Table 1a

Data Collection Statistics

01/01/2019 - 12/31/2019

National Park Service Gaseous Pollutant Monitoring Program

		Parameter % valid													
National Park Unit	**Site Name**	**O3**	**SO2**	**SO2ADD**	**CO**	**NOX**	**PM2.5**	**PM10**	**VWD**	**SWS**	**TMP**	**RH**	**RNF**	**SOL**	**FLOW**
Big Bend	K-Bar Ranch Road	93.8	---	---	---	---	---	---	95.7	95.9	86.1	96.3	95.8	96.3	95.9
Canyonlands	Island in the Sky	98.8	---	---	---	---	---	---	99.1	99.1	99.3	99.3	99.3	99.4	97.8
Carlsbad Caverns	Biology Building	95.6	---	---	76.7	---	---	---	99.4	99.4	99.7	99.7	78.2	99.7	---
Chaco Culture	Radio Repeater	95.0	---	---	---	95.4	---	---	99.4	99.4	99.6	99.6	99.3	99.1	---
Chiricahua	Entrance Station	98.7	---	---	---	---	---	---	99.3	99.3	99.4	99.4	96.4	99.3	99.4
Craters of the Moon	Visitor Center	98.9	---	---	---	---	---	---	98.0	98.0	80.5	---	---	99.4	---
Death Valley	Park Village	95.5	---	---	---	---	---	---	74.8	98.9	98.9	---	---	---	---
Denali	Headquarters	97.4	---	---	---	---	---	---	95.7	95.7	99.0	99.0	99.8	99.9	99.6
Dinosaur	West Entrance Housing	98.1	---	---	---	---	---	---	98.1	98.1	99.1	---	99.6	99.8	99.1
Everglades	Beard Center	---	---	---	---	---	---	---	99.8	99.8	99.9	99.9	92.1	97.3	97.0
Glacier	West Glacier Horse Stables	99.2	---	---	---	---	---	---	98.7	98.7	99.9	---	---	99.9	99.7
Grand Canyon	The Abyss	97.3	---	---	---	---	---	---	35.9	99.3	85.9	88.5	93.1	99.3	99.5
Grand Teton	Science School	99.0	---	---	---	---	---	---	99.5	99.5	99.7	99.7	99.3	99.7	---
Great Basin	Maintenance Yard	98.8	---	---	---	---	---	---	98.3	98.3	99.3	82.8	98.9	99.4	95.8
Great Smoky Mountains	Cades Cove	97.3	---	---	---	---	---	---	98.9	98.9	98.3	98.3	98.4	99.0	---
Great Smoky Mountains	Clingmans Dome	97.9	---	---	---	---	---	---	98.7	98.7	98.6	98.4	98.1	98.7	---
Great Smoky Mountains	Cove Mountain	99.5	---	---	---	---	---	---	98.8	98.8	99.9	99.1	86.2	---	---
Great Smoky Mountains	Look Rock	98.5	---	---	---	---	98.8	---	99.3	99.3	99.3	98.2	98.8	99.6	99.3
Great Smoky Mountains	Look Rock NCORE	---	89.9	---	86.7	---	---	---	---	---	---	---	---	---	---
Hawaii Volcanoes	Visitor Center	---	84.5	84.6	---	---	37.6	---	97.9	97.9	97.9	94.7	97.6	97.7	---
Joshua Tree	Black Rock	99.2	---	---	---	---	---	---	99.2	99.2	99.7	99.8	99.5	100.0	80.1
Joshua Tree	Cottonwood Canyon	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Lassen Volcanic	Manzanita Lake Fire Stn.	91.3	---	---	---	---	---	---	87.2	90.7	88.2	91.7	88.2	91.8	91.5
Mammoth Cave	Houchin Meadow	96.1	90.5	---	87.6	---	---	---	99.9	99.9	99.9	99.8	99.7	100.0	99.6
Mesa Verde	Resource Mngment Area	97.0	---	---	---	---	---	---	94.5	94.5	98.2	98.3	92.0	98.0	97.7
Minidoka	Maintenance Building	---	---	---	---	---	97.6	---	---	99.5	99.9	99.9	---	---	---
Petrified Forest	South Entrance	97.8	---	---	---	---	---	---	29.0	99.9	100.0	---	---	100.0	97.9
Pinnacles	SW of East Entrance Stn.	98.2	---	---	---	---	---	---	36.4	97.1	98.9	99.0	97.5	99.0	98.4
Rocky Mountain	Long's Peak	98.4	---	---	---	---	---	---	99.3	99.3	99.9	99.5	99.7	100.0	91.0
Sequoia and Kings Canyon	Ash Mountain	98.1	---	---	---	---	28.7	---	98.9	98.9	98.9	99.0	98.7	99.0	98.8
Sequoia and Kings Canyon	Lower Kaweah	98.8	---	---	---	---	---	---	98.4	98.4	99.2	99.2	99.7	99.2	---
Shenandoah	Big Meadows	98.6	---	---	---	---	---	---	98.1	98.1	99.3	91.4	99.0	99.3	99.1
Voyageurs	Sullivan Bay	96.5	---	---	---	---	---	---	99.0	99.0	99.6	92.9	99.4	99.9	95.3
Yellowstone	Old Faithful Snow Lodge	---	---	---	94.5	71.7	85.9	---	99.3	99.3	99.7	99.7	---	---	---
Yellowstone	Water Tank	91.3	---	---	---	---	---	---	83.1	83.1	98.9	98.9	98.7	97.6	99.0
Yellowstone	West Entrance	---	---	---	82.4	79.4	98.2	---	98.8	98.8	99.8	99.8	---	---	---
Yosemite	Turtleback Dome	98.5	---	---	---	---	---	---	97.1	97.1	74.9	99.7	99.5	99.8	99.0

