

**PARTISOL PARTICULATE MATTER (PM) SAMPLER
Calibration Data**

SITE NAME: KCBX ST-NE
AQS Site Code: N/A
DATE: 17-Mar-14
TIME: 14:45

CLIENT: Koch
SAMPLER ID: ST-NE-Metals
Model Number: 2025i
Serial Number: 20547

TEMPERATURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 579 Certification Expiration: 09/10/13	Sampler Sensor Temperature (T _s) (°C)	Calibration Sensor Temperature (T _c) (°C)	Temperature Difference ¹ (Sampler - Calibration) (°C)
	2.5	4.1	-1.6
	2.5	4.1	-1.6
	2.5	4.1	-1.6

1. Acceptance Criteria: ± 2.0 °C

PRESSURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 579 Certification Expiration: 09/10/13	Sampler Sensor Pressure (P _s) (mm Hg)	Calibration Sensor Pressure (P _c) (mm Hg)	Pressure Difference ² (Sampler - Calibration) (mm Hg)
	741.0	740.0	1.0
	741.0	740.0	1.0
	741.0	740.0	1.0

2. Acceptance Criteria: ± 10.0 mm Hg

COMPARTMENT TEMPERATURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 579 Certification Expiration: 09/10/13	Sampler Compartment Temperature (T _s) (°C)	Calibration Sensor Temperature (T _c) (°C)	Temperature Difference ³ (Sampler - Calibration) (°C)
	4.2	3.7	0.5
	4.2	3.7	0.5
	4.2	3.7	0.5

3. Acceptance Criteria: ± 2.0 °C

LEAK CHECK, TIME, AND FLOWRATE Calibration Data				
External Leak Check ⁴ <input type="text" value="12.0"/> mmHg 4. Acceptance Criteria < 25 mm Hg		Clock/Timer Verification ⁵ : Partisol : <input type="text" value="14:51:00"/> Reference Time: <input type="text" value="14:51:00"/> 5. Acceptance Criteria: within 60 sec. of Reference Time		
SINGLE POINT CHECK				
Calibration Device: BGI Model Number: deltaCal Serial Number: 579 Certification Expiration: 09/10/13	Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Q _a) (LPM)	Percent Difference ⁶ (Sampler vs. Calibration)	Percent Difference ⁷ (Calibration vs. Design)
	16.68	17.33	-3.8%	0.0%
	THREE POINT CHECK			
	Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Q _a) (LPM)	Percent Difference ⁶ (Sampler vs. Calibration)	Percent Difference ⁷ (Calibration vs. Design)

A three point flow check is required quarterly and a single point operating flow rate check is required monthly
The 2025i Partisol operates using actual flow rates, and converts to standard conditions in the onboard data file

6. Acceptance Criteria: ± 4.0%
7. Acceptance Criteria: ± 5.0%

Calibration Tech: G. Mazik

**PARTISOL PARTICULATE MATTER (PM) SAMPLER
Calibration Data**

SITE NAME: KCBX ST-NE
AQS Site Code: N/A
DATE: 17-Mar-14
TIME: 14:25

CLIENT: Koch
SAMPLER ID: ST-NE-Carbon
Model Number: 2025i
Serial Number: 20544

TEMPERATURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 579 Certification Expiration: 09/10/13	Sampler Sensor Temperature (T _s) (°C)	Calibration Sensor Temperature (T _c) (°C)	Temperature Difference ¹ (Sampler - Calibration) (°C)
	3.1	4.0	-0.9
	3.1	4.0	-0.9
	3.1	4.0	#VALUE!

1. Acceptance Criteria: ± 2.0 °C

PRESSURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 579 Certification Expiration: 09/10/13	Sampler Sensor Pressure (P _s) (mm Hg)	Calibration Sensor Pressure (P _c) (mm Hg)	Pressure Difference ² (Sampler - Calibration) (mm Hg)
	741.0	741.0	0.0
	741.0	741.0	0.0
	741.0	741.0	0.0

2. Acceptance Criteria: ± 10.0 mm Hg

COMPARTMENT TEMPERATURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 579 Certification Expiration: 09/10/13	Sampler Compartment Temperature (T _s) (°C)	Calibration Sensor Temperature (T _c) (°C)	Temperature Difference ³ (Sampler - Calibration) (°C)
	4.0	3.9	0.1
	4.0	3.9	0.1
	4.0	3.9	0.1

3. Acceptance Criteria: ± 2.0 °C

LEAK CHECK, TIME, AND FLOWRATE Calibration Data				
External Leak Check ⁴ <input type="text" value="23.0"/> mmHg 4. Acceptance Criteria < 25 mm Hg		Clock/Timer Verification ⁵ : Partisol : <input type="text" value="14:33:00"/> Reference Time: <input type="text" value="14:33:00"/> 5. Acceptance Criteria: within 60 sec. of Reference Time		
SINGLE POINT CHECK				
Calibration Device: BGI Model Number: deltaCal Serial Number: 579 Certification Expiration: 09/10/13	Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Q _a) (LPM)	Percent Difference ⁶ (Sampler vs. Calibration)	Percent Difference ⁷ (Calibration vs. Design)
	16.67	16.70	-0.2%	0.0%
	THREE POINT CHECK			
	Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Q _a) (LPM)	Percent Difference ⁶ (Sampler vs. Calibration)	Percent Difference ⁷ (Calibration vs. Design)

A three point flow check is required quarterly and a single point operating flow rate check is required monthly
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6. Acceptance Criteria: ± 4.0%
7. Acceptance Criteria: ± 5.0%

