

Calibration Report

Company: GREC Gainesville, FL
10001 Northwest 13th St



Gainesville, FL
Stack Designation: Biomass Boiler 1
Parameter: CO
Units: ppm
Serial #: CO Z01007-M
Start of Report: 11/07/13 00:00
End of Report: 11/14/13 23:59

ZERO READINGS

SPAN READINGS

START	STOP	EXPECT.	ACTUAL	ERROR	%	START	STOP	EXPECT.	ACTUAL	ERROR	%	STATUS
11/07/13 09:00	11/07/13 09:02	0.00	1.36	1.36	0.6	11/07/13 09:15	11/07/13 09:17	182.40	181.95	-0.45	-0.2	OK
11/07/13 09:42	11/07/13 09:44	0.00	1.17	1.17	0.5	11/07/13 09:58	11/07/13 10:00	182.40	182.62	0.22	0.1	OK
11/08/13 09:00	11/08/13 09:02	0.00	-0.51	-0.51	-0.2	11/08/13 09:16	11/08/13 09:18	182.40	182.95	0.55	0.2	OK
11/09/13 09:00	11/09/13 09:02	0.00	0.69	0.69	0.3	11/09/13 09:16	11/09/13 09:18	182.40	184.65	2.25	1.1	OK
11/10/13 09:00	11/10/13 09:02	0.00	1.50	1.50	0.7	11/10/13 09:16	11/10/13 09:18	182.40	180.60	-1.80	-0.9	OK
11/11/13 09:00	11/11/13 09:02	0.00	1.29	1.29	0.6	11/11/13 09:16	11/11/13 09:18	182.40	183.50	1.10	0.5	OK
11/12/13 09:00	11/12/13 09:02	0.00	-0.99	-0.99	-0.4	11/12/13 09:16	11/12/13 09:18	182.40	183.63	1.23	0.6	OK
11/13/13 09:00	11/13/13 09:02	0.00	1.76	1.76	0.8	11/13/13 09:17	11/13/13 09:19	182.40	183.29	0.89	0.4	OK
11/14/13 09:00	11/14/13 09:02	0.00	2.16	2.16	1.0	11/14/13 09:17	11/14/13 09:19	182.40	183.47	1.07	0.5	OK

Calibration Report

Company: GREC Gainesville, FL
10001 Northwest 13th St



Gainesville, FL
Stack Designation: Biomass Boiler 1
Parameter: Flow
Units: Kscfm
Serial #: TRACE500 11131-1
Start of Report: 11/07/13 00:00
End of Report: 11/14/13 23:59

ZERO READINGS

SPAN READINGS

START	STOP	EXPECT.	ACTUAL	ERROR	%	START	STOP	EXPECT.	ACTUAL	ERROR	%	STATUS
11/07/13 05:00	11/07/13 05:01	0.00	0.02	0.02	0.0	11/07/13 05:01	11/07/13 05:02	370.00	366.32	-3.68	-0.7	OK
11/08/13 05:00	11/08/13 05:01	0.00	0.02	0.02	0.0	11/08/13 05:01	11/08/13 05:02	370.00	367.77	-2.23	-0.4	OK
11/09/13 05:00	11/09/13 05:01	0.00	0.02	0.02	0.0	11/09/13 05:01	11/09/13 05:02	370.00	370.83	0.83	0.1	OK
11/10/13 05:00	11/10/13 05:01	0.00	0.02	0.02	0.0	11/10/13 05:01	11/10/13 05:02	370.00	368.88	-1.12	-0.2	OK
11/11/13 05:00	11/11/13 05:01	0.00	0.02	0.02	0.0	11/11/13 05:01	11/11/13 05:02	370.00	367.93	-2.07	-0.4	OK
11/12/13 05:00	11/12/13 05:01	0.00	0.02	0.02	0.0	11/12/13 05:01	11/12/13 05:02	370.00	368.23	-1.77	-0.3	OK
11/13/13 05:00	11/13/13 05:01	0.00	0.02	0.02	0.0	11/13/13 05:01	11/13/13 05:02	370.00	370.03	0.03	0.0	OK
11/14/13 05:00	11/14/13 05:01	0.00	-0.02	-0.02	0.0	11/14/13 05:01	11/14/13 05:02	370.00	373.04	3.04	0.6	OK

