From:	Elizabeth D. Kennelley, MS, CEPM
То:	Madden, Melissa; Tafuni, Steven; SWD Waste
Cc:	Dan S. Sherlock; Joshua L. Younce; Troy D. Hays, PG
Subject:	Emailing: 2021.12.15_RPT_Citrus Co LF_WACS 39859_21Q4 LFG.pdf
Date:	Wednesday, December 15, 2021 1:17:02 PM
Attachments:	2021.12.15 RPT Citrus Co LF WACS 39859 2104 LFG.pdf

EXTERNAL MESSAGE

This email originated outside of DEP. Please use caution when opening attachments, clicking links, or responding to this email.

Good afternoon,

Attached is the Fourth Quarter 2021 Landfill Gas Monitoring Report for the Citrus County Central Landfill (WACS 39859).

Please let us know if you have any problems opening the attachment or have questions or comments concerning the report.

Thank you,

Elizabeth D. Kennelley, MS, CEPM Department Manager

P. 352.377.5821 X. 1416 JONESEDMUNDS.COM 730 NE Waldo Road, Gainesville, FL. 32641

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December 15, 2021

Integrity • Knowledge • Service

Ms. Melissa Madden 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 – Fourth Quarter 2021 FDEP Permit No.: 21375-025-SO-01 FDEP Modification No.: 21375-026-SO-MM Jones Edmunds Project Number: 03860-086-01

Dear Ms. Madden:

Enclosed are the Fourth Quarter 2021 landfill gas monitoring results for the Citrus County Central Landfill conducted on October 7 and 8, 2021. The calibration log is also enclosed with this letter.

Methane was not detected in any gas monitoring well on site. Based on these sampling results from the wells at varying depths, Methane does not exceed 100% Lower-Explosive-Limit (LEL) at the compliance boundary and the site is in compliance with the landfill gas migration rule.

The County continues to measure Methane in the groundwater monitoring wells. Methane was detected below the LEL in groundwater monitoring wells MW-15, MW-17, and PZ-2. Methane was detected at or above 100% LEL in groundwater monitoring wells MW-3, MW-5, MW-6, MW-7, MW-16, and MW-20.

Results from this sampling event indicate that the site is in compliance with the landfill gas migration rule. If you have any questions regarding this information, please contact me at (352) 377-5821.

Sincerely,

Troy D. Hays, PG Sr. Manager/Vice President 730 NE Waldo Road Gainesville, FL 32618

M:\EnvDocs\Citrus County\Gas Mon\2021\21Q4\21Q4_Citrus_Gas Mon_Letter.docx

xc: Henry Norris, Citrus County Dan Sherlock, Citrus County Joshua Younce, Citrus County

Gas Monitoring Probes (Wells) and Structures Fourth Quarter 2021

General Data

Sampler:	Steve Messick/Royce Gamble
Measuring Device:	Eagle RKI (SN E084039)

Date	Time	Air Temperature (deg C)	Sky Conditions
10/7/2021	13:10	32	Cloudy, light wind
10/8/2021	11:47	30	Cloudy, light wind

