March 8, 2012 0739-602412.200

Mr. Nick Marotta, Regional Engineer
WCA Waste Corporation
2600 Brownfield Road
Raleigh, North Carolina 27610

RE: METHANE MONITORING RESULTS – FIRST QUARTERLY EVENT OF 2012
MATERIAL RECOVERY, LLC CONSTRUCTION AND DEMOLITION LANDFILL,
PERMIT NO. 92-31
WAKE COUNTY, NORTH CAROLINA

Dear Nick:

Attached are the results from the March 6, 2012, quarterly methane monitoring event at the above-referenced facility for your files. As shown on the attached monitoring log, no methane was detected from any of the monitoring points.

Methane was not detected in the landfill gas vents located in the northwest corner of the facility during the March 2012 event. Golder will continue to measure methane from the gas vents during the quarterly methane monitoring events. If you have any questions or concerns, please contact us at 336-852-4903.

Sincerely,

GOLDER ASSOCIATES NC, INC.

Brent Freyer
Geologist

David "Dusty" Y. Reedy II, P.G.
Senior Project Hydrogeologist

Attachment: Boundary Gas Probe Monitoring Log – March 6, 2012
Gas Vent Monitoring Log – March 6, 2012
Methane Monitoring Location Map

g:\projects\wca\wake-material recovery\environmental\methane\2012\March 2012\wca mr march 2012 methane report.docx

Golder Associates NC, Inc.
5B Oak Branch Drive
Greensboro, NC. 27407 USA
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Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America

BOUNDARY PROBE MONITORING LOG

Date: 03/06/12

Project Name: WCA MATERIAL RECOVERY, LLC C&D Landfill

Project Number: 0739-602412.200

Site Contact: Dennis Gehle

Technician(s): B. Freyer

Starting Temperature: 48.2 °F

End Temperature: 50.0 °F

Starting Barometric Pressure: 30.65" Hg

End Barometric Pressure: 30.61" Hg

Monitoring Equipment: GEM 2000 plus

Monitoring Location	Time	Time Pumped (sec)	% Methane (CH_4)	% Carbon Dioxide (CO_2)	% Oxygen (O_2)	% Balance Gas	Initial % LEL	Stabalized % LEL	Hydrogen Sulfide (H_2S, ppm)	Static Pressure (inches of H_2O)
BH-1	13:47	60	0.0	0.1	20.9	79.0	0.0	0.0	0.0	not appliclable
BH-2	14:02	60	0.0	0.0	20.9	79.1	0.0	0.0	0.0	not appliclable
BH-3	14:08	60	0.0	0.1	20.8	79.1	0.0	0.0	0.0	not appliclable
BH-4	14:10	60	0.0	0.1	20.9	79.0	0.0	0.0	0.0	not appliclable
LFG-5	14:36	60	0.0	0.2	20.8	79.0	0.0	0.0	0.0	+0.38
LFG-6	14:33	60	0.0	0.8	20.3	78.9	0.0	0.0	0.0	+0.19
LFG-7	14:28	60	0.0	0.2	21.0	78.8	0.0	0.0	0.0	+0.23
LFG-8	14:20	60	0.0	1.4	19.8	78.8	0.0	0.0	0.0	+0.13
LFG-9	14:15	60	0.0	1.2	20.1	78.7	0.0	0.0	0.0	+0.41
LFG-10	13:14	60	0.0	0.1	21.1	78.8	0.0	0.0	0.0	+0.20
MW-1	13:07	120	0.0	0.2	21.2	78.6	0.0	0.0	0.0	not appliclable
MW-2	14:12	120	0.0	0.0	21.0	79.0	0.0	0.0	0.0	not appliclable
MW-3	13:54	120	0.0	3.5	18.6	77.9	0.0	0.0	0.0	not appliclable
MW-4	13:42	120	0.0	0.1	21.0	78.9	0.0	0.0	0.0	not appliclable
MW-5	13:38	120	0.0	0.0	21.1	78.9	0.0	0.0	0.0	not appliclable
MW-6AS	13:32	120	0.0	0.2	20.9	78.9	0.0	0.0	0.0	not appliclable
MW-6AD	13:34	120	0.0	0.0	21.0	79.0	0.0	0.0	0.0	not appliclable
MW-7AS	13:25	120	0.0	0.1	21.0	78.9	0.0	0.0	0.0	not appliclable
MW-7AD	13:27	120	0.0	0.0	21.0	79.0	0.0	0.0	0.0	not appliclable
Scalehouse	14:42	240	0.0	0.1	21.2	78.7	0.0	0.0	0.0	not appliclable