Calibration Report

Company: GREC Gainesville, FL
10001 Northwest 13th St



Gainesville, FL
Stack Designation: Biomass Boiler 1
Parameter: HCL wet
Units: ppm
Serial #: HCL Y01004
Start of Report: 11/12/13 00:00
End of Report: 11/19/13 23:59

ZERO READINGS

SPAN READINGS

START	STOP	EXPECT.	ACTUAL	ERROR	%	START	STOP	EXPECT.	ACTUAL	ERROR	%	STATUS
11/12/13 09:00	11/12/13 09:02	0.00	-0.04	-0.04	-0.0	11/12/13 09:02	11/12/13 09:10	41.00	43.98	2.98	5.9	OK
11/13/13 09:00	11/13/13 09:02	0.00	-0.02	-0.02	-0.0	11/13/13 09:02	11/13/13 09:10	41.00	42.90	1.90	3.7	OK
11/14/13 09:00	11/14/13 09:02	0.00	-0.03	-0.03	-0.0	11/14/13 09:02	11/14/13 09:10	41.00	41.24	0.24	0.4	OK
11/15/13 08:17	11/15/13 08:19	0.00	-0.03	-0.03	-0.0	11/15/13 08:19	11/15/13 08:27	41.00	41.50	0.50	1.0	OK
11/16/13 08:24	11/16/13 08:26	0.00	0.01	0.01	0.0	11/16/13 08:26	11/16/13 08:34	41.00	38.10	-2.90	-5.8	OK
11/17/13 08:10	11/17/13 08:13	0.00	0.31	0.31	0.6	11/17/13 08:13	11/17/13 08:21	41.00	42.30	1.30	2.6	OK
11/18/13 07:25	11/18/13 07:28	0.00	-0.03	-0.03	-0.0	11/18/13 07:28	11/18/13 07:36	41.00	43.11	2.11	4.2	OK
11/18/13 18:23	11/18/13 18:26	0.00	0.00	0.00	0.0	11/18/13 18:26	11/18/13 18:34	41.00	44.45	3.45	6.9	OK
11/19/13 07:05	11/19/13 07:08	0.00	0.00	0.00	0.0	11/19/13 07:08	11/19/13 07:16	41.00	41.15	0.15	0.3	OK

Calibration Report

Company: GREC Gainesville, FL
10001 Northwest 13th St



Gainesville, FL
Stack Designation: Biomass Boiler 1
Parameter: NOx
Units: ppm
Serial #: NOx Y08012
Start of Report: 11/07/13 00:00
End of Report: 11/14/13 23:59

ZERO READINGS

SPAN READINGS

START	STOP	EXPECT.	ACTUAL	ERROR	%	START	STOP	EXPECT.	ACTUAL	ERROR	%	STATUS
11/07/13 09:00	11/07/13 09:02	0.00	0.21	0.21	0.1	11/07/13 09:15	11/07/13 09:17	108.90	108.34	-0.56	-0.4	OK
11/07/13 09:42	11/07/13 09:44	0.00	0.21	0.21	0.1	11/07/13 09:58	11/07/13 10:00	108.90	108.78	-0.12	-0.1	OK
11/08/13 09:00	11/08/13 09:02	0.00	0.09	0.09	0.0	11/08/13 09:16	11/08/13 09:18	108.90	108.95	0.05	0.0	OK
11/09/13 09:00	11/09/13 09:02	0.00	0.12	0.12	0.1	11/09/13 09:16	11/09/13 09:18	108.90	109.02	0.12	0.1	OK
11/10/13 09:00	11/10/13 09:02	0.00	0.05	0.05	0.0	11/10/13 09:16	11/10/13 09:18	108.90	108.94	0.04	0.0	OK
11/11/13 09:00	11/11/13 09:02	0.00	0.09	0.09	0.0	11/11/13 09:16	11/11/13 09:18	108.90	108.86	-0.04	-0.0	OK
11/12/13 09:00	11/12/13 09:02	0.00	0.05	0.05	0.0	11/12/13 09:16	11/12/13 09:18	108.90	109.10	0.20	0.1	OK
11/13/13 09:00	11/13/13 09:02	0.00	0.04	0.04	0.0	11/13/13 09:17	11/13/13 09:19	108.90	109.03	0.13	0.1	OK
11/14/13 09:00	11/14/13 09:02	0.00	-0.01	-0.01	0.0	11/14/13 09:17	11/14/13 09:19	108.90	109.02	0.12	0.1	OK

