2011 Indiana response to:

40 CFR Part 51-Subpart S Inspection/Maintenance Program Requirements
51.366 – Data Analysis and Reporting Requirements

(c) Quality Control Report

(2) The number of equipment audits by station and lane:

From 1998 to 2003 none of the exhaust gas sampling systems at any of the test sites failed a semi-annual gas challenge audit. In 2004 the Indiana Department of Environmental Management (IDEM) began performing periodic reviews of monthly calibration and maintenance data for all of the exhaust gas analyzers and dynamometers in the testing lanes in lieu of gas challenge audits.

Operations at the test sites are also monitored remotely by a system of web cams installed at each testing facility. The cameras provide views of the all the testing lanes from the front, looking toward the back and from the back, looking toward the front. Cams are also located in the manager's office, the license renewal booth, the safe and VIR locked storage room, and on the front of each site looking out at the vehicle queue area. IDEM I/M personal view all of the test sites on a daily basis. Each morning mini-calibrations are conducted on each lane and zero/spans are run at least every two hours while the test sites are open. IDEM I/M program personal check the mini-cals and zero/spans daily from their Indianapolis location.

See the attached check sheets: 2011 Indiana I/M program quarterly test equipment calibration data audits.

Calibration Records Audit (1st Quarter, 2011) Date: 6-24-11

Vehicle Emission Test Site: Hammond, Station #1

Constant Volume Sampling System
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1 HC+NOx 85105704060
CVS — CO+CO2 85105705042

			BAR-90 Multipoint			4WD Dyno	
1-24-11	JKC	OK	1-24-11	JKC	OK	1-31-11	Chad OK
2-14-11	JKC	OK	2-14-11	JKC	OK	2-28-11	Chad OK
3-7-11	JKC	OK	3-7-11	JKC	OK	3-21-11	Chad OK

Lane: #2 HC+NOx 85105704082
CVS — CO+CO2 85105701156

			BAR-90 Multipoint			2WD Dyno	
1-24-11	JKC	OK	1-24-11	JKC	OK	1-31-11	Chad OK
2-14-11	JKC	OK	2-14-11	JKC	OK	2-28-11	Chad OK
3-7-11	JKC	OK	3-7-11	JKC	OK	3-21-11	Chad OK

Lane: #3 HC+NOx 85113006028
CVS — CO+CO2 85105701154

			BAR-90 Multipoint			2WD Dyno	
1-24-11	JKC	OK	1-24-11	JKC	OK	1-31-11	Chad OK
2-14-11	JKC	OK	2-14-11	JKC	OK	2-28-11	Chad OK
3-7-11	JKC	OK	3-7-11	JKC	OK	3-21-11	Chad OK

Lane: #__

Calibration Records Audit (2nd **Quarter, 20**11) **Date:** 9-23-11

Vehicle Emission Test Site: Hammond, Station #1

Constant Volume Sampling System **Dynamometer Calibration**
(equipment checks and ten point calibrations)

Date calibration performed – result **Date calibration performed – result**

Lane: #1 HC+NOx 85105704060

CVS	CO+CO2 285105705042		BAR-90 multipoint		4WD Dyno Cal	
4-4-11	JKC	OK	4-4-11	JKC OK	4-19-11	Chad OK
5-16-11	JKC	OK	5-16-11	JKC OK	5-23-11	Chad OK
6-13-11	JKC	OK	6-13-11	JKC OK	6-27-11	Chad OK

Lane: #2 HC+NOx 85105704062

CVS	CO+CO2 85105701556		BAR-90 multipoint		2WD Dyno Cal.	
4-4-11	JKC	OK	4-4-11	JKC OK	4-20-11	Chad OK
5-16-11	JKC	OK	5-16-11	JKC OK	5-23-11	Chad OK
6-13-11	JKC	OK	6-13-11	JKC OK	6-27-11	Chad OK

