Background Report Reference

AP-42 Section Number: 10.6.1

Background Report Section: 4

Reference Number: 65

Title: Results of the May 14, 1996 Air Emission Enginering Testing At The Louisiana Pacific OSB Plant In Hayward, Wisconsin

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June 1996

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4-65

RESULTS OF THE MAY 14, 1996 AIR EMISSION ENGINEERING TESTING AT THE LOUISIANA PACIFIC OSB PLANT IN HAYWARD, WISCONSIN

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Report Number 6-7684
June 3, 1996
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ABBREVIATIONS

ACFM	actual cubic feet per minute
cc (ml)	cubic centimeter (milliliter)
DSCFM	dry standard cubic foot of dry gas per minute
DSML	dry standard milliliter
DEG-F (°F)	degrees Fahrenheit
DIA.	diameter
FP	finished product for plant
FT/SEC	feet per second
g	gram
GPM	gallons per minute
GR/ACF	grains per actual cubic foot
GR/DSCF	grains per dry standard cubic foot
g/dscm	grams per dry standard cubic meter
HP	horsepower
HRS	hours
IN.	inches
IN.HG.	inches of mercury
IN.WC.	inches of water
LB	pound
LB/DSCF	pounds per dry standard cubic foot
LB/HR	pounds per hour
LB/10^6BTU	pounds per million British Thermal Units heat input
LB/MMBTU	pounds per million British Thermal Units heat input
LTPD	long tons per day
MW	megawatt
mg/Nm^3	milligrams per dry standard cubic meter
ug/Nm^3	micrograms per dry standard cubic meter
microns (um)	micrometer
MIN.	minutes
ng	nanograms
ohm-cm	ohm-centimeter
PM	particulate matter
PPH	pounds per hour
PPM	parts per million
ppmC	parts per million carbon
ppm,d	parts per million, dry
ppm,w	parts per million, wet
ppt	parts per trillion
PSI	pounds per square inch
SQ.FT.	square feet
TPD	tons per day
ug	micrograms
v/v	percent by volume
w/w	percent by weight
<	≤ (when following a number)

Standard conditions are defined as 68°F (20°C) and 29.92 IN. of mercury pressure.

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1 INTRODUCTION

On May 14, 1996, Interpoll Laboratories conducted Air Emission Engineering Tests at the Louisiana Pacific OSB Plant in Hayward, Wisconsin on the following sources:

Source	Parameters
Line 2 E-Tube Outlet	PM,NO_x,CO
Line 2 Surface Dryer E-Tube Inlet	PM,NO_x,CO
Line 2 Core Dryer E-Tube Inlet	PM,NO_x,CO

On-site testing was performed by Bob Aschenbach, Ed Juers, Scott Fjelsta, Jamie Bainville, Steve Kelker, Jim Lorenz, Mark Peterson, and Ken Nuessmeier. Coordination between testing activities and plant operation was provided by Gary Raemhild of Geoenergy. The tests were not witnessed by a member of the Wisconsin Department of Natural Resources.

Particulate determinations were performed in accordance with EPA Methods 1 - 5, CFR Title 40, Part 60, Appendix A (revised July 1, 1995). Preliminary volumetric flow rate determinations were used to select the appropriate nozzle diameter for isokinetic sample withdrawal. Interpoll Labs Model 3 M5 sampling trains which meet or exceed specifications in the above-cited reference were used to extract particulate samples by means of heated stainless steel probe. Wet catch samples were collected in the back half of the Method 5 sampling train at the stack test site and analyzed as per Wisconsin DNR protocol.

Oxides of nitrogen, carbon monoxide, oxygen, and carbon dioxide concentrations were determined in accordance with Methods 7E, 10, and 3A (Ibid). A slip stream of sample gas was withdrawn from the exhaust gas stream using a heated stainless steel probe equipped with a filter to remove interfering particulate material. The particulate-free gas was transported to the analyzers by means of a heat-traced probe and filter assembly. After passing through the filter, the gas passed through a chilled condenser-type moisture removal system. The particulate-free dry gas was then transported to the analyzers with the excess exhausted to the atmosphere through a calibrated orifice which was used to ensure that the flow from the stack exceeds the requirements of the analyzers. A three-way valve on the probe was used to introduce standard gas for the "system bias check".

The analog response of each analyzer was recorded with a computer datalogger and backed up with a strip chart recorder. The NO_x, CO, O_2 and CO_2 analyzers were calibrated with National Specialty Gases and Air Products and Chemicals standard gases. The instrument was calibrated before and after each run as per EPA Method 7E, 10, and 3A. The sample probe was moved through a three-point traverse (1/6, 3/6, 5/6 of the stack diameter) to measure oxides of nitrogen and carbon monoxide concentrations.

Integrated flue gas samples were extracted simultaneously with particulate sampling using a specially designed gas sampling system. Integrated flue gas samples were collected in 44-liter Tedlar bags. Prior to sampling, the Tedlar bags are leak checked at 15 IN.HG. vacuum with an in-line rotameter. Bags with any detectable inleakage are discarded. After sampling was complete, the bags were sealed and returned to the laboratory for Orsat analysis.

A summary and discussion of all of the important results of this compliance test is given in the following section. More detailed results of the various samplings are presented in Section 3, together with pertinent sampling parameters. Supplemental information such as field data sheets, laboratory results, procedures and calculation equations are presented in the appendices.

2 SUMMARY AND DISCUSSION

The results of the air emission compliance tests are presented in Tables 1 - 5. An overview of the results is presented in the table below:

PARAMETER		MEASURED
LINE 2 E-TUBE OUTLET		
Particulate		
DRY + WET CATCH		
	(GR/DSCF)	0.023
	(LB/HR)	11.7
DRY CATCH ONLY		
	(GR/DSCF)	0.0058
	(LB/HR)	3.0
Oxides of Nitrogen		
	(ppm,d)	8.1
	(LB/HR)	3.5
Carbon Monoxide		
	(ppm,d)	1098
	(LB/HR)	290
LINE 2 SURFACE DRYER E-TUBE INLET		
Particulate		
DRY + WET CATCH		
	(GR/DSCF)	0.428
	(LB/HR)	87.6
DRY CATCH ONLY		
	(GR/DSCF)	0.305
	(LB/HR)	62.4
Oxides of Nitrogen		
	(ppm,d)	24.9
	(LB/HR)	4.3
Carbon Monoxide		
	(ppm,d)	1016
	(LB/HR)	106
LINE 2 CORE DRYER E-TUBE INLET		
Particulate		
DRY + WET CATCH		
	(GR/DSCF)	0.344
	(LB/HR)	78.6
DRY CATCH ONLY		
	(GR/DSCF)	0.263
	(LB/HR)	60.2
Oxides of Nitrogen		
	(ppm,d)	20.7
	(LB/HR)	4.0
Carbon Monoxide		
	(ppm,d)	834
	(LB/HR)	97

No difficulties were encountered in the field or in the laboratory evaluation of the samples. On the basis of these facts and a complete review of the data and results, it is our opinion that the concentrations and emission rates reported herein are accurate and closely reflect the actual values which existed at the time the tests were performed.

Table 1a. Summary of the Results of the May 14, 1996 Particulate Emission Engineering Test on the Line 2 E - Tube Outlet at the Louisiana - Pacific Plant Located in Hayward, Wisconsin.

ITEM		Run 1	Run 2	Run 3
Date of test		05-14-96	05-14-96	05-14-96
Time runs were done	(HRS)	1200/1350	1500/1652	1815/1938
Volumetric flow				
actual	(ACFM)	100505	100769	99846
standard	(DSCFM)	60642	60377	60753
Gas temperature	(DEG-F)	162	163	165
Moisture content	(%V/V)	26.17	26.55	25.20
Gas composition	(%V/V,dry)			
carbon dioxide		4.00	3.80	3.70
oxygen		16.50	16.50	16.70
nitrogen		79.50	79.70	79.60
Isokinetic variation	(%)	100.9	101.1	97.7
Particulate concentration				
actual	(GR/ACF)	.0149	.0128	.0132
standard	(GR/DSCF)	.0247	.0214	.0217
Part. emission rate	(LB/HR)	12.85	11.07	11.32

Note: Dry + Method 202 Condensible Particulate Material

Table 1b. Summary of the Results of the May 14, 1996 Particulate Emission Engineering Test on the Line 2 E - Tube Outlet at the Louisiana - Pacific Plant Located in Hayward, Wisconsin.

ITEM		Run 1	Run 2	Run 3
Date of test		05-14-96	05-14-96	05-14-96
Time runs were done	(HRS)	1200/1350	1500/1652	1815/1938
Volumetric flow				
actual	(ACFM)	100505	100769	99846
standard	(DSCFM)	60642	60377	60753
Gas temperature	(DEG-F)	162	163	165
Moisture content	(%V/V)	26.17	26.55	25.20
Gas composition	(%V/V,dry)			
carbon dioxide		4.00	3.80	3.70
oxygen		16.50	16.50	16.70
nitrogen		79.50	79.70	79.60
Isokinetic variation	(%)	100.9	101.1	97.7
Particulate concentration				
actual	(GR/ACF)	.003646	.004123	.002759
standard	(GR/DSCF)	.006046	.006883	.004536
Part. emission rate	(LB/HR)	3.14	3.56	2.36

Note: Dry Catch Only

Table 2a. Summary of the Results of the May 14, 1996 Particulate Emission Engineering Test on the Line 2 Surface Dryer E - Tube Inlet at the Louisiana - Pacific Plant Located in Hayward, Wisconsin.

ITEM		Run 1	Run 2	Run 3
Date of test		05-14-96	05-14-96	05-14-96
Time runs were done	(HRS)	1200/1351	1500/1652	1815/1935
Volumetric flow				
actual	(ACFM)	47903	47567	47772
standard	(DSCFM)	24279	23498	23823
Gas temperature	(DEG-F)	245	243	245
Moisture content	(%V/V)	28.39	30.34	29.57
Gas composition	(%V/V,dry)			
carbon dioxide		4.70	5.00	5.40
oxygen		15.70	15.40	15.00
nitrogen		79.60	79.60	79.60
Isokinetic variation	(%)	100.5	102.9	99.6
Particulate concentration				
actual	(GR/ACF)	0.209	0.198	0.235
standard	(GR/DSCF)	0.413	0.401	0.471
Part. emission rate	(LB/HR)	85.97	80.82	96.15

Note: Dry + Method 202 Condensible Particulate Material

Table 2b. Summary of the Results of the May 14, 1996 Particulate Emission Engineering Test on the Line 2 Surface Dryer E - Tube Inlet at the Louisiana - Pacific Plant Located in Hayward, Wisconsin.

ITEM		Run 1	Run 2	Run 3
Date of test		05-14-96	05-14-96	05-14-96
Time runs were done	(HRS)	1200/1351	1500/1652	1815/1935
Volumetric flow				
actual	(ACFM)	47903	47567	47772
standard	(DSCFM)	24279	23498	23823
Gas temperature	(DEG-F)	245	243	245
Moisture content	(%V/V)	28.39	30.34	29.57
Gas composition	(%V/V,dry)			
carbon dioxide		4.70	5.00	5.40
oxygen		15.70	15.40	15.00
nitrogen		79.60	79.60	79.60
Isokinetic variation	(%)	100.5	102.9	99.6
Particulate concentration				
actual	(GR/ACF)	0.163	0.138	0.156
standard	(GR/DSCF)	0.322	0.280	0.312
Part. emission rate	(LB/HR)	67.03	56.49	63.71

Note: Dry Catch Only

Table 3a. Summary of the Results of the May 14, 1996 Particulate Emission Engineering Test on the Line 2 Core Dryer E - Tube Inlet at the Louisiana - Pacific Plant Located in Hayward, Wisconsin.

ITEM		Run 1	Run 2	Run 3
Date of test		05-14-96	05-14-96	05-14-96
Time runs were done	(HRS)	1200/1352	1500/1653	1815/1931
Volumetric flow				
actual	(ACFM)	51669	52313	51226
standard	(DSCFM)	26870	26756	26388
Gas temperature	(DEG-F)	235	239	240
Moisture content	(%V/V)	27.18	27.98	27.39
Gas composition	(%V/V,dry)			
carbon dioxide		4.20	4.30	4.40
oxygen		16.20	16.00	15.90
nitrogen		79.60	79.70	79.70
Isokinetic variation	(%)	99.4	100.2	99.2
Particulate concentration				
actual	(GR/ACF)	0.177	0.174	0.181
standard	(GR/DSCF)	0.340	0.340	0.352
Part. emission rate	(LB/HR)	78.37	77.87	79.66

Note: Dry + Method 202 Condensible Particulate Material

Table 3b. Summary of the Results of the May 14, 1996 Particulate Emission Engineering Test on the Line 2 Core Dryer E - Tube Inlet at the Louisiana - Pacific Plant Located in Hayward, Wisconsin.

ITEM		Run 1	Run 2	Run 3
Date of test		05-14-96	05-14-96	05-14-96
Time runs were done	(HRS)	1200/1352	1500/1653	1815/1931
Volumetric flow				
actual	(ACFM)	51669	52313	51226
standard	(DSCFM)	26870	26756	26388
Gas temperature	(DEG-F)	235	239	240
Moisture content	(%V/V)	27.18	27.98	27.39
Gas composition	(%V/V,dry)			
carbon dioxide		4.20	4.30	4.40
oxygen		16.20	16.00	15.90
nitrogen		79.60	79.70	79.70
Isokinetic variation	(%)	99.4	100.2	99.2
Particulate concentration				
actual	(GR/ACF)	0.147	0.126	0.134
standard	(GR/DSCF)	0.283	0.247	0.260
Part. emission rate	(LB/HR)	65.22	56.54	58.71

Note: Dry Catch Only

Table 4. Summary of the Results of the May 14, 1996 **Oxides of Nitrogen Determinations** at the Louisiana Pacific Plant in Hayward, Wisconsin.

Date	Time	Concentration (ppm,d)	Emission Rate (LB/HR)
(Line 2 E-Tube Outlet)			
5-14-96	1200-1346	9.2	4.0
5-14-96	1500-1641	8.5	3.7
5-14-96	1815-1920	6.5	2.8
Avg		8.1	3.5
(Line 2 Surface Dryer E-Tube Inlet)			
5-14-96	1200-1346	25.9	4.5
5-14-96	1500-1641	26.4	4.4
5-14-96	1815-1920	22.4	3.8
Avg		24.9	4.3
(Line 2 Core Dryer E-Tube Inlet)			
5-14-96	1200-1346	22.5	4.3
5-14-96	1500-1641	18.8	3.6
5-14-96	1815-1920	20.9	4.0
Avg		20.7	4.0

Table 5. Summary of the Results of the May 14, 1996 **Carbon Monoxide Determinations** at the Louisiana Pacific Plant in Hayward, Wisconsin.

Date	Time	Concentration (ppm,d)	Emission Rate (LB/HR)
(Line 2 E-Tube Outlet)			
5-14-96	1200-1346	1014	268
5-14-96	1500-1641	973	256
5-14-96	1815-1920	1308	346
Avg		1098	290
(Line 2 Surface Dryer E-Tube Inlet)			
5-14-96	1200-1346	1042	110
5-14-96	1500-1641	928	95
5-14-96	1815-1920	1079	112
Avg		1016	106
(Line 2 Core Dryer E-Tube Inlet)			
5-14-96	1200-1346	788	92
5-14-96	1500-1641	820	96
5-14-96	1815-1920	894	103
Avg		834	97

3 RESULTS

The results of all field and laboratory evaluations are presented in this section. Gas composition results (Orsat and moisture) are presented first followed by the computer printout of the gas composition, particulate, oxides of nitrogen, carbon monoxide determinations . Preliminary measurements including test port locations are given in the appendices.

The results have been calculated on a personal computer using programs written in Extended BASIC specifically for source testing calculations. EPA-published equations have been used as the basis of the calculation techniques in these program. Emission rates have been calculated using the product of the concentration times flow method.

3.1 Results of Orsat and Moisture Analyses

Test No. 1
Line 2 E-Tube Outlet

Results of Orsat & Moisture Analyses-----Methods 3 & 4(%v/v)

Date of run	Run 1 05-14-96	Run 2 05-14-96	Run 3 05-14-96
Dry basis (orsat)			
carbon dioxide.....	4.00	3.80	3.70
oxygen.....	16.50	16.50	16.70
nitrogen.....	79.50	79.70	79.60
Wet basis (orsat)			
carbon dioxide.....	2.95	2.79	2.77
oxygen.....	12.18	12.12	12.49
nitrogen.....	58.70	58.54	59.54
water vapor.....	26.17	26.55	25.20
Dry molecular weight.....	29.30	29.27	29.26
Wet molecular weight.....	26.34	26.28	26.42
Specific gravity.....	0.910	0.908	0.913
Water mass flow.....(LB/HR)	60286	61218	57397
FO	1.100	1.158	1.135

Test No. 3
Line 2 Surface Dryer E-Tube Inlet

Results of Orsat & Moisture Analyses-----Methods 3 & 4(%v/v)

Date of run	Run 1 05-14-96	Run 2 05-14-96	Run 3 05-14-96
Dry basis (orsat)			
carbon dioxide.....	4.70	5.00	5.40
oxygen.....	15.70	15.40	15.00
nitrogen.....	79.60	79.60	79.60
Wet basis (orsat)			
carbon dioxide.....	3.37	3.48	3.80
oxygen.....	11.24	10.73	10.57
nitrogen.....	57.01	55.45	56.07
water vapor.....	28.39	30.34	29.57
Dry molecular weight.....	29.38	29.42	29.46
Wet molecular weight.....	26.15	25.95	26.07
Specific gravity.....	0.903	0.896	0.901
Water mass flow.....(LB/HR)	26993	28706	28050
FO	1.106	1.100	1.093

Test No. 5
Line 2 Core Dryer E-Tube Inlet

Results of Orsat & Moisture Analyses-----Methods 3 & 4(%v/v)

	Run 1	Run 2	Run 3
Date of run	05-14-96	05-14-96	05-14-96
Dry basis (orsat)			
carbon dioxide.....	4.20	4.30	4.40
oxygen.....	16.20	16.00	15.90
nitrogen.....	79.60	79.70	79.70
Wet basis (orsat)			
carbon dioxide.....	3.06	3.10	3.19
oxygen.....	11.80	11.52	11.55
nitrogen.....	57.97	57.40	57.87
water vapor.....	27.18	27.98	27.39
Dry molecular weight.....	29.32	29.33	29.34
Wet molecular weight.....	26.24	26.16	26.23
Specific gravity.....	0.907	0.904	0.906
Water mass flow.....(LB/HR)	28129	29152	27920
FO	1.119	1.140	1.136

3.2 Results of Particulate Loading Determinations

Test No. 1
Line 2 E-Tube Outlet

Results of Particulate Loading Determinations-------Method 5

	Run 1	Run 2	Run 3
Date of run	05-14-96	05-14-96	05-14-96
Time run start/end.....(HRS)	1200/1350	1500/1652	1815/1938
Static pressure.....(IN.WC)	-1.50	-1.50	-1.50
Cross sectional area (SQ.FT)	22.87	22.87	22.87
Pitot tube coefficient.....	.840	.840	.840
Water in sample gas			
condenser.....(ML)	0.0	0.0	0.0
impingers.....(GRAMS)	272.0	275.0	247.0
desiccant.....(GRAMS)	10.0	12.0	13.0
total.....(GRAMS)	282.0	287.0	260.0
Total particulate material..			
.....collected(grams)	0.0601	0.0519	0.0513
Gas meter coefficient.....	1.0005	1.0005	1.0005
Barometric pressure..(IN.HG)	28.93	28.93	28.93
Avg. orif.pres.drop..(IN.WC)	0.87	0.88	0.82
Avg. gas meter temp..(DEF-F)	68.8	73.1	70.8
Volume through gas meter....			
at meter conditions...(CF)	38.77	39.00	37.76
standard conditions.(DSCF)	37.52	37.44	36.40
Total sampling time....(MIN)	72.00	72.00	72.00
Nozzle diameter.....(IN)	.189	.189	.189
Avg.stack gas temp ..(DEG-F)	162	163	165
Volumetric flow rate.....			
actual.....(ACFM)	100505	100769	99846
dry standard.....(DSCFM)	60642	60377	60753
Isokinetic variation.....(%)	100.9	101.1	97.7
Particulate concentration...			
actual.....(GR/ACF)	0.01491	0.01281	0.01323
dry standard.....(GR/DSCF)	0.02472	0.02139	0.02175
Particle mass rate...(LB/HR)	12.848	11.071	11.325

Test No. 3
Line 2 Surface Dryer E-Tube Inlet

Results of Particulate Loading Determinations-------Method 5

	Run 1	Run 2	Run 3
Date of run	05-14-96	05-14-96	05-14-96
Time run start/end.....(HRS)	1200/1351	1500/1652	1815/1935
Static pressure.....(IN.WC)	-9.00	-9.00	-9.00
Cross sectional area (SQ.FT)	9.62	9.62	9.62
Pitot tube coefficient.....	.840	.840	.840
Water in sample gas			
condenser.....(ML)	0.0	0.0	0.0
impingers.....(GRAMS)	284.0	313.0	296.0
desiccant.....(GRAMS)	18.0	16.0	15.0
total.....(GRAMS)	302.0	329.0	311.0
Total particulate material..			
.....collected(grams)	0.9618	0.9263	1.0660
Gas meter coefficient.....	0.9935	0.9935	0.9935
Barometric pressure..(IN.HG)	28.93	28.93	28.93
Avg. orif.pres.drop..(IN.WC)	0.80	0.78	0.75
Avg. gas meter temp..(DEF-F)	59.7	55.6	58.1
Volume through gas meter....			
at meter conditions...(CF)	36.75	36.15	35.63
standard conditions.(DSCF)	35.93	35.62	34.93
Total sampling time....(MIN)	72.00	72.00	72.00
Nozzle diameter.....(IN)	.190	.190	.190
Avg.stack gas temp ..(DEG-F)	245	243	245
Volumetric flow rate.....			
actual.....(ACFM)	47903	47567	47772
dry standard.....(DSCFM)	24279	23498	23823
Isokinetic variation.....(%)	100.5	102.9	99.6
Particulate concentration...			
actual.....(GR/ACF)	0.20928	0.19815	0.23471
dry standard.....(GR/DSCF)	0.41309	0.40128	0.47085
Particle mass rate...(LB/HR)	85.966	80.821	96.146

Test No. 5
Line 2 Core Dryer E-Tube Inlet

Results of Particulate Loading Determinations-------Method 5

	Run 1	Run 2	Run 3
Date of run	05-14-96	05-14-96	05-14-96
Time run start/end.....(HRS)	1200/1352	1500/1653	1815/1931
Static pressure.....(IN.WC)	-11.00	-11.00	-11.00
Cross sectional area (SQ.FT)	9.62	9.62	9.62
Pitot tube coefficient.....	.840	.840	.840
Water in sample gas			
condenser.....(ML)	0.0	0.0	0.0
impingers.....(GRAMS)	297.0	307.0	307.0
desiccant.....(GRAMS)	21.0	25.0	8.0
total.....(GRAMS)	318.0	332.0	315.0
Total particulate material..			
.....collected(grams)	0.8860	0.8868	0.8987
Gas meter coefficient.....	1.0019	1.0019	1.0019
Barometric pressure..(IN.HG)	28.93	28.93	28.93
Avg. orif.pres.drop..(IN.WC)	1.01	1.01	0.97
Avg. gas meter temp..(DEF-F)	62.5	62.9	62.0
Volume through gas meter....			
at meter conditions...(CF)	40.95	41.11	40.10
standard conditions.(DSCF)	40.17	40.30	39.37
Total sampling time....(MIN)	72.00	72.00	72.00
Nozzle diameter.....(IN)	.192	.192	.192
Avg.stack gas temp ..(DEG-F)	235	239	240
Volumetric flow rate.....			
actual.....(ACFM)	51669	52313	51226
dry standard.....(DSCFM)	26870	26756	26388
Isokinetic variation.....(%)	99.4	100.2	99.2
Particulate concentration...			
actual.....(GR/ACF)	0.17689	0.17359	0.18135
dry standard.....(GR/DSCF)	0.34029	0.33953	0.35218
Particle mass rate...(LB/HR)	78.373	77.867	79.657

3.3 Results of Oxides of Nitrogen Determinations

Test No. 2
Line 2 E-Tube Outlet

Results of Oxides of Nitrogen Determinations——————————Method7E

	Run 1	Run 2	Run 3
Date of run	5-14-96	5-14-96	5-14-96
Time run start/end (HRS)	1200-1346	1500-1641	1815-1920
Total sampling time (MIN)	60	60	60
Moisture content (%V/V)	26.2	26.6	25.2
Oxygen content (%V/V)	16.5	16.5	16.3
Volumetric flow rate (DSCFM)	60642	60377	60753
NO_x concentration (ppm,d)	9.2	8.5	6.5
NO_x emission rate (LB/HR)	4.0	3.7	2.8

Test No. 4
Line 2 Surface Dryer E-Tube Inlet

Results of Oxides of Nitrogen Determinations——————————Method7E

	Run 1	Run 2	Run 3
Date of run	5-14-96	5-14-96	5-14-96
Time run start/end (HRS)	1200-1346	1500-1641	1815-1920
Total sampling time (MIN)	60	60	60
Moisture content (%V/V)	28.4	30.3	29.6
Oxygen content (%V/V)	16.1	16.2	15.9
Volumetric flow rate (DSCFM)	24279	23498	23823
NO_x concentration (ppm,d)	25.9	26.4	22.4
NO_x emission rate (LB/HR)	4.5	4.4	3.8

Test No. 6
Line 2 Core Dryer E-Tube Inlet

Results of Oxides of Nitrogen Determinations——————————————Method7E

	Run 1	Run 2	Run 3
Date of run	5-14-96	5-14-96	5-14-96
Time run start/end (HRS)	1200-1346	1500-1641	1815-1920
Total sampling time (MIN)	60	60	60
Moisture content (%V/V)	27.2	28.0	27.4
Oxygen content (%V/V)	15.0	15.3	14.5
Volumetric flow rate (DSCFM)	26870	26756	26388
NO_x concentration (ppm,d)	22.5	18.8	20.9
NO_x emission rate (LB/HR)	4.3	3.6	4.0

3.4 Results of Carbon Monoxide Determinations

Interpoll Labs Report No. 6-7684
Geoenergy / Louisiana Pacific Corporation
Hayward, Wisconsin

Test No. 2
Line 2 E-Tube Outlet

Results of Carbon Monoxide Determinations——————————Method10

	Run 1	Run 2	Run 3
Date of run	5-14-96	5-14-96	5-14-96
Time run start/end (HRS)	1200-1346	1500-1641	1815-1920
Total sampling time (MIN)	60	60	60
Moisture content (%V/V)	26.2	26.6	25.2
Oxygen content (%V/V)	16.5	16.5	16.3
Volumetric flow rate (DSCFM)	60642	60377	60753
CO concentration (ppm,d)	1014	973	1308
CO emission rate (LB/HR)	268	256	346

Test No. 4
Line 2 Surface Dryer E-Tube Inlet

Results of Carbon Monoxide Determinations——————————————Method10

	Run 1	Run 2	Run 3
Date of run	5-14-96	5-14-96	5-14-96
Time run start/end (HRS)	1200-1346	1500-1641	1815-1920
Total sampling time (MIN)	60	60	60
Moisture content (%V/V)	28.4	30.3	29.6
Oxygen content (%V/V)	16.1	16.2	15.9
Volumetric flow rate (DSCFM)	24279	23498	23823
CO concentration (ppm,d)	1042	928	1079
CO emission rate (LB/HR)	110	95	112

Test No. 6
Line 2 Core Dryer E-Tube Inlet

Results of Carbon Monoxide Determinations——————————————Method10

	Run 1	Run 2	Run 3
Date of run	5-14-96	5-14-96	5-14-96
Time run start/end (HRS)	1200-1346	1500-1641	1815-1920
Total sampling time (MIN)	60	60	60
Moisture content (%V/V)	27.2	28.0	27.4
Oxygen content (%V/V)	15.0	15.3	14.5
Volumetric flow rate (DSCFM)	26870	26756	26388
CO concentration (ppm,d)	788	820	894
CO emission rate (LB/HR)	92	96	103

4 RESULTS OF NITRATE ANALYSES

INTERPOLL LABORATORIES, INC.
(612)786-6020

Louisiana Pacific, Hayward
Laboratory Log No. 7684

Results of Nitrate Analysis

Log No.	Sample Identification	Sample Type	Nitrate[a] (mg/L)
7684-22	Recycle	Water	3300
7684-23	Recycle	Water	3200

Respectfully submitted,

David J. Schneider, Manager
Chemistry Department

DJS/cg

[a]Analysis performed by EPA Method 300.0.

INTERPOLL LABORATORIES, INC.
(612) 786-6020

Sample Chain of Custody

Job GEOENERGY Source LINE 2 CORE Site E-TUBES Log No. 7684
Field Engineer SB Date of Test 5-14-96 Test No. ? No. of Runs

No. Items	Sample Type	Analysis	Sequence No.	Comments
	Probe Wash: ☐ Acetone ☐DI Water ☐ $MeCl_2$ ☐_____	☐EPA M-5 ☐EPA M-201A ☐EPA M-29 ☐_____		
	Filter: ☐ 4" Glass ☐Pallflex ☐ SS Thimble ☐2.5" Glass	☐EPA M-5 ☐EPA M-17 ☐EPA M-29 ☐EPA M-201A		
	Impingers: ☐DI Water ☐H_2SO_4 ☐3%H_2O_2 ☐HNO_3/H_2O_2 ☐1N NaOH ☐$KMnO_4/H_2SO_4$ ☐2,4-DNPH ☐_____	☐MN Protocol ☐IA Protocol ☐WI Protocol ☐Formaldehyde ☐EPA M-202 ☐EPA M-29 ☐EPA M6,8 ☐EPA M-26 ☐Acid Gases ☐_____		
	Integrated Gas: ☐Tedlar Bag ☐_____	☐EPA M-3 ☐EPA M-10 ☐_____		
	Oxides of Nitrogen:	☐EPA M-7A ☐_____		
	Fuel Lab: ☐Fuel Sample ☐Aggregate	☐Per S-0163		
	Particle Sizing:	☐X-Ray Sdgraph ☐Cascade Imp ☐_____		
2	**Miscellaneous:** ☒ H2O RECYCLE	☐ MTM ATC 5		ANY QUESTION SEE KON

Fuel Type: Coal: ☐Bituminous ☐Anthracite ☐Lignite Wood: ☐Wood Waste ☐Dust ☐Bark Oil: ☐Waste Oil ☐No. 2 ☐No. 6 Misc: ☐Natural Gas ☐RDF ☐_____

Relinquished by/Affiliation	Accepted by/Affiliation	Date
James Burnett	Chad / Interpoll 1315	5-15-96

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APPENDIX A

RESULTS OF VOLUMETRIC FLOW RATE DETERMINATIONS

Test No. 3
Line 2 Surface Dryer E-Tube Inlet

Results of Volumetric Flow Rate Determination-------Method 2

Date of Determination.....	05-14-96
Time of Determination.....(HRS)	1130
Barometric pressure.....(IN.HG)	28.93
Pitot tube coefficient.....	.84
Number of sampling ports.....	1
Total number of points.....	6
Shape of duct.....	Round
Stack diameter.....(IN)	42
Duct area.....(SQ.FT)	9.62
Direction of flow.....	HORIZONTAL
Static pressure.....(IN.WC)	-9
Avg. gas temp.....(DEG-F)	242
Moisture content.....(% V/V)	28.69
Avg. linear velocity.....(FT/SEC)	84.1
Gas density.....(LB/ACF)	.04819
Molecular weight.....(LB/LBMOLE)	29.38
Mass flow of gas.....(LB/HR)	140456
Volumetric flow rate.....	
actual.....(ACFM)	48575
dry standard.....(DSCFM)	24614

Test No. 5
Line 2 Core Dryer E-Tube Inlet

Results of Volumetric Flow Rate Determination-------Method 2

Date of Determination.....	05-14-96
Time of Determination.....(HRS)	1130
Barometric pressure.....(IN.HG)	28.93
Pitot tube coefficient.....	.84
Number of sampling ports.....	2
Total number of points.....	12
Shape of duct.....	Round
Stack diameter.....(IN)	42
Duct area.....(SQ.FT)	9.62
Direction of flow.....	HORIZONTAL
Static pressure.....(IN.WC)	-11
Avg. gas temp.....(DEG-F)	239
Moisture content.....(% V/V)	25.86
Avg. linear velocity.....(FT/SEC)	90.2
Gas density.....(LB/ACF)	.04866
Molecular weight.....(LB/LBMOLE)	29.32
Mass flow of gas.....(LB/HR)	152086
Volumetric flow rate.....	
actual.....(ACFM)	52093
dry standard.....(DSCFM)	27419

APPENDIX B

FIELD DATA SHEETS

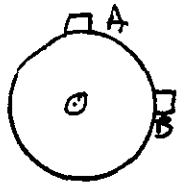
TABLE OF CONTENTS

INTERPOLL LABORATORIES, INC.
(612) 786-6020

EPA Method 2 Field Data Sheet

ob C.P. Haymark / Greening
Source Line 2 Dryer-RTO Inlet
Test 1 Run 0 Date 5-14-96
Stack Dimen. 64.75 IN.
Dry Bulb °F Wet bulb °F
Manometer ☒ Reg. ☐ Exp ☐ Elec.
Barometric Pressure 28.93 IN.HG
Static Pressure -1.5 IN.WC
Operators E. Sivers J. Lorenz
Pitot No. 29V-8 C_p .870

Drawing of Test Site

Cross-section View	Elevation View
	

Traverse Point No.	Fraction of Diameter	Distance From Stack Wall (IN.)	Distance From End of Port (IN.)	Velocity	Temp. of Gas
		Port Length: 8 5 IN.		Time Start:	HRS
A 1	.021	1.35	9.86		
2	.067	4.34	12.84		
3	.118	7.64	16.14		
4	.177	11.46	19.96		
5	.250	16.19	24.69		
6	.356	23.05	31.55		
7	.644	41.70	50.20		163
8	.750	48.56	57.06		
9	.823	53.29	61.79		
10	.882	57.11	65.61		
11	.933	60.41	68.91		
12	.979	63.39	71.89		
B 1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Temp. Meas. Device & S/N: PDT 42 Time End: HRS

R or nothing = reg. manometer; S = expanded; E = electronic

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INT[illegible]ORATORIES INC.
(61[illegible]786-6020

EPA Method 5 Field Data Sheet

Job L.P. Hayward / Cogenergy
Source Line 2 Dryer RTO Inlet
Date 5-14-96 Test 1 Run 1

Operators EJ JL
Meter Box No. 2 ΔH@ 1.902 in.WC
Gasmeter Coeff. 1.0005

Nozzle No. B-3
Nozzle Dia. .189 in.
Bar. Press. 28.91 in.Hg

Pitot No. 29-40
C_p .840
H_2O 25 %

Traverse Point No.	Sampling Time (min)	Sample Vol. (cf)	Velocity Head (in.WC)	Orifice Meter (in.WC)	Des. Vol. (cf)	VAC. (in.Hg)	Temperatures (°F) Stack	Probe	Oven	Imp.	Gas/In	Gas/Out	Oxygen (% v/v)
	(1200)	(718.40)											
B 12	3	720.11	1.4	.95	0.10	5.5	162	231	267	37	58	56	17.4
11	6	721.77	1.45	.96	1.79	5.5	163				68	69 58	17.2
10	9	723.48	1.5	1.00	3.52	6	163	234	268	39	66	58	17.1
9	12	725.19	1.55	1.04	5.29	6	163				69	59	16.9
8	15	726.90	1.45	.97	7.00	6	163	231	264	40	72	59	17.3
7	18	728.56	1.35	.91	8.66	6	163				73	60	16.8
6	21	730.16	1.25	.84	0.26	5.5	162	227	261	41	75	60	17.3
5	24	731.73	1.2	.81	1.83	5.5	162				77	60	17.0
4	27	733.30	1.2	.81	3.41	5.5	162	230	266	44	78	61	16.9
3	30	734.85	1.2	.82	4.99	5.5	161				79	62	16.9
2	33	736.37	1.1	.75	6.50	5	161	226	260	44	79	62	16.7
1	36	737.85	1.05	.71	7.98	5	162				80	63	16.7
A 12	39	739.66	1.5	1.02	9.75	6.5	165	234	261	45	69	65	17.3
11	42	741.49	1.5	1.01	1.50	6.5	165				66	65	16.8
10	45	743.28	1.55	1.05	3.28	6.5	160	231	260	40	71	65	17.1
9	48	745.06	1.5	1.02	5.03	6	162				73	65	16.9
8	51	746.77	1.5	1.02	6.80	6	162	230	260	42	76	65	16.2
7	54	748.50	1.5	1.02	8.56	6	163				78	65	16.5
6	57	750.12	1.2	.82	0.15	5.5	161	234	251	43	80	66	17.2
5	60	751.56	1.05	.72	1.63	5	161				80	67	16.1
4	63	753.06	1.05	.72	3.12	5	162	232	259	43	82	67	17.3
3	66	754.51	1.0	.68	4.57	5	162				83	67	17.2
2	69	755.90	.91	.62	5.96	5	163	234	251	41	83	69	16.3
1	72	757.17	.76	.52	7.23	4	163				82	69	17.1
	(1350)												
	0 - 72	V_m = 38.77		ΔH = 87							Avg. = 68.8		

B-3

NTECH LABORATORIES, INC.
(612) 86-6020

EPA Method 5 Field Data Sheet

Job: CP Hayward / Goodyear
Source: Cinder Dryer RTO / Inlet
Date: 5-14-96 Test 1 Run 2

Operators: EJ JL
Meter Box No. 2 ΔH@ 1.72 in.WC
Gasmeter Coeff. 1.0005

Nozzle No. 189 8-3
Nozzle Dia. .189 in.
Bar. Press. 28.93 in.Hg

Pitot No. 29V-8
C_p .840
H_2O 20 21-26 %

Traverse Point No.	Sampling Time (min)	Sample Vol. (cf)	Velocity Head (in.WC)	Orifice Meter (in.WC)	Des. Vol. (cf)	VAC. (in.Hg)	Temperatures (°F) Stack	Probe	Oven	Imp.	Gas/In	Gas/Out	Oxygen (% v/v)
	(1500)	759.40											
A 12	3	761.13	1.5	1.11	1.23	4	164	230	259	37	66	66	16.5
11	6	763.90	1.6	1.18	3.12	5	163				70	66	16.9
10	9	764.86	1.55	1.14	4.98	6	163	227	256	39	75	66	16.8
9	12	766.78	1.6	1.19	6.89	6	162				78	66	17.2
8	15	768.62	1.5	1.00	8.63	5	164	232	260	38	67	65	17.2
7	18	770.30	1.5	.99	0.36	5	164				69	65	17.3
6	21	772.94	1.35	.89	2.01	5	164	230	261	39	73	65	16.6
5	24	773.40	1.05	.69	3.46	4	163				75	65	17.0
4	27	774.89	1.05	.70	4.92	4	163	234	264	41	77	66	17.0
3	30	776.32	1.05	.70	6.39	4	164				78	66	17.0
2	33	777.75	.93	.62	7.76	4	163	227	260	42	79	67	16.9
1	36	778.75	.50	.33	8.78	3	162				80	67	17.1
B 12	39	780.40	1.3	.87	0.41	5.5	162	231	260	40	72	68	17.0
11	42	782.05	1.4	.93	2.10	5.5	165				81	68	16.8
10	45	783.76	1.45	.97	3.83	6	165	228	261	42	82	69	16.7
9	48	785.48	1.5	1.00	5.58	6	164				83	69	16.8
8	51	787.26	1.5	1.01	7.35	6	162	231	260	41	84	69	16.8
7	54	788.91	1.3	.87	8.99	6	164				85	69	16.7
6	57	790.55	1.4	.94	0.69	6	164	230	265	42	85	70	16.9
5	60	792.30	1.4	.94	2.40	6	164				85	70	16.6
4	63	793.94	1.3	.87	4.05	6	163	234	266	43	85	70	17.2
3	66	795.48	1.1	.74	5.56	5.5	163				85	71	17.0
2	69	797.01	1.1	.74	7.08	5.5	164	226	258	44	85	71	16.5
1	72	798.40	.95	.64	8.49	5	164				85	71	17.2
	(1652)												
	0 - 72	V_m - 39		ΔH - .88							Avg. - 73.1		

Changed mc% to 26

B-5

INTERMOLL LABORATORIES, INC.
(612) 936-6020

EPA Method 5 Field Data Sheet

Job C.P. Hayward / Geomatrix
Source Line 2 Dryer RTO / Inlet
Date 5-14-96 Test 1 Run 5

Operators EJ JL
Meter Box No. 2 ΔH@ 1.72 in.WC
Gasmeter Coeff. 1.0005

Nozzle No. S-3
Nozzle Dia. .189 in.
Bar. Press. 28.93 in.Hg

Pitot No. 29V-8
C_p .840
H_2O 26.5 %

Traverse Point No	Sampling Time (min)	Sample Vol. (cf)	Velocity Head (in.WC)	Orifice Meter (in.WC)	Des. Vol. (cf)	VAC. (in.Hg)	Temperatures (°F) Stack	Probe	Oven	Imp.	Gas/In	Gas/Out	Oxygen (% v/v)
	(1815)	(800.20)											
A 12	3	801.89	1.5	.99	1.94	4.5	165	228	248	58	62	62	16.7
11	6	803.54	1.5	.96	3.64	5	166				65	61	17.1
10	9	805.30	1.6	1.03	5.40	5.5	166	231	258	39	68	61	16.9
9	12	807.05	1.6	1.03	7.17	5.5	167				70	61	16.9
8	15	808.74	1.4	.91	8.83	5	165	234	266	41	72	61	17.6
7	18	810.49	1.5	.97	0.54	5	166				74	61	17.8
6	21	812.00	1.05	.68	1.98	3.5	166	230	265	40	72	63	18.5
5	24	813.45	1.05	.68	3.43	3.5	166				75	63	18.4
4	27	814.90	1.05	.68	4.87	4	166	234	264	41	78	63	18.0
3	30	816.35	1.05	.68	6.32	4	166				78	64	17.1
2	33	817.74	1.00	.65	7.73	4	167	228	260	42	78	64	16.7
1	36	818.98	.74	.48	8.95	4	165				80	65	16.8
B 12	39	820.47	1.15	.75	0.48	5	165	225	264	40	73	65	17.3
11	42	822.13	1.4	.91	2.15	5.5	166				79	66	17.2
10	45	823.76	1.4	.92	3.83	5.5	164	231	265	41	80	66	17.1
9	48	825.46	1.5	.99	5.57	6	165				81	66	16.6
8	51	827.14	1.4	.92	7.25	6	164	236	266	43	82	67	17.0
7	54	828.78	1.4	.92	8.94	6	164				83	66	16.9
6	57	830.50	1.35	.89	0.60	5.5	164	231	260	44	83	67	17.4
5	60	832.08	1.3	.86	2.22	5.5	165				83	67	17.4
4	63	833.51	1.2	.79	3.79	5.5	165	230	261	45	84	68	16.9
3	66	835.03	1.1	.73	5.29	5.5	165				82	69	17.4
2	69	836.50	1.1	.73	6.79	5.5	164	228	260	44	82	68	17.5
1	72	838.06	.94	.62	8.17	5	164				83	69	17.1
	(1938)												
	0 - 72	V_m = 37.86		ΔH = .82							Avg. = 70.8		

Good LK. Chk. 810.54 810.64

B-7

5

INTERPOLL LABORATORIES, INC.
(612) 786-6020

Interpoll Laboratories EPA Method 5/17 Sample Log Sheet

Job LP/Hayward Date 5-14-96 Test 3 Run 1
Source Line 2 Surface Dryer E-Tube In No. of traverse points 12
Method 5 Filter holder: S.S. Filter type: S.S. Thimble

Sample Train Leak Check:

Pretest: ≤ 0.02 cfm at 15 IN.HG (vac) ☒
Post test: 0.00 cfm at 16 IN. HG (vac) ☒

Particulate Catch Data:

No. of filters used: 3Y & 10

Recovery solvent(s)
☒ acetone
☐ other(s)

No. of probe wash bottles: 1
Sample recovered by: SF

Condensate Data:

Item	Weight (g)		
	Final	Tare	Difference
Impinger No. 1			
Impinger No. 2	769	485	284
Impinger No. 3			
Condenser			
Desiccant	1328	1310	18
Total			302

Integrated Gas Sampling Data:

Bag Pump No. 223 Box No. 24 Bag No. 1
Bag Material: 5-layer Aluminized Tedlar Size: 44 L
Pretest leak check: 0.00 cc/min at 16 IN.HG
Time start: 1200 (HRS) Time end: 1351 (HRS)
Sampling rate: 400 cc/min Operator: SF

S/N of O_2 Analyzer used to monitor train outlet: 8

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INTERPOLL LABORATORIES, INC.
(612) 786-6020

Interpoll Laboratories EPA Method 5/17 Sample Log Sheet

Job CP/Hayward Date 5-14-96 Test 3 Run 2
Source Line 2 Surface Dryer E. Tube I.L. No. of traverse points 12
Method 5 Filter holder: S-J Filter type: S.S. Thimble

Sample Train Leak Check:

Pretest: ≤ 0.02 cfm at 15 IN.HG (vac) ☒
Post test: 0.00 cfm at 17 IN. HG (vac) ☒

Particulate Catch Data:

No. of filters used: 8

Recovery solvent(s)
☒ acetone
☐ other(s)

No. of probe wash bottles: 1
Sample recovered by: SF

Condensate Data:

Item	Weight (g)		
	Final	Tare	Difference
Impinger No. 1	703	496	207
Impinger No. 2	299	193	106
Impinger No. 3			
Condenser			
Desiccant	1451	1435	16
Total			329

Integrated Gas Sampling Data:

Bag Pump No. 228 Box No. 24 Bag No. 2
Bag Material: 5-layer Aluminized Tedlar Size: 44 L
Pretest leak check: 0.00 cc/min at 16 IN.HG
Time start: 1500 (HRS) Time end: 1652 (HRS)
Sampling rate: 400 cc/min Operator: SF

S/N of O_2 Analyzer used to monitor train outlet: 8

052394-G:\STACK\WP\FORMS\S-0046RR

INTERPOLL LABORATORIES, INC.
(612) 786-6020

Interpoll Laboratories EPA Method 5/17 Sample Log Sheet

Job LP/Hayward
Date 5-14-96 Test 3 Run 3
Source Line 2 Surface Dryer S-Tube Inlet
No. of traverse points 12
Method 5 Filter holder: S.S.
Filter type: S.S. Thimble

