EPA $PM_{2.5}$ CHEMICAL SPECIATION NETWORK
CARBON SAMPLER REPLACEMENT PROGRAM
PHASE II

Prepared for:

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EPA OAQPS
Implementation of URG-3000N Samplers
At EPA $PM_{2.5}$ Chemical Speciation Network Sites
Under National Park Service Contracts C2350010850 and C2350064025

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LIST OF ACRONYMNS AND ABBREVIATIONS

AQS	Air Quality System (EPA)
ARS	Air Resource Specialists, Inc.
CARB	California Air Resources Board
CSN	Chemical Speciation Network (EPA)
EPA	Environmental Protection Agency (U.S.)
IMPROVE	Interagency Monitoring of Protected Visual Environments
NAAQS	National Ambient Air Quality Standards
NPS	National Park Service
OAQPS	Office of Air Quality Planning & Standards (EPA)
OR DEQ	Oregon Department of Environmental Quality
$PM_{2.5}$	Particulate matter less than 2.5 microns
POC	Parameter of Occurrence (EPA AQS)
TOR	Thermal Optical Reflectance
TOT	Thermal Optical Transmittance
URG	URG Corporation

1.0 INTRODUCTION

In April 2005, the Clean Air Scientific Advisory Committee gave strong general support for making changes to the Environmental Protection Agency's (EPA's) $PM_{2.5}$ Chemical Speciation Network (CSN) to improve comparability with the rural Interagency Monitoring of Protected Visual Environments (IMPROVE) $PM_{2.5}$ network, which collects mass, ions, elements, and carbon species data. The CSN's objectives are to:

- Provide data to support the development of modeling tools.
- Assess the effectiveness of emission reduction strategies.
- Support other air quality programs and the National Ambient Air Quality Standards (NAAQS).
- Support research studies.

The EPA process, designed to achieve this comparability, involves replacing the CSN carbon sampling channel with Module C of the IMPROVE Version II sampler, and using the IMPROVE carbon Thermal Optical Reflectance (TOR) analysis method instead of the Thermal Optical Transmittance (TOT) method. In addition, the EPA requested the manufacturer of the IMPROVE sampler, URG Corporation (Chapel Hill, NC) to modify the Module C to incorporate improved sampling technologies. The result was a new instrument, the URG-3000N Sequential Particulate Speciation System.

The carbon sampler replacement project has three (3) phases. Phase I involved the replacement of 57 samplers and 2 collocated samplers for a total of 59 samplers at 56 sites. Phase II, the subject of this report, involved the installation of 62 samplers at 61 sites (1 site received 2 samplers). Phase III will commence in May 2009 and will involve 77 installations, which are scheduled to be completed in September 2009.

The Phase II installation effort began December 5, 2008 and was completed April 2, 2009. These installations were classified into two (2) types: Air Resource Specialists (ARS)-performed installations and state-performed installations. States that had been trained in Phase I or states that preferred to install the sampler themselves were allowed to assemble, install, and calibrate the sampler without assistance from ARS.

1.1 EPA ROLE

The EPA is responsible for the coordination of the national $PM_{2.5}$ CSN. The measurement of ambient carbon species is an important component of this network. To achieve national consistency in carbon measurements, the EPA replaced the existing carbon sampler with the new URG-3000N. This change in sampling technology and the associated filter analysis techniques will provide the national consistency the EPA and other monitoring agencies desire.

The objective of this Phase II effort was to procure and install URG-3000N samplers at 61 selected sites. The Scope of Work for this modification consists of the following three (3) subtasks:

1. The purchase of 62 samplers was performed by the National Park Service (NPS) for the EPA using EPA funds recently transferred. Samplers were purchased from URG and delivered to ARS for acceptance testing.

2. EPA was responsible for determining which CSN sites received the URG-3000N instruments. Following that decision, the EPA regions and states were contacted to assist in assembling a list of site contacts that ARS would use in scheduling the installations.

3. EPA provided guidance for calibration methods and tolerances in the form of "Standard Operating Procedure for the URG-3000N Sequential Particulate Speciation System, Interim Version 1.0." EPA also provided guidance on operational procedures that ARS subsequently used during the site training.

1.2 ARS ROLE

ARS received 62 URG-3000N samplers purchased by NPS. Under direction from the EPA, ARS purchased support equipment from URG. The support systems included: sampler cartridges, audit cartridges, and sampler compact flash memory cards. ARS also purchased and received 62 TetraCal flow calibrators from BGI, Inc.

ARS acceptance tested all samplers to resolve any operational issues directly with URG before shipping the samplers for installation. Though all samplers were operationally tested, shipping and handling occasionally caused operational problems during or after installation. ARS technicians generally traveled with spare controllers and modules to replace faulty units upon installation. At completion of each installation group visit, ARS shipped any faulty parts found back to URG for repair. The exception to this policy occurred during the last installation group when no spare controllers or modules were available. Problem instruments during and after that installation have been referred directly to URG for warranty repair.

The samplers were installed either by an ARS field specialist, or were self-installed by state employees. The ARS field specialists generally performed installation visits in groups, where three (3) to six (6) samplers would be installed during each group visit. ARS assigned four (4) field specialists to support this project. The installation groups are indicated on the map in Figure 1-1. ARS coordinated each installation, occasional field repairs, sampler calibrations, and operator training. Table 1-1 is a timeline detailing each installation. Table 1-2 lists the completed ARS installation schedule by installation group number, and Table 1-3 lists the completed ARS installation schedule by Air Quality System (AQS) number.

For the installations to occur efficiently, local agency site personnel were contacted by ARS to determine in advance where the sampler was to be mounted, to identify any pre-visit preparation required (i.e., verify that an electrical outlet was available), and to be available during installation to receive training. ARS installations began on January 12, 2009 and were

completed on April 2, 2009. The samplers to be self-installed (state-performed installations) began shipping from ARS on December 2, 2008. The sampling program for Phase II URG 3000N Samplers began on April 1, 2009 for sites having either the 1-in-3 day or the 1-in-6 day monitoring schedule. Table 1-4 lists the self-install shipping dates by AQS number.

ARS coordinated with the self-install sites to ship the samplers and to provide technical support over the telephone. As with the ARS installation, shipping on occasion caused a controller or module to fail. On these occasions, ARS provided brief troubleshooting and/or parts replacement; ARS shipped the faulty part to URG for repair. Only after the installations were completed were the states required to send their own sampler parts to URG for warranty repair.

ARS completed a Site Installation Summary Form for each installation, which includes a completed installation log sheet, calibration values, and cardinal direction digital photographs when possible. Some sites were not prepared on-time or were not operational at the time of installation and therefore were not calibrated or photographed by ARS. These sites are discussed in Section 2.0, Deviations.

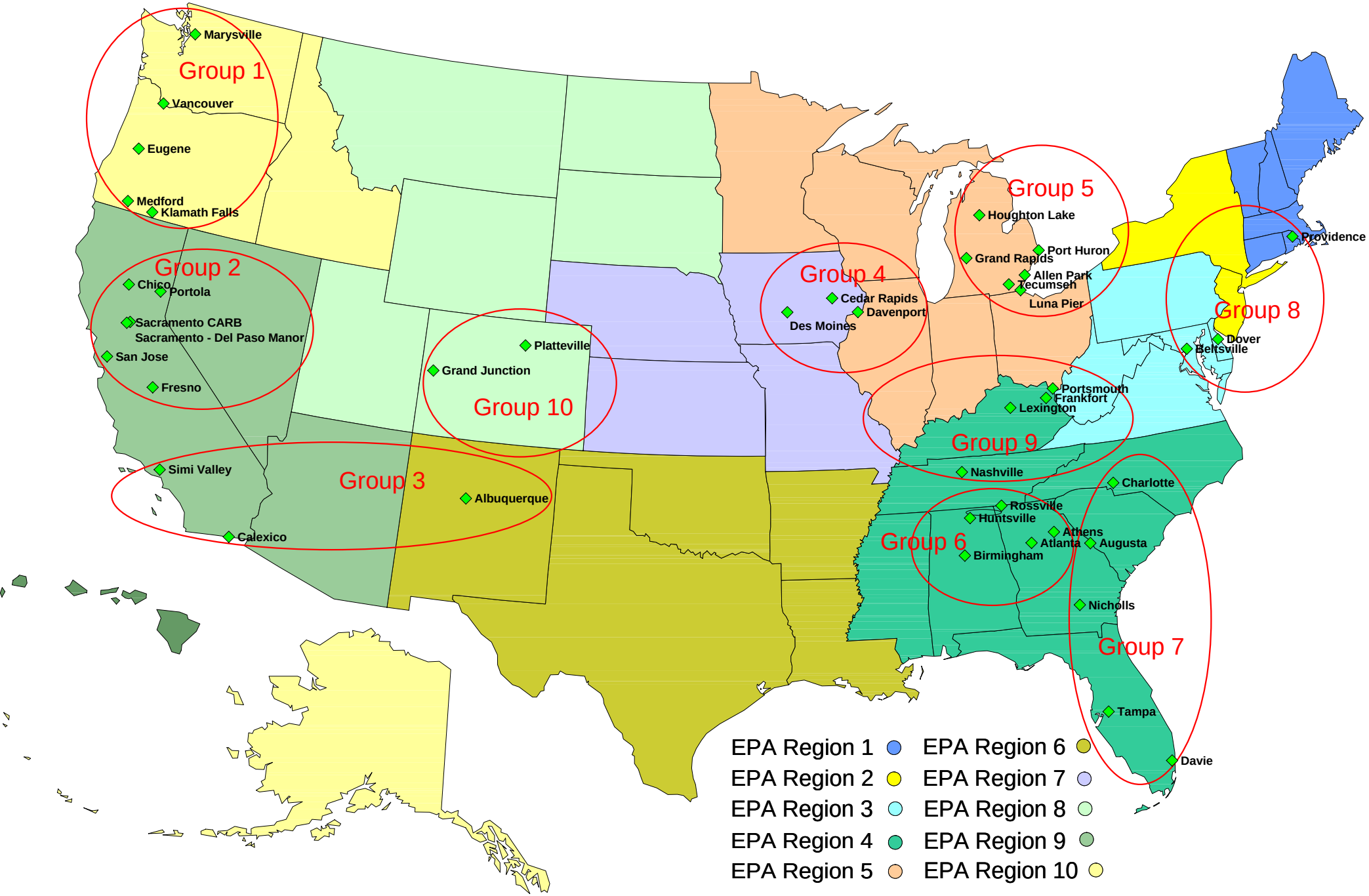

Figure 1-1. ARS-Install Map of CSN Carbon Sampler Phase II.

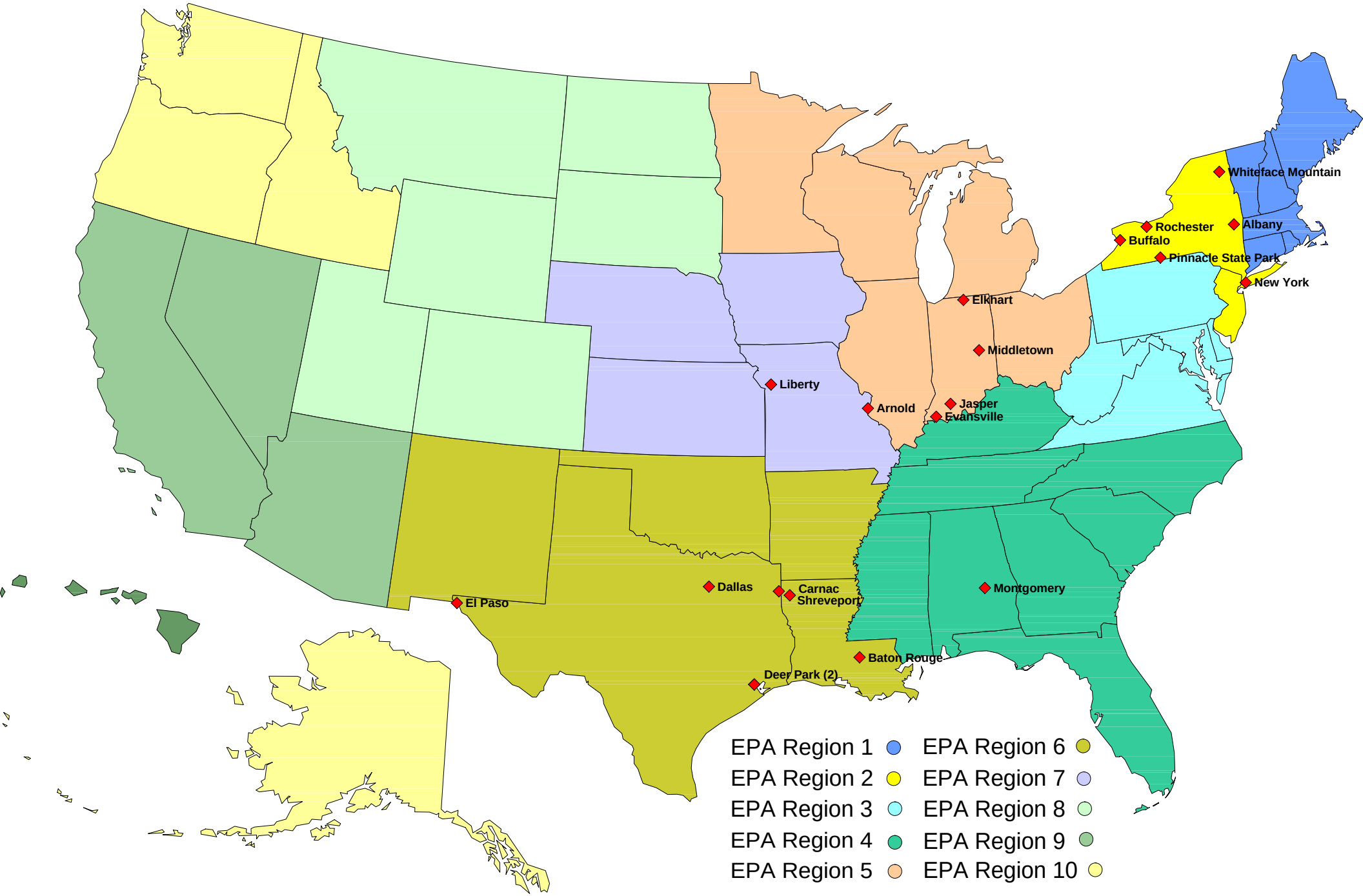

Figure 1-2. Self-Install Map of CSN Carbon Sampler Phase II.

Table 1-1
Phase II Project Timeline

Date	Activity
7/10/07	ARS received a task order from the National Park Service to purchase, test, install, and calibrate the URG-3000N Sequential Particulate Speciation System Samplers, as well as train site operators, in support of the EPA CSN Phase II Carbon Sampler replacement effort.
8/3/07	ARS ordered audit cassettes, operational cassettes, and compact flash cards from URG Corporation for the Phase II effort.
8/3/07	ARS ordered BGI TC5 TetraCal flow calibrators from BGI, Inc.
9/5/08	The 7/10/07 task order was terminated due to substantial modifications to the scope of work by NPS. The modifications ranged from how the samplers were ordered to the number and type of sites being installed.
9/21/08	A new task order was issued by NPS for ARS to acceptance test, install, calibrate, and train at 61 CSN sites. The samplers were purchased directly by NPS and delivered to ARS.
11/4/08	ARS responded to a request from EPA to test the first Phase II URG-3000N sampler to assure it met the NPS/EPA specifications. Only minor issues were noted. NPS and EPA accepted the first URG-3000N Phase II sampler.
11/11/08	ARS began receiving Phase II URG-3000N samplers.
12/2/08	ARS shipped one (1) sampler to Montgomery, Alabama.
12/4/08	ARS shipped one (1) sampler to Jasper, Indiana.
12/5/08	ARS shipped three (3) samplers to Indiana: Elkhart (1), Evansville (1), and Middletown (1).