Table 1a (continued)

Data Collection Statistics
01/01/2019 - 12/31/2019
National Park Service Gaseous Pollutant Monitoring Program

		Parameter % valid													
National Park Unit	**Site Name**	**O3**	**SO2**	**SO2ADD**	**CO**	**NOX**	**PM2.5**	**PM10**	**VWD**	**SWS**	**TMP**	**RH**	**RNF**	**SOL**	**FLOW**
Zion	Dalton's Wash	97.9	---	---	---	---	---	---	99.7	99.8	99.9	---	98.4	100.0	---
Average Network Data Collection		**97.3**	**88.3**	**84.6**	**85.6**	**82.2**	**74.5**	**---**	**91.5**	**97.9**	**97.1**	**97.4**	**96.6**	**98.9**	**96.8**

Key:

O3 = Ozone
SO2 = Sulfur Dioxide
SO2Add = Sulfur Dioxide
CO = Carbon Monoxide
NOX = Oxides of Nitrogen
PM2.5 = Particulate Matter 2.5
PM10 = Particulate Matter 10
VWD = Vector Wind Direction
SWS = Scalar Wind Speed
TMP = Ambient Temperature
RH = Relative Humidity
RNF = Precipitation
SOL = Solar Radiation
FLOW = Filter Pack Flow Rate

Performance Goals:

Quarterly Criteria:
100% of sites, >= 85% valid data capture
90% of sites, >= 90% valid data capture
80% of sites, >= 95% valid data capture

Monthly Criteria:
100% of sites, >= 60% valid data capture
90% of sites, >= 75% valid data capture
80% of sites, >= 85% valid data capture

Font color key:
Black: 85% - 100% data recovery
Blue: 75% - 84.9% data recovery
Orange: 60% - 74.9% data recovery
Red: 0% - 59.9% data recovery

