ges.

1101-5 Test

16.11.98

AMBIENT MONITOR

14:27 11/16/98

O2 FLOW	L/MIN		2.919
C. CELL	TMP.	C	50.4
S. CELL	TMP.	C	49.3
OVEN	TMP.	C	48.5
CAT. HTR.	TMP.	C	342.2
5	REFF.		5.00
5	VOLT	+	5.00
24	VOLT	+	23.98
30	VOLT	+	29.99
15	VOLT	+/-	14.99
C.	EMITR.		5.50
S.	EMITR.		5.50
C.	IR CELL		0.531
S.	IR CELL		0.509

14:39 11/16/98

ID CODE C0000000042 WT0.1030 CAL#1

CARBON **12.** SULFUR .00042%

OXYGEN FLOW 2.904

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	16078.	0.
CALIB.	0.6592	0.8981
K FAC.	0.9710	0.9725

14:31 11/16/98

ID CODE C0000000043 WT0.1029 CAL#1

CARBON **12.22**% SULFUR .00019%

OXYGEN FLOW 3.999

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	14537.	0.
CALIB.	0.6592	0.8981
K FAC.	0.9899	0.9911

14:33 11/16/98

ID CODE C0000000044 WT0.1019 CAL#1

CARBON **13.10**% SULFUR .00079%

OXYGEN FLOW 3.210

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	14048.	0.
CALIB.	0.6592	0.8981
K FAC.	1.0093	1.0100

14:34 11/16/98

ID CODE C0000000045 WT0.9979 CAL#1

CARBON **0.8770**% SULFUR .00000%

OXYGEN FLOW 3.177

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	9705.	0.
CALIB.	0.6592	0.8981
K FAC.	1.0037	1.0049

14:36 11/16/98

ID CODE C0000000046 WT0.9959 CAL#1

CARBON **0.8791**% SULFUR .00004%

OXYGEN FLOW 3.165

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	9631.	0.
CALIB.	0.6592	0.8981
K FAC.	1.0013	1.0029

14:39 11/16/98

ID CODE C0000000047 WT1.0020 CAL#1

CARBON **0.8740**% SULFUR .00007%

OXYGEN FLOW 3.120

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	8856.	0.
CALIB.	0.6592	0.8981
K FAC.	0.9933	0.9949

14:41 11/16/98

ID CODE C0000000048 WT1.0050 CAL#1

CARBON **0.8848**% SULFUR .00007%

OXYGEN FLOW 3.148

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	8939.	0.
CALIB.	0.6592	0.8981
K FAC.	0.9996	0.9999

*** STDX CALIBRATION ***

14:41 11/16/98

ID CODE	WEIGHT	CARBON%	SULFUR%
C0000000048	1.0050	0.8848	.00007
C0000000047	1.0020	0.8740	.00007
C0000000046	0.9950	0.8791	.00004
C0000000045	0.9979	0.8770	.00000
C0000000044	0.1010	13.10	.00079
C0000000043	0.1020	12.22	.00019
C0000000042	0.1030	12.04	.00043
C0000000041	0.0580	2.291	.00045
C0000000040	0.0539	3.640	.00096
C0000000039	0.1019	12.13	.00042

CARBON STD.% 80.9220

OLD C-CAL -1- 0.6592

INCLUDE	CARBON
C0000000048	0.8848
C0000000047	0.8740
C0000000046	0.8791
C0000000045	0.8770

NEW C-CAL -1- 0.6166

$CaCO_3$

u

1

Std.

0.822

16.11.98 1101-5 Test C 8₂

14:42 11/16/98
ID TYPE WEIGHT CARBON% SULFUR%
[illegible] 1.0050 0.8277 .00007
[illegible] 1.0029 0.8176 .00007
[illegible] 0.9950 0.8224 .00004
[illegible] 0.9970 0.8234 .00000
[illegible] 0.1019 12.26 .00079
[illegible] 0.1029 11.43 .00010
[illegible] 0.1050 11.26 .00043
[illegible] 0.0599 2.143 .00045
[illegible] 0.0530 3.405 .00036
[illegible] 0.1010 11.34 .00042
*** END CALIBRATION ***
14:44 11/16/98
ID CODE C00000049 WT1.0049 CAL#1
FACTOR 0.8227% SULFUR .00002%
OXYGEN FLOW 3.134
Std. -C- -S-
0.822 BLANK + .00000 + .00000
TIME 40. 30.
PEAK 8967. 0.
CAL.FR 0.6166 0.8981
K FAC. 0.9961 0.9974
14:45 11/16/98
ID CODE C00000050 WT0.1000 CAL#1
FACTOR 12.58% SULFUR .00065%
OXYGEN FLOW 3.195
$CaCO_3$ -C- -S-
BLANK + .00000 + .00000
TIME 40. 30.
PEAK 13995. 0.
CAL.FR. 0.6166 0.8981
K FAC. 1.0069 1.0082
14:47 11/16/98
ID CODE C00000051 WT0.0520 CAL#1
FACTOR 3.947% SULFUR .00041%
OXYGEN FLOW 3.197
Wst2 -C- -S-
BLANK + .00000 + .00000
TIME 40. 30.
PEAK 2330. 0.
CAL.FR. 0.6166 0.8981
K FAC. 1.0070 1.0085
14:48 11/16/98
ID CODE C00000052 WT1.0048 CAL#1
FACTOR 8.333% SULFUR .00074%
OXYGEN FLOW 3.209
793 -C- -S-
BLANK + .00000 + .00000
TIME 40. 30.
PEAK 9223. 0.
CAL.FR. 0.6166 0.8981
K FAC. 1.0091 1.0107
14:50 11/16/98
ID CODE C00000053 WT0.1010 CAL#1
FACTOR 8.650% SULFUR .00041%
OXYGEN FLOW 3.233
793 -C- -S-
BLANK + .00000 + .00000
TIME 40. 30.
PEAK 10547. 0.
CAL.FR 0.6166 0.8981
K FAC. 1.0136 1.0149

14:52 11/16/98
ID CODE C00000054 WT0.1000 CAL#1
FACTOR 8.937% SULFUR .00059%
OXYGEN FLOW 3.229
-C- -S-
BLANK + .00000 + .00000
798 TIME 40. 30.
PEAK 10917. 0.
CAL.FR 0.6166 0.8981
K FAC 1.0129 1.0142
14:53 11/16/98
ID CODE C00000055 WT0.1010 CAL#1
FACTOR 9.220% SULFUR .00063%
OXYGEN FLOW 3.230
-C- -S-
BLANK + .00000 + .00000
TIME 40. 30.
PEAK 9951 0.
803 CAL.FR 0.6166 0.8981
K FAC 1.0131 1.0144

14:56 11/16/98
ID CODE C00000056 WT0.1000 CAL#1
FACTOR 6.100% SULFUR .00045%
OXYGEN FLOW 3.204
-C- -S-
BLANK + .00000 + .00000
808 TIME 40 30.
PEAK 6646 0.
CAL.FR 0.6166 0.8981
K FAC 1.0082 1.0099
14:59 11/16/98
ID CODE C00000057 WT0.1000 CAL#1
FACTOR 6.249% SULFUR .00025%
OXYGEN FLOW 3.205
-C- -S-
BLANK + .00000 + .00000
813 TIME 40 30.
PEAK 6799 0.
CAL.FR 0.6166 0.8981
K FAC 1.0087 1.0099
15:02 11/16/98
ID CODE C00000058 WT0.1000 CAL#1
FACTOR 7.757% SULFUR .00030%
OXYGEN FLOW 3.200
-C- -S-
BLANK + .00000 + .00000
818 TIME 40 30
PEAK 7593 0.
CAL.FR 0.6166 0.8981
K FAC 1.0078 1.0090
*** CLOSING TIME ***
15:04 11/16/98
ID CODE C00000059 WT0.1000 CAL#1
FACTOR 5.822% SULFUR .00071%
OXYGEN FLOW 3.222
-C- -S-
BLANK + .00000 + .00000
823 TIME 40. 30.
PEAK 6092. 0.
CAL.FR 0.6166 0.8981
K FAC 1.0117 1.0130
15:06 11/16/98

Cges.

Test 1101-5

16.11.98

TT 0012 C0000000 UT0 1000 CAL#1
TARGET 5.240% SULFUR .00039%
OXYGEN FLOW 3.216
-C- -S-
BLANK + 00000 + 00000
828 TIME 40 30
PEAK 5432 0
CALID 0.6166 0.9981
K FAC 1.0186 1.0119
15:07 11/16/98

TT 0012 C0000001 UT0 0990 CAL#1
TARGET 6.818% SULFUR .00049%
OXYGEN FLOW 3.220
-C- -S-
BLANK + 00000 + 00000
833 TIME 40 30
PEAK 7659 0
CALID 0.6166 0.9981
K FAC 1.0114 1.0126
15:09 11/16/98

TT 0012 C0000002 UT0 1000 CAL#1
TARGET 7.463% SULFUR .00075%
OXYGEN FLOW 3.212
-C- -S-
BLANK + 00000 + 00000
838 TIME 40 30
PEAK 7765 0
CALID 0.6166 0.9981
K FAC 1.0099 1.0112
15:12 11/16/98

TT 0012 C0000003 UT1 0050 CAL#1
TARGET 0.8459% SULFUR .00007%
OXYGEN FLOW 3.191
0.822 -C- -S-
BLANK + 00000 + 00000
Std. TIME 40 30
PEAK 8721 0
CALID 0.6166 0.9981
K FAC 1.0059 1.0074
15:14 11/16/98

TT 0012 C0000004 UT0 1030 CAL#1
TARGET 12.40% SULFUR .00060%
OXYGEN FLOW 3.225
-C- -S-
BLANK + 00000 + 00000
$CaCO_3$ TIME 40 30
PEAK 12947 0
CALID 0.6166 0.9981
K FAC 1.0119 1.0135
15:15 11/16/98

TT 0012 C0000005 UT0 0500 CAL#1
TARGET 3.908% SULFUR .00140%
OXYGEN FLOW 3.210
-C- -S-
Wt% BLANK + 00000 + 00000
TIME 40 30
PEAK 2009 0
CALID 0.6166 0.9981
K FAC 1.0096 1.0109

15:17 11/16/98
TT 0012 C0000006 UT1 0040 CAL#1
TARGET 2.2000% SULFUR .00032%
OXYGEN FLOW 3.206
-C- -S-
BLANK + 00000 + 00000
TIME 40 30
PEAK 0360 0
CALID 0.6166 0.9981
K FAC 1.0124 1.0137

17.11.98 1101-5 C ges.

AMBIENT MONITOR

10:39 11/17/98

O2 FLOW [illegible] 3.[illegible]
C CELL TMP C 50.0
S CELL TMP C 40.0
[illegible] TMP C 40.0
[illegible] TMP C [illegible]
[illegible] 5.00
[illegible] VOLT + 5.00
[illegible] VOLT + 22.00
[illegible] VOLT - 20.00
[illegible] VOLT +/- 14.00
[illegible] 5.50
[illegible] 5.50
[illegible] IR CELL 8.567
[illegible] IR CELL 9.511

10:40 11/17/98
ID CODE C00000067 WT0 1000 CAL#1
CARBON 12.33% SULFUR .00094%
OXYGEN FLOW 3.260

CaCO3

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40	30
PEAK	11303	0
CALIB	0.6166	0.9981
V RAT	1.0179	1.0197

10:42 11/17/98
ID CODE C00000068 WT0 1000 CAL#1
CARBON 12.71% SULFUR .00094%
OXYGEN FLOW 3.255

CaCO3

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40	30
PEAK	17627	0
CALIB	0.6166	0.9981
V RAT	1.0145	1.0182

10:44 11/17/98
ID CODE C00000069 WT1 0000 CAL#1
CARBON 0.8483% SULFUR .00006%
OXYGEN FLOW 3.229

Std.
0.822 %

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40	30
PEAK	9031	0
CALIB	0.6166	0.9981
V RAT	1.0173	1.0147

10:46 11/17/98
ID CODE C00000079 WT1 0050 CAL#1
CARBON 0.8515% SULFUR .00009%
OXYGEN FLOW 3.249

Std.

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40	30
PEAK	9314	0
CALIB	0.6166	0.9981
V RAT	1.0149	1.0167

10:47 11/17/98
ID CODE C00000071 WT1 0020 CAL#1
CARBON 0.8563% SULFUR .00005%
OXYGEN FLOW 3.239

Std.

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40	30
PEAK	9410	0
CALIB	0.6166	0.9981
V RAT	1.0149	1.0159

10:49 11/17/98
ID CODE C00000072 WT1 0020 CAL#1
CARBON 0.8514% SULFUR .00006%
OXYGEN FLOW 3.249

Std.

	-C-	-S-
BLANK	+.00009	+.00000
TIME	40	30.
PEAK	7934	0.
CALIB	0.6166	0.9981
V RAT	1.0149	1.0167

*** START CALIBRATION ***

10:49 11/17/98

ID CODE	WEIGHT	CARBON%	SULFUR%
C00000072	1.0020	0.8514	.00006
C00000071	1.0020	0.8563	.00005
C00000079	1.0050	0.8515	.00009
C00000069	1.0000	0.8483	.00006
C00000068	0.1000	12.71	.00094
C00000067	0.1000	12.33	.00094
C00000066	1.0049	0.9[illegible]	.00007
C00000065	0.0500	9.938	.00140
C00000064	0.1000	12.40	.00060
C00000063	1.0059	0.9450	.00007

CARBON STD % 00.0000
OLD C-CAL -1- 0.6166
INCLUDE CARBON
C00000072 0.8514
C00000071 0.8563
C00000079 0.8515
C00000069 0.8483
NEW C-CAL -1- 0.5950

10:51 11/17/98

ID CODE	WEIGHT	CARBON%	SULFUR%
C00000072	1.0020	0.8216	.00006
C00000071	1.0020	0.8263	.00005
C00000079	1.0050	0.8216	.00009
C00000069	1.0000	0.8185	.00006
C00000068	0.1000	12.26	.00094
C00000067	0.1000	11.90	.00094
C00000066	1.0049	0.8995	.00007
C00000065	0.0500	9.771	.00140
C00000064	0.1000	11.96	.00060
C00000063	1.0059	0.9134	.00007

*** END CALIBRATION ***

10:53 11/17/98
ID CODE C00000073 WT0 9980 CAL#1
CARBON 0.8234% SULFUR .00004%
OXYGEN FLOW 3.218

	-C-	-S-
BLANK	+.00009	+.00000
TIME	40	30.
PEAK	9953.	0.
CALIB	0.5950	0.9981
[illegible]	1.0184	1.0127

C ges. 1101-5 17.11.98

TO CODE C0000000374 UT0 0520 CAL#1
CARBON 23.52% SULFUR .00011%
OXYGEN FLOW 3.248
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
PEAK 13502. 0.
CALIB 0.5950 0.8981
K FAC 1.0157 1.0176
10:56 11/17/98

CaCO3

TO CODE C0000000375 UT0 0500 CAL#1
CARBON 3.793% SULFUR .00103%
OXYGEN FLOW 3.233
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
PEAK 1989 0
CALIB 0.5950 0.8981
K FAC 1.0139 1.0149
10:59 11/17/98

WST2

TO CODE C0000000376 UT1 0070 CAL#1
CARBON 0.8243% SULFUR .00007%
OXYGEN FLOW 3.229
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
PEAK 7911 0.
CALIB. 0.5959 0.8981
K FAC. 1.0120 1.0142
11:00 11/17/98

Std.

