.757(f) and §63.1980(a) a semi-annual report must be submitted to the regulatory agency by applicable facilities, which contains performance and monitoring data for the operation of the GCCS.

3.1 Semi-Annual Report Requirements

The requirements under the semi-annual report are as follows:

1. Value and length of time for exceedance of parameters monitored under §60.756(a), (b), (c), and (d) which include:

   - Monthly recording of gauge pressure at all wellheads, all wells must operate under negative pressure conditions
   - Monthly monitoring of oxygen or nitrogen concentrations at all wellheads, oxygen be less than 5% or nitrogen must be less than 20%
   - Monthly monitoring of temperatures at all wellheads, temperature be less than 55°C (131°F)
   - For open flares, all periods where landfill gas flow is not recorded at least once every 15 minutes and presence of flame is not continuously indicated
   - For enclosed combustors with a heat input capacity less than 44 megawatts, all periods where landfill gas flow is not recorded at least once every 15 minutes and temperature is not recorded continuously. Also, all three hour periods during which the average combustion temperature was more than 28°C below the average temperature recorded during the performance test for the control device.
   - Report all 3-hour averaging block of numerical continuous parameter (i.e., combustion temperature) monitoring data containing at least one hour of invalid data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour. Data collected during any of the events described in 40 CFR 63.1975 (monitoring system breakdowns, repairs, calibration checks; control device startup, shutdowns and malfunctions) are not to be included in any 3-hour averaging block (40 CFR 63.1955 – 40 CFR 63.1975).

2. Description and duration of all periods when the gas stream was diverted from the control device through a bypass line.

3. Description and duration of all periods when the control device was not operating for greater than one hour and the length of time that the device was not operating.

4. All periods greater than five (5) days when the collection system was not operating.

5. Location and concentration of all surface emission exceedances ($\geq$ 500 ppm above background).

6. Date of installation and location of all wells or system expansions both planned and as the result of monitoring exceedances.

4 SEMI-ANNUAL REPORT

The information included in this section and applicable appendices, satisfies the requirements under §60.757(f) for the semi-annual report. The reporting period covered in this report is from January 1, 2009 through June 30, 2009.

4.1 Wellfield Monitoring

Monitoring data for the GCCS has been collected, at a minimum, on a monthly frequency for inclusion in the Winnebago Landfill's semi-annual report. Site personnel at Winnebago Landfill were responsible for collecting data. Wellhead monitoring data (pressure, temperature, and oxygen concentration) was recorded using a LANDTEC GEM-500. A complete copy of the results for the monthly monitoring is included in Appendix B.

Monthly monitoring, corrective measures and 15-day re-monitoring were conducted at the facility in accordance with the Title V permit and the NSPS regulations. During the reporting period, there were no exceedance of the operational parameters beyond NSPS standards longer than 15-days from initial occurrence for any of the well. When a monitoring data at a wellhead for any operational parameter was detected above the NSPS standards, corrective actions were undertaken within calendar 5 days of the respective monitoring date and re-monitoring was performed within 15-days. Records of monthly wellfield monitoring, corrective actions and re-monitoring conducted are kept on site file.

4.2 LFG Bypass Operations

No bypass line has been installed. Therefore, during the period encompassed under this report, LFG was not diverted through a bypass line.

4.3 Control Device Operation

The primary control devices for the Winnebago Landfill are landfill gas treatment system and two back-up open flares and an enclosed flare. The engine No. 2 utilizes LFG from North Unit while the Engine Nos. 3, 4 and 5 utilize LFG from the South Unit to generate electricity. The North Unit flare is backup for engine No. 2 and the South Unit flare is backup for engine Nos. 3, 4 and 5. An enclosed flare is also available as a back-up control.

The operating records for the North Unit flare, South Unit flare, and the treatment system/engines were reviewed for the reporting period. There were twenty one (21) instances where the North Unit flare and the engine No. 2 and the South Unit flare and engine Nos. 3, 4 and 5 were down simultaneously for more than 1 hour due to maintenance, loss of power, engine overspeed, repair, high oxygen in gas, low oil level, breaker lockout, wellfield work, cold cylinders etc. Each downtime was minimized and the engines were re-started as soon as possible. No landfill gas was released to the atmosphere during the shutdowns since the gas collection system is automatically closed off when the control device is shutdown. A summary of downtime events greater than 1 hour is included in Appendix C.

The enclosed flare did not operate during the reporting period covered in this report. Therefore, there was no landfill gas flow or combustion temperature to be monitored or recorded.

During this reporting period there were no 3-hour averaging blocks of numerical continuous parameter monitoring data that contained at least one hour of invalid data as described in §40 CFR 63.1965 and §40 CFR 63.1975.

4.4 Collection System Operation

During the period encompassed under this report, the gas collection system was not shutdown for more than five days on any occasion.

4.5 Surface Emissions Monitoring

Quarterly surface emission monitoring was performed by Andrews Environmental Engineering, Inc. using a flame ionization detector/photo ionization detector (FID/PID) as required under §60.755(c)(3). Testing was conducted around the perimeter of the collection area and in a serpentine pattern across the collection area as depicted in the surface emissions monitoring plan included in the previously submitted GCCS design plan.

Surface emissions monitoring for the 1st and 2nd quarters of 2009 were conducted on March 31, 2009 and June 3, 2009 respectively. No exceedances of the 500 ppm background concentration was detected during the 1st and 2nd quarters 2009 monitoring events.

Results of surface emissions monitoring events are maintained at the Winnebago Reclamation Service offices and are included in Appendix D.

4.6 Collection System Expansion

No additional extraction devices were installed during the period encompassed under this report due to operational parameter exceedances or due to normal GCCS expansion.

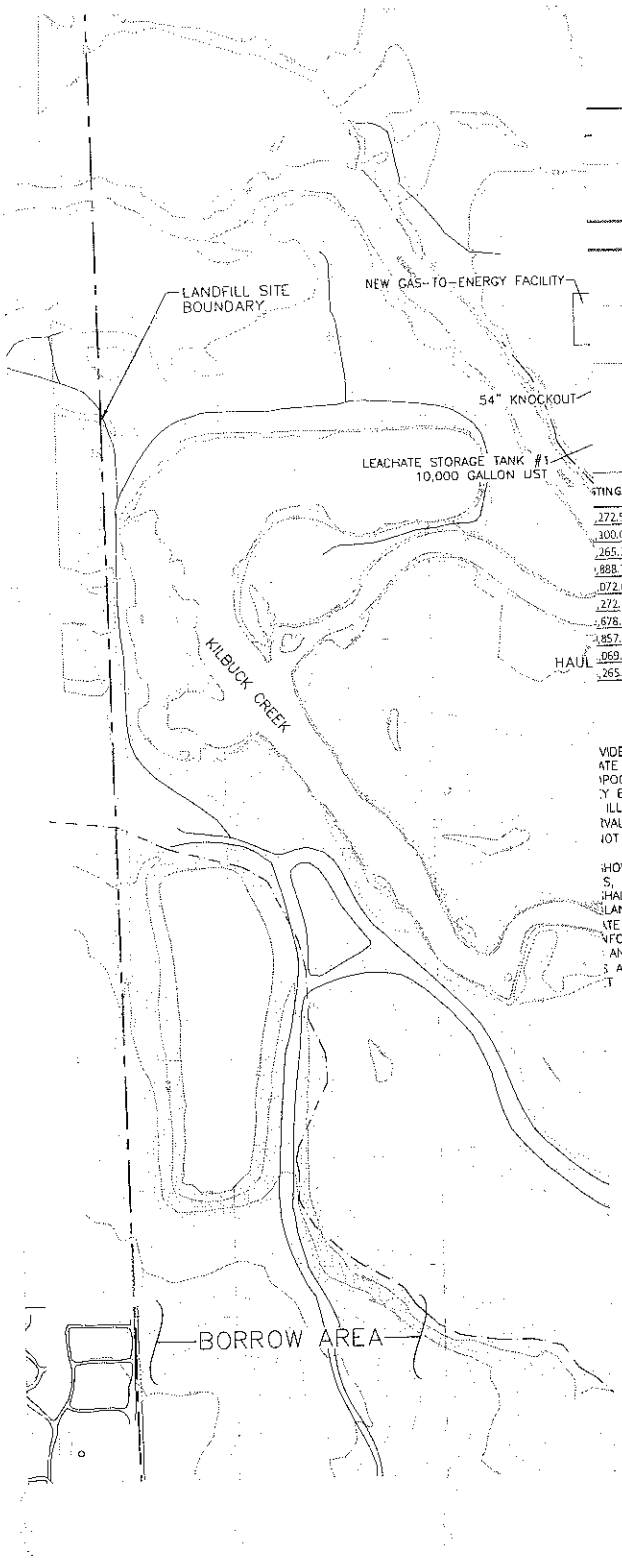
LIMITATIONS

The work product included in the attached was undertaken in full conformity with generally accepted professional consulting principles and practices and to the fullest extent as allowed by law we expressly disclaim all warranties, express or implied, including warranties of merchantability or fitness for a particular purpose. The work product was completed in full conformity with the contract with our client and this document is solely for the use and reliance of our client (unless previously agreed upon that a third party could rely on the work product) and any reliance on this work product by an unapproved outside party is at such party's risk.

The work product herein (including opinions, conclusions, suggestions, etc.) was prepared based on the situations and circumstances as found at the time, location, scope and goal of our performance and thus should be relied upon and used by our client recognizing these considerations and limitations. Cornerstone shall not be liable for the consequences of any change in environmental standards, practices, or regulations following the completion of our work and there is no warrant to the veracity of information provided by third parties, or the partial utilization of this work product.

APPENDIX A

AS-BUILT GCCS DRAWING



LEGEND

- PROPERTY BOUNDARY
- WASTE BOUNDARY
- 10' TOPOGRAPHIC CONTOUR
- 2' TOPOGRAPHIC CONTOUR
- 18" GAS LINE
- 12" GAS LINE
- 6" GAS LINE
- 4" GAS LINE
- 2"x4" DUAL-CONTAINED CONDENSATE LINE
- KNOCKOUT DISCHARGE LINE
- EXISTING SOUTH UNIT GAS WELL

STING	AS-BUILT LINER ELEVATION	GROUND ELEVATION	WASTE DEPTH	BORING DEPTH
272.5	715.71	838.82	123.11	108.11
300.0	713.51	839.91	126.39	111.39
265.2	716.79	842.82	126.03	111.03
888.7	746.15	839.99	93.84	78.84
072.6	750.28	842.71	92.44	77.44
272.1	752.78	838.50	85.72	70.72
678.2	779.65	820.00	40.34	25.34
857.5	797.56	843.08	45.53	30.53
069.6	801.89	858.22	56.33	41.33
265.2	811.13	854.82	43.69	28.69

VIDED BY AEROMETRICS, INC. OF SHEBOYGAN,
ATE OF TOPOGRAPHY NOVEMBER 25, 2003.
PPOGRAPHY IS BASED ON DECEMBER 15, 2007
Y BY ARNOLD LUNDGREN AND ASSOCIATES, INC.
ILLINOIS.
IVAL PRESENTED IS 2 FEET.
IOT ALL EXISTING LANDFILL FEATURES ARE

HOWN ARE PROVIDED BY ARNOLD LUNDGREN
S, INC. OF ROCKFORD, ILLINOIS. ALL
HALL BE ESTABLISHED AND MAINTAINED BY A
LAND SURVEYOR.
ATE 100 YEAR FLOODPLAIN BOUNDARY SHOWN IS
NFORMATION PROVIDED BY THE ILLINOIS STATE
AND THE APPLICABLE FEMA MAPS.
S AND EASTINGS ARE STATE PLANE COORDINATES
T OF N 2,000,000 E 800,000.

FEEZOR ENGINEERING, INC.
Engineering for a Better World

PREPARED FOR:
WINNEBAGO RECLAMATION SERVICE, INC.
8403 LINDENWOOD ROAD
ROCKFORD, IL 61109

WINNEBAGO LANDFILL
GAS EXTRACTION SYSTEM

EXISTING GAS EXTRACTION SYSTEM

DESIGNED BY: NAC	SCALE: 1"=200'		
APPROVED BY: DRF	DATE: 8-2008		
PATH: S:\FEI\PROJECTS\PL\PL030		PROJECT NO.: PL-030	DRAWING NO.: 000

S:\Projects\Pagel (Develop) Landfill\PL-030 (2008 South Unit Gas System)\2008 South Unit Gas System Drawing\PL-030 Existing Gas System 08192008.dwg