Table 1b

Data Collection Statistics

01/01/2019 - 12/31/2019

National Park Service Gaseous Pollutant Monitoring Program

		Parameter % valid													
National Park Unit	**Site Name**	**O3**	**SO2**	**SO2ADD**	**CO**	**NOX**	**PM2.5**	**PM10**	**VWD**	**SWS**	**TMP**	**RH**	**RNF**	**SOL**	**FLOW**
Meeker	Plant Science	95.5	---	---	---	95.5	75.7	---	98.8	98.8	100.0	100.0	99.4	99.5	99.5
Rangely	Golf Course	96.9	---	---	---	96.1	97.8	---	99.6	99.6	99.9	99.9	99.4	99.9	---
Average Network Data Collection		**96.2**	**---**	**---**	**---**	**95.8**	**86.8**	**---**	**99.2**	**99.2**	**100.0**	**100.0**	**99.4**	**99.7**	**99.5**

Key:

O3 = Ozone
SO2 = Sulfur Dioxide
SO2Add = Sulfur Dioxide
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PM2.5 = Particulate Matter 2.5
PM10 = Particulate Matter 10
VWD = Vector Wind Direction
SWS = Scalar Wind Speed
TMP = Ambient Temperature
RH = Relative Humidity
RNF = Precipitation
SOL = Solar Radiation
FLOW = Filter Pack Flow Rate

Performance Goals:

Quarterly Criteria:
100% of sites, >= 85% valid data capture
90% of sites, >= 90% valid data capture
80% of sites, >= 95% valid data capture

Monthly Criteria:
100% of sites, >= 60% valid data capture
90% of sites, >= 75% valid data capture
80% of sites, >= 85% valid data capture

Font color key:
Black: 85% - 100% data recovery
Blue: 75% - 84.9% data recovery
Orange: 60% - 74.9% data recovery
Red: 0% - 59.9% data recovery

Table 1c

Data Collection Statistics
01/01/2019 - 12/31/2019
National Park Service Gaseous Pollutant Monitoring Program

		Parameter % valid													
National Park Unit	**Site Name**	**O3**	**SO2**	**SO2ADD**	**CO**	**NOX**	**PM2.5**	**PM10**	**VWD**	**SWS**	**TMP**	**RH**	**RNF**	**SOL**	**FLOW**
Acadia	Cadillac Mountain	96.3	---	---	---	---	---	---	99.4	99.4	99.9	99.9	---	---	---
Acadia	McFarland Hill	94.8	98.0	---	97.3	---	92.9	---	98.9	99.0	99.0	99.0	98.9	99.0	98.6
Badlands	Visitor Center	98.3	96.7	---	---	96.5	98.4	97.9	---	---	---	---	---	---	---
Cape Cod	---	98.2	---	---	---	---	---	---	---	99.7	99.7	99.7	---	99.7	---
Chamizal	---	91.3	---	---	---	---	---	---	99.9	99.9	95.6	99.9	---	53.6	---
Congaree	Congaree Bluff	98.2	98.3	---	---	---	---	---	---	---	---	---	---	---	---
Everglades	Cutler Road	97.9	---	---	---	---	---	---	---	---	---	---	---	---	---
Great Smoky Mountains	Purchase Knob	94.7	---	---	---	---	---	---	---	---	---	---	---	---	---
Indiana Dunes	Ammunition Bunker	87.3	85.3	---	---	---	90.5	---	76.9	76.9	86.7	86.7	---	86.5	---
Mount Rainier	Jackson Visitor's Center	88.1	---	---	---	---	---	---	---	---	---	---	---	---	---
Saguaro	East	99.4	---	---	---	---	---	---	99.9	---	100.0	99.9	---	---	---
Theodore Roosevelt	Painted Cany. VC	94.6	98.5	---	---	---	99.0	---	98.7	98.7	73.8	99.7	99.5	99.6	99.3
Wind Cave	Visitor Center	98.7	---	---	---	---	97.9	95.9	99.6	99.6	99.7	99.7	99.6	99.7	99.1
Yosemite	Village	---	---	---	---	---	---	91.5	---	---	---	---	---	---	---
Average Network Data Collection		**95.2**	**95.4**	**---**	**97.3**	**96.5**	**95.7**	**95.1**	**96.2**	**96.2**	**94.3**	**98.1**	**99.3**	**89.7**	**99.0**