Sample Train Leak Check:

Pretest: ≤ 0.02 cfm at 15 IN.HG (vac) ☒
Post test: 0.00 cfm at 16 IN. HG (vac) ☒

Particulate Catch Data:

No. of filters used: 14

Recovery solvent(s)
☒ acetone
☐ other(s)

No. of probe wash bottles: 1
Sample recovered by: SF

Condensate Data:

Item	Weight (g)		
	Final	Tare	Difference
Impinger No. 1	681	490	191
Impinger No. 2	300	195	105
Impinger No. 3			
Condenser			
Desiccant	1343	1328	15
Total			311

Integrated Gas Sampling Data:

Bag Pump No. 223
Box No. 24 Bag No. 3
Bag Material: 5-layer Aluminized Tedlar
Size: 44 L
Pretest leak check: 0.00 cc/min at 16 IN.HG
Time start: 1815 (HRS) Time end: 1935 (HRS)
Sampling rate: 400 cc/min Operator: SF

S/N of O_2 Analyzer used to monitor train outlet: 8

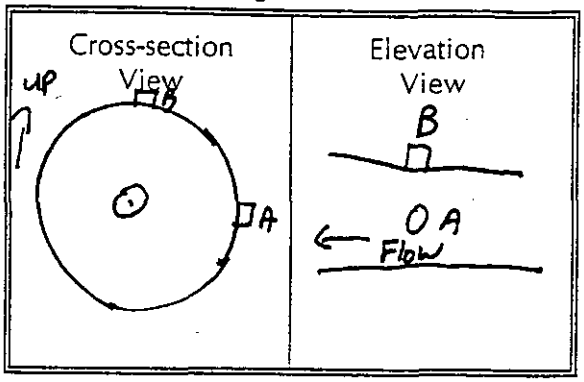
052394-G:\STACK\WP\FORMS\S-0046RR

INTERPOLL LABORATORIES, INC.
(612) 786-6020

EPA Method 2 Field Data Sheet

Job: GeoEnergy / LP Hayward
Source: Line 2 Coke Dryer / Tube Inlet
Test: 5 Run Date: 5/14/96
Stack Dimen.: 42 IN.
Dry Bulb: 239 °F Wet bulb: 153 °F
Manometer: ☒ Reg. ☐ Exp ☐ Elec.
Barometric Pressure: 28.93 IN.HG
Static Pressure: −11 IN.WC
Operators: SK + MP
Pitot No.: U31-6 C_p: .84

Drawing of Test Site



Traverse Point No.	Fraction of Diameter	Distance From Stack Wall (IN.)	Distance From End of Port (IN.)	Velocity	Temp. of Gas
		Port Length: 9 IN.		Time Start: HRS	
A 1	.044	1.848	10.848	1.10	239
2	.146	6.13	15.13	1.50	
3	.296	12.43	21.43	1.70	
4	.704	29.57	38.57	2.00	
5	.854	35.87	44.87	1.80	
6	.956	40.15	49.15	1.40	
B 1				1.90	
2				1.60	
3				1.80	
4				2.05	
5				1.85	
6				1.55	

Temp. Meas. Device & S/N: 49
Time End: HRS

R or nothing = reg. manometer; S = expanded; E = electronic

032594-G:\STACK\WP\FORMS\S-392.1

INTERPOLL LABORATORIES, INC.
(612) 786-6020

EPA Method 5 Field Data Sheet

Job: GEO Energy/LP Hayward
Source: Unit 2 Coal Feeder ETUBE Inlet
Date: 5/14/96 Test: 5 Run: 1

Operators: SK
Meter Box No.: 8 ΔH@ 1.77 in.WC
Gasmeter Coeff.: 1.0019

Nozzle No.: 9-3
Nozzle Dia.: .192 in.
Bar. Press.: 28.93 in.Hg

Pitot No.: U31-6
C_p: .84
H_2O: 28 %

Traverse Point No.	Sampling Time (min)	Sample Vol. (cf)	Velocity Head (in.WC)	Orifice Meter (in.WC)	Des. Vol. (cf)	VAC. (in.Hg)	Temperatures (°F) Stack	Probe	Oven	Imp.	Gas/In	Gas/Out	Oxygen (% v/v)
	(1200)	654.800											
B 6	3	656.730	1.80	1.18	6.64	5	209	250	248	37	54	54	15.8
SK 6	6	658.610	1.20	1.32	8.59	5	222				57	54	16.5
5	9	660.490	2.00	1.21	0.45	6	222	251	250	36	58	54	16.2
5	12	662.330	2.05	1.21	2.32	7	238				59	54	16.2
4	15	664.190	2.00	1.18	4.16	8	238	250	246	37	63	54	16.1
SK 4	18	666.06	2.00	1.19	6.02	8	238				64	54	16.2
3	21	667.92	1.95	1.16	7.85	8	238	248	250	39	65	54	15.2
3	24	669.70	1.75	1.04	9.58	9	238				66	55	15.4
2	27	670.90	.79	.47	0.75	6	248	250	248	39	67	55	15.7
2	30	672.10	.83	.49	1.95	5	240				67	55	16.0
1	33	673.45	1.10	.65	3.33	6	240	250	248	39	68	57	16.8
1	36	675.00	1.10	.65	4.72	6	240				70	56	16.5
A 6	(39)	676.54	1.50	.89	6.34	7	240	249	250	39	64	57	16.2
6	42	677.98	1.50	.89	7.94	7	240				65	58	15.9
5	45	679.72	1.70	1.02	9.66	8	234	246	250	39	70	60	16.8
5	48	681.56	1.80	1.09	1.45	9	234				74	62	16.5
4	51	683.37	1.80	1.09	3.24	9	235	250	249	43	75	62	17.0
4	54	685.20	2.05	1.24	5.16	9	236				74	60	15.1
3	57	687.10	2.05	1.24	7.07	10	236	249	250	45	76	60	15.9
3	60	688.86	2.00	1.21	8.96	10	236				76	60	16.8
2	63	690.48	1.65	1.00	0.67	11	236	250	248	45	76	60	17.1
2	66	692.28	1.70	1.03	2.42	11	236				76	59	15.5
1	69	694.06	1.45	.88	4.03	11	236	249	252	46	74	58	16.7
1	72	695.75	1.45	.87	5.63	10	236				74	60	17.1
	(1352)												
	0-72	V_m = 40.95		1.01 ΔH =							Avg. = 62.5		

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L...RPC... LABC...TOR..., INC.
(612) 78. .020

EPA Method 5 Field Data Sheet

Job: GeoEnergy / LP Hayward
Source: Line 2 Core Dryer E Tube Inlet
Date: 5/14/96 Test 5 Run 2

Operators: SK
Meter Box No. 8 ΔH@ 1.77 in.WC
Gasmeter Coeff. 1.0019

Nozzle No. 9-3
Nozzle Dia. .192 in.
Bar. Press. 28.93 in.Hg

Pitot No. V31-6
C_p .84
H_2O 28 %

Traverse Point No.	Sampling Time (min)	Sample Vol. (cf)	Velocity Head (in.WC)	Orifice Meter (in.WC)	Des. Vol. (cf)	VAC. (in.Hg)	Stack (°F)	Probe (°F)	Oven (°F)	Imp. (°F)	Gas/In (°F)	Gas/Out (°F)	Oxygen (% v/v)
	(1500)	696.90											
A 6	3	698.61	2.10	1.26	8.81	4	237	250	247	36	62	57	14
6	6	700.76	2.20	1.31	0.76	6	237				67	57	15.1
5	9	702.57	1.95	1.11	2.55	10	237	249	247	37	69	57	15.7
5	12	704.32	2.00	1.20	4.42	5	237				60	55	16.7
4	15	706.14	2.00	1.19	6.27	6	237	251	250	39	61	55	15.9
4	18	708.02	2.15	1.27	8.19	7	238				66	55	15.9
3	21	709.79	1.65	.98	9.88	7	239	246	252	40	67	55	16.1
3	24	711.55	1.80	1.07	1.65	7	238				68	55	16.2
2	27	713.27	1.50	.89	3.26	7	241	249	247	41	69	56	16.1
2	30	714.87	1.55	.92	4.90	7	241				71	56	15.4
1	33	716.42	1.55	.92	6.55	7	241	250	246	42	71	56	16.1
1	36	718.06	1.50	.89	8.17	7	241				72	57	16.3
B 6	(39)	719.64	1.20	.72	9.62	6	240	246	252	40	70	57	16.0
6	42	721.04	1.20	.72	1.07	8	237				68	57	15.7
5	45	722.88	2.05	1.23	2.96	12	237	246	251	41	69	57	15.7
5	48	724.73	2.00	1.20	4.83	13	237				71	58	15.9
4	51	726.56	1.80	1.08	6.61	13	239	247	252	42	71	58	15.8
4	54	728.39	1.85	1.11	8.41	13	239				71	58	16.0
3	57	730.11	1.50	.90	0.03	12	240	249	250	44	71	59	15.4
3	60	731.63	1.35	.81	1.57	11	240				71	59	16.1
2	63	733.17	1.40	.84	3.14	11	240	250	246	45	71	59	15.9
2	66	734.77	1.45	.87	4.74	12	240				72	59	15.3
1	69	736.34	1.50	.90	6.36	12	240	249	247	45	72	59	17.1
1	72	738.01	1.40	.84	7.94	13	240				72	59	15.5
	(1653)												
	θ = 72	V_m = 41.11		ΔH = 1.01							Avg. = 62.5		

081194-G:\STACK\WP\FORMS\S-518

INTERPOLE LABORATORIES, INC.
(612) 786-6020

EPA Method 5 Field Data Sheet

Job: GeoEnergy / LP Hayward
Source: Unit 2 Coke Dryer ET Tube Inlet
Date: 5/14/96 Test: 5 Run: 3

Operators: SK AMP
Meter Box No.: 8 ΔH@: 1.77 in.WC
Gasmeter Coeff.: 1.0019

Nozzle No.: 9-3
Nozzle Dia.: .192 in.
Bar. Press.: 28.93 in.Hg

Pilot No.: V31-6
C_p: .84
H_2O: 28 %

Traverse Point No.	Sampling Time (min)	Sample Vol. (cf)	Velocity Head (in.WC)	Orifice Meter (in.WC)	Des. Vol. (cf)	VAC. (in.Hg)	Temperatures (°F) Stack	Probe	Oven	Imp.	Gas/In	Gas/Out	Oxygen (% v/v)
	(1915)	739.20											
A 6	3	740.80	1.85	1.110	0.99	4	240	259	260	33	54	54	14.8
6 *	6	742.63	1.75	1.03	2.71	7	238				57	53	15.5
5	9	744.44	1.85	1.09	4.48	8	239	260	261	33	61	54	15.7
5 *	12	746.24	1.80	1.06	6.23	8	241				63	53	14.9
4	15	748.02	2.02	1.19	8.09	8	241	259	264	34	64	54	15.2
4 *	18	749.75	1.85	1.10	9.87	8	237				66	54	15.5
3	21	751.54	1.90	1.07	1.63	8	239	260	261	37	62	55	15.7
3 *	24	753.36	1.80	1.07	3.39	8	239				66	55	15.0
2	27	754.89	1.10	.65	4.77	6	240	260	259	36	69	55	15.7
2 *	30	756.39	1.45	.96	6.36	7	241				70	56	15.9
1	33	757.95	1.45	.96	7.95	7	241	257	248	39	70	56	15.4
1 ◢	36	759.49	1.50	.89	9.56	7	240				71	56	15.5
B 6 ◢	39	761.66	2.45	1.46	1.63	7	240	255	243	39	70	57	13.5
6 *	42	763.19	1.10	.66	3.02	7	240				71	57	16.1
5	45	764.99	1.85	1.11	4.82	7	238	260	250	39	70	58	15.6
5 *	48	766.69	1.85	1.11	6.62	10	238				72	57	15.5
4	51	768.48	2.00	1.20	8.49	11	240	259	248	41	72	58	16.7
4 *	54	770.30	2.05	1.23	0.39	11	240				72	58	16.4
3	57	771.90	1.35	0.81	1.93	9	240	256	250	42	72	58	16.0
3 *	60	773.48	1.45	0.87	3.53	9	240				72	58	16.0
2	63	775.03	1.35	0.81	5.07	9	239	257	252	43	71	58	15.9
2 *	66	776.48	1.15	0.69	6.49	9	239				70	58	16.5
1	69	777.99	1.15	0.69	7.91	9	239	260	253	44	71	59	16.5
1 *	72	779.30	1.15	0.69	9.33	9	239				71	59	15.7
	11930												
	0 - 72	V_m = 40.1		0.97 ΔH =							Avg. = 620		

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APPENDIX C

INTERPOLL LABORATORIES ANALYTICAL DATA

INTERPOLL LABORATORIES, INC.
(612) 786-6020

EPA Method 3 Data Reporting Sheet - Orsat Analysis

Job: GEOENERGY / LP MARYLAND
Team Leader: EJ
Date Submitted: 5-14-96
Test No.: 1
Date of Analysis: 5-17-96

Source: DRYER - RTO
Test Site: INLET
Date of Test: 5-14-96
No. of Runs Completed: 3
Technician: SB

Test/ Run	Sample Log No. and Type	No. of An.	Buret Readings (ml) Zero Pt.	After CO_2	After O_2	Conc. CO_2 %v/v Dry	Conc. O_2 %v/v Dry	F_o
1/1	7684	1	0	4.0	20.5	4.0	16.5	1.10
		2	0	4.0	20.5	4.0	16.5	1.10
	☐B☐F	Avg				4.0	16.5	
1/2	7684	1	0	3.8	20.3	3.8	16.5	1.16
		2	0	3.8	20.3	3.8	16.5	1.16
	☐B☐F	Avg				3.8	16.5	
1/3	7684	1	0	3.7	20.4	3.7	16.7	1.14
		2	0	3.7	20.4	3.7	16.7	1.14
	☐B☐F	Avg				3.7	16.7	
		1						
		2						
	☐B☐F	Avg						
		1						
		2						
	☐B☐F	Avg						
		1						
		2						
	☐B☐F	Avg						
		1						
		2						
	☐B☐F	Avg						
		1						
		2						
	☐B☐F	Avg						
		1						
		2						
	☐B☐F	Avg						

☐ Ambient Air QA Check
☐ Orsat Analyzer System Leak Check
☐ F_o Within EPA M-3 Guidelines for fuel type.

Where $F_o = \frac{20.9 - O_2}{CO_2}$

F = Flask (250 cc all glass)

B = Tedlar Bag (5 layer)

EPA Method 3 Guidelines

Fuel Type	F0 Range
Coal:	
Anthracite/Lignite	1.016-1.130
Bituminous	1.083-1.230
Oil:	
Distillate	1.260-1.413
Residual	1.210-1.370
Gas:	
Natural	1.600-1.836
Propane	1.434-1.586
Butane	1.405-1.553
Wood/Wood Bark	1.000-1.130

INTERPOLL LABORATORIES, INC.
(612) 786-6020

EPA Method 3 Data Reporting Sheet - Orsat Analysis

Job: GEO ENERGY/LP HAYWARD
Team Leader: SK
Date Submitted: 4/14/96
Test No.: 5
Date of Analysis: 5-17-96

Source: CONC DRYER TUBE
Test Site: INLET
Date of Test: 4-4-96
No. of Runs Completed: 3
Technician: SB

Test/ Run	Sample Log No. and Type	No. of An.	Buret Readings (ml) Zero Pt.	After CO_2	After O_2	Conc. CO_2 %v/v Dry	Conc. O_2 %v/v Dry	F_o
5/1	7684	1	0	4.2	20.4	4.2	16.2	1.12
		2	0	4.2	20.4	4.2	16.2	1.12
	☐B☐F	Avg				4.2	16.2	
5/2	7684	1	0	4.3	20.3	4.3	16.0	1.14
		2	0	4.3	20.3	4.3	16.0	1.14
	☐B☐F	Avg				4.3	16.0	
5/3	7684	1	0	4.4	20.3	4.4	15.9	1.14
		2	0	4.4	20.3	4.4	15.9	1.14
	☐B☐F	Avg				4.4	15.9	
		1						
		2						
	☐B☐F	Avg						
		1						
		2						
	☐B☐F	Avg						
		1						
		2						
	☐B☐F	Avg						
		1						
		2						
	☐B☐F	Avg						
		1						
		2						
	☐B☐F	Avg						
		1						
		2						
	☐B☐F	Avg						

☐ Ambient Air QA Check
☐ Orsat Analyzer System Leak Check
☐ F_o Within EPA M-3 Guidelines for fuel type.

Where $F_o = \frac{20.9 - O_2}{CO_2}$

F = Flask (250 cc all glass)

B = Tedlar Bag (5 layer)

EPA Method 3 Guidelines

Fuel Type	F0 Range
Coal:	
Anthracite/Lignite	1.016-1.130
Bituminous	1.083-1.230
Oil:	
Distillate	1.260-1.413
Residual	1.210-1.370
Gas:	
Natural	1.600-1.836
Propane	1.434-1.586
Butane	1.405-1.553
Wood/Wood Bark	1.000-1.130

INTERPOLL LABORATORIES, INC.
(612) 786-6020

Solvent Rinse Data Reporting Sheet

☒ EPA Method 5 Probe Wash ☐ EPA Method 29 Probe Wash ☐ EPA Method 202 Cup & Tube Wash

Job	LP Hayward / [illegible] energy	Source/Site	[illegible] Dryer R/O Inlet
Date Submitted		Test No.	1
Date of Analysis	6-3-98	Technician	SCB

Transport Leakage ☐ None ☒ ______ ml Solvent ______

Test: 1	Run: 0	Dish No: 1	
Log No: 7684-01F		Dish + Sample Wt: 51.9705	g
Volume of Solvent	110 ml	Dish Tare Wt: 51.9702	g
*Solvent Residue	ug/ml	Sample Wt: .0003	g
Test: 1	Run: 1	Dish No: 3	
Vol. of Solvent	150 ml	Dish + Sample Wt: 36.7838	g
Log Number -02F		Dish Tare Wt: 36.7738	g
Comments		Sample Wt: .0100	g
Test: 1	Run: 2	Dish No: 765	
Vol. of Solvent	170 ml	Dish + Sample Wt: 44.2018	g
Log Number -03F		Dish Tare Wt: 44.1906	g
Comments		Sample Wt: .0112	g
Test: 1	Run: 3	Dish No: 119	
Vol. of Solvent	125 ml	Dish + Sample Wt: 47.7729	g
Log Number -04F		Dish Tare Wt: 47.7659	g
Comments		Sample Wt: .0070	g

*Solvent Residue 2.72 ug/ml = [(Sample Wt. .0003 g) (10^6)]/Vol. of Sol. 110 ml

EPA-M5 Acetone Residue Blank Spec. ≤ 7.8 ug/ml

VSB

	RUN 0	RUN 1	RUN 2	RUN 3
Results of Solvent Rinse g	.0003 C-5	.0096	.0107	.0067

INTERPOLL LABORATORIES, INC.
(612) 786-6020

Filter Gravimetrics Reporting Sheet

Fiter Type: ☒ EPA Method 5 ☐ EPA Method 29 ☐ EPA Method 202 ☐ Other _____

Job: LP HAMMOND/Geoenergy
Date Submitted:
Date of Analysis: 6-3-96
Source/Site: LINE 2 DRYER RTO STACK
Test No.: 1
Technician: SLB

Test: 1 Run: 0	Filter No: 0352
Field Blank:	Filter Type: 47mm G.F.
Log No: 7684-01F	Filter + Sample Wt: .1449 g
Color: WHITE	Filter Tare Wt: .1444 g
	Sample Wt: .0005 g
Test: 1 Run: 00	Filter No: 0353
Log No: -01F	Filter Type: 47mm G.F.
Color: WHITE	Filter + Sample Wt: .1451 g
	Filter Tare Wt: .1445 g
	Sample Wt: ~~.0009~~ 0.0006 g
Test: 1 Run: 1	Filter No: 0349
Log No: -02F	Filter Type: 47mm G.F
Color: BROWN	Filter + Sample Wt: .1505 g
	Filter Tare Wt: .1454 g
	Sample Wt: .0051 g
Test: 1 Run: 2	Filter No: 0350
Log No: -03F	Filter Type: 47mm G.F.
Color: BROWN	Filter + Sample Wt: .1486 g
	Filter Tare Wt: .1426 g
	Sample Wt: .0060 g

	RUN 0	RUN 00	RUN 1	RUN 2
Results of Filter Analysis g	.0005	.0006	.0051	.0060

SAB 6/5/96

	RUN	RUN 1	RUN 2	RUN 3
Total Mass g		0.0601	0.0519	0.0513

INTERPOLL LABORATORIES, INC.
(612) 786-6020

Filter Gravimetrics Reporting Sheet

Fiter Type: ☑ EPA Method 5 ☐ EPA Method 29 ☐ EPA Method 202 ☐ Other_____

Job: LP HAYWARD / GEOENERGY
Date Submitted:
Date of Analysis: 6-3-96
Source/Site: LINE 2 DRYER RTO STACK
Test No.: 1
Technician: SLB

Test: 1 Run: 3	Filter No: 0351
Field Blank:	Filter Type: 47mm GF.
Log No: -04F	Filter + Sample Wt: .1491 g
Color: BROWN	Filter Tare Wt: .1451 g
	Sample Wt: .0040 g
Test: Run:	Filter No:
Log No:	Filter Type:
Color:	Filter + Sample Wt: g
	Filter Tare Wt: g
	Sample Wt: g
Test: Run:	Filter No:
Log No:	Filter Type:
Color:	Filter + Sample Wt: g
	Filter Tare Wt: g
	Sample Wt: g
Test: Run:	Filter No:
Log No:	Filter Type:
Color:	Filter + Sample Wt: g
	Filter Tare Wt: g
	Sample Wt: g

VSAB

	RUN 3	RUN	RUN	RUN
Results of Filter Analysis g	.0040			

	RUN	RUN	RUN	RUN
Total Mass g				

INTERPOLL LABORATORIES, INC.
(612) 786-6020

Impinger Catch Data Reporting Sheet

Protocol: ☐Minnesota ☐Wisconsin ☐Iowa ☒EPA Method 202 ☐Other

Job: LP Hayward / Geo energy
Source/Site: Line 2 Surface Dryer E-Tube In
Date Submitted: 5-15-96
Test No.: 3
Date of Analysis: 5-17-96
Technician: MRR/BD

	Solvent Phase	Aqueous Phase
Test: 3 Run: 0	Dish No: 4	Dish No: 32
Log No: 7684-08I	Dish + Sample Wt: 47.3822 g	Dish + Sample Wt: 57.8100 g
Color & Appearance: clear	Dish Tare Wt: 47.3822 g	Dish Tare Wt: 57.8097 g
impinger and rinse	Fraction Wt: 0.0000 g	Fraction Wt: 0.0003 g
Comments: (1) mrr 5-17-96	Smpl Vol: 195 ml, Alqt: 145 ml, Factor: 1.345	Smpl Vol: 195 ml, Alqt: 145 ml, Factor: 1.345
	Sample Wt: 0.0000 g	Sample Wt: 0.0004 g
Test: 3 Run: 1	Dish No: 5	Dish No: 41
Log No: -09I	Dish + Sample Wt: 39.2981 g	Dish + Sample Wt: 45.4510 g
Color & Appearance: (1)	Dish Tare Wt: 39.2388 g	Dish Tare Wt: 45.3204 g
	Fraction Wt: 0.0593 g	Fraction Wt: 0.1306 g
Comments: (1)	Smpl Vol: 475 ml, Alqt: 425 ml, Factor 1.118	Smpl Vol: 475 ml, Alqt: 425 ml, Factor 1.118
	Sample Wt: 0.0663 g	Sample Wt: 0.1460 g
Test: 3 Run: 2	Dish No: 6	Dish No: 43
Log No: -10 I	Dish + Sample Wt: 48.3414 g	Dish + Sample Wt: 47.5666 g
Color & Appearance: (1)	Dish Tare Wt: 48.2740 g	Dish Tare Wt: 47.3905 g
	Fraction Wt: 0.0674 g	Fraction Wt: 0.1761 g
Comments:	Smpl Vol: 390 ml, Alqt: 340 ml, Factor 1.147	Smpl Vol: 390 ml, Alqt: 340 ml, Factor 1.147
	Sample Wt: 0.0773 g	Sample Wt: 0.2020 g
Test: 3 Run: 3	Dish No: 14	Dish No: 45
Log No: -11I	Dish + Sample Wt: 37.8547 g	Dish + Sample Wt: 48.3780 g
Color & Appearance: (1)	Dish Tare Wt: 37.7625 g	Dish Tare Wt: 48.1540 g
	Fraction Wt: 0.0922 g	Fraction Wt: 0.2240 g
Comments:	Smpl Vol: 410 ml, Alqt: 360 ml, Factor 1.139	Smpl Vol: 410 ml, Alqt: 360 ml, Factor 1.139
	Sample Wt: 0.1050 g	Sample Wt: 0.2551 g

Note: Factor = Sample Volume/Aliquot Volume

Blank Solvent Wt. 0.0000 g L

C Dark brownish yellow tint to Imp catch and rinse. VCV

	RUN 0	RUN 1	RUN 2	RUN 3
Results of Solvent Phase g	0.0000	0.0663	0.0773	0.1050
Results of Aqueous Phase C-8 g	0.0004	0.1456	0.2016	0.2547

INTERPOLL LABORATORIES, INC.
(612) 786-6020

Solvent Rinse Data Reporting Sheet

☒ EPA Method 5 Probe Wash ☐ EPA Method 29 Probe Wash ☐ EPA Method 202 Cup & Tube Wash

Job	LP HAWARD	Source/Site	SURFACE DRYER E-TUBE INLET
Date Submitted		Test No.	3
Date of Analysis	6-3-96	Technician	SCB
Transport Leakage ☐	None ☒ ml	Solvent	ACETONE

Test: 3	Run: 0	Dish No:	945
Log No: 7684-087		Dish + Sample Wt:	42.3447 g
Volume of Solvent	115 ml	Dish Tare Wt:	42.3445 g
*Solvent Residue	ug/ml	Sample Wt:	.0002 g
Test: 3	Run: 1	Dish No:	38
Vol. of Solvent	100 ml	Dish + Sample Wt:	37.3794 g
Log Number -097		Dish Tare Wt:	37.1678 g
Comments		Sample Wt:	.2116 g
Test: 3	Run: 2	Dish No:	78
Vol. of Solvent	130 ml	Dish + Sample Wt:	79.1910 g
Log Number -107		Dish Tare Wt:	79.0446 g
Comments		Sample Wt:	.1464 g
Test: 3	Run: 3	Dish No:	236
Vol. of Solvent	130 ml	Dish + Sample Wt:	47.6582 g
Log Number -117		Dish Tare Wt:	47.4662 g
Comments		Sample Wt:	.1920 g

*Solvent Residue 1.74 ug/ml = [(Sample Wt. .0002 g) (10^6)]/Vol. of Sol. 115 ml

EPA-M5 Acetone Residue Blank Spec. ≤ 7.8 ug/ml

VSP	RUN 0	RUN 1	RUN 2	RUN 3
Results of Solvent Rinse C-9 g	.0002	.2114	.1462	.1918

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Filter Gravimetrics Reporting Sheet

Fiter Type: ☒ EPA Method 5 ☐ EPA Method 29 ☐ EPA Method 202 ☒ Other M-17

Job: LP HAYWARD
Date Submitted:
Date of Analysis: 6-3-96
Source/Site: Line 2 Surface Dryer E-Tube Inlet
Test No.: 3
Technician: SLB

Test: 3 Run: 0	Filter No: 22
Field Blank:	Filter Type: S.S. THIMBLE
Log No: 7684-08F	Filter + Sample Wt: 41.2871 g
Color: CLEAN	Filter Tare Wt: 41.2871 g
	Sample Wt: 0.000 g
Test: 3 Run: 1	Filter No: 34
Log No: -09F	Filter Type: S.S. THIMBLE
Color: CLEAN	Filter + Sample Wt: 42.4522 g
	Filter Tare Wt: 42.2015 g
	Sample Wt: .2507 g
Test: 3 Run: 1	Filter No: 10
Log No: -09F	Filter Type: S.S. THIMBLE
Color: BROWN	Filter + Sample Wt: 39.0476 g
	Filter Tare Wt: 38.7598 g
	Sample Wt: .2878 g
Test: 3 Run: 2	Filter No: 8
Log No: -10F	Filter Type: S.S. THIMBLE
Color: BROWN	Filter + Sample Wt: 41.3224 g
	Filter Tare Wt: 40.8212 g
	Sample Wt: .5012 g

Results of Filter Analysis (g)	RUN 0	RUN 1	RUN 1	RUN 2
	.0000	.2507	.2878	.5012
			(.5385)	

Total Mass (g)	RUN	RUN 1	RUN 2	RUN 3
		0.9618	0.9263	1.0660

INTERPOLL LABORATORIES, INC.
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Filter Gravimetrics Reporting Sheet

Fiter Type: ☐ EPA Method 5 ☐ EPA Method 29 ☐ EPA Method 202 ☒ Other M-17

Job: LP HAYWARD 4
Date Submitted:
Date of Analysis: 6-3-96

Source/Site: LINE 2 SURFACE DRYER E-TUBE INLET
Test No.: 3
Technician: SCR

Test: 3 Run: 3	Filter No: 17
Field Blank:	Filter Type: S.S. THIMBLE
Log No: 7684-115	Filter + Sample Wt: 38.4758 g
Color:	Filter Tare Wt: 37.9612 g
	Sample Wt: .5146 g
Test: Run:	Filter No:
Log No:	Filter Type:
Color:	Filter + Sample Wt: g
	Filter Tare Wt: g
	Sample Wt: g
Test: Run:	Filter No:
Log No:	Filter Type:
Color:	Filter + Sample Wt: g
	Filter Tare Wt: g
	Sample Wt: g
Test: Run:	Filter No:
Log No:	Filter Type:
Color:	Filter + Sample Wt: g
	Filter Tare Wt: g
	Sample Wt: g

VG AIB

		RUN 3	RUN	RUN	RUN
Results of Filter Analysis	g	.5146			

		RUN	RUN	RUN	RUN
Total Mass	g				

INTERPOLL LABORATORIES, INC.
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Impinger Catch Data Reporting Sheet

Protocol: ☐Minnesota ☐Wisconsin ☐Iowa ☒EPA Method 202 ☐Other

Job: L.P. Hayward / Geo energy
Source/Site: Core Dryer Line 2 ETube 1 Inlet
Date Submitted: 5.15.96
Test No.: 5
Date of Analysis: 5-17-96
Technician: MKR / BS

	Solvent Phase	Aqueous Phase
Test: 5 Run: 0	Dish No: 200	Dish No: 98
Log No: 7684.15 I	Dish + Sample Wt: 44.9405 g	Dish + Sample Wt: 42.7060 g
Color & Appearance: Clear	Dish Tare Wt: 44.9405 g	Dish Tare Wt: 42.7057 g
impinger and rinse	Fraction Wt: 0.0000 g	Fraction Wt: 0.0003 g
Comments:	Smpl Vol: 195 ml, Aliqt: 145 ml, Factor: 1.345	Smpl Vol: 195 ml, Aliqt: 145 ml, Factor: 1.345
	Sample Wt: 0.0000 g	Sample Wt: 0.0004 g
Test: 5 Run: 1	Dish No: 208	Dish No: 105
Log No: .16 I	Dish + Sample Wt: 52.8754 g	Dish + Sample Wt: 38.1878 g
Color & Appearance: (1)	Dish Tare Wt: 52.7998 g	Dish Tare Wt: 38.1299 g
	Fraction Wt: 0.0756 g	Fraction Wt: 0.0579 g
Comments:	Smpl Vol: 475 ml, Aliqt: 425 ml, Factor 1.118	Smpl Vol: 475 ml, Aliqt: 425 ml, Factor 1.118
	Sample Wt: 0.0845 g	Sample Wt: 0.0647 g
Test: 5 Run: 2	Dish No: 324	Dish No: 106
Log No: .17 I	Dish + Sample Wt: 46.2748 g	Dish + Sample Wt: 43.1737 g
Color & Appearance: (1)	Dish Tare Wt: 46.2186 g	Dish Tare Wt: 43.0187 g
	Fraction Wt: 0.0562 g	Fraction Wt: 0.1550 g
Comments:	Smpl Vol: 380 ml, Aliqt: 330 ml, Factor 1.152	Smpl Vol: 380 ml, Aliqt: 330 ml, Factor 1.152
	Sample Wt: 0.0647 g	Sample Wt: 0.1786 g
Test: 5 Run: 3	Dish No: 326	Dish No: 161
Log No: .18 I	Dish + Sample Wt: 43.5390 g	Dish + Sample Wt: 49.2872 g
Color & Appearance: (1)	Dish Tare Wt: 43.4755 g	Dish Tare Wt: 49.1382 g
	Fraction Wt: 0.0635 g	Fraction Wt: 0.1490 g
Comments:	Smpl Vol: 490 ml, Aliqt: 440 ml, Factor 1.114	Smpl Vol: 490 ml, Aliqt: 440 ml, Factor 1.114
	Sample Wt: 0.0707 g	Sample Wt: 0.1660 g

Note: Factor = Sample Volume/Aliquot Volume

Blank Solvent Wt. 0.0000 g

(1) Dark brownish yellow tint to Imp. / cat. and rinse

	RUN 0	RUN 1	RUN 2	RUN 3
Results of Solvent Phase g	0.0000	0.0845	0.0647	0.0707
Results of Aqueous Phase C-12 g	0.0004	0.0643	0.1782	0.1656

INTERPOLL LABORATORIES, INC.
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Solvent Rinse Data Reporting Sheet

☒ EPA Method 5 Probe Wash ☐ EPA Method 29 Probe Wash ☐ EPA Method 202 Cup & Tube Wash

Job	LP/HAYWARD Grocery	Source/Site	Line 2 corrugator E-tube Wier
Date Submitted		Test No.	5
Date of Analysis	6-3-96	Technician	SuB
Transport Leakage ☐ None ☒	ml	Solvent	ACETONE

Test: 5	Run: 0	Dish No: 29	
Log No: 7684-15P		Dish + Sample Wt: 48.8874	g
Volume of Solvent	120 ml	Dish Tare Wt: 48.8872	g
*Solvent Residue	ug/ml	Sample Wt: .0002	g
Test: 5	Run: 1	Dish No: 40	
Vol. of Solvent	165 ml	Dish + Sample Wt: 47.7619	g
Log Number -16P		Dish Tare Wt: 47.6425	g
Comments		Sample Wt: .1194	g
Test: 5	Run: 2	Dish No: 23	
Vol. of Solvent	130 ml	Dish + Sample Wt: 46.2039	g
Log Number -17P		Dish Tare Wt: 46.0913	g
Comments		Sample Wt: .1126	g
Test: 5	Run: 3	Dish No: 610	
Vol. of Solvent	170 ml	Dish + Sample Wt: 48.6172	g
Log Number -18P		Dish Tare Wt: 48.4422	g
Comments		Sample Wt: .1750	g

*Solvent Residue 1.67 ug/ml = [(Sample Wt. .0002 g) (10^6)]/Vol. of Sol. 120 ml

EPA-M5 Acetone Residue Blank Spec. ≤ 7.8 ug/ml

VSW

	RUN 0	RUN 1 .1191	RUN 2	RUN 3
Results of Solvent Rinse C-13 g	.0002	~~.1188~~ SW	.1123	.1747

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Filter Gravimetrics Reporting Sheet

Fiter Type: ☐ EPA Method 5 ☐ EPA Method 29 ☐ EPA Method 202 ☒ Other M-17

Job: LP Hayward / Gas engine
Date Submitted:
Date of Analysis: 6-3-96
Source/Site: Line 2 cond dryer E-Tube Inlet
Test No.: 5
Technician: SCB

Test: Run: 1	Filter No: 7
Field Blank:	Filter Type: S.S. THIMBLE
Log No: 7684-16F	Filter + Sample Wt: 40.6039 g
Color: BROWN	Filter Tare Wt: 39.9857 g
	Sample Wt: .6182 g
Test: Run: 2	Filter No: 26
Log No: -17F	Filter Type: SS. THIMBLE
Color: CLEAN	Filter + Sample Wt: 41.1492 g
	Filter Tare Wt: 41.0857 g
	Sample Wt: .0635 g
Test: Run: 2	Filter No: 17
Log No: -17F	Filter Type: S.S. THIMBLE
Color: BROWN	Filter + Sample Wt: 40.7980 g
	Filter Tare Wt: 40.3299 g
	Sample Wt: .4681 g
Test: Run: 3	Filter No: 19
Log No: -18F	Filter Type: S.S. THIMBLE
Color: BROWN	Filter + Sample Wt: 40.7115 g
	Filter Tare Wt: 40.2238 g
	Sample Wt: .4877 g

	RUN 1	RUN 2	RUN 2	RUN 3
Results of Filter Analysis g	.6182	.0635	.4681	.4877

0.5316

	RUN 1	RUN 2	RUN 3	RUN 3
Total Mass g	0.8860	0.8868	0.8987	

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Ion Chromatography Laboratory

DIONEX MODEL 4000i WITH ANION MICRO MEMBRANE SUPRESSION

Analyst: TPW Date of Analysis: 6/3/96

Job: ID020 / LP Hayward Source: Line 2 Dryer LTD Site: Inlet

Chromatography Conditions

Column		Flow Rate	Eluent	Flow Rate	Suppressor Acid
	AS3	ml/min	2.4 mM Na_2CO_3 & 3.0 mM $NaHCO_3$	ml/min	12.5 mM Sulfuric Acid
✓	AS4A	ml/min	1.8 mM Na_2CO_3 & 1.7 mM $NaHCO_3$	ml/min	
	AS5	ml/min	100 mM NaOH		Isocratic
		ml/min			Gradient(List program below)

Gradient Program	Time (Min.)									
Eluent	0.0									
% A										
% B										

Results of Sulfate Determination

Sample Name	Interpoll Log Number	Tot. Sample Volume (ml)	Dilution	Solution Conc.(ug/ml)	Total ug Sulfate	meq of Sulfate
Imp. Catch	7684-01	220	1	< 0.025	< 5.5	$< 1.1 \times 10^{-4}$
↓	-02	475	1	1.20	570	1.2×10^{-2}
↓	-03	475	1	0.380	180	3.9×10^{-3}
↓	-04	500	1	0.216	110	2.3×10^{-3}

REVIEWED

Total ug = (Sample Vol.) x (Dilution) x (Solution Conc.)
meq = Total ug / 48000

Gregg W. Holman

LSC-08RR

Interpoll Laboratories, Inc.
(612)786-6020

Ion Chromatography Laboratory

DIONEX MODEL 4000i WITH ANION MICRO MEMBRANE SUPRESSION

Analyst: TPW Date of Analysis: 6/3/96

Job: IDC20/LF Hayward Source: Line 2 Dryer EP0 Site: Inlet

Chromatography Conditions

Column		Flow Rate	Eluent	Flow Rate	Suppressor Acid
	AS3	ml/min	2.4 mM Na_2CO_3 & 3.0 mM $NaHCO_3$	ml/min	12.5 mM Sulfuric Acid
✓	AS4A	2 ml/min	1.8 mM Na_2CO_3 & 1.7 mM $NaHCO_3$	ml/min	
	AS5	ml/min	100 mM NaOH		Isocratic
		ml/min			Gradient(List program below)

Gradient Program	Time (Min.)									
Eluent	0.0									
% A										
% B										

REVIEW

Results of Sulfate Determination

Sample Name	Interpoll Log Number	Tot. Sample Volume (ml)	Dilution	Solution Conc.(ug/ml)	Total ug Sulfate	meq of Sulfate
Imp Catch	7684-08	195	1	<0.025	< 4.9	$< 1.0 \times 10^{-4}$
	09	475	1	0.291	140	2.9×10^{-3}
	10	390	1	0.105	41	8.5×10^{-4}
	11	410	1	1.67	680	1.4×10^{-2}
	15	195	1	0.050	9.8	2.0×10^{-4}
	16	475	1	1.67	790	1.7×10^{-2}
	17	380	1	0.394	150	3.1×10^{-3}
	18	490	1	0.193	95	2.0×10^{-3}

Total ug = (Sample Vol.) x (Dilution) x (Solution Conc.)
meq = Total ug / 48000

LSC-08RR

EPA Method 202 Calculations
Job: Geoenergy - LP/Hayward
Date: 05-14-96

Report No. 6-7684

Test 1 Line 2 E - Tube Outlet

RUN	Vlc (ml)	Sulfate (mg/ml)	Mc (mg)	Mr (mg)	Mi (mg)	Mo (mg)	Mb (mg)	CPM (mg)	**ENTER IN COMPUTER (g)**
1	475	1.20E-03	0.10	26.2	26.10	19.7	0.4	45.40	0.04539512
2	475	3.80E-04	0.03	19.5	19.47	16.1	0.4	35.17	0.035166788
3	500	2.16E-04	0.02	20.2	20.18	20.8	0.4	40.58	0.040580128

EPA Method 201A/202 Totals

RUN	Probe (mg)	Filter (mg)	CPM (mg)	Total (mg)
1	9.6	5.1	45.40	60.09512
2	10.7	6	35.17	51.86679
3	6.7	4	40.58	51.28013

Test 3 Line 2 Surface Dryer E - Tube Inlet

RUN	Vlc (ml)	Sulfate (mg/ml)	Mc (mg)	Mr (mg)	Mi (mg)	Mo (mg)	Mb (mg)	CPM (mg)	**ENTER IN COMPUTER (g)**
1	475	2.91E-04	0.03	146	145.97	66.3	0.4	211.87	0.211874567
2	390	1.05E-04	0.01	202	201.99	77.3	0.4	278.89	0.278892465
3	410	1.67E-03	0.13	255.1	254.97	105	0.4	359.57	0.359574015

EPA Method 201A/202 Totals

RUN	Probe (mg)	Filter (mg)	CPM (mg)	Total (mg)
1	211.4	538.5	211.87	961.7746
2	146.2	501.2	278.89	926.2925
3	191.8	514.6	359.57	1065.974

Test 5 Line 2 Core Dryer E - Tube Inlet

RUN	Vlc (ml)	Sulfate (mg/ml)	Mc (mg)	Mr (mg)	Mi (mg)	Mo (mg)	Mb (mg)	CPM (mg)	**ENTER IN COMPUTER (g)**
1	475	1.67E-03	0.15	64.7	64.55	84.5	0.4	148.65	0.148654042
2	380	3.94E-04	0.03	178.6	178.57	64.7	0.4	242.87	0.242872452
3	490	1.93E-04	0.02	166	165.98	70.7	0.4	236.28	0.236282599

EPA Method 201A/202 Totals

RUN	Probe (mg)	Filter (mg)	CPM (mg)	Total (mg)
1	119.1	618.2	148.65	885.954
2	112.3	531.6	242.87	886.7725
3	174.7	487.7	236.28	898.6826

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Sample Chain of Custody

Job L.P. Hayward/Geoenergy Source Line 2 Dryer RTO Site Inlet Log No. 7684
Field Engineer G. Juvs Date of Test 5-14-96 Test No. 1 No. of Runs 3

No. Items	Sample Type		Analysis		Sequence No.	Comments
4	**Probe Wash:** ☒ Acetone ☐ $MeCl_2$	☐DI Water ☐_____	☒EPA M-5 ☐EPA M-29	☐EPA M-201A ☐_____		
~~5~~ 5	**Filter:** ☐ 4" Glass ☐ SS Thimble	☒ 47mm G.F. ☐Pallflex ☐2.5" Glass	☒EPA M-5 ☐EPA M-29 ☐EPA M-201A	☐EPA M-17		
4	**Impingers:** ☒DI Water ☐3%H_2O_2 ☐1N NaOH ☐2,4-DNPH	☐H_2SO_4 ☐HNO_3/H_2O_2 ☐$KMnO_4/H_2SO_4$ ☐_____	☐MN Protocol ☐WI Protocol ☒EPA M-202 ☐EPA M6,8 ☐Acid Gases	☐IA Protocol ☐Formaldehyde ☐EPA M-29 ☐EPA M-26 ☐_____		
3	**Integrated Gas:** ☒Tedlar Bag	☐_____	☒EPA M-3 ☐_____	☒EPA M-10		
	Oxides of Nitrogen:		☐EPA M-7A ☐_____			
	Fuel Lab: ☐Fuel Sample	☐Aggregate	☐Per S-0163			
	Particle Sizing:		☐X-Ray Sdgraph ☐_____	☐Cascade Imp		
4	**Miscellaneous:**	☒ mecl2 Imp. Rinse	☒ M-202			Run 1 umbilical rinse unusually dirty, please inspect. May need to filter out foreign matter.