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Table 1-1 (Continued)
Phase II Project Timeline

Date	Activity
12/9/08	ARS shipped six (6) samplers to New York: Albany (1), Buffalo (1), Pinnacle State Park (1), Queens College (1), Rochester (1) and Whiteface Mountain (1).
1/6/09	ARS shipped one (1) sampler to Albuquerque, New Mexico.
1/7/09	ARS shipped a replacement controller to Mike Walsh in New York. The failed controller was sent back to ARS. URG repaired under warranty.
1/12/09	ARS installed Group 6. The sites included: Athens, Rossville, and Atlanta, GA; and Huntsville and Birmingham, AL. The Rome, GA site was not ready to receive the sampler on the original installation date. Ken Buckley suggested installing at the Rossville, GA site and EPA concurred. Rome installation will occur in Phase III.
1/12/09	ARS installed Group 8. The sites included: Beltsville, MD; Dover, DE; and Providence, RI.
1/14/09	ARS shipped two (2) samplers to Missouri: Arnold (1) and Liberty (1).
1/28/09	ARS shipped five (5) samplers to Texas: Carnac (1), Dallas (1), Deer Park (2), and El Paso (1).
2/3/09	ARS shipped one (1) sampler and calibrator to Jeff Lantz, US EPA in Las Vegas, NV for an EPA auditor's training course. Received back at ARS the following week after the training.
2/10/09	ARS installed Group 9. The sites included: Nashville, TN; Frankfort and Lexington, KY; and Portsmouth, OH. The Frankfort site's assembly, calibration and training occurred in the air quality office. A tornado had cut power to the area on the night before the scheduled installation. The sampler was installed by the operator later when power was restored.

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Table 1-1 (Continued)
Phase II Project Timeline

Date	Activity
2/12/09	ARS shipped two (2) samplers to Louisiana: Shreveport (1), Baton Rouge (1).
2/13/09	ARS shipped one BGI TetraCal to Dr. Rama Seshu Tangirala in Washington, DC at EPA request.
2/24/09	ARS installed Group 1. The sites included: Marysville and Vancouver, WA. The Eugene, Klamath Falls, and Medford, OR, sites were installed by the Oregon DEQ. ARS trained the operators at one location at the Oregon DEQ lab.
3/4/09	ARS installed the Platteville, CO site (Group 10).
3/5/09	ARS installed Group 4. The sites included: Cedar Rapids, Des Moines, and Davenport, IA.
3/12/09	ARS installed two (2) sites from Group 3. The sites included: Simi Valley and Calexico, CA.
3/16/09	ARS installed Group 5. The sites included: Luna Pier, Tecumseh, Allen Park, Grand Rapids, Port Huron, and Houghton Lake, MI.
3/19/09	ARS installed the Grand Junction, CO site (Group 10).
3/24/09	Albuquerque, NM, was originally an ARS installation site, which was part of Group 3. However, the site operator indicated on 1/5/09 that he would rather do a self-install. Then on 3/22/09, the operator requested on-site training, which ARS provided on 3/24/09.
3/30/09	ARS installed Group 2. The ARS technician for this group had a personal emergency that caused the postponement of the installation by one (1) week. As a result, the last three (3) sites were installed in April and missed the April 1 Phase II sample start date. The sites included: Chico, Fresno, Portola, Sacramento (Del Paso Manor), Sacramento (CARB), and San Jose, CA.
4/2/09	ARS completed the last Phase II installation in San Jose, CA.

Table 1-2
ARS-Install Sites Listed by Install-Group Number

Install Group	AQS	RTI Name	City Name	State	Final Install Date
1	41-029-0133	Medford (OR DEQ)	Medford	OR	2/26/2009
	41-035-0004	Peterson School	Klamath Falls	OR	2/26/2009
	41-039-0060	Lane Co. Regional Air	Eugene	OR	2/26/2009
	53-011-0013	Vancouver	Vancouver	WA	2/25/2009
	53-063-0016	Crown Z	Marysville	WA	2/24/2009
2	06-007-0002	Chico (CARB)	Chico	CA	3/26/2009
	06-019-0008	Fresno - First Street	Fresno	CA	3/23/2009
	06-063-1009	Portola (CARB)	Portola	CA	3/27/2009
	06-067-0006	Del Paso Manor	Sacramento	CA	3/25/2009
	06-067-0010	Sacramento (CARB)	Sacramento	CA	3/25/2009
	06-085-0005	Jackson Street	San Jose	CA	3/24/2009
3	06-025-0005	Calexico (CARB)	Calexico	CA	3/2/2009
	06-111-2002	Simi Valley	Simi Valley	CA	3/3/2009
	35-001-0023	Del Norte	Albuquerque	NM	3/25/2009
4	19-113-0037	Army Reserve Center	Cedar Rapids	IA	3/6/2009
	19-153-0030	Public Health Building	Des Moines	IA	3/9/2009
	19-163-0015	Jefferson Elementary	Davenport	IA	3/5/2009
5	26-081-0020	Grand Rapids	Grand Rapids	MI	3/6/2009
	26-091-0007	Tecumseh	Tecumseh	MI	3/2/2009
	26-113-0001	Houghton Lake	Houghton	MI	3/5/2009
	26-115-0005	Luna Pier	Luna Pier	MI	3/2/2009
	26-147-0005	Port Huron	Port Huron	MI	3/4/2009
	26-163-0001	Allen Park	Allen Park	MI	3/3/2009
6	01-073-2003	Wylam	Birmingham	AL	1/16/2009
	01-089-0014	Huntsville Old Airport	Huntsville	AL	1/15/2009
	13-059-0001	Athens	Athens	GA	1/13/2009

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Table 1-2 (Continued)
ARS-Install Sites Listed by Install-Group Number

Install Group	AQS	RTI Name	City Name	State	Final Install Date
6	13-089-0002	South Dekalb	Atlanta	GA	1/12/2009
	13-295-0002	Rossville	Rossville	GA	1/14/2009
7	12-011-1002	Univ. of Florida Ag School	Davie	FL	2/23/2009
	12-057-3002	Sydney	Tampa	FL	3/24/2009
	13-069-0002	General Coffee State Park	Nicholls	GA	2/25/2009
	13-245-0091	Augusta	Augusta	GA	2/26/2009
	37-119-0041	Garinger High School	Charlotte	NC	2/27/2009
8	10-001-0003	Dover	Dover	DE	1/13/2009
	24-033-0030	HU-Beltsville	Beltsville	MD	1/12/2009
	44-007-0022	Urban League	Providence	RI	1/14/2009
9	21-043-0500	Grayson Lake	Frankfort	KY	2/12/2009
	21-067-0012	Lexington Health Dept	Lexington	KY	2/11/2009
	39-087-0012	ODOT	Portsmouth	OH	2/13/2009
	47-037-0023	Lockeland School	Nashville	TN	2/10/2009
10	08-001-0006	Commerce City	Commerce City	CO	3/4/2009
	08-077-0017	Powell Building	Grand Junction	CO	3/19/2009
	08-123-0008	Platteville	Platteville	CO	3/4/2009

Table 1-3
ARS-Install Sites Listed by AQS Number

AQS	Install Group	RTI Name	City Name	State	Final Install Date
01-073-2003	6	Wylam	Birmingham	AL	1/16/2009
01-089-0014	6	Huntsville Old Airport	Huntsville	AL	1/15/2009
06-007-0002	2	Chico (CARB)	Chico	CA	3/26/2009
06-019-0008	2	Fresno - First Street	Fresno	CA	3/23/2009
06-025-0005	3	Calexico (CARB)	Calexico	CA	3/2/2009
06-063-1009	2	Portola (CARB)	Portola	CA	3/27/2009
06-067-0006	2	Del Paso Manor	Sacramento	CA	3/25/2009
06-067-0010	2	Sacramento (CARB)	Sacramento CARB	CA	3/25/2009
06-085-0005	2	Jackson Street	San Jose	CA	3/24/2009
06-111-2002	3	Simi Valley	Simi Valley	CA	3/3/2009
08-001-0006	10	Commerce City	Commerce City	CO	3/9/2009
08-077-0017	10	Powell Building	Grand Junction	CO	3/19/2009
08-123-0008	10	Platteville	Platteville	CO	3/4/2009
10-001-0003	8	Dover	Dover	DE	1/13/2009
12-011-1002	7	Univ. of Florida Ag School	Davie	FL	2/23/2009
12-057-3002	7	Sydney	Tampa	FL	3/24/2009
13-059-0001	6	Athens	Athens	GA	1/13/2009
13-069-0002	7	General Coffee State Park	Nicholls	GA	2/25/2009
13-089-0002	6	South Dekalb	Atlanta	GA	1/12/2009
13-245-0091	7	Augusta	Augusta	GA	2/26/2009

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Table 1-3 (Continued)
ARS-Install Sites Listed by AQS Number

AQS	Install Group	RTI Name	City Name	State	Final Install Date
13-295-0002	6	Rossville	Rossville	GA	1/14/2009
19-113-0037	4	Army Reserve Center	Cedar Rapids	IA	3/6/2009
19-153-0030	4	Public Health Building	Des Moines	IA	3/9/2009
19-163-0015	4	Jefferson Elementary	Davenport	IA	3/5/2009
21-043-0500	9	Grayson Lake	Frankfort	KY	2/12/2009
21-067-0012	9	Lexington Health Dept	Lexington	KY	2/11/2009
24-033-0030	8	HU-Beltsville	Beltsville	MD	1/12/2009
26-081-0020	4	Grand Rapids	Grand Rapids	MI	3/6/2009
26-091-0007	5	Tecumseh	Tecumseh	MI	3/2/2009
26-113-0001	5	Houghton Lake	Houghton Lake	MI	3/5/2009
26-115-0005	5	Luna Pier	Luna Pier	MI	3/2/2009
26-147-0005	5	Port Huron	Port Huron	MI	3/4/2009
26-163-0001	5	Allen Park	Allen Park	MI	3/3/2009
35-001-0023	3	Del Norte	Albuquerque	NM	3/25/2009
37-119-0041	7	Garinger High School	Charlotte	NC	2/27/2009
39-087-0012	9	ODOT	Portsmouth	OH	2/13/2009
41-029-0133	1	Medford (OR DEQ)	Medford	OR	2/26/2009
41-035-0004	1	Peterson School	Klamath Falls	OR	2/26/2009

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Table 1-3 (Continued)
ARS-Install Sites Listed by AQS Number

AQS	Install Group	RTI Name	City Name	State	Final Install Date
41-039-0060	1	Lane Co. Regional Air Poll'n Auth	Eugene	OR	2/26/2009
44-007-0022	8	Urban League	Providence	RI	1/14/2009
47-037-0023	9	Lockeland School	Nashville	TN	2/10/2009
53-011-0013	1	Vancouver	Vancouver	WA	2/25/2009
53-063-0016	1	Crown Z	Marysville	WA	2/24/2009

Table 1-4
Self-Install Sites Listed by AQS Number

AQS	RTI Name	City Name	State	Ship Date
01-101-1002	MOMS	Montgomery	AL	12/2/2008
18-037-2001	Jasper Post Office	Jasper	IN	12/8/2008
18-039-0003	Elkhart Pierre Moran	Elkhart	IN	12/8/2008
18-065-0003	Shenandoah High School	Middletown	IN	12/8/2008
18-163-0012	Mill Road	Evansville	IN	12/8/2008
22-015-0008	Shreveport Airport	Shreveport	LA	2/12/2009
22-033-0009	Capitol	Baton Rouge	LA	2/12/2009
29-047-0005	Liberty	Liberty	MO	1/14/2009
29-099-0012	Arnold - R&P	Arnold	MO	1/14/2009
36-001-0005	Albany County Health Dept	Albany	NY	12/9/2008
36-029-0005	Buffalo	Buffalo	NY	12/9/2008
36-031-0003	Whiteface Mountain	Whiteface Mountain	NY	12/9/2008
36-055-1007	Rochester Primary	Rochester	NY	12/9/2008
36-081-0124	Queens College	New York	NY	12/9/2008
36-101-0003	Pinnacle State Park	Pinnacle State Park	NY	1/28/2009
48-113-0069	Dallas Hinton	Dallas	TX	1/28/2009
48-141-0044	Chamizal	El Paso	TX	1/28/2009
48-201-1039	Deer Park (Collocated)	Deer Park	TX	1/28/2009
48-203-0002	Carnac	Carnac	TX	1/28/2009

2.0 DEVIATIONS

Several installation trip changes occurred during the March 23 through April 3, 2009 period that deserves explanation. Changes in sampler and support hardware delivery dates, site stakeholder requirements, and the desired sampler startup date required flexibility and a number of installation visit changes listed below:

- Group 2 in northern California (originally scheduled to be installed during the week of March 23) was installed the week of March 30. The delay could not be avoided and resulted in three (3) sites not starting on April 1, 2009. Those three (3) sites are: Del Paso Manor, Sacramento, CA (AQS# 06-067-0006), Sacramento CARB, CA (AQS# 06-067-0010) and San Jose, CA (AQS# 06-085-0005).

- The Frankfort, Kentucky site (AQS# 21-043-0500) was not installed on schedule because of severe weather. A tornado the day before the installation interrupted power to the region. Instead, the assembly and training occurred in a state-run laboratory. The sampler was later installed at the site by the operator.

- The operator and staff from the Albuquerque, New Mexico site (AQS# 35-001-0023) requested a change from ARS-install status to self-install status. Later in March, however, the operator requested ARS training. ARS conducted the training on March 24, 2009.

- The three (3) Group 1 sites in Oregon; Eugene (AQS# 41-039-0060), Medford (AQS# 41-029-0133), and Klamath Falls (AQS# 41-035-0004) were originally self-installations. The Oregon DEQ contact requested training in January. ARS met with the operators and staff to conduct assembly and calibration at the DEQ lab location. The samplers were later installed at the three (3) sites by the operators.

- Only two (2) URG-3000N controllers failed in the initial Phase II installation effort. One was at a New York State Laboratory at Queens College (AQS# 36-081-0124) and the other was at the Albuquerque, NM site (AQS# 35-001-0023). In both cases, replacements were sent and repairs were made by URG under warranty. ARS has no direct knowledge of samplers that failed after a successful installation and calibration.

- The Commerce City site (AQS# 08-001-0006) received the Phase II URG3000N that was originally scheduled for installation at the Powell Building in Grand Junction, CO (AQS# 08-077-0017). The Grand Junction site received the Phase I sampler that previously operated at Commerce City, and the Grand Junction site received a full installation and training visit from ARS. Permission to swap samplers was granted by David Shelow, EPA-OAQPS.

- A Phase II BGI TetraCal was delivered to a Phase III site at Ewa Beach, HI (AQS# 15-003-0010), because the Phase III order was not delivered in time for the Ewa Beach training.

3.0 CALIBRATION FORMS

Whenever possible, ARS conducted a post-installation temperature and barometric sensor calibration, system leak check, and flow rate calibration. The sampler was initialized for site-specific operations including setting the sampler AQS and Parameter-of-Occurrence (POC) number, the sampler date and local standard time, the sample frequency and duration, and the initial stacked filter configuration. Calibration forms are presented in Appendix A, listed by AQS number.

Missing calibration forms occurred for a number of reasons. In order of frequency, the causes were as follows: the installed sampler malfunctioned, the flow calibrator malfunctioned, and, at one site, the flow adaptor was taken off-site by the site operator.

4.0 SITE PHOTOGRAPHS

ARS documented the installation with four (4) photographs taken in four (4) cardinal directions and one (1) good documentation image that showed all instrumentation in relation to the station after each installation. Site photographs are displayed by AQS number in Appendix B.

Missing images occurred for a number of reasons. In order of frequency, the causes were as follows: the ARS field technician had trouble with the camera or forgot to photograph the site, the site was not prepared for installation and was left in a temporary storage location, and at one site, photography was not allowed.

5.0 SUMMARY

As in Phase I of this project, Phase II presented a number of challenges to be overcome. The EPA, NPS, and state and local agencies were cooperative and very helpful in assuring that the samplers, documentation, and sites were prepared before the installation effort. Once the samplers had been received by ARS, scheduled installations were conducted largely on-time and with few delays.

The self-installation concept initiated with Phase II was completed satisfactorily. ARS technicians were contacted by states with a variety of questions; however, they were brief and well developed. It should be noted that ARS labeled each sampler box sent to a self-install site with the intended site's name. Many samplers were sent to a central location in a state, and then transported by the state to the final location. ARS cannot verify that each indicated sampler made it to its intended site as it is possible some were mixed or sent to different sites in a state. The property lists in Appendices C and D reflect the locations of ARS-installed samplers and the intended locations for self-installed samplers, respectively. Appendix E is a master contact list for all sites.