							Methane	
Station I.D.	Date Sampled	Time Sampled	Depth of Intake (Feet)	O2 %Volume	CO2 %Volume	Peak Recorded Concentration as % LEL	Peak Recorded Concentration as % Volume	Station Type
GP-1	10/7/2021	14:33	20	18.9	2.6	0.0	-	Gas Well
GP-1	10/7/2021	14:34	40	18.7	2.8	0.0	-	Gas Well
GP-2	10/8/2021	11:46	20	10.4	4.4	0.0	-	Gas Well
GP-2	10/8/2021	11:47	40	10.3	4.8	0.0	-	Gas Well
GP-3	10/8/2021	12:00	20	20.1	1.8	0.0	-	Gas Well
GP-3	10/8/2021	12:02	40	19.9	1.8	0.0	-	Gas Well
GP-4	10/7/2021	14:11	20	18.9	3.2	0.0	-	Gas Well
GP-4	10/7/2021	14:12	40	18.2	3.8	0.0	-	Gas Well
GP-5	10/7/2021	14:06	20	18.5	3.0	0.0	-	Gas Well
GP-5	10/7/2021	14:07	40	20.9	0.0	0.0	-	Gas Well
GP-6	10/7/2021	13:58	20	19.3	3.0	0.0	-	Gas Well
GP-6	10/7/2021	13:59	40	19.7	2.6	0.0	-	Gas Well
GP-7	10/7/2021	13:53	20	19.9	2.4	0.0	-	Gas Well
GP-7	10/7/2021	13:54	40	20.0	2.4	0.0	-	Gas Well
GP-8	10/7/2021	13:50	20	18.8	2.0	0.0	-	Gas Well
GP-8	10/7/2021	13:51	40	18.5	2.2	0.0	-	Gas Well
GP-9	10/7/2021	13:46	20	20.0	2.2	0.0	-	Gas Well
GP-9	10/7/2021	13:47	40	20.1	2.0	0.0	-	Gas Well
GP-10	10/7/2021	13:42	20	14.7	7.8	0.0	-	Gas Well
GP-10	10/7/2021	13:43	40	15.0	7.4	0.0	-	Gas Well
GP-11	10/7/2021	13:38	20	19.2	2.0	0.0	-	Gas Well
GP-11	10/7/2021	13:39	40	18.0	2.0	0.0	-	Gas Well
GP-12	10/7/2021	13:34	25	20.5	1.8	0.0	-	Gas Well
GP-12	10/7/2021	13:35	50	20.5	1.8	0.0	-	Gas Well
GP-12	10/7/2021	13:36	75	20.7	1.8	0.0	-	Gas Well
GP-13	10/7/2021	13:28	25	18.5	2.2	0.0	-	Gas Well
GP-13	10/7/2021	13:29	50	18.4	2.2	0.0	-	Gas Well
GP-13	10/7/2021	13:30	75	18.8	1.8	0.0	-	Gas Well
GP-14	10/7/2021	13:23	25	20.5	1.2	0.0	-	Gas Well

Gas Monitoring Probes (Wells) and Structures Fourth Quarter 2021

General Data

Sampler:	Steve Messick/Royce Gamble
Measuring Device:	Eagle RKI (SN E084039)

Date	Time	Air Temperature (deg C)	Sky Conditions
10/7/2021	13:10	32	Cloudy, light wind
10/8/2021	11:47	30	Cloudy, light wind

							Methane	
Station I.D.	Date Sampled	Time Sampled	Depth of Intake (Feet)	O2 %Volume	CO2 %Volume	Peak Recorded Concentration as % LEL	Peak Recorded Concentration as % Volume	Station Type
GP-14	10/7/2021	13:24	50	20.5	1.2	0.0	-	Gas Well
GP-14	10/7/2021	13:25	75	20.5	1.2	0.0	-	Gas Well
GP-15	10/7/2021	13:17	25	20.9	1.4	0.0	-	Gas Well
GP-15	10/7/2021	13:18	50	20.9	1.4	0.0	-	Gas Well
GP-15	10/7/2021	13:19	75	20.9	1.0	0.0	-	Gas Well
GP-16	10/7/2021	13:10	25	20.5	1.4	0.0	-	Gas Well
GP-16	10/7/2021	13:11	50	20.4	1.6	0.0	-	Gas Well
GP-16	10/7/2021	13:12	75	20.7	1.4	0.0	-	Gas Well
GP-17	10/7/2021	11:49	25	17.4	4.2	0.0	-	Gas Well
GP-17	10/7/2021	11:50	50	12.8	8.0	0.0	-	Gas Well
GP-17	10/7/2021	11:52	75	14.2	6.6	0.0	-	Gas Well
GP-18	10/7/2021	11:44	25	20.2	1.8	0.0	-	Gas Well
GP-18	10/7/2021	11:46	50	18.8	2.4	0.0	-	Gas Well
GP-18	10/7/2021	11:47	75	19.0	2.0	0.0	-	Gas Well
GP-19	10/7/2021	11:36	25	20.9	0.8	0.0	-	Gas Well
GP-19	10/7/2021	11:37	50	20.9	1.2	0.0	-	Gas Well
GP-19	10/7/2021	11:38	75	20.9	1.0	0.0	-	Gas Well
GP-20	10/7/2021	13:14	105	19.2	1.8	0.0	-	Gas Well
GP-21	10/7/2021	11:41	115	15.9	0.0	0.0	-	Gas Well
GP-22	10/7/2021	14:38	70	20.9	0.0	0.0	-	Gas Well
GP-23	10/8/2021	14:36	100	14.2	2.0	0.0	-	Gas Well
GP-24	10/8/2021	11:51	70	16.2	0.6	0.0	-	Gas Well
GP-25	10/8/2021	11:54	100	19.4	0.2	0.0	-	Gas Well
GP-26	10/8/2021	12:05	70	18.4	1.8	0.0	-	Gas Well
GP-27	10/8/2021	12:08	100	17.9	2.0	0.0	-	Gas Well
GP-28	10/7/2021	14:19	70	18.9	2.8	0.0	-	Gas Well
GP-29	10/7/2021	14:17	100	20.9	0.0	0.0	-	Gas Well
GP-30	10/7/2021	13:20	105	20.9	1.0	0.0	-	Gas Well
Admin Building	10/8/2021	9:42	-	20.9	0.0	0.0	-	Structure

