

00:00 00/00/00

12:15 01/04/99

AMBIENT MONITOR

12:18 01/04/99

02 FLOW	L/MIN	.007
C. CELL TMP.	C	46.2
S. CELL TMP.	C	48.3
OVEN TMP.	C	43.9
CAT. HTR. TMP.	C	342.2
5 REFF.		5.00
5 VOLT	+	5.00
24 VOLT	+	23.98
30 VOLT	+	29.96
15 VOLT	+/-	14.99
C. EMITR.		5.50
S. EMITR.		5.50
C. IR CELL		8.253
S. IR CELL		8.511

12:20 01/04/99

CaCO₃

00000001	MT0.0980	CAL#1
11.98%	SULFUR	.00069%
OXYGEN FLOW		3.242
	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	13143.	0.
CALIB.	0.7478	0.8981
K FAC.	1.0023	1.0165

12:22 01/04/99

00000002	MT0.1000	CAL#1
12.34%	SULFUR	.00063%
OXYGEN FLOW		3.207
	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	16631.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9959	1.0103

12:23 01/04/99

00000003	MT0.0980	CAL#1
11.29%	SULFUR	.00026%
OXYGEN FLOW		3.205
	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	14476.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9952	1.0099

12:26 01/04/99

00000004	MT1.0040	CAL#1
3.217%	SULFUR	.00052%
OXYGEN FLOW		3.169
	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	10383.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9893	1.0036

Std
0.822

12:27 01/04/99

00000005	MT1.0040	CAL#1
3.214%	SULFUR	.00062%
OXYGEN FLOW		3.178
	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	10026.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9911	1.0051

12:29 01/04/99

00000006	MT0.9980	CAL#1
3.210%	SULFUR	.00062%
OXYGEN FLOW		3.153
	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	9791.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9868	1.0007

12:30 01/04/99

00000007	MT1.0040	CAL#1
3.212%	SULFUR	.00062%
OXYGEN FLOW		3.155
	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	10030.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9871	1.0011

12:31 01/04/99

00000008	MT1.0020	CAL#1
3.214%	SULFUR	.00052%
OXYGEN FLOW		3.162
	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	11275.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9883	1.0023

*** STACK CALIBRATION ***

12:32 01/04/99

WEIGHT	CARBON%	SULFUR%
1.0920	0.8145	.00005
1.0040	0.8193	.00006
7.9930	0.8100	.00006
1.0340	0.8214	.00006
1.0340	0.8179	.00005
0.0700	11.29	.00026
0.1300	12.04	.00063
0.0980	11.98	.00069

CARBON STD # 88.8228
 OLD C-CAL -1- 0.7478
 INCLUDE CARBON
 00000000 0.8145
 00000007 0.8193
 00000006 0.8180
 00000005 0.8214
 00000004 0.8179
 NEW C-CAL -1- 0.7513

12:33 01/04/99
 WEIGHT CARBON% SULFUR%
 1 0029 0.8133 .00005
 1 0049 0.8231 .00006
 1 0069 0.8218 .00006
 1 0089 0.8252 .00006
 1 0109 0.8217 .00005
 1 0129 11.34 .00026
 1 1000 12.10 .00063
 1 0000 12.04 .00069

*** END CALIBRATION ***
 12:35 01/04/99
 00000009 MTO.0028 CAL#1
 7.212% SULFUR .00005%
 OXYGEN FLOW 3.115
 -C- -S-

Std
 0.822

BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 10109. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9795 0.9940
 12:54 01/04/99

00000010 MTO.0970 CAL#1
 11.97% SULFUR .00009%
 OXYGEN FLOW 3.160
 -C- -S-

4216-2
 1-2-2000
 CaCO3

BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 14923. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9809 1.0020
 12:55 01/04/99

00000011 MTO.0500 CAL#1
 3.96% SULFUR .00209%
 OXYGEN FLOW 3.122
 -C- -S-

WST2
 2-20

BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 1831. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9819 0.9952
 12:56 01/04/99

00000012 MTO.1000 CAL#1
 5.75% SULFUR .00075%
 OXYGEN FLOW 3.155
 -C- -S-

4216-2
 3-20

BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 9220. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9874 1.0011

12:58 01/04/99
 00000013 MTO.0990 CAL#1
 5.09% SULFUR .00056%
 OXYGEN FLOW 3.138
 -C- -S-

425c
 2-3

BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 8430. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9844 0.9980
 12:59 01/04/99

00000014 MTO.1000 CAL#1
 7.810% SULFUR .00070%
 OXYGEN FLOW 3.120
 -C- -S-

3-4
 5-6

BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 8667. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9819 0.9949
 13:01 01/04/99

00000015 MTO.1000 CAL#1
 7.745% SULFUR .00063%
 OXYGEN FLOW 3.125
 -C- -S-

4-5
 6-7

BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 7126. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9827 0.9958
 13:02 01/04/99

00000016 MTO.1000 CAL#1
 7.75% SULFUR .00000%
 OXYGEN FLOW 3.135
 -C- -S-

5-6
 7-8

BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 7689. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9844 0.9975
 13:03 01/04/99

00000017 MTO.1000 CAL#1
 7.071% SULFUR .00043%
 OXYGEN FLOW 3.129
 -C- -S-

6-7
 8-9

BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 9149. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9834 0.9965
 CLEANING TIME
 13:04 01/04/99

