Alton Coal Development, LLC.

Summary of PM_{10} Data
Collected at Coal Hollow Mine, Utah
During the Third Quarter, 2015

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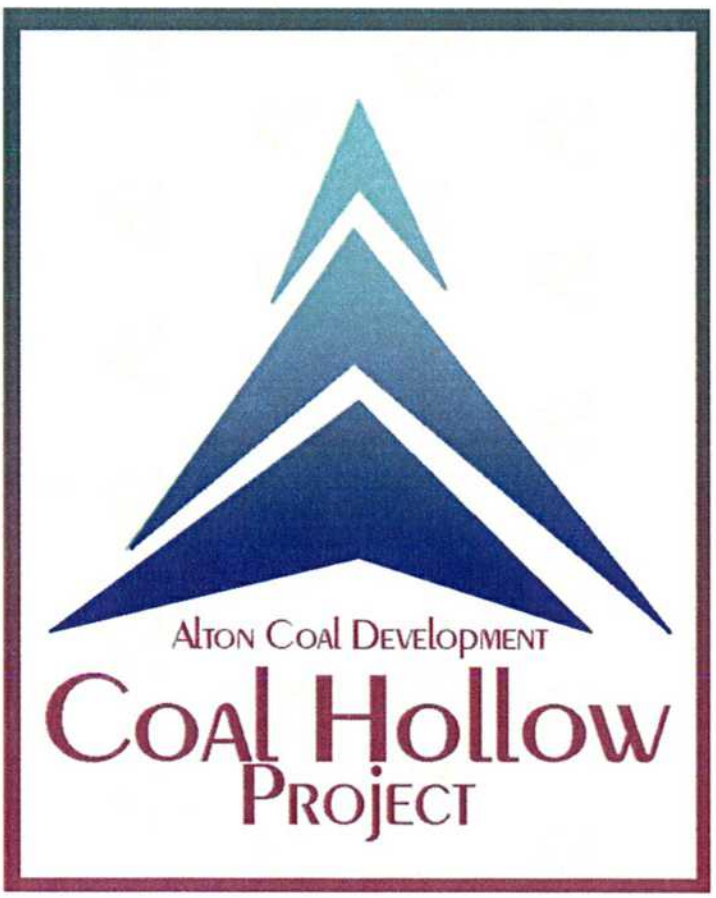

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1.0 INTRODUCTION

This report summarizes measurements of Particulate Matter less than 10 microns nominal aerodynamic diameter (PM_{10}) collected and processed by Alton Coal Development, LLC, (ACD) from the three monitoring stations located at the Coal Hollow Mine Facility in Alton, Utah. Monitoring for PM_{10} is a condition of the mines operating permit.

PM_{10} monitoring at the site consists of three BGI PQ200 PM_{10} monitors run by solar power. Figure 2 of this report shows the approximate locations of the monitoring locations. The BGI PQ200 monitors are EPA Reference Method monitors and are operated on the National Particulate 1-in-6 Monitoring Schedule. The data summarized herein covers the data collected during the third quarter of 2015.

2.0 SITE LOCATION

The Coal Hollow Mine is located in Kane County, Utah, approximately three miles southeast of the town of Alton, Utah. Figure I on the following page gives an overview of the site location. Specifically the Coal Hollow Mine is located in Sections 19, 20, 29, and 30 of Township 39S, Range 5W; with an approximate facility location of:

Northing: 41401699 meters

Easting: 371534 meters

Universal Transverse Mercator (UTM) Datum NAD27, Zone 12

The two monitoring locations as depicted in Figure 2, are located in positions to collect both background and maximum PM10 concentrations. The background monitor has a manufactures serial #962, therefore this monitor will be referred as monitor 962A. The compliance monitor has a manufactures serial #963, therefore this monitor will be referred as monitor 963B. The co-located monitor has a manufactures serial #964, therefore this monitor will be referred as monitor 964C. The compliance monitor and the co-located monitor coordinates are 37° 24' 5.04" North Latitude, 112° 27' 20.91" West Longitude, WGS84 Datum. The background monitor coordinates are 37° 24' 21.96" North Latitude, 112° 25' 59.97" West Longitude, WGS84 Datum.

Figure 1 - Site Location Map

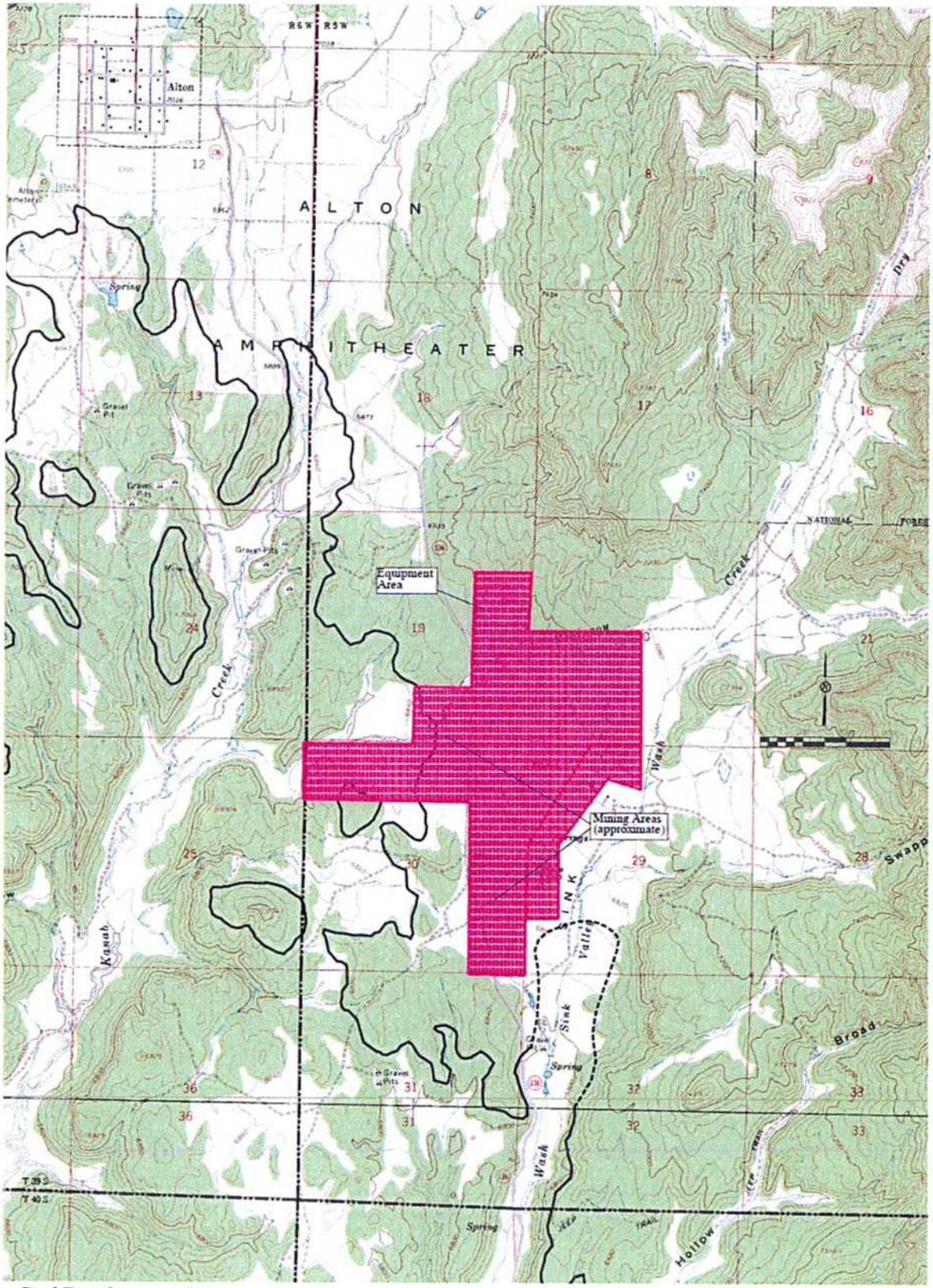


Figure 2 - Satellite View of Monitoring Locations

3.0 AIR QUALITY DATA SUMMARIES

A listing of the measured PM_{10} concentrations for the quarter are presented in Appendix B (individual data sheets are provided on the enclosed disk in the PDF version of Appendix B) and Field Data Sheets generated during the collection of each sample are presented in Appendix D. Measurements were collected during a 24-hour periods and represent the average PM_{10} concentration during the midnight to midnight data collection cycle. As required by the operating permit, duplicate measurements were made with Sampler #963B (designated as a compliance monitor) and Sampler #964C (designated as a co-located sampler) to the extent possible. The quarterly mean PM_{10} concentration and the comparison of measured concentrations to standards are based on measurements from the primary Sampler #963B. If a measurement from Sampler #963B was missing or invalid, the measurement from the secondary Sampler #964C would be used.

The highest 24-hour mean PM_{10} concentrations measured during the quarter from the two monitoring locations are summarized in Table I, Table II, and Table III. The three highest concentrations, # of valid samples, and the arithmetic mean concentrations from each of the sites are listed. All measured PM_{10} concentrations were below the 24-hour National Ambient Air Quality Standard (NAAQS) of 150 $\mu g/m^3$.

Table I - Summary of Measured PM_{10} Concentrations ($\mu g/m^3$)
Background Monitor - 962A

RANK	DATE	PM_{10} CONCENTRATION
Highest	08/22/2015	19.9
2nd Highest	07/29/2015	11.4
Monthly Mean	07/1/15-07/31/15	10.7
Monthly Mean	08/1/15-08/31/15	13.0
Monthly Mean	09/1/15-09/30/15	7.6
Quarterly Mean	07/1/15-09/30/15 (12 valid samples)	10.3

Table II - Summary of Measured PM_{10} Concentrations ($\mu g/m^3$)
Compliance Monitor - 963B

RANK	DATE	PM_{10} CONCENTRATION
Highest	08/04/2015	95.7
2nd Highest	07/23/2015	49.3
Monthly Mean	07/1/15-07/31/15	23.4
Monthly Mean	08/1/15-08/31/15	38.4
Monthly Mean	09/1/15-09/30/15	14.7
Quarterly Mean	07/1/15-09/30/15 (11 valid samples)	27.3

Table III - Summary of Measured PM_{10} Concentrations ($\mu g/m^3$)
Compliance Monitor – 964C

RANK	DATE	PM_{10} CONCENTRATION
Highest	08/04/2015	104.6
2nd Highest	07/23/2015	48.9
Monthly Mean	07/1/15-07/31/15	28.6
Monthly Mean	08/1/15-08/31/15	42.4
Monthly Mean	09/1/15-09/30/15	15.2
Quarterly Mean	07/1/15-09/30/15 (11 valid samples)	28.7

Table IV – Mean Quarterly and Monthly Wind Speed

	3rd Quarter 2015	July	Aug.	Sept.
Mean Wind Speed (m/s)	2.59	2.69	2.55	2.53

4.0 DATA RECOVERY AND QUALITY ASSURANCE

4.1 Data Recovery

Monitor 962A

Monitor 962A collected 12 of the 15 samples during the quarter. The percent recovery for this quarter is 80%. For the sample date of August 4th the monitor overran the stop time and continued to run for 61:07 hrs. For the sample date of August 10th the monitor overran the stop time and continued to run for 34:13 hrs. For the sample date of September 3rd the monitor overran the stop time and continued to run for 130:30 hrs.

Monitor 963B

Monitor 963B collected 11 of the 15 samples during the quarter. The percent recovery for this quarter is 73%. For the sample date of August 28th the pump failed after start-up while parts

where ordered, ACD continued to try and run the monitor on September 3rd, September 9th, and September 15th, but the pump would not function during a programed run.

Monitor 964C

Monitor 964C collected 11 of the 15 samples during the quarter. The percent recovery for this quarter is 73%. For the sample date of July 11th the monitor ran 00:02 hours and shut down with Q and T errors. For the sample date of July 29th the monitor ran 00:02 hours and shut down with Q and T errors. For the sample date of August 16th the monitor ran 00:02 hours and shut down with Q and T errors. For the sample date of September 15th the monitor ran 00:02 hours and shut down with Q and T errors.

The PM_{10} data recoveries for the three monitoring stations are presented below:

Table V - Summary of Data Recovery

SAMPLER	POSSIBLE SAMPLES	VALID SAMPLES	PERCENT DATA RECOVERY
962A	15	12	80%
963B	15	11	73%
964C	15	11	73%

4.2 Quality Assurance

Quality assurance procedures utilized to verify the integrity of the measured PM_{10} data included the following:

1. Review of PM_{10} precision measurements based upon duplicate, collocated measurements.

2. Independent quarterly audits of the PM_{10} samplers.

3. Monthly zero and single point flow rate checks of the PM_{10} samplers.

4.2.1 Precision of PM_{10} Measurements

The precision of the PM_{10} measurements was determined from the duplicate samples collected from the collocated BGI PQ200 Monitors 963B and 964C. As recommended in *40 CFR, Part 58*, Appendix A, Section 5.3.1, PM_{10} precision checks are reported for instances when the concentrations for duplicate samples both exceed 3 $\mu g/m^3$. Duplicate samples that

did not meet this condition were omitted for the purposes of the precision checks. Appendix C, of this report summarizes precision calculations between the compliance monitor and the co-located monitor. Monthly flow rate verification data is also summarized in Appendix C.

Precision calculations were developed based on 8 valid pairs of co-located monitoring data during the quarter. Single point precision based on *40 CFR, Part 58*, Appendix A Equation 2 results were -8.9% to 6.8%. The aggregate coefficient of variability (CV) calculated in accordance with *40 CFR, Part 58*, Appendix A Equation 11 is 5.62%. This value is within the 10% goal for aggregate CV.

4.2.2 Audit Results

The accuracy of the PM_{10} sampler flows was verified by a performance audit conducted by Air Resource Specialist on July 22, 2015. A copy of the audit report is presented in Appendix E and is summarized in Table VI. The audit results indicate that the three samplers were operating properly.

Table VI - Audit Summary

SAMPLER	AUDIT % DIFFERENCE	LIMIT*	DESIGN % DIFFERENCE	LIMIT*
962A	-2.1	±4%	2.2	± 5%
963B	0.2	±4%	-0.2	± 5%
964C	0.3	±4%	-0.3	± 5%
*Values between ± 7% and ± 10% require recalibration but no data are invalidated.				

4.2.3 Zero and Single Point Flow Rate Checks

Zero and single-point flow rate verifications are performed by a site technician on a monthly basis. The data was then input into a statistical calculator to calculate percent difference and bias between each of the monitors and the monthly single point flow rate measured by a NIST traceable calibration orifice. The calculator used is called the "Data Assessment Statistical Calculator" DASC Tool. DASC was developed for the data user community and can be found in the Precision and Accuracy Reporting System within the Quality Assurance section of EPA's Ambient Monitoring Technology Information System. This data is presented in Appendix C of this report.

APPENDIX A

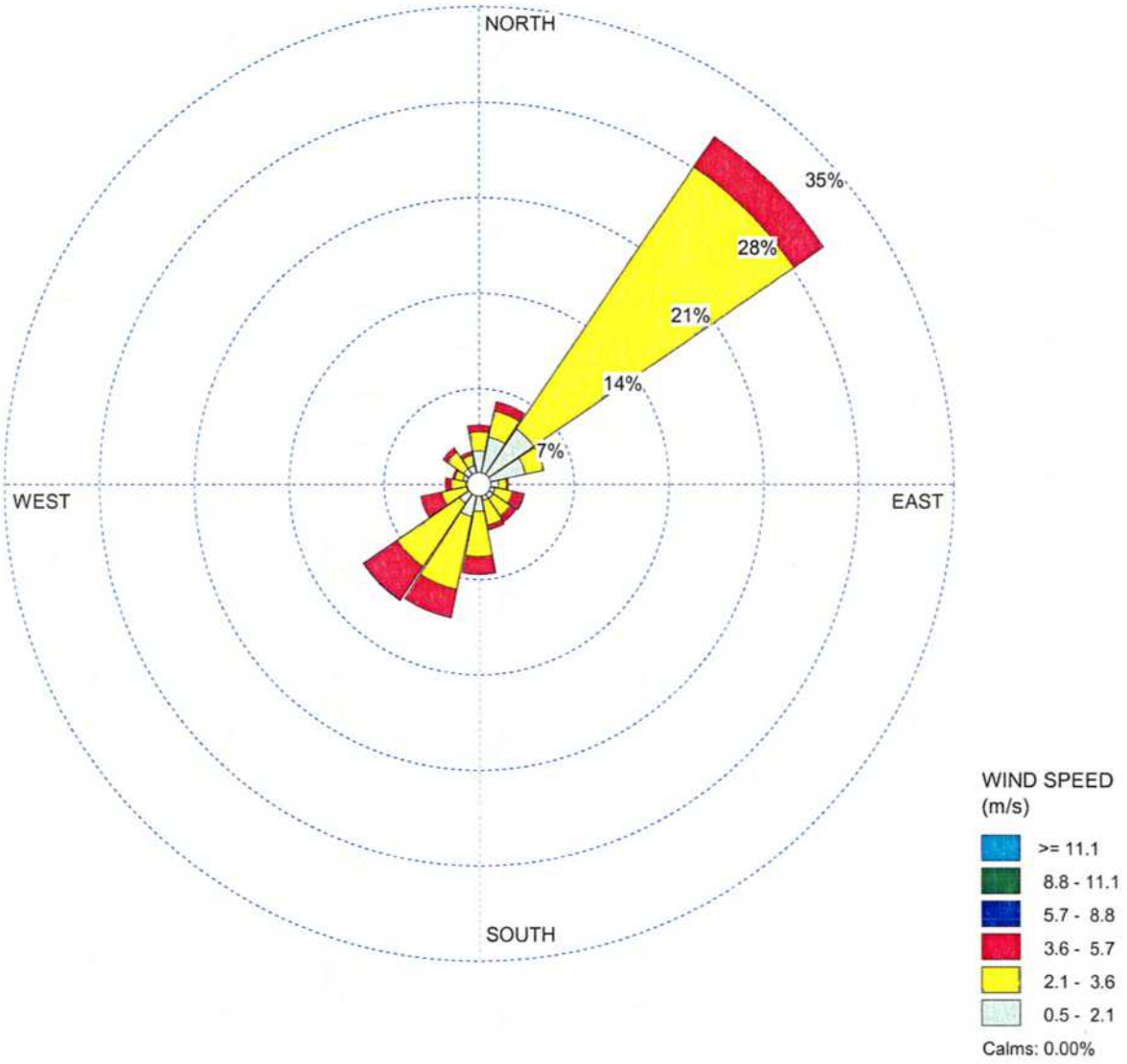
Windrose

WIND ROSE PLOT:

Alton Coal Development , Alton, Utah
2015 3rd QT

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD: **Start Date: 7/1/2015 - 00:00** **End Date: 9/30/2015 - 23:00**	COMPANY NAME: **Alton Coal Development, LLC - Coal Hollow Mine**	
		MODELER: **K. Nicholes**	
	CALM WINDS: **0.00%**	TOTAL COUNT: **2208 hrs.**	
	AVG. WIND SPEED: **2.59 m/s**	DATE: **10/13/2015**	PROJECT NO.:

WRPLOT View - Lakes Environmental Software

Station ID: 1 Run ID:
Start Date: 7/1/2015 - 00:00
End Date: 9/30/2015 - 23:00

Frequency Distribution
(Count)

Wind Direction (Blowing From) / Wind Speed (m/s)

	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
348.75-11.25	54	31	11	0	0	0	96
11.25-33.75	78	43	15	0	0	0	136
33.75-56.25	108	512	59	0	0	0	679
56.25-78.75	78	30	0	0	0	0	108
78.75-101.25	32	13	3	0	0	0	48
101.25-123.75	27	29	19	1	0	0	76
123.75-146.25	29	33	11	0	0	0	73
146.25-168.75	27	41	8	0	0	0	76
168.75-191.25	44	73	29	0	0	0	146
191.25-213.75	54	120	47	0	0	0	221
213.75-236.25	38	123	66	1	0	0	228
236.25-258.75	20	42	35	0	0	0	97
258.75-281.25	22	23	10	0	0	0	55
281.25-303.75	26	14	4	0	0	0	44
303.75-326.25	31	32	8	0	0	0	71
326.25-348.75	31	17	6	0	0	0	54
Total	699	1176	331	2	0	0	2208

Frequency of Calm Winds: 0
Average Wind Speed: 2.59 m/s

Station ID: 1 Run ID:
Start Date: 7/1/2015 - 00:00
End Date: 9/30/2015 - 23:00

Frequency Distribution
(Normalized)

Wind Direction (Blowing From) / Wind Speed (m/s)

	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
348.75-11.25	0.024457	0.014040	0.004982	0.000000	0.000000	0.000000	0.043478
11.25-33.75	0.035326	0.019475	0.006793	0.000000	0.000000	0.000000	0.061594
33.75-56.25	0.048913	0.231884	0.026721	0.000000	0.000000	0.000000	0.307518
56.25-78.75	0.035326	0.013587	0.000000	0.000000	0.000000	0.000000	0.048913
78.75-101.25	0.014493	0.005888	0.001359	0.000000	0.000000	0.000000	0.021739
101.25-123.75	0.012228	0.013134	0.008605	0.000453	0.000000	0.000000	0.034420
123.75-146.25	0.013134	0.014946	0.004982	0.000000	0.000000	0.000000	0.033062
146.25-168.75	0.012228	0.018569	0.003623	0.000000	0.000000	0.000000	0.034420
168.75-191.25	0.019928	0.033062	0.013134	0.000000	0.000000	0.000000	0.066123
191.25-213.75	0.024457	0.054348	0.021286	0.000000	0.000000	0.000000	0.100091
213.75-236.25	0.017210	0.055707	0.029891	0.000453	0.000000	0.000000	0.103261
236.25-258.75	0.009058	0.019022	0.015851	0.000000	0.000000	0.000000	0.043931
258.75-281.25	0.009964	0.010417	0.004529	0.000000	0.000000	0.000000	0.024909
281.25-303.75	0.011775	0.006341	0.001812	0.000000	0.000000	0.000000	0.019928
303.75-326.25	0.014040	0.014493	0.003623	0.000000	0.000000	0.000000	0.032156
326.25-348.75	0.014040	0.007699	0.002717	0.000000	0.000000	0.000000	0.024457
Total	0.316576	0.532609	0.149909	0.000906	0.000000	0.000000	1.000000

Frequency of Calm Winds: 0.00%
Average Wind Speed: 2.59 m/s

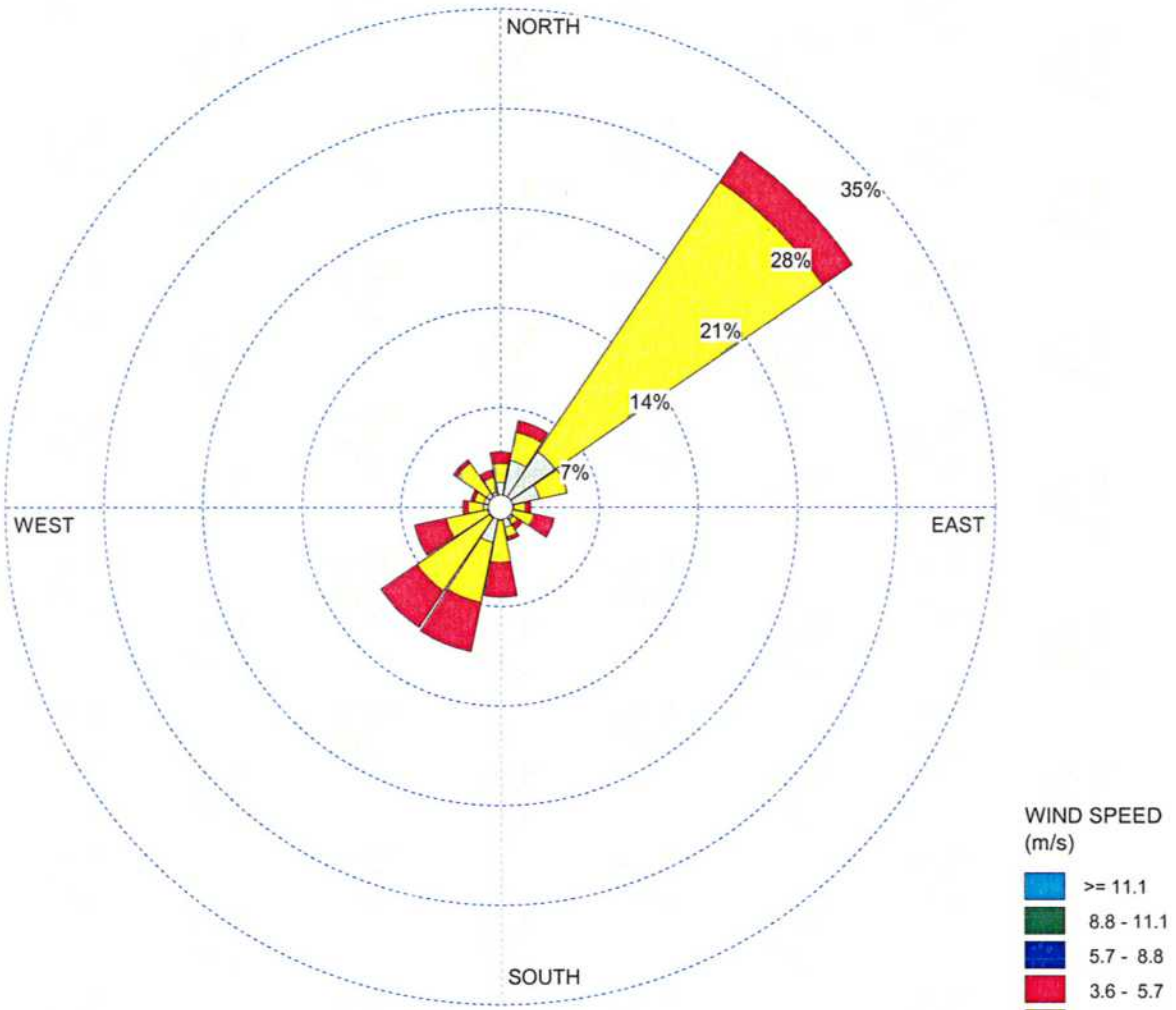
WIND ROSE PLOT:

Alton Coal Development , Alton, Utah

2015 ~~3rd QT~~ July

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD: **Start Date: 7/1/2015 - 00:00** **End Date: 7/31/2015 - 23:00**	COMPANY NAME: **Alton Coal Development, LLC - Coal Hollow Mine**	
		MODELER: **K. Nicholes**	
	CALM WINDS: **0.00%**	TOTAL COUNT: **744 hrs.**	
	AVG. WIND SPEED: **2.69 m/s**	DATE: **10/13/2015**	PROJECT NO.:

WRPLOT View - Lakes Environmental Software

Station ID: 1 Run ID:
Start Date: 7/1/2015 - 00:00
End Date: 7/31/2015 - 23:00

Frequency Distribution
(Count)

Wind Direction (Blowing From) / Wind Speed (m/s)

	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
348.75-11.25	13	10	6	0	0	0	29
11.25-33.75	25	15	6	0	0	0	46
33.75-56.25	35	170	19	0	0	0	224
56.25-78.75	21	15	0	0	0	0	36
78.75-101.25	7	6	3	0	0	0	16
101.25-123.75	6	12	11	0	0	0	29
123.75-146.25	8	3	3	0	0	0	14
146.25-168.75	11	5	2	0	0	0	18
168.75-191.25	7	22	18	0	0	0	47
191.25-213.75	19	32	26	0	0	0	77
213.75-236.25	7	46	23	0	0	0	76
236.25-258.75	7	22	17	0	0	0	46
258.75-281.25	9	8	3	0	0	0	20
281.25-303.75	9	5	2	0	0	0	16
303.75-326.25	9	19	2	0	0	0	30
326.25-348.75	8	8	4	0	0	0	20
Total	201	398	145	0	0	0	744

Frequency of Calm Winds: 0
Average Wind Speed: 2.69 m/s

Station ID: 1 Run ID:
Start Date: 7/1/2015 - 00:00
End Date: 7/31/2015 - 23:00

Frequency Distribution
(Normalized)

Wind Direction (Blowing From) / Wind Speed (m/s)

	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
348.75-11.25	0.017473	0.013441	0.008065	0.000000	0.000000	0.000000	0.038978
11.25-33.75	0.033602	0.020161	0.008065	0.000000	0.000000	0.000000	0.061828
33.75-56.25	0.047043	0.228495	0.025538	0.000000	0.000000	0.000000	0.301075
56.25-78.75	0.028226	0.020161	0.000000	0.000000	0.000000	0.000000	0.048387
78.75-101.25	0.009409	0.008065	0.004032	0.000000	0.000000	0.000000	0.021505
101.25-123.75	0.008065	0.016129	0.014785	0.000000	0.000000	0.000000	0.038978
123.75-146.25	0.010753	0.004032	0.004032	0.000000	0.000000	0.000000	0.018817
146.25-168.75	0.014785	0.006720	0.002688	0.000000	0.000000	0.000000	0.024194
168.75-191.25	0.009409	0.029570	0.024194	0.000000	0.000000	0.000000	0.063172
191.25-213.75	0.025538	0.043011	0.034946	0.000000	0.000000	0.000000	0.103495
213.75-236.25	0.009409	0.061828	0.030914	0.000000	0.000000	0.000000	0.102151
236.25-258.75	0.009409	0.029570	0.022849	0.000000	0.000000	0.000000	0.061828
258.75-281.25	0.012097	0.010753	0.004032	0.000000	0.000000	0.000000	0.026882
281.25-303.75	0.012097	0.006720	0.002688	0.000000	0.000000	0.000000	0.021505
303.75-326.25	0.012097	0.025538	0.002688	0.000000	0.000000	0.000000	0.040323
326.25-348.75	0.010753	0.010753	0.005376	0.000000	0.000000	0.000000	0.026882
Total	0.270161	0.534946	0.194892	0.000000	0.000000	0.000000	1.000000

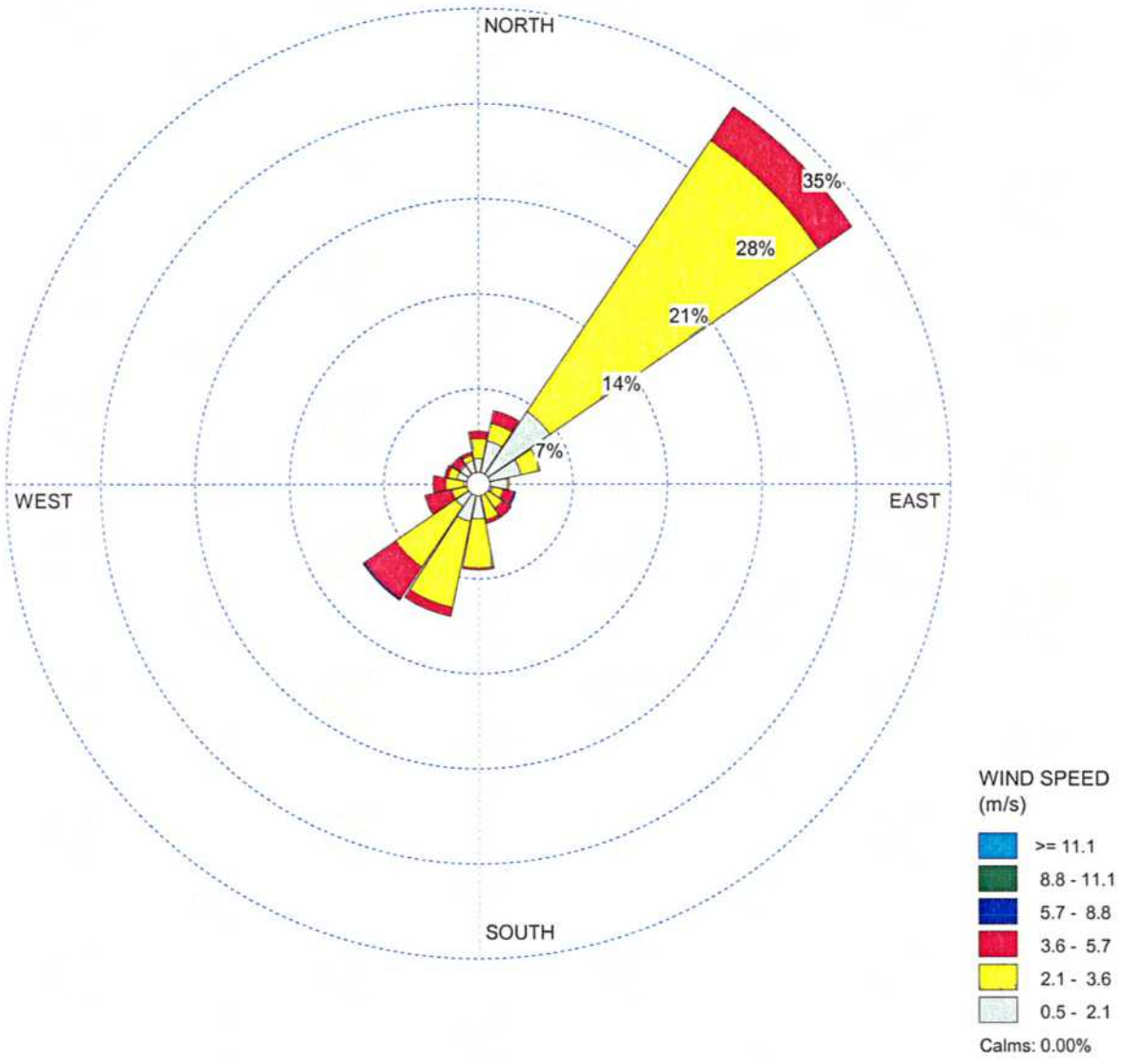
Frequency of Calm Winds: 0.00%
Average Wind Speed: 2.69 m/s

WIND ROSE PLOT:

Alton Coal Development , Alton, Utah
2015 August

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD: **Start Date: 8/1/2015 - 00:00** **End Date: 8/31/2015 - 23:00**	COMPANY NAME: **Alton Coal Development, LLC - Coal Hollow Mine**	
		MODELER: **K. Nicholes**	
	CALM WINDS: **0.00%**	TOTAL COUNT: **744 hrs.**	
	AVG. WIND SPEED: **2.55 m/s**	DATE: **10/13/2015**	PROJECT NO.:

Station ID: 1 Run ID:
Start Date: 8/1/2015 - 00:00
End Date: 8/31/2015 - 23:00

Frequency Distribution
(Count)

Wind Direction (Blowing From) / Wind Speed (m/s)

	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
348.75-11.25	14	11	4	0	0	0	29
11.25-33.75	24	10	7	0	0	0	41
33.75-56.25	48	179	22	0	0	0	249
56.25-78.75	24	11	0	0	0	0	35
78.75-101.25	16	1	0	0	0	0	17
101.25-123.75	8	6	6	1	0	0	21
123.75-146.25	5	11	6	0	0	0	22
146.25-168.75	6	14	2	0	0	0	22
168.75-191.25	19	27	1	0	0	0	47
191.25-213.75	21	48	5	0	0	0	74
213.75-236.25	15	40	21	1	0	0	77
236.25-258.75	4	11	15	0	0	0	30
258.75-281.25	8	10	7	0	0	0	25
281.25-303.75	12	5	2	0	0	0	19
303.75-326.25	12	1	5	0	0	0	18
326.25-348.75	13	3	2	0	0	0	18
Total	249	388	105	2	0	0	744

Frequency of Calm Winds: 0
Average Wind Speed: 2.55 m/s

Station ID: 1 Run ID:
Start Date: 8/1/2015 - 00:00
End Date: 8/31/2015 - 23:00

Frequency Distribution
(Normalized)

Wind Direction (Blowing From) / Wind Speed (m/s)

	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
348.75-11.25	0.018817	0.014785	0.005376	0.000000	0.000000	0.000000	0.038978
11.25-33.75	0.032258	0.013441	0.009409	0.000000	0.000000	0.000000	0.055108
33.75-56.25	0.064516	0.240591	0.029570	0.000000	0.000000	0.000000	0.334677
56.25-78.75	0.032258	0.014785	0.000000	0.000000	0.000000	0.000000	0.047043
78.75-101.25	0.021505	0.001344	0.000000	0.000000	0.000000	0.000000	0.022849
101.25-123.75	0.010753	0.008065	0.008065	0.001344	0.000000	0.000000	0.028226
123.75-146.25	0.006720	0.014785	0.008065	0.000000	0.000000	0.000000	0.029570
146.25-168.75	0.008065	0.018817	0.002688	0.000000	0.000000	0.000000	0.029570
168.75-191.25	0.025538	0.036290	0.001344	0.000000	0.000000	0.000000	0.063172
191.25-213.75	0.028226	0.064516	0.006720	0.000000	0.000000	0.000000	0.099462
213.75-236.25	0.020161	0.053763	0.028226	0.001344	0.000000	0.000000	0.103495
236.25-258.75	0.005376	0.014785	0.020161	0.000000	0.000000	0.000000	0.040323
258.75-281.25	0.010753	0.013441	0.009409	0.000000	0.000000	0.000000	0.033602
281.25-303.75	0.016129	0.006720	0.002688	0.000000	0.000000	0.000000	0.025538
303.75-326.25	0.016129	0.001344	0.006720	0.000000	0.000000	0.000000	0.024194
326.25-348.75	0.017473	0.004032	0.002688	0.000000	0.000000	0.000000	0.024194
Total	0.334677	0.521505	0.141129	0.002688	0.000000	0.000000	1.000000

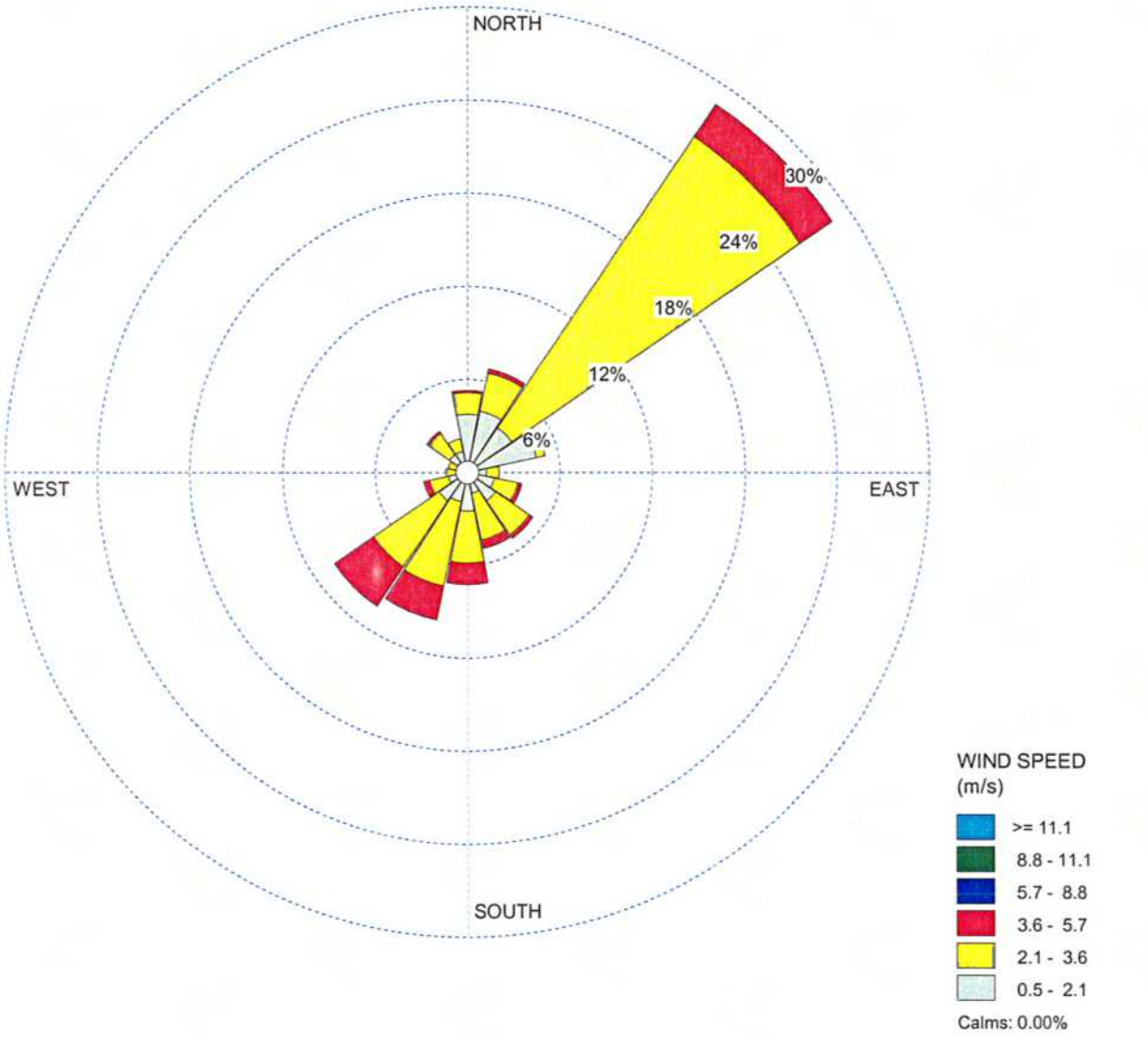
Frequency of Calm Winds: 0.00%
Average Wind Speed: 2.55 m/s

WIND ROSE PLOT:

Alton Coal Development , Alton, Utah
2015 September

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD: **Start Date: 9/1/2015 - 00:00** **End Date: 9/30/2015 - 23:00**	COMPANY NAME: **Alton Coal Development, LLC - Coal Hollow Mine**	
		MODELER: **K. Nicholes**	
	CALM WINDS: **0.00%**	TOTAL COUNT: **720 hrs.**	
	AVG. WIND SPEED: **2.53 m/s**	DATE: **10/13/2015**	PROJECT NO.:

Station ID: 1 Run ID:
Start Date: 9/1/2015 - 00:00
End Date: 9/30/2015 - 23:00

Frequency Distribution
(Count)

Wind Direction (Blowing From) / Wind Speed (m/s)

	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
348.75-11.25	27	10	1	0	0	0	38
11.25-33.75	29	18	2	0	0	0	49
33.75-56.25	25	163	18	0	0	0	206
56.25-78.75	33	4	0	0	0	0	37
78.75-101.25	9	6	0	0	0	0	15
101.25-123.75	13	11	2	0	0	0	26
123.75-146.25	16	19	2	0	0	0	37
146.25-168.75	10	22	4	0	0	0	36
168.75-191.25	18	24	10	0	0	0	52
191.25-213.75	14	40	16	0	0	0	70
213.75-236.25	16	37	22	0	0	0	75
236.25-258.75	9	9	3	0	0	0	21
258.75-281.25	5	5	0	0	0	0	10
281.25-303.75	5	4	0	0	0	0	9
303.75-326.25	10	12	1	0	0	0	23
326.25-348.75	10	6	0	0	0	0	16
Total	249	390	81	0	0	0	720

Frequency of Calm Winds: 0
Average Wind Speed: 2.53 m/s

Station ID: 1 Run ID:
Start Date: 9/1/2015 - 00:00
End Date: 9/30/2015 - 23:00

Frequency Distribution
(Normalized)

Wind Direction (Blowing From) / Wind Speed (m/s)

	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
348.75-11.25	0.037500	0.013889	0.001389	0.000000	0.000000	0.000000	0.052778
11.25-33.75	0.040278	0.025000	0.002778	0.000000	0.000000	0.000000	0.068056
33.75-56.25	0.034722	0.226389	0.025000	0.000000	0.000000	0.000000	0.286111
56.25-78.75	0.045833	0.005556	0.000000	0.000000	0.000000	0.000000	0.051389
78.75-101.25	0.012500	0.008333	0.000000	0.000000	0.000000	0.000000	0.020833
101.25-123.75	0.018056	0.015278	0.002778	0.000000	0.000000	0.000000	0.036111
123.75-146.25	0.022222	0.026389	0.002778	0.000000	0.000000	0.000000	0.051389
146.25-168.75	0.013889	0.030556	0.005556	0.000000	0.000000	0.000000	0.050000
168.75-191.25	0.025000	0.033333	0.013889	0.000000	0.000000	0.000000	0.072222
191.25-213.75	0.019444	0.055556	0.022222	0.000000	0.000000	0.000000	0.097222
213.75-236.25	0.022222	0.051389	0.030556	0.000000	0.000000	0.000000	0.104167
236.25-258.75	0.012500	0.012500	0.004167	0.000000	0.000000	0.000000	0.029167
258.75-281.25	0.006944	0.006944	0.000000	0.000000	0.000000	0.000000	0.013889
281.25-303.75	0.006944	0.005556	0.000000	0.000000	0.000000	0.000000	0.012500
303.75-326.25	0.013889	0.016667	0.001389	0.000000	0.000000	0.000000	0.031944
326.25-348.75	0.013889	0.008333	0.000000	0.000000	0.000000	0.000000	0.022222
Total	0.345833	0.541667	0.112500	0.000000	0.000000	0.000000	1.000000

Frequency of Calm Winds: 0.00%
Average Wind Speed: 2.53 m/s

APPENDIX B

Listing of PM_{10} Concentrations

Background Monitor 962A

PM_{10} Sampler Summary

July 1, 2015 - September 30, 2015

Network: Alton Coal Development, LLC
Site: Coal Hollow
Sampler ID: Coal Hollow-A **AQS ID:**
Sampler Type: BGI FRM Single

Date	Filter ID	Concentration (µg/m3) LTP	Concentration (µg/m3) STP	Sample Period (hr:min)	Sample Volume (m3)	Std Volume (m3)	Mass (mg) Tare	Gross	Net	Flag	Comments
07/05/15	P2921083	8.7	11.1	23:59	24.0	18.9	364.910	365.121	0.211		
07/11/15	P2923696	7.5	9.4	23:59	24.0	19.2	377.971	378.153	0.182	TD	
07/17/15	P2923699	8.8	11.2	23:59	24.0	18.9	383.223	383.435	0.212		
07/23/15	P2924062	8.3	10.4	24:00	24.0	19.1	384.853	385.053	0.200	TD	
07/29/15	P2924066	9.0	11.4	23:59	24.0	18.9	377.649	377.866	0.217		
08/04/15	P2924462	Invalid - AG	Invalid - AG	61:07	61.2	48.3	387.765	388.144	0.379		
08/10/15	P2924463	Invalid - AG	Invalid - AG	34:13	34.3	27.1	386.233	386.465	0.232		
08/16/15	P2922747	7.9	10.1	23:59	24.0	18.8	374.422	374.613	0.191		
08/22/15	P2922750	15.6	19.9	23:59	24.0	18.9	385.108	385.485	0.377	TD	
08/28/15	P2922754	7.1	9.1	23:59	24.0	19.0	378.659	378.832	0.173		
09/03/15	P2924550	Invalid - AG	Invalid - AG	130:30	130.7	103.9	385.594	386.595	1.001		
09/09/15	P2924553	7.5	9.5	23:59	24.0	19.0	381.033	381.214	0.181		
09/15/15	P2924556	5.6	7.0	23:59	24.0	19.3	377.440	377.577	0.137		
09/21/15	P2924862	4.4	5.5	23:59	24.0	19.1	386.496	386.602	0.106		
09/27/15	P2924865	6.7	8.5	24:00	24.0	19.2	384.181	384.344	0.163		
07/01/15	P2921082		Field Blank				364.717	364.735	0.018		
07/27/15	P2924065		Field Blank				380.181	380.187	0.006		

# Valid	Recovery	Average	St. Dev.	Max	Min
12	80%	10.3	3.5	19.9	5.5

BGI PQ200 Air Sampling System Downloaded 2015 08 jul 07:52:10

Job Details:

