

**LABELLA**

LaBella Associates, P.C.

300 State Street

Rochester, New York 14614

# **Appendix 15**

## **Meter Calibration Sheets**



Calibration Certificate

Asset No: **R11083**  
Description: **LANDTEC GEM2000 PLUS**  
Serial No: **GM10443**  
Manufacturer: **Landtec**  
Calibration Date: **16 August 2010**  
Next Calibration: **Refer to Manufacturers Instructions**  
Accuracy of Unit Under Test:  
Adjustments made: **None**  
Calibration Technician: **Dave Rouse**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**

4 Gas H<sub>2</sub>S-28.46ppm;CO-46.58ppm;CH<sub>4</sub>-2.56%;O<sub>2</sub>-20.92% - CC162466  
100% Pure Nitrogen - CF142  
Carbon Dioxide - 25% Vol - 925198001

**Reference**

83-124187852-2  
40-111783201  
90090356

Calibrated By:

A handwritten signature in black ink, appearing to read "Dave Rouse", written over a horizontal line.

**Dave Rouse**

**Test Results**

<b><u>Question</u></b>	<b><u>Result</u></b>
What is the span gas value reading for Hydrogen Sulfide?	25 ppm
What is the span gas value reading for Carbon Monoxide?	50 ppm
What is the span gas value reading for Methane?	2.5 % LEL
What is the span gas value reading for Oxygen?	20.9 %



Calibration Certificate


Asset No: **R9416**  
Description: **RAE PPB SURVEYOR 3000**  
Serial No: **594-000102**  
Manufacturer: **RAE**  
Calibration Date: **20 August 2010**  
Next Calibration: **Refer to Manufacturers Instructions**  
Accuracy of Unit Under Test:  
Adjustments made: **None**  
Calibration Technician: **Dave Stiles**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

<u>Measurement Equipment/Standards</u>	<u>Reference</u>
10 PPM ISOBUTYLENE - RP161027	921619

Calibrated By:

  
\_\_\_\_\_

**Dave Stiles**

**Test Results**

<b>Question</b>	<b>Result</b>
Note the eV value of the lamp installed.	10.6 eV
Insert probe tip into a high humidity environment (bottle partially filled with water), leave there for 30 sec and record maximum value observed.	0.0 ppm



Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **R9416**

Group: **158 - Indoor Air Quality**

Sub Group: **005 - RAE PARTS-PER-BILLION SURVEYOR**

Manufacturer: **RAE**

Calibration Date: **26 August 2010**

Next Calibration: **Refer to Manufacturers Instructions**

Accuracy of Unit Under Test: **Manufacturers Specifications**

Adjustments made: **None**

Calibration Technician: **Victor Boccardo**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**  
10 PPM ISOBUTYLENE - RP161027

**Reference**  
921619

Calibrated By:

A handwritten signature in black ink, appearing to be "VB", is written over a horizontal line.

**Victor Boccardo**



Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **R110083**

Group: **166 - Landfill Gas Analyzers**

Sub Group: **003 - LANDTEC GEM2000**

Manufacturer: **Landtec**

Calibration Date: **26 August 2010**

Next Calibration: **Refer to Manufacturers Instructions**

Accuracy of Unit Under Test: **Manufacturers Specifications**

Adjustments made: **None**

Calibration Technician: **Dave Stiles**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

<u>Measurement Equipment/Standards</u>	<u>Reference</u>
50%CH4 35%CO2 N2 BAL. - 921743	921743
25ppm H2S, 50ppm CO, 2.5% CH4, 12% O2 - CC332308	122-124225190-1

Calibrated By:

  
\_\_\_\_\_

**Dave Stiles**

**Test Results**

<b>Question</b>	<b>Result</b>
APPLY CALIBRATION GAS TO UNIT, VERIFY UNITS READS ACCORDINGLY. VERIFY ACCESSORIES ARE INCLUDED AS PER ACCESSORY LIST.	Yes





### Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **R9416**  
Group: **158 - Indoor Air Quality**  
Sub Group: **027 - RAE PPB Surveyor 3000**  
Manufacturer: **RAE**  
Calibration Date: **09 September 2010**  
Next Calibration: **Refer to Manufacturers Instructions**  
Accuracy of Unit Under Test: **Manufacturers Specifications**  
Adjustments made: **None**  
Calibration Technician: **Victor Boccardo**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**  
10 PPM ISOBUTYLENE - RP161027

**Reference**  
921619

Calibrated By:

A handwritten signature in black ink, appearing to read "Victor Boccardo", is written over a horizontal line.