APPENDIX B

MONTHLY WELLHEAD MONITORING RESULTS

Winnebago Landfill Gas Extraction North Unit - January 2009

Device ID	Date/Time	CH4 %	CO2 %	O2 %	Balance %	SP	Temp	Adj. Flow Scfm	Vacuum (adj Flow)	Comments
WinGW100	1/13/2009 8:00	52.2	27.6	1.7	18.49	-4.7	30	0	0	Decreased 1/4
WinGW101	1/13/2009 7:57	30.9	22.4	3.3	43.4	-3.7	40	0	0	Decreased 1/2
WinGW103	1/19/2009 9:31	50.9	37.5	1.9	9.69	-0.1	30	0	0	
WinGW110	1/19/2009 8:04	29.3	14.4	4.1	52.19	-2.4	11	0	0	Closed
WinGW111	1/29/2009 11:05	56.7	38.3	0.3	4.69	-1.4	96	0	0	Increased 1/2
WinGW112	1/19/2009 8:53	52.9	36.2	1.8	9.09	-3.3	98	0	0	Decreased 1/4
WinGW113	1/19/2009 8:49	52	37.4	1.8	8.79	-3.5	81	0	0	Decreased 1/4
WinGW120	1/13/2009 8:10	50	27.3	1.1	21.6	-11.4	38	0	0	Decreased 1/4
WinGW121	1/19/2009 8:56	51.7	36	1.9	10.4	-4.3	81	0	0	Decreased 1/4
WinGW122	1/29/2009 11:09	48.1	34.8	1.4	15.7	-2.2	60	0	0	
WinGW123	1/19/2009 8:37	52.3	33.6	1.4	12.7	-4.6	71	0	0	Decreased 1/4
WinGW130	1/13/2009 8:13	69.8	27.7	0.4	2.09	-11.3	48	0	0	Increased Full Turn
WinGW131	1/19/2009 9:00	51.5	34.3	2.5	11.7	-10.7	70	0	0	Decreased 1/4
WinGW132	1/19/2009 9:03	48.3	35.2	3.1	13.4	-9.6	79	0	0	Decreased 1/2
WinGW133	1/19/2009 8:30	54.3	36.8	1.6	7.3	-3.9	80	0	0	Decreased 1/4
WinGW134	1/19/2009 8:33	48.4	29.3	4	18.29	-3	47	0	0	Decreased 1/2
WinGW140	1/13/2009 8:16	56.5	31.5	2.5	9.5	-6.5	50	0	0	Decreased 1/4
WinGW141	1/19/2009 9:08	50.3	37.2	2	10.5	-1.6	84	0	0	Decreased 1/4
WinGW142	1/19/2009 8:27	52.6	36.4	2.5	8.5	-4.1	48	0	0	Decreased 1/4
WinGW150	1/13/2009 8:19	63.3	36.1	0.4	0.2	-7.6	50	0	0	Increased 1/2
WinGW151	1/19/2009 9:11	54	39.6	1.4	5	-1.7	78	0	0	Decreased 1/4
WinGW152	1/19/2009 9:27	50	36.2	2.7	11.1	-4.9	48	0	0	Decreased 1/4
WinGW160	1/13/2009 8:26	56.2	34.7	3.3	5.79	-7.9	52	0	0	Decreased 1/4
WinGW161	1/19/2009 9:14	51.7	37.3	1.7	9.3	-4.8	80	0	0	Decreased 1/4
WinGW162	1/19/2009 9:20	28	19.2	10.7	42.1	-10.6	58	0	0	Closed
WinGW162	1/29/2009 11:00	44.6	29.9	4.8	20.7	-9.8	0	0	0	
WinGW170	1/13/2009 8:29	63	36.5	0.4	0.09	-7.5	70	0	0	Increased 1/2
WinGW171	1/13/2009 8:48	56.1	40.9	0.6	2.4	-10.3	101	0	0	Increased 1/4
WinGW180	1/13/2009 8:32	62.2	36.6	0.7	0.5	-7.2	70	0	0	Increased 1/2
WinGW181	1/13/2009 8:43	58.2	37.8	0.7	3.3	-6.2	84	0	0	Increased 1/4
WinGW190	1/13/2009 8:35	63	36.6	0.2	0.2	-0.6	38	0	0	Increased 1/2
WinGW191	1/13/2009 8:39	61.8	38.1	0	0.1	-0.7	20	0	0	Increased 1/4
WINGWEEH	1/13/2009 8:46	51.9	36.1	2.4	9.6	-7.3	35	0	0	Decreased 1/4
WINGWEMH	1/19/2009 9:16	51.8	34.6	2.5	11.1	-5.5	48	0	0	Decreased 1/4
WINGWEWH	1/19/2009 9:25	53.6	38.3	1.6	6.5	-1.1	46	0	0	Decreased 1/4
WINRGSSN	1/13/2009 8:55	57.1	39.8	0.8	2.2	-19.2	0	0	0	

Winnebago Landfill Gas Extraction North Unit - February 2009

Device ID	Date/Time	CH4 %	CO2 %	O2 %	Balance %	SP	Temp	Adj. Flow Scfm	Vacuum (adj Flow)	Comments
WinGW100	2/6/2009 8:49	76.7	23.2	0	0.1	-0.6	47	0	0	Increased 1/2
WinGW101	2/6/2009 8:46	69.1	30.8	0	0.1	-0.9	32	0	0	Increased 1/2
WinGW103	2/6/2009 10:12	49.7	30.5	1.8	18	-3.7	38	0	0	Decreased 1/2
WinGW110	2/6/2009 8:53	63.6	36.3	0	0.1	-1.5	41	0	0	Increased 1/2
WinGW111	2/6/2009 9:53	60.1	39.3	0.4	0.2	-1.3	89	0	0	Increased 1/2
WinGW112	2/6/2009 9:56	58.6	41.3	0	0.1	-2.5	81	0	0	Increased 1/2
WinGW113	2/6/2009 10:10	66.2	33.7	0	0.1	-2.5	48	0	0	Increased 1/2
WinGW120	2/6/2009 8:58	62.1	30.1	0.1	7.7	-3.5	50	0	0	Increased 1/2
WinGW121	2/6/2009 9:50	59.6	40.3	0	0.1	-2.1	72	0	0	Increased 1/2
WinGW122	2/6/2009 9:59	57.3	39.3	0	3.3	-3.5	60	0	0	Increased 1/2
WinGW123	2/6/2009 10:07	64.6	35.4	0	0	-1.8	80	0	0	Increased 1/2
WinGW130	2/6/2009 9:01	70.5	29.4	0	0.1	-4.4	51	0	0	Increased 1/2
WinGW131	2/6/2009 9:48	60.1	37.7	0	2.2	-4.3	72	0	0	Increased 1/2
WinGW132	2/6/2009 10:00	60.8	39.2	0	0	-6.2	80	0	0	Increased 1/2
WinGW133	2/6/2009 10:02	59.4	40.5	0	0	-3	78	0	0	Increased 1/2
WinGW134	2/6/2009 10:05	67.4	32.5	0	0.09	-0.5	48	0	0	Increased 1/2
WinGW140	2/6/2009 9:03	60.7	33.5	1.6	4.19	-6	70	0	0	Decreased 1/2
WinGW141	2/6/2009 9:44	58.3	37.7	1	3	-1.4	90	0	0	Increased 1/2
WinGW142	2/6/2009 9:42	59.4	40.5	0	0.09	-4.3	42	0	0	Increased 1/2
WinGW150	2/6/2009 9:06	62.5	37.4	0	0.09	-5.4	65	0	0	Increased 1/2
WinGW151	2/6/2009 9:34	60	37.3	0.8	1.9	-2.2	82	0	0	Increased 1/2
WinGW152	2/6/2009 9:39	46	30.4	4.6	19	-4.4	44	0	0	Decreased 1/2
WinGW160	2/6/2009 9:10	64.4	35.5	0	0	-5.9	68	0	0	Increased 1/2
WinGW161	2/6/2009 9:29	58.8	41.1	0	0.1	-2.1	80	0	0	Increased 1/2
WinGW162	2/6/2009 9:32	46.3	32.6	4.4	16.7	-0.1	54	0	0	Decreased 1/2
WinGW170	2/6/2009 9:12	63.4	36.5	0	0	-3.9	81	0	0	Increased 1/2
WinGW171	2/6/2009 9:27	58.3	41.6	0	0.1	-3.1	99	0	0	Increased 1/2
WinGW180	2/6/2009 9:15	62.4	36.6	0	0.9	-3.8	72	0	0	Increased 1/2
WinGW181	2/6/2009 9:22	60.7	39.2	0	0.09	-2.9	85	0	0	Increased 1/2
WinGW190	2/6/2009 9:17	61.7	38.2	0	0.09	-1.7	50	0	0	Increased 1/2
WinGW191	2/6/2009 9:20	61.1	38.8	0	0.1	-0.1	42	0	0	Increased 1/2
WINGWEEH	2/6/2009 9:26	56.4	37.8	0	5.79	-6.6	65	0	0	Increased 1/2
WINGWEMH	2/6/2009 9:31	50.1	32.9	3.6	13.4	-4.4	48	0	0	Decreased 1/2
WINGWEWH	2/6/2009 9:37	54.9	38.1	2	5	-6.3	57	0	0	Decreased 1/2
WINRGSSN	2/6/2009 10:17	63.1	36.8	0	0.1	-13.3	0	0	0	

Winnebago Landfill Gas Extraction North Unit - March 2009

Device ID	Date/Time	CH4 %	CO2 %	O2 %	Balance %	SP	Temp	Adj. Flow Scfm	Vacuum (adj Flow)	Comments
WinGW100	3/17/2009 10:56	34	20.2	4.1	41.7	-4.2	71	0	0	Decreased 1/2
WinGW101	3/17/2009 10:54	45.1	33.2	1.6	20.1	-3.8	67	0	0	Decreased 1/2
WinGW103	3/17/2009 12:15	36.8	29.9	0.7	32.6	-3.1	63	0	0	Decreased Full
WinGW110	3/17/2009 10:58	41.2	25.7	4.2	28.89	-3.6	88	0	0	Decreased 1/2
WinGW111	3/17/2009 11:57	53	37.7	0	9.29	-5.2	98	0	0	Decreased 1/4
WinGW112	3/17/2009 12:00	56.9	38.6	0	4.5	-4.4	98	0	0	Increased 1/4
WinGW113	3/17/2009 12:10	53.5	33	0.3	13.2	-7.3	70	0	0	Decreased 1/2
WinGW120	3/17/2009 11:04	50.4	25.3	1.2	23.09	-8.6	72	0	0	Decreased 1/4
WinGW121	3/17/2009 11:55	58.8	37.1	0.6	3.5	-2.5	85	0	0	Increased 1/4
WinGW122	3/17/2009 12:02	49.9	37	0.3	12.79	-4.3	81	0	0	Decreased 1/4
WinGW123	3/17/2009 12:13	33.9	27.4	1.8	36.89	-3.4	80	0	0	Decreased Full
WinGW130	3/17/2009 11:07	70.9	26.3	0.4	2.39	-8.8	68	0	0	
WinGW131	3/17/2009 11:53	59.3	35.1	1.1	4.5	-6.7	82	0	0	Decreased 1/4
WinGW132	3/17/2009 12:04	59.8	39.9	0.2	0.09	-6.8	91	0	0	Increased 1/4
WinGW133	3/17/2009 12:06	60.9	38.5	0.2	0.39	-3.5	91	0	0	Increased 1/4
WinGW134	3/17/2009 12:08	58.5	30.9	2.1	8.5	-4.2	78	0	0	Decreased 1/2
WinGW140	3/17/2009 11:09	57	30.5	2.4	10.1	-2.9	75	0	0	Decreased 1/4
WinGW141	3/17/2009 11:51	60.5	37.7	0.7	1.09	-1	99	0	0	Increased 1/4
WinGW142	3/17/2009 11:49	59.6	37.8	1.1	1.5	-9.1	72	0	0	Decreased 1/4
WinGW150	3/17/2009 11:12	63.9	35.7	0.3	0.09	-3.9	65	0	0	Increased 1/4
WinGW151	3/17/2009 11:42	61.2	37.5	0.7	0.59	-3.8	83	0	0	
WinGW152	3/17/2009 11:46	52.4	33.9	3.6	10.09	-4.2	81	0	0	Decreased 1/2
WinGW160	3/17/2009 11:16	63	36.7	0.1	0.19	-4.3	79	0	0	Increased 1/4
WinGW161	3/17/2009 11:36	60	39.6	0.2	0.2	-4.1	81	0	0	Increased 1/4
WinGW162	3/17/2009 11:40	60	38	1.9	0.1	-6.4	68	0	0	Decreased 1/4
WinGW170	3/17/2009 11:18	64.6	35	0.2	0.2	-4.1	81	0	0	Increased 1/4
WinGW171	3/17/2009 11:33	58.5	38	0.3	3.2	-5.9	71	0	0	Increased 1/4
WinGW180	3/17/2009 11:20	61.8	34.7	0.3	3.2	-7.9	79	0	0	Increased 1/4
WinGW181	3/17/2009 11:28	58.7	38.9	0.3	2.09	-3.1	70	0	0	
WinGW190	3/17/2009 11:22	57.6	33.7	1.1	7.6	-6.9	84	0	0	Decreased 1/4
WinGW191	3/17/2009 11:25	31.4	20	9.6	39	-6.8	81	0	0	Closed
WinGW191	3/19/2009 7:30	50.3	30.1	4.2	15.4	-11.4	51	0	0	
WINGWEEH	3/17/2009 11:34	59.2	40.4	0.3	0.09	-8.6	99	0	0	Increased 1/4
WINGWEMH	3/17/2009 11:38	60.1	39.5	0.2	0.2	-5.7	61	0	0	Increased 1/4
WINGWEWH	3/17/2009 11:44	58.4	41.2	0.2	0.19	-7.3	70	0	0	Increased 1/4
WINRGSSN	3/17/2009 12:21	56.4	33.9	1.5	8.19	-13.9	0	0	0	

Winnebago Landfill Gas Extraction North Unit - April 2009

Device ID	Date/Time	CH4 %	CO2 %	O2 %	Balance %	SP	Temp	Adj. Flow Scfm	Vacuum (adj Flow)	Comments
WinGW100	4/8/2009 12:02	44	23.3	2.7	30	-1.6	60	0	0	Decreased 1/4
WinGW101	4/8/2009 11:59	48.1	24.2	4.8	22.9	-0.1	60	0	0	
WinGW103	4/17/2009 8:49	61.1	32.1	1.1	5.7	-3.7	58	0	0	Increased 1/4
WinGW110	4/17/2009 7:15	51.1	26	1.6	21.3	-0.9	71	0	0	
WinGW111	4/17/2009 8:27	55	36.5	0.1	8.39	-3.1	100	0	0	Increased 1/4
WinGW112	4/17/2009 8:29	57.7	42.2	0	0.09	-0.8	81	0	0	Increased 1/2
WinGW113	4/17/2009 8:46	65.1	30.6	1.6	2.7	-6.2	81	0	0	Decreased 1/2
WinGW120	4/17/2009 7:21	43.9	24.3	2.4	29.4	-2.6	69	0	0	Decreased 1/4
WinGW121	4/17/2009 8:25	45.1	33.6	1.3	20	-7.9	81	0	0	Decreased 1/2
WinGW122	4/17/2009 8:32	43.9	30.6	1.7	23.79	-6.4	78	0	0	Decreased 1/4
WinGW123	4/17/2009 8:43	65.8	33.5	0.5	0.19	-4.2	82	0	0	Increased 1/2
WinGW130	4/17/2009 7:23	62.5	26.8	0	10.7	-12.5	80	0	0	Decreased 1/2
WinGW131	4/17/2009 8:23	53.8	35.2	1	10	-12.2	84	0	0	Decreased 1/4
WinGW132	4/17/2009 8:34	49	34.9	1.8	14.29	-10.6	98	0	0	Decreased 1/4
WinGW133	4/17/2009 8:37	57.4	36.6	0.3	5.7	-9.9	90	0	0	Increased 1/4
WinGW134	4/17/2009 8:40	65.4	33	0.9	0.69	-2.4	67	0	0	Decreased 1/2
WinGW140	4/17/2009 7:27	53.1	27.7	3.3	15.9	-9.7	73	0	0	Decreased 1/4
WinGW141	4/17/2009 8:20	41.6	26.8	4.5	27.1	-6.7	99	0	0	Decreased 1/2
WinGW142	4/17/2009 8:17	60.3	39.1	0.5	0.1	-14.9	61	0	0	Increased 1/4
WinGW150	4/17/2009 7:29	62.4	33.6	0.7	3.3	-11.5	63	0	0	Decreased 1/4
WinGW151	4/17/2009 8:10	52.6	33.8	2	11.6	-9	81	0	0	Decreased 1/4
WinGW152	4/17/2009 8:15	48.4	33.1	4.1	14.4	-14.4	73	0	0	Decreased 1/2
WinGW160	4/17/2009 7:33	62.1	33	0.1	4.8	-12.3	79	0	0	
WinGW161	4/17/2009 8:00	51.5	36.1	1.5	10.9	-9.2	81	0	0	Decreased 1/4
WinGW162	4/17/2009 8:07	43.5	28	4.9	23.6	-12.3	82	0	0	Closed
WinGW170	4/17/2009 7:36	63.7	34.4	0.1	1.79	-11.8	82	0	0	
WinGW171	4/17/2009 7:57	56.2	38.3	0.8	4.69	-11.4	100	0	0	
WinGW180	4/17/2009 7:41	57.4	32.5	0.1	9.99	-7	72	0	0	Decreased 1/4
WinGW181	4/17/2009 7:51	53.2	37.1	0	9.7	-10.3	78	0	0	Decreased 1/4
WinGW190	4/17/2009 7:44	52.1	31.1	1.7	15.1	-10.9	82	0	0	Decreased 1/2
WinGW191	4/17/2009 7:48	59	35.1	1.9	4	-11.4	65	0	0	
WINGWEEH	4/17/2009 7:56	46.5	33.1	1.5	18.9	-11.6	73	0	0	Decreased 1/2
WINGWEMH	4/17/2009 8:02	60.6	38.7	0.5	0.2	-15.1	43	0	0	Decreased 1/4
WINGWEWH	4/17/2009 8:12	59.9	39.4	0.6	0.09	-12.4	63	0	0	Increased 1/4
WinGWFLA	4/8/2009 11:57	51.2	38.4	0.9	9.4	-9.5	0	0	0	