Job Name: 15Jul08A.JOB
Version: 5.62
Serial No: 962
Pump Time: 6354:38
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	588	585	586	mmHg
TA	29.8	11.2	18.7	°C
Q	---	---	16.71	Lpm

QCV 0.54 %
Max overheat 5.7 °C
occured 06-jul 16:32:33

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-05-jul	0:00:08
Stop:	15-06-jul	0:00:04

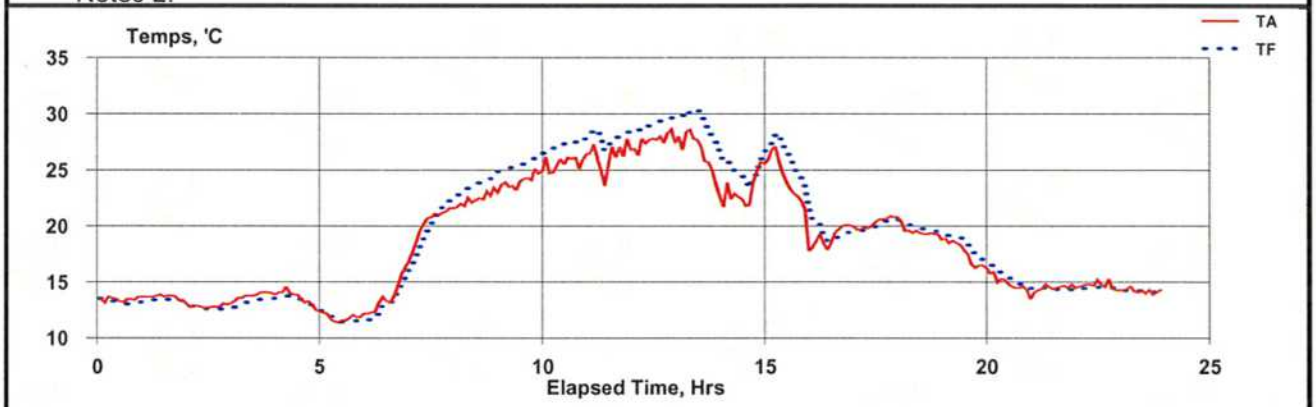
ET: 23:59

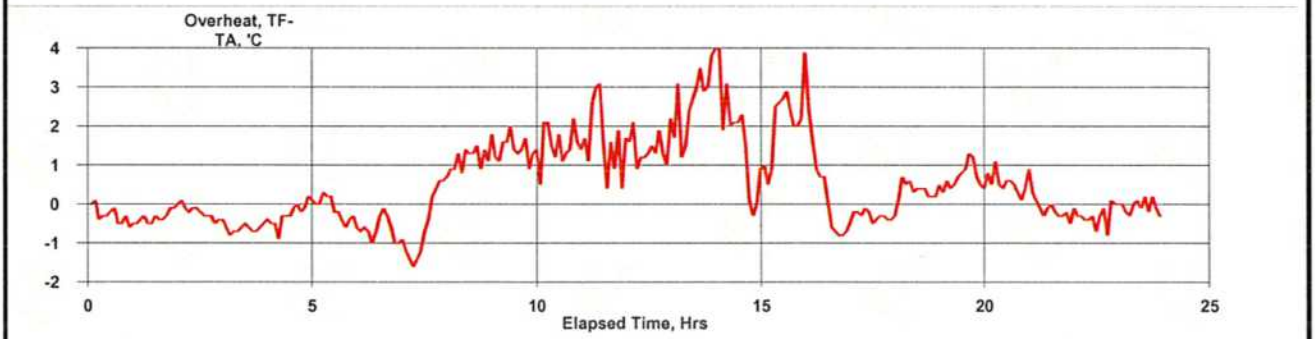
Mass Concentration Data:

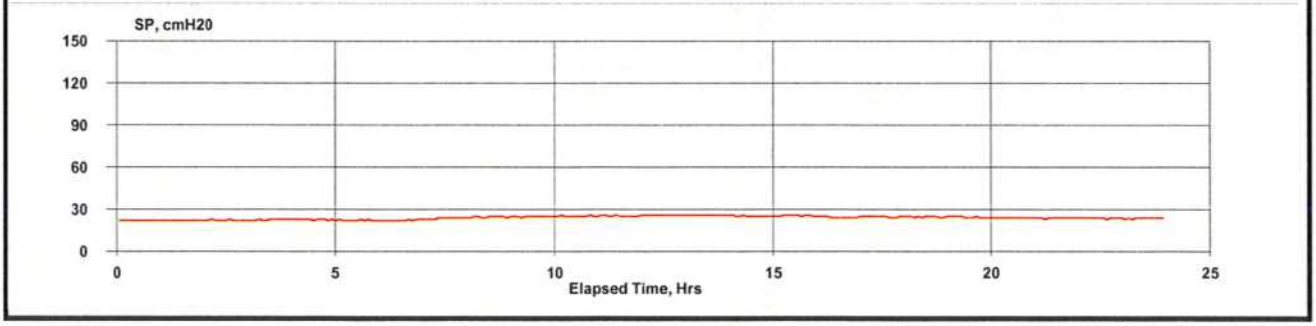
Filter ID: 6
Final Wt: mg
Initial Wt: mg
Delta Wt: 0.000 mg
Total Vol: 24.04 m^3

Mass Conc: 0 ug/m3

Notes 1:
Notes 2:







15-05-jul	0:05:08	586	13.5	13.2	-0.3	22	16.71
15-05-jul	1:05:08	586	13.6	13.3	-0.3	22	16.72
15-05-jul	2:05:08	586	12.9	12.6	-0.2	22	16.71
15-05-jul	3:05:08	586	13.8	13.2	-0.6	23	16.71
15-05-jul	4:05:08	586	13.5	13.3	-0.2	23	16.72
15-05-jul	5:05:08	587	11.9	11.7	-0.2	22	16.72
15-05-jul	6:05:08	587	14.0	13.3	-0.7	22	16.71
15-05-jul	7:05:08	587	20.5	20.0	-0.5	24	16.71
15-05-jul	8:05:08	587	22.5	23.7	1.2	25	16.71
15-05-jul	9:05:08	587	24.1	25.5	1.4	25	16.71
15-05-jul	10:05:08	587	25.7	27.2	1.5	25	16.71
15-05-jul	11:05:08	587	26.2	27.9	1.7	25	16.71
15-05-jul	12:05:08	587	27.6	29.1	1.5	26	16.70
15-05-jul	13:05:08	587	26.4	29.2	2.7	26	16.71
15-05-jul	14:05:08	586	23.3	25.0	1.6	25	16.73
15-05-jul	15:05:08	586	23.7	25.9	2.1	26	16.71
15-05-jul	16:05:08	587	19.2	19.4	0.2	24	16.71
15-05-jul	17:05:08	587	20.3	20.0	-0.3	25	16.71
15-05-jul	18:05:08	587	19.5	19.8	0.4	25	16.72
15-05-jul	19:05:08	587	17.5	18.2	0.7	24	16.71
15-05-jul	20:05:08	587	14.8	15.4	0.6	24	16.71
15-05-jul	21:05:08	587	14.5	14.4	-0.1	24	16.72
15-05-jul	22:05:08	587	14.7	14.4	-0.3	24	16.71
15-05-jul	23:05:08	588	14.2	14.2	-0.1	24	16.71

BGI PQ200 Air Sampling System

Downloaded 2015 13 jul 12:48:53

Job Details:

Job Name:	15Jul13A.JOB
Version:	5.62
Serial No:	962
Pump Time:	6378:37
Flags:	F

Job Code:	
Site Name:	
Station Code:	
Operators:	
User1:	
User2:	

	Max	Min	Avg	Units
BP	588	584	586	mmHg
TA	24.2	7.3	15.2	°C
Q	---	---	16.7	Lpm

QCV	0.56 %
Max overheat	7.4 °C
occured	12-jul 20:53:41

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-11-jul	0:00:08
Stop:	15-12-jul	0:00:05

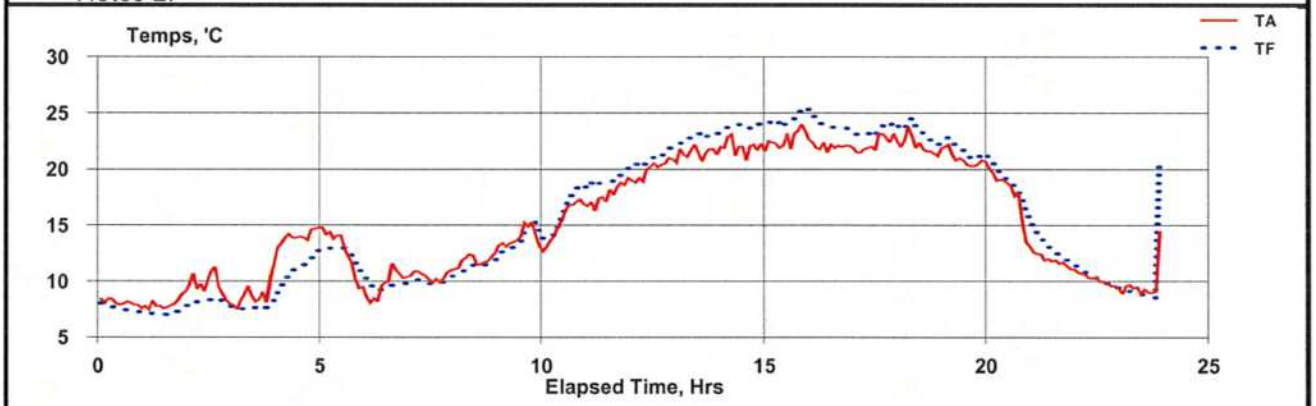
ET: 23:59

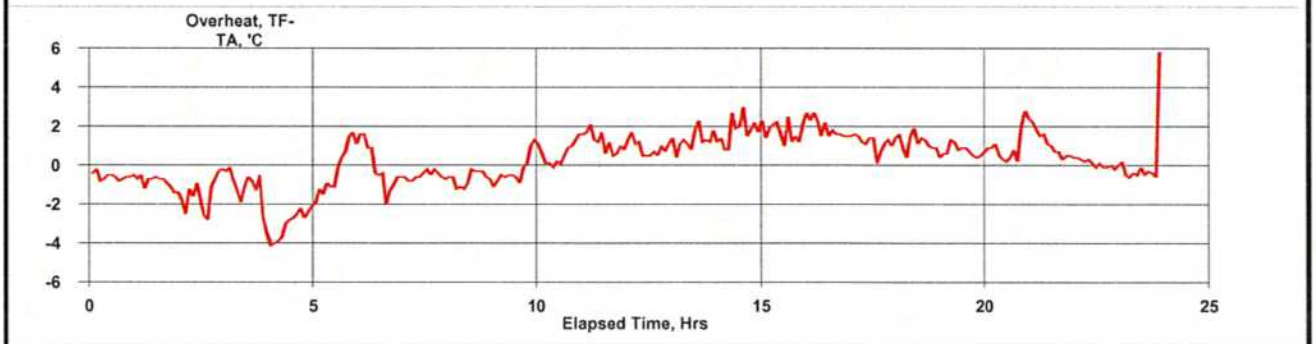
Mass Concentration Data:

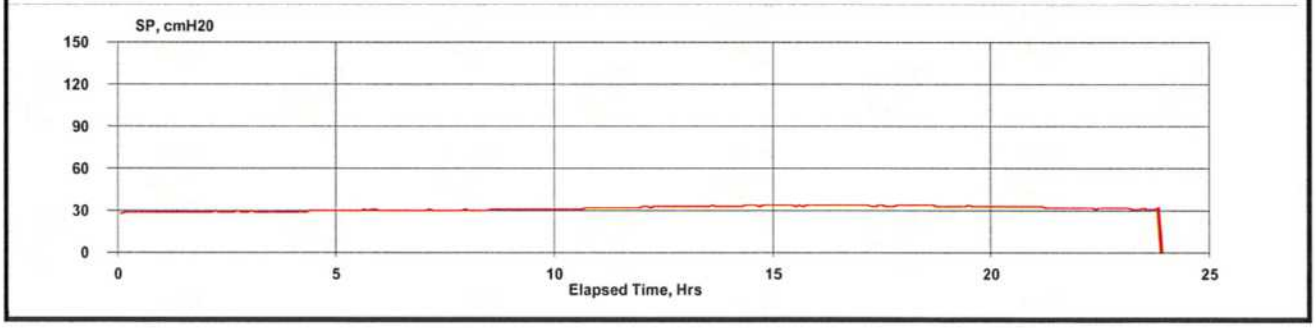
Filter ID:	11	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.041	m^3
Mass Conc:	0	µg/m3

Notes 1:

Notes 2:







15-11-jul	0:05:08	585	8.1	7.5	-0.6	29	16.70
15-11-jul	1:05:08	586	8.1	7.2	-0.9	29	16.70
15-11-jul	2:05:08	586	9.6	8.2	-1.5	29	16.71
15-11-jul	3:05:08	586	8.9	7.7	-1.2	29	16.70
15-11-jul	4:05:08	586	14.0	11.0	-3.0	30	16.71
15-11-jul	5:05:08	586	12.6	12.4	-0.2	30	16.71
15-11-jul	6:05:08	586	9.7	9.6	-0.2	30	16.71
15-11-jul	7:05:08	587	10.5	10.0	-0.5	30	16.70
15-11-jul	8:05:08	587	11.9	11.2	-0.7	31	16.71
15-11-jul	9:05:08	587	13.9	13.7	-0.3	31	16.72
15-11-jul	10:05:08	588	15.4	16.0	0.6	31	16.71
15-11-jul	11:05:08	588	17.8	18.9	1.2	32	16.70
15-11-jul	12:05:08	588	20.0	20.9	0.9	33	16.71
15-11-jul	13:05:08	588	21.4	22.7	1.3	33	16.71
15-11-jul	14:05:08	587	22.0	23.8	1.8	34	16.70
15-11-jul	15:05:08	587	22.7	24.4	1.8	34	16.71
15-11-jul	16:05:08	587	22.1	24.0	1.9	34	16.71
15-11-jul	17:05:08	587	22.3	23.4	1.2	34	16.70
15-11-jul	18:05:08	586	22.2	23.3	1.2	34	16.71
15-11-jul	19:05:08	586	21.0	21.8	0.7	33	16.71
15-11-jul	20:05:08	587	18.3	19.2	0.9	33	16.71
15-11-jul	21:05:08	587	12.0	13.2	1.2	32	16.71
15-11-jul	22:05:08	588	10.3	10.4	0.1	32	16.72
15-11-jul	23:05:08	588	9.3	8.9	-0.3	31	16.70
15-12-jul	21:05:09	587	14.4	20.2	5.8		0.00

BGI PQ200 Air Sampling System

Downloaded 2015 20 jul 13:27:20

Job Details:

Job Name: 15Jul20A.JOB
Version: 5.62
Serial No: 962
Pump Time: 6402:36
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	587	584	585	mmHg
TA	29.3	9.7	19	°C
Q	---	---	16.7	Lpm

QCV 0.54 %

Max overheat 5.3 °C
occured 18-jul 13:07:28

Timer Information:

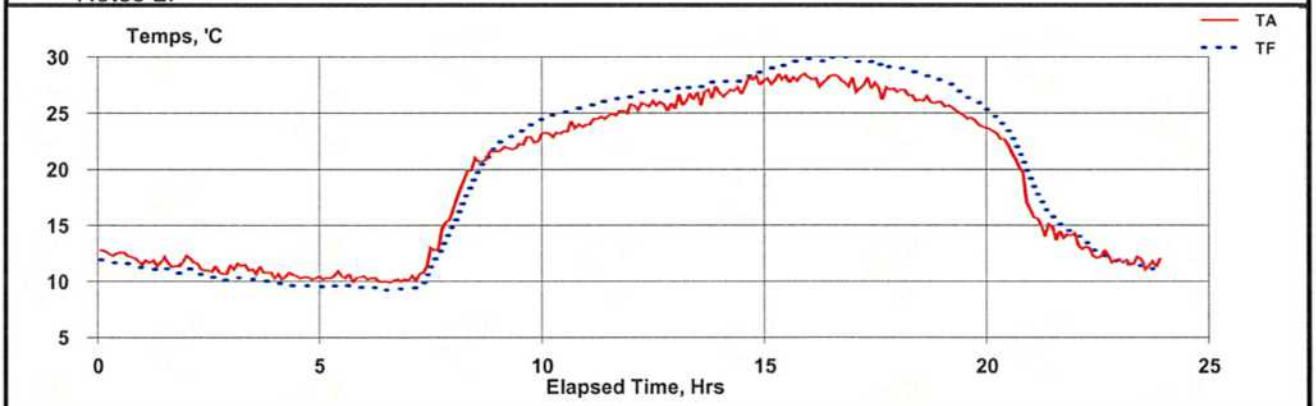
	Date dd-mmm	Time hh:mm:ss
Start:	15-17-jul	0:00:08
Stop:	15-18-jul	0:00:04

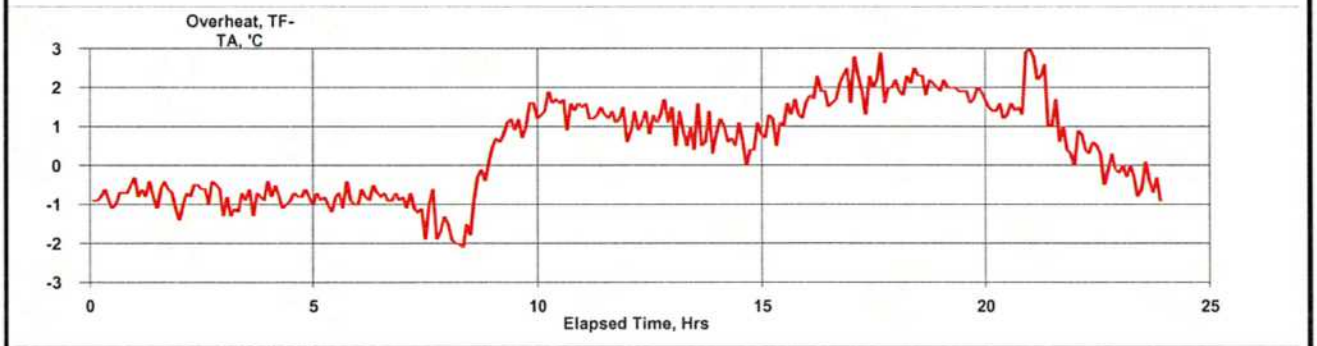
ET: 23:59

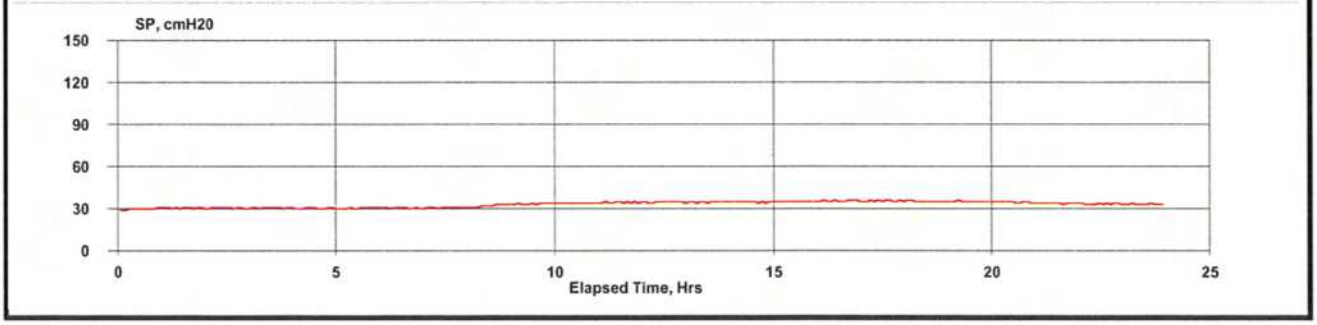
Mass Concentration Data:

Filter ID:	14	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.041	m^3
Mass Conc:	0	ug/m3

Notes 1:
Notes 2:







15-17-jul	0:05:08	586	12.3	11.6	-0.8	30	16.70
15-17-jul	1:05:08	586	11.7	11.0	-0.8	31	16.71
15-17-jul	2:05:08	586	11.2	10.5	-0.7	31	16.71
15-17-jul	3:05:08	586	11.0	10.2	-0.9	31	16.70
15-17-jul	4:05:08	586	10.4	9.6	-0.8	30	16.71
15-17-jul	5:05:08	586	10.4	9.5	-0.9	31	16.70
15-17-jul	6:05:08	586	10.1	9.3	-0.8	31	16.73
15-17-jul	7:05:08	586	12.8	11.6	-1.3	31	16.71
15-17-jul	8:05:08	587	20.2	19.2	-1.0	32	16.71
15-17-jul	9:05:08	587	22.3	23.4	1.1	34	16.72
15-17-jul	10:05:08	587	23.5	25.1	1.5	34	16.71
15-17-jul	11:05:08	587	24.8	26.1	1.3	35	16.72
15-17-jul	12:05:08	586	25.7	26.9	1.2	35	16.71
15-17-jul	13:05:08	586	26.6	27.4	0.8	35	16.71
15-17-jul	14:05:08	585	27.4	28.1	0.7	35	16.71
15-17-jul	15:05:08	585	28.1	29.3	1.2	35	16.71
15-17-jul	16:05:08	585	28.0	29.9	1.9	35	16.71
15-17-jul	17:05:08	584	27.2	29.4	2.1	35	16.71
15-17-jul	18:05:08	584	26.4	28.5	2.1	35	16.71
15-17-jul	19:05:08	584	24.7	26.6	1.9	35	16.71
15-17-jul	20:05:08	584	21.1	22.8	1.7	35	16.71
15-17-jul	21:05:08	584	14.6	15.9	1.3	34	16.70
15-17-jul	22:05:08	585	12.5	12.7	0.3	33	16.71
15-17-jul	23:05:08	585	11.7	11.3	-0.4	33	16.70

BGI PQ200 Air Sampling System Downloaded 2015 27 jul 11:26:03

Job Details:

Job Name: 15Jul27A.JOB
Version: 5.62
Serial No: 962
Pump Time: 6426:36
Flags: F

Job Code:
Site Name: 962A
Station Code:
Operators: KN
User1:
User2:

	Max	Min	Avg	Units
BP	589	584	587	mmHg
TA	26.9	7.6	16.9	°C
Q	---	---	16.7	Lpm

QCV 0.56 %
Max overheat 9.1 °C
occured 25-jul 20:37:13

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-23-jul	0:00:08
Stop:	15-24-jul	0:00:05

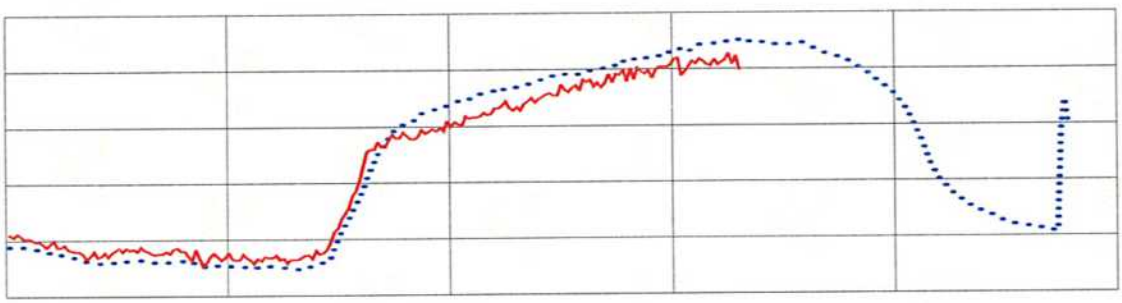
ET: 24:00:00

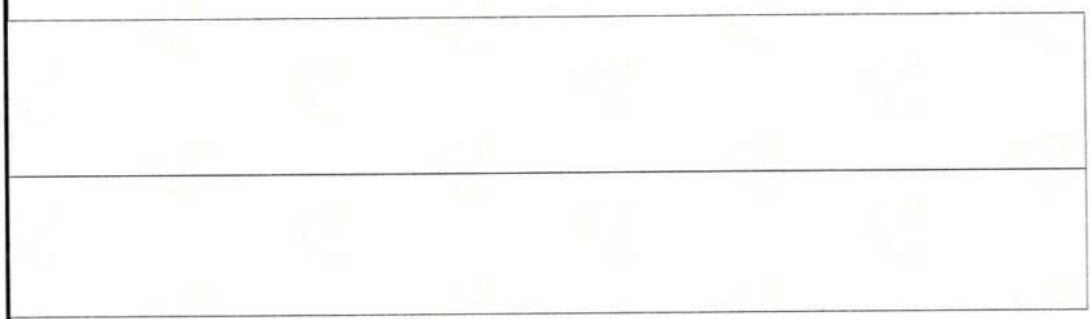
Mass Concentration Data:

Filter ID: 4
Final Wt: mg
Initial Wt: mg
Delta Wt: 0.000 mg
Total Vol: 24.041 m^3

Mass Conc: 0 µg/m3

Notes 1:
Notes 2:





Overheat, TF-

15-23-jul	0:04:37	586	10.1	9.2	-0.8	29	16.71
15-23-jul	1:04:37	586	9.1	8.5	-0.6	30	16.71
15-23-jul	2:04:37	586	9.0	8.0	-0.9	30	16.71
15-23-jul	3:04:37	586	9.0	8.0	-1.0	30	16.71
15-23-jul	4:04:37	586	8.5	7.8	-0.7	30	16.71
15-23-jul	5:04:37	586	8.3	7.5	-0.8	30	16.71
15-23-jul	6:04:37	587	8.3	7.5	-0.8	30	16.70
15-23-jul	7:04:37	587	11.0	9.8	-1.2	30	16.71
15-23-jul	8:04:37	587	18.1	17.3	-0.7	32	16.71
15-23-jul	9:04:37	588	19.4	21.0	1.5	33	16.71
15-23-jul	10:04:37	588	20.6	22.4	1.8	34	16.72
15-23-jul	11:04:37	588	21.8	23.4	1.6	34	16.71
15-23-jul	12:04:37	588	22.9	24.3	1.4	34	16.71
15-23-jul	13:04:37	588	23.9	25.0	1.0	34	16.71
15-23-jul	14:04:37	588	24.8	25.9	1.2	34	16.71
15-23-jul	15:04:37	587	25.4	26.7	1.3	34	16.71
15-23-jul	16:04:37	587	25.6	27.3	1.8	35	16.70
15-23-jul	17:04:37	587	25.3	27.2	1.9	35	16.71
15-23-jul	18:04:37	587	24.5	26.6	2.1	35	16.71
15-23-jul	19:04:37	587	23.0	24.9	1.8	34	16.71
15-23-jul	20:04:37	587	19.5	21.0	1.5	34	16.71
15-23-jul	21:04:37	588	13.1	14.3	1.2	33	16.71
15-23-jul	22:04:37	588	12.0	11.8	-0.2	33	16.71
15-23-jul	23:04:37	588	11.3	10.6	-0.6	32	16.71
15-24-jul	21:08:38	587	14.1	20.4	6.3		0.00

BGI PQ200 Air Sampling System

Downloaded 2015 27 jul 11:26:03

Job Details:

Job Name: 15Jul27A.JOB
Version: 5.62
Serial No: 962
Pump Time: 6426:36
Flags: F

Job Code:
Site Name: 962A
Station Code:
Operators: KN
User1:
User2:

	Max	Min	Avg	Units
BP	589	584	587	mmHg
TA	26.9	7.6	16.9	°C
Q	---	---	16.7	Lpm

QCV 0.56 %

Max overheat 9.1 °C
occured 25-jul 20:37:13

Timer Information:

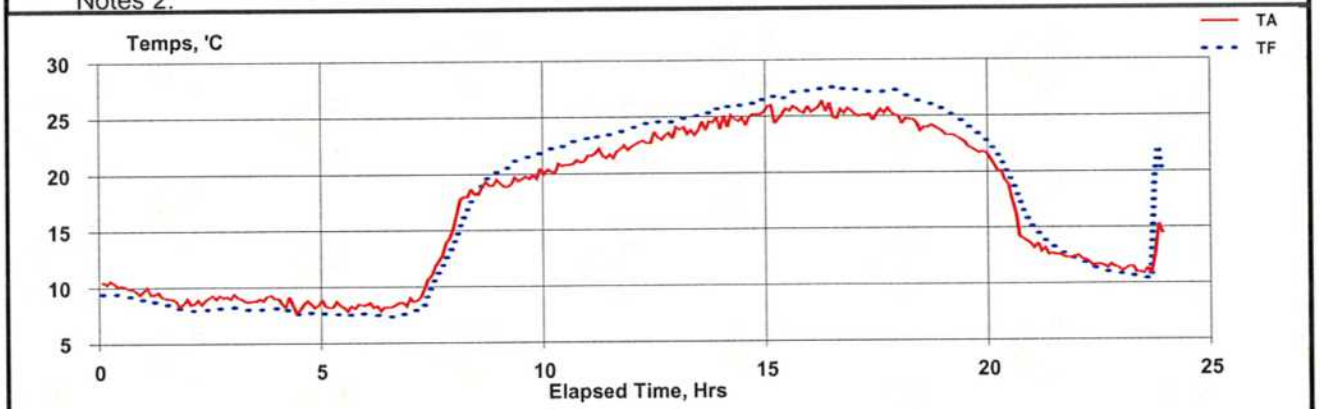
	Date dd-mmm	Time hh:mm:ss
Start:	15-23-jul	0:00:08
Stop:	15-24-jul	0:00:05

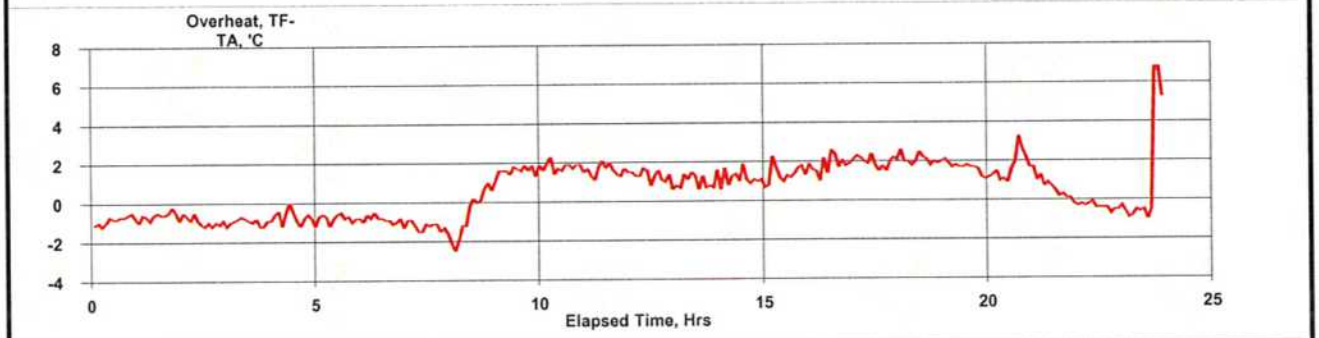
ET: 24:00:00

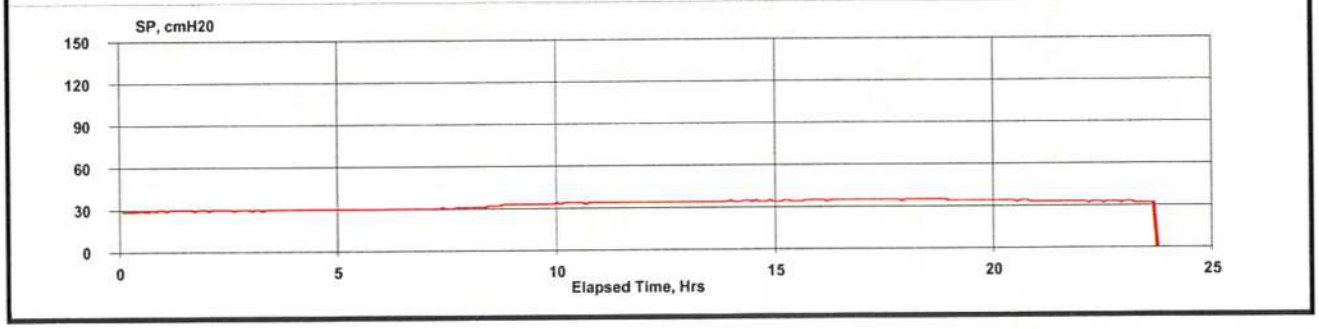
Mass Concentration Data:

Filter ID:	4	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.041	m^3
Mass Conc:	0	µg/m3

Notes 1:
Notes 2:







15-23-jul	0:04:37	586	10.1	9.2	-0.8	29	16.71
15-23-jul	1:04:37	586	9.1	8.5	-0.6	30	16.71
15-23-jul	2:04:37	586	9.0	8.0	-0.9	30	16.71
15-23-jul	3:04:37	586	9.0	8.0	-1.0	30	16.71
15-23-jul	4:04:37	586	8.5	7.8	-0.7	30	16.71
15-23-jul	5:04:37	586	8.3	7.5	-0.8	30	16.71
15-23-jul	6:04:37	587	8.3	7.5	-0.8	30	16.70
15-23-jul	7:04:37	587	11.0	9.8	-1.2	30	16.71
15-23-jul	8:04:37	587	18.1	17.3	-0.7	32	16.71
15-23-jul	9:04:37	588	19.4	21.0	1.5	33	16.71
15-23-jul	10:04:37	588	20.6	22.4	1.8	34	16.72
15-23-jul	11:04:37	588	21.8	23.4	1.6	34	16.71
15-23-jul	12:04:37	588	22.9	24.3	1.4	34	16.71
15-23-jul	13:04:37	588	23.9	25.0	1.0	34	16.71
15-23-jul	14:04:37	588	24.8	25.9	1.2	34	16.71
15-23-jul	15:04:37	587	25.4	26.7	1.3	34	16.71
15-23-jul	16:04:37	587	25.6	27.3	1.8	35	16.70
15-23-jul	17:04:37	587	25.3	27.2	1.9	35	16.71
15-23-jul	18:04:37	587	24.5	26.6	2.1	35	16.71
15-23-jul	19:04:37	587	23.0	24.9	1.8	34	16.71
15-23-jul	20:04:37	587	19.5	21.0	1.5	34	16.71
15-23-jul	21:04:37	588	13.1	14.3	1.2	33	16.71
15-23-jul	22:04:37	588	12.0	11.8	-0.2	33	16.71
15-23-jul	23:04:37	588	11.3	10.6	-0.6	32	16.71
15-24-jul	21:08:38	587	14.1	20.4	6.3		0.00

BGI PQ200 Air Sampling System Downloaded 2015 30 jul 13:08:54

Job Details:

Job Name: 15Jul30B.JOB
Version: 5.62
Serial No: 962
Pump Time: 6450:35
Flags:

Job Code:
Site Name: 962A
Station Code:
Operators: KN
User1:
User2:

	Max	Min	Avg	Units
BP	590	587	588	mmHg
TA	31.7	7.8	20.4	°C
Q	---	---	16.7	Lpm

QCV 0.52 %
Max overheat 4.8 °C
occured 29-jul 14:25:19

Timer Information:

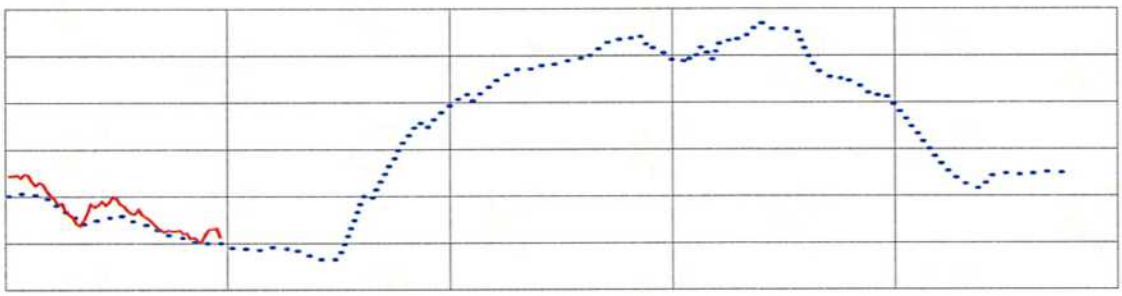
	Date dd-mmm	Time hh:mm:ss
Start:	15-29-jul	0:00:08
Stop:	15-30-jul	0:00:04

ET: 23:59

Mass Concentration Data:

Filter ID:	9	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.041	m^3
Mass Conc:	0	µg/m3

Notes 1:
Notes 2:



Overheat, TF-

15-29-jul	0:05:08	588	16.6	15.1	-1.6	30	16.71
15-29-jul	1:05:08	588	13.4	12.9	-0.5	31	16.71
15-29-jul	2:05:08	588	14.0	12.6	-1.5	31	16.71
15-29-jul	3:05:08	588	11.8	11.2	-0.6	31	16.71
15-29-jul	4:05:08	588	10.8	10.0	-0.8	31	16.71
15-29-jul	5:05:08	588	10.9	9.4	-1.6	30	16.71
15-29-jul	6:05:08	588	10.0	9.0	-1.0	31	16.72
15-29-jul	7:05:08	589	11.8	10.0	-1.9	30	16.71
15-29-jul	8:05:08	589	18.4	17.5	-0.9	32	16.71
15-29-jul	9:05:08	590	22.3	23.0	0.7	34	16.71
15-29-jul	10:05:08	590	24.7	25.8	1.1	34	16.72
15-29-jul	11:05:08	590	26.5	28.3	1.7	35	16.72
15-29-jul	12:05:08	590	27.4	29.3	1.9	35	16.71
15-29-jul	13:05:08	589	29.1	31.1	1.9	36	16.71
15-29-jul	14:05:08	589	28.1	30.9	2.9	36	16.71
15-29-jul	15:05:08	589	28.2	29.9	1.7	36	16.71
15-29-jul	16:05:08	588	30.0	32.1	2.1	36	16.71
15-29-jul	17:05:08	588	29.4	32.5	3.2	36	16.71
15-29-jul	18:05:08	588	26.5	28.0	1.6	35	16.71
15-29-jul	19:05:08	588	25.2	25.9	0.8	35	16.72
15-29-jul	20:05:08	589	19.7	21.5	1.8	35	16.71
15-29-jul	21:05:08	589	16.2	16.6	0.4	34	16.71
15-29-jul	22:05:08	589	19.0	17.2	-1.8	34	16.71
15-29-jul	23:05:08	589	18.9	17.4	-1.5	34	16.71

BGI PQ200 Air Sampling System Downloaded 2015 06 aug 13:11:14

Job Details:

Job Name: 15Aug06A.JOB
Version: 5.62
Serial No: 962
Pump Time: 6511:42
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	589	585	587	mmHg
TA	31.3	9	18.9	°C
Q	---	---	16.7	Lpm

QCV 0.57 %
Max overheat 3.2 °C
occured 04-aug 14:07:55

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-04-aug	0:00:08
Stop:	15-06-aug	13:07:09

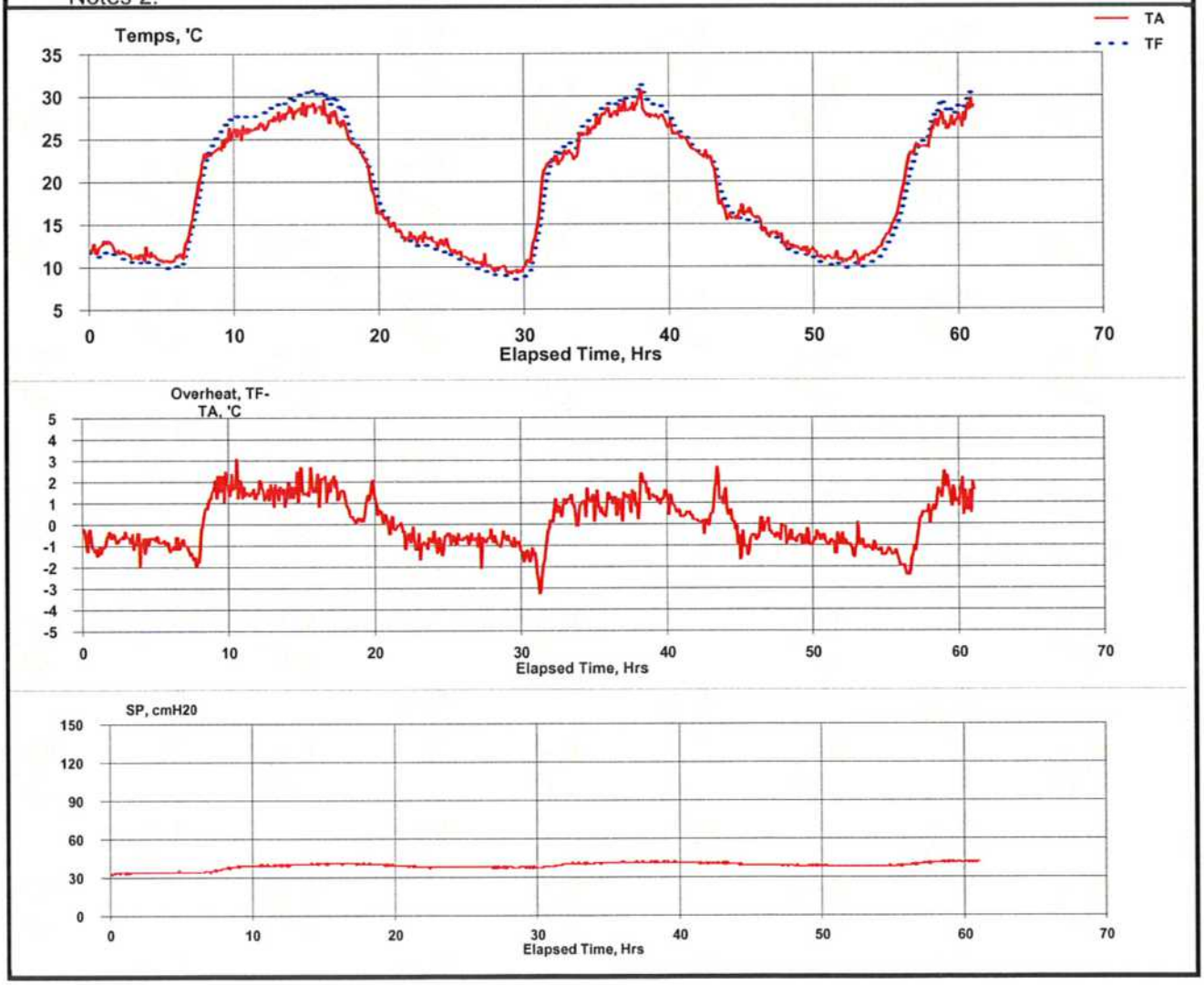
ET: 61:07:00

Mass Concentration Data:

Filter ID: JBR1
Final Wt: mg
Initial Wt: mg
Delta Wt: 0.000 mg
Total Vol: 61.23 m^3

Mass Conc: 0 µg/m3

Notes 1:
Notes 2:



15-04-aug	0:05:08	587	12.3	11.4	-0.8	34	16.71
15-04-aug	1:05:08	587	12.5	11.6	-0.9	34	16.70
15-04-aug	2:05:08	587	11.5	10.9	-0.6	34	16.71
15-04-aug	3:05:08	587	11.3	10.5	-0.8	34	16.71
15-04-aug	4:05:08	587	11.2	10.4	-0.8	34	16.71
15-04-aug	5:05:08	587	10.8	9.9	-0.9	34	16.71
15-04-aug	6:05:08	588	12.3	11.3	-0.9	34	16.71
15-04-aug	7:05:08	588	19.2	17.7	-1.5	36	16.71
15-04-aug	8:05:08	588	23.4	24.0	0.6	38	16.71
15-04-aug	9:05:08	588	24.9	26.8	1.9	39	16.70
15-04-aug	10:05:08	588	25.9	27.7	1.8	39	16.71
15-04-aug	11:05:08	588	26.3	27.8	1.5	39	16.71
15-04-aug	12:05:08	588	26.9	28.5	1.6	40	16.70
15-04-aug	13:05:08	588	27.9	29.3	1.4	40	16.70
15-04-aug	14:05:08	587	28.3	30.0	1.7	41	16.71
15-04-aug	15:05:08	587	28.8	30.4	1.7	41	16.71
15-04-aug	16:05:08	587	28.1	29.9	1.8	41	16.71
15-04-aug	17:05:08	587	26.6	28.3	1.7	41	16.71
15-04-aug	18:05:08	587	24.0	24.4	0.4	40	16.71
15-04-aug	19:05:08	587	19.6	20.6	1.0	40	16.71
15-04-aug	20:05:08	587	15.6	16.1	0.5	39	16.71
15-04-aug	21:05:08	587	14.0	13.9	-0.1	38	16.72
15-04-aug	22:05:08	587	13.4	12.7	-0.7	38	16.72
15-04-aug	23:05:08	587	13.3	12.4	-0.9	38	16.71
15-05-aug	0:05:08	588	12.7	11.8	-0.9	38	16.72
15-05-aug	1:05:08	587	11.6	10.9	-0.7	38	16.71
15-05-aug	2:05:08	587	10.7	10.0	-0.7	38	16.71
15-05-aug	3:05:08	587	10.2	9.4	-0.8	37	16.71
15-05-aug	4:05:08	587	9.7	9.0	-0.8	38	16.71
15-05-aug	5:05:08	587	9.5	8.6	-0.9	38	16.71
15-05-aug	6:05:08	588	11.9	10.5	-1.5	38	16.71
15-05-aug	7:05:08	588	20.6	18.8	-1.8	39	16.71
15-05-aug	8:05:08	588	22.8	23.4	0.6	40	16.71
15-05-aug	9:05:08	588	23.7	24.5	0.8	40	16.70
15-05-aug	10:05:08	588	25.9	27.0	1.1	41	16.71
15-05-aug	11:05:08	588	27.8	28.5	0.7	41	16.70
15-05-aug	12:05:08	588	28.3	29.2	0.9	41	16.72
15-05-aug	13:05:08	587	28.8	29.9	1.2	41	16.71
15-05-aug	14:05:08	587	28.4	29.9	1.6	41	16.71
15-05-aug	15:05:08	587	27.4	28.6	1.3	41	16.71
15-05-aug	16:05:08	587	25.7	26.5	0.8	41	16.71
15-05-aug	17:05:08	587	24.2	24.6	0.4	41	16.71
15-05-aug	18:05:08	587	23.0	23.1	0.1	40	16.71
15-05-aug	19:05:08	587	18.5	19.9	1.4	40	16.72
15-05-aug	20:05:08	587	15.8	16.1	0.2	39	16.71
15-05-aug	21:05:08	587	16.4	15.4	-1.0	39	16.71
15-05-aug	22:05:08	587	14.7	14.5	-0.2	39	16.71
15-05-aug	23:05:08	587	13.6	13.2	-0.4	39	16.72
15-06-aug	0:05:08	587	12.3	11.8	-0.6	38	16.71
15-06-aug	1:05:08	587	11.9	11.2	-0.7	39	16.71
15-06-aug	2:05:08	587	11.2	10.6	-0.7	38	16.71
15-06-aug	3:05:08	587	11.0	10.1	-0.9	38	16.72
15-06-aug	4:05:08	587	11.0	9.9	-1.0	38	16.71
15-06-aug	5:05:08	587	11.0	10.1	-0.9	38	16.71
15-06-aug	6:05:08	587	12.2	11.0	-1.2	38	16.71

16.71 8 g	7:05:08	588	15.1	13.8	-1.4	39	16.71
15-06-aug	8:05:08	588	21.4	19.4	-1.9	40	16.71
15-06-aug	9:05:08	588	24.1	24.2	0.1	41	16.71
15-06-aug	10:05:08	588	26.7	27.8	1.0	41	16.71
15-06-aug	11:05:08	588	26.8	28.3	1.6	41	16.70
15-06-aug	12:05:08	588	28.0	29.3	1.2	42	16.71
15-06-aug	13:05:08	588	28.9	30.5	1.6	42	16.72