Gas Monitoring Probes (Wells) and Structures Fourth Quarter 2021

General Data

Measuring Device: Eagle RKI (SN E084039)	Sampler:	Steve Messick/F	Royce Gamble	
	Measuring Device:	Eagle RKI (SN	E084039)	

Date	Time	Air Temperature (deg C)	Sky Conditions
10/7/2021	13:10	32	Cloudy, light wind
10/8/2021	11:47	30	Cloudy, light wind

Sampling Data

							Methane	
Station I.D.	Date Sampled	Time Sampled	Depth of Intake (Feet)	O2 %Volume	CO2 %Volume	Peak Recorded Concentration as % LEL	Peak Recorded Concentration as % Volume	Station Type
Mod Bldg	10/8/2021	9:53	-	20.9	0.0	0.0	-	Structure
Shop	10/8/2021	9:51	-	20.9	0.0	0.0	-	Structure
Scale House	10/8/2021	9:47	-	20.9	0.0	0.0	-	Structure
Firing Range	10/7/2021	9:36	-	20.9	0.0	0.0	-	6 Structures
Haz Waste Drop-Off Center	10/7/2021	9:30	-	20.9	0.0	0.0	-	4 Structures
Equipment Container 1	10/8/2021	9:50	-	20.9	0.0	0.0	-	Structure
Storage Building	10/8/2021	9:59	-	20.9	0.0	0.0	-	Structure
Electronics	10/8/2021	10:04	-	20.9	0.0	0.0	_	Structure*
Paints	10/7/2021	9:24	-	20.9	0.0	0.0	_	Structure*
Chemical Container	10/8/2021	10:16	-	20.9	0.0	0.0	_	Structure*

* Temporary Structure (Cargo Containers)

Groundwater Monitoring Wells and Piezometers Fourth Quarter 2021

General Data

Sampler:	Steve Messick/Royce Gamble
Measuring Device:	Eagle RKI (SN E084039)

Date	Time	Air Temperature (deg C)	Sky Conditions
10/7/2021	9:50 AM	29	Clear - Light wind
10/8/2021	11:47 AM	30	Cloudy - Light wind

					Met	hane	
Station I.D.	Date Sampled	Time Sampled	O2 %Volume	CO2 %Volume	Peak Recorded Concentration as % LEL	Peak Recorded Concentration as % Volume	Station Type
MW-1R	10/7/2021	14:28	19.3	2.4	0.0		Groundwater Well
MW-2	10/7/2021	11:27	16.5	2.6	0.0		Groundwater Well
MW-3	10/8/2021	10:36	8.9	24.0		49.0	Groundwater Well
MW-5	10/8/2021	10:53	5.7	43.2		58.5	Groundwater Well
MW-6	10/8/2021	10:58	6.0	28.2		22.0	Groundwater Well
MW-7	10/8/2021	10:41	5.7	45.2		61.0	Groundwater Well
MW-8R	10/7/2021	10:00	18.7	11.6	0.0		Groundwater Well
MW-9	10/7/2021	10:08	15.4	9.2	0.0		Groundwater Well
MW-10	10/8/2021	12:26	17.1	12.6	0.0		Groundwater Well
MW-11	10/7/2021	10:24	18.8	3.2	0.0		Groundwater Well
MW-12	10/7/2021	10:38	20.7	0.2	0.0		Groundwater Well
MW-13	10/7/2021	10:53	20.8	1.6	0.0		Groundwater Well
MW-14	10/7/2021	10:58	10.6	5.4	0.0		Groundwater Well
MW-15	10/7/2021	11:05	9.6	14.0	38.0		Groundwater Well
MW-16	10/8/2021	10:10	8.4	29.2		51.0	Groundwater Well
MW-17	10/7/2021	11:11	10.1	14.0	35.0		Groundwater Well
MW-18	10/8/2021	12:20	20.7	1.4	0.0		Groundwater Well
MW-18D	10/8/2021	12:17	16.0	5.0	0.0		Groundwater Well
MW-19	10/8/2021	12:31	17.2	11.4	0.0		Groundwater Well
MW-19D	10/8/2021	12:35	19.3	2.2	0.0		Groundwater Well
MW-20	10/8/2021	10:47	5.6	43.8		60.5	Groundwater Well
MW-21	10/8/2021	11:34	8.8	15.4	0.0		Groundwater Well
MW-22	10/8/2021	11:41	8.8	15.2	0.0		Groundwater Well
MW-AA	10/7/2021	10:47	20.7	1.6	0.0		Groundwater Well
MW-B	10/7/2021	9:52	18.7	12.6	0.0		Groundwater Well