**Victor Boccardo**

**Test Results**

<b>Question</b>	<b>Result</b>
Note the eV value of the lamp installed.	10.6 eV
Insert probe tip into a high humidity environment (bottle partially filled with water), leave there for 30 sec and record maximum value observed.	0.0 ppm



### Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **GM10443**

Group: **166 - Landfill Gas Analyzers**

Sub Group: **004 - LANDTEC Gem2000 Plus**

Manufacturer: **CES**

Calibration Date: **09 September 2010**

Next Calibration: **Refer to Manufacturers Instructions**

Accuracy of Unit Under Test: **Manufacturers Specifications**

Adjustments made: **None**

Calibration Technician: **Roger Wolfanger**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**

50%CH4 35%CO2 N2 BAL. - 921743  
25ppm H2S, 50ppm CO, 2.5% CH4, 12% O2 - CC332308  
100 ppm CO/ 2.0 % O2 - SG901704

**Reference**

921743  
122-124225190-1  
82-123182646-1

Calibrated By:

A handwritten signature in cursive script, reading "R. Wolfanger", written over a horizontal line.

**Roger Wolfanger**

**Test Results**

<b><u>Question</u></b>	<b><u>Result</u></b>
What is the span gas value reading for Hydrogen Sulfide?	25 ppm
What is the span gas value reading for Carbon Monoxide?	100 ppm
What is the span gas value reading for Methane?	2.5 % LEL
What is the span gas value reading for Oxygen?	20.9 %



Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **R9416**  
Group: **158 - Indoor Air Quality**  
Sub Group: **027 - RAE PPB Surveyor 3000**  
Manufacturer: **Rae**  
Calibration Date: **21 September 2010**  
Next Calibration: **Refer to Manufacturers Instructions**  
Accuracy of Unit Under Test: **Manufacturers Specifications**  
Adjustments made: **None**  
Calibration Technician: **Dave Stiles**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

Measurement Equipment/Standards  
10 PPM ISOBUTYLENE - RP161027

Reference  
921619

Calibrated By: \_\_\_\_\_

DKS

**Dave Stiles**

**Test Results**

<b><u>Question</u></b>	<b><u>Result</u></b>
Note the eV value of the lamp installed.	10.6 eV
Insert probe tip into a high humidity environment (bottle partially filled with water), leave there for 30 sec and record maximum value observed.	0.0 ppm



Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **R11083**

Group: **166 - Landfill Gas Analyzers**

Sub Group: **004 - LANDTEC Gem2000 Plus**

Manufacturer: **LANDTEC**

Calibration Date: **21 September 2010**

Next Calibration: **Refer to Manufacturers Instructions**

Accuracy of Unit Under Test: **Manufacturers Specifications**

Adjustments made: **None**

Calibration Technician: **Dave Stiles**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

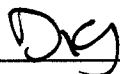
**Measurement Equipment/Standards**

50%CH4 35%CO2 N2 BAL. - 921743  
25ppm H2S, 50ppm CO, 2.5% CH4, 12% O2 - CC332308

**Reference**

921743  
122-124225190-1

Calibrated By:

  
\_\_\_\_\_

**Dave Stiles**

**Test Results**

<b><u>Question</u></b>	<b><u>Result</u></b>
What is the span gas value reading for Hydrogen Sulfide?	25 ppm
What is the span gas value reading for Carbon Monoxide?	50 ppm
What is the span gas value reading for Methane?	2.5 % LEL
What is the span gas value reading for Oxygen?	20.9 %





Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **ASHTEAD R11083**

Group: **166 - Landfill Gas Analyzers**

Sub Group: **004 - LANDTEC Gem2000 Plus**

Manufacturer: **LANDTEC**

Calibration Date: **01 October 2010**

Next Calibration: **Refer to Manufacturers Instructions**

Accuracy of Unit Under Test: **Manufacturers Specifications**

Adjustments made: **CO2 reading low as received, adjusted to 35.0%.**

Calibration Technician: **Dave Stiles**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**

50%CH4 35%CO2 N2 BAL. - 921743  
25ppm H2S, 50ppm CO, 2.5% CH4, 12% O2 - CC332308

**Reference**

921743  
122-124225190-1

Calibrated By:

  
\_\_\_\_\_

**Dave Stiles**

**Test Results**

<b>Question</b>	<b>Result</b>
What is the span gas value reading for Hydrogen Sulfide?	25 ppm
What is the span gas value reading for Carbon Monoxide?	50 ppm
What is the span gas value reading for Methane?	2.5 % LEL
What is the span gas value reading for Oxygen?	20.9 %



Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **ASHTeAD R9416**  
Group: **158 - Indoor Air Quality**  
Sub Group: **027 - RAE PPB Surveyor 3000**  
Manufacturer: **RAE**  
Calibration Date: **01 October 2010**  
Next Calibration: **Refer to Manufacturers Instructions**  
Accuracy of Unit Under Test: **Manufacturers Specifications**  
Adjustments made: **None**  
Calibration Technician: **Dave Stiles**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**  
10 PPM ISOBUTYLENE - RP161027

**Reference**  
921619

Calibrated By:

DKS

**Dave Stiles**

**Test Results**

<b><u>Question</u></b>	<b><u>Result</u></b>
Note the eV value of the lamp installed.	10.6 eV
Insert probe tip into a high humidity environment (bottle partially filled with water), leave there for 30 sec and record maximum value observed.	0.0 ppm



Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **R9416**

Group: **158 - Indoor Air Quality**

Sub Group: **005 - RAE PARTS-PER-BILLION SURVEYOR**

Manufacturer: **RAE**

Calibration Date: **15 October 2010**

Next Calibration: **Refer to Manufacturers Instructions**

Accuracy of Unit Under Test: **Manufacturers Specifications**

Adjustments made: **None**

Calibration Technician: **Victor Boccardo**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**  
10 PPM ISOBUTYLENE - RP161027

**Reference**  
921619

Calibrated By:

A handwritten signature in black ink, appearing to read "VBS", is written over a horizontal line.