TO CODE C0000000377 UT1.0020 CAL#1
CARBON 0.8285% SULFUR .00006%
OXYGEN FLOW 3.229
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
PEAK 9493. 0.
CALIB. 0.5950 0.8981
K FAC. 1.0120 1.0142

Std.

*** STACK CALIBRATION ***

11:02 11/17/98

TO CODE	WEIGHT	CARBON%	SULFUR%
C0000000377	1.0020	0.8285	.00006
C0000000376	1.0070	0.8243	.00007
C0000000375	0.0500	3.793	.00103
C0000000374	0.0520	23.53	.00011
C0000000373	0.9990	0.8234	.00004
C0000000372	1.0020	0.8216	.00006
C0000000371	1.0020	0.8263	.00005
C0000000370	1.0050	0.8216	.00009
C0000000369	1.0000	0.8185	.00006
C0000000368	0.1000	12.26	.00004

CARBON STD % 00.8220
OLD C-CAL -1- 0.5950

INCLUDE	CARBON
C0000000377	0.8285
C0000000376	0.8243
C0000000373	0.8234
C0000000372	0.8216
C0000000371	0.8263
C0000000370	0.8216
C0000000369	0.8185

NEW C-CAL -1- 0.5949

TO CODE	WEIGHT	CARBON%	SULFUR%
C0000000377	1.0020	0.8271	.00006
C0000000376	1.0070	0.8229	.00007
C0000000375	0.0500	3.776	.00103
C0000000374	0.0520	23.49	.00011
C0000000373	0.9990	0.8219	.00004
C0000000372	1.0020	0.8201	.00006
C0000000371	1.0020	0.8248	.00005
C0000000370	1.0050	0.8202	.00009
C0000000369	1.0000	0.8171	.00006
C0000000368	0.1000	12.24	.00004

*** END CALIBRATION ***

11:06 11/17/98

TO CODE C0000000378 UT1.0020 CAL#1
CARBON 0.8136% SULFUR .00007%
OXYGEN FLOW 3.210
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
PEAK 8753. 0.
CALIB. 0.5940 0.8981
K FAC. 1.0097 1.0109
*** CLEARING TIME ***

Std. 0.822

*** STACK CALIBRATION ***

11:09 11/17/98

TO CODE	WEIGHT	CARBON%	SULFUR%
C0000000378	1.0020	0.8136	.00007
C0000000377	1.0020	0.8271	.00006
C0000000376	1.0070	0.8229	.00007
C0000000375	0.0500	3.776	.00103
C0000000374	0.0520	23.49	.00011
C0000000373	0.9990	0.8219	.00004
C0000000372	1.0020	0.8201	.00006
C0000000371	1.0020	0.8248	.00005
C0000000370	1.0050	0.8202	.00009
C0000000369	1.0000	0.8171	.00006

CARBON STD % 00.8220
OLD C-CAL -1- 0.5940

INCLUDE	CARBON
C0000000378	0.8136
C0000000377	0.8271
C0000000376	0.8229
C0000000373	0.8219
C0000000372	0.8201
C0000000371	0.8248
C0000000370	0.8202
C0000000369	0.8171

NEW C-CAL -1- 0.5947

11:10 11/17/98

TO CODE	WEIGHT	CARBON%	SULFUR%
C0000000378	1.0020	0.8146	.00007
C0000000377	1.0020	0.8281	.00006
C0000000376	1.0070	0.8239	.00007
C0000000375	0.0500	3.781	.00103
C0000000374	0.0520	23.52	.00011
C0000000373	0.9990	0.8230	.00004
C0000000372	1.0020	0.8211	.00006
C0000000371	1.0020	0.8258	.00005
C0000000370	1.0050	0.8212	.00009
C0000000369	1.0000	0.8181	.00006
C0000000368	0.1000	12.24	.00004

*** END CALIBRATION ***

17.11.98

1101 - 5

C 800

11:12 11/17/98
TI CODE C0000000179 WT0 1010 CAL#1
CARBON 12.59% SULFUR .00062%
OXYGEN FLOW 3.245

CaCO3

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	16397.	0.
CALIB.	0.5947	0.8981
K FAC.	1.0151	1.0170

11:15 11/17/98
TI CODE C0000000099 WT0 0510 CAL#1
CARBON 3.407% SULFUR .00102%
OXYGEN FLOW 3.241

WS12

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	2099.	0.
CALIB.	0.5947	0.8981
K FAC.	1.0145	1.0164

11:27 11/17/98
TI CODE C0000000001 WT0 1000 CAL#1
CARBON 5.299% SULFUR .00077%
OXYGEN FLOW 3.237

1101-5

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	8365.	0.
CALIB.	0.5947	0.8981
K FAC.	1.0137	1.0156

793

11:29 11/17/98
TI CODE C0000000002 WT0.1000 CAL#1
CARBON 5.449% SULFUR .00073%
OXYGEN FLOW 3.251

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	11169.	0.
CALIB.	0.5947	0.8981
K FAC.	1.0162	1.0181

798

11:31 11/17/98
TI CODE C0000000003 WT0.1000 CAL#1
CARBON 3.287% SULFUR .00059%
OXYGEN FLOW 3.249

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	10257.	0.
CALIB.	0.5947	0.8981
K FAC.	1.0159	1.0178

803

11:32 11/17/98
TI CODE C0000000004 WT0.1000 CAL#1
CARBON 5.934% SULFUR .00062%
OXYGEN FLOW 3.250

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	6769.	0.
CALIB.	0.5947	0.8981
K FAC.	1.0161	1.0179

808

11:34 11/17/98
TI CODE C0000000005 WT0.1000 CAL#1
CARBON 6.202% SULFUR .00055%
OXYGEN FLOW 3.265

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	6004.	0.
CALIB.	0.5947	0.8981
K FAC.	1.0157	1.0206

813

11:35 11/17/98
TI CODE C0000000006 WT0.1000 CAL#1
CARBON 5.730% SULFUR .00039%
OXYGEN FLOW 3.259

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	9639.	0.
CALIB.	0.5947	0.8981
K FAC.	1.0176	1.0195

818

11:36 11/17/98
TI CODE C0000000007 WT0.1000 CAL#1
CARBON 5.618% SULFUR .00073%
OXYGEN FLOW 3.258

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	7429.	0.
CALIB.	0.5947	0.8981
K FAC.	1.0175	1.0193

823

11:38 11/17/98
TI CODE C0000000008 WT0.1000 CAL#1
CARBON 5.209% SULFUR .00049%
OXYGEN FLOW 3.261

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	6373.	0.
CALIB.	0.5947	0.8981
K FAC	1.0179	1.0199

828

11:39 11/17/98
TI CODE C0000000009 WT0.1000 CAL#1
CARBON 5.530% SULFUR .00037%
OXYGEN FLOW 3.256

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	6929.	0.
CALIB.	0.5947	0.8981
K FAC.	1.0174	1.0193

833

11:41 11/17/98
TI CODE C0000000010 WT0 1000 CAL#1
CARBON 5.140% SULFUR .00006%
OXYGEN FLOW 3.252

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	7635.	0.
CALIB	0.5947	0.8981
K FAC.	1.0164	1.0182

838

11:44 11/17/98
TI CODE C0000000001 WT1.0950 CAL#1
CARBON 0.3259% SULFUR .00001%
OXYGEN FLOW 3.230

std.
0.822

Cgas. 1101-5 17.11.98

-C- -S-
BLANK + 00000 + 00000
TIME 49. 30.
PEAK 9569. 0.
CAL IR 0.5047 0.9981
K FAC 1.0125 1.0144
11:45 11/17/98

ID CODE C000000092 UTO 1000 CAL#1
CARBON 12.343% SULFUR .00079%
OXYGEN FLOW 3.250

-C- -S-
CaCO3 BLANK + 00000 + 00000
TIME 40 30.
PEAK 18467 0.
CAL IR 0.5047 0.9981
K FAC 1.0141 1.0179
11:47 11/17/98

ID CODE C000000093 UTO 0500 CAL#1
CARBON 3.782% SULFUR .00075%
OXYGEN FLOW 3.244

-C- -S-
WR2 BLANK + 00000 + 00000
TIME 49. 30.
PEAK 2114. 0.
CAL IR 0.5047 0.9981
K FAC 1.0159 1.0169
11:49 11/17/98

ID CODE C000000094 UTO 1000 CAL#1
CARBON 3.740% SULFUR .00044%
OXYGEN FLOW 3.253

-C- -S-
843 BLANK + 00000 + 00000
TIME 40. 30.
PEAK 9996. 0.
CAL IR 0.5047 0.9981
K FAC 1.0165 1.0184
11:50 11/17/98

ID CODE C000000095 UTO 1000 CAL#1
CARBON 3.733% SULFUR .00014%
OXYGEN FLOW 3.253

-C- -S-
848 BLANK + 00000 + 00000
TIME 49. 30.
PEAK 9599. 0.
CAL IR 0.5947 0.9981
K FAC 1.0165 1.0184
11:52 11/17/98

ID CODE C000000096 UTO 1000 CAL#1
CARBON 3.707% SULFUR .00030%
OXYGEN FLOW 3.259

-C- -S-
853 BLANK + 00000 + 00000
TIME 40. 30.
PEAK 9179. 0.
CAL IR 0.5047 0.9981
K FAC 1.0176 1.0195
11:53 11/17/98

ID CODE C000000097 UTO 1000 CAL#1
CARBON 3.405% SULFUR .00061%
OXYGEN FLOW 3.238

-C- -S-
858 BLANK + 00000 + 00000
TIME 49. 30.
PEAK 5979. 0.
CAL IR 0.5047 0.9981
K FAC 1.0139 1.0157
11:54 11/17/98

ID CODE C000000098 UTO 1000 CAL#1
CARBON 5.912% SULFUR .00020%
OXYGEN FLOW 3.248

-C- -S-
868 BLANK + 00000 + 00000
TIME 40. 30.
PEAK 7529. 0.
CAL IR 0.5047 0.9981
K FAC 1.0157 1.0176
*** CLEANING TIME ***
11:56 11/17/98

ID CODE C000000099 UTO 1000 CAL#1
CARBON 6.094% SULFUR .00053%
OXYGEN FLOW 3.246

-C- -S-
868 BLANK + 00000 + 00000
TIME 40. 30.
PEAK 7979. 0.
CAL IR 0.5947 0.9981
K FAC 1.0153 1.0172
11:57 11/17/98

ID CODE C000000000 UTO 1000 CAL#1
CARBON 7.335% SULFUR .00046%
OXYGEN FLOW 3.251

-C- -S-
873 BLANK + 00000 + 00000
TIME 40 30.
PEAK 4565 0.
CAL IR 0.5947 0.9981
K FAC 1.0162 1.0181
11:59 11/17/98

ID CODE C000000001 UTO 1000 CAL#1
CARBON 7.841% SULFUR .00073%
OXYGEN FLOW 3.247

-C- -S-
878 BLANK + 00000 + 00000
TIME 49. 30.
PEAK 7978. 0.
CAL IR 0.5947 0.9981
K FAC 1.0199 1.0209
12:00 11/17/98

ID CODE C000000002 UTO 1000 CAL#1
CARBON 9.173% SULFUR .00056%
OXYGEN FLOW 3.274

-C- -S-
883 BLANK + 00000 + 00000
TIME 40. 30.
PEAK 8954. 0.
CAL IR 0.5047 0.9981
K FAC 1.0203 1.0222

12:02 11/17/98
ID CODE C0000000 UTO 1000 CAL#1
[illegible] 0.7782% SULFUR .00273%
OXYGEN FLOW 3.261
-C- -S-
888 BLANK + 00000 + 00000
TIME 40 30.
PEAK 9956. 0.
CALIB 0.5947 0.9991
K FAC 1.0183 1.0199
12:04 11/17/98
ID CODE C0000004 UT1 9010 CAL#1
[illegible] 0.8435% SULFUR .00304%
OXYGEN FLOW 3.261
-C- -S-
Std. BLANK + 00000 + 00000
TIME 40. 30.
0.822 PEAK 8374. 0.
CALIB 0.5947 0.9991
K FAC 1.0183 1.0199
*** QUIT-SEQ RESUME ***
12:06 11/17/98
ID CODE C0000006 UT1 9010 CAL#1
[illegible] 0.8011% SULFUR .00287%
OXYGEN FLOW 3.255
-C- -S-
4 BLANK + 00000 + 00000
TIME 40. 30.
PEAK 8709. 0.
CALIB 0.5947 0.9991
K FAC 1.0169 1.0188
*** QUIT-SEQ RESUME ***
12:08 11/17/98
ID CODE C0000008 UT0 9999 CAL#1
[illegible] 0.8292% SULFUR .00296%
OXYGEN FLOW 3.252
-C- -S-
4 BLANK + 00000 + 00000
TIME 40. 30.
PEAK 8449. 0.
CALIB 0.5947 0.9991
K FAC 1.0164 1.0182
*** QUIT-SEQ RESUME ***
12:10 11/17/98
ID CODE C0000010 UT1 9000 CAL#1
[illegible] 0.8310% SULFUR .00297%
OXYGEN FLOW 3.257
-C- -S-
4 BLANK + 00000 + 00000
TIME 40. 30.
PEAK 5997. 0.
CALIB 0.5947 0.9991
K FAC 1.0174 1.0192

*** STACK CALIBRATION ***

12:12 11/17/98
[illegible] WEIGHT CARBON% SULFUR%
[illegible] 1 0000 0.0310 .00307
[illegible] 0.5990 0.0292 .00304
[illegible] 1.0010 0.0291 .00307
[illegible] 1.0010 0.0435 .00304
[illegible] 1.0000 0.758 .00273
[illegible] 1.0000 0.173 .00256
[illegible] 1.0000 7.061 .00273
[illegible] 1.0000 7.336 .00246
[illegible] 1.0000 6.094 .00253
[illegible] 1.0000 5.912 .00220

[illegible] STD % 00.0220
OLD C CAL -1- 0.5947
THIOLIDE CARBON
C0000000 0.0310
C0000007 0.0292
C0000004 0.0291
NEW C-CAL -1- 0.5992

12:12 11/17/98
ID CODE WEIGHT CARBON% SULFUR%
[illegible] 1 0000 0.0232 .00302
[illegible] 0.5990 0.0215 .00304
[illegible] 1.0010 0.0214 .00307
[illegible] 1.0010 0.0256 .00304
[illegible] 1.0000 0.676 .00273
[illegible] 1.0000 0.096 .00256
[illegible] 1.0000 6.995 .00273
[illegible] 1.0000 7.269 .00246
[illegible] 1.0000 6.037 .00253
[illegible] 1.0000 5.857 .00220
*** END CALIBRATION ***
12:14 11/17/98
ID CODE C0000005 UT0 0500 CAL#1
[illegible] 34.10% SULFUR .03111%
OXYGEN FLOW 3.261
-C- -S-
CaCO3 BLANK + 00000 + 00000
TIME 40 30.
PEAK 14123. 0.
CALIB 0.5992 0.9991
K FAC 1.0183 1.0199
12:16 11/17/98
ID CODE C0000009 UT0 0500 CAL#1
[illegible] 3.822% SULFUR .01129%
OXYGEN FLOW 3.270
-C- -S-
WS12 BLANK + 00000 + 00000
TIME 40 30.
PEAK 2036. 0.
CALIB 0.5992 0.9991
K FAC 1.0199 1.0215
12:20 11/17/98
ID CODE C0000010 UT0 1000 CAL#1
[illegible] 0.139% SULFUR .00013%
OXYGEN FLOW 3.263
-C- -S-
893 BLANK + 00000 + 00000
TIME 40. 30.
PEAK 8548. 0.
CALIB 0.5992 0.9991
K FAC 1.0197 1.0213
12:23 11/17/98
ID CODE C0000011 UT0 1000 CAL#1
[illegible] 0.342% SULFUR .00063%
OXYGEN FLOW 3.273
-C- -S-
898 BLANK + 00000 + 00000
TIME 40. 30.
PEAK 9172. 0.
CALIB 0.5992 0.9991
K FAC 1.0204 1.0220