C-18

Fuel Type:
Coal: ☐Bituminous ☐Anthracite ☐Lignite
Wood: ☐Wood Waste ☐Dust ☐Bark
Oil: ☐Waste Oil ☐No. 2 ☐No. 6
Misc: ☐Natural Gas ☐RDF ☐_____

Relinquished by/Affiliation	Accepted by/Affiliation	Date
[signature] / Interpoll Labs	[signature] / Interpoll 0800	5-15-96

INTERPOLL LABORATORIES, INC.
(612) 786-6020

Sample Chain of Custody

Job LP/Hayward Source Line 2 Surface Dryer C-T-U Site Dust Log No. 7684
Field Engineer S. Fjelstad Date of Test 5-14-96 Test No. 3 No. of Runs 3

No. Items	Sample Type		Analysis		Sequence No.	Comments
4	**Probe Wash:** ☒ Acetone ☐ $MeCl_2$	☐ DI Water ☐ _____	☒ EPA M-5 ☐ EPA M-29	☐ EPA M-201A ☐ _____		
#5	**Filter:** ☐ 4" Glass ☒ SS Thimble	☐ Pallflex ☐ 2.5" Glass	☒ EPA M-5 ☐ EPA M-29 ☐ EPA M-201A	☐ EPA M-17		
#6	**Impingers:** ☒ DI Water ☐ 3% H_2O_2 ☐ 1N NaOH ☐ 2,4-DNPH	☐ H_2SO_4 ☐ HNO_3/H_2O_2 ☐ $KMnO_4/H_2SO_4$ ☐ _____	☐ MN Protocol ☐ WI Protocol ☒ EPA M-202 ☐ EPA M6,8 ☐ Acid Gases	☐ IA Protocol ☐ Formaldehyde ☐ EPA M-29 ☐ EPA M-26 ☐ _____		May Need Nitrates analysis (Hold)
3	**Integrated Gas:** ☒ Tedlar Bag	☐ _____	☒ EPA M-3 ☐ _____	☒ EPA M-10		
	Oxides of Nitrogen:		☐ EPA M-7A ☐ _____			
	Fuel Lab: ☐ Fuel Sample	☐ Aggregate	☐ Per S-0163			
	Particle Sizing:		☐ X-Ray Sdgraph ☐ _____	☐ Cascade Imp		
4	**Miscellaneous:**	☒ $MeCl_2$	☒ M-202			Impinger Rinse

Fuel Type: Coal: ☐ Bituminous ☐ Anthracite ☐ Lignite; Wood: ☐ Wood Waste ☐ Dust ☐ Bark; Oil: ☐ Waste Oil ☐ No. 2 ☐ No. 6; Misc: ☐ Natural Gas ☐ RDF ☐ _____

Relinquished by/Affiliation	Accepted by/Affiliation	Date
Scott Fjelstad Interpoll Labs	R. Tagar Interpoll	5-15-96 / 8:15

INTERPOLL LABORATORIES, INC.
(612) 786-6020

Sample Chain of Custody

Job: GeoEngineering/ [illegible] Source: Core Dryer Line 2 Site: E Tube Inlet Log No. 7691

Field Engineer: BA + SK Date of Test: 5/14/96 Test No. 5 No. of Runs 3

No. Items	Sample Type		Analysis		Sequence No.	Comments
4	Probe Wash: ☒ Acetone ☐ $MeCl_2$	☐ DI Water ☐ ____	☒ EPA M-5 ☐ EPA M-29	☐ EPA M-201A ☐ ____		
4	Filter: ☐ 4" Glass ☒ SS Thimble	☐ Pallflex ☐ 2.5" Glass	☒ EPA M-5 ☐ EPA M-29 ☐ EPA M-201A	☐ EPA M-17		
5	Impingers: ☒ DI Water ☐ 3% H_2O_2 ☐ 1N NaOH ☐ 2,4-DNPH	☐ H_2SO_4 ☐ HNO_3/H_2O_2 ☐ $KMnO_4/H_2SO_4$ ☐ ____	☐ MN Protocol ☐ WI Protocol ☒ EPA M-202 ☐ EPA M6,8 ☐ Acid Gases	☐ IA Protocol ☐ Formaldehyde ☐ EPA M-29 ☐ EPA M-26 ☐ ____		May Need Nitrates analysis (HOLD)
3	Integrated Gas: ☒ Tedlar Bag	☐ ____	☒ EPA M-3 ☐ ____	☒ EPA M-10		~~No CO~~
	Oxides of Nitrogen:		☐ EPA M-7A ☐ ____			
	Fuel Lab: ☐ Fuel Sample	☐ Aggregate	☐ Per S-0163			
	Particle Sizing:		☐ X-Ray Sdgraph ☐ ____	☐ Cascade Imp		
4	Miscellaneous:	☒ $MeCl_2$ Imp. Rinse	☒ EPA 202			

Fuel Type: Coal: ☐ Bituminous ☐ Anthracite ☐ Lignite Wood: ☐ Wood Waste ☐ Dust ☐ Bark Oil: ☐ Waste Oil ☐ No. 2 ☐ No. 6 Misc: ☐ Natural Gas ☐ RDF ☐ ____

Relinquished by/Affiliation	Accepted by/Affiliation	Date
[signature] / Interpoll Labs	R. Zagar	5-15-96/13:15

033094-G:\STACK\WP\FORMS\S-278.2

APPENDIX D

NO_x AND CO DATALOGGER PRINTOUTS

Report No. 6-7684
Geoenergy/LP - Hayward
Line 2 E - Tube Outlet
Test 2 Run 1

DATE	TIME	NOX (ppm)	O2 (%)	CO (ppm)	CO2 (%)
5/14/96	12:01:05 PM	8.0	16.7	925.3	3.8
	12:02:05 PM	8.4	16.6	726.3	3.8
	12:03:05 PM	8.5	16.6	967.2	3.9
	12:04:05 PM	9.0	16.5	1031.9	4.1
	12:05:05 PM	8.6	16.5	1185.7	4.0
	12:06:05 PM	10.3	16.2	1427.0	4.3
	12:07:05 PM	10.3	16.4	1156.8	4.2
	12:08:05 PM	8.7	16.8	1081.5	3.7
	12:09:05 PM	8.6	16.8	609.5	3.8
	12:10:05 PM	8.6	16.6	902.1	3.9
	12:11:05 PM	9.0	16.6	813.8	4.0
	12:12:05 PM	9.5	16.3	979.4	4.2
	12:13:05 PM	10.3	16.0	1341.6	4.3
	12:14:05 PM	9.1	16.4	1357.4	4.0
	12:15:05 PM	9.4	16.6	908.2	3.9
	12:16:05 PM	8.9	16.8	766.6	3.7
	12:17:05 PM	9.2	16.7	515.5	4.0
	12:18:05 PM	8.7	16.8	881.3	3.7
	12:19:05 PM	9.2	16.2	850.0	4.4
	12:20:05 PM	8.8	16.3	1316.3	4.2
	12:21:05 PM	10.5	15.7	1540.5	4.6
	12:22:05 PM	9.4	16.4	1416.0	4.1
	12:23:05 PM	9.8	16.1	1228.0	4.3
	12:24:05 PM	9.5	16.8	1114.9	3.8
	12:25:05 PM	8.5	16.8	684.8	3.8
	12:26:05 PM	8.6	16.7	656.7	3.9
	12:27:05 PM	9.4	16.4	1036.2	4.1
	12:28:05 PM	9.5	16.0	1292.7	4.5
	12:29:05 PM	10.3	15.6	1619.1	4.9
	12:30:05 PM	11.0	15.7	1711.8	4.5
	1:17:05 PM	8.3	16.1	1247.6	4.4
	1:18:05 PM	7.8	16.1	1250.8	4.3
	1:19:05 PM	7.3	16.3	1120.6	4.2
	1:20:05 PM	6.2	17.0	703.5	3.6
	1:21:05 PM	7.6	17.2	469.2	3.5
	1:22:05 PM	6.7	16.6	561.9	3.9
	1:23:05 PM	7.4	16.4	672.6	4.1
	1:24:05 PM	7.3	16.2	1014.4	4.4
	1:25:05 PM	7.5	15.8	1469.3	4.4
	1:26:05 PM	8.5	16.0	1275.2	4.6
	1:27:05 PM	7.2	16.0	1378.6	4.4
	1:28:05 PM	6.9	16.5	1252.4	3.9
	1:29:05 PM	8.1	17.3	548.5	3.4
	1:30:05 PM	7.7	17.3	314.9	3.4
	1:31:05 PM	7.7	16.8	449.6	3.9
	1:32:05 PM	7.4	16.4	858.6	4.3
	1:33:05 PM	8.1	15.8	1389.6	4.8
	1:34:05 PM	8.7	15.8	1583.3	4.6
	1:35:05 PM	7.1	15.8	1506.3	4.5
	1:36:05 PM	7.3	16.2	1417.6	4.2
	1:37:05 PM	6.8	16.9	888.3	3.7
	1:38:05 PM	9.3	17.4	484.2	3.2
	1:39:05 PM	8.3	17.3	297.9	3.5
	1:40:05 PM	5.8	16.9	699.5	3.7
	1:41:05 PM	6.9	16.3	788.6	4.2
	1:42:05 PM	8.3	16.2	999.8	4.4
	1:43:05 PM	6.7	16.2	1352.9	4.2
	1:44:05 PM	6.4	16.0	1213.0	4.3
	1:45:05 PM	5.3	16.8	935.9	3.8
	1:46:05 PM	10.4	17.5	457.4	3.1
AVERAGES		8.4	16.5	1010.8	4.1

Report No. 6-7684
Geoenergy/LP - Hayward
Line 2 E - Tube Outlet
Test 2 Run 2

DATE	TIME	NOX (ppm)	O2 (%)	CO (ppm)	CO2 (%)
5/14/96	3:00:00 PM	9.0	17.1	633.5	3.5
	3:01:00 PM	9.4	17.1	435.8	3.5
	3:02:00 PM	9.8	17.0	454.1	3.6
	3:03:00 PM	9.3	16.8	640.9	3.8
	3:04:00 PM	9.6	16.6	868.3	3.9
	3:05:00 PM	10.1	16.8	873.6	3.8
	3:06:00 PM	10.3	16.8	691.7	3.8
	3:07:00 PM	10.2	16.9	843.9	3.6
	3:38:00 PM	12.2	16.7	1096.6	3.8
	3:39:00 PM	12.2	17.1	547.7	3.5
	3:40:00 PM	11.8	17.0	410.2	3.6
	3:41:00 PM	11.3	16.7	602.2	3.9
	3:42:00 PM	12.2	16.2	1011.1	4.3
	3:43:00 PM	12.2	16.1	1339.9	4.3
	3:44:00 PM	12.5	16.2	1354.2	4.2
	3:45:00 PM	12.6	16.4	1288.2	4.0
	3:46:00 PM	12.1	16.7	872.4	3.8
	3:47:00 PM	12.8	17.0	695.8	3.5
	3:48:00 PM	12.7	17.0	446.0	3.6
	3:49:00 PM	12.3	16.6	691.3	3.9
	3:50:00 PM	13.3	16.3	904.5	4.2
	3:51:00 PM	14.4	15.8	1490.9	4.5
	3:52:00 PM	14.4	16.1	1558.8	4.3
	3:53:00 PM	13.7	16.8	1114.9	3.7
	3:54:00 PM	13.9	16.6	777.6	3.9
	3:55:00 PM	13.8	16.6	839.0	3.9
	3:56:00 PM	13.5	16.4	941.6	4.1
	3:57:00 PM	14.6	16.1	1249.2	4.3
	3:58:00 PM	15.1	16.2	1302.9	4.2
	3:59:00 PM	15.4	16.2	1339.5	4.2
	4:00:00 PM	15.7	16.3	1282.1	4.1
	4:01:00 PM	14.5	16.8	927.7	3.8
	4:02:00 PM	14.1	16.7	692.1	3.9
	4:03:00 PM	13.8	16.2	955.4	5.2
	4:16:00 PM	9.9	16.2	1333.4	4.0
	4:17:00 PM	8.7	16.6	910.2	3.8
	4:18:00 PM	9.3	16.5	783.7	3.9
	4:19:00 PM	9.5	16.3	968.0	4.1
	4:20:00 PM	9.1	16.2	1128.7	4.2
	4:21:00 PM	10.0	16.2	1228.8	4.2
	4:22:00 PM	9.3	16.4	1217.0	4.0
	4:23:00 PM	9.4	16.3	1210.1	4.1
	4:24:00 PM	9.3	16.5	1063.2	4.0
	4:25:00 PM	10.0	16.3	1094.2	4.1
	4:26:00 PM	9.7	16.4	1139.3	4.0
	4:27:00 PM	10.2	16.4	1121.4	4.0
	4:28:00 PM	10.2	16.4	981.4	4.1
	4:29:00 PM	10.3	16.4	1096.6	4.1
	4:30:00 PM	10.5	16.4	1127.1	4.0
	4:31:00 PM	10.0	16.5	1010.3	3.9
	4:32:00 PM	10.2	16.6	901.7	3.9
	4:33:00 PM	11.2	16.5	938.7	4.0
	4:34:00 PM	11.2	16.4	1144.6	4.1
	4:35:00 PM	12.0	16.0	1247.2	4.4
	4:36:00 PM	11.7	16.4	1280.5	4.1
	4:37:00 PM	12.1	16.4	1265.9	4.0
	4:38:00 PM	12.3	16.8	877.3	3.8
	4:39:00 PM	11.7	16.7	821.1	3.7
	4:40:00 PM	11.8	16.8	632.7	3.7
	4:41:00 PM	12.2	16.7	772.7	3.8
AVERAGES		11.6	16.5	974.5	4.0

Report No. 6-7684
Geoenergy/LP-Hayward
Line 2 E-Tube Outlet
Test 2 Run 3

DATE	TIME	NOX (ppm)	O2 (%)	CO (ppm)	CO2 (%)
5/14/96	6:16:00 PM	7.9	16.2	1401.4	4.3
	6:17:00 PM	8.5	16.1	1333	4.4
	6:18:00 PM	8.5	16.4	1091.3	4.2
	6:19:00 PM	5.5	16.4	1401.4	4
	6:20:00 PM	7.9	15.9	1118.2	4.3
	6:21:00 PM	7.9	15.9	1328.1	4.7
	6:22:00 PM	8.5	15.9	1579.6	4.4
	6:23:00 PM	7.9	16.1	1425.8	4.2
	6:24:00 PM	7.9	16.2	1335.4	4.3
	6:25:00 PM	7.3	16.2	1362.3	4.2
	6:26:00 PM	7.3	16.4	1189	4
	6:27:00 PM	7.3	16.1	1259.8	4.3
	6:28:00 PM	8.5	15.7	1579.6	4.5
	6:29:00 PM	8.5	16.1	1545.4	4.3
	6:30:00 PM	7.3	16.3	1518.6	4.2
	6:31:00 PM	8.5	16	1337.9	4.4
	6:32:00 PM	7.3	16.4	1467.3	4.2
	6:38:00 PM	8.5	16.4	1154.8	4.1
	6:39:00 PM	7.9	16.2	1259.8	4.3
	6:40:00 PM	7.9	15.9	1457.5	4.4
	6:41:00 PM	9.2	16	1516.1	4.4
	6:42:00 PM	8.5	16.2	1423.3	4.2
	6:43:00 PM	8.5	16.4	1052.2	4.2
	6:44:00 PM	7.9	16.2	1457.5	4.2
	6:45:00 PM	9.2	16.2	1394	4.2
	6:46:00 PM	7.9	16.5	1313.5	4
	6:47:00 PM	7.3	16.5	1096.2	4.1
	6:48:00 PM	7.9	16.5	1262.2	4.2
	6:49:00 PM	7.9	16.3	1416	4.1
	6:50:00 PM	9.2	15.9	1315.9	4.3
	6:51:00 PM	8.5	16.2	1367.2	4.2
	6:52:00 PM	8.5	16.5	1254.9	4.1
	6:53:00 PM	9.2	16.3	1262.2	4.2
	6:54:00 PM	8.5	16.5	1350.1	4
	6:55:00 PM	7.9	16.7	937.5	4.1
	6:56:00 PM	7.9	16.9	874	3.9
	6:57:00 PM	10.4	16.1	1335.4	4.3
	6:58:00 PM	9.2	15.9	1616.2	4.6
	6:59:00 PM	11	16.3	1794.4	3.7
	7:00:00 PM	11.6	16	1330.6	4.4
	7:01:00 PM	9.8	16.4	1374.5	4.1
	7:02:00 PM	9.2	16.6	1008.3	4
	7:03:00 PM	9.8	16.7	1147.5	3.8
	7:04:00 PM	10.4	16.5	1118.2	4
	7:05:00 PM	10.4	16.2	1259.8	4.2
	7:06:00 PM	11	16.1	1494.1	4.4
	7:07:00 PM	11	15.9	1579.6	4.3
	7:08:00 PM	11.6	16.1	1567.4	4.2
	7:09:00 PM	11	16.7	1062	3.9
	7:10:00 PM	11	16.6	974.1	4
	7:11:01 PM	11.6	16.5	1262.2	4
	7:12:00 PM	12.8	16.7	961.9	3.9
	7:13:01 PM	12.8	16.2	1530.8	4.2
	7:14:00 PM	12.2	16.4	1389.2	4.1
	7:15:00 PM	11	16.5	1318.4	4.1
	7:16:00 PM	11	16.7	1262.2	3.9
	7:17:00 PM	11	16.4	1096.2	4.1
	7:18:00 PM	12.2	16.5	1125.5	4
	7:19:00 PM	12.8	16.4	1054.7	4.1
	7:20:00 PM	13.4	16.2	1367.2	4.3
AVERAGES		**9.3**	**16.3**	**1307.8**	**4.2**

Report No. 6-7684
Geoenergy/LP - Hayward
Tests 4 and 6 Run 1

		Line 2 Surface Dryer E - Tube Inlet				Line 2 Core Dryer E - Tube Inlet			
		NOX	O2	CO	CO2	NOX	O2	CO	CO2
DATE	TIME	(ppm)	(%)	(ppm)	(%)	(ppm)	(%)	(ppm)	(%)
5/14/96	12:00:56 PM	24.8	16.5	828.4	4.6	23.1	15.4	897.2	5.4
	12:01:56 PM	26.0	16.4	774.3	4.8	21.6	15.5	707.6	5.3
	12:02:56 PM	25.6	15.9	1275.2	5.1	22.1	16.0	634.3	4.9
	12:03:56 PM	25.8	15.9	1376.9	5.2	22.0	15.7	775.9	5.1
	12:04:56 PM	24.5	16.2	1338.2	4.8	23.7	15.1	897.2	5.7
	12:05:56 PM	23.9	16.5	911.8	4.8	26.0	14.3	886.2	6.5
	12:06:56 PM	25.2	16.0	1196.6	5.0	23.5	14.9	893.5	5.9
	12:07:56 PM	24.4	16.2	1166.5	4.8	21.9	15.1	810.1	5.7
	12:08:56 PM	23.7	16.6	906.9	4.7	20.6	16.1	640.0	5.0
	12:09:56 PM	24.4	16.0	1076.2	5.1	20.2	15.7	639.6	5.0
	12:10:56 PM	23.9	16.2	1251.6	4.8	21.1	15.5	777.9	5.1
	12:11:56 PM	24.3	16.1	1110.0	5.1	22.1	15.1	905.3	5.2
	12:12:56 PM	25.7	15.7	1364.3	5.3	23.4	14.6	893.1	5.8
	12:13:56 PM	25.2	16.0	1419.2	5.0	23.3	14.7	888.6	6.2
	12:14:56 PM	24.5	16.3	1108.4	4.8	22.3	15.5	897.2	5.5
	12:15:56 PM	23.9	16.5	914.3	4.7	20.9	15.5	815.0	5.4
	12:16:56 PM	25.1	16.6	762.5	4.7	20.4	15.8	598.9	5.0
	12:17:56 PM	24.9	16.1	987.5	5.1	21.2	15.5	661.6	5.4
	12:18:56 PM	24.3	16.0	1097.0	5.1	21.6	15.6	758.4	5.3
	12:19:56 PM	23.8	16.1	1197.9	5.1	22.8	14.3	890.3	6.3
	12:20:56 PM	25.7	15.7	1212.5	5.4	24.1	14.2	882.9	6.5
	12:21:56 PM	26.7	15.4	1483.5	5.6	22.2	15.1	872.8	5.9
	12:22:56 PM	26.7	15.7	1444.9	5.4	22.6	15.2	888.6	5.7
	12:23:56 PM	27.4	15.7	1429.8	5.4	21.6	15.8	598.1	5.4
	12:24:56 PM	26.4	16.2	1292.7	4.9	27.5	16.0	560.7	4.6
	12:25:56 PM	25.4	16.5	721.4	4.7	69.8	2.1	8.5	1.4
	12:36:56 PM	24.0	16.1	670.1	5.0	24.4	14.1	882.9	6.5
	12:37:56 PM	25.2	15.6	1056.7	5.4	22.3	14.8	886.6	6.5
	12:38:56 PM	28.0	14.8	1495.7	5.9	21.0	15.5	831.7	5.6
	12:39:56 PM	28.6	14.9	1636.5	5.9	19.3	16.2	371.9	4.9
	1:16:56 PM	23.3	16.3	670.5	4.7	26.4	14.1	886.2	6.6
	1:17:56 PM	24.3	15.7	1027.8	5.3	25.2	14.8	887.4	6.1
	1:18:56 PM	24.9	15.8	1243.0	5.2	24.2	14.9	897.6	5.9
	1:19:56 PM	25.3	16.0	1076.6	4.9	22.9	16.0	511.4	5.2
	1:20:56 PM	25.3	16.6	731.2	4.5	22.7	16.1	464.6	4.9
	1:21:56 PM	23.9	16.4	593.6	4.8	23.4	15.9	654.7	4.9
	1:22:56 PM	24.8	16.2	843.9	4.9	23.8	15.5	754.3	5.4
	1:23:56 PM	24.1	16.1	843.9	5.0	24.6	14.8	898.0	6.0
	1:24:56 PM	25.5	15.6	1148.2	5.4	25.9	13.9	890.7	6.5
	1:25:56 PM	26.4	15.5	1335.8	5.5	24.5	14.8	892.7	6.1
	1:26:56 PM	27.7	15.2	1479.4	5.7	24.1	14.9	892.3	6.1
	1:27:56 PM	27.5	15.9	1455.8	5.0	24.2	14.9	893.1	5.9
	1:28:56 PM	26.7	17.1	679.9	4.0	23.6	15.5	826.4	5.4
	1:29:56 PM	26.3	17.4	199.3	3.9	22.5	15.9	563.9	5.2
	1:30:56 PM	24.3	17.0	264.0	4.3	23.5	15.5	804.0	5.2
	1:31:56 PM	25.2	16.2	535.0	5.0	24.8	15.1	902.9	5.7
	1:32:56 PM	25.5	15.5	1104.3	5.5	25.5	14.2	892.3	6.3
	1:33:56 PM	27.1	15.0	1510.8	5.9	26.5	14.2	887.0	6.4
	1:34:56 PM	27.0	14.9	1595.0	6.0	25.6	14.6	887.0	6.2
	1:35:56 PM	29.0	15.0	1633.7	5.8	23.5	15.0	869.5	5.8
	1:36:56 PM	26.5	15.3	1471.3	5.1	23.4	15.8	638.8	5.1
	1:37:56 PM	29.4	17.4	620.1	3.7	22.8	15.5	843.9	5.2
	1:38:56 PM	28.7	17.9	97.2	3.4	22.7	15.7	721.8	5.3
	1:39:56 PM	22.1	16.9	225.4	4.3	25.0	15.2	903.7	5.8
	1:40:56 PM	21.8	16.8	382.0	4.4	26.2	14.8	896.8	6.0
	1:41:56 PM	24.5	16.1	637.2	5.1	25.6	15.0	893.1	6.0
	1:42:56 PM	24.9	15.4	1197.1	5.5	25.7	14.5	889.4	6.3
	1:43:56 PM	25.3	15.3	1444.0	5.7	24.0	15.2	843.9	5.6
	1:44:56 PM	24.0	15.9	1370.4	5.0	23.0	15.6	791.8	5.5
	1:45:56 PM	27.8	17.5	635.1	3.6	23.4	15.5	887.0	5.3
AVERAGES		25.4	16.1	1042.6	5.0	24.1	15.0	785.3	5.6

Report No. 6-7684
Geoenergy/LP - Hayward
Tests 4 and 6 Run 2

		Line 2 Surface Dryer E - Tube Inlet				Line 2 Core Dryer E - Tube Inlet			
		NOX	O2	CO	CO2	NOX	O2	CO	CO2
DATE	TIME	(ppm)	(%)	(ppm)	(%)	(ppm)	(%)	(ppm)	(%)
5/14/96	2:59:56 PM	25.6	16.6	615.2	4.3	18.7	15.5	819.5	5.2
	3:00:56 PM	24.6	16.9	517.1	4.2	18.0	16.3	526.1	4.8
	3:01:56 PM	26.7	16.7	526.5	4.4	18.5	16.6	427.6	4.6
	3:02:56 PM	26.7	16.4	664.4	4.6	17.2	16.0	677.8	4.8
	3:03:56 PM	26.0	16.2	892.3	4.7	18.5	15.9	794.2	5.1
	3:04:56 PM	26.0	16.7	807.2	4.3	17.9	14.9	903.7	5.7
	3:05:56 PM	25.0	16.7	514.3	4.3	19.8	15.6	885.8	5.4
	3:06:56 PM	25.0	16.7	482.9	4.3	20.1	15.2	898.0	5.7
	3:37:56 PM	26.4	15.9	1363.5	5.0	21.5	15.0	898.0	5.6
	3:38:56 PM	24.6	16.6	837.4	4.4	19.3	16.0	694.9	5.3
	3:39:56 PM	25.0	16.9	456.9	4.1	19.2	16.0	587.1	4.9
	3:40:56 PM	24.4	16.5	500.8	4.6	19.0	16.0	602.2	4.9
	3:41:56 PM	25.2	16.2	799.1	4.7	20.2	15.3	910.6	5.5
	3:42:56 PM	25.4	16.0	1061.2	5.0	21.7	14.7	894.3	6.1
	3:43:56 PM	24.6	16.2	1094.1	4.7	21.8	14.2	891.5	6.4
	3:44:56 PM	25.4	16.1	961.9	4.9	22.4	14.7	888.2	6.3
	3:45:56 PM	25.8	16.2	1080.7	4.8	18.9	15.4	903.7	5.7
	3:46:56 PM	24.8	16.4	871.9	4.7	18.4	15.6	846.7	5.4
	3:47:56 PM	24.2	16.5	750.3	4.5	20.1	16.9	231.9	4.6
	3:48:56 PM	24.4	16.3	818.2	4.7	18.9	16.0	646.1	4.7
	3:49:56 PM	24.0	16.4	806.4	4.5	19.3	15.1	911.8	5.6
	3:50:56 PM	25.0	16.3	755.6	4.8	22.0	14.0	895.1	6.6
	3:51:56 PM	24.8	16.2	970.4	4.7	24.4	13.5	891.1	7.2
	3:52:56 PM	24.2	16.4	773.9	4.5	22.4	14.1	811.3	6.6
	3:53:56 PM	25.8	16.5	743.0	4.4	19.9	15.8	801.1	5.1
	3:54:56 PM	24.6	16.3	662.0	4.7	19.6	15.5	884.1	5.6
	3:55:56 PM	25.4	16.2	894.3	4.9	18.0	15.0	911.8	5.4
	3:56:56 PM	25.8	15.6	1224.3	5.3	19.3	15.2	908.6	5.5
	3:57:56 PM	25.0	15.9	1408.2	4.9	21.9	14.7	894.3	6.3
	3:58:56 PM	24.4	16.4	908.6	4.6	23.4	14.2	891.9	6.7
	3:59:56 PM	24.4	16.5	784.9	4.5	23.9	14.1	889.8	6.7
	4:00:56 PM	25.0	16.7	574.1	4.4	22.2	14.4	893.9	6.4
	4:01:56 PM	24.2	16.5	602.6	4.5	19.9	15.5	847.9	5.4
	4:02:56 PM	25.0	16.3	707.6	4.7	19.4	15.4	907.7	5.3
	4:15:56 PM	26.4	15.9	1273.6	5.0	22.4	14.3	889.0	6.4
	4:16:56 PM	25.6	16.1	1028.2	4.8	19.5	15.5	871.1	5.6
	4:17:56 PM	25.6	16.2	983.4	4.8	20.9	16.1	784.9	5.1
	4:18:56 PM	26.4	15.9	1029.8	5.1	19.5	15.9	825.6	5.2
	4:19:56 PM	26.7	15.9	1302.0	5.0	21.8	15.5	907.7	5.5
	4:20:56 PM	26.7	15.9	1174.7	5.0	22.8	15.2	899.6	5.8
	4:21:56 PM	26.4	16.2	1121.4	4.8	22.3	14.6	892.7	6.1
	4:22:56 PM	26.2	16.4	858.9	4.6	23.2	14.7	890.7	6.0
	4:23:56 PM	26.0	16.1	893.9	4.9	22.7	15.1	892.7	5.9
	4:24:56 PM	26.9	15.8	1046.9	5.1	20.7	15.8	885.0	5.3
	4:25:56 PM	28.9	15.3	1486.0	5.6	20.6	15.8	638.8	5.2
	4:26:56 PM	28.5	15.3	1550.2	5.4	19.2	16.1	759.6	4.8
	4:27:56 PM	26.0	16.0	1420.4	4.9	20.8	15.6	898.4	5.4
	4:28:56 PM	26.7	16.3	968.4	4.8	20.7	14.9	898.0	5.9
	4:29:56 PM	26.4	16.3	897.2	4.7	22.5	15.0	894.3	6.1
	4:30:56 PM	26.4	16.2	865.0	4.8	19.9	15.3	901.2	5.5
	4:31:56 PM	26.0	16.2	865.8	4.9	18.9	15.5	904.9	5.5
	4:32:56 PM	27.5	15.6	1208.9	5.3	18.5	16.1	557.4	4.9
	4:33:56 PM	27.5	15.7	1366.3	5.2	20.2	15.7	887.0	5.2
	4:34:56 PM	27.3	15.7	1320.3	5.2	19.2	15.5	895.5	5.4
	4:35:56 PM	28.1	15.6	1446.1	5.2	21.6	14.8	898.8	6.0
	4:36:56 PM	28.5	16.0	1260.9	4.9	21.3	15.0	898.0	5.6
	4:37:56 PM	28.5	16.8	818.2	4.2	21.5	14.7	895.1	6.0
	4:38:56 PM	26.2	16.6	479.3	4.6	20.7	15.4	902.5	5.6
	4:39:56 PM	26.0	16.4	738.1	4.7	18.5	15.9	634.3	5.0
	4:40:56 PM	25.6	16.0	963.1	5.0	19.9	16.1	485.4	4.8
AVERAGES		25.9	16.2	930.0	4.8	20.4	15.3	815.9	5.6

Report No. 6-7684
Geoenergy/LP - Hayward
Tests 4 and 6 Run 3

		Line 2 Surface Dryer E - Tube Inlet				Line 2 Core Dryer E - Tube Inlet			
		NOX	O2	CO	CO2	NOX	O2	CO	CO2
DATE	TIME	(ppm)	(%)	(ppm)	(%)	(ppm)	(%)	(ppm)	(%)
5/14/96	6:15:56 PM	26.2	15.2	1489.2	5.4	20.8	14.7	898.0	6.0
	6:16:56 PM	25.8	15.4	1385.5	5.1	20.9	14.4	894.7	6.0
	6:17:56 PM	25.8	15.9	1160.4	4.8	21.2	14.9	897.6	5.7
	6:18:56 PM	24.8	15.8	1059.9	4.8	22.1	14.3	897.6	6.2
	6:19:56 PM	24.2	15.9	989.1	4.8	21.8	14.5	893.9	5.9
	6:20:56 PM	25.4	15.4	1171.0	5.2	23.4	14.4	891.1	6.4
	6:21:56 PM	26.2	15.3	1377.3	5.3	23.3	14.0	891.1	6.6
	6:22:56 PM	25.2	15.3	1417.2	5.2	21.9	14.6	892.3	6.0
	6:23:56 PM	24.8	15.3	1394.4	5.3	21.5	14.7	895.1	5.9
	6:24:56 PM	25.4	15.3	1420.0	5.2	21.9	14.8	895.5	5.9
	6:25:56 PM	24.2	15.8	1258.1	4.8	21.4	14.8	898.0	5.7
	6:26:56 PM	24.2	15.8	1015.2	4.9	22.4	14.6	892.7	6.2
	6:27:56 PM	24.4	15.6	1251.2	4.9	25.3	13.6	890.3	6.8
	6:28:56 PM	23.8	16.0	974.5	4.7	24.3	13.8	889.8	7.0
	6:29:56 PM	24.4	15.6	1040.4	5.0	20.9	14.0	895.9	6.3
	6:30:56 PM	25.6	15.2	1406.6	5.3	21.9	14.9	897.6	5.6
	6:31:56 PM	25.8	15.0	1530.7	5.5	20.5	15.0	841.8	5.8
	6:37:56 PM	22.2	16.2	842.2	4.5	19.8	14.6	891.1	5.9
	6:38:56 PM	23.0	15.8	1016.4	4.8	22.8	14.8	889.8	6.0
	6:39:56 PM	24.0	15.4	1333.8	5.2	21.3	14.5	889.4	6.0
	6:40:56 PM	25.4	15.2	1538.9	5.2	22.6	14.7	890.3	5.8
	6:41:56 PM	24.0	15.8	1329.3	4.9	21.9	14.3	889.8	6.2
	6:42:56 PM	23.6	15.9	1217.4	4.7	21.0	15.1	866.7	5.6
	6:43:56 PM	23.4	16.0	1047.7	4.6	22.6	13.9	893.1	6.4
	6:44:56 PM	22.8	15.8	1188.9	4.7	21.3	14.4	891.1	6.1
	6:45:56 PM	22.6	16.2	965.5	4.4	23.4	14.4	888.6	6.1
	6:46:56 PM	21.8	16.5	763.3	4.2	21.2	14.6	890.7	6.0
	6:47:56 PM	22.0	16.2	737.7	4.5	23.0	14.4	888.6	6.1
	6:48:56 PM	22.0	15.9	1066.0	4.7	21.7	14.5	889.0	6.2
	6:49:56 PM	22.4	15.8	1236.9	4.8	21.5	14.4	891.1	6.1
	6:50:56 PM	21.8	15.8	1226.4	4.8	22.1	14.7	888.6	6.0
	6:51:56 PM	21.8	15.9	1198.7	4.8	20.5	15.1	893.5	6.0
	6:52:56 PM	24.0	15.6	1328.5	5.0	20.9	15.0	898.4	5.7
	6:53:56 PM	23.4	15.8	1410.3	4.7	20.5	15.0	895.9	5.7
	6:54:56 PM	22.0	16.4	895.5	4.3	19.5	14.9	901.6	5.6
	6:55:56 PM	21.6	16.8	644.1	3.9	20.5	14.9	896.4	5.8
	6:56:56 PM	22.2	16.1	641.6	4.6	23.9	14.1	889.8	6.2
	6:57:56 PM	21.4	16.1	1026.2	4.6	24.1	13.4	889.4	6.9
	6:58:56 PM	22.6	15.6	1289.8	5.0	21.4	14.0	770.2	6.6
	6:59:56 PM	24.4	15.6	1411.9	4.9	19.8	14.9	831.3	5.5
	7:00:56 PM	23.4	15.7	1388.3	4.8	18.1	15.0	900.0	5.9
	7:01:56 PM	21.8	16.1	1162.1	4.5	19.4	15.2	901.6	5.4
	7:02:56 PM	19.9	16.5	880.1	4.1	20.9	14.8	891.5	5.9
	7:03:56 PM	20.8	16.8	480.1	4.0	21.7	14.3	890.7	6.3
	7:04:56 PM	21.0	16.6	546.8	4.2	22.6	14.3	889.4	6.4
	7:05:56 PM	21.0	16.1	814.6	4.5	23.7	13.8	889.0	6.6
	7:06:56 PM	22.4	15.6	1173.9	4.9	22.4	14.3	888.2	6.5
	7:07:56 PM	23.2	15.6	1416.8	4.9	21.0	14.4	890.3	6.2
	7:08:56 PM	21.8	15.8	1334.6	4.7	17.6	15.6	817.0	5.3
	7:09:56 PM	21.8	16.0	1197.1	4.6	18.2	15.4	905.7	5.2
	7:10:56 PM	21.2	16.3	1110.4	4.3	20.7	14.5	897.2	6.0
	7:11:56 PM	21.2	17.1	569.2	3.6	22.4	14.4	893.1	6.2
	7:12:56 PM	20.8	16.8	352.7	4.0	24.9	13.3	890.3	7.2
	7:13:56 PM	20.3	16.8	504.5	3.9	24.9	13.9	889.4	6.7
	7:14:56 PM	20.1	16.7	449.6	4.0	24.1	14.2	889.0	6.5
	7:15:56 PM	21.0	16.1	808.9	4.5	19.3	14.9	895.5	5.9
	7:16:56 PM	21.0	15.9	1081.5	4.6	18.8	15.1	901.6	5.4
	7:17:56 PM	20.8	15.9	1261.8	4.6	19.6	15.0	903.7	5.4
	7:18:56 PM	20.3	16.3	1044.5	4.3	20.7	15.1	897.6	5.6
	7:19:56 PM	20.8	16.6	701.9	4.1	24.9	13.7	891.5	6.5
AVERAGES		22.9	15.9	1082.9	4.7	21.6	14.5	887.8	6.1

APPENDIX E

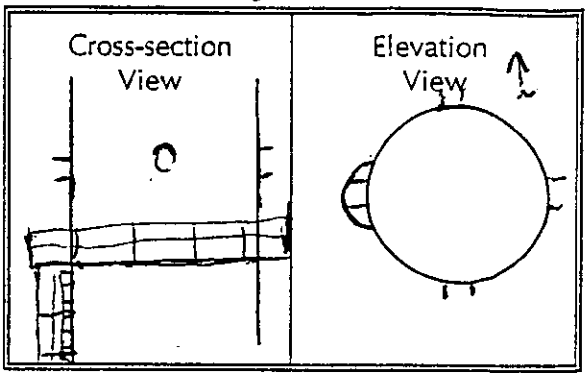
MEASUREMENT SYSTEM PERFORMANCE SPECIFICATIONS

INTERPOLL LABORATORIES, INC.
(612) 786-6020

EPA Method 2 Field Data Sheet

Job GEOENERGY / LP
Source ~~[illegible]~~ Line 2E-Tube outlet
Test 2(17) Run Date 5-14-96
Stack Dimen. 81.5" IN.
Dry Bulb ______ °F Wet bulb ______ °F
Manometer ☐ Reg. ☐ Exp ☐ Elec.
Barometric Pressure ______ IN.HG
Static Pressure ______ IN.WC
Operators S.B., M.P
Pitot No. ______ C_p ______

Drawing of Test Site



Traverse Point No.	Fraction of Diameter	Distance From Stack Wall (IN.)	Distance From End of Port (IN.)	Velocity	Temp. of Gas (°F)
		Port Length: 6.25 IN.		Time Start:	HRS
1	16.7	13.61	19.89		
2	50.0	40.75	40.00		
3	83.3	67.89	74.14		
Temp. Meas. Device & S/N:				Time End:	HRS

R or nothing = reg. manometer; S = expanded; E = electronic

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INTERPOLL LABORATORIES, INC.
(612) 786-6020

EPA Method 2 Field Data Sheet

Job CP/ Hayward
Source Line 2 Surface Dryer [illegible] Inlet
Test 4 Run 2 Date 5-4-96 E Tube
Stack Dimen. 42 IN.
Dry Bulb ____ °F Wet bulb ____ °F
Manometer ☐ Reg. ☐Exp ☐Elec.
Barometric Pressure ____ IN.HG
Static Pressure ____ IN.WC
Operators B Aschenbach
Pitot No. ____ C_p ____

Drawing of Test Site

Cross-section View	Elevation View

Traverse Point No.	Fraction of Diameter	Distance From Stack Wall (IN.)	Distance From End of Port (IN.)	Velocity	Temp. of Gas
		Port Length: IN.		Time Start: HRS	
1					
2					
3					
Temp. Meas. Device & S/N:				Time End: HRS	

R or nothing = reg. manometer; S = expanded; E = electronic

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INTERPOLL LABORATORIES, INC.
(612) 786-6020

EPA Method 2 Field Data Sheet

Job LP / Hayward E Tube
Source Line 2 Core Dryer RTO Duct
Test 6 Run___ Date 5-14-96
Stack Dimen. 42 IN.
Dry Bulb _____ °F Wet bulb _____ °F
Manometer ☐ Reg. ☐ Exp ☐ Elec.
Barometric Pressure _____ IN.HG
Static Pressure _____ IN.WC
Operators B Ackerbach S Kolker
Pitot No. _____ C_p _____

Drawing of Test Site

Cross-section View	Elevation View

Traverse Point No.	Fraction of Diameter	Distance From Stack Wall (IN.)	Distance From End of Port (IN.)	Velocity	Temp. of Gas
		Port Length: IN.		Time Start: HRS	
1					
2					
3					
Temp. Meas. Device & S/N:				Time End: HRS	

R or nothing = reg. manometer; S = expanded; E = electronic

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INTERPOLL LABORATORIES, INC.
(612) 786-6020

Calibration Error Check

Job GEOENERGY / LP

Test 2 Run 0 Date 5-14-96

Operator J. BAINVILLE

~~Pre~~ Calibration: Time (HRS)_____

***	Cylinder Value (PPM)	Analyzer Response (PPM)	Difference (PPM)	Span Value (PPM)	Percent of Span
Zero Gas	ø				
Mid Level					
High Level					

NO_x Calibration: Time (HRS)_____

***	Cylinder Value (PPM)	Analyzer Response (PPM)	Difference (PPM)	Span Value (PPM)	Percent of Span
Zero Gas	ø	0	0	250	0 %
Mid Level	78.4	81.4	3	250	1.2%
High Level	145.0	145.0	0	250	0 %

O_2 Calibration: Time (HRS)_____

***	Cylinder Value (PPM)	Analyzer Response (PPM)	Difference (PPM)	Span Value (PPM)	Percent of Span
Zero Gas	ø	0	0	25%	0 %
Mid Level	13.5	13.6	.1	25%	.4 %
High Level	21	21	0	25%	0 %

CO_2 Calibration Time (HRS)_____

***	Cylinder Value (PPM)	Analyzer Response (PPM)	Difference (PPM)	Span Value (PPM)	Percent of Span
Zero Gas	ø	0	0	20%	0
Mid Level	10.8	10.8	0	20 %	0
High Level	16.8	16.8	0	20 %	0

CO Calibration Time (HRS)_____

***	Cylinder Value (PPM)	Analyzer Response (PPM)	Difference (PPM)	Span Value (PPM)	Percent of Span
Zero Gas	ø	0	0	500	0
Mid Level	147	142	5	500	1%
High Level	299	300	1	500	.2%

INTERPOLL LABORATORIES, INC
(612) 786-6020

NOX Cal Drift Check

Line 2 E-Tube outlet

Job GEOENERGY / LP Source ~~DRYER RTO~~

Test 2 Run ____ Date 5-14-96 Site STACK

Operator J. BAINVILLE

Run	C̄	***	Cylinder Value (PPM)	Analyzer Resp (PPM) Initial	Analyzer Resp (PPM) Final	C_o	C_m	C_{gas}
1		Zero Gas	0	0	.2	.1		
		Upscale	78.4	78.5	77		77.15	
@1A	8.4	Zero Gas	0	0	-2	-1		9.2
CAL START OF 1A 1305		Upscale	78.4	78.4	80		79.2	
@2		Zero Gas	0	0	7	3.5		
		Upscale	78.4	78.4	80		79.2	
@2A	11.6	Zero Gas	0	0	7	3.5		3.5
		Upscale	78.4	78.4	77.4		77.9	
@3	9.3	Zero Gas	0	0	6	3		6.5
		Upscale	78.4	78.4	78.8		~~78~~.6	
~~VOID~~		Zero Gas	0					
		Upscale						
@	TC	Zero Gas	0					
		Upscale						
@ 7/1 2010	@	Zero Gas	0	0	-5	-2.5		
		Upscale	78.4	78.4	76.2		77.3	
@ 7/1 1705		Zero Gas	0	0	0-2	-.6		
		Upscale	78.4	78.4	76.4		77.4	
10		Zero Gas	0					
		Upscale						
11		Zero Gas	0					
		Upscale						
12		Zero Gas	0					
		Upscale						

END OF 1 CAL
1200
1230
1240 CAL
1317
1347
1500
1507
1537
1603
1615
1645
1815
1832
1837

Must be within 5% of the span for the zero or upscale cal. gas.

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INTERPOLL LABORATORIES, INC
(612) 786-6020

NOx Cal Drift Check

Job: LPI Hayward
Test: 4 Run: ____ Date: 5-14-96
Operator: Bob

Source: Line 2 Surface Dryer
Site: ~~RTO~~ INLET
E Tube

Run	C̄	***	Cylinder Value (PPM)	Analyzer Resp (PPM) Initial	Analyzer Resp (PPM) Final	C_o	C_m	C_{gas}
1		Zero Gas	0	0	1	.5		
		Upscale	73.7	74	65/72			
1A	25.4	Zero Gas	0	1	1	1		
		Upscale	73.7	72	69		70.5	25.9
1B	25.9	Zero Gas	0	1	1	1		
		Upscale	73.7	72	69		70.5	26.4
1C	22.9	Zero Gas	0	1	2	1.5		
		Upscale	73.7	74	70		72	22.4
5		Zero Gas	0	2	0	1		
		Upscale	73.7	74	75			
6		Zero Gas	0	0	0	0		
		Upscale	73.7	75	71		73	
7		Zero Gas	0					
		Upscale						
8		Zero Gas	0					
		Upscale						
9		Zero Gas	0					
		Upscale						
10		Zero Gas	0					
		Upscale						
11		Zero Gas	0					
		Upscale						
12		Zero Gas	0					
		Upscale						

NO Run
1200
1225
1231
1300
1307
1349
1500
1650
1715
1924

Must be within 5% of the span for the zero or upscale cal. gas.

091595-G:\STACK\WP\FORMS\S-559a

INTERPOLL LABORATORIES, INC
(612) 786-6020

NOx Cal Drift Check

Job GP / Hayward
Test 6 Run _____ Date 5-14-96
Operator BB

Source ~~GP / Hayward~~ STACK
Site Line 2 Core Dryer ~~PTO~~ INLET

Run	C̄	***	Cylinder Value (PPM)	Analyzer Resp (PPM) Initial	Final	C_o	C_m	C_{gas}
1		Zero Gas	0	1	2	1.5		
NO Run		Upscale	73.7	75	68/75			
1200 1231 1A	24.1	Zero Gas	0	2	2	2		
		Upscale	73.7	75	74		74.5	22.5
1234 1307 1B	20.4	Zero Gas	0	2	2	2		
		Upscale	73.7	74	74		74	18.8
1313 1345 1C	21.6	Zero Gas	0	2	2	2		
		Upscale	73.7	74	68		71	20.9
1500 1650 5		Zero Gas	0	2	0	1		
		Upscale	73.7	~~76~~ 74	72		73	
6		Zero Gas	0	0	0	0		
		Upscale	73.7	72	73		72.5	
7		Zero Gas	0					
		Upscale						
8		Zero Gas	0					
		Upscale						
9		Zero Gas	0					
		Upscale						
10		Zero Gas	0					
		Upscale						
11		Zero Gas	0					
		Upscale						
12		Zero Gas	0					
		Upscale						

Must be within 5% of the span for the zero or upscale cal. gas.