00000018 MTO.1000 CAL#1
 7.57% SULFUR .00044%
 OXYGEN FLOW 3.132
 -C- -S-

7-8
 8-9

BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 9135. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9839 0.9970

13:26 01/04/99
 ----- 10000019 WTA.1000 CAL#1
 ----- 7.395% SULFUR .000832
 OXYGEN FLOW 3.123
 -C- -S-
 8-9c BLANK +.00000 +.00000
 AGNA TIME 40. 30.
 PEAK 6938. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9824 0.9954

13:27 01/04/99
 ----- 10000020 WTA.1000 CAL#1
 ----- 6.192% SULFUR .000502
 OXYGEN FLOW 3.129
 -C- -S-
 9-10c BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 7654. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9832 0.9965

13:29 01/04/99
 ----- 10000021 WTA.1000 CAL#1
 ----- 8.114% SULFUR .000702
 OXYGEN FLOW 3.116
 -C- -S-
 10-11c BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 8971. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9808 0.9941

13:10 01/04/99
 ----- 10000022 WTA.9980 CAL#1
 ----- 9.520% SULFUR .000862
 OXYGEN FLOW 3.089
 -C- -S-
 Std BLANK +.00000 +.00000
 0,822 TIME 40. 30.
 PEAK 9466. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9764 0.9894

13:27 01/04/99
 ----- 10000023 WTA.1010 CAL#1
 ----- 11.76% SULFUR .000702
 OXYGEN FLOW 3.141
 -C- -S-
 CaCO3 BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 14938. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9861 0.9986

13:29 01/04/99
 ----- 10000024 WTA.0500 CAL#1
 ----- 3.734% SULFUR .000152
 OXYGEN FLOW 3.142
 -C- -S-
 WST2 BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 2324. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9863 0.9987
 *** OUT-SEQ BEGUN ***

13:31 01/04/99
 ----- 10000026 WTA.1000 CAL#1
 ----- 7.395% SULFUR .000522
 OXYGEN FLOW 3.107
 -C- -S-
 WST2 BLANK +.00000 +.00000
 Std TIME 40. 30.
 0,822 PEAK 3463. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9788 0.9915
 *** OUT-SEQ BEGUN ***

13:33 01/04/99
 ----- 10000027 WTA.9980 CAL#1
 ----- 8.514% SULFUR .000092
 OXYGEN FLOW 3.103
 -C- -S-
 Std BLANK +.00000 +.00000
 0,822 TIME 40. 30.
 PEAK 11144. 0.
 CALIB. 0.7513 0.8981
 K FAC. 0.9795 0.9918
 *** OUT-SEQ BEGUN ***

13:35 01/04/99
 ----- 10000028 WTA.0040 CAL#1
 ----- 13.156% SULFUR .000052
 OXYGEN FLOW 3.092
 -C- -S-
 BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 11655. 0.
 L CALIB. 0.7513 0.8981
 K FAC. 0.9778 0.9899
 *** OUT-SEQ BEGUN ***

13:37 01/04/99
 ----- 10000029 WTA.0010 CAL#1
 ----- 8.512% SULFUR .000052
 OXYGEN FLOW 3.087
 -C- -S-
 BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 10894. 0.
 L CALIB. 0.7513 0.8981
 K FAC. 0.9772 0.9890
 *** OUT-SEQ BEGUN ***

13:39 01/04/99
 ----- 10000030 WTA.0040 CAL#1
 ----- 8.514% SULFUR .000042
 OXYGEN FLOW 3.087
 -C- -S-
 BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 10078. 0.
 L CALIB. 0.7513 0.8981
 K FAC. 0.9769 0.9890
 *** OUT-SEQ BEGUN ***

13:41 01/04/99
 ----- 10000041 WTA.9980 CAL#1
 ----- 3.513% SULFUR .000082
 OXYGEN FLOW 3.075
 -C- -S-
 BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 11200. 0.
 L CALIB. 0.7513 0.8981
 K FAC. 0.9745 0.9869

*** STACK CALIBRATION ***

13:41 01/04/99

WEIGHT	CARBON%	SULFUR%
0.9980	0.8128	.00008
1.0940	0.8140	.00004
1.0910	0.8123	.00005
1.0940	0.8156	.00005
3.9980	0.8141	.00009
3.1900	3.886	.00052
3.3500	3.794	.00015
3.1910	11.76	.00070
0.9980	0.8203	.00006
3.1900	8.114	.00070

CARBON STD % 00.8220

OLD C-CAL -1- 0.7513

INCLUDE CARBON

C00000041 0.8128

C00000040 0.8140

C00000039 0.8123

C00000038 0.8156

C00000037 0.8141

NEW C-CAL -1- 0.7589

13:41 01/04/99

WEIGHT	CARBON%	SULFUR%
0.9980	0.8210	.00008
1.0940	0.8222	.00004
1.0910	0.8205	.00005
1.0940	0.8238	.00005
0.9980	0.8223	.00009
3.1900	3.844	.00052
3.3500	3.832	.00015
3.1910	11.88	.00070
0.9980	0.8205	.00006
3.1900	8.196	.00070

*** END CALIBRATION ***

*** OUT-SEQ BEGIN ***

13:43 01/04/99

00000042 MT1 0070 CAL#1

0.827% SULFUR .00006%

OXYGEN FLOW 3.068

Std 0.822

-C- -S-

BLANK +.00000 +.00000

TIME 40. 30.