12:24 11/17/98
ID CODE C0000013 WTD.1000 CAL#1
FREON 3.234% SULFUR .00073%
OXYGEN FLOW 3.282

903

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	10394.	0.
CAL IR	0.5992	0.8981
K FAC.	1.0220	1.0236

12:26 11/17/98
ID CODE C0000013 WTD.1000 CAL#1
FREON 4.973% SULFUR .00063%
OXYGEN FLOW 3.279

908

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	9315.	0.
CAL IR	0.5992	0.8981
K FAC.	1.0214	1.0230

12:27 11/17/98
ID CODE C0000014 WTD.1000 CAL#1
FREON 6.926% SULFUR .00020%
OXYGEN FLOW 3.285

913

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	8953.	0.
CAL IR	0.5992	0.8981
K FAC.	1.0226	1.0242

12:29 11/17/98
ID CODE C0000015 WTD.1000 CAL#1
FREON 6.948% SULFUR .00053%
OXYGEN FLOW 3.284

918

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	6955.	0.
CAL IR	0.5992	0.8981
K FAC.	1.0227	1.0240

12:30 11/17/98
ID CODE C0000016 WTD.1000 CAL#1
FREON 7.546% SULFUR .00022%
OXYGEN FLOW 3.286

923

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	6255.	0.
CAL IR	0.5992	0.8981
K FAC.	1.0230	1.0243

12:31 11/17/98
ID CODE C0000017 WTD.1000 CAL#1
FREON 5.493% SULFUR .00015%
OXYGEN FLOW 3.283

928

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	6169.	0.
CAL IR	0.5992	0.8981
K FAC.	1.0222	1.0238

12:33 11/17/98
ID CODE C0000018 WTD.1000 CAL#1
FREON 4.892% SULFUR .00050%
OXYGEN FLOW 3.288

933

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	9116.	0.
CAL IR	0.5992	0.8981
K FAC.	1.0234	1.0247

*** CLEANING TIME ***
12:36 11/17/98
ID CODE C0000019 WTD.1000 CAL#1
FREON 3.214% SULFUR .00042%
OXYGEN FLOW 3.276

943

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	4277.	0.
CAL IR	0.5992	0.8981
K FAC.	1.0212	1.0225

12:38 11/17/98
ID CODE C0000020 WTD.9990 CAL#1
FREON 9.942% SULFUR .00004%
OXYGEN FLOW 3.270

Std. 0.822

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	41.	30.
PEAK	7705.	0.
CAL IR	0.5992	0.8981
K FAC.	1.0202	1.0215

12:39 11/17/98
ID CODE C0000021 WTD.1000 CAL#1
FREON 12.05% SULFUR .00003%
OXYGEN FLOW 3.285

CaCO3

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	14194.	0.
CAL IR	0.5992	0.8981
K FAC.	1.0229	1.0242

12:43 11/17/98
ID CODE C0000022 WTD.9990 CAL#1
FREON 3.755% SULFUR .00001%
OXYGEN FLOW 3.275

W82

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	1978.	0.
CAL IR	0.5992	0.8981
K FAC.	1.0211	1.0223

12:45 11/17/98
ID CODE C0000023 WTD.1000 CAL#1
FREON 2.519% SULFUR .00039%
OXYGEN FLOW 3.275

948

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	2979.	0.
CAL IR	0.5992	0.8981
K FAC.	1.0211	1.0223

12:46 11/17/98
TD CODE C0000024 WTD 1000 CAL#1
PERCENT 4.994% FULL FLD .00049%
OXYGEN FLOW 3.276

938

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	5994.	0.
CAL FB	0.5992	0.9981
K FAC.	1.0212	1.0225

12:48 11/17/98
TD CODE C0000025 WTD 1000 CAL#1
PERCENT 4.996% FULL FLD .00043%
OXYGEN FLOW 3.284

953

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	8057.	0.
CAL FB	0.5992	0.9981
K FAC.	1.0224	1.0240

12:49 11/17/98
TD CODE C0000026 WTD 1000 CAL#1
PERCENT 3.499% FULL FLD .00019%
OXYGEN FLOW 3.282

958

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	9339.	0.
CAL FB	0.5992	0.9981
K FAC.	1.0220	1.0236

12:50 11/17/98
TD CODE C0000027 WTD 1000 CAL#1
PERCENT 0.916% FULL FLD .00055%
OXYGEN FLOW 3.293

963

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	9993.	0.
CAL FB	0.5992	0.9981
K FAC.	1.0225	1.0239

12:52 11/17/98
TD CODE C0000028 WTD 1000 CAL#1
PERCENT 0.746% FULL FLD .00075%
OXYGEN FLOW 3.285

968

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	11593.	0.
CAL FB	0.5992	0.9981
K FAC.	1.0229	1.0242

12:53 11/17/98
TD CODE C0000029 WTD 1000 CAL#1
PERCENT 0.398% FULL FLD .00031%
OXYGEN FLOW 3.282

973

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	9955.	0.
CAL FB	0.5992	0.9981
K FAC.	1.0223	1.0236

✓

12:55 11/17/98
TD CODE C0000030 WTD 1000 CAL#1
PERCENT 0.199% FULL FLD .00035%
OXYGEN FLOW 3.289

978

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	12345.	0.
CAL FB	0.5992	0.9981
K FAC.	1.0234	1.0247

12:56 11/17/98
TD CODE C0000031 WTD 1000 CAL#1
PERCENT 0.099% FULL FLD .00043%
OXYGEN FLOW 3.289

983

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	10799.	0.
CAL FB	0.5992	0.9981
K FAC.	1.0236	1.0249

12:57 11/17/98
TD CODE C0000032 WTD 1000 CAL#1
PERCENT 0.246% FULL FLD .00073%
OXYGEN FLOW 3.289

988

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	11731.	0.
CAL FB	0.5992	0.9981
K FAC.	1.0233	1.0248

12:59 11/17/98
TD CODE C0000033 WTD 9950 CAL#1
PERCENT 0.597% FULL FLD .00096%
OXYGEN FLOW 3.279

Std.

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	10529.	0.
CAL FB	0.5992	0.9981
K FAC.	1.0214	1.0230

0.822

*** OUT-OF RETRY *** 1

13:02 11/17/98
TD CODE C0000034 WTD 9949 CAL#1
PERCENT 0.995% FULL FLD .00099%
OXYGEN FLOW 3.291

u

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	6965.	0.
CAL FB	0.5992	0.9981
K FAC.	1.0218	1.0234

*** OUT-OF RETRY ***

13:03 11/17/98
TD CODE C0000035 WTD 9950 CAL#1
PERCENT 0.917% FULL FLD .00094%
OXYGEN FLOW 3.276

h

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	7931.	0.
CAL FB	0.5992	0.9981
K FAC.	1.0212	1.0225

✓

Cgas 1101-5 17.11.98

Ca CO3

WST2

23.11.98 Cgs 1101-5 Cgs.

AMBIENT MONITOR

13:34 11/23/98

O2 FLOW	LAMIN		3.337
C CELL	TMP	C	50.4
S CELL	TMP	C	49.3
OVEN	TMP	C	49.5
CAT UTD	TMP	C	340.9
5 DCDC			5.01
5 VOLT		+	5.00
24 VOLT		+	27.98
30 VOLT		+	29.99
15 VOLT		+/-	14.95
C EMITTD			5.50
S EMITTD			5.50
C TD CELL			0.575
S TD CELL			0.511

13:37 11/23/98

ID CODE C0000000?0 UTD 1000 CAL #1
CARBON 11.97% SULFUR .00405%
OXYGEN FLOW 3.317

CaCO3

	-C-	-S-
BLANK	+ 00000	+ 00000
TIME	40.	30.
PEAK	14393.	0.
CAL ID	0.5904	0.9991
K FAC	1.0279	1.0259

13:39 11/23/98

ID CODE C0000000?0 UT1 0000 CAL #1
CARBON 0.0140% SULFUR .00004%
OXYGEN FLOW 3.304

Std. 0.822%

	-C-	-S-
BLANK	+ 00000	+ 00000
TIME	41.	30.
PEAK	7378.	0.
CAL ID	0.5904	0.9991
K FAC	1.0259	1.0275

13:40 11/23/98

ID CODE C0000000?1 UT1 0000 CAL #1
CARBON 0.0139% SULFUR .00005%
OXYGEN FLOW 3.304

	-C-	-S-
BLANK	+ 00000	+ 00000
TIME	40.	30.
PEAK	6704.	0.
CAL ID	0.5904	0.9991
K FAC	1.0259	1.0275

13:42 11/23/98

ID CODE C0000000?2 UT0 0000 CAL #1
CARBON 0.0241% SULFUR .00005%
OXYGEN FLOW 3.305

	-C-	-S-
BLANK	+ 00000	+ 00000
TIME	41.	30.
PEAK	6543.	0.
CAL ID	0.5904	0.9991
K FAC	1.0261	1.0277

ID CODE C0000000?3 UT0 0000 CAL #1
CARBON 0.0158% SULFUR .00007%
OXYGEN FLOW 3.303

Std. 0.822%

	-C-	-S-
BLANK	+ 00000	+ 00000
TIME	41.	30.
PEAK	7492.	0.
CAL ID	0.5904	0.9991
K FAC	1.0255	1.0272

*** START CALIBRATION ***

13:45 11/23/98

ID CODE	WEIGHT	CARBON%	SULFUR%
C0000000?2	0.9999	0.0150	.00007
C0000000?2	0.9999	0.0241	.00005
C0000000?1	1.0070	0.0190	.00005
C0000000?0	1.0020	0.0140	.00006
C0000000?0	0.1020	11.93	.00069
C0000000?5	0.0520	3.974	.00161
C0000000?4	0.1000	12.15	.00079
C0000000?0	1.0010	0.0116	.00000
C0000000?7	0.9990	0.0166	.00004
C0000000?6	0.9940	0.0235	.00000

CARBON STD %	00.0220
OLD C-CAL -1-	0.5904
ID CODE	CARBON
C0000000?3	0.0158
C0000000?2	0.0241
C0000000?1	0.0190
C0000000?0	0.0140
NEW C-CAL -1-	0.5912

13:48 11/23/98

ID CODE	WEIGHT	CARBON%	SULFUR%
C0000000?3	0.9999	0.0196	.00007
C0000000?2	0.9999	0.0279	.00005
C0000000?1	1.0070	0.0228	.00005
C0000000?0	1.0020	0.0178	.00006
C0000000?0	0.1020	11.98	.00069
C0000000?5	0.0520	3.992	.00161
C0000000?4	0.1000	12.21	.00079
C0000000?0	1.0010	0.0154	.00000
C0000000?7	0.9990	0.0204	.00004
C0000000?6	0.9940	0.0273	.00000

*** END CALIBRATION ***

13:49 11/23/98

ID CODE C0000000?4 UT0 0000 CAL #1
CARBON 0.0203% SULFUR .00006%
OXYGEN FLOW 3.304

Std. 0.822%

	-C-	-S-
BLANK	+ 00000	+ 00000
TIME	40.	30.
PEAK	7998.	0.
CAL ID	0.5912	0.9991
K FAC	1.0259	1.0275

*** START CALIBRATION ***

13:51 11/23/98

ID CODE	WEIGHT	CARBON%	SULFUR%
C0000000?4	0.9999	0.0200	.00006
C0000000?3	0.9999	0.0196	.00007
C0000000?2	0.9999	0.0279	.00005
C0000000?1	1.0070	0.0228	.00005
C0000000?0	1.0020	0.0178	.00006
C0000000?0	0.1020	11.98	.00069
C0000000?5	0.0520	3.992	.00161
C0000000?4	0.1000	12.21	.00079
C0000000?0	1.0010	0.0154	.00000
C0000000?7	0.9990	0.0204	.00004

Cges. 1101-5 23.11.98

ID CODE C0000000049 WT1 0010 CAL#1
CARBON 0.9152% SULFUR .00001%
OXYGEN FLOW 3.299

Std.

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	9103	0.
CAL FACTOR	CALIBRATION	###
K FAC.	1.0250	1.0267

14:01 11/23/98

ID CODE	WEIGHT	CARBON%	SULFUR%
C0000000049	1.0010	0.9152	.00001
C0000000048	1.0040	0.9254	.00006
C0000000047	1.0049	0.9293	.00007
C0000000044	0.9999	0.9270	.00006
C0000000043	0.9970	0.9170	.00007
C0000000042	0.9999	0.9241	.00005
C0000000041	1.0070	0.9211	.00005
C0000000040	1.0079	0.9160	.00006
C0000000039	0.1020	11.96	.00069
C0000000035	0.0520	3.004	.00161

CARBON STD % 00.0000
OLD C-CAL -1- 0.5999

INCLUDE	CARBON
C0000000049	0.9152
C0000000048	0.9254
C0000000047	0.9293
C0000000044	0.9270
C0000000043	0.9170
C0000000042	0.9241
C0000000041	0.9211
C0000000040	0.9160

NEW C-CAL -1- 0.5995

14:02 11/23/98

ID CODE	WEIGHT	CARBON%	SULFUR%
C0000000049	1.0010	0.9160	.00001
C0000000048	1.0040	0.9263	.00006
C0000000047	1.0049	0.9211	.00007
C0000000044	0.9999	0.9270	.00006
C0000000043	0.9999	0.9197	.00007
C0000000042	0.9999	0.9279	.00005
C0000000041	1.0070	0.9210	.00005
C0000000040	1.0079	0.9160	.00006
C0000000039	0.1020	11.97	.00069
C0000000035	0.0520	3.008	.00161

END CALIBRATION
14:03 11/23/98

ID CODE C0000000045 WT9 1000 CAL#1
CARBON 11.97% SULFUR .00007%
OXYGEN FLOW 3.310

CaCO3

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	14533	0
CAL.ID.	0.5995	0.8981
K FAC.	1.0270	1.0284

14:06 11/23/98

ID CODE C0000000046 WT9.0500 CAL#1
CARBON 3.004% SULFUR .00079%
OXYGEN FLOW 3.309

WST2

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	2449	0

OUT-SPEC RESULT

14:16 11/23/98

ID CODE C0000000051 WT9.0500 CAL#1
CARBON 3.018% SULFUR .00132%
OXYGEN FLOW 3.316

WST2

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	2161.	0.
CAL.ID.	0.5995	0.8981
K FAC.	1.0289	1.0296

14:20 11/23/98

ID CODE C0000000050 WT9.0500 CAL#1
CARBON 0.9232% SULFUR .00054%
OXYGEN FLOW 3.323

n.n.