Key:

O3 = Ozone
SO2 = Sulfur Dioxide
SO2Add = Sulfur Dioxide
CO = Carbon Monoxide
NOX = Oxides of Nitrogen
PM2.5 = Particulate Matter 2.5
PM10 = Particulate Matter 10
VWD = Vector Wind Direction
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RNF = Precipitation
SOL = Solar Radiation
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Performance Goals:

Quarterly Criteria:
100% of sites, >= 85% valid data capture
90% of sites, >= 90% valid data capture
80% of sites, >= 95% valid data capture

Monthly Criteria:
100% of sites, >= 60% valid data capture
90% of sites, >= 75% valid data capture
80% of sites, >= 85% valid data capture

Font color key:
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Red: 0% - 59.9% data recovery

Table 2. Ozone Analyzer Precision and Accuracy Summary
Sites Operated by the National Park Service
National Park Service Gaseous Pollutant Monitoring Program, 2019

			Precision				As-Found Verification Multi-Point		
National Park Unit	Site Name	Calendar Quarter	Required No. of Precision Checks Met?[1]	Avg. Absolute Percent Difference[3,4]	Lower 95% Probability Limit[6]	Upper 95% Probability Limit[6]	Accuracy Check Performed During the Quarter?[2]	Avg. Absolute Percent Difference[3,4]	Max. Absolute Percent Difference[5]
Big Bend	K-Bar Ranch Road	1	Y	0.2	-3.0	2.5	Y	0.3	0.6
		2	Y	1.4	-3.4	0.7	Y	2.9	4.5
		3	Y	3.8	-6.5	-1.1	N	—	—
		4	Y	0.6	-5.5	4.2	Y	0.6	1.5
Canyonlands	Island in the Sky	1	Y	0.5	-0.6	1.6	N	—	—
		2	Y	2.5	-1.5	6.4	Y	0.6	0.9
		3	Y	0.6	-0.9	2.0	Y	1.1	1.4
		4	Y	0.9	0.1	1.7	N	—	—
Carlsbad Caverns	Biology Building	1	—	—	—	—	—	—	—
		2	—	—	—	—	—	—	—
		3	Y	1.8	-3.9	0.2	N	—	—
		4	Y	1.2	-3.6	1.1	N	—	—
Chaco Culture	Radio Repeater	1	Y	4.2	3.5	5.0	Y	0.5	0.7
		2	Y	3.2	0.4	6.0	Y	0.4	0.8
		3	Y	3.0	2.1	3.9	Y	1.1	1.2
		4	Y	2.0	-1.3	5.3	Y	0.7	1.6
Chiricahua	Entrance Station	1	Y	2.1	-0.6	4.8	N	—	—
		2	Y	3.3	1.6	5.1	N	—	—
		3	Y	3.2	1.9	4.4	N	—	—
		4	Y	2.2	-0.2	4.5	Y	2.2	3.1
Craters of the Moon	Visitor Center	1	Y	0.3	-2.6	2.0	N	—	—
		2	Y	1.0	-2.3	0.4	N	—	—
		3	Y	0.6	-2.3	1.2	Y	2.2	3.2
		4	Y	0.9	-3.0	1.2	Y	0.3	0.6
Denali	Headquarters	1	Y	0.2	-0.9	0.6	N	—	—
		2	Y	1.1	-2.6	4.8	Y	0.2	0.5
		3	Y	3.0	0.5	5.6	Y	2.4	3.7
		4	Y	0.4	-3.7	2.9	N	—	—
Death Valley	Park Village	1	Y	0.5	-0.5	1.5	Y	1.4	1.9
		2	Y	0.7	-0.3	1.8	N	—	—
		3	Y	0.3	-2.6	3.2	N	—	—
		4	Y	0.6	-0.5	1.6	Y	2.3	2.8
Dinosaur	West Entrance Housing	1	Y	2.0	-5.0	0.9	N	—	—
		2	Y	1.7	-3.5	0.1	Y	0.3	0.6
		3	Y	1.5	-2.8	-0.2	Y	0.2	0.4
		4	Y	0.7	-1.8	0.4	N	—	—