Lane: #3 HC+NOx 85113D060028

CVS	CO+CO2 85105701554		BAR-90 multipoint		2WD Dyno Cal.	
4-4-11	JKC	OK	4-4-11	JKC OK	4-20-11	Chad OK
5-16-11	JKC	OK	5-16-11	JKC OK	5-23-11	Chad OK
6-13-11	JKC	OK	6-13-11	JKC OK	6-27-11	Chad OK

Lane: #__

Calibration Records Audit (3rd Quarter, 2011) **Date:** 9-23-11

PAK 11-20-12

Vehicle Emission Test Site: Hammond, Site #1

Constant Volume Sampling System (equipment checks and ten point calibrations) **Dynamometer Calibration**

Date calibration performed – result **Date calibration performed – result**

Lane: #1 HC+NOx 85105704060

CVS	CO+CO2 85105705042	BAR-90 multipoint	4WD Dyno Cals
7-18-11	JKC OK	7-18-11 JKC OK	7-25-11 Chad OK
8-22-11	JC OK	8-22-11 JC OK	8-29-11 Chad OK
9-19-11	JKC OK	9-19-11 JKC OK	9-26-11 Chad OK

Lane: #2 HC+NOx 85105704082

CVS	CO+CO2 85105701556	BAR-90 multipoint	2WD Dyno Cal
7-18-11	JKC OK	7-18-11 JKC OK	7-25-11 Chad OK
8-29-11	CAM OK	8-29-11 ~~JKC~~ CAM OK	8-29-11 Chad OK
9-19-11	JKC OK	9-19-11 JKC OK	9-26-11 Chad OK

Lane: #3 HC+NOx 85113006028

CVS	CO+CO2 85105701554	BAR-90 multipoint	2WD Dyno Cal
7-18-11	JKC OK	7-18-11 JKC OK	7-25-11 Chad OK
8-29-11	CAM OK	8-29-11 CAM OK	8-29-11 Chad OK
9-19-11	JKC OK	9-19-11 JKC OK	9-26-11 Chad OK

Lane: #__

Calibration Records Audit (4th Quarter, 2012) **Date:** 1-20-12

Vehicle Emission Test Site: Hammond, site #1

Constant Volume Sampling System (equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result **Date calibration performed – result**

Lane: #1

CVS Calibrations			BAR-90 Multipoint			4 WD Dyno Cals.		
10-3-11	JKC	OK	10-3-11	JKC	OK	10-31-11	Chad	OK
11-28-11	JKC	OK	11-28-11	JKC	OK	11-8-11	Chad	OK
12-12-11	JC	OK	12-12-11	JC	OK	12-14-11	Chad	OK

Lane: #2

CVS Calibrations			BAR-90 Multipoint			2 WD Dyno Cals.		
10-3-11	JKC	OK	10-3-11	JKC	OK	10-31-11	Chad	OK
11-28-11	JKC	OK	11-28-11	JKC	OK	11-8-11	Chad	OK
12-15-11	JKC	OK	12-15-11	JKC	OK	12-12-11	JC	OK

Lane: #3

CVS Calibrations			BAR-90 Multipoint			2 WD Dyno Cals.		
10-3-11	JKC	OK	10-3-11	JKC	OK	10-31-11	Chad	OK
11-28-11	JKC	OK	11-28-11	JKC	OK	11-8-11	Chad	OK
12-14-11	JKC	OK	12-14-11	JKC	OK	12-12-11	JC	OK

Lane: #__

Lane #1 SAD (CFV) Cal. 12-5-11 JKC OK

Lane #2 SAD (CFV) Cal. 12-5-11 JKC OK

Lane #3 SAD (CFV) Cal. 12-5-11 JKC OK

Calibration Records Audit (1st Quarter, 2011) Date: 9-29-11

Vehicle Emission Test Site: Griffith, station #2

Constant Volume Sampling System (equipment checks and ten point calibrations) **Dynamometer Calibration**

Date calibration performed – result **Date calibration performed – result**

Lane: #1 HC+NOx B511300 4012

CVS Cal. CO+CO2 B510440305			BAR-90 multipoint			4WD dyno Cals.		
1-3-11	JC	OK	1-3-11	JC	OK	1-24-11	Chad	OK
2-7-11	JC	OK	2-7-11	JC	OK	2-14-11	Chad	OK
3-21-11	JC	OK	3-21-11	JC	OK	3-14-11	Chad	OK