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	0.	0.
CAL.ID.	0.5995	0.8981
K FAC.	1.0292	1.0309

14:21 11/23/98

ID CODE C0000000052 WT9.1000 CAL#1
CARBON 1.124% SULFUR .00009%
OXYGEN FLOW 3.312

1101-5

993cm

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	8365.	0.
CAL.ID.	0.5995	0.8981
K FAC.	1.0273	1.0289

14:23 11/23/98

ID CODE C0000000053 WT9.1000 CAL#1
CARBON 2.993% SULFUR .00077%
OXYGEN FLOW 3.311

998

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	4932.	0.
CAL.ID.	0.5995	0.8981
K FAC.	1.0272	1.0287

14:25 11/23/98

ID CODE C0000000054 WT9.1000 CAL#1
CARBON 5.914% SULFUR .00073%
OXYGEN FLOW 3.311

1003

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	6999.	0.
CAL.ID.	0.5995	0.8981
K FAC.	1.0272	1.0287

14:26 11/23/98

ID CODE C0000000055 WT9.1000 CAL#1
CARBON 9.660% SULFUR .00101%
OXYGEN FLOW 3.311

1008

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	9518.	0.
CAL.ID.	0.5995	0.8981
K FAC.	1.0272	1.0287

14:27 11/23/98
ID CODE C0000000A WT0.1000 CAL#1
CARBON 9.910% SULFUR .0096%
OXYGEN FLOW 3.291

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	18405.	0.
CALIB.	9.5905	0.8981
K FAC.	1.0236	1.0252

1013

14:29 11/23/98
ID CODE C0000057 WT0.1000 CAL#1
CARBON 10.03% SULFUR .0097%
OXYGEN FLOW 3.311

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	10459.	0.
CALIB.	0.5905	0.8981
K FAC.	1.0272	1.0287

1018

14:30 11/23/98
ID CODE C0000058 WT0.1000 CAL#1
CARBON 10.11% SULFUR .0091%
OXYGEN FLOW 3.304

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	10950.	0.
CALIB.	0.5905	0.8981
K FAC.	1.0259	1.0275

1023

*** OVERTIME TIME ***
14:31 11/23/98
ID CODE C0000059 WT0.1000 CAL#1
CARBON 10.05% SULFUR .0079%
OXYGEN FLOW 3.311

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	12546.	0.
CALIB.	0.5905	0.8981
K FAC.	1.0272	1.0287

1028

14:33 11/23/98
ID CODE C000000A0 WT0.1000 CAL#1
CARBON 9.649% SULFUR .0081%
OXYGEN FLOW 3.305

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	8793.	0.
CALIB.	0.5905	0.8981
K FAC.	1.0261	1.0277

1033

14:34 11/23/98
ID CODE C000000A1 WT0.1000 CAL#1
CARBON 10.07% SULFUR .0095%
OXYGEN FLOW 3.310

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	9579.	0.
CALIB.	0.5905	0.8981
K FAC.	1.0270	1.0286

1038 ✓

14:37 11/23/98
ID CODE C000000A2 WT0.9940 CAL#1
CARBON 0.8150% SULFUR .0095%
OXYGEN FLOW 3.300

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	8171.	0.
CALIB.	0.5905	0.8981
K FAC.	1.0255	1.0268

Std. 0.822

14:39 11/23/98
ID CODE C000000A3 WT0.9990 CAL#1
CARBON 12.36% SULFUR .0087%
OXYGEN FLOW 3.312

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	15939.	0.
CALIB.	0.5905	0.8981
K FAC.	1.0274	1.0289

CaCO3

14:40 11/23/98
ID CODE C000000A4 WT0.0519 CAL#1
CARBON 0.4130% SULFUR .0000%
OXYGEN FLOW 3.306

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	2282.	0.
CALIB.	0.5905	0.8981
K FAC.	1.0263	1.0279

WS#2

*** OUT-SPEC BELOW ***
14:42 11/23/98
ID CODE C000000A5 WT0.9940 CAL#1
CARBON 0.8271% SULFUR .0087%
OXYGEN FLOW 3.297

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	13647.	0.
CALIB.	0.5905	0.8981
K FAC.	1.0250	1.0262

Std. 0.822

*** OUT-SPEC BELOW ***
14:44 11/23/98
ID CODE C000000A6 WT0.9610 CAL#1
CARBON 3.773% SULFUR .0101%
OXYGEN FLOW 3.312

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	3087.	0.
CALIB.	0.5905	0.8981
K FAC.	1.0276	1.0289

WS#2

14:47 11/23/98
ID CODE C000000A7 WT1.0010 CAL#1
CARBON 0.8238% SULFUR .0094%
OXYGEN FLOW 3.302

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	9197.	0.
CALIB.	0.5905	0.8981
K FAC.	1.0255	1.0272

Std. 0.822

14:48 11/23/98

ID CODE C0000360 LOT 0020 CAL#1
CARBON 0.0278% SULFUR .0004%
OXYGEN FLOW 3.303

Std.
0.822%

	-C-	-S-
BLANK	+ .00009	+ .00030
TIME	40.	30.
PEAK	10610.	0.
CAL ID.	0.5005	0.9991
K FAC.	1.0241	1.0277

14:50 11/23/98
ID CODE C0000360 LOT 0010 CAL#1
CARBON 0.0265% SULFUR .0004%
OXYGEN FLOW 3.305

	-C-	-S-
BLANK	+ .00090	+ .00030
TIME	40.	30.
PEAK	10539.	0.
CAL ID.	0.5005	0.9991
K FAC.	1.0244	1.0277

*** STACK CALIBRATION ***

14:51 11/23/98

ID CODE	WEIGHT	CARBON%	SULFUR%
C0000360	0.9010	0.0265	.0004
C0000360	1.3020	0.0273	.0004
C0000360	1.1010	0.0278	.0004
C0000360	0.1610	0.0273	.0011
C0000360	0.9020	0.0267	.0007
C0000360	0.1010	0.613	.0000
C0000360	0.9020	12.36	.0079
C0000360	0.9040	0.8159	.0005
C0000360	0.1000	11.96	.0076
C0000360	0.1000	0.669	.0010

CARBON STD % 00.0220
CALIB-CAL -1- 0.5005

INCLUDE	CARBON
C0000360	0.0265
C0000360	0.0273
C0000360	0.0278
C0000360	0.0273
C0000360	0.0267
C0000360	0.0613
C0000360	0.0236
C0000360	0.0159
NEW CAL -1-	0.0669

14:52 11/23/98

ID CODE	WEIGHT	CARBON%	SULFUR%
C0000360	0.9010	0.0265	.0004
C0000360	1.3020	0.0273	.0004
C0000360	1.1010	0.0278	.0004
C0000360	0.1610	0.0273	.0011
C0000360	0.9040	0.8309	.0007
C0000360	0.9510	3.597	.0000
C0000360	0.9020	12.27	.0079
C0000360	0.9060	0.8099	.0005
C0000360	0.1000	10.80	.0076
C0000360	0.1010	0.597	.0010

*** END CALIBRATION ***

14:54 11/23/98
ID CODE C0000360 LOT 0060 CAL#1
CARBON 0.0139% SULFUR .0003%
OXYGEN FLOW 3.294

Std.
0.822%

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	40.	30.
PEAK	7962.	0.
CAL ID	0.5962	0.9991
K FAC.	1.0241	1.0257

14:58 11/23/98
ID CODE C0000371 LOT 0040 CAL#1
CARBON 0.0184% SULFUR .0002%
OXYGEN FLOW 3.295

	-C-	-S-
BLANK	+ .00000	+ .00000
TIME	41.	30.
PEAK	7955.	0.
CAL ID	0.5972	0.9991
K FAC.	1.0243	1.0259

*** STACK CALIBRATION ***

14:59 11/23/98

ID CODE	WEIGHT	CARBON%	SULFUR%
C0000371	1.0000	0.0184	.0002
C0000379	1.0010	0.0144	.0004
C0000369	0.9010	0.0318	.0004
C0000365	1.0020	0.0227	.0004
C0000367	0.9020	0.0192	.0011
C0000365	0.9040	0.0324	.0004
C0000362	0.9020	0.0114	.0005
C0000362	0.9020	0.0114	.0005

CARBON STD % 00.0220
CALIB-CAL -1- 0.5972

INCLUDE	CARBON
C0000371	0.0184
C0000379	0.0144
C0000369	0.0318
C0000365	0.0227
C0000367	0.0192
C0000365	0.0324
C0000362	0.0114
NEW CAL -1-	0.5994

15:00 11/23/98

ID CODE	WEIGHT	CARBON%	SULFUR%
C0000369	0.9010	0.0139	.0003
C0000369	0.9020	0.0161	.0007
C0000369	0.9010	0.0335	.0004
C0000369	0.9020	0.0244	.0004
C0000369	0.9010	0.0209	.0004
C0000369	0.9010	0.0149	.0011
C0000369	0.9040	0.0341	.0004
C0000369	0.9020	0.0121	.0005
C0000369	0.9020	0.0131	.0005

*** END CALIBRATION ***

23.11.98 1101-5 Cges

Std.
0.822%

1101-5

1043

0.8231% OIL FLD 000075%
OXYGEN FLOW 3.310
-C- -S-
FLOW + 00000 + 00000
TIME 41 30
DIFF 0 0
CAL IB 0.5004 0.9991
X FAC 1.0254 1.0274
15:12 11/23/98

1068

4.927% OIL FLD 000755%
OXYGEN FLOW 3.310
-C- -S-
FLOW + 00000 + 00000
TIME 41 30
DIFF 0 0
CAL IB 0.5004 0.9991
X FAC 1.0254 1.0274
15:15 11/23/98

1073

5.907% OIL FLD 000735%
OXYGEN FLOW 3.314
-C- -S-
FLOW + 00000 + 00000
TIME 41 30
DIFF 0 0
CAL IB 0.5004 0.9991
X FAC 1.0254 1.0274
15:17 11/23/98

1078

6.267% OIL FLD 000763%
OXYGEN FLOW 3.310
-C- -S-
FLOW + 00000 + 00000
TIME 41 30
DIFF 0 0
CAL IB 0.5004 0.9991
X FAC 1.0254 1.0274
15:19 11/23/98

1083

7.251% OIL FLD 000773%
OXYGEN FLOW 3.311
-C- -S-
FLOW + 00000 + 00000
TIME 40 30
DIFF 9947 0
CAL IB 0.5004 0.9991
X FAC 1.0272 1.0287
15:19 11/23/98

1088

7.912% OIL FLD 000783%
OXYGEN FLOW 3.312
-C- -S-
FLOW + 00000 + 00000
TIME 40 30
DIFF 11355 0
CAL IB 0.5004 0.9991
X FAC 1.0275 1.0291
15:22 11/23/98

Std.
0822

0.822% OIL FLD 000755%
OXYGEN FLOW 3.310
-C- -S-
FLOW + 00000 + 00000
TIME 41 30
DIFF 6760 0
CAL IB 0.5004 0.9991
X FAC 1.0254 1.0274
15:22 11/23/98

9.733% OIL FLD 000937%
OXYGEN FLOW 3.312
-C- -S-
FLOW + 00000 + 00000
TIME 41 30
DIFF 0 0
CAL IB 0.5004 0.9991
X FAC 1.0254 1.0274
15:24 11/23/98

1048

8.313% OIL FLD 000801%
OXYGEN FLOW 3.313
-C- -S-
FLOW + 00000 + 00000
TIME 40 30
DIFF 11767 0
CAL IB 0.5004 0.9991
X FAC 1.0271 1.0287
15:26 11/23/98

1053

7.142% OIL FLD 000671%
OXYGEN FLOW 3.313
-C- -S-
FLOW + 00000 + 00000
TIME 40 30
DIFF 10231 0
CAL IB 0.5004 0.9991
X FAC 1.0270 1.0287
15:28 11/23/98

1058

4.812% OIL FLD 001003%
OXYGEN FLOW 3.316
-C- -S-
FLOW + 00000 + 00000
TIME 40 30
DIFF 6786 0
CAL IB 0.5004 0.9991
X FAC 1.0268 1.0284
15:31 11/23/98

1063

4.970% OIL FLD 000932%
OXYGEN FLOW 3.314
-C- -S-
FLOW + 00000 + 00000
TIME 40 30
DIFF 6922 0
CAL IB 0.5004 0.9991
X FAC 1.0265 1.0284

CaCO3

W812

Std.
0.822

1093

1098

1103

1108

1113

1118

1123

1128

1133

1138

6.666

Std.

0.8315

Std.

0.8165

Std.

0.8198

CaCO3

12.32%

WST2

3.758%

WST2

3.880%

Cgo. 1101-5 2/11.98

AMBIENT MONITOR

10:50 11/24/00

O2 FLOW	L/MIN		3.322
C CELL	TMP	C	50.4
F CELL	TMP	C	40.3
AUX	TMP	C	40.5
CAT UTP	TMP	C	334.0
5 DCDC			5.00
5 VOLT		+	5.00
24 VOLT		+	23.00
30 VOLT		+	30.00
15 VOLT		+/-	14.00
C SHTTR			5.50
F SHTTR			5.50
C TO CELL			0.500
F TO CELL			0.511

11:34 11/24/00

CONCENTRATION UTP 1030 CAL#1

O2 FULL SCALE		0.0000%
AVERAGED FLOW		3.323
ZERO	-C-	-C-
SLOPE	+ 0.0000	+ 0.0000
TIME	40.	30.
DATA	13434.	0.
CAL FD	0.5004	0.0001
V BIAS	1.0000	1.0300

11:07 11/24/00

CONCENTRATION UTP 0030 CAL#1

O2 FULL SCALE		0.0000%
AVERAGED FLOW		3.314
ZERO	-C-	-C-
SLOPE	+ 0.0000	+ 0.0000
TIME	40.	30.
DATA	2000.	0.
CAL FD	0.5004	0.0001
V BIAS	1.0275	1.0303

11:00 11/24/00

CONCENTRATION UTP 0000 CAL#1

O2 FULL SCALE		0.0000%
AVERAGED FLOW		3.321
ZERO	-C-	-C-
SLOPE	+ 0.0000	+ 0.0000
TIME	41.	30.
DATA	7450.	0.
CAL FD	0.5004	0.0001
V BIAS	1.0295	1.0305

11:10 11/24/00

CONCENTRATION UTP 0010 CAL#1

O2 FULL SCALE		0.0000%
AVERAGED FLOW		3.317
ZERO	-C-	-C-
SLOPE	+ 0.0000	+ 0.0000
TIME	40.	30.
DATA	7617.	0.
CAL FD	0.5004	0.0001
V BIAS	1.0293	1.0300

11:12 11/24/00

CONCENTRATION UTP 0000 CAL#1

O2 FULL SCALE		0.0000%
AVERAGED FLOW		3.316
ZERO	-C-	-C-
SLOPE	+ 0.0000	+ 0.0000
TIME	40.	30.
DATA	9000.	0.
CAL FD	0.5004	0.0001
V BIAS	1.0300	1.0306

*** CONCENTRATION ***

11:14 11/24/00

CONCENTRATION UTP 0000 CAL#1

O2 FULL SCALE		0.0000%
AVERAGED FLOW		3.314
ZERO	-C-	-C-
SLOPE	+ 0.0000	+ 0.0000
TIME	41.	30.
DATA	5750.	0.
CAL FD	0.5012	0.0001
V BIAS	1.0275	1.0303

11:17 11/24/00

CONCENTRATION UTP 0000 CAL#1

O2 FULL SCALE		0.0000%
AVERAGED FLOW		3.314
ZERO	-C-	-C-
SLOPE	+ 0.0000	+ 0.0000
TIME	41.	30.
DATA	5750.	0.
CAL FD	0.5012	0.0001
V BIAS	1.0275	1.0303

11:17 11/24/00

CONCENTRATION UTP 0000 CAL#1

O2 FULL SCALE		0.0000%
AVERAGED FLOW		3.316
ZERO	-C-	-C-
SLOPE	+ 0.0000	+ 0.0000
TIME	40.	30.
DATA	9000.	0.
CAL FD	0.5004	0.0001
V BIAS	1.0300	1.0306

*** CONCENTRATION ***

11:34 11/24/00

CONCENTRATION UTP 1030 CAL#1

O2 FULL SCALE		0.0000%
AVERAGED FLOW		3.323
ZERO	-C-	-C-
SLOPE	+ 0.0000	+ 0.0000
TIME	40.	30.
DATA	13434.	0.
CAL FD	0.5004	0.0001
V BIAS	1.0293	1.0300

11:07 11/24/00

CONCENTRATION UTP 0030 CAL#1

O2 FULL SCALE		0.0000%
AVERAGED FLOW		3.314
ZERO	-C-	-C-
SLOPE	+ 0.0000	+ 0.0000
TIME	40.	30.
DATA	2000.	0.
CAL FD	0.5004	0.0001
V BIAS	1.0275	1.0303

11:00 11/24/00

CONCENTRATION UTP 0000 CAL#1

O2 FULL SCALE		0.0000%
AVERAGED FLOW		3.321
ZERO	-C-	-C-
SLOPE	+ 0.0000	+ 0.0000
TIME	41.	30.
DATA	7450.	0.
CAL FD	0.5004	0.0001
V BIAS	1.0295	1.0305

11:10 11/24/00

CONCENTRATION UTP 0010 CAL#1

O2 FULL SCALE		0.0000%
AVERAGED FLOW		3.317
ZERO	-C-	-C-
SLOPE	+ 0.0000	+ 0.0000
TIME	40.	30.
DATA	7617.	0.
CAL FD	0.5004	0.0001
V BIAS	1.0293	1.0300

11:12 11/24/00

CaCO3

Std. 0.822

u

Std. 0.822

u

11.88

CaCO3

W812

3.846%

W812

6.029%

1101-5

1143 m

3.711

1148

5.929

1153

6.550

1158

6.557

1163

6.267

1168

5.933

1173

7.717

1178

6.297

1183

3.737

1188

0.8299

Std.