PEAK 9887. 0.

CALIB. 0.7589 0.8981

K FAC. 0.9733 0.9857

*** OUT-SEQ BEGIN ***

13:45 01/04/99

00000043 MT1 0010 CAL#1

0.822% SULFUR .00007%

OXYGEN FLOW 3.082

Std 0.822

-C- -S-

BLANK +.00000 +.00000

TIME 40. 30.

PEAK 11483. 0.

CALIB. 0.7589 0.8981

K FAC. 0.9761 0.9881

*** OUT-SEQ BEGIN ***

13:47 01/04/99

00000044 MT0.1000 CAL#1

11.00% SULFUR .00050%

OXYGEN FLOW 3.116

CaCO3

-C- -S-

BLANK +.00000 +.00000

TIME 40. 30.

PEAK 12448. 0.

CALIB. 0.7589 0.8981

K FAC. 0.9823 0.9941

*** OUT-SEQ BEGIN ***

13:48 01/04/99

00000045 MT0.0500 CAL#1

7.817% SULFUR .00107%

OXYGEN FLOW 3.102

WST 2

-C- -S-

BLANK +.00000 +.00000

TIME 40. 30.

PEAK 2212. 0.

CALIB. 0.7589 0.8981

K FAC. 0.9799 0.9916

*** OUT-SEQ BEGIN ***

13:51 01/04/99

00000046 MT0.0500 CAL#1

3.034% SULFUR .00063%

OXYGEN FLOW 3.107

WST 2

-C- -S-

BLANK +.00000 +.00000

TIME 40. 30.

PEAK 1814. 0.

CALIB. 0.7589 0.8981

K FAC. 0.9800 0.9926

*** OUT-SEQ BEGIN ***

13:53 01/04/99

00000047 MT1.0010 CAL#1

0.8204% SULFUR .00004%

OXYGEN FLOW 3.084

Std

0.822

-C- -S-

BLANK +.00000 +.00000

TIME 40. 30.

PEAK 9322. 0.

CALIB. 0.7589 0.8981

K FAC. 0.9762 0.9885

*** OUT-SEQ BEGIN ***

13:55 01/04/99

00000048 MT0.0900 CAL#1

12.20% SULFUR .00096%

OXYGEN FLOW 3.111

CaCO3

-C- -S-

BLANK +.00000 +.00000

TIME 40. 30.

PEAK 14140. 0.

CALIB. 0.7589 0.8981

K FAC. 0.9809 0.9933

*** CLOSING TIME ***

*** OUT-SEQ BEGIN ***

13:58 01/04/99

00000049 MT0.0500 CAL#1

0.820% SULFUR .00054%

OXYGEN FLOW 3.097

WST 2

-C- -S-

BLANK +.00000 +.00000

TIME 40. 30.

PEAK 2341. 0.

CALIB. 0.7589 0.8981

K FAC. 0.9789 0.9908

13:59 01/04/99
 00000025 MTA 1010 CAL#1
 2.010% SULFUR 00090%
 OXYGEN FLOW 3.102
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 7456. 0.
 CAL TB 0.7589 0.8981
 K FAC 0.9881 0.9916

11-12c

14:00 01/04/99
 00000026 MTA 1000 CAL#1
 2.197% SULFUR 00051%
 OXYGEN FLOW 3.132
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 7376. 0.
 CAL TB 0.7589 0.8981
 K FAC 0.9854 0.9970

12-13c

14:01 01/04/99
 00000027 MTA 1000 CAL#1
 2.310% SULFUR 00004%
 OXYGEN FLOW 3.132
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 8489. 0.
 CAL TB 0.7589 0.8981
 K FAC 0.9851 0.9970

13-14c

14:03 01/04/99
 00000028 MTA 1000 CAL#1
 2.221% SULFUR 00009%
 OXYGEN FLOW 3.127
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 8936. 0.
 CAL TB 0.7589 0.8981
 K FAC 0.9843 0.9962

14-15c

14:04 01/04/99
 00000029 MTA 1010 CAL#1
 2.231% SULFUR 00061%
 OXYGEN FLOW 3.136
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 9585. 0.
 CAL TB 0.7589 0.8981
 K FAC 0.9858 0.9977

15-16c

14:05 01/04/99
 00000030 MTA 1000 CAL#1
 2.514% SULFUR 00086%
 OXYGEN FLOW 3.131
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 8932. 0.
 CAL TB 0.7589 0.8981
 K FAC 0.9847 0.9968

16-17c

14:07 01/04/99
 00000031 MTA 1000 CAL#1
 2.400% SULFUR 00036%
 OXYGEN FLOW 3.136
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 9950. 0.
 CAL TB 0.7589 0.8981
 K FAC 0.9858 0.9977

17-18c

14:08 01/04/99
 00000032 MTA 1000 CAL#1
 2.550% SULFUR 00053%
 OXYGEN FLOW 3.145
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 10566. 0.
 CAL TB 0.7589 0.8981
 K FAC 0.9874 0.9993

