

LaBELLA

LaBella Associates, P.C.

300 State Street

Rochester, New York 14614

Appendix 13

Methane Laboratory Analytical Report

Compositional Analysis

Centek Laboratories

CLIENT: LaBella Associates, Pc
Lab Order: C1012052
Project: FESL 210173
Lab ID: C1012052-001A

Client Sample ID: MW-15D
Tag Number:
Collection Date: 12/28/2010
Matrix: AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
FIXED GAS SERIES		EPA METHOD 3C			Analyst: LL	
Carbon dioxide	0.180	1.90	J	%	1	12/31/2010
Carbon Monoxide	ND	0.880		%	1	12/31/2010
Methane	4.17	0.580		%	1	12/31/2010
Nitrogen	66.5	8.30		%	1	12/31/2010
Oxygen	19.5	0.880		%	1	12/31/2010
LOW LEVEL SULFURS BY TO-15		TO-15			Analyst: LL	
1-Propanethiol	< 6400	6400		ppbV	1280	1/4/2011 11:05:00 AM
Carbon disulfide	< 6400	6400		ppbV	1280	1/4/2011 11:05:00 AM
Carbonyl sulfide	< 6400	6400		ppbV	1280	1/4/2011 11:05:00 AM
Dimethyl sulfide	17000	6400		ppbV	1280	1/4/2011 11:05:00 AM
Ethyl mercaptan	< 6400	6400		ppbV	1280	1/4/2011 11:05:00 AM
Hydrogen Sulfide	8100	6400		ppbV	1280	1/4/2011 11:05:00 AM
Isopropyl mercaptan	< 6400	6400		ppbV	1280	1/4/2011 11:05:00 AM
Methyl mercaptan	< 6400	6400		ppbV	1280	1/4/2011 11:05:00 AM
Surr: Bromofluorobenzene	122	70-130		%REC	1280	1/4/2011 11:05:00 AM

Qualifiers:

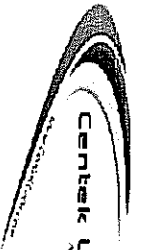
**	Reporting Limit	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

CLIENT: LaBella Associates, Pc
Lab Order: C1012052
Project: FESL 210173
Lab ID: C1012052-002A

Client Sample ID: Stickup Gas Well
Tag Number:
Collection Date: 12/28/2010
Matrix: AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
FIXED GAS SERIES		EPA METHOD 3C			Analyst: LL	
Carbon dioxide	0.362	1.90	J	%	1	12/31/2010
Carbon Monoxide	ND	0.880		%	1	12/31/2010
Methane	1.45	0.580		%	1	12/31/2010
Nitrogen	77.4	8.30		%	1	12/31/2010
Oxygen	20.5	0.880		%	1	12/31/2010
LOW LEVEL SULFURS BY TO-15		TO-15			Analyst: LL	
1-Propanethiol	< 5.0	5.0		ppbV	1	1/3/2011 5:22:00 PM
Carbon disulfide	5.6	5.0		ppbV	1	1/3/2011 5:22:00 PM
Carbonyl sulfide	15	5.0		ppbV	1	1/3/2011 5:22:00 PM
Dimethyl sulfide	40	5.0		ppbV	1	1/3/2011 5:22:00 PM
Ethyl mercaptan	< 5.0	5.0		ppbV	1	1/3/2011 5:22:00 PM
Hydrogen Sulfide	14	5.0		ppbV	1	1/3/2011 5:22:00 PM
Isopropyl mercaptan	< 5.0	5.0		ppbV	1	1/3/2011 5:22:00 PM
Methyl mercaptan	< 5.0	5.0		ppbV	1	1/3/2011 5:22:00 PM
Surr: Bromofluorobenzene	120	70-130		%REC	1	1/3/2011 5:22:00 PM

Qualifiers: ** Reporting Limit . Results reported are not blank corrected
 B Analyte detected in the associated Method Blank E Value above quantitation range
 H Holding times for preparation or analysis exceeded J Analyte detected at or below quantitation limits
 JN Non-routine analyte. Quantitation estimated. ND Not Detected at the Reporting Limit
 S Spike Recovery outside accepted recovery limits



Centek Laboratories
AN QUINCE PIONEER IN ACTION

Chain of Custody
143 Midler Park Drive
Syracuse, NY 13206
P: (315) 431-9730 F: (315) 431-9731
www.CentekLabs.com

Site Name: FPSL
Project: 210173
PO#: _____
Other: _____

Detection Limit: 5ppbv Level I
 1ug/M3 Level II
 1ug/M3 +TCE .25 Cat "B" Like

Turnaround Time: One Rush/FAI Due Date: _____
Surcharge %: _____
0% _____
35% _____
50% _____
75% _____
100% _____
150% _____
200% _____

Company: LaBella Associates
Report: 300 State St. Suite 201
Rochester, NY 14614
Att. D Nell
Phone: 585 454 6110
Fax: _____
Email: dave@labellaassoc.com