0.822

12.44

$CaCO_3$

3.955

WSR2

0.8361

Std.

0.822

0.8229

Std.

0.822

1,926 %

1193

3.636

1198

3.157

1203

6.503

1208

2.975

1213

0.8154

Std.

0.822

0.8204
Std.
0.822
1218
8.056
1223
6.804
1228
3.250
1233
1.892%
1238
2.183
0.8243%
Std.
0.822
1243
5.500
1248
8.410%
CaCO3
3.947%
W812
12.21%

C 900. 1101-5 24.11.98

1253

8.449% SULFUR .0000%
INVOICE FLOW 3.325
-C- -S-
FLOW + .0000 + .0000
TIME 40. 30.
SCFH 19102. 0.
%CLTR 0.5012 0.0001
K FAC 1.0297 1.0313
14:54 11/24/98

1258

8.550 SULFUR .0000%
INVOICE FLOW 3.325
-C- -S-
FLOW + .0000 + .0000
TIME 40. 30.
SCFH 19771. 0.
%CLTR 0.5012 0.0001
K FAC 1.0297 1.0313
14:55 11/24/98

1263

6.141 SULFUR .0000%
INVOICE FLOW 3.324
-C- -S-
FLOW + .0000 + .0000
TIME 40. 30.
SCFH 6040. 0.
%CLTR 0.5012 0.0001
K FAC 1.0304 1.0311
14:57 11/24/98

1268

7.502 SULFUR .0000%
INVOICE FLOW 3.324
-C- -S-
FLOW + .0000 + .0000
TIME 40. 30.
SCFH 8784. 0.
%CLTR 0.5012 0.0001
K FAC 1.0304 1.0311
14:59 11/24/98

1328

9.863 SULFUR .0000%
INVOICE FLOW 3.321
-C- -S-
FLOW + .0000 + .0000
TIME 40. 30.
SCFH 11609. 0.
%CLTR 0.5012 0.0001
K FAC 1.0292 1.0305
15:01 11/24/98

1323

9.858 SULFUR .0000%
INVOICE FLOW 3.324
-C- -S-
FLOW + .0000 + .0000
TIME 40. 30.
SCFH 13005. 0.
%CLTR 0.5012 0.0001
K FAC 1.0304 1.0311
15:02 11/24/98

9.277 SULFUR .0000%
INVOICE FLOW 3.324
-C- -S-

1318

FLOW + .0000 + .0000
TIME 40. 30.
SCFH 13487. 0.
%CLTR 0.5012 0.0001
K FAC 1.0290 1.0311
15:04 11/24/98

6.509 SULFUR .0000%
INVOICE FLOW 3.322
-C- -S-

1313

FLOW + .0000 + .0000
TIME 40. 30.
SCFH 7373. 0.
%CLTR 0.5012 0.0001
K FAC 1.0291 1.0307
15:06 11/24/98

0.8236 SULFUR .0000%
INVOICE FLOW 3.313
-C- -S-

Std,

FLOW + .0000 + .0000

0.822

TIME 40. 30.
SCFH 4336. 0.
%CLTR 0.5012 0.0001
K FAC 1.0275 1.0291
15:07 11/24/98

12.18 SULFUR .0000%
INVOICE FLOW 3.325
-C- -S-

$CaCO_3$

FLOW + .0000 + .0000
TIME 40. 30.
SCFH 15943. 0.
%CLTR 0.5012 0.0001
K FAC 1.0298 1.0313
15:09 11/24/98

3.857 SULFUR .0000%
INVOICE FLOW 3.321
-C- -S-

WS_2

FLOW + .0000 + .0000
TIME 40. 30.
SCFH 2397. 0.
%CLTR 0.5012 0.0001
K FAC 1.0292 1.0305
15:11 11/24/98

6.853 SULFUR .0000%
INVOICE FLOW 3.322
-C- -S-

1308

FLOW + .0000 + .0000
TIME 40. 30.
SCFH 9277. 0.
%CLTR 0.5012 0.0001
K FAC 1.0291 1.0307
15:13 11/24/98

24.11.98 1101-5 C geo.

1303
7.687% O2 EXP .00051%
OXYGEN FLOW 3.322
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
ECOU 9877. 0.
CALIB. 0.5912 0.8981
K FAC. 1.0294 1.0307
15:14 11/24/98
UTO.1000 CAL#1

1298
7.231% O2 EXP .00056%
OXYGEN FLOW 3.323
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
ECOU 9891. 0.
CALIB. 0.5912 0.8981
K FAC. 1.0295 1.0309
15:17 11/24/98
UTO.1000 CAL#1

1293
8.716% O2 EXP .00065%
OXYGEN FLOW 3.324
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
ECOU 9159. 0.
CALIB. 0.5912 0.8981
K FAC. 1.0294 1.0311
*** ELEVATING TIME ***
15:19 11/24/98
UTO.1000 CAL#1

1288
9.627% O2 EXP .00075%
OXYGEN FLOW 3.325
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
ECOU 12736. 0.
CALIB. 0.5912 0.8981
K FAC. 1.0300 1.0313
15:19 11/24/98
UTO.1000 CAL#1

1283
9.174% O2 EXP .00084%
OXYGEN FLOW 3.321
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
ECOU 11218. 0.
CALIB. 0.5912 0.8981
K FAC. 1.0292 1.0305
15:21 11/24/98
UTO.1000 CAL#1

1278
6.889% O2 EXP .00047%
OXYGEN FLOW 3.316
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
ECOU 6793. 0.
CALIB. 0.5912 0.8981
K FAC. 1.0290 1.0296
15:22 11/24/98

? 1273 Probe soll heller ?
7.338% O2 EXP .00070%
OXYGEN FLOW 3.322
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
ECOU 9754. 0.
CALIB. 0.5912 0.8981
K FAC. 1.0294 1.0307
15:23 11/24/98
UTO.1000 CAL#1

1333
10.33% O2 EXP .00075%
OXYGEN FLOW 3.322
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
ECOU 9637. 0.
CALIB. 0.5912 0.8981
K FAC. 1.0294 1.0307
15:25 11/24/98
UTO.1000 CAL#1

1338
9.629% O2 EXP .00060%
OXYGEN FLOW 3.324
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
ECOU 10915. 0.
CALIB. 0.5912 0.8981
K FAC. 1.0298 1.0311
15:26 11/24/98
UTO.0950 CAL#1

Std. 0.822
0.81987% O2 EXP .00064%
OXYGEN FLOW 3.317
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
ECOU 9956. 0.
CALIB. 0.5912 0.8981
K FAC. 1.0295 1.0298
15:28 11/24/98
UTO.0900 CAL#1

$CaCO_3$
12.73% O2 EXP .00061%
OXYGEN FLOW 3.323
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
ECOU 15943. 0.
CALIB. 0.5912 0.8981
K FAC. 1.0295 1.0309
15:29 11/24/98
UTO.0500 CAL#1

Wst2
3.872% O2 EXP .00033%
OXYGEN FLOW 3.321
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
ECOU 3117. 0.
CALIB. 0.5912 0.8981
K FAC. 1.0292 1.0305

15:37 11/24/98
UTD.1000 CAL#1
9.668 FULSD 000002%
AVRGD FLOW 3.322
-C- -S-
1343 FLOW +.00000 +.00000
TIME 40. 30.
TOTZ 10000. 0.
CAL FR 0.5012 0.0001
K FAC 1.0297 1.0297
15:38 11/24/98
UTD.1000 CAL#1
8.883% FULSD 000000%
AVRGD FLOW 3.321
-C- -S-
FLOW +.00000 +.00000
1348 TIME 40. 30.
TOTZ 0000. 0.
CAL FR 0.5012 0.0001
K FAC 1.0292 1.0305
15:40 11/24/98
UTD.1000 CAL#1
8.595 FULSD 000560%
AVRGD FLOW 3.326
-C- -S-
FLOW +.00000 +.00000
1353 TIME 40. 30.
TOTZ 10309. 0.
CAL FR 0.5012 0.0001
K FAC 1.0302 1.0314
15:41 11/24/98
UTD.1000 CAL#1
8.751% FULSD 000017%
AVRGD FLOW 3.325
-C- -S-
FLOW +.00000 +.00000
1358 TIME 40. 30.
TOTZ 10470. 0.
CAL FR 0.5012 0.0001
K FAC 1.0300 1.0313
15:42 11/24/98
UTI.0001 CAL#1
0.8207 FULSD 000000%
AVRGD FLOW 3.314
Std. -C- -S-
FLOW +.00000 +.00000
TIME 40. 30.
0.822 TOTZ 8122. 0.
CAL FR 0.5012 0.0001
K FAC 1.0288 1.0292

03.12.98 1101 - 5 C org.

AMBIENT MONITOR

11:56 12/03/98

O2 FLOW	L/MIN		3.342
C. CELL	TMP.	C	50.5
S. CELL	TMP.	C	48.3
OVEN	TMP.	C	48.5
CAT. HTR. TMP.		C	326.5
5 REFF.			5.00
5 VOLT		+	5.00
24 VOLT		+	23.96
30 VOLT		+	29.99
15 VOLT		+/-	14.99
C. EMITR.			5.50
S. EMITR.			5.50
C. IR CELL			8.576
S. IR CELL			8.512

12:02 12/03/98
ID CODE C00000073 WT0.1000 CAL#1
CARBON 11.99% SULFUR .00077%
OXYGEN FLOW 3.336

CaCO3

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	13922.	0.
CALIB.	0.5912	0.8981
K FAC.	1.0319	1.0331

12:03 12/03/98
ID CODE C00000074 WT1.0040 CAL#1
CARBON 0.8350% SULFUR .00005%
OXYGEN FLOW 3.331

Std.
0.822

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	14226.	0.
CALIB.	0.5912	0.8981
K FAC.	1.0319	1.0323

12:04 12/03/98
ID CODE C00000075 WT1.0070 CAL#1
CARBON 0.8325% SULFUR .00006%
OXYGEN FLOW 3.331

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	9174.	0.
CALIB.	0.5912	0.8981
K FAC.	1.0319	1.0323

√

12:06 12/03/98
ID CODE C00000076 WT0.9930 CAL#1
CARBON 0.8296% SULFUR .00003%
OXYGEN FLOW 3.332

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	7040.	0.
CALIB.	0.5912	0.8981
K FAC.	1.0309	1.0325

ID CODE C00000077 WT1.0010 CAL#1
CARBON 0.8211% SULFUR .00005%

	-C-	-S-
BLANK	+.00000	+.00000
TIME	41.	30.
PEAK	6798.	0.
CALIB.	0.5912	0.8981
K FAC.	1.0307	1.0323

*** STACK CALIBRATION ***

12:08 12/03/98

ID CODE	WEIGHT	CARBON%	SULFUR%
C00000077	1.0010	0.8211	.00005
C00000076	0.9930	0.8296	.00003
C00000075	1.0070	0.8325	.00006
C00000074	1.0040	0.8350	.00005
C00000073	0.1000	11.99	.00077
C00000072	1.0001	0.8207	.00005
C00000071	0.1000	8.751	.00007
C00000070	0.1000	8.595	.00054
C00000069	0.1000	8.883	.00000
C00000068	0.1000	9.668	.00090

CARBON STD.% 00.8220
OLD C-CAL -1- 0.5912

INCLUDE	CARBON
C00000077	0.8211
C00000076	0.8296
C00000075	0.8325
C00000074	0.8350

NEW C-CAL -1- 0.5858

12:09 12/03/98

ID CODE	WEIGHT	CARBON%	SULFUR%
C00000077	1.0010	0.8136	.00005
C00000076	0.9930	0.8220	.00003
C00000075	1.0070	0.8250	.00006
C00000074	1.0040	0.8274	.00005
C00000073	0.1000	11.88	.00077
C00000072	1.0001	0.8132	.00005
C00000071	0.1000	8.672	.00007
C00000070	0.1000	8.517	.00054
C00000069	0.1000	8.802	.00000
C00000068	0.1000	9.580	.00090

*** END CALIBRATION ***

12:10 12/03/98
ID CODE C00000078 WT0.9960 CAL#1
CARBON 0.8202% SULFUR .00007%
OXYGEN FLOW 3.330

Std.
0.822

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	9456.	0.
CALIB.	0.5858	0.8981
K FAC.	1.0308	1.0321

*** CLEANING TIME ***

12:14 12/03/98
ID CODE C00000079 WT0.1000 CAL#1
CARBON 11.93% SULFUR .00080%
OXYGEN FLOW 3.342

CaCO3

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	15646.	0.
CALIB.	0.5858	0.8981
K FAC.	1.0329	1.0342

*** OUT-SEQ RESUM ***

12:16 12/03/98
ID CODE C00000081 WT0.9980 CAL#1

Carb. 1101-5 03.12.98

Std. 0.822

*** OUT-SEQ RESUM ***
12:18 12/03/98
ID CODE C0000003 WT1.0000 CAL#1
CARBON SULFUR .00004%
OXYGEN FLOW 3.330
-C- -S-
BLANK +.00000 +.00000
TIME 43. 30.
PEAK 9666. 0.
CALIB. 0.5959 0.8981
K FAC. 1.0399 1.0321
*** OUT-SEQ RESUM ***
12:20 12/03/98
ID CODE C0000003 WT0.9970 CAL#1
CARBON SULFUR .00006%
OXYGEN FLOW 3.334
-C- -S-
BLANK +.00000 +.00000
TIME 40. 30.
PEAK 7445. 0.
CALIB. 0.5959 0.8981
K FAC. 1.0315 1.0328

*** OUT-SEQ RESUM ***
12:26 12/03/98
ID CODE C0000004 WT1.0030 CAL#1
CARBON 0.8291% SULFUR .00007%
OXYGEN FLOW 3.334
-C- -S-
BLANK +.00000 +.00000
TIME 40 30.
PEAK 9487. 0.
CALIB. 0.5867 0.8981
K FAC 1.0315 1.0328