18-19c

14:09 01/04/99
 00000033 MTA 1000 CAL#1
 2.743% SULFUR 00081%
 OXYGEN FLOW 3.152
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 9401. 0.
 CAL TB 0.7589 0.8981
 K FAC 0.9892 1.0005

19-20c

14:11 01/04/99
 00000034 MTA 1000 CAL#1
 2.126% SULFUR 00075%
 OXYGEN FLOW 3.155
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 8231. 0.
 CAL TB 0.7589 0.8981
 K FAC 0.9897 1.0011

20-21c

14:12 01/04/99
 00000035 MTA 0060 CAL#1
 2.000% SULFUR 00005%
 OXYGEN FLOW -3.116
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 8216. 0.
 CAL TB 0.7589 0.8981
 K FAC 0.9829 0.9941

Std 0.822

14:29 01/04/99
 00000036 MTA 1040 CAL#1
 11.64% SULFUR 00065%
 OXYGEN FLOW 3.167
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 14570. 0.
 CAL TB 0.7589 0.8981
 K FAC 0.9916 1.0032

CaCO3

14:30 01/04/99
 00000051 MTA 0490 CAL#1
 7.71% SULFUR .00000%
 OXYGEN FLOW 3.156
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 2118. 0.
 CALIB. 0.7589 0.8981
 K FAC. 0.9896 1.0012
 *** OUT-SEQ BEGUN ***

WSTZ

14:32 01/04/99
 00000053 MTA 0000 CAL#1
 8.804% SULFUR .00007%
 OXYGEN FLOW 3.126
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 7047. 0.
 CALIB. 0.7589 0.8981
 K FAC. 0.9847 0.9960
 *** OUT-SEQ BEGUN ***

Std
0,822

14:34 01/04/99
 00000054 MTA 0970 CAL#1
 11.60% SULFUR .00101%
 OXYGEN FLOW 3.162
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 15829. 0.
 CALIB. 0.7589 0.8981
 K FAC. 0.9913 1.0023
 *** OUT-SEQ BEGUN ***

CaCO3

14:36 01/04/99
 00000055 MTA 0530 CAL#1
 7.845% SULFUR .00001%
 OXYGEN FLOW 3.124
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 2349. 0.
 CALIB. 0.7589 0.8981
 K FAC. 0.9849 0.9956

WSTZ

14:37 01/04/99
 00000052 MTA 1000 CAL#1
 8.364% SULFUR .00079%
 OXYGEN FLOW 3.142
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 7860. 0.
 CALIB. 0.7589 0.8981
 K FAC. 0.9877 0.9987

21-22c

Vers 1

14:39 01/04/99
 00000053 MTA 1000 CAL#1
 8.200% SULFUR .00059%
 OXYGEN FLOW 3.170
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 8193. 0.
 CALIB. 0.7589 0.8981
 K FAC. 0.9924 1.0037

22-23c

21922c
Vers 2

14:40 01/04/99
 00000054 MTA 0990 CAL#1
 8.400% SULFUR .00047%
 OXYGEN FLOW 3.165
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 8920. 0.
 CALIB. 0.7589 0.8981
 K FAC. 0.9912 1.0029
 *** CLEANING TIME ***

23-24c

14:41 01/04/99
 00000055 MTA 1000 CAL#1
 8.141% SULFUR .00071%
 OXYGEN FLOW 3.163
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 8000. 0.
 CALIB. 0.7589 0.8981
 K FAC. 0.9908 1.0025

24-25c

14:43 01/04/99
 00000056 MTA 1000 CAL#1
 8.191% SULFUR .00090%
 OXYGEN FLOW 3.160
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 7426. 0.
 CALIB. 0.7589 0.8981
 K FAC. 0.9906 1.0020

2526c

14:44 01/04/99
 00000057 MTA 1020 CAL#1
 8.050% SULFUR .00060%
 OXYGEN FLOW 3.165
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 7571. 0.
 CALIB. 0.7589 0.8981
 K FAC. 0.9915 1.0029

26-27c

14:45 01/04/99
 00000058 MTA 0990 CAL#1
 8.451% SULFUR .00079%
 OXYGEN FLOW 3.168
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 8721. 0.
 CALIB. 0.7589 0.8981
 K FAC. 0.9923 1.0034

21-22c

Vers 2

14:47 01/04/99
 00000059 MTA 1000 CAL#1
 8.754% SULFUR .00056%
 OXYGEN FLOW 3.172
 -C- -S-
 BLANK + 00000 + 00000
 TIME 40. 30.
 PEAK 7269. 0.
 CALIB. 0.7589 0.8981
 K FAC. 0.9930 1.0041

4223-1

1-2c

05.01.99

MUC 4216-2

Cory

09:29 01/05/99

TT CODE C00000001 WT1.0070 CAL#1

CARBON 0.8127% SULFUR .00009%

OXYGEN FLOW 3.089

-C- -S-

SH BLANK +.00000 +.00000

TIME 40. 30.

0.818 PEAK 10679. 0.

CALIB. 0.7347 0.8981

K FAC. 0.9761 0.9894

09:32 01/05/99

TT CODE C00000002 WT1.0040 CAL#1

CARBON 0.8137% SULFUR .00005%

OXYGEN FLOW 3.067

-C- -S-

BLANK +.00000 +.00000

TIME 40. 30.