All of us at ARS appreciate the trust and confidence OAQPS showed in allowing us to help with this project. At the time of this report's creation, Phase III of the Carbon Sampler Replacement Program has begun and is expected to be completed before October 2009. Any questions regarding the project or this report should be addressed to the following individuals; please do not hesitate to contact us.

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APPENDIX A

Calibration Forms Ordered by AQS Number

Air Resource Specialists, Inc.
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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Birmingham (Wylam)	**AQS #:**	01-073-2003
Controller S/N:	3N-B0454	**POC:**	5
Sampler Module S/N:	3N-B0449	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0495	**Site Operator (s):**	Anne
Technician:	Martin Valvur	**Date:**	1/16/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 352	**Cal. Date:**	8/17/07
Temperature Transfer Standard Model:		**S/N:**		**Cal. Date:**	
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 352	**Cal. Date:**	8/17/07
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1249	113	-6.4	-6.4	0	☒ / ☐
Barometric Pressure Calibration (As Left)	3377	21	763.0	763.0	0	☒ / ☐

	Max	Min	Diff			Pass / Fail
Leak Check Results:	527	379	148	mmHg in 35 seconds		☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3555	17.65	19.86
22.00	3950	19.01	19.51
24.00	4343	24.27	21.51

New gain= 5.248, **offset=** 0.31, **correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	22.02	22.15	-0.13	☒ / ☐

Auditor's Signature: _____

Cardinal Photos: ☐ **Attendance:** ☒

Notes:

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Huntsville	**AQS #:**	01-089-0014
Controller S/N:	3N-B0442	**POC:**	5
Sampler Module S/N:	3N-B0524	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0483	**Site Operator (s):**	Winfred Bone
Technician:	Martin Valvur	**Date:**	1/15/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 363	**Cal. Date:**	9/25/07
Temperature Transfer Standard Model:		**S/N:**		**Cal. Date:**	
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 363	**Cal. Date:**	9/25/07
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1467	42	22.4	22.4	0	☒ / ☐
Barometric Pressure Calibration (As Left)	3348	12	758.0	758.0	0	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	586	476	111	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3644	19.17	19.98
22.00	3660	22.26	21.69
24.00	4023	24.40	23.77

New gain= 5.631, **offset=** 0.87, **correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.97	21.70	0.27	☒ / ☐

Auditor's Signature: _____

Cardinal Photos: ☐ **Attendance:** ☒

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Chico	**AQS #:**	06-007-0002
Controller S/N:	3N-B0439	**POC:**	5
Sampler Module S/N:	3N-B0350	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0423	**Site Operator (s):**	Bob Land
Technician:	Christian Kirk	**Date:**	3/30/09

Flow Transfer Standard Model: TetraCal **S/N:** TC 387 **Cal. Date:** 10/3/07

Temperature Transfer Standard Model: Eutechnics **S/N:** CARB 20021360 **Cal. Date:** ----

Barometric Pressure Transfer Standard Model: TetraCal **S/N:** TC 387 **Cal. Date:** 10/3/07

GPS Latitude/Longitude:

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1427	57	17.5	17.3	0.2	☒ / ☐
Barometric Pressure Calibration (As Left)	3356	15	759.1	759.0	0.1	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	652	604	48	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3334	19.89	19.88
22.00	3700	22.09	22.12
24.00	4067	24.30	24.18

New gain= 5.867, offset= 0.45, correlation= 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.96	21.80	0.16	☒ / ☐

Auditor's Signature: Christian A Kirk

Cardinal Photos: ☒ **Attendance:** ☒

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URG 3000N Carbon Sampler
Installation/Calibration Form

Station:	Fresno (CARB)	**AQS #:**	06-019-0008
Controller S/N:	3N-B0361	**POC:**	5
Sampler Module S/N:	3N-B0347	**Run Schedule:**	1/3
Pump Box S/N:	3N-B0384	**Site Operator (s):**	Patrick Seames
Technician:	Kelly Blomme	**Date:**	3/30/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 398	**Cal. Date:**	10/16/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	314018	**Cal. Date:**	
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 398	**Cal. Date:**	10/16/07
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1335	37	9.2	9.7	-0.5	☒ / ☐
Barometric Pressure Calibration (As Left)	3317	0	754.2	754.0		☒ / ☐

	Max	Min	Diff			Pass / Fail
Leak Check Results:	538	398	141	mmHg in 35	seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3382	19.81	18.98
22.00	3748	22.03	22.11
24.00	4130	24.26	24.14

New gain= 5.604 **, offset=** 1.54 **, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	22.05	21.91	0.10	☒ / ☐

Kelly Blomme

Auditor's Signature: _____

Cardinal Photos: ☒ **Attendance:** ☒

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URG 3000N Carbon Sampler
Installation/Calibration Form

Station:	Calexico	**AQS #:**	06-025-0005
Controller S/N:	3N-B0346	**POC:**	5
Sampler Module S/N:	3N-B0	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0360	**Site Operator (s):**	Tony Royer
Technician:	Dave Beichley	**Date:**	3/2/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 216	**Cal. Date:**	12/6/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	51-2040725	**Cal. Date:**	1/13/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 216	**Cal. Date:**	12/6/07

GPS Latitude/Longitude: N 32º 40′ 36.7″ W 115º 28′ 59.0″

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1489	29	25.9	25.9	0	☒ / ☐
Barometric Pressure Calibration (As Left)	3353	2	761.0	761.0	0	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	701	677	24	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3267	19.91	20.44
22.00	3616	22.10	22.58
24.00	3976	24.33	24.49

New gain= 5.512 **, offset=** 2.13 **, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	22.03	22.05	-0.06	☒ / ☐

Auditor's Signature: Dave Beichley

Cardinal Photos: ☒ **Attendance:** ☒

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URG 3000N Carbon Sampler
Installation/Calibration Form

Station:	Portola (CARB)	**AQS #:**	06-063-1009
Controller S/N:	3N-B0412	**POC:**	5
Sampler Module S/N:	3N-B0410	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0378	**Site Operator (s):**	George Ozanich
Technician:	Kelly Blomme	**Date:**	3/31/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 398	**Cal. Date:**	10/16/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	314018	**Cal. Date:**	1/2/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 398	**Cal. Date:**	10/16/07
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1354	30	12.1	12.3		☒ / ☐
Barometric Pressure Calibration (As Left)	2770	13	644.0	640.0		☒ / ☐

	Max	Min	Diff			Pass / Fail
Leak Check Results:	538	485	53	mmHg in 35 seconds		☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	2885	19.86	17.04
22.00	3205	22.12	18.76
24.00	3523	24.32	20.51

New gain= 4.719 **, offset=** 1.22 **, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.98	21.99	-0.01	☒ / ☐

Kelly Blomme

Auditor's Signature: _____

Cardinal Photos: ☒ **Attendance:** ☒

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URG 3000N Carbon Sampler
Installation/Calibration Form

Station:	Sacramento (Del Paso Manor)	**AQS #:**	06-067-0006
Controller S/N:	3N-B0343	**POC:**	5
Sampler Module S/N:	3N-B0344	**Run Schedule:**	1/3
Pump Box S/N:	3N-B0345	**Site Operator (s):**	Rudy Paez
Technician:	Kelly Blomme	**Date:**	4/2/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 374	**Cal. Date:**	9/27/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	314018	**Cal. Date:**	1//09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 374	**Cal. Date:**	9/27/07
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1463	24	24.5	23.76		☒ / ☐
Barometric Pressure Calibration (As Left)	3347	25	754.0	755.0		☒ / ☐

	Max	Min	Diff			Pass / Fail
Leak Check Results:	590	484	106	mmHg in 35	seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3327	20.15	19.86
22.00	3649	22.32	22.15
24.00	3984	24.06	29.12

New gain= 13.960 **, offset=** -27.0 **, correlation=** 0.938

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.89	21.86	0.03	☒ / ☐

Kelly Blomme

Auditor's Signature: _____

Cardinal Photos: ☒ **Attendance:** ☒

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Sacramento (CARB)	**AQS #:**	06-067-0010
Controller S/N:	3N-B0490	**POC:**	5
Sampler Module S/N:	3N-B0422	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0354	**Site Operator (s):**	Megan McKay
Technician:	Kelly Blomme	**Date:**	4/2/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 398	**Cal. Date:**	10/16/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	314018	**Cal. Date:**	1/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 398	**Cal. Date:**	10/16/07
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1395	0	21.3	20.8	0	☒ / ☐
Barometric Pressure Calibration (As Left)	3337	4	757.0	757.0	0	☒ / ☐

	Max	Min	Diff			Pass / Fail
Leak Check Results:	619	552	67	mmHg in 35	seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3345	20.05	19.4
22.00	3703	22.31	21.43
24.00	4075	24.56	23.62

New gain= 5.744 **, offset=** 0.14 **, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.94	22.00	0.6	☒ / ☐

Kelly Blomme

Auditor's Signature: _____

Cardinal Photos: ☒ **Attendance:** ☒

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URG 3000N Carbon Sampler
Installation/Calibration Form

Station:	San Jose	**AQS #:**	06-085-0005
Controller S/N:	3N-B0397	**POC:**	5
Sampler Module S/N:	3N-B0482	**Run Schedule:**	1/3
Pump Box S/N:	3N-B0408	**Site Operator (s):**	George Stuckert
Technician:	Kelly Blomme	**Date:**	4/1/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 398	**Cal. Date:**	10/16/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	314018	**Cal. Date:**	1/2009
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 398	**Cal. Date:**	10/16/07
GPS Latitude/Longitude:	N 37º 20.888′ W 121º 53.706′				

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1416	52	17.6	16.47		☒ / ☐
Barometric Pressure Calibration (As Left)	3346	1	762.3	760.0		☒ / ☐

	Max	Min	Diff			Pass / Fail
Leak Check Results:	651	605	46	mmHg in 35 seconds		☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3345	19.82	20.39
22.00	3731	21.96	22.30
24.00	4101	24.21	24.56

New gain= 5.707 **, offset=** 1.58 **, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	22.03	21.90	0.09	☒ / ☐

Kelly Blomme

Auditor's Signature: _____

Cardinal Photos: ☒ **Attendance:** ☒

Notes:

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URG 3000N Carbon Sampler
Installation/Calibration Form

Station:	Simi Valley	**AQS #:**	06-111-2002
Controller S/N:	3N-B0418	**POC:**	5
Sampler Module S/N:	3N-B0431	**Run Schedule:**	1/3
Pump Box S/N:	3N-B0351	**Site Operator (s):**	Andy Brown
Technician:	Dave Beichley	**Date:**	3/3/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 417	**Cal. Date:**	12/6/07
Temperature Transfer Standard Model:	Thomas Scientific	**S/N:**	51-2040725	**Cal. Date:**	1/13/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 417	**Cal. Date:**	12/6/07

GPS Latitude/Longitude: N 34º 16′ 35.0″ W 118º 41′ 0.17″

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1438	49	18.8	18.8	0	☒ / ☐
Barometric Pressure Calibration (As Left)	3232	19	733.0	733.0	0	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	516	394	123	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3222	19.87	19.53
22.00	3582	22.05	21.50
24.00	3936	24.25	23.55

New gain= 5.464 **, offset=** 1.39 **, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.96	23.30	-0.37	☒ / ☐

Auditor's Signature: Dave Beichley

Cardinal Photos: ☒ **Attendance:** ☒

Notes:

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Grand Junction	**AQS #:**	08-077-0017
Controller S/N:	3N-B0209	**POC:**	5
Sampler Module S/N:	3N-B0211	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0165	**Site Operator (s):**	Mike Brygger, Ed Brotsky
Technician:	Mike Slate	**Date:**	3/19/09

Flow Transfer Standard Model:	TetraCal	**S/N:** TC 397	**Cal. Date:** 3/9/09
Temperature Transfer Standard Model:	Eutechnics	**S/N:** 305454	**Cal. Date:** 1/30/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:** TC 397	**Cal. Date:** 3/9/09

GPS Latitude/Longitude: N 39º 3′ 49.78″ W 108º 33′ 40.30″

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1266	-2	6.5	6.0	0	☒ / ☐
Barometric Pressure Calibration (As Left)	2799	13	646.0	646.0	0	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	380	290	90	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	2940	19.80	18.66
22.00	3258	21.98	20.56
24.00	3582	24.14	22.56

New gain= 5.296, **offset=** 1.07, **correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.94	21.89	0.07	☒ / ☐

Auditor's Signature: Mike Slate

Cardinal Photos: ☒ **Attendance:** ☒

Notes:

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URG 3000N Carbon Sampler
Installation/Calibration Form

Station:	Platteville	**AQS #:**	08-077-0017
Controller S/N:	3N-B0517	**POC:**	5
Sampler Module S/N:	3N-B0479	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0516	**Site Operator (s):**	
Technician:	Kirk/Tigges	**Date:**	3/4/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 415	**Cal. Date:**	3/4/09
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	101611	**Cal. Date:**	1/13/10
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 415	**Cal. Date:**	3/4/09

GPS Latitude/Longitude: _____

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1476	39	23.6	23.6	0	☒ / ☐
Barometric Pressure Calibration (As Left)	2737	25	631.0	631.0	0	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	575	561	14	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80		19.84	19.84
22.00		22.09	22.07
24.00		24.32	24.31

New gain= 5.996 **, offset=** .004**, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.90	22.03	-.13	☒ / ☐

Auditor's Signature: _____

Cardinal Photos: ☒ **Attendance:** ☒

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Dover	**AQS #:**	10-001-0003
Controller S/N:	3N-B0472	**POC:**	5
Sampler Module S/N:	3N-B0476	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0519	**Site Operator (s):**	Joe Martini
Technician:	Christian Kirk	**Date:**	1/13/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 305	**Cal. Date:**	8/19/08
Temperature Transfer Standard Model:	TetraCal	**S/N:**	TC 305	**Cal. Date:**	8/28/07
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 305	**Cal. Date:**	8/28/07
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1477	39	23.8	23.7	0.1	☒ / ☐
Barometric Pressure Calibration (As Left)	3371	10	763.1	763.0	0.1	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	654	602	52	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3280	19.92	19.31
22.00	3647	22.10	21.43
24.00	4010	24.32	23.55

New gain= 5.712, **offset=** 0.39, **correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.97	22.08	-0.11	☒ / ☐

Christian A Kirk

Auditor's Signature: _____

Cardinal Photos: ☐ **Attendance:** ☒ **Notes: Training in Newcastle, DE. Operators will move to site/bolt down. Black clips broken. My TriCal didn't function (flow only). Date needs to be reset correct date. Set 1 day early to avoid sampling day.**

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URG 3000N Carbon Sampler
Installation/Calibration Form

Station:	Davie (Univ of FL Ag School)	**AQS #:**	12-011-1002
Controller S/N:	3N-B0580	**POC:**	5
Sampler Module S/N:	3N-B0380	**Run Schedule:**	1/3
Pump Box S/N:	3N-B0366	**Site Operator (s):**	Ila Perkins
Technician:	Kelly Blomme	**Date:**	2/23/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 366	**Cal. Date:**	2/26/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	42580041	**Cal. Date:**	6/27/08
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 366	**Cal. Date:**	2/26/07
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1503	35	29.9	26.8	-3.1	☒ / ☐
Barometric Pressure Calibration (As Left)	3355	5	761.5	761.0	-0.5	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	666	626	41	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3236	19.80	19.77
22.00	3617	21.80	21.96
24.00	3943	24.20	23.90

New gain= 5.622 **, offset=** 1.24 **, correlation=** 0.999

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	22.0	21.84	0.16	☒ / ☐

Kelly Blomme

Auditor's Signature: _____

Cardinal Photos: ☐ **Attendance:** ☒

Notes:

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Tampa (Sydney)	**AQS #:**	12-057-3002
Controller S/N:	3N-B0502	**POC:**	5
Sampler Module S/N:	3N-B0356	**Run Schedule:**	1/3
Pump Box S/N:	3N-B0372	**Site Operator (s):**	Clemente Lopez
Technician:	Kelly Blomme	**Date:**	2/24/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 425	**Cal. Date:**	12/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	304018	**Cal. Date:**	1/13/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 425	**Cal. Date:**	12/07