**Victor Boccardo**



Calibration Certificate

Asset No: **R4328**  
Description: **RAE PARTS-PER-BILLION SURVEYOR**  
Serial No: **250-100438**  
Manufacturer: **RAE SYSTEMS**  
Calibration Date: **15 October 2010**  
Next Calibration: **Refer to Manufacturers Instructions**  
Accuracy of Unit Under Test:  
Adjustments made: **None**  
Calibration Technician: **Roger Wolfanger**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**

EG&G 2002 W/S1 SENSOR - 022883  
10 PPM ISOBUTYLENE - RP161027

**Reference**

904887  
921619

Calibrated By:

A handwritten signature in black ink, appearing to read "R. Wolfanger", written over a horizontal line.

**Roger Wolfanger**



### Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **R11083**

Group: **166 - Landfill Gas Analyzers**

Sub Group: **004 - LANDTEC Gem2000 Plus**

Manufacturer: **CES**

Calibration Date: **15 October 2010**

Next Calibration: **Refer to Manufacturers Instructions**

Accuracy of Unit Under Test: **Manufacturers Specifications**

Adjustments made: **None**

Calibration Technician: **Roger Wolfanger**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**

EG&G 2002 W/S1 SENSOR - 022883  
50%CH4 35%CO2 N2 BAL. - 921743  
25ppm H2S, 50ppm CO, 2.5% CH4, 12% O2 - CC332308

**Reference**

904887  
921743  
122-124225190-1

Calibrated By:

A handwritten signature in cursive script, reading "R. Wolfanger", written over a horizontal line.

**Roger Wolfanger**

**Test Results**

<b><u>Question</u></b>	<b><u>Result</u></b>
What is the span gas value reading for Hydrogen Sulfide?	24 ppm
What is the span gas value reading for Carbon Monoxide?	50 ppm
What is the span gas value reading for Methane?	2.5 % LEL
What is the span gas value reading for Oxygen?	20.9 %





Calibration Certificate

Asset No: **R10394**  
Description: **LANDTEC GEM2000 PLUS**  
Serial No: **10188107**  
Manufacturer: **LANDTEC**  
Calibration Date: **15 October 2010**  
Next Calibration: **Refer to Manufacturers Instructions**  
Accuracy of Unit Under Test:  
Adjustments made: **None**  
Calibration Technician: **Dave Stiles**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**

25ppm H<sub>2</sub>S, 50ppm CO, 2.5% CH<sub>4</sub>, 12% O<sub>2</sub> - CC332308  
50%CH<sub>4</sub> 35%CO<sub>2</sub> N<sub>2</sub> BAL. - 921743

**Reference**

122-124225190-1  
921743

Calibrated By:

  
\_\_\_\_\_

**Dave Stiles**

**Test Results**

<b>Question</b>	<b>Result</b>
What is the span gas value reading for Hydrogen Sulfide?	25 ppm
What is the span gas value reading for Carbon Monoxide?	50 ppm
What is the span gas value reading for Methane?	2.5 % LEL
What is the span gas value reading for Oxygen?	20.9 %



Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **R9416**

Group: **158 - Indoor Air Quality**

Sub Group: **027 - RAE PPB Surveyor 3000**

Manufacturer: **Rae**

Calibration Date: **22 October 2010**

Next Calibration: **Refer to Manufacturers Instructions**

Accuracy of Unit Under Test: **Manufacturers Specifications**

Adjustments made: **None**

Calibration Technician: **Dave Stiles**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**  
10 PPM ISOBUTYLENE - RP161027

**Reference**  
921619

Calibrated By:

A handwritten signature in black ink, appearing to be "D Stiles", written over a horizontal line.

**Dave Stiles**

**Test Results**

<b><u>Question</u></b>	<b><u>Result</u></b>
Note the eV value of the lamp installed.	10.6 eV
Insert probe tip into a high humidity environment (bottle partially filled with water), leave there for 30 sec and record maximum value observed.	0.0 ppm



Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **R11083**

Group: **166 - Landfill Gas Analyzers**

Sub Group: **004 - LANDTEC Gem2000 Plus**

Manufacturer: **Landtec**

Calibration Date: **22 October 2010**

Next Calibration: **Refer to Manufacturers Instructions**

Accuracy of Unit Under Test: **Manufacturers Specifications**

Adjustments made: **None**

Calibration Technician: **Dave Stiles**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**

50%CH4 35%CO2 N2 BAL. - 921743  
25ppm H2S, 50ppm CO, 2.5% CH4, 12% O2 - CC332308

**Reference**

921743  
122-124225190-1

Calibrated By:

A handwritten signature in black ink, appearing to read "D Stiles", is written over a horizontal line.