Winnebago Landfill Gas Extraction North Unit - May 2009

Device ID	Date/Time	CH4 %	CO2 %	O2 %	Balance %	SP	Temp	Adj. Flow Scfm	Vacuum (adj Flow)	Comments
WinGW100	5/14/2009 6:11	32.5	16	4.8	46.7	-6.9	50	0	0	Closed
WinGW101	5/14/2009 6:14	35	26.3	1.1	37.6	-7.1	70	0	0	Decreased 1/2
WinGW103	5/14/2009 7:05	30	27.7	0.8	41.5	-11.5	81	0	0	Decreased 1/2
WinGW110	5/14/2009 6:06	46.9	24.8	3.1	25.2	-4.8	60	0	0	Decreased Full
WinGW111	5/14/2009 6:17	54.9	39.5	0	5.59	-6.5	95	0	0	Increased 1/4
WinGW112	5/14/2009 6:56	51.9	39.1	0	9	-8.9	90	0	0	Increased 1/4
WinGW113	5/14/2009 7:03	29.6	25.1	1.2	44.1	-10.3	79	0	0	Closed
WinGW120	5/14/2009 6:00	69	26.2	1	3.79	-4.7	55	0	0	Decreased 1/4
WinGW121	5/14/2009 6:19	49.9	37.5	1.2	11.39	-7.9	88	0	0	Decreased 1/4
WinGW122	5/14/2009 8:32	44.1	30.4	1.4	24.2	-5.6	80	0	0	Decreased 1/4
WinGW123	5/14/2009 7:01	52	34.6	0	13.4	-10.9	75	0	0	Decreased 1/4
WinGW130	5/14/2009 5:57	69.4	28.5	0	2.09	-11.6	83	0	0	Decreased 1/4
WinGW131	5/14/2009 6:21	60.5	38.4	0	1.09	-9.9	80	0	0	Increased 1/4
WinGW132	5/14/2009 6:23	59.5	40.4	0	0.09	-12.3	88	0	0	Increased 1/4
WinGW133	5/14/2009 6:26	59	39.4	0	1.59	-9.8	85	0	0	Increased 1/4
WinGW134	5/14/2009 6:59	61	34.3	1	3.7	-13.4	69	0	0	Increased 1/4
WinGW140	5/14/2009 5:54	58.5	31.4	2.3	7.8	-7	40	0	0	Decreased 1/4
WinGW141	5/14/2009 6:29	47.8	34.5	3.8	13.9	-5.1	98	0	0	Decreased Full
WinGW142	5/14/2009 6:53	58.1	41.8	0	0.1	-10.7	61	0	0	Increased 1/4
WinGW150	5/14/2009 5:52	63	36.9	0	0.09	-10.8	79	0	0	
WinGW151	5/14/2009 6:32	57	36.8	1.1	5.1	-8	81	0	0	Decreased 1/4
WinGW152	5/14/2009 6:51	46.6	30.4	4.7	18.3	-12.3	71	0	0	Closed
WinGW160	5/14/2009 5:48	63	36.9	0	0.09	-11.4	70	0	0	Decreased 1/4
WinGW161	5/14/2009 6:34	59	39	0.4	1.6	-8.1	81	0	0	Increased 1/4
WinGW162	5/14/2009 6:46	46.7	30.5	4.3	18.5	-10.6	78	0	0	Closed
WinGW170	5/14/2009 5:45	64	35.9	0	0.09	-11	81	0	0	Decreased 1/4
WinGW171	5/14/2009 6:40	58	41.7	0.2	0.09	-9.4	100	0	0	Increased 1/4
WinGW180	5/14/2009 5:43	63.9	35.8	0	0.29	-7.8	79	0	0	Increased 1/4
WinGW181	5/14/2009 6:36	58.8	39.8	0	1.4	-9.1	92	0	0	Increased 1/4
WinGW190	5/14/2009 5:41	57.3	34.1	1.2	7.4	-10.6	82	0	0	Decreased 1/4
WinGW191	5/14/2009 5:39	0	0	20.5	79.5	-0.2	81	0	0	Closed
WinGW191	5/18/2009 7:42	33.9	31	4.2	30.8	-0.2	0	0	0	
WINGWEEH	5/14/2009 6:38	60.2	39.4	0	0.39	-9.9	75	0	0	Increased 1/4
WINGWEMH	5/14/2009 6:42	58.2	41.7	0	0.09	-11.9	79	0	0	Increased 1/4
WINGWEWH	5/14/2009 6:49	58.2	41.7	0	0.09	-10.7	60	0	0	Increased 1/4
WINRGSSN	5/14/2009 7:23	57.1	35.5	0.3	7.1	-21.7	0	0	0	

Winnebago Landfill Gas Extraction North Unit - June 2009

Device ID	Date/Time	CH4 %	CO2 %	O2 %	Balance %	SP	Temp	Adj. Flow Scfm	Vacuum (adj Flow)	Comments
WinGW100	6/4/2009 7:04	27.5	16.6	4.3	51.6	-5.7	81	0	0	Closed
WinGW101	6/9/2009 11:42	37.6	26.7	0	35.7	-9.5	79	0	0	Closed
WinGW103	6/4/2009 8:11	60.5	36.5	0.2	2.8	-3.5	78	0	0	Increased 1/4
WinGW110	6/4/2009 7:00	37.6	22.9	2.7	36.8	-1.9	72	0	0	Closed
WinGW111	6/4/2009 7:08	47.8	36.6	0	15.6	-5.4	101	0	0	Decreased 1/4
WinGW112	6/4/2009 7:57	51.5	38	0	10.5	-10.7	98	0	0	Decreased 1/4
WinGW113	6/4/2009 8:06	56.2	27	1.9	14.9	-6.3	89	0	0	Decreased 1/4
WinGW120	6/4/2009 6:53	31.4	21.4	1.8	45.4	-8.2	80	0	0	Closed
WinGW121	6/4/2009 7:11	51.9	37.8	0.6	9.69	-5.2	89	0	0	Decreased 1/4
WinGW122	6/4/2009 7:21	42.4	33.4	0.9	23.29	-8.8	89	0	0	Decreased 1/2
WinGW123	6/4/2009 8:03	40	30.3	0	29.7	-8.9	81	0	0	Closed
WinGW130	6/4/2009 6:51	59.3	25.9	0	14.8	-7.6	82	0	0	Decreased 1/2
WinGW131	6/4/2009 7:14	57.4	38.2	0	4.39	-9.7	92	0	0	Increased 1/4
WinGW132	6/4/2009 7:17	58.5	39.6	0.1	1.8	-9.3	100	0	0	Increased 1/4
WinGW133	6/4/2009 7:19	56.2	38.4	0	5.39	-9	89	0	0	Increased 1/4
WinGW134	6/4/2009 8:01	54.6	32.1	1.3	12	-9	85	0	0	Decreased 1/2
WinGW140	6/4/2009 6:48	65.3	34.6	0	0.09	-8.2	68	0	0	Increased 1/4
WinGW141	6/4/2009 7:53	47.9	31.7	4.5	15.89	-6.3	100	0	0	Decreased 1/2
WinGW142	6/4/2009 7:24	59.4	40.5	0	0.09	-9.6	82	0	0	Increased 1/4
WinGW150	6/4/2009 6:46	63.4	36.3	0.1	0.19	-8.7	6	0	0	Increased 1/4
WinGW151	6/4/2009 7:51	58	37.4	0.8	3.79	-6.5	84	0	0	Decreased 1/4
WinGW152	6/4/2009 7:28	56.6	39.2	1.3	2.9	-3.9	86	0	0	Decreased 1/4
WinGW160	6/4/2009 6:41	63.3	36.6	0	0.1	-9.4	81	0	0	Increased 1/4
WinGW161	6/4/2009 7:48	57.7	38.6	0.7	3	-6.4	82	0	0	Decreased 1/4
WinGW162	6/4/2009 7:48	57.7	38.6	0.7	3	-6.4	82	0	0	Decreased 1/4
WinGW170	6/4/2009 6:39	63.6	36.3	0	0.1	-8.8	89	0	0	Increased 1/4
WinGW171	6/4/2009 7:40	58.4	41	0.4	0.19	-8.1	99	0	0	Increased 1/4
WinGW180	6/4/2009 6:35	63.6	34.6	0	1.8	-5.9	81	0	0	Increased 1/4
WinGW181	6/4/2009 7:45	58.1	37.9	0	4	-7.7	82	0	0	Increased 1/4
WinGW190	6/4/2009 6:33	56.7	33.6	1.1	8.6	-8.4	90	0	0	Decreased 1/4
WinGW191	6/4/2009 6:30	60.4	39.5	0	0.09	-0.5	60	0	0	Increased 1/4
WINGWEEH	6/4/2009 7:42	56.6	38.1	0.1	5.2	-11.7	86	0	0	Increased 1/4
WINGWEMH	6/4/2009 7:38	59.6	39.9	0.4	0.09	-9.5	79	0	0	Increased 1/4
WINGWEWH	6/4/2009 7:29	58.5	40.7	0.7	0.09	-9.6	79	0	0	Increased 1/4
WINRGSSN	6/5/2009 7:23	56.3	34.9	0.4	8.4	-20.5	0	0	0	

Winnebago Landfill Gas Extraction South Unit - January 2009

Device ID	Date/Time	CH4 %	CO2 %	O2 %	Balance %	SP in H2O	Temp degF	Init. Flow Scfm	Vacuum (adj Flow)	Comments
EW-200	1/28/2009 12:47	56	42.8	1.1	0.1	-1	0	127	72	
WINGS02A	1/21/2009 7:01	53.4	38.2	1.8	6.59	-16.8	51	61	54	Decreased 1/2
WINGS04A	1/21/2009 7:08	33	29.4	3.1	34.5	-0.5	54	40	<<<	Decreased 1/2
WINGS06A	1/21/2009 7:04	45.8	36.9	0.8	16.5	-4.1	78	39	20	
WINGS12A	1/22/2009 11:51	57.6	41.5	0.8	0.1	-4.4	48	52	42	
WINGS13A	1/28/2009 12:11	51.6	38.8	2.3	7.3	-1.5	97	46	25	Decreased 1/2
WINGS15A	1/22/2009 11:54	57.8	41.4	0.6	0.19	-0.1	60	50	25	
WINGS16A	1/21/2009 7:40	59.7	40.2	0	0.1	0.3	72	46	29	
WINGS16A	1/22/2009 11:59	56.1	36.8	1.8	5.3	-0.8	62	45	30	
WINGS18A	1/28/2009 12:15	44.8	34.5	2.6	18.1	-3.7	100	47	28	Decreased 1/2
WINGS21A	1/28/2009 12:31	45.8	33.4	2.5	18.29	-2.7	70	51	32	Decreased 1/2
WINGS22A	1/28/2009 12:20	40.9	33	3.2	22.89	-6.7	92	51	33	Decreased 1/2
WINGS25A	1/22/2009 12:05	58.1	41	0.7	0.2	-0.2	54	45	18	
WINGS26A	1/28/2009 12:28	52.7	34.4	2.8	10.09	-5.9	65	54	36	Decreased 1/2
WINGS27A	1/28/2009 12:23	44	34.3	3	18.7	-2.8	81	48	32	Decreased 1/2
WINGS28A	1/28/2009 12:25	48	35.1	2	14.9	-2.2	71	48	31	Decreased 1/2
WINGWS01	1/21/2009 6:55	39.3	30.5	4	26.2	-4.3	52	46	27	Decreased 1/2
WINGWS03	1/22/2009 12:08	56.7	39.2	1.3	2.79	-0.3	82	45	27	
WINGWS05	1/22/2009 11:48	54.9	37.5	2.2	5.39	-2.1	67	44	26	Decreased 1/2
WINGWS08	1/21/2009 6:50	36.1	29.4	3.5	31	-8.2	65	52	35	Decreased 1/2
WINGWS09	1/28/2009 12:42	52.7	37	2.6	7.69	-3	82	45	28	Decreased 1/2
WINGWS10	1/21/2009 7:14	57.9	37.5	0.9	3.69	-0.3	30	50	<<<	
WINGWS11	1/28/2009 12:37	50.2	33.7	3.5	12.59	-7.3	67	55	45	Decreased 1/2
WINGWS14	1/21/2009 7:18	60.7	38.9	0.2	0.19	-0.8	91	16	<<<	
WINGWS17	1/28/2009 12:34	43.1	32.3	3.3	21.3	-3.4	80	49	31	Decreased 1/2
WINGWS20	1/21/2009 7:21	58.3	38.9	0.6	2.19	-0.4	90	39	<<<	
WINGWS24	1/21/2009 7:24	56.9	40.8	0	2.29	-0.3	52	46	26	
WINGWS30	1/21/2009 7:27	47.6	35.3	0.8	16.3	-8.1	81	56	43	Decreased 1/2
WINGWS32	1/21/2009 7:30	51.9	38.8	1.9	7.39	-0.5	45	6	9	Decreased 1/2
WINGWS34	1/28/2009 12:49	39.1	40.8	4.8	15.3	-4.7	0	156	133	
WINGWS35	1/28/2009 13:03	58.2	40.8	0.8	0.19	-0.5	0	114	66	
WINGWS36	1/28/2009 12:59	53.7	45.3	0.9	0.1	-2.7	0	145	119	
WINGWS38	1/28/2009 13:06	46.6	45.2	2.1	6.1	-5.7	0	173	149	
WINGWS39	1/28/2009 13:12	40.6	47.4	2.1	9.89	-4.2	0	151	132	
WINGWS42	1/28/2009 13:08	46.1	52.7	1.1	0.1	-1	0	142	117	
WINGWS7A	1/21/2009 7:49	55.6	39	1.4	4	-1.6	30	43	18	
WINGWSH1	1/28/2009 12:18	50.5	39.1	2.6	7.8	-12.2	0	59	52	Decreased 1/2
WINGWSH2	1/28/2009 12:13	53.4	41.2	2	3.39	-2.3	0	53	45	Decreased 1/2
WINGWSH3	1/21/2009 7:52	52.1	38.2	1.5	8.1	-1.6	0	45	20	
WINGWSH4	1/22/2009 12:03	57.6	41.7	0.6	0.1	-0.6	0	137	108	
WINGWSH5	1/22/2009 11:56	57.2	37.8	1.5	3.5	-0.6	0	125	91	
WINGWSH6	1/21/2009 7:36	58.6	41.1	0.2	0.1	-0.9	0	126	91	
WINRGSSS	1/21/09 7:55	54.2	35.4	1.1	9.4	-27.8	0	0	0	