Calibration Tech: G. Mazik

**PARTISOL PARTICULATE MATTER (PM) SAMPLER
Calibration Data**

SITE NAME: KCBX NT-NE
AQS Site Code: N/A
DATE: 17-Mar-14
TIME: 11:10

CLIENT: Koch
SAMPLER ID: NT-NE-Metals
Model Number: 2025i
Serial Number: 20546

TEMPERATURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 579 Certification Expiration: 09/10/13	Sampler Sensor	Calibration Sensor	Temperature Difference ¹
	Temperature (T _s) (°C)	Temperature (T _c) (°C)	(Sampler - Calibration) (°C)
	-0.1	-0.8	0.7
	-0.1	-0.8	0.7
-0.1	-0.6	0.5	

1. Acceptance Criteria: ± 2.0 °C

PRESSURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 579 Certification Expiration: 09/10/13	Sampler Sensor	Calibration Sensor	Pressure Difference ²
	Pressure (P _s) (mm Hg)	Pressure (P _c) (mm Hg)	(Sampler - Calibration) (mm Hg)
	744.0	744.0	0.0
	744.0	744.0	0.0
744.0	744.0	0.0	

2. Acceptance Criteria: ± 10.0 mm Hg

COMPARTMENT TEMPERATURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 579 Certification Expiration: 09/10/13	Sampler Compartment	Calibration Sensor	Temperature Difference ³
	Temperature (T _s) (°C)	Temperature (T _c) (°C)	(Sampler - Calibration) (°C)
	2.5	2.7	-0.2
	2.5	2.7	-0.2
2.3	2.7	-0.4	

3. Acceptance Criteria: ± 2.0 °C

LEAK CHECK, TIME, AND FLOWRATE Calibration Data				
External Leak Check ⁴ <input type="text" value="15.0"/> mmHg		Clock/Timer Verification ⁵ : Partisol : <input type="text" value="11:15:00"/> Reference Time: <input type="text" value="11:15:00"/>		
4. Acceptance Criteria < 25 mm Hg				
5. Acceptance Criteria: within 60 sec. of Reference Time				
SINGLE POINT CHECK				
Calibration Device: BGI Model Number: deltaCal Serial Number: 579 Certification Expiration: 09/10/13	Sampler Indicated	Calibration	Percent Difference ⁶	Percent Difference ⁷
	Flow Rate (LPM)	Flow Rate (Q _a) (LPM)	(Sampler vs. Calibration)	(Calibration vs. Design)
	16.67	16.57	0.6%	0.0%
	THREE POINT CHECK			
Sampler Indicated	Calibration	Percent Difference ⁶	Percent Difference ⁷	
Flow Rate (LPM)	Flow Rate (Q _a) (LPM)	(Sampler vs. Calibration)	(Calibration vs. Design)	

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6. Acceptance Criteria: ± 4.0%
7. Acceptance Criteria: ± 5.0%

Calibration Tech: G. Mazik

PARTISOL PARTICULATE MATTER (PM) SAMPLER Calibration Data

SITE NAME: KCBX NT-NE
AQS Site Code: N/A
DATE: 17-Mar-14
TIME: 11:35

CLIENT: Koch
SAMPLER ID: NT-NE-Carbon
Model Number: 2025i
Serial Number: 20545

TEMPERATURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 579 Certification Expiration: 09/10/13	Sampler Sensor	Calibration Sensor	Temperature Difference ¹
	Temperature (T _s) (°C)	Temperature (T _c) (°C)	(Sampler - Calibration) (°C)
	1.8	0.9	0.9
	1.8	0.9	0.9
1.8	0.9	0.9	

1. Acceptance Criteria: ± 2.0 °C

PRESSURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 579 Certification Expiration: 09/10/13	Sampler Sensor	Calibration Sensor	Pressure Difference ²
	Pressure (P _s) (mm Hg)	Pressure (P _c) (mm Hg)	(Sampler - Calibration) (mm Hg)
	743.0	743.0	0.0
	743.0	743.0	0.0
743.0	743.0	0.0	

2. Acceptance Criteria: ± 10.0 mm Hg

COMPARTMENT TEMPERATURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 579 Certification Expiration: 09/10/13	Sampler Compartment	Calibration Sensor	Temperature Difference ³
	Temperature (T _s) (°C)	Temperature (T _c) (°C)	(Sampler - Calibration) (°C)
	4.1	3.7	0.4
	4.1	3.7	0.4
4.1	3.7	0.4	

3. Acceptance Criteria: ± 2.0 °C

LEAK CHECK, TIME, AND FLOWRATE Calibration Data				
External Leak Check ⁴ <input type="text" value="5.0"/> mmHg		Clock/Timer Verification ⁵ : 11:37		
4. Acceptance Criteria < 25 mm Hg		Partisol: <input type="text" value="11:37:00"/>	Reference Time: <input type="text" value="11:38:00"/>	
5. Acceptance Criteria: within 60 sec. of Reference Time				
SINGLE POINT CHECK				
Calibration Device: BGI Model Number: deltaCal Serial Number: 579 Certification Expiration: 09/10/13	Sampler Indicated	Calibration	Percent Difference ⁶	Percent Difference ⁷
	Flow Rate (LPM)	Flow Rate (Q _a) (LPM)	(Sampler vs. Calibration)	(Calibration vs. Design)
	16.69	16.44	1.5%	0.0%
THREE POINT CHECK				
Sampler Indicated	Calibration	Percent Difference ⁶	Percent Difference ⁷	
Flow Rate (LPM)	Flow Rate (Q _a) (LPM)	(Sampler vs. Calibration)	(Calibration vs. Design)	

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Calibration Tech: G. Mazik