**Dave Stiles**

**Test Results**

<b>Question</b>	<b>Result</b>
What is the span gas value reading for Hydrogen Sulfide?	25 ppm
What is the span gas value reading for Carbon Monoxide?	50 ppm
What is the span gas value reading for Methane?	2.5 % LEL
What is the span gas value reading for Oxygen?	20.9 %

**Calibration Certificate**

Asset No: R11083

Description: CES Land Tec 2000 Plus

Manufacturer: CES

Serial No:

Calibration Date: 10-28-2010

Next Calibration: 11-28-2010

Accuracy of Unit Under Test: Manufacturer Specification

Adjustments made: None

Calibration Technician: Roger M. Wolfanger

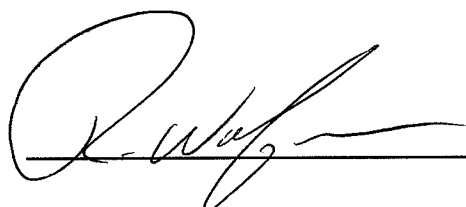
Details of any limitations to the use of the equipment:

The following measurement equipment used during the calibration procedure is traceable to National Standards.

<b>Equipment / Standard</b>	<b>Serial Number</b>	<b>Reference</b>
50% CH4/ 35% CO2	931512	
100 PPM CO	82-124182646-1	
25 PPM H2S	83-124186830-1	

List additional equipment / standards on following page.

Record results and attach.

Calibrated by  \_\_\_\_\_



### Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **R9416**

Group: **158 - Indoor Air Quality**

Sub Group: **005 - RAE PARTS-PER-BILLION SURVEYOR**

Manufacturer: **RAE**

Calibration Date: **29 October 2010**

Next Calibration: **Refer to Manufacturers Instructions**

Accuracy of Unit Under Test: **Manufacturers Specifications**

Adjustments made: **None**

Calibration Technician: **Victor Boccardo**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

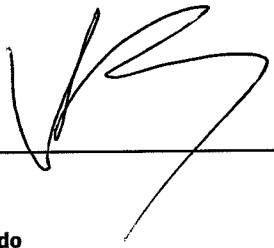
**Measurement Equipment/Standards**

10 PPM ISOBUTYLENE - RP161027

**Reference**

921619

Calibrated By:



A handwritten signature in black ink, appearing to read "Victor Boccardo", is written over a solid horizontal line. The signature is stylized and extends above and below the line.

**Victor Boccardo**



**Calibration Certificate**

Asset No: R11083

Description: CES Land Tec 2000 Plus

Manufacturer: CES

Serial No:

Calibration Date: 11-04-2010

Next Calibration: 12-04-2010

Accuracy of Unit Under Test: Manufacturer Specification

Adjustments made: None

Calibration Technician: Roger M. Wolfanger

Details of any limitations to the use of the equipment:

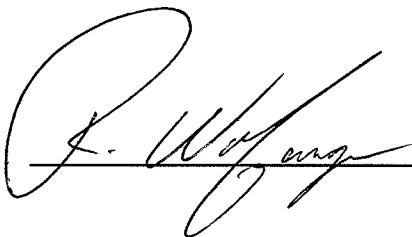
The following measurement equipment used during the calibration procedure is traceable to National Standards.

<u>Equipment / Standard</u>	<u>Serial Number</u>	<u>Reference</u>
50% CH4/ 35% CO2	931512	
100 PPM CO	82-124182646-1	
25 PPM H2S	83-124186830-1	

List additional equipment / standards on following page.

Record results and attach.

Calibrated by

  
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Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **R9416**

Group: **158 - Indoor Air Quality**

Sub Group: **005 - RAE PARTS-PER-BILLION SURVEYOR**

Manufacturer: **RAE**

Calibration Date: **04 November 2010**

Next Calibration: **Refer to Manufacturers Instructions**

Accuracy of Unit Under Test: **Manufacturers Specifications**

Adjustments made: **ALL GOOD**

Calibration Technician: **Victor Boccardo**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**  
10 PPM ISOBUTYLENE - RP161027

**Reference**  
921619

Calibrated By:

A handwritten signature in black ink, appearing to be "VB", is written over a horizontal line.