Winnebago Landfill Gas Extraction South Unit - February 2009

Device ID	Date/Time	CH4 %	CO2 %	O2 %	Balance %	SP in H2O	Temp degF	Init. Flow Scfm	Vacuum (adj Flow)	Comments
EW-200	2/24/2009 13:09	51.2	43.4	0	5.39	-3.2	0	0	0	Increased 1/4
WINGS02A	2/24/2009 11:52	58.9	41	0	0.09	-6.3	60	44	36	Increased 1/4
WINGS04A	2/24/2009 11:57	59.3	40.5	0	0.2	-2.5	55	37	20	
WINGS06A	2/24/2009 11:54	52.2	39.2	0	8.59	-1.3	89	36	24	
WINGS12A	2/24/2009 12:31	57.6	41	0	1.4	-4.9	80	38	29	Increased 1/4
WINGS13A	2/24/2009 12:44	56	41.1	0	2.9	-1.3	98	39	<<<	Increased 1/4
WINGS15A	2/24/2009 12:26	56.9	42.8	0.2	0.09	-0.3	90	24	<<<	Increased 1/4
WINGS16A	2/24/2009 12:22	42.4	34.9	0	22.69	-1.4	96	14	12	Decreased 1/4
WINGS18A	2/24/2009 12:48	53.9	39.5	0	6.6	-3.1	85	<<<	<<<	Increased 1/4
WINGS21A	2/24/2009 11:37	56.8	39.1	0.1	4	-1.7	81	36	27	Increased 1/4
WINGS22A	2/24/2009 12:52	51.8	40	0.8	7.3	-2.2	98	<<<	<<<	Increased 1/4
WINGS25A	2/24/2009 12:17	57.6	41.9	0	0.3	-1.1	99	<<<	<<<	Increased 1/4
WINGS26A	2/24/2009 12:59	60.4	39.5	0	0.09	-4.6	70	40	30	Increased 1/4
WINGS27A	2/24/2009 12:55	54.5	41.4	0	4.09	-2.3	88	32	17	Increased 1/4
WINGS28A	2/24/2009 12:57	60.3	39.7	0	0	-4	79	<<<	<<<	Increased 1/4
WINGWS01	2/24/2009 11:47	59.7	40.1	0	0.2	-1	61	39	12	Increased 1/4
WINGWS03	2/24/2009 11:49	58.7	41.2	0	0.09	-1.8	80	21	19	Increased 1/4
WINGWS05	2/24/2009 11:59	59.1	40.8	0	0.1	-6.2	60	46	36	
WINGWS08	2/24/2009 11:44	60.5	39.4	0	0.09	-2.6	65	15	20	Increased 1/4
WINGWS09	2/24/2009 12:41	58.7	40.4	0	0.89	-2.2	89	37	25	Increased 1/4
WINGWS10	2/24/2009 12:01	60.1	39.8	0	0.1	-6.2	60	44	37	Increased 1/4
WINGWS11	2/24/2009 11:42	60.7	39.1	0	0.2	-5.3	70	46	37	Increased 1/4
WINGWS14	2/24/2009 12:04	59.3	40.5	0.1	0.1	-5.4	101	44	37	
WINGWS17	2/24/2009 11:39	54.4	37.3	0.7	7.59	-2.4	82	32	20	Increased 1/4
WINGWS20	2/24/2009 12:06	59.8	40.1	0	0.1	-6.1	90	44	38	Increased 1/4
WINGWS24	2/24/2009 12:08	59.5	40.4	0	0.09	-5	90	42	35	Increased 1/4
WINGWS30	2/24/2009 12:11	59.5	39.7	0	0.79	-3.4	91	39	31	Increased 1/4
WINGWS32	2/24/2009 12:14	57.1	42.8	0	0.1	-0.3	65	<<<	<<<	Increased 1/4
WINGWS34	2/24/2009 13:11	50.9	49	0	0.09	-3.1	0	119	105	
WINGWS35	2/24/2009 13:21	63.1	46.9	0	0	-3.1	0	<<<	<<<	Increased 1/4
WINGWS36	2/24/2009 13:14	57.3	42.7	0	0	-2.1	0	<<<	<<<	Increased 1/4
WINGWS38	2/24/2009 13:20	56.2	43.8	0	0	-3.4	0	<<<	<<<	Increased 1/4
WINGWS39	2/24/2009 13:22	54.2	41.6	0	4.1	-3.4	0	0	0	Decreased 1/4
WINGWS42	2/24/2009 13:17	55.6	44.4	0	0	-2.9	0	<<<	<<<	Increased 1/4
WINGWS7A	2/24/2009 12:34	62.2	37.8	0	0	-2	85	<<<	<<<	Increased 1/4
WINGWSH1	2/24/2009 12:50	54.3	42.7	0	3	-6.5	0	47	41	Increased 1/4
WINGWSH2	2/24/2009 12:46	48.9	40.7	1.2	9.2	-3.6	0	<<<	<<<	
WINGWSH3	2/24/2009 12:38	41.5	36.4	2.6	19.4	-0.5	0	<<<	<<<	Decreased 1/4
WINGWSH4	2/24/2009 12:29	59.2	40.8	0	0	-1.3	0	<<<	<<<	Increased 1/4
WINGWSH5	2/24/2009 12:24	32.6	34.8	4.2	28.3	-1.1	0	<<<	<<<	Decreased 1/4
WINGWSH6	2/24/2009 12:19	54.6	42.9	0	2.5	-4.3	0	113	90	Increased 1/4
WINRGSSS	2/24/2009 13:25	56.2	34.3	0.8	8.6	-29.2	0	0	0	

Winnebago Landfill Gas Extraction South Unit - March 2009

Device ID	Date/Time	CH4 %	CO2 %	O2 %	Balance %	SP in H2O	Temp degF	Init. Flow Scfm	Vacuum (adj Flow)	Comments
EW-200	3/30/2009 9:03	54.3	45	0.6	0.1	-4.2	0	124	97	
WINGS02A	3/30/2009 7:59	59	40.9	0	0.09	-6.3	64	46	39	
WINGS04A	3/30/2009 8:03	59.5	40.4	0	0	-0.4	58	<<<	<<<	
WINGS06A	3/30/2009 8:01	60.7	39.2	0	0.09	-1.3	79	<<<	<<<	
WINGS12A	3/30/2009 8:34	59.3	40.6	0	0.09	-5.8	68	<<<	<<<	
WINGS13A	3/30/2009 8:45	39.7	30.5	4.5	25.3	-3.3	91	71	28	
WINGS15A	3/30/2009 8:30	64.7	45.6	0	0.1	-0.6	90	<<<	<<<	
WINGS16A	3/30/2009 8:25	59.6	40.3	0	0	-0.9	98	<<<	<<<	
WINGS18A	3/30/2009 8:49	58.5	41.4	0	0.09	-2.2	102	35	19	
WINGS21A	3/30/2009 7:45	56.7	43.2	0	0.09	-1.6	70	35	15	
WINGS22A	3/30/2009 8:53	56.4	43.5	0	0.09	-1.7	99	37	30	
WINGS25A	3/30/2009 8:22	60.5	39.4	0	0	-1.2	99	<<<	<<<	
WINGS26A	3/30/2009 9:00	60.5	38.5	0.8	0.19	-2.8	68	41	35	
WINGS27A	3/30/2009 8:55	56.7	43.2	0	0.09	-2	89	33	24	
WINGS28A	3/30/2009 8:57	58	41.9	0	0.09	-2	88	39	21	
WINGWS01	3/30/2009 7:55	60.5	39.4	0	0.09	-2.2	69	<<<	<<<	
WINGWS03	3/30/2009 7:56	59.8	40.1	0	0	-6.3	88	<<<	<<<	
WINGWS05	3/30/2009 8:05	59	40.9	0	0.09	-3.2	61	39	27	
WINGWS08	3/30/2009 7:52	60.1	39.8	0	0.1	-2.5	72	37	25	
WINGWS09	3/30/2009 8:41	59.2	40.7	0	0.09	-4.5	81	38	27	
WINGWS10	3/30/2009 8:07	60.2	39.7	0	0.09	-9.6	62	44	40	
WINGWS11	3/30/2009 7:50	60.6	39.3	0	0	-1.7	71	<<<	<<<	
WINGWS14	3/30/2009 8:10	58.5	41.4	0	0.09	-5	100	40	34	
WINGWS17	3/30/2009 7:47	57.8	42.1	0	0.1	-1.9	80	39	27	
WINGWS20	3/30/2009 8:12	59.3	40.6	0	0.1	-3.3	90	<<<	<<<	
WINGWS24	3/30/2009 8:15	56.7	43.2	0	0.09	-3.4	89	40	35	
WINGWS30	3/30/2009 8:17	59.1	40.8	0	0.1	-4.9	90	40	33	
WINGWS32	3/30/2009 8:19	60.1	48.8	0	0.09	-2.6	67	<<<	<<<	
WINGWS34	3/30/2009 9:05	52.2	47.7	0	0.09	-1.9	0	119	83	
WINGWS35	3/30/2009 9:17	60.9	39	0	0.1	-2.2	0	<<<	<<<	
WINGWS36	3/30/2009 9:08	52.8	47.1	0	0.1	-1.9	0	100	70	
WINGWS38	3/30/2009 9:15	52.4	47.5	0	0.09	-2.1	0	115	101	
WINGWS39	3/30/2009 9:10	45.9	54	0	0.09	-2.1	0	109	88	
WINGWS42	3/30/2009 9:13	55.4	44.5	0	0	-2.1	0	<<<	<<<	
WINGWS7A	3/30/2009 8:36	58	41.9	0	0.09	-0.2	55	30	<<<	
WINGWSH1	3/30/2009 8:51	56.3	43.6	0	0.1	-5.3	0	43	37	
WINGWSH2	3/30/2009 8:47	55.6	43.8	0.4	0.2	-1.5	0	38	30	
WINGWSH3	3/30/2009 8:39	52.8	42.3	1.1	3.6	-0.8	0	<<<	<<<	
WINGWSH4	3/30/2009 8:33	59.4	40.5	0	0.1	-1.3	0	<<<	<<<	
WINGWSH5	3/30/2009 8:28	42	33.7	4.2	20.09	-1	0	99	71	
WINGWSH6	3/30/2009 8:23	55	44.9	0	0.09	-2.7	0	116	89	
WINRGSSS	3/17/2009 12:19	50.1	37.4	1.6	10.9	-32.3	0	0	0	