GPS Latitude/Longitude: 27.96 / -82.22

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1420	47	17.1	17.2	-0.1	☒ / ☐
Barometric Pressure Calibration (As Left)	3378	7	766.0	767.0	-1.0	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	710	695	14	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3378	19.90	20.64
22.00	3744	22.09	22.87
24.00	4122	24.34	25.10

New gain= 6.068, offset= 0.53, correlation= 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	22.01	22.15	-0.14	☒ / ☐

Auditor's Signature: Kelly Blomme

Cardinal Photos: ☒ **Attendance:** ☒

Notes:

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Athens	**AQS #:**	13-059-0001
Controller S/N:	3N-B0508	**POC:**	5
Sampler Module S/N:	3N-B0488	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0438	**Site Operator (s):**	Jane Wightman
Technician:	Martin Valvur	**Date:**	1/13/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 360	**Cal. Date:**	9/24/07
Temperature Transfer Standard Model:	TetraCal	**S/N:**	TC 360	**Cal. Date:**	9/24/07
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 360	**Cal. Date:**	9/24/07
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1280	40	3.9	3.9	0	☒ / ☐
Barometric Pressure Calibration (As Left)	3276	9	744.0	744.0	0	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	525	373	152	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3472	20.12	19.13
22.00	3844	22.31	20.99
24.00	4223	24.51	23.41

New gain= 5.185, **offset=** 1.80, **correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.99	21.75	0.25	☒ / ☐

Auditor's Signature: _____

Cardinal Photos: ☐ **Attendance:** ☒

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Nicholls (General Coffee State Park)	**AQS #:**	13-069-0002
Controller S/N:	3N-B0406	**POC:**	5
Sampler Module S/N:	3N-B0434	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0429	**Site Operator (s):**	Robert Buice
Technician:	Kelly Blomme	**Date:**	2/24/09

Flow Transfer Standard Model:	TetraCal	**S/N:** TC 384	**Cal. Date:** 10/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:** 304018	**Cal. Date:** 1/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:** TC 384	**Cal. Date:** 10/07

GPS Latitude/Longitude: N 31° 30.787′ W 082° 45.014′ ELEV 195

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1452	54	22.4	19.7	1.4	☒ / ☐
Barometric Pressure Calibration (As Left)	3386	5	768.7	767.0	1.7	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	681	644	37	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3388	19.97	20.93
22.00	3761	22.22	22.99
24.00	4134	24.43	

New gain= 5.698 **, offset=** 1.96 **, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.96	21.83	0.12	☒ / ☐

Kelly Blomme

Auditor's Signature:_____

Cardinal Photos: ☒ **Attendance:** ☒

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Atlanta (South Dekalb)	**AQS #:**	13-089-0002
Controller S/N:	3N-B0436	**POC:**	5
Sampler Module S/N:	3N-B0521	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0462	**Site Operator (s):**	Lawrence Wallace
Technician:	Martin Valvur	**Date:**	1/12/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 290	**Cal. Date:**	8/15/08
Temperature Transfer Standard Model:	Test 0600	**S/N:**	06369742	**Cal. Date:**	11/13/07
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 290	**Cal. Date:**	8/15/08
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1316	85	3.0	3.9	0	☒ / ☐
Barometric Pressure Calibration (As Left)	3287	5	747.0	747.0	0	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	587	495	93	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3501	20.10	19.20
22.00	3890	22.30	21.30
24.00	4257	24.57	23.35

New gain= 5.566 **, offset=** 0.61**, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.94	22.15	-0.21	☒ / ☐

Auditor's Signature: _____

Cardinal Photos: ☐ **Attendance:** ☒

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Augusta (Bungalow Road)	**AQS #:**	13-245-0091
Controller S/N:	3N-B0376	**POC:**	5
Sampler Module S/N:	3N-B0398	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0435	**Site Operator (s):**	Jeffrey Williams
Technician:	Kelly Blomme	**Date:**	2/26/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 272	**Cal. Date:**	8/14/08
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	304018	**Cal. Date:**	1/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 272	**Cal. Date:**	8/14/08

GPS Latitude/Longitude: N 33º 26.017′ W 82º 1.344′

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1431	47	19.0	18.3	-0.7	☒ / ☐
Barometric Pressure Calibration (As Left)	3375	0	766.0	766.0	0	☒ / ☐

	Max	Min	Diff			Pass / Fail
Leak Check Results:	674	632	42	mmHg in 35	seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3378	19.92	20.27
22.00	3744	22.10	22.22
24.00	4117	24.34	24.28

New gain= 5.432 **, offset=** 2.25 **, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	22.04	22.14	-0.08	☒ / ☐

Kelly Blomme

Auditor's Signature: _____

Cardinal Photos: ☒ **Attendance:** ☒

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Rossville	**AQS #:**	13-115-0005
Controller S/N:	3N-B0475	**POC:**	5
Sampler Module S/N:	3N-B0473	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0510	**Site Operator (s):**	Lawrence Wallace
Technician:	Martin Valvur	**Date:**	1/14/09

Flow Transfer Standard Model:	TetraCal	**S/N:** TC 372	**Cal. Date:** 9/27/07
Temperature Transfer Standard Model:	TetraCal	**S/N:** TC 372	**Cal. Date:** 9/27/07
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:** TC 372	**Cal. Date:** 9/27/07
GPS Latitude/Longitude:			

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1272	54	1.7	1.7	0	☒ / ☐
Barometric Pressure Calibration (As Left)	3302	-4	752.0	752.0	0	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	638	580	59	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3542	20.02	19.72
22.00	3923	22.30	21.60
24.00	4319	24.50	23.51

New gain= 5.177 **, offset=** 2.54**, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	22.0	21.8	0.2	☒ / ☐

Auditor's Signature: _____

Cardinal Photos: ☐ **Attendance:** ☒

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URG 3000N Carbon Sampler
Installation/Calibration Form

Station:	Cedar Rapids (Army Reserve)	**AQS #:**	19-113-0037
Controller S/N:	3N-B0364	**POC:**	5
Sampler Module S/N:	3N-B0392	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0417	**Site Operator (s):**	Dave Burns
Technician:	Kelly Blomme	**Date:**	3/6/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 389	**Cal. Date:**	2/09
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	304018	**Cal. Date:**	1/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 389	**Cal. Date:**	2/09

GPS Latitude/Longitude: Lat 42/0/18.2298 Long -91/40/44.9832

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1445	13	22.2	22.7	0.5	☒ / ☐
Barometric Pressure Calibration (As Left)	3234	16	735.1	734.0	1.1	☒ / ☐

	Max	Min	Diff			Pass / Fail
Leak Check Results:	669	653	16	mmHg in 35	seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3146	19.75	19.06
22.00	3499	21.96	21.40
24.00	3844	24.17	23.45

New gain= 5.964 **, offset=** -0.49 **, correlation=** 0.999

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.98	21.92	0.04	☒ / ☐

Kelly Blomme

Auditor's Signature: _____

Cardinal Photos: ☒ **Attendance:** ☒

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Des Moines (Public Health Building)	**AQS #:**	19-153-0030
Controller S/N:	3N-B0430	**POC:**	5
Sampler Module S/N:	3N-B0404	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0390	**Site Operator (s):**	Chad Hines
Technician:	Kelly Blomme	**Date:**	3/9/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 400	**Cal. Date:**	10/17/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	304018	**Cal. Date:**	1/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 400	**Cal. Date:**	10/17/07
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1484	40	28.1	24.3		☒ / ☐
Barometric Pressure Calibration (As Left)	3240	6	738.3	737.0		☒ / ☐

	Max	Min	Diff			Pass / Fail
Leak Check Results:	669	647	22	**mmHg in** 35	**seconds**	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3178	19.85	18.92
22.00	3525	22.08	20.92
24.00	3884	24.25	22.96

New gain= 5.469 **, offset=** 0.78 **, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	22.02	21.67	0.35	☒ / ☐

Kelly Blomme

Auditor's Signature: _____

Cardinal Photos: ☐ **Attendance:** ☒

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Davenport (Jefferson School)	**AQS #:**	19-163-0015
Controller S/N:	3N-B0394	**POC:**	5
Sampler Module S/N:	3N-B0395	**Run Schedule:**	1/3
Pump Box S/N:	3N-B0399	**Site Operator (s):**	Amanda Dylla
Technician:	Kelly Blomme	**Date:**	3/5/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 500	**Cal. Date:**	9/15/08
Temperature Transfer Standard Model:	TetraCal	**S/N:**	TC 500	**Cal. Date:**	9/15/08
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 500	**Cal. Date:**	9/15/08

GPS Latitude/Longitude: N 41° 31.8′ W 90° 35.262′

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1498	45	25.7	25.2	.5	☒ / ☐
Barometric Pressure Calibration (As Left)	3211	7	732.6	731.0	1.6	☒ / ☐

	Max	Min	Diff			Pass / Fail
Leak Check Results:	552	448	104	mmHg in 35 seconds		☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3164	19.96	19.57
22.00	3499	22.22	21.66
24.00	3854	24.44	23.61

New gain= 5.405 **, offset=** 1.53 **, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.98	22.84	-0.88	☒ / ☐

Kelly Blomme

Auditor's Signature: _____

Cardinal Photos: ☒ **Attendance:** ☒

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Frankfort (Grayson Lake)	**AQS #:**	21-043-0500
Controller S/N:	3N-B0520	**POC:**	5
Sampler Module S/N:	3N-B0515	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0387	**Site Operator (s):**	Huff Hammond
Technician:	Dave Beichley	**Date:**	1/11/09

Flow Transfer Standard Model: TetraCal **S/N:** TC 367 **Cal. Date:** 9/26/07

Temperature Transfer Standard Model: Thomas Scientific **S/N:** 6150299 **Cal. Date:** 12/29/07

Barometric Pressure Transfer Standard Model: TetraCal **S/N:** TC 367 **Cal. Date:** 9/26/07

GPS Latitude/Longitude: N 38º 14′ 20.4″ W 82º 59′ 17.6″

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1398	36	16.3	16.2	0.1	☒ / ☐
Barometric Pressure Calibration (As Left)	3314	-3	754.2	750.0	4.2	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	571	458	113	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3301	19.87	19.02
22.00	3655	22.06	20.96
24.00	4017	24.24	23.03

New gain= 5.505 **, offset=** 0.76 **, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.96	21.95	0.01	☒ / ☐

Auditor's Signature: Dave Beichley

Cardinal Photos: ☒ **Attendance:** ☒

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Lexington	**AQS #:**	21-067-0012
Controller S/N:	3N-B0478	**POC:**	5
Sampler Module S/N:	3N-B0440	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0375	**Site Operator (s):**	Paul Baber
Technician:	Dave Beichley	**Date:**	1/12/09

Flow Transfer Standard Model: TetraCal **S/N:** TC 373 **Cal. Date:** 9/27/07

Temperature Transfer Standard Model: Eutechnics **S/N:** 305598 **Cal. Date:** 1/12/09

Barometric Pressure Transfer Standard Model: TetraCal **S/N:** TC 373 **Cal. Date:** 9/27/07

GPS Latitude/Longitude: N 38º.06500 W 84.50000

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1465	23	26.5	24.13	2.37	☒ / ☐
Barometric Pressure Calibration (As Left)	3258	10	742.2	740.0	2.20	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	495	349	146	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3186	19.86	19.64
22.00	3534	22.10	21.72
24.00	3884	24.30	23.71

New gain= 5.518 **, offset=** 1.35**, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.97	22.10	-0.16	☒ / ☐

Auditor's Signature: Dave Beichley

Cardinal Photos: ☐ **Attendance:** ☒

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Beltsville	**AQS #:**	24-033-0030
Controller S/N:	3N-B0487	**POC:**	5
Sampler Module S/N:	3N-B0443	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0525	**Site Operator (s):**	Antoinette Eikenberg
Technician:	Christian Kirk	**Date:**	1/12/09

Flow Transfer Standard Model:	TetraCal	**S/N:** TC 361	**Cal. Date:** 9/25/07
Temperature Transfer Standard Model:	Trical	**S/N:** 000298	**Cal. Date:** 3/28/07
Barometric Pressure Transfer Standard Model:	Trical	**S/N:** 000298	**Cal. Date:** 3/28/07
GPS Latitude/Longitude:			

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1305	58	2.0	2.3	-0.3	☒ / ☐
Barometric Pressure Calibration (As Left)	3369	3	764.2	764.0	0.2	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	538	386	153	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3561	19.84	18.89
22.00	3963	22.04	21.19
24.00	4358	24.24	25.52

New gain= 6.284, **offset=** -2.02, **correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.97	21.99	-0.02	☒ / ☐

Auditor's Signature: Christian A Kirk

Cardinal Photos: ☒ **Attendance:** ☒

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Grand Rapids	**AQS #:**	26-081-0020
Controller S/N:	3N-B0391	**POC:**	5
Sampler Module S/N:	3N-B0365	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0363	**Site Operator (s):**	Bill Endres
Technician:	Christian Kirk	**Date:**	3/6/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 418	**Cal. Date:**	12/6/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	99F101611	**Cal. Date:**	1/13/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 418	**Cal. Date:**	12/6/07
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1418	30	19.1	19.3	-0.2	☒ / ☐
Barometric Pressure Calibration (As Left)	3279	2	746.0	746.0	0.0	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	543	413	129	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3233	19.70	19.89
22.00	3592	21.92	21.98
24.00	3951	24.12	24.04

New gain= 5.670 **, offset=** 1.26 **, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.95	22.01	-0.05	☒ / ☐

Auditor's Signature: Christian A Kirk

Cardinal Photos: ☒ **Attendance:** ☒

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Tecumseh	**AQS #:**	26-091-0007
Controller S/N:	3N-B0370	**POC:**	5
Sampler Module S/N:	3N-B0401	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0432	**Site Operator (s):**	Matt Nowak
Technician:	Christian Kirk	**Date:**	3/2/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 391	**Cal. Date:**	10/4/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	99F101611	**Cal. Date:**	1/13/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 391	**Cal. Date:**	10/4/07
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1311	46	7.1	7.1	0.0	☒ / ☐
Barometric Pressure Calibration (As Left)	3296	19	746.0	746.0	0.0	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	554	423	131	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3441	19.94	19.07
22.00	3825	22.15	21.06
24.00	4202	24.35	23.31

New gain= 5.756, **offset=** -0.10, **correlation=** 0.999

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.96	21.91	0.07	☒ / ☐

Auditor's Signature: Christian A Kirk

Cardinal Photos: ☒ **Attendance:** ☒

Notes:

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Houghton Lake	**AQS #:**	26-113-0001
Controller S/N:	3N-B0421	**POC:**	5
Sampler Module S/N:	3N-B0455	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0420	**Site Operator (s):**	Eric Hansen
Technician:	Christian Kirk	**Date:**	3/5/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 421	**Cal. Date:**	12/11/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	99F101611	**Cal. Date:**	1/13/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 421	**Cal. Date:**	12/11/07
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1476	73	14.2	13.7	0.5	☒ / ☐
Barometric Pressure Calibration (As Left)	3235	7	736.3	736.0	0.3	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	571	468	103	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3305	19.98	21.71
22.00	3677	22.21	23.84
24.00	4045	24.43	25.93

New gain= 5.692 **, offset=** 2.75 **, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.92	21.87	0.05	☒ / ☐

Auditor's Signature: Christian A Kirk

Cardinal Photos: ☒ **Attendance:** ☒

Notes:

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Luna Pier	**AQS #:**	26-115-0005
Controller S/N:	3N-B0388	**POC:**	5
Sampler Module S/N:	3N-B0383	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0405	**Site Operator (s):**	Matt Norah
Technician:	Christian Kirk	**Date:**	3/2/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 391	**Cal. Date:**	10/4/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	99F101611	**Cal. Date:**	1/13/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 391	**Cal. Date:**	10/4/07
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1321	43	10.3	9.9	0.4	☒ / ☐
Barometric Pressure Calibration (As Left)	3313	6	751.9	752.0	-0.1	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	670	646	24	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3416	19.99	18.98
22.00	3804	22.21	20.89
24.00	4181	24.43	23.13

New gain= 5.616 **, offset=** 0.23 **, correlation=** 0.999

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.95	21.90	0.01	☒ / ☐

Auditor's Signature: Christian A Kirk

Cardinal Photos: ☒ **Attendance:** ☐

Notes: Black clips broken.