**Victor Boccardo**



Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **R9416**

Group: **158 - Indoor Air Quality**

Sub Group: **005 - RAE PARTS-PER-BILLION SURVEYOR**

Manufacturer: **RAE**

Calibration Date: **15 November 2010**

Next Calibration: **Refer to Manufacturers Instructions**

Accuracy of Unit Under Test: **Manufacturers Specifications**

Adjustments made: **None**

Calibration Technician: **Victor Boccardo**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**  
10 PPM ISOBUTYLENE - RP161027

**Reference**  
921619

Calibrated By:

A handwritten signature in black ink, appearing to read "V Boccardo", is written over a solid horizontal line.

**Victor Boccardo**



### Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **R11083**

Group: **166 - Landfill Gas Analyzers**

Sub Group: **004 - LANDTEC Gem2000 Plus**

Manufacturer: **CES LANDTEC**

Calibration Date: **15 November 2010**

Next Calibration: **Refer to Manufacturers Instructions**

Accuracy of Unit Under Test: **Manufacturers Specifications**

Adjustments made: **None**

Calibration Technician: **Roger Wolfanger**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

<u>Measurement Equipment/Standards</u>	<u>Reference</u>
EG&G 2002 W/S1 SENSOR - 022883	904887
500ppm Carbon Monoxide/Air Balance - 930613	930613
100ppm Hydrogen Sulfide/Nitrogen Balance - 933452	933452
4% Vol Oxygen/Nitrogen Balance - 933481	933481
50%CH4 35%CO2 N2 BAL. - 921743	921743

Calibrated By:

A handwritten signature in black ink, appearing to read "R. Wolfanger", written over a horizontal line.

**Roger Wolfanger**

**Test Results**

<b>Question</b>	<b>Result</b>
What is the span gas value reading for CH4 Methane?	50 %
What is the CO2 (Vol) reading displayed on the unit once the calibration gas is applied?	35 %
What is the span gas value reading for Oxygen?	4.1 %
What is the span gas value reading for Hydrogen Sulfide?	105 ppm
What is the span gas value reading for Carbon Monoxide?	504 ppm



Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **R11083**

Group: **166 - Landfill Gas Analyzers**

Sub Group: **004 - LANDTEC Gem2000 Plus**

Manufacturer: **Landtec**

Calibration Date: **11 December 2010**

Next Calibration: **Refer to Manufacturers Instructions**

Accuracy of Unit Under Test: **Manufacturers Specifications**

Adjustments made: **Replaced internal and external filters.**

Calibration Technician: **Dave Stiles**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

<u>Measurement Equipment/Standards</u>	<u>Reference</u>
50%CH4 35%CO2 N2 BAL. - 921743	921743
4% Vol Oxygen/Nitrogen Balance - 933481	933481
100ppm Hydrogen Sulfide/Nitrogen Balance - 933452	933452
500ppm Carbon Monoxide/Air Balance - 930613	930613

Calibrated By:

  
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**Dave Stiles**

**Test Results**

<b>Question</b>	<b>Result</b>
What is the span gas value reading for CH4 Methane?	50.1 %
What is the CO2 (Vol) reading displayed on the unit once the calibration gas is applied?	34.8 %
What is the span gas value reading for Oxygen?	4.1 %
What is the span gas value reading for Hydrogen Sulfide?	101 ppm
What is the span gas value reading for Carbon Monoxide?	502 ppm



Calibration Certificate

Customer: **501648--LABELLA ASSOCIATES PC**

Serial No: **R9416**

Group: **158 - Indoor Air Quality**

Sub Group: **027 - RAE PPB Surveyor 3000**

Manufacturer: **RAE**

Calibration Date: **13 December 2010**

Next Calibration: **Refer to Manufacturers Instructions**

Accuracy of Unit Under Test: **Manufacturers Specifications**

Adjustments made: **None**

Calibration Technician: **Victor Boccardo**

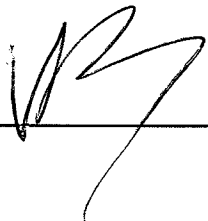
Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**  
10 PPM ISOBUTYLENE - 925095

**Reference**  
925095

Calibrated By:

  
\_\_\_\_\_  
**Victor Boccardo**



**Test Results**

<b>Question</b>	<b>Result</b>
Note the eV value of the lamp installed.	10.6 eV
Insert probe tip into a high humidity environment (bottle partially filled with water), leave there for 30 sec and record maximum value observed.	0.0 ppm



Calibration Certificate

Asset No: **R11083**  
Description: **LANDTEC GEM2000 PLUS**  
Serial No: **GM10443**  
Manufacturer: **Landtec**  
Calibration Date: **17 February 2011**  
Next Calibration: **Refer to Manufacturers Instructions**  
Accuracy of Unit Under Test:  
Adjustments made: **None**  
Calibration Technician: **Dave Stiles**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

<u>Measurement Equipment/Standards</u>	<u>Reference</u>
50%CH4, 35% CO2, N2 BALANCE - 931512	931512
100ppm Hydrogen Sulfide/Nitrogen Balance - 933452	933452
4% Vol Oxygen/Nitrogen Balance - 933481	933481
500ppm Carbon Monoxide/Air Balance - 930613	930613

Calibrated By:

A handwritten signature in black ink, appearing to read "D Stiles", is written over a horizontal line.