Winnebago Landfill Gas Extraction South Unit - April 2009

Device ID	Date/Time	CH4 %	CO2 %	O2 %	Balance %	SP in H2O	Temp degF	Init. Flow Scfm	Vacuum (adj Flow)	Comments
E-200	4/15/2009 8:10	54.1	43.2	0	2.7	-4.6	92	141	119	Increased 1/4
WINGS02A	4/15/2009 6:40	59	40.9	0	0.09	-4	80	40	29	Increased 1/4
WINGS04A	4/15/2009 6:46	58.6	41.3	0	0.1	-0.1	82	34	24	
WINGS06A	4/15/2009 6:43	54.1	40.8	0	5.1	-1	91	13	14	Increased 1/4
WINGS12A	4/15/2009 7:20	58.1	41.8	0	0.1	-6.4	89	42	36	Increased 1/4
WINGS13A	4/15/2009 7:30	57.3	40.2	0	2.4	-4.1	88	41	35	Increased /14
WINGS15A	4/15/2009 7:16	51.7	40.4	0	7.89	-1.1	99	28	15	Decreased 1/4
WINGS16A	4/15/2009 7:11	44.5	37.1	0	18.4	-3	99	39	24	Decreased Full
WINGS18A	4/15/2009 7:38	55.6	39.9	0	4.5	-4.3	88	41	34	Increased 1/4
WINGS21A	4/15/2009 6:24	58.7	40.5	0	0.79	-1.4	80	34	21	Increased 1/2
WINGS22A	4/15/2009 7:42	50.5	40.5	0	9	-3.4	88	41	34	Decreased 1/2
WINGS25A	4/15/2009 7:07	42.3	37.5	0	20.2	-0.1	99	4	5	Decreased Full
WINGS26A	4/15/2009 7:49	60	39.9	0	0.09	-6.2	70	47	42	Increased 1/4
WINGS27A	4/15/2009 7:44	54.4	41	0	4.59	-4.1	89	42	37	Increased 1/4
WINGS28A	4/15/2009 7:47	53.9	39.3	0	6.79	-3.9	92	41	30	Increased 1/4
WINGWS01	4/15/2009 6:34	53.6	38.1	0.4	7.9	-2.6	73	22	23	Decreased 1/4
WINGWS03	4/15/2009 6:36	54.1	39	0	6.9	-2.5	91	40	35	Increased 1/4
WINGWS05	4/15/2009 6:49	59.2	40.7	0	0.09	-3.6	62	43	31	Increased 1/4
WINGWS08	4/15/2009 6:31	57.1	38.3	0	4.6	-2.8	72	42	25	Increased 1/4
WINGWS09	4/15/2009 7:29	58	40.2	0	1.79	-3.3	95	44	39	Increased 1/4
WINGWS10	4/15/2009 6:51	60.1	39.8	0	0.1	-3.8	70	43	38	Increased 1/4
WINGWS11	4/15/2009 6:28	60.2	39.7	0	0.09	-2.9	80	38	31	Increased 1/4
WINGWS14	4/15/2009 6:54	57.9	42	0	0.09	-3.2	101	41	34	Open
WINGWS17	4/15/2009 6:26	53.3	38.3	0.9	7.5	-1.8	83	35	19	Decreased 1/4
WINGWS20	4/15/2009 6:56	59.3	40.6	0	0.1	-3.6	98	41	33	Open
WINGWS24	4/15/2009 6:58	58.7	41.2	0	0.09	-3.7	96	43	40	Open
WINGWS30	4/15/2009 7:00	60.5	39.2	0	0.29	-2.2	92	40	22	Increased 1/4
WINGWS32	4/15/2009 7:04	49.7	38.9	0.2	11.19	-0.1	82	26	6	Decreased 1/2
WINGWS34	4/15/2009 7:58	50.8	49.1	0	0.1	-4.3	82	136	96	Increased 1/2
WINGWS35	4/15/2009 8:08	53	46.9	0	0.09	-4.6	89	137	113	Increased 1/2
WINGWS36	4/15/2009 8:00	52.1	47.8	0	0.1	-4.1	85	133	104	Increased 1/2
WINGWS36	4/15/2009 8:00	52.1	47.8	0	0.1	-4.1	88	133	83	Increased 1/2
WINGWS38	4/15/2009 8:06	51.1	48.8	0	0.1	-4.6	90	130	113	Increased 1/2
WINGWS39	4/15/2009 8:02	47.3	52.6	0	0.1	-4.4	84	137	111	Increased 1/2
WINGWS42	4/15/2009 8:04	50.3	49.6	0	0.1	-4.4	81	130	116	Increased 1/2
WINGWS7A	4/15/2009 7:23	50.4	38.1	0	11.5	-5	95	44	36	Decreased 1/2
WINGWSH1	4/15/2009 7:40	55.5	42.5	0.1	1.9	-5.2	0	48	41	Increased 1/4
WINGWSH2	4/15/2009 7:35	52	43.1	0	4.9	-2.4	0	42	22	Increased 1/4
WINGWSH3	4/15/2009 6:38	37.4	36	0	26.59	-3.3	0	41	33	Closed
WINGWSH4	4/15/2009 7:18	49	40.4	0	10.59	-0.1	0	81	18	Decreased 1/2
WINGWSH5	4/17/2009 10:16	26.4	22.3	3.1	48.2	-0.2	0	43	40	Closed
WINGWSH5	4/15/2009 7:13	20.8	21.4	7.4	50.39	-0.9	0	101	79	Closed
WINGWSH6	4/15/2009 7:09	53.9	42.5	0	3.59	-3.4	0	123	90	Increased 1/4
WINRGSSS	4/15/2009 6:16	50.5	41.2	0.8	7.49	-17.6	0	0	0	

Winnebago Landfill Gas Extraction South Unit - May 2009

Device ID	Date/Time	CH4 %	CO2 %	O2 %	Balance %	SP in H2O	Temp degF	Init. Flow Scfm	Vacuum (adj Flow)	Comments
EW-200	5/29/2009 7:00	53.9	45.9	0	0.19	-4.1	109	114	86	Increased 1/4
WINGS02A	5/19/2009 10:55	59	40.9	0	0.09	-8.7	90	51	50	Increased 1/4
WINGS04A	5/19/2009 11:00	58.4	41.5	0	0.09	-0.1	86	32	17	Increased 1/4
WINGS06A	5/19/2009 10:58	52.8	40.3	0	6.9	-2	100	44	34	Increased 1/4
WINGS12A	5/19/2009 11:35	57.3	42.6	0	0.1	-5.7	102	45	40	Increased 1/4
WINGS13A	5/19/2009 11:47	56.4	43.5	0	0.09	-2.5	108	39	31	Increased 1/4
WINGS15A	5/19/2009 11:31	58	41.7	0	0.29	-2.2	108	38	32	Increased 1/4
WINGS16A	5/19/2009 11:26	59.3	40.6	0	0.1	-1.4	111	15	20	Increased 1/4
WINGS18A	5/19/2009 11:50	56.2	39.9	0	3.89	-3.7	99	39	36	Increased 1/4
WINGS21A	5/19/2009 10:41	53.6	38.5	0.1	7.8	-4.3	98	41	37	Increased 1/4
WINGS22A	5/19/2009 11:54	49.7	38.8	0	11.5	-1.2	110	31	18	Decreased 1/4
WINGS25A	5/19/2009 11:22	57.1	42.8	0	0.1	-1.5	99	17	20	Increased 1/4
WINGS26A	5/19/2009 12:00	60.3	39.6	0	0.1	-9	90	47	43	Increased 1/4
WINGS27A	5/19/2009 11:57	52.3	39.3	0	8.4	-5.9	95	47	40	Decreased 1/4
WINGS28A	5/19/2009 11:58	56.5	39.1	0	4.4	-2.9	99	43	36	Increased 1/4
WINGWS34	5/29/2009 7:02	51.5	48.4	0	0.09	-6.4	110	125	111	Increased 1/4
WINGWS35	5/29/2009 7:16	52.7	47.2	0	0.09	-4.2	100	121	113	Increased 1/4
WINGWS36	5/29/2009 7:04	50.4	49.5	0	0.09	-4.7	90	84	88	Increased 1/4
WINGWS36	5/29/2009 7:11	53.7	46.2	0	0.09	-4.2	92	111	96	Increased 1/4
WINGWS38	5/29/2009 7:07	50.1	49.8	0	0.1	-4.7	78	120	89	Increased 1/4
WINGWS39	5/29/2009 7:09	51.8	48.1	0	0.1	-5	89	112	92	Increased 1/4
WINGWS42	5/19/2009 10:51	52.7	37.6	0.5	9.2	-4.9	88	32	33	Decreased 1/4
WINGWS03	5/19/2009 10:53	50.9	37.3	0	11.79	-6.6	104	48	42	Decreased 1/4
WINGWS05	5/19/2009 11:03	58.9	41	0	0.09	-8.3	90	41	42	Increased 1/4
WINGWS08	5/19/2009 10:48	49.6	37	0	13.4	-6.6	89	45	36	Decreased 1/4
WINGWS09	5/19/2009 11:44	57.7	42.1	0.1	0.1	-3	109	40	36	Increased 1/4
WINGWS10	5/19/2009 11:05	59.4	40.5	0	0.09	-8.2	90	50	49	Increased 1/4
WINGWS11	5/19/2009 10:45	59.7	40.2	0	0.09	-7.5	90	49	44	Open
WINGWS14	5/19/2009 11:08	59.6	40.3	0	0.1	-7	111	49	46	Open
WINGWS17	5/19/2009 10:43	52.9	37.4	0.9	8.79	-3	98	44	36	Decreased 1/4
WINGWS20	5/19/2009 11:10	59.2	40.7	0	0.09	-8.2	110	44	42	Open
WINGWS24	5/19/2009 11:13	58.5	41.4	0	0.09	-7.1	107	49	45	Open
WINGWS30	5/19/2009 11:15	59.7	38.7	0	1.59	-4.2	100	46	41	Increased 1/4
WINGWS32	5/19/2009 11:18	57.5	42.4	0	0.09	-0.3	89	12	13	Increased 1/4
WINGWS7A	5/19/2009 11:37	53.2	39.1	0	7.7	-4.1	98	41	30	Increased 1/4
WINGWSH1	5/19/2009 11:52	52.3	39.5	0	8.2	-9.9	0	53	49	
WINGWSH2	5/19/2009 11:49	51.4	40.5	0	8.09	-1.5	0	42	37	
WINGWSH3	5/19/2009 11:41	56.7	43.2	0	0.09	0.4	0	38	4	Increased 1/4
WINGWSH4	5/19/2009 11:34	55.5	44.4	0	0.09	-0.2	0	23	29	Increased 1/4
WINGWSH5	5/19/2009 11:29	29.1	29.4	1.8	39.7	-5.1	0	126	96	Closed
WINGWSH6	5/19/2009 11:24	53.5	41.1	0	5.4	-5.6	0	131	116	Increased 1/4
WINRGSSS	5/29/2009 7:22	55.8	44.1	0	0.1	-33.1	0	0	0	

Winnebago Landfill Gas Extraction South Unit - June 2009

Device ID	Date/Time	CH4 %	CO2 %	O2 %	Balance %	SP in H2O	Temp degF	Init. Flow Scfm	Vacuum (adj Flow)	Comments
E-200	6/9/2009 12:56	54.7	45	0.1	0.19	-6.6	110	127	116	
WINGS02A	6/9/2009 7:31	58.1	41.8	0	0.1	-6.6	79	47	42	
WINGS04A	6/9/2009 7:33	57.2	41.1	0	1.6	-0.1	78	81	32	
WINGS06A	6/9/2009 7:32	57.5	42.4	0	0.09	-3.6	98	41	36	
WINGS12A	6/9/2009 8:08	57	42.9	0	0.09	-3.1	103	39	30	
WINGS13A	6/9/2009 8:15	55.9	44	0	0.09	-2.5	109	38	34	Increased 1/4
WINGS15A	6/9/2009 8:04	53.6	40.4	0	6	-1.2	95	35	22	Decreased 1/4
WINGS16A	6/9/2009 7:59	51.9	40	0	8.09	-1.4	102	27	18	Decreased 1/4
WINGS18A	6/9/2009 8:18	57.9	42	0	0.09	-2.1	101	33	27	
WINGS21A	6/9/2009 7:16	57.1	42.7	0	0.2	-3.9	82	41	30	
WINGS22A	6/9/2009 8:22	56.1	43.8	0	0.1	-5.1	87	39	32	Increased 1/4
WINGS25A	6/9/2009 7:55	49.1	40.6	0	10.3	-1	89	22	15	Decreased 1/4
WINGS26A	6/9/2009 8:28	57.9	42	0	0.09	-4.2	96	42	38	
WINGS27A	6/9/2009 8:24	55.7	44.2	0	0.09	-1.8	89	37	31	
WINGS28A	6/9/2009 8:26	57.2	42.7	0	0.09	-7.9	85	43	39	
WINGWS01	6/9/2009 7:25	59.1	40.8	0	0.1	-0.7	71	9	13	Increased 1/4
WINGWS03	6/9/2009 7:27	58.9	41	0	0.09	-3.6	98	43	34	
WINGWS05	6/9/2009 7:36	58.1	41.8	0	0.1	-6.6	72	43	37	
WINGWS08	6/9/2009 7:22	58.6	41.3	0	0.1	-6.3	79	43	36	
WINGWS09	6/9/2009 8:13	57.7	42.2	0	0.09	-6.5	100	42	36	
WINGWS10	6/9/2009 7:39	58.9	41	0	0.09	-12.1	89	51	49	
WINGWS11	6/9/2009 7:20	57.5	42.4	0	0.09	-8.5	80	42	40	
WINGWS14	6/9/2009 7:41	58.3	41.6	0	0.1	-8.5	109	49	46	
WINGWS17	6/9/2009 7:18	57.2	42.7	0	0.09	-0.8	89	40	23	
WINGWS20	6/9/2009 7:43	58	41.9	0	0.09	-11.4	102	50	47	
WINGWS24	6/9/2009 7:46	57.1	42.8	0	0.1	-6.5	101	47	46	
WINGWS30	6/9/2009 7:49	58.3	41.6	0	0.1	-6.3	100	44	42	
WINGWS32	6/9/2009 7:52	54.4	41	0	4.59	-0.1	90	37	21	Decreased 1/4
WINGWS34	6/9/2009 12:59	53.4	46.5	0	0.09	-9.7	110	128	120	
WINGWS35	6/9/2009 13:09	53.4	46.5	0	0.09	-8.7	98	128	122	
WINGWS36	6/9/2009 13:01	51.1	48.8	0	0.1	-10.4	91	132	120	
WINGWS38	6/9/2009 13:08	53.2	46.7	0	0.09	-5.7	91	126	116	
WINGWS39	6/9/2009 13:03	50.5	49.4	0	0.09	-4.8	85	126	90	
WINGWS42	6/9/2009 13:06	51.4	48.5	0	0.09	-8.7	91	132	124	
WINGWS7A	6/9/2009 8:10	57.8	42.1	0	0.1	-6.3	96	44	37	
WINGWSH1	6/9/2009 8:20	56.7	43.2	0	0.09	-8.6	0	49	31	
WINGWSH2	6/9/2009 8:16	53.9	42.7	0	3.39	-5.3	0	44	38	
WINGWSH3	6/9/2009 8:12	50.3	38.6	0.9	10.1	-4.5	0	45	37	
WINGWSH4	6/9/2009 8:07	55.1	44.8	0	0.1	-0.3	0	101	69	
WINGWSH5	6/9/2009 8:02	11.3	34.1	3.9	50.6	-1.1	0	97	43	Closed
WINGWSH6	6/9/2009 7:57	56.8	41.4	0	1.79	-5.5	0	135	105	Decreased 1/4
WINRGSSS	6/5/2009 7:24	57.9	42	0	0.1	-31.4	0	0	0	

APPENDIX C

CONTROL DEVICE DOWNTIME RECORDS

Winnebago Landfill
Control Device Downtime Events Greater than One Hour
Reporting Period January 1, 2009 – June 30, 2009

Date	Duration of Downtime (Hour)	Reason for Downtime
1/6/09	5.67	Engine No. 2 shutdown due to low aftercooler level and damaged batteries
1/7/09	17.25	Engine No. 2 shutdown due to low aftercooler level and damaged batteries
1/17/09	2.50	Engine No. 2 shutdown due to overspeed
1/29/09	1.50	Engine No. 2 shutdown due to cold cylinders
1/31/09 – 2/2/09	36.08	Engine Nos. 2, 3, 4 and 5 shutdown due to blow out of fuse in utility cabinet
2/7/09	1.25	Engine No. 2 shutdown for maintenance
2/10/09	1.50	Engine No. 2 shutdown to repair cracked oil pipe on gas booster
2/24/09	1.42	Engine No. 2 shutdown due to overspeed
2/26/09	2.25	Engine Nos. 2, 3, 4 and 5 shutdown due to loss of power
3/4/09 – 3/5/09	20.92	Engine No. 2 shutdown due to cold cylinder #15
3/9/09	1.25	Engine No. 2 shutdown for overhaul
3/18/09	1.50	Engine No. 2 shutdown due to high oxygen in gas
3/26/09	2.92	Engine No. 2 shutdown due to engine overload
4/14/09	1.57	Engine No. 2 shutdown due to low oil level
4/26/09	1.08	Engine Nos. 2, 3, 4 and 5 shutdown due to Code 47 on south gas booster
4/27/09	2.50	Engine No. 2 shutdown for maintenance
5/14/09	1.83	Engine No. 2 shutdown for wellfield work
5/21/09	1.08	Engine No. 2 shutdown due to low oil level
6/8/09	3.30	Engine No. 2 shutdown to service spark plugs

Date	Duration of Downtime (Hour)	Reason for Downtime
6/8/09	1.75	Engine No. 2 shutdown due to water pump failure
6/17/09	1.42	Engine No. 2 shutdown for service and high point venting

APPENDIX D

QUARTERLY SURFACE EMISSIONS MONITORING RESULTS

ANDREWS
ENGINEERING, INC.