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URG 3000N Carbon Sampler
Installation/Calibration Form

Station:	Port Huron	**AQS #:**	26-147-0005
Controller S/N:	3N-B0415	**POC:**	5
Sampler Module S/N:	3N-B0362	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0381	**Site Operator (s):**	Bryan Lomerson
Technician:	Christian Kirk	**Date:**	3/4/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 420	**Cal. Date:**	12/6/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	99F101611	**Cal. Date:**	1/13/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 420	**Cal. Date:**	12/6/07
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1377	40	14.5	13.8	0.7	☒ / ☐
Barometric Pressure Calibration (As Left)	3285	10	745.8	747.5	-1.7	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	568	463	105	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3330	19.85	19.94
22.00	3694	22.03	21.88
24.00	4063	24.20	23.93

New gain= 5.466 **, offset=** 1.88 **, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.98	21.77	0.21	☒ / ☐

Auditor's Signature: Christian A Kirk

Cardinal Photos: ☒ **Attendance:** ☒

Notes:

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URG 3000N Carbon Sampler
Installation/Calibration Form

Station:	Allen Park	**AQS #:**	26-163-0001
Controller S/N:	3N-B0424	**POC:**	5
Sampler Module S/N:	3N-B0368	**Run Schedule:**	1/3
Pump Box S/N:	3N-B0357	**Site Operator (s):**	Matt Nowak
Technician:	Christian Kirk	**Date:**	3/3/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 390	**Cal. Date:**	10/4/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	99F101611	**Cal. Date:**	1/13/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 390	**Cal. Date:**	10/4/07
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1395	57	13.7	13.8	-0.1	☒ / ☐
Barometric Pressure Calibration (As Left)	3284	7	746.0	746.0	0.0	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	639	606	33	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3341	19.88	19.57
22.00	3711	22.12	21.73
24.00	4085	24.27	23.84

New gain= 5.822 **, offset=** 0.25 **, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.95	22.00	-0.05	☒ / ☐

Auditor's Signature: Christian A Kirk

Cardinal Photos: ☒ **Attendance:** ☒

Notes:

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URG 3000N Carbon Sampler
Installation/Calibration Form

Station:	Albuquerque	**AQS #:**	35-001-0023
Controller S/N:	3N-B0367	**POC:**	5
Sampler Module S/N:	3N-B0353	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0477	**Site Operator (s):**	Dwayne Salisbury
Technician:	Mark Tigges	**Date:**	3/25/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 397	**Cal. Date:**	3/25/09
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	AW5542	**Cal. Date:**	3/11/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 397	**Cal. Date:**	3/25/09
GPS Latitude/Longitude:	N/A				

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1345	36	10.8	10.8	0	☒ / ☐
Barometric Pressure Calibration (As Left)	Already calibrated by operator					☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	577	559	18	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80		19.8	18.8
22.00		22.0	21.0
24.00		24.7	23.2

New gain= 6.058 **, offset=** 1.03**, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	22.0	22.27	0.27	☒ / ☐

Auditor's Signature: _____

Cardinal Photos: ☒ **Attendance:** ☒

Notes:

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Charlotte (Garinger HS)	**AQS #:**	37-119-0041
Controller S/N:	3N-B0400	**POC:**	5
Sampler Module S/N:	3N-B0428	**Run Schedule:**	1/3
Pump Box S/N:	3N-B0348	**Site Operator (s):**	David Hord
Technician:	Kelly Blomme	**Date:**	2/27/09

Flow Transfer Standard Model: TetraCal **S/N:** TC 365 **Cal. Date:** 9/26/07

Temperature Transfer Standard Model: TetraCal **S/N:** TC 365 **Cal. Date:** 9/26/07

Barometric Pressure Transfer Standard Model: TetraCal **S/N:** TC 365 **Cal. Date:** 9/26/07

GPS Latitude/Longitude: N 35º 14.400′ W 80º 47.143′ ELEV 756

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1396	42	15.3	15.5	-0.2	☒ / ☐
Barometric Pressure Calibration (As Left)	3271	4	746.9	744.0	2.9	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	559	451	108	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3293	19.84	19.76
22.00	3665	22.03	21.09
24.00	4032	24.24	24.05

New gain= 5.817 **, offset=** 0.27 **, correlation=** 0.978

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	22.03	22.04	-0.02	☒ / ☐

Kelly Blomme

Auditor's Signature: _____

Cardinal Photos: ☒ **Attendance:** ☒

Notes:

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Portsmouth (ODOT - Ironton)	**AQS #:**	39-087-0012
Controller S/N:	3N-B0433	**POC:**	5
Sampler Module S/N:	3N-B0371	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0474	**Site Operator (s):**	Darrell Pennington
Technician:	Dave Beichley	**Date:**	2/13/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 378	**Cal. Date:**	10/1/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	305596	**Cal. Date:**	1/13/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 378	**Cal. Date:**	10/1/07

GPS Latitude/Longitude: N 38º 30′ 28.7″ W 82º 39′ 33.4″

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1288	43	4.4	4.4	0	☒ / ☐
Barometric Pressure Calibration (As Left)	3305	3	751.0	751.0	0	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	638	583	55	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3476	19.84	18.83
22.00	3853	22.03	20.79
24.00	4245	24.29	23.21

New gain= 5.911, **offset=** -0.82, **correlation=** 0.999

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.98	22.18	-0.20	☒ / ☐

Auditor's Signature: Dave Beichley

Cardinal Photos: ☒ **Attendance:** ☒

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Providence (Urban League)	**AQS #:**	44-007-0022
Controller S/N:	3N-B0511	**POC:**	5
Sampler Module S/N:	3N-B0509	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0450	**Site Operator (s):**	Iwona Wanot
Technician:	Christian Kirk	**Date:**	1/14/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 370	**Cal. Date:**	9/27/07
Temperature Transfer Standard Model:		**S/N:**		**Cal. Date:**	
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 370	**Cal. Date:**	9/27/07
GPS Latitude/Longitude:					

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1473	35	23.5	24.8	-1.3	☒ / ☐
Barometric Pressure Calibration (As Left)	3353	7	760.1	760.0	0.1	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	619	531	88	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80			19.77
22.00	3636	22.06	21.92
24.00	4007	24.30	23.96

New gain= 5.688 **, offset=** 0.94**, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.92	22.15	-0.23	☒ / ☐

Auditor's Signature: Christian A Kirk

Cardinal Photos: ☐ **Attendance:** ☒

Notes:

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Nashville (Lockeland School)	**AQS #:**	47-037-0023
Controller S/N:	3N-B0409	**POC:**	5
Sampler Module S/N:	3N-B0359	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0528	**Site Operator (s):**	Doc Rayford, Novelet Cox
Technician:	Dave Beichley	**Date:**	2/10/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 379	**Cal. Date:**	9/28/07
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	305598	**Cal. Date:**	1/13/09
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 379	**Cal. Date:**	9/28/07

GPS Latitude/Longitude: N 36º 10′ 34.7″ W 86º 44′ 20.1″

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1471	39	27.1	23.1	0.1	☒ / ☐
Barometric Pressure Calibration (As Left)	3297	5	748.7	749.0	1.7	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	609	529	80	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3236	19.87	19.33
22.00	3588	22.03	21.38
24.00	3947	24.23	23.42

New gain= 5.644 **, offset=** 0.62**, correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	21.91	22.09	-0.14	☒ / ☐

Auditor's Signature: Dave Beichley

Cardinal Photos: ☒ **Attendance:** ☒

Notes:

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Vancouver	**AQS #:**	53-011-0013
Controller S/N:	3N-B0349	**POC:**	5
Sampler Module S/N:	3N-B0413	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0411	**Site Operator (s):**	Jackie Brown
Technician:	Martin Valvur	**Date:**	2/25/09

Flow Transfer Standard Model:	TetraCal	**S/N:**	TC 422	**Cal. Date:**	8/28/08
Temperature Transfer Standard Model:	Eutechnics	**S/N:**	304019	**Cal. Date:**	
Barometric Pressure Transfer Standard Model:	TetraCal	**S/N:**	TC 422	**Cal. Date:**	8/28/08

GPS Latitude/Longitude: _____

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1346	31	11.3	11.3	0	☒ / ☐
Barometric Pressure Calibration (As Left)	3393	8	748.0	748.0	0	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	629	569	60	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3365	19.80	19.30
22.00	3750		21.22
24.00	4114	24.32	23.30

New gain= 5.374 **, offset=** 1.55**, correlation=** 0.999

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	22.05	22.14	0.02	☒ / ☐

Auditor's Signature: 

Cardinal Photos: ☒ **Attendance:** ☒

Notes:

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URG 3000N Carbon Sampler Installation/Calibration Form

Station:	Marysville	**AQS #:**	53-061-1007
Controller S/N:	3N-B0358	**POC:**	5
Sampler Module S/N:	3N-B0416	**Run Schedule:**	1/6
Pump Box S/N:	3N-B0402	**Site Operator (s):**	Antony Leo
Technician:	Martin Valvur	**Date:**	2/24/09

Flow Transfer Standard Model: TetraCal **S/N:** TC 501 **Cal. Date:** 8/8/08

Temperature Transfer Standard Model: Eutechnics **S/N:** 304019 **Cal. Date:** 1/30/09

Barometric Pressure Transfer Standard Model: TetraCal **S/N:** TC 501 **Cal. Date:** 8/8/08

GPS Latitude/Longitude: _____

	Raw	Offset	Sampler	Reference	Difference	Pass / Fail
Temp. Calibration (As Left)	1315	25	9.0	9.0	0	☒ / ☐
Barometric Pressure Calibration (As Left)	3322	5	754.0	754.0	0	☒ / ☐

	Max	Min	Diff		Pass / Fail
Leak Check Results:	407	219	188	mmHg in 35 seconds	☒ / ☐

Flow Rate Calibration

Set Point	Raw	Sampler Flow	Reference Flow
19.80	3322	19.81	19.02
22.00	3811	22.10	20.97
24.00	4195	24.31	23.01

New gain= 5.382, **offset=** 1.24, **correlation=** 1.000

Flow Rate Audit

Set Point	Sampler Flow	Reference Flow	Difference	Pass / Fail
22.00	22.02	21.93	0.09	☒ / ☐

Auditor's Signature: _____

Cardinal Photos: ☒ **Attendance:** ☒

Notes:

APPENDIX B

Site Photographs Ordered by AQS Number

AQS# 01-073-2003
Birmingham, Alabama

North

South

East

West

AQS# 01-089-0014
Huntsville, Alabama

North

South

East

West

Overall

AQS# 06-007-0002
Chico, California

North

South

East

West

Overall

AQS# 06-019-0008
Fresno, California

North

South

East

West

AQS# 06-025-0005
Calexico, California

North

South

East

West

AQS# 06-063-1009
Portola, California

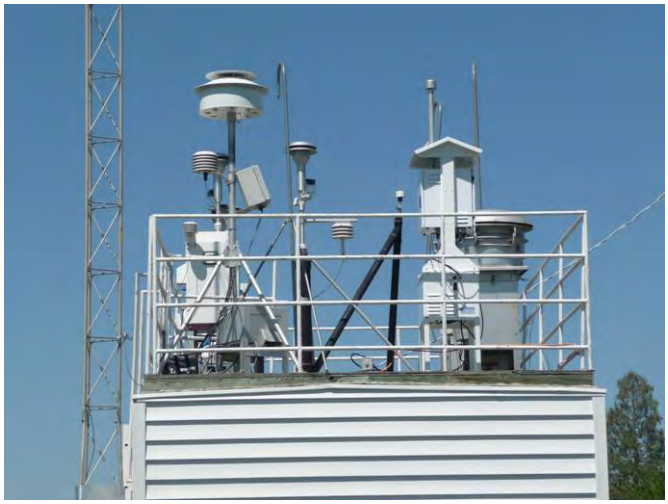
North

South

East

West

AQS# 06-067-0006
Sacramento, California (Del Paso Manor)



North

South

East

West

AQS# 06-067-0010
Sacramento, California (CARB)

South

East

West

AQS# 06-085-0005
San Jose, California

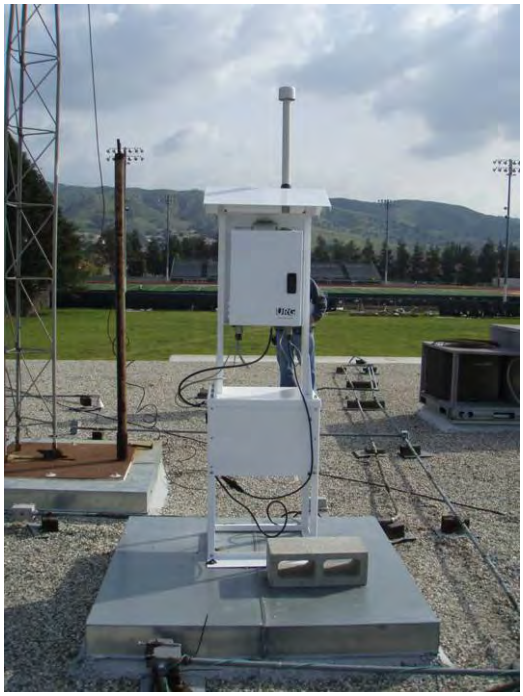
Northeast

South

East

AQS# 06-111-2002
Simi Valley, California

North



South

East

West

AQS# 08-077-0017
Grand Junction, Colorado

North

South

East

West

Overall

North

Northeast

Northwest

East

AQS# 12-011-1002
Davie, Florida

North

South

East

West

AQS# 12-057-3002
Tampa, Florida

North

South

East

West

AQS# 13-059-0001
Athens, Georgia

North

South

East

West

Overall

AQS# 13-089-0002
Atlanta, Georgia (South DeKalb)