**Dave Stiles**

**Test Results**

<b><u>Question</u></b>	<b><u>Result</u></b>
What is the span gas value reading for CH4 Methane?	50 %
What is the CO2 (Vol) reading displayed on the unit once the calibration gas is applied?	35 %
What is the span gas value reading for Oxygen?	4.0 %
What is the span gas value reading for Hydrogen Sulfide?	100 ppm
What is the span gas value reading for Carbon Monoxide?	500 ppm



Calibration Certificate

Asset No: **R4325**  
Description: **RAE PARTS-PER-BILLION SURVEYOR**  
Serial No: **025-0201100**  
Manufacturer: **RAE**  
Calibration Date: **17 February 2011**  
Next Calibration: **Refer to Manufacturers Instructions**  
Accuracy of Unit Under Test:  
Adjustments made: **None**  
Calibration Technician: **Victor Boccardo**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**

10 PPM ISOBUTYLENE - 925095

**Reference**

925095

Calibrated By: \_\_\_\_\_

  
A handwritten signature in dark ink is written over a solid horizontal line. The signature consists of stylized, cursive letters that appear to read "DB/UB".

**Victor Boccardo**



Calibration Certificate

Asset No: **R8976**  
Description: **RAE PARTS-PER-BILLION SURVEYOR**  
Serial No: **250-103128**  
Manufacturer: **RAE**  
Calibration Date: **09 March 2011**  
Next Calibration: **Refer to Manufacturers Instructions**  
Accuracy of Unit Under Test:  
Adjustments made: **None**  
Calibration Technician: **Victor Boccardo**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**  
10 PPM ISOBUTYLENE - 925095

**Reference**  
925095

Calibrated By:

A handwritten signature in black ink, appearing to be "VB", is written over a horizontal line.

**Victor Boccardo**



Calibration Certificate

Asset No: **R4328**  
Description: **RAE PARTS-PER-BILLION SURVEYOR**  
Serial No: **250-100438**  
Manufacturer: **RAE**  
Calibration Date: **15 March 2011**  
Next Calibration: **Refer to Manufacturers Instructions**  
Accuracy of Unit Under Test:  
Adjustments made: **None**  
Calibration Technician: **Victor Boccardo**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**  
10 PPM ISOBUTYLENE - 925095

**Reference**  
925095

Calibrated By:

A handwritten signature in black ink, appearing to read "VB", is written over a horizontal line.

**Victor Boccardo**



Calibration Certificate

Asset No: **R4328**  
Description: **RAE PARTS-PER-BILLION SURVEYOR**  
Serial No: **250-100438**  
Manufacturer: **Rae**  
Calibration Date: **25 March 2011**  
Next Calibration: **Refer to Manufacturers Instructions**  
Accuracy of Unit Under Test:  
Adjustments made: **None**  
Calibration Technician: **Dave Stiles**


Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**  
10 PPM ISOBUTYLENE - 925095

**Reference**  
925095

Calibrated By:

  
\_\_\_\_\_

**Dave Stiles**



# INSTRUMENT CALIBRATION REPORT

**Pine Environmental Services, Inc.**

1900 Brewerton Road  
Mattydale, NY 13211  
Toll-free: (877) 903-PINE (7463)

## Pine Environmental Services, Inc.

**Instrument ID** 17158  
**Description** Gem 2000+  
**Calibrated** 3/24/2011

**Manufacturer** CES Landtec  
**Model Number** GEM2000+  
**Serial Number/ Lot Number** GM12807/10  
**Location** New York  
**Department**

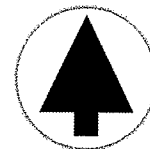
**State Certified**  
**Status** Pass  
**Temp °C** 19.9  
**Humidity %** 30

### Calibration Specifications

				Range Acc %			
				Reading Acc %			
				Plus/Minus			
<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>End As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
<b>Group # 1</b> <b>Group Name</b> Methane <b>Stated Accy</b> Pct of Reading				0.0000			
				3.0000			
				0.00			
15.00 / 15.00	%Volume	15.00	%Volume	15.00	15.00	0.00%	Pass
<b>Group # 2</b> <b>Group Name</b> Carbon Dioxide <b>Stated Accy</b> Pct of Reading				0.0000			
				3.0000			
				0.00			
15.00 / 15.00	%Volume	15.00	%Volume	15.00	15.00	0.00%	Pass
<b>Group # 3</b> <b>Group Name</b> Oxygen <b>Stated Accy</b> Pct of Reading				0.0000			
				3.0000			
				0.00			
20.90 / 20.90	%Volume	20.90	%Volume	20.90	20.90	0.00%	Pass
<b>Group # 4</b> <b>Group Name</b> Carbon Monoxide <b>Stated Accy</b> Pct of Reading				0.0000			
				3.0000			
				0.00			
50.00 / 50.00	PPM	50.00	PPM	50.00	50.00	0.00%	Pass
<b>Group # 5</b> <b>Group Name</b> Hydrogen Sulfide <b>Stated Accy</b> Pct of Reading				0.0000			
				3.0000			
				0.00			
25.00 / 25.00	PPM	25.00	PPM	25.00	25.00	0.00%	Pass