May 4, 2009

Mr. Evan Buskohl
5450 Wansford Way
Suite 201B
Rockford, IL 61109

Subject: WRS-Pagel Landfill
1st Quarter 2009 NSPS Surface Monitoring Results

Dear Evan,

The required NSPS surface methane monitoring event for the first quarter of 2009 was conducted at Pagel Landfill on March 31, 2009. The monitoring event indicated that no surface methane concentrations exceeded the 500 ppm concentration threshold specified in the NSPS regulations.

Attached are the field data sheets for this monitoring event. Although you are not required to submit these records to the IEPA or the U.S. EPA (unless specifically required under your CAAPP permit or other permit), the NSPS regulations require that you keep the monitoring records on file for 5 years. In accordance with condition 1.1.10.c.v. of the Joint Construction and Operating Permit – NSPS Source, information on this exceedance should be included in your annual NSPS report. If you have any questions, please feel free to call me at (317) 595-6492 or contact me via email at bparaskevas@andrews-eng.com.

Sincerely,

Bill Paraskevas, P.E.
Andrews Engineering, Inc.

attachments

7478 Shadeland Station Way, Indianapolis, Indiana 46256 • 317.595.6492 fax 317.598.9929 www.andrews-eng.com
Corporate Office 3300 Ginger Creek Drive, Springfield, Illinois 62711 • 217.787.2334

ANDREWS ENVIRONMENTAL ENGINEERING

NSPS Surface Methane Monitoring
Monitoring Event Data Form

Instructions: Complete a new form for each monitoring event, including re-monitoring events.

Date: 3/31/09 Site: Page| LF Project No.: 90-114SRF

Quarter (circle): (1st) 2nd 3rd 4th 2009 Technician: Seth Siergey

Monitoring Event (circle): (initial) 1st 10-day re-monitor 2nd 10-day re-monitor

1-month re-monitor 1-month+10 day re-monitor

Instrument: Foxboro TVA-1000

Instrument Calibration:

Calibrate instrument immediately prior to performing a monitoring event. A calibration performed in the office before proceeding into the field is acceptable. Calibration must involve actually setting the instrument to 500 ppm against the methane calibration gas, not just merely checking the instrument reading (field checking) against the calibration gas. See the Instrument Preparation Instructions located in the TVA case for instructions on performing the calibration.

Calibration gas: Methane @ 500 ppm

Date: 3/31/09 Time of calibration: 10:45 (am) pm

Calibration location (circle): (office) field

If calibrated in field, specify field location: _____

Instrument set to read 500 ppm methane? **Y N** If no, explain: Yes

Calibration Precision Test:

Review the requirements for performing a Calibration Precision Test described on the Instrument Preparation Instructions located in the blue folder inside the TVA case, and determine if a new test is required.

Include a copy of the most recent Calibration Precision Test results (from the blue folder in the TVA case) with the field data forms for this quarter.

Response Time Test:

Review the requirements for performing a Response Time Test described on the Instrument Preparation Instructions located in the blue folder inside the TVA case, and determine if a new test is required.

Include a copy of the most recent Response Time Test results (from the blue folder in the TVA case) with the field data forms for this quarter.

Monitoring Event Data:

If site has a meteorological station, obtain weather information from the site station, otherwise, estimate or obtain info from the internet using the nearest representative station.

Temperature: 48 °F Wind direction/speed: SSE/ 18 mph Weather: Light Rain

Barometric Pressure—Beginning: 29.58 in. Hg @ 12:54 am pm

Ending: 29.48 in. Hg @ 3:54 am pm

Background Concentrations (remain at least 100' from perimeter LFG collection wells located inside the landfill footprint)						
Identification (show on map)	**Time**	**Location**	**Approx. Northing**	**Approx. Easting**	**Methane Conc. (ppmv)**	**Notes**
BG-U-1-09	12:45	Upwind	2,000,230	800,650	10	
BG-D-1-09	11:00	Downwind	2,002,570	801,130	11	

Monitoring Data						
Exceedance # (show on map)	**Time**	**Location**		**>500 ppm detected?**	**Methane Conc. read**	**Notes/Comments**
		Approx. N	**Approx. E**			
No	Exceedences					

History for Rockford, IL

Tuesday, March 31, 2009 — View Current Conditions

Daily Summary

« Previous Day March 31 2009 View Next Day »

Daily Weekly Monthly Custom

	Actual:	Average :	Record :
Temperature:			
Mean Temperature	47 °F / 8 °C	42 °F / 5 °C	
Max Temperature	55 °F / 12 °C	52 °F / 11 °C	84 °F / 28 °C (1986)
Min Temperature	39 °F / 3 °C	32 °F / 0 °C	7 °F / -13 °C (1923)
Degree Days:			
Heating Degree Days	18	23	
Month to date heating degree days	799	912	
Since 1 July heating degree days	6110	6160	
Cooling Degree Days	0	1	
Month to date cooling degree days	0	1	
Year to date cooling degree days	0	1	
Moisture:			

Dew Point	38 °F / 3 °C		
Average Humidity	73		
Maximum Humidity	93		
Minimum Humidity	52		
Precipitation:			
Precipitation	0.43 in / 1.09 cm	0.10 in / 0.25 cm	1.21 in / 3.07 cm (2008)
Month to date precipitation	5.80	2.39	
Year to date precipitation	8.83	5.14	
Sea Level Pressure:			
Sea Level Pressure	**29.60** in / **1002** hPa		
Wind:			
Wind Speed	17 mph / 28 km/h (SSE)		
Max Wind Speed	28 mph / 45 km/h		
Max Gust Speed	38 mph / 61 km/h		
Visibility	7 miles / 12 kilometers		
Events	Rain , Thunderstorm		

T = Trace of Precipitation, MM = Missing Value

Source: NWS Daily Summary

Change Location:

Airport: KRFD

Recent: KRFD , LYBE , KMDW , LRTR

Submit

Trip Planner:

Search our historical database for the weather conditions in past years. The results will help you decide how hot, cold, wet, or windy it will be!

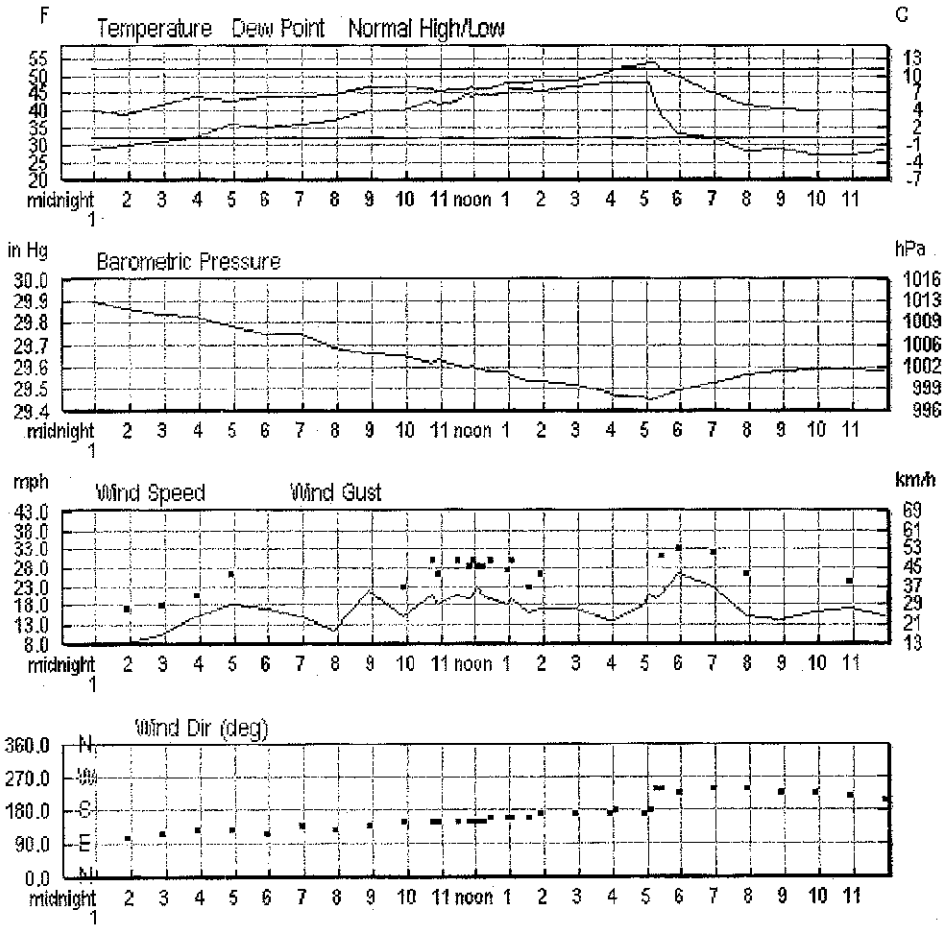
Go To The Trip Planner

Radar Archive:

View Animated Radar Loop
This image may take a moment to generate.

Local Photos:

Going Home

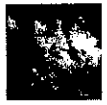


Show Offs

The clouds put on a nice show between 5:30 PM and 6:00 PM over and around my back yard.

Show Offs

The clouds put on a nice show between 5:30 PM and 6:00 PM over and around my back yard.



Show Offs

The clouds put on a nice show between 5:30 PM and 6:00 PM over and around my back yard.

Show Offs

The clouds put on a nice show between 5:30 PM and 6:00 PM over and around my back yard.

Show Offs

The clouds put on a nice show between 5:30 PM and 6:00 PM over and around my back yard.

Break before Dusk

After a long day of dreary rainy weather the sky bust open on my drive home.

Early Evening

Sky opened at the end of a long dreary day and it was beautiful! Temps dropped 20 degrees in one hour.

Time (CDT):	Temp.:	Dew Point:	Humidity:	Sea Level Pressure:	Visibility:	Wind Dir:	Wind Speed:	Gust Speed:	Precip:	Events:	Conditions:
7:54 AM	44.6 °F / 7.0 °C	37.4 °F / 3.0 °C	76%	**29.69** in / **1005.3** hPa	10.0 miles / 16.1 kilometers	SE	11.5 mph / 18.5 km/h / 5.1 m/s	-	N/A		Overcast
8:54 AM	46.9 °F / 8.3 °C	39.9 °F / 4.4 °C	77%	**29.66** in / **1004.3** hPa	9.0 miles / 14.5 kilometers	SE	21.9 mph / 35.2 km/h / 9.8 m/s	29.9 mph / 48.2 km/h / 13.4 m/s	0.00 in / 0.0 cm	Rain	Light Rain
9:54 AM	46.9 °F / 8.3 °C	39.9 °F / 4.4 °C	77%	**29.65** in / **1004.1** hPa	10.0 miles / 16.1 kilometers	SSE	15.0 mph / 24.1 km/h / 6.7 m/s	23.0 mph / 37.0 km/h / 10.3 m/s	0.01 in / 0.0 cm	Rain	Light Rain
10:45 AM	46.4 °F / 8.0 °C	42.8 °F / 6.0 °C	87%	**29.62** in / **1002.9** hPa	5.0 miles / 8.0 kilometers	SSE	20.7 mph / 33.3 km/h / 9.3 m/s	29.9 mph / 48.2 km/h / 13.4 m/s	0.01 in / 0.0 cm	Rain	Light Rain
10:54 AM	46.0 °F / 7.8 °C	42.1 °F / 5.6 °C	86%	**29.63** in / **1003.4** hPa	5.0 miles / 8.0 kilometers	SSE	18.4 mph / 29.6 km/h / 8.2 m/s	26.5 mph / 42.6 km/h / 11.8 m/s	0.02 in / 0.1 cm	Rain	Light Rain
11:29 AM	46.4 °F / 8.0 °C	42.8 °F / 6.0 °C	87%	**29.61** in / **1002.6** hPa	1.5 miles / 2.4 kilometers	SSE	20.7 mph / 33.3 km/h / 9.3 m/s	29.9 mph / 48.2 km/h / 13.4 m/s	0.04 in / 0.1 cm	Rain	Rain
11:48 AM	46.4 °F / 8.0 °C	44.6 °F / 7.0 °C	93%	**29.60** in / **1002.3** hPa	2.0 miles / 3.2 kilometers	SSE	19.6 mph / 31.5 km/h / 8.7 m/s	28.8 mph / 46.3 km/h / 12.9 m/s	0.08 in / 0.2 cm	Rain	Rain
11:54 AM	46.9 °F / 8.3 °C	44.1 °F / 6.7 °C	90%	**29.61** in / **1002.5** hPa	2.0 miles / 3.2 kilometers	SSE	20.7 mph / 33.3 km/h / 9.3 m/s	29.9 mph / 48.2 km/h / 13.4 m/s	0.08 in / 0.2 cm	Rain	Rain
12:03 PM	46.4 °F / 8.0 °C	44.6 °F / 7.0 °C	93%	**29.59** in / **1001.9** hPa	2.0 miles / 3.2 kilometers	SSE	23.0 mph / 37.0 km/h / 10.3 m/s	28.8 mph / 46.3 km/h / 12.9 m/s	0.02 in / 0.1 cm	Rain	Light Rain
12:12 PM	46.4 °F / 8.0 °C	44.6 °F / 7.0 °C	93%	**29.59** in / **1001.9** hPa	3.0 miles / 4.8 kilometers	SSE	20.7 mph / 33.3 km/h /	28.8 mph / 46.3 km/h /	0.03 in /	Rain	Light Rain