091595-G:\STACK\WP\FORMS\S-559a

INTERPOLL LABORATORIES, INC
(612) 786-6020

CO Cal Drift Check Line 2 E-Tube outlet

Job: GD & ENERGY / LP
Test: 2 Run ____ Date ____
Operator: J. BIENVILLE
Source: ~~DRYER RFO~~
Site: STACK

Run	C̄	***	Cylinder Value (PPM)	Analyzer Resp (PPM) Initial	Analyzer Resp (PPM) Final	C_o	C_m	C_{gas}
1240 END OF 1 CAL								
1		Zero Gas	0	1	0	.5		
		Upscale	299	300	300		300	
1345 CAL START OF 1A								
1A	1011	Zero Gas	0	0	0	0		1014
		Upscale	299	299	297		298	
2		Zero Gas	0	0	0	0		
		Upscale	299	300	297		298.5	
2A	975	Zero Gas	0	0	0	0		973
		Upscale	299	300	299		298.5	
3	1308	Zero Gas	0	0	0	0		1308
		Upscale	299	299	299		299	
~~3A~~		Zero Gas	0					
		Upscale						
	TC24	Zero Gas						
		Upscale						
2105 6 7/11		Zero Gas	0	0	0			
		Upscale	299	299	295			
9		Zero Gas	0					
		Upscale						
10		Zero Gas	0					
		Upscale						
11		Zero Gas	0					
		Upscale						
12		Zero Gas	0					
		Upscale						

Must be within 5% of the span for the zero or upscale cal. gas.

091595-G:\STACK\WP\FORMS\S-359a

INTERPOLL LABORATORIES, INC
(612) 786-6020

CO Cal Drift Check

Job LP/ Hayward
Test 4 Run _____ Date 5-14-96
Operator BOS

Source Line 2 Surface Dryer
Site RTO INLET
ETUBE

Run	$\bar{C}$	***	Cylinder Value (PPM)	Analyzer Resp (PPM)		C_o	C_m	C_{gas}
				Initial	Final			
1		Zero Gas	0	0	1	.5		
		Upscale	593	598	595		596.5	
2	1043	Zero Gas	0	1	8	4.5		1042
		Upscale	593	595	596		595.5	
3	930	Zero Gas	0	8	5	6.5		928
		Upscale	593	596	597		596.5	
4	1083	Zero Gas	0	5	7	6.0		1079
		Upscale	593	597	599		598	
5		Zero Gas	0					
		Upscale						
6		Zero Gas	0					
		Upscale						
7		Zero Gas	0					
		Upscale						
8		Zero Gas	0					
		Upscale						
9		Zero Gas	0					
		Upscale						
10		Zero Gas	0					
		Upscale						
11		Zero Gas	0					
		Upscale						
12		Zero Gas	0					
		Upscale						

Must be within 5% of the span for the zero or upscale cal. gas.

NC Run

INTERPOLL LABORATORIES, INC
(612) 786-6020

CO Cal Drift Check

Job: LP / Hayward
Test: 6 Run: ____ Date: 5-14-96
Operator: 6?3 (?)

Source: Line 2 Core Dryer
Site: ~~Rto~~ Inlet
E Tube

no Run

Run	$\bar{C}$	***	Cylinder Value (PPM)	Analyzer Resp (PPM) Initial	Analyzer Resp (PPM) Final	C_o	C_m	C_{gas}
1		Zero Gas	0	1	2	1.5	▒▒▒	
		Upscale	553	595	592	▒▒▒	593.5	
~~1~~ 1	785	Zero Gas	0	2	2	2	▒▒▒	788
		Upscale	593	592	590	▒▒▒	591	
~~2~~ 2	816	Zero Gas	0	2	1	1.5	▒▒▒	820
		Upscale	593	590	591	▒▒▒	590.5	
~~4~~ 3	888	Zero Gas	0	1	1	1	▒▒▒	894
		Upscale	593	591	588	▒▒▒	589.5	
5		Zero Gas	0				▒▒▒	
		Upscale				▒▒▒		
6		Zero Gas	0				▒▒▒	
		Upscale				▒▒▒		
7		Zero Gas	0				▒▒▒	
		Upscale				▒▒▒		
8		Zero Gas	0				▒▒▒	
		Upscale				▒▒▒		
9		Zero Gas	0				▒▒▒	
		Upscale				▒▒▒		
10		Zero Gas	0				▒▒▒	
		Upscale				▒▒▒		
11		Zero Gas	0				▒▒▒	
		Upscale				▒▒▒		
12		Zero Gas	0				▒▒▒	
		Upscale				▒▒▒		

Must be within 5% of the span for the zero or upscale cal. gas.

091595-G:\STACK\WP\FORMS\S-559a

INTERPOLL LABORATORIES, INC
(612) 786-6020

07 Cal Drift Check

Line 2 E-Tube outlet

Job GEO ENERGY LP Source ~~PNEUMATIC~~

Test 2 Run ____ Date 5-14-96 Site STACK

Operator S. BAINVILLE

Run	$\bar{C}$	***	Cylinder Value (PPM)	Analyzer Resp (PPM)		C_o	C_m	C_{gas}
				Initial	Final			
1		Zero Gas	0	0	0	0		
		Upscale	13.5	13.5	13.4		13.45	
01A		Zero Gas	0	0	0	0		
		Upscale	13.5	13.5	13.5		13.5	
07		Zero Gas	0	0	0	0		
		Upscale	13.5	13.5	13.5		13.5	
08A		Zero Gas	0	0	0			
		Upscale	13.5	13.5	13.4			
03		Zero Gas	0	0	0			
		Upscale	13.5	13.5	13.5			
12A		Zero Gas	0					
		Upscale						
0	TEST	Zero Gas	0	7				
		Upscale						
09/11		Zero Gas	0	0	0			
		Upscale	13.5	13.5	13.60			
9		Zero Gas	0					
		Upscale						
10		Zero Gas	0					
		Upscale						
11		Zero Gas	0					
		Upscale						
12		Zero Gas	0					
		Upscale						

1 OF 1

1315 CAL

START OF 1A

2105

Must be within 5% of the span for the zero or upscale cal. gas.

091595-G:\STACK\WP\FORMS\S-559a

INTERPOLL LABORATORIES, INC
(612) 786-6020

O_2 Cal Drift Check

Job: CP / Hayward
Test: 4 Run: _____ Date: 5/4/96
Operator: Bob

Source: GTE 2 Surface Dryer
Site: ~~220~~ Inlet GTub.

Run	$\bar{C}$	***	Cylinder Value (PPM)	Analyzer Resp (PPM) Initial	Analyzer Resp (PPM) Final	C_o	C_m	C_{gas}
1		Zero Gas	0	0	0	0		
		Upscale	13.5	13.5	13.4		13.45	
2		Zero Gas	0	0	.1	.05		
		Upscale	13.5	13.4	13.5		13.45	
3		Zero Gas	0	.1	.2	.15		
		Upscale	13.5	13.5	13.6		13.55	
4		Zero Gas	0	.1				
		Upscale	13.5	13.6	13.6		13.6	
5		Zero Gas	0					
		Upscale						
6		Zero Gas	0					
		Upscale						
7		Zero Gas	0					
		Upscale						
8		Zero Gas	0					
		Upscale						
9		Zero Gas	0					
		Upscale						
10		Zero Gas	0					
		Upscale						
11		Zero Gas	0					
		Upscale						
12		Zero Gas	0					
		Upscale						

No Run

Must be within 5% of the span for the zero or upscale cal. gas.

091595-G:\STACK\WP\FORMS\S-559a

INTERPOLL LABORATORIES, INC
(612) 786-6020

O2 Cal Drift Check

Job: CP/ Hayward
Source: Line 2 Core Dryer
Test: 6 Run: Date: 5-14-96
Site: ~~RTO~~ Inlet E Tube
Operator: BEB

Run	$\bar{C}$	***	Cylinder Value (PPM)	Analyzer Resp (PPM) Initial	Analyzer Resp (PPM) Final	C_o	C_m	C_{gas}
1		Zero Gas	0	.1	.1	.1		
		Upscale	13.5	13.6	13.6		13.6	
2		Zero Gas	0	.1	0	.05		
		Upscale	13.5	13.6	13.5		13.55	
3		Zero Gas	0	0	.1	.05		
		Upscale	13.5	13.5	13.6		13.55	
4		Zero Gas	0	.1	.1	.1		
		Upscale	13.5	13.6	13.6		13.6	
5		Zero Gas	0					
		Upscale						
6		Zero Gas	0					
		Upscale						
7		Zero Gas	0					
		Upscale						
8		Zero Gas	0					
		Upscale						
9		Zero Gas	0					
		Upscale						
10		Zero Gas	0					
		Upscale						
11		Zero Gas	0					
		Upscale						
12		Zero Gas	0					
		Upscale						

Must be within 5% of the span for the zero or upscale cal. gas.

091595-GASTACK\WP\FORMS\S-559a

INTERPOLL LABORATORIES, INC
(612) 786-6020

CO2 Cal Drift Check

Job: GEO ENERGY LP
Source: ~~DRYER KTO~~ Line 2 E Tube outlet
Test: 2 Run ____ Date 5-14-96
Site: STACK
Operator: S BARNVILLE

Run	$\overline{C}$	***	Cylinder Value (PPM)	Analyzer Resp (PPM) Initial	Final	C_o	C_m	C_{gas}
1 (END OF 1, 1315 CAL)		Zero Gas	0	0	0	0	▒	
		Upscale	10.8	10.8	10.8	▒	10.8	
1A (START OF 1A)		Zero Gas	0	0	0	0	▒	
		Upscale	10.8	10.8	10.8	▒	10.8	
2		Zero Gas	0	0	0	0	▒	
		Upscale	10.8	10.8	10.8	▒	10.8	
2A (1603 CAL)		Zero Gas	0	0	0		▒	
		Upscale	10.8	10.8	10.8	▒		
3 (1645 CAL END OF 2A)		Zero Gas	0	0	0		▒	
		Upscale	10.8	10.8	10.8	▒		
~~[illegible]~~ (1757 START OF 3 CAL)		Zero Gas	0				▒	
		Upscale				▒		
~~TEST 7~~		Zero Gas	0				▒	
		Upscale				▒		
7/1 (2105)		Zero Gas	0	0	0		▒	
		Upscale	10.8	10.8	10.8	▒		
9		Zero Gas	0				▒	
		Upscale				▒		
10		Zero Gas	0				▒	
		Upscale				▒		
11		Zero Gas	0				▒	
		Upscale				▒		
12		Zero Gas	0				▒	
		Upscale				▒		

Must be within 5% of the span for the zero or upscale cal. gas.

091595-C:\STACK\WP\FORMS\S-559a

INTERPOLL LABORATORIES, INC
(612) 786-6020

CO_2 Cal Drift Check

Job: CP/ Hayward
Test: 4 Run: ___ Date: 5-14-96
Operator: BCB

Source: Line 2 Surface Dryer
Site: RTO Inlet
E Tube

NC Run

Run	$\bar{C}$	***	Cylinder Value (PPM)	Analyzer Resp (PPM) Initial	Analyzer Resp (PPM) Final	C_o	C_m	C_{gas}
1		Zero Gas	0	.1	.1	.1		
		Upscale	10.9	10.7	10.9		10.8	
2		Zero Gas	0	.1	0	.05		
		Upscale	10.9	10.9	10.9		10.9	
3		Zero Gas	0	0	0	0		
		Upscale	10.9	10.9	10.8		10.85	
4		Zero Gas	0	0				
		Upscale	10.9	10.8	10.9		10.75	
5		Zero Gas	0					
		Upscale						
6		Zero Gas	0					
		Upscale						
7		Zero Gas	0					
		Upscale						
8		Zero Gas	0					
		Upscale						
9		Zero Gas	0					
		Upscale						
10		Zero Gas	0					
		Upscale						
11		Zero Gas	0					
		Upscale						
12		Zero Gas	0					
		Upscale						

Must be within 5% of the span for the zero or upscale cal. gas.

091595-G:\STACK\WP\FORMS\S-559a

INTERPOLL LABORATORIES, INC
(612) 786-6020

CO_2 Cal Drift Check

Job: LP/ Hayward
Test: 6 Run ____ Date: 5-14-96
Operator: Bmz

Source: Line 2 Core Dryer
Site: ~~RTO~~ INLET
ETUO

No Run

Run	$\bar{C}$	***	Cylinder Value (PPM)	Analyzer Resp (PPM) Initial	Final	C_o	C_m	C_{gas}
1		Zero Gas	0	.2	.2	.2		
		Upscale	10.9	10.9	10.8			
2		Zero Gas	0	.2	.1	.15		
		Upscale	10.9	10.8	10.8		10.8	
3		Zero Gas	0	.1	.2	.15		
		Upscale	10.9	10.8	10.8		10.8	
4		Zero Gas	0	.1	.2	.15		
		Upscale	10.9	10.8	10.7		10.75	
5		Zero Gas	0					
		Upscale						
6		Zero Gas	0					
		Upscale						
7		Zero Gas	0					
		Upscale						
8		Zero Gas	0					
		Upscale						
9		Zero Gas	0					
		Upscale						
10		Zero Gas	0					
		Upscale						
11		Zero Gas	0					
		Upscale						
12		Zero Gas	0					
		Upscale						

Must be within 5% of the span for the zero or upscale cal. gas.

091595-G:\STACK\WP\FORMS\S-559a

INTERPOLL LABORATORIES, INC
(612) 786-6020

~~ABB~~ System Bias Check

Job GEOENERGY LP Source ~~ROTEK K10~~ Line 2 E-Tube outlet
Test 2 Run 0 Date 5-14-96 Site STACK
Operator SBAINVILLE

Instrument	***	Cylinder Value (PPM)	Analyzer Resp (PPM)		Diff. CE-SB (PPM)	Span Val. (PPM)	% of Span
			Cal. Err.	Sys. Bias			
NOX	Zero Gas	0	0	2	2	250	.8%
	Upscale	78.4	81.4	78.0	3.4	250	1.36%
CO	Zero Gas	0	0	0	0	500	0%
	Upscale	147	142	142	0	500	0%
O2	Zero Gas	0	0	.3	.3	25%	1.2%
	Upscale	13.5	13.6	13.5	-.1	25%	.4%
CO2	Zero Gas	0	0	-.1	.1	20%	.5%
	Upscale	10.8	10.8	10.8	0	20%	0%
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						

Must be within 5% of the span for the zero or upscale cal. gas.

070595-G:\STACK\WP\FORMS\S-362

Calibration Error Check

Job CPI Holyoke

Test 3 Run _____ Date 5-13-96

Operator BB

SO_2 Calibration: Time (HRS)_____

***	Cylinder Value (PPM)	Analyzer Response (PPM)	Difference (PPM)	Span Value (PPM)	Percent of Span
Zero Gas	0				
Mid Level					
High Level					

NO_x Calibration: Time (HRS)_____

***	Cylinder Value (PPM)	Analyzer Response (PPM)	Difference (PPM)	Span Value (PPM)	Percent of Span
Zero Gas	0	1	1	250	.4
Mid Level	73.7	75	1.3	250	.52
High Level	148.	147	1	250	.4

O_2 Calibration: Time (HRS)_____

***	Cylinder Value (PPM)	Analyzer Response (PPM)	Difference (PPM)	Span Value (PPM)	Percent of Span
Zero Gas	0	.1	.1	25	.4
Mid Level	13.5	13.5	~~0~~ 0	25	0
High Level	20.8	21	.2	25	.8

CO_2 Calibration Time (HRS)_____

***	Cylinder Value (PPM)	Analyzer Response (PPM)	Difference (PPM)	Span Value (PPM)	Percent of Span
Zero Gas	0	.2	.2	20	1.0
Mid Level	10.5	10.9	~~0~~ 0	20	0
High Level	17.2			20	

CO Calibration Time (HRS)_____

***	Cylinder Value (PPM)	Analyzer Response (PPM)	Difference (PPM)	Span Value (PPM)	Percent of Span
Zero Gas	0	0	0	1000	0
Mid Level	296	300	4	1000	.4
High Level	593	597	4	1000	.4

INTERPOLL LABORATORIES, INC

(612) 786-6020

NOx System Bias Check

Job LP / Haywar[illegible] Source Line 2 Surface Dryer

Test 4 Run______ Date______ Site ~~R[illegible]O~~ Filter E-Tube

Operator GA

Instrument	***	Cylinder Value (PPM)	Analyzer Resp (PPM)		Diff. CE-SB (PPM)	Span Val. (PPM)	% of Span
			Cal. Err.	Sys. Bias			
NOx	Zero Gas	0	0				
	Upscale	73.7	74				
CO	Zero Gas	0	0				
	Upscale	593	598				
O_2	Zero Gas	0	0				
	Upscale	13.5	13.5				
CO_2	Zero Gas	0	.1				
	Upscale	10.9	10.7				
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						

Must be within 5% of the span for the zero or upscale cal. gas.

070595-G:\STACK\WP\FORMS\S-562

Calibration Error Check

Job CPI Hayward

Test 6 Run 0 Date 5-13-96

Operator BAB

SO_2 Calibration: Time (HRS)_____

***	Cylinder Value (PPM)	Analyzer Response (PPM)	Difference (PPM)	Span Value (PPM)	Percent of Span
Zero Gas	ø				
Mid Level					
High Level					

NO_x Calibration: Time (HRS)_____

***	Cylinder Value (PPM)	Analyzer Response (PPM)	Difference (PPM)	Span Value (PPM)	Percent of Span
Zero Gas	ø	1	1	250	
Mid Level	73.7	74	.3	250	
High Level	148	150	2	250	

O_2 Calibration: Time (HRS)_____

***	Cylinder Value (PPM)	Analyzer Response (PPM)	Difference (PPM)	Span Value (PPM)	Percent of Span
Zero Gas	ø	.1	1	25	
Mid Level	13.5	13.4	.1	25	
High Level	20.8	21.0	.2	25	

CO_2 Calibration Time (HRS)_____

***	Cylinder Value (PPM)	Analyzer Response (PPM)	Difference (PPM)	Span Value (PPM)	Percent of Span
Zero Gas	ø	.3	.3	20	
Mid Level	10.9	11.0	.1	20	
High Level	17.2	17.1	.1	20	

CO Calibration Time (HRS)_____

***	Cylinder Value (PPM)	Analyzer Response (PPM)	Difference (PPM)	Span Value (PPM)	Percent of Span
Zero Gas	ø	0	0	1000	
Mid Level	296	298	2	1000	
High Level	553	553	0	1000	

INTERPOLL LABORATORIES, INC

(612) 786-6020

~~NOx~~ ALL System Bias Check

Job LP/Hayward

Source Line 2 Core Dryer

Test 6 Run______ Date______

Site ~~REV~~ Dailey ETube

Operator Bob

Instrument	***	Cylinder Value (PPM)	Analyzer Resp (PPM)		Diff. CE-SB (PPM)	Span Val. (PPM)	% of Span
			Cal. Err.	Sys. Bias			
NOx	Zero Gas	0	1				
	Upscale	73.7	75				
CO	Zero Gas	0	1				
	Upscale	553	595				
O_2	Zero Gas	0	.1				
	Upscale	13.5	13.6				
CO_2	Zero Gas	0	.2				
	Upscale	10.9	10.9				
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						
	Zero Gas	0					
	Upscale						

Must be within 5% of the span for the zero or upscale cal. gas.

070595-G:\STACK\WP\FORMS\S-562

APPENDIX F

CALIBRATION GAS CERTIFICATION SHEETS

NATIONAL SPECIALTY GASES

630 UNITED DRIVE
DURHAM, NC
27713
(919)544-3772

CERTIFICATE OF ANALYSIS EPA PROTOCOL MIXTURES

REFERENCE #:	88-44698	CYLINDER #:	CC112105	CYL. PRESSURE:	2000 PSIG	P. O. #	20576
EXP. DATE:	11/30/98	LAST ANALYSIS DATE:	11/30/95	CUSTOMER:	TWIN CITY OXYGEN		

METHOD: ANALYZED ACCORDING TO EPA TRACEABILITY PROTOCOL FOR ASSAY AND CERTIFICATION OF GASEOUS CALIBRATION STANDARDS-SEPTEMBER 1993:G-1 THIS STANDARD SHOULD NOT BE USED WHEN ITS GAS PRESSURE IS BELOW 1.0 MEGAPASCALS (150 PSIG).

COMPONENT: CARBON DIOXIDE	COMPONENT: OXYGEN	COMPONENT:
STANDARD	STANDARD	STANDARD
SRM #: 1675B	SRM #: 2659A	SRM #:
CYL. #: CLM 6481	CYL. # CLM 6947	CYL. #
CONC: 14.01 %	CONC: 20.72 %	CONC:
INSTRUMENT: ROSEMOUNT NDIR	INSTRUMENT: BECKMAN PARAMAGNETIC	INSTRUMENT:
MODEL #: 880	MODEL #: 755	MODEL #:
SERIAL #: 2000418	SERIAL #: 1001419	SERIAL #:
LAST CAL.: 11/5/95	LAST CAL.: 11/1/95	LAST CAL.:
MEAN CONC.: 10.9 % +/- 0.09 %	MEAN CONC.: 13.5 % +/- 0.11 %	MEAN CONC.:
REPLICATE CONC.	REPLICATE CONC.	REPLICATE CONC
DATE: 11/30/95	DATE: 11/30/95	DATE:
10.9 %	13.5 %	DATE:
10.9 %	13.4 %	
10.9 %	13.5 %	
DATE:	DATE:	

BALANCE GAS: NITROGEN

REPLICATE DATA	REPLICATE DATA	REPLICATE DATA
DATE: 11/30/95	DATE: 11/30/95	DATE:
Z 0 R 14.01 C 10.9	Z 0 R 20.72 C 13.5	Z R C
R 14.02 Z 0 C 10.9	R 20.73 Z 0 C 13.4	R Z C
Z 0 C 10.9 R 14.01	Z 0 C 13.5 R 20.72	Z C R
DATE	DATE:	DATE:
Z R C	Z R C	Z R C
R Z C	R Z C	R Z C
Z C R	Z C R	Z C R

Z= ZERO C=CANDIDATE R=REFERENCE

ANALYST: James Ragan APPROVED BY: Jim Rowe

THIS REPORT STATED ACCURATELY THE RESULTS OF THE INVESTIGATION MADE UPON THE MATERIAL SUBMITTED TO THE ANALYTICAL LABORATORY. EVERY EFFORT HAS BEEN MADE TO DETERMINE OBJECTIVELY THE INFORMATION REQUESTED; HOWEVER, IN CONNECTION WITH THIS REPORT, NATIONAL SPECIALTY GASES SHALL HAVE NO LIABILITY IN EXCESS OF ITS ESTABLISHED CHARGE FOR THE SERVICE.
ASSAYED AT: NATIONAL SPECIALTY GASES, 630 UNITED DRIVE, DURHAM, NC 27713. (919)544-3772

INTERPOLL LABORATORIES, INC.
(612) 786-6020

Certificate of Analysis for High Range Standard Gas for Method 3A

Vendor: National

Cylinder No.: CC 109860

Date of Preparation: 1-25-96

Label:

Blend Specification: 21.1 % O_2 16.9 % CO_2

Results of Analysis of Standard Gas (By Orsat)			
Date of Analysis	Run	CO_2 (% v/v)	O_2 (% v/v)
1-25-96	1	17.2	20.8
1-25-96	2	17.1	20.9
1-25-96	3	17.2	20.8
	4		
	5		
	6		
	Avg	17.2	20.8

Analyst: [signature]

☒ Results are within 5% of the vendor tag value; use tag value.

☐ Results are not within 5% of the vendor tag value; conduct another set of triplicate analyses.

☐ All results within ± 5% of the average; relabel as above.

☐ All results not within ± 5% of the average; perform another set of triplicate analyses.

Date: February 2, 1996

Approved by: [signature] for Dr. Perry Lonnes

052394-G:\STACK\WP\FORMS\S-425

INTERPOLE LABORATORIES, INC.
(612) 786-6020

EPA Method 3 Data Reporting Sheet - Orsat Analysis

Job: O_2/CO_2 CERT
Team Leader: BJB
Date Submitted: 1-26-96
Job No.: 3
Date of Analysis: 1-26-96

Source: CC 109860
Test Site: Shop
Date of Test: 1-25-96
No. of Runs Completed: 3
Technician: BB

Test/ Run	Sample Log No. and Type	No. of An.	Buret Readings (ml) Zero Pt.	After CO_2	After O_2	Conc. CO_2 %v/v Dry	Conc. O_2 %v/v Dry	F_o
0		1	0	0	20.9	0	20.9	
		2						
	☐B☐F	Avg						
1		1	0	17.2	38.0	17.2	20.8	
		2	0	17.1	38.0	17.1	20.9	
	☐B☐F	Avg				17.15	20.85	
2		1	0	17.2	38.0	17.2	20.8	
		2						
	☐B☐F	Avg						
		1						
		2						
	☐B☐F	Avg						
		1						
		2						
	☐B☐F	Avg						
		1						
		2						
	☐B☐F	Avg						
		1						
		2						
	☐B☐F	Avg						
		1						
		2						
	☐B☐F	Avg						
		1						
		2						
	☐B☐F	Avg						

☒ Ambient Air QA Check
☐ Orsat Analyzer System Leak Check
☐ F_o Within EPA M-3 Guidelines for fuel type.

Where $F_o = \frac{20.9 - O_2}{CO_2}$

F = Flask (250 cc all glass)

B = Tedlar Bag (5 layer)

EPA Method 3 Guidelines

Fuel Type	FO Range
Coal:	
Anthracite/Lignite	1.016-1.130
Bituminous	1.083-1.230
Oil:	
Distillate	1.260-1.413
Residual	1.210-1.370
Gas:	
Natural	1.600-1.836
Propane	1.43-1.586
Butane	1.403-1.553
Wood/Wood Bark	1.000-1.130

NATIONAL SPECIALTY GASES
630 UNITED DRIVE
DURHAM, N.C. 27713
(919) 544-3772

TO: TWIN CITY OXYGEN

CERTIFICATE OF ANALYSIS

DATE REPORTED:9/29/94 REFERENCE #:88-34131

MATERIAL SUBMITTED:OXYGEN, CARBON DIOXIDE IN NITROGEN, CERTIFIED CYL. #CC109860

INFORMATION REQUESTED:RATIO ANALYSIS

METHOD OF ANALYSIS:OXYGEN ANALYZER

RESULT OF INVESTIGATION:

COMPONENT	SPECIFICATION	CONCENTRATION
OXYGEN	21%	21.1%
CARBON DIOXIDE	17%	16.9%
NITROGEN		BALANCE

Laura Ghantons
AUTHORIZED SIGNATURE

"THIS REPORT STATED ACCURATELY THE RESULTS OF THE INVESTIGATION MADE UPON THE MATERIAL SUBMITTED TO THE ANALYTICAL LABORATORY. EVERY EFFORT HAS BEEN MADE TO DETERMINE OBJECTIVELY, THE INFORMATION REQUESTED; HOWEVER, IN CONNECTION WITH ITS RENDERING OF THIS REPORT, NATIONAL SPECIALTY GASES SHALL HAVE NO LIABILITY IN EXCESS OF ITS ESTABLISHED CHARGE FOR THE SERVICE."

INTERPOLL LABORATORIES, INC.
(612) 786-6020

Certificate of Analysis for Standard Gas

Vendor: Air Products

Cylinder No.: SG 915 1692

Date of Preparation: ~~4-4-96~~ 6-2-95

Label: Nitric Oxide

Blend Specification: 73.7 ppm, Balance N2

Results of Analysis of Standard Gas			
Date of Analysis	Run	NOx	
4-4-96	1	72.4614	
4-4-96	2	72.3393	
4-4-96	3	72.6038	
	4		
	5		
	6		
	Avg	72.4682	1.67%

Analyst: KO3

☒ Results are within 2% of the vendor tag value; use tag value.

☐ Results are not within 2% of the vendor tag value; conduct another set of triplicate analyses.

☐ All results within ± 2% of the average; relabel as above.

☐ All results not within ± 2% of the average; perform another set of triplicate analyses.

Date: April 4, 1996

Approved by: [signature]

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INTERPOLL LABS

TANK CEWRT
TANK NUMBER SG9151692
4/4/96

4/4/96	1:20:00 PM			
0	71.973	0	0	0
4/4/96	1:20:06 PM			
0	74.008	0	0	0
4/4/96	1:20:12 PM			
0	73.601	0	0	0
4/4/96	1:20:18 PM			
0	73.194	0	0	0
4/4/96	1:20:24 PM			
0	72.787	0	0	0
4/4/96	1:20:30 PM			
0	72.38	0	0	0
4/4/96	1:20:36 PM			
0	71.973	0	0	0
4/4/96	1:20:42 PM			
0	72.787	0	0	0
4/4/96	1:20:48 PM			
0	72.38	0	0	0
4/4/96	1:20:54 PM			
0	71.566	0	0	0
4/4/96	1:21:00 PM			
0	72.38	0	0	0
4/4/96	1:21:06 PM			
0	72.38	0	0	0
4/4/96	1:21:12 PM			
0	72.787	0	0	0
4/4/96	1:21:18 PM			
0	73.194	0	0	0
4/4/96	1:21:24 PM			
0	71.16	0	0	0
4/4/96	1:21:30 PM			
0	72.38	0	0	0
4/4/96	1:21:36 PM			
0	72.38	0	0	0
4/4/96	1:21:42 PM			
0	71.973	0	0	0
4/4/96	1:21:48 PM			
0	72.38	0	0	0
4/4/96	1:21:54 PM			
0	71.566	0	0	0

72.46145

INTERPOL LABS

TANK CERT
TANK NUMBER SG9151692
4/4/96

4/4/96	1:41:05 PM			
0	72.38	0	0	0
4/4/96	1:41:11 PM			
0	72.787	0	0	0
4/4/96	1:41:17 PM			
0	73.194	0	0	0
4/4/96	1:41:23 PM			
0	72.38	0	0	0
4/4/96	1:41:29 PM			
0	72.787	0	0	0
4/4/96	1:41:35 PM			
0	73.194	0	0	0
4/4/96	1:41:41 PM			
0	71.973	0	0	0
4/4/96	1:41:47 PM			
0	71.973	0	0	0
4/4/96	1:41:53 PM			
0	71.973	0	0	0
4/4/96	1:41:59 PM			
0	73.194	0	0	0
4/4/96	1:42:05 PM			
0	71.973	0	0	0
4/4/96	1:42:11 PM			
0	72.787	0	0	0
4/4/96	1:42:17 PM			
0	71.973	0	0	0
4/4/96	1:42:23 PM			
0	72.787	0	0	0
4/4/96	1:42:29 PM			
0	72.787	0	0	0
4/4/96	1:42:35 PM			
0	73.194	0	0	0
4/4/96	1:42:41 PM			
0	73.601	0	0	0
4/4/96	1:42:47 PM			
0	72.787	0	0	0
4/4/96	1:42:53 PM			
0	71.973	0	0	0
4/4/96	1:42:59 PM			
0	72.38	0	0	0

72.60385

Air Products and Chemicals, Inc.
SPECIALTY GAS DEPARTMENT
12722 S. WENTWORTH AVENUE
CHICAGO, IL 60628

Certificate of Analysis - EPA Protocol Gas Standard

PERFORMED ACCORDING TO EPA TRACEABILITY PROTOCOL FOR ASSAY AND CERTIFICATION OF GASEOUS CALIBRATION STANDARDS (PROCEDURE #G1)

Customer:
AIR PRODUCTS & CHEMICALS, INC.
373 CANTERBURY ROAD
SHAKOPEE MN 55379

Notes:

Order No: CSS-174990-01
Batch No: 861-25878

Cylinder No: SG9151692BAL
Cylinder Pressure*: 2000 psig
Certification Date: 06/02/95
Expiration Date: 06/02/97

PO: Rel:

*** Certified Concentration ***		********* Reference Standards *********			********** Analytical Instrumentation **********			
Component	Certified Concentration	Cylinder #	Standard Number	Concentration	Instrument Make/Model	Serial Number	Last Calibration	Measurement Principal
NITRIC OXIDE	73.7 ±0.64 PPM	SG9119927BAL	GMIS	93.7200 PPM	Rosemount 951a	0101877	05/18/95	CHEMILUMINESCENCE

Balance Gas: Nitrogen

Contaminent	
Nitrogen Dioxide	.300 PPM

* Standard should not be used below 150 psig

F18

Analyst: Richard VanDyke
Richard VanDyke

Approved By: Robert McNear
Robert McNear

INTERPOLL LABORATORIES, INC.
(612) 786-6020

Certificate of Analysis for Standard Gas

Vendor: Air Products

Cylinder No.: SG 9132402

Date of Preparation: ~~4-4-96~~ 5-12-94

Label: Nitric Oxide

Blend Specification: 148ppm Balance N2

Results of Analysis of Standard Gas			
Date of Analysis	Run	NOx	
4-4-96	1	146.8226	
4-4-96	2	146.6598	
4-4-96	3	147.0872	
	4		
	5		
	6		
	Avg	146.8565	.77%

Analyst: Bob A

☑ Results are within 2% of the vendor tag value; use tag value.

☐ Results are not within 2% of the vendor tag value; conduct another set of triplicate analyses.

☐ All results within ± 2% of the average; relabel as above.

☐ All results not within ± 2% of the average; perform another set of triplicate analyses.

Date: April 4, 1996

Approved by:

012696-G:\STACK\WP\FORMS\S-425

INTERPOL LABS

TANK CERT
TANK NUMBER SG9132402
4/4/96

4/4/96	12:49:05 PM			
0	147.25	0	0	0
4/4/96	12:49:11 PM			
0	146.436	0	0	0
4/4/96	12:49:17 PM			
0	146.843	0	0	0
4/4/96	12:49:23 PM			
0	147.25	0	0	0
4/4/96	12:49:29 PM			
0	147.25	0	0	0
4/4/96	12:49:35 PM			
0	146.843	0	0	0
4/4/96	12:49:41 PM			
0	146.843	0	0	0
4/4/96	12:49:47 PM			
0	146.436	0	0	0
4/4/96	12:49:53 PM			
0	146.436	0	0	0
4/4/96	12:49:59 PM			
0	146.436	0	0	0
4/4/96	12:50:05 PM			
0	146.436	0	0	0
4/4/96	12:50:11 PM			
0	146.843	0	0	0
4/4/96	12:50:17 PM			
0	147.25	0	0	0
4/4/96	12:50:23 PM			
0	146.843	0	0	0
4/4/96	12:50:29 PM			
0	146.029	0	0	0
4/4/96	12:50:35 PM			
0	146.436	0	0	0
4/4/96	12:50:41 PM			
0	147.25	0	0	0
4/4/96	12:50:47 PM			
0	146.843	0	0	0
4/4/96	12:50:53 PM			
0	147.25	0	0	0
4/4/96	12:50:59 PM			
0	147.25	0	0	0

146.82265

INTEREPOLL LABS

TANK CERT
TANK NUMBER SG9132402
4/4/96

4/4/96	1:03:04 PM			
0	146.843	0	0	0
4/4/96	1:03:10 PM			
0	147.25	0	0	0
4/4/96	1:03:16 PM			
0	146.029	0	0	0
4/4/96	1:03:22 PM			
0	146.843	0	0	0
4/4/96	1:03:28 PM			
0	146.436	0	0	0
4/4/96	1:03:34 PM			
0	146.843	0	0	0
4/4/96	1:03:40 PM			
0	146.843	0	0	0
4/4/96	1:03:46 PM			
0	146.436	0	0	0
4/4/96	1:03:52 PM			
0	146.436	0	0	0
4/4/96	1:03:58 PM			
0	146.843	0	0	0
4/4/96	1:04:04 PM			
0	145.622	0	0	0
4/4/96	1:04:10 PM			
0	146.843	0	0	0
4/4/96	1:04:16 PM			
0	146.843	0	0	0
4/4/96	1:04:22 PM			
0	146.436	0	0	0
4/4/96	1:04:28 PM			
0	147.25	0	0	0
4/4/96	1:04:34 PM			
0	147.25	0	0	0
4/4/96	1:04:40 PM			
0	146.843	0	0	0
4/4/96	1:04:46 PM			
0	146.436	0	0	0
4/4/96	1:04:52 PM			
0	146.843	0	0	0
4/4/96	1:04:58 PM			
0	146.029	0	0	0

146.65985

INTERPOLL LABS

TANK CERT
TANK NUMBER SG9132402
4/4/96

4/4/96	1:11:05 PM			
0	146.843	0	0	0
4/4/96	1:11:11 PM			
0	147.657	0	0	0
4/4/96	1:11:17 PM			
0	146.843	0	0	0
4/4/96	1:11:23 PM			
0	146.843	0	0	0
4/4/96	1:11:29 PM			
0	147.25	0	0	0
4/4/96	1:11:35 PM			
0	146.436	0	0	0
4/4/96	1:11:41 PM			
0	146.843	0	0	0
4/4/96	1:11:47 PM			
0	147.25	0	0	0
4/4/96	1:11:53 PM			
0	147.25	0	0	0
4/4/96	1:11:59 PM			
0	147.25	0	0	0
4/4/96	1:12:05 PM			
0	147.25	0	0	0
4/4/96	1:12:11 PM			
0	146.843	0	0	0
4/4/96	1:12:17 PM			
0	146.843	0	0	0
4/4/96	1:12:23 PM			
0	147.25	0	0	0
4/4/96	1:12:29 PM			
0	147.657	0	0	0
4/4/96	1:12:35 PM			
0	146.843	0	0	0
4/4/96	1:12:41 PM			
0	147.25	0	0	0
4/4/96	1:12:47 PM			
0	146.843	0	0	0
4/4/96	1:12:53 PM			
0	147.25	0	0	0
4/4/96	1:12:59 PM			
0	147.25	0	0	0

147.0872

Air Produc and Chemicals, Inc.
SPECIALTY GAS DEPARTMENT
12722 S. WENTWORTH AVENUE
CHICAGO, IL 60628

Certificate of Analysis - EPA Protocol Gas Standard

PERFORMED ACCORDING TO EPA TRACEABILITY PROTOCOL FOR ASSAY AND CERTIFICATION OF GASEOUS CALIBRATION STANDARDS (PROCEDURE #G1)

Customer:
AIR PRODUCTS & CHEMICALS, INC.
373 CANTERBURY ROAD
SHAKOPEE MN 55379

Notes:

PO: Rel:

Order No: 233-043674-01
Batch No: 861-18097

Cylinder No: SG9132402BAL
Cylinder Pressure*: 2000 psig
Certification Date: 05/12/94
Expiration Date: 05/12/96

*** Certified Concentration ***		********** Reference Standards *********			************ Analytical Instrumentation ************			
Component	Certified Concentration	Cylinder #	Standard Number	Concentration	Instrument Make/Model	Serial Number	Last Calibration	Measurement Principal
NITRIC OXIDE	148 ±0.5 PPM	SG9113408BAL	GMIS	147.3000 PPM	Rosemount 951a	0101877	05/04/94	CHEMILUMINESCENCE

Balance Gas: Nitrogen

Contaminent
Nitrogen Dioxide .500 PPM

* Standard should not be used below 150 psig

F-13

Analyst: Richard VanDyke

Approved By: Robert McNear

Air Products and Chemicals, Inc.
SPECIALTY GAS DEPARTMENT
12722 S. WENTWORTH AVENUE
CHICAGO, IL 60628

Certificate of Analysis - EPA Protocol Gas Standard

PERFORMED ACCORDING TO EPA TRACEABILITY PROTOCOL FOR ASSAY AND CERTIFICATION OF GASEOUS CALIBRATION STANDARDS (PROCEDURE #G1)

Customer:
AIR PRODUCTS & CHEMICALS, INC.
373 CANTERBURY ROAD
SHAKOPEE MN 55379

Notes:

PO: Rel:

Order No: CSS-188056-0
Batch No: 861-26102

Cylinder No: SG9150281BAL
Cylinder Pressure*: 2000 psig
Certification Date: 06/13/95
Expiration Date: 06/13/98

*** Certified Concentration ***			********* Reference Standards *********			********** Analytical Instrumentation **********			
Component	Certified Concentration	Cylinder #	Standard Number	Concentration	Instrument Make/Model	Serial Number	Last Calibration	Measurement Principal
CARBON MONOXIDE	296 ±0.9 PPM	SG9113596BAL	GMIS	504.2000 PPM	Horiba VIA-510	405079	05/20/95	INFRARED HORIBA

Balance Gas: Nitrogen

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* Standard should not be used below 150 psig

F-14

Analyst: Shaher Aboor
Shaher Aboor

Approved By: Robert McNear
Robert McNear

Air Products and Chemicals, Inc.
SPECIALTY GAS DEPARTMENT
12722 S. WENTWORTH AVENUE
CHICAGO, IL 60628

Certificate of Analysis - EPA Protocol Gas Standard

PERFORMED ACCORDING TO EPA TRACEABILITY PROTOCOL FOR ASSAY AND CERTIFICATION OF GASEOUS CALIBRATION STANDARDS (PROCEDURE #G1)

Customer:
AIR PRODUCTS & CHEMICALS, INC.
373 CANTERBURY ROAD
SHAKOPEE MN 55379

Notes:

PO: Rel:

Order No: CSS-188057-01
Batch No: 861-26101

Cylinder No: SG9150279BAL
Cylinder Pressure*: 2000 psig
Certification Date: 06/13/95
Expiration Date: 06/13/98

*** Certified Concentration *** ********* Reference Standards ********* ********** Analytical Instrumentation **********

Component	Certified Concentration	Cylinder #	Standard Number	Concentration	Instrument Make/Model	Serial Number	Last Calibration	Measurement Principal
CARBON MONOXIDE	593 ±1.0 PPM	SG9113594BAL	GMIS	993.3000 PPM	Horiba VIA-510	405079	06/15/95	INFRARED HORIBA

Balance Gas: Nitrogen

* Standard should not be used below 150 psig

Analyst: James Laas
James Laas

Approved By: Robert McNear
Robert McNear

F-15

NATIONAL SPECIALTY GASES
630 UNITED DRIVE
DURHAM, NC
27713
(919)544-3772

CERTIFICATE OF ANALYSIS • EPA PROTOCOL MIXTURES

REFERENCE #:	88-46474	CYLINDER #:	CC 35931	CYL. PRESSURE:	2000 PSIG	P.O. #:	22209
EXP. DATE:	3/14/99	LAST ANALYSIS DATE:	3/14/96	CUSTOMER:	TWIN CITY OXYGEN		

METHOD: ANALYZED ACCORDING TO EPA TRACEABILITY PROTOCOL FOR ASSAY AND CERTIFICATION OF GASEOUS CALIBRATION STANDARDS-SEPTEMBER 1993 G-1 THIS STANDARD SHOULD NOT BE USED WHEN ITS GAS PRESSURE IS BELOW 1.0 MEGAPASCALS (150 PSIG).

COMPONENT:	CARBON DIOXIDE	COMPONENT:	OXYGEN	COMPONENT:	
STANDARD		STANDARD		STANDARD	
SRM #:	1675B	SRM #:	2659A	SRM #:	
CYL. #:	CLM 6481	CYL. #	CLM 6737	CYL. #	
CONC:	14.01 %	CONC:	20.72 %	CONC:	
INSTRUMENT:	ROSEMOUNT NDIR	INSTRUMENT:	BECKMAN PARAMAGNETIC	INSTRUMENT:	
MODEL #:	880	MODEL #:	755	MODEL #:	
SERIAL #:	2000418	SERIAL #:	1001419	SERIAL #:	
LAST CAL.:	2/20/96	LAST CAL.:	3/1/96	LAST CAL.:	
MEAN CONC.:	10.8% +/- 0.09 %	MEAN CONC.:	13.5% +/- 0.11 %	MEAN CONC.:	
REPLICATE CONC.		REPLICATE CONC.		REPLICATE CONC.	
DATE: 3/14/96	DATE:	DATE: 3/14/96	DATE:	DATE:	DATE:
10.8 %		13.5 %			
10.9 %		13.4 %			
10.8 %		13.5 %			

BALANCE GAS: NITROGEN

REPLICATE DATA (CARBON DIOXIDE)

DATE: 3/14/96					
Z	0	R	14.1	C	10.9
R	14.1	Z	0	C	11.0
Z	0	C	10.3	R	14.0
DATE					
Z		R		C	
R		Z		C	
Z		C		R	

REPLICATE DATA (OXYGEN)

DATE: 3/14/96					
Z	0	R	400.2	C	260.7
R	400.3	Z	0	C	258.9
Z	0	C	260.9	R	400.4
DATE:					
Z		R		C	
R		Z		C	
Z		C		R	

REPLICATE DATA

DATE:		
Z	R	C
R	Z	C
Z	C	R
DATE:		
Z	R	C
R	Z	C
Z	C	R

Z=ZERO C=CANDIDATE R=REFERENCE

ANALYST: [signature] APPROVED BY: [signature]

THIS REPORT STATES ACCURATELY THE RESULTS OF THE INVESTIGATION MADE UPON THE MATERIAL SUBMITTED TO THE ANALYTICAL LABORATORY. EVERY EFFORT HAS BEEN MADE TO DETERMINE OBJECTIVELY THE INFORMATION REQUESTED. HOWEVER, IN NO EVENT SHALL NATIONAL SPECIALTY GASES HAVE ANY LIABILITY IN EXCESS OF ITS ESTABLISHED CHARGE FOR THE SERVICE.
ASSAYED AT: NATIONAL SPECIALTY GASES 630 UNITED DRIVE, DURHAM, NC 27713 (919)544-3772

NATIONAL SPECIALTY GASES
630 UNITED DRIVE
DURHAM, NC 27713
(919)544-3772

CERTIFICATE OF ANALYSIS-EPA PROTOCOL MIXTURES

REFERENCE #: 88-40607 CYLINDER #:CC46348 CYL. PRESSURE:2000PSIG
EXPIRATION DATE: 6/2/98 LAST ANALYSIS DATE:6/2/95
CUSTOMER: TWIN CITY OXYGEN P.O.# 17405

METHOD: ANALYZED ACCORDING TO EPA TRACEABILITY PROTOCOL FOR ASSAY AND CERTIFICATION OF GASEOUS CALIBRATION STANDARDS-SEPTEMBER 1993:G-1.
THIS STANDARD SHOULD NOT BE USED WHEN ITS GAS PRESSURE IS BELOW 1.0 MEGAPASCALS (150 PSIG).