# INSTRUMENT CALIBRATION REPORT



**Pine Environmental Services, Inc.**

1900 Brewerton Road  
Mattydale, NY 13211  
Toll-free: (877) 903-PINE (7463)

## **Pine Environmental Services, Inc.**

**Instrument ID** 17158  
**Description** Gem 2000+  
**Calibrated** 3/24/2011

<b>Test Instruments Used During the Calibration</b>					<b>(As Of Cal Entry Date)</b>	
<b>Test Standard ID</b>	<b>Description</b>	<b>Manufacturer</b>	<b>Model Number</b>	<b>Serial Number / Lot Number</b>	<b>Last Cal Date/ Opened Date</b>	<b>Next Cal Date / Expiration Date</b>
NY 4 GAS	NY 4 GAS	Pine Environmental Services, Inc.	GP-12089	LTK010-MD-C M		10/31/2011
NY CH4 15%/CO2 15% 010759	NY 15% CH4\ 15% CO2 17L	Spec Air	GP12100	010759		9/22/2012

### **Notes about this calibration**

**Calibration Result** Calibration Successful  
**Who Calibrated** Joe Filippi

All instruments are calibrated by Pine Environmental Services, Inc. according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

**Notify Pine Environmental Services, Inc. of any defect within 24 hours of receipt of equipment**  
**Please call 866-960-7463 for Technical Assistance**



Calibration Certificate

Asset No: **R4328**  
Description: **RAE PARTS-PER-BILLION SURVEYOR**  
Serial No: **250-100438**  
Manufacturer: **RAE**  
Calibration Date: **05 April 2011**  
Next Calibration: **Refer to Manufacturers Instructions**  
Accuracy of Unit Under Test:  
Adjustments made: **None**  
Calibration Technician: **Victor Boccardo**


Details of any limitations to the use of the equipment  
**None**

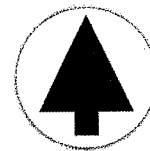
The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**  
10 PPM ISOBUTYLENE - 925095

**Reference**  
925095

Calibrated By:

  
\_\_\_\_\_  
**Victor Boccardo**



# INSTRUMENT CALIBRATION REPORT

**Pine Environmental Services, Inc.**

1900 Brewerton Road  
Mattydale, NY 13211  
Toll-free: (877) 903-PINE (7463)

## Pine Environmental Services, Inc.

**Instrument ID** 17158  
**Description** Gem 2000+  
**Calibrated** 4/5/2011

**Manufacturer** CES Landtec  
**Model Number** GEM2000+  
**Serial Number/ Lot Number** GM12807/10  
**Location** New York  
**Department**

**State Certified**  
**Status** Pass  
**Temp °C** 20.5  
**Humidity %** 35

### Calibration Specifications

				Range Acc %						
				Reading Acc %						
				Plus/Minus						
<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>Fnd As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>			
<b>Group # 1</b> <b>Group Name</b> Methane <b>Stated Accy</b> Pct of Reading				0.0000						
15.00 / 15.00	%Volume	15.00	%Volume	15.00	15.00	0.00%	Pass			
<b>Group # 2</b> <b>Group Name</b> Carbon Dioxide <b>Stated Accy</b> Pct of Reading				0.0000						
15.00 / 15.00	%Volume	15.00	%Volume	15.00	15.00	0.00%	Pass			
<b>Group # 3</b> <b>Group Name</b> Oxygen <b>Stated Accy</b> Pct of Reading				0.0000						
20.90 / 20.90	%Volume	20.90	%Volume	20.90	20.90	0.00%	Pass			
<b>Group # 4</b> <b>Group Name</b> Carbon Monoxide <b>Stated Accy</b> Pct of Reading				0.0000						
50.00 / 50.00	PPM	50.00	PPM	50.00	50.00	0.00%	Pass			
<b>Group # 5</b> <b>Group Name</b> Hydrogen Sulfide <b>Stated Accy</b> Pct of Reading				0.0000						
25.00 / 25.00	PPM	25.00	PPM	25.00	25.00	0.00%	Pass			