North

South

East

Southwest

Overall

AQS# 13-245-0091
Augusta, Georgia

North

South

East

West

AQS# 13-295-0002
Rossville, Georgia

North

South

East

West

Overall

AQS# 19-113-0037
Cedar Rapids, Iowa

North

South

East

West

Overall

AQS# 19-163-0015
Davenport, Iowa

South

East

West

AQS# 24-033-0030
Beltsville, Maryland

North

South

East

West

Overall

AQS# 26-018-0020
Grand Rapids, Michigan

North

South

East

West

Overall

AQS# 26-091-0007
Tecumseh, Michigan

North

South

East

West

Overall

AQS# 26-113-0001
Houghton Lake, Michigan

North

South

East

West

AQS# 26-115-0005
Luna Pier, Michigan

North

South

East

West

AQS# 26-147-0005
Port Huron, Michigan

North

South

East

West

Overall

AQS# 26-163-0001
Allen Park, Michigan

North

South

East

West

Overall

AQS# 35-001-0023
Albuquerque, New Mexico

North

South

East

West

Overall

AQS# 37-119-0041
Charlotte, North Carolina

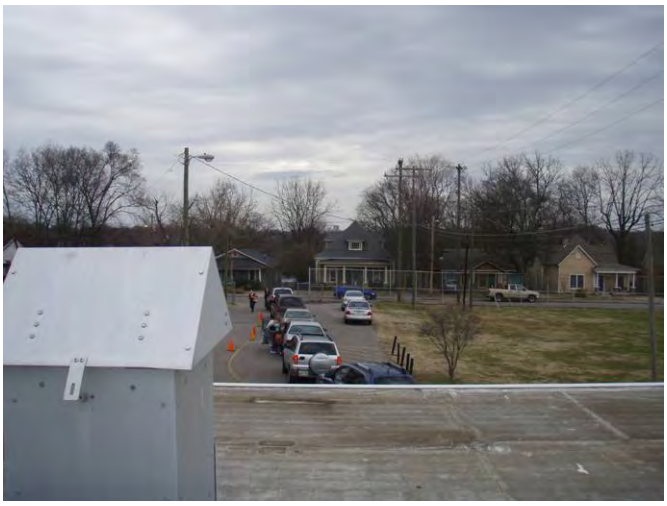
North

South

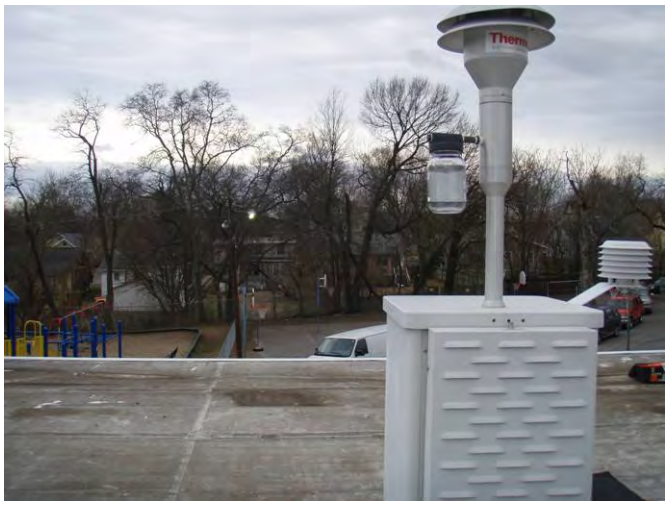
East

West

AQS# 47-037-0023
Nashville, Tennessee



North



South

East

West

Overall

AQS# 53-011-0013
Vancouver, Washington

North

South

East

West

Overall

AQS# 53-063-0016
Marysville, Washington

North

South

East

West

Overall

APPENDIX C

Property List for ARS-Install Sites Ordered by AQS Number

Property List for ARS-Install Sites Ordered by AQS Number

AQS Number	RTI Name (City Name)	State	Equipment
01-073-2003	Wylam (Birmingham)	AL	Controller: 3N-B0454 Module: 3N-B0449 Pump House: 3N-B0495 Flow Calibrator: TC5 S/N 352
01-089-0014	Huntsville Old Airport (Huntsville)	AL	Controller: 3N-B0442 Module: 3N-B0524 Pump House: 3N-B0483 Flow Calibrator: TC5 S/N 363
06-007-0002	CARB (Chico)	CA	Controller: 490 OR 439 Module: 3N-B0350 Pump House: 3N-B0423 Flow Calibrator: TC5 S/N 387
06-019-0008	First Street (Fresno)	CA	Controller: 3N-B0361 Module: 3N-B0347 Pump House: 3N-B0384 Flow Calibrator: TC5 S/N 386
06-025-0005	CARB (Calexico)	CA	Controller: 3N-B0346 Module: 3N-B0377 Pump House: 3N-B0360 Flow Calibrator: TC5 S/N 416
06-063-1009	CARB (Portola)	CA	Controller: 3N-B0439 Module: 3N-B0410 Pump House: 3N-B0378 Flow Calibrator: TC5 S/N 397
06-067-0006	Del Paso Manor (Sacramento)	CA	Controller: 3N-B0343 Module: 3N-B0344 Pump House: 3N-B0395 Flow Calibrator: TC5 S/N 374
06-067-0010	CARB (Sacramento)	CA	Controller: 490 OR 439 Module: 3N-B0422 Pump House: 3N-B0354 Flow Calibrator: TC5 S/N 414
06-085-0005	Jackson Street (San Jose)	CA	Controller: 3N-B0397 Module: 3N-B0482 Pump House: 3N-B0408 Flow Calibrator: TC5 S/N 393
06-111-2002	Simi Valley (Simi Valley)	CA	Controller: 3N-B0418 Module: 3N-B0431 Pump House: 3N-B0351 Flow Calibrator: NONE

Property List for ARS-Install Sites Ordered by AQS Number

AQS Number	RTI Name (City Name)	State	Equipment
08-077-0017	Powell Building (Phase II site) (Grand Junction)	CO	Controller: 3N-B0209 (Phase I equipment) Module: 3N-B0211 Pump House: 3N-B0165 Flow Calibrator: TC5 S/N 397
08-001-0006	Commerce City (Phase I site)	CO	Controller: 3N-B0484 (Phase II equipment) Module: 3N-B0452 Pump House: 3N-B0456 Flow Calibrator: NONE
08-123-0008	Platteville (Platteville)	CO	Controller: 3N-B0517 Module: 3N-B0479 Pump House: 3N-B0516 Flow Calibrator: NONE
10-001-0003	Dover (Dover)	DE	Controller: 3N-B0472 Module: 3N-B0476 Pump House: 3N-B0519 Flow Calibrator: NONE
12-011-1002	Univ. of Fla. Ag. School (Davie)	FL	Controller: 3N-B0580 Module: 3N-B0380 Pump House: 3N-B0366 Flow Calibrator: TC5 S/N 366
12-057-3002	Sydney (Tampa)	FL	Controller: 3N-B0502 Module: 3N-B0356 Pump House: 3N-B0372 Flow Calibrator: TC5 S/N 425
13-059-0001	Food Science Bldg. (Athens)	GA	Controller: 3N-B0508 Module: 3N-B0488 Pump House: 3N-B0438 Flow Calibrator: TC5 S/N 360
13-069-0002	General Coffee State Park (Nicholls)	GA	Controller: 3N-B0406 Module: 3N-B0434 Pump House: 3N-B0429 Flow Calibrator: TC5 S/N 384
13-089-0002	South Dekalb (Atlanta)	GA	Controller: 3N-B0436 Module: 3N-B0521 Pump House: 3N-B0462 Flow Calibrator: TC5 S/N 362
13-245-0091	Augusta (Augusta)	GA	Controller: 3N-B0376 Module: 3N-B0398 Pump House: 3N-B0435 Flow Calibrator: TC5 S/N 385

Property List for ARS-Install Sites Ordered by AQS Number

AQS Number	RTI Name (City Name)	State	Equipment
13-115-0005	Rossville (Rossville)	GA	Controller: 3N-B0475 Module: 3N-B0473 Pump House: 3N-B0510 Flow Calibrator: TC5 S/N 372
18-163-0012	Mill Road Firestation #17 (Evansville)	IN	Controller: 3N-B0526 Module: 3N-B0497 Pump House: 3N-B0468 Flow Calibrator: TC5 S/N 357
19-113-0037	Army Reserve Center (Cedar Rapids)	IA	Controller: 3N-B0364 Module: 3N-B0392 Pump House: 3N-B0417 Flow Calibrator: TC5 S/N 389
19-153-0030	Public Health Building (Des Moines)	IA	Controller: 3N-B0430 Module: 3N-B0404 Pump House: 3N-B0390 Flow Calibrator: TC5 S/N 400
19-163-0015	Jefferson Elementary (Davenport)	IA	Controller: 3N-B0394 Module: 3N-B0395 Pump House: 3N-B0399 Flow Calibrator: TC5 S/N 388
21-043-0500	Grayson Lake (Frankfort)	KY	Controller: 3N-B0520 Module: 3N-B0515 Pump House: 3N-B0387 Flow Calibrator: TC5 S/N 367
21-067-0012	Lexington Health Department (Lexington)	KY	Controller: 3N-B0478 Module: 3N-B0440 Pump House: 3N-B0375 Flow Calibrator: TC5 S/N 373
24-033-0030	HU-Beltsville (Beltsville)	MD	Controller: 3N-B0487 Module: 3N-B0443 Pump House: 3N-B0525 Flow Calibrator: TC5 S/N 361
26-081-0020	Grand Rapids (Grand Rapids)	MI	Controller: 3N-B0391 Module: 3N-B0365 Pump House: 3N-B0363 Flow Calibrator: TC5 S/N 418
26-091-0007	Tecumseh (Tecumseh)	MI	Controller: 3N-B0370 Module: 3N-B0401 Pump House: 3N-B0432 Flow Calibrator: TC5 S/N 391

Property List for ARS-Install Sites Ordered by AQS Number

AQS Number	RTI Name (City Name)	State	Equipment
26-113-0001	Houghton Lake (Houghton Lake)	MI	Controller: 3N-B0421 Module: 3N-B0455 Pump House: 3N-B0420 Flow Calibrator: TC5 S/N 421
26-115-0005	Luna Pier (Luna Pier)	MI	Controller: 3N-B0388 Module: 3N-B0383 Pump House: 3N-B0405 Flow Calibrator: TC5 S/N 419
26-147-0005	Port Huron (Port Huron)	MI	Controller: 3N-B0415 Module: 3N-B0362 Pump House: 3N-B0381 Flow Calibrator: TC5 S/N 420
26-163-0001	Allen Park (Allen Park)	MI	Controller: 3N-B0424 Module: 3N-B0368 Pump House: 3N-B0357 Flow Calibrator: TC5 S/N 390
35-001-0023	Del Norte High School (Albuquerque)	NM	Controller: 3N-B0412 Module: 3N-B0353 Pump House: 3N-B0477 Flow Calibrator: TC5 S/N 371
37-119-0041	Garinger High School (Charlotte)	NC	Controller: 3N-B0400 Module: 3N-B0428 Pump House: 3N-B0348 Flow Calibrator: TC5 S/N 365
39-087-0012	ODOT (Portsmouth)	OH	Controller:3N-B0433 Module: 3N-B0371 Pump House: 3N-B0474 Flow Calibrator: TC5 S/N 378
41-029-0133	OR DEQ (Medford)	OR	Controller: 3N-B0352 Module: 3N-B0464 Pump House: 3N-B0414 Flow Calibrator: TC5 S/N 423
41-035-0004	Peterson School (Klamath Falls)	OR	Controller: 3N-B0379 Module: 3N-B0425 Pump House: 3N-B0396 Flow Calibrator: TC5 S/N 424
41-039-0060	Lane County Regional Air Pollution Authority (Eugene)	OR	Controller: 3N-B0403 Module: 3N-B0386 Pump House: 3N-B0396 Flow Calibrator: TC5 S/N 426

Property List for ARS-Install Sites Ordered by AQS Number

AQS Number	RTI Name (City Name)	State	Equipment
44-007-0022	Urban League (Providence)	RI	Controller: 3N-B0511 Module: 3N-B0509 Pump House: 3N-B0450 Flow Calibrator: TC5 S/N 370
47-037-0023	Lockeland School (Nashville)	TN	Controller: 3N-B0409 Module: 3N-B0359 Pump House: 3N-B0528 Flow Calibrator: TC5 S/N 379
53-011-0013	Vancouver (Vancouver)	WA	Controller: 3N-B0349 Module: 3N-B0413 Pump House: 3N-B0411 Flow Calibrator: TC5 S/N 422
53-061-1007	Crown Z (Marysville)	WA	Controller: 3N-B0358 Module: 3N-B0416 Pump House: 3N-B0402 Flow Calibrator: TC5 S/N 401
ARS Office	Fort Collins	CO	Flow Calibrators: S/Ns 396, 390, 415

APPENDIX D

Property List for Self-Install Sites Ordered by AQS Number

Property List for Self-Install Sites Ordered by AQS Number

AQS Number	RTI Name (City Name)	State	Equipment
01-101-1002	MOMS (Montgomery)	AL	Controller: 3N-B0382 Module: 3N-B0407 Pump House: 3N-B0453 Flow Calibrator: TC5 S/N 354
18-037-2001	Jasper Post Office (Jasper)	IN	Controller: 3N-B0448 Module: 3N-B0374 Pump House: 3N-B0504 Flow Calibrator: TC5 S/N 364
18-039-0003	Elkhart Pierre Moran School (Elkhart)	IN	Controller: 3N-B0496 Module: 3N-B0485 Pump House: 3N-B0486 Flow Calibrator: TC5 S/N 347
18-065-0003	Shenandoah High School (Middletown)	IN	Controller: 3N-B0493 Module: 3N-B0527 Pump House: 3N-B0498 Flow Calibrator: TC5 S/N 351
22-015-0008	Shreveport Airport (Shreveport)	LA	Controller: 3N-B0373 Module: 3N-B0389 Pump House: 3N-B0369 Flow Calibrator: TC5 S/N 412
22-033-0009	Capitol (Baton Rouge)	LA	Controller: 3N-B0355 Module: 3N-B0419 Pump House: 3N-B0393 Flow Calibrator: TC5 S/N 394
29-047-0005	Liberty (Liberty)	MO	Controller: 3N-B0505 Module: 3N-B0506 Pump House: 3N-B0522 Flow Calibrator: TC5 S/N 377
29-099-0012	Arnold R&P (Arnold)	MO	Controller: 3N-B0457 Module: 3N-B0446 Pump House: 3N-B0480 Flow Calibrator: TC5 S/N 379
36-001-0005	Albany County Healt Dept. (Albany)	NY	Controller: 3N-B0490 Module: 3N-B0491 Pump House: 3N-B0447 Flow Calibrator: TC5 S/N 349

Property List for Self-Install Sites Ordered by AQS Number

AQS Number	RTI Name (City Name)	State	Equipment
36-029-0005	Buffalo (Buffalo)	NY	Controller: 3N-B0460 Module: 3N-B0494 Pump House: 3N-B0501 Flow Calibrator: TC5 S/N 350
36-031-0003	Whiteface Mountain (Whiteface Mountain) (Not in a city)	NY	Controller: 3N-B0469 Module: 3N-B0512 Pump House: 3N-B0492 Flow Calibrator: TC5 S/N 359
36-055-1007	Rochester Primary (Rochester)	NY	Controller: 3N-B0499 Module: 3N-B0503 Pump House: 3N-B0444 Flow Calibrator: TC5 S/N 358
36-081-0124	Queens College (New York)	NY	Controller: 3N-B0466 Module: 3N-B0470 Pump House: 3N-B0507 Flow Calibrator: TC5 S/N 427
36-101-0003	Pinnacle State Park (Pinnacle State Park) (Not in a city)	NY	Controller: 3N-B0481 Module: 3N-B0461 Pump House: 3N-B0459 Flow Calibrator: TC5 S/N 348
48-113-0069	Dallas Hinton (Dallas)	TX	Controller: 3N-B0523 Module: 3N-B0500 Pump House: 3N-B0513 Flow Calibrator: TC5 S/N 368
48-141-0044	Chamizal (El Paso)	TX	Controller: 3N-B0385 Module: 3N-B0437 Pump House: 3N-B0465 Flow Calibrator: TC5 S/N 376
48-201-1039	Deer Park 1 - Collocated (Deer Park)	TX	Controller: 3N-B0445 Module: 3N-B0518 Pump House: 3N-B0471 Flow Calibrator: TC5 S/N 369
48-201-1039	Deer Park 2 - Collocated (Deer Park)	TX	Controller: 3N-B0514 Module: 3N-B0498 Pump House: 3N-B0489 Flow Calibrator: NONE
48-203-0002	Carnac (Carnac)	TX	Controller: 3N-B0451 Module: 3N-B0467 Pump House: 3N-B0441 Flow Calibrator: NONE