Groundwater Monitoring Wells and Piezometers Fourth Quarter 2021

General Data

Sampler:	Steve Messick/Royce Gamble
Measuring Device:	Eagle RKI (SN E084039)

Date	Time	Air Temperature (deg C)	Sky Conditions
10/7/2021	9:50 AM	29	Clear - Light wind
10/8/2021	11:47 AM	30	Cloudy - Light wind

					Met	hane	
Station I.D.	Date Sampled	Time Sampled	O2 %Volume	CO2 %Volume	Peak Recorded Concentration as % LEL	Peak Recorded Concentration as % Volume	Station Type
MW-E	10/7/2021	9:29	20.9	0.2	0.0		Groundwater Well
PZ-1	10/7/2021	10:12	16.6	3.8	0.0		Groundwater Well
PZ-2	10/7/2021	12:12	12.4	6.0	1.0		Groundwater Well

Field Data

and

Instrument Calibration Record

Gas Monitoring Probes (Wells) and Structures

Date:	10-7-21	110-8-21	Sampler:	Steve Messick Rouce Gample
Time:	1310	1147	Sky Conditions:	Cloudy-lightwind
Air Temperature (deg C):	3200	30°0	Measuring Device:	Eagle RKI (SN E084039)

Sampling Data

							Methane	
Station I.D.	Date Sampled		Depth of Intake (Feet)	O2 %Volume	CO2 %Volume	Peak Recorded Concentration as % LEL	Peak Recorded Concentration as % Volume	Station Type
GP-1	10-7-21	1433	20	18.9	26	×		Gas Well
GP-1	10-7-21	1434	40	18.7	2.8	Ø	-	Gas Well
GP-2	10-8-21	1146	20	10.4	4.4	Ø		Gas Well
GP-2	10-8-21	1147	40	10.3	4 5	Ø	Ingenie	Gas Well
GP-3	10-8-21	1200	20	20,1	1.8	Ø		Gas Well
GP-3	10-8-21	1202	40	19.9	1.8	Ø		Gas Well
GP-4	10-7-21	1411	20	18.7	3.2	Ø		Gas Well
GP-4	10-2-21	1412	40	18.2	3.8	Ø	-	Gas Well
GP-5	10-7-21	1406	20	18.5	3.0	Ø		Gas Well
GP-5	10-2-21	1407	40	20.7	0.0	Ø		Gas Well
GP-6	10-7-21	1358	20	19.3	3.0	Ø	-	Gas Well
GP-6	10-7-21	1359	40	19.7	2.6	Ø	-	Gas Well
GP-7	10-7-21	1353	20	19.9	2.4	Ø		Gas Well
GP-7	10-7-21	1354	40	20.0	2.4	Ø		Gas Well
GP-8	10-7-21	1350	20	18.8	2.0	- Ø	_	Gas Well
GP-8	10-7-21	1351	40	18.5	2.2	Ø		Gas Well
GP-9	10-7-21	1346	20	20.0	2.2	Ø	-	Gas Weli
GP-9	10-7-21	1347	40	20.1	2.0	Ø	ture-	Gas Well
GP-10	10-7-21	1342	20	14.7	7.8	Ø		Gas Well
GP-10	10-7-21	1343	40	15.0	7.4	Ø		Gas Well
GP-11	10-7-21	1338	20	19.2	2.0	Ø		Gas Well
GP-11	10-7-21	1339	40	18.0	2.0	Ø		Gas Well
GP-12	10-7-21	1234	25	20.5	1.8	Ø	-	Gas Well
GP-12	10-7-21	1335	50	20.5	1.8	X		Gas Well
GP-12	10-7-21	1336	75	20.7	18	Ø		Gas Well
GP÷13	10-7-21	1328	25	18.5	2.2	Ø	~_	Gas Well
GP-13	10-7-21	1329	50	184	2.2	Ø	-	Gas Well
GP-13	10-7-21	1330	75	18.8	1.5	Ø		Gas Well
GP-14	10-7-21	1323	25	20.5	1.2	Ø		Gas Well
GP-14	10-7-21	1324	50	20.5	12	Ø		Gas Well
GP-14	10-7-21	1325	75	20.5	1.2	ø		Gas Well
GP-15	10-7-21	1317	25	20.9	14	Ø	<u> </u>	Gas Well
GP-15	10-7-21	1318	50	209	14	õ		Gas Well
GP-15	10-7-21	1319	75	20.9	1.0	Ø		Gas Well
GP-16	10721	1310	25	20.5	14	Ø		Gas Well
GP-16	10-7-21	1311	50	20.4	1.6	Ø		Gas Well
GP-16	10-7-21	1312	75	20.7	14	Ø		Gas Well