PEAK 9340. 0.

CALIB. 0.7347 0.8981

K FAC. 0.9720 0.9855

09:36 01/05/99

TT CODE C00000003 WT1.0040 CAL#1

CARBON 0.8112% SULFUR .00007%

OXYGEN FLOW 3.033

-C- -S-

BLANK +.00000 +.00000

TIME 40. 30.

PEAK 7396. 0.

CALIB. 0.7347 0.8981

K FAC. 0.9658 0.9794

*** OUT-SEQ BEGUN ***

09:38 01/05/99

TT CODE C00000018 WT1.0040 CAL#1

CARBON 0.8110% SULFUR .00006%

OXYGEN FLOW 3.051

-C- -S-

BLANK +.00000 +.00000

TIME 40. 30.

PEAK 8458. 0.

CALIB. 0.7347 0.8981

K FAC. 0.9689 0.9827

*** OUT-SEQ BEGUN ***

09:40 01/05/99

TT CODE C00000019 WT1.0050 CAL#1

CARBON 0.8124% SULFUR .00004%

OXYGEN FLOW 3.043

-C- -S-

BLANK +.00000 +.00000

TIME 40. 30.

PEAK 10815. 0.

CALIB. 0.7347 0.8981

K FAC. 0.9681 0.9812

*** STACK CALIBRATION ***

09:40 01/05/99

TT CODE WEIGHT CARBON% SULFUR%

C00000019 1.0050 0.8124 .00004

C00000018 1.0040 0.8110 .00006

C00000003 1.0040 0.8112 .00007

C00000002 1.0040 0.8137 .00005

C00000001 1.0070 0.8127 .00009

C00000000 1.0000 0.8154 .00005

C00000099 1.0070 0.8157 .00008

C00000098 0.9980 0.8211 .00006

C00000097 1.0060 0.8220 .00006

C00000096 1.0040 0.8157 .00005

CARBON STD.% 00.8180

OLD C-CAL -1- 0.7347

INCLUDE CARBON

C00000019 0.8124

C00000018 0.8110

C00000003 0.8112

C00000002 0.8137

C00000001 0.8127

NEW C-CAL -1- 0.7399

09:41 01/05/99

TT CODE WEIGHT CARBON% SULFUR%

C00000019 1.0050 0.8182 .00004

C00000018 1.0040 0.8168 .00006

C00000003 1.0040 0.8170 .00007

C00000002 1.0040 0.8195 .00005

C00000001 1.0070 0.8186 .00009

C00000000 1.0000 0.8212 .00005

C00000099 1.0070 0.8215 .00008

C00000098 0.9980 0.8270 .00006

C00000097 1.0060 0.8279 .00006

C00000096 1.0040 0.8215 .00005

*** END CALIBRATION ***

*** OUT-SEQ BEGUN ***

09:43 01/05/99

TT CODE C00000020 WT1.0010 CAL#1

CARBON 0.8230% SULFUR .00005%

OXYGEN FLOW 3.038

-C- -S-

SH BLANK +.00000 +.00000

TIME 40. 30.

0.818 PEAK 8929. 0.

CALIB. 0.7399 0.8981

K FAC. 0.9675 0.9803

09:44 01/05/99

TT CODE C00000004 WT0.0980 CAL#1

CARBON 11.86% SULFUR .00043%

OXYGEN FLOW 3.056

-C- -S-

BLANK +.00000 +.00000

TIME 40. 30.

CaCO₃ PEAK 11036. 0.

CALIB. 0.7399 0.8981

K FAC. 0.9704 0.9835

09:45 01/05/99

TT CODE C00000005 WT0.0500 CAL#1

CARBON 3.902% SULFUR .00004%

OXYGEN FLOW 3.082

-C- -S-

WSTZ BLANK +.00000 +.00000

TIME 40. 30.

PEAK 2045. 0.

CALIB. 0.7399 0.8981

K FAC. 0.9746 0.9881

09:47 01/05/99
 TO CODE C00000006 WTA.0500 CAL#1
 CARBON 2.461% SULFUR .00050%
 OXYGEN FLOW 3.071
 -C- -S-
 WSTZ BLANK +.00000 +.00000
 TIME 40. 30.
 dec. PEAK 1133. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9724 0.9862

09:48 01/05/99
 TO CODE C00000007 WTA.1000 CAL#1
 CARBON 1.255% SULFUR .00030%
 OXYGEN FLOW 3.055
 -C- -S-
 4216-2 BLANK +.00000 +.00000
 TIME 40. 30.
 1-2c PEAK 1236. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9696 0.9833

09:50 01/05/99
 TO CODE C00000008 WTA.1000 CAL#1
 CARBON 0.2599% SULFUR .00000%
 OXYGEN FLOW 3.043
 -C- -S-
 2-3c BLANK +.00000 +.00000
 TIME 43. 30.
 PEAK 191. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9681 0.9812

09:51 01/05/99
 TO CODE C00000009 WTA.1000 CAL#1
 CARBON 0.2780% SULFUR .00048%
 OXYGEN FLOW 3.046
 -C- -S-
 3-4c BLANK +.00000 +.00000
 TIME 46. 30.
 PEAK 192. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9689 0.9818