Lane: #2 HC+NOx B511300 4011

CVS Cal. CO+CO2 B510570570 4			BAR-90 multipoint			2WD Dyno Cals		
1-3-11	JC	OK	1-3-11	JC	OK	1-24-11	Chad	OK
2-7-11	JC	OK	2-7-11	JC	OK	2-14-11	Chad	OK
3-21-11	JC	OK	3-21-11	JC	OK	3-14-11	Chad	OK

Lane: #3 HC+NOx B510440411

CVS cals CO+CO2 B510570101			BAR-90 multipoint			2WD Dyno Cals		
1-3-11	JC	OK	1-3-11	JC	OK	1-24-11	Chad	OK
2-7-11	JC	OK	2-7-11	JC	OK	2-14-11	Chad	OK
3-21-11	JC	OK	3-21-11	JC	OK	3-14-11	Chad	OK

Lane: #4 HC+NOx B511300 4024

CVS cals. CO+CO2 B511300 1074			BAR-90 multipoint			2WD Dyno Cals.		
1-3-11	JC	OK	1-3-11	JC	OK	1-14-11	Chad	OK
2-7-11	JC	OK	2-7-11	JC	OK	2-14-11	Chad	OK
3-21-11	JC	OK	3-21-11	JC	OK	3-14-11	Chad	OK

Calibration Records Audit (2nd Quarter, 20 11) **Date:** 4-29-11

Vehicle Emission Test Site: Griffith, Station #2

Constant Volume Sampling System (equipment checks and ten point calibrations) **Dynamometer Calibration**

Date calibration performed – result **Date calibration performed – result**

Lane: # 1 HC+NOx 85113004012

CVS Cals	CO+CO2 85104403025		BAR 90 multipoint			4WD Dyno Cals		
4-11-11	JKC	OK	4-11-11	JKC	OK	4-25-11	Chad	OK
5-2-11	JC	OK	5-2-11	JC	OK	5-9-11	Chad	OK
6-13-11	JC	OK	6-13-11	JC	OK	6-20-11	Chad	OK

Lane: # 2 HC+NOx 85113004011

CVS Cals	CO+CO2 85105705 0012		BAR 90 multipoint			2WD Dyno Cals		
4-11-11	JKC	OK	4-11-11	JKC	OK	4-25-11	Chad	OK
5-2-11	JC	OK	5-2-11	JC	OK	5-9-11	Chad	OK
6-13-11	JC	OK	6-13-11	JC	OK	6-20-11	Chad	OK

Lane: # 3

CVS Cals			BAR 90 Multipoint			2WD Dyno Cals		
4-11-11	JKC	OK	4-11-11	JKC	OK	4-25-11	Chad	OK
5-2-11	JC	OK	5-2-11	JC	OK	5-9-11	Chad	OK
6-13-11	JC	OK	6-13-11	JC	OK	6-20-11	Chad	OK

Lane: # 4

CVS Calibrations			BAR 90 Multipoint			2WD Dyno Cals		
4-11-11	JKC	OK	4-11-11	JKC	OK	4-25-11	Chad	OK
5-2-11	JC	OK	5-2-11	JC	OK	5-9-11	Chad	OK
6-13-11	JC	OK	6-13-11	JC	OK	6-20-11	Chad	OK

Calibration Records Audit (3rd Quarter, 2011) **Date:** 1-19-12 BAK

Vehicle Emission Test Site: Griffith, Station #2

Constant Volume Sampling System (equipment checks and ten point calibrations) **Dynamometer Calibration**

Date calibration performed – result **Date calibration performed – result**

Lane: #1 HC+NOx 8511300 4012

CVS cal	CO+CO2 8510440305		BAR 90-Multipoint			4WD Dyno Cals	
7-11-11	JC	OK	7-11-11	JC	OK	7-18-11	Chad OK
8-15-11	JC	OK	8-15-11	JC	OK	8-15-11	Chad OK
9-26-11	JC	OK	9-26-11	JC	OK	9-12-11	Chad OK