General Data

Gas Monitoring Probes (Wells) and Structures

Date:	10-7-21	10-8-21	Sampler:	Steup Messicit / Rouse Sample
Time:	0915	0940	Sky Conditions:	Clear I Claure
Air Temperature (deg C):	2700	1280	Measuring Device:	Eagle RKI (SN E084039)

Sampling Data

							Methane	
Station I.D.	Date Sampled		Depth of Intake (Feet)	O2 %Volume	CO2 %Volume	Peak Recorded Concentration as % LEL	Peak Recorded Concentration as % Volume	Station Type
GP-17	10-7-21	1149	25	17.4	4.2	Ø		Gas Well
GP-17	10-7-21	1150	50	12.8	8.0	Ø		Gas Well
GP-17	10-7-21	1152	75	14,2	6.6	ø	-	Gas Well
GP-18	10-7-21	1144	25	20.2	1.9	ø		Gas Well
GP-18	10-7-21	1146	50	18.8	2.4	Ø		Gas Well
GP-18	10-7-21	1147	75	19.0	2.0	ø	-	Gas Well
GP-19	10-7-21	1136	25	20.5	0.8	ø	~	Gas Well
GP-19	10-7-21	1137	50	20.9	1.2	Ø	-	Gas Well
GP-19	10-7-21	1138	75	20.7	1.0	Ø		Gas Well
GP-20	10-7-21	1314	105	19.2	18	Ø	- CO=53ppm	Gas Well
GP-21	10-7-21	1141	115	159	0.0	ø	-	Gas Well
GP-22	10-7-21	1438	70	20.9	0.0	Ø	- CO = 68ppm	Gas Well
GP-23	10-7-21	1436	100	14.2	2.0	ø	-	Gas Well
GP-24	10-8-21	1151	70	16.2	0.6			Gas Well
GP-25	10-8-21	1154	100	19.4	0.2	X Ø	-	Gas Well
GP-26	10-9-21	1205	70	184	1.8	Ø	-	Gas Well
GP-27	10-8-21	1208	100	17.9	2.0	Ø	<u> </u>	Gas Well
GP-28	10-7-21	1419	70	18.9	2.8	Ø		Gas Well
GP-29	10-7-21	1417	100	20.9	0.0	ð		Gas Well
GP-30	10-7-21	1320	105	20.9	1.0	Ø		Gas Well
Admin Building	10-8-21	0942	-	20.9	0.0	Ø	Name of Street o	Structure
Mod Bidg	10-8-21	0953	-	20.9	0.0	Ø		Structure
Shop	10-8-21	0951	-	20.9	0.0	Ø		Structure
Scale House	10-8-21	0947	-	20.9	0.0	Ø		Structure
Firing Range	10-7-21	0936	-	20.9	0.0	Ø		6 / Structures
z Waste Drop-Off Ctr.	10-7-21	0930	-	20.9	0.0	Ø	-	4 Structures
Equipment Container	10-8-21	0950	-	20,9	0.0	ø	-	Structure
Storage Building	10-8-21	0959	-	20.9	0.0	ø	-	REMOVED
Electronics	10-3-21	1004	-	20.9	0.0	Ø		Structure, Tem
Paints	10-7-21	0924	-	20.9	0.0	Ø		Structure, Tem
Chemical Container	10-8-21	1016	-	20.2	0.0	Ø		Structure, Tem
						¥		Subcure, Telli

Note: One structure has been removed from the fixing range area, 6 now left.