STANDARD:		INSTRUMENT:BECKMAN NDIR	BECKMAN PARAMAGNETIC
SRM #:	1675B 2659A	MODEL #:880	755
CYL #:	CLM6413 CLM6737	SERIAL #:2000418	1001419
CONC.:	14.01% 20.72%	LAST CAL.:5/22/95	6/1/95

COMPONENT:CO2		COMPONENT: O2		COMPONENT:	
MEAN CONC:16.8%		MEAN CONC: 21.0%		MEAN CONC:	
REPLICATE CONC.		REPLICATE CONC.		REPLICATE CONC.	
DATE:6/2/95	DATE:	DATE:6/2/95	DATE:	DATE:	DATE:
16.8%		21.0%			
16.8%		21.0%			
16.9%		21.1%			

BALANCE GAS:N2

REPLICATE DATA — COMPONENT:CO2

DATE: 6/2/95						DATE:		
Z	0	R	168.0	C	201.5	Z	R	C
R	168.5	Z	0	C	202.1	R	Z	C
Z	0	C	203.9	R	169.0	Z	C	R

REPLICATE DATA — COMPONENT:O2

DATE: 6/2/95						DATE:		
Z	0	R	210.0	C	212.8	Z	R	C
R	210.5	Z	0	C	213.0	R	Z	C
Z	0	C	214.9	R	211.0	Z	C	R

REPLICATE DATA — COMPONENT:

DATE:						DATE:		
Z		R		C		Z	R	C
R		Z		C		R	Z	C
Z		C		R		Z	C	R

Z=ZERO C=CANDIDATE R=REFERENCE

ANALYST: Stacy A. Savage APPROVED BY: Gina Rowe

"THIS REPORT STATED ACCURATELY THE RESULTS OF THE INVESTIGATION MADE UPON THE MATERIAL SUBMITTED TO THE ANALYTICAL LABORATORY. EVERY EFFORT HAS BEEN MADE TO DETERMINE OBJECTIVELY, THE INFORMATION REQUESTED; HOWEVER, IN CONNECTION WITH ITS RENDERING OF THIS REPORT, NATIONAL SPECIALTY GASES SHALL HAVE NO LIABILITY IN EXCESS OF ITS ESTABLISHED CHARGE FOR THE SERVICE."

INTERPOLL LABORATORIES, INC.
(612) 786-6020

Certificate of Analysis for Standard Gas

Vendor: National Specialty Gases
Cylinder No.: CC 117755
Date of Preparation: ~~4-4-96~~ 1-5-96
Label: Nitric Oxide
Blend Specification: 78.4 ppm Balance N2

Results of Analysis of Standard Gas			
Date of Analysis	Run	NOx	
4-5-96	1	78.7281	
4-5-96	2	76.9577	
4-5-96	3	78.2398	
	4		
	5		
	6		
	Avg	77.9752	-.54%

Analyst: BOB A

☑ Results are within 2% of the vendor tag value; use tag value.

☐ Results are not within 2% of the vendor tag value; conduct another set of triplicate analyses.

☐ All results within ± 2% of the average; relabel as above.

☐ All results not within ± 2% of the average; perform another set of triplicate analyses.

Date: April 5, 1996
Approved by: [signature]

012696-G:\STACK\WP\FORMS\S-125

INTERPOLL LABS

TANK CERT
TANK NUMBER CC117755
4/5/96

4/5/96	10:42:00 AM			
0	79.704	0	0	0
4/5/96	10:42:06 AM			
0	79.298	0	0	0
4/5/96	10:42:12 AM			
0	79.704	0	0	0
4/5/96	10:42:18 AM			
0	79.298	0	0	0
4/5/96	10:42:24 AM			
0	78.891	0	0	0
4/5/96	10:42:30 AM			
0	78.891	0	0	0
4/5/96	10:42:36 AM			
0	78.484	0	0	0
4/5/96	10:42:42 AM			
0	78.484	0	0	0
4/5/96	10:42:48 AM			
0	78.484	0	0	0
4/5/96	10:42:54 AM			
0	79.298	0	0	0
4/5/96	10:43:00 AM			
0	79.298	0	0	0
4/5/96	10:43:06 AM			
0	78.484	0	0	0
4/5/96	10:43:12 AM			
0	77.67	0	0	0
4/5/96	10:43:18 AM			
0	78.484	0	0	0
4/5/96	10:43:24 AM			
0	78.484	0	0	0
4/5/96	10:43:30 AM			
0	78.077	0	0	0
4/5/96	10:43:36 AM			
0	78.484	0	0	0
4/5/96	10:43:42 AM			
0	78.077	0	0	0
4/5/96	10:43:48 AM			
0	78.484	0	0	0
4/5/96	10:43:54 AM			
0	78.484	0	0	0

78.7281

INTERPOLL LABS

TANK CERT
TANK NUMBER CC117755
4/5/96

4/5/96	10:51:00 AM			
0	77.263	0	0	0
4/5/96	10:51:06 AM			
0	77.67	0	0	0
4/5/96	10:51:12 AM			
0	76.856	0	0	0
4/5/96	10:51:18 AM			
0	77.67	0	0	0
4/5/96	10:51:24 AM			
0	77.263	0	0	0
4/5/96	10:51:30 AM			
0	77.263	0	0	0
4/5/96	10:51:36 AM			
0	76.856	0	0	0
4/5/96	10:51:42 AM			
0	77.263	0	0	0
4/5/96	10:51:48 AM			
0	76.449	0	0	0
4/5/96	10:51:54 AM			
0	77.263	0	0	0
4/5/96	10:52:00 AM			
0	76.449	0	0	0
4/5/96	10:52:06 AM			
0	77.263	0	0	0
4/5/96	10:52:12 AM			
0	76.449	0	0	0
4/5/96	10:52:18 AM			
0	76.449	0	0	0
4/5/96	10:52:24 AM			
0	77.263	0	0	0
4/5/96	10:52:30 AM			
0	77.263	0	0	0
4/5/96	10:52:36 AM			
0	76.856	0	0	0
4/5/96	10:52:42 AM			
0	76.856	0	0	0
4/5/96	10:52:48 AM			
0	76.842	0	0	0
4/5/96	10:52:54 AM			
0	76.449	0	0	0

76.95775

INTERPOL LABS

TANK CERT
TANK NUMBER CC117755
4/5/96

4/5/96	10:58:00 AM			
0	78.891	0	0	0
4/5/96	10:58:06 AM			
0	78.484	0	0	0
4/5/96	10:58:12 AM			
0	79.298	0	0	0
4/5/96	10:58:18 AM			
0	78.484	0	0	0
4/5/96	10:58:24 AM			
0	78.077	0	0	0
4/5/96	10:58:30 AM			
0	78.484	0	0	0
4/5/96	10:58:36 AM			
0	78.484	0	0	0
4/5/96	10:58:42 AM			
0	78.077	0	0	0
4/5/96	10:58:48 AM			
0	78.484	0	0	0
4/5/96	10:58:54 AM			
0	77.263	0	0	0
4/5/96	10:59:00 AM			
0	78.484	0	0	0
4/5/96	10:59:06 AM			
0	77.67	0	0	0
4/5/96	10:59:12 AM			
0	77.263	0	0	0
4/5/96	10:59:18 AM			
0	78.484	0	0	0
4/5/96	10:59:24 AM			
0	78.484	0	0	0
4/5/96	10:59:30 AM			
0	78.484	0	0	0
4/5/96	10:59:36 AM			
0	77.67	0	0	0
4/5/96	10:59:42 AM			
0	77.67	0	0	0
4/5/96	10:59:48 AM			
0	78.484	0	0	0
4/5/96	10:59:54 AM			
0	78.077	0	0	0

78.2398

NATIONAL SPECIALTY GASES•630 UNITED DRIVE•DURHAM, N.C. 27713•(919) 544-3772

CERTIFICATE OF ANALYSIS-EPA PROTOCOL MIXTURES

REFERENCE #: 88-45046 CYLINDER #: CC117755 CYL. PRESSURE:2000PSIG CUSTOMER:TWIN CITY OXYGEN
EXPIRATION DATE: 1/5/98 LAST ANALYSIS DATE: 1/5/96 P.O.#:809089
METHOD: ANALYZED ACCORDING TO EPA TRACEABILITY PROTOCOL FOR ASSAY AND CERTIFICATION OF GASEOUS CALIBRATION STANDARDS-SEPTEMBER 1993:G-1.
THIS STANDARD SHOULD NOT BE USED WHEN ITS GAS PRESSURE IS BELOW 1.0 MEGAPASCALS (150PSIG).

COMPONENT:NO
STANDARD:
SRM #: 1684B
CYL. #: CLM8177
CONC.: 96.5PPM
INSTRUMENT:BECK CHEM
MODEL#:951A
SERIAL #:0101572
LAST CAL.:1/2/96

MEAN CONC:78.4PPM +/- 0.78PPM
REPLICATE CONC.

DATE:12/29/95	DATE: 1/5/96
78.4PPM	78.5PPM
78.6PPM	78.4PPM
78.2PPM	78.3PPM

NO2 3.39PPM

BALANCE GAS:N2

REPLICATE DATA

DATE: 12/29/95

Z	0	R	309	C	251
R	310	Z	0	C	252.5
Z	0	C	250.8	R	309.5

DATE: 1/5/96

Z	0	R	312	C	253.8
R	311	Z	0	C	252.7
Z	0	C	252.8	R	311.5

COMPONENT:
STANDARD:
SRM #:
CYL. #:
CONC.:
INSTRUMENT:
MODEL #:
SERIAL #:
LAST CAL.:

MEAN CONC:
REPLICATE CONC.
DATE: DATE:

REPLICATE DATA

DATE:

Z	R	C
R	Z	C
Z	C	R

DATE:

Z	R	C
R	Z	C
Z	C	R

COMPONENT:
STANDARD:
SRM #:
CYL. #:
CONC.:
INSTRUMENT:
MODEL #:
SERIAL #:
LAST CAL.:

MEAN CONC:
REPLICATE CONC.
DATE: DATE:

REPLICATE DATA

DATE:

Z	R	C
R	Z	C
Z	C	R

DATE:

Z	R	C
R	Z	C
Z	C	R

Z=ZERO C=CANDIDATE R=REFERENCE

ANALYST: Jeri Rowe APPROVED BY: Laura Chambers

"THIS REPORT STATED ACCURATELY THE RESULTS OF THE INVESTIGATION MADE UPON THE MATERIAL SUBMITTED TO THE ANALYTICAL LABORATORY. EVERY EFFORT HAS BEEN MADE TO DETERMINE OBJECTIVELY THE INFORMATION REQUESTED; HOWEVER, IN CONNECTION WITH ITS RENDERING OF THIS REPORT, NATIONAL SPECIALTY GASES SHALL HAVE NO LIABILITY IN EXCESS OF ITS ESTABLISHED CHARGE FOR THE SERVICE."

INTERPOLL LABORATORIES, INC.
(612) 786-6020

Certificate of Analysis for Standard Gas

Vendor: Air Products

Cylinder No.: SO 916 2775

Date of Preparation: 11-9-95

Label: Nitric Oxide

Blend Specification: 145 ppm Balance N_2

Results of Analysis of Standard Gas			
Date of Analysis	Run	NO	
4-5-96	1	143.3031	
4-5-96	2	142.8554	
4-5-96	3	142.9571	
	4		
	5		
	6		
	Avg	143.0385	-1.35%

Analyst: BobA

☒ Results are within 2% of the vendor tag value; use tag value.

☐ Results are not within 2% of the vendor tag value; conduct another set of triplicate analyses.

☐ All results within ± 2% of the average; relabel as above.

☐ All results not within ± 2% of the average; perform another set of triplicate analyses.

Date: April 5, 1996

Approved by: [signature]

012696-G:\STACK\WP\FORMS\S-425

INTERPOLL LABS

TANK CERT
TANK NUMBER SG9162775
4/5/96

4/5/96	12:29:00 PM			
0	144.809	0	0	0
4/5/96	12:29:06 PM			
0	144.809	0	0	0
4/5/96	12:29:12 PM			
0	144.809	0	0	0
4/5/96	12:29:18 PM			
0	143.995	0	0	0
4/5/96	12:29:24 PM			
0	143.588	0	0	0
4/5/96	12:29:30 PM			
0	143.181	0	0	0
4/5/96	12:29:36 PM			
0	143.995	0	0	0
4/5/96	12:29:42 PM			
0	143.181	0	0	0
4/5/96	12:29:48 PM			
0	143.588	0	0	0
4/5/96	12:29:54 PM			
0	142.774	0	0	0
4/5/96	12:30:00 PM			
0	143.588	0	0	0
4/5/96	12:30:06 PM			
0	142.774	0	0	0
4/5/96	12:30:12 PM			
0	142.367	0	0	0
4/5/96	12:30:18 PM			
0	142.774	0	0	0
4/5/96	12:30:24 PM			
0	142.774	0	0	0
4/5/96	12:30:30 PM			
0	142.774	0	0	0
4/5/96	12:30:36 PM			
0	142.367	0	0	0
4/5/96	12:30:42 PM			
0	143.181	0	0	0
4/5/96	12:30:48 PM			
0	142.367	0	0	0
4/5/96	12:30:54 PM			
0	142.367	0	0	0

143.3031

INTERPOLL LABS

TANK CERT
TANK NUMBER SG9162775
4/5/96

4/5/96	12:36:00 PM			
0	144.402	0	0	0
4/5/96	12:36:06 PM			
0	144.809	0	0	0
4/5/96	12:36:12 PM			
0	143.181	0	0	0
4/5/96	12:36:18 PM			
0	143.588	0	0	0
4/5/96	12:36:24 PM			
0	143.181	0	0	0
4/5/96	12:36:30 PM			
0	142.367	0	0	0
4/5/96	12:36:36 PM			
0	142.367	0	0	0
4/5/96	12:36:42 PM			
0	142.774	0	0	0
4/5/96	12:36:48 PM			
0	143.181	0	0	0
4/5/96	12:36:54 PM			
0	142.367	0	0	0
4/5/96	12:37:00 PM			
0	143.181	0	0	0
4/5/96	12:37:06 PM			
0	142.367	0	0	0
4/5/96	12:37:12 PM			
0	142.367	0	0	0
4/5/96	12:37:18 PM			
0	142.367	0	0	0
4/5/96	12:37:24 PM			
0	142.367	0	0	0
4/5/96	12:37:30 PM			
0	142.367	0	0	0
4/5/96	12:37:36 PM			
0	142.367	0	0	0
4/5/96	12:37:42 PM			
0	141.96	0	0	0
4/5/96	12:37:48 PM			
0	142.774	0	0	0
4/5/96	12:37:54 PM			
0	142.774	0	0	0

142.8554

INTERPOL LABS

TANK CERT
TANK NUMBER SG9162775
4/5/96

4/5/96	12:42:00 PM			
0	144.809	0	0	0
4/5/96	12:42:06 PM			
0	144.402	0	0	0
4/5/96	12:42:12 PM			
0	143.995	0	0	0
4/5/96	12:42:18 PM			
0	143.181	0	0	0
4/5/96	12:42:24 PM			
0	143.588	0	0	0
4/5/96	12:42:30 PM			
0	143.995	0	0	0
4/5/96	12:42:36 PM			
0	142.774	0	0	0
4/5/96	12:42:42 PM			
0	143.181	0	0	0
4/5/96	12:42:48 PM			
0	142.367	0	0	0
4/5/96	12:42:54 PM			
0	142.774	0	0	0
4/5/96	12:43:00 PM			
0	142.367	0	0	0
4/5/96	12:43:06 PM			
0	141.96	0	0	0
4/5/96	12:43:12 PM			
0	143.181	0	0	0
4/5/96	12:43:18 PM			
0	142.774	0	0	0
4/5/96	12:43:24 PM			
0	142.367	0	0	0
4/5/96	12:43:30 PM			
0	142.367	0	0	0
4/5/96	12:43:36 PM			
0	142.367	0	0	0
4/5/96	12:43:42 PM			
0	142.367	0	0	0
4/5/96	12:43:48 PM			
0	141.96	0	0	0
4/5/96	12:43:54 PM			
0	142.367	0	0	0

142.95715

Air Produ[illegible] and Chemicals, Inc.
SPECIALTY GAS DEPARTMENT
12722 S. WENTWORTH AVENUE
CHICAGO, IL 60628

Certificate of Analysis - EPA Protocol Gas Standard

PERFORMED ACCORDING TO EPA TRACEABILITY PROTOCOL FOR ASSAY AND CERTIFICATION OF GASEOUS CALIBRATION STANDARDS (PROCEDURE #G1)

Customer:
TWIN CITY OXYGEN (MAIN ACCT.)
305 2ND STREET NW
NEW BRIGHTON MN 55112-

Notes:

PO: 20013 Rel:

Order No: CSS-296700-01
Batch No: 861-28757

Cylinder No: SG9162775BAL
Cylinder Pressure*: 2000 psig
Certification Date: 11/09/95
Expiration Date: 11/09/97

*** Certified Concentration ***			********* Reference Standards *********			********** Analytical Instrumentation **********			
Component	Certified Concentration	Cylinder #	Standard Number	Concentration	Instrument Make/Model	Serial Number	Last Calibration	Measurement Principal
NITRIC OXIDE	145 ±1.0 PPM	SG9151688BAL	GMIS	145.5000 PPM	Rosemount 951a	0101877	10/19/95	CHEMILUMINESCENCE

Balance Gas: NITROGEN

Contaminent	
Nitrogen Dioxide	1.80 PPM

* Standard should not be used below 150 psig

F-27

Analyst: Shaher Aboor
Shaher Aboor

Approved By: Richard Fry
Richard Fry

Air Products and Chemicals, Inc.
SPECIALTY GAS DEPARTMENT
12722 S. WENTWORTH AVENUE
CHICAGO, IL 60628

Certificate of Analysis - EPA Protocol Gas Standard

PERFORMED ACCORDING TO EPA TRACEABILITY PROTOCOL FOR ASSAY AND CERTIFICATION OF GASEOUS CALIBRATION STANDARDS (PROCEDURE #G1)

Customer:
AIR PRODUCTS & CHEMICALS, INC.
373 CANTERBURY ROAD
SHAKOPEE MN 55379

Notes:

Order No: CSS-188055-01
Batch No: 861-26103

Cylinder No: SG9150306BAL
Cylinder Pressure*: 2000 psig
Certification Date: 06/13/95
Expiration Date: 06/13/98

PO: Rel:

*** Certified Concentration ***			********* Reference Standards *********		********** Analytical Instrumentation **********			
Component	Certified Concentration	Cylinder #	Standard Number	Concentration	Instrument Make/Model	Serial Number	Last Calibration	Measurement Principal
CARBON MONOXIDE	147 ±0.4 PPM	SG9113611BAL	GMIS	151.5000 PPM	Horiba VIA-510	405079	05/20/95	INFRARED HORIBA

Balance Gas: Nitrogen

* Standard should not be used below 150 psig

F-28

Analyst: Shaher Aboor
Shaher Aboor

Approved By: Robert McNear
Robert McNear

Air Products and Chemicals, Inc.
P.O. BOX 351
R.D. #1
TAMAQUA, PA 18252

Certificate of Analysis - EPA Protocol Gas Standard

PERFORMED ACCORDING TO EPA TRACEABILITY PROTOCOL FOR ASSAY AND CERTIFICATION OF GASEOUS CALIBRATION STANDARDS (PROCEDURE #G1)

Customer:
AIR PRODUCTS & CHEMICALS
CAROL PORTER
FREEPORT RD, ROUTE 28
CREIGHTON PA 15030

PO: 055-94 Rel:

Notes:

Order No: 148-012359-03
Batch No: 255-58321

Cylinder No: SG9120705BAL
Cylinder Pressure*: 2000 psig
Certification Date: 11/13/94
Expiration Date: 11/13/96

*** Certified Concentration ***		********* Reference Standards *********			********** Analytical Instrumentation **********			
Component	Certified Concentration	Cylinder #	Standard Number	Concentration	Instrument Make/Model	Serial Number	Last Calibration	Measurement Principal
CARBON MONOXIDE	299 ±1.47 PPM	SG9113535BAL	GMIS	506.5000 PPM	Hewlett Packar	2518A052	10/14/94	GC-FID

Balance Gas: Nitrogen

* Standard should not be used below 150 psig

F-29

Analyst: Michael Wagner

Approved By: Ken Roubik

APPENDIX G

SAMPLING TRAIN CALIBRATION DATA

INTERPOLL LABORATORIES, INC.
(612) 786-6020

EPA Method 5 Gas Metering System Quality Control Check Data Sheet

Job L.P. Hayward / Geoenergy Date 5-14-96

Operator EJ Module No. 2

Instructions:
Operate the control module at a flow rate equal to ΔH@ for 10 minutes before attaching the umbilical.

Record the following data:

Bar press 28.93 in.Hg θ = 1.0005 ΔH@ 1.72 in.WC.

Time (min)	Volume (CF)	Meter Temp (°F)	
		Inlet	Outlet
	(709.40)		
2.5	711.27	53	45
5.0	713.05	55	46
7.5	715.00	58	46
10	716.88	60	47
	V_m = 7.48	Avg(t_m) = 51.25	°F

Calculate Y_{cm} as follows:

$$Y_{cm} = \frac{1.786}{\theta\ V_m}\ \left[\frac{(t_m + 460)}{P_b}\right]^{0.5}$$

$$Y_{cm} = \frac{1.786}{(1.0005)\ (7.48)}\ \left[\frac{(51.25) + 460}{(28.93)}\right]^{0.5} = 1.20$$

$$Y_{cm} = \underline{1.00}$$

If Y_{cm} is not within the range of 0.97 to 1.03, "the volume metering system should be investigated before beginning."

CFR Title 40, Part 60, Appendix A, Method 5, Section 4.4.1

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INTERPOLL LABORATORIES, INC.
(612) 786-6020

EPA Method 5 Gas Metering System Quality Control Check Data Sheet

Job LP/Hayward Date 5-14-96

Operator S. Eilts Module No. 4

Instructions:
Operate the control module at a flow rate equal to ΔH@ for 10 minutes before attaching the umbilical.

Record the following data:

Bar press 29.93 in.Hg θ = 0.9935 ΔH@ 1.77 in.WC.

Time (min)	Volume (CF)	Meter Temp (°F)	
		Inlet	Outlet
	(969.70)		
2.5	971.61	60	59
5.0	973.51	61	60
7.5	975.40	62	60
10	977.29	63	61
	V_m = 7.59	Avg(t_m) = 60.8	°F

Calculate Y_{cn} as follows:

$$Y_{cn} = \frac{1.786}{\theta\, V_m}\left[\frac{(t_m + 460)}{P_b}\right]^{0.5}$$

$$Y_{cn} = \frac{1.786}{(\quad)(\quad)}\left[\frac{(\quad) + 460}{(\quad)}\right]^{0.5}$$

$$Y_{cn} = 1.00667$$

If Y_{cn} is not within the range of 0.97 to 1.03, "the volume metering system should be investigated before beginning."

CFR Title 40, Part 60, Appendix A, Method 5, Section 4.4.1

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INTERPOLL LABORATORIES, INC.
(612) 786-6020

EPA Method 5 Gas Metering System Quality Control Check Data Sheet

Job: bio Energy/KLP Hayward   Date: 5/13/96
Operator: SK   Module No. 8

Instructions:
Operate the control module at a flow rate equal to ΔH@ for 10 minutes before attaching the umbilical.

Record the following data:

Bar press 28.83 in.Hg θ = 1.0019 ΔH@ 1.77 in.WC.

Time (min)	Volume (CF)	Meter Temp (°F)	
		Inlet	Outlet
	(64800)		
2.5	648.100	65	60
5.0	650.000	66	60
7.5	651.900	69	60
10	653.805	72	61
	V_m = 7.605	Avg(t_m) = 64.125 °F	

Calculate Y_m as follows:

$$Y_m = \frac{1.786}{\theta \ V_m} \left[\frac{(t_m + 460)}{P_b}\right]^{0.5}$$

$$Y_m = \frac{1.786}{(1.0019)\ (7.605)} \left[\frac{(64.125) + 460}{(28.83)}\right]^{0.5}$$

Y_m = .9994

If Y_m is not within the range of 0.97 to 1.03, "the volume metering system should be investigated before beginning."

CFR Title 40, Part 60, Appendix A, Method 5, Section 4.4.1

011995-G:\STACK\WP\FORMS\S-32

Interpoll Laboratories, Inc.
(612) 786-6020

Meter Box Calibration and Usage Status

Date of Report: May 15, 1996

Meter Box No. : 2 (Rockwell Dry Test Meter Serial No. 964551)

Date of Last Calibration: April 30, 1996
Calibration Technician: J. Lorenz
Wet Test Meter No.: American Meter AL-20

Date of Use	Report No.	Initial Meter Reading	Final Meter Reading	Volume/Job (cu. ft.)	Total Volume* (cu. ft.)
April 30, 1996	6-7647	192.90	701.43	508.53	508.53
May 14, 1996	6-7684	718.40	838.06	119.66	628.19

* Total volume through meter since last calibration.

Interpoll Laboratories, Inc.
(612) 786-6020

Meter Box Calibration and Usage Status

Date of Report: May 15, 1996

Meter Box No. : 4 (Rockwell Dry Test Meter Serial No. 964552)

Date of Last Calibration: April 22, 1996
Calibration Technician: S. Fjelsta
Wet Test Meter No.: American Meter AL-20

Date of Use	Report No.	Initial Meter Reading	Final Meter Reading	Volume/Job (cu. ft.)	Total Volume* (cu. ft.)
May 07, 1996	6-7665	818.70	968.75	150.05	150.05
May 14, 1996	6-7684	977.45	1090.36	112.91	262.96

* Total volume through meter since last calibration.

Interpoll Laboratories, Inc.
(612) 786-6020

Meter Box Calibration and Usage Status

Date of Report: May 15, 1996

Meter Box No. : 8 (Rockwell Dry Test Meter Serial No. 964547)

Date of Last Calibration: February 29, 1996
Calibration Technician: S. Kelker
Wet Test Meter No.: American Meter AL-20

Date of Use	Report No.	Initial Meter Reading	Final Meter Reading	Volume/Job (cu. ft.)	Total Volume* (cu. ft.)
May 14, 1996	6-7684	654.80	779.30	124.50	124.50

* Total volume through meter since last calibration.

INTERPOLL LAB.ORATORIES, INC.
(612) 786-6020

Meter Calibration Sheet EPA/Method 5

Date 4·30·96
Bar. Press. 28.86 IN.HG
Wet Test Meter No. AL-20

Control Module No. 2
Serial No. DTM 964551
Technician J.L

ΔH (IN.WC)		Gas Volume Wet Test Meter	* Cal. Index	* Diff. Wet Test Meter ΔP_w	Gas Volume Dry Test Meter (ft^3)		Gas Temperatures			Time θ	Meter Coeff.	Orifice Const.	C_f
							Wet Test t_w	Dry Test					
Nominal	Actual	(ft^3)	(%)	(IN.WC.)	V_{di}	V_{df}	(°F)	t_{di} (°F)	t_{do} (°F)	(Min/Sec)	Y	ΔH@	
0.5	0.5	2	99.85	0.01	163.25	165.30	66	88	78	4:54	1.0043	1.68	
1.2	1.2	3	99.91	0.025	159.63	162.73	66	87	77	4:48	.9932	1.73	
2.0	2.0	3	99.93	0.055	151.67	154.74	66	93	76	3:43	1.0056	1.72	
3.3	3.3	5	100.00	0.09	166.60	171.75	66	94	79	4:52	1.0001	1.74	
4.7	4.7	5	100.02	0.12	172.52	177.67	66	97	79	4:06	.9994	1.75	
2	3	4	5	6	7	8	9	10		mm/ Avg	1.0005	1.72	

Positive leak check performed by J.L.
Meter was in tolerance ☒
Approved by [signature]

Meter was not in tolerance ☐: readjusted linkage
Meter was not in tolerance ☐: changed dry test meter
Date 5/7/96

*Based on AL-20 wet test meter calibration in Nov. 1991 against Bell Prover (NBS Traceable) - Carl Poe Co.

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INTERPOLL LABORATORIES, INC.
(612) 786-6020

Meter Calibration Sheet EPA/Method 5

Date 4-22-96
Bar. Press. 29.21 IN.HG
Wet Test Meter No. AL-20

Control Module No. 4
Serial No. DTM 964552
Technician SF

ΔH (IN.WC)		Gas Volume Wet Test Meter	* Cal. Index φ	* Diff. Wet Test Meter ΔP_w	Gas Volume Dry Test Meter (ft^3)		Gas Temperatures			Time θ	Meter Coeff.	Orifice Const.	C_f
							Wet Test t_w (°F)	Dry Test					
Nominal	Actual	(ft^3)	(%)	(IN.WC.)	V_{di}	V_{df}		t_{di} (°F)	t_{do} (°F)	(Min/Sec)	Y	ΔH@	
0.5	0.5	2	99.85	0.01	786.32	788.32	67	67	65	4/52	.99533	1.702	
1.2	1.2	3	99.91	0.025	789.94	792.97	67	72	66	4/49	.98991	1.766	
2.0	2.0	3	99.93	0.055	793.88	796.91	67	76	69	3/45	.99459	1.771	
3.3	3.3	5	100.00	0.09	797.74	802.80	67	80	71	4/54	.99558	1.784	
4.7	4.7	5	100.02	0.12	804.43	809.52	67	84	73	4/09	.99192	1.812	
1	2	3	4	5	6	7	8	9	10	11/12 Avg	.9935	1.77	

Positive leak check performed by SF
Meter was in tolerance
Approved by

Meter was not in tolerance ☐: readjusted linkage
Meter was not in tolerance ☐: changed dry test meter
Date 5/7/96

*Based on AL-20 wet test meter calibration in Nov. 1991 against Bell Prover (NBS Traceable) - Carl Poe Co.

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INTERPOLL LABORATORIES, INC.
(612) 786-6020

Meter Calibration Sheet EPA/Method 5

Date 2/29/96 Control Module No. 8
Bar. Press. 29.30 IN.HG Serial No. DTM 96547
Wet Test Meter No. AL-20 Technician Steve Kilker

ΔH (IN.WC)		Gas Volume Wet Test Meter	* Cal. Index ϕ	* Diff. Wet Test Meter ΔP_W	Gas Volume Dry Test Meter (ft³)		Gas Temperatures			Time θ	Meter Coeff.	Orifice Const.	C_t
							Wet Test t_w (°F)	Dry Test					
Nominal	Actual	(ft³)	(%)	(IN.WC.)	V_{di}	V_{df}		t_{di} (°F)	t_{do} (°F)	(Min/Sec)	Y	ΔH@	
0.5	0.5	2	99.85	0.01	390.975	392.965	69	72	69	4/57	1.0051	1.75	
1.2	1.2	3	99.91	0.025	394.951	397.978	69	76	70	4/47	.9946	1.74	
2.0	2.0	3	99.93	0.055	403.014	406.032	69	78	71	3/44	.9985	1.75	
3.3	3.3	5	100.00	0.09	414.100	419.105	69	79	71	4/55	1.0018	1.81	
4.7	4.7	5	100.02	0.12	427.971	432.871	70	72	69	4/6	1.0094	1.81	
	2	3	4	5	6	7	8	9	10	11/12 Avg	1.0019	1.77	

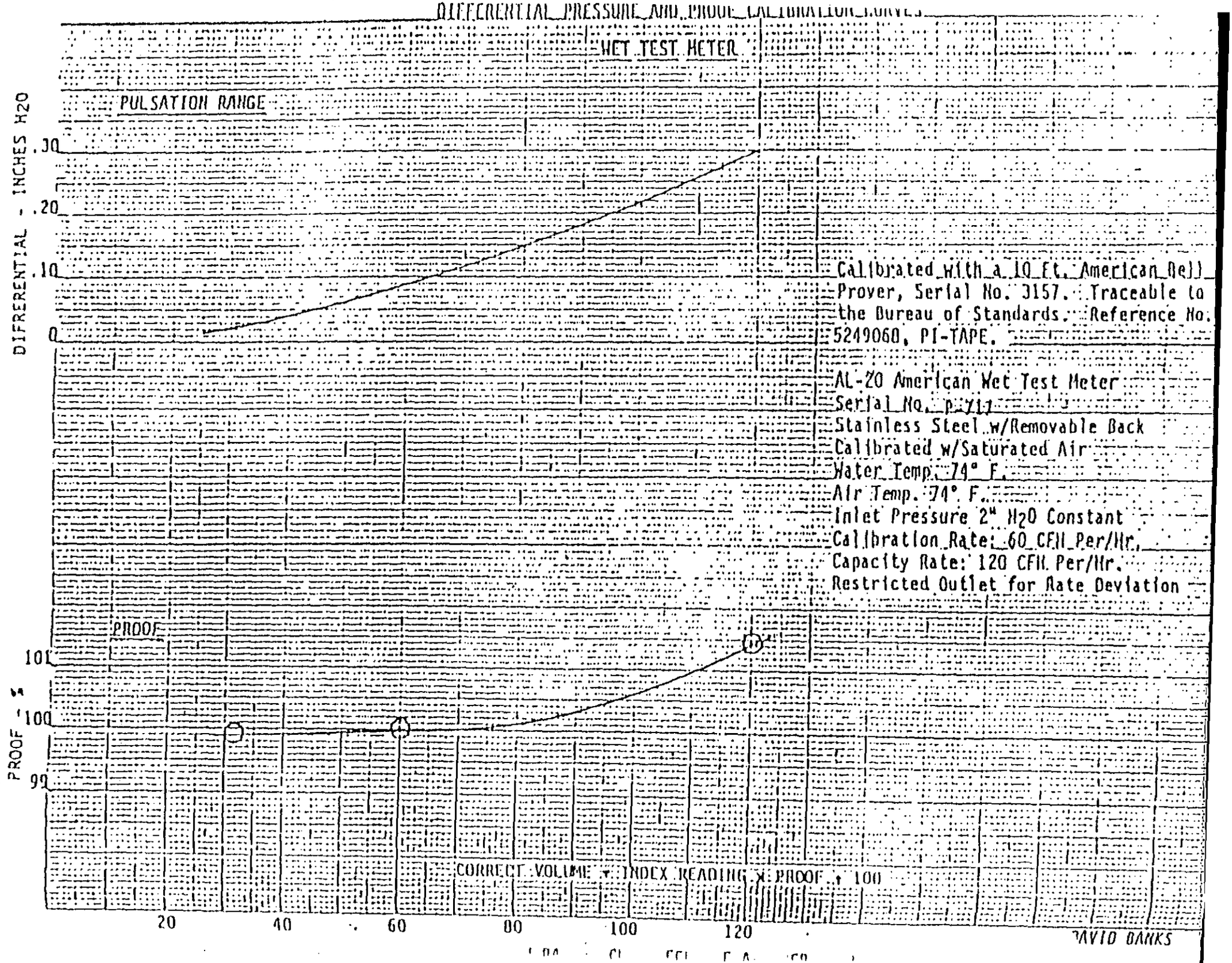
Positive leak check performed by [signature]
Meter was in tolerance ☒
Approved by [signature]

Meter was not in tolerance ☐: readjusted linkage
Meter was not in tolerance ☐: changed dry test meter
Date 3/14/96

*Based on AL-20 wet test meter calibration in Nov. 1991 against Bell Prover (NBS Traceable) - Carl Poe Co.

031794-G:\STACK\WP\FORMS\S-0102RR

DIFFERENTIAL PRESSURE AND PROOF CALIBRATION CURVES



Interpoll Laboratories
(612) 786-6020

Nozzle Calibration Data Sheet

Date of Calibration: 05-14-96
Technician: Scott Fjelsta
Nozzle Number: 4-3

The nozzle is rotated in 60 degree increments and the diameter at each point is measured to the nearest 0.001 inch. The observed readings and average are shown below.

Position	Diameter (inches)
1	0.192
2	0.190
3	0.188
Average	0.190

Interpoll Laboratories
(612) 786-6020

Nozzle Calibration Data Sheet

Date of Calibration: 05-14-96
Technician: Ed Juers
Nozzle Number: 8-3

The nozzle is rotated in 60 degree increments and the diameter at each point is measured to the nearest 0.001 inch. The observed readings and average are shown below.

Position	Diameter (inches)
1	0.188
2	0.189
3	0.190
Average	0.189

Interpoll Laboratories
(612) 786-6020

Nozzle Calibration Data Sheet

Date of Calibration: 05-14-96
Technician: Steve Kelker
Nozzle Number: 9-3

The nozzle is rotated in 60 degree increments and the diameter at each point is measured to the nearest 0.001 inch. The observed readings and average are shown below.

Position	Diameter (inches)
1	0.191
2	0.192
3	0.193
Average	0.192

INTERPOLL LABORATORIES, INC.
(612) 786-6020

Temperature Measurement Device Calibration Sheet

Unit Under Test:

Vendor	OMEGA		
Model	HH81	Serial Number	741X1327
Range	-160°C to 1372°C	Thermocouple Type	K
Date of Calibration	2-6-96	Technician	EJ
Method of Calibration:		PDT No.	42

☐ Comparison against ASTM mercury in glass thermometer using a thermostatted and insulated aluminum block designed to provide uniform temperature. The temperature is adjusted by adjusting the voltage on the block heater cartridge.

☒ Omega Model CL-300 Type K Thermocouple Simulator which provides 22 precise temperature equivalent millivolt signals. The CL-300 is cold junction compensated. Calibration accuracy is ± 0.1% of span (2100°F) ± 1 degree (for negative temperatures add ± 2 degrees). The CL-300 simulates exactly the millivoltage of a Type K thermocouple at the indicated temperature.

Desired Temp (°F) Nominal	Temperature of Standard or Simulated Temp (°F)	Response of Unit Under Test (°F)	Deviation	
			Δt (°F)	(%)
0	0	-3	3	.65
100	100	97	3	.53
200	200	199	1	.15
300	300	297	3	.39
400	400	397	3	.35
500	500	497	3	.31
600	600	599	1	.09
700	700	698	2	.17
800	800	800	0	0
900	900	899	1	.07
1000	1000	1000	0	0
1100	1100	1098	2	.13
1200	1200	1200	0	0
1300	1300	1298	2	.11
1400	1400	1401	1	.05
1500	1500	1499	1	.05
1600	1600	1602	2	.09
1700	1700	1701	1	.05
1800	1800	1802	2	.09
1900	1900	1901	1	.04
2000	2000	2000	0	0
2100	2100	2099	1	.04
		Averages:	1.5	.153

OS = off scale response by unit under test (°F)

% dev = 100 Δt/(460 + t)

☒ Unit in tolerance

☐ Unit was not in tolerance: recalibrated - See new calibration sheet.

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INTERPOLL LABORATORIES, INC.
(612) 786-6020

Temperature Measurement Device Calibration Sheet

Unit Under Test: 49
Vendor: Omega
Model: HH81
Serial Number: 75JX2567
Range: 0 - 2100 °F
Thermocouple Type: K
Date of Calibration: 2/20/96
Technician: Mark Petersen
Method of Calibration:
PDT No. 49

☐ Comparison against ASTM mercury in glass thermometer using a thermostatted and insulated aluminum block designed to provide uniform temperature. The temperature is adjusted by adjusting the voltage on the block heater cartridge.

☒ Omega Model CL-300 Type K Thermocouple Simulator which provides 22 precise temperature equivalent millivolt signals. The CL-300 is cold junction compensated. Calibration accuracy is ± 0.1% of span (2100°F) ± 1 degree (for negative temperatures add ± 2 degrees). The CL-300 simulates exactly the millivoltage of a Type K thermocouple at the indicated temperature.

Desired Temp (°F) Nominal	Temperature of Standard or Simulated Temp (°F)	Response of Unit Under Test (°F)	Deviation	
			at (°F)	(%)
0	0	-3	3	~~0.009~~ 0.65
100	100	97	3	0.54
200	200	200	0	0
300	300	298	2	0.26
400	400	397	3	0.35
500	500	498	2	0.21
600	600	600	0	0
700	700	699	1	0.086
800	800	800	0	0
900	900	900	0	0
1000	1000	1000	0	0
1100	1100	1098	2	0.13
1200	1200	1200	0	0
1300	1300	1298	2	0.11
1400	1400	1401	1	0.05
1500	1500	1499	1	0.05
1600	1600	1602	2	0.10
1700	1700	1700	0	0
1800	1800	1802	2	0.09
1900	1900	1901	1	0.04
2000	2000	2000	0	0
2100	2100	2099	1	0.04
		Averages:	1.18	0.123

OF = off scale response by unit under test (°F)
% dev = 100 at/(460 + t)

☒Unit in tolerance
☐Unit was not in tolerance: recalibrated - See new calibration sheet.

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INTERPOLL LABORATORIES, INC.
(612) 786-6020

Temperature Measurement Device Calibration Sheet

Unit Under Test: #51
Vendor
Model: Omega
Range: 0-2000 °F
Date of Calibration: Jan 17-1996
Method of Calibration:

Serial Number: 755x2119
Thermocouple Type: K
Technician: HN
PDT No. #51

☐ Comparison against ASTM mercury in glass thermometer using a thermostated and insulated aluminum block designed to provide uniform temperature. The temperature is adjusted by adjusting the voltage on the block heater cartridge.

☐ Omega Model CL-300 Type K Thermocouple Simulator which provides 22 precise temperature equivalent millivolt signals. The CL-300 is cold junction compensated. Calibration accuracy is ± 0.1% of span (2100°F) ± 1 degree (for negative temperatures add ± 2 degrees). The CL-300 simulates exactly the millivoltage of a Type K thermocouple at the indicated temperature.

Desired Temp (°F) Nominal	Temperature of Standard or Simulated Temp (°F)	Response of Unit Under Test (°F)	Deviation	
			at (°F)	(%)
0	0	~~0~~ -1	~~0~~ 1	.2174
100	100	100	0	0
200	200	202	2	.303
300	300	300	0	0
400	400	399	-1	.1163
500	500	500	0	0
600	600	601	+1	.09433
700	700	700	0	0
800	800	803	+3	.2380
900	900	901	+1	.0735
1000	1000	1001	+1	~~.0165~~ .0085
1100	1100	1100	0	0
1200	1200	1201	+1	.0602
1300	1300	1300	0	0
1400	1400	1404	+4	~~.2154~~ .2151
1500	1500	1501	+1	.0511
1600	1600	1604	+4	.1942
1700	1700	1701	+1	.0463
1800	1800	1804	+4	.1870
1900	1900	1901	+1	.0429
2000	2000	2001	+1	.0407
2100	2100	~~2100~~ 2099	-1	.0391
Totals		Averages:	1.273	.0903

OF = off scale response by unit under test (°F)
% dev = 100 Δt/(460 + t)

☑ Unit in tolerance
☐ Unit was not in tolerance: recalibrated - See new calibration sheet.

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Interpoll Laboratories, Inc.
(612) 786-6020

S-Type Pitot Tube Inspection Sheet

Pitot Tube No. 22-6

Pitot tube dimensions:

1. External tubing diameter (D_t) .316 IN.
2. Base to Side A opening plane (P_A) .460 IN.
3. Base to Side B opening plane (P_B) .460 IN.

Alignment:

4. α_1 < 10° 0
5. α_2 < 10° 0

6. B_1 < 5° 0
7. B_2 < 5° 0

8. Z <.125" .02
9. W <.0625" .02

Distance from Pitot to Probe Components:

10. Pitot to 0.500 IN. nozzle .750 IN.
11. Pitot to probe sheath 3.0 IN.
12. Pitot to thermocouple (parallel to probe) 3.0 IN.
13. Pitot to thermocouple (perpendicular to probe) .760 IN.

☒ Meets all EPA design criteria thus C_p = 0.84
☐ Does not meet EPA design criteria - thus calibrate in wind tunnel.
C_p = _____

Date of Inspection: 4-8-94

Inspected by: [signature]

CFR Title 40 Part 60 Appenidix A Method 2

S-348

Interpoll Laboratories, Inc.
(612) 786-6020

S-Type Pitot Tube Inspection Sheet

Pitot Tube No. 29-8

Pitot tube dimensions:

1. External tubing diameter (D_t) .316 IN.
2. Base to Side A opening plane (P_A) .460 IN.
3. Base to Side B opening plane (P_B) .460 IN.

Alignment:

4. α_1 < 10° 0
5. α_2 < 10° 0

6. B_1 < 5° 0
7. B_2 < 5° 0

8. Z <.125" .01
9. W <.0625" .02

Distance from Pitot to Probe Components:

10. Pitot to 0.500 IN. nozzle .750 IN.
11. Pitot to probe sheath 3.0 IN.
12. Pitot to thermocouple (parallel to probe) 3.0 IN.
13. Pitot to thermocouple (perpendicular to probe) .760 IN.

☐ Meets all EPA design criteria thus C_p = 0.84
☐ Does not meet EPA design criteria - thus calibrate in wind tunnel.
C_p = _____

Date of Inspection: 1-7-94

Inspected by: [signature]

CFR Title 40 Part 60 Appenidix A Method 2

S-348

Interpoll Laboratories, Inc.
(612) 786-6020

S-Type Pitot Tube Inspection Sheet

Pitot Tube No. 31-6

Pitot tube dimensions:

1. External tubing diameter (D_t) ,316 IN.
2. Base to Side A opening plane (P_A) ,460 IN.
3. Base to Side B opening plane (P_B) ,460 IN.

Alignment:

4. α_1 < 10° 0
5. α_2 < 10° 0

6. B_1 < 5° 0
7. B_2 < 5° 0

8. Z <.125" ,01
9. W <.0625" ,01

Distance from Pitot to Probe Components:

10. Pitot to 0.500 IN. nozzle ,750 IN.
11. Pitot to probe sheath 3.0 IN.
12. Pitot to thermocouple (parallel to probe) 3.0 IN.
13. Pitot to thermocouple (perpendicular to probe) ,750 IN.

☒ Meets all EPA design criteria thus C_p = 0.84
☐ Does not meet EPA design criteria - thus calibrate in wind tunnel.
C_p = _____

Date of Inspection: 4-7-94

Inspected by: E Crawford

CFR Title 40 Part 60 Appenidix A Method 2

S-348

INTERPOLL LABORATORIES, INC.
(612) 786-6020

Stack Sampling Department - QA
Aneroid Barometer Calibration Sheet

Date 2-2-96
Technician BOB
Mercury Column Barometer No. Company 1
Aneroid Barometer No. 10713059

Actual Mercury Barometer Read	Ambient Temp.	Temperature Correction Factor	Adjusted Mercury Barometer Read	Initial Aneroid Barometer Read	Difference (P_{ba} - P_{bm})
29.79	69	.107	29.68	29.69	.01

Has this barometer shown any consistent problems with calibration? Yes/No. If yes, explain. _____

Has problem been alleviated? Yes/No. How? _____

Note: Aneroid barometers will be calibrated periodically against a mercury column barometer. The aneroid barometer to be calibrated should be placed in close proximity to the mercury barometer and left to equilibrate for 20 - 30 minutes before calibrating. Aneroid barometer will be calibrated to the adjusted mercury barometer readings.

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INTERPOLL LABORATORIES, INC.
(612) 786-6020

Stack Sampling Department - QA
Aneroid Barometer Calibration Sheet

Date 4-8-96
Technician SF
Mercury Column Barometer No. F. Ilw [redacted] Room
Aneroid Barometer No. 20901010

Actual Mercury Barometer Read	Ambient Temp.	Temperature Correction Factor	Adjusted Mercury Barometer Read	Initial Aneroid Barometer Read	Difference (P_{ba} - P_{bm})
29.310 [redacted]	70	.111	29.199	29.21	0.011

Has this barometer shown any consistent problems with calibration? Yes/No. If yes, explain. NO

Has problem been alleviated? Yes/No. How?