Table 2 (continued). Ozone Analyzer Precision and Accuracy Summary
Sites Operated by the National Park Service
National Park Service Gaseous Pollutant Monitoring Program, 2019

			Precision				As-Found Verification Multi-Point		
National Park Unit	Site Name	Calendar Quarter	Required No. of Precision Checks Met?[1]	Avg. Absolute Percent Difference[3,4]	Lower 95% Probability Limit[6]	Upper 95% Probability Limit[6]	Accuracy Check Performed During the Quarter?[2]	Avg. Absolute Percent Difference[3,4]	Max. Absolute Percent Difference[5]
Glacier	West Glacier Horse Stables	1	Y	0.1	-1.2	1.0	N	—	—
		2	Y	0.5	-2.2	1.2	Y	1.4	1.7
		3	Y	1.7	-3.4	0.1	Y	0.6	1.4
		4	Y	0.1	-1.0	0.8	N	—	—
Great Basin	Maintenance Yard	1	Y	0.3	-1.4	0.8	N	—	—
		2	Y	0.6	-2.8	1.6	Y	2.0	2.5
		3	Y	0.3	-2.7	3.2	Y	1.4	3.3
		4	Y	0.5	-1.3	2.4	N	—	—
Grand Canyon	The Abyss	1	Y	0.9	-3.4	1.6	N	—	—
		2	Y	0.8	-2.2	0.7	Y	0.6	0.9
		3	Y	2.1	-3.2	-0.9	N	—	—
		4	Y	1.1	-3.0	0.8	Y	2.7	3.6
Great Smoky Mountains	Cades Cove	1	Y	0.1	-3.8	4.0	N	—	—
		2	Y	0.3	-3.7	4.2	Y	1.7	2.6
		3	Y	0.5	-2.0	2.9	N	—	—
		4	N	0.9	-1.8	3.6	Y	1.2	2.4
Great Smoky Mountains	Clingmans Dome	1	—	—	—	—	—	—	—
		2	Y	0.3	-3.3	3.9	Y	3.9	4.3
		3	Y	0.7	-2.6	1.2	N	—	—
		4	Y	0.9	-2.3	0.6	Y	2.7	3.6
Great Smoky Mountains	Cove Mountain	1	Y	0.4	-0.6	1.4	N	—	—
		2	Y	0.6	-1.8	0.6	Y	2.5	3.0
		3	Y	1.6	-2.5	-0.8	N	—	—
		4	Y	0.7	-2.1	0.8	Y	0.7	1.0
Great Smoky Mountains	Look Rock	1	Y	2.1	-3.0	-1.2	N	—	—
		2	Y	0.6	-3.1	1.9	Y	2.2	2.9
		3	Y	0.7	-0.5	1.9	N	—	—
		4	Y	0.8	-1.0	2.6	Y	0.4	1.0
Grand Teton	Science School	1	Y	0.8	-2.4	0.8	N	—	—
		2	Y	2.6	-4.9	-0.3	Y	1.1	1.4
		3	Y	1.4	-3.2	0.4	Y	0.8	1.6
		4	Y	2.9	-5.1	-0.6	N	—	—
Joshua Tree	Black Rock	1	Y	0.2	-1.1	1.4	Y	0.7	1.4
		2	Y	0.1	-0.8	0.7	N	—	—
		3	Y	1.1	-2.2	0.1	N	—	—
		4	Y	0.6	-2.9	1.8	Y	2.1	2.9
Joshua Tree	Cottonwood Visitor Center	1	Y	1.1	-0.6	2.8	Y	1.3	1.5
		2	Y	0.5	-2.2	1.2	N	—	—
		3	Y	1.8	-2.7	-0.9	N	—	—
		4	Y	1.4	-3.9	1.1	Y	0.3	0.9