Lane: #2 HC+NOx 8511300 4012

CVS Cals	CO+CO2 8510445705004		BAR-90 Multipoint			2WD Dyno Cals	
7-11-11	JC	OK	7-11-11	JC	OK	7-18-11	Chad OK
8-15-11	JC	OK	8-15-11	JC	OK	8-15-11	Chad OK
9-26-11	JC	OK	9-26-11	JC	OK	9-12-11	Chad OK

Lane: #3

CVS Cals.							
7-11-11	JC	OK	7-11-11	JC	OK	7-18-11	Chad OK
8-15-11	JC	OK	8-15-11	JC	OK	8-15-11	Chad OK
9-26-11	JC	OK	9-26-11	JC	OK	9-23-11	Chad OK

Lane: #4

CVS Calibrations			BAR-90 Multipoint			2WD Dyno Cals.	
7-11-11	JC	OK	7-11-11	JC	OK	7-18-11	Chad OK
8-11-11	JC	OK	8-15-11	JC	OK	8-15-11	Chad OK
9-26-11	JC	OK	9-26-11	JC	OK	9-23-11	Chad OK

Calibration Records Audit (4th Quarter, 2011) **Date:** 1-19-12 PAH

Vehicle Emission Test Site: Griffith - Site #2

Constant Volume Sampling System (equipment checks and ten point calibrations) **Dynamometer Calibration**

Date calibration performed – result **Date calibration performed – result**

Lane: #1 HC+NOx 85113004012

CVS Cal.	CO+CO2 85104403005		BAR-90 Multipoint			4WD Dyno Cals		
10-3-11	JC	OK	10-3-11	JC	OK	10-24-11	Chad	OK
11-7-11	JC	OK	11-7-11	JC	OK	11-21-11	Chad	OK
12-5-11	JC	OK	12-5-11	JC	OK	12-19-11	Chad	OK

Lane: #2 HC+NOx 85113004012

CVS Cals.	CO+CO2 85105205004		BAR-90 Multipoint			2WD Dyno Cals		
10-3-11	JC	OK	10-3-11	JC	OK	10-27-11	Chad	OK
11-7-11	JC	OK	11-7-11	JC	OK	11-21-11	Chad	OK
12-5-11	JC	OK	12-5-11	JC	OK	12-5-11	JC	OK

Lane: #3

Lane 3 is now a dedicated tandem OBDII Lane.

Lane: #4

CVS Calibrations			BAR-90 Multipoint			2WD Dyno Cals		
10-27-11	JC	OK	10-3-11	JC	OK	10-28-11	Chad	OK
11-7-11	JC	OK	11-7-11	JC	OK	10-21-11	Chad	OK
12-5-11	JC	OK	12-5-11	JC	OK	12-5-11	JC	OK

Lane #1
Annual SAO(CFV) calibration 11-14-11 JC OK
SAO SN: 94H1121
Lane #2 SAO(CFV) cal. 11-14-11 JC OK SAO # 94H1121
Lane #4 SAO(CFV) cal. 11-14-11 JC OK
Lane #3 No longer performing gas measurement tests. PAH

Calibration Records Audit (1st Quarter, 2011) Date: 6-24-11

Vehicle Emission Test Site: Hobart, Station 3 JAH

Constant Volume Sampling System (equipment checks and ten point calibrations) **Dynamometer Calibration**

Date calibration performed – result **Date calibration performed – result**

Lane: #1 HC+NOx 85105706089 | CVS – CO+CO2 85105705097 | BAR-90 Multipoint | 4WD Dyno

1-24-11	JC	OK	1-24-11	JC	OK	1-12-11	Chad OK
2-21-11	CAM	OK	2-21-11	CAM	OK	2-7-11	Chad OK
3-28-11	CAM	OK	3-28-11	CAM	OK	3-7-11	Chad OK