Completed by: BFF

Golder Associates

GAS VENT MONITORING LOG

Date: 03/06/12

Project Name: WCA MATERIAL RECOVERY, LLC C&D Landfill

Project Number: 0739-602412.200

Site Contact: Dennis Gehle

Technician(s): B. Freyer

Starting Temperature: 48.2 °F

End Temperature: 50.0 °F

Starting Barometric Pressure: 30.65" Hg

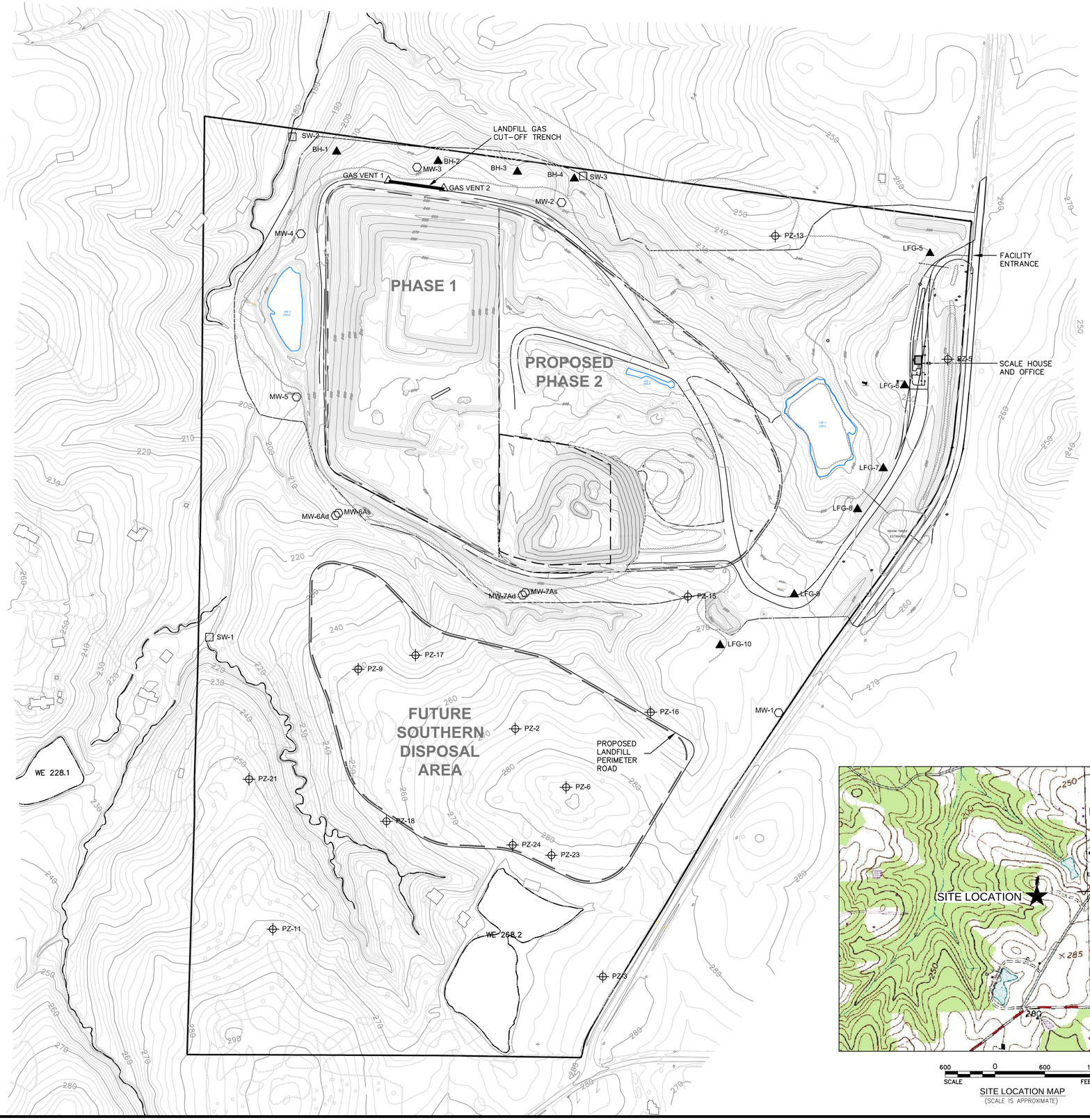
End Barometric Pressure: 30.61" Hg

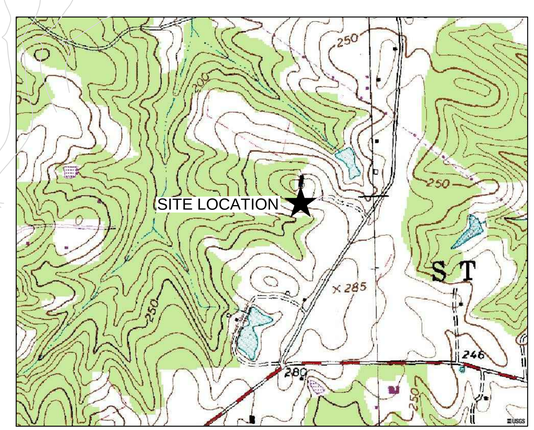
Monitoring Equipment: GEM 2000 plus

Monitoring Location	Time	Time Pumped (sec)	% Methane (CH_4)	% Carbon Dioxide (CO_2)	% Oxygen (O_2)	% Balance Gas	Initial % LEL	Stabalized % LEL	Hydrogen Sulfide (H_2S, ppm)	Static Pressure (inches of H_2O)
Vent 1	13:50	120	0.0	0.0	20.8	79.2	0.0	0.0	0.0	not appliclable
Vent 2	13:57	120	0.0	1.3	19.8	78.9	0.0	0.0	0.0	not appliclable

Completed by: B. Freyer

Golder Associates





600 0 600 1200
SCALE FEET

SITE LOCATION MAP
(SCALE IS APPROXIMATE)

LEGEND

	EXISTING 10-FOOT GROUND SURFACE CONTOUR
	EXISTING 2-FOOT GROUND SURFACE CONTOUR
	PROPERTY LINE
	APPROXIMATE LIMITS OF WASTE
	EXISTING ROAD
BH-1	LANDFILL GAS BAR-HOLE LOCATION
LFG-5	LANDFILL GAS MONITORING PROBE
MW-1	GROUNDWATER MONITORING WELL
SW-3	SURFACE WATER MONITORING POINT
PZ-13	PIEZOMETER LOCATION IDENTIFICATION
	TREELINE
	TOPOGRAPHIC DIVIDING LINE (SEE NOTE 6)
	PROPOSED TRENCH (SEE DETAIL)
GAS VENT 1	LANDFILL GAS VENT

NOTES