*** STACK CALIBRATION ***
12:27 12/03/98
ID CODE WEIGHT CARBON% SULFUR%
C0000004 1.0030 0.8282 .00007
C0000003 0.9970 0.8180 .00006
C0000002 1.0000 0.8272 .00004
C0000001 0.9980 0.8161 .00003
C0000079 0.1000 11.97 .00080
C0000078 0.9969 0.8215 .00007
C0000077 1.0010 0.8149 .00005
C0000076 0.9930 0.8233 .00003
C0000075 1.0070 0.8263 .00006
C0000074 1.0040 0.8287 .00005

CARBON STD.% 0.8220
OLD C-CAL -1- 0.5867
INCLUDE CARBON
C0000004 0.8202
C0000003 0.8180
C0000002 0.8272
C0000001 0.8161
C0000079 0.8215
C0000077 0.8149
C0000076 0.8233
C0000075 0.8263
C0000074 0.8287
NEW C-CAL -1- 0.5869

12:28 12/03/98
ID CODE WEIGHT CARBON% SULFUR%
C0000004 1.0030 0.8285 .00007
C0000003 0.9970 0.8183 .00006
C0000002 1.0000 0.8274 .00004
C0000001 0.9980 0.8163 .00003
C0000079 0.1000 11.97 .00080
C0000078 0.9969 0.8217 .00007
C0000077 1.0010 0.8152 .00005
C0000076 0.9930 0.8236 .00003
C0000075 1.0070 0.8265 .00006
C0000074 1.0040 0.8289 .00005
*** END CALIBRATION ***

*** OUT-SEQ RESUM ***
12:30 12/03/98
ID CODE C0000005 WT0.9970 CAL#1
CARBON 0.8220% SULFUR .00005%
OXYGEN FLOW 3.336
-C- -S-
Std. 0.822
BLANK +.00000 +.00000
TIME 40. 30.
PEAK 9394 0.
CALIB 0.5959 0.8981
K FAC 1.0319 1.0331
12:31 12/03/98
ID CODE C0000080 WT0.0510 CAL#1
CARBON -3.833% SULFUR .00075%
OXYGEN FLOW 3.338
-C- -S-
Wst2
BLANK +.00000 +.00000
TIME 40. 30.
PEAK 1896. 0.
CALIB. 0.5869 0.8981
K FAC. 1.0322 1.0336
12:33 12/03/98
ID CODE C0000006 WT0.1000 CAL#1
CARBON 11.86% SULFUR .00044%
OXYGEN FLOW 3.336
-C- -S-
CaCO3
BLANK +.00000 +.00000
TIME 40. 30.
PEAK 12266. 0.
CALIB. 0.5869 0.8981
K FAC 1.0319 1.0331
12:34 12/03/98
ID CODE C0000007 WT0.1000 CAL#1

CARBON 0.2970% SULFUR .00056%
OXYGEN FLOW 3.336

1101-5 793cm

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	312.	0.
CALIB.	0.5969	0.8981
K FAC.	1.0319	1.0331

12:36 12/03/98

ID CODE C00000088 WT0.1000 CAL#1
CARBON 0.3786% SULFUR .00015%
OXYGEN FLOW 3.336

798

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	408.	0.
CALIB.	0.5969	0.8981
K FAC.	1.0319	1.0331

12:37 12/03/98

ID CODE C00000089 WT0.1000 CAL#1
CARBON 0.1620% SULFUR .00007%
OXYGEN FLOW 3.333

803

	-C-	-S-
BLANK	+.00000	+.00000
TIME	42.	30.
PEAK	169.	0.
CALIB.	0.5969	0.8981
K FAC.	1.0311	1.0327

12:38 12/03/98

ID CODE C00000090 WT0.1000 CAL#1
CARBON 0.1842% SULFUR .00016%
OXYGEN FLOW 3.334

808

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	220.	0.
CALIB.	0.5969	0.8981
K FAC.	1.0315	1.0328

12:40 12/03/98

ID CODE C00000091 WT0.1000 CAL#1
CARBON 0.1723% SULFUR .00044%
OXYGEN FLOW 3.335

813

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	192.	0.
CALIB.	0.5969	0.8981
K FAC.	1.0317	1.0330

12:41 12/03/98

ID CODE C00000092 WT0.1000 CAL#1
CARBON 0.1396% SULFUR .00044%
OXYGEN FLOW 3.334

818

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	137.	0.
CALIB.	0.5969	0.8981
K FAC.	1.0315	1.0328

12:42 12/03/98

ID CODE C00000093 WT0.1000 CAL#1
CARBON 0.2083% SULFUR .00005%
OXYGEN FLOW 3.332

823

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	232.	0.
CALIB.	0.5969	0.8981
K FAC.	1.0312	1.0325

12:44 12/03/98

ID CODE C00000094 WT0.1000 CAL#1
CARBON 0.2098% SULFUR .00062%
OXYGEN FLOW 3.332

828

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	256.	0.
CALIB.	0.5969	0.8981
K FAC.	1.0312	1.0325

12:45 12/03/98

ID CODE C00000095 WT0.1000 CAL#1
CARBON 0.1906% SULFUR .00014%
OXYGEN FLOW 3.331

833

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	212.	0.
CALIB.	0.5969	0.8981
K FAC.	1.0319	1.0323

12:47 12/03/98

ID CODE C00000096 WT0.1000 CAL#1
CARBON 0.1662% SULFUR .00007%
OXYGEN FLOW 3.329

838

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	168.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0298	1.0311

12:49 12/03/98

ID CODE C00000097 WT1.0030 CAL#1
CARBON 0.8231% SULFUR .00004%
OXYGEN FLOW 3.329

Std. 0.82%

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	7962.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0306	1.0319

12:50 12/03/98

ID CODE C00000098 WT0.1000 CAL#1
CARBON 11.82% SULFUR .00050%
OXYGEN FLOW 3.332

$CaCO_3$

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	14512.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0309	1.0325

*** CLEANING TIME ***

Corp. 1108-5 03.12.98

12:52 12/03/98
ID CODE C00000099 WT0.0510 CAL#1
CARBON 3.742% SULFUR .00109%
OXYGEN FLOW 3.330

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	1675.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0308	1.0321

13:40 12/03/98
ID CODE C00000000 WT0.9980 CAL#1
CARBON 0.8187% SULFUR .00002%
OXYGEN FLOW 3.340

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	8080.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0331	1.0339

13:42 12/03/98
ID CODE C00000001 WT1.0000 CAL#1
CARBON 0.8274% SULFUR .00005%
OXYGEN FLOW 3.338

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	9397.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0329	1.0336

13:44 12/03/98
ID CODE C00000002 WT0.1000 CAL#1
CARBON 0.1327% SULFUR .00022%
OXYGEN FLOW 3.342

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	136.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0335	1.0342

13:46 12/03/98
ID CODE C00000003 WT0.1000 CAL#1
CARBON 0.1273% SULFUR .00032%
OXYGEN FLOW 3.341

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	120.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0333	1.0341

13:47 12/03/98
ID CODE C00000004 WT0.1000 CAL#1
CARBON 0.1312% SULFUR .00038%
OXYGEN FLOW 3.341

	-C-	-S-
BLANK	+.00000	+.00000
TIME	41.	30.
PEAK	129.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0333	1.0341

13:48 12/03/98
ID CODE C00000005 WT0.1000 CAL#1
CARBON 0.1680% SULFUR .00048%
OXYGEN FLOW 3.339

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	159.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0327	1.0339

13:50 12/03/98
ID CODE C00000006 WT0.1000 CAL#1
CARBON 0.1857% SULFUR .00038%
OXYGEN FLOW 3.338

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	192.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0325	1.0336

13:51 12/03/98
ID CODE C00000007 WT0.1000 CAL#1
CARBON 0.2289% SULFUR .00023%
OXYGEN FLOW 3.336

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	239.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0324	1.0331

13:53 12/03/98
ID CODE C00000008 WT0.1000 CAL#1
CARBON 0.8289% SULFUR .00044%
OXYGEN FLOW 3.336

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	908.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0322	1.0331

13:55 12/03/98
ID CODE C00000009 WT0.1000 CAL#1
CARBON 0.7764% SULFUR .00016%
OXYGEN FLOW 3.334

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	824.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0318	1.0328

13:56 12/03/98
ID CODE C00000010 WT0.1000 CAL#1
CARBON 0.7027% SULFUR .00065%
OXYGEN FLOW 3.333

	-C-	-S-
BLANK	+.00000	+.00000
TIME	41.	30.
PEAK	580.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0317	1.0327

13:57 12/03/98

03.12.98 1101-5 Corg.

ID CODE C00000011 WT0.1000 CAL#1
CARBON 0.5885% SULFUR .00032%
OXYGEN FLOW 3.336

888

	-C-	-S-
BLANK	+.00000	+.00000
TIME	45.	30.
PEAK	496.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0322	1.0331

14:00 12/03/98
ID CODE C00000012 WT1.0000 CAL#1
CARBON 0.8164% SULFUR .00007%
OXYGEN FLOW 3.331

Std. 0.822%

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	9492.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0313	1.0323

14:01 12/03/98
ID CODE C00000013 WT0.1000 CAL#1
CARBON 11.63% SULFUR .00063%
OXYGEN FLOW 3.338

CaCO3

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	15181.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0325	1.0336

14:03 12/03/98
ID CODE C00000014 WT0.0490 CAL#1
CARBON 3.885% SULFUR .00089%
OXYGEN FLOW 3.335

WST2

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	2121.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0328	1.0338

14:04 12/03/98
ID CODE C00000015 WT0.1000 CAL#1
CARBON 0.4297% SULFUR .00040%
OXYGEN FLOW 3.336

893

	-C-	-S-
BLANK	+.00000	+.00000
TIME	41.	30.
PEAK	498.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0322	1.0331

14:06 12/03/98
ID CODE C00000016 WT0.1000 CAL#1
CARBON 0.2444% SULFUR .00045%
OXYGEN FLOW 3.337

898

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	240.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0323	1.0333

14:07 12/03/98
ID CODE C00000017 WT0.1000 CAL#1
CARBON 0.3165% SULFUR .00032%
OXYGEN FLOW 3.332

903

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	324.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0315	1.0325

14:09 12/03/98
ID CODE C00000018 WT0.1000 CAL#1
CARBON 0.3982% SULFUR .00007%
OXYGEN FLOW 3.345

908

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	388.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0338	1.0348

*** CLEANING TIME ***
14:10 12/03/98
ID CODE C00000019 WT0.1000 CAL#1
CARBON 0.3815% SULFUR .00024%
OXYGEN FLOW 3.347

913

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	572.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0342	1.0352

14:11 12/03/98
ID CODE C00000020 WT0.1000 CAL#1
CARBON 0.5371% SULFUR .00052%
OXYGEN FLOW 3.342

918

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	503.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0332	1.0342

14:13 12/03/98
ID CODE C00000021 WT0.1000 CAL#1
CARBON 0.7071% SULFUR .00038%
OXYGEN FLOW 3.341

923

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	648.	0.
CALIB.	0.5869	0.8981

SULFUR .00081%

928 0.7878

40. 30.
0.
0.5869
1.0344

0.5351% SULFUR .00032%
OXYGEN FLOW 3.345

	-C-	-S-
933 BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	612.	0.

0.5937

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
943 PEAK	604.	0.

0.8452

14:26 12/03/98
WT1.0040 CAL#1
0.8223% SULFUR .00006%
OXYGEN FLOW 3.339

Std.

	-C-	-S-
BLANK	+.00000	+.00000
0.822% TIME	40.	30.

14:30 12/03/98
WT0.0510 CAL#1
1.952% SULFUR .00065%
OXYGEN FLOW 3.345

WST2

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	1908.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0338	1.0348

14:31 12/03/98
WT0.1000 CAL#1
12.28% SULFUR .00074%
OXYGEN FLOW 3.350

CaCO3

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	15548.	0.

14:37 12/03/98
WT0.1000 CAL#1
0.9294% SULFUR .00038%
OXYGEN FLOW 3.344

	-C-	-S-
948 BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	980.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0345	1.0353

14:38 12/03/98
WT0.1000 CAL#1
0.4615% SULFUR .00038%
OXYGEN FLOW 3.344

	-C-	-S-
938 BLANK	+.00000	+.00000
TIME	42.	30.
PEAK	472.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0336	1.0346

14:39 12/03/98
WT0.1000 CAL#1
0.4560% SULFUR .00035%
OXYGEN FLOW 3.344

	-C-	-S-
953 BLANK	+.00000	+.00000
TIME	42.	30.
PEAK	433.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0336	1.0346

14:41 12/03/98
WT0.1000 CAL#1
0.4462% SULFUR .00032%
OXYGEN FLOW 3.343

	-C-	-S-
958 BLANK	+.00000	+.00000
TIME	42.	30.
PEAK	408.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0337	1.0344

14:48 12/03/98
WT0.1000 CAL#1
0.1601% SULFUR .00003%
OXYGEN FLOW 3.348

	-C-	-S-
963 BLANK	+.00000	+.00000
TIME	65.	30.
PEAK	76.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0345	1.0353

14:50 12/03/98
WT0.1000 CAL#1
0.0928% SULFUR .00045%
OXYGEN FLOW 3.345

	-C-	-S-
968 BLANK	+.00000	+.00000
TIME	52.	30.
PEAK	74.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0341	1.0349

14:52 12/03/98
WT0.1000 CAL#1
0.1061% SULFUR .00034%
973 OXYGEN FLOW 3.345

	-C-	-S-
BLANK	+.00000	+.00000
TIME	51.	30.
PEAK	93	0
	1.0349	0.8981
	1.0341	1.0348

14:53 12/03/98
WT0.1000 CAL#1
SULFUR .00034%
978 OXYGEN FLOW 3.345

	-C-	-S-
0.1033	+.00000	+.00000
	42.	30.
	134.	0.
	1.0349	0.8981
	1.0341	1.0345

*** ROUTINE TIME ***
14:55 12/03/98
CODE C00000039 WT0.1000 CAL#1
CARBON 0.1310% SULFUR .00044%
OXYGEN FLOW 3.346

983

	-C-	-S-
BLANK	+.00000	+.00000
TIME	49.	30.
PEAK	108.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0342	1.0350

14:57 12/03/98
WT0.1000 CAL#1
0.1302% SULFUR .00069%
OXYGEN FLOW 3.343

988

	-C-	-S-
BLANK	+.00000	+.00000
TIME	43.	30.
PEAK	120.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0337	1.0344

14:59 12/03/98
CODE C00000041 WT0.9970 CAL#1
CARBON 0.8329% SULFUR .00006%
OXYGEN FLOW 3.341

Std. 0.822%

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	8381.	0.
CALIB.	0.5869	0.8981
	1.0333	1.0341

*** OUT-SEQ BEGUN ***
15:01 12/03/98
CODE C00000044 WT0.9990 CAL#1
CARBON 0.8396% SULFUR .00007%
OXYGEN FLOW 3.342

4

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	8223.	0.
CALIB.	0.5869	0.8981
	1.0335	1.0342

15:03 12/03/98
CODE C00000045 WT1.0030 CAL#1
0.8335% SULFUR .00005%
OXYGEN FLOW 3.344

Std. 0.822%

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	8174.	0.
CALIB.	0.5869	0.8981
K FAC.	1.0339	1.0346