APPENDIX E

Master Contact List Ordered by Install-Group Number

Phase II CSN Carbon Master Contact List
Ordered by Install Group Number

Install Group	Region	Scheduled Install Date	State	Controller/Module/ Pump House/ Flow Calibrator	SiteID/Site Location	City Name/RTI Name, EPA Schedule, & POC	Shipping Address	Contact Name(s)	Contact Phone(s)	Contact E-mail(s)
1	10	2/26/2009 shipped 2/19	OR	Controller: 3N-B0352 Module: 3N-B0464 Pump House: 3N-B0414 Flow Calibrator: TC5 S/N 423 Flow Calibrator: TC5 S/N 413	41-029-0133	Medford 902 Grant Ave. Medford, OR SCHED: POC:5	OR DEQ Laboratory 3150 NW 229th Ave. Suite 150 Hillsboro, OR 97124-6536	Christopher McGarry	503-693-5715	McGarry.Christopher@deq.state.or.us
1	10	2/26/2009	OR	Controller: 3N-B0379 Module: 3N-B0425 Pump House: 3N-B0396 Flow Calibrator: TC5 S/N 424	41-035-0004	Klamath Falls/Peterson School 4856 Clinton St. Klamath Falls, OR SCHED: POC:5	OR DEQ Laboratory 3150 NW 229th Ave. Suite 150 Hillsboro, OR 97124-6536	Christopher McGarry	503-693-5715	McGarry.Christopher@deq.state.or.us
1	10	2/26/2009	OR	Controller: 3N-B0403 Module: 3N-B0386 Pump House: 3N-B0396 Flow Calibrator: TC5 S/N 426	41-039-0060	Eugene/Lane County Regional Air Poll. Auth. Amazon Park/499 E. 29th Eugene, OR SCHED: POC:5	OR DEQ Laboratory 3150 NW 229th Ave. Suite 150 Hillsboro, OR 97124-6536	Christopher McGarry	503-693-5715	McGarry.Christopher@deq.state.or.us
1	10	2/25/2009	WA	Controller: 3N-B0349 Module: 3N-B0413 Pump House: 3N-B0411 Flow Calibrator: TC5 S/N 422	53-011-0013	Vancouver 8205 NE 4th Plain Rd. Vancouver, WA SCHED: POC:5	Dept. of Ecology 3190 160th Ave. SE Bellevue, WA 98008 ATTN: John Williamson	Jackie Brown (site operator) John Williamson	 425-649-7118	jackie@swcleanair.org jwil461@ecy.wa.gov
1	10	2/24/2009	WA	Controller: 3N-B0358 Module: 3N-B0416 Pump House: 3N-B0402 Flow Calibrator: TC5 S/N 401 Spare Cont: 3N-B0421 Spare Mod: 3N-B0499	53-061-1007	Marysville-7th Ave. 1605 7th St. Marysville, WA SCHED: POC:5	Dept. of Ecology 3190 160th Ave. SE Bellevue, WA 98008 ATTN: John Williamson	Anthony Leo(site operator) John Williamson	 425-649-7118	aleo461@ecy.wa.gov jwil461@ecy.wa.gov
2	9	3/30/2009	CA	Controller: 490 OR 439 Module: 3N-B0350 Pump House: 3N-B0423 Flow Calibrator: TC5 S/N 387	06-007-0002	CARB 468 Manzanita Ave., Suite #10 Chico, CA 95926 SCHED: POC:5	CARB 468 Manzanita Ave., Suite #10 Chico, CA 95926 ATTN: Bob Land	Bob Land	530-895-5156	rland@arb.ca.gov NOTE: SHIPPED MEMORY CARDS AND CASSETTES TO SAMANTHA SCOLA AT CALIFORNIA AIR RESOURCES BOARD 1927 13TH ST., SACRAMENTO, CA 95811 ON 3/10/09
2	9	3/30/2009	CA	Controller: 3N-B0361 Module: 3N-B0347 Pump House: 3N-B0384 Flow Calibrator: TC5 S/N 386	06-019-0008	CARB 3425 N. First St. Suite 205b Fresno, CA 93726 SCHED: POC:5	CARB 3425 N. First St. Suite 205b Fresno, CA 93726 ATTN: Patrick Seames	Patrick Seames Joe Guerrero	559-228-1825	pseames@arb.ca.gov jguerrero@arb.ca.gov
2	9	3/31/2009	CA	Controller: 3N-B0439 Module: 3N-B0410 Pump House: 3N-B0378 Flow Calibrator: TC5 S/N 397	06-063-1009	CARB 161 Nevada St. Portola, CA SCHED: POC:5	Northern Sierra APCD 270 County Hospital Rd. Ste. 127 Quincy, CA 95971 ATTN: George Ozanich	George Ozanich	530-283-4654	george@myaivdistrict.com

Phase II CSN Carbon Master Contact List
Ordered by Install Group Number

Install Group	Region	Scheduled Install Date	State	Controller/Module/ Pump House/ Flow Calibrator	SiteID/Site Location	City Name/RTI Name, EPA Schedule, & POC	Shipping Address	Contact Name(s)	Contact Phone(s)	Contact E-mail(s)
2	9	4/2/2009	CA	Controller: 3N-B0343 Module: 3N-B0344 Pump House: 3N-B0395 Flow Calibrator: TC5 S/N 374	06-067-0006	Del Paso Manor 2701 Avalon Dr. Sacramento, CA SCHED: POC:5	Sacramento Metropolitan AQMD 777 12th St., 3rd Floor Sacramento, CA 95814-1908 ATTN: John Ching	John Ching Jaspreet Gosal (Site Op)	916-874-4839 916-874-4899 fax 916-874-4841 916-531-0015 cell	jching@airquality.org jgosal@airquality.org
2	9	4/2/2009	CA	Controller: 490 OR 439 Module: 3N-B0422 Pump House: 3N-B0354 Flow Calibrator: TC5 S/N 414	06-067-0010	CARB 1309 T St. Sacramento, CA SCHED: POC:5	CARB 1927 13th St. Sacramento, CA 95811	Steve Aston Megan McKay	916-327-4724 916-327-0885	saston@arb.ca.gov mmckay@arb.ca.gov
2	9	4/1/2009	CA	Controller: 3N-B0397 Module: 3N-B0482 Pump House: 3N-B0408 Flow Calibrator: TC5 S/N 393	06-085-0005	BAAQMD 158 Jackson Street, Suite B San Jose, CA 95112 SCHED: POC:5	BAAQMD 158 Jackson Street, Suite B San Jose, CA 95112 ATTN: George Stuckert	George Stuckert	408-295-0692	gstuckert@baaqmd.gov
3	9	3/2/2009	CA	Controller: 3N-B0346 Module: 3N-B0377 Pump House: 3N-B0360 Flow Calibrator: TC5 S/N 416	06-025-0005	Calexico/CARB SCHED: POC:5	CARB 1029 Ethel St. Calexico, CA 92231	Tony Royer	760-768-0132	troyer@arb.ca.gov
3	9	3/3/2009	CA	Controller: 3N-B0418 Module: 3N-B0431 Pump House: 3N-B0351 Flow Calibrator: NONE	06-111-2002	Simi Valley 5400 Cochran St. Simi Valley, CA SCHED: POC: 5	Ventura 669 County Square Dr. Ventura, CA 93003	Jim McElroy Andy Brown	805-662-6979 805-662-6979	jimm@vcapcd.org
3	6	shipped 1/6/2009 shipped 2/13/2009	NM	Controller: 3N-B0412 Module: 3N-B0353 Pump House: 3N-B0477 Flow Calibrator: TC5 S/N 371 Controller: 3N-B0367	35-001-0023	Albuquerque/Del Norte HS 4700 San Mateo NE Albuquerque, NM SCHED: POC:5	City of Albuquerque Environmental Health Dept. 11850 Sunset Gardens SW Albuquerque, NM 87121 ATTN: Dwayne Salisbury	Fabian Macias Dwayne Salisbury	505-768-1969 505-768-1973 fax 505-768-1966 505-768-1977 fax	fmacias@cabq.gov dsalisbury@cabq.gov
4	7	3/6/2009	IA	Controller: 3N-B0364 Module: 3N-B0392 Pump House: 3N-B0417 Flow Calibrator: TC5 S/N 389 Controller: 3N-B0397 Module: 3N-B0347	19-113-0037	Cedar Rapids/Army Reserve Center 1599 Wenig Rd. NE Cedar Rapids, IA SCHED: POC:5	Linn County Public Health Dept 501 13th St. NW Cedar Rapids, IA 52405 ATTN: Kyle Lundberg	Kyle Lundberg David Burns	319-892-6040 319-521-3068 cell 319-521-3080 cell	Kyle.Lundberg@linncounty.org
4	7	3/9/2009	IA	Controller: 3N-B0430 Module: 3N-B0404 Pump House: 3N-B0390 Flow Calibrator: TC5 S/N 400	19-153-0030	Des Moines/Public Health Building 1907 Carpenter Des Moines, IA SCHED: POC:5	Polk County Air Quality 5885 NE 14th St. Des Moines, IA 50313	Chad Hines	515-286-3524	

Phase II CSN Carbon Master Contact List
Ordered by Install Group Number

Install Group	Region	Scheduled Install Date	State	Controller/Module/ Pump House/ Flow Calibrator	SiteID/Site Location	City Name/RTI Name, EPA Schedule, & POC	Shipping Address	Contact Name(s)	Contact Phone(s)	Contact E-mail(s)
4	**7**	3/5/2009	IA	Controller: 3N-B0394 Module: 3N-B0395 Pump House: 3N-B0399 Flow Calibrator: TC5 S/N 388	19-163-0015	Davenport/Jefferson Elementary 10 St. & Vine St. Davenport, IA SCHED: POC:5	University Hygenic Lab 102 Oakdale Campus H10108 Iowa City, IA 52242	Sean Fitzsimmons, PhD	515-281-8923	Sean.Fitzsimmons@dnr.state.ia.us
5	**5**	3/6/2008	MI	Controller: 3N-B0391 Module: 3N-B0365 Pump House: 3N-B0363 Flow Calibrator: TC5 S/N 418	26-081-0020	Grand Rapids 1179 Monrow NW Grand Rapids, MI SCHED: POC:5	Michigan Department of Environmental Quality 815 Filley St. Lansing, MI 48906 ATTN: Eric Hansen	Bill Endres Dan Ling (call to set up install date)	616-456-3158 517-204-1707 cell	None given lingd@michigan.gov
5	**5**	3/2/2008	MI	Controller: 3N-B0370 Module: 3N-B0401 Pump House: 3N-B0432 Flow Calibrator: TC5 S/N 391	26-091-0007	Tecumseh 6792 Raisin Center Highway Tecumseh, MI SCHED: POC:5	Michigan Department of Environmental Quality 815 Filley St. Lansing, MI 48906 ATTN: Eric Hansen	Matthew Nowak Dan Ling (call to set up install date)	313-790-4898 517-204-1707 cell	nowakmr@michican.gov lingd@michigan.gov
5	**5**	3/5/2008	MI	Controller: 3N-B0421 Module: 3N-B0455 Pump House: 3N-B0420 Flow Calibrator: TC5 S/N 421	26-113-0001	Lansing/Houghton Lake 1769 S. Jeffs Rd. Houghton Lake, MI SCHED: POC:5	Michigan Department of Environmental Quality 815 Filley St. Lansing, MI 48906 ATTN: Eric Hansen	Eric Hansen Dan Ling (call to set up install date)	616-456-3158 517-204-1707 cell	hansen@michigan.gov lingd@michigan.gov
5	**5**	3/2/2008	MI	Controller: 3N-B0388 Module: 3N-B0383 Pump House: 3N-B0405 Flow Calibrator: TC5 S/N 419	26-115-0005	Luna Pier 3229 East Dean Rd. Luna Pier, MI SCHED: POC:5	Michigan Department of Environmental Quality 815 Filley St. Lansing, MI 48906 ATTN: Eric Hansen	Matthew Nowak Dan Ling (call to set up install date)	313-790-4898 517-204-1707 cell	nowakmr@michican.gov lingd@michigan.gov
5	**5**	3/4/2008 shipped 4/9/09	MI	Controller: 3N-B0415 Module: 3N-B0362 Pump House: 3N-B0381 Flow Calibrator: TC5 S/N 420 Flow Calibrator: TC5 S/N 399	26-147-0005	Port Huron 2525 Dove Rd. Port Huron, MI SCHED: POC:5	Michigan Department of Environmental Quality 815 Filley St. Lansing, MI 48906 ATTN: Eric Hansen	Bryan Lomerson Dan Ling (call to set up install date)	734-891-0164 517-204-1707 cell	LomersonB@michigan.gov lingd@michigan.gov
5	**5**	3/3/2008	MI	Controller: 3N-B0424 Module: 3N-B0368 Pump House: 3N-B0357 Flow Calibrator: TC5 S/N 390	26-163-0001	Allen Park 14700 Goddard Allen Park, MI SCHED: POC:5	Michigan Department of Environmental Quality 815 Filley St. Lansing, MI 48906 ATTN: Eric Hansen	Matthew Nowak Dan Ling (call to set up install date)	313-790-4898 517-204-1707 cell	nowakmr@michican.gov lingd@michigan.gov
6	**6**	1/16/2009	AL	Controller: 3N-B0454 Module: 3N-B0449 Pump House: 3N-B0495 Flow Calibrator: TC5 S/N 352	01-073-2003	Wylam 1242 Jersey St. Wylam, AL SCHED: POC:5	Jefferson County DOH 401 14th St. South Room L205 Birmingham, AL 35233	Randy Dillard	205-930-1281 205-960-7817 cell	randy.dillard@jchd.org

Phase II CSN Carbon Master Contact List
Ordered by Install Group Number

Install Group	Region	Scheduled Install Date	State	Controller/Module/ Pump House/ Flow Calibrator	SiteID/Site Location	City Name/RTI Name, EPA Schedule, & POC	Shipping Address	Contact Name(s)	Contact Phone(s)	Contact E-mail(s)
6	4	1/15/2009	AL	Controller: 3N-B0442 Module: 3N-B0524 Pump House: 3N-B0483 Flow Calibrator: TC5 S/N 363	01-089-0014	Huntsville 2201 Airport Rd. Huntsville, AL SCHED: POC:5	City of Huntsville Natural Resources & Environmental Mgmt 320 Fountain Circle Huntsville, AL 35801	Debra Hopson	256-427-5760	Debra.Hopson@hsvcity.com
6	4	1/13/2009	GA	Controller: 3N-B0508 Module: 3N-B0488 Pump House: 3N-B0438 Flow Calibrator: TC5 S/N 360	13-059-0001	Athens/Food Science Bldg Univ. of Georgia Athens, GA SCHED: POC:5	Georgia Dept. of Natural Resources 235 Ansley Drive Athens, GA 30605	Ken Buckley Jane Wightman	404-362-2738 706-247-4362	Ken.Buckley@dnr.state.ga.us None given
6	4	1/12/2009	GA	Controller: 3N-B0436 Module: 3N-B0521 Pump House: 3N-B0462 Flow Calibrator: TC5 S/N 362	13-089-0002	Atlanta/South Dekalb SCHED: POC:5	Georgia Dept. of Natural Resources 4244 International Pky. Suite 120 Atlanta, GA 30354	Ken Buckley Lawrence Wallace	404-362-2738 678-427-4580	Ken.Buckley@dnr.state.ga.us None given
6	4	1/14/2009	GA	Controller: 3N-B0475 Module: 3N-B0473 Pump House: 3N-B0510 Flow Calibrator: TC5 S/N 372	13-115-0005	Rossville Site 601 Maple St. Lot #7 Rossville, GA 30741 SCHED: POC:5	Georgia Dept. of Natural Resources 1068 Barker Rd. SW Rome, GA 30165	Ken Buckley Jim Harris	404-362-2738 706-235-0566	Ken.Buckley@dnr.state.ga.us None given
7	4	2/23/2009	FL	Controller: 3N-B0580 Module: 3N-B0380 Pump House: 3N-B0366 Flow Calibrator: TC5 S/N 366 Spare Cont.: 3N-B0397 Spare Mod: 3N-B0347	12-011-1002	Davie /Univ. of Fla. Ag. School 3205 SW 70th Ave. Davie, FL SCHED: POC:5	Broward County EPD Air Quality Div. 3211 College Avenue Davie, FL 33314	Monica Pognon Ila Perkins	954-519-1476 954-290-6753 cell 954-519-1293 954-914-1825 cell	mpognon@broward.org iperkins@broward.org
7	4	2/24/2009	FL	Controller: 3N-B0502 Module: 3N-B0356 Pump House: 3N-B0372 Flow Calibrator: TC5 S/N 425	12-057-3002	Tampa/Sydney 1167 N. Dover Rd. Tampa, FL SCHED: POC:5	Air Management Division EPC of HC Roger P. Stewart Center 3629 Queen Palm Drive Tampa, FL 33619-1309	Tom Tamanini	813-627-2600x1256	Tamanini@epchc.org
7	4	2/25/2009	GA	Controller: 3N-B0406 Module: 3N-B0434 Pump House: 3N-B0429 Flow Calibrator: TC5 S/N 384	13-069-0002	General Coffee State Park 46 John Coffee Road Nicholls, GA 31554 SCHED: POC:5	Robert Buice 216 W. Palm St. Fitzgerald, GA 31750	Robert Buice(operator) (shipping to Robert's home address) Ken Buckley	229-423-9959 404-362-2738	None given Ken.Buckley@dnr.state.ga.us
7	4	2/26/2009	GA	Controller: 3N-B0376 Module: 3N-B0398 Pump House: 3N-B0435 Flow Calibrator: TC5 S/N 385	13-245-0091	Augusta 2216 Bungalow Rd. Augusta, GA 30906 SCHED: POC:5	Jeffery Williams 402 Normandy Pl. Augusta, GA 30909	Jeffery Williams (operator) (shipping to Jeffery's home address) Ken Buckley	404-281-3085 404-362-2738	None given Ken.Buckley@dnr.state.ga.us