General Data

Groundwater Monitoring Wells and Piezometers

General Data 2104

Date:	10-7-21	Sampler:	Steve Messick / Royce Gample
Time:	7950	Sky Conditions:	Clace - light wind
Air Temperature (deg C):	29°C	Measuring Device:	Eagle RKI (SN E084039)

					Met	hane	
Station I.D.	Date Sampled	Time Sampled	O2 %Volume	CO2 %Volume	Peak Recorded Concentration as % LEL	Peak Recorded Concentration as % Volume	Station Type
MW-1R	10-7-21	1428	19.3	2.4	Ø		Groundwater Well
MW-2	10-7-21	1127	16.5	2.6	ØØ		Groundwater Well
MW-3	10-8-21	1036	8.9	24.0		49.0	Groundwater Well
MW-5	10-8-21	1053	5.7	43.2		58.5	Groundwater Well
MW-6	10-3-21	1058	6.0	28.2	~	22.0	Groundwater Well
MW-7	10-8-21	1041	5.7	45.2	A home	61.0	Groundwater Well
MW-8R	10-7-21	1000	18.7	116	Ø	-	Groundwater Well
MW-9	10-7-21	1008	15.4	9.2	Ø	-	Groundwater Well
MW-10	10-8-21	1226	17.1	12.6	Ø	-	Groundwater Well
MW-11	10-7-21	1024	18.8	3.2	Ø		Groundwater Well
MW-12	10-7-21	1038	20.7	0.2	Ø	-	Groundwater Well
MW-13	10-7-21	1053	20.8	1.6	Ø	-	Groundwater Well
MW-14	10-7-21	1058	10.6	5.4	Ø	_	Groundwater Well
MW-15	10-7-21	1105	9.6	14.0	38	_	Groundwater Well
MW-16	10-8-21	1010	8.4	29.2	~	51.0	Groundwater Well
MW-17	10-7-21	1111	10.1	14.0	35	-	Groundwater Well
MW-18	10-8-21	1220	20.7	1.4	Ø		Groundwater Well
MW-18D	10-8-21	1217	16.0	5.0	Ø	-	Groundwater Well
MW-19	10-8-21	1231	17.2	11.4	- Č		Groundwater Well
MW-19D	10-8-21	1235	19.3	2.2	Ø	-	Groundwater Well
MW-20	10-8-21	1047	5.6	43.8	-	60.5	Groundwater Well
MW-21	10-8-21	1134	8.8	15.4	Ø		Groundwater Well
MW-22	10-8-21	1141	8.8	15.2	Ø	-	Groundwater Well
MW-AA	10-7-21	1047	20.7	1.6	Ø		Groundwater Well
MW-B	10-7-21	0952	18.7	12.6	Ø	-	Groundwater Well
MW-E	10-7-21	0929	20.9	0.2	Ø	~	Groundwater Well
PZ-1	10-7-21	1012	16.6	3.8	Ø	-	Groundwater Well
PZ-2	10-7-21	1212	12.4	6.0	T	-	Groundwater Well