Calibration Report

Company: GREC Gainesville, FL
10001 Northwest 13th St



Gainesville, FL
Stack Designation: Biomass Boiler 1
Parameter: O2 dry
Units: %
Serial #: O2 Z01007-M
Start of Report: 11/07/13 00:00
End of Report: 11/14/13 23:59

ZERO READINGS

SPAN READINGS

START	STOP	EXPECT.	ACTUAL	ERROR	%	START	STOP	EXPECT.	ACTUAL	ERROR	%	STATUS
11/07/13 09:15	11/07/13 09:17	0.00	-0.01	-0.01	-0.0	11/07/13 09:17	11/07/13 09:19	20.62	20.49	-0.13	-0.5	OK
11/07/13 09:58	11/07/13 10:00	0.00	0.00	0.00	0.0	11/07/13 10:00	11/07/13 10:02	20.62	20.55	-0.07	-0.3	OK
11/08/13 09:16	11/08/13 09:18	0.00	-0.01	-0.01	-0.0	11/08/13 09:18	11/08/13 09:20	20.62	20.55	-0.07	-0.2	OK
11/09/13 09:16	11/09/13 09:18	0.00	-0.01	-0.01	-0.0	11/09/13 09:18	11/09/13 09:20	20.62	20.56	-0.06	-0.2	OK
11/10/13 09:16	11/10/13 09:18	0.00	-0.02	-0.02	-0.0	11/10/13 09:18	11/10/13 09:20	20.62	20.55	-0.07	-0.3	OK
11/11/13 09:16	11/11/13 09:18	0.00	-0.01	-0.01	-0.0	11/11/13 09:18	11/11/13 09:20	20.62	20.56	-0.06	-0.2	OK
11/12/13 09:16	11/12/13 09:18	0.00	0.00	0.00	0.0	11/12/13 09:18	11/12/13 09:20	20.62	20.57	-0.05	-0.1	OK
11/13/13 09:17	11/13/13 09:19	0.00	0.00	0.00	-0.0	11/13/13 09:19	11/13/13 09:21	20.62	20.59	-0.03	-0.1	OK
11/14/13 09:17	11/14/13 09:19	0.00	0.00	0.00	0.0	11/14/13 09:19	11/14/13 09:21	20.62	20.60	-0.02	-0.1	OK

Calibration Report

Company: GREC Gainesville, FL
10001 Northwest 13th St



Gainesville, FL
Stack Designation: Biomass Boiler 1
Parameter: O2 wet
Units: %
Serial #: O2 1703/2026890
Start of Report: 11/07/13 00:00
End of Report: 11/14/13 23:59

ZERO READINGS

SPAN READINGS

START	STOP	EXPECT.	ACTUAL	ERROR	%	START	STOP	EXPECT.	ACTUAL	ERROR	%	STATUS
11/07/13 09:00	11/07/13 09:02	0.40	0.28	-0.12	-0.4	11/07/13 09:17	11/07/13 09:19	20.62	20.79	0.17	0.6	OK
11/07/13 09:42	11/07/13 09:44	0.40	0.28	-0.12	-0.4	11/07/13 10:00	11/07/13 10:02	20.62	20.76	0.14	0.5	OK
11/08/13 09:00	11/08/13 09:02	0.40	0.28	-0.12	-0.4	11/08/13 09:18	11/08/13 09:20	20.62	20.57	-0.05	-0.2	OK
11/09/13 09:00	11/09/13 09:02	0.40	0.28	-0.12	-0.4	11/09/13 09:18	11/09/13 09:20	20.62	20.67	0.05	0.2	OK
11/10/13 09:00	11/10/13 09:02	0.40	0.28	-0.12	-0.4	11/10/13 09:18	11/10/13 09:20	20.62	20.61	-0.01	-0.0	OK
11/11/13 09:00	11/11/13 09:02	0.40	0.28	-0.12	-0.4	11/11/13 09:18	11/11/13 09:20	20.62	20.61	-0.01	-0.0	OK
11/12/13 09:00	11/12/13 09:02	0.40	0.28	-0.12	-0.4	11/12/13 09:18	11/12/13 09:20	20.62	20.60	-0.02	-0.0	OK
11/13/13 09:00	11/13/13 09:02	0.40	0.28	-0.12	-0.4	11/13/13 09:19	11/13/13 09:21	20.62	20.70	0.08	0.3	OK
11/14/13 09:00	11/14/13 09:02	0.40	0.28	-0.12	-0.4	11/14/13 09:19	11/14/13 09:21	20.62	20.60	-0.02	-0.0	OK

