

## Smith, George

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**From:** Troy Hays <thayes@jonesedmunds.com>  
**Sent:** Monday, February 20, 2017 10:20 AM  
**To:** Morgan, Steve  
**Cc:** Henry C. Norris (Henry.Norris@citrusbocc.com); Carol Sawyer; Elizabeth Kennelley; Patrick Kardish; Morris, John R.; Madden, Melissa  
**Subject:** Citrus County Central Landfill 1st Quarter 2017 LFG Monitoring Report  
**Attachments:** 2017.2.17\_RPT\_Citrus Central 17Q1 LFG.PDF

Good Morning Steve,

Attached is the 1st Quarter 2017 LFG Monitoring Report for the Citrus County Central landfill. Please call me at 352-377-5821 if you have any questions or need any additional information. We have also measured the landfill gas concentrations in all of the groundwater monitoring wells at the site and will have this data at the meeting this Wednesday.

Thanks,

Troy D. Hays, PG  
Senior Manager / Vice President



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February 17, 2017

Mr. Steve Morgan  
Solid Waste Section  
Department of Environmental Protection  
13051 N Telecom Pkwy  
Temple Terrace, FL 33637-0926

RE: Citrus County Central Landfill  
Landfill Gas Monitoring Results – First Quarter 2017  
FDEP Permit No.: 21375-025-SO-01  
Jones Edmunds Project Number: 03860-060-01

Dear Mr. Morgan:

Enclosed are the First Quarter 2017 landfill gas monitoring results for the Citrus County Central Landfill conducted on February 2 and 3, 2017. The calibration log is also enclosed with this letter.

Methane was not detected above the maximum limit of 100% LEL at any of the monitoring locations or above the maximum limit of 25% in any of the on-site structures. If you have any questions regarding this information, please contact me at (352) 377-5821.

Sincerely,

A handwritten signature in blue ink, appearing to read "T. Hays", with a stylized flourish at the end.

Troy D. Hays, PG  
Sr. Manage/Vice President

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xc: Henry Norris, Citrus County

# LANDFILL GAS MONITORING RESULTS CENTRAL LANDFILL, CITRUS COUNTY

## First Quarter 2017

### General Data

Time:	8:35	Sampler:	Steve Messick
Air Temperature (deg C) 2/2/2017:	16	Sky Conditions 2/2/2017:	Clear
Air Temperature (deg C) 2/3/2017:	27	Sky Conditions 2/3/2017:	Clear
		Measuring Device:	Eagle RKI (SN E084039)

### Sampling Data

Station I.D.	Date Sampled	Time Sampled	O2 %Volume	CO2 %Volume	Peak Recorded Concentration as % LEL	Station Type
GP-1	2/2/2017	10:26	20.9	0.0	0.0	Gas Well
GP-2	2/2/2017	12:49	20.9	0.4	0.0	Gas Well
GP-3	2/2/2017	12:45	20.2	1.2	0.0	Gas Well
GP-4	2/2/2017	10:35	19.3	1.6	0.0	Gas Well
GP-5	2/2/2017	10:39	20.1	0.8	0.0	Gas Well
GP-6	2/2/2017	10:47	19.3	1.6	0.0	Gas Well
GP-7	2/2/2017	10:50	19.6	1.0	0.0	Gas Well
GP-8	2/3/2017	16:01	19.2	1.2	0.0	Gas Well
GP-9	2/3/2017	16:05	19.6	1.2	0.0	Gas Well
GP-10	2/3/2017	16:09	13.5	6.4	0.0	Gas Well
GP-11	2/2/2017	9:46	20.5	0.4	0.0	Gas Well
GP-12	2/2/2017	9:43	20.9	0.0	0.0	Gas Well
GP-13	2/2/2017	9:40	20.9	0.0	0.0	Gas Well
GP-14	2/2/2017	9:37	20.9	0.0	0.0	Gas Well
GP-15	2/2/2017	9:34	20.7	0.6	0.0	Gas Well
GP-16	2/2/2017	9:31	19.7	1.2	0.0	Gas Well
GP-17	2/2/2017	9:28	20.9	0.0	0.0	Gas Well
GP-18	2/2/2017	9:25	20.9	0.0	0.0	Gas Well
GP-19	2/2/2017	9:53	20.5	0.6	0.0	Gas Well
Admin Building	2/2/2017	8:50	20.9	0.0	0.0	Structure
Mod Bldg	2/2/2017	8:55	20.9	0.0	0.0	Structure
Shop	2/2/2017	8:58	20.9	0.0	0.0	Structure
Scale House	2/2/2017	9:15	20.9	0.0	0.0	Structure
Treatment Facility	2/2/2017	9:06	20.9	0.0	0.0	Structure
Firing Range	2/3/2017	16:38	20.9	0.0	0.0	Structure

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

SITE NAME Citrus County Landfill

DATE 2/2/17

INSTRUMENT (MAKE/MODEL#) Eagle Multi-Gas Detector INSTRUMENT # GNV 80023\*

Instrument Calibration Date August 7, 2012 Reference Meter Book Eagle Meter Book 1

PARAMETER: [check only one]

- ☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP  
☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☒ OTHER LANDFILL GAS

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A 14.86 % Methane (Volume), 14.91 % CO<sub>2</sub> (Volume), Balance Nitrogen

Standard Source Airgas Lot # 122-124512773-1

Standard B Zero Air (0 % Methane) (0% CO<sub>2</sub>) ( 21.0 % O<sub>2</sub>)

Standard Source Airgas Lot # 55-400483127-1

Standard C % LEL Methane, % CO<sub>2</sub> (Volume), 0% O<sub>2</sub> (Volume), Bal Nitrogen

Standard Source \_\_\_\_\_ Lot # \_\_\_\_\_

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	CH <sub>4</sub> STD VALUE (% Vol)	CO <sub>2</sub> STD VALUE (% Vol)	O <sub>2</sub> STD VALUE (% Vol)	INSTRUMENT RESPONSE (%) DEVIATION (LIMITS ± 5%)						CALIB- RATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
						CH <sub>4</sub>		CO <sub>2</sub>		O <sub>2</sub>				
						RES	DEV	RES	DEV	RES	DEV			
17/02/02	0845	A	14.86	14.91	—	15.0	<1	15.2	<2	—	—	Yes	Init.	Am
	0847	B	—	—	21.0	—	—	—	—	20.9	<1	Yes	Init.	Am
	1236	A	14.86	14.91	—	14.5	<3	15.0	<1	—	—	Yes	Cont.	Am
	1239	B	—	—	21.0	—	—	—	—	20.9	<1	Yes	Cont.	Am
	1501	A	14.86	14.91	—	15.0	<1	15.0	<1	—	—	Yes	Cont.	Am
↓	1503	B	—	—	21.0	—	—	—	—	20.9	<1	Yes	Cont.	Am
17/02/03	1516	A	14.86	14.91	—	14.5	<3	14.6	<3	—	—	Yes	Init.	Am
	1518	B	—	—	21.0	—	—	—	—	20.9	<1	Yes	Init.	Am
	1644	A	14.86	14.91	—	14.5	<3	14.8	<1	—	—	Yes	Cont.	Am
↓	1646	B	—	—	21.0	—	—	—	—	20.9	<1	Yes	Cont.	Am

\* Eagle SN E084039