BGI PQ200 Air Sampling System Downloaded 2015 11 aug 10:18:28

Job Details:

Job Name: 15Aug11A.JOB
Version: 5.62
Serial No: 962
Pump Time: 6545:55
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	589	587	587	mmHg
TA	26.8	10.1	17.7	°C
Q	---	---	16.7	Lpm

QCV 1.49 %
Max overheat 3.6 °C
occured 10-aug 11:09:35

Timer Information:

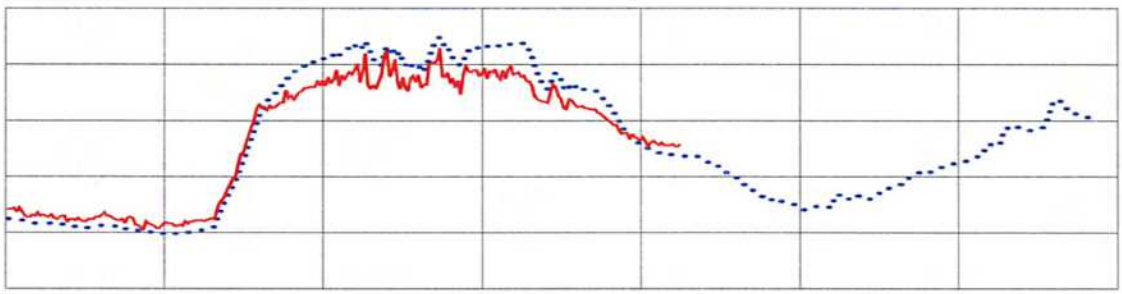
	Date dd-mmm	Time hh:mm:ss
Start:	15-10-aug	0:00:08
Stop:	15-11-aug	10:13:15

ET: 34:13:00

Mass Concentration Data:

Filter ID:	JBR2	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	34.279	m^3
Mass Conc:	0	µg/m3

Notes 1:
Notes 2:



Overheat, TF-

15-10-aug	0:05:08	588	11.8	11.0	-0.8	32	16.71
15-10-aug	1:05:08	588	11.4	10.7	-0.7	32	16.71
15-10-aug	2:05:08	588	11.2	10.5	-0.8	32	16.71
15-10-aug	3:05:08	588	11.3	10.5	-0.8	32	16.71
15-10-aug	4:05:08	588	10.6	10.0	-0.6	32	16.71
15-10-aug	5:05:08	588	10.8	10.0	-0.9	32	16.72
15-10-aug	6:05:08	588	11.9	11.1	-0.8	33	16.71
15-10-aug	7:05:08	588	17.7	16.8	-1.0	33	16.70
15-10-aug	8:05:08	589	21.5	22.6	1.1	35	16.71
15-10-aug	9:05:08	589	22.9	25.0	2.1	36	16.70
15-10-aug	10:05:08	589	23.8	26.0	2.1	37	16.70
15-10-aug	11:05:08	589	24.2	26.1	1.9	37	16.70
15-10-aug	12:05:08	588	23.7	25.4	1.7	37	16.70
15-10-aug	13:05:08	588	24.3	26.1	1.7	37	16.71
15-10-aug	14:05:08	588	24.0	25.9	1.9	37	16.71
15-10-aug	15:05:08	587	24.3	26.7	2.4	38	16.71
15-10-aug	16:05:08	587	23.0	25.4	2.5	37	16.71
15-10-aug	17:05:08	587	21.9	23.3	1.4	37	16.71
15-10-aug	18:05:08	587	20.8	22.4	1.6	37	16.71
15-10-aug	19:05:08	587	18.9	19.3	0.4	36	16.71
15-10-aug	20:05:08	587	18.0	17.3	-0.7	36	16.71
15-10-aug	21:05:08	588	17.8	16.8	-1.0	36	16.71
15-10-aug	22:05:08	588	16.4	15.7	-0.7	36	16.71
15-10-aug	23:05:08	588	13.9	13.8	-0.2	35	16.71
15-11-aug	0:05:08	588	13.2	12.7	-0.6	35	16.71
15-11-aug	1:05:08	588	13.2	12.2	-1.0	35	16.71
15-11-aug	2:05:08	588	14.5	13.1	-1.4	35	16.72
15-11-aug	3:05:08	588	15.0	13.5	-1.5	35	16.71
15-11-aug	4:05:08	588	16.4	14.9	-1.5	36	16.71
15-11-aug	5:05:08	588	16.8	15.8	-1.0	36	16.70
15-11-aug	6:05:08	588	17.5	16.8	-0.7	36	16.70
15-11-aug	7:05:08	589	18.5	18.8	0.3	36	16.71
15-11-aug	8:05:08	589	19.0	19.6	0.6	36	16.71
15-11-aug	9:05:08	589	19.4	21.0	1.7	37	16.71
15-11-aug	10:05:08	589	18.6	20.3	1.7	37	16.72

BGI PQ200 Air Sampling System Downloaded 2015 17 aug 14:16:30

Job Details:

Job Name: 15Aug17A.JOB
Version: 5.62
Serial No: 962
Pump Time: 6569:54
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	589	586	587	mmHg
TA	31.6	12.9	21.5	°C
Q	---	---	16.7	Lpm

QCV	0.55 %
Max overheat	4.5 °C
occured	17-aug 14:00:50

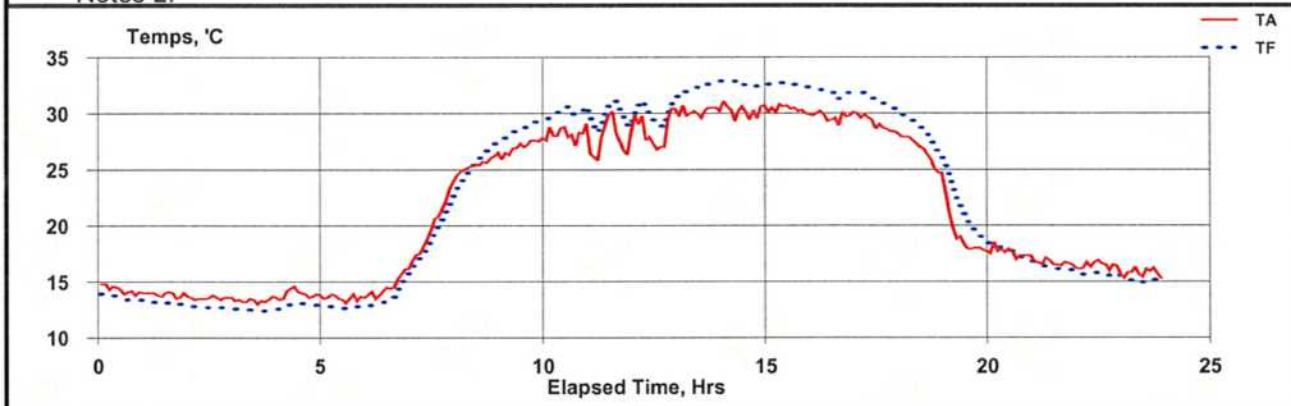
Timer Information:

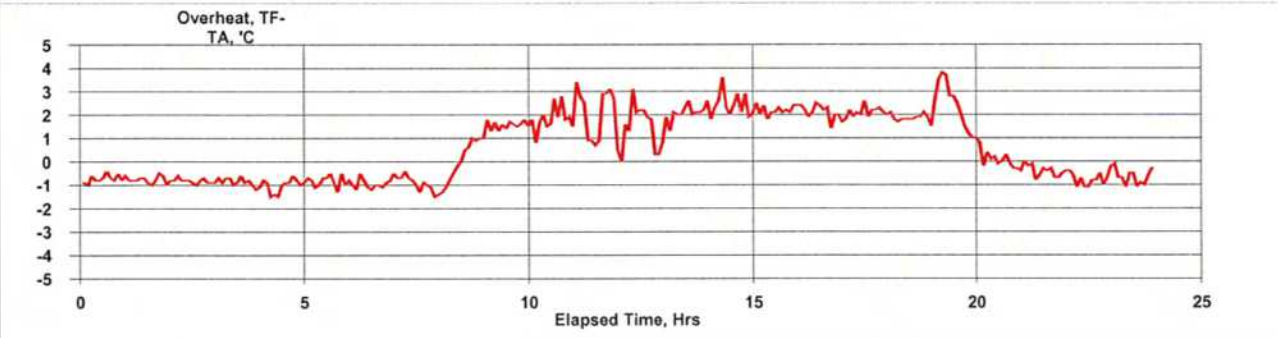
	Date dd-mmm	Time hh:mm:ss
Start:	15-16-aug	0:00:08
Stop:	15-17-aug	0:00:05
ET:	23:59	

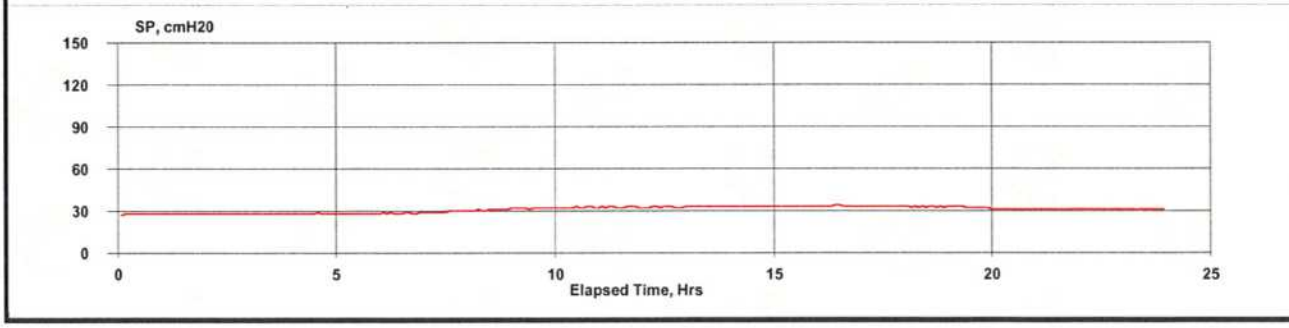
Mass Concentration Data:

Filter ID:	11	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.041	m^3
Mass Conc:	0	ug/m3

Notes 1:
Notes 2:







15-16-aug	0:05:08	589	14.3	13.6	-0.7	28	16.71
15-16-aug	1:05:08	589	13.9	13.1	-0.8	28	16.71
15-16-aug	2:05:08	589	13.6	12.7	-0.8	28	16.71
15-16-aug	3:05:08	588	13.4	12.5	-0.9	28	16.71
15-16-aug	4:05:08	588	13.9	12.9	-1.0	28	16.72
15-16-aug	5:05:08	589	13.6	12.7	-0.8	28	16.71
15-16-aug	6:05:08	589	14.7	13.8	-0.9	29	16.71
15-16-aug	7:05:08	589	20.1	19.1	-1.0	30	16.70
15-16-aug	8:05:08	589	25.5	25.6	0.1	31	16.71
15-16-aug	9:05:08	589	27.0	28.6	1.6	32	16.71
15-16-aug	10:05:08	589	28.2	30.1	1.8	32	16.70
15-16-aug	11:05:08	589	27.7	29.7	2.0	33	16.72
15-16-aug	12:05:08	588	28.5	30.0	1.5	33	16.71
15-16-aug	13:05:08	588	30.2	32.3	2.1	33	16.71
15-16-aug	14:05:08	588	30.2	32.6	2.4	33	16.71
15-16-aug	15:05:08	587	30.3	32.5	2.2	33	16.71
15-16-aug	16:05:08	587	29.7	31.8	2.1	33	16.71
15-16-aug	17:05:08	587	29.0	31.1	2.1	33	16.71
15-16-aug	18:05:08	587	26.6	28.4	1.8	33	16.72
15-16-aug	19:05:08	587	18.9	21.3	2.4	32	16.71
15-16-aug	20:05:08	587	17.6	17.6	0.0	31	16.71
15-16-aug	21:05:08	587	16.6	16.2	-0.4	31	16.71
15-16-aug	22:05:08	587	16.4	15.6	-0.8	31	16.71
15-16-aug	23:05:08	587	15.8	15.1	-0.7	31	16.70

BGI PQ200 Air Sampling System Downloaded 2015 25 aug 09:56:52

Job Details:

Job Name: 15Aug25A.JOB
Version: 5.62
Serial No: 962
Pump Time: 6593:53
Flags: F

Job Code:
Site Name: 962A
Station Code:
Operators: KN
User1:
User2:

	Max	Min	Avg	Units
BP	588	584	586	mmHg
TA	29.6	10.6	19.2	°C
Q	---	---	16.7	Lpm

QCV 0.54 %

Max overheat 6.9 °C
occured 24-aug 19:07:15

Timer Information:

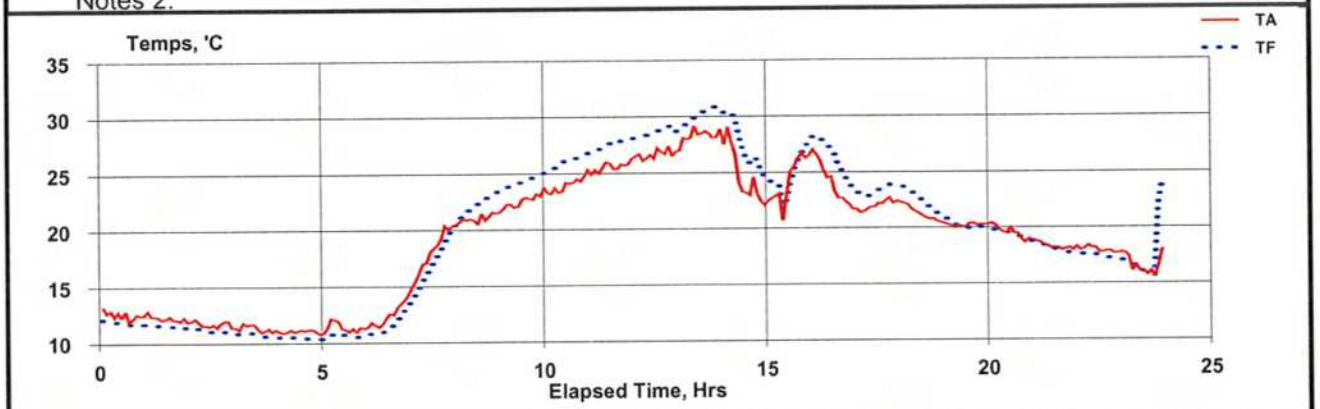
	Date dd-mmm	Time hh:mm:ss
Start:	15-22-aug	0:00:08
Stop:	15-23-aug	0:00:04

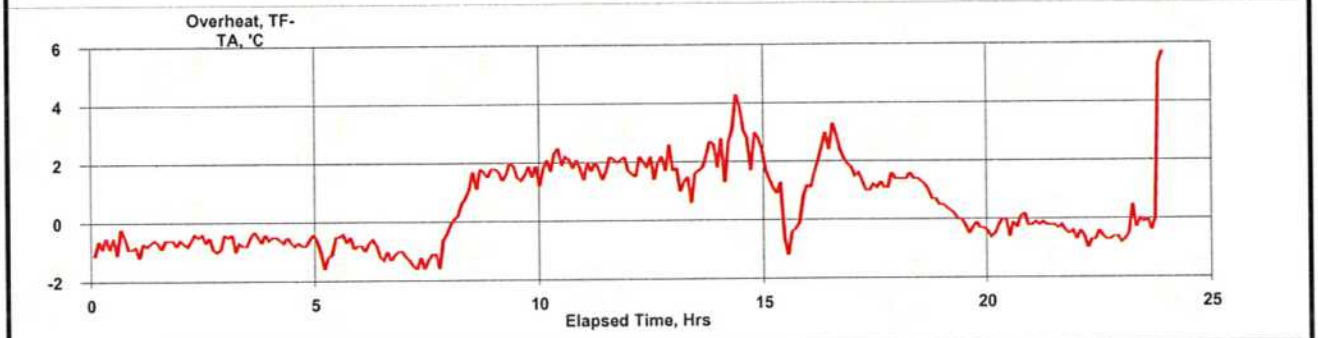
ET: 23:59

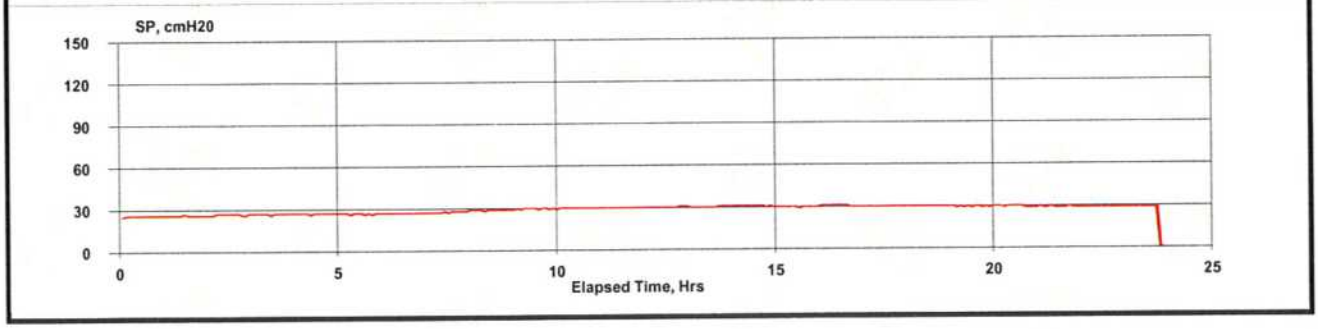
Mass Concentration Data:

Filter ID:	14	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.039	m^3
Mass Conc:	0	ug/m3

Notes 1:
Notes 2:







15-22-aug	0:05:08	586	12.6	11.8	-0.7	26	16.70
15-22-aug	1:05:08	586	12.3	11.5	-0.7	26	16.71
15-22-aug	2:05:08	586	11.8	11.1	-0.6	27	16.72
15-22-aug	3:05:08	586	11.4	10.8	-0.6	27	16.71
15-22-aug	4:05:08	586	11.1	10.4	-0.6	27	16.71
15-22-aug	5:05:08	586	11.4	10.6	-0.8	27	16.72
15-22-aug	6:05:08	586	12.5	11.5	-1.0	27	16.69
15-22-aug	7:05:08	587	18.0	16.8	-1.2	28	16.71
15-22-aug	8:05:08	587	21.0	22.0	1.0	29	16.71
15-22-aug	9:05:08	587	22.5	24.1	1.7	30	16.72
15-22-aug	10:05:08	587	23.9	25.9	2.0	30	16.71
15-22-aug	11:05:08	587	25.5	27.4	1.9	30	16.69
15-22-aug	12:05:08	587	26.6	28.5	1.9	30	16.71
15-22-aug	13:05:08	586	28.1	29.9	1.7	30	16.70
15-22-aug	14:05:08	587	25.3	28.1	2.8	31	16.71
15-22-aug	15:05:08	587	23.9	24.5	0.6	30	16.71
15-22-aug	16:05:08	587	24.5	26.7	2.2	31	16.71
15-22-aug	17:05:08	587	22.0	23.3	1.3	30	16.71
15-22-aug	18:05:08	587	21.5	22.7	1.2	30	16.71
15-22-aug	19:05:08	587	20.3	20.3	0.0	30	16.72
15-22-aug	20:05:08	588	19.7	19.5	-0.2	30	16.71
15-22-aug	21:05:08	588	18.4	18.2	-0.2	29	16.71
15-22-aug	22:05:08	588	18.0	17.4	-0.6	29	16.71
15-22-aug	23:05:08	588	16.6	16.4	-0.3	29	16.71
15-23-aug	19:42:08	588	17.3	22.8	5.5		0.00

BGI PQ200 Air Sampling System Downloaded 2015 31 aug 15:07:45

Job Details:

Job Name: 15Aug31A.JOB
Version: 5.62
Serial No: 962
Pump Time: 6617:52
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	590	588	588	mmHg
TA	28.6	9.3	18.8	°C
Q	---	---	16.7	Lpm

QCV	0.55 %
Max overheat	4.8 °C
occured	28-aug 15:07:08

Timer Information:

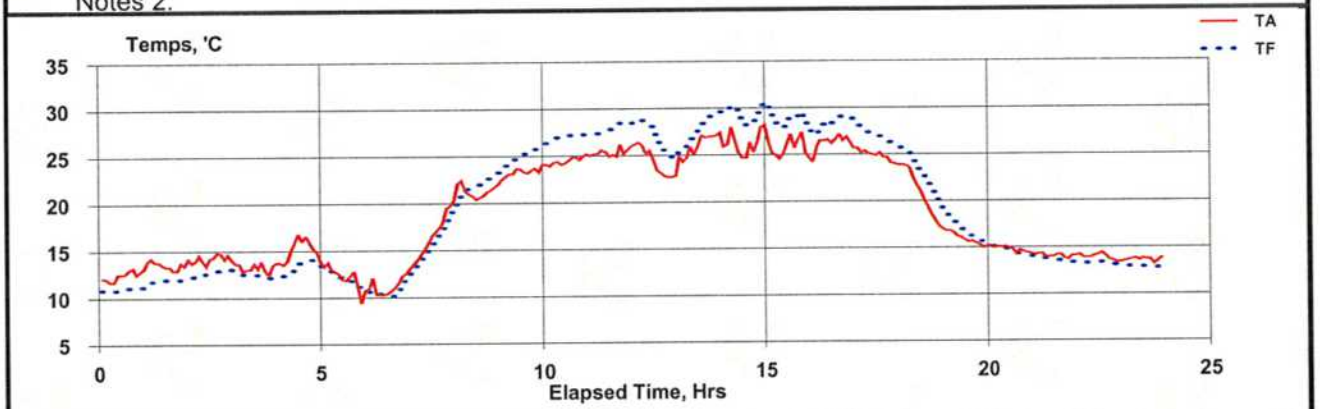
	Date dd-mmm	Time hh:mm:ss
Start:	15-28-aug	0:00:08
Stop:	15-29-aug	0:00:05

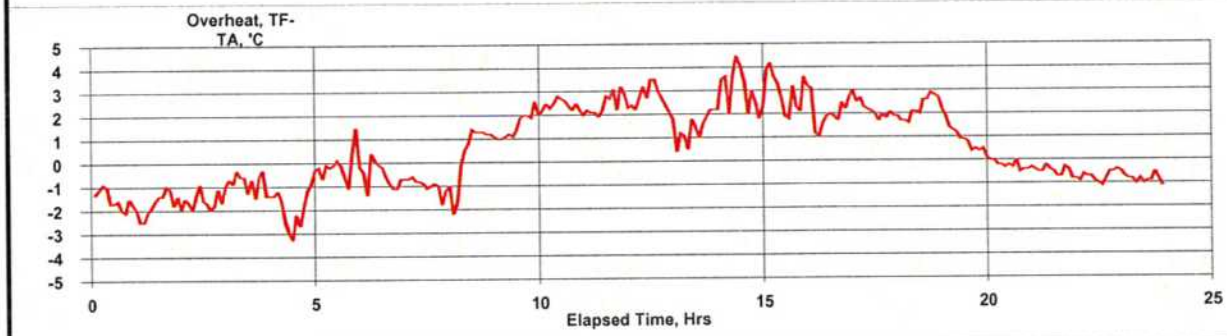
ET: 23:59

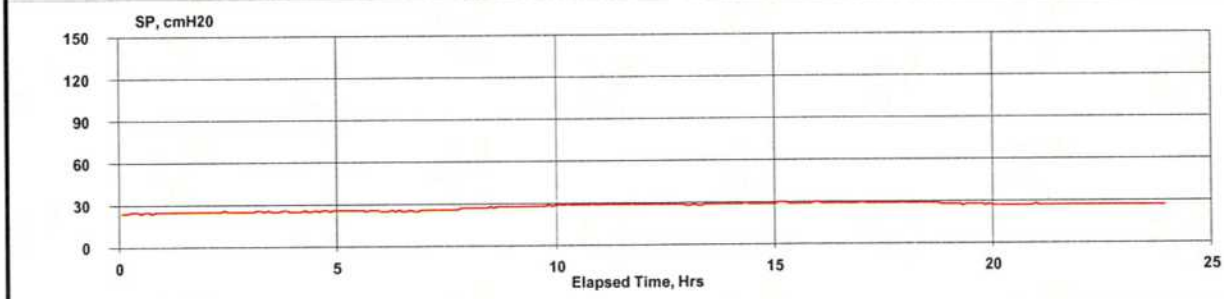
Mass Concentration Data:

Filter ID:	JBR5	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.04	m^3
Mass Conc:	0	ug/m3

Notes 1:
Notes 2:







15-28-aug	0:05:08	589	12.5	10.9	-1.6	25	16.72
15-28-aug	1:05:08	589	13.6	11.8	-1.7	25	16.71
15-28-aug	2:05:08	589	14.2	12.6	-1.5	25	16.70
15-28-aug	3:05:08	589	13.3	12.4	-0.9	25	16.71
15-28-aug	4:05:08	589	15.1	13.3	-1.9	26	16.71
15-28-aug	5:05:08	589	12.1	12.0	-0.1	26	16.71
15-28-aug	6:05:08	589	11.3	10.7	-0.6	25	16.71
15-28-aug	7:05:08	590	16.8	15.8	-1.0	26	16.71
15-28-aug	8:05:08	590	21.3	21.8	0.5	28	16.70
15-28-aug	9:05:08	590	23.3	24.9	1.6	28	16.71
15-28-aug	10:05:08	590	24.5	26.9	2.4	29	16.71
15-28-aug	11:05:08	590	25.4	27.8	2.5	29	16.71
15-28-aug	12:05:08	589	24.3	27.0	2.7	29	16.70
15-28-aug	13:05:08	589	26.1	27.6	1.5	29	16.73
15-28-aug	14:05:08	589	26.3	29.3	3.0	29	16.71
15-28-aug	15:05:08	588	25.8	28.8	3.0	29	16.71
15-28-aug	16:05:08	588	26.3	28.3	2.1	29	16.70
15-28-aug	17:05:08	588	24.8	26.9	2.1	29	16.71
15-28-aug	18:05:08	588	20.6	22.8	2.3	29	16.71
15-28-aug	19:05:08	588	15.9	16.7	0.9	28	16.71
15-28-aug	20:05:08	588	14.8	14.5	-0.2	27	16.71
15-28-aug	21:05:08	588	14.1	13.6	-0.5	27	16.71
15-28-aug	22:05:08	588	13.9	13.2	-0.7	27	16.71
15-28-aug	23:05:08	588	13.6	12.8	-0.8	27	16.71

BGI PQ200 Air Sampling System Downloaded 2015 08 sep 10:35:43

Job Details:

Job Name: 15Sep08A.JOB
Version: 5.62
Serial No: 962
Pump Time: 6748:22
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	589	582	585	mmHg
TA	24.8	6.6	15.6	°C
Q	---	---	16.7	Lpm

QCV 0.95 %
Max overheat 4.3 °C
occured 06-sep 15:08:32

Timer Information:

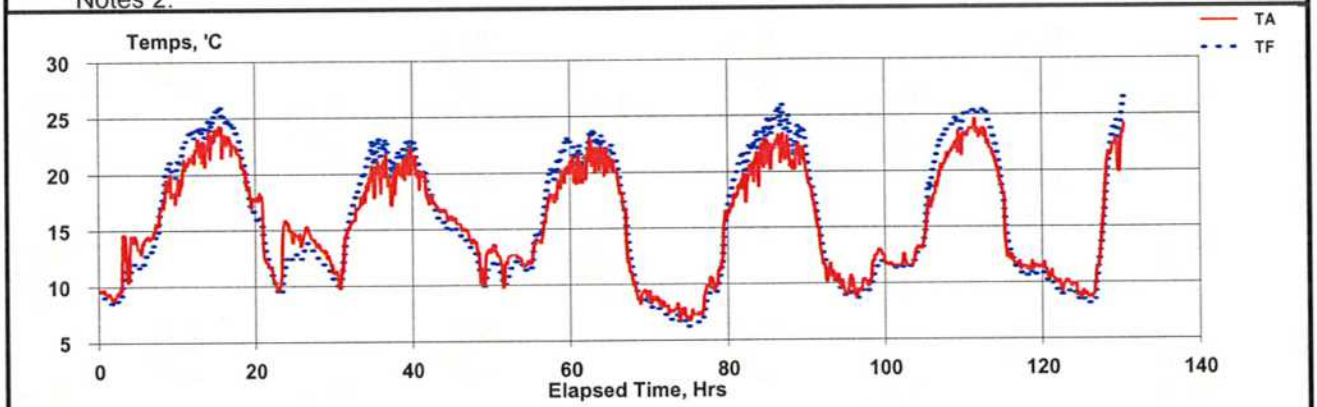
	Date dd-mmm	Time hh:mm:ss
Start:	15-03-sep	0:00:08
Stop:	15-08-sep	10:30:52

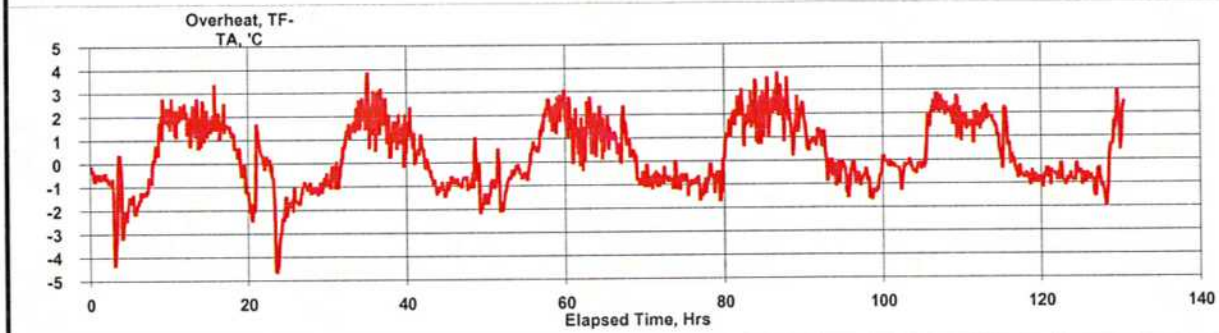
ET: 130:30:00

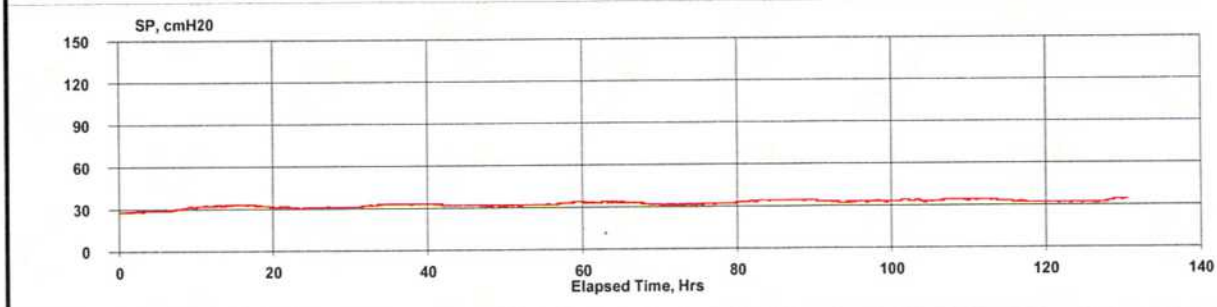
Mass Concentration Data:

Filter ID:	4	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	130.748	m^3
Mass Conc:	0	µg/m3

Notes 1:
Notes 2:







Hourly

15-03-sep	0:05:08	586	9.6	9.1	-0.5	28	16.70
15-03-sep	1:05:08	586	9.1	8.5	-0.6	28	16.72
15-03-sep	2:05:08	586	9.8	8.7	-1.0	29	16.70
15-03-sep	3:05:08	586	12.7	10.8	-1.9	29	16.71
15-03-sep	4:05:08	586	14.1	11.9	-2.2	29	16.71
15-03-sep	5:05:08	586	13.6	11.8	-1.8	29	16.71
15-03-sep	6:05:08	586	14.4	13.0	-1.4	29	16.71
15-03-sep	7:05:08	586	15.9	15.2	-0.7	30	16.72
15-03-sep	8:05:08	586	18.2	19.2	1.0	31	16.70
15-03-sep	9:05:08	586	18.3	20.3	2.0	31	16.71
15-03-sep	10:05:08	586	19.7	21.6	1.9	32	16.70
15-03-sep	11:05:08	586	21.2	23.4	2.2	32	16.70
15-03-sep	12:05:08	585	22.2	23.8	1.6	32	16.70
15-03-sep	13:05:08	585	22.3	23.8	1.5	32	16.70
15-03-sep	14:05:08	584	23.0	24.7	1.7	33	16.71
15-03-sep	15:05:08	584	23.6	25.4	1.8	33	16.71
15-03-sep	16:05:08	584	23.0	24.7	1.7	33	16.71
15-03-sep	17:05:08	583	22.2	23.7	1.5	33	16.71
15-03-sep	18:05:08	583	20.2	20.8	0.6	32	16.72
15-03-sep	19:05:08	583	17.9	17.2	-0.7	32	16.70
15-03-sep	20:05:08	584	17.4	15.9	-1.6	31	16.71
15-03-sep	21:05:08	584	12.1	12.7	0.6	32	16.72
15-03-sep	22:05:08	584	10.4	10.3	0.0	31	16.71
15-03-sep	23:05:08	584	13.7	10.6	-3.1	30	16.71
15-04-sep	0:05:08	584	14.8	12.6	-2.3	31	16.70
15-04-sep	1:05:08	584	14.3	12.7	-1.6	31	16.71
15-04-sep	2:05:08	584	14.9	13.5	-1.4	31	16.71
15-04-sep	3:05:08	584	14.0	13.0	-1.0	31	16.71
15-04-sep	4:05:08	584	13.3	12.1	-1.2	31	16.72
15-04-sep	5:05:08	584	12.1	11.2	-0.8	31	16.71
15-04-sep	6:05:08	584	10.7	10.1	-0.6	31	16.71
15-04-sep	7:05:08	585	14.0	13.7	-0.3	32	16.71
15-04-sep	8:05:08	585	16.1	17.3	1.2	32	16.71
15-04-sep	9:05:08	585	17.5	19.3	1.8	32	16.71
15-04-sep	10:05:08	585	19.4	21.6	2.1	33	16.71
15-04-sep	11:05:08	584	19.5	21.8	2.3	33	16.70
15-04-sep	12:05:08	584	20.4	22.3	1.9	33	16.71
15-04-sep	13:05:08	584	18.8	20.4	1.6	33	16.70
15-04-sep	14:05:08	583	20.4	21.7	1.3	33	16.71
15-04-sep	15:05:08	583	21.0	22.1	1.1	33	16.71
15-04-sep	16:05:08	583	20.3	21.5	1.2	33	16.70
15-04-sep	17:05:08	583	19.3	19.8	0.5	33	16.71
15-04-sep	18:05:08	583	17.5	17.5	0.0	32	16.71
15-04-sep	19:05:08	583	16.8	15.9	-0.9	32	16.70
15-04-sep	20:05:08	583	16.2	15.1	-1.1	32	16.72
15-04-sep	21:05:08	584	15.8	14.9	-0.9	32	16.71
15-04-sep	22:05:08	584	15.1	14.2	-0.9	32	16.71
15-04-sep	23:05:08	584	14.1	13.3	-0.8	32	16.71
15-05-sep	0:05:08	584	12.1	11.7	-0.4	32	16.72
15-05-sep	1:05:08	584	12.4	11.0	-1.5	32	16.71
15-05-sep	2:05:08	584	13.1	11.9	-1.2	32	16.71
15-05-sep	3:05:08	584	11.4	10.5	-0.9	32	16.71
15-05-sep	4:05:08	584	12.6	11.3	-1.3	32	16.71
15-05-sep	5:05:08	585	12.4	12.0	-0.4	32	16.72
15-05-sep	6:05:08	585	11.9	11.4	-0.5	32	16.71

15-05-sep	7:05:08	585	13.4	13.4	0.0	32	16.71
15-05-sep	8:05:08	585	14.7	15.5	0.7	32	16.72
15-05-sep	9:05:08	586	17.6	19.7	2.1	33	16.71
15-05-sep	10:05:08	586	18.6	20.7	2.0	33	16.72
15-05-sep	11:05:08	586	20.0	22.5	2.5	34	16.71
15-05-sep	12:05:08	585	20.1	21.8	1.6	33	16.71
15-05-sep	13:05:08	585	20.0	21.2	1.2	33	16.72
15-05-sep	14:05:08	585	21.6	22.8	1.2	34	16.71
15-05-sep	15:05:08	585	21.3	22.6	1.3	34	16.72
15-05-sep	16:05:08	585	20.9	22.2	1.3	34	16.71
15-05-sep	17:05:08	585	20.4	21.6	1.2	33	16.71
15-05-sep	18:05:08	585	17.9	18.6	0.7	33	16.71
15-05-sep	19:05:08	586	12.0	13.3	1.3	33	16.71
15-05-sep	20:05:08	586	9.2	9.5	0.3	32	16.71
15-05-sep	21:05:08	586	9.2	8.4	-0.8	32	16.71
15-05-sep	22:05:08	586	8.7	8.0	-0.7	31	16.70
15-05-sep	23:05:08	587	8.3	7.6	-0.8	32	16.71
15-06-sep	0:05:08	587	7.8	7.1	-0.7	31	16.71
15-06-sep	1:05:08	587	7.7	7.0	-0.7	32	16.71
15-06-sep	2:05:08	587	7.4	6.6	-0.8	32	16.72
15-06-sep	3:05:08	587	7.2	6.3	-0.9	32	16.71
15-06-sep	4:05:08	587	7.6	6.6	-0.9	32	16.71
15-06-sep	5:05:08	587	10.0	8.8	-1.2	32	16.71
15-06-sep	6:05:08	587	10.3	9.6	-0.6	32	16.71
15-06-sep	7:05:08	588	14.1	13.4	-0.7	32	16.71
15-06-sep	8:05:08	588	17.0	18.2	1.2	33	16.71
15-06-sep	9:05:08	588	18.6	20.6	2.0	33	16.71
15-06-sep	10:05:08	589	19.2	21.1	1.9	34	16.71
15-06-sep	11:05:08	588	20.6	22.7	2.1	34	16.71
15-06-sep	12:05:08	588	21.2	23.0	1.9	34	16.71
15-06-sep	13:05:08	588	21.9	24.1	2.2	34	16.71
15-06-sep	14:05:08	587	22.4	25.0	2.6	34	16.70
15-06-sep	15:05:08	587	22.0	24.5	2.5	34	16.71
15-06-sep	16:05:08	587	21.0	22.5	1.5	34	16.71
15-06-sep	17:05:08	587	21.6	23.6	2.0	34	16.71
15-06-sep	18:05:08	586	18.8	19.9	1.1	33	16.71
15-06-sep	19:05:08	587	14.9	15.9	1.0	33	16.71
15-06-sep	20:05:08	587	11.2	11.9	0.8	33	16.71
15-06-sep	21:05:08	587	10.8	10.5	-0.3	32	16.71
15-06-sep	22:05:08	587	9.9	9.5	-0.4	32	16.71
15-06-sep	23:05:08	587	9.8	9.0	-0.8	33	16.71
15-07-sep	0:05:08	588	9.2	8.8	-0.4	33	16.71
15-07-sep	1:05:08	587	10.1	9.4	-0.7	33	16.71
15-07-sep	2:05:08	587	11.6	10.4	-1.2	33	16.71
15-07-sep	3:05:08	587	12.7	11.8	-0.9	33	16.70
15-07-sep	4:05:08	588	11.7	11.7	0.0	33	16.71
15-07-sep	5:05:08	588	11.6	11.3	-0.2	34	16.71
15-07-sep	6:05:08	588	11.9	11.4	-0.5	33	16.71
15-07-sep	7:05:08	589	12.0	11.7	-0.2	34	16.71
15-07-sep	8:05:08	589	13.2	12.9	-0.3	33	16.71
15-07-sep	9:05:08	589	16.3	17.0	0.7	33	16.71
15-07-sep	10:05:08	589	18.6	20.9	2.3	33	16.71
15-07-sep	11:05:08	588	20.7	23.0	2.3	34	16.71
15-07-sep	12:05:08	588	21.8	23.9	2.1	34	16.71
15-07-sep	13:05:08	588	22.5	24.3	1.8	34	16.70

15-07-sep	14:05:08	587	23.4	25.0	1.7	34	16.70
15-07-sep	15:05:08	587	23.8	25.3	1.5	34	16.71
15-07-sep	16:05:08	587	23.4	25.2	1.8	34	16.71
15-07-sep	17:05:08	587	22.0	23.9	1.9	34	16.70
15-07-sep	18:05:08	587	19.6	20.6	1.0	33	16.71
15-07-sep	19:05:08	587	14.0	15.1	1.1	33	16.71
15-07-sep	20:05:08	587	11.9	11.8	-0.1	32	16.70
15-07-sep	21:05:08	588	11.5	10.9	-0.6	32	16.71
15-07-sep	22:05:08	588	11.4	10.7	-0.7	32	16.71
15-07-sep	23:05:08	587	11.5	10.6	-0.8	32	16.71
15-08-sep	0:05:08	588	11.1	10.4	-0.7	32	16.71
15-08-sep	1:05:08	588	10.4	9.8	-0.6	32	16.72
15-08-sep	2:05:08	588	9.8	9.2	-0.7	32	16.71
15-08-sep	3:05:08	588	10.0	9.2	-0.8	32	16.70
15-08-sep	4:05:08	588	9.3	8.7	-0.6	32	16.72
15-08-sep	5:05:08	588	9.0	8.2	-0.8	32	16.71
15-08-sep	6:05:08	588	9.4	8.4	-1.0	32	16.71
15-08-sep	7:05:08	588	14.1	13.2	-0.9	32	16.71
15-08-sep	8:05:08	588	21.1	20.6	-0.5	33	16.71
15-08-sep	9:05:08	589	21.5	23.2	1.7	34	16.71
15-08-sep	10:05:08	589	23.5	25.2	1.7	34	16.72

BGI PQ200 Air Sampling System Downloaded 2015 10 sep 08:41:01

Job Details:

Job Name: 15Sep10A.JOB
Version: 5.62
Serial No: 962
Pump Time: 6772:21
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	589	586	587	mmHg
TA	28.5	9.5	17.6	°C
Q	---	---	16.7	Lpm

QCV 0.54 %
Max overheat 4.5 °C
occured 10-sep 01:20:16

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-09-sep	0:00:08
Stop:	15-10-sep	0:00:05

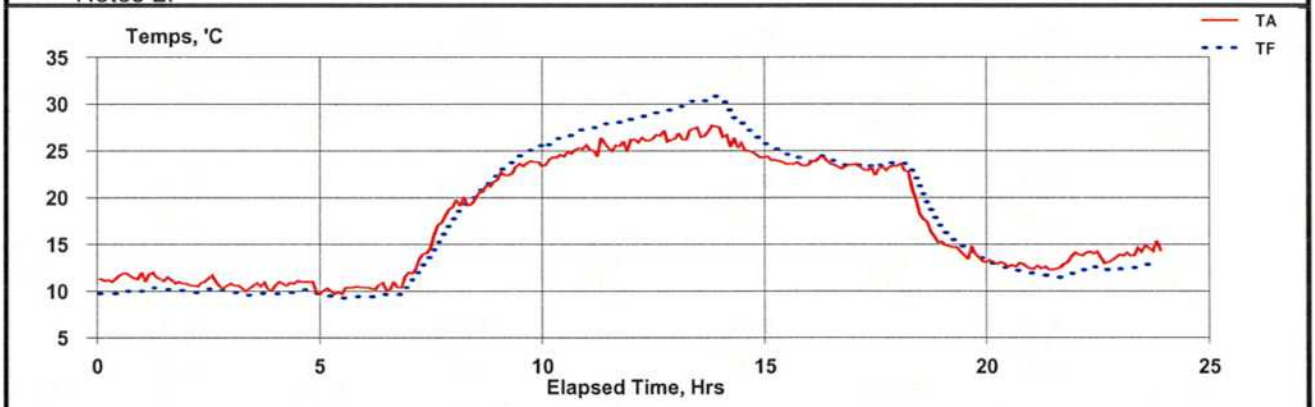
ET: 23:59

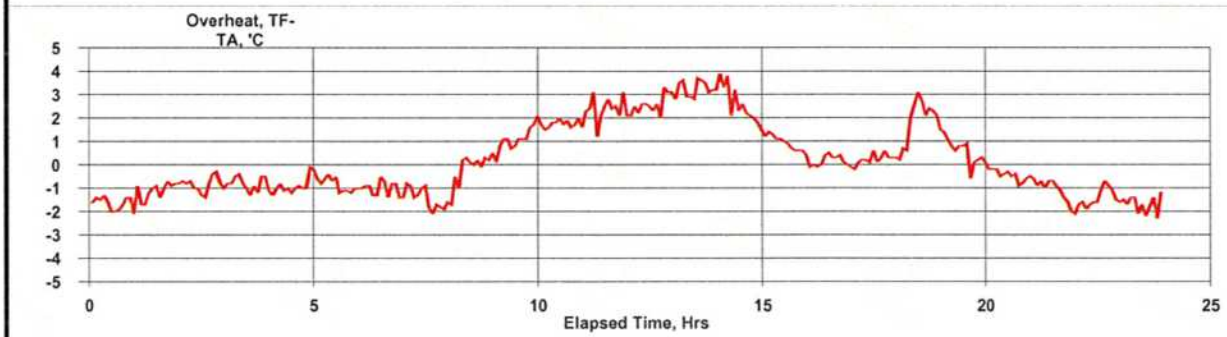
Mass Concentration Data:

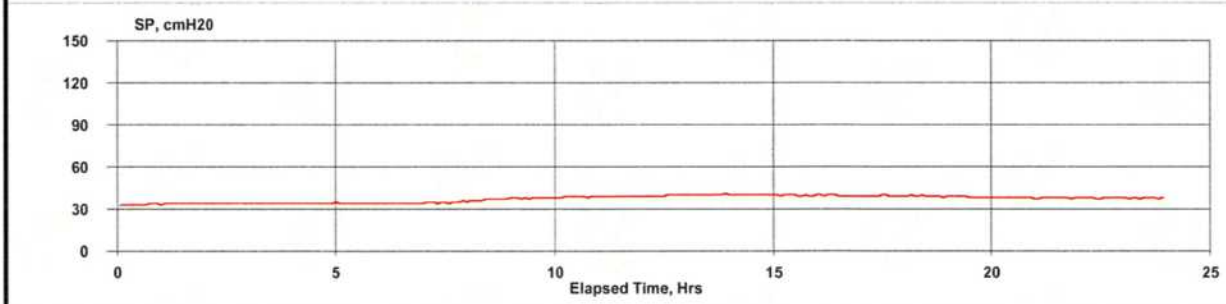
Filter ID: 7
Final Wt: mg
Initial Wt: mg
Delta Wt: 0.000 mg
Total Vol: 24.041 m^3

Mass Conc: 0 µg/m3

Notes 1:
Notes 2:







15-09-sep	0:05:08	588	11.5	9.8	-1.7	33	16.71
15-09-sep	1:05:08	588	11.2	10.2	-1.1	34	16.71
15-09-sep	2:05:08	588	10.8	10.0	-0.9	34	16.71
15-09-sep	3:05:08	588	10.5	9.7	-0.8	34	16.71
15-09-sep	4:05:08	588	10.7	9.8	-0.9	34	16.71
15-09-sep	5:05:08	588	10.2	9.3	-0.8	34	16.71
15-09-sep	6:05:08	588	10.7	9.6	-1.0	34	16.70
15-09-sep	7:05:08	588	15.6	14.1	-1.4	35	16.70
15-09-sep	8:05:08	589	20.4	20.3	-0.1	37	16.72
15-09-sep	9:05:08	589	23.3	24.4	1.1	38	16.71
15-09-sep	10:05:08	589	24.7	26.4	1.7	39	16.72
15-09-sep	11:05:08	588	25.4	27.8	2.4	39	16.72
15-09-sep	12:05:08	588	26.3	28.9	2.6	40	16.71
15-09-sep	13:05:08	587	27.0	30.3	3.2	40	16.71
15-09-sep	14:05:08	587	25.4	27.9	2.6	40	16.70
15-09-sep	15:05:08	587	23.8	24.7	0.9	40	16.71
15-09-sep	16:05:08	587	23.7	23.8	0.1	39	16.71
15-09-sep	17:05:08	586	23.2	23.4	0.2	39	16.71
15-09-sep	18:05:08	587	18.8	20.7	1.9	39	16.72
15-09-sep	19:05:08	587	14.1	14.6	0.5	38	16.71
15-09-sep	20:05:08	587	12.9	12.4	-0.5	38	16.71
15-09-sep	21:05:08	587	12.8	11.6	-1.1	38	16.71
15-09-sep	22:05:08	587	13.7	12.3	-1.4	38	16.71
15-09-sep	23:05:08	587	14.4	12.7	-1.7	38	16.71

BGI PQ200 Air Sampling System Downloaded 2015 17 sep 09:29:19

Job Details:

Job Name: 15Sep17A.JOB
Version: 5.62
Serial No: 962
Pump Time: 6796:20
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	585	582	583	mmHg
TA	15.7	9.2	11.2	°C
Q	---	---	16.71	Lpm

QCV 0.63 %
Max overheat 3.5 °C
occured 16-sep 19:27:08

Timer Information:

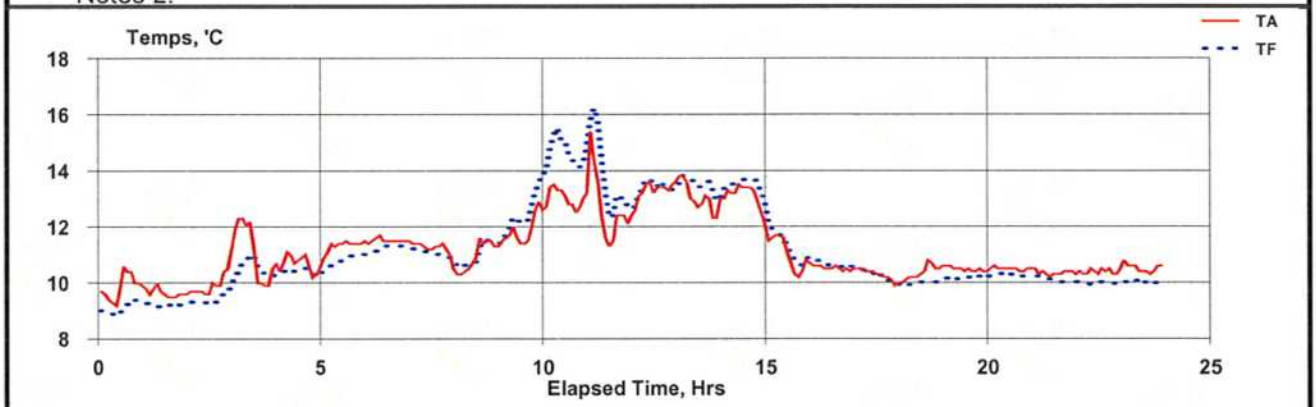
	Date dd-mmm	Time hh:mm:ss
Start:	15-15-sep	0:00:08
Stop:	15-16-sep	0:00:04

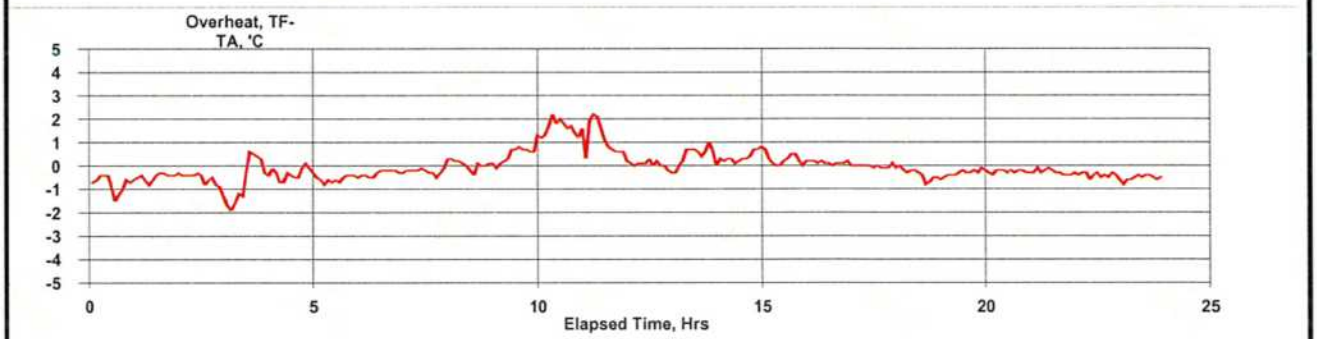
ET: 23:59

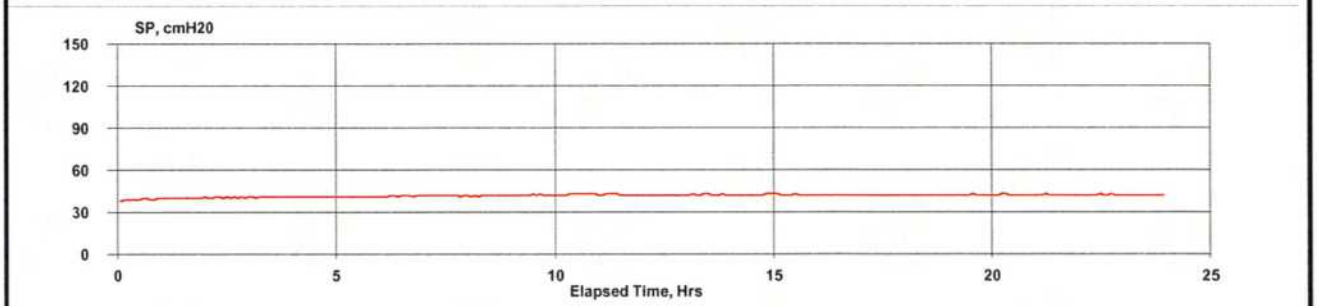
Mass Concentration Data:

Filter ID:	10	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.043	m^3
Mass Conc:	0	µg/m3

Notes 1:
Notes 2:







15-15-sep	0:05:08	583	9.9	9.1	-0.8	39	16.72
15-15-sep	1:05:08	583	9.7	9.2	-0.5	40	16.71
15-15-sep	2:05:08	583	10.0	9.4	-0.6	41	16.70
15-15-sep	3:05:08	583	11.1	10.5	-0.6	41	16.71
15-15-sep	4:05:08	583	10.7	10.4	-0.3	41	16.72
15-15-sep	5:05:08	583	11.3	10.8	-0.6	41	16.71
15-15-sep	6:05:08	583	11.5	11.2	-0.3	42	16.71
15-15-sep	7:05:08	583	11.2	11.0	-0.2	42	16.72
15-15-sep	8:05:08	584	11.0	11.0	0.0	42	16.71
15-15-sep	9:05:08	584	11.9	12.5	0.5	42	16.72
15-15-sep	10:05:08	584	13.0	14.7	1.6	43	16.72
15-15-sep	11:05:08	584	12.6	13.7	1.1	42	16.71
15-15-sep	12:05:08	584	13.3	13.4	0.0	42	16.71
15-15-sep	13:05:08	584	13.0	13.5	0.4	42	16.72
15-15-sep	14:05:08	584	13.1	13.5	0.4	42	16.72
15-15-sep	15:05:08	585	11.0	11.3	0.3	42	16.72
15-15-sep	16:05:08	585	10.5	10.6	0.1	42	16.72
15-15-sep	17:05:08	584	10.3	10.2	0.0	42	16.71
15-15-sep	18:05:08	584	10.4	10.0	-0.4	42	16.72
15-15-sep	19:05:08	585	10.5	10.2	-0.3	42	16.71
15-15-sep	20:05:08	585	10.5	10.2	-0.3	42	16.71
15-15-sep	21:05:08	585	10.3	10.1	-0.3	42	16.72
15-15-sep	22:05:08	584	10.4	10.0	-0.4	42	16.71
15-15-sep	23:05:08	584	10.5	10.0	-0.5	42	16.71

BGI PQ200 Air Sampling System Downloaded 2015 28 sep 09:28:12

Job Details:

Job Name:	15Sep28A.JOB
Version:	5.62
Serial No:	962
Pump Time:	6844:19
Flags:	

Job Code:	
Site Name:	
Station Code:	
Operators:	
User1:	
User2:	

	Max	Min	Avg	Units
BP	588	585	586	mmHg
TA	24.4	8.2	15.4	°C
Q	---	---	16.7	Lpm

QCV	0.46 %
Max overheat	3.6 °C
occured	27-sep 12:44:53

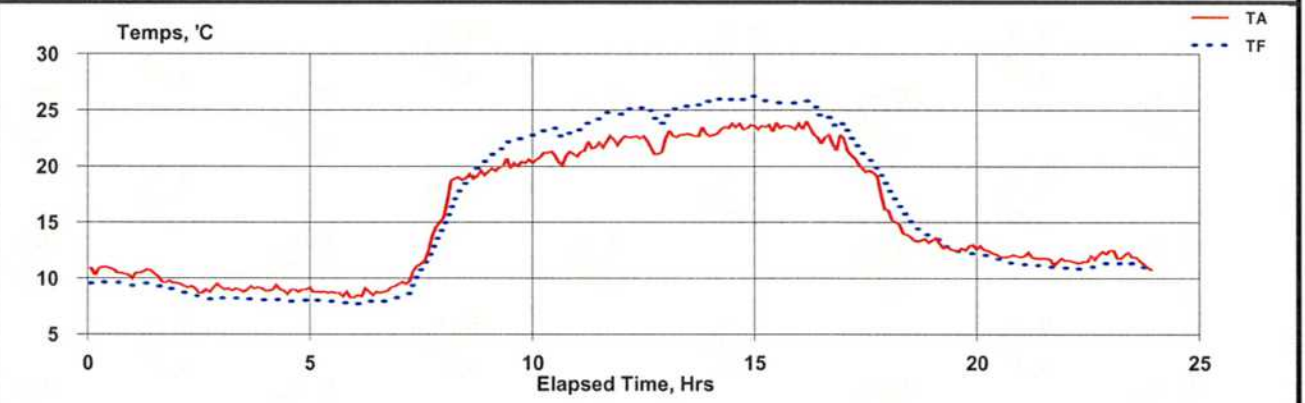
Timer Information:

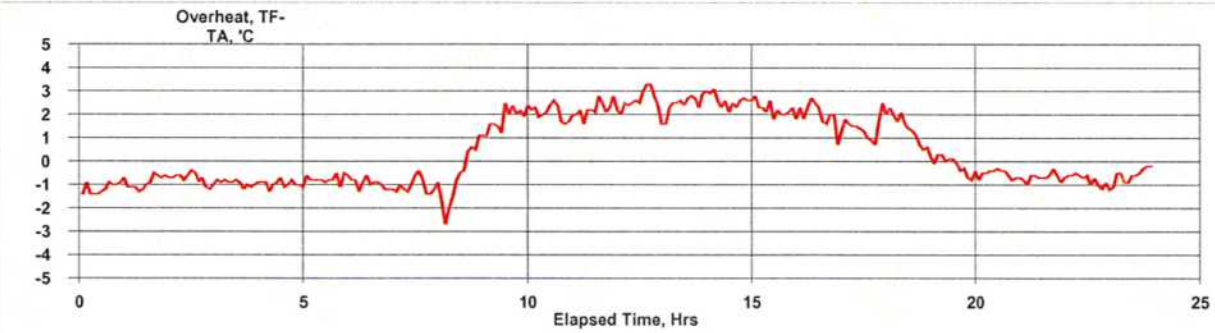
	Date dd-mmm	Time hh:mm:ss
Start:	15-27-sep	0:00:08
Stop:	15-28-sep	0:00:05
ET:	24:00:00	

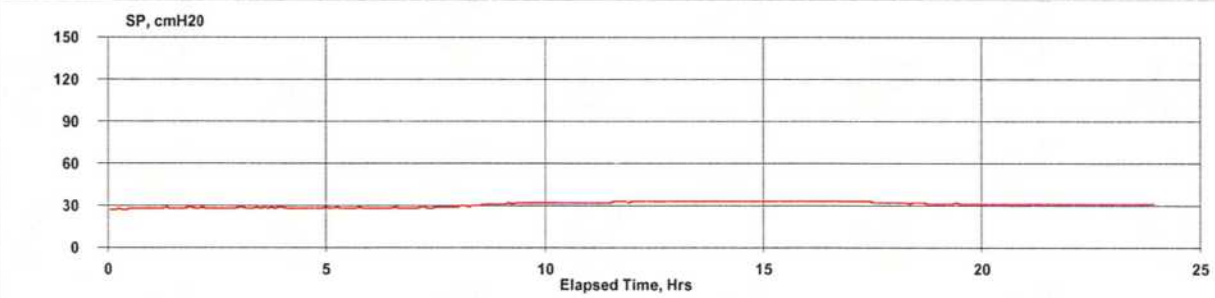
Mass Concentration Data:

Filter ID:	1JBR	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.037	m^3
Mass Conc:	0	µg/m3

Notes 1:
Notes 2:







15-27-sep	0:05:21	586	10.6	9.5	-1.1	28	16.71
15-27-sep	1:05:21	586	10.2	9.3	-0.9	28	16.71
15-27-sep	2:05:21	586	9.1	8.4	-0.8	28	16.71
15-27-sep	3:05:21	586	9.0	8.1	-0.9	29	16.70
15-27-sep	4:05:21	586	9.0	8.0	-1.0	28	16.71
15-27-sep	5:05:21	586	8.7	7.9	-0.8	28	16.71
15-27-sep	6:05:21	586	8.9	7.9	-1.0	28	16.71
15-27-sep	7:05:21	587	12.1	11.0	-1.0	29	16.71
15-27-sep	8:05:21	587	18.9	18.4	-0.5	30	16.71
15-27-sep	9:05:21	587	20.1	22.0	1.9	32	16.71
15-27-sep	10:05:21	587	20.9	23.0	2.1	32	16.72
15-27-sep	11:05:21	587	22.0	24.2	2.3	32	16.70
15-27-sep	12:05:21	586	22.2	24.7	2.6	33	16.70
15-27-sep	13:05:21	586	22.9	25.4	2.5	33	16.72
15-27-sep	14:05:21	586	23.4	26.0	2.6	33	16.70
15-27-sep	15:05:21	585	23.5	25.7	2.2	33	16.70
15-27-sep	16:05:21	585	22.7	24.6	1.9	33	16.69
15-27-sep	17:05:21	585	19.2	20.7	1.5	32	16.71
15-27-sep	18:05:21	585	13.9	15.2	1.3	32	16.71
15-27-sep	19:05:21	586	12.8	12.6	-0.2	31	16.71
15-27-sep	20:05:21	586	12.2	11.7	-0.5	31	16.72
15-27-sep	21:05:21	586	11.8	11.1	-0.7	31	16.71
15-27-sep	22:05:21	586	11.8	11.0	-0.8	31	16.71
15-27-sep	23:05:21	586	11.7	11.2	-0.6	31	16.71

Compliance Monitor 963B

PM_{10} Sampler Summary

July 1, 2015 - September 30, 2015

Network: **Alton Coal Development, LLC**
Site: Coal Hollow
Sampler ID: Coal Hollow-B **AQS ID:**
Sampler Type: BGI FRM Single

Date	Filter ID	Concentration (µg/m3) LTP	Concentration (µg/m3) STP	Sample Period (hr:min)	Sample Volume (m3)	Std Volume (m3)	Mass (mg) Tare	Gross	Net	Flag	Comments
07/05/15	P2923694	**8.4**	**10.7**	23:59	24.0	19.0	384.952	385.156	0.204		
07/11/15	P2923697	**8.9**	**11.0**	23:59	23.9	19.3	381.105	381.318	0.213		
07/17/15	P2923700	**20.3**	**25.7**	23:59	24.0	18.9	384.336	384.823	0.487		
07/23/15	P2924063	**39.4**	**49.3**	24:00	23.9	19.1	373.597	374.541	0.944		
07/29/15	P2924068	**16.1**	**20.4**	23:59	24.0	18.9	380.581	380.968	0.387		
08/04/15	P2924461	**76.0**	**95.7**	23:59	24.0	19.1	386.935	388.759	1.824		
08/10/15	P2924464	**14.9**	**18.7**	23:59	24.0	19.2	384.424	384.783	0.359		
08/16/15	P2922748	**6.7**	**8.5**	23:59	24.0	18.9	377.692	377.854	0.162		
08/22/15	P2922751	**24.2**	**30.5**	23:59	24.0	19.0	371.080	371.661	0.581		
08/28/15	P2922755	**Invalid - AG**	**Invalid - AG**	1:18	1.3	1.0	376.638	376.697	0.059		
09/03/15	P2924551	**Invalid - AN**	**Invalid - AN**				379.614	379.621	0.007		
09/09/15	P2924554	**Invalid - AN**	**Invalid - AN**				388.042	388.051	0.009		
09/15/15	P2924859	**Invalid - AN**	**Invalid - AN**				381.088	381.090	0.002		
09/21/15	P2924863	**17.2**	**21.4**	23:59	24.0	19.3	384.745	385.159	0.414		
09/27/15	P2925400	**6.4**	**8.0**	23:59	24.0	19.3	388.482	388.638	0.156		
07/13/15	P2923702		**Field Blank**				386.681	386.691	0.010		
07/27/15	P2924067		**Field Blank**				385.085	385.092	0.007		

# Valid	Recovery	Average	St. Dev.	Max	Min
11	**73%**	**27.3**	**25.7**	**95.7**	**8.0**

BGI PQ200 Air Sampling System Downloaded 2015 08 jul 08:37:16

Job Details:

Job Name: 15Jul08B.JOB
Version: 5.62
Serial No: 963
Pump Time: 6477:11
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	594	590	592	mmHg
TA	29.7	11.6	19.6	°C
Q	---	---	16.69	Lpm

QCV 0.44 %
Max overheat 3.4 °C
occured 05-jul 13:55:13

Timer Information:

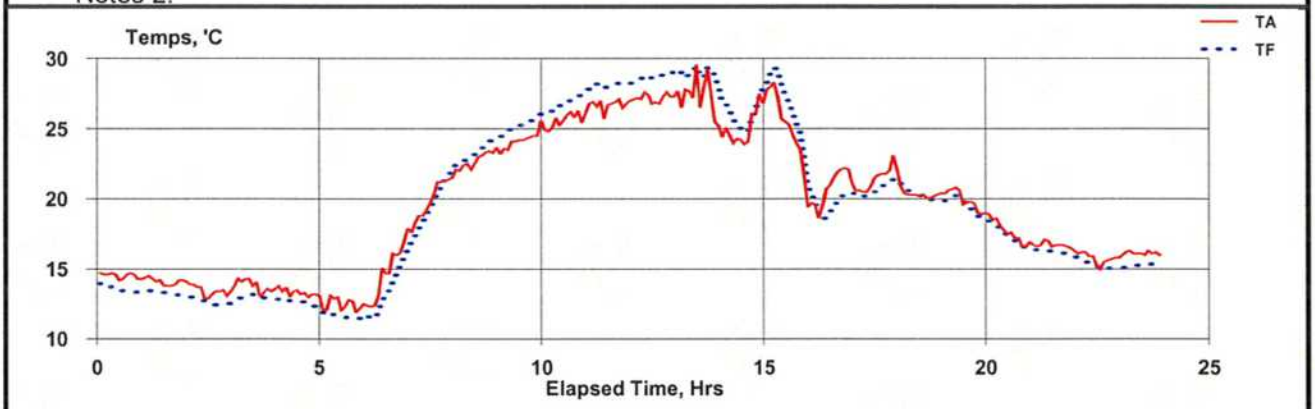
	Date dd-mmm	Time hh:mm:ss
Start:	15-05-jul	0:00:08
Stop:	15-06-jul	0:00:05

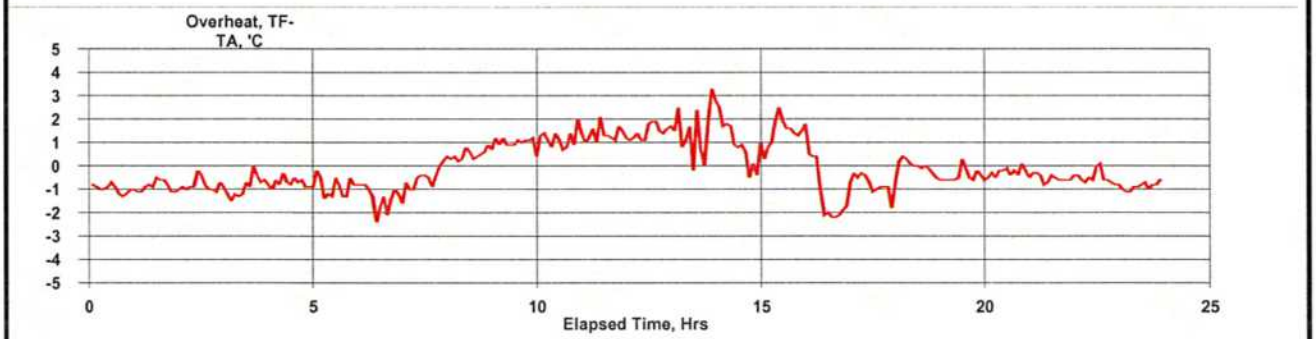
ET: 23:59

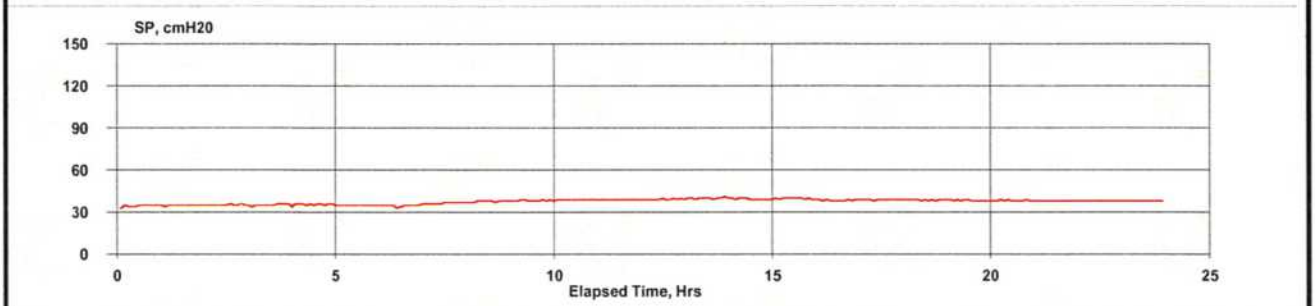
Mass Concentration Data:

Filter ID:	8	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.002	m^3
Mass Conc:	0	µg/m3

Notes 1:
Notes 2:







15-05-jul	0:05:08	592	14.5	13.5	-1.0	35	16.65
15-05-jul	1:05:08	592	14.1	13.2	-0.9	35	16.69
15-05-jul	2:05:08	592	13.4	12.6	-0.8	35	16.66
15-05-jul	3:05:08	592	13.8	12.9	-0.9	35	16.66
15-05-jul	4:05:08	592	13.3	12.6	-0.7	36	16.71
15-05-jul	5:05:08	593	12.5	11.6	-0.9	35	16.70
15-05-jul	6:05:08	593	14.8	13.5	-1.4	35	16.59
15-05-jul	7:05:08	593	19.9	19.5	-0.4	37	16.68
15-05-jul	8:05:08	594	22.8	23.3	0.5	38	16.71
15-05-jul	9:05:08	593	24.2	25.2	1.0	38	16.71
15-05-jul	10:05:08	593	25.6	26.8	1.2	39	16.70
15-05-jul	11:05:08	593	26.7	28.1	1.4	39	16.70
15-05-jul	12:05:08	593	27.2	28.7	1.5	39	16.70
15-05-jul	13:05:08	593	27.4	28.9	1.6	40	16.73
15-05-jul	14:05:08	593	25.1	26.0	0.9	39	16.72
15-05-jul	15:05:08	593	25.1	26.6	1.5	40	16.73
15-05-jul	16:05:08	593	20.8	19.6	-1.2	38	16.70
15-05-jul	17:05:08	593	21.4	20.6	-0.8	39	16.71
15-05-jul	18:05:08	593	20.3	20.3	0.0	39	16.71
15-05-jul	19:05:08	593	19.9	19.5	-0.4	38	16.69
15-05-jul	20:05:08	593	17.6	17.3	-0.3	38	16.70
15-05-jul	21:05:08	593	16.7	16.2	-0.5	38	16.71
15-05-jul	22:05:08	593	15.7	15.2	-0.5	38	16.68
15-05-jul	23:05:08	594	16.1	15.2	-0.9	38	16.69

BGI PQ200 Air Sampling System Downloaded 2015 13 jul 12:04:23

Job Details:

Job Name: 15Jul13B.JOB
Version: 5.62
Serial No: 963
Pump Time: 6501:10
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	594	589	593	mmHg
TA	25.1	7	15.7	°C
Q	---	---	16.65	Lpm

QCV 0.68 %
Max overheat 2.4 °C
occured 12-jul 19:53:46

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-11-jul	0:00:08
Stop:	15-12-jul	0:00:05

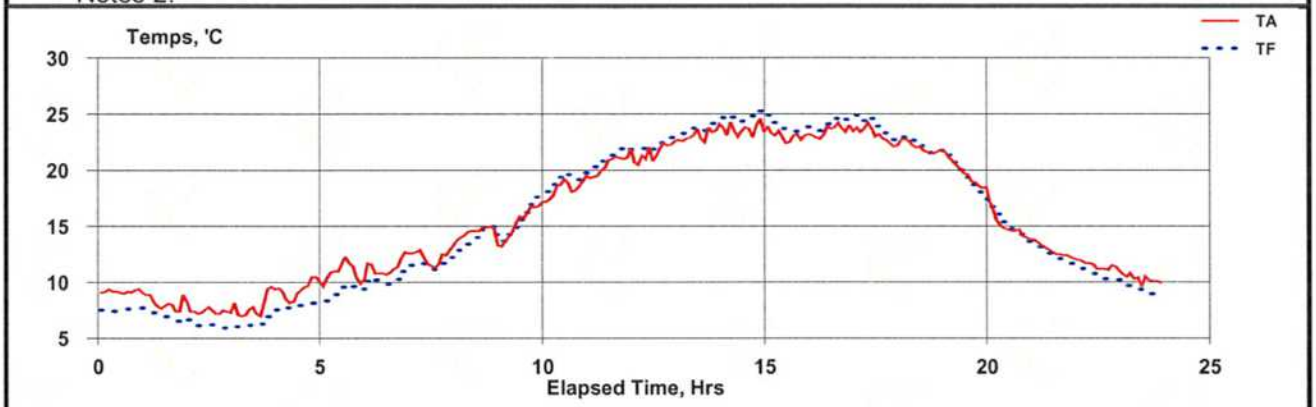
ET: 23:59

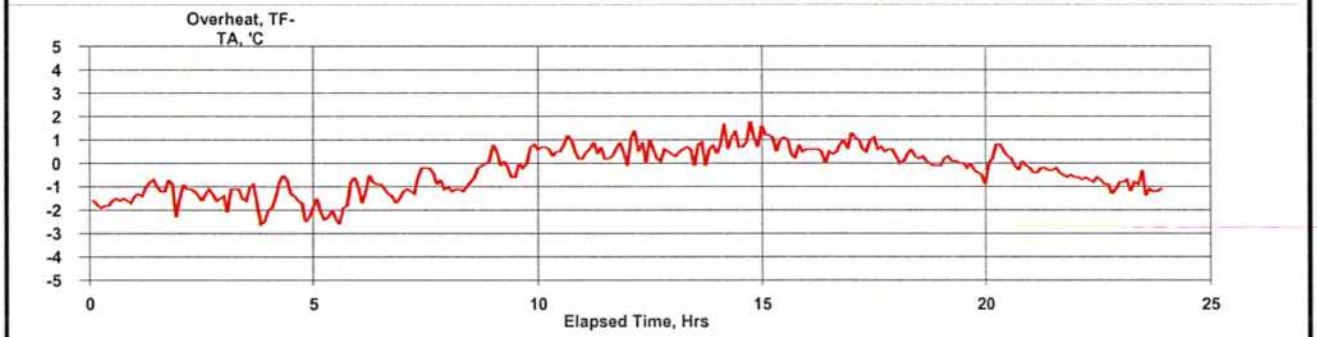
Mass Concentration Data:

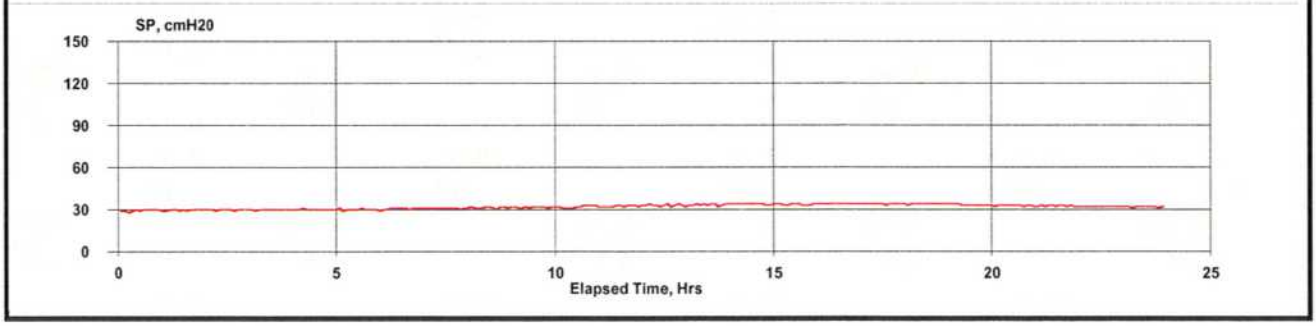
Filter ID: 12
Final Wt: mg
Initial Wt: mg
Delta Wt: 0.000 mg
Total Vol: 23.929 m^3

Mass Conc: 0 µg/m3

Notes 1:
Notes 2:







15-11-jul	0:05:08	592	9.2	7.5	-1.7	29	16.69
15-11-jul	1:05:08	592	8.1	7.0	-1.2	30	16.63
15-11-jul	2:05:08	592	7.4	6.1	-1.3	30	16.67
15-11-jul	3:05:08	592	8.0	6.4	-1.6	30	16.68
15-11-jul	4:05:08	592	9.4	7.9	-1.5	30	16.67
15-11-jul	5:05:08	593	10.9	9.1	-1.8	30	16.64
15-11-jul	6:05:08	593	11.5	10.3	-1.2	31	16.69
15-11-jul	7:05:08	593	12.3	11.6	-0.7	31	16.59
15-11-jul	8:05:08	594	14.4	13.9	-0.5	31	16.68
15-11-jul	9:05:08	594	15.5	15.6	0.1	32	16.67
15-11-jul	10:05:08	594	18.4	19.0	0.6	32	16.53
15-11-jul	11:05:08	594	20.6	21.0	0.5	33	16.54
15-11-jul	12:05:08	594	21.6	22.2	0.6	33	16.53
15-11-jul	13:05:08	594	23.2	23.7	0.5	33	16.59
15-11-jul	14:05:08	593	23.6	24.7	1.1	34	16.62
15-11-jul	15:05:08	593	23.1	23.9	0.8	34	16.60
15-11-jul	16:05:08	593	23.5	24.1	0.6	34	16.70
15-11-jul	17:05:08	593	23.1	23.8	0.7	34	16.68
15-11-jul	18:05:08	593	22.0	22.2	0.1	34	16.71
15-11-jul	19:05:08	593	19.7	19.6	-0.1	33	16.70
15-11-jul	20:05:08	593	15.0	15.1	0.2	33	16.68
15-11-jul	21:05:08	594	12.8	12.4	-0.4	33	16.67
15-11-jul	22:05:08	594	11.5	10.7	-0.8	32	16.67
15-11-jul	23:05:08	594	10.3	9.3	-1.0	32	16.67

BGI PQ200 Air Sampling System Downloaded 2015 20 jul 12:42:51

Job Details:

Job Name: 15Jul20B.JOB
Version: 5.62
Serial No: 963
Pump Time: 6525:09
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	593	590	591	mmHg
TA	29.1	9.8	20	°C
Q	---	---	16.66	Lpm

QCV 0.6 %
Max overheat 3.5 °C
occured 18-jul 17:03:41

Timer Information:

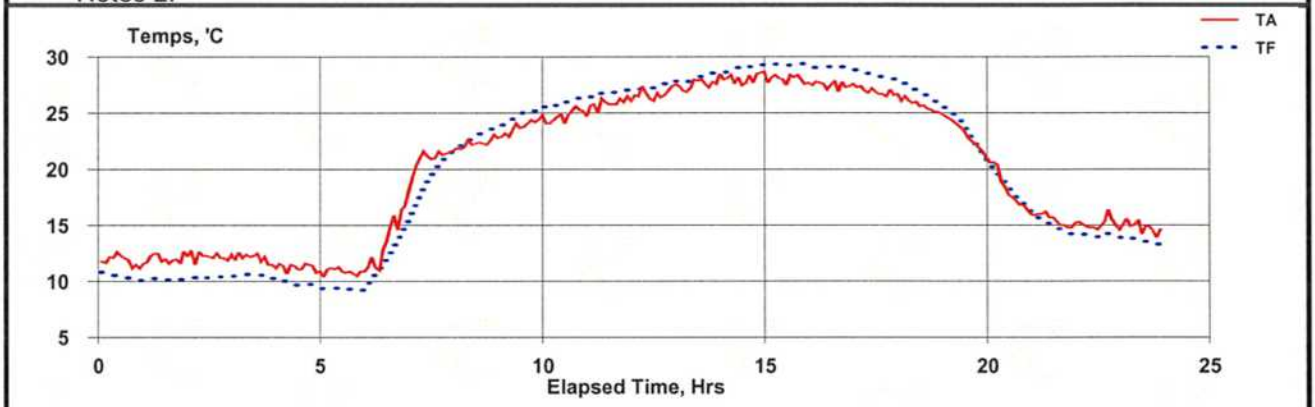
	Date dd-mmm	Time hh:mm:ss
Start:	15-17-jul	0:00:08
Stop:	15-18-jul	0:00:05

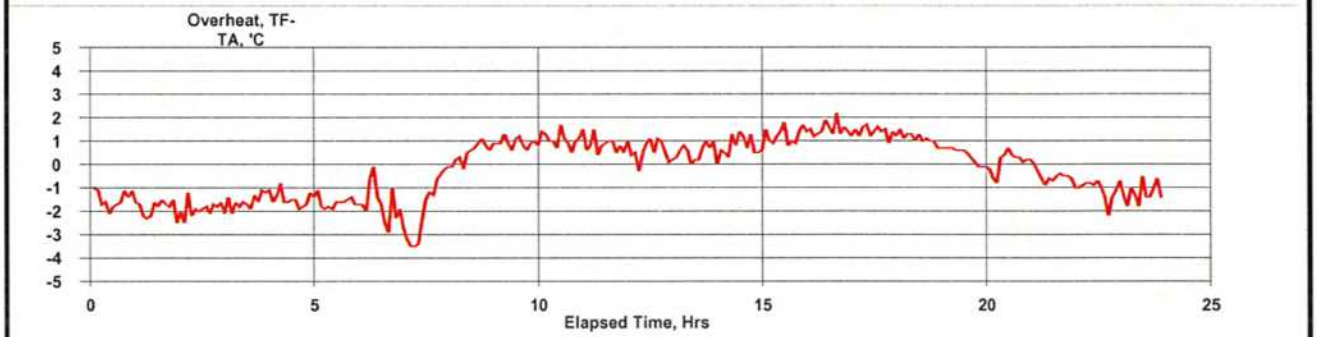
ET: 23:59

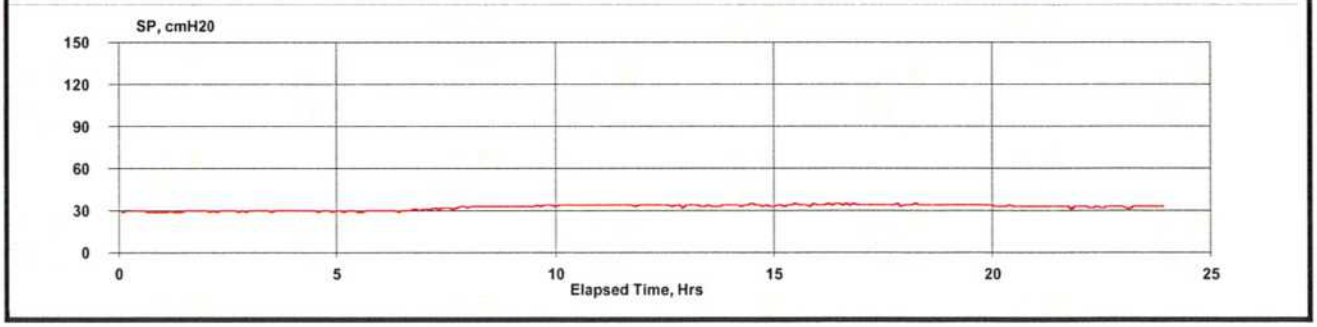
Mass Concentration Data:

Filter ID:	15	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	23.95	m^3
Mass Conc:	0	ug/m3

Notes 1:
Notes 2:







15-17-jul	0:05:08	592	11.9	10.4	-1.5	30	16.73
15-17-jul	1:05:08	592	12.1	10.2	-1.9	30	16.67
15-17-jul	2:05:08	592	12.2	10.3	-1.9	30	16.64
15-17-jul	3:05:08	592	12.0	10.5	-1.5	30	16.65
15-17-jul	4:05:08	592	11.3	9.8	-1.5	30	16.65
15-17-jul	5:05:08	592	10.9	9.3	-1.6	30	16.59
15-17-jul	6:05:08	593	14.1	12.3	-1.7	30	16.64
15-17-jul	7:05:08	593	21.1	19.3	-1.8	32	16.70
15-17-jul	8:05:08	593	22.4	22.9	0.5	33	16.72
15-17-jul	9:05:08	593	23.8	24.8	0.9	33	16.71
15-17-jul	10:05:08	593	24.8	25.9	1.1	34	16.73
15-17-jul	11:05:08	592	25.9	26.7	0.8	34	16.65
15-17-jul	12:05:08	592	26.8	27.3	0.5	34	16.62
15-17-jul	13:05:08	591	27.6	28.1	0.5	34	16.56
15-17-jul	14:05:08	591	28.1	28.9	0.8	34	16.57
15-17-jul	15:05:08	591	28.0	29.3	1.3	34	16.61
15-17-jul	16:05:08	591	27.5	29.0	1.5	34	16.69
15-17-jul	17:05:08	590	26.9	28.3	1.4	34	16.68
15-17-jul	18:05:08	590	25.6	26.7	1.1	34	16.69
15-17-jul	19:05:08	590	23.0	23.4	0.4	34	16.69
15-17-jul	20:05:08	590	18.1	18.2	0.1	33	16.69
15-17-jul	21:05:08	591	15.5	14.9	-0.6	33	16.65
15-17-jul	22:05:08	591	15.1	14.0	-1.1	33	16.65
15-17-jul	23:05:08	591	14.8	13.6	-1.2	33	16.68

BGI PQ200 Air Sampling System Downloaded 2015 27 jul 10:53:53

Job Details:

Job Name: 15Jul27B.JOB
Version: 5.62
Serial No: 963
Pump Time: 6549:09
Flags:

Job Code:
Site Name: 963B
Station Code:
Operators: KN
User1:
User2:

	Max	Min	Avg	Units
BP	595	590	593	mmHg
TA	27	8.3	18	°C
Q	---	---	16.65	Lpm

QCV 0.62 %
Max overheat 2.9 °C
occured 25-jul 19:48:50

Timer Information:

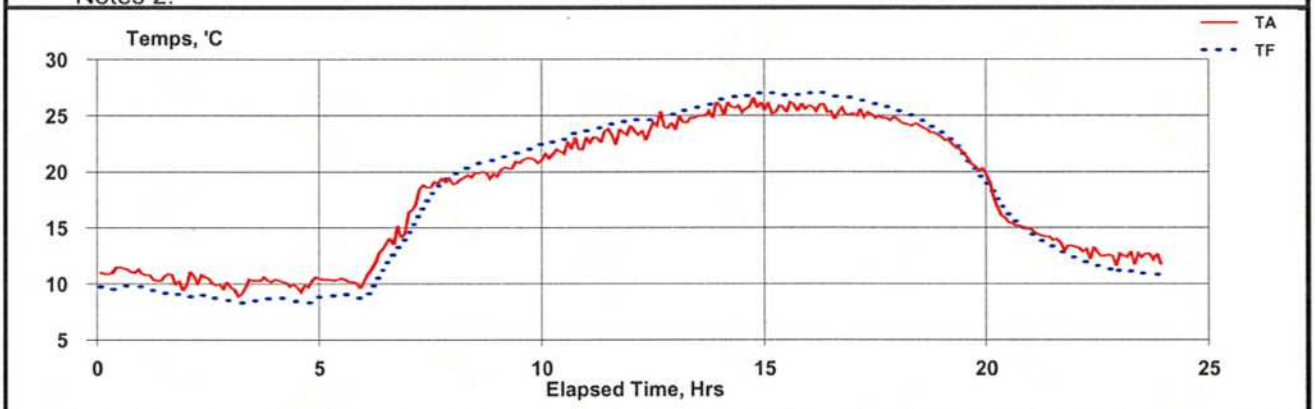
	Date dd-mmm	Time hh:mm:ss
Start:	15-23-jul	0:00:08
Stop:	15-24-jul	0:00:05

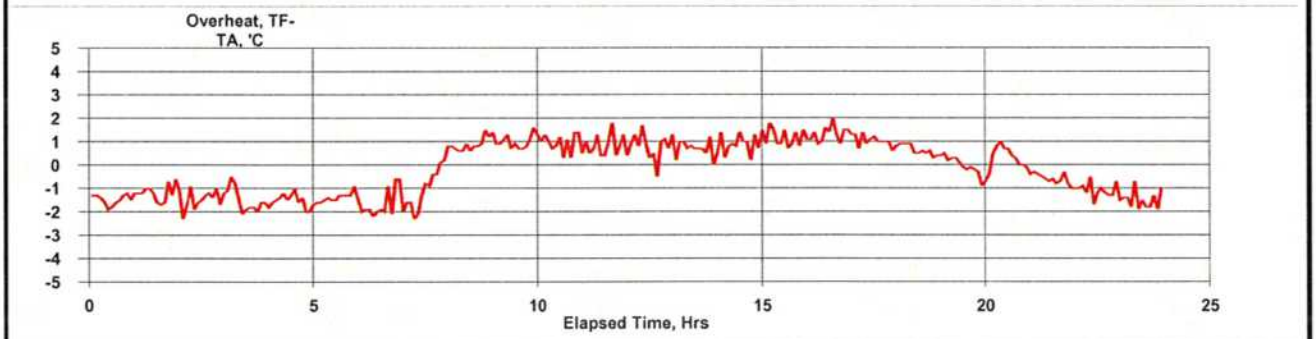
ET: 24:00:00

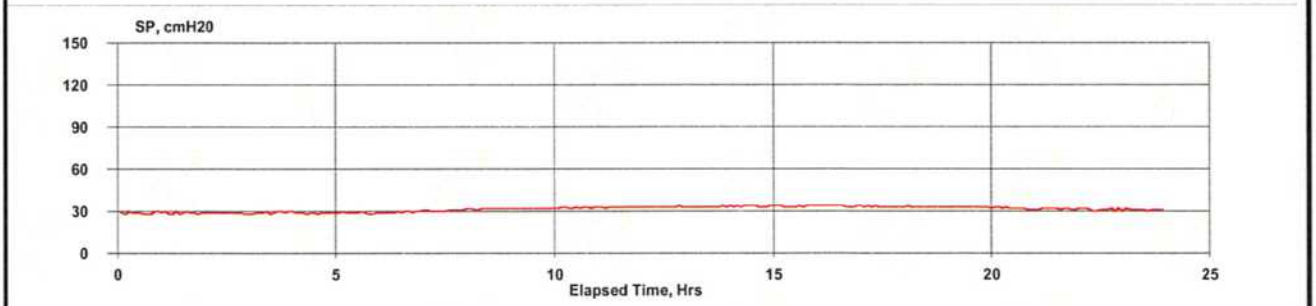
Mass Concentration Data:

Filter ID:	5	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	23.938	m^3
Mass Conc:	0	ug/m3

Notes 1:
Notes 2:







15-23-jul	0:06:25	592	11.2	9.7	-1.5	29	16.68
15-23-jul	1:06:25	592	10.4	9.2	-1.2	29	16.59
15-23-jul	2:06:25	592	10.3	8.8	-1.5	29	16.63
15-23-jul	3:06:25	592	10.0	8.5	-1.5	29	16.68
15-23-jul	4:06:25	593	10.0	8.5	-1.5	29	16.60
15-23-jul	5:06:25	593	10.3	8.9	-1.4	29	16.57
15-23-jul	6:06:25	593	13.4	11.8	-1.7	30	16.62
15-23-jul	7:06:25	594	18.6	17.7	-0.9	31	16.67
15-23-jul	8:06:25	594	19.6	20.5	0.9	32	16.70
15-23-jul	9:06:25	594	20.8	21.8	1.0	32	16.70
15-23-jul	10:06:25	594	22.1	23.0	0.9	33	16.69
15-23-jul	11:06:25	594	23.3	24.1	0.8	33	16.71
15-23-jul	12:06:25	594	23.9	24.7	0.8	33	16.68
15-23-jul	13:06:25	594	25.1	25.7	0.7	33	16.71
15-23-jul	14:06:25	594	25.8	26.7	0.9	34	16.70
15-23-jul	15:06:25	594	25.7	26.9	1.2	34	16.70
15-23-jul	16:06:25	593	25.4	26.7	1.3	34	16.71
15-23-jul	17:06:25	593	25.0	26.0	1.0	33	16.68
15-23-jul	18:06:25	593	23.9	24.5	0.6	33	16.68
15-23-jul	19:06:25	594	21.4	21.3	-0.1	33	16.68
15-23-jul	20:06:25	594	16.0	16.3	0.3	32	16.57
15-23-jul	21:06:25	594	13.9	13.2	-0.6	32	16.61
15-23-jul	22:06:25	594	12.7	11.5	-1.1	31	16.50
15-23-jul	23:06:25	594	12.4	10.9	-1.5	31	16.58

BGI PQ200 Air Sampling System Downloaded 2015 27 jul 10:53:53

Job Details:

Job Name: 15Jul27B.JOB
Version: 5.62
Serial No: 963
Pump Time: 6549:09
Flags:

Job Code:
Site Name: 963B
Station Code:
Operators: KN
User1:
User2:

	Max	Min	Avg	Units
BP	595	590	593	mmHg
TA	27	8.3	18	°C
Q	---	---	16.65	Lpm

QCV 0.62 %
Max overheat 2.9 °C
occured 25-jul 19:48:50

Timer Information:

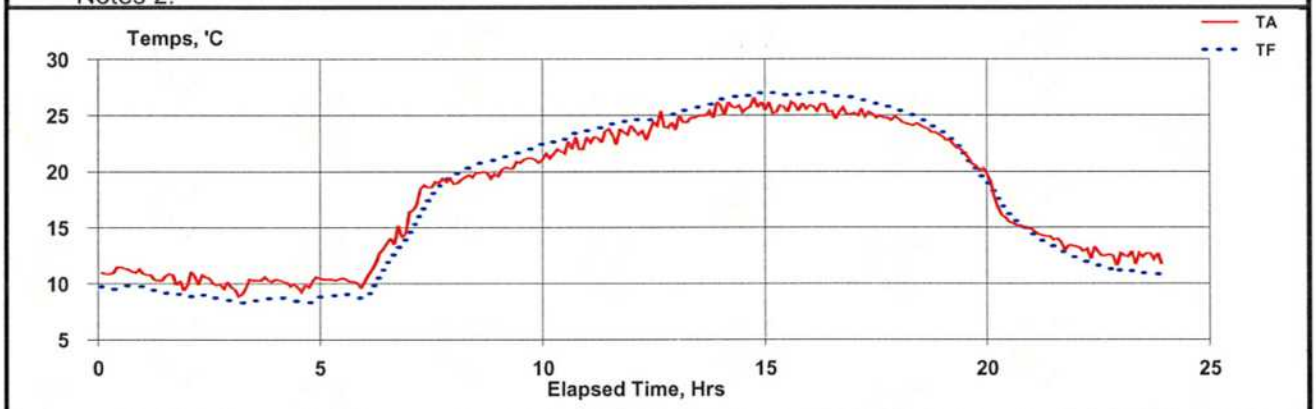
	Date dd-mmm	Time hh:mm:ss
Start:	15-23-jul	0:00:08
Stop:	15-24-jul	0:00:05

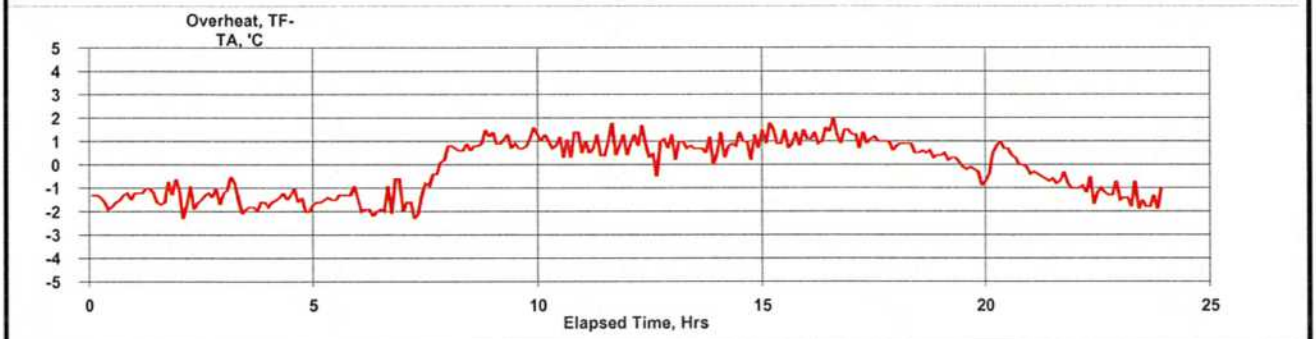
ET: 24:00:00

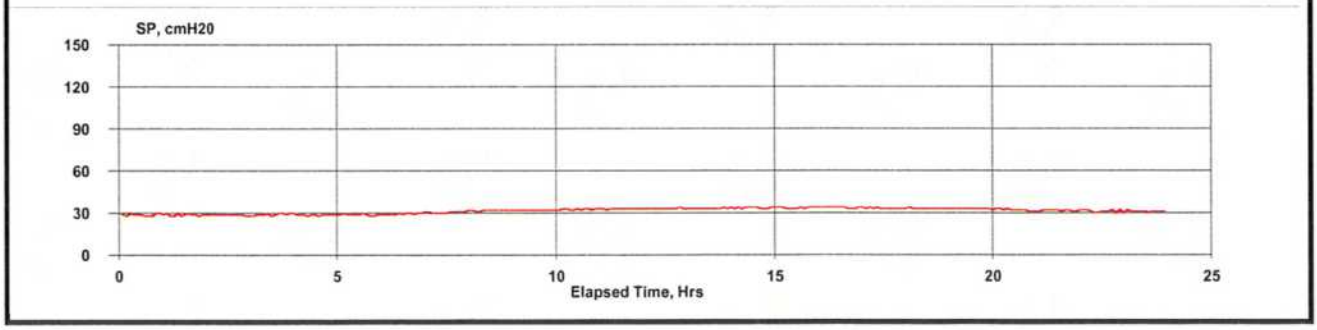
Mass Concentration Data:

Filter ID:	5	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	23.938	m^3
Mass Conc:	0	µg/m3

Notes 1:
Notes 2:







15-23-jul	0:06:25	592	11.2	9.7	-1.5	29	16.68
15-23-jul	1:06:25	592	10.4	9.2	-1.2	29	16.59
15-23-jul	2:06:25	592	10.3	8.8	-1.5	29	16.63
15-23-jul	3:06:25	592	10.0	8.5	-1.5	29	16.68
15-23-jul	4:06:25	593	10.0	8.5	-1.5	29	16.60
15-23-jul	5:06:25	593	10.3	8.9	-1.4	29	16.57
15-23-jul	6:06:25	593	13.4	11.8	-1.7	30	16.62
15-23-jul	7:06:25	594	18.6	17.7	-0.9	31	16.67
15-23-jul	8:06:25	594	19.6	20.5	0.9	32	16.70
15-23-jul	9:06:25	594	20.8	21.8	1.0	32	16.70
15-23-jul	10:06:25	594	22.1	23.0	0.9	33	16.69
15-23-jul	11:06:25	594	23.3	24.1	0.8	33	16.71
15-23-jul	12:06:25	594	23.9	24.7	0.8	33	16.68
15-23-jul	13:06:25	594	25.1	25.7	0.7	33	16.71
15-23-jul	14:06:25	594	25.8	26.7	0.9	34	16.70
15-23-jul	15:06:25	594	25.7	26.9	1.2	34	16.70
15-23-jul	16:06:25	593	25.4	26.7	1.3	34	16.71
15-23-jul	17:06:25	593	25.0	26.0	1.0	33	16.68
15-23-jul	18:06:25	593	23.9	24.5	0.6	33	16.68
15-23-jul	19:06:25	594	21.4	21.3	-0.1	33	16.68
15-23-jul	20:06:25	594	16.0	16.3	0.3	32	16.57
15-23-jul	21:06:25	594	13.9	13.2	-0.6	32	16.61
15-23-jul	22:06:25	594	12.7	11.5	-1.1	31	16.50
15-23-jul	23:06:25	594	12.4	10.9	-1.5	31	16.58

BGI PQ200 Air Sampling System Downloaded 2015 30 jul 12:20:54

Job Details:

Job Name:	15Jul30C.JOB
Version:	5.62
Serial No:	963
Pump Time:	6573:08
Flags:	

Job Code:	
Site Name:	963B
Station Code:	
Operators:	KN
User1:	
User2:	

	Max	Min	Avg	Units
BP	596	592	594	mmHg
TA	30.7	13.5	22.1	°C
Q	---	---	16.68	Lpm

QCV	0.66 %
Max overheat	2.9 °C
occured	29-jul 16:05:28

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-29-jul	0:00:08
Stop:	15-30-jul	0:00:05

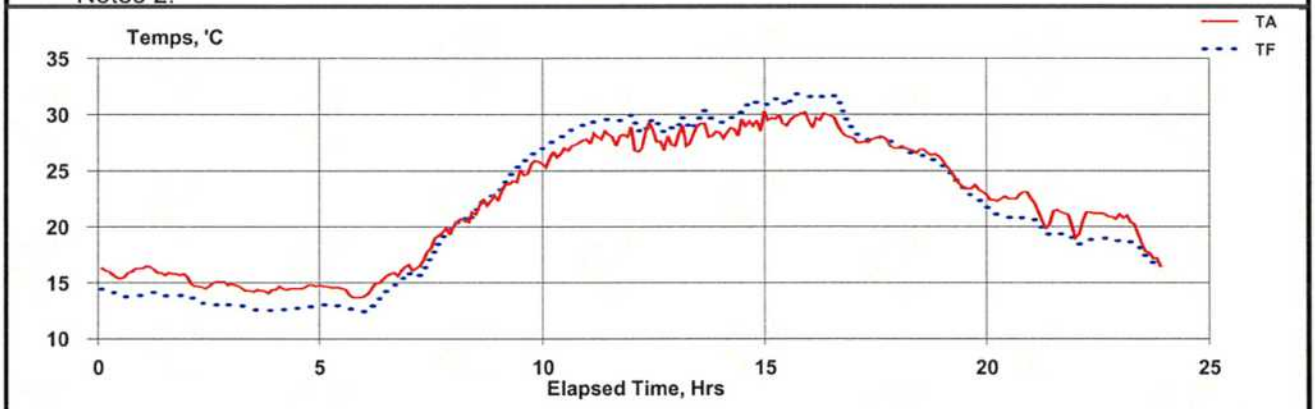
ET: 23:59

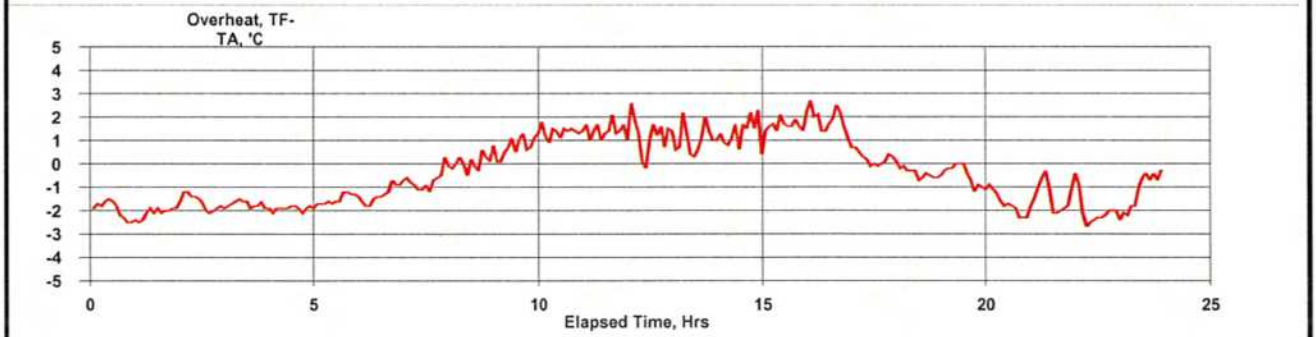
Mass Concentration Data:

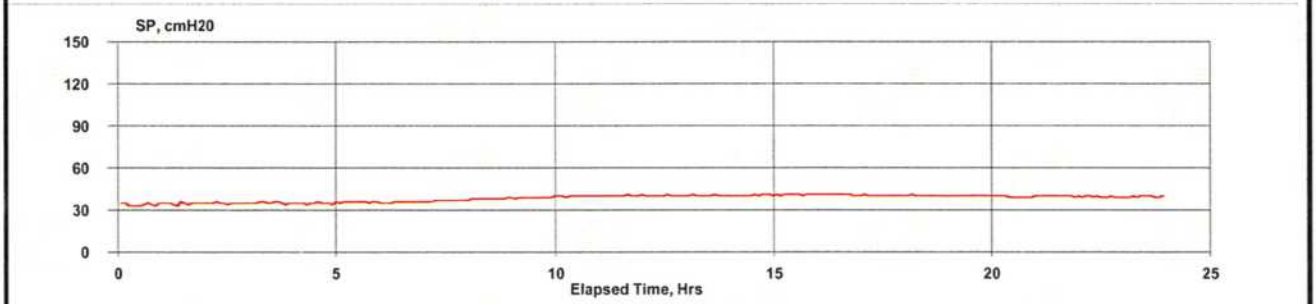
Filter ID:	18	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	23.984	m^3
Mass Conc:	0	µg/m3

Notes 1:

Notes 2:







15-29-jul	0:09:08	594	15.9	14.0	-2.0	34	16.56
15-29-jul	1:09:08	594	15.9	13.9	-2.0	35	16.60
15-29-jul	2:09:08	594	14.8	13.2	-1.7	35	16.67
15-29-jul	3:09:08	594	14.4	12.7	-1.7	35	16.65
15-29-jul	4:09:08	594	14.6	12.7	-1.9	35	16.62
15-29-jul	5:09:08	595	14.2	12.7	-1.5	36	16.68
15-29-jul	6:09:08	595	15.5	14.2	-1.3	36	16.65
15-29-jul	7:09:08	596	18.2	17.6	-0.7	37	16.70
15-29-jul	8:09:08	596	21.5	21.6	0.1	38	16.70
15-29-jul	9:09:08	596	24.7	25.4	0.8	39	16.70
15-29-jul	10:09:08	596	26.8	28.2	1.4	40	16.70
15-29-jul	11:09:08	596	28.1	29.5	1.4	40	16.72
15-29-jul	12:09:08	596	27.6	28.9	1.2	40	16.69
15-29-jul	13:09:08	595	28.4	29.4	1.1	40	16.70
15-29-jul	14:09:08	595	28.9	30.3	1.3	40	16.71
15-29-jul	15:09:08	595	29.7	31.3	1.7	41	16.71
15-29-jul	16:09:08	594	29.1	30.9	1.8	41	16.70
15-29-jul	17:09:08	594	27.6	27.8	0.2	40	16.70
15-29-jul	18:09:08	594	26.7	26.3	-0.4	40	16.70
15-29-jul	19:09:08	595	23.9	23.4	-0.5	40	16.71
15-29-jul	20:09:08	595	22.6	20.9	-1.7	39	16.70
15-29-jul	21:09:08	596	20.8	19.5	-1.3	40	16.74
15-29-jul	22:09:08	595	20.9	18.7	-2.2	39	16.70
15-29-jul	23:09:08	596	18.8	17.7	-1.1	40	16.69

BGI PQ200 Air Sampling System Downloaded 2015 06 aug 13:22:24

Job Details:

Job Name:	15Aug06B.JOB
Version:	5.62
Serial No:	963
Pump Time:	6597:07
Flags:	

Job Code:	
Site Name:	
Station Code:	
Operators:	
User1:	
User2:	

	Max	Min	Avg	Units
BP	595	590	593	mmHg
TA	30.6	8.5	19.8	°C
Q	---	---	16.69	Lpm

QCV	0.55 %
Max overheat	2.3 °C
occured	04-aug 10:44:00

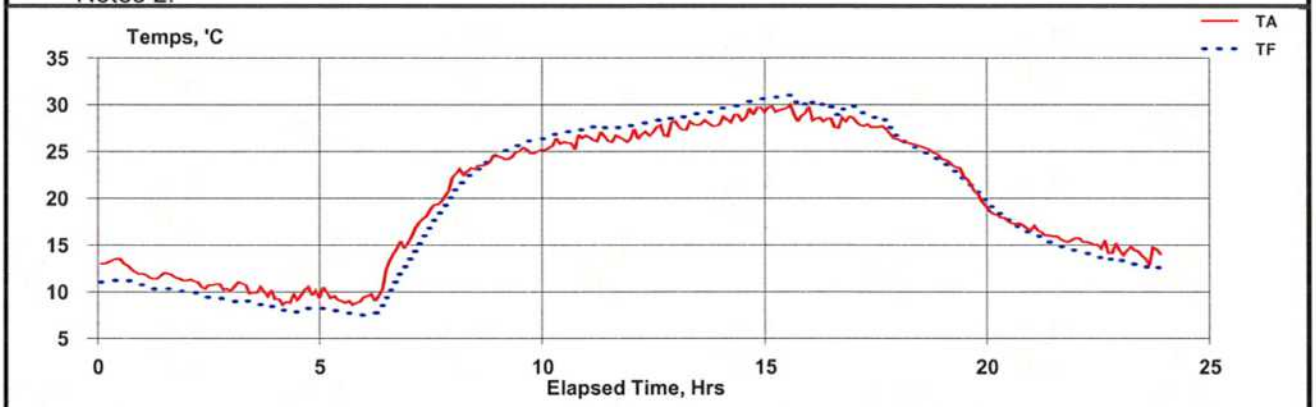
Timer Information:

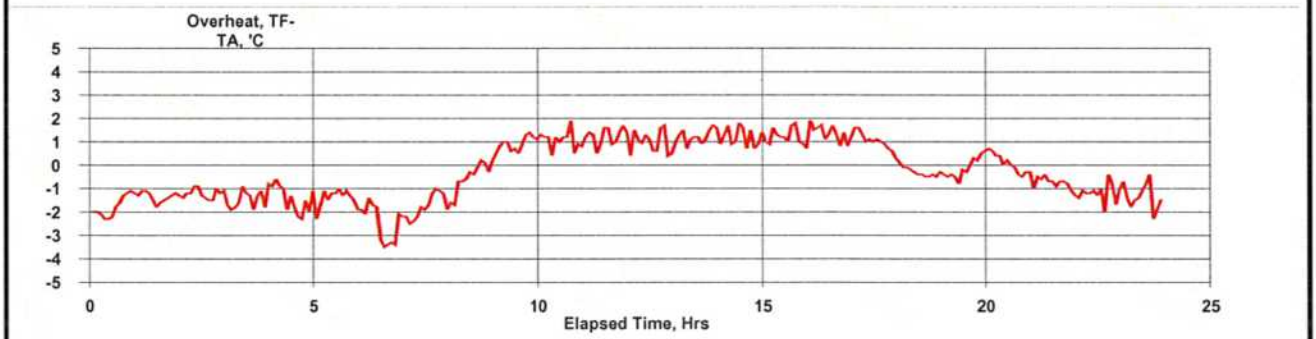
	Date dd-mmm	Time hh:mm:ss
Start:	15-04-aug	0:00:08
Stop:	15-05-aug	0:00:05
ET:	23:59	

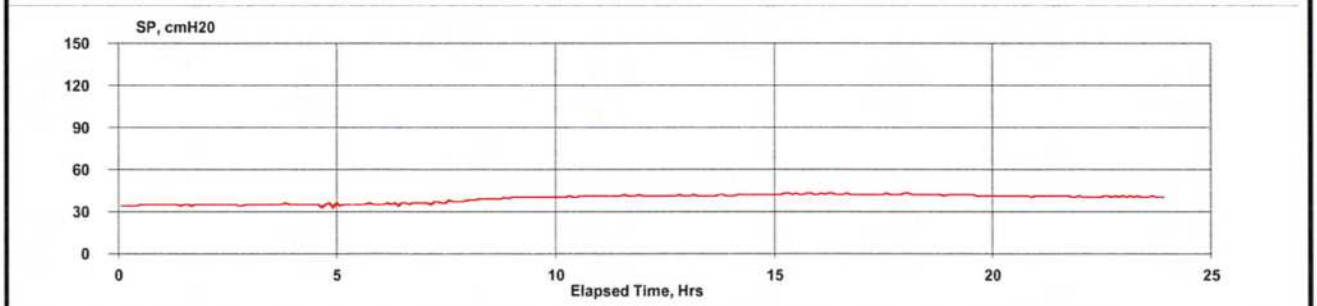
Mass Concentration Data:

Filter ID:	19	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	23.998	m^3
Mass Conc:	0	µg/m3

Notes 1:
Notes 2:







15-04-aug	0:05:08	593	12.8	11.1	-1.8	35	16.68
15-04-aug	1:05:08	593	11.6	10.2	-1.4	35	16.68
15-04-aug	2:05:08	593	10.7	9.4	-1.2	35	16.66
15-04-aug	3:05:08	593	10.2	8.7	-1.4	35	16.71
15-04-aug	4:05:08	593	9.5	8.0	-1.5	35	16.63
15-04-aug	5:05:08	593	9.2	7.8	-1.4	35	16.66
15-04-aug	6:05:08	594	12.3	9.8	-2.5	36	16.70
15-04-aug	7:05:08	594	18.9	17.1	-1.8	37	16.63
15-04-aug	8:05:08	594	23.4	22.9	-0.5	39	16.71
15-04-aug	9:05:08	594	24.8	25.7	0.9	40	16.72
15-04-aug	10:05:08	595	25.9	27.0	1.1	41	16.71
15-04-aug	11:05:08	594	26.4	27.6	1.2	41	16.71
15-04-aug	12:05:08	594	27.2	28.2	1.0	41	16.71
15-04-aug	13:05:08	594	27.8	29.0	1.2	41	16.72
15-04-aug	14:05:08	594	28.9	30.1	1.2	42	16.70
15-04-aug	15:05:08	593	29.3	30.5	1.2	42	16.72
15-04-aug	16:05:08	593	28.3	29.7	1.4	42	16.70
15-04-aug	17:05:08	593	27.4	28.4	1.0	42	16.71
15-04-aug	18:05:08	593	25.4	25.1	-0.3	42	16.72
15-04-aug	19:05:08	593	22.0	21.8	-0.1	42	16.70
15-04-aug	20:05:08	593	17.6	17.6	0.1	41	16.70
15-04-aug	21:05:08	594	15.9	15.1	-0.8	41	16.71
15-04-aug	22:05:08	593	15.0	13.8	-1.2	40	16.71
15-04-aug	23:05:08	593	14.1	12.8	-1.3	40	16.72

BGI PQ200 Air Sampling System Downloaded 2015 11 aug 10:28:16

Job Details:

Job Name:	15Aug11B.JOB
Version:	5.62
Serial No:	963
Pump Time:	6621:06
Flags:	

Job Code:	
Site Name:	
Station Code:	
Operators:	
User1:	
User2:	

	Max	Min	Avg	Units
BP	595	592	594	mmHg
TA	26.9	9.3	18.1	°C
Q	---	---	16.67	Lpm

QCV	0.7 %
Max overheat	2.5 °C
occured	10-aug 13:03:17

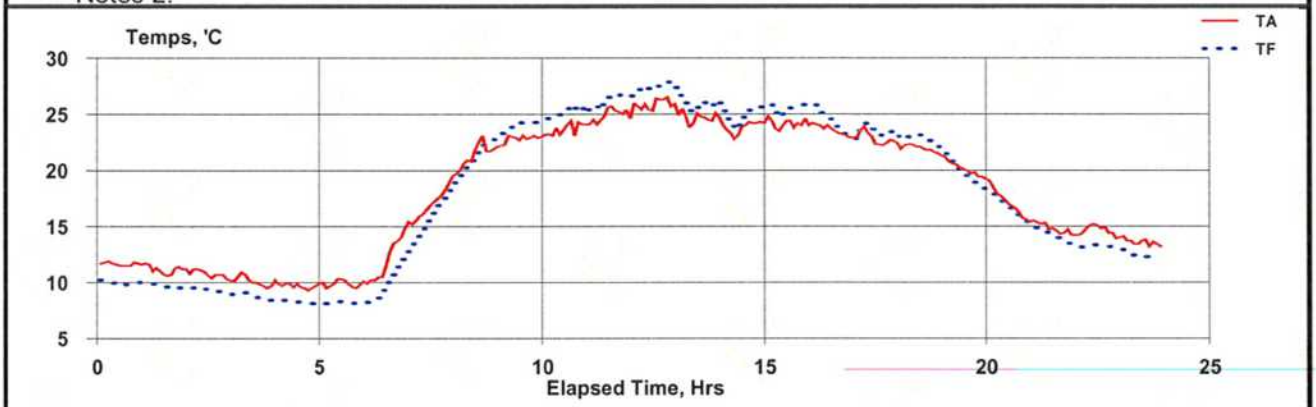
Timer Information:

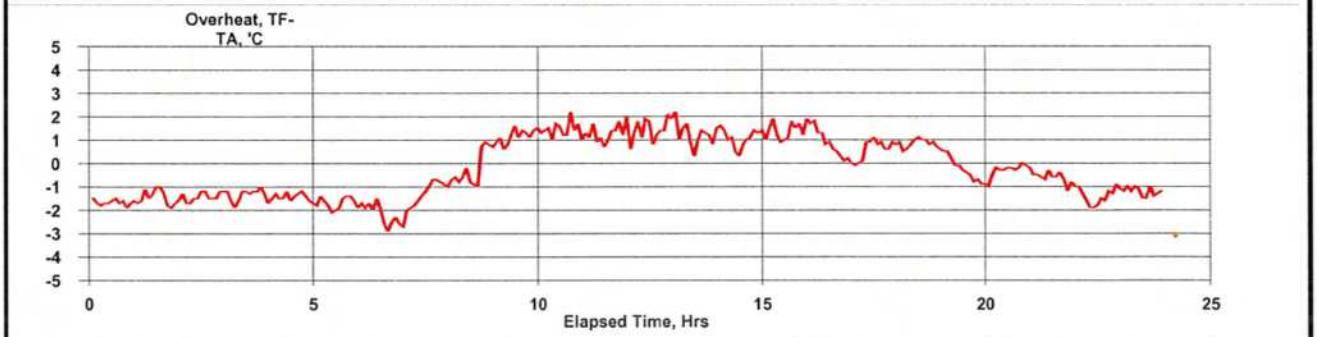
	Date dd-mmm	Time hh:mm:ss
Start:	15-10-aug	0:00:08
Stop:	15-11-aug	0:00:04
ET:	23:59	

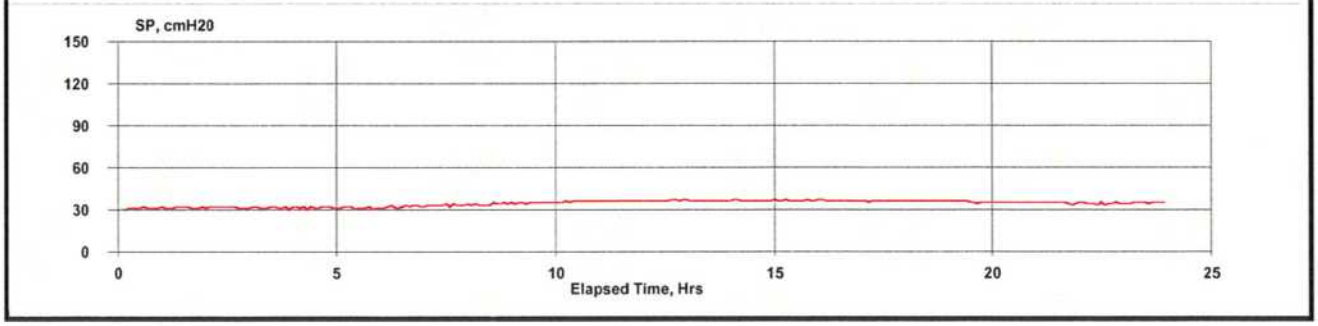
Mass Concentration Data:

Filter ID:	JBR3	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	23.968	m^3
Mass Conc:	0	ug/m3

Notes 1:
Notes 2:







15-10-aug	0:06:08	594	11.7	10.0	-1.7	31	16.70
15-10-aug	1:06:08	594	11.1	9.7	-1.5	31	16.65
15-10-aug	2:06:08	594	10.7	9.3	-1.4	32	16.65
15-10-aug	3:06:08	594	10.1	8.7	-1.4	31	16.63
15-10-aug	4:06:08	594	9.7	8.3	-1.4	31	16.64
15-10-aug	5:06:08	594	9.9	8.2	-1.7	31	16.51
15-10-aug	6:06:08	594	12.2	10.0	-2.2	32	16.73
15-10-aug	7:06:08	595	17.1	15.9	-1.3	33	16.77
15-10-aug	8:06:08	595	21.4	21.2	-0.2	34	16.60
15-10-aug	9:06:08	595	22.8	24.0	1.2	35	16.66
15-10-aug	10:06:08	595	23.7	25.1	1.4	36	16.69
15-10-aug	11:06:08	595	24.9	26.2	1.3	36	16.68
15-10-aug	12:06:08	594	25.9	27.3	1.4	36	16.71
15-10-aug	13:06:08	594	24.7	25.9	1.2	36	16.69
15-10-aug	14:06:08	594	23.8	24.9	1.1	36	16.70
15-10-aug	15:06:08	594	24.2	25.5	1.4	36	16.71
15-10-aug	16:06:08	593	23.6	24.3	0.8	36	16.70
15-10-aug	17:06:08	593	22.8	23.4	0.6	36	16.70
15-10-aug	18:06:08	593	21.9	22.7	0.8	36	16.71
15-10-aug	19:06:08	593	20.1	19.8	-0.3	35	16.70
15-10-aug	20:06:08	594	17.0	16.7	-0.3	35	16.70
15-10-aug	21:06:08	594	14.8	14.1	-0.7	35	16.68
15-10-aug	22:06:08	594	14.6	13.2	-1.4	34	16.57
15-10-aug	23:06:08	594	13.6	12.3	-1.2	35	16.68

BGI PQ200 Air Sampling System Downloaded 2015 17 aug 14:31:04

Job Details:

Job Name:	15Aug17B.JOB
Version:	5.62
Serial No:	963
Pump Time:	6645:05
Flags:	

Job Code:	
Site Name:	
Station Code:	
Operators:	12
User1:	
User2:	

	Max	Min	Avg	Units
BP	595	592	593	mmHg
TA	30.7	11.2	21.7	°C
Q	---	---	16.69	Lpm

QCV	0.42 %
Max overheat	2.6 °C
occured	16-aug 14:35:40

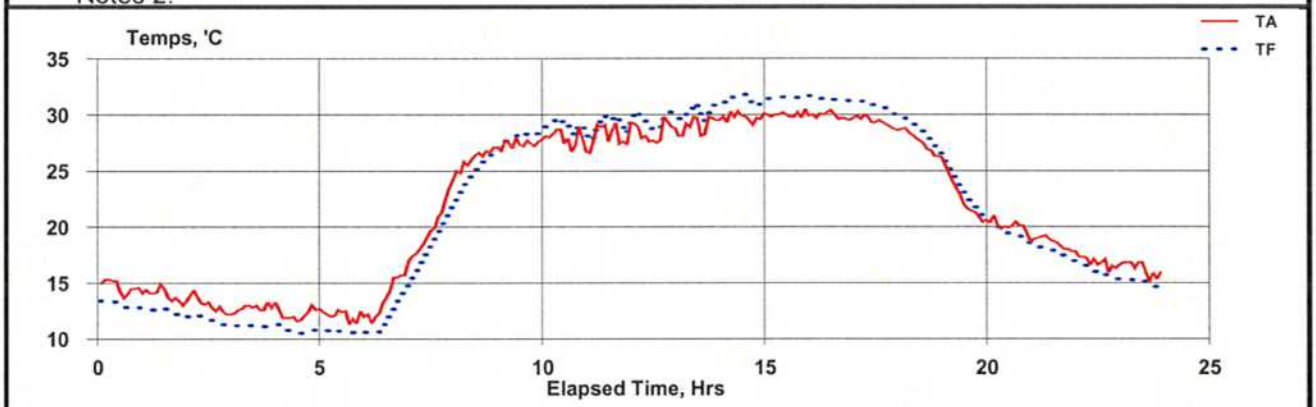
Timer Information:

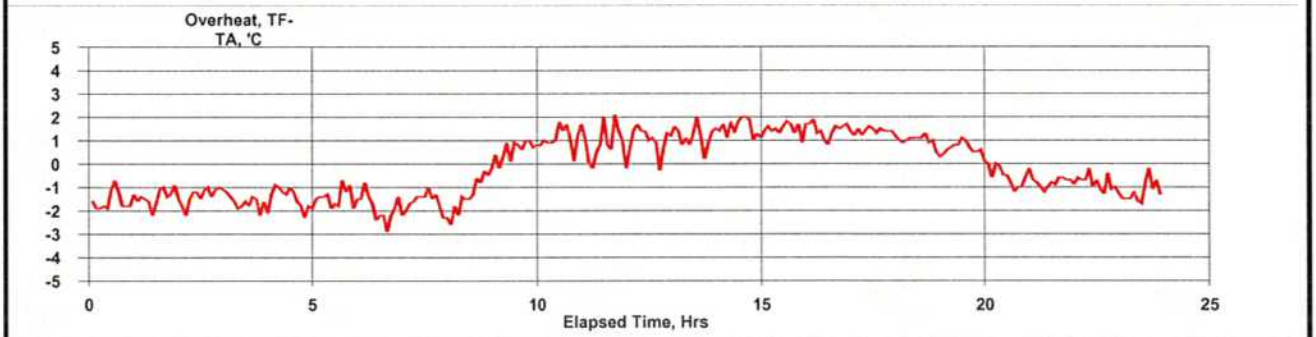
	Date dd-mmm	Time hh:mm:ss
Start:	15-16-aug	0:00:08
Stop:	15-17-aug	0:00:04
ET:	23:59	

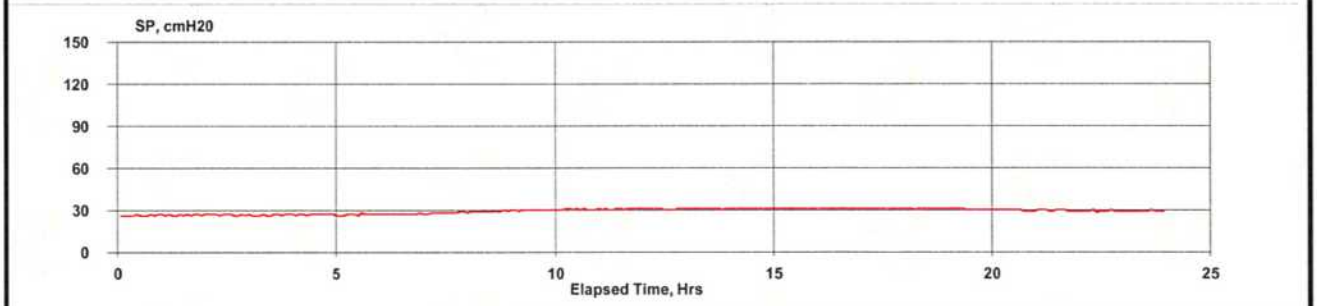
Mass Concentration Data:

Filter ID:		
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	23.997	m^3
Mass Conc:	0	ug/m3

Notes 1:
Notes 2:







15-16-aug	0:05:08	595	14.6	13.1	-1.6	26	16.79
15-16-aug	1:05:08	595	13.9	12.5	-1.4	27	16.71
15-16-aug	2:05:08	594	13.1	11.7	-1.3	27	16.67
15-16-aug	3:05:08	595	12.8	11.2	-1.7	27	16.69
15-16-aug	4:05:08	594	12.2	10.8	-1.4	27	16.72
15-16-aug	5:05:08	595	12.1	10.7	-1.4	27	16.71
15-16-aug	6:05:08	595	14.0	12.1	-1.9	27	16.75
15-16-aug	7:05:08	595	20.2	18.6	-1.6	28	16.73
15-16-aug	8:05:08	595	26.2	24.9	-1.2	29	16.72
15-16-aug	9:05:08	595	27.4	28.0	0.6	30	16.71
15-16-aug	10:05:08	595	27.9	29.0	1.1	30	16.69
15-16-aug	11:05:08	595	28.2	29.0	0.8	31	16.69
15-16-aug	12:05:08	594	28.5	29.5	1.0	31	16.68
15-16-aug	13:05:08	594	29.1	30.2	1.2	31	16.69
15-16-aug	14:05:08	594	29.8	31.3	1.5	31	16.69
15-16-aug	15:05:08	593	30.0	31.5	1.5	31	16.69
15-16-aug	16:05:08	593	29.9	31.3	1.4	31	16.68
15-16-aug	17:05:08	593	29.3	30.7	1.4	31	16.71
15-16-aug	18:05:08	593	27.5	28.4	0.9	31	16.70
15-16-aug	19:05:08	593	22.4	23.0	0.7	30	16.70
15-16-aug	20:05:08	593	20.0	19.5	-0.5	30	16.64
15-16-aug	21:05:08	593	18.5	17.7	-0.8	30	16.67
15-16-aug	22:05:08	593	16.8	15.9	-0.8	29	16.63
15-16-aug	23:05:08	593	16.2	15.0	-1.2	29	16.66

BGI PQ200 Air Sampling System

Downloaded 2015 25 aug 10:47:01

Job Details:

Job Name:	15Aug25B.JOB
Version:	5.62
Serial No:	963
Pump Time:	6669:04
Flags:	

Job Code:	
Site Name:	963B
Station Code:	
Operators:	KN
User1:	
User2:	

	Max	Min	Avg	Units
BP	595	590	592	mmHg
TA	29.8	10.8	20	°C
Q	---	---	16.69	Lpm

QCV	0.51 %
Max overheat	3.4 °C
occured	22-aug 16:29:03

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-22-aug	0:00:08
Stop:	15-23-aug	0:00:05

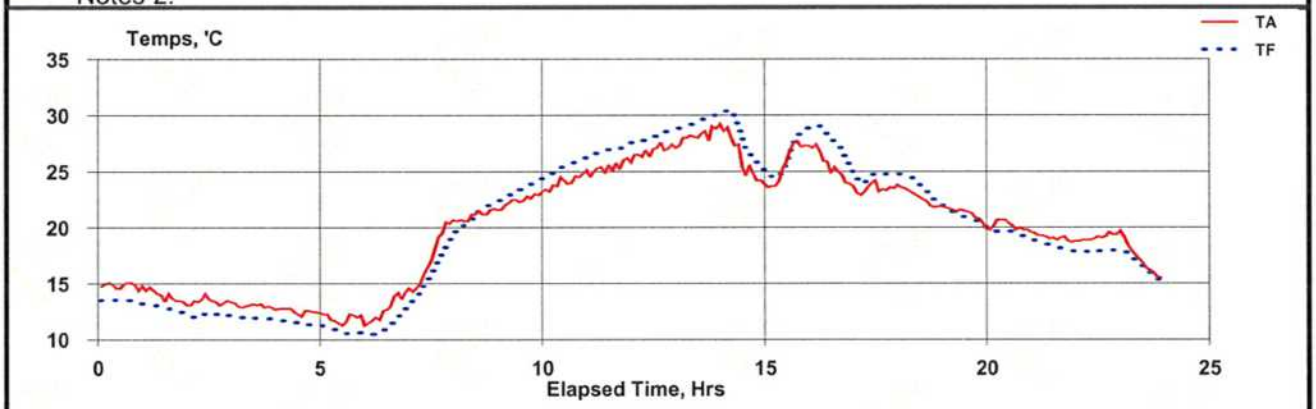
ET: 23:59

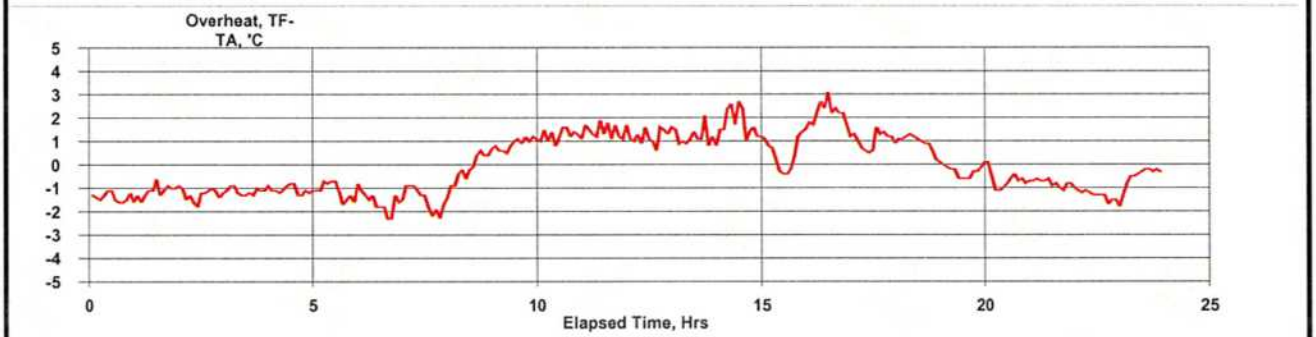
Mass Concentration Data:

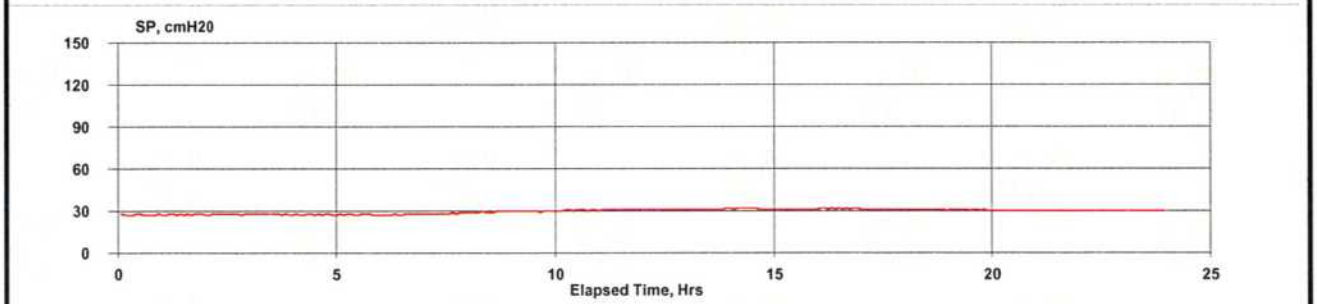
Filter ID:	15	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.009	m^3
Mass Conc:	0	µg/m3

Notes 1:

Notes 2:







15-22-aug	0:05:08	592	14.9	13.5	-1.4	27	16.77
15-22-aug	1:05:08	592	13.9	12.8	-1.1	28	16.69
15-22-aug	2:05:08	592	13.5	12.2	-1.3	28	16.68
15-22-aug	3:05:08	592	13.0	11.9	-1.1	28	16.69
15-22-aug	4:05:08	592	12.6	11.5	-1.1	28	16.65
15-22-aug	5:05:08	592	11.9	10.8	-1.1	28	16.69
15-22-aug	6:05:08	593	13.0	11.4	-1.6	28	16.67
15-22-aug	7:05:08	593	17.6	16.2	-1.5	28	16.67
15-22-aug	8:05:08	593	21.1	21.1	-0.1	30	16.71
15-22-aug	9:05:08	593	22.5	23.4	0.9	30	16.69
15-22-aug	10:05:08	594	24.1	25.4	1.3	31	16.70
15-22-aug	11:05:08	593	25.4	26.8	1.5	31	16.71
15-22-aug	12:05:08	593	26.9	28.1	1.2	31	16.70
15-22-aug	13:05:08	593	28.3	29.4	1.2	31	16.70
15-22-aug	14:05:08	593	26.1	27.8	1.8	32	16.71
15-22-aug	15:05:08	593	25.9	26.4	0.5	31	16.69
15-22-aug	16:05:08	593	25.4	27.5	2.2	32	16.71
15-22-aug	17:05:08	593	23.5	24.5	1.0	31	16.71
15-22-aug	18:05:08	593	22.6	23.5	0.9	31	16.72
15-22-aug	19:05:08	593	21.2	20.9	-0.3	31	16.71
15-22-aug	20:05:08	594	20.1	19.5	-0.7	30	16.71
15-22-aug	21:05:08	594	19.1	18.3	-0.8	30	16.71
15-22-aug	22:05:08	594	19.2	17.8	-1.4	30	16.72
15-22-aug	23:05:08	594	17.0	16.6	-0.5	30	16.70

BGI PQ200 Air Sampling System Downloaded 2015 08 sep 10:49:36

Job Details:

Job Name: 15Aug31B.JOB
Version: 5.62
Serial No: 963
Pump Time: 2062:22
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1: ++++++++++++++++++++++++++++
User2:

	Max	Min	Avg	Units
BP	593	591	591	mmHg
TA	24.6	24.3	24.6	°C
Q	---	---	16.74	Lpm

QCV 0 %
Max overheat 3 °C
occured 04-sep 13:17:59

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-01-sep	13:28:11
Stop:	15-01-sep	13:28:17

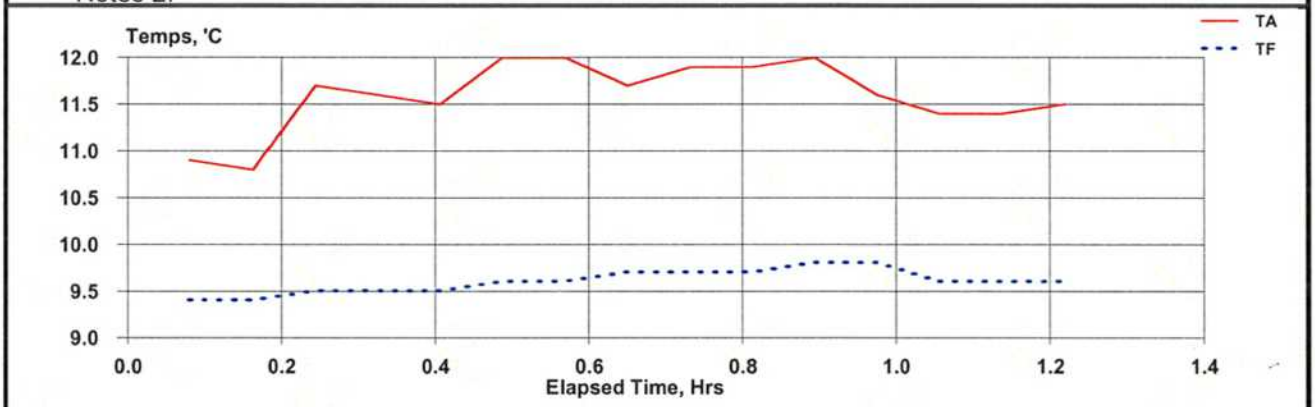
ET: 1:18

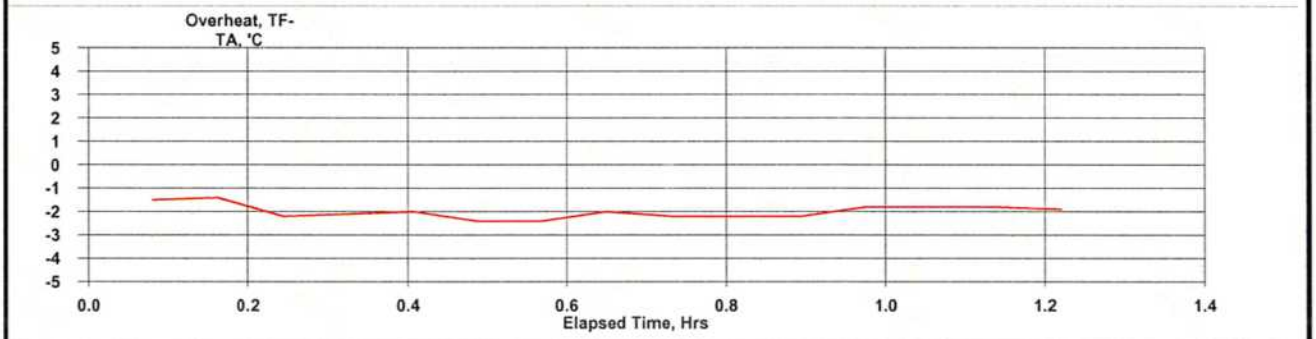
Mass Concentration Data:

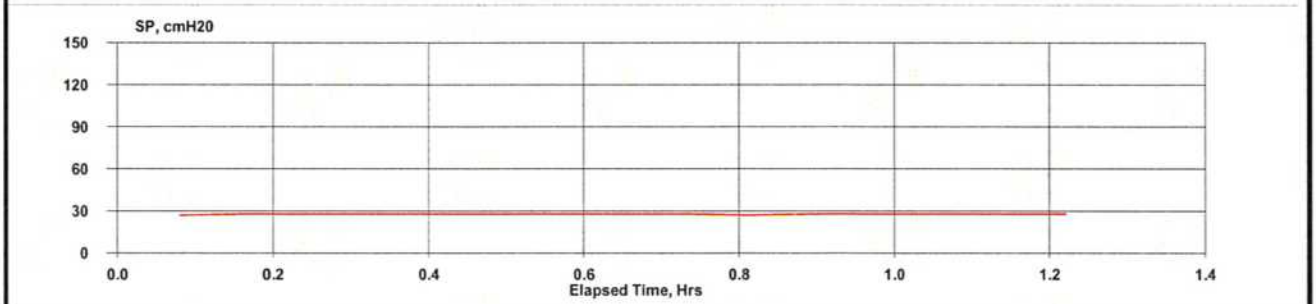
Filter ID: JBR6
Final Wt: mg
Initial Wt: mg
Delta Wt: 0.000 mg
Total Vol: 1.295 m^3