Time (CDT):	Temp.:	Dew Point:	Humidity:	Sea Level Pressure:	Visibility:	Wind Dir:	Wind Speed:	Gust Speed:	Precip:	Events:	Conditions:
12:25 PM	46.4 °F / 8.0 °C	44.6 °F / 7.0 °C	93%	**29.58** in / **1001.6** hPa	3.0 miles / 4.8 kilometers	SSE	9.3 m/s 19.6 mph / 31.5 km/h / 8.7 m/s	12.9 m/s 29.9 mph / 48.2 km/h / 13.4 m/s	0.1 cm 0.04 in / 0.1 cm	Rain	Light Rain
12:54 PM	48.0 °F / 8.9 °C	45.0 °F / 7.2 °C	89%	**29.58** in / **1001.6** hPa	3.0 miles / 4.8 kilometers	SSE	18.4 mph / 29.6 km/h / 8.2 m/s	27.6 mph / 44.4 km/h / 12.3 m/s	0.06 in / 0.2 cm	Rain	Rain
1:02 PM	48.2 °F / 9.0 °C	46.4 °F / 8.0 °C	93%	**29.56** in / **1000.9** hPa	2.5 miles / 4.0 kilometers	SSE	19.6 mph / 31.5 km/h / 8.7 m/s	29.9 mph / 48.2 km/h / 13.4 m/s	0.00 in / 0.0 cm	Rain	Light Rain
1:34 PM	48.2 °F / 9.0 °C	46.4 °F / 8.0 °C	93%	**29.54** in / **1000.2** hPa	4.0 miles / 6.4 kilometers	SSE	16.1 mph / 25.9 km/h / 7.2 m/s	23.0 mph / 37.0 km/h / 10.3 m/s	0.02 in / 0.1 cm	Rain	Light Rain
1:54 PM	48.9 °F / 9.4 °C	46.0 °F / 7.8 °C	90%	**29.54** in / **1000.2** hPa	3.0 miles / 4.8 kilometers	South	17.3 mph / 27.8 km/h / 7.7 m/s	26.5 mph / 42.6 km/h / 11.8 m/s	0.07 in / 0.2 cm	Rain	Rain
2:54 PM	48.9 °F / 9.4 °C	46.9 °F / 8.3 °C	93%	**29.52** in / **999.5** hPa	3.0 miles / 4.8 kilometers	South	17.3 mph / 27.8 km/h / 7.7 m/s	-	0.09 in / 0.2 cm	Rain	Rain
3:54 PM	51.1 °F / 10.6 °C	48.0 °F / 8.9 °C	89%	**29.48** in / **998.3** hPa	10.0 miles / 16.1 kilometers	South	13.8 mph / 22.2 km/h / 6.2 m/s	-	0.03 in / 0.1 cm		Overcast
4:04 PM	51.8 °F / 11.0 °C	48.2 °F / 9.0 °C	88%	**29.47** in / **997.9** hPa	10.0 miles / 16.1 kilometers	South	13.8 mph / 22.2 km/h / 6.2 m/s	-	N/A		Overcast
4:54 PM	53.1 °F / 11.7 °C	48.0 °F / 8.9 °C	83%	**29.47** in / **997.7** hPa	10.0 miles / 16.1 kilometers	South	18.4 mph / 29.6 km/h / 8.2 m/s	-	N/A		Overcast
5:03	53.6 °F	48.2 °F	82%	**29.45** in /	6.0 miles /	South	20.7 mph /	-	0.00 in	Rain ,	Thunderstorms

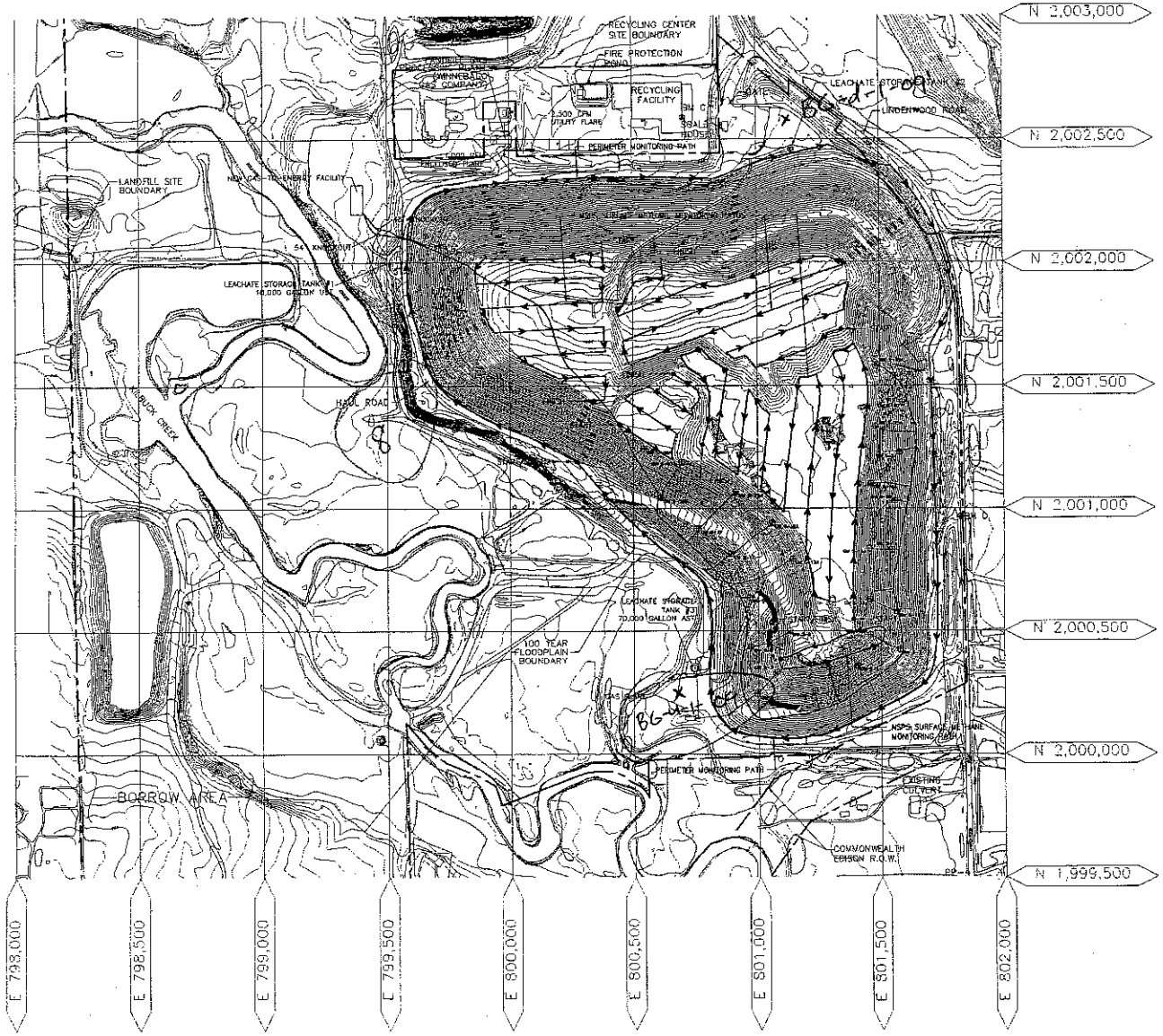
Response Time Test Log

For instructions on how to complete this form or calculate values, see the Instrument Preparation Instructions forms.

Instrument: Foxboro TVA-1000 *Serial Number:* 121029088

Date	Time	Calib. Gas	Calib. Gas Conc. (ppm)	90% of Calib. Gas Conc. (ppm)	Time to reach 90% value (seconds)		Average Response Time = (a+b+c)/3 (seconds)	≤ 30 seconds? (Y/N)	Tech. Initials
3/31/09	11:00	methane	500	450	a	5	5.3	Y	S.R.
					b	6			
					c	5			
		methane	500	450	a				
					b				
					c				
		methane	500	450	a				
					b				
					c				
		methane	500	450	a				
					b				
					c				
		methane	500	450	a				
					b				
					c				
		methane	500	450	a				
					b				
					c				

3-31-0955



LEGEND

- PROPERTY BOUNDARY
- WASTE BOUNDARY
- 830 — 10' TOPOGRAPHIC CONTOUR
- 2' TOPOGRAPHIC CONTOUR
- 18" GAS LINE
- 12" GAS LINE
- 6" GAS LINE
- 4" GAS LINE
- 2"x4" DUAL-CONTAINED CONDENSATE LINE
- KNOCKOUT DISCHARGE LINE
- 2006 SOUTH UNIT GAS WELL
- 2007 SOUTH UNIT GAS WELL
- EXISTING SOUTH UNIT GAS WELL

NOTES:

1) BASE MAP PROVIDED BY AEROMETRICS, INC. OF SHEBOYGAN, WISCONSIN. DATE OF TOPOGRAPHY NOVEMBER 25, 2003. SOUTH UNIT TOPOGRAPHY IS BASED ON DECEMBER 15, 2007 GROUND SURVEY BY ARNOLD LUNDGREN AND ASSOCIATES, INC. OF ROCKFORD, ILLINOIS.
2) CONTOUR INTERVAL PRESENTED IS 2 FEET.
3) FOR CLARITY, NOT ALL EXISTING LANDFILL FEATURES ARE SHOWN.
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5) THE APPROXIMATE 100 YEAR FLOODPLAIN BOUNDARY SHOWN IS BASED UPON INFORMATION PROVIDED BY THE ILLINOIS STATE WATER SURVEY AND THE APPLICABLE FEMA MAPS.
6) THE NORTHINGS AND EASTINGS ARE STATE PLANE COORDINATES WITH AN OFFSET OF N 2,000,000 E 800,000.

N

200 0 100 200 400 800

(IN FEET)

GRAPHIC SCALE

REVISIONS			
NO.	DATE	DESCRIPTION	BY

ANDREWS ENGINEERING, INC.
1700 Quincy Avenue, Suite 25, Naperville, Illinois 60540
Phone (630) 355-8300 Fax (630) 355-8305
Saint Louis, Missouri • Indianapolis, Indiana • Warrenville, IL

APPROVED BY: XXX DESIGNED BY: XXX DRAWN BY: XXX

2008 MONITORING PATHS

PLANS PREPARED FOR
WINNEBAGO RECLAMATION SERVICE, INC.
ROCKFORD, ILLINOIS

DATE: MARCH, 2008

PROJECT #: 1990-114.SRF0803

1

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ANDREWS
ENGINEERING, INC.

July 20, 2009

Mr. Evan Buskohl
5450 Wansford Way
Suite 201B
Rockford, IL 61109

Subject: WRS-Pagel Landfill
2nd Quarter 2009 NSPS Surface Monitoring Results

Dear Evan,

The required NSPS surface methane monitoring event for the second quarter of 2009 was conducted at Pagel Landfill on June 3, 2009. The monitoring event indicated that no surface methane concentrations exceeded the 500 ppm concentration threshold specified in the NSPS regulations.

Attached are the field data sheets for this monitoring event. Although you are not required to submit these records to the IEPA or the U.S. EPA (unless specifically required under your CAAPP permit or other permit), the NSPS regulations require that you keep the monitoring records on file for 5 years. In accordance with condition 1.1.10.c.v. of the Joint Construction and Operating Permit – NSPS Source, information on this exceedance should be included in your annual NSPS report. If you have any questions, please feel free to call me at (317) 595-6492 or contact me via email at bparaskevas@andrews-eng.com.

Sincerely,

Bill Paraskevas, P.E.
Andrews Engineering, Inc.

attachments

O:\Air\projects\Pagel\surface methane monitoring\2009\WRS 2nd quart 2009.doc

7478 Shadeland Station Way, Indianapolis, Indiana 46256 • 317.595.6492 fax 317.598.9929 www.andrews-eng.com

Corporate Office 3300 Ginger Creek Drive, Springfield, Illinois 62711 • 217.787.2334

ANDREWS ENVIRONMENTAL ENGINEERING

NSPS Surface Methane Monitoring
Monitoring Event Data Form

Instructions: Complete a new form for each monitoring event, including re-monitoring events.

Date: 6/3/09 Site: Page1 LF Project No.: 90-1145RF

Quarter (circle): 1st (2nd) 3rd 4th 2009 Technician: S. Siergey

Monitoring Event (circle): (Initial) 1st 10-day re-monitor 2nd 10-day re-monitor

1-month re-monitor 1-month+10 day re-monitor

Instrument: Foxboro TVA-1000

Instrument Calibration:
Calibrate instrument immediately prior to performing a monitoring event. A calibration performed in the office before proceeding into the field is acceptable. Calibration must involve actually setting the instrument to 500 ppm against the methane calibration gas, not just merely checking the instrument reading (field checking) against the calibration gas. See the Instrument Preparation Instructions located in the TVA case for instructions on performing the calibration.

Calibration gas: Methane @ 500 ppm

Date: 6/3/09 Time of calibration: 11:00 (am) pm

Calibration location (circle): (office) field

If calibrated in field, specify field location: _____

Instrument set to read 500 ppm methane? (Y) N If no, explain: _____

_____

Calibration Precision Test:
Review the requirements for performing a Calibration Precision Test described on the Instrument Preparation Instructions located in the blue folder inside the TVA case, and determine if a new test is required.

Include a copy of the most recent Calibration Precision Test results (from the blue folder in the TVA case) with the field data forms for this quarter.

Response Time Test:
Review the requirements for performing a Response Time Test described on the Instrument Preparation Instructions located in the blue folder inside the TVA case, and determine if a new test is required.

Include a copy of the most recent Response Time Test results (from the blue folder in the TVA case) with the field data forms for this quarter.

Monitoring Event Data:

If site has a meteorological station, obtain weather information from the site station, otherwise, estimate or obtain info from the internet using the nearest representative station.