Note: Aneroid barometers will be calibrated periodically against a mercury column barometer. The aneroid barometer to be calibrated should be placed in close proximity to the mercury barometer and left to equilibrate for 20 - 30 minutes before calibrating. Aneroid barometer will be calibrated to the adjusted mercury barometer readings.

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INTERPOLL LABORATORIES, INC.
(612) 786-6020

Stack Sampling Department - QA
Aneroid Barometer Calibration Sheet

Date: 2-9-96
Technician: E. Jurs
Mercury Column Barometer No.: 1
Aneroid Barometer No.: 10724004

Actual Mercury Barometer Read	Ambient Temp.	Temperature Correction Factor	Adjusted Mercury Barometer Read	Initial Aneroid Barometer Read	Difference (P_{ba} - P_{bm})
28.99	82	.136	28.85	28.85	0

Has this barometer shown any consistent problems with calibration? Yes/No. If yes, explain. NO

Has problem been alleviated? Yes/No. How?

Note: Aneroid barometers will be calibrated periodically against a mercury column barometer. The aneroid barometer to be calibrated should be placed in close proximity to the mercury barometer and left to equilibrate for 20 - 30 minutes before calibrating. Aneroid barometer will be calibrated to the adjusted mercury barometer readings.

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INTERPOLL LABORATORIES, INC.
(612) 786-6020

Stack Sampling Department - QA
Aneroid Barometer Calibration Sheet

Date: 10-17-95
Technician: R.R.
Mercury Column Barometer No.: NOVA-1
Aneroid Barometer No.: 560209

Actual Mercury Barometer Read	Ambient Temp.	Temperature Correction Factor	Adjusted Mercury Barometer Read	Initial Aneroid Barometer Read	Difference (P_{ba} - P_{bm})
28.91	82	.14	28.77	28.76	.01

Has this barometer shown any consistent problems with calibration? Yes/No. If yes, explain. BAROMETER HAS BEEN REPAIRED

Has problem been alleviated? Yes/No. How?

Note: Aneroid barometers will be calibrated periodically against a mercury column barometer. The aneroid barometer to be calibrated should be placed in close proximity to the mercury barometer and left to equilibrate for 20 - 30 minutes before calibrating. Aneroid barometer will be calibrated to the adjusted mercury barometer readings.

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APPENDIX H

LINE 2 CORE DRYER E-TUBE OUTLET MONITORING

Geoenergy/LP-Hayward
Line 2 Core Dryer E-Tube Outlet

SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
5/14/96	7:47:01 PM			
0	6.612	17.395	641.683	2.979
5/14/96	7:47:07 PM			
0	8.138	17.527	600.993	2.897
5/14/96	7:47:12 PM			
0	8.341	17.7	479.736	2.865
5/14/96	7:47:50 PM			
0	5.086	17.67	177.002	3.011
5/14/96	7:48:50 PM			
0	5.595	17.67	183.512	2.995
5/14/96	7:49:50 PM			
0	3.255	17.232	275.472	3.475
5/14/96	7:50:50 PM			
0	2.747	16.876	588.379	3.727
5/14/96	7:51:51 PM			
0	2.95	16.764	828.451	3.768
5/14/96	7:52:50 PM			
0	2.645	16.886	764.16	3.678
5/14/96	7:53:50 PM			
0	2.035	16.968	699.056	3.613
5/14/96	7:54:50 PM			
0	2.34	17.171	617.676	3.394
5/14/96	7:55:50 PM			
0	3.153	17.558	338.542	3.076
5/14/96	7:56:51 PM			
0	2.441	17.415	269.368	3.312
5/14/96	7:57:50 PM			
0	2.035	17.283	358.073	3.385
5/14/96	7:58:50 PM			
0	1.424	17.1	482.178	3.54
5/14/96	7:59:51 PM			
0	1.831	16.663	691.732	3.988
5/14/96	8:00:50 PM			
0	1.322	16.673	1036.784	3.752
5/14/96	8:01:50 PM			
0	1.628	17.08	598.958	3.556
5/14/96	8:02:50 PM			
0	1.729	17.283	468.343	3.32
5/14/96	8:03:50 PM			
0	1.933	17.1	392.66	3.524
5/14/96	8:04:50 PM			
0	1.628	17.069	475.26	3.573
5/14/96	8:05:50 PM			
0	1.322	17.059	547.282	3.564
5/14/96	8:06:50 PM			
0	0.61	16.968	572.51	3.711
5/14/96	8:07:50 PM			
0	0.814	16.764	694.58	3.776
5/14/96	8:08:50 PM			
0	0.509	17.853	634.359	2.238
5/14/96	8:09:51 PM			
0	0	20.569	197.754	0.293
5/14/96	8:10:20 PM			
0	0	20.813	51.27	0.13
5/14/96	8:10:50 PM			
0	0	20.793	16.276	0.195
5/14/96	8:11:20 PM			
0	0	20.854	13.021	0.13
5/14/96	8:11:50 PM			
0	0.814	20.874	8.138	0.114
5/14/96	8:12:21 PM			
0	1.017	20.854	5.697	0.098
5/14/96	8:12:23 PM			
0	1.017	20.955	5.697	0.098
5/14/96	8:12:26 PM			
0	2.035	20.874	4.883	0.098
5/14/96	8:12:30 PM			
0	1.221	20.854	4.883	0.098

SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
5/14/96	8:12:32 PM			
0	1.017	20.935	1.628	0.098
5/14/96	8:12:36 PM			
0	1.017	20.874	2.441	0.098
5/14/96	8:12:38 PM			
0	0.814	20.894	3.255	0.081
5/14/96	8:12:41 PM			
0	0.814	20.854	2.441	0.081
5/14/96	8:12:44 PM			
0	0.407	20.915	2.441	0.098
5/14/96	8:12:47 PM			
0	0.61	20.935	2.441	0.098
5/14/96	8:12:50 PM			
0	0.61	20.874	2.441	0.098
5/14/96	8:12:53 PM			
0	0.61	20.915	1.628	0.098
5/14/96	8:12:56 PM			
0	1.017	20.874	1.628	0.098
5/14/96	8:12:59 PM			
0	0.407	20.915	2.441	0.098
5/14/96	8:13:02 PM			
0	0.407	20.955	0	0.098
5/14/96	8:13:05 PM			
0	1.017	20.935	0.814	0.098
5/14/96	8:13:08 PM			
0	0.814	20.854	0.814	0.098
5/14/96	8:13:11 PM			
0	0.61	20.874	1.628	0.098
5/14/96	8:13:14 PM			
0	0.407	20.915	0.814	0.114
5/14/96	8:13:17 PM			
0	0.203	20.854	0.814	0.098
5/14/96	8:13:20 PM			
0	0.203	20.874	0.814	0.098
5/14/96	8:13:24 PM			
0	0.203	20.854	2.441	0.098
5/14/96	8:13:26 PM			
0	0.407	20.874	2.441	0.098
5/14/96	8:13:30 PM			
0	0.203	20.874	1.628	0.098
5/14/96	8:13:32 PM			
0	0.407	20.894	2.441	0.098
5/14/96	8:13:35 PM			
0	0.61	20.874	2.441	0.098
5/14/96	8:13:38 PM			
0	0.407	20.894	2.441	0.098
5/14/96	8:13:41 PM			
0	0.407	20.874	3.255	0.098
5/14/96	8:13:45 PM			
0	0	20.874	2.441	0.114
5/14/96	8:13:47 PM			
0	0.203	20.874	2.441	0.098
5/14/96	8:13:50 PM			
0	0.203	20.894	2.441	0.098
5/14/96	8:13:53 PM			
0	0	20.854	2.441	0.098
5/14/96	8:13:56 PM			
0	0.203	20.874	2.441	0.098
5/14/96	8:13:59 PM			
0	0.203	20.854	2.441	0.098
5/14/96	8:14:02 PM			
0	0.203	20.874	1.628	0.114
5/14/96	8:14:05 PM			
0	0.203	20.894	0	0.114
5/14/96	8:14:08 PM			
0	0	20.915	0.814	0.098
5/14/96	8:14:11 PM			
0	0	20.874	1.628	0.098

Geoenergy/LP-Hayward
Line 2 Core Dryer E-Tube Outlet

SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
5/14/96	8:14:14 PM			
0	0.407	20.894	0	0.098
5/14/96	8:14:18 PM			
0	0	20.935	0	0.098
5/14/96	8:14:21 PM			
0	0	20.854	0	0.098
5/14/96	8:14:24 PM			
0	0.203	20.894	0	0.098
5/14/96	8:14:26 PM			
0	0	20.915	0	0.098
5/14/96	8:14:29 PM			
0	0.407	20.854	0.814	0.098
5/14/96	8:14:32 PM			
0	0.203	20.915	0	0.098
5/14/96	8:14:35 PM			
0	0	20.874	0.814	0.098
5/14/96	8:14:38 PM			
0	0.203	20.894	0	0.098
5/14/96	8:14:41 PM			
0	0.203	20.874	0	0.081
5/14/96	8:14:44 PM			
0	0.407	20.894	0.814	0.081
5/14/96	8:14:47 PM			
0	0.203	20.935	0	0.081
5/14/96	8:14:50 PM			
0	0	20.894	0	0.081
5/14/96	8:14:53 PM			
0	0	20.874	0	0.081
5/14/96	8:14:56 PM			
0	0.203	20.915	0	0.098
5/14/96	8:14:59 PM			
0	0	20.894	0	0.098
5/14/96	8:15:02 PM			
0	0	20.894	0	0.098
5/14/96	8:15:05 PM			
0	0	20.833	0	0.098
5/14/96	8:15:08 PM			
0	0.203	20.874	0	0.098
5/14/96	8:15:12 PM			
0	0.407	20.915	0	0.098
5/14/96	8:15:15 PM			
0	0	20.894	0	0.081
5/14/96	8:15:17 PM			
0	0.203	20.874	0	0.13
5/14/96	8:15:20 PM			
0	0.407	20.874	0	0.146
5/14/96	8:15:23 PM			
0	0	20.732	0	0.146
5/14/96	8:15:26 PM			
0	0.203	20.65	0	0.13
5/14/96	8:15:29 PM			
0	0.814	20.589	0	0.098
5/14/96	8:15:32 PM			
0	0.203	20.65	0	0.098
5/14/96	8:15:35 PM			
0	0.203	20.671	0	0.13
5/14/96	8:15:38 PM			
0	3.662	20.711	0	0.163
5/14/96	8:15:41 PM			
0	24.618	20.549	0	0.13
5/14/96	8:15:44 PM			
0	42.725	18.901	0	0.081
5/14/96	8:15:47 PM			
0	53.507	15.747	0	0.049
5/14/96	8:15:50 PM			
0	61.239	12.227	0	0.049
5/14/96	8:15:53 PM			
0	65.511	9.196	0	0

Geoenergy/LP-Hayward
Line 2 Core Dryer E-Tube Outlet

SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
5/14/96	8:15:56 PM			
0	69.58	6.775	0	0
5/14/96	8:15:59 PM			
0	71.004	4.924	0	0
5/14/96	8:16:02 PM			
0	71.208	3.52	0	0
5/14/96	8:16:05 PM			
0	73.039	2.625	0	0
5/14/96	8:16:09 PM			
0	72.835	2.014	0	0
5/14/96	8:16:11 PM			
0	73.649	1.567	0	0.016
5/14/96	8:16:14 PM			
0	73.649	1.241	0	0
5/14/96	8:16:17 PM			
0	74.666	1.099	0	0
5/14/96	8:16:20 PM			
0	74.666	0.977	0	0
5/14/96	8:16:23 PM			
0	75.277	0.814	0	0
5/14/96	8:16:26 PM			
0	76.497	0.793	0	0
5/14/96	8:16:29 PM			
0	76.701	0.712	0	0
5/14/96	8:16:32 PM			
0	77.515	0.651	0	0
5/14/96	8:16:35 PM			
0	78.125	0.529	0	0
5/14/96	8:16:38 PM			
0	77.922	0.488	0	0
5/14/96	8:16:41 PM			
0	77.515	0.468	0	0
5/14/96	8:16:44 PM			
0	78.532	0.468	0	0
5/14/96	8:16:47 PM			
0	77.922	0.407	0	0
5/14/96	8:16:50 PM			
0	78.735	0.366	0	0
5/14/96	8:16:53 PM			
0	78.328	0.407	0	0
5/14/96	8:16:56 PM			
0	79.346	0.387	0	0
5/14/96	8:16:59 PM			
0	78.532	0.366	0	0
5/14/96	8:17:03 PM			
0	78.328	0.366	0	0
5/14/96	8:17:06 PM			
0	78.939	0.326	0	0
5/14/96	8:17:08 PM			
0	78.939	0.285	0	0
5/14/96	8:17:11 PM			
0	79.549	0.244	0	0
5/14/96	8:17:14 PM			
0	79.142	0.305	0	0
5/14/96	8:17:17 PM			
0	78.532	0.183	0	0
5/14/96	8:17:20 PM			
0	78.328	0.264	0	0
5/14/96	8:17:23 PM			
0	78.735	0.244	0	0
5/14/96	8:17:26 PM			
0	78.328	0.264	0	0.016
5/14/96	8:17:29 PM			
0	68.563	0.264	0	0
5/14/96	8:17:32 PM			
0	47.811	0.264	0	0
5/14/96	8:17:35 PM			
0	33.366	0.285	0	0

SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
5/14/96	8:17:38 PM			
0	23.6	0.305	0	0
5/14/96	8:17:41 PM			
0	15.869	0.285	0	0
5/14/96	8:17:44 PM			
0	11.8	0.305	0	0
5/14/96	8:17:47 PM			
0	9.562	0.244	2.441	0
5/14/96	8:17:50 PM			
0	7.121	0.224	14.648	0
5/14/96	8:17:54 PM			
0	5.9	0.224	32.552	0
5/14/96	8:17:57 PM			
0	5.29	0.244	57.78	0
5/14/96	8:18:00 PM			
0	4.272	0.203	83.008	0
5/14/96	8:18:02 PM			
0	3.255	0.183	106.608	0
5/14/96	8:18:05 PM			
0	1.628	0.142	129.395	0
5/14/96	8:18:08 PM			
0	1.221	0.122	154.622	0
5/14/96	8:18:11 PM			
0	1.017	0.142	176.595	0
5/14/96	8:18:14 PM			
0	0.61	0.142	196.94	0
5/14/96	8:18:17 PM			
0	0.61	0.183	212.402	0
5/14/96	8:18:20 PM			
0	0	0.203	226.237	0
5/14/96	8:18:23 PM			
0	0.407	0.183	238.444	0
5/14/96	8:18:26 PM			
0	0	0.224	248.21	0
5/14/96	8:18:29 PM			
0	0.203	0.183	256.348	0
5/14/96	8:18:32 PM			
0	0	0.122	263.672	0
5/14/96	8:18:35 PM			
0	0	0.122	267.741	0
5/14/96	8:18:38 PM			
0	0.203	0.081	271.81	0
5/14/96	8:18:41 PM			
0	0	0.142	275.879	0
5/14/96	8:18:44 PM			
0	0	0.183	279.134	0
5/14/96	8:18:48 PM			
0	0.203	0.142	282.389	0
5/14/96	8:18:50 PM			
0	1.017	0.122	284.017	0.016
5/14/96	8:18:54 PM			
0	0.203	0.163	285.645	0.016
5/14/96	8:18:56 PM			
0	0.61	0.102	288.086	0
5/14/96	8:18:59 PM			
0	0	0.244	288.9	0
5/14/96	8:19:02 PM			
0	0	0.163	290.527	0
5/14/96	8:19:05 PM			
0	0	0.122	291.341	0
5/14/96	8:19:08 PM			
0	1.017	0.142	292.155	0
5/14/96	8:19:11 PM			
0	16.479	0.102	292.155	0
5/14/96	8:19:14 PM			
0	35.4	0.142	292.155	0
5/14/96	8:19:17 PM			
0	48.014	0.163	292.155	0

SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
5/14/96	8:19:20 PM			
0	56.966	0.183	291.341	0
5/14/96	8:19:23 PM			
0	63.68	0.183	292.969	0
5/14/96	8:19:26 PM			
0	67.139	0.122	291.341	0
5/14/96	8:19:29 PM			
0	69.784	0.142	285.645	0
5/14/96	8:19:32 PM			
0	71.208	0.142	270.996	0
5/14/96	8:19:35 PM			
0	72.835	0.163	249.023	0
5/14/96	8:19:38 PM			
0	73.039	0.041	223.796	0
5/14/96	8:19:42 PM			
0	74.259	0.102	194.499	0
5/14/96	8:19:44 PM			
0	74.259	0.061	165.202	0
5/14/96	8:19:48 PM			
0	74.87	0.102	139.16	0
5/14/96	8:19:50 PM			
0	75.887	0.061	118.815	0
5/14/96	8:19:53 PM			
0	75.887	0.061	101.725	0
5/14/96	8:19:56 PM			
0	76.09	0.102	87.077	0
5/14/96	8:19:59 PM			
0	75.684	0.061	73.242	0
5/14/96	8:20:03 PM			
0	75.684	0.061	62.663	0
5/14/96	8:20:05 PM			
0	76.294	0.081	51.27	0
5/14/96	8:20:08 PM			
0	76.09	0.081	43.945	0
5/14/96	8:20:11 PM			
0	76.497	0.061	36.621	0
5/14/96	8:20:14 PM			
0	76.09	0.061	29.297	0
5/14/96	8:20:17 PM			
0	76.294	0.02	24.414	0
5/14/96	8:20:20 PM			
0	76.497	0.02	21.159	0
5/14/96	8:20:23 PM			
0	75.48	0.041	17.09	0
5/14/96	8:20:26 PM			
0	75.277	0	14.648	0
5/14/96	8:20:29 PM			
0	74.87	0.061	11.393	0
5/14/96	8:20:32 PM			
0	70.394	0.02	8.952	0
5/14/96	8:20:36 PM			
0	52.694	0.285	7.324	0
5/14/96	8:20:39 PM			
0	33.569	2.584	5.697	0.033
5/14/96	8:20:41 PM			
0	23.193	6.246	4.069	0
5/14/96	8:20:44 PM			
0	17.09	9.542	3.255	0.081
5/14/96	8:20:47 PM			
0	11.8	12.024	3.255	0.521
5/14/96	8:20:50 PM			
0	9.359	14.119	2.441	1.221
5/14/96	8:20:53 PM			
0	9.359	15.442	2.441	1.66
5/14/96	8:20:56 PM			
0	9.562	16.093	1.628	1.937
5/14/96	8:21:00 PM			
0	9.155	16.357	2.441	2.23

SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
5/14/96	8:21:02 PM			
0	8.545	16.418	2.441	2.409
5/14/96	8:21:05 PM			
0	8.341	16.459	4.069	2.62
5/14/96	8:21:08 PM			
0	7.731	16.479	8.952	2.799
5/14/96	8:21:11 PM			
0	7.324	16.52	20.345	2.913
5/14/96	8:21:14 PM			
0	6.307	16.663	36.621	3.011
5/14/96	8:21:17 PM			
0	5.9	16.744	58.594	3.092
5/14/96	8:21:20 PM			
0	6.104	16.886	80.566	3.125
5/14/96	8:21:23 PM			
0	5.9	16.866	101.725	3.141
5/14/96	8:21:27 PM			
0	5.493	16.907	122.884	3.19
5/14/96	8:21:30 PM			
0	5.29	17.008	145.671	3.206
5/14/96	8:21:33 PM			
0	5.29	16.988	170.898	3.223
5/14/96	8:21:36 PM			
0	4.679	17.11	194.499	3.255
5/14/96	8:21:38 PM			
0	5.29	17.11	214.03	3.304
5/14/96	8:21:42 PM			
0	5.29	17.069	232.747	3.32
5/14/96	8:21:44 PM			
0	5.086	17.151	247.396	3.353
5/14/96	8:21:47 PM			
0	5.29	17.131	258.789	3.385
5/14/96	8:21:50 PM			
0	4.883	17.11	270.182	3.418
5/14/96	8:21:53 PM			
0	4.679	17.008	280.762	3.434
5/14/96	8:21:56 PM			
0	4.272	17.09	290.527	3.434
5/14/96	8:21:59 PM			
0	4.272	17.09	301.107	3.434
5/14/96	8:22:02 PM			
0	4.069	17.029	313.314	3.418
5/14/96	8:22:05 PM			
0	4.883	17.049	326.335	3.385
5/14/96	8:22:08 PM			
0	4.476	17.11	338.542	3.353
5/14/96	8:22:11 PM			
0	4.679	17.069	353.19	3.353
5/14/96	8:22:14 PM			
0	4.679	17.151	364.583	3.32
5/14/96	8:22:17 PM			
0	4.883	17.151	375.163	3.337
5/14/96	8:22:21 PM			
0	5.086	17.171	382.487	3.337
5/14/96	8:22:23 PM			
0	5.086	17.171	386.556	3.337
5/14/96	8:22:27 PM			
0	4.679	17.171	388.184	3.353
5/14/96	8:22:30 PM			
0	4.679	17.232	384.928	3.369
5/14/96	8:22:32 PM			
0	4.069	17.253	380.859	3.385
5/14/96	8:22:35 PM			
0	4.272	17.171	374.349	3.385
5/14/96	8:22:38 PM			
0	4.883	17.192	369.466	3.418
5/14/96	8:22:41 PM			
0	4.069	17.151	369.466	3.434

5/14/96	8:23:11 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	4.272	17.069	411.784	3.467
5/14/96	8:23:31 PM			
0	3.662	17.12	424.805	3.369
5/14/96	8:23:34 PM			
0	3.967	17.151	428.467	3.345
5/14/96	8:23:36 PM			
0	4.883	17.12	432.129	3.32
5/14/96	8:23:37 PM			
0	4.272	17.181	435.791	3.296
5/14/96	8:23:40 PM			
0	3.967	17.242	438.232	3.271
5/14/96	8:23:41 PM			
0	4.883	17.242	439.453	3.271
5/14/96	8:23:44 PM			
0	4.272	17.181	441.895	3.271
5/14/96	8:23:45 PM			
0	4.883	17.242	440.674	3.247
5/14/96	8:23:48 PM			
0	5.188	17.334	438.232	3.247
5/14/96	8:23:49 PM			
0	5.188	17.365	434.57	3.223
5/14/96	8:23:51 PM			
0	4.272	17.273	428.467	3.223
5/14/96	8:23:53 PM			
0	4.578	17.365	422.363	3.223
5/14/96	8:23:55 PM			
0	4.883	17.365	415.039	3.247
5/14/96	8:23:57 PM			
0	4.883	17.334	406.494	3.223
5/14/96	8:23:59 PM			
0	4.883	17.334	396.729	3.247
5/14/96	8:24:02 PM			
0	5.493	17.365	374.756	3.247
5/14/96	8:24:04 PM			
0	5.188	17.395	377.197	3.223
5/14/96	8:24:05 PM			
0	5.188	17.365	367.432	3.223
5/14/96	8:24:07 PM			
0	5.188	17.395	362.549	3.223
5/14/96	8:24:09 PM			
0	5.188	17.426	352.783	3.223
5/14/96	8:24:12 PM			
0	4.883	17.426	345.459	3.223
5/14/96	8:24:13 PM			
0	5.188	17.365	339.355	3.223
5/14/96	8:24:15 PM			
0	5.493	17.334	330.811	3.223
5/14/96	8:24:18 PM			
0	5.493	17.395	323.486	3.223
5/14/96	8:24:19 PM			
0	5.493	17.334	318.604	3.198
5/14/96	8:24:21 PM			
0	5.493	17.303	313.721	3.174
5/14/96	8:24:23 PM			
0	5.493	17.365	307.617	3.174
5/14/96	8:24:25 PM			
0	5.188	17.517	301.514	3.198
5/14/96	8:24:27 PM			
0	5.188	17.456	297.852	3.198
5/14/96	8:24:29 PM			
0	5.798	17.395	292.969	3.174
5/14/96	8:24:31 PM			
0	5.493	17.426	288.086	3.174
5/14/96	8:24:34 PM			
0	5.798	17.395	285.645	3.174
5/14/96	8:24:35 PM			
0	5.493	17.487	280.762	3.174

5/14/96	8:24:37 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	5.188	17.426	277.1	3.198
5/14/96	8:24:39 PM			
0	5.493	17.426	274.658	3.223
5/14/96	8:24:41 PM			
0	5.493	17.456	269.775	3.223
5/14/96	8:24:43 PM			
0	5.493	17.426	264.893	3.223
5/14/96	8:24:45 PM			
0	4.883	17.426	262.451	3.247
5/14/96	8:24:47 PM			
0	5.188	17.487	260.01	3.223
5/14/96	8:24:49 PM			
0	5.188	17.456	256.348	3.271
5/14/96	8:24:51 PM			
0	5.798	17.456	255.127	3.271
5/14/96	8:24:53 PM			
0	4.883	17.426	252.686	3.296
5/14/96	8:24:56 PM			
0	5.188	17.426	249.023	3.296
5/14/96	8:24:57 PM			
0	5.188	17.334	247.803	3.32
5/14/96	8:24:59 PM			
0	5.188	17.365	246.582	3.32
5/14/96	8:25:02 PM			
0	4.883	17.303	245.361	3.345
5/14/96	8:25:03 PM			
0	4.883	17.334	246.582	3.345
5/14/96	8:25:06 PM			
0	4.578	17.334	247.803	3.369
5/14/96	8:25:07 PM			
0	5.493	17.303	249.023	3.345
5/14/96	8:25:09 PM			
0	5.188	17.242	250.244	3.32
5/14/96	8:25:12 PM			
0	5.188	17.334	255.127	3.32
5/14/96	8:25:13 PM			
0	4.883	17.273	256.348	3.32
5/14/96	8:25:15 PM			
0	4.883	17.273	261.23	3.271
5/14/96	8:25:17 PM			
0	4.883	17.273	264.893	3.247
5/14/96	8:25:19 PM			
0	4.883	17.273	267.334	3.247
5/14/96	8:25:22 PM			
0	5.188	17.303	273.437	3.223
5/14/96	8:25:23 PM			
0	5.493	17.334	278.32	3.198
5/14/96	8:25:26 PM			
0	5.798	17.395	281.982	3.149
5/14/96	8:25:27 PM			
0	6.104	17.395	284.424	3.149
5/14/96	8:25:29 PM			
0	6.104	17.395	288.086	3.174
5/14/96	8:25:31 PM			
0	6.409	17.395	291.748	3.125
5/14/96	8:25:33 PM			
0	5.798	17.517	292.969	3.125
5/14/96	8:25:35 PM			
0	5.798	17.548	294.189	3.149
5/14/96	8:25:37 PM			
0	6.104	17.487	292.969	3.125
5/14/96	8:25:39 PM			
0	5.798	17.487	290.527	3.125
5/14/96	8:25:41 PM			
0	5.798	17.517	286.865	3.125
5/14/96	8:25:44 PM			
0	6.409	17.517	281.982	3.125

5/14/96	8:25:45 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	6.409	17.456	274.658	3.149
5/14/96	8:25:47 PM			
0	6.104	17.517	268.555	3.149
5/14/96	8:25:50 PM			
0	6.104	17.578	262.451	3.174
5/14/96	8:25:51 PM			
0	5.188	17.487	257.568	3.174
5/14/96	8:25:53 PM			
0	6.104	17.517	251.465	3.174
5/14/96	8:25:55 PM			
0	5.493	17.456	242.92	3.223
5/14/96	8:25:57 PM			
0	6.409	17.487	238.037	3.198
5/14/96	8:26:00 PM			
0	5.798	17.426	231.934	3.223
5/14/96	8:26:01 PM			
0	6.104	17.517	228.271	3.271
5/14/96	8:26:03 PM			
0	6.104	17.395	224.609	3.271
5/14/96	8:26:06 PM			
0	5.188	17.456	218.506	3.271
5/14/96	8:26:07 PM			
0	5.798	17.395	216.064	3.296
5/14/96	8:26:09 PM			
0	5.798	17.365	216.064	3.345
5/14/96	8:26:11 PM			
0	6.104	17.365	212.402	3.369
5/14/96	8:26:13 PM			
0	6.104	17.303	212.402	3.345
5/14/96	8:26:15 PM			
0	5.798	17.303	211.182	3.394
5/14/96	8:26:17 PM			
0	5.493	17.303	211.182	3.418
5/14/96	8:26:19 PM			
0	4.883	17.334	214.844	3.442
5/14/96	8:26:22 PM			
0	5.188	17.212	216.064	3.442
5/14/96	8:26:23 PM			
0	4.578	17.242	219.727	3.467
5/14/96	8:26:25 PM			
0	4.578	17.212	224.609	3.442
5/14/96	8:26:27 PM			
0	5.188	17.212	228.271	3.467
5/14/96	8:26:29 PM			
0	5.188	17.181	235.596	3.442
5/14/96	8:26:31 PM			
0	5.188	17.212	241.699	3.467
5/14/96	8:26:33 PM			
0	5.493	17.181	249.023	3.467
5/14/96	8:26:35 PM			
0	4.883	17.151	257.568	3.442
5/14/96	8:26:38 PM			
0	4.578	17.12	264.893	3.418
5/14/96	8:26:40 PM			
0	4.883	17.151	274.658	3.418
5/14/96	8:26:41 PM			
0	4.883	17.181	284.424	3.394
5/14/96	8:26:44 PM			
0	5.798	17.181	294.189	3.418
5/14/96	8:26:45 PM			
0	5.798	17.242	303.955	3.369
5/14/96	8:26:47 PM			
0	5.493	17.242	313.721	3.369
5/14/96	8:26:49 PM			
0	5.493	17.242	322.266	3.369
5/14/96	8:26:51 PM			
0	5.188	17.212	330.811	3.369

5/14/96	8:26:54 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	5.493	17.181	336.914	3.369
5/14/96	8:26:55 PM			
0	5.798	17.212	343.018	3.394
5/14/96	8:26:57 PM			
0	5.798	17.242	346.68	3.418
5/14/96	8:26:59 PM			
0	6.409	17.303	351.562	3.418
5/14/96	8:27:01 PM			
0	6.104	17.242	351.562	3.418
5/14/96	8:27:03 PM			
0	6.104	17.181	352.783	3.467
5/14/96	8:27:05 PM			
0	6.409	17.242	351.562	3.467
5/14/96	8:27:07 PM			
0	5.493	17.212	350.342	3.467
5/14/96	8:27:09 PM			
0	5.798	17.242	347.9	3.467
5/14/96	8:27:12 PM			
0	4.883	17.09	344.238	3.467
5/14/96	8:27:13 PM			
0	5.493	17.212	341.797	3.442
5/14/96	8:27:16 PM			
0	5.798	17.181	340.576	3.418
5/14/96	8:27:18 PM			
0	6.409	17.181	339.355	3.418
5/14/96	8:27:19 PM			
0	6.104	17.12	338.135	3.418
5/14/96	8:27:21 PM			
0	5.493	17.181	339.355	3.369
5/14/96	8:27:23 PM			
0	5.798	17.12	341.797	3.369
5/14/96	8:27:25 PM			
0	5.798	17.151	344.238	3.32
5/14/96	8:27:27 PM			
0	5.493	17.181	346.68	3.32
5/14/96	8:27:29 PM			
0	6.409	17.181	351.562	3.32
5/14/96	8:27:32 PM			
0	5.798	17.273	354.004	3.32
5/14/96	8:27:33 PM			
0	5.493	17.242	356.445	3.32
5/14/96	8:27:35 PM			
0	5.798	17.273	358.887	3.32
5/14/96	8:27:38 PM			
0	5.188	17.273	360.107	3.32
5/14/96	8:27:39 PM			
0	5.798	17.303	358.887	3.32
5/14/96	8:27:41 PM			
0	5.493	17.334	360.107	3.32
5/14/96	8:27:43 PM			
0	5.798	17.334	356.445	3.32
5/14/96	8:27:45 PM			
0	5.493	17.303	355.225	3.32
5/14/96	8:27:47 PM			
0	4.883	17.334	351.562	3.369
5/14/96	8:27:49 PM			
0	5.493	17.303	349.121	3.345
5/14/96	8:27:51 PM			
0	5.493	17.303	345.459	3.369
5/14/96	8:27:54 PM			
0	5.188	17.395	343.018	3.369
5/14/96	8:27:55 PM			
0	5.798	17.273	340.576	3.345
5/14/96	8:27:57 PM			
0	5.798	17.303	336.914	3.369
5/14/96	8:27:59 PM			
0	5.188	17.334	332.031	3.369

5/14/96	8:28:01 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	5.493	17.242	332.031	3.369
5/14/96	8:28:03 PM			
0	6.104	17.242	329.59	3.369
5/14/96	8:28:05 PM			
0	5.493	17.212	328.369	3.394
5/14/96	8:28:07 PM			
0	5.493	17.303	329.59	3.418
5/14/96	8:28:10 PM			
0	4.883	17.212	327.148	3.394
5/14/96	8:28:11 PM			
0	5.493	17.181	328.369	3.418
5/14/96	8:28:14 PM			
0	5.493	17.242	327.148	3.369
5/14/96	8:28:15 PM			
0	5.798	17.242	327.148	3.418
5/14/96	8:28:17 PM			
0	6.104	17.212	327.148	3.418
5/14/96	8:28:19 PM			
0	6.104	17.212	327.148	3.442
5/14/96	8:28:21 PM			
0	5.798	17.303	325.928	3.467
5/14/96	8:28:23 PM			
0	5.188	17.151	327.148	3.467
5/14/96	8:28:26 PM			
0	5.798	17.212	323.486	3.491
5/14/96	8:28:27 PM			
0	6.104	17.151	328.369	3.516
5/14/96	8:28:29 PM			
0	6.714	17.212	330.811	3.516
5/14/96	8:28:31 PM			
0	6.104	17.151	333.252	3.54
5/14/96	8:28:34 PM			
0	5.798	17.151	335.693	3.54
5/14/96	8:28:35 PM			
0	5.493	17.12	336.914	3.54
5/14/96	8:28:37 PM			
0	5.188	17.059	339.355	3.54
5/14/96	8:28:39 PM			
0	5.798	17.059	343.018	3.516
5/14/96	8:28:41 PM			
0	5.798	17.12	346.68	3.491
5/14/96	8:28:43 PM			
0	6.104	17.12	351.562	3.467
5/14/96	8:28:45 PM			
0	4.883	17.059	355.225	3.467
5/14/96	8:28:48 PM			
0	5.493	17.059	360.107	3.467
5/14/96	8:28:49 PM			
0	5.798	17.151	367.432	3.467
5/14/96	8:28:51 PM			
0	4.883	17.09	372.314	3.491
5/14/96	8:28:53 PM			
0	5.493	17.059	378.418	3.516
5/14/96	8:28:55 PM			
0	5.493	17.059	384.521	3.516
5/14/96	8:28:57 PM			
0	6.104	17.12	390.625	3.54
5/14/96	8:28:59 PM			
0	6.409	17.151	394.287	3.564
5/14/96	8:29:01 PM			
0	5.798	17.151	395.508	3.613
5/14/96	8:29:04 PM			
0	5.493	17.09	397.949	3.613
5/14/96	8:29:05 PM			
0	6.104	17.151	397.949	3.638
5/14/96	8:29:07 PM			
0	5.493	17.09	397.949	3.662

5/14/96	8:29:09 PM				
SO2	NOx	O2	CO	CO2	
	(ppm)	(%)	(ppm)	(%)	
0	5.798	16.998	395.508	3.711	
5/14/96	8:29:11 PM				
0	5.493	16.937	396.729	3.711	
5/14/96	8:29:13 PM				
0	5.798	16.937	395.508	3.76	
5/14/96	8:29:15 PM				
0	5.493	16.998	395.508	3.784	
5/14/96	8:29:17 PM				
0	5.493	16.937	397.949	3.784	
5/14/96	8:29:19 PM				
0	5.493	16.846	401.611	3.809	
5/14/96	8:29:21 PM				
0	5.188	16.815	407.715	3.833	
5/14/96	8:29:23 PM				
0	4.883	16.846	415.039	3.857	
5/14/96	8:29:26 PM				
0	4.272	16.754	426.025	3.833	
5/14/96	8:29:27 PM				
0	5.493	16.785	439.453	3.809	
5/14/96	8:29:29 PM				
0	5.188	16.724	455.322	3.809	
5/14/96	8:29:31 PM				
0	6.104	16.754	469.971	3.809	
5/14/96	8:29:33 PM				
0	5.493	16.785	487.061	3.809	
5/14/96	8:29:35 PM				
0	4.883	16.785	506.592	3.784	
5/14/96	8:29:38 PM				
0	5.798	16.754	528.564	3.76	
5/14/96	8:29:39 PM				
0	4.578	16.724	550.537	3.76	
5/14/96	8:29:42 PM				
0	4.883	16.785	573.73	3.711	
5/14/96	8:29:43 PM				
0	6.104	16.724	594.482	3.711	
5/14/96	8:29:45 PM				
0	4.883	16.846	614.014	3.711	
5/14/96	8:29:47 PM				
0	5.188	16.785	629.883	3.687	
5/14/96	8:29:49 PM				
0	5.188	16.846	643.311	3.662	
5/14/96	8:29:51 PM				
0	5.493	16.815	654.297	3.613	
5/14/96	8:29:53 PM				
0	5.188	16.876	662.842	3.613	
5/14/96	8:29:55 PM				
0	4.883	16.937	672.607	3.589	
5/14/96	8:29:58 PM				
0	5.493	16.907	675.049	3.564	
5/14/96	8:29:59 PM				
0	5.798	16.907	673.828	3.564	
5/14/96	8:30:01 PM				
0	5.493	16.937	675.049	3.516	
5/14/96	8:30:03 PM				
0	5.188	16.968	671.387	3.491	
5/14/96	8:30:05 PM				
0	5.798	16.968	664.062	3.442	
5/14/96	8:30:07 PM				
0	5.798	17.059	656.738	3.418	
5/14/96	8:30:09 PM				
0	6.409	17.09	648.193	3.369	
5/14/96	8:30:11 PM				
0	5.798	17.029	637.207	3.32	
5/14/96	8:30:13 PM				
0	6.104	17.151	628.662	3.271	
5/14/96	8:30:15 PM				
0	6.104	17.212	617.676	3.271	

5/14/96	8:30:17 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	5.798	17.242	604.248	3.223
5/14/96	8:30:20 PM			
0	6.409	17.273	590.82	3.174
5/14/96	8:30:21 PM			
0	6.714	17.303	576.172	3.125
5/14/96	8:30:23 PM			
0	6.714	17.365	559.082	3.125
5/14/96	8:30:25 PM			
0	7.324	17.487	544.434	3.101
5/14/96	8:30:27 PM			
0	7.019	17.426	527.344	3.027
5/14/96	8:30:30 PM			
0	7.019	17.487	511.475	3.003
5/14/96	8:30:31 PM			
0	7.324	17.487	494.385	3.027
5/14/96	8:30:33 PM			
0	7.019	17.578	478.516	2.979
5/14/96	8:30:36 PM			
0	7.019	17.609	460.205	2.979
5/14/96	8:30:37 PM			
0	7.935	17.609	440.674	2.979
5/14/96	8:30:39 PM			
0	7.935	17.7	422.363	2.93
5/14/96	8:30:41 PM			
0	7.935	17.67	404.053	2.954
5/14/96	8:30:43 PM			
0	8.545	17.67	385.742	2.93
5/14/96	8:30:45 PM			
0	8.24	17.639	369.873	2.93
5/14/96	8:30:47 PM			
0	8.24	17.639	356.445	2.954
5/14/96	8:30:49 PM			
0	8.545	17.731	343.018	2.93
5/14/96	8:30:51 PM			
0	8.85	17.761	330.811	2.93
5/14/96	8:30:54 PM			
0	8.85	17.7	319.824	2.954
5/14/96	8:30:55 PM			
0	9.46	17.761	307.617	2.979
5/14/96	8:30:57 PM			
0	9.766	17.639	296.631	2.979
5/14/96	8:30:59 PM			
0	9.155	17.731	288.086	2.979
5/14/96	8:31:01 PM			
0	8.545	17.731	277.1	3.027
5/14/96	8:31:03 PM			
0	7.935	17.761	268.555	3.027
5/14/96	8:31:05 PM			
0	7.629	17.7	260.01	3.052
5/14/96	8:31:08 PM			
0	7.019	17.7	250.244	3.125
5/14/96	8:31:09 PM			
0	7.019	17.67	242.92	3.125
5/14/96	8:31:11 PM			
0	6.409	17.609	235.596	3.149
5/14/96	8:31:14 PM			
0	7.935	17.578	228.271	3.149
5/14/96	8:31:15 PM			
0	7.019	17.578	219.727	3.174
5/14/96	8:31:17 PM			
0	7.324	17.639	212.402	3.223
5/14/96	8:31:19 PM			
0	7.629	17.517	207.52	3.223
5/14/96	8:31:21 PM			
0	7.019	17.548	202.637	3.296
5/14/96	8:31:24 PM			
0	7.324	17.487	198.975	3.296

5/14/96	8:31:25 PM				
SO2	NOx	O2	CO	CO2	
	(ppm)	(%)	(ppm)	(%)	
0	7.019	17.426	194.092	3.32	
5/14/96	8:31:27 PM				
0	7.629	17.456	195.312	3.32	
5/14/96	8:31:30 PM				
0	7.324	17.365	195.312	3.32	
5/14/96	8:31:31 PM				
0	7.019	17.395	196.533	3.32	
5/14/96	8:31:33 PM				
0	7.629	17.334	197.754	3.32	
5/14/96	8:31:35 PM				
0	7.324	17.334	201.416	3.345	
5/14/96	8:31:37 PM				
0	6.104	17.303	202.637	3.32	
5/14/96	8:31:39 PM				
0	6.409	17.334	208.74	3.369	
5/14/96	8:31:41 PM				
0	7.019	17.273	212.402	3.369	
5/14/96	8:31:43 PM				
0	6.104	17.303	218.506	3.369	
5/14/96	8:31:45 PM				
0	5.493	17.242	227.051	3.394	
5/14/96	8:31:47 PM				
0	5.493	17.303	234.375	3.394	
5/14/96	8:31:49 PM				
0	5.798	17.273	241.699	3.418	
5/14/96	8:31:51 PM				
0	5.493	17.303	249.023	3.418	
5/14/96	8:31:53 PM				
0	5.493	17.273	255.127	3.442	
5/14/96	8:31:55 PM				
0	5.188	17.273	257.568	3.467	
5/14/96	8:31:57 PM				
0	4.883	17.181	267.334	3.491	
5/14/96	8:31:59 PM				
0	4.883	17.12	273.437	3.516	
5/14/96	8:32:02 PM				
0	5.188	17.212	280.762	3.516	
5/14/96	8:32:03 PM				
0	5.188	17.151	288.086	3.516	
5/14/96	8:32:05 PM				
0	5.188	17.181	294.189	3.516	
5/14/96	8:32:08 PM				
0	4.883	17.059	301.514	3.516	
5/14/96	8:32:09 PM				
0	4.883	17.151	308.838	3.516	
5/14/96	8:32:11 PM				
0	4.272	17.151	317.383	3.516	
5/14/96	8:32:13 PM				
0	4.578	17.12	324.707	3.516	
5/14/96	8:32:15 PM				
0	4.272	17.12	333.252	3.467	
5/14/96	8:32:18 PM				
0	4.883	17.12	340.576	3.442	
5/14/96	8:32:19 PM				
0	4.578	17.12	349.121	3.418	
5/14/96	8:32:21 PM				
0	5.188	17.151	357.666	3.418	
5/14/96	8:32:24 PM				
0	5.493	17.151	363.77	3.369	
5/14/96	8:32:25 PM				
0	4.272	17.181	369.873	3.394	
5/14/96	8:32:27 PM				
0	4.578	17.181	377.197	3.394	
5/14/96	8:32:29 PM				
0	4.272	17.212	382.08	3.369	
5/14/96	8:32:31 PM				
0	4.883	17.273	388.184	3.394	

5/14/96	8:32:33 PM				
SO2	NOx	O2		CO	CO2
	(ppm)	(%)		(ppm)	(%)
0	4.272	17.273		390.625	3.369
5/14/96	8:32:35 PM				
0	5.188	17.303		395.508	3.369
5/14/96	8:32:37 PM				
0	5.188	17.212		394.287	3.369
5/14/96	8:32:40 PM				
0	5.188	17.181		394.287	3.394
5/14/96	8:32:41 PM				
0	5.188	17.242		393.066	3.418
5/14/96	8:32:43 PM				
0	4.272	17.273		389.404	3.418
5/14/96	8:32:45 PM				
0	4.883	17.303		386.963	3.442
5/14/96	8:32:47 PM				
0	4.578	17.212		383.301	3.442
5/14/96	8:32:49 PM				
0	4.272	17.181		378.418	3.467
5/14/96	8:32:51 PM				
0	4.883	17.181		374.756	3.467
5/14/96	8:32:53 PM				
0	4.578	17.212		374.756	3.467
5/14/96	8:32:56 PM				
0	5.188	17.242		372.314	3.467
5/14/96	8:32:57 PM				
0	4.883	17.151		369.873	3.442
5/14/96	8:33:00 PM				
0	5.798	17.151		369.873	3.418
5/14/96	8:33:02 PM				
0	5.188	17.181		368.652	3.418
5/14/96	8:33:04 PM				
0	5.188	17.151		368.652	3.369
5/14/96	8:33:05 PM				
0	5.493	17.151		369.873	3.369
5/14/96	8:33:07 PM				
0	5.798	17.181		371.094	3.345
5/14/96	8:33:09 PM				
0	5.493	17.212		372.314	3.369
5/14/96	8:33:12 PM				
0	5.188	17.181		373.535	3.345
5/14/96	8:33:13 PM				
0	5.493	17.212		374.756	3.345
5/14/96	8:33:15 PM				
0	5.493	17.303		375.977	3.345
5/14/96	8:33:17 PM				
0	5.493	17.273		372.314	3.345
5/14/96	8:33:19 PM				
0	5.188	17.334		372.314	3.369
5/14/96	8:33:21 PM				
0	5.188	17.273		369.873	3.369
5/14/96	8:33:23 PM				
0	5.493	17.242		366.211	3.394
5/14/96	8:33:25 PM				
0	5.493	17.242		362.549	3.369
5/14/96	8:33:27 PM				
0	5.188	17.273		357.666	3.369
5/14/96	8:33:29 PM				
0	5.493	17.181		352.783	3.369
5/14/96	8:33:31 PM				
0	5.493	17.242		347.9	3.369
5/14/96	8:33:34 PM				
0	5.188	17.273		343.018	3.394
5/14/96	8:33:36 PM				
0	5.188	17.303		338.135	3.394
5/14/96	8:33:38 PM				
0	4.578	17.273		334.473	3.418
5/14/96	8:33:40 PM				
0	4.883	17.303		332.031	3.394