Mass Conc: 0 µg/m3

Notes 1:
Notes 2:







15-28-aug	0:06:08	595	11.6	9.6	-2.0	28	16.82
15-28-aug	1:06:08	595	11.4	9.6	-1.8	28	16.67

BGI PQ200 Air Sampling System Downloaded 2015 10 sep 09:10:55

Job Details:

Job Name: 15Sep10B.JOB
Version: 5.62
Serial No: 963
Pump Time: 2318:25
Flags: Q T

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	594	591	592	mmHg
TA	12.8	12	12.8	°C
Q	---	---	0	Lpm

QCV 0 %
Max overheat 3.1 °C
occured 09-sep 18:44:54

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-09-sep	0:00:08
Stop:	15-10-sep	0:00:05

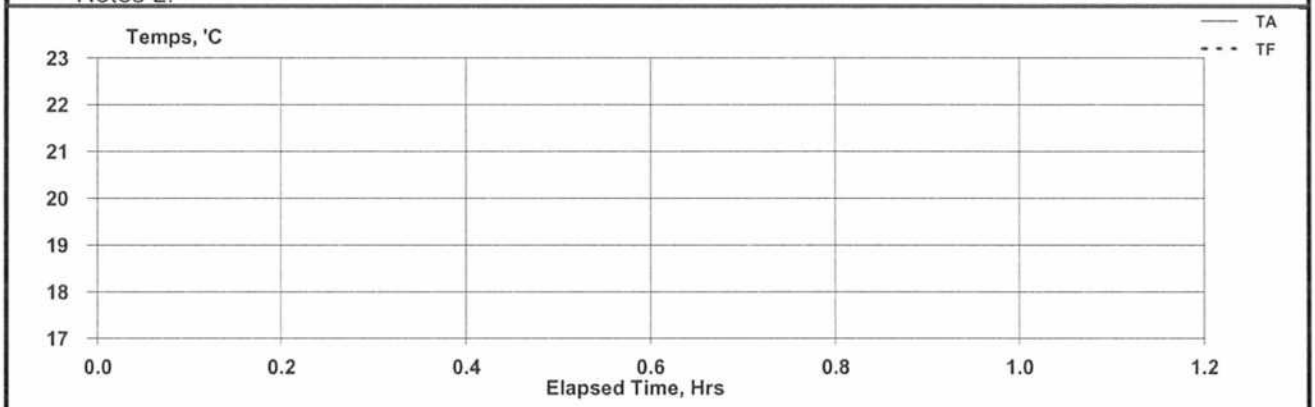
ET: 0:03

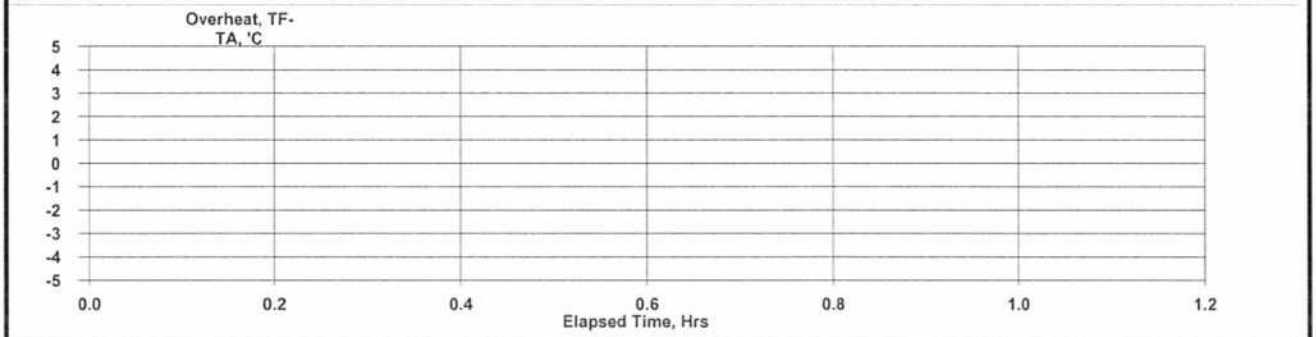
Mass Concentration Data:

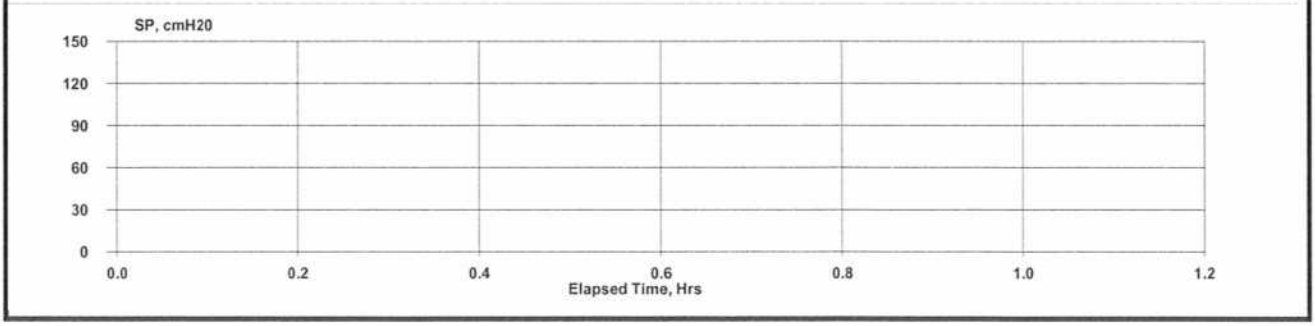
Filter ID: 8
Final Wt: mg
Initial Wt: mg
Delta Wt: 0.000 mg
Total Vol: 0.01 m^3

Mass Conc: 0 µg/m3

Notes 1:
Notes 2:







15-10-sep	9:09:39	595	22.9	17.4	-5.5		0.00

BGI PQ200 Air Sampling System Downloaded 2015 17 sep 09:45:06

Job Details:

Job Name: 15Sep17B.JOB
Version: 5.62
Serial No: 963
Pump Time: 2318:28
Flags: Q T

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	589	587	587	mmHg
TA	10.8	10.1	10.8	°C
Q	---	---	0	Lpm

QCV 0 %

Max overheat 1.8 °C
occured 16-sep 16:22:37

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-15-sep	0:00:08
Stop:	15-16-sep	0:00:04

ET: 0:03

Mass Concentration Data:

Filter ID:	11	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	0.01	m^3
Mass Conc:	0	µg/m3

Notes 1:
Notes 2:

yy-dd-mmm	hh:mm:ss	mmHg	°C	°C	°C	cmH2O	aLpm

BGI PQ200 Air Sampling System Downloaded 2015 23 sep 10:23:06

Job Details:

Job Name:	
Version:	5.62
Serial No:	963
Pump Time:	2342:27
Flags:	

Job Code:	
Site Name:	
Station Code:	
Operators:	
User1:	
User2:	

	Max	Min	Avg	Units
BP	593	590	591	mmHg
TA	25.6	6	15.4	°C
Q	---	---	16.7	Lpm

QCV	0.47 %
Max overheat	2.8 °C
occured	22-sep 14:45:53

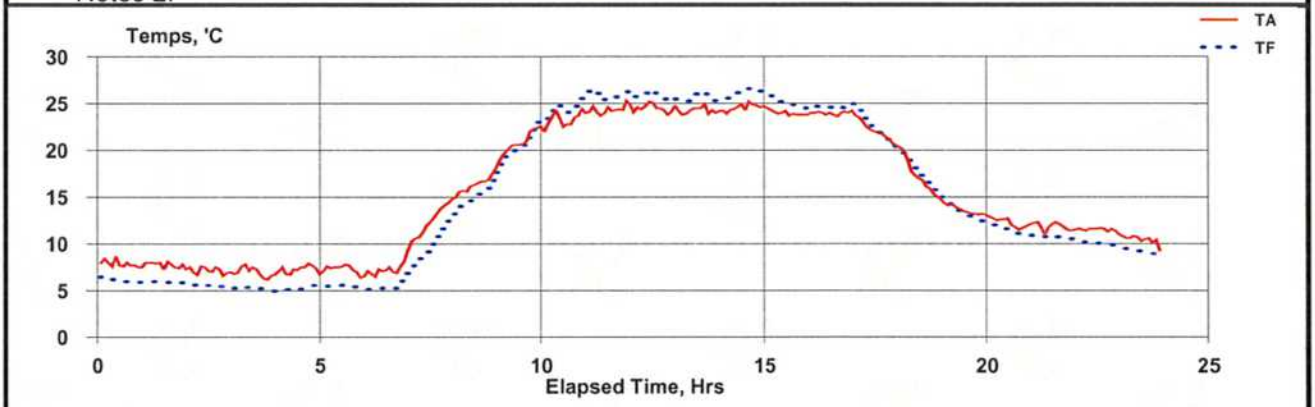
Timer Information:

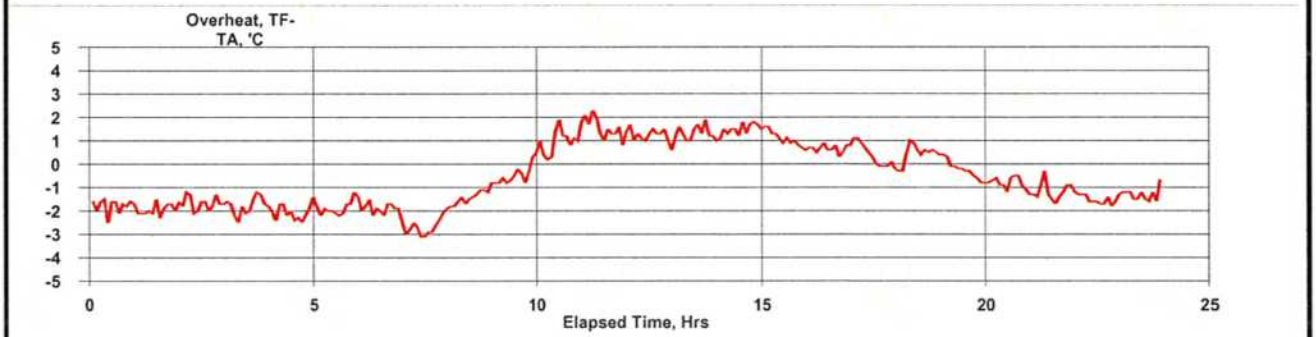
	Date dd-mmm	Time hh:mm:ss
Start:	15-21-sep	0:00:08
Stop:	15-22-sep	0:00:04
ET:	23:59	

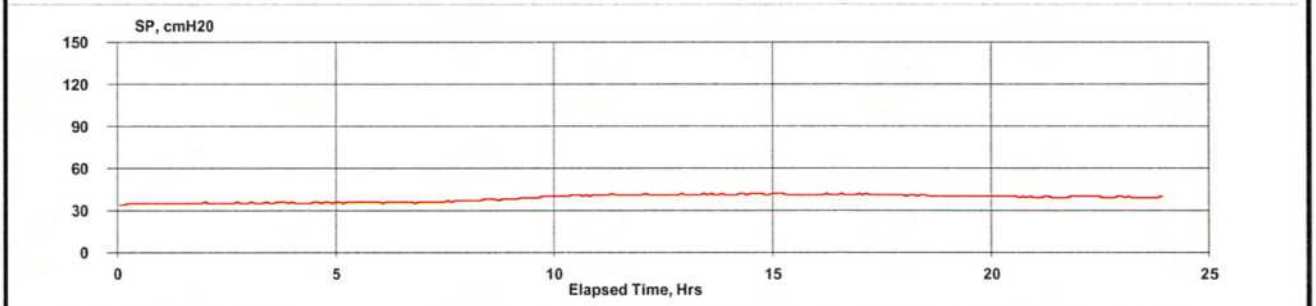
Mass Concentration Data:

Filter ID:	18	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.028	m^3
Mass Conc:	0	µg/m3

Notes 1:
Notes 2:







15-21-sep	0:05:08	593	7.9	6.1	-1.8	35	16.69
15-21-sep	1:05:08	592	7.8	5.8	-1.9	35	16.71
15-21-sep	2:05:08	592	7.1	5.5	-1.7	35	16.70
15-21-sep	3:05:08	592	7.0	5.2	-1.8	36	16.70
15-21-sep	4:05:08	592	7.3	5.2	-2.1	35	16.69
15-21-sep	5:05:08	592	7.3	5.4	-1.9	36	16.71
15-21-sep	6:05:08	592	7.4	5.4	-1.9	36	16.70
15-21-sep	7:05:08	593	12.5	9.8	-2.7	36	16.70
15-21-sep	8:05:08	593	16.4	15.0	-1.4	38	16.70
15-21-sep	9:05:08	593	21.0	20.5	-0.4	39	16.71
15-21-sep	10:05:08	593	23.3	24.4	1.0	41	16.73
15-21-sep	11:05:08	592	24.4	25.9	1.5	41	16.70
15-21-sep	12:05:08	592	24.5	25.7	1.2	41	16.69
15-21-sep	13:05:08	591	24.2	25.6	1.3	41	16.70
15-21-sep	14:05:08	591	24.6	26.1	1.5	42	16.71
15-21-sep	15:05:08	591	24.0	25.1	1.1	41	16.70
15-21-sep	16:05:08	591	24.0	24.6	0.7	41	16.70
15-21-sep	17:05:08	591	22.0	22.4	0.3	41	16.72
15-21-sep	18:05:08	591	17.1	17.5	0.4	40	16.72
15-21-sep	19:05:08	591	13.6	13.3	-0.3	40	16.72
15-21-sep	20:05:08	591	12.3	11.4	-0.8	40	16.72
15-21-sep	21:05:08	591	11.8	10.6	-1.2	39	16.71
15-21-sep	22:05:08	591	11.5	10.0	-1.5	40	16.71
15-21-sep	23:05:08	591	10.4	9.1	-1.3	39	16.72

BGI PQ200 Air Sampling System Downloaded 2015 28 sep 09:48:50

Job Details:

Job Name: 15Sep28B.JOB
Version: 5.62
Serial No: 963
Pump Time: 2366:26
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	594	590	592	mmHg
TA	25	6.8	15.6	°C
Q	---	---	16.7	Lpm

QCV 0.36 %
Max overheat 2.7 °C
occured 27-sep 12:23:24

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-27-sep	0:00:08
Stop:	15-28-sep	0:00:04

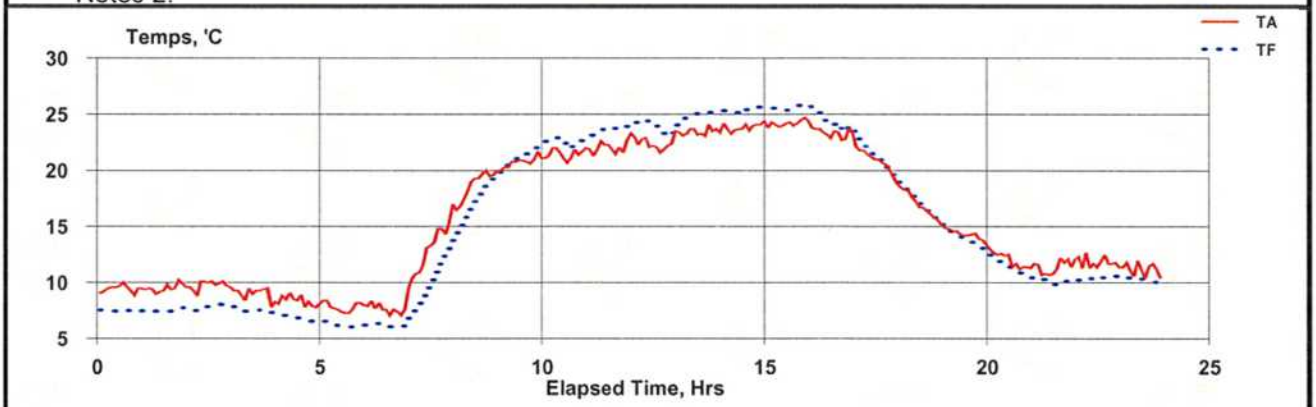
ET: 23:59

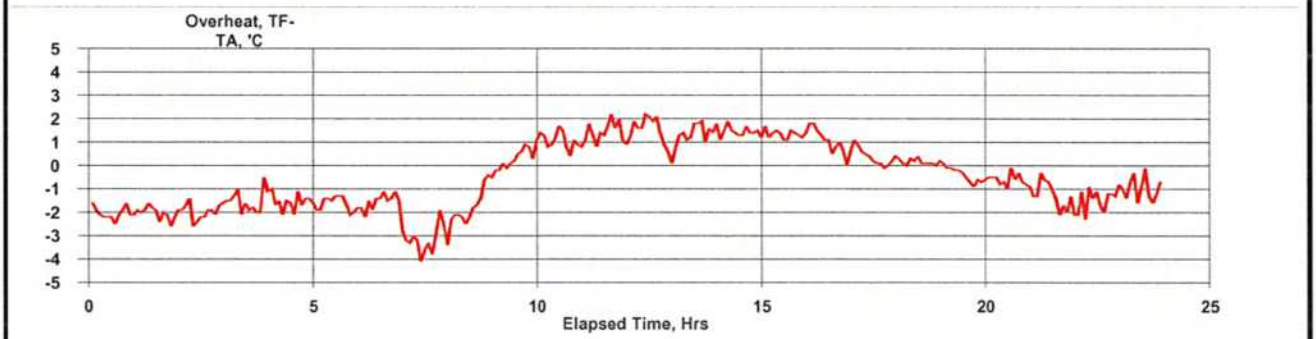
Mass Concentration Data:

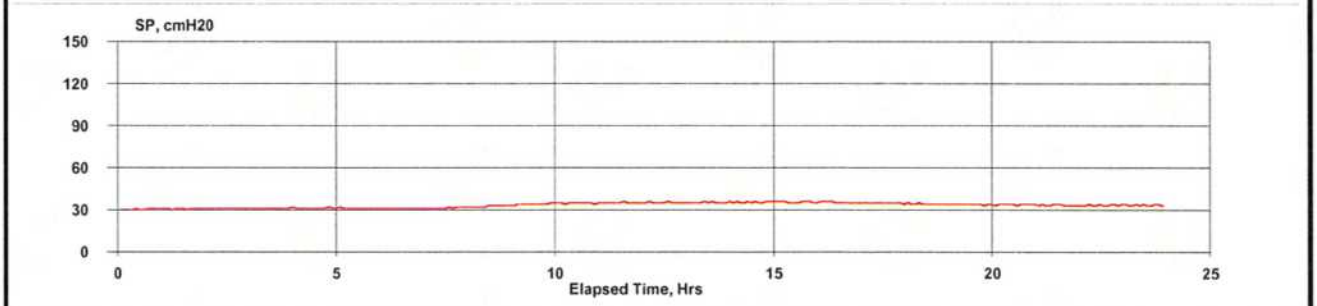
Filter ID: 7
Final Wt: mg
Initial Wt: mg
Delta Wt: 0.000 mg
Total Vol: 24.023 m^3

Mass Conc: 0 µg/m3

Notes 1:
Notes 2:







15-27-sep	0:05:08	592	9.5	7.4	-2.0	31	16.70
15-27-sep	1:05:08	592	9.5	7.5	-2.0	31	16.69
15-27-sep	2:05:08	592	9.8	7.8	-2.0	31	16.70
15-27-sep	3:05:08	592	9.0	7.5	-1.5	31	16.70
15-27-sep	4:05:08	592	8.4	6.8	-1.6	31	16.75
15-27-sep	5:05:08	592	7.8	6.2	-1.6	31	16.72
15-27-sep	6:05:08	592	7.8	6.2	-1.6	31	16.74
15-27-sep	7:05:08	593	13.3	10.2	-3.2	31	16.71
15-27-sep	8:05:08	593	18.8	17.1	-1.7	33	16.71
15-27-sep	9:05:08	593	20.8	21.1	0.3	34	16.71
15-27-sep	10:05:08	593	21.5	22.6	1.1	35	16.70
15-27-sep	11:05:08	593	22.1	23.6	1.4	35	16.71
15-27-sep	12:05:08	593	22.4	23.9	1.5	35	16.71
15-27-sep	13:05:08	592	23.5	24.9	1.4	35	16.71
15-27-sep	14:05:08	592	23.9	25.3	1.4	36	16.71
15-27-sep	15:05:08	591	24.2	25.6	1.4	36	16.71
15-27-sep	16:05:08	591	23.4	24.4	1.0	35	16.71
15-27-sep	17:05:08	591	20.8	21.2	0.4	35	16.71
15-27-sep	18:05:08	592	16.9	17.0	0.2	34	16.70
15-27-sep	19:05:08	592	14.3	13.9	-0.4	34	16.70
15-27-sep	20:05:08	592	12.0	11.4	-0.6	34	16.70
15-27-sep	21:05:08	592	11.4	10.1	-1.3	33	16.72
15-27-sep	22:05:08	592	11.8	10.4	-1.4	33	16.72
15-27-sep	23:05:08	592	11.2	10.2	-1.0	33	16.72

Collocated Monitor 964C

PM_{10} Sampler Summary

July 1, 2015 - September 30, 2015

Network: **Alton Coal Development, LLC**
Site: Coal Hollow
Sampler ID: Coal Hollow-C **AQS ID:**
Sampler Type: BGI FRM Single

Date	Filter ID	Concentration (µg/m3) LTP	Concentration (µg/m3) STP	Sample Period (hr:min)	Sample Volume (m3)	Std Volume (m3)	Mass (mg) Tare	Gross	Net	Flag	Comments
07/05/15	P2923695	**8.9**	**11.1**	23:59	24.0	19.1	379.648	379.862	0.214		
07/11/15	P2923698	**Invalid - AN**	**Invalid - AN**				383.804	383.820	0.016		
07/17/15	P2923701	**20.4**	**25.8**	23:59	24.0	19.1	390.124	390.616	0.492		
07/23/15	P2924064	**39.2**	**48.9**	23:59	24.0	19.3	381.703	382.646	0.943	PI	
07/29/15	P2924459	**Invalid - AN**	**Invalid - AN**				382.197	382.208	0.011		
08/04/15	P2924460	**83.3**	**104.6**	23:59	24.0	19.1	390.177	392.181	2.004		
08/10/15	P2924465	**15.5**	**19.3**	23:59	24.0	19.3	388.528	388.901	0.373		
08/16/15	P2922749	**Invalid - AN**	**Invalid - AN**				388.814	388.821	0.007		
08/22/15	P2922752	**23.8**	**30.0**	23:59	24.0	19.1	378.274	378.848	0.574		
08/28/15	P2922753	**12.4**	**15.5**	23:59	24.0	19.3	378.160	378.460	0.300		
09/03/15	P2924552	**12.1**	**15.2**	23:59	24.0	19.2	387.973	388.266	0.293		
09/09/15	P2924555	**13.6**	**17.0**	23:59	24.0	19.3	378.989	379.318	0.329		
09/15/15	P2924860	**Invalid - AN**	**Invalid - AN**				382.934	383.109	0.175		
09/21/15	P2924864	**16.1**	**20.0**	23:59	24.0	19.4	385.179	385.567	0.388		
09/27/15	P2925401	**6.9**	**8.6**	24:00	24.0	19.4	379.463	379.630	0.167		
09/10/15	P2924861		**Field Blank**				382.006	382.013	0.007		

# Valid	Recovery	Average	St. Dev.	Max	Min
11	**73%**	**28.7**	**27.5**	**104.6**	**8.6**

BGI PQ200 Air Sampling System Downloaded 2015 08 jul 08:40:36

Job Details:

Job Name: 15Jul08C.JOB
Version: 5.62
Serial No: 964
Pump Time: 1806:10
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	596	592	594	mmHg
TA	30	11.8	19.8	°C
Q	---	---	16.7	Lpm

QCV	0.5 %
Max overheat	3.8 °C
occured	05-jul 13:55:02

Timer Information:

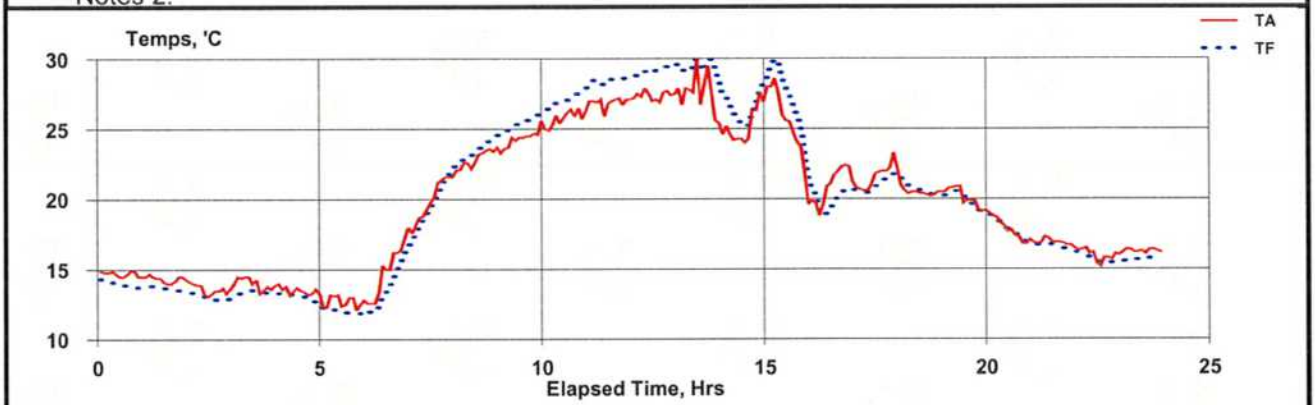
	Date dd-mmm	Time hh:mm:ss
Start:	15-05-jul	0:00:08
Stop:	15-06-jul	0:00:05

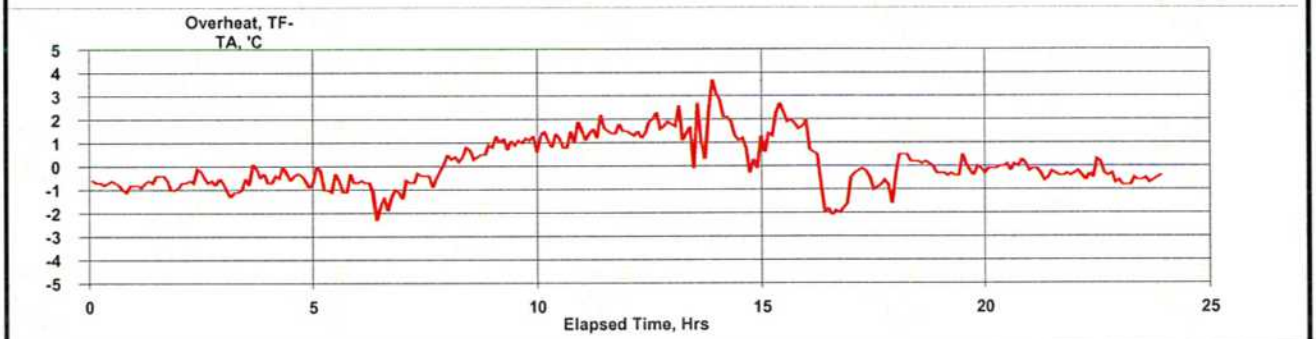
ET: 23:59

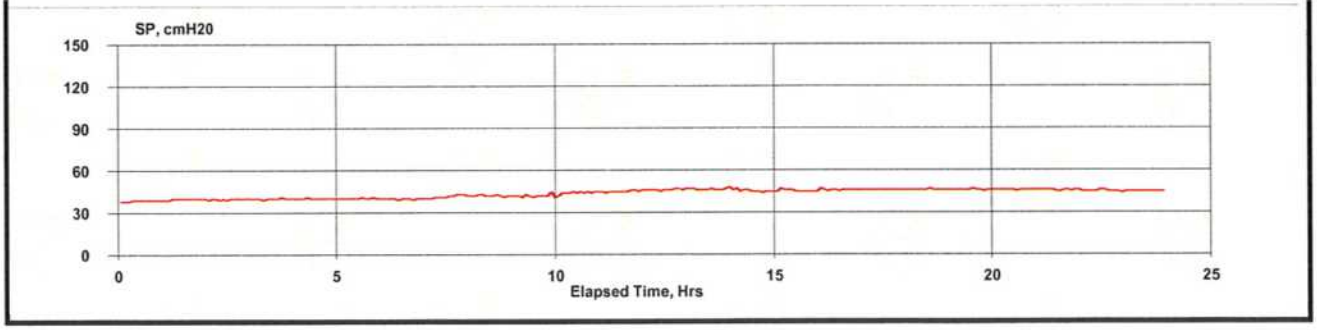
Mass Concentration Data:

Filter ID:	10	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.041	m^3
Mass Conc:	0	µg/m3

Notes 1:
Notes 2:







15-05-jul	0:05:08	594	14.7	13.9	-0.8	39	16.71
15-05-jul	1:05:08	594	14.3	13.6	-0.7	40	16.71
15-05-jul	2:05:08	594	13.6	13.0	-0.6	40	16.71
15-05-jul	3:05:08	594	14.0	13.3	-0.7	40	16.70
15-05-jul	4:05:08	594	13.5	13.0	-0.5	40	16.71
15-05-jul	5:05:08	595	12.7	12.0	-0.7	40	16.71
15-05-jul	6:05:08	595	15.0	13.8	-1.3	40	16.71
15-05-jul	7:05:08	595	20.0	19.6	-0.4	42	16.71
15-05-jul	8:05:08	595	22.9	23.4	0.5	42	16.73
15-05-jul	9:05:08	595	24.3	25.4	1.0	42	16.72
15-05-jul	10:05:08	595	25.8	27.0	1.2	44	16.71
15-05-jul	11:05:08	595	26.9	28.4	1.5	45	16.71
15-05-jul	12:05:08	594	27.4	29.1	1.7	46	16.71
15-05-jul	13:05:08	594	27.6	29.4	1.8	47	16.70
15-05-jul	14:05:08	594	25.2	26.4	1.2	45	16.71
15-05-jul	15:05:08	594	25.3	27.1	1.8	45	16.71
15-05-jul	16:05:08	594	21.0	19.9	-1.1	46	16.71
15-05-jul	17:05:08	594	21.6	21.0	-0.6	46	16.71
15-05-jul	18:05:08	594	20.5	20.6	0.2	46	16.70
15-05-jul	19:05:08	595	20.1	19.9	-0.2	46	16.70
15-05-jul	20:05:08	595	17.8	17.8	0.0	46	16.71
15-05-jul	21:05:08	595	16.9	16.6	-0.3	46	16.70
15-05-jul	22:05:08	595	16.0	15.6	-0.3	45	16.71
15-05-jul	23:05:08	596	16.3	15.7	-0.6	45	16.70

BGI PQ200 Air Sampling System Downloaded 2015 13 jul 12:07:23

Job Details:

Job Name: 15Jul13C.JOB
Version: 5.62
Serial No: 964
Pump Time: 1806:12
Flags: Q T

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	594	591	592	mmHg
TA	9.8	9	9.8	°C
Q	---	---	0	Lpm

QCV 0 %

Max overheat 2.5 °C
occured 12-jul 15:56:53

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-11-jul	0:00:08
Stop:	15-12-jul	0:00:05

ET: 0:02

Mass Concentration Data:

Filter ID:	13	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	0.013	m^3
Mass Conc:	0	µg/m3

Notes 1:
Notes 2:

yy-dd-mmm	hh:mm:ss	mmHg	°C	°C	°C	cmH2O	aLpm

BGI PQ200 Air Sampling System Downloaded 2015 20 jul 12:44:24

Job Details:

Job Name: 15Jul20C.JOB
Version: 5.62
Serial No: 964
Pump Time: 1830:11
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	595	591	593	mmHg
TA	29.3	10	20.2	°C
Q	---	---	16.7	Lpm

QCV 0.53 %
Max overheat 3.8 °C
occured 18-jul 17:03:49

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-17-jul	0:00:08
Stop:	15-18-jul	0:00:05

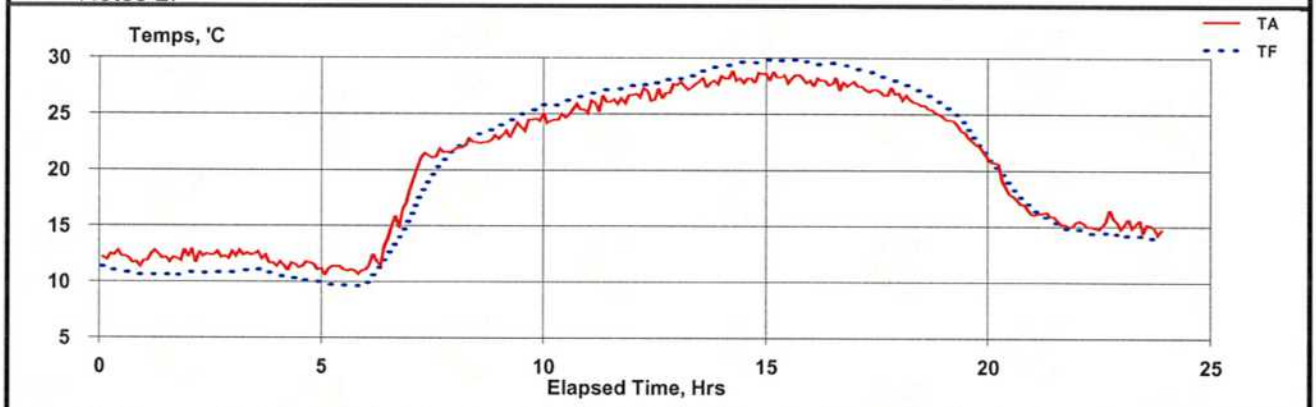
ET: 23:59

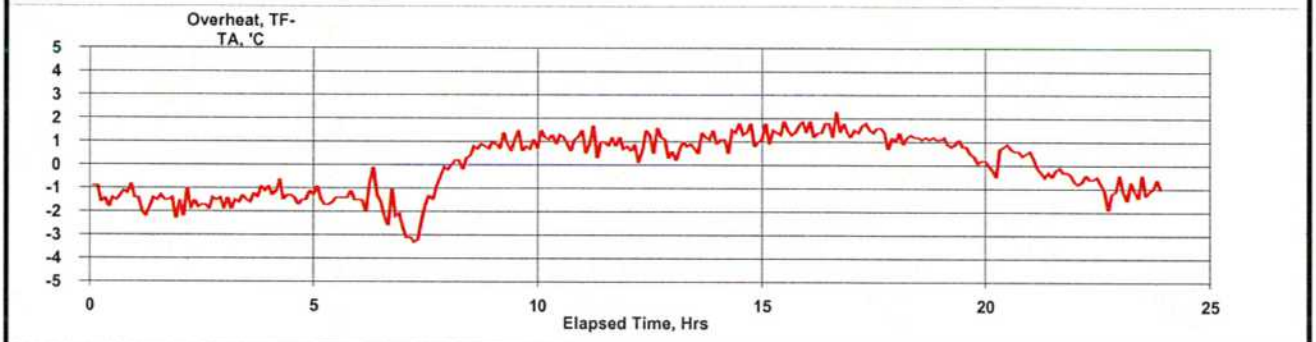
Mass Concentration Data:

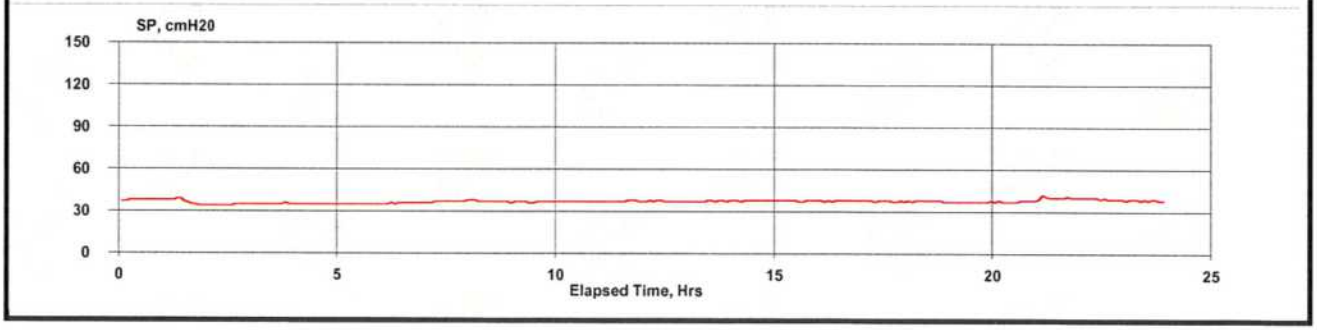
Filter ID: 16
Final Wt: mg
Initial Wt: mg
Delta Wt: 0.000 mg
Total Vol: 24.041 m^3

Mass Conc: 0 µg/m3

Notes 1:
Notes 2:







15-17-jul	0:05:08	594	12.1	10.8	-1.3	38	16.71
15-17-jul	1:05:08	594	12.3	10.6	-1.7	36	16.71
15-17-jul	2:05:08	594	12.4	10.8	-1.7	34	16.71
15-17-jul	3:05:08	594	12.3	10.9	-1.4	35	16.71
15-17-jul	4:05:08	594	11.5	10.2	-1.3	35	16.71
15-17-jul	5:05:08	594	11.1	9.7	-1.4	35	16.71
15-17-jul	6:05:08	594	14.3	12.6	-1.7	36	16.71
15-17-jul	7:05:08	594	21.2	19.4	-1.8	37	16.71
15-17-jul	8:05:08	595	22.5	23.0	0.5	37	16.70
15-17-jul	9:05:08	594	24.0	24.9	0.9	37	16.71
15-17-jul	10:05:08	594	25.0	26.1	1.2	37	16.70
15-17-jul	11:05:08	594	26.2	27.1	0.9	37	16.71
15-17-jul	12:05:08	594	26.9	27.8	0.9	37	16.71
15-17-jul	13:05:08	593	27.8	28.7	0.9	37	16.71
15-17-jul	14:05:08	593	28.3	29.5	1.2	38	16.72
15-17-jul	15:05:08	592	28.2	29.7	1.5	38	16.72
15-17-jul	16:05:08	592	27.8	29.4	1.6	38	16.70
15-17-jul	17:05:08	592	27.1	28.5	1.4	38	16.71
15-17-jul	18:05:08	592	25.7	26.9	1.2	38	16.71
15-17-jul	19:05:08	592	23.1	23.7	0.7	37	16.70
15-17-jul	20:05:08	592	18.3	18.7	0.4	38	16.71
15-17-jul	21:05:08	593	15.7	15.4	-0.3	40	16.72
15-17-jul	22:05:08	593	15.3	14.5	-0.8	40	16.71
15-17-jul	23:05:08	593	15.0	14.0	-1.0	39	16.71

BGI PQ200 Air Sampling System Downloaded 2015 20 jul 12:44:24

Job Details:

Job Name: 15Jul20C.JOB
Version: 5.62
Serial No: 964
Pump Time: 1830:11
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	595	591	593	mmHg
TA	29.3	10	20.2	°C
Q	---	---	16.7	Lpm

QCV 0.53 %
Max overheat 3.8 °C
occured 18-jul 17:03:49

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-17-jul	0:00:08
Stop:	15-18-jul	0:00:05

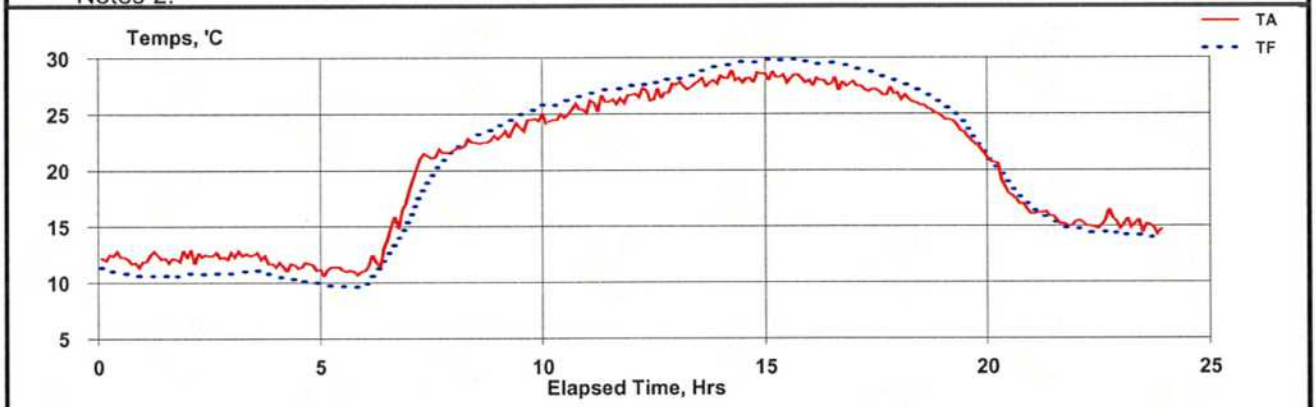
ET: 23:59

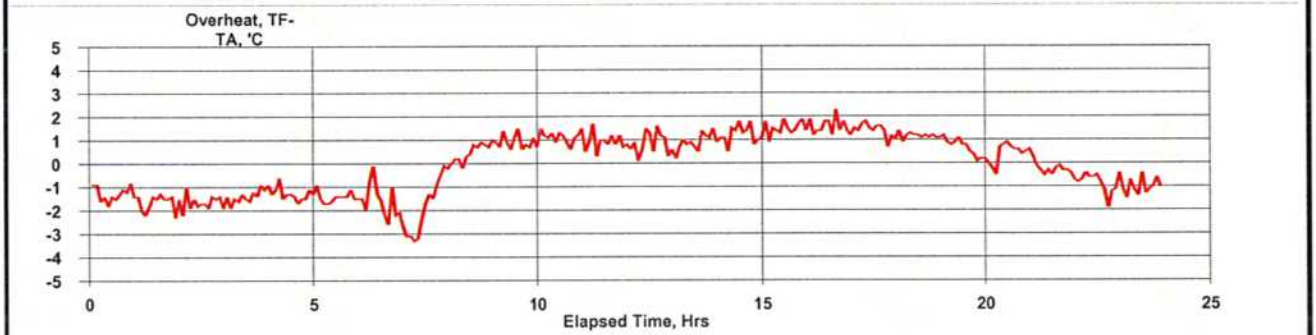
Mass Concentration Data:

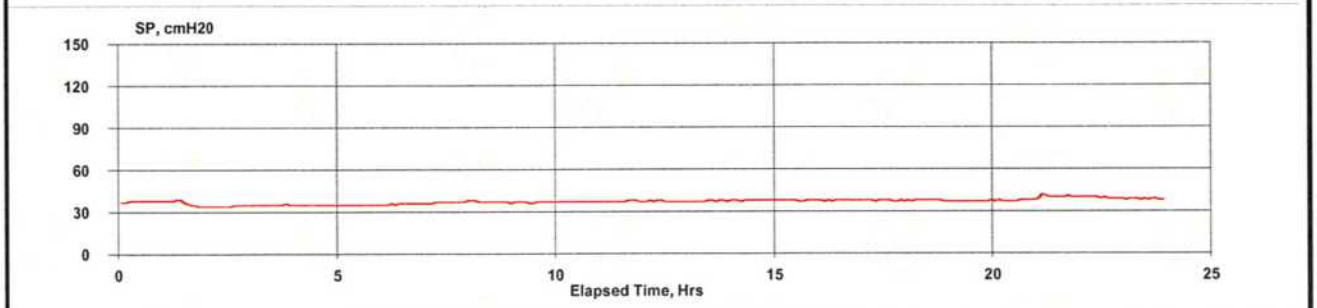
Filter ID: 16
Final Wt: mg
Initial Wt: mg
Delta Wt: 0.000 mg
Total Vol: 24.041 m^3

Mass Conc: 0 ug/m3

Notes 1:
Notes 2:







15-17-jul	0:05:08	594	12.1	10.8	-1.3	38	16.71
15-17-jul	1:05:08	594	12.3	10.6	-1.7	36	16.71
15-17-jul	2:05:08	594	12.4	10.8	-1.7	34	16.71
15-17-jul	3:05:08	594	12.3	10.9	-1.4	35	16.71
15-17-jul	4:05:08	594	11.5	10.2	-1.3	35	16.71
15-17-jul	5:05:08	594	11.1	9.7	-1.4	35	16.71
15-17-jul	6:05:08	594	14.3	12.6	-1.7	36	16.71
15-17-jul	7:05:08	594	21.2	19.4	-1.8	37	16.71
15-17-jul	8:05:08	595	22.5	23.0	0.5	37	16.70
15-17-jul	9:05:08	594	24.0	24.9	0.9	37	16.71
15-17-jul	10:05:08	594	25.0	26.1	1.2	37	16.70
15-17-jul	11:05:08	594	26.2	27.1	0.9	37	16.71
15-17-jul	12:05:08	594	26.9	27.8	0.9	37	16.71
15-17-jul	13:05:08	593	27.8	28.7	0.9	37	16.71
15-17-jul	14:05:08	593	28.3	29.5	1.2	38	16.72
15-17-jul	15:05:08	592	28.2	29.7	1.5	38	16.72
15-17-jul	16:05:08	592	27.8	29.4	1.6	38	16.70
15-17-jul	17:05:08	592	27.1	28.5	1.4	38	16.71
15-17-jul	18:05:08	592	25.7	26.9	1.2	38	16.71
15-17-jul	19:05:08	592	23.1	23.7	0.7	37	16.70
15-17-jul	20:05:08	592	18.3	18.7	0.4	38	16.71
15-17-jul	21:05:08	593	15.7	15.4	-0.3	40	16.72
15-17-jul	22:05:08	593	15.3	14.5	-0.8	40	16.71
15-17-jul	23:05:08	593	15.0	14.0	-1.0	39	16.71

BGI PQ200 Air Sampling System

Downloaded 2015 27 jul 11:06:35

Job Details:

Job Name:	15Jul27C.JOB
Version:	5.62
Serial No:	964
Pump Time:	1854:10
Flags:	P

Job Code:	
Site Name:	964C
Station Code:	
Operators:	KN
User1:	
User2:	

	Max	Min	Avg	Units
BP	597	592	595	mmHg
TA	27.1	8.6	18.2	°C
Q	---	---	16.7	Lpm

QCV	0.54 %
Max overheat	3.1 °C
occured	25-jul 19:49:43

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-23-jul	0:00:08
Stop:	15-24-jul	0:00:05