Lane: #2 HC+NOx 85113004024 | CVS – CO+CO2 85105703056 | BAR-90 Multipoint | 2WD Dyno

1-24-11	JC	OK	1-24-11	JC	OK	1-12-11	Chad OK
2-21-11	CAM	OK	2-21-11	CAM	OK	2-25-11	Chad OK
3-28-11	CAM	OK	3-28-11	CAM	OK	3-16-11	Chad OK

Lane: #3 HC+NOx 85105704018 | CVS – CO+CO2 85105703107 | BAR-90 Multipoint | 2WD Dyno

1-24-11	JC	OK	1-24-11	JC	OK	1-12-11	Chad OK
2-21-11	CAM	OK	2-21-11	CAM	OK	2-25-11	Chad OK
3-28-11	CAM	OK	3-28-11	CAM	OK	3-16-11	Chad OK

Lane: #__

Calibration Records Audit (2nd Quarter, 2011) **Date:**

Vehicle Emission Test Site: Hobart, Station #3

Constant Volume Sampling System **Dynamometer Calibration**
(equipment checks and ten point calibrations)

Date calibration performed – result **Date calibration performed – result**

Lane: #1

CVS Cals.			BAR-90 Multipoint			4WD Dyno Cal.		
4-18-11	JC	OK	4-18-11	JC	OK	4-4-11	Chad	OK
5-23-11	CAM	OK	5-23-11	CAM	OK	5-2-11	Chad	OK
6-13-11	CAM	OK	6-13-11	CAM	OK	6-6-11	Chad	OK

Lane: #2

CVS Cals			BAR-90 Multipoint			2WD Dyno Cals		
4-18-11	JC	OK	4-18-11	JC	OK	4-5-11	Chad	OK
5-23-11	CAM	OK	5-23-11	CAM	OK	5-6-11	Chad	OK
6-13-11	CAM	OK	6-13-11	CAM	OK	6-24-11	Chad	OK

Lane: #3

CVS Cals.			BAR-90 Multipoint			2WD Dyno Cals		
4-18-11	JC	OK	4-18-11	JC	OK	4-5-11	Chad	OK
5-23-11	CAM	OK	5-23-11	CAM	OK	5-6-11	Chad	OK
6-13-11	CAM	OK	6-13-11	CAM	OK	6-23-11	Chad	OK

Lane: #__

Calibration Records Audit (3rd Quarter, 20 11) Date:

Vehicle Emission Test Site: Hobart, Station #3

Constant Volume Sampling System (equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

CVS Cals.	BAR-90 Multipoint	4WD Dyno Cals.
7-11-11 CAM OK	7-11-11 CAM OK	7-4-11 Chad OK
8-15-11 CAM OK	8-15-11 CAM OK	8-1-11 Chad OK
9-22-11 CAM OK	9-22-11 CAM OK	9-5-11 Chad OK

Lane: #2

CVS Cals.	BAR-90 Multipoint	2WD Dyno Cals.
7-11-11 CAM OK	7-11-11 CAM OK	7-14-11 Chad OK
8-15-11 CAM OK	8-15-11 CAM OK	8-5-11 Chad OK
9-22-11 CAM OK	9-22-11 CAM OK	9-8-11 Chad OK

Lane: #3

CVS Cals.	BAR 90 Multipoint	2WD Dyno Cals.
7-11-11 CAM OK	7-11-11 CAM OK	7-14-11 Chad OK
8-15-11 CAM OK	8-15-11 CAM OK	8-5-11 Chad OK
9-22-11 CAM OK	9-22-11 CAM OK	9-8-11 Chad OK

Lane: #__

Calibration Records Audit (4th Quarter, 20 11) **Date:** 2-16-12

Vehicle Emission Test Site: Hobart, Station #3 PAL

Constant Volume Sampling System (equipment checks and ten point calibrations) **Dynamometer Calibration**

Date calibration performed – result **Date calibration performed – result**

Lane: #1

CVS Cals.	BAR-90 Multipoint	4WD Dyno Cals.
10-31-11 CAM OK	10-31-11 CAM OK	10-3-11 Chad OK
11-28-11 CAM OK	11-28-11 CAM OK	11-7-11 Chad OK
12-19-11 CAM OK	12-19-11 CAM OK	12-12-11 Chad OK

Lane: #2

CVS Cals.	BAR-90 Multipoint	2WD Dyno Cals.
NO Calibrations – Lane 2 is now a dedicated OBDII lane.		