*** STACK CALIBRATION ***

15:03 12/03/98

WEIGHT	CARBON%	SULFUR%
1.0030	0.8335	.00005
0.9990	0.8396	.00007
0.9970	0.8329	.00006
0.1000	0.1302	.00069
0.1000	0.1310	.00044
0.1000	0.1033	.00034
0.1000	0.1061	.00034
0.1000	.09282	.00045
0.1000	0.1601	.00003
0.1000	0.4462	.00032

CARBON STD.% 00.8220
OLD C-CAL -1- 0.5869

INCLUDE	CARBON
C00000045	0.8335
C00000044	0.8396
C00000041	0.8329

NEW C-CAL -1- 0.5775

15:04 12/03/98

CODE	WEIGHT	CARBON%	SULFUR%
C00000045	1.0030	0.8202	.00005
C00000044	0.9990	0.8261	.00007
C00000041	0.9970	0.8196	.00006
C00000040	0.1000	0.1281	.00069
C00000039	0.1000	0.1289	.00044
C00000038	0.1000	0.1016	.00034
C00000037	0.1000	0.1044	.00034
C00000036	0.1000	.09133	.00045
C00000035	0.1000	0.1575	.00003
C00000034	0.1000	0.4391	.00032

*** END CALIBRATION ***
15:05 12/03/98
CODE C00000000 WT0.1000 CAL#1
11.69% SULFUR .00055%
OXYGEN FLOW 3.347

CaCO3

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	13057.	0.
CALIB.	0.5775	0.8981
	1.0344	1.0352

15:07 12/03/98
CODE C00000043 WT0.0500 CAL#1
3.963% SULFUR .00092%
OXYGEN FLOW 3.341

NBS2

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	2253.	0.
CALIB.	0.5775	0.8981
K FAC.	1.0333	1.0341

C 0-8. 1101-5 08.12.98

AMBIENT MONITOR

11:21 12/08/98

02 FLOW	L/MIN		3.353
C. CELL	TMP.	C	50.4
S. CELL	TMP.	C	48.3
OVEN	TMP.	C	48.5
CAT. HTR.	TMP.	C	341.9
5	REFF.		5.00
5	VOLT	+	5.00
24	VOLT	+	23.99
30	VOLT	+	29.99
15	VOLT	+/-	14.99
C. EMITR.			5.50
S. EMITR.			5.50
C. IR CELL			8.497
S. IR CELL			8.511

11:24 12/08/98

TT CODE C00000046 WT0.1050 CAL#1
CARBON 11.51% SULFUR .00048%
OXYGEN FLOW 3.324

CaCO3

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	10743.	0.
CALIB.	0.5775	0.8981
K FRC.	1.0294	1.0311

11:28 12/08/98

TT CODE C00000047 WT0.9980 CAL#1
CARBON 0.9195% SULFUR .00003%
OXYGEN FLOW 3.395

Std.

0.822%

	-C-	-S-
BLANK	+.00000	+.00000
TIME	42.	30.
PEAK	9177.	0.
CALIB.	0.5775	0.8981
K FRC.	1.0421	1.0436

11:30 12/08/98

TT CODE C00000048 WT0.9990 CAL#1
CARBON 0.9270% SULFUR .00008%
OXYGEN FLOW 3.403

	-C-	-S-
BLANK	+.00000	+.00000
TIME	41.	30.
PEAK	9613.	0.
CALIB.	0.5775	0.8981
K FRC.	1.0434	1.0450

11:32 12/08/98

TT CODE C00000049 WT1.0010 CAL#1
CARBON 0.9128% SULFUR .00009%
OXYGEN FLOW 3.390

	-C-	-S-
BLANK	+.00000	+.00000
TIME	42.	30.
PEAK	9496.	0.
CALIB.	0.5775	0.8981
K FRC.	1.0411	1.0427

11:34 12/08/98

TT CODE C00000050 WT1.0000 CAL#1
CARBON 0.9231% SULFUR .00007%
OXYGEN FLOW 3.399

Std.

0.822%

	-C-	-S-
BLANK	+.00000	+.00000
TIME	42.	30.
PEAK	9343.	0.
CALIB.	0.5775	0.8981
K FRC.	1.0427	1.0444

*** STACK CALIBRATION ***

11:34 12/08/98

TT CODE	WEIGHT	CARBON%	SULFUR%
C00000050	1.0000	0.9231	.00007
C00000049	1.0010	0.9128	.00009
C00000048	0.9990	0.9270	.00008
C00000047	0.9980	0.9195	.00003
C00000046	0.1050	11.51	.00048
C00000043	0.0500	3.968	.00092
C00000042	0.1000	11.69	.00055
C00000045	1.0030	0.8202	.00005
C00000044	0.9990	0.8261	.00007
C00000041	0.9970	0.8196	.00006

CARBON STD.% 00.8220
OLD C-CAL -1- 0.5775

INCLUDE	CARBON
C00000050	0.9231
C00000049	0.9128
C00000048	0.9270
C00000047	0.9195

NEW C-CAL -1- 0.5157

11:35 12/08/98

TT CODE	WEIGHT	CARBON%	SULFUR%
C00000050	1.0000	0.8243	.00007
C00000049	1.0010	0.8151	.00009
C00000048	0.9990	0.8277	.00008
C00000047	0.9980	0.8211	.00003
C00000046	0.1050	10.28	.00048
C00000043	0.0500	3.543	.00092
C00000042	0.1000	10.44	.00055
C00000045	1.0030	0.7323	.00005
C00000044	0.9990	0.7377	.00007
C00000041	0.9970	0.7318	.00006

*** END CALIBRATION ***

11:39 12/08/98

TT CODE C00000051 WT0.9950 CAL#1
CARBON 0.8183% SULFUR .00006%
OXYGEN FLOW 3.402

Std.

0.822%

	-C-	-S-
BLANK	+.00000	+.00000
TIME	41.	30.
PEAK	10217.	0.
CALIB.	0.5157	0.8981
K FRC.	1.0433	1.0449

11:40 12/08/98
ID CODE C00000052 WT0.1010 CAL#1
CARBON 11.93% SULFUR .00050%
OXYGEN FLOW 3.399

$CaCO_3$

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	15407.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0427	1.0444

11:42 12/08/98
ID CODE C00000053 WT0.0490 CAL#1
CARBON 3.754% SULFUR .00101%
OXYGEN FLOW 3.381

WSL

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	2143.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0396	1.0412

11:45 12/08/98
ID CODE C00000054 WT0.1000 CAL#1
CARBON 0.1813% SULFUR .00026%
OXYGEN FLOW 3.399

1101-5

	-C-	-S-
BLANK	+.00000	+.00000
TIME	45.	30.
PEAK	180.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0427	1.0444

993

11:48 12/08/98
ID CODE C00000055 WT0.1000 CAL#1
CARBON 0.2822% SULFUR .00037%
OXYGEN FLOW 3.391

998

	-C-	-S-
BLANK	+.00000	+.00000
TIME	41.	30.
PEAK	336.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0416	1.0429

11:50 12/08/98
ID CODE C00000056 WT0.1000 CAL#1
CARBON 0.3383% SULFUR .00038%
OXYGEN FLOW 3.390

1003

	-C-	-S-
BLANK	+.00000	+.00000
TIME	46.	30.
PEAK	360.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0411	1.0427

11:51 12/08/98
ID CODE C00000057 WT0.1000 CAL#1
CARBON 0.6899% SULFUR .00073%
OXYGEN FLOW 3.392

1008

	-C-	-S-
BLANK	+.00000	+.00000
TIME	51.	30.
PEAK	660.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0415	1.0431

11:53 12/08/98
ID CODE C00000058 WT0.1000 CAL#1
CARBON 0.5052% SULFUR .00032%
OXYGEN FLOW 3.468

1013

	-C-	-S-
BLANK	+.00000	+.00000
TIME	54.	30.
PEAK	481.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0549	1.0566

*** CLEANING TIME ***
11:54 12/08/98
ID CODE C00000059 WT0.1000 CAL#1
CARBON 0.3428% SULFUR .00028%
OXYGEN FLOW 3.461

1018

	-C-	-S-
BLANK	+.00000	+.00000
TIME	50.	30.
PEAK	332.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0537	1.0554

11:56 12/08/98
ID CODE C00000060 WT0.1000 CAL#1
CARBON 0.1382% SULFUR .00043%
OXYGEN FLOW 3.459

1023

	-C-	-S-
BLANK	+.00000	+.00000
TIME	76.	30.
PEAK	135.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0536	1.0550

11:58 12/08/98
ID CODE C00000061 WT0.1000 CAL#1
CARBON 0.1679% SULFUR .00039%
OXYGEN FLOW 3.455

1028

	-C-	-S-
BLANK	+.00000	+.00000
TIME	67.	30.
PEAK	128.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0530	1.0543

12:00 12/08/98
ID CODE C00000062 WT0.1000 CAL#1
CARBON 0.1062% SULFUR .00023%
OXYGEN FLOW 3.454

1033

	-C-	-S-
BLANK	+.00000	+.00000
TIME	79.	30.
PEAK	104.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0525	1.0541

12:02 12/08/98
ID CODE C00000063 WT0.1000 CAL#1
CARBON 0.1511% SULFUR .00021%
OXYGEN FLOW 3.451

1038

	-C-	-S-
BLANK	+.00000	+.00000
TIME	83.	30.
PEAK	92.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0519	1.0535

Conc. 1101-5 08.12.98

Std.

0.822%

```
-- CODE C000000064 WT1.0040 CAL#1
CARBON  1.012% SULFUR  .00002%
OXYGEN FLOW        3.443
                  -C-       -S-
BLANK   +.00000  +.00000
TIME        47.       30.
PEAK      10891.       0.
CALIB.   0.5157   0.8981
K FAC.   1.0508   1.0522
  *** OUT-SEQ BEGUN ***
              12:05 12/08/98
-- CODE C000000067 WT1.0040 CAL#1
CARBON  1.036% SULFUR  .00001%
OXYGEN FLOW        3.447
                  -C-       -S-
BLANK   +.00000  +.00000
TIME        48.       30.
PEAK       8360.       0.
CALIB.   0.5157   0.8981
K FAC.   1.0515   1.0529
  *** OUT-SEQ BEGUN ***
              12:07 12/08/98
-- CODE C000000068 WT1.0030 CAL#1
CARBON  1.024% SULFUR  .00001%
OXYGEN FLOW        3.442
                  -C-       -S-
BLANK   +.00000  +.00000
TIME        48.       30.
PEAK      10945.       0.
CALIB.   0.5157   0.8981
K FAC.   1.0504   1.0520

  *** STACK CALIBRATION ***

              12:08 12/08/98
-- CODE    WEIGHT CARBON% SULFUR%
C000000068 1.0030   1.024  .00001
C000000067 1.0040   1.036  .00001
C000000064 1.0040   1.012  .00002
C000000063 0.1000   0.1511 .00021
C000000062 0.1000   0.1862 .00023
C000000061 0.1000   0.1679 .00039
C000000060 0.1000   0.1882 .00043
C000000059 0.1000   0.3428 .00028
C000000058 0.1000   0.5052 .00032
C000000057 0.1000   0.6899 .00073

CARBON  STD.%   00.8220
OLD C-CAL -1-    0.5157
     INCLUDE     CARBON
   C000000068     1.024
   C000000067     1.036
   C000000064     1.012
OLD C-CAL -1-    0.5157

              12:08 12/08/98
-- CODE    WEIGHT CARBON% SULFUR%
C000000068 1.0030   1.024  .00001
C000000067 1.0040   1.036  .00001
C000000064 1.0040   1.012  .00002
C000000063 0.1000   0.1511 .00021
C000000062 0.1000   0.1862 .00023
C000000061 0.1000   0.1679 .00039
C000000060 0.1000   0.1882 .00043
C000000059 0.1000   0.3428 .00028
C000000058 0.1000   0.5052 .00032
C000000057 0.1000   0.6899 .00073
```

```
ALARM IDENT.              #
-------------------------
C-CAL RANGE               1
  *** OUT-SEQ BEGUN ***
              12:10 12/08/98
-- CODE C000000069 WT1.0030 CAL#1
CARBON  1.029% SULFUR  .00005%
OXYGEN FLOW        3.442
                  -C-       -S-
BLANK   +.00000  +.00000
TIME        48.       30.
PEAK      10075.       0.
CALIB.   0.5157   0.8981
K FAC.   1.0507   1.0520

  *** STACK CALIBRATION ***

              12:11 12/08/98
-- CODE    WEIGHT CARBON% SULFUR%
C000000069 1.0030   1.029  .00005
C000000068 1.0030   1.024  .00001
C000000067 1.0040   1.036  .00001
C000000064 1.0040   1.012  .00002
C000000063 0.1000   0.1511 .00021
C000000062 0.1000   0.1862 .00023
C000000061 0.1000   0.1679 .00039
C000000060 0.1000   0.1882 .00043
C000000059 0.1000   0.3428 .00028
C000000058 0.1000   0.5052 .00032

CARBON  STD.%   00.8220
OLD C-CAL -1-    0.5157
     INCLUDE     CARBON
   C000000069     1.029
   C000000068     1.024
   C000000067     1.036
   C000000064     1.012
OLD C-CAL -1-    0.5157

              12:11 12/08/98
-- CODE    WEIGHT CARBON% SULFUR%
C000000069 1.0030   1.029  .00005
C000000068 1.0030   1.024  .00001
C000000067 1.0040   1.036  .00001
C000000064 1.0040   1.012  .00002
C000000063 0.1000   0.1511 .00021
C000000062 0.1000   0.1862 .00023
C000000061 0.1000   0.1679 .00039
C000000060 0.1000   0.1882 .00043
C000000059 0.1000   0.3428 .00028
C000000058 0.1000   0.5052 .00032
  *** END CALIBRATION ***
  *** OUT-SEQ BEGUN ***
              12:13 12/08/98
-- CODE C000000070 WT1.0020 CAL#1
CARBON  1.009% SULFUR  .00004%
OXYGEN FLOW        3.447
                  -C-       -S-
BLANK   +.00000  +.00000
TIME        46.       30.
PEAK      10195.       0.
CALIB.   0.5157   0.8981
K FAC.   1.0515   1.0529
```

A-Falle gereinigt — div. Schraubverbindungen überprüft

O_2-Flow neu eingestellt.

AMBIENT MONITOR

10:40 12/09/98

O2 FLOW	L/MIN		3.307
C. CELL	TMP.	C	49.2
S. CELL	TMP.	C	48.3
OVEN	TMP.	C	45.1
CAT. HTR.	TMP.	C	340.8
5	REFF.		5.01
5	VOLT	+	5.00
24	VOLT	+	23.98
30	VOLT	+	29.97
15	VOLT	+/-	14.99
C.	EMITR.		5.50
S.	EMITR.		5.51
C.	IR CELL		8.510
S.	IR CELL		8.510

10:41 12/09/98
CODE C000000065 WT0.1000 CAL#1
ERROR 9.874% SULFUR .00000%
OXYGEN FLOW 3.288

CaCO3

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	14745.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0194	1.0247

10:42 12/09/98
CODE C000000066 WT0.0510 CAL#1
ERROR 3.224% SULFUR .00000%
OXYGEN FLOW 3.318

WST2

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	1959.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0251	1.0300

10:45 12/09/98
CODE C000000071 WT0.9990 CAL#1
ERROR 0.7575% SULFUR .00002%
OXYGEN FLOW 3.327

Std. 0.822%

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	9412.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0272	1.0316

10:46 12/09/98
CODE C000000072 WT1.0010 CAL#1
ERROR 0.7781% SULFUR .00007%
OXYGEN FLOW 3.354

11

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	11407.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0320	1.0364

10:48 12/09/98
CODE C000000073 WT0.9980 CAL#1
ERROR 0.8172% SULFUR .00004%
OXYGEN FLOW 3.384

Std. 0.822

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	11482.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0372	1.0417

10:49 12/09/98
CODE C000000074 WT1.0040 CAL#1
ERROR 0.9178% SULFUR .00002%
OXYGEN FLOW 3.421

4

	-C-	-S-
BLANK	+.00000	+.00000
TIME	44.	30.
PEAK	10738.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0438	1.0488

10:51 12/09/98
CODE C000000075 WT0.9980 CAL#1
ERROR 0.9099% SULFUR .00001%
OXYGEN FLOW 3.422

4

	-C-	-S-
BLANK	+.00000	+.00000
TIME	46.	30.
PEAK	10876.	0.
CALIB.	0.5157	0.8981
K FAC.	1.0437	1.0485

O_2- Flow wieder abgerackt!