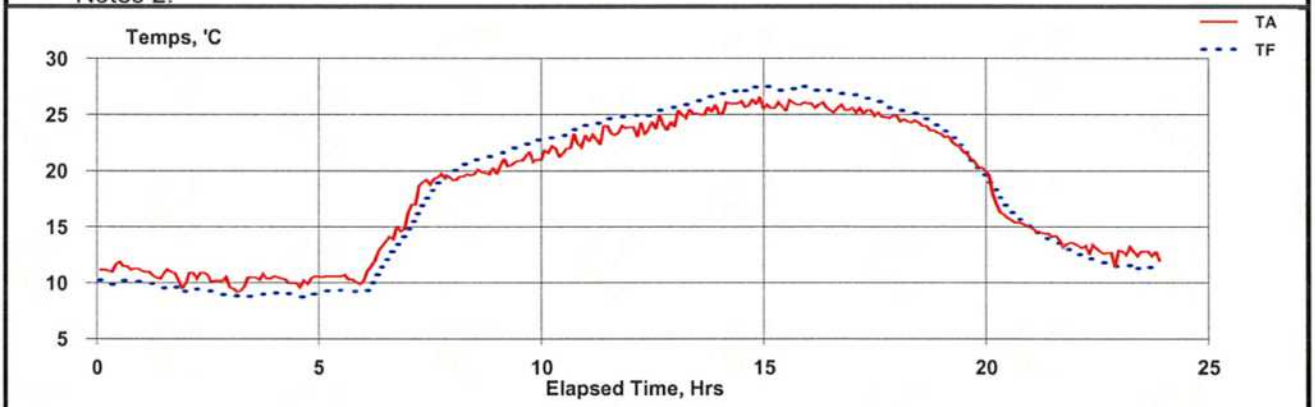
ET: 23:59

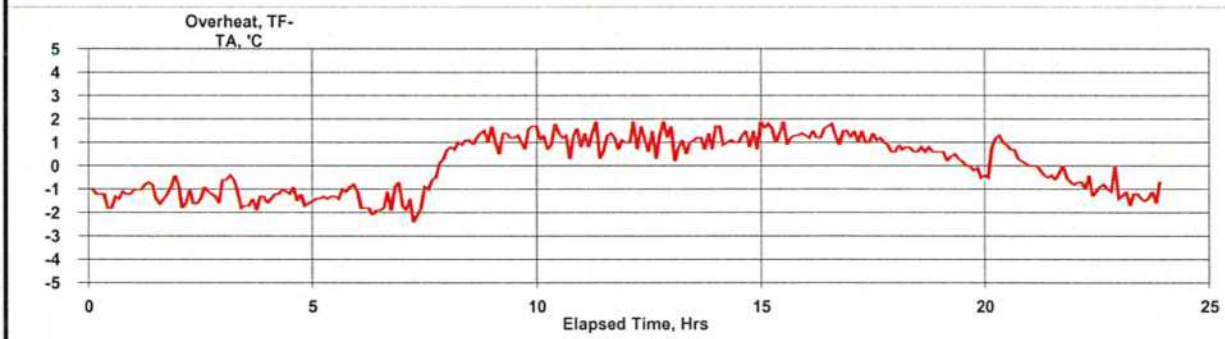
Mass Concentration Data:

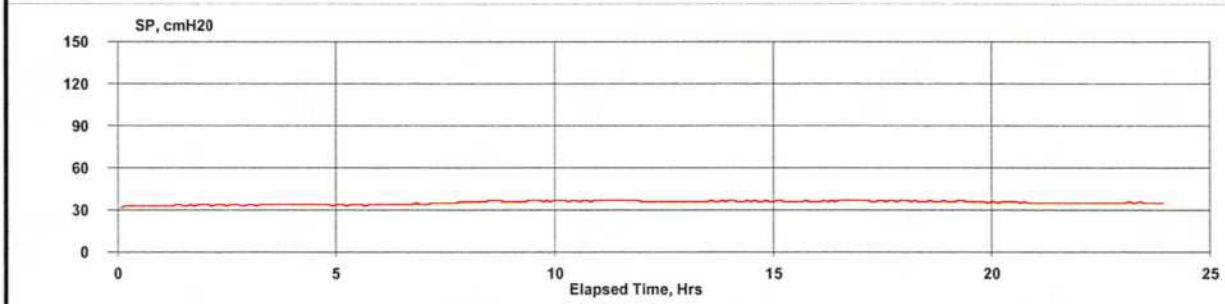
Filter ID:	6	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.043	m^3
Mass Conc:	0	µg/m3

Notes 1:

Notes 2:







15-23-jul	0:05:08	594	11.3	10.1	-1.3	33	16.72
15-23-jul	1:05:08	594	10.6	9.6	-1.0	34	16.70
15-23-jul	2:05:08	594	10.5	9.2	-1.3	34	16.71
15-23-jul	3:05:08	594	10.1	8.9	-1.3	34	16.70
15-23-jul	4:05:08	595	10.2	8.9	-1.3	34	16.71
15-23-jul	5:05:08	595	10.4	9.2	-1.2	34	16.71
15-23-jul	6:05:08	595	13.6	12.0	-1.6	34	16.71
15-23-jul	7:05:08	595	18.8	17.9	-1.0	35	16.71
15-23-jul	8:05:08	596	19.7	20.8	1.1	36	16.70
15-23-jul	9:05:08	596	20.9	22.1	1.2	37	16.71
15-23-jul	10:05:08	596	22.1	23.3	1.1	37	16.71
15-23-jul	11:05:08	596	23.4	24.5	1.1	37	16.71
15-23-jul	12:05:08	596	23.9	25.2	1.2	36	16.71
15-23-jul	13:05:08	595	25.2	26.2	1.0	36	16.71
15-23-jul	14:05:08	595	25.9	27.1	1.2	36	16.71
15-23-jul	15:05:08	595	25.9	27.3	1.4	36	16.71
15-23-jul	16:05:08	595	25.6	27.0	1.4	37	16.70
15-23-jul	17:05:08	595	25.1	26.1	1.1	37	16.71
15-23-jul	18:05:08	595	24.0	24.7	0.7	36	16.71
15-23-jul	19:05:08	595	21.6	21.6	0.1	36	16.71
15-23-jul	20:05:08	595	16.2	16.8	0.6	36	16.71
15-23-jul	21:05:08	596	14.0	13.7	-0.4	35	16.71
15-23-jul	22:05:08	596	12.8	12.0	-0.9	35	16.72
15-23-jul	23:05:08	596	12.7	11.4	-1.3	35	16.70

BGI PQ200 Air Sampling System Downloaded 2015 30 jul 12:21:44

Job Details:

Job Name:	15Jul30D.JOB
Version:	5.62
Serial No:	964
Pump Time:	1854:12
Flags:	Q T

Job Code:	
Site Name:	964C
Station Code:	
Operators:	KN
User1:	
User2:	

	Max	Min	Avg	Units
BP	596	594	594	mmHg
TA	17.2	16.4	17.1	°C
Q	---	---	0	Lpm

QCV	0 %
Max overheat	3 °C
occured	29-jul 12:09:10

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-29-jul	0:00:08
Stop:	15-30-jul	0:00:05

ET: 0:02

Mass Concentration Data:

Filter ID:	8	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	0.01	m^3
Mass Conc:	0	µg/m3

Notes 1:

Notes 2:

yy-dd-mmm	hh:mm:ss	mmHg	°C	°C	°C	cmH2O	aLpm

BGI PQ200 Air Sampling System Downloaded 2015 06 aug 13:23:00

Job Details:

Job Name: 15Aug06C.JOB
Version: 5.62
Serial No: 964
Pump Time: 1878:11
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	596	592	595	mmHg
TA	30.9	8.8	20	°C
Q	---	---	16.7	Lpm

QCV	0.55 %
Max overheat	2.4 °C
occured	04-aug 13:42:00

Timer Information:

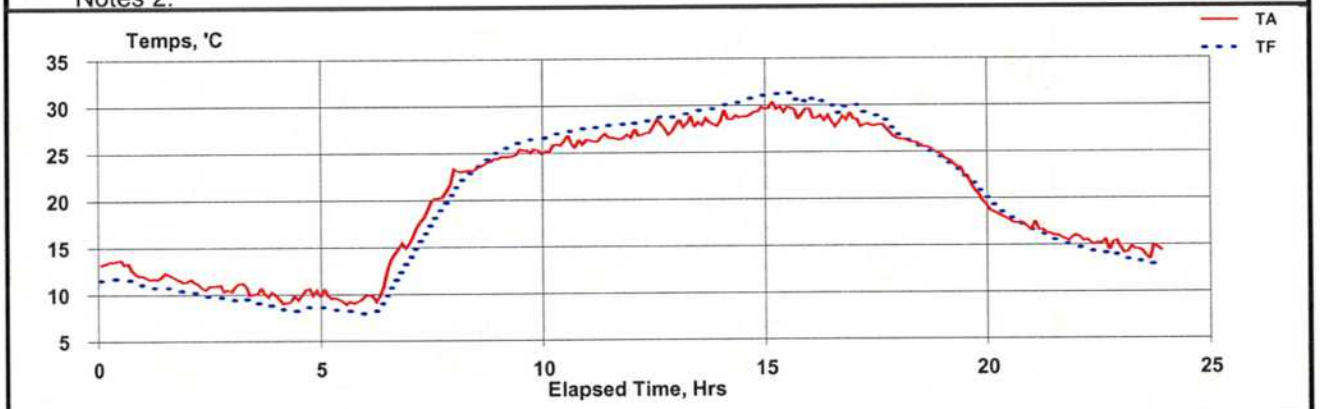
	Date dd-mmm	Time hh:mm:ss
Start:	15-04-aug	0:00:08
Stop:	15-05-aug	0:00:05

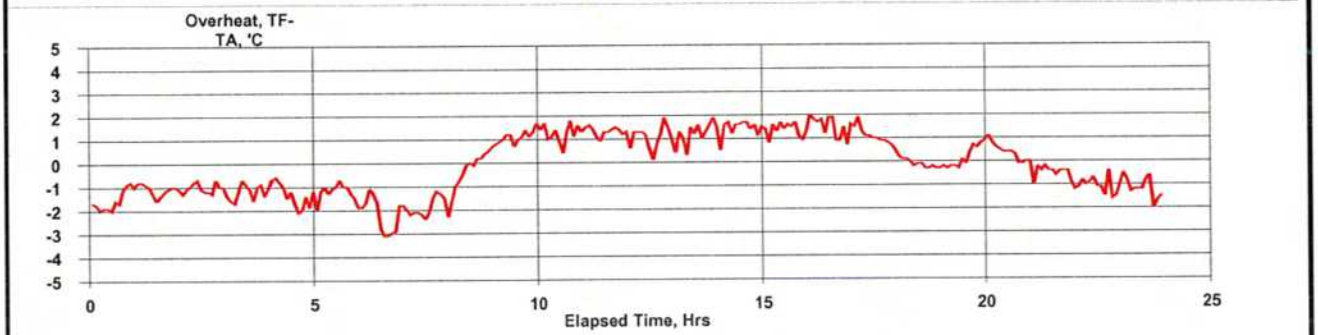
ET: 23:59

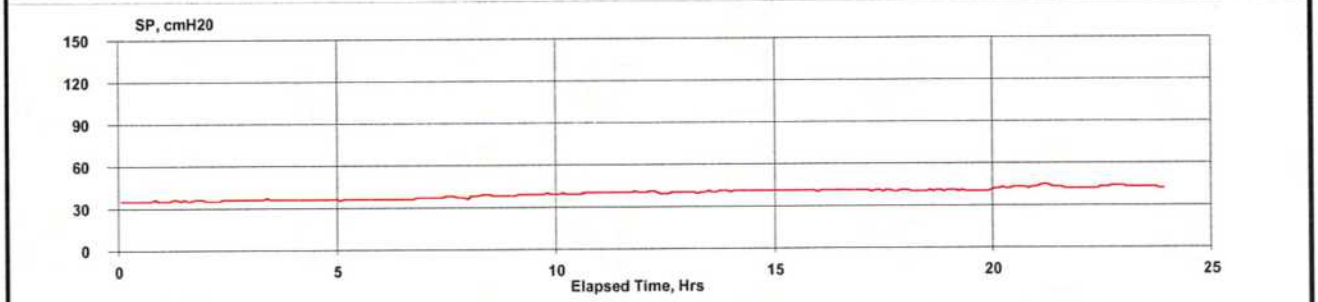
Mass Concentration Data:

Filter ID:	10	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.04	m^3
Mass Conc:	0	µg/m3

Notes 1:
Notes 2:







15-04-aug	0:05:08	595	13.0	11.5	-1.5	35	16.72
15-04-aug	1:05:08	595	11.7	10.6	-1.1	36	16.71
15-04-aug	2:05:08	595	10.8	9.8	-1.0	36	16.71
15-04-aug	3:05:08	595	10.4	9.2	-1.2	36	16.71
15-04-aug	4:05:08	595	9.7	8.4	-1.3	36	16.71
15-04-aug	5:05:08	595	9.5	8.2	-1.3	36	16.71
15-04-aug	6:05:08	596	12.5	10.3	-2.2	36	16.71
15-04-aug	7:05:08	596	19.6	17.7	-1.9	37	16.71
15-04-aug	8:05:08	596	23.6	23.4	-0.2	38	16.71
15-04-aug	9:05:08	596	25.0	26.1	1.1	39	16.71
15-04-aug	10:05:08	596	25.9	27.2	1.3	40	16.71
15-04-aug	11:05:08	596	26.6	27.9	1.3	40	16.73
15-04-aug	12:05:08	596	27.4	28.5	1.1	40	16.70
15-04-aug	13:05:08	595	28.2	29.4	1.2	40	16.71
15-04-aug	14:05:08	595	29.1	30.5	1.4	41	16.71
15-04-aug	15:05:08	595	29.6	30.9	1.4	41	16.71
15-04-aug	16:05:08	595	28.5	30.0	1.5	41	16.71
15-04-aug	17:05:08	594	27.6	28.6	1.1	41	16.71
15-04-aug	18:05:08	594	25.6	25.5	-0.1	40	16.71
15-04-aug	19:05:08	595	22.1	22.3	0.2	40	16.70
15-04-aug	20:05:08	595	17.7	18.0	0.4	43	16.72
15-04-aug	21:05:08	595	16.1	15.6	-0.5	43	16.70
15-04-aug	22:05:08	595	15.2	14.2	-1.1	43	16.71
15-04-aug	23:05:08	595	14.3	13.2	-1.2	43	16.70

BGI PQ200 Air Sampling System Downloaded 2015 11 aug 10:28:48

Job Details:

Job Name: 15Aug11C.JOB
Version: 5.62
Serial No: 964
Pump Time: 1902:10
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	597	594	595	mmHg
TA	27.2	9.5	18.2	°C
Q	---	---	16.7	Lpm

QCV 0.54 %
Max overheat 2.7 °C
occured 10-aug 12:55:06

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-10-aug	0:00:08
Stop:	15-11-aug	0:00:05

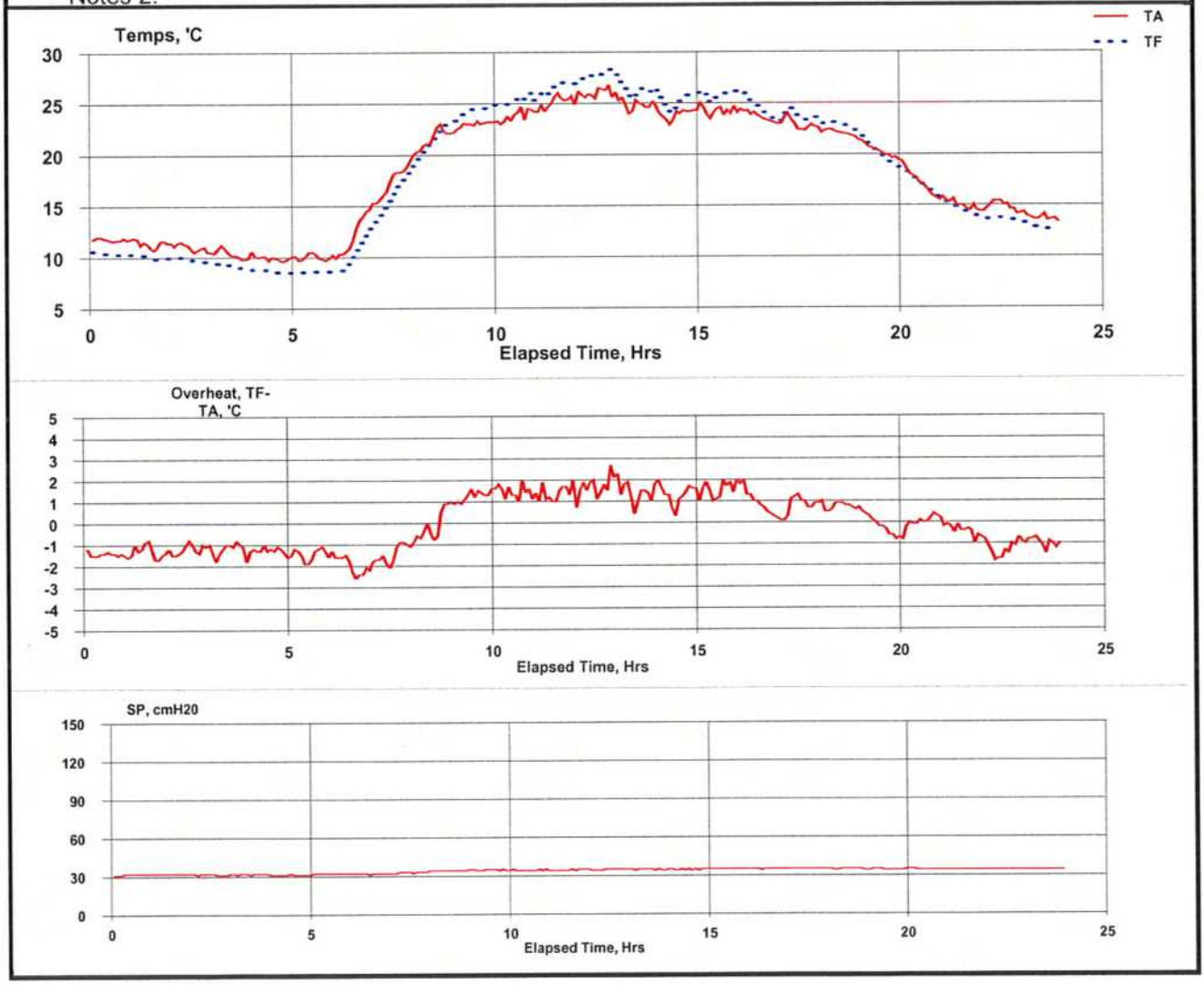
ET: 23:59

Mass Concentration Data:

Filter ID: JBR4
Final Wt: mg
Initial Wt: mg
Delta Wt: 0.000 mg
Total Vol: 24.042 m^3

Mass Conc: 0 µg/m3

Notes 1:
Notes 2:



15-10-aug	0:05:08	596	11.8	10.4	-1.4	32	16.71
15-10-aug	1:05:08	596	11.4	10.0	-1.3	32	16.71
15-10-aug	2:05:08	596	11.0	9.7	-1.2	32	16.70
15-10-aug	3:05:08	596	10.4	9.2	-1.2	32	16.71
15-10-aug	4:05:08	596	9.9	8.7	-1.3	31	16.70
15-10-aug	5:05:08	596	10.0	8.6	-1.5	32	16.71
15-10-aug	6:05:08	597	12.4	10.4	-2.0	32	16.71
15-10-aug	7:05:08	597	17.7	16.2	-1.5	33	16.71
15-10-aug	8:05:08	597	21.7	21.6	-0.1	34	16.71
15-10-aug	9:05:08	597	23.0	24.3	1.3	35	16.71
15-10-aug	10:05:08	597	23.8	25.3	1.5	34	16.71
15-10-aug	11:05:08	596	25.1	26.5	1.4	34	16.71
15-10-aug	12:05:08	596	26.0	27.7	1.7	35	16.71
15-10-aug	13:05:08	596	24.8	26.3	1.4	35	16.71
15-10-aug	14:05:08	596	23.9	25.2	1.3	35	16.70
15-10-aug	15:05:08	595	24.3	25.8	1.5	35	16.70
15-10-aug	16:05:08	595	23.7	24.6	0.9	35	16.71
15-10-aug	17:05:08	595	22.9	23.7	0.8	35	16.71
15-10-aug	18:05:08	595	22.0	22.8	0.7	35	16.71
15-10-aug	19:05:08	595	20.2	20.1	-0.2	34	16.71
15-10-aug	20:05:08	595	17.2	17.2	0.0	34	16.72
15-10-aug	21:05:08	596	15.0	14.6	-0.4	34	16.71
15-10-aug	22:05:08	596	14.8	13.6	-1.3	34	16.71
15-10-aug	23:05:08	596	13.8	12.8	-1.0	34	16.70

BGI PQ200 Air Sampling System

Downloaded 2015 17 aug 14:32:26

Job Details:

Job Name: 15Aug17C.JOB
Version: 5.62
Serial No: 964
Pump Time: 2158:12
Flags: Q T

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	597	595	595	mmHg
TA	16.4	15.5	16.3	°C
Q	---	---	0	Lpm

QCV 0 %

Max overheat 2.3 °C
occured 16-aug 14:44:57

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-16-aug	0:00:08
Stop:	15-17-aug	0:00:05

ET: 0:02

Mass Concentration Data:

Filter ID:	13	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	0.01	m^3
Mass Conc:	0	µg/m3

Notes 1:
Notes 2:

yy-dd-mmm	hh:mm:ss	mmHg	°C	°C	°C	cmH2O	aLpm

BGI PQ200 Air Sampling System Downloaded 2015 25 aug 10:48:09

Job Details:

Job Name: 15Aug25C.JOB
Version: 5.62
Serial No: 964
Pump Time: 2182:11
Flags:

Job Code:
Site Name: 964C
Station Code:
Operators: KN
User1:
User2:

	Max	Min	Avg	Units
BP	596	591	594	mmHg
TA	30	11.2	20.2	°C
Q	---	---	16.7	Lpm

QCV 0.54 %
Max overheat 3.6 °C
occured 22-aug 16:27:13

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-22-aug	0:00:08
Stop:	15-23-aug	0:00:05

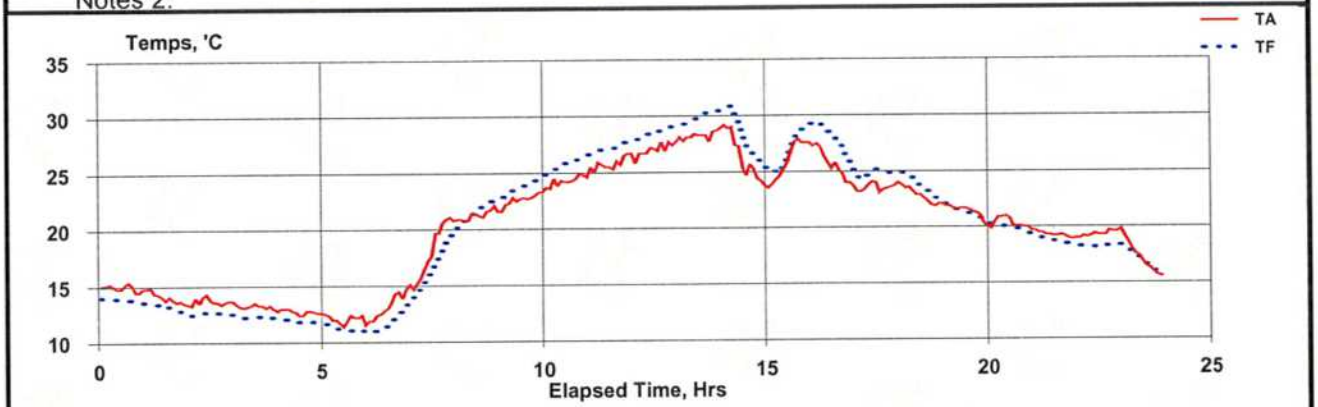
ET: 23:59

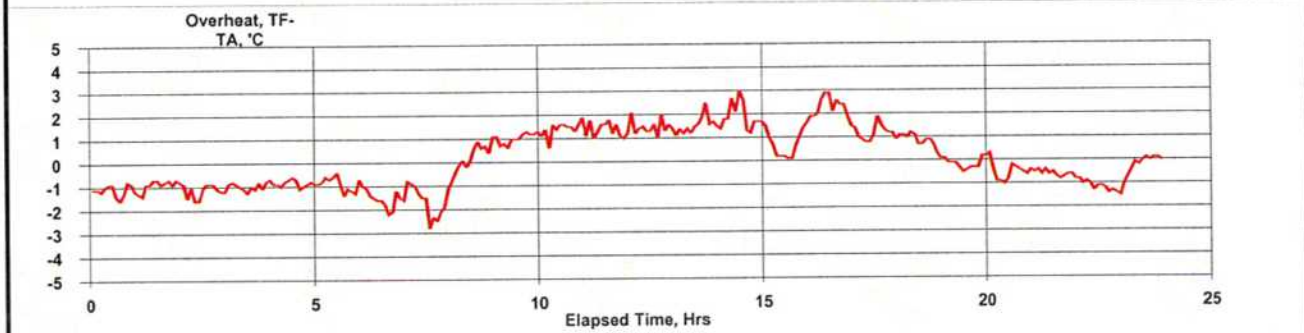
Mass Concentration Data:

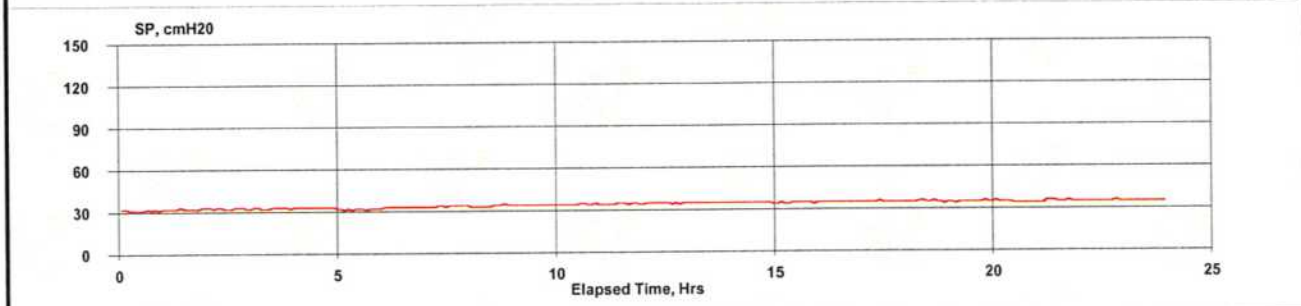
Filter ID: 16
Final Wt: mg
Initial Wt: mg
Delta Wt: 0.000 mg
Total Vol: 24.042 m^3

Mass Conc: 0 µg/m3

Notes 1:
Notes 2:







15-22-aug	0:05:08	594	15.0	13.8	-1.1	31	16.71
15-22-aug	1:05:08	594	14.0	13.1	-0.9	32	16.71
15-22-aug	2:05:08	594	13.7	12.6	-1.2	33	16.71
15-22-aug	3:05:08	594	13.2	12.3	-1.0	33	16.71
15-22-aug	4:05:08	594	12.7	11.9	-0.9	33	16.71
15-22-aug	5:05:08	594	12.1	11.2	-0.9	32	16.72
15-22-aug	6:05:08	594	13.4	11.8	-1.6	33	16.71
15-22-aug	7:05:08	595	18.3	16.7	-1.6	34	16.71
15-22-aug	8:05:08	595	21.3	21.5	0.3	34	16.71
15-22-aug	9:05:08	595	22.7	23.7	1.0	34	16.71
15-22-aug	10:05:08	595	24.3	25.7	1.4	34	16.71
15-22-aug	11:05:08	595	25.8	27.2	1.4	34	16.70
15-22-aug	12:05:08	595	27.0	28.5	1.5	35	16.71
15-22-aug	13:05:08	594	28.3	29.8	1.6	35	16.71
15-22-aug	14:05:08	595	26.3	28.2	1.9	35	16.71
15-22-aug	15:05:08	594	26.1	26.8	0.7	35	16.71
15-22-aug	16:05:08	594	25.6	27.8	2.3	35	16.70
15-22-aug	17:05:08	595	23.6	24.8	1.2	35	16.70
15-22-aug	18:05:08	595	22.7	23.6	0.8	35	16.71
15-22-aug	19:05:08	595	21.4	21.2	-0.2	35	16.72
15-22-aug	20:05:08	596	20.3	19.8	-0.5	35	16.71
15-22-aug	21:05:08	596	19.3	18.7	-0.6	35	16.71
15-22-aug	22:05:08	596	19.4	18.2	-1.2	35	16.71
15-22-aug	23:05:08	596	17.1	16.9	-0.2	35	16.71

BGI PQ200 Air Sampling System Downloaded 2015 31 aug 15:38:41

Job Details:

Job Name: 15Aug31C.JOB
Version: 5.62
Serial No: 964
Pump Time: 2206:10
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	598	595	596	mmHg
TA	28	10.9	18.7	°C
Q	---	---	16.71	Lpm

QCV 0.55 %
Max overheat 3.4 °C
occured 30-aug 18:04:25

Timer Information:

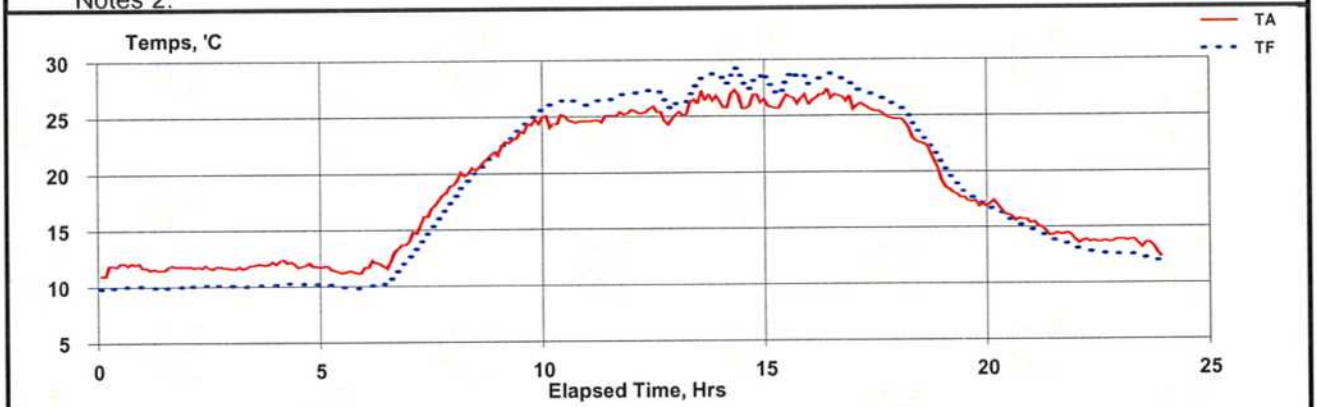
	Date dd-mmm	Time hh:mm:ss
Start:	15-28-aug	0:00:08
Stop:	15-29-aug	0:00:05

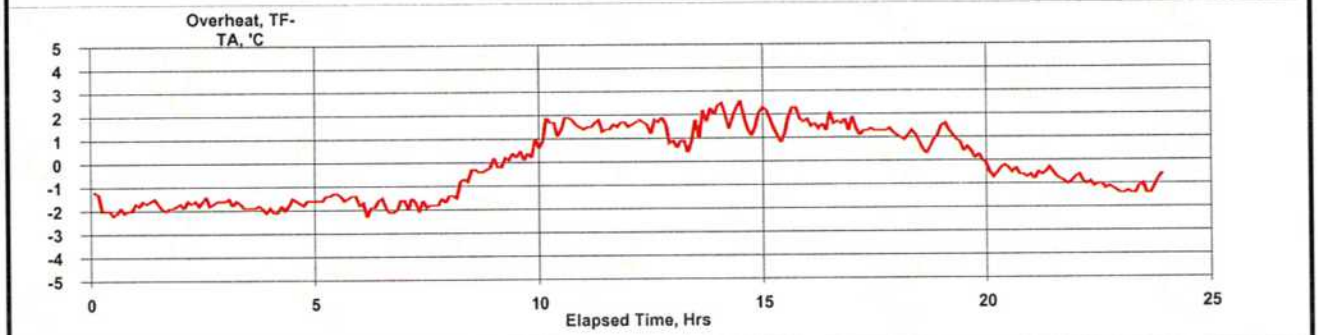
ET: 23:59

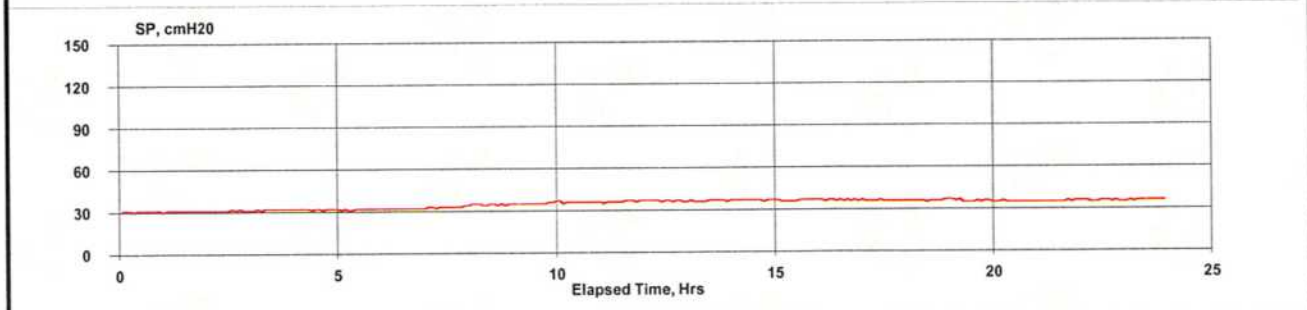
Mass Concentration Data:

Filter ID:	20	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.039	m^3
Mass Conc:	0	ug/m3

Notes 1:
Notes 2:







15-28-aug	0:05:08	598	11.8	9.9	-1.9	31	16.72
15-28-aug	1:05:08	597	11.7	9.9	-1.8	31	16.73
15-28-aug	2:05:08	597	11.7	10.1	-1.7	31	16.71
15-28-aug	3:05:08	597	11.9	10.1	-1.8	32	16.71
15-28-aug	4:05:08	597	12.0	10.2	-1.8	32	16.71
15-28-aug	5:05:08	597	11.4	10.0	-1.5	32	16.70
15-28-aug	6:05:08	598	12.6	10.8	-1.9	32	16.72
15-28-aug	7:05:08	598	17.0	15.2	-1.7	33	16.72
15-28-aug	8:05:08	598	20.7	20.1	-0.6	35	16.73
15-28-aug	9:05:08	598	23.7	24.0	0.3	35	16.71
15-28-aug	10:05:08	598	24.7	26.2	1.6	36	16.71
15-28-aug	11:05:08	598	25.0	26.6	1.6	36	16.71
15-28-aug	12:05:08	597	25.2	26.8	1.5	37	16.71
15-28-aug	13:05:08	597	26.2	27.7	1.4	37	16.71
15-28-aug	14:05:08	597	26.4	28.3	1.9	37	16.71
15-28-aug	15:05:08	596	26.3	28.0	1.7	37	16.71
15-28-aug	16:05:08	596	26.7	28.3	1.6	37	16.71
15-28-aug	17:05:08	596	25.4	26.6	1.3	36	16.70
15-28-aug	18:05:08	596	22.3	23.3	0.9	36	16.70
15-28-aug	19:05:08	596	17.6	18.2	0.6	36	16.71
15-28-aug	20:05:08	596	16.2	15.7	-0.5	35	16.72
15-28-aug	21:05:08	596	14.6	13.9	-0.7	35	16.71
15-28-aug	22:05:08	596	13.8	12.7	-1.1	36	16.71
15-28-aug	23:05:08	596	13.4	12.3	-1.2	36	16.70

BGI PQ200 Air Sampling System Downloaded 2015 08 sep 10:49:15

Job Details:

Job Name: 15Sep08C.JOB
Version: 5.62
Serial No: 964
Pump Time: 2230:09
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	595	591	592	mmHg
TA	25.2	11.7	17.9	°C
Q	---	---	16.7	Lpm

QCV 0.57 %
Max overheat 2.9 °C
occured 04-sep 13:15:42

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-03-sep	0:00:08
Stop:	15-04-sep	0:00:05

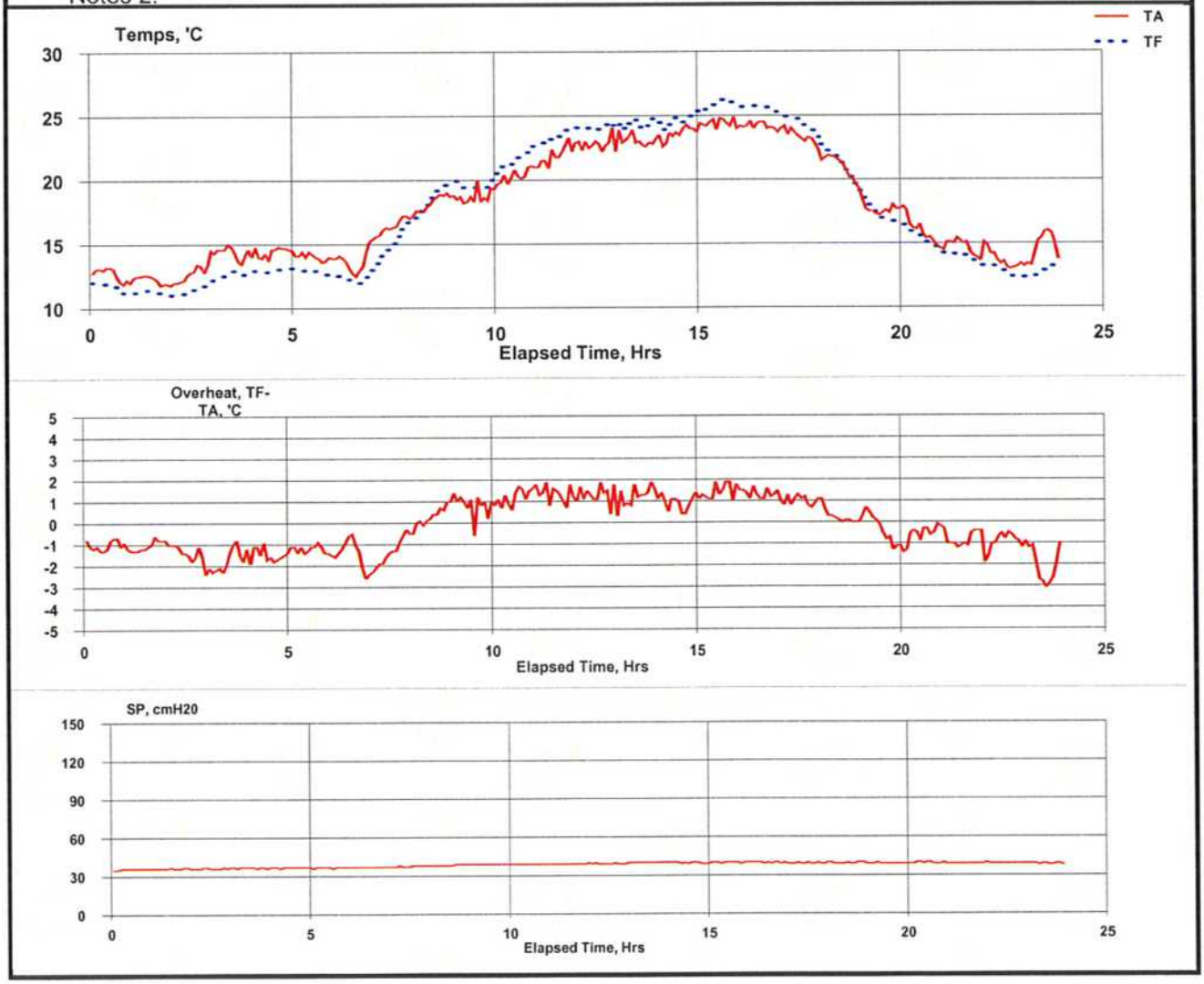
ET: 23:59

Mass Concentration Data:

Filter ID: 6
Final Wt: mg
Initial Wt: mg
Delta Wt: 0.000 mg
Total Vol: 24.042 m^3

Mass Conc: 0 µg/m3

Notes 1:
Notes 2:



15-03-sep	0:05:08	594	12.7	11.7	-1.0	36	16.71
15-03-sep	1:05:08	594	12.3	11.2	-1.1	36	16.71
15-03-sep	2:05:08	594	12.8	11.4	-1.4	36	16.71
15-03-sep	3:05:08	594	14.3	12.6	-1.7	37	16.72
15-03-sep	4:05:08	594	14.4	13.0	-1.5	37	16.71
15-03-sep	5:05:08	594	14.0	12.8	-1.2	37	16.71
15-03-sep	6:05:08	594	13.8	12.3	-1.4	37	16.71
15-03-sep	7:05:08	594	16.5	15.2	-1.3	38	16.71
15-03-sep	8:05:08	594	18.3	18.7	0.3	38	16.70
15-03-sep	9:05:08	594	18.7	19.6	0.8	39	16.71
15-03-sep	10:05:08	594	20.4	21.6	1.2	39	16.71
15-03-sep	11:05:08	594	22.0	23.4	1.4	39	16.71
15-03-sep	12:05:08	593	22.8	24.1	1.3	39	16.70
15-03-sep	13:05:08	593	23.1	24.3	1.2	40	16.72
15-03-sep	14:05:08	592	23.6	24.5	0.9	40	16.70
15-03-sep	15:05:08	592	24.4	25.8	1.4	40	16.70
15-03-sep	16:05:08	591	24.2	25.6	1.4	40	16.71
15-03-sep	17:05:08	591	23.4	24.4	1.0	39	16.70
15-03-sep	18:05:08	591	21.0	21.2	0.2	39	16.71
15-03-sep	19:05:08	591	17.6	17.3	-0.3	39	16.71
15-03-sep	20:05:08	592	16.0	15.4	-0.6	39	16.71
15-03-sep	21:05:08	592	14.7	13.9	-0.8	39	16.71
15-03-sep	22:05:08	592	13.7	12.8	-1.0	39	16.71
15-03-sep	23:05:08	592	14.7	12.6	-2.0	39	16.71

BGI PQ200 Air Sampling System Downloaded 2015 10 sep 09:10:14

Job Details:

Job Name: 15Sep10C.JOB
Version: 5.62
Serial No: 964
Pump Time: 2254:08
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	597	594	595	mmHg
TA	29	8	18.2	°C
Q	---	---	16.7	Lpm

QCV 0.56 %
Max overheat 3.4 °C
occured 09-sep 13:25:57

Timer Information:

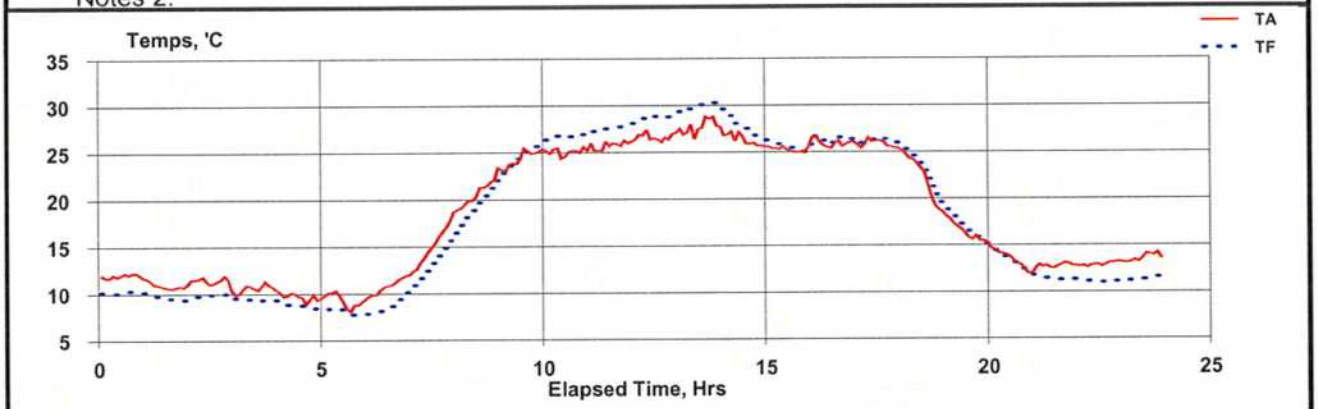
	Date dd-mmm	Time hh:mm:ss
Start:	15-09-sep	0:00:08
Stop:	15-10-sep	0:00:04

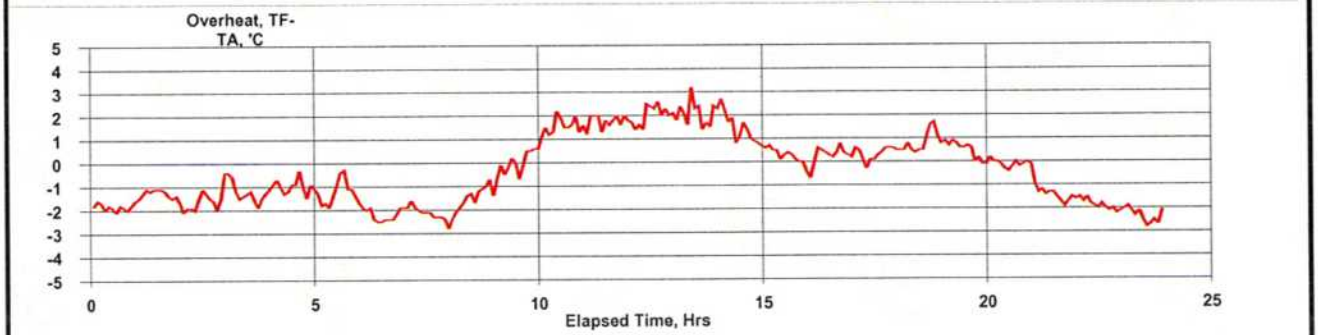
ET: 23:59

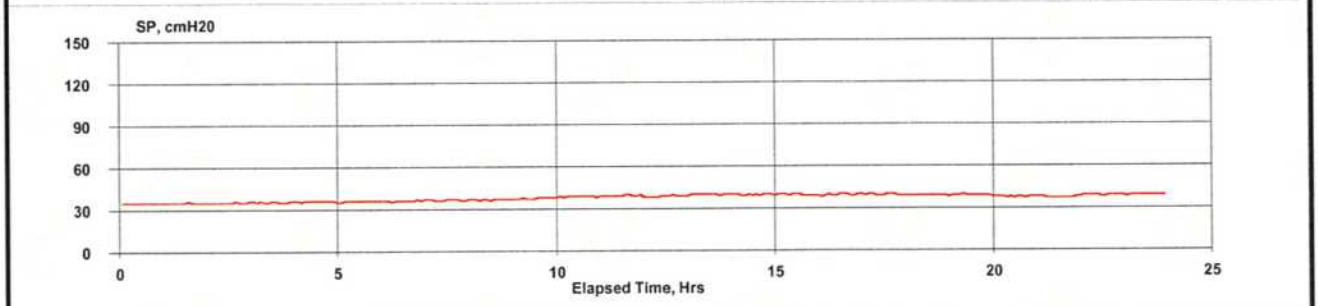
Mass Concentration Data:

Filter ID:	9	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.043	m^3
Mass Conc:	0	ug/m3

Notes 1:
Notes 2:







15-09-sep	0:05:08	596	12.0	10.1	-1.8	35	16.71
15-09-sep	1:05:08	596	10.9	9.6	-1.3	35	16.71
15-09-sep	2:05:08	596	11.4	9.8	-1.6	35	16.71
15-09-sep	3:05:08	596	10.6	9.4	-1.3	36	16.72
15-09-sep	4:05:08	596	9.7	8.7	-1.0	36	16.71
15-09-sep	5:05:08	596	9.3	8.1	-1.3	36	16.71
15-09-sep	6:05:08	596	10.9	8.7	-2.2	36	16.71
15-09-sep	7:05:08	597	15.3	13.1	-2.2	37	16.71
15-09-sep	8:05:08	597	20.8	19.3	-1.5	37	16.71
15-09-sep	9:05:08	597	24.4	24.4	0.0	38	16.71
15-09-sep	10:05:08	596	25.1	26.7	1.6	39	16.71
15-09-sep	11:05:08	596	25.8	27.6	1.8	39	16.71
15-09-sep	12:05:08	596	26.7	28.7	2.0	39	16.72
15-09-sep	13:05:08	595	27.7	29.8	2.1	40	16.71
15-09-sep	14:05:08	595	26.3	27.7	1.4	40	16.71
15-09-sep	15:05:08	595	25.3	25.5	0.3	40	16.71
15-09-sep	16:05:08	594	26.0	26.2	0.3	39	16.71
15-09-sep	17:05:08	594	25.8	26.2	0.3	39	16.71
15-09-sep	18:05:08	594	22.2	23.0	0.8	39	16.71
15-09-sep	19:05:08	595	16.4	16.9	0.5	39	16.71
15-09-sep	20:05:08	595	13.4	13.3	-0.1	38	16.71
15-09-sep	21:05:08	595	12.8	11.3	-1.4	37	16.71
15-09-sep	22:05:08	595	12.9	11.0	-1.9	39	16.71
15-09-sep	23:05:08	595	13.6	11.2	-2.3	39	16.71