# INSTRUMENT CALIBRATION REPORT



**Pine Environmental Services, Inc.**

1900 Brewerton Road  
Mattydale, NY 13211  
Toll-free: (877) 903-PINE (7463)

## **Pine Environmental Services, Inc.**

**Instrument ID** 17158  
**Description** Gem 2000+  
**Calibrated** 4/5/2011

<b><u>Test Instruments Used During the Calibration</u></b>					<b><u>(As Of Cal Entry Date)</u></b>	
<b><u>Test Standard ID</u></b>	<b><u>Description</u></b>	<b><u>Manufacturer</u></b>	<b><u>Model Number</u></b>	<b><u>Serial Number / Lot Number</u></b>	<b><u>Last Cal Date/ Opened Date</u></b>	<b><u>Next Cal Date / Expiration Date</u></b>
NY 4 GAS	NY 4 GAS	Pine Environmental Services, Inc.	GP-12089	LTK010-MD-C M		10/31/2011
NY CH4 15%/CO2 15% 010759	NY 15% CH4\ 15% CO2 17L	Spec Air	GP12100	010759		9/22/2012

### **Notes about this calibration**

**Calibration Result** Calibration Successful  
**Who Calibrated** Curtis Childs

All instruments are calibrated by Pine Environmental Services, Inc. according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

**Notify Pine Environmental Services, Inc. of any defect within 24 hours of receipt of equipment  
Please call 866-960-7463 for Technical Assistance**



Calibration Certificate

Asset No: **R4328**  
Description: **RAE PARTS-PER-BILLION SURVEYOR**  
Serial No: **250-100438**  
Manufacturer: **RAE**  
Calibration Date: **12 April 2011**  
Next Calibration: **Refer to Manufacturers Instructions**  
Accuracy of Unit Under Test:  
Adjustments made: **None**  
Calibration Technician: **Victor Boccardo**


Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**  
10 PPM ISOBUTYLENE - 925095

**Reference**  
925095

Calibrated By:

\_\_\_\_\_ 

**Victor Boccardo**



Calibration Certificate

Asset No: **R10394**  
Description: **LANDTEC GEM2000 PLUS**  
Serial No: **10188107**  
Manufacturer: **CES**  
Calibration Date: **12 April 2011**  
Next Calibration: **Refer to Manufacturers Instructions**  
Accuracy of Unit Under Test:  
Adjustments made: **None**  
Calibration Technician: **Roger Wolfanger**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

<u>Measurement Equipment/Standards</u>	<u>Reference</u>
100ppm Hydrogen Sulfide/Nitrogen Balance - 933452	933452
500ppm Carbon Monoxide/Air Balance - 930613	930613
50%CH <sub>4</sub> , 35% CO <sub>2</sub> , N <sub>2</sub> BALANCE - 931512	931512
4% Vol Oxygen/Nitrogen Balance - 933481	933481

Calibrated By:

A handwritten signature in black ink, appearing to read "R. Wolfanger", is written over a horizontal line.

**Roger Wolfanger**

**Test Results**

<b>Question</b>	<b>Result</b>
What is the span gas value reading for CH4 Methane?	50 %
What is the CO2 (Vol) reading displayed on the unit once the calibration gas is applied?	35 %
What is the span gas value reading for Oxygen?	4.0 %
What is the span gas value reading for Hydrogen Sulfide?	100 ppm
What is the span gas value reading for Carbon Monoxide?	500 ppm



Calibration Certificate

Asset No: **R4328**  
Description: **RAE PARTS-PER-BILLION SURVEYOR**  
Serial No: **250-100438**  
Manufacturer: **RAE**  
Calibration Date: **25 April 2011**  
Next Calibration: **Refer to Manufacturers Instructions**  
Accuracy of Unit Under Test:  
Adjustments made: **None**  
Calibration Technician: **Victor Boccardo**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

**Measurement Equipment/Standards**  
10 PPM ISOBUTYLENE - 925095

**Reference**  
925095

Calibrated By:

A handwritten signature in black ink, appearing to read "V. Boccardo", is written over a horizontal line.

**Victor Boccardo**





Calibration Certificate

Asset No: **R10394**  
Description: **LANDTEC GEM2000 PLUS**  
Serial No: **10188107**  
Manufacturer: **RAE**  
Calibration Date: **13 April 2011**  
Next Calibration: **Refer to Manufacturers Instructions**  
Accuracy of Unit Under Test:  
Adjustments made: **None**  
Calibration Technician: **Victor Boccardo**

Details of any limitations to the use of the equipment  
**None**

The following measurement equipment used during the calibration procedure is traceable to National Standards.

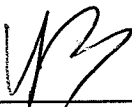
**Measurement Equipment/Standards**

100ppm Hydrogen Sulfide/Nitrogen Balance - 933452  
500ppm Carbon Monoxide/Air Balance - 930613

**Reference**

933452  
930613

Calibrated By:

  
\_\_\_\_\_

**Victor Boccardo**

**Test Results**

<b><u>Question</u></b>	<b><u>Result</u></b>
What is the span gas value reading for CH4 Methane?	50 %
What is the CO2 (Vol) reading displayed on the unit once the calibration gas is applied?	35 %
What is the span gas value reading for Oxygen?	4 %
What is the span gas value reading for Hydrogen Sulfide?	100 ppm
What is the span gas value reading for Carbon Monoxide?	500 ppm