Table 2 (continued). Ozone Analyzer Precision and Accuracy Summary
Sites Operated by the National Park Service
National Park Service Gaseous Pollutant Monitoring Program, 2019

			Precision				As-Found Verification Multi-Point		
National Park Unit	Site Name	Calendar Quarter	Required No. of Precision Checks Met?[1]	Avg. Absolute Percent Difference[3,4]	Lower 95% Probability Limit[6]	Upper 95% Probability Limit[6]	Accuracy Check Performed During the Quarter?[2]	Avg. Absolute Percent Difference[3,4]	Max. Absolute Percent Difference[5]
Lassen Volcanic	Manzanita Lake Fire Stn.	1	Y	0.0	-1.0	1.0	N	—	—
		2	Y	0.6	-3.2	2.1	Y	2.8	4.6
		3	Y	1.7	0.9	2.4	N	—	—
		4	Y	0.9	-0.7	2.5	Y	0.6	0.8
Mammoth Cave	Houchin Meadow	1	Y	0.3	-1.8	1.1	Y	2.2	2.5
		2	Y	1.5	-5.4	2.4	N	—	—
		3	Y	3.3	-7.4	0.9	Y	1.7	3.3
		4	Y	1.6	-5.8	2.5	Y	4.6	9.9
Mesa Verde	Resource Mngment Area	1	Y	0.1	-1.1	1.0	N	—	—
		2	Y	1.4	-4.5	7.4	Y	1.2	1.6
		3	Y	2.4	-4.7	0.0	N	—	—
		4	Y	0.1	-2.5	2.6	N	—	—
Petrified Forest	South Entrance	1	Y	0.8	0.0	1.5	Y	0.2	0.4
		2	Y	0.1	-0.9	1.1	N	—	—
		3	Y	0.5	-1.2	0.3	N	—	—
		4	Y	0.7	-1.7	3.0	Y	0.2	0.4
Pinnacles	SW of East Entrance Stn.	1	Y	0.4	-1.2	2.1	N	—	—
		2	Y	1.3	-4.1	1.6	Y	1.3	2.3
		3	Y	3.3	-5.1	-1.6	Y	1.8	4.0
		4	Y	0.2	-2.2	2.5	N	—	—
Rocky Mountain	Long's Peak	1	Y	1.5	-0.1	3.0	N	—	—
		2	Y	0.6	-4.1	2.9	Y	0.3	0.7
		3	Y	0.9	-2.8	1.0	Y	2.3	2.7
		4	Y	0.0	-1.0	1.0	N	—	—
Sequoia and Kings Canyon	Ash Mountain	1	Y	1.2	-3.0	0.7	N	—	—
		2	Y	1.1	-2.7	0.6	N	—	—
		3	Y	0.2	-3.1	3.5	Y	3.7	5.2
		4	Y	1.3	-4.3	1.7	Y	3.9	4.5
Sequoia and Kings Canyon	Lower Kaweah	1	—	—	—	—	—	—	—
		2	Y	2.3	1.0	3.7	N	—	—
		3	Y	0.3	-1.0	1.7	Y	1.0	1.5
		4	Y	0.3	-0.8	1.5	Y	1.0	1.8

Table 2 (continued). Ozone Analyzer Precision and Accuracy Summary
Sites Operated by the National Park Service
National Park Service Gaseous Pollutant Monitoring Program, 2019