BGI PQ200 Air Sampling System Downloaded 2015 23 sep 10:24:03

Job Details:

Job Name: 15Sep23C.JOB
Version: 5.62
Serial No: 964
Pump Time: 2302:06
Flags:

Job Code:
Site Name:
Station Code:
Operators:
User1:
User2:

	Max	Min	Avg	Units
BP	595	592	593	mmHg
TA	25.7	6.1	15.6	°C
Q	---	---	16.71	Lpm

QCV 0.36 %
Max overheat 2.9 °C
occured 21-sep 11:14:27

Timer Information:

	Date dd-mmm	Time hh:mm:ss
Start:	15-21-sep	0:00:08
Stop:	15-22-sep	0:00:05

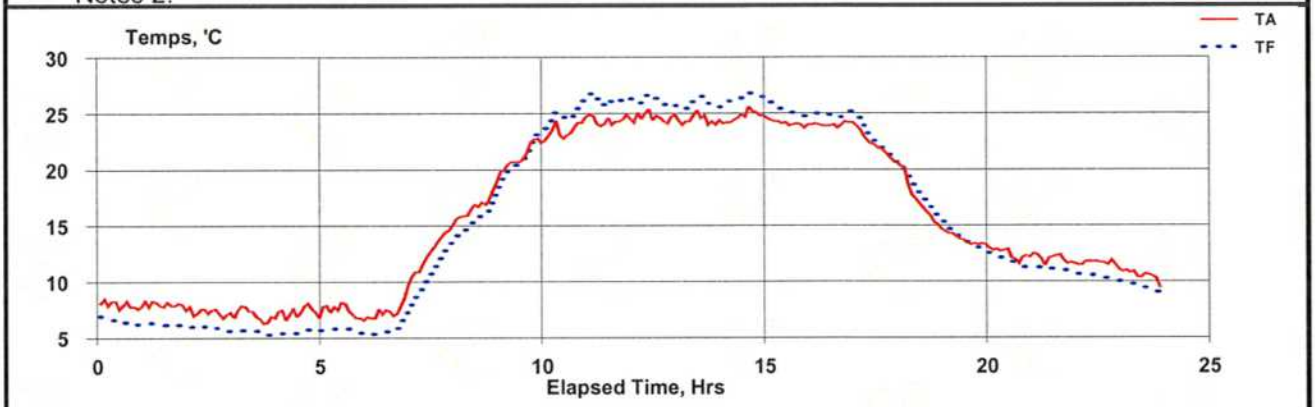
ET: 23:59

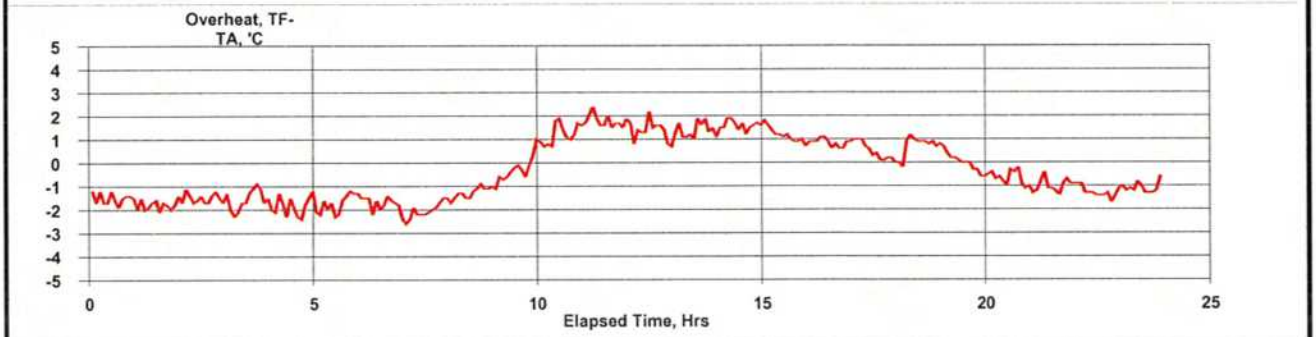
Mass Concentration Data:

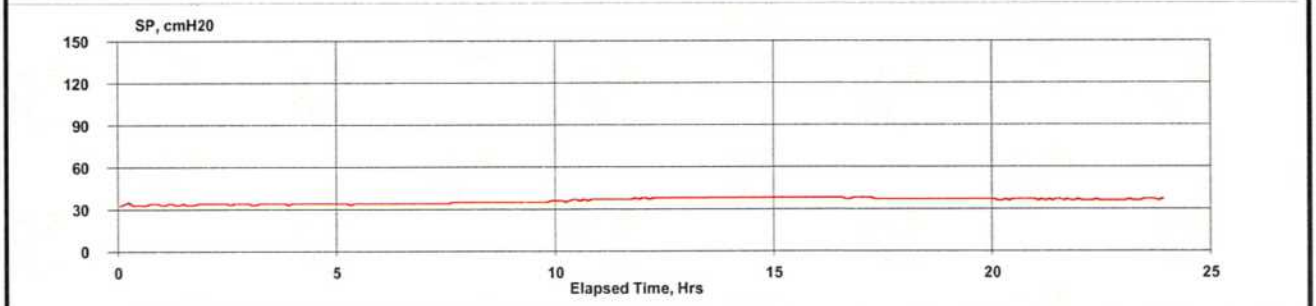
Filter ID: 19
Final Wt: mg
Initial Wt: mg
Delta Wt: 0.000 mg
Total Vol: 24.041 m^3

Mass Conc: 0 µg/m3

Notes 1:
Notes 2:







15-21-sep	0:05:08	595	8.0	6.5	-1.5	34	16.71
15-21-sep	1:05:08	594	8.0	6.2	-1.8	34	16.71
15-21-sep	2:05:08	594	7.3	5.8	-1.5	34	16.71
15-21-sep	3:05:08	594	7.1	5.5	-1.6	34	16.70
15-21-sep	4:05:08	594	7.4	5.5	-1.8	34	16.72
15-21-sep	5:05:08	594	7.4	5.7	-1.7	34	16.71
15-21-sep	6:05:08	595	7.5	5.8	-1.8	34	16.71
15-21-sep	7:05:08	595	12.8	10.8	-2.0	34	16.72
15-21-sep	8:05:08	595	16.8	15.6	-1.3	35	16.72
15-21-sep	9:05:08	595	21.2	21.0	-0.3	35	16.71
15-21-sep	10:05:08	594	23.6	24.8	1.2	36	16.71
15-21-sep	11:05:08	594	24.4	26.2	1.8	37	16.70
15-21-sep	12:05:08	594	24.7	26.0	1.4	38	16.71
15-21-sep	13:05:08	593	24.4	25.8	1.4	38	16.71
15-21-sep	14:05:08	593	24.7	26.3	1.6	38	16.73
15-21-sep	15:05:08	593	24.1	25.3	1.2	38	16.68
15-21-sep	16:05:08	592	24.0	24.9	0.8	38	16.71
15-21-sep	17:05:08	592	22.1	22.6	0.5	37	16.71
15-21-sep	18:05:08	593	17.1	17.8	0.7	37	16.72
15-21-sep	19:05:08	593	13.7	13.7	0.0	37	16.71
15-21-sep	20:05:08	593	12.5	11.8	-0.7	37	16.70
15-21-sep	21:05:08	593	12.0	11.0	-1.0	37	16.72
15-21-sep	22:05:08	593	11.6	10.4	-1.3	36	16.73
15-21-sep	23:05:08	593	10.5	9.5	-1.1	37	16.72

BGI PQ200 Air Sampling System Downloaded 2015 28 sep 09:48:52

Job Details:

Job Name:	15Sep28C.JOB
Version:	5.62
Serial No:	964
Pump Time:	2326:06
Flags:	

Job Code:	
Site Name:	
Station Code:	
Operators:	
User1:	
User2:	

	Max	Min	Avg	Units
BP	596	592	594	mmHg
TA	25.3	7.1	15.8	°C
Q	---	---	16.7	Lpm

QCV	0.57 %
Max overheat	2.9 °C
occured	27-sep 12:22:23

Timer Information:

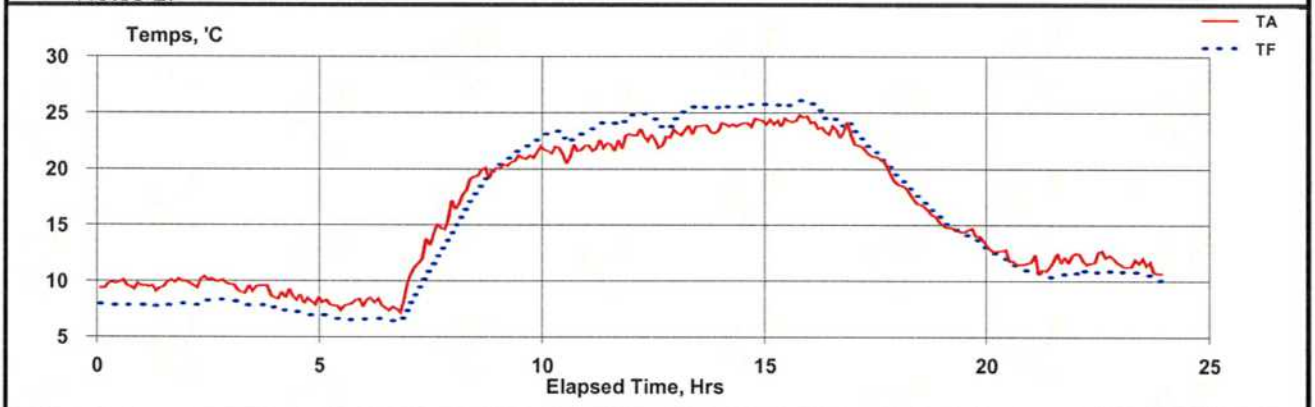
	Date dd-mmm	Time hh:mm:ss
Start:	15-27-sep	0:00:08
Stop:	15-28-sep	0:00:05
ET:	24:00:00	

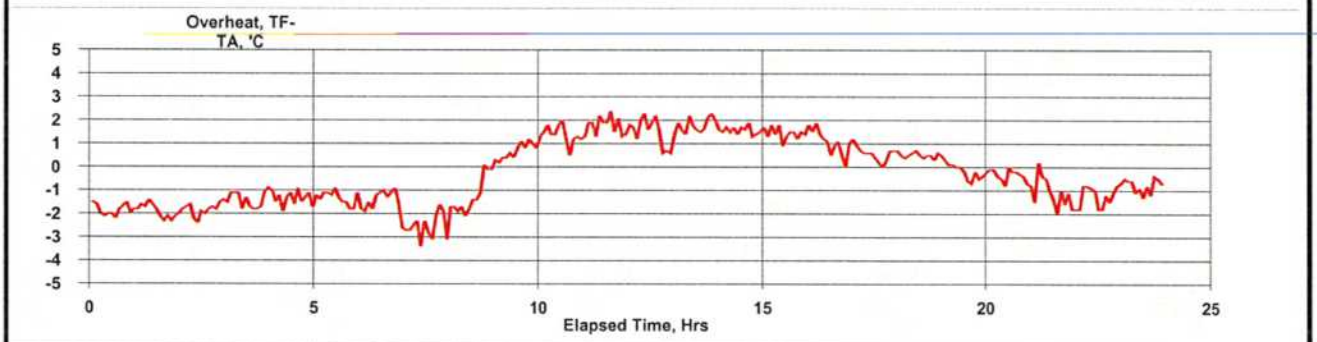
Mass Concentration Data:

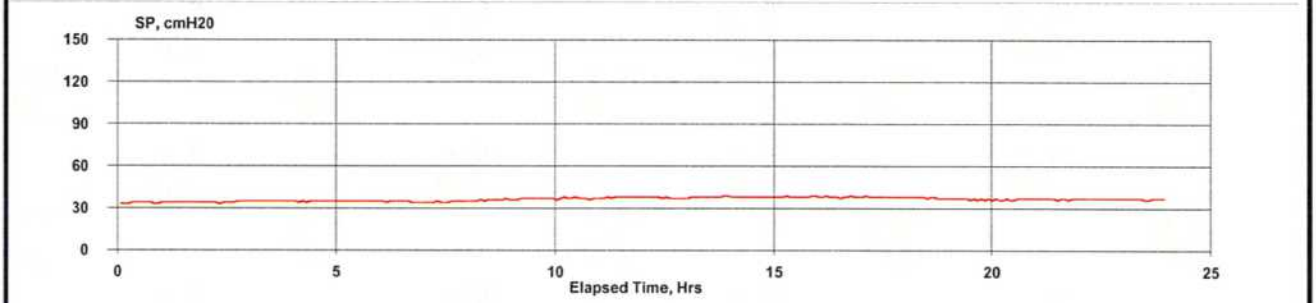
Filter ID:	8	
Final Wt:		mg
Initial Wt:		mg
Delta Wt:	0.000	mg
Total Vol:	24.042	m^3
Mass Conc:	0	ug/m3

Notes 1:

Notes 2:







15-27-sep	0:04:25	594	9.7	7.8	-1.9	34	16.71
15-27-sep	1:04:25	594	9.7	7.8	-1.9	34	16.71
15-27-sep	2:04:25	594	9.9	8.1	-1.8	34	16.71
15-27-sep	3:04:25	594	9.2	7.8	-1.4	35	16.72
15-27-sep	4:04:25	594	8.5	7.2	-1.3	35	16.70
15-27-sep	5:04:25	594	8.0	6.6	-1.3	35	16.71
15-27-sep	6:04:25	595	8.1	6.6	-1.5	35	16.71
15-27-sep	7:04:25	595	13.7	11.1	-2.5	35	16.71
15-27-sep	8:04:25	595	18.8	17.6	-1.2	36	16.72
15-27-sep	9:04:25	595	20.9	21.6	0.7	37	16.71
15-27-sep	10:04:25	595	21.6	23.0	1.4	37	16.71
15-27-sep	11:04:25	595	22.2	24.0	1.8	38	16.72
15-27-sep	12:04:25	594	22.8	24.3	1.5	38	16.72
15-27-sep	13:04:25	594	23.5	25.3	1.8	38	16.71
15-27-sep	14:04:25	594	24.1	25.6	1.6	38	16.71
15-27-sep	15:04:25	593	24.3	25.8	1.4	38	16.71
15-27-sep	16:04:25	593	23.6	24.6	1.1	38	16.70
15-27-sep	17:04:25	593	21.0	21.5	0.6	38	16.71
15-27-sep	18:04:25	593	17.0	17.5	0.5	38	16.71
15-27-sep	19:04:25	594	14.5	14.3	-0.1	37	16.71
15-27-sep	20:04:25	594	12.2	11.9	-0.3	37	16.71
15-27-sep	21:04:25	594	11.7	10.6	-1.1	37	16.71
15-27-sep	22:04:25	594	12.1	10.8	-1.3	37	16.71
15-27-sep	23:04:25	594	11.4	10.6	-0.8	37	16.71

APPENDIX C

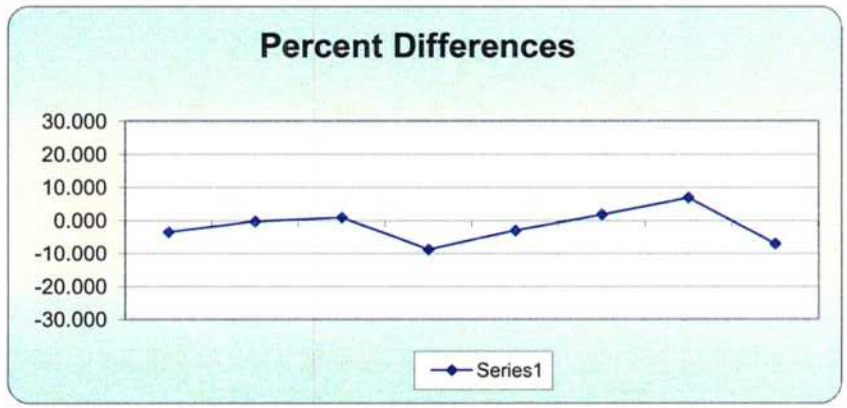
Precision and Single-Point Flow Rate Checks

Alton Coal Development, LLC - Coal Hollow Mine

Precision Estimate (From Collocated Samples)

Monitors 963B & 964C		Pollutant type:					CV_{ub} (%)				
Meas Val (Y)	Audit Val (X)	d (Eqn 10)	25th Percentile	d^2	|d|	$\|d\|^2$					
10.7	11.1	-3.670	-4.560	13.467	3.670	13.467				5.5	17.7
25.7	25.8	-0.388	75th Percentile	0.151	0.388	0.151	n	$\Sigma\|d\|$	$\Sigma\|d\|^2$	5.5	17.9
49.3	48.9	0.815	1.024	0.664	0.815	0.664	8	32.562	203.958		
95.7	104.6	-8.887		78.973	8.887	78.973	n-1	Σd	Σd^2		
18.7	19.3	-3.158		9.972	3.158	9.972	7	-14.101	203.958		
30.5	30	1.653		2.732	1.653	2.732					
21.4	20	6.763		45.742	6.763	45.742					
8	8.6	-7.229		52.25722	7.229	52.257					

CV (%) (Eqn 11)
5.62

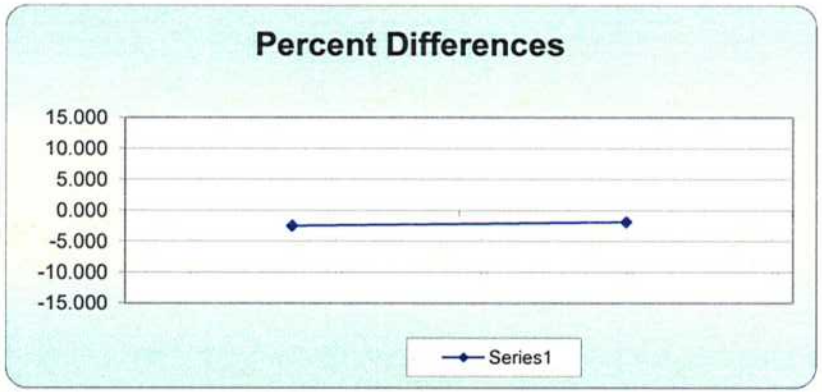


Alton Coal Development, LLC - Coal Hollow Mine

One-Point Flow Rate Bias Estimate

Site ID: Monitor 962A		Pollutant type:					Bias (%)		
Meas Val (Y)	Audit Val (X)	d (Eqn. 1)	25th Percentile	d^2	$\|d\|$	$\|d\|^2$			
			-2.367						
16.7	17.13	-2.510	75th Percentile	6.301	2.510	6.301	n	$\sum\|d\|$	"AB" (Eqn 4)
16.7	17.03	-1.938	-2.081	3.755	1.938	3.755	2	4.448	2.224
							n-1	$\sum\|d\|^2$	"AS" (Eqn 5)
							1	10.056	0.405

Bias (%) (Eqn 3)	Both Signs Positive
4.03	FALSE
Signed Bias (%)	Both Signs Negative
-4.03	TRUE



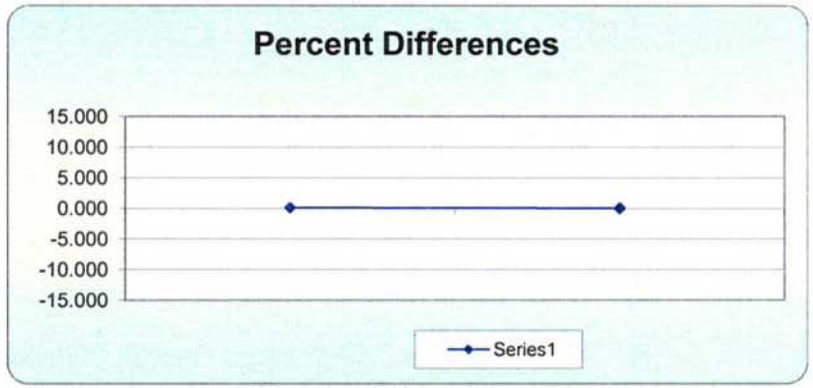
Alton Coal Development, LLC - Coal Hollow Mine

One-Point Flow Rate Bias Estimate

Site ID: Monitor 963B		Pollutant type:			Bias (%)	
Meas Val (Y)	Audit Val (X)	d (Eqn. 1)	25th Percentile	d^2	|d|	$\|d\|^2$
16.7			0.030			
16.7	16.68	0.120	75th Percentile	0.014	0.120	0.014
16.7	16.7	0.000	0.090	0.000	0.000	0.000

n	$\Sigma\|d\|$	"AB" (Eqn 4)
3	0.120	0.060
n-1	$\Sigma\|d\|^2$	"AS" (Eqn 5)
2	0.014	0.069

Bias (%) (Eqn 3)	Both Signs Positive
0.18	TRUE
Signed Bias (%)	Both Signs Negative
+0.18	FALSE

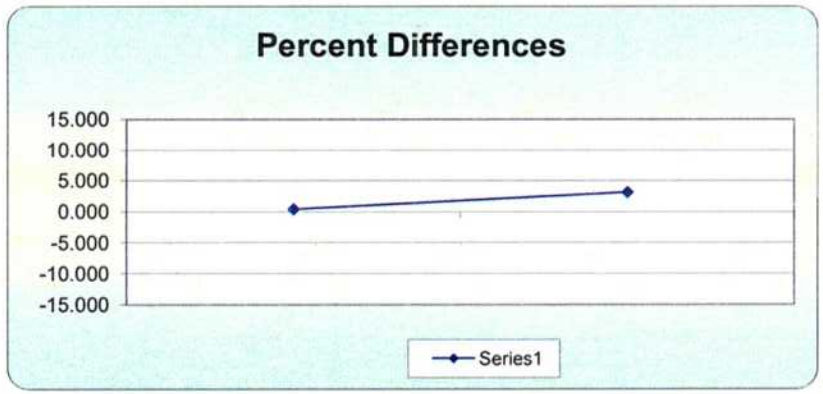


Alton Coal Development, LLC - Coal Hollow Mine

One-Point Flow Rate Bias Estimate

Site ID: Monitor 964C		Pollutant type:					Bias (%)		
Meas Val (Y)	Audit Val (X)	d (Eqn. 1)	25th Percentile	d^2	|d|	$\|d\|^2$			
16.7			1.087						
16.7	16.63	0.421	75th Percentile	0.177	0.421	0.177	n	$\sum\|d\|$	"AB" (Eqn 4)
16.7	16.2	3.086	2.420	9.526	3.086	9.526	3	3.507	1.754
							n-1	$\sum\|d\|^2$	"AS" (Eqn 5)
							2	9.703	1.674

Bias (%) (Eqn 3)	Both Signs Positive
4.58	TRUE
Signed Bias (%)	Both Signs Negative
+4.58	FALSE



APPENDIX D

Field Data Sheets

Background Monitor 962A

Table I - Every 6th Day Sampling

Date	Time	Displayed Date	Displayed Time	Collected Filter ID#	New Filter ID#	Sample Start Time	Sample Start Date	Sampler Initials	
07-01-15	09:49	07-01-15	09:49	1	5	09:49	07-01-15	KN	Field Blank
07-01-15	10:29	07-01-15	10:29	5	6	M-M	07-05-15	KN	
07-08-15	0852	07-08-15	0750	6	11	M-M	07-11-15	JKSR	reset clock F
07-13-15	1249	07-13-15	1249	11	14	M-M	07-17-15	JKSR	
07-20-15	1325	07-20-15	1325	14	4	M-M	07-23-15	JKSR	
07-27-15	11:27	07-27-15	11:27	4	7	11:27	07-29-15	KN	Field Blank
07-27-15	11:30	07-27-15	11:30	7	9	M-M	07-29-15	KN	
07-30-15	1306	07-30-15	1306	9	JBR1	M-M	08-04-15	JKSR/KN	
08-06-15	1710	08-06-15	1510	JBR1	JBR2	M-M	08-16-15	JKSR	still Running when I got here
08-11-15	1017	08-11-15	1016	JBR2	11	M-M	08-16-15	JKSR	still Running when I got here
08-17-15	1517	08-17-15	1418	11	14	M-M	08-22-15	JKSR	
08-25-15	1058	08-25-15	0958	14	JBR	M-M	08-28-15	KN	
08-31-15	1608	08-31-15	1507	JBR5	4	M-M	09-03-15	JKSR	
09-08-15	1135	09-08-15	1034	4	7	M-M	09-09-15	JKSR	still Running when I got here
09-10-15	0942	09-10-15	0841	7	10	M-M	09-15-15	JKSR	
09-17-15	0830	09-17-15	0929	10	17	M-M	09-21-15	JKSR	
09-23-15	1048	09-23-15	0947	17	1JBR	M-M	09-27-15	JKSR	
09-28-15	1029	09-28-15	928	1JBR	11	M-M	10-03-15	JKSR	

Table II - Monthly Leak Test

Date	Time	Initial SP Value	Final SP Value	Pass/Fail	Initials	Maintenance
07-27-15	11:33	104	104	Pass	KN	Cleaned Nozzle & Manifold
09-10-15	0844	095	093	Pass	JKSR	

Table III - Monthly Flow Rate Verification

Date	Time	Monitor Flow (Q Lpm)	Monitor Baro Pressure (mmHg)	Delta Cal Baro Pressure (mmHg)	Monitor Temp (A)	Delta Cal Temp (Ta)	Delta Cal Flow (Qs)	Delta Cal Flow (Qa)	Accuracy	Initials
07-27-15	11:39	16.70	586	587	22.7	22.7	13.32	17.13	-2.5	KN
09-10-15	0850	16.70	588	590	21.8	22.0	13.32	17.03	-1.9	JKSR

Compliance Monitor 963B

Table I - Every 6th Day Sampling

Date	Time	Displayed Date	Displayed Time	Collected Filter ID#	New Filter ID#	Sample Start Time	Sample Start Date	Sampler Initials	
07-01-15	11:18	07-01-15	11:17	2	8	M-M	07-05-15	KN	
07-08-15	0837	07-08-15	0837	8	12	M-M	07-11-15	JKSR	
07-13-15	1204	07-13-15	1204	12	15	M-M	07-17-15	JKSR	
07-13-15	1206	07-13-15	1206	20	20	Blank	07-13-15	JKSR	Field Blank
07-20-15	1343	07-20-15	1243	15	5	M-M	07-23-15	JKSR	Reset clock
07-27-15	12:10	07-27-15	11:09	5	17	~~11:09~~	07-27-15	KN	Field Blank
07-27-15	12:12	07-27-15	12:11	17	18	M-M	07-29-15	KN	
07-30-15	1320	07-30-15	1220	18	19	M-M	08-04-15	JKSR/KN	
08-06-15	1322	08-06-15	1322	19	JBR 3	M-M	08-10-15	JKSR	
08-11-15	1129	08-11-15	1027	JBR 3	12	M-M	08-16-15	JKSR	
08-17-15	1532	08-17-15	1431	12	15	M-M	08-22-15	JKSR	
08-25-15	1145	08-25-15	10:44	15	JBR 6	M-M	08-28-15	KN	
08-31-15	1630	08-31-15	1530	JBR 6	5	M-M	09-03-15	JKSR	~~No data~~ spl err.
09-08-15	—	09-08-15	—	5	8	M-M	09-09-15	JKSR	No data -
09-10-15	1011	09-10-15	0910	8	11	M-M	09-15-15	JKSR	QT
09-17-15	1046	09-17-15	0946	11	18	M-M	09-21-15	JKSR	QT
09-23-15	1124	09-23-15	1023	18	7	M-M	09-27-15	JKSR	
09-28-15	1050	09-28-15	0949	7	12	M-M	10-03-15	JKSR	

Table II - Monthly Leak Test

Date	Time	Initial SP Value	Final SP Value	Pass/Fail	Initials	Maintenance	
07-27-15	1215	97	95	Pass	KN		Swapped Battery and Shook it
09-10-15	1018			Fail	JKSR	Not Pumping	
09-17-15	1056	116	115	Pass	JKSR	Took apart and Rebuilt pump	

Table III - Monthly Flow Rate Verification

Date	Time	Monitor Flow (Q Lpm)	Monitor Baro Pressure (mmHg)	Delta Cal Baro Pressure (mmHg)	Monitor Temp (A)	Delta Cal Temp (Ta)	Delta Cal Flow (Qs)	Delta Cal Flow (Qa)	Accuracy	Initials	
07-27-15	~~12:23~~ ~~16:20~~	16.70	592	593	24.4	24.6	12.95	16.68	0.120	KN	
09-10-15	1021	16.90	595	595	23.2	23.9	13.40	16.90	0.000	JKSR	Fluctuating

Co-located Monitor 964C

Table I - Every 6th Day Sampling

Date	Time	Displayed Date	Displayed Time	Collected Filter ID#	New Filter ID#	Sample Start Time	Sample Start Date	Sampler Initials	
07-01-15	11:40	07-01-15	11:40	3	10	M-M	07-05-15	KN	QT
07-08-15	0840	07-08-15	0840	10	13	M-M	07-11-15	JKSR	
07-11-15	1207	07-11-15	1207	13	16	M-M	07-17-15	JKSR	QT
07-20-15	1345	07-20-15	1245	16	6	M-M	07-23-15	JKSR	Reset clock
07-27-15	12:27	07-27-15	1125	6	8	M-M	07-29-15	KN	
07-30-15	1324	07-30-15	1222	8	10	M-M	08-04-15	JKSR/KN	QT
08-06-15	1323	08-06-15	1324	10	JBR4	M-M	08-10-15	JKSR	
08-11-15	1131	08-11-15	1028	JBR4	13	M-M	08-16-15	JKSR	
08-17-15	1535	08-17-15	1431	13	16	M-M	08-22-15	JKSR	QT
08-25-15	11:55	08-25-15	1052	16	20	M-M	0828-15	KN	
08-31-15	1641	08-31-15	1538	20	6	M-M	09-03-15	JKSR	
09-08-15	1152	08-09-15	1049	6	9	M-M	09-09-15	JKSR	
09-10-15		09-10-15		9	13	Blank	09-10-15	JKSR	Blank
09-10-15	1013	09-10-15	0910	13	12	M-M	09-15-15	JKSR	
09-17-15	1047	09-17-15	0945	12	19	M-M	09-21-15	JKSR	
09-23-15	1127	09-23-15	1024	19	8	M-M	09-27-15	JKSR	
09-28-15	1052	09-28-15	0949	8	13	M-M	10-03-15	JKSR	

Table II - Monthly Leak Test

Date	Time	Initial SP Value	Final SP Value	Pass/Fail	Initials	Maintenance	
7-27-15	12:25	114	113	Pass	KN		Swapped Battery & Solar Cell with
09-10-15	1026	111	107	Pass	JKSR		

Table III - Monthly Flow Rate Verification

Date	Time	Monitor Flow (Q Lpm)	Monitor Baro Pressure (mmHg)	Delta Cal Baro Pressure (mmHg)	Monitor Temp (A)	Delta Cal Temp (Ta)	Delta Cal Flow (Qs)	Delta Cal Flow (Qa)	Accuracy	Initials
7-27-15	12:55	16.70	593	593	25.4	25.7	12.96	16.63	0.421	KN
09-10-15	1028	16.70	596	595	~~23.8~~	~~23.9~~	12.69	16.20	3.086	JKSR
					24.5	24.8				

APPENDIX E

Independent PM_{10} Sampler Performance Audit Report

AUDIT REPORT
FOR

ALTON COAL DEVELOPMENT, LLC
COAL HOLLOW MINE
ALTON, UTAH
THIRD QUARTER 2015

Prepared for

Kirk Nicholes
Alton Coal Development, LLC
463 N 100 W
Cedar City, Utah, 84721

Prepared by

Air Resource SPECIALISTS

1901 Sharp Point Dr.
Suite E
Fort Collins, CO 80525
970-484-7941

Site Audited: July 22, 2015

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1.0 INTRODUCTION

Air Resource Specialists, Inc. (ARS) conducted a performance audit of Alton Coal Development, LLC ambient air quality monitoring systems on July 22, 2015. The monitoring sites are located at the Coal Hollow Mine near Alton, Utah.

Table 1-1

Site Location Information

	Primary	Background	Meteorological
Latitude	37° 24' 5.0" N	37° 24' 20.9" N	37° 23' 53.2" N
Longitude	112° 27' 21.0" W	112° 26' 1.1" W	112° 26' 43.1" W
UTM	12S 371147 4140396	12S 373119 4140856	12S 372073 4140018
Elevation	6,890 feet MSL	7,158 feet MSL	7,007 feet MSL

Audit results for the particulate samplers are summarized in Table 1-2. Detailed discussions of performance audit findings and other findings can be found in Section 3.0.

Table 1-2

Summary of Particulate Sampler Audit Results

	Parameter	**Instrument**	**Within Accuracy Goal**
Primary	PM_{10}	BGI PQ200S	Yes
	PM_{10} (collocated)	BGI PQ200S	Yes
Background	PM_{10}	BGI PQ200S	Yes

Details of the audit are presented in the following sections:

Section 2.0	Audit Methods and Equipment
Section 3.0	Audit Results
Appendix A	Audit Data Forms
Appendix B	Audit Standards Certifications

Any questions related to this audit or audit report should be addressed to:

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Quality Assurance Manager
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1901 Sharp Point Drive, Suite E
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E-mail: ckirk@air-resource.com

2.0 AUDIT METHODS

Audit procedures, audit challenge ranges, and acceptance criteria are described below. These ranges and limits conform to EPA's PSD guidelines. Audit results were verbally communicated to the site operator prior to departure from the site. A follow-up e-mail summarizing audit findings was also sent to Alton Coal Development, LLC personnel. Audit details are provided in Appendix A.

Guidance from the following EPA documents was used to establish the audit procedures:

- 40 CFR 58, Appendix A. *Quality Assurance Requirements for SLAMS, SPMs, and PSD Air Monitoring*
- EPA *Quality Assurance Handbook for Air Pollution Measurement Systems:*
  - *Volume I. A Field Guide to Environmental Quality Assurance*
  - *Volume II. Ambient Air Quality Monitoring Program*
  - *Volume IV. Meteorological Measurements*
- EPA *Meteorological Monitoring Guidance for Regulatory Modeling Applications*
- EPA *Transfer Standards for Calibration of Air Monitoring Analyzers for Ozone*

2.1 PARTICULATE SAMPLERS (FRM PM_{10})

The filter-based FRM PM_{10} particulate samplers are audited in their normal operating mode. ARS audits the samplers with a BGI DeltaCal audit standard which measures flow, temperature, and barometric pressure. Prior to conducting the flow audit, a system leak check is performed in accordance with the manufacturer's specifications. The observed volumetric operational flow and design flow of the sampler are compared to the audit flows measured by the audit standard. Differences between the operational sampler flow and audit flow that are greater than ±10% are considered out of tolerance. Differences between the designated design flow and the audit flow greater than ±10% are considered out of tolerance. In addition to the flow audits, observed ambient temperature, filter temperature, and barometric pressure measurements of the particulate samplers are also audited by comparison to the audit standard. A temperature difference greater than ±2°C and a barometric pressure difference greater than ±10mm Hg are considered out of tolerance. Audit methods and acceptable criteria for the particulate samplers are summarized in Table 2-1.

Table 2-1

Particulate Samplers
Audit Acceptance Criteria

Parameter	Audit Method	Acceptance Criteria
FRM PM_{10}	Leak Check	Manufacturer specs
	Audit flow to actual sampler flow	≤ ± 4%
	Design criteria flow to audit flow	≤ ± 5%
	Audit temperature to sampler temperature	≤ ± 2 °C
	Audit temperature to sampler filter temperature	≤ ± 2 °C
	Audit barometric pressure to sampler pressure	≤ ±10mm Hg

Table 2-2

Particulate Samplers
Audit Equipment

References	Manufacturer	Model Number	Serial Number	Expiration Date
FRM Flow	Mesa Labs	deltaCal	141170	4/17/2016

3.0 AUDIT RESULTS

Audit findings and recommendations are discussed below. Detailed audit results are provided in Appendix A.

Performance Audit Results

There were no performance audit failures during this audit.

Other Audit Findings

The flow on the primary sampler was found to be fluctuating by about 0.5 LPM. It is recommended that the pump be rebuilt or replaced.

APPENDIX A

AUDIT DATA FORMS

Air Resource Specialists, Inc.

FRM AUDIT (PM_{10})

ABBR.	N/A	CLIENT	ALTON	AUDITOR	M. Farinacci	DATE	7/22/2015
SITE NAME		Coal Hollow					
Network type		Alton Coal- Coal Hollow					

	MANUFACTURER	MODEL	SERIAL NUMBER	EXPIRATION DATE
PM Flow Standard #1	MesaLabs	deltaCal	141170	4/17/2016
PM Temperature Standard #1	MesaLabs	deltaCal	141170	4/17/2016
PM Barometric Pressure Standard #1	MesaLabs	deltaCal	141170	4/17/2016

MANUFACTURER	BGI
MODEL	PQ200
SERIAL NUMBER	962a

Date and Time correct?
☑ Yes ☐ No
If no, time off by:
0 min

SETTINGS	
Total Flow	16.70

	Automated LEAK CHECK	
	Vacuum Loss Rate	Pass/Fail
	1 cm/2 min	PASS

	FLOW VERIFICATION				
	Reference	Instrument	Actual Diff	Design Diff	
Total Flow	17.06	16.70	-2.1%	2.2%	PASS

AUDIT CRITERIA (<=)	
Actual Flow % Diff	10%
Design Flow % Diff	10%

	AMBIENT TEMPERATURE SENSOR (°C)			
	Reference	Instrument	Difference	
	19.8	18.5	-1.3	PASS

AUDIT CRITERIA (<=)	
Temperature Difference (°C)	2

	FILTER TEMPERATURE SENSOR (°C)			
	Reference	Instrument	Difference	
	20.6	20.2	-0.4	PASS

AUDIT CRITERIA (<=)	
Temperature Difference (°C)	2

	PRESSURE SENSOR (mmHg)			
	Reference	Instrument	Difference	
	586.0	587.5	1.5	PASS

AUDIT CRITERIA (<=)	
Pressure Difference (mmHg)	10

NOTES:

Air Resource Specialists, Inc.

FRM AUDIT (PM_{10})

ABBR.	N/A	CLIENT	ALTON	AUDITOR	M. Farinacci	DATE	7/22/2015
SITE NAME		Coal Hollow					
Network type		Alton Coal- Coal Hollow					

	MANUFACTURER	MODEL	SERIAL NUMBER	EXPIRATION DATE
PM Flow Standard #1	MesaLabs	deltaCal	141170	4/17/2016
PM Temperature Standard #1	MesaLabs	deltaCal	141170	4/17/2016
PM Barometric Pressure Standard #1	MesaLabs	deltaCal	141170	4/17/2016

MANUFACTURER	BGI
MODEL	PQ200
SERIAL NUMBER	963B

Date and Time correct?
☑ Yes ☐ No
If no, time off by:
0 min

SETTINGS	
Total Flow	16.70

	Automated LEAK CHECK	
	Vacuum Loss Rate	Pass/Fail
	3 cm/2 min	PASS

	FLOW VERIFICATION				
	Reference	Instrument	Actual Diff	Design Diff	
Total Flow	16.66	16.70	0.2%	-0.2%	PASS

AUDIT CRITERIA (<=)	
Actual Flow % Diff	10%
Design Flow % Diff	10%

	AMBIENT TEMPERATURE SENSOR (°C)			
	Reference	Instrument	Difference	
	22.7	21.5	-1.2	PASS

AUDIT CRITERIA (<=)	
Temperature Difference (°C)	2

	FILTER TEMPERATURE SENSOR (°C)			
	Reference	Instrument	Difference	
	22.2	21.8	-0.4	PASS

AUDIT CRITERIA (<=)	
Temperature Difference (°C)	2

	PRESSURE SENSOR (mmHg)			
	Reference	Instrument	Difference	
	593.0	593.0	0.0	PASS

AUDIT CRITERIA (<=)	
Pressure Difference (mmHg)	10

NOTES: fluctuating flow

Air Resource Specialists, Inc.

FRM AUDIT (PM_{10})

ABBR.	N/A	CLIENT	ALTON	AUDITOR	M. Farinacci	DATE	7/22/2015
SITE NAME		Coal Hollow					
Network type		Alton Coal- Coal Hollow					

	MANUFACTURER	MODEL	SERIAL NUMBER	EXPIRATION DATE
PM Flow Standard #1	MesaLabs	deltaCal	141170	4/17/2016
PM Temperature Standard #1	MesaLabs	deltaCal	141170	4/17/2016
PM Barometric Pressure Standard #1	MesaLabs	deltaCal	141170	4/17/2016

MANUFACTURER	BGI
MODEL	PQ200
SERIAL NUMBER	964C

Date and Time correct?
☑ Yes ☐ No
If no, time off by:
0 min

SETTINGS	
Total Flow	16.70

	Automated LEAK CHECK	
	Vacuum Loss Rate	Pass/Fail
	2 cm/2 min	PASS

	FLOW VERIFICATION				
	Reference	Instrument	Actual Diff	Design Diff	
Total Flow	16.65	16.70	0.3%	-0.3%	PASS

AUDIT CRITERIA (<=)	
Actual Flow % Diff	10%
Design Flow % Diff	10%

	AMBIENT TEMPERATURE SENSOR (°C)			
	Reference	Instrument	Difference	
	22.5	22.0	-0.5	PASS

AUDIT CRITERIA (<=)	
Temperature Difference (°C)	2

	FILTER TEMPERATURE SENSOR (°C)			
	Reference	Instrument	Difference	
	23.2	23.0	-0.2	PASS

AUDIT CRITERIA (<=)	
Temperature Difference (°C)	2

	PRESSURE SENSOR (mmHg)			
	Reference	Instrument	Difference	
	593.0	594.0	1.0	PASS

AUDIT CRITERIA (<=)	
Pressure Difference (mmHg)	10

NOTES:

Air Resource Specialists, Inc.

SITE INFORMATION

ABBR.	N/A	CLIENT	ALTON	AUDITOR	M. Farinacci	DATE	7/22/2015
SITE NAME		Coal Hollow					
NETWORK TYPE		Alton Coal- Coal Hollow					

		Deg	Min	Sec
LATITUDE	North	34	24	22.1
LONGITUDE	West	112	27	15.5

--CALCULATE->

Decimal
34.4061
112.4543

Decimal

--CALCULATE->

Deg	Min	Sec

	Meters
ELEVATION	

--CALCULATE->

Feet

Feet

--CALCULATE->

Meters

Please verify site standards used by the site operator

SITE STANDARDS	MANUFACTURER	MODEL	SERIAL #	Calibration Expiration Date
PM Flow Reference				

NOTES:

Air Resource Specialists, Inc.

CALIBRATION AND VERIFICATION STANDARDS

ABBR.	N/A	CLIENT	ALTON	AUDITOR	M. Farinacci	DATE	7/22/2015
SITE NAME		Coal Hollow					
Network type		Alton Coal- Coal Hollov					

	MANUFACTURER	MODEL	SERIAL #	Calibration Expiration Date
Ozone Transfer Standard				
Gas Dilution Transfer Standard				
MFC High Flow Reference				
MFC Low Flow Reference				
Temperature Reference				
AT/RH Sensor Reference				
Barometric Pressure Reference				
Wind Speed Reference (high rpm)				
Wind Speed Reference (low rpm)				
Wind Speed Torque Gauge				
Wind Direction Alignment Reference				
Wind Direction Linearity Reference				
Wind Direction Torque Gauge				
Solar Radiation Reference				
Multiplier		W/m2 / mV		
UV Radiation Reference				
Multiplier		W/m2 / mV		
Precipitation Reference				
Volume		mL		

PM Flow Standard #1	MesaLabs	deltaCal	141170	4/17/2016
PM Flow Standard #2				
PM Flow Standard #3				
PM Flow Standard #4				

PM Temperature Standard #1	MesaLabs	deltaCal	141170	4/17/2016
PM Temperature Standard #2				
PM Temperature Standard #3				
PM Temperature Standard #4				

PM Barometric Pressure Standard #1	MesaLabs	deltaCal	141170	4/17/2016
PM Barometric Pressure Standard #2				
PM Barometric Pressure Standard #3				
PM Barometric Pressure Standard #4				

TEOM MTV Standard				

APPENDIX B

AUDIT STANDARDS CERTIFICATIONS

Mesa Labs 10 Park Place Butler, NJ 07405
NIST Traceable Calibration Facility, ISO 9001:2008 Registered

MesaLabs

CERTIFICATE OF CALIBRATION - NIST TRACEABILITY

(Refer to instruction manual for further details of calibration)

deltaCal Serial Number: **141170** DATE: 17-Apr-2015

Calibration Operator: P.Pitty

Critical Venturi Flow Meter: Max Uncertainity = 0.346%
Serial Number: 1A *CEESI NVLAP NIST Data File 07BGI-0001*
Serial Number: 2A *CEESI NVLAP NIST Data File 07BGI-0003*
Serial Number: 5C COX Nist Data File CCAL33222 - 5 C
Serial Number: 4A *CEESI NVLAP NIST Data File 07BGI-0002*
Serial Number: 3A *CEESI NVLAP NIST Data File 07BGI-0004*

Room Temperature: Uncertainity=0.071% Room Temperature: 23.8 °C
Brand: Accu-Safe Serial Number: 254881
NIST Traceability No. 516837
deltaCal:
Ambient Temperature (set): 23.8 °C
Aux (filter) Temperature (set): 23.8 °C

Barometric Pressure ans Absolute Pressure
Vaisala Model PTB330(50-1100) Digital Accuracy: 0.03371%
S/N DH0850001
NIST Traceable (Princo Primary Standard Model 453 S/N W12537) Certificate No. P-7485
deltaCal:
Barometric pressure (set): 750 mm of Hg

Results of Venturi Calibration
Flow Rate (Q) vs. Pressure Drop (ΔP). Where: Q=Lpm, ΔP= Cm of H2O

Q= 3.80837 ΔP ^ 0.52497 Overall Uncertainty: 0.35%

Date Placed In Service 5/4/15
(To be filled in by operator upon receipt)

Recommended Recalibration Date 5/4/16
(12 months from date placed in service)

Revised: October 2014
Cal102-01T2 Rev A

To Check a deltaCal

17-Apr-15 P.Pitty

1.5-19.5

VER 3.41P

BP= 750 mm of Hg

Maximum allowable error at any flow rate is .75%.

Serial No. 141170

	Reading Abs. P Crit. Vent. mm of Hg	Room Temp	CV Qa Flow Lpm	Qa deltaCal Indicated	% Error
# 5	140.7	23.8	4.58	4.61	**0.68**
	292.8	23.8	9.77	9.72	**-0.50**
	394.0	23.8	13.22	13.2	**-0.16**
	491.8	23.8	16.56	16.57	**0.09**
	573.3	23.8	19.34	19.43	**0.47**
				Average %	**0.12**