Calibration Report

Company: GREC Gainesville, FL
10001 Northwest 13th St



Gainesville, FL
Stack Designation: Biomass Boiler 1
Parameter: Opacity
Units: %
Serial #: Durag 1223492
Start of Report: 11/07/13 00:00
End of Report: 11/14/13 23:59

ZERO READINGS

SPAN READINGS

START	STOP	EXPECT.	ACTUAL	ERROR	%	START	STOP	EXPECT.	ACTUAL	ERROR	%	STATUS
11/07/13 04:00	11/07/13 04:01	0.00	-0.13	-0.13	-0.1	11/07/13 04:01	11/07/13 04:04	45.10	45.04	-0.06	-0.0	OK
11/08/13 04:00	11/08/13 04:01	0.00	-0.14	-0.14	-0.1	11/08/13 04:01	11/08/13 04:04	45.10	45.00	-0.10	-0.1	OK
11/09/13 04:00	11/09/13 04:01	0.00	-0.14	-0.14	-0.1	11/09/13 04:01	11/09/13 04:04	45.10	44.98	-0.12	-0.1	OK
11/10/13 04:00	11/10/13 04:01	0.00	-0.14	-0.14	-0.1	11/10/13 04:01	11/10/13 04:04	45.10	45.00	-0.10	-0.1	OK
11/11/13 04:00	11/11/13 04:01	0.00	-0.13	-0.13	-0.1	11/11/13 04:01	11/11/13 04:04	45.10	45.02	-0.08	-0.0	OK
11/12/13 04:00	11/12/13 04:01	0.00	-0.13	-0.13	-0.1	11/12/13 04:01	11/12/13 04:04	45.10	45.04	-0.06	-0.0	OK
11/13/13 04:00	11/13/13 04:01	0.00	-0.14	-0.14	-0.1	11/13/13 04:01	11/13/13 04:04	45.10	45.00	-0.10	-0.1	OK
11/14/13 04:00	11/14/13 04:01	0.00	-0.15	-0.15	-0.1	11/14/13 04:01	11/14/13 04:04	45.10	44.95	-0.15	-0.1	OK

Calibration Report

Company: GREC Gainesville, FL
10001 Northwest 13th St



Gainesville, FL
Stack Designation: Biomass Boiler 1
Parameter: SO2
Units: ppm
Serial #: SO2 Z01006
Start of Report: 11/07/13 00:00
End of Report: 11/14/13 23:59

ZERO READINGS

SPAN READINGS

START	STOP	EXPECT.	ACTUAL	ERROR	%	START	STOP	EXPECT.	ACTUAL	ERROR	%	STATUS
11/07/13 09:00	11/07/13 09:02	0.00	-0.12	-0.12	-0.3	11/07/13 09:10	11/07/13 09:15	35.90	34.15	-1.75	-4.3	>1 x
11/07/13 09:42	11/07/13 09:44	0.00	0.04	0.04	0.0	11/07/13 09:52	11/07/13 09:58	35.90	36.05	0.15	0.3	OK
11/08/13 09:00	11/08/13 09:02	0.00	-0.19	-0.19	-0.4	11/08/13 09:10	11/08/13 09:16	35.90	36.02	0.12	0.3	OK
11/09/13 09:00	11/09/13 09:02	0.00	0.09	0.09	0.2	11/09/13 09:10	11/09/13 09:16	35.90	36.53	0.63	1.5	OK
11/10/13 09:00	11/10/13 09:02	0.00	0.05	0.05	0.1	11/10/13 09:10	11/10/13 09:16	35.90	36.23	0.33	0.8	OK
11/11/13 09:00	11/11/13 09:02	0.00	-0.26	-0.26	-0.6	11/11/13 09:10	11/11/13 09:16	35.90	36.92	1.02	2.5	>1 x
11/12/13 09:00	11/12/13 09:02	0.00	-0.26	-0.26	-0.6	11/12/13 09:10	11/12/13 09:16	35.90	36.55	0.65	1.6	OK
11/13/13 09:00	11/13/13 09:02	0.00	-0.51	-0.51	-1.2	11/13/13 09:10	11/13/13 09:17	37.00	37.60	0.60	1.4	OK
11/14/13 09:00	11/14/13 09:02	0.00	-0.63	-0.63	-1.5	11/14/13 09:10	11/14/13 09:17	37.00	38.27	1.27	3.1	>1 x