09:52 01/05/99
 TO CODE C00000010 WTA.1000 CAL#1
 CARBON 0.2410% SULFUR .00015%
 OXYGEN FLOW 3.034
 -C- -S-
 4-5c BLANK +.00000 +.00000
 TIME 47. 30.
 PEAK 180. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9668 0.9796

09:54 01/05/99
 TO CODE C00000011 WTA.1000 CAL#1
 CARBON 0.2344% SULFUR .00073%
 OXYGEN FLOW 3.038
 -C- -S-
 5-6c BLANK +.00000 +.00000
 TIME 45. 30.
 PEAK 167. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9675 0.9803

09:55 01/05/99
 TO CODE C00000012 WTA.1000 CAL#1
 CARBON 0.2203% SULFUR .00030%
 OXYGEN FLOW 3.016
 -C- -S-
 6-7c BLANK +.00000 +.00000
 TIME 43. 30.
 PEAK 184. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9637 0.9764

09:57 01/05/99
 TO CODE C00000013 WTA.1000 CAL#1
 CARBON 0.2207% SULFUR .00045%
 OXYGEN FLOW 3.015
 -C- -S-
 7-8c BLANK +.00000 +.00000
 TIME 45. 30.
 PEAK 164. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9632 0.9763

09:58 01/05/99
 TO CODE C00000014 WTA.1000 CAL#1
 CARBON 0.1686% SULFUR .00023%
 OXYGEN FLOW 3.013
 -C- -S-
 (Tubergkath) BLANK +.00000 +.00000
 TIME 40. 30.
 8-9c PEAK 135. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9628 0.9759

*** CLEANING TIME ***
 10:00 01/05/99
 TO CODE C00000015 WTA.1000 CAL#1
 CARBON 0.1909% SULFUR .00011%
 OXYGEN FLOW 2.989
 -C- -S-
 9-10c BLANK +.00000 +.00000
 TIME 45. 30.
 PEAK 140. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9587 0.9717

10:01 01/05/99
 TO CODE C00000016 WTA.1000 CAL#1
 CARBON 0.1852% SULFUR .00047%
 OXYGEN FLOW 2.975
 -C- -S-
 10-11c BLANK +.00000 +.00000
 TIME 47. 30.
 PEAK 136. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9565 0.9692

10:03 01/05/99
 TO CODE C00000017 WTA.0020 CAL#1
 CARBON 0.8162% SULFUR .00004%
 OXYGEN FLOW 2.945
 -C- -S-
 54 BLANK +.00000 +.00000
 TIME 40. 30.
 0,818 PEAK 7201. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9512 0.9638

10:07 01/05/99
 TO CODE C00000021 WTA. 9950 CAL#1
 CARBON 0 8039% SULFUR .00006%
 OXYGEN FLOW 2.912
 -C- -S-
 Std BLANK +.00000 +.00000
 TIME 40. 30.
 0.818 PEAK 5280. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9455 0.9580
 *** OUT-SEQ BEGUN ***

10:09 01/05/99
 TO CODE C00000036 WTA. 0040 CAL#1
 CARBON 0 8223% SULFUR .00005%
 OXYGEN FLOW 2.884
 -C- -S-
 BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 8620. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9406 0.9530

10:10 01/05/99
 TO CODE C00000022 WTA. 1040 CAL#1
 CARBON 12.14% SULFUR .00004%
 OXYGEN FLOW 2.936
 -C- -S-
 BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 15229. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9497 0.9623

10:12 01/05/99
 TO CODE C00000023 WTA. 0500 CAL#1
 CARBON 3.723% SULFUR .00049%
 OXYGEN FLOW 2.903
 -C- -S-
 BLANK +.00000 +.00000
 TIME 40. 30.
 WST2 PEAK 1830. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9438 0.9564
 *** OUT-SEQ BEGUN ***

10:14 01/05/99
 TO CODE C00000037 WTA. 0540 CAL#1
 CARBON 3.942% SULFUR .00016%
 OXYGEN FLOW 2.878
 -C- -S-
 BLANK +.00000 +.00000
 TIME 40. 30.
 WST2 PEAK 2144. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9398 0.9520

10:16 01/05/99
 TO CODE C00000024 WTA. 0500 CAL#1
 CARBON 2.422% SULFUR .00107%
 OXYGEN FLOW 2.860
 -C- -S-
 BLANK +.00000 +.00000
 TIME 40. 30.
 WST2 PEAK 1175. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9370 0.9488

10:17 01/05/99
 TO CODE C00000025 WTA. 1000 CAL#1
 CARBON 0 1752% SULFUR .00022%
 OXYGEN FLOW 2.855
 -C- -S-
 11-12 BLANK +.00000 +.00000
 TIME 50. 30.
 PEAK 119. 0.
 CALIB. 0.7399 0.8981
 K FAC. 0.9360 0.9479

10:19 01/05/99
 TO CODE C00000026 WTA. 1000 CAL#1
 CARBON 0 1892% SULFUR .00000%
 OXYGEN FLOW 3.377
 -C- -S-
 BLANK +.00000 +.00000
 TIME 47. 30.
 12-13 PEAK 116. 0.
 CALIB. 0.7399 0.8981
 K FAC. 1.0275 1.0404