Company: _____
Invoice: SAIME
Phone: _____
Fax: _____
Email: _____

Sample ID	Date Sampled	Canister Number	Regulator Number	Analysis Request	Comments	Vacuum Start/Stop
MW-15D	12-28-10			Fixed Gas Series	EPA Method 3	
MW-15D	12-28-10			Sulfur Series	TO-15	
Stickup Gas Well	12-28-10			Fixed Gas Series	EPA Method 3	
Stickup Gas Well	12-28-10			Sulfur Series	TO-15	

Chain of Custody
Sampled by: _____
Relinquished by: _____
Received at Lab by: _____

Print Name: Seth Davis Signature: [Signature] Date/Time: 12/28 13:50 Courier: [Signature]
Seth Davis Signature: [Signature] Date/Time: 12/28 14:00
Jan Scola Signature: [Signature] Date/Time: 12/28/10
FedEx / UPS: 2101205-2

Isotope Testing
ISOTECH Laboratories, Inc.

1308 Parkland Court Champaign, IL 61821-1826 | 877.362.4190 217.398.3490 217.398.3493 Fax

Received By
LaBella Associates, P.C.

MAR 07 2011

March 3, 2011

Dan Noll
LaBella Associates
300 State St, Ste 201
Rochester, NY 14614Client: _____
Proj.#: _____

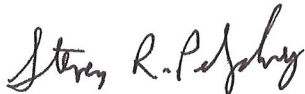
Dear Dan,

Enclosed are the hard copy analysis reports for the gas samples submitted from your project 210173/FESL. These samples were assigned to Isotech job number 14457. We completed compositional analysis and isotope analysis of methane on both samples, and also added carbon isotope data of carbon dioxide (CO₂) on the gas sample from the Stickup Gas Well. To illustrate the data I have enclosed our template figure for methane isotopes, and added the data points for these two samples to the figure.

Based on the data, the gas from MW-15D is thermogenic in origin, and therefore is not landfill gas. As illustrated on the figure, the Stickup Gas Well methane plots in the Near-Surface Microbial Gas zone, typical of landfill gas. The gas from MW-15D plots to the right of the area defined as Thermogenic Gas, well away from the landfill gas. Note that the "Oxidation Effect" arrow on the figure is only meant to illustrate the typical shift in isotope data when oxidation occurs, and it is coincidentally pointing toward the MW-15D gas. The gas from MW-15 is a bit unusual in both isotopic and chemical composition, but the origin of the sample is clearly thermogenic based on the concentrations of ethane, propane, butanes, and pentanes. These components are rarely detected in microbial gases, and when present are only at very low concentrations. Therefore, the data clearly shows that this gas is not from the same source as the sample from the Stickup Gas Well.

If you have any questions or if there is anything else we can do for you, please do not hesitate to contact us. Thank you for choosing Isotech for your analysis needs, we appreciate your business.

Sincerely,

Steven R. Pelphrey
Laboratory Manager

Enclosures (3)

Lab #:	201135	Job #:	14457
Sample Name:	MW-15D	Co. Lab#:	
Company:	LaBella Associates		
Date Sampled:	12/28/2010		
Container:	Cali-5-Bond Bag		
Field/Site Name:	210173		
Location:	FESL		
Formation/Depth:			
Sampling Point:			
Date Received:	1/04/2011	Date Reported:	1/12/2011

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	δD ‰	$\delta^{15}\text{N}$ ‰
Carbon Monoxide -----	nd			
Hydrogen Sulfide -----	nd			
Helium -----	0.0012			
Hydrogen -----	0.0017			
Argon -----	0.785			
Oxygen -----	17.36			
Nitrogen -----	67.77			
Carbon Dioxide -----	0.21			
Methane -----	4.46	-23.75	-200.0	
Ethane -----	4.47			
Ethylene -----	nd			
Propane -----	3.11			
Iso-butane -----	0.669			
N-butane -----	0.757			
Iso-pentane -----	0.243			
N-pentane -----	0.0858			
Hexanes + -----	0.0793			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 267
 Specific gravity, calculated: 1.019

nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen is relative to VSMOW. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

Lab #:	201136	Job #:	14457
Sample Name:	Stickup Gas Well	Co. Lab#:	
Company:	LaBella Associates		
Date Sampled:	12/28/2010		
Container:	Cali-5-Bond Bag		
Field/Site Name:	210173		
Location:	FESL		
Formation/Depth:			
Sampling Point:			
Date Received:	1/04/2011	Date Reported:	1/12/2011

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	δD ‰	$\delta^{15}\text{N}$ ‰
Carbon Monoxide -----	nd			
Hydrogen Sulfide -----	nd			
Helium -----	nd			
Hydrogen -----	nd			
Argon -----	0.887			
Oxygen -----	19.67			
Nitrogen -----	76.28			
Carbon Dioxide -----	0.70	-4.38		
Methane -----	2.46	-53.13	-314.8	
Ethane -----	nd			
Ethylene -----	nd			
Propane -----	nd			
Iso-butane -----	nd			
N-butane -----	nd			
Iso-pentane -----	nd			
N-pentane -----	nd			
Hexanes + -----	nd			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 25
 Specific gravity, calculated: 0.992

nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen is relative to VSMOW. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

Project: 210173 / FESL