			Precision				As-Found Verification Multi-Point		
National Park Unit	Site Name	Calendar Quarter	Required No. of Precision Checks Met?[1]	Avg. Absolute Percent Difference[3,4]	Lower 95% Probability Limit[6]	Upper 95% Probability Limit[6]	Accuracy Check Performed During the Quarter?[2]	Avg. Absolute Percent Difference[3,4]	Max. Absolute Percent Difference[5]
Shenandoah	Big Meadows	1	Y	0.2	-2.1	2.4	Y	1.5	1.6
		2	Y	2.9	-4.6	-1.2	N	—	—
		3	Y	3.2	-5.9	-0.5	Y	0.3	0.5
		4	Y	1.2	-4.1	1.7	N	—	—
Voyageurs	Sullivan Bay	1	Y	2.1	-1.1	5.2	N	—	—
		2	Y	1.3	-1.3	3.9	Y	1.3	2.8
		3	Y	2.3	0.4	4.1	N	—	—
		4	Y	0.7	-1.1	2.5	N	—	—
Yellowstone	Water Tank	1	N	1.3	-7.7	10.4	N	—	—
		2	Y	2.5	-4.6	-0.5	Y	1.7	2.6
		3	N	0.7	-2.3	0.9	Y	0.4	1.0
		4	Y	0.8	-1.9	0.3	N	—	—
Yosemite	Turtleback Dome	1	Y	0.8	-2.1	0.6	N	—	—
		2	Y	1.4	-2.8	-0.1	Y	0.5	1.3
		3	Y	1.8	-3.0	-0.5	N	—	—
		4	Y	0.3	-2.2	1.7	Y	1.2	1.5
Zion	Dalton's Wash	1	Y	1.0	-0.9	2.9	N	—	—
		2	Y	0.5	-2.5	1.6	Y	1.8	1.9
		3	Y	0.9	-2.6	0.8	Y	0.3	0.6
		4	Y	0.9	-2.1	0.2	N	—	—

Table 2 (continued). Ozone Analyzer Precision and Accuracy Summary
Sites Operated by the National Park Service
National Park Service Gaseous Pollutant Monitoring Program, 2019

Operating agency key:

plain text = site operated by the National Park Service
italics = site operated by a state agency
underline = site operated by the National Park Service, but consisting of non-EPA certified portable instrumentation

Color shading key:

- Ideal: indicates a percent difference within +/-5% or a probability limit within +/-10%
- Acceptable: indicates a percent difference between +/-5.1-10% or a probability limit between +/-10.1-15%
- Unacceptable: indicates a percent difference greater than +/-10% or a probability limit greater than +/-15%

1. Precision checks are required by the Environmental Protection Agency (EPA) of all pollutant analyzers collecting data which are to be submitted to the EPA Air Quality System (AQS). A precision check is performed by challenging the pollutant analyzer with a known concentration of gas from the pollutant transfer standard. This precision check must be performed at least every 14 days of monitoring operation. The percent difference between the analyzer and the transfer standard is then calculated.[3] According to NPS Standard Operating Procedures, the pollutant analyzer must respond within 10% of the

2. Accuracy checks are required by the Environmental Protection Agency (EPA) of all pollutant analyzers collecting data which are to be submitted to the EPA Air Quality System (AQS). An accuracy check is performed by challenging the pollutant analyzer with a known concentration of gas from the pollutant transfer standard at several different points. The percent difference between the analyzer and the transfer standard is then calculated.[3] According to NPS Standard Operating Procedures, the pollutant analyzer must respond within 10% of the transfer standard. All accuracy checks reported here were performed by the reporting organization and not by an outside auditor.

3. Percent Difference = ((analyzer - transfer std)/transfer std)x100

4. Average Absolute Percent Difference is the mean of the absolute value of all individual precision check percent differences during the quarter, or the mean of the absolute value of all the percent differences from each point challenged during an accuracy check.

5. Maximum Absolute Percent Difference is the highest percent difference from the points of a multipoint (or accuracy) calibration.

6. Upper/Lower 95% Probability Limits = (Average Percent Difference)+/-(1.96)(Standard Deviation of precision check percent differences in the quarter). The probability limits represent the interval having a 95% chance of containing the true average percent difference. Probability limits must be within +/-15%.