10:20 01/05/99
 TO CODE C00000027 WTA. 1000 CAL#1
 CARBON 0 1770% SULFUR .00026%
 OXYGEN FLOW 3.382
 -C- -S-
 BLANK +.00000 +.00000
 TIME 47. 30.
 13-14 PEAK 108. 0.
 CALIB. 0.7399 0.8981
 K FAC. 1.0280 1.0413

10:22 01/05/99
 TO CODE C00000028 WTA. 1000 CAL#1
 CARBON 0 1715% SULFUR .00037%
 OXYGEN FLOW 3.373
 -C- -S-
 BLANK +.00000 +.00000
 TIME 47. 30.
 14-15 PEAK 108. 0.
 CALIB. 0.7399 0.8981
 K FAC. 1.0262 1.0397

10:23 01/05/99
 TO CODE C00000029 WTA. 1000 CAL#1
 CARBON 0 1726% SULFUR .00051%
 OXYGEN FLOW 3.363
 -C- -S-
 BLANK +.00000 +.00000
 TIME 40. 30.
 (unsequenced) PEAK 160. 0.
 CALIB. 0.7399 0.8981
 K FAC. 1.0247 1.0380

10:24 01/05/99
 TO CODE C00000030 WTA. 1000 CAL#1
 CARBON 0 1763% SULFUR .00017%
 OXYGEN FLOW 3.363
 -C- -S-
 BLANK +.00000 +.00000
 TIME 46. 30.
 16-17 PEAK 128. 0.
 CALIB. 0.7399 0.8981
 K FAC. 1.0250 1.0380

Long

MUC 4216-2

05.01.99

10:26 01/05/99

CODE C00000031 WT0.1000 CAL#1
 CARBON 0.1636% SULFUR .00046%
 OXYGEN FLOW 3.386
 -C- -S-
 BLANK +.00000 +.00000
 TIME 44. 30.
 PEAK 132. 0.
 CALIB. 0.7399 0.8981
 K FAC. 1.0291 1.0421

19-18

10:27 01/05/99

CODE C00000032 WT0.1000 CAL#1
 CARBON 0.1652% SULFUR .00033%
 OXYGEN FLOW 3.377
 -C- -S-
 BLANK +.00000 +.00000
 TIME 51. 30.
 PEAK 120. 0.
 CALIB. 0.7399 0.8981
 K FAC. 1.0278 1.0404

18-19

10:29 01/05/99

CODE C00000033 WT0.1000 CAL#1
 CARBON 0.1710% SULFUR .00038%
 OXYGEN FLOW 3.382
 -C- -S-
 BLANK +.00000 +.00000
 TIME 48. 30.
 PEAK 112. 0.
 CALIB. 0.7399 0.8981
 K FAC. 1.0283 1.0413

19-20

10:30 01/05/99

CODE C00000034 WT0.1000 CAL#1
 CARBON 0.1750% SULFUR .00000%
 OXYGEN FLOW 3.376
 -C- -S-
 BLANK +.00000 +.00000
 TIME 46. 30.
 PEAK 136. 0.
 CALIB. 0.7399 0.8981
 K FAC. 1.0273 1.0402

20-21

10:31 01/05/99

CODE C00000035 WT1.0040 CAL#1
 CARBON 0.9272% SULFUR .00000%
 OXYGEN FLOW 3.347
 -C- -S-
 BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 6486. 0.
 CALIB. 0.7399 0.8981
 K FAC. 1.0222 1.0352
 *** CLEANING TIME ***

SA

0.818

10:33 01/05/99

CODE C00000038 WT1.0040 CAL#1
 CARBON 0.9392% SULFUR .00007%
 OXYGEN FLOW 3.352
 -C- -S-
 BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 10133. 0.
 CALIB. 0.7399 0.8981
 K FAC. 1.0228 1.0360

4

10:35 01/05/99

CODE C00000039 WT1.0020 CAL#1
 CARBON 0.9316% SULFUR .00006%
 OXYGEN FLOW 3.328
 -C- -S-
 BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 11555. 0.
 CALIB. 0.7399 0.8981
 K FAC. 1.0189 1.0317

Std

0.818

*** STACK CALIBRATION ***

10:36 01/05/99

CODE	WEIGHT	CARBON%	SULFUR%
C00000039	1.0020	0.9316	.00006
C00000038	1.0040	0.9392	.00007
C00000035	1.0040	0.9272	.00000
C00000034	0.1000	0.1750	.00000
C00000033	0.1000	0.1710	.00038
C00000032	0.1000	0.1652	.00033
C00000031	0.1000	0.1686	.00046
C00000030	0.1000	0.1763	.00017
C00000029	0.1000	0.1726	.00051
C00000028	0.1000	0.1715	.00037

CARBON STD. % 00.8100
 OLD C-CAL -1- 0.7399
 INCLUDE CARBON
 C00000039 0.9316
 C00000038 0.9392
 C00000035 0.9272
 NEW C-CAL -1- 0.6490

10:36 01/05/99

CODE	WEIGHT	CARBON%	SULFUR%
C00000039	1.0020	0.8171	.00006
C00000038	1.0040	0.8238	.00007
C00000035	1.0040	0.8132	.00000
C00000034	0.1000	0.1535	.00000
C00000033	0.1000	0.1500	.00038
C00000032	0.1000	0.1624	.00033
C00000031	0.1000	0.1479	.00046
C00000030	0.1000	0.1547	.00017
C00000029	0.1000	0.1514	.00051
C00000028	0.1000	0.1505	.00037