	DEP-SOP-001/01
FT 1600	Field Measurement of Landfill Gas

Page _/_ of ___

		Form	FD 900	0-8: FI		STRU	MEN	T CAL	.IBR/		I REC	ORDS		
SITE		Cit	Rus G	untr	Cent	eal	F	<u></u>		DATE	E _/	0/2/2	21	
	RUMEN													_
Instr	ument C	alibrat	ion Date	e_01/11	/2021	Refe	rence	Mete	r Boo	k <u>Eag</u>	le Me	ter Boo	<u>ok 1</u>	
PAR	AMETE	R: [ch	eck only	one]										
Ľ		RATUR	E [JCTIVITY					🗌 p	н		D	
C		OITY	Ľ		JAL CI					Хo	THER	LANDF	ILL GAS	
	NDARDS							ration, :	the orig	gin of tl	he stan	dards, the	ə standard	1
S	Standard	A <u>15.</u>	72% Me	thane (Volume), 14.	71 %	CO2 (Volur	ne), E	Baland	e Nitro	gen	
	Stand	ard So	ource	Airg	as			Lo	t # <u>12</u>	22-401	19500	<u>36-1</u>		
S	Standard	в	Zero	<u> Air (0 %</u>	<u>6 Metha</u>	ne) (()% C(D₂) (2	1.0 %	0 ₂)				
	Stand	ard So	ource	Airg	as			Lo	ot # <u>55</u>	5-4004	<u> 48510</u>	<u>9-1</u>		
S	Standard	С	<u>% L</u>	EL Met	hane	<u>% C</u>	:O ₂ (V	olum	<u>e), 0%</u>	<u>6 O2 (</u>	Volur	<u>ne), Bal</u>	Nitroge	en
-	Stand	ard So	purce	r	r	1		Lo	ot #			1	1	
		STD	CH₄	CO2	02	1		MENT I		CALIB-				
DATE (yy/mm/dd)	TIME (hr:min)	(A,	B, VALUE VALUE		STD VALUE	CH4 CO2			02		RATED (YES,	TYPE (INIT, CONT)	SAMPLER INITIALS	
(yymmuuu)	(m.ann)	Ь,	VALUE	VALUE	VALUE	0	H4	C(02	(D 2	I (YES,		INITIALS
(yymmudd)		В, С)	(% Vol)		(% Vol)	RES	H₄ DEV	RES	r		D ₂	(YES, NO)	CONT)	INITIALS
		C)	(% Vol)	(% Vol)			DEV	RES	DEV		1	NO)	CONT)	INITIALS
21/10/07		1				RES 16.0	DEV		DEV	RES	DEV			
	0910	cj A	(% Vol)	(% Vol) 14.7	(% Vol)	RES 16.0	DEV	RES	DEV	RES 	DEV	NO) Yes	CONT)	Jun
	0910 0914	cj A B	(% Vol) 15.7	(% Vol) 14.7	(% Vol)	RES 16.0 	DEV	RES 14.6	DEV	RES 		NO) Yes Yes Yes	CONT) Init. Init.	Sun Sun
	0910 0914 1655	cj A B A	(% Vol) 15.7	(% Vol) 14.7 14.7 	(% Vol) 	RES 16.0 	DEV <2 <2 <2	RES 14.6	DEV ¥ (J ¥ 3 1	RES 20.9		NO) Yes Yes Yes Yes	Init. Init. Init. Cont. Cont.	Sum Sun Nom
	0910 0914 1655 1657	c) A B A B A B	(% Vol) 15.7 15.7	(% Vol) 14.7 14.7 	(% Vol) 	RES 16.0 15.5	DEV <2 <2 <2 <5 	RES 14.6 	DEV ¥ (J ¥ 3 1	RES 20.9	DEV 	NO) Yes Yes Yes Yes Yes	Init. Init. Init. Cont. Cont. Cont.	Sum Sum Arm Sum Sum
	0910 0914 1655 1657 1440	c) A B A B A	(% Vol) 15.7 15.7	(% Vol) 14.7 14.7 	(% Vol) 21.0 21.0	RES 16.0 15.5	DEV <2 <2 <2	RES 14.6 	DEV < (_ </td <td>RES 20.9 20.9</td> <td>DEV </td> <td>NO) Yes Yes Yes Yes Yes</td> <td>Init. Init. Init. Cont. Cont. Cont.</td> <td>Sum Sum Sum Sum Sum Sum Sum Sum</td>	RES 20.9 20.9	DEV 	NO) Yes Yes Yes Yes Yes	Init. Init. Init. Cont. Cont. Cont.	Sum Sum Sum Sum Sum Sum Sum Sum
21/10/07	0910 0914 1655 1657 1440 1442	c) A B A B A B	(% Vol) 15.7 15.7 15.7 15.7 	(% Vol) 14.7 14.7 14.7 14.7 	(% Vol) 21.0 21.0	RES 16.0 15.5 15.0 15.5 	DEV <2 <2 <2 	RES 14.6 15.0 15.0	DEV ~ (~ 3 ~ 3 ~ 3 ~ 7 ~ 7 ~ 7 ~ 7 ~ 7 ~ 7 ~ 7 ~ 7	RES 20.9 20.9	DEV 	NO) Yes Yes Yes Yes Yes	Init. Init. Init. Cont. Cont. Cont.	Sum Sum Sum Sum Sum Sum Sum Sum