5/14/96	8:33:41 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	4.883	17.273	329.59	3.394
5/14/96	8:33:43 PM			
0	5.188	17.212	328.369	3.369
5/14/96	8:33:45 PM			
0	5.798	17.334	327.148	3.369
5/14/96	8:33:47 PM			
0	5.493	17.151	324.707	3.369
5/14/96	8:33:50 PM			
0	6.104	17.181	327.148	3.369
5/14/96	8:33:51 PM			
0	6.104	17.242	327.148	3.369
5/14/96	8:33:53 PM			
0	5.798	17.212	328.369	3.369
5/14/96	8:33:56 PM			
0	5.493	17.273	329.59	3.369
5/14/96	8:33:57 PM			
0	5.493	17.365	332.031	3.394
5/14/96	8:33:59 PM			
0	5.493	17.242	332.031	3.369
5/14/96	8:34:01 PM			
0	6.104	17.303	332.031	3.394
5/14/96	8:34:03 PM			
0	5.798	17.212	334.473	3.369
5/14/96	8:34:05 PM			
0	5.798	17.273	334.473	3.369
5/14/96	8:34:07 PM			
0	5.798	17.181	332.031	3.369
5/14/96	8:34:09 PM			
0	5.493	17.242	333.252	3.369
5/14/96	8:34:12 PM			
0	5.798	17.242	330.811	3.369
5/14/96	8:34:13 PM			
0	5.798	17.273	330.811	3.369
5/14/96	8:34:15 PM			
0	5.798	17.242	330.811	3.369
5/14/96	8:34:17 PM			
0	5.493	17.242	329.59	3.394
5/14/96	8:34:19 PM			
0	5.188	17.242	329.59	3.418
5/14/96	8:34:21 PM			
0	5.188	17.303	328.369	3.418
5/14/96	8:34:23 PM			
0	6.409	17.212	329.59	3.418
5/14/96	8:34:25 PM			
0	5.798	17.273	327.148	3.418
5/14/96	8:34:28 PM			
0	6.104	17.242	328.369	3.418
5/14/96	8:34:29 PM			
0	6.104	17.303	327.148	3.418
5/14/96	8:34:31 PM			
0	5.493	17.181	325.928	3.418
5/14/96	8:34:33 PM			
0	5.188	17.273	324.707	3.418
5/14/96	8:34:35 PM			
0	4.578	17.212	325.928	3.442
5/14/96	8:34:37 PM			
0	5.493	17.181	324.707	3.467
5/14/96	8:34:39 PM			
0	5.493	17.242	324.707	3.491
5/14/96	8:34:41 PM			
0	6.409	17.212	327.148	3.491
5/14/96	8:34:44 PM			
0	5.493	17.151	328.369	3.516
5/14/96	8:34:45 PM			
0	4.883	17.212	330.811	3.564
5/14/96	8:34:47 PM			
0	4.883	17.151	332.031	3.589

5/14/96	8:34:49 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	4.272	17.151	334.473	3.613
5/14/96	8:34:51 PM			
0	4.883	17.059	334.473	3.613
5/14/96	8:34:53 PM			
0	5.493	17.12	338.135	3.638
5/14/96	8:34:55 PM			
0	4.883	16.998	340.576	3.613
5/14/96	8:34:57 PM			
0	5.493	16.998	343.018	3.662
5/14/96	8:34:59 PM			
0	5.188	17.029	346.68	3.687
5/14/96	8:35:01 PM			
0	4.578	16.998	352.783	3.687
5/14/96	8:35:03 PM			
0	5.188	16.968	358.887	3.711
5/14/96	8:35:06 PM			
0	3.357	16.937	368.652	3.711
5/14/96	8:35:07 PM			
0	4.883	16.907	378.418	3.735
5/14/96	8:35:10 PM			
0	3.662	16.907	390.625	3.711
5/14/96	8:35:11 PM			
0	5.188	16.846	405.273	3.735
5/14/96	8:35:13 PM			
0	4.578	16.907	421.143	3.76
5/14/96	8:35:16 PM			
0	4.272	16.876	435.791	3.784
5/14/96	8:35:17 PM			
0	3.967	16.846	450.439	3.809
5/14/96	8:35:19 PM			
0	4.272	16.846	466.309	3.833
5/14/96	8:35:22 PM			
0	3.967	16.846	482.178	3.833
5/14/96	8:35:23 PM			
0	4.578	16.846	496.826	3.857
5/14/96	8:35:25 PM			
0	4.883	16.785	512.695	3.882
5/14/96	8:35:27 PM			
0	4.883	16.754	526.123	3.931
5/14/96	8:35:29 PM			
0	4.883	16.724	541.992	3.955
5/14/96	8:35:31 PM			
0	5.188	16.724	556.641	3.955
5/14/96	8:35:33 PM			
0	4.883	16.724	573.73	3.979
5/14/96	8:35:35 PM			
0	4.578	16.632	588.379	3.979
5/14/96	8:35:37 PM			
0	5.188	16.632	604.248	3.979
5/14/96	8:35:39 PM			
0	4.883	16.541	621.338	4.004
5/14/96	8:35:41 PM			
0	5.188	16.541	638.428	3.979
5/14/96	8:35:44 PM			
0	5.798	16.632	655.518	3.979
5/14/96	8:35:45 PM			
0	5.188	16.541	677.49	3.979
5/14/96	8:35:47 PM			
0	5.493	16.571	698.242	3.979
5/14/96	8:35:49 PM			
0	5.188	16.51	717.773	3.979
5/14/96	8:35:51 PM			
0	4.578	16.571	738.525	3.955
5/14/96	8:35:53 PM			
0	4.578	16.541	759.277	3.955
5/14/96	8:35:55 PM			
0	5.493	16.602	777.588	3.955

5/14/96	8:35:57 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	5.493	16.571	794.678	3.955
5/14/96	8:36:00 PM			
0	5.798	16.541	814.209	3.979
5/14/96	8:36:01 PM			
0	5.188	16.541	827.637	3.979
5/14/96	8:36:03 PM			
0	5.188	16.479	841.064	4.004
5/14/96	8:36:06 PM			
0	5.188	16.602	853.271	3.979
5/14/96	8:36:07 PM			
0	4.883	16.571	863.037	3.955
5/14/96	8:36:09 PM			
0	5.493	16.571	870.361	4.004
5/14/96	8:36:11 PM			
0	5.798	16.571	877.686	3.979
5/14/96	8:36:13 PM			
0	6.104	16.571	882.568	4.004
5/14/96	8:36:16 PM			
0	6.104	16.602	886.23	4.004
5/14/96	8:36:17 PM			
0	5.798	16.571	891.113	4.004
5/14/96	8:36:19 PM			
0	5.188	16.541	893.555	3.979
5/14/96	8:36:21 PM			
0	5.798	16.571	898.437	4.004
5/14/96	8:36:23 PM			
0	5.493	16.541	902.1	4.004
5/14/96	8:36:25 PM			
0	6.104	16.541	905.762	3.955
5/14/96	8:36:27 PM			
0	6.104	16.541	908.203	3.955
5/14/96	8:36:29 PM			
0	6.409	16.479	911.865	3.955
5/14/96	8:36:32 PM			
0	6.104	16.541	914.307	3.955
5/14/96	8:36:33 PM			
0	6.104	16.479	914.307	3.955
5/14/96	8:36:35 PM			
0	5.493	16.541	917.969	3.955
5/14/96	8:36:38 PM			
0	5.493	16.602	920.41	3.931
5/14/96	8:36:39 PM			
0	5.798	16.632	920.41	3.882
5/14/96	8:36:41 PM			
0	5.798	16.541	921.631	3.882
5/14/96	8:36:43 PM			
0	5.798	16.663	922.852	3.833
5/14/96	8:36:45 PM			
0	4.578	16.602	921.631	3.784
5/14/96	8:36:47 PM			
0	5.188	16.724	922.852	3.76
5/14/96	8:36:49 PM			
0	4.883	16.724	922.852	3.711
5/14/96	8:36:51 PM			
0	4.578	16.724	920.41	3.711
5/14/96	8:36:54 PM			
0	4.272	16.693	920.41	3.662
5/14/96	8:36:55 PM			
0	4.272	16.754	917.969	3.613
5/14/96	8:36:58 PM			
0	5.188	16.815	914.307	3.589
5/14/96	8:36:59 PM			
0	4.272	16.815	909.424	3.564
5/14/96	8:37:01 PM			
0	5.493	16.846	903.32	3.491
5/14/96	8:37:03 PM			
0	4.883	16.907	894.775	3.491

5/14/96	8:37:05 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	4.883	16.998	882.568	3.442
5/14/96	8:37:07 PM			
0	3.967	17.029	871.582	3.418
5/14/96	8:37:09 PM			
0	5.188	17.059	858.154	3.369
5/14/96	8:37:11 PM			
0	4.883	17.09	841.064	3.369
5/14/96	8:37:13 PM			
0	5.188	17.181	825.195	3.345
5/14/96	8:37:15 PM			
0	5.493	17.12	805.664	3.32
5/14/96	8:37:17 PM			
0	6.104	17.212	784.912	3.32
5/14/96	8:37:19 PM			
0	5.493	17.181	764.16	3.32
5/14/96	8:37:21 PM			
0	5.493	17.242	743.408	3.296
5/14/96	8:37:23 PM			
0	5.798	17.242	717.773	3.32
5/14/96	8:37:26 PM			
0	6.104	17.365	693.359	3.32
5/14/96	8:37:27 PM			
0	6.104	17.273	667.725	3.32
5/14/96	8:37:29 PM			
0	5.493	17.334	640.869	3.296
5/14/96	8:37:32 PM			
0	5.493	17.334	614.014	3.296
5/14/96	8:37:33 PM			
0	5.188	17.365	588.379	3.369
5/14/96	8:37:35 PM			
0	5.493	17.395	563.965	3.345
5/14/96	8:37:37 PM			
0	4.883	17.365	538.33	3.369
5/14/96	8:37:39 PM			
0	5.493	17.334	516.357	3.369
5/14/96	8:37:41 PM			
0	4.883	17.334	495.605	3.394
5/14/96	8:37:43 PM			
0	5.188	17.212	477.295	3.394
5/14/96	8:37:45 PM			
0	4.883	17.242	461.426	3.418
5/14/96	8:37:48 PM			
0	4.883	17.273	444.336	3.418
5/14/96	8:37:49 PM			
0	4.883	17.242	429.687	3.467
5/14/96	8:37:51 PM			
0	5.493	17.242	416.26	3.467
5/14/96	8:37:54 PM			
0	4.883	17.181	408.936	3.467
5/14/96	8:37:55 PM			
0	4.883	17.151	399.17	3.516
5/14/96	8:37:57 PM			
0	5.493	17.151	391.846	3.467
5/14/96	8:38:00 PM			
0	4.578	17.212	389.404	3.467
5/14/96	8:38:01 PM			
0	5.798	17.12	386.963	3.467
5/14/96	8:38:04 PM			
0	5.188	17.181	385.742	3.442
5/14/96	8:38:05 PM			
0	4.883	17.151	386.963	3.442
5/14/96	8:38:07 PM			
0	5.798	17.212	386.963	3.418
5/14/96	8:38:10 PM			
0	5.493	17.09	389.404	3.369
5/14/96	8:38:11 PM			
0	5.798	17.181	390.625	3.32

5/14/96	8:38:13 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	6.104	17.12	394.287	3.32
5/14/96	8:38:15 PM			
0	5.798	17.212	396.729	3.296
5/14/96	8:38:17 PM			
0	5.493	17.242	399.17	3.271
5/14/96	8:38:20 PM			
0	5.493	17.303	402.832	3.247
5/14/96	8:38:21 PM			
0	5.798	17.303	406.494	3.223
5/14/96	8:38:23 PM			
0	6.409	17.242	407.715	3.174
5/14/96	8:38:26 PM			
0	6.714	17.334	408.936	3.174
5/14/96	8:38:27 PM			
0	6.409	17.365	406.494	3.125
5/14/96	8:38:29 PM			
0	5.798	17.365	402.832	3.149
5/14/96	8:38:31 PM			
0	6.104	17.395	397.949	3.125
5/14/96	8:38:33 PM			
0	6.104	17.426	391.846	3.125
5/14/96	8:38:35 PM			
0	6.104	17.578	382.08	3.125
5/14/96	8:38:37 PM			
0	6.104	17.487	372.314	3.125
5/14/96	8:38:39 PM			
0	7.019	17.548	363.77	3.125
5/14/96	8:38:41 PM			
0	6.409	17.487	352.783	3.125
5/14/96	8:38:43 PM			
0	7.019	17.487	341.797	3.076
5/14/96	8:38:45 PM			
0	6.714	17.456	332.031	3.052
5/14/96	8:38:47 PM			
0	7.324	17.548	319.824	3.076
5/14/96	8:38:49 PM			
0	7.019	17.609	307.617	3.027
5/14/96	8:38:51 PM			
0	7.629	17.609	296.631	3.027
5/14/96	8:38:53 PM			
0	7.019	17.548	285.645	2.979
5/14/96	8:38:55 PM			
0	7.935	17.609	274.658	3.003
5/14/96	8:38:58 PM			
0	8.24	17.609	266.113	2.979
5/14/96	8:38:59 PM			
0	7.629	17.639	257.568	2.979
5/14/96	8:39:01 PM			
0	7.935	17.67	250.244	2.979
5/14/96	8:39:03 PM			
0	8.24	17.67	241.699	2.979
5/14/96	8:39:05 PM			
0	8.24	17.67	234.375	2.954
5/14/96	8:39:07 PM			
0	8.24	17.609	225.83	2.979
5/14/96	8:39:09 PM			
0	8.24	17.7	219.727	2.979
5/14/96	8:39:11 PM			
0	7.935	17.7	212.402	2.979
5/14/96	8:39:14 PM			
0	8.545	17.67	205.078	2.954
5/14/96	8:39:15 PM			
0	8.545	17.639	198.975	2.979
5/14/96	8:39:17 PM			
0	8.545	17.67	192.871	2.979
5/14/96	8:39:20 PM			
0	7.935	17.731	187.988	3.003

5/14/96	8:39:21 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	7.935	17.67	181.885	3.052
5/14/96	8:39:23 PM			
0	7.935	17.67	175.781	3.052
5/14/96	8:39:25 PM			
0	7.629	17.67	169.678	3.076
5/14/96	8:39:27 PM			
0	6.714	17.7	164.795	3.076
5/14/96	8:39:30 PM			
0	7.019	17.67	162.354	3.101
5/14/96	8:39:31 PM			
0	6.714	17.639	157.471	3.125
5/14/96	8:39:33 PM			
0	7.019	17.609	153.809	3.125
5/14/96	8:39:36 PM			
0	7.019	17.548	150.146	3.125
5/14/96	8:39:38 PM			
0	6.714	17.609	150.146	3.125
5/14/96	8:39:39 PM			
0	6.409	17.609	147.705	3.125
5/14/96	8:39:41 PM			
0	5.798	17.578	148.926	3.125
5/14/96	8:39:43 PM			
0	5.798	17.578	148.926	3.174
5/14/96	8:39:45 PM			
0	6.104	17.578	150.146	3.174
5/14/96	8:39:47 PM			
0	6.104	17.517	150.146	3.198
5/14/96	8:39:49 PM			
0	5.493	17.578	153.809	3.174
5/14/96	8:39:52 PM			
0	5.798	17.517	157.471	3.223
5/14/96	8:39:54 PM			
0	5.493	17.456	159.912	3.223
5/14/96	8:39:55 PM			
0	6.104	17.487	163.574	3.223
5/14/96	8:39:57 PM			
0	5.493	17.456	166.016	3.296
5/14/96	8:39:59 PM			
0	5.798	17.426	169.678	3.296
5/14/96	8:40:01 PM			
0	5.493	17.456	173.34	3.345
5/14/96	8:40:03 PM			
0	5.798	17.395	177.002	3.369
5/14/96	8:40:06 PM			
0	5.493	17.395	181.885	3.418
5/14/96	8:40:08 PM			
0	6.104	17.395	183.105	3.442
5/14/96	8:40:09 PM			
0	5.188	17.303	190.43	3.467
5/14/96	8:40:11 PM			
0	5.493	17.334	191.65	3.516
5/14/96	8:40:13 PM			
0	5.188	17.242	189.209	3.491
5/14/96	8:40:15 PM			
0	4.883	17.212	201.416	3.516
5/14/96	8:40:17 PM			
0	5.188	17.181	206.299	3.491
5/14/96	8:40:19 PM			
0	5.188	17.242	212.402	3.467
5/14/96	8:40:21 PM			
0	5.493	17.12	223.389	3.442
5/14/96	8:40:23 PM			
0	5.798	17.212	234.375	3.394
5/14/96	8:40:25 PM			
0	5.493	17.09	250.244	3.394
5/14/96	8:40:27 PM			
0	5.188	17.151	258.789	3.345

5/14/96	8:40:30 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	4.883	17.151	272.217	3.345
5/14/96	8:40:31 PM			
0	4.883	17.212	285.645	3.369
5/14/96	8:40:33 PM			
0	5.493	17.181	300.293	3.345
5/14/96	8:40:35 PM			
0	5.188	17.212	314.941	3.345
5/14/96	8:40:37 PM			
0	5.188	17.242	332.031	3.32
5/14/96	8:40:39 PM			
0	4.883	17.273	336.914	3.369
5/14/96	8:40:41 PM			
0	3.967	17.212	345.459	3.394
5/14/96	8:40:43 PM			
0	4.578	17.273	350.342	3.394
5/14/96	8:40:46 PM			
0	3.662	17.303	354.004	3.394
5/14/96	8:40:47 PM			
0	4.578	17.212	356.445	3.418
5/14/96	8:40:49 PM			
0	3.967	17.273	356.445	3.442
5/14/96	8:40:51 PM			
0	4.272	17.242	355.225	3.467
5/14/96	8:40:53 PM			
0	4.883	17.242	354.004	3.467
5/14/96	8:40:55 PM			
0	4.272	17.242	354.004	3.467
5/14/96	8:40:57 PM			
0	4.578	17.242	351.562	3.467
5/14/96	8:40:59 PM			
0	3.967	17.212	351.562	3.516
5/14/96	8:41:02 PM			
0	4.578	17.12	352.783	3.516
5/14/96	8:41:03 PM			
0	3.967	17.181	352.783	3.516
5/14/96	8:41:05 PM			
0	4.272	17.059	354.004	3.54
5/14/96	8:41:08 PM			
0	4.578	17.212	356.445	3.564
5/14/96	8:41:09 PM			
0	4.272	17.181	360.107	3.54
5/14/96	8:41:11 PM			
0	3.967	17.09	363.77	3.54
5/14/96	8:41:13 PM			
0	3.662	17.151	367.432	3.564
5/14/96	8:41:15 PM			
0	3.967	17.029	372.314	3.564
5/14/96	8:41:17 PM			
0	4.578	17.059	375.977	3.564
5/14/96	8:41:19 PM			
0	4.272	17.059	382.08	3.613
5/14/96	8:41:21 PM			
0	3.662	16.998	390.625	3.613
5/14/96	8:41:24 PM			
0	3.967	17.059	395.508	3.613
5/14/96	8:41:25 PM			
0	4.272	17.029	404.053	3.613
5/14/96	8:41:27 PM			
0	3.967	17.029	412.598	3.613
5/14/96	8:41:29 PM			
0	4.272	17.059	419.922	3.662
5/14/96	8:41:31 PM			
0	3.967	16.998	429.687	3.662
5/14/96	8:41:33 PM			
0	4.272	16.998	437.012	3.711
5/14/96	8:41:35 PM			
0	4.578	16.937	444.336	3.711

5/14/96	8:41:37 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	3.662	17.029	450.439	3.735
5/14/96	8:41:40 PM			
0	3.967	16.907	457.764	3.735
5/14/96	8:41:41 PM			
0	4.272	16.937	461.426	3.735
5/14/96	8:41:43 PM			
0	4.578	16.907	469.971	3.711
5/14/96	8:41:45 PM			
0	4.272	16.876	476.074	3.711
5/14/96	8:41:47 PM			
0	4.272	16.876	484.619	3.687
5/14/96	8:41:49 PM			
0	4.272	16.846	493.164	3.711
5/14/96	8:41:51 PM			
0	4.272	16.876	502.93	3.687
5/14/96	8:41:53 PM			
0	4.578	16.968	516.357	3.662
5/14/96	8:41:56 PM			
0	4.272	16.846	528.564	3.662
5/14/96	8:41:57 PM			
0	4.272	16.876	544.434	3.687
5/14/96	8:41:59 PM			
0	4.578	16.876	560.303	3.662
5/14/96	8:42:02 PM			
0	4.883	16.937	572.51	3.662
5/14/96	8:42:03 PM			
0	4.272	16.907	585.937	3.662
5/14/96	8:42:05 PM			
0	4.272	16.937	595.703	3.687
5/14/96	8:42:07 PM			
0	4.578	16.907	603.027	3.711
5/14/96	8:42:09 PM			
0	4.272	16.876	607.91	3.711
5/14/96	8:42:11 PM			
0	3.967	16.907	612.793	3.711
5/14/96	8:42:13 PM			
0	4.578	16.876	615.234	3.711
5/14/96	8:42:15 PM			
0	4.272	16.815	615.234	3.711
5/14/96	8:42:18 PM			
0	4.578	16.876	617.676	3.687
5/14/96	8:42:19 PM			
0	3.967	16.876	617.676	3.662
5/14/96	8:42:21 PM			
0	4.272	16.937	618.896	3.638
5/14/96	8:42:23 PM			
0	3.967	16.907	620.117	3.638
5/14/96	8:42:25 PM			
0	4.272	16.846	625	3.613
5/14/96	8:42:27 PM			
0	4.272	16.907	626.221	3.589
5/14/96	8:42:30 PM			
0	4.578	16.876	632.324	3.589
5/14/96	8:42:31 PM			
0	3.967	16.907	637.207	3.589
5/14/96	8:42:34 PM			
0	4.272	16.968	642.09	3.589
5/14/96	8:42:35 PM			
0	4.578	16.937	644.531	3.589
5/14/96	8:42:37 PM			
0	4.578	16.998	649.414	3.564
5/14/96	8:42:39 PM			
0	4.272	17.029	648.193	3.589
5/14/96	8:42:41 PM			
0	4.883	16.998	645.752	3.564
5/14/96	8:42:43 PM			
0	4.883	17.059	642.09	3.564

5/14/96	8:42:45 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	3.967	17.029	635.986	3.564
5/14/96	8:42:47 PM			
0	3.967	17.059	628.662	3.613
5/14/96	8:42:50 PM			
0	4.272	17.029	622.559	3.613
5/14/96	8:42:51 PM			
0	4.578	16.998	614.014	3.589
5/14/96	8:42:53 PM			
0	4.883	16.998	601.807	3.589
5/14/96	8:42:56 PM			
0	4.578	17.029	593.262	3.613
5/14/96	8:42:57 PM			
0	4.578	16.998	585.937	3.662
5/14/96	8:42:59 PM			
0	4.578	17.059	577.393	3.638
5/14/96	8:43:01 PM			
0	4.883	16.998	571.289	3.662
5/14/96	8:43:03 PM			
0	4.578	16.968	563.965	3.638
5/14/96	8:43:05 PM			
0	4.272	17.029	555.42	3.662
5/14/96	8:43:07 PM			
0	4.883	16.937	550.537	3.613
5/14/96	8:43:09 PM			
0	3.967	16.937	546.875	3.613
5/14/96	8:43:12 PM			
0	4.272	16.937	543.213	3.613
5/14/96	8:43:13 PM			
0	4.578	16.968	541.992	3.613
5/14/96	8:43:15 PM			
0	4.883	16.968	541.992	3.564
5/14/96	8:43:17 PM			
0	5.188	16.937	544.434	3.589
5/14/96	8:43:19 PM			
0	5.188	17.059	545.654	3.564
5/14/96	8:43:22 PM			
0	5.188	16.968	549.316	3.564
5/14/96	8:43:23 PM			
0	4.883	16.998	552.979	3.516
5/14/96	8:43:25 PM			
0	4.272	17.029	554.199	3.564
5/14/96	8:43:28 PM			
0	4.883	16.998	557.861	3.564
5/14/96	8:43:29 PM			
0	4.578	17.029	559.082	3.564
5/14/96	8:43:31 PM			
0	4.578	17.09	557.861	3.564
5/14/96	8:43:33 PM			
0	4.578	17.09	556.641	3.589
5/14/96	8:43:35 PM			
0	4.883	17.09	552.979	3.564
5/14/96	8:43:37 PM			
0	4.883	17.059	546.875	3.589
5/14/96	8:43:39 PM			
0	4.272	17.059	541.992	3.613
5/14/96	8:43:41 PM			
0	4.883	17.059	535.889	3.613
5/14/96	8:43:44 PM			
0	4.578	17.059	528.564	3.613
5/14/96	8:43:45 PM			
0	4.272	16.968	523.682	3.589
5/14/96	8:43:47 PM			
0	3.967	16.937	518.799	3.589
5/14/96	8:43:50 PM			
0	4.578	17.029	515.137	3.589
5/14/96	8:43:51 PM			
0	4.883	16.998	510.254	3.564

5/14/96	8:43:53 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	3.967	17.059	509.033	3.589
5/14/96	8:43:55 PM			
0	4.578	16.998	507.812	3.564
5/14/96	8:43:57 PM			
0	4.272	16.907	509.033	3.564
5/14/96	8:43:59 PM			
0	4.883	16.998	510.254	3.564
5/14/96	8:44:01 PM			
0	4.883	17.09	512.695	3.564
5/14/96	8:44:03 PM			
0	5.188	17.12	513.916	3.589
5/14/96	8:44:06 PM			
0	4.578	16.998	513.916	3.589
5/14/96	8:44:07 PM			
0	4.883	17.09	513.916	3.589
5/14/96	8:44:09 PM			
0	4.578	17.059	515.137	3.613
5/14/96	8:44:11 PM			
0	3.967	17.059	513.916	3.589
5/14/96	8:44:14 PM			
0	4.578	16.968	512.695	3.589
5/14/96	8:44:15 PM			
0	4.272	17.029	511.475	3.564
5/14/96	8:44:17 PM			
0	3.662	17.029	511.475	3.613
5/14/96	8:44:19 PM			
0	4.578	17.09	510.254	3.589
5/14/96	8:44:22 PM			
0	4.272	17.059	512.695	3.613
5/14/96	8:44:23 PM			
0	3.662	17.029	512.695	3.613
5/14/96	8:44:25 PM			
0	3.967	16.998	513.916	3.638
5/14/96	8:44:27 PM			
0	3.662	17.029	516.357	3.662
5/14/96	8:44:29 PM			
0	3.662	17.059	516.357	3.662
5/14/96	8:44:31 PM			
0	4.272	16.998	518.799	3.662
5/14/96	8:44:33 PM			
0	3.967	16.968	520.02	3.662
5/14/96	8:44:35 PM			
0	3.357	17.029	522.461	3.711
5/14/96	8:44:38 PM			
0	3.662	16.907	522.461	3.711
5/14/96	8:44:39 PM			
0	4.272	16.937	527.344	3.687
5/14/96	8:44:41 PM			
0	5.188	16.907	527.344	3.662
5/14/96	8:44:44 PM			
0	4.578	16.907	531.006	3.687
5/14/96	8:44:45 PM			
0	4.578	16.846	537.109	3.711
5/14/96	8:44:47 PM			
0	4.272	16.846	543.213	3.687
5/14/96	8:44:49 PM			
0	3.967	16.968	549.316	3.711
5/14/96	8:44:51 PM			
0	4.272	16.876	560.303	3.711
5/14/96	8:44:53 PM			
0	4.272	16.876	570.068	3.711
5/14/96	8:44:55 PM			
0	3.662	16.876	577.393	3.711
5/14/96	8:44:57 PM			
0	3.967	16.907	585.937	3.711
5/14/96	8:45:00 PM			
0	3.967	16.846	593.262	3.711

5/14/96	8:45:01 PM				
SO2	NOx	O2	CO	CO2	
	(ppm)	(%)	(ppm)	(%)	
0	4.272	16.846	599.365	3.711	
5/14/96	8:45:03 PM				
0	4.578	16.968	604.248	3.662	
5/14/96	8:45:06 PM				
0	3.967	16.876	609.131	3.662	
5/14/96	8:45:07 PM				
0	3.967	16.846	611.572	3.662	
5/14/96	8:45:09 PM				
0	4.272	16.815	617.676	3.638	
5/14/96	8:45:11 PM				
0	3.662	16.907	622.559	3.613	
5/14/96	8:45:13 PM				
0	4.272	16.937	626.221	3.564	
5/14/96	8:45:16 PM				
0	3.967	16.998	632.324	3.564	
5/14/96	8:45:17 PM				
0	3.967	16.937	637.207	3.516	
5/14/96	8:45:19 PM				
0	3.662	16.937	640.869	3.491	
5/14/96	8:45:21 PM				
0	4.883	16.968	644.531	3.442	
5/14/96	8:45:23 PM				
0	5.188	16.998	648.193	3.418	
5/14/96	8:45:25 PM				
0	5.188	17.09	646.973	3.369	
5/14/96	8:45:27 PM				
0	5.188	17.09	644.531	3.369	
5/14/96	8:45:29 PM				
0	4.578	17.09	643.311	3.32	
5/14/96	8:45:32 PM				
0	5.188	17.212	634.766	3.32	
5/14/96	8:45:33 PM				
0	4.883	17.181	627.441	3.32	
5/14/96	8:45:35 PM				
0	5.493	17.151	618.896	3.271	
5/14/96	8:45:38 PM				
0	5.798	17.242	606.689	3.271	
5/14/96	8:45:39 PM				
0	5.798	17.303	593.262	3.247	
5/14/96	8:45:41 PM				
0	5.493	17.334	576.172	3.247	
5/14/96	8:45:43 PM				
0	5.188	17.334	556.641	3.223	
5/14/96	8:45:45 PM				
0	4.883	17.365	534.668	3.223	
5/14/96	8:45:47 PM				
0	5.188	17.426	516.357	3.223	
5/14/96	8:45:49 PM				
0	5.188	17.395	498.047	3.223	
5/14/96	8:45:51 PM				
0	5.493	17.395	477.295	3.198	
5/14/96	8:45:54 PM				
0	5.188	17.426	458.984	3.223	
5/14/96	8:45:55 PM				
0	5.798	17.426	441.895	3.223	
5/14/96	8:45:57 PM				
0	5.493	17.426	421.143	3.223	
5/14/96	8:45:59 PM				
0	5.188	17.426	394.287	3.223	
5/14/96	8:46:01 PM				
0	5.493	17.365	388.184	3.198	
5/14/96	8:46:03 PM				
0	4.272	17.426	364.99	3.223	
5/14/96	8:46:05 PM				
0	4.883	17.365	362.549	3.223	
5/14/96	8:46:07 PM				
0	5.188	17.456	349.121	3.198	

5/14/96	8:46:10 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	5.493	17.334	340.576	3.223
5/14/96	8:46:11 PM			
0	5.188	17.426	328.369	3.198
5/14/96	8:46:13 PM			
0	5.798	17.426	318.604	3.198
5/14/96	8:46:15 PM			
0	4.883	17.395	311.279	3.198
5/14/96	8:46:17 PM			
0	5.493	17.426	303.955	3.223
5/14/96	8:46:19 PM			
0	5.493	17.426	297.852	3.223
5/14/96	8:46:21 PM			
0	5.493	17.426	292.969	3.223
5/14/96	8:46:23 PM			
0	4.883	17.426	286.865	3.223
5/14/96	8:46:26 PM			
0	5.188	17.395	283.203	3.247
5/14/96	8:46:27 PM			
0	5.188	17.456	279.541	3.271
5/14/96	8:46:29 PM			
0	4.883	17.395	273.437	3.271
5/14/96	8:46:32 PM			
0	5.493	17.395	270.996	3.271
5/14/96	8:46:33 PM			
0	5.188	17.365	267.334	3.296
5/14/96	8:46:35 PM			
0	5.188	17.365	263.672	3.271
5/14/96	8:46:37 PM			
0	4.883	17.365	261.23	3.271
5/14/96	8:46:39 PM			
0	4.883	17.395	260.01	3.271
5/14/96	8:46:41 PM			
0	4.272	17.334	258.789	3.271
5/14/96	8:46:43 PM			
0	5.493	17.303	258.789	3.271
5/14/96	8:46:45 PM			
0	4.883	17.365	262.451	3.271
5/14/96	8:46:48 PM			
0	5.188	17.395	264.893	3.271
5/14/96	8:46:50 PM			
0	4.883	17.303	267.334	3.271
5/14/96	8:46:51 PM			
0	4.272	17.395	273.437	3.271
5/14/96	8:46:53 PM			
0	3.662	17.303	275.879	3.271
5/14/96	8:46:55 PM			
0	4.578	17.395	281.982	3.271
5/14/96	8:46:57 PM			
0	4.883	17.334	285.645	3.271
5/14/96	8:46:59 PM			
0	5.493	17.395	289.307	3.271
5/14/96	8:47:01 PM			
0	4.883	17.334	294.189	3.247
5/14/96	8:47:04 PM			
0	5.188	17.395	296.631	3.247
5/14/96	8:47:05 PM			
0	4.883	17.334	301.514	3.247
5/14/96	8:47:07 PM			
0	4.883	17.365	303.955	3.247
5/14/96	8:47:09 PM			
0	5.493	17.365	306.396	3.271
5/14/96	8:47:11 PM			
0	4.883	17.395	308.838	3.271
5/14/96	8:47:13 PM			
0	5.798	17.334	310.059	3.271
5/14/96	8:47:15 PM			
0	6.104	17.365	310.059	3.271

5/14/96	8:47:17 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	7.019	17.395	312.5	3.271
5/14/96	8:47:19 PM			
0	7.324	17.365	312.5	3.296
5/14/96	8:47:21 PM			
0	7.935	17.395	310.059	3.32
5/14/96	8:47:23 PM			
0	7.629	17.426	308.838	3.345
5/14/96	8:47:26 PM			
0	8.24	17.303	307.617	3.32
5/14/96	8:47:27 PM			
0	7.629	17.303	305.176	3.369
5/14/96	8:47:29 PM			
0	6.714	17.273	301.514	3.394
5/14/96	8:47:32 PM			
0	7.935	17.273	297.852	3.369
5/14/96	8:47:33 PM			
0	7.019	17.303	294.189	3.369
5/14/96	8:47:35 PM			
0	6.714	17.334	291.748	3.369
5/14/96	8:47:37 PM			
0	7.019	17.273	288.086	3.369
5/14/96	8:47:39 PM			
0	7.629	17.273	285.645	3.32
5/14/96	8:47:42 PM			
0	7.019	17.212	285.645	3.32
5/14/96	8:47:43 PM			
0	7.019	17.242	285.645	3.345
5/14/96	8:47:45 PM			
0	7.019	17.334	286.865	3.32
5/14/96	8:47:47 PM			
0	5.798	17.273	289.307	3.32
5/14/96	8:47:49 PM			
0	6.714	17.273	294.189	3.32
5/14/96	8:47:51 PM			
0	7.019	17.242	297.852	3.32
5/14/96	8:47:53 PM			
0	6.409	17.273	302.734	3.345
5/14/96	8:47:55 PM			
0	6.714	17.334	303.955	3.369
5/14/96	8:47:58 PM			
0	7.019	17.303	307.617	3.369
5/14/96	8:47:59 PM			
0	7.019	17.242	307.617	3.394
5/14/96	8:48:01 PM			
0	5.798	17.334	308.838	3.418
5/14/96	8:48:04 PM			
0	6.714	17.303	307.617	3.418
5/14/96	8:48:05 PM			
0	5.493	17.273	306.396	3.467
5/14/96	8:48:07 PM			
0	5.188	17.242	306.396	3.467
5/14/96	8:48:09 PM			
0	5.493	17.181	302.734	3.491
5/14/96	8:48:11 PM			
0	5.798	17.181	301.514	3.516
5/14/96	8:48:14 PM			
0	6.104	17.212	302.734	3.516
5/14/96	8:48:15 PM			
0	4.883	17.181	302.734	3.516
5/14/96	8:48:17 PM			
0	4.883	17.242	303.955	3.564
5/14/96	8:48:20 PM			
0	5.188	17.09	305.176	3.564
5/14/96	8:48:21 PM			
0	4.272	17.12	307.617	3.564
5/14/96	8:48:23 PM			
0	4.883	17.09	316.162	3.613

5/14/96	8:48:25 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	4.578	17.059	322.266	3.613
5/14/96	8:48:27 PM			
0	4.272	17.059	330.811	3.589
5/14/96	8:48:29 PM			
0	4.883	17.029	338.135	3.564
5/14/96	8:48:31 PM			
0	5.188	17.059	347.9	3.589
5/14/96	8:48:34 PM			
0	4.578	16.968	358.887	3.589
5/14/96	8:48:36 PM			
0	5.493	17.029	368.652	3.564
5/14/96	8:48:37 PM			
0	4.272	17.029	379.639	3.589
5/14/96	8:48:39 PM			
0	4.272	16.998	393.066	3.564
5/14/96	8:48:41 PM			
0	4.272	17.059	405.273	3.564
5/14/96	8:48:43 PM			
0	4.272	16.968	416.26	3.564
5/14/96	8:48:45 PM			
0	4.272	16.937	429.687	3.564
5/14/96	8:48:47 PM			
0	4.578	17.029	440.674	3.54
5/14/96	8:48:49 PM			
0	4.578	17.059	451.66	3.516
5/14/96	8:48:51 PM			
0	3.967	16.998	460.205	3.516
5/14/96	8:48:53 PM			
0	4.578	17.12	468.75	3.491
5/14/96	8:48:55 PM			
0	4.578	17.029	474.854	3.467
5/14/96	8:48:57 PM			
0	4.578	17.09	479.736	3.467
5/14/96	8:48:59 PM			
0	4.578	17.09	484.619	3.418
5/14/96	8:49:01 PM			
0	4.272	17.151	487.061	3.394
5/14/96	8:49:03 PM			
0	3.967	17.09	490.723	3.394
5/14/96	8:49:05 PM			
0	4.578	17.09	493.164	3.369
5/14/96	8:49:08 PM			
0	5.188	17.151	493.164	3.345
5/14/96	8:49:09 PM			
0	5.798	17.212	491.943	3.32
5/14/96	8:49:11 PM			
0	5.798	17.242	491.943	3.32
5/14/96	8:49:14 PM			
0	5.188	17.151	488.281	3.32
5/14/96	8:49:15 PM			
0	5.188	17.273	483.398	3.32
5/14/96	8:49:17 PM			
0	5.188	17.273	478.516	3.32
5/14/96	8:49:19 PM			
0	5.188	17.273	469.971	3.32
5/14/96	8:49:21 PM			
0	5.188	17.273	460.205	3.32
5/14/96	8:49:23 PM			
0	6.104	17.334	450.439	3.32
5/14/96	8:49:26 PM			
0	4.578	17.242	437.012	3.32
5/14/96	8:49:27 PM			
0	6.104	17.334	426.025	3.32
5/14/96	8:49:30 PM			
0	5.188	17.273	413.818	3.369
5/14/96	8:49:31 PM			
0	4.883	17.365	400.391	3.369

5/14/96	8:49:33 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	5.493	17.303	388.184	3.369
5/14/96	8:49:35 PM			
0	5.188	17.334	378.418	3.394
5/14/96	8:49:37 PM			
0	3.967	17.273	369.873	3.418
5/14/96	8:49:39 PM			
0	4.883	17.273	360.107	3.442
5/14/96	8:49:41 PM			
0	4.883	17.303	355.225	3.467
5/14/96	8:49:43 PM			
0	4.578	17.181	350.342	3.516
5/14/96	8:49:46 PM			
0	4.272	17.151	344.238	3.516
5/14/96	8:49:48 PM			
0	4.883	17.151	340.576	3.564
5/14/96	8:49:49 PM			
0	4.272	17.12	339.355	3.564
5/14/96	8:49:51 PM			
0	4.883	17.181	336.914	3.613
5/14/96	8:49:53 PM			
0	4.578	17.09	335.693	3.662
5/14/96	8:49:55 PM			
0	3.967	17.029	336.914	3.638
5/14/96	8:49:57 PM			
0	3.967	17.029	338.135	3.662
5/14/96	8:49:59 PM			
0	3.967	16.998	341.797	3.687
5/14/96	8:50:02 PM			
0	4.578	16.998	347.9	3.711
5/14/96	8:50:03 PM			
0	4.578	16.968	356.445	3.711
5/14/96	8:50:05 PM			
0	4.272	16.937	364.99	3.711
5/14/96	8:50:08 PM			
0	4.578	16.907	377.197	3.687
5/14/96	8:50:09 PM			
0	4.578	16.876	391.846	3.711
5/14/96	8:50:11 PM			
0	4.578	16.907	407.715	3.711
5/14/96	8:50:13 PM			
0	3.967	16.876	426.025	3.711
5/14/96	8:50:15 PM			
0	3.967	16.937	443.115	3.711
5/14/96	8:50:17 PM			
0	3.662	16.876	460.205	3.711
5/14/96	8:50:19 PM			
0	4.578	16.815	477.295	3.711
5/14/96	8:50:21 PM			
0	4.272	16.876	494.385	3.711
5/14/96	8:50:24 PM			
0	4.272	16.907	511.475	3.711
5/14/96	8:50:25 PM			
0	4.272	16.876	527.344	3.687
5/14/96	8:50:27 PM			
0	4.272	16.815	543.213	3.687
5/14/96	8:50:29 PM			
0	3.967	16.907	557.861	3.687
5/14/96	8:50:31 PM			
0	4.883	16.876	573.73	3.662
5/14/96	8:50:33 PM			
0	4.883	16.907	584.717	3.662
5/14/96	8:50:35 PM			
0	4.578	16.907	595.703	3.662
5/14/96	8:50:37 PM			
0	4.272	16.876	604.248	3.662
5/14/96	8:50:40 PM			
0	4.578	16.937	612.793	3.687

5/14/96	8:50:41 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	4.578	16.876	618.896	3.711
5/14/96	8:50:43 PM			
0	4.578	16.846	623.779	3.711
5/14/96	8:50:45 PM			
0	4.578	16.937	626.221	3.711
5/14/96	8:50:47 PM			
0	5.188	16.907	628.662	3.711
5/14/96	8:50:49 PM			
0	4.578	16.846	627.441	3.711
5/14/96	8:50:51 PM			
0	5.493	16.907	628.662	3.735
5/14/96	8:50:53 PM			
0	4.578	16.907	626.221	3.735
5/14/96	8:50:56 PM			
0	4.578	16.907	622.559	3.784
5/14/96	8:50:57 PM			
0	5.188	16.876	622.559	3.784
5/14/96	8:50:59 PM			
0	4.578	16.754	618.896	3.809
5/14/96	8:51:02 PM			
0	4.578	16.815	617.676	3.833
5/14/96	8:51:03 PM			
0	5.188	16.815	618.896	3.833
5/14/96	8:51:05 PM			
0	4.883	16.785	620.117	3.857
5/14/96	8:51:07 PM			
0	4.578	16.724	620.117	3.882
5/14/96	8:51:09 PM			
0	4.883	16.785	625	3.906
5/14/96	8:51:11 PM			
0	4.578	16.724	629.883	3.906
5/14/96	8:51:13 PM			
0	4.272	16.693	635.986	3.906
5/14/96	8:51:15 PM			
0	4.578	16.693	644.531	3.906
5/14/96	8:51:18 PM			
0	3.967	16.632	654.297	3.906
5/14/96	8:51:19 PM			
0	4.578	16.632	665.283	3.906
5/14/96	8:51:21 PM			
0	4.272	16.663	679.932	3.906
5/14/96	8:51:23 PM			
0	4.578	16.602	693.359	3.857
5/14/96	8:51:25 PM			
0	4.272	16.571	709.229	3.833
5/14/96	8:51:27 PM			
0	3.967	16.693	722.656	3.809
5/14/96	8:51:29 PM			
0	5.188	16.693	736.084	3.809
5/14/96	8:51:31 PM			
0	4.272	16.663	756.836	3.809
5/14/96	8:51:34 PM			
0	4.272	16.663	769.043	3.809
5/14/96	8:51:35 PM			
0	4.272	16.754	788.574	3.809
5/14/96	8:51:37 PM			
0	3.967	16.785	799.561	3.833
5/14/96	8:51:39 PM			
0	4.578	16.815	805.664	3.857
5/14/96	8:51:41 PM			
0	4.578	16.785	814.209	3.857
5/14/96	8:51:43 PM			
0	4.272	16.724	819.092	3.857
5/14/96	8:51:45 PM			
0	3.967	16.693	820.312	3.857
5/14/96	8:51:47 PM			
0	4.578	16.724	819.092	3.857

5/14/96	8:51:50 PM				
SO2	NOx	O2	CO	CO2	
	(ppm)	(%)	(ppm)	(%)	
0	4.578	16.754	815.43	3.857	
5/14/96	8:51:51 PM				
0	3.967	16.693	811.768	3.882	
5/14/96	8:51:53 PM				
0	4.272	16.693	805.664	3.882	
5/14/96	8:51:56 PM				
0	4.883	16.632	802.002	3.833	
5/14/96	8:51:57 PM				
0	4.883	16.724	798.34	3.833	
5/14/96	8:51:59 PM				
0	4.272	16.693	797.119	3.809	
5/14/96	8:52:01 PM				
0	4.272	16.693	798.34	3.784	
5/14/96	8:52:03 PM				
0	4.883	16.754	797.119	3.76	
5/14/96	8:52:05 PM				
0	4.578	16.693	800.781	3.784	
5/14/96	8:52:07 PM				
0	4.883	16.754	803.223	3.735	
5/14/96	8:52:09 PM				
0	5.188	16.754	811.768	3.735	
5/14/96	8:52:12 PM				
0	4.883	16.785	817.871	3.711	
5/14/96	8:52:13 PM				
0	5.188	16.785	823.975	3.711	
5/14/96	8:52:15 PM				
0	4.578	16.907	827.637	3.711	
5/14/96	8:52:17 PM				
0	4.883	16.846	825.195	3.711	
5/14/96	8:52:19 PM				
0	5.188	16.876	826.416	3.662	
5/14/96	8:52:21 PM				
0	5.493	16.785	826.416	3.662	
5/14/96	8:52:23 PM				
0	5.188	16.907	817.871	3.638	
5/14/96	8:52:25 PM				
0	5.798	16.937	812.988	3.613	
5/14/96	8:52:28 PM				
0	5.493	16.937	803.223	3.613	
5/14/96	8:52:29 PM				
0	5.493	16.937	792.236	3.613	
5/14/96	8:52:31 PM				
0	4.883	16.998	784.912	3.613	
5/14/96	8:52:33 PM				
0	4.883	16.907	777.588	3.613	
5/14/96	8:52:35 PM				
0	4.272	16.998	766.602	3.613	
5/14/96	8:52:37 PM				
0	4.883	16.937	755.615	3.613	
5/14/96	8:52:39 PM				
0	4.578	16.968	738.525	3.589	
5/14/96	8:52:41 PM				
0	4.578	16.907	728.76	3.589	
5/14/96	8:52:44 PM				
0	3.967	16.968	717.773	3.564	
5/14/96	8:52:45 PM				
0	4.883	16.937	708.008	3.54	
5/14/96	8:52:47 PM				
0	4.883	16.968	694.58	3.54	
5/14/96	8:52:50 PM				
0	5.493	16.998	682.373	3.516	
5/14/96	8:52:51 PM				
0	4.883	16.998	671.387	3.491	
5/14/96	8:52:53 PM				
0	4.883	16.998	659.18	3.491	
5/14/96	8:52:55 PM				
0	4.883	16.998	648.193	3.467	