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Install Group	Region	Scheduled Install Date	State	Controller/Module/ Pump House/ Flow Calibrator	SiteID/Site Location	City Name/RTI Name, EPA Schedule, & POC	Shipping Address	Contact Name(s)	Contact Phone(s)	Contact E-mail(s)
7	4	2/27/2009	NC	Controller: 3N-B0400 Module: 3N-B0428 Pump House: 3N-B0348 Flow Calibrator: TC5 S/N 365	37-119-0041	Charlotte/Garinger High School 1130 Eastway Dr. Charlotte, NC SCHED: POC:5	Mecklenburg County Air Quality 700 N. Tryon St., Ste. 205 Charlotte, NC 28202	Jeff Francis	704-336-5462 980-721-2042	Jeff.Francis@mecklenburgcountync.gov
8	3	1/13/2009	DE	Controller: 3N-B0472 Module: 3N-B0476 Pump House: 3N-B0519 Flow Calibrator: NONE	10-001-0003	Dover Water St. Dover, DE SCHED: POC:5	DNREC-Air Quality Mgmt. 715 Grantham Lane New Castle, DE 19720	Joe Martini	302-323-4542	joseph.martini@state.de.us
8	3	1/12/2009	MD	Controller: 3N-B0487 Module: 3N-B0443 Pump House: 3N-B0525 Flow Calibrator: TC5 S/N 361	24-033-0030	Beltsville/HU-Beltsville Howard University's Beltsville Laboratory, 12003 Old Baltimore Pkwy, Beltsville, MD SCHED: POC:5	Maryland Dept. of Env. 1800 Washington Blvd. Beltsville, MD 21230	Ryan Auvil	410-537-3961	rauvil@mde.state.md.us
8	1	1/14/2009	RI	Controller: 3N-B0511 Module: 3N-B0509 Pump House: 3N-B0450 Flow Calibrator: TC5 S/N 370	44-007-0022	Providence/Urban League 212 Prairie Ave. Providence, RI SCHED: POC:5	Rhode Island Dept. of Health Lab 50 Orms St. Providence, RI 02904	Roy Heaton	401-222-5550	roy.heaton@health.ri.gov
9	4	2/12/2009	KY	Controller: 3N-B0520 Module: 3N-B0515 Pump House: 3N-B0387 Flow Calibrator: TC5 S/N 367	21-043-0500	Grayson Lake Camp Webb Grayson Lake, KY SCHED: POC:5	Dept. of Energy & Env. Prot. 200 Fair Oaks Lane Frankfort, KY 40601	Andrea Keatley	502-564-3999	Andrea.Keatley@ky.gov
9	4	2/11/2009	KY	Controller: 3N-B0478 Module: 3N-B0440 Pump House: 3N-B0375 Flow Calibrator: TC5 S/N 373 Spare Cont: 3N-B0388 Spare Mod: 3N-B0362	21-067-0012	Frankfort/ Lexington Health Department 650 Newtown Pike Lexington, KY SCHED: POC:5	Dept. of Energy & Env. Prot. 200 Fair Oaks Lane Frankfort, KY 40601	Andrea Keatley	502-564-3999	Andrea.Keatley@ky.gov
9	5	2/13/2009	OH	Controller:3N-B0433 Module: 3N-B0371 Pump House: 3N-B0474 Flow Calibrator: TC5 S/N 378	39-087-0012	Ironton, OH 450 Commerce Drive Ironton, OH SCHED: POC:5	Portsmouth Local Air Agency 605 Washington St. Portsmouth, OH 45662 ATTN: D. Pennington	Darrell Pennington	740-353-5156x306	Darrell_Pennington@epa.state.oh.us
9	4	2/10/2009	TN	Controller: 3N-B0409 Module: 3N-B0359 Pump House: 3N-B0528 Flow Calibrator: TC5 S/N 379	47-037-0023	Nashville/Lockeland School 105 S. 17th St. Nashville, TN SCHED: POC:5	Metro Public Health Dept. 311 23rd Ave. N. Nashville, TN 37203	Rob Raney	615-340-5653	Rob.Raney@nashville.gov

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10	**8**	3/19/2009	CO	Controller: Module: Pump House: Flow Calibrator: (Phase I Sampler)	08-077-0017	Powell Building 650 South Ave. Grand Junction, CO SCHED: POC:5	Bradley Rink 4300 Cherry Creek Dr. S. APCD-TS-B1 Denver, CO 80246-1530	Bradley Rink	303-692-3225 303-913-3583 cell	bradley.rink@state.co.us
10	**8**	3/4/2009	CO	Controller: 3N-B0517 Module: 3N-B0479 Pump House: 3N-B0516	08-123-0008	Platteville 1004 Main St. Platteville, CO SCHED: POC:5	Bradley Rink 4300 Cherry Creek Dr. S. APCD-TS-B1 Denver, CO 80246-1530	Bradley Rink	303-692-3225 303-913-3583 cell	bradley.rink@state.co.us
Self-Install	**4**	shipped 12/2/2008	AL	Controller: 3N-B0382 Module: 3N-B0407 Pump House: 3N-B0453 Flow Calibrator: TC5 S/N 354	01-101-1002	Montgomery/MOMS Division 1350 Coliseum Blvd. Montgomery, AL 36110-2059 SCHED: POC:5	ADEM - Field Operations Division 1350 Coliseum Blvd. Montgomery, AL 36110-2059	Michael Malaier	334-260-2747	mml@adem.state.al.us
Self-Install	**5**	shipped 12/4/2008	IN	Controller: 3N-B0448 Module: 3N-B0374 Pump House: 3N-B0504 Flow Calibrator: TC5 S/N 364	18-037-2001	Jasper/Jasper Post Office 200 W. 6th St. Jasper, IN SCHED: POC:5	Dept. of Environmental Management 2525 N. Shadeland Ave. Bldg. 21, Suite 100 Indianapolis, IN 46219	John Wicker	317-308-3257	JWICKER@idem.IN.gov
Self-Install	**5**	shipped 12/5/2008	IN	Controller: 3N-B0496 Module: 3N-B0485 Pump House: 3N-B0486 Flow Calibrator: TC5 S/N 347	18-039-0003	Elkhart/ Elkhart Pierre Moran School 200 W. Lusher Ave. Elkhart, IN SCHED: POC:5	Dept. of Environmental Management 2525 N. Shadeland Ave. Bldg. 21, Suite 100 Indianapolis, IN 46219	John Wicker	317-308-3257	JWICKER@idem.IN.gov
Self-Install	**5**	shipped 12/5/2008	IN	Controller: 3N-B0493 Module: 3N-B0527 Pump House: 3N-B0498 Flow Calibrator: TC5 S/N 351	18-065-0003	Middletown/Shenandoah High School 7354 W. US 36 Middletown, IN SCHED: POC:5	Dept. of Environmental Management 2525 N. Shadeland Ave. Bldg. 21, Suite 100 Indianapolis, IN 46219	John Wicker	317-308-3257	JWICKER@idem.IN.gov
Self-Install	**5**	shipped 12/5/2008	IN	Controller: 3N-B0526 Module: 3N-B0497 Pump House: 3N-B0468 Flow Calibrator: TC5 S/N 357	18-163-0012	Evansville/Mill Road 425 West Mill Rd./ Firestation #17 Evansville, IN SCHED: POC:5	Dept. of Environmental Management 2525 N. Shadeland Ave. Bldg. 21, Suite 100 Indianapolis, IN 46219	John Wicker	317-308-3257	JWICKER@idem.IN.gov
Self-Install	**6**	shipped 2/12/2009	LA	Controller: 3N-B0373 Module: 3N-B0389 Pump House: 3N-B0369 Flow Calibrator: TC5 S/N 412	22-015-0008	Shreveport Airport 1425 Airport Drive Shreveport, LA SCHED: POC:5	LADEQ 1525 Fairfield, Room 520 Shreveport, LA 71101-4388 ATTN: Joel Harris	Joel Harris	318-676-7781	joel.harris@la.gov

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Self-Install	**6**	shipped 2/12/2009	LA	Controller: 3N-B0355 Module: 3N-B0419 Pump House: 3N-B0393 Flow Calibrator: TC5 S/N 394	22-033-0009	Baton Rouge / Capitol 1061-A Leesville Ave. Baton Rouge, LA SCHED: POC:5	LADEQ Air Analysis Section 602 North 5th St. Baton Rouge, LA 70802 ATTN: Corey Parent	Cory Parent	225-765-2663	cory.parent@la.gov
Self-Install	**7**	shipped 1/14/2009	MO	Controller: 3N-B0505 Module: 3N-B0506 Pump House: 3N-B0522 Flow Calibrator: TC5 S/N 377	29-047-0005	Liberty Hwy 33 & County Home Rd. Liberty, MO ZIPCODE SCHED: POC:5	Missouri Dept. of Natural Resources 2710 W. Main St. Jefferson City, MO 65109 ATTN: Tyson Wehmeyer	Tyson Wehmeyer	573-526-3347	tyson.wehmeyer@@dnr.mo.gov
Self-Install	**7**	shipped 1/14/2009	MO	Controller: 3N-B0457 Module: 3N-B0446 Pump House: 3N-B0480 Flow Calibrator: TC5 S/N 379	29-099-0012	Arnold/R&P Arnold, MO ZIPCODE SCHED: POC:5	Missouri Dept. of Natural Resources 2710 W. Main St. Jefferson City, MO 65109 ATTN: Tyson Wehmeyer	Tyson Wehmeyer	573-526-3347	tyson.wehmeyer@@dnr.mo.gov
Self-Install	**6**	shipped 1/6/2009 shipped 2/13/2009	NM	Controller: 3N-B0412 Module: 3N-B0353 Pump House: 3N-B0477 Flow Calibrator: TC5 S/N 371 Controller: 3N-B0367	35-001-0023	Albuquerque/Del Norte HS 4700 San Mateo NE Albuquerque, NM SCHED: POC:5	City of Albuquerque Environmental Health Dept. 11850 Sunset Gardens SW Albuquerque, NM 87121 ATTN: Dwayne Salisbury	Fabian Macias Dwayne Salisbury	505-768-1969 505-768-1973 fax 505-768-1966 505-768-1977 fax	fmacias@cabq.gov dsalisbury@cabq.gov
Self-Install	**2**	shipped 12/9/2008	NY	Controller: 3N-B0490 Module: 3N-B0491 Pump House: 3N-B0447 Flow Calibrator: TC5 S/N 349	36-001-0005	Albany County Healt Dept. Green & Ferry Streets Albany, NY SCHED: POC:5	Bureau of Air Quality Surveillance 1 University Place D305 Rennsselaer, NY 12144	Mike Walsh	518-525-2717	mpwalsh@gw.dec.state.ny.us
Self-Install	**2**	shipped 12/9/2008	NY	Controller: 3N-B0460 Module: 3N-B0494 Pump House: 3N-B0501 Flow Calibrator: TC5 S/N 350	36-029-0005	Buffalo Trailer, 185 Dingens St. Buffalo, NY SCHED: POC:5	Bureau of Air Quality Surveillance 1 University Place D305 Rennsselaer, NY 12144	Mike Walsh	518-525-2717	mpwalsh@gw.dec.state.ny.us
Self-Install	**2**	shipped 12/9/2008	NY	Controller: 3N-B0469 Module: 3N-B0512 Pump House: 3N-B0492 Flow Calibrator: TC5 S/N 359	36-031-0003	Whiteface Mountain Base of mountain ASRC, SUNY SCHED: POC:5	Bureau of Air Quality Surveillance 1 University Place D305 Rennsselaer, NY 12144	Mike Walsh	518-525-2717	mpwalsh@gw.dec.state.ny.us
Self-Install	**2**	shipped 12/9/2008	NY	Controller: 3N-B0499 Module: 3N-B0503 Pump House: 3N-B0444 Flow Calibrator: TC5 S/N 358	36-055-1007	Rochester Primary 30 Yarmouth Rd. Rochester, NY SCHED: POC:5	Bureau of Air Quality Surveillance 1 University Place D305 Rennsselaer, NY 12144	Mike Walsh	518-525-2717	mpwalsh@gw.dec.state.ny.us

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Self-Install	**2**	shipped 12/16/2008	NY	Controller: 3N-B0466 Module: 3N-B0470 Pump House: 3N-B0507 Flow Calibrator: TC5 S/N 427	36-081-0124	New York/ Queens College 14439 Gravett Road New York, NY SCHED: POC:5	NY DEC-BAQS Reg.2 Annex 11-15 47th Avenue Long Island, NY 11101	Ed Marion	718-482-6609	None given
Self-Install	**2**	shipped 12/9/2008 Shipped 4/9/09	NY	Controller: 3N-B0481 Module: 3N-B0461 Pump House: 3N-B0459 Flow Calibrator: TC5 S/N 348 Flow Calibrator: TC5 S/N 374	36-101-0003	Pinnacle State Park 1904 Pinnacle Road NY SCHED: POC:5	Bureau of Air Quality Surveillance 1 University Place D305 Rennsselaer, NY 12144	Mike Walsh	518-525-2717	mpwalsh@gw.dec.state.ny.us
Self-Install	**6**	shipped 1/28/2009	TX	Controller: 3N-B0523 Module: 3N-B0500 Pump House: 3N-B0513 Flow Calibrator: TC5 S/N 368	48-113-0069	Dallas Hinton 1415 Hinton Street Dallas, TX SCHED: POC:5	TCEQ 12100Park 35 Circle Building B Austin, TX 78753 ATTN: Kristin Bourdon	Kristin Bourdon	512-239-0883	kbourdon@TCEQ.state.tx.us
Self-Install	**6**	shipped 1/28/2009	TX	Controller: 3N-B0385 Module: 3N-B0437 Pump House: 3N-B0465 Flow Calibrator: TC5 S/N 376	48-141-0044	El Paso/Chamizal 800 S. San Marcial Street El Paso, TX SCHED: POC:5	TCEQ 12100Park 35 Circle Building B Austin, TX 78753 ATTN: Kristin Bourdon	Kristin Bourdon	512-239-0883	kbourdon@TCEQ.state.tx.us
Self-Install	**6**	shipped 1/28/2009	TX	Controller: 3N-B0445 Module: 3N-B0518 Pump House: 3N-B0471 Flow Calibrator: TC5 S/N 369	48-201-1039	Deer Park 4514 1/2 Durant Street Deer Park, TX SCHED: POC:5	TCEQ 12100Park 35 Circle Building B Austin, TX 78753 ATTN: Kristin Bourdon	Kristin Bourdon	512-239-0883	kbourdon@TCEQ.state.tx.us
Self-Install	**6**	shipped 1/28/2009	TX	Controller: 3N-B0514 Module: 3N-B0498 Pump House: 3N-B0489 Flow Calibrator: NONE	48-201-1039	Deer Park 2 4514 1/2 Durant Street Deer Park, TX SCHED: POC:5	TCEQ 12100Park 35 Circle Building B Austin, TX 78753 ATTN: Kristin Bourdon	Kristin Bourdon	512-239-0883	kbourdon@TCEQ.state.tx.us
Self-Install	**6**	shipped 1/28/2009	TX	Controller: 3N-B0451 Module: 3N-B0467 Pump House: 3N-B0441 Flow Calibrator: NONE	48-203-0002	Carnac Hwy. 134 & Spur 449 Carnac, TX SCHED: POC:5	TCEQ 12100Park 35 Circle Building B Austin, TX 78753 ATTN: Kristin Bourdon	Kristin Bourdon	512-239-0883	kbourdon@TCEQ.state.tx.us
Self-Install	**4**		NC	Flow Calibrator: TC5 S/N 298	37-067-0022		Forsyth County Environmental Affairs Dept. 537 N. Spruce St. Winston-Salem, NC 27101 ATTN: Patrick Reagan	Pat Reagan	336-703-2440	reaganpa@forsyth.cc