21/10/07	0910 0914 1655 1657 1440 1442 0926	c) A B A B A B A A	(% Vol) 15.7 15.7 15.7 15.7 	(% Vol) 14.7 14.7 14.7 	(% Vol) 2,1.0 2),0 2),0 2).0	RES 16.0 	DEV <2 <2 <2 	RES 14.6 15.0 15.0	DEV × (- × 3 - × 3 - × 1 - × 1 -	RES 20.9 20.9 20.9 20.9 20.9 20.9	DEV	NO) Yes Yes Yes Yes Yes Yes	CONT) Init. Init. Init. Cont. Cont. Cont. Cont. Cont. Cont.	Sum Sum Sum Sum Sum Sum Sum Sum Sum
21/10/07	0910 0914 1655 1657 1440 1442 0926 0929	c) R B A B A B A B A B	(% Vol) 15.7 15.7 15.7 15.7 15.7 15.7	(% Vol) 14.7 14.7 14.7 14.7 	(% Vol) 2,1.0 2),0 2),0 2).0	RES 16.0 15.5 15.0 15.5 	DEV <2 <2 <2 	RES 14.6 15.0 15.0 15.0 14.8	DEV × (- × 3 - × 3 - × 1 - × 1 -	RES 20.9 20.9 20.9 20.9	DEV 	NO) Yes Yes Yes Yes Yes Yes Yes Yes	CONT) Init. Init. Init. Cont. Cont. Cont. Cont. Cont. Init. Init.	Sum Sum Sum Sum Sum Sum Sum Sum
21/10/07	0910 0914 1655 1657 1440 1442 0926 0929 1251	c) A B A B A B A A	(% Vol) 15.7 15.7 15.7 15.7 15.7 15.7	(% Vol) 14.7 14.7 14.7 14.7 	(% Vol) 21.0 21.0 21.0 21.0	RES 16.0 15.5 15.0 15.5 	DEV <2 <2 <2 	RES 14.6 15.0 15.0 15.0 14.8	DEV × (- × 3 - × 3 - × 1 - × 1 -	RES 20.9 20.9 20.9 20.9 20.9 20.9	DEV	NO) Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Init. Init. Init. Cont. Cont. Cont. Cont. Init. Init.	Sum Sum Sum Sum Sum Sum Sum Sum Sum
21/10/07	0910 0914 1655 1657 1440 1442 0926 0929 1251	c) A B A B A B A A	(% Vol) 15.7 15.7 15.7 15.7 15.7 15.7	(% Vol) 14.7 14.7 14.7 14.7 	(% Vol) 21.0 21.0 21.0 21.0	RES 16.0 15.5 15.0 15.5 	DEV <2 <2 <2 	RES 14.6 15.0 15.0 15.0 14.8	DEV × (- × 3 - × 3 - × 1 - × 1 -	RES 20.9 20.9 20.9 20.9 20.9 20.9	DEV	NO) Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Init. Init. Init. Cont. Cont. Cont. Cont. Init. Init.	Sum Sum Sum Sum Sum Sum Sum Sum Sum
21/10/07	0910 0914 1655 1657 1440 1442 0926 0929 1251	c) A B A B A B A A	(% Vol) 15.7 15.7 15.7 15.7 15.7 15.7	(% Vol) 14.7 14.7 14.7 14.7 	(% Vol) 21.0 21.0 21.0 21.0	RES 16.0 15.5 15.0 15.5 	DEV <2 <2 <2 	RES 14.6 15.0 15.0 15.0 14.8	DEV × (- × 3 - × 3 - × 1 - × 1 -	RES 20.9 20.9 20.9 20.9 20.9 20.9	DEV	NO) Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Init. Init. Init. Cont. Cont. Cont. Cont. Init. Init.	Sum Sum Sum Sum Sum Sum Sum Sum Sum
21/10/07	0910 0914 1655 1657 1440 1442 0926 0929 1251	c) A B A B A B A A	(% Vol) 15.7 15.7 15.7 15.7 15.7 15.7	(% Vol) 14.7 14.7 14.7 14.7 	(% Vol) 21.0 21.0 21.0 21.0	RES 16.0 15.5 15.0 15.5 	DEV <2 <2 <2 	RES 14.6 15.0 15.0 15.0 14.8	DEV × (- × 3 - × 3 - × 1 - × 1 -	RES 20.9 20.9 20.9 20.9 20.9 20.9	DEV	NO) Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Init. Init. Init. Cont. Cont. Cont. Cont. Init. Init.	Sum Sum Sum Sum Sum Sum Sum Sum Sum

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