5/14/96	8:52:57 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	5.493	17.059	639.648	3.442
5/14/96	8:52:59 PM			
0	4.883	17.09	628.662	3.418
5/14/96	8:53:01 PM			
0	6.104	17.029	617.676	3.369
5/14/96	8:53:03 PM			
0	5.188	17.09	605.469	3.369
5/14/96	8:53:06 PM			
0	5.493	17.151	598.145	3.32
5/14/96	8:53:07 PM			
0	6.104	17.151	584.717	3.345
5/14/96	8:53:09 PM			
0	4.883	17.181	574.951	3.32
5/14/96	8:53:11 PM			
0	5.798	17.242	555.42	3.296
5/14/96	8:53:13 PM			
0	5.188	17.242	549.316	3.296
5/14/96	8:53:15 PM			
0	5.798	17.273	535.889	3.296
5/14/96	8:53:17 PM			
0	5.798	17.303	522.461	3.296
5/14/96	8:53:19 PM			
0	5.493	17.334	510.254	3.32
5/14/96	8:53:22 PM			
0	4.883	17.334	495.605	3.32
5/14/96	8:53:23 PM			
0	5.188	17.273	480.957	3.296
5/14/96	8:53:25 PM			
0	5.493	17.365	466.309	3.296
5/14/96	8:53:28 PM			
0	4.883	17.303	451.66	3.296
5/14/96	8:53:29 PM			
0	6.104	17.365	437.012	3.271
5/14/96	8:53:31 PM			
0	5.493	17.365	421.143	3.271
5/14/96	8:53:33 PM			
0	5.493	17.303	408.936	3.271
5/14/96	8:53:35 PM			
0	4.578	17.303	395.508	3.271
5/14/96	8:53:38 PM			
0	4.883	17.334	382.08	3.247
5/14/96	8:53:39 PM			
0	5.798	17.395	373.535	3.247
5/14/96	8:53:41 PM			
0	5.188	17.303	364.99	3.223
5/14/96	8:53:44 PM			
0	4.883	17.365	356.445	3.223
5/14/96	8:53:45 PM			
0	5.493	17.365	350.342	3.223
5/14/96	8:53:47 PM			
0	4.578	17.395	345.459	3.223
5/14/96	8:53:49 PM			
0	5.493	17.426	338.135	3.223
5/14/96	8:53:51 PM			
0	5.798	17.456	333.252	3.223
5/14/96	8:53:53 PM			
0	6.104	17.395	328.369	3.223
5/14/96	8:53:55 PM			
0	5.188	17.426	323.486	3.198
5/14/96	8:53:57 PM			
0	4.883	17.365	317.383	3.223
5/14/96	8:54:00 PM			
0	6.104	17.456	311.279	3.223
5/14/96	8:54:01 PM			
0	5.798	17.426	306.396	3.223
5/14/96	8:54:03 PM			
0	5.493	17.456	299.072	3.223

5/14/96	8:54:05 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	6.409	17.365	295.41	3.223
5/14/96	8:54:07 PM			
0	5.188	17.426	289.307	3.223
5/14/96	8:54:09 PM			
0	5.798	17.426	284.424	3.247
5/14/96	8:54:11 PM			
0	5.188	17.395	279.541	3.271
5/14/96	8:54:13 PM			
0	5.798	17.426	274.658	3.247
5/14/96	8:54:16 PM			
0	5.493	17.365	269.775	3.247
5/14/96	8:54:17 PM			
0	5.188	17.517	268.555	3.271
5/14/96	8:54:19 PM			
0	5.493	17.426	266.113	3.271
5/14/96	8:54:22 PM			
0	5.493	17.365	263.672	3.271
5/14/96	8:54:23 PM			
0	4.883	17.426	262.451	3.296
5/14/96	8:54:26 PM			
0	4.883	17.365	261.23	3.271
5/14/96	8:54:27 PM			
0	4.883	17.365	261.23	3.32
5/14/96	8:54:29 PM			
0	5.188	17.334	261.23	3.32
5/14/96	8:54:32 PM			
0	5.798	17.303	260.01	3.32
5/14/96	8:54:33 PM			
0	5.188	17.395	260.01	3.32
5/14/96	8:54:35 PM			
0	5.493	17.334	261.23	3.345
5/14/96	8:54:38 PM			
0	5.493	17.303	261.23	3.369
5/14/96	8:54:39 PM			
0	5.188	17.334	263.672	3.418
5/14/96	8:54:41 PM			
0	4.883	17.365	264.893	3.442
5/14/96	8:54:43 PM			
0	4.272	17.273	266.113	3.467
5/14/96	8:54:45 PM			
0	4.578	17.273	268.555	3.467
5/14/96	8:54:47 PM			
0	5.188	17.181	269.775	3.467
5/14/96	8:54:49 PM			
0	5.188	17.212	272.217	3.467
5/14/96	8:54:51 PM			
0	5.493	17.151	277.1	3.442
5/14/96	8:54:54 PM			
0	4.883	17.151	279.541	3.418
5/14/96	8:54:55 PM			
0	4.883	17.151	285.645	3.418
5/14/96	8:54:57 PM			
0	4.883	17.212	290.527	3.394
5/14/96	8:55:00 PM			
0	4.578	17.181	297.852	3.369
5/14/96	8:55:01 PM			
0	5.493	17.12	306.396	3.345
5/14/96	8:55:03 PM			
0	4.578	17.212	316.162	3.345
5/14/96	8:55:05 PM			
0	5.493	17.212	327.148	3.32
5/14/96	8:55:07 PM			
0	5.493	17.181	333.252	3.32
5/14/96	8:55:10 PM			
0	5.493	17.181	344.238	3.296
5/14/96	8:55:11 PM			
0	4.883	17.242	351.562	3.296

5/14/96	8:55:13 PM				
SO2	NOx	O2		CO	CO2
	(ppm)	(%)		(ppm)	(%)
0	5.493	17.242		357.666	3.271
5/14/96	8:55:16 PM				
0	5.493	17.365		361.328	3.247
5/14/96	8:55:17 PM				
0	5.188	17.273		364.99	3.247
5/14/96	8:55:19 PM				
0	4.578	17.365		363.77	3.223
5/14/96	8:55:21 PM				
0	5.188	17.365		362.549	3.223
5/14/96	8:55:23 PM				
0	5.493	17.334		361.328	3.198
5/14/96	8:55:26 PM				
0	5.188	17.365		357.666	3.174
5/14/96	8:55:27 PM				
0	5.493	17.426		355.225	3.125
5/14/96	8:55:29 PM				
0	5.188	17.395		351.562	3.125
5/14/96	8:55:32 PM				
0	6.104	17.426		346.68	3.125
5/14/96	8:55:33 PM				
0	6.104	17.395		343.018	3.101
5/14/96	8:55:35 PM				
0	5.493	17.456		336.914	3.076
5/14/96	8:55:37 PM				
0	5.493	17.487		330.811	3.076
5/14/96	8:55:39 PM				
0	5.188	17.548		323.486	3.076
5/14/96	8:55:41 PM				
0	5.493	17.548		318.604	3.076
5/14/96	8:55:43 PM				
0	5.493	17.548		311.279	3.027
5/14/96	8:55:45 PM				
0	6.409	17.578		305.176	3.027
5/14/96	8:55:48 PM				
0	6.104	17.578		299.072	3.027
5/14/96	8:55:49 PM				
0	6.104	17.639		289.307	3.027
5/14/96	8:55:51 PM				
0	6.104	17.578		280.762	3.027
5/14/96	8:55:53 PM				
0	6.409	17.639		273.437	3.027
5/14/96	8:55:55 PM				
0	6.714	17.67		267.334	3.027
5/14/96	8:55:58 PM				
0	6.409	17.67		258.789	3.027
5/14/96	8:55:59 PM				
0	6.714	17.67		251.465	3.003
5/14/96	8:56:01 PM				
0	7.019	17.578		244.141	3.027
5/14/96	8:56:04 PM				
0	7.019	17.67		238.037	3.027
5/14/96	8:56:05 PM				
0	7.019	17.67		229.492	3.052
5/14/96	8:56:07 PM				
0	6.409	17.67		224.609	3.076
5/14/96	8:56:10 PM				
0	7.019	17.578		216.064	3.076
5/14/96	8:56:11 PM				
0	6.714	17.639		209.961	3.101
5/14/96	8:56:13 PM				
0	5.798	17.7		203.857	3.125
5/14/96	8:56:15 PM				
0	6.104	17.578		197.754	3.125
5/14/96	8:56:17 PM				
0	6.409	17.517		190.43	3.125
5/14/96	8:56:20 PM				
0	6.104	17.517		186.768	3.125

5/14/96	8:56:21 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	7.019	17.578	180.664	3.125
5/14/96	8:56:23 PM			
0	6.409	17.487	177.002	3.125
5/14/96	8:56:26 PM			
0	6.409	17.548	174.561	3.125
5/14/96	8:56:27 PM			
0	6.104	17.517	170.898	3.125
5/14/96	8:56:29 PM			
0	6.409	17.548	169.678	3.125
5/14/96	8:56:32 PM			
0	6.104	17.548	168.457	3.125
5/14/96	8:56:33 PM			
0	7.019	17.548	169.678	3.101
5/14/96	8:56:35 PM			
0	7.019	17.426	169.678	3.125
5/14/96	8:56:37 PM			
0	7.324	17.517	170.898	3.125
5/14/96	8:56:39 PM			
0	7.019	17.548	172.119	3.125
5/14/96	8:56:42 PM			
0	7.019	17.548	172.119	3.174
5/14/96	8:56:43 PM			
0	7.019	17.578	173.34	3.174
5/14/96	8:56:45 PM			
0	6.104	17.517	175.781	3.223
5/14/96	8:56:47 PM			
0	6.409	17.517	173.34	3.271
5/14/96	8:56:49 PM			
0	6.104	17.456	174.561	3.296
5/14/96	8:56:51 PM			
0	5.188	17.426	175.781	3.32
5/14/96	8:56:53 PM			
0	5.798	17.365	174.561	3.345
5/14/96	8:56:55 PM			
0	5.188	17.395	173.34	3.369
5/14/96	8:56:58 PM			
0	5.493	17.365	173.34	3.369
5/14/96	8:56:59 PM			
0	5.188	17.334	173.34	3.418
5/14/96	8:57:01 PM			
0	5.188	17.303	175.781	3.467
5/14/96	8:57:03 PM			
0	4.883	17.273	179.443	3.467
5/14/96	8:57:05 PM			
0	4.578	17.242	184.326	3.516
5/14/96	8:57:07 PM			
0	4.578	17.151	191.65	3.516
5/14/96	8:57:09 PM			
0	5.188	17.242	201.416	3.564
5/14/96	8:57:11 PM			
0	5.493	17.12	212.402	3.54
5/14/96	8:57:14 PM			
0	5.188	17.212	224.609	3.564
5/14/96	8:57:15 PM			
0	4.578	17.12	236.816	3.564
5/14/96	8:57:17 PM			
0	4.578	17.12	247.803	3.613
5/14/96	8:57:20 PM			
0	4.883	17.09	261.23	3.613
5/14/96	8:57:21 PM			
0	3.357	17.059	272.217	3.638
5/14/96	8:57:23 PM			
0	3.357	17.09	286.865	3.662
5/14/96	8:57:25 PM			
0	3.967	17.029	299.072	3.687
5/14/96	8:57:27 PM			
0	3.967	16.968	314.941	3.687

5/14/96	8:57:30 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	3.357	16.968	328.369	3.711
5/14/96	8:57:31 PM			
0	3.967	16.998	341.797	3.735
5/14/96	8:57:33 PM			
0	4.578	16.907	357.666	3.76
5/14/96	8:57:36 PM			
0	4.578	16.876	373.535	3.809
5/14/96	8:57:37 PM			
0	4.272	16.876	390.625	3.833
5/14/96	8:57:39 PM			
0	3.967	16.846	411.377	3.857
5/14/96	8:57:41 PM			
0	3.662	16.785	429.687	3.882
5/14/96	8:57:43 PM			
0	3.662	16.724	447.998	3.906
5/14/96	8:57:45 PM			
0	3.967	16.754	467.529	3.931
5/14/96	8:57:47 PM			
0	4.578	16.724	485.84	3.906
5/14/96	8:57:49 PM			
0	3.662	16.693	504.15	3.906
5/14/96	8:57:52 PM			
0	4.883	16.632	523.682	3.906
5/14/96	8:57:53 PM			
0	3.967	16.632	548.096	3.906
5/14/96	8:57:55 PM			
0	5.188	16.632	573.73	3.906
5/14/96	8:57:57 PM			
0	4.578	16.602	599.365	3.906
5/14/96	8:57:59 PM			
0	5.188	16.663	626.221	3.906
5/14/96	8:58:01 PM			
0	4.883	16.724	654.297	3.931
5/14/96	8:58:04 PM			
0	5.188	16.632	682.373	3.931
5/14/96	8:58:05 PM			
0	4.883	16.693	710.449	3.955
5/14/96	8:58:08 PM			
0	4.883	16.602	734.863	4.004
5/14/96	8:58:09 PM			
0	5.493	16.632	754.395	4.004
5/14/96	8:58:11 PM			
0	5.188	16.571	773.926	4.004
5/14/96	8:58:14 PM			
0	4.883	16.541	792.236	4.028
5/14/96	8:58:15 PM			
0	5.493	16.541	805.664	4.004
5/14/96	8:58:17 PM			
0	5.188	16.479	821.533	4.004
5/14/96	8:58:19 PM			
0	5.493	16.449	836.182	4.004
5/14/96	8:58:21 PM			
0	4.883	16.479	848.389	4.004
5/14/96	8:58:23 PM			
0	5.798	16.479	864.258	4.004
5/14/96	8:58:25 PM			
0	5.493	16.51	880.127	4.004
5/14/96	8:58:28 PM			
0	5.188	16.51	895.996	4.004
5/14/96	8:58:30 PM			
0	4.578	16.51	916.748	3.979
5/14/96	8:58:31 PM			
0	5.188	16.541	935.059	4.004
5/14/96	8:58:33 PM			
0	5.188	16.541	954.59	3.979
5/14/96	8:58:35 PM			
0	5.493	16.479	971.68	3.955

5/14/96	8:58:38 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	5.493	16.479	987.549	3.955
5/14/96	8:58:39 PM			
0	5.188	16.51	1000.977	3.955
5/14/96	8:58:41 PM			
0	5.188	16.51	1009.521	3.955
5/14/96	8:58:43 PM			
0	5.188	16.449	1018.066	3.955
5/14/96	8:58:46 PM			
0	4.272	16.51	1021.729	3.955
5/14/96	8:58:47 PM			
0	4.272	16.541	1024.17	3.931
5/14/96	8:58:49 PM			
0	4.272	16.602	1026.611	3.931
5/14/96	8:58:51 PM			
0	4.578	16.602	1030.273	3.955
5/14/96	8:58:53 PM			
0	4.883	16.602	1030.273	3.906
5/14/96	8:58:55 PM			
0	4.883	16.602	1030.273	3.931
5/14/96	8:58:57 PM			
0	4.883	16.632	1033.936	3.906
5/14/96	8:58:59 PM			
0	4.883	16.51	1033.936	3.906
5/14/96	8:59:02 PM			
0	4.272	16.602	1033.936	3.906
5/14/96	8:59:03 PM			
0	4.883	16.632	1033.936	3.906
5/14/96	8:59:05 PM			
0	4.272	16.663	1033.936	3.906
5/14/96	8:59:08 PM			
0	4.272	16.602	1031.494	3.906
5/14/96	8:59:09 PM			
0	3.967	16.571	1030.273	3.906
5/14/96	8:59:11 PM			
0	4.578	16.602	1027.832	3.906
5/14/96	8:59:13 PM			
0	4.578	16.571	1021.729	3.882
5/14/96	8:59:15 PM			
0	4.883	16.663	1020.508	3.833
5/14/96	8:59:17 PM			
0	4.578	16.632	1018.066	3.833
5/14/96	8:59:19 PM			
0	4.883	16.663	1013.184	3.809
5/14/96	8:59:21 PM			
0	5.188	16.663	1011.963	3.809
5/14/96	8:59:24 PM			
0	3.967	16.663	1008.301	3.784
5/14/96	8:59:25 PM			
0	4.578	16.693	1004.639	3.784
5/14/96	8:59:27 PM			
0	4.883	16.724	1003.418	3.784
5/14/96	8:59:29 PM			
0	3.967	16.693	999.756	3.76
5/14/96	8:59:31 PM			
0	4.578	16.754	993.652	3.735
5/14/96	8:59:33 PM			
0	4.578	16.724	986.328	3.711
5/14/96	8:59:36 PM			
0	4.578	16.754	980.225	3.711
5/14/96	8:59:37 PM			
0	4.578	16.876	970.459	3.687
5/14/96	8:59:40 PM			
0	4.578	16.876	960.693	3.662
5/14/96	8:59:41 PM			
0	4.578	16.785	950.928	3.662
5/14/96	8:59:43 PM			
0	4.578	16.937	938.721	3.638

5/14/96	8:59:46 PM				
SO2	NOx	O2	CO	CO2	
	(ppm)	(%)	(ppm)	(%)	
0	5.188	16.754	924.072	3.613	
5/14/96	8:59:47 PM				
0	4.578	16.846	911.865	3.613	
5/14/96	8:59:49 PM				
0	4.883	16.937	898.437	3.564	
5/14/96	8:59:51 PM				
0	3.967	16.968	885.01	3.564	
5/14/96	8:59:53 PM				
0	4.883	17.029	874.023	3.516	
5/14/96	8:59:56 PM				
0	4.883	17.029	858.154	3.516	
5/14/96	8:59:57 PM				
0	5.493	16.968	843.506	3.467	
5/14/96	9:00:00 PM				
0	5.798	16.998	825.195	3.467	
5/14/96	9:00:02 PM				
0	4.883	17.059	809.326	3.467	
5/14/96	9:00:03 PM				
0	5.188	17.059	787.354	3.467	
5/14/96	9:00:05 PM				
0	4.578	17.12	770.264	3.467	
5/14/96	9:00:07 PM				
0	4.578	17.12	750.732	3.467	
5/14/96	9:00:10 PM				
0	4.883	17.151	727.539	3.467	
5/14/96	9:00:11 PM				
0	4.578	17.12	706.787	3.467	
5/14/96	9:00:13 PM				
0	4.272	17.181	686.035	3.467	
5/14/96	9:00:15 PM				
0	4.883	17.151	662.842	3.467	
5/14/96	9:00:18 PM				
0	5.493	17.181	644.531	3.467	
5/14/96	9:00:19 PM				
0	5.493	17.151	626.221	3.491	
5/14/96	9:00:21 PM				
0	5.188	17.212	609.131	3.516	
5/14/96	9:00:23 PM				
0	4.578	17.12	590.82	3.564	
5/14/96	9:00:25 PM				
0	5.493	17.09	574.951	3.564	
5/14/96	9:00:27 PM				
0	5.188	17.151	560.303	3.589	
5/14/96	9:00:29 PM				
0	4.883	17.09	546.875	3.613	
5/14/96	9:00:31 PM				
0	4.883	17.09	534.668	3.638	
5/14/96	9:00:34 PM				
0	4.578	16.998	523.682	3.638	
5/14/96	9:00:35 PM				
0	3.967	17.059	515.137	3.638	
5/14/96	9:00:37 PM				
0	4.883	17.059	509.033	3.638	
5/14/96	9:00:40 PM				
0	5.188	16.937	502.93	3.638	
5/14/96	9:00:41 PM				
0	5.493	16.937	500.488	3.613	
5/14/96	9:00:43 PM				
0	5.188	16.998	500.488	3.613	
5/14/96	9:00:45 PM				
0	4.883	16.968	504.15	3.589	
5/14/96	9:00:47 PM				
0	5.188	17.029	509.033	3.564	
5/14/96	9:00:50 PM				
0	5.493	16.937	515.137	3.564	
5/14/96	9:00:51 PM				
0	4.883	17.029	522.461	3.564	

5/14/96	9:00:53 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	5.493	16.968	531.006	3.54
5/14/96	9:00:56 PM			
0	5.798	16.998	543.213	3.54
5/14/96	9:00:58 PM			
0	5.798	16.998	551.758	3.516
5/14/96	9:00:59 PM			
0	5.798	17.09	557.861	3.516
5/14/96	9:01:01 PM			
0	6.104	17.059	563.965	3.516
5/14/96	9:01:03 PM			
0	5.798	16.998	567.627	3.491
5/14/96	9:01:05 PM			
0	5.493	17.09	566.406	3.491
5/14/96	9:01:08 PM			
0	5.188	17.029	565.186	3.467
5/14/96	9:01:09 PM			
0	4.883	17.09	560.303	3.467
5/14/96	9:01:12 PM			
0	4.883	17.09	552.979	3.442
5/14/96	9:01:13 PM			
0	4.883	17.12	546.875	3.442
5/14/96	9:01:15 PM			
0	5.188	17.12	540.771	3.418
5/14/96	9:01:17 PM			
0	5.493	17.12	531.006	3.418
5/14/96	9:01:19 PM			
0	6.104	17.151	526.123	3.394
5/14/96	9:01:21 PM			
0	5.188	17.151	521.24	3.369
5/14/96	9:01:23 PM			
0	5.493	17.181	513.916	3.369
5/14/96	9:01:25 PM			
0	5.188	17.212	507.812	3.369
5/14/96	9:01:28 PM			
0	5.798	17.181	502.93	3.369
5/14/96	9:01:29 PM			
0	5.188	17.181	494.385	3.345
5/14/96	9:01:32 PM			
0	5.493	17.273	488.281	3.369
5/14/96	9:01:34 PM			
0	5.188	17.242	479.736	3.369
5/14/96	9:01:35 PM			
0	4.578	17.303	472.412	3.32
5/14/96	9:01:37 PM			
0	5.188	17.212	463.867	3.369
5/14/96	9:01:39 PM			
0	5.493	17.212	455.322	3.345
5/14/96	9:01:42 PM			
0	5.493	17.151	446.777	3.369
5/14/96	9:01:44 PM			
0	5.798	17.273	437.012	3.369
5/14/96	9:01:45 PM			
0	5.798	17.273	429.687	3.369
5/14/96	9:01:47 PM			
0	4.883	17.242	421.143	3.418
5/14/96	9:01:50 PM			
0	3.967	17.242	410.156	3.418
5/14/96	9:01:51 PM			
0	4.883	17.303	404.053	3.467
5/14/96	9:01:53 PM			
0	4.883	17.212	396.729	3.467
5/14/96	9:01:55 PM			
0	5.188	17.242	390.625	3.491
5/14/96	9:01:57 PM			
0	4.883	17.12	384.521	3.516
5/14/96	9:01:59 PM			
0	4.578	17.181	379.639	3.54

5/14/96	9:02:01 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	4.883	17.151	375.977	3.54
5/14/96	9:02:03 PM			
0	5.493	17.059	374.756	3.564
5/14/96	9:02:06 PM			
0	5.188	17.09	373.535	3.564
5/14/96	9:02:07 PM			
0	5.493	17.059	373.535	3.516
5/14/96	9:02:09 PM			
0	4.883	17.09	375.977	3.564
5/14/96	9:02:11 PM			
0	4.272	17.09	378.418	3.54
5/14/96	9:02:13 PM			
0	4.883	17.059	382.08	3.54
5/14/96	9:02:15 PM			
0	5.188	16.998	389.404	3.564
5/14/96	9:02:17 PM			
0	5.188	17.029	395.508	3.564
5/14/96	9:02:19 PM			
0	5.493	17.029	405.273	3.54
5/14/96	9:02:22 PM			
0	5.188	17.059	413.818	3.564
5/14/96	9:02:23 PM			
0	4.883	16.998	424.805	3.564
5/14/96	9:02:25 PM			
0	4.578	17.059	434.57	3.564
5/14/96	9:02:28 PM			
0	5.493	16.998	441.895	3.564
5/14/96	9:02:30 PM			
0	4.578	17.09	450.439	3.564
5/14/96	9:02:31 PM			
0	4.272	16.968	456.543	3.564
5/14/96	9:02:33 PM			
0	4.883	17.029	462.646	3.589
5/14/96	9:02:35 PM			
0	5.493	17.059	468.75	3.564
5/14/96	9:02:38 PM			
0	4.883	16.998	473.633	3.613
5/14/96	9:02:40 PM			
0	5.493	17.029	478.516	3.613
5/14/96	9:02:41 PM			
0	4.883	17.059	483.398	3.613
5/14/96	9:02:44 PM			
0	5.493	16.998	487.061	3.613
5/14/96	9:02:45 PM			
0	4.578	16.968	491.943	3.613
5/14/96	9:02:47 PM			
0	4.883	16.937	495.605	3.613
5/14/96	9:02:49 PM			
0	4.883	16.998	501.709	3.613
5/14/96	9:02:51 PM			
0	5.188	16.998	504.15	3.613
5/14/96	9:02:53 PM			
0	4.883	16.998	509.033	3.589
5/14/96	9:02:55 PM			
0	5.188	16.937	515.137	3.564
5/14/96	9:02:57 PM			
0	5.188	16.907	518.799	3.564
5/14/96	9:03:00 PM			
0	5.493	16.968	523.682	3.516
5/14/96	9:03:01 PM			
0	5.493	17.059	531.006	3.54
5/14/96	9:03:04 PM			
0	5.188	16.998	538.33	3.516
5/14/96	9:03:05 PM			
0	5.188	16.998	543.213	3.516
5/14/96	9:03:07 PM			
0	4.883	17.09	550.537	3.516

5/14/96	9:03:09 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	4.883	17.059	555.42	3.467
5/14/96	9:03:11 PM			
0	5.493	17.09	555.42	3.467
5/14/96	9:03:14 PM			
0	5.798	17.09	556.641	3.467
5/14/96	9:03:16 PM			
0	6.104	17.09	556.641	3.418
5/14/96	9:03:17 PM			
0	5.493	17.059	552.979	3.418
5/14/96	9:03:19 PM			
0	6.104	17.12	546.875	3.418
5/14/96	9:03:22 PM			
0	5.493	17.09	541.992	3.442
5/14/96	9:03:23 PM			
0	5.798	17.181	533.447	3.467
5/14/96	9:03:25 PM			
0	5.188	17.212	524.902	3.467
5/14/96	9:03:28 PM			
0	6.104	17.181	517.578	3.467
5/14/96	9:03:29 PM			
0	5.798	17.12	509.033	3.467
5/14/96	9:03:32 PM			
0	5.798	17.12	498.047	3.516
5/14/96	9:03:33 PM			
0	5.493	17.151	490.723	3.491
5/14/96	9:03:35 PM			
0	6.104	17.151	479.736	3.516
5/14/96	9:03:38 PM			
0	6.104	17.151	469.971	3.516
5/14/96	9:03:39 PM			
0	5.493	17.151	462.646	3.516
5/14/96	9:03:41 PM			
0	5.493	17.151	455.322	3.516
5/14/96	9:03:43 PM			
0	5.188	17.12	447.998	3.516
5/14/96	9:03:45 PM			
0	4.883	17.029	443.115	3.54
5/14/96	9:03:47 PM			
0	4.272	17.09	440.674	3.564
5/14/96	9:03:49 PM			
0	5.188	17.09	439.453	3.589
5/14/96	9:03:51 PM			
0	5.188	17.09	438.232	3.589
5/14/96	9:03:54 PM			
0	5.188	17.059	440.674	3.638
5/14/96	9:03:55 PM			
0	5.188	16.998	439.453	3.662
5/14/96	9:03:57 PM			
0	4.883	16.998	441.895	3.662
5/14/96	9:03:59 PM			
0	5.188	16.998	444.336	3.662
5/14/96	9:04:02 PM			
0	4.578	16.968	445.557	3.687
5/14/96	9:04:03 PM			
0	4.272	16.968	447.998	3.662
5/14/96	9:04:05 PM			
0	5.493	16.968	452.881	3.687
5/14/96	9:04:07 PM			
0	5.188	16.998	458.984	3.662
5/14/96	9:04:10 PM			
0	4.883	16.937	465.088	3.662
5/14/96	9:04:12 PM			
0	5.188	16.937	473.633	3.613
5/14/96	9:04:13 PM			
0	4.883	16.907	483.398	3.638
5/14/96	9:04:16 PM			
0	4.883	16.998	494.385	3.589

5/14/96	9:04:17 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	5.188	16.968	507.812	3.589
5/14/96	9:04:19 PM			
0	4.578	16.937	521.24	3.564
5/14/96	9:04:21 PM			
0	4.883	16.937	533.447	3.564
5/14/96	9:04:23 PM			
0	5.493	16.968	546.875	3.516
5/14/96	9:04:26 PM			
0	5.188	16.998	561.523	3.516
5/14/96	9:04:27 PM			
0	5.493	17.029	571.289	3.516
5/14/96	9:04:29 PM			
0	5.493	16.937	577.393	3.467
5/14/96	9:04:32 PM			
0	5.798	16.998	582.275	3.467
5/14/96	9:04:33 PM			
0	6.104	17.12	584.717	3.491
5/14/96	9:04:36 PM			
0	5.493	17.09	584.717	3.516
5/14/96	9:04:37 PM			
0	5.798	17.12	583.496	3.491
5/14/96	9:04:39 PM			
0	6.104	17.151	578.613	3.516
5/14/96	9:04:41 PM			
0	6.104	17.181	572.51	3.516
5/14/96	9:04:43 PM			
0	6.714	17.09	566.406	3.516
5/14/96	9:04:46 PM			
0	5.798	17.12	556.641	3.54
5/14/96	9:04:48 PM			
0	5.493	17.059	545.654	3.564
5/14/96	9:04:49 PM			
0	6.409	17.059	533.447	3.564
5/14/96	9:04:51 PM			
0	5.798	17.151	522.461	3.564
5/14/96	9:04:53 PM			
0	5.798	17.059	512.695	3.564
5/14/96	9:04:55 PM			
0	4.883	16.998	501.709	3.564
5/14/96	9:04:57 PM			
0	5.493	17.12	494.385	3.54
5/14/96	9:05:00 PM			
0	5.188	17.029	487.061	3.564
5/14/96	9:05:01 PM			
0	5.493	16.998	483.398	3.564
5/14/96	9:05:04 PM			
0	4.883	17.029	480.957	3.516
5/14/96	9:05:05 PM			
0	5.188	17.09	479.736	3.516
5/14/96	9:05:07 PM			
0	5.493	17.09	480.957	3.516
5/14/96	9:05:10 PM			
0	5.798	17.059	483.398	3.516
5/14/96	9:05:11 PM			
0	5.188	17.029	484.619	3.516
5/14/96	9:05:13 PM			
0	5.493	17.09	489.502	3.516
5/14/96	9:05:15 PM			
0	4.883	17.181	493.164	3.516
5/14/96	9:05:17 PM			
0	5.493	17.029	494.385	3.516
5/14/96	9:05:19 PM			
0	4.883	17.12	495.605	3.491
5/14/96	9:05:21 PM			
0	5.188	17.12	498.047	3.516
5/14/96	9:05:23 PM			
0	5.493	17.12	496.826	3.491

5/14/96	9:05:26 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	5.493	17.12	494.385	3.467
5/14/96	9:05:27 PM			
0	5.188	17.09	493.164	3.467
5/14/96	9:05:29 PM			
0	4.883	17.059	488.281	3.442
5/14/96	9:05:31 PM			
0	4.883	17.151	484.619	3.418
5/14/96	9:05:34 PM			
0	4.883	17.151	480.957	3.418
5/14/96	9:05:35 PM			
0	4.883	17.151	477.295	3.394
5/14/96	9:05:37 PM			
0	5.188	17.151	472.412	3.198
5/14/96	9:05:39 PM			
0	5.188	17.12	469.971	2.637
5/14/96	9:05:42 PM			
0	4.272	17.212	466.309	1.978
5/14/96	9:05:44 PM			
0	3.052	17.334	462.646	1.587
5/14/96	9:05:45 PM			
0	2.441	17.548	457.764	1.318
5/14/96	9:05:47 PM			
0	1.831	17.944	454.102	1.074
5/14/96	9:05:49 PM			
0	1.221	18.433	447.998	0.903
5/14/96	9:05:51 PM			
0	1.526	18.768	441.895	0.732
5/14/96	9:05:53 PM			
0	0.916	19.165	435.791	0.61
5/14/96	9:05:55 PM			
0	1.831	19.47	430.908	0.513
5/14/96	9:05:58 PM			
0	1.221	19.836	422.363	0.439
5/14/96	9:05:59 PM			
0	1.221	19.928	411.377	0.391
5/14/96	9:06:01 PM			
0	1.221	20.172	394.287	0.391
5/14/96	9:06:04 PM			
0	0.916	20.233	374.756	0.391
5/14/96	9:06:05 PM			
0	0.916	20.447	354.004	0.342
5/14/96	9:06:08 PM			
0	0.916	20.416	329.59	0.342
5/14/96	9:06:09 PM			
0	1.526	20.477	303.955	0.342
5/14/96	9:06:11 PM			
0	2.136	20.355	277.1	0.342
5/14/96	9:06:13 PM			
0	0.916	20.294	252.686	0.317
5/14/96	9:06:15 PM			
0	1.526	20.325	228.271	0.269
5/14/96	9:06:18 PM			
0	0.916	20.325	203.857	0.293
5/14/96	9:06:20 PM			
0	1.526	20.355	181.885	0.293
5/14/96	9:06:21 PM			
0	0.61	20.386	161.133	0.293
5/14/96	9:06:23 PM			
0	0.916	20.416	141.602	0.269
5/14/96	9:06:25 PM			
0	0.916	20.538	128.174	0.244
5/14/96	9:06:27 PM			
0	0	20.447	117.187	0.22
5/14/96	9:06:29 PM			
0	0.305	20.538	106.201	0.244
5/14/96	9:06:32 PM			
0	0.305	20.569	96.436	0.244

5/14/96	9:06:33 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	0.916	20.599	87.891	0.244
5/14/96	9:06:36 PM			
0	0.916	20.63	80.566	0.244
5/14/96	9:06:37 PM			
0	0.61	20.66	73.242	0.195
5/14/96	9:06:39 PM			
0	0.305	20.752	67.139	0.171
5/14/96	9:06:42 PM			
0	0.916	20.691	59.814	0.146
5/14/96	9:06:43 PM			
0	0.916	20.813	54.932	0.146
5/14/96	9:06:45 PM			
0	1.526	20.752	50.049	0.146
5/14/96	9:06:47 PM			
0	0.916	20.63	45.166	0.122
5/14/96	9:06:49 PM			
0	0.916	20.02	40.283	0.098
5/14/96	9:06:52 PM			
0	0.916	18.616	39.062	0.073
5/14/96	9:06:53 PM			
0	0.61	16.479	34.18	0.049
5/14/96	9:06:55 PM			
0	0.61	14.069	31.738	0.049
5/14/96	9:06:58 PM			
0	0.305	11.688	30.518	0.049
5/14/96	9:06:59 PM			
0	0	9.613	28.076	0.049
5/14/96	9:07:01 PM			
0	0.916	7.843	25.635	0.049
5/14/96	9:07:03 PM			
0	0.305	6.47	26.855	0.049
5/14/96	9:07:06 PM			
0	0.61	5.249	30.518	0.049
5/14/96	9:07:07 PM			
0	0	4.272	36.621	0.073
5/14/96	9:07:09 PM			
0	0.305	3.54	47.607	0.073
5/14/96	9:07:11 PM			
0	0.61	2.96	61.035	0.098
5/14/96	9:07:14 PM			
0	0.305	2.655	76.904	0.049
5/14/96	9:07:16 PM			
0	0.916	2.35	91.553	0.049
5/14/96	9:07:17 PM			
0	0.61	2.045	108.643	0.049
5/14/96	9:07:19 PM			
0	0.305	1.74	123.291	0.049
5/14/96	9:07:21 PM			
0	0	1.526	136.719	0.049
5/14/96	9:07:23 PM			
0	0	1.312	153.809	0.024
5/14/96	9:07:25 PM			
0	0.305	1.068	169.678	0.049
5/14/96	9:07:27 PM			
0	0	0.977	183.105	0.049
5/14/96	9:07:30 PM			
0	0.305	0.793	196.533	0.024
5/14/96	9:07:31 PM			
0	0.305	0.793	207.52	0
5/14/96	9:07:33 PM			
0	0.916	0.61	217.285	0
5/14/96	9:07:35 PM			
0	0.61	0.549	225.83	0
5/14/96	9:07:37 PM			
0	0	0.488	235.596	0
5/14/96	9:07:40 PM			
0	0.305	0.458	241.699	0

5/14/96	9:07:41 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	0.305	0.397	247.803	0.024
5/14/96	9:07:43 PM			
0	0.305	0.305	255.127	0.024
5/14/96	9:07:46 PM			
0	0.305	0.336	258.789	0.024
5/14/96	9:07:47 PM			
0	0	0.275	262.451	0.024
5/14/96	9:07:50 PM			
0	0.305	0.305	268.555	0.024
5/14/96	9:07:52 PM			
0	0	0.244	272.217	0.024
5/14/96	9:07:53 PM			
0	0	0.275	274.658	0.024
5/14/96	9:07:55 PM			
0	0.916	0.305	278.32	0
5/14/96	9:07:57 PM			
0	0.61	0.305	279.541	0
5/14/96	9:07:59 PM			
0	0.916	0.275	281.982	0
5/14/96	9:08:02 PM			
0	0.305	0.336	285.645	0.024
5/14/96	9:08:04 PM			
0	0.61	0.275	286.865	0
5/14/96	9:08:05 PM			
0	0	0.305	288.086	0.024
5/14/96	9:08:08 PM			
0	0	0.275	290.527	0
5/14/96	9:08:09 PM			
0	0.305	0.275	290.527	0
5/14/96	9:08:11 PM			
0	0	0.275	290.527	0
5/14/96	9:08:14 PM			
0	0	0.244	292.969	0
5/14/96	9:08:15 PM			
0	0.61	0.244	294.189	0
5/14/96	9:08:17 PM			
0	0.305	0.214	294.189	0
5/14/96	9:08:19 PM			
0	0.61	0.336	292.969	0.049
5/14/96	9:08:21 PM			
0	0	0.183	295.41	0.024
5/14/96	9:08:24 PM			
0	0.305	0.244	296.631	0
5/14/96	9:08:25 PM			
0	0	0.275	296.631	0.024
5/14/96	9:08:27 PM			
0	0.305	0.275	296.631	0.049
5/14/96	9:08:29 PM			
0	0	0.275	297.852	0
5/14/96	9:08:31 PM			
0	0.305	0.336	297.852	0.024
5/14/96	9:08:33 PM			
0	0.305	0.183	297.852	0
5/14/96	9:08:35 PM			
0	0.305	0.275	297.852	0
5/14/96	9:08:38 PM			
0	0	0.275	297.852	0
5/14/96	9:08:40 PM			
0	0.305	0.214	297.852	0.024
5/14/96	9:08:41 PM			
0	0	0.214	299.072	0
5/14/96	9:08:43 PM			
0	0	0.214	297.852	0.024
5/14/96	9:08:46 PM			
0	0.61	0.183	300.293	0
5/14/96	9:08:48 PM			
0	0.305	0.183	299.072	0

5/14/96	9:08:49 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	0.61	0.153	297.852	0
5/14/96	9:08:51 PM			
0	0.916	0.183	299.072	0
5/14/96	9:08:53 PM			
0	0.916	0.122	300.293	0
5/14/96	9:08:56 PM			
0	0	0.183	299.072	0
5/14/96	9:08:57 PM			
0	0.305	0.153	300.293	0.024
5/14/96	9:08:59 PM			
0	0	0.214	299.072	0
5/14/96	9:09:02 PM			
0	0	0.214	300.293	0
5/14/96	9:09:03 PM			
0	0.305	0.153	299.072	0
5/14/96	9:09:05 PM			
0	0.305	0.122	300.293	0
5/14/96	9:09:07 PM			
0	0.61	0.153	300.293	0
5/14/96	9:09:09 PM			
0	0	0.183	299.072	0
5/14/96	9:09:12 PM			
0	0.61	0.122	300.293	0
5/14/96	9:09:13 PM			
0	0	0.153	299.072	0
5/14/96	9:09:15 PM			
0	0	0.122	299.072	0
5/14/96	9:09:18 PM			
0	0.305	0.122	300.293	0
5/14/96	9:09:19 PM			
0	0.916	0.122	300.293	0.024
5/14/96	9:09:22 PM			
0	0.916	0.122	299.072	0.049
5/14/96	9:09:23 PM			
0	1.221	0.092	299.072	0.073
5/14/96	9:09:25 PM			
0	0.61	0.275	300.293	0.049
5/14/96	9:09:27 PM			
0	0.61	0.244	300.293	0.049
5/14/96	9:09:29 PM			
0	0.61	0.153	299.072	0
5/14/96	9:09:31 PM			
0	0	0.214	300.293	0.024
5/14/96	9:09:34 PM			
0	0	0.153	299.072	0
5/14/96	9:09:36 PM			
0	0.305	0.183	300.293	0
5/14/96	9:09:37 PM			
0	0.61	0.153	299.072	0
5/14/96	9:09:40 PM			
0	0.916	0.153	299.072	0
5/14/96	9:09:41 PM			
0	7.324	0.214	297.852	0.049
5/14/96	9:09:43 PM			
0	21.973	0.183	297.852	0
5/14/96	9:09:46 PM			
0	34.485	0.214	297.852	0.049
5/14/96	9:09:47 PM			
0	43.03	0.153	296.631	0.024
5/14/96	9:09:50 PM			
0	50.659	0.214	296.631	0
5/14/96	9:09:51 PM			
0	57.983	0.183	296.631	0
5/14/96	9:09:53 PM			
0	61.646	0.183	297.852	0
5/14/96	9:09:56 PM			
0	64.392	0.183	296.631	0

5/14/96	9:09:57 PM			
SO2	NOx	O2	CO	CO2
	(ppm)	(%)	(ppm)	(%)
0	65.918	0.183	295.41	0.024
5/14/96	9:10:00 PM			
0	68.665	0.183	291.748	0
5/14/96	9:10:01 PM			
0	71.106	0.183	288.086	0
5/14/96	9:10:03 PM			
0	73.242	0.122	278.32	0
5/14/96	9:10:05 PM			
0	74.463	0.275	262.451	0
5/14/96	9:10:07 PM			
0	74.768	0.092	246.582	0
5/14/96	9:10:10 PM			
0	75.684	0.122	230.713	0
5/14/96	9:10:12 PM			
0	75.684	0.122	211.182	0
5/14/96	9:10:13 PM			
0	77.82	0.092	192.871	0
5/14/96	9:10:15 PM			
0	75.378	0.031	173.34	0
5/14/96	9:10:17 PM			
0	74.463	0.122	155.029	0
5/14/96	9:10:20 PM			
0	73.853	0.122	136.719	0
5/14/96	9:10:21 PM			
0	74.463	0.122	124.512	0
5/14/96	9:10:23 PM			
0	74.768	0.092	111.084	0
5/14/96	9:10:25 PM			
0	74.768	0.214	100.098	0
5/14/96	9:10:28 PM			
0	75.684	0.122	90.332	0
5/14/96	9:10:29 PM			
0	75.684	0.153	81.787	0
5/14/96	9:10:31 PM			
0	75.073	0.183	72.021	0.024
5/14/96	9:10:34 PM			
0	75.378	0.122	64.697	0
5/14/96	9:10:35 PM			
0	75.684	0.153	57.373	0
5/14/96	9:10:37 PM			
0	75.989	0.092	51.27	0
5/14/96	9:10:39 PM			
0	75.378	0.122	46.387	0
5/14/96	9:10:41 PM			
0	76.599	0.092	41.504	0
5/14/96	9:10:44 PM			
0	76.599	0.092	37.842	0
5/14/96	9:10:45 PM			
0	75.684	0.122	34.18	0
5/14/96	9:10:47 PM			
0	75.989	0.061	31.738	0
5/14/96	9:10:50 PM			
0	76.599	0.122	28.076	0
5/14/96	9:10:51 PM			
0	76.599	0.031	25.635	0
5/14/96	9:10:54 PM			
0	76.904	0.031	23.193	0
5/14/96	9:10:55 PM			
0	76.599	0.031	21.973	0
5/14/96	9:10:57 PM			
0	77.209	0.031	18.311	0
5/14/96	9:10:59 PM			
0	76.599	0.031	18.311	0

Geoenergy/LP - Hayward
Test 7 Run 1
Line 2 Core Dryer E - Tube Outlet
05/14/96

START	19:47		
4-1	Baseline	Core Field Intensity	
4-2	19:58	50 kv	
4-3	20:03	40.1 kv	
4-4	20:05	30.3 kv	
4-5	20:06:30	20 kv	
4-6	20:08:30	10 kv	
CAL	20:10:00		
END CAL	20:21:00		
4-7	20:26	30 kv	
4-8	20:28:30	10 kv	
4-9	20:30:30	50 kv	
4-10	20:40:00	45 cfm	Ammonia Injection
4-11	20:44:00	1 cfm	
4-12	20:46:00-20:52:00	1.8 cfm	
4-13	-20:53:30	2.5 cfm	
4-14	20:55	lost tube	
4-15	21:05	CAL	