*** END CALIBRATION ***

10:38 01/05/99

CODE C00000040 WT1.0060 CAL#1
 CARBON 0.8190% SULFUR .00004%
 OXYGEN FLOW 3.333
 -C- -S-
 BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 11160. 0.
 CALIB. 0.6490 0.8981
 K FAC. 1.0203 1.0327

Std

0.818

10:42 01/05/99
 TT CODE C00000041 WTA.0020 CAL#1
 CARBON 0.8201% SULFUR .00002%
 OXYGEN FLOW 3.293
 -C- -S-
 Std
 BLANK +.00000 +.00000
 0,518 TIME 40. 30.
 PEAK 11282. 0.
 CALIB. 0.6490 0.8981
 K FAC. 1.0133 1.0255

10:43 01/05/99
 TT CODE C00000042 WTA.0980 CAL#1
 CARBON 11.06% SULFUR .00078%
 OXYGEN FLOW 3.364
 -C- -S-
 CaCO₃ BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 13484. 0.
 CALIB. 0.6490 0.8981
 K FAC. 1.0252 1.0381

10:45 01/05/99
 TT CODE C00000043 WTA.0500 CAL#1
 CARBON 0.8972% SULFUR .00063%
 OXYGEN FLOW 3.355
 -C- -S-
 WST2 BLANK +.00000 +.00000
 TIME 40. 30.
 PEAK 2442. 0.
 CALIB. 0.6490 0.8981
 K FAC. 1.0236 1.0365

10:46 01/05/99
 TT CODE C00000044 WTA.0500 CAL#1
 CARBON 2.590% SULFUR .00061%
 OXYGEN FLOW 3.341
 -C- -S-
 WST2 BLANK +.00000 +.00000
 TIME 40. 30.
 dec. PEAK 1379. 0.
 CALIB. 0.6490 0.8981
 K FAC. 1.0214 1.0341

10:48 01/05/99
 TT CODE C00000045 WTA.1000 CAL#1
 CARBON 0.1520% SULFUR .00018%
 OXYGEN FLOW 3.311
 -C- -S-
 (Uberschad) BLANK +.00000 +.00000
 21-22 TIME 47. 30.
 PEAK 112. 0.
 Vess.1 CALIB. 0.6490 0.8981
 K FAC. 1.0165 1.0287

10:49 01/05/99
 TT CODE C00000046 WTA.1000 CAL#1
 CARBON 0.1891% SULFUR .00033%
 OXYGEN FLOW 3.326
 -C- -S-
 22-23 BLANK +.00000 +.00000
 TIME 52. 30.
 PEAK 124. 0.
 CALIB. 0.6490 0.8981
 K FAC. 1.0191 1.0314

10:51 01/05/99
 TT CODE C00000047 WTA.1000 CAL#1
 CARBON 0.1439% SULFUR .00034%
 OXYGEN FLOW 3.321
 -C- -S-
 (Uberschad) BLANK +.00000 +.00000
 23-24 TIME 44. 30.
 PEAK 128. 0.
 CALIB. 0.6490 0.8981
 K FAC. 1.0185 1.0305

10:53 01/05/99
 TT CODE C00000048 WTA.1000 CAL#1
 CARBON 0.1594% SULFUR .00040%
 OXYGEN FLOW 3.312
 -C- -S-
 BLANK +.00000 +.00000
 24-25 TIME 53. 30.
 PEAK 96. 0.
 CALIB. 0.6490 0.8981
 K FAC. 1.0167 1.0289

10:54 01/05/99
 TT CODE C00000049 WTA.1000 CAL#1
 CARBON 0.1504% SULFUR .00036%
 OXYGEN FLOW 3.299
 -C- -S-
 BLANK +.00000 +.00000
 25-26 TIME 47. 30.
 PEAK 104. 0.
 CALIB. 0.6490 0.8981
 K FAC. 1.0144 1.0267

10:55 01/05/99
 TT CODE C00000050 WTA.1000 CAL#1
 CARBON 0.1362% SULFUR .00044%
 OXYGEN FLOW 3.316
 -C- -S-
 BLANK +.00000 +.00000
 26-27 TIME 43. 30.
 PEAK 108. 0.
 CALIB. 0.6490 0.8981
 K FAC. 1.0171 1.0296

10:57 01/05/99
 TT CODE C00000051 WTA.1000 CAL#1
 CARBON 0.1396% SULFUR .00016%
 OXYGEN FLOW 3.322
 -C- -S-
 BLANK +.00000 +.00000
 21-22 TIME 40. 30.
 PEAK 108. 0.
 Vess.2 CALIB. 0.6490 0.8981
 K FAC. 1.0181 1.0307

10:58 01/05/99
 TT CODE C00000052 WTA.1000 CAL#1
 CARBON 0.3568% SULFUR .00053%
 OXYGEN FLOW 3.316
 -C- -S-
 4223-1 BLANK +.00000 +.00000
 TIME 48. 30.
 1-2 PEAK 300. 0.
 CALIB. 0.6490 0.8981
 K FAC. 1.0173 1.0296