- Halogenfalle ausgewechselt
- Schläuche mit Druckluft "gespült"
- Dichtung an Halogenfalle ausgewechselt
- O_2-Flow neu justiert

→ div. Probenmessungen:

Wieder O_2-Flow abgerackt und Fehlermeldung C-CAL RANGE

Durchflußregler ausgebaut und gereinigt

→ erneute Probenmess. + erneute Fehlermeldung + Druckabfall

Corg. 1101-5 15.12.98

CODE C00000031 WT1.0000 CAL#1
CARBON 0.8207% SULFUR .00004%
OXYGEN FLOW 3.201

Std. 998 0.822%

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	10551.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9981	1.0092

14:21 12/15/98

CODE C00000032 WT1.0020 CAL#1
CARBON 0.8274% SULFUR .00006%
OXYGEN FLOW 3.215

11 1003

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	9491.	0.
CALIB.	0.7478	0.8981
K FAC.	1.0005	1.0117

14:25 12/15/98

CODE C00000033 WT0.1000 CAL#1
CARBON 0.2349% SULFUR .00028%
OXYGEN FLOW 3.214

1101-5 993

	-C-	-S-
BLANK	+.00000	+.00000
TIME	41.	30.
PEAK	148.	0.
CALIB.	0.7478	0.8981
K FAC.	1.0007	1.0115

14:26 12/15/98

CODE C00000034 WT0.1000 CAL#1
CARBON 0.3376% SULFUR .00045%
OXYGEN FLOW 3.225

993

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	340.	0.
CALIB.	0.7478	0.8981
K FAC.	1.0026	1.0135

14:27 12/15/98

CODE C00000035 WT0.1000 CAL#1
CARBON 0.3678% SULFUR .00008%
OXYGEN FLOW 3.223

1003

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	315.	0.
CALIB.	0.7478	0.8981
K FAC.	1.0023	1.0132

14:29 12/15/98

CODE C00000036 WT0.1000 CAL#1
CARBON 0.7301% SULFUR .00024%
OXYGEN FLOW 3.226

1008

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	597.	0.
CALIB.	0.7478	0.8981
K FAC.	1.0025	1.0137

14:30 12/15/98

CODE C00000037 WT0.1000 CAL#1
CARBON 0.4694% SULFUR .00032%
OXYGEN FLOW 3.230

1013

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	416.	0.
CALIB.	0.7478	0.8981
K FAC.	1.0032	1.0144

14:32 12/15/98

CODE C00000038 WT0.1000 CAL#1
CARBON 0.3347% SULFUR .00045%
OXYGEN FLOW 3.233

1018

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	308.	0.
CALIB.	0.7478	0.8981
K FAC.	1.0037	1.0149

14:33 12/15/98

CODE C00000039 WT0.1000 CAL#1
CARBON 0.1761% SULFUR .00044%
OXYGEN FLOW 3.227

1023

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	165.	0.
CALIB.	0.7478	0.8981
K FAC.	1.0030	1.0139

14:35 12/15/98

CODE C00000040 WT0.1000 CAL#1
CARBON 0.1033% SULFUR .00039%
OXYGEN FLOW 3.224

1028

	-C-	-S-
BLANK	+.00000	+.00000
TIME	55.	30.
PEAK	128.	0.
CALIB.	0.7478	0.8981
K FAC.	1.0024	1.0134

14:36 12/15/98

CODE C00000041 WT0.1000 CAL#1
CARBON 0.1614% SULFUR .00025%
OXYGEN FLOW 3.228

1033

	-C-	-S-
BLANK	+.00000	+.00000
TIME	59.	30.
PEAK	104.	0.
CALIB.	0.7478	0.8981
K FAC.	1.0035	1.0140

14:38 12/15/98

CODE C00000042 WT0.1000 CAL#1
CARBON 0.1339% SULFUR .00038%
OXYGEN FLOW 3.222

1038

	-C-	-S-
BLANK	+.00000	+.00000
TIME	49.	30.
PEAK	108.	0.
CALIB.	0.7478	0.8981
K FAC.	1.0024	1.0130

14:40 12/15/98

ID CODE C00000043 WT1.0000 CAL#1
CARBON 0.8160% SULFUR .00006%
OXYGEN FLOW 3.213

Std.

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	9716.	0.
CALIB.	0.7478	0.8981
K FAC.	1.0005	1.0114

0.822%

14:42 12/15/98

ID CODE C00000044 WT0.1020 CAL#1
CARBON 11.52% SULFUR .00077%
OXYGEN FLOW 3.200

$CaCO_3$

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	13750.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9982	1.0090

*** CLEANING TIME ***
14:43 12/15/98

ID CODE C00000045 WT0.0520 CAL#1
CARBON 3.883% SULFUR .00083%
OXYGEN FLOW 3.194

WR2

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	2420.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9972	1.0080

14:44 12/15/98

ID CODE C00000046 WT0.1000 CAL#1
CARBON 0.1291% SULFUR .00044%
OXYGEN FLOW 3.197

1043

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	104.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9977	1.0085

14:46 12/15/98

ID CODE C00000047 WT0.1000 CAL#1
CARBON 0.1690% SULFUR .00017%
OXYGEN FLOW 3.179

1048

	-C-	-S-
BLANK	+.00000	+.00000
TIME	41.	30.
PEAK	116.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9949	1.0053

14:47 12/15/98

ID CODE C00000048 WT0.1000 CAL#1
CARBON 0.2181% SULFUR .00026%
OXYGEN FLOW 3.178

1053

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	180.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9949	1.0051

14:49 12/15/98

ID CODE C00000049 WT0.1000 CAL#1
CARBON 0.6145% SULFUR .00046%
OXYGEN FLOW 3.190

1058

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	716.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9974	1.0073

14:50 12/15/98

ID CODE C00000050 WT0.1000 CAL#1
CARBON 0.7688% SULFUR .00052%
OXYGEN FLOW 3.193

1063

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	732.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9976	1.0078

14:52 12/15/98

ID CODE C00000051 WT0.1000 CAL#1
CARBON 0.5312% SULFUR .00055%
OXYGEN FLOW 3.188

1068

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	532.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9968	1.0070

14:53 12/15/98

ID CODE C00000052 WT0.1000 CAL#1
CARBON 0.4248% SULFUR .00011%
OXYGEN FLOW 3.156

1073

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	376.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9988	1.0012

14:54 12/15/98

ID CODE C00000053 WT0.1000 CAL#1
CARBON 0.2768% SULFUR .00030%
OXYGEN FLOW 3.166

1078

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	268.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9922	1.0031

14:56 12/15/98

ID CODE C00000054 WT0.1000 CAL#1
CARBON 0.2370% SULFUR .00055%
OXYGEN FLOW 3.159

1083

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	204.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9913	1.0018

14:57 12/15/98

ID CODE C0000055 WT0.1000 CAL#1
CARBON 0.1519% SULFUR .00032%
OXYGEN FLOW 3.172

1088

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	103.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9939	1.0041

14:58 12/15/98

ID CODE C0000056 WT1.0070 CAL#1
CARBON 0.8236% SULFUR .00005%
OXYGEN FLOW 3.159

Std. 0.822%

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	10269.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9919	1.0018

15:00 12/15/98

ID CODE C0000057 WT0.1030 CAL#1
CARBON 11.94% SULFUR .00047%
OXYGEN FLOW 3.191

$CaCO_3$

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	13625.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9979	1.0074

*** OUT-SEQ BEGUN ***
15:02 12/15/98

ID CODE C0000059 WT1.0040 CAL#1
CARBON 0.8211% SULFUR .00008%
OXYGEN FLOW 3.145

Std. 0.822%

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	8660.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9898	0.9993

15:03 12/15/98

ID CODE C0000058 WT0.0490 CAL#1
CARBON 3.945% SULFUR .00086%
OXYGEN FLOW 3.149

WST2

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	1888.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9902	1.0000

15:05 12/15/98

ID CODE C0000060 WT0.1000 CAL#1
CARBON 0.1575% SULFUR .00018%
OXYGEN FLOW 3.155

1093

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	131.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9913	1.0011

15:06 12/15/98
ID CODE C0000061 WT0.1000 CAL#1
CARBON 0.2121% SULFUR .00038%
OXYGEN FLOW 3.161

1097

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	225.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9917	1.0021

15:07 12/15/98

ID CODE C0000062 WT0.1000 CAL#1
CARBON 0.3241% SULFUR .00077%
OXYGEN FLOW 3.154

1103

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	380.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9905	1.0009

15:08 12/15/98

ID CODE C0000063 WT0.1000 CAL#1
CARBON 0.3317% SULFUR .00033%
OXYGEN FLOW 3.147

1108

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	280.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9896	0.9997

15:10 12/15/98

ID CODE C0000064 WT0.1000 CAL#1
CARBON 0.6218% SULFUR .00083%
OXYGEN FLOW 3.156

1113

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	572.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9917	1.0012

*** CLEANING TIME ***
15:11 12/15/98

ID CODE C0000065 WT0.1000 CAL#1
CARBON 0.2139% SULFUR .00060%
OXYGEN FLOW 3.166

1118

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	199.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9935	1.0031

15:12 12/15/98

ID CODE C0000066 WT0.1000 CAL#1
CARBON 0.1402% SULFUR .00034%
OXYGEN FLOW 3.166

1123

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	139.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9935	1.0031

15:14 12/15/98

-- CODE C0000067 WT0.1000 CAL#1
CARBON 0.1649% SULFUR .0002?%
OXYGEN FLOW 3.145

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	125.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9898	0.9993

1128

15:15 12/15/98

-- CODE C0000068 WT0.1000 CAL#1
CARBON 0.1980% SULFUR .00057%
OXYGEN FLOW 3.147

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	171.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9902	0.9997

1133

15:16 12/15/98

-- CODE C0000069 WT0.1000 CAL#1
CARBON 0.1705% SULFUR .00007%
OXYGEN FLOW 3.136

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	127.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9882	0.9977

1138

15:18 12/15/98

-- CODE C0000070 WT1.0050 CAL#1
CARBON 0.8127% SULFUR -.00008%
OXYGEN FLOW 3.111

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	9692.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9832	0.9933

Std. 0.822%

*** OUT-SEQ BEGUN ***

15:21 12/15/98

-- CODE C0000073 WT1.0070 CAL#1
CARBON 0.8198% SULFUR .00005%
OXYGEN FLOW 3.110

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	8745.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9836	0.9931

4

15:23 12/15/98

-- CODE C0000071 WT0.1000 CAL#1
CARBON 10.30% SULFUR .00078%
OXYGEN FLOW 3.166

	-C-	-S-
BLANK	+.00000	+.00000
TIME	43.	30.
PEAK	6412.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9935	1.0031

CaCO3

15:25 12/15/98

-- CODE C0000072 WT0.0500 CAL#1
CARBON 3.785% SULFUR .00058%
OXYGEN FLOW 3.104

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	2127.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9828	0.9921

1182

15:26 12/15/98

-- CODE C0000074 WT1.0040 CAL#1
CARBON 0.8164% SULFUR .00004%
OXYGEN FLOW 3.091

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	10442.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9806	0.9897

Std. 0.822%

15:28 12/15/98

-- CODE C0000075 WT0.1000 CAL#1
CARBON 0.2303% SULFUR .00040%
OXYGEN FLOW 3.104

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	192.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9826	0.9921

1143

15:29 12/15/98

-- CODE C0000076 WT0.1000 CAL#1
CARBON 0.2367% SULFUR .00029%
OXYGEN FLOW 3.100

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	296.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9819	0.9913

1148

15:30 12/15/98

-- CODE C0000077 WT0.1000 CAL#1
CARBON 0.1920% SULFUR .00009%
OXYGEN FLOW 3.113

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	164.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9839	0.9937

1153

15:32 12/15/98

-- CODE C0000078 WT0.1000 CAL#1
CARBON 0.1913% SULFUR .00042%
OXYGEN FLOW 3.100

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	168.	0.
CALIB.	0.7478	0.8981
K FAC.	0.9816	0.9913

1158

C 03. 1101-5 15.12.98

15:33 12/15/98
ID CODE C00000079 WT0.1000 CAL#1
CARBON 0.1578% SULFUR .00048%
OXYGEN FLOW 3.098

1163

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	137.	0.
CALIB.	0.7478	0.8981
K FRC.	0.9815	0.9910

15:34 12/15/98
ID CODE C00000080 WT0.1000 CAL#1
CARBON 0.1553% SULFUR .00032%
OXYGEN FLOW 3.097

1168

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	132.	0.
CALIB.	0.7478	0.8981
K FRC.	0.9813	0.9908

15:35 12/15/98
ID CODE C00000081 WT0.1000 CAL#1
CARBON 0.3478% SULFUR .00063%
OXYGEN FLOW 3.093

1173

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	359.	0.
CALIB.	0.7478	0.8981
K FRC.	0.9810	0.9901

15:37 12/15/98
ID CODE C00000082 WT0.1000 CAL#1
CARBON 0.1810% SULFUR .00028%
OXYGEN FLOW 3.097

1178

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	160.	0.
CALIB.	0.7478	0.8981
K FRC.	0.9819	0.9908

15:38 12/15/98
ID CODE C00000083 WT0.1000 CAL#1
CARBON 0.1966% SULFUR .00028%
OXYGEN FLOW 3.098

1183

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	159.	0.
CALIB.	0.7478	0.8981
K FRC.	0.9821	0.9910

15:39 12/15/98
ID CODE C00000084 WT0.1000 CAL#1
CARBON 0.2199% SULFUR .00031%
OXYGEN FLOW 3.097

1188

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	232.	0.
CALIB.	0.7478	0.8981
K FRC.	0.9816	0.9908

*** CLEANING TIME ***
15:41 12/15/98
ID CODE C00000085 WT0.9980 CAL#1
CARBON 0.8167% SULFUR .00004%
OXYGEN FLOW 3.094

Std. 0.82%

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	11116.	0.
CALIB.	0.7478	0.8981
K FRC.	0.9808	0.9902

15:43 12/15/98
ID CODE C00000086 WT0.1040 CAL#1
CARBON 11.84% SULFUR .00093%
OXYGEN FLOW 3.113

CaCO3

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	13472.	0.
CALIB.	0.7478	0.8981
K FRC.	0.9842	0.9937

15:44 12/15/98
ID CODE C00000087 WT0.0510 CAL#1
CARBON 3.788% SULFUR .00116%
OXYGEN FLOW 3.116

4802

	-C-	-S-
BLANK	+.00000	+.00000
TIME	40.	30.
PEAK	2269.	0.
CALIB.	0.7478	0.8981
K FRC.	0.9847	0.9941