1) TOPOGRAPHIC CONTOUR INTERVAL = 2 FEET

2) DRAWING BASED ON THE SITE PLAN PREPARED BY JOYCE ENGINEERING, INC. (SEPTEMBER, 2006). DIGITAL MAPPING PROVIDED BY SPATIAL DATA CONSULTANTS, INC., OF HIGH POINT, NORTH CAROLINA. DATE OF AERIAL FLYOVER WAS MARCH 27, 2001.

3) LANDFILL GAS MONITORING POINTS AND SURFACE WATER MONITORING POINT LOCATIONS ARE APPROXIMATE.

4) ELEVATIONS SHOWN IN THIS DRAWING ARE IN FEET ABOVE SEA LEVEL DATUM ("SEA LEVEL DATUM" REFERS TO THE NATIONAL GEODETIC VERTICAL DATUM (NGVD) OF 1929); AND COORDINATES ARE EXPRESSED IN TERMS OF THE STATE PLANE COORDINATE SYSTEM.

5) TOPOGRAPHIC CONTOURS WERE UPDATED FEBRUARY 11, 2010, BY AMI ENGINEERING.

6) TOPOGRAPHIC DIVIDING LINE DIVIDES THE BASE MAP TOPOGRAPHIC CONTOURS FROM UPDATED TOPOGRAPHIC CONTOURS.

7) THE LOCATIONS OF THE LANDFILL GAS MONITORING PROBES AND BAR-HOLE LOCATIONS ARE APPROXIMATE.

REFERENCES

1.) REFERENCES

200 0 200 400
SCALE FEET

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
△	–	–	––	–	–	–

PROJECT
MATERIAL RECOVERY, LLC
C&D LANDFILL
WAKE COUNTY, NORTH CAROLINA

TITLE
METHANE MONITORING LOCATION MAP

Golder Associates
GREENSBORO, NC

PROJECT No.	073–9602410		FILE No. METHANE MAP (LKB 9-14-11)	
DESIGN	DYR	5/11/10	SCALE 1"=200'	REV. –
CADD	LKB	5/11/10		
CHECK	DYE	5/11/10	DWG. 1	
REVIEW	RPK	5/11/10		

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