Temperature: 65 °F Wind direction/speed: ENE / 15 mph Weather: PHy Cldy/Sunny

Barometric Pressure—Beginning: 30.2 in. Hg @ 1:00 am (pm)

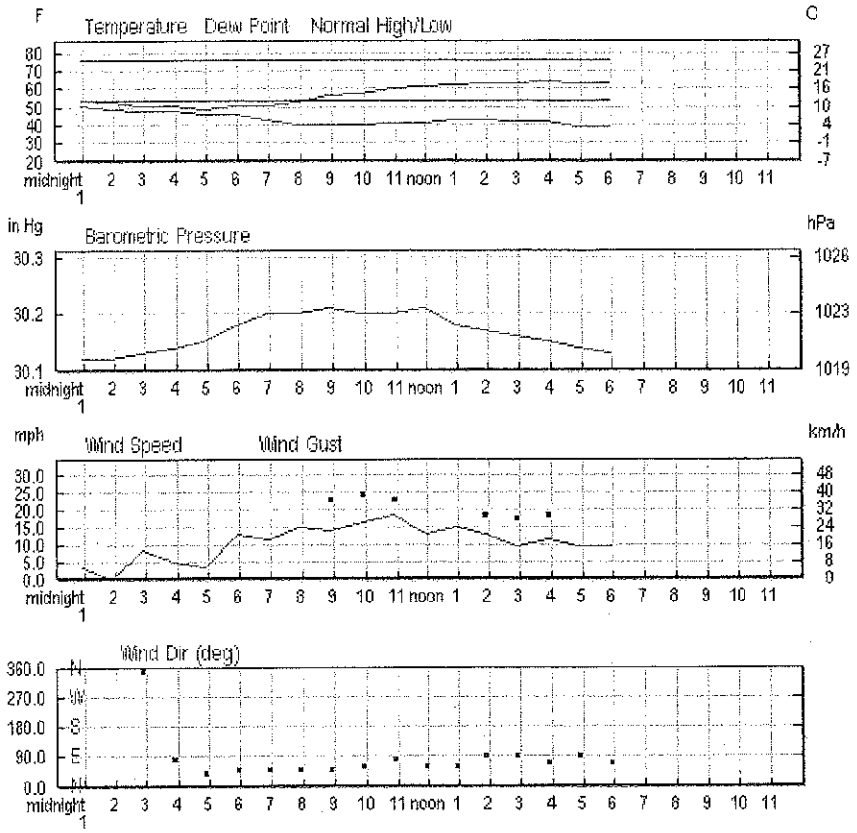
Ending: 30.15 in. Hg @ 4:00 am (pm)

Background Concentrations
(remain at least 100' from perimeter LFG collection wells located inside the landfill footprint)

Identification (show on map)	Time	Location	Approx. Northing	Approx. Easting	Methane Conc. (ppmv)	Notes
BG-U-2-09	2:15	Upwind	2002600	801200	1.07	
BG-D-2-09	1:30	Downwind	2000250	800700	21.16	

Monitoring Data

Exceedance # (show on map)	Time	Location		>500 ppm detected?	Methane Conc. read	Notes/Comments
		Approx. N	Approx. E			
No exceedences						



Hourly Observations

Time (CDT):	Temp.:	Dew Point:	Humidity:	Sea Level Pressure:	Visibility:	Wind Dir:	Wind Speed:	Gust Speed:	Precip:	Events:	Conditions:
12:54 AM	54.0 °F	51.1 °F	90%	30.12 in	10.0 miles	NNE	3.5 mph	-	N/A		Overcast
1:54 AM	53.1 °F	50.0 °F	89%	30.12 in	10.0 miles	Calm	Calm	-	N/A		Overcast
2:54 AM	52.0 °F	48.9 °F	89%	30.13 in	10.0 miles	North	8.1 mph	-	N/A		Overcast
3:54 AM	51.1 °F	48.9 °F	92%	30.14 in	10.0 miles	East	4.6 mph	-	N/A		Overcast
4:54 AM	50.0 °F	46.9 °F	89%	30.15 in	10.0 miles	NE	3.5 mph	-	N/A		Overcast
5:54 AM	51.1 °F	46.9 °F	86%	30.18 in	10.0 miles	NE	12.7 mph	-	N/A		Overcast
6:54 AM	51.1 °F	44.1 °F	77%	30.20 in	10.0 miles	NE	11.5 mph	-	N/A		Overcast
7:54 AM	53.1 °F	41.0 °F	64%	30.20 in	10.0 miles	NE	15.0 mph	20.7 mph	N/A		Mostly Cloudy
8:54 AM	57.0 °F	41.0 °F	55%	30.21 in	10.0 miles	NE	13.8 mph	23.0 mph	N/A		Mostly Cloudy
9:54 AM	57.9 °F	41.0 °F	53%	30.20 in	10.0 miles	ENE	16.1 mph	24.2 mph	N/A		Mostly Cloudy
10:54 AM	61.0 °F	42.1 °F	50%	30.20 in	10.0 miles	East	18.4 mph	23.0 mph	N/A		Mostly Cloudy
11:54 AM	62.1 °F	42.1 °F	48%	30.21 in	10.0 miles	ENE	12.7 mph	-	N/A		Mostly Cloudy
12:54 PM	63.0 °F	44.1 °F	50%	30.18 in	10.0 miles	ENE	15.0 mph	20.7 mph	N/A		Scattered Clouds
1:54 PM	64.0 °F	44.1 °F	48%	30.17 in	10.0 miles	East	12.7 mph	18.4 mph	N/A		Scattered Clouds
2:54 PM	64.0 °F	43.0 °F	46%	30.16 in	10.0 miles	East	9.2 mph	17.3 mph	N/A		Partly Cloudy
3:54 PM	64.9 °F	43.0 °F	45%	30.15 in	10.0 miles	ENE	11.5 mph	18.4 mph	N/A		Partly Cloudy
4:54 PM	64.0 °F	39.9 °F	41%	30.14 in	10.0 miles	East	9.2 mph	-	N/A		Partly Cloudy
5:54 PM	64.0 °F	39.9 °F	41%	30.13 in	10.0 miles	ENE	9.2 mph	-	N/A		Clear

Wednesday, June 3, 2009

Daily Summary

	Actual:	Average :	Record :
Temperature:			
Mean Temperature	**57** °F	**66** °F	
Max Temperature	**65** °F	**77** °F	**100** °F (1934)
Min Temperature	**49** °F	**54** °F	**38** °F (1947)
Degree Days:			
Heating Degree Days	8	3	
Month to date heating degree days	15	9	
Since 1 June heating degree days	15	9	
Since 1 July heating degree days	6800	6906	
Cooling Degree Days	0	4	
Month to date cooling degree days	1	10	
Year to date cooling degree days	15	67	
Since 1 June cooling degree days	1	10	
Growing Degree Days	7 (Base 50)		
Moisture:			
Dew Point	**44** °F		
Average Humidity	64		
Maximum Humidity	93		
Minimum Humidity	41		
Precipitation:			
Precipitation	**0.00** in	**0.15** in	**2.37** in (2002)
Month to date precipitation	0.63	0.45	
Year to date precipitation	17.53	13.24	
Sea Level Pressure:			
Sea Level Pressure	**30.17** in		
Wind:			
Wind Speed	**8** mph ()		
Max Wind Speed	**20** mph		
Max Gust Speed	**26** mph		
Visibility	**10.0** miles		
Events			

T = Trace of Precipitation, **MM** = Missing Value **Source:** Averaged Metar Reports

Response Time Test Log

For instructions on how to complete this form or calculate values, see the Instrument Preparation Instructions forms.

Instrument: Foxboro TVA-1000 *Serial Number:* 121029088

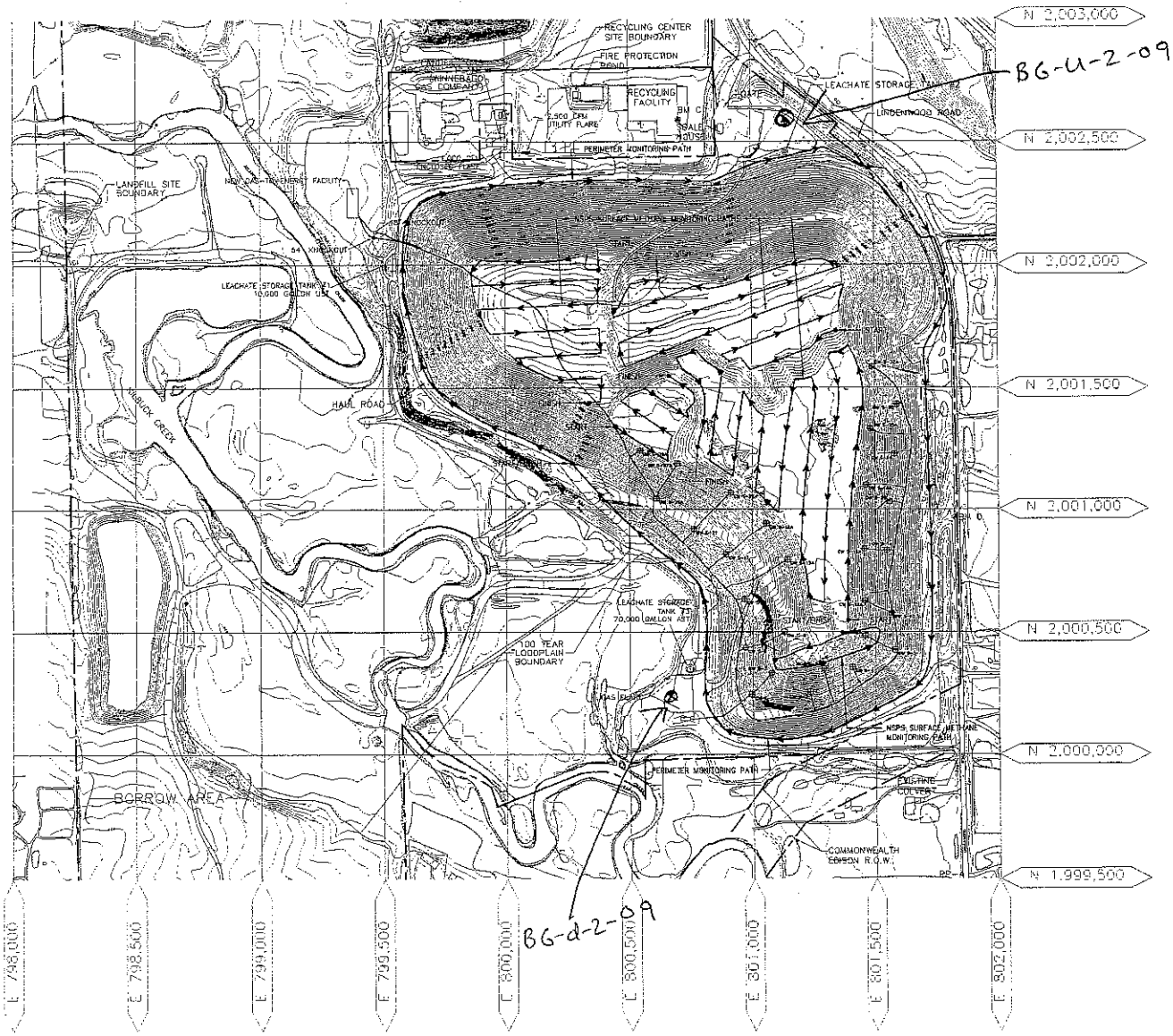
Date	Time	Calib. Gas	Calib. Gas Conc. (ppm)	90% of Calib. Gas Conc. (ppm)	Time to reach 90% value (seconds)		Average Response Time = (a+b+c)/3 (seconds)	≤ 30 seconds? (Y/N)	Tech. Initials
6/3/09	11:00 Am	methane	500	450	a	5	5.3	Y	S.R.
					b	6			
					c	5			
		methane	500	450	a				
					b				
					c				
		methane	500	450	a				
					b				
					c				
		methane	500	450	a				
					b				
					c				
		methane	500	450	a				
					b				
					c				
		methane	500	450	a				
					b				
					c				

Calibration Precision Test Log

For instructions on how to complete this form or calculate values, see the Instrument Preparation Instructions forms.

Instrument: Foxboro TVA-1000 *Serial Number:* 121029088

Date	Time	Calib. Gas	Calib. Gas Conc. (ppm)	Calibration Gas Readings (ppm)		Difference between 500 ppm & readings = |500 – a,b,c| (ppm)		Avg. Difference = (1+2+3)/3 (ppm)	Calib. Precision (%)	Calib. Precision ≤10%? (Y/N)	Tech. Initials
11/18/08	11:55	methane	500	a	508	1	8	3.3	.7	Y	RGP
				b	501	2	1				
				c	501	3	1				
12/12/08	7:40	methane	500	a	510	1	8	3.7	.7	Y	RGP
				b	502	2	2				
				c	501	3	1				
12/30/08	12:00pm	methane	500	a		1					
				b		2					
				c		3					
2/10/09	1154	methane	500	a	501	1	3	2.7	0.5	Y	RGP
				b	498	2	3				
				c	498	3	2				
3/11/09	7:45	methane	500	a	508	1	8	[redacted]9	1.8	Y	RGP
				b	512	2	12				
				c	507	3	7				
3/10/09	155	methane	500	a	502	1	2	2.3	0.5	Y	RGP
				b	504	2	4				
				c	501	3	1				
		methane	500	a		1					
				b		2					
				c		3					



LEGEND

- PROPERTY BOUNDARY
- WASTE BOUNDARY
- 830 — 10' TOPOGRAPHIC CONTOUR
- 2' TOPOGRAPHIC CONTOUR
- 18" GAS LINE
- 12" GAS LINE
- 6" GAS LINE
- 4" GAS LINE
- 2"x4" DUAL-CONTAINED CONDENSATE LINE
- KNOCKOUT DISCHARGE LINE
- 2006 SOUTH UNIT GAS WELL
- 2007 SOUTH UNIT GAS WELL
- EXISTING SOUTH UNIT GAS WELL

NOTES:

1) BASE MAP PROVIDED BY AEROMETRICS, INC. OF SHEBOYGAN, WISCONSIN. DATE OF TOPOGRAPHY NOVEMBER 25, 2003. SOUTH UNIT TOPOGRAPHY IS BASED ON DECEMBER 15, 2007 GROUND SURVEY BY ARNOLD LUNDGREN AND ASSOCIATES, INC. OF ROCKFORD, ILLINOIS.
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2nd Qtr 2009
6/3/09

N

200 0 100 200 400 800
(IN FEET)
GRAPHIC SCALE

NO	DATE	REVISIONS DESCRIPTION	BY

ANDREWS ENGINEERING, INC.
1709 Quincy Avenue, Suite 23, Naperville, Illinois 60540
Tel. (630) 355-4500 Fax (630) 355-4500
Springfield, IL / Peoria, IL / Indianapolis, IN / Waverlee, MO

APPROVED BY: KRK DESIGNED BY: KRK DRAWN BY: MRK

2006 MONITORING PATHS
PLANS PREPARED FOR
WINNEBAGO RECLAMATION SERVICE, INC.
ROCKFORD, ILLINOIS

DATE: MARCH, 2006
PROJECT #: 1590-1145RF0801

1

© 2007 Andrews Engineering, Inc.

171604 REV. 9/05 LPS

KAROL MICHALCZAK
630.633.5520 5859
CORNERSTONE ENVIRONMENTAL GROU
39395 WEST 12 MILE ROAD
FARMINGTON HILLS MI 48331

1 LBS

1 OF 1

SHIP TO:
COMPLIANCE SECTION (MC #40)
IEPA - BUREAU OF AIR
1021 NORTH GRAND AVENUE EAST
SPRINGFIELD IL 62702-4059

IL 627 0-01

UPS NEXT DAY AIR SAVER **1P**
TRACKING #: 1Z 296 R2F 13 9203 9710

BILLING: P/P

Reference#1: 90069.001
Reference#2: Winnebago Landfill

UIS 11.5.14. WXPIE70 93.0A 07/2009 TM

https://www.ups.com/uis/create?ActionOriginPair=print___UISReceipt&POPUP_LEVEL...

IEPA - BUREAU OF AIR
1021 N GRAND AVE E
SPRINGFIELD IL 62702-4272

S: WHITE

I:

CHEN-FL3 X

150