Lane: #3

CVS Cals.	BAR-90 Multipoint	2WD Dyno Cals.
10-31-11 CAM OK	10-31-11 CAM OK	10-26-11 Chad OK
11-29-11 CAM OK	11-28-11 CAM OK	11-2-11 Chad OK
12-19-11 CAM OK	12-19-11 CAM OK	12-28-11 CAM OK

Lane: #__

Lane #1 CAD(CFV) Cal. 12-19-2011 CAM CVS SN 1336 OK

Lane #2 no CAD(CFV) cal – this lane is now a dedicated OBDII lane.

Lane #3 Yearly CAD(CFV) Cal. 12-19-2011 CAM CVS SN 1342 OK

Calibration Records Audit (1st Quarter, 2011) Date: 3/23/11

Vehicle Emission Test Site: Crown Point - Station 4 PAD

Constant Volume Sampling System (equipment checks and ten point calibrations) **Dynamometer Calibration**

Date calibration performed – result **Date calibration performed – result**

Lane: #1 HC+NOx 8510570261

CVS —	CO+CO2 8510570161		BAR-90 Multipoint			4WD Dyno		
1-31-11	JKC	OK	1-31-11	JKC	OK	1-10-11	Chad	OK
2-28-11	JKC	OK	2-28-11	JKC	OK	2-21-11	Chad	OK
3-21-11	JKC	OK	3-21-11	JKC	OK	3-15-11	Chad	OK

Lane: #2 HC+NOx 85105704028

CVS —	CO+CO2 85105703012		BAR-90 Multipoint			2WD Dyno		
1-31-11	JKC	OK	1-31-11	JKC	OK	1-10-11	Chad	OK
2-28-11	JKC	OK	2-28-11	JKC	OK	2-21-11	Chad	OK
3-21-11	JKC	OK	3-21-11	JKC	OK	3-15-11	Chad	OK

Lane: #3 HC+NOx 85105704097

CVS —	CO+CO2 8510570123		BAR-90 Multipoint			2WD Dyno		
1-31-11	JKC	OK	1-31-11	JKC	OK	1-10-11	Chad	OK
2-28-11	JKC	OK	2-28-11	JKC	OK	2-21-11	Chad	OK
3-21-11	JKC	OK	3-21-11	JKC	OK	3-15-11	Chad	OK

Lane: #__

Calibration Records Audit (2nd Quarter, 2011) Date: 10-20-11

Vehicle Emission Test Site: Crown Point - Station #4 PAL

Constant Volume Sampling System (equipment checks and ten point calibrations) Dynamometer Calibration

Date calibration performed – result Date calibration performed – result

Lane: #1 HC+NOx 8510570261

CVS cal.	CO+CO2 8510570161		BAR-90 Multipoint			4WD Dyno Cal.	
4-25-11	JKC	OK	4-25-11	JKC	OK	4-15-11	Chad OK
5-23-11	JKC	OK	5-23-11	JKC	OK	5-16-11	Chad OK
6-20-11	JKC	OK	6-20-11	JKC	OK	6-13-11	Chad OK

Lane: #2 HC+NOx 8510570402[illegible]

CVS cal.	CO+CO2 8510570301[illegible]		BAR-90 Multipoint			2WD Dyno Cal.	
4-25-11	JKC	OK	4-25-11	JKC	OK	4-29-11	Chad OK
5-23-11	JKC	OK	5-23-11	JKC	OK	5-16-11	Chad OK
6-20-11	JKC	OK	6-20-11	JKC	OK	6-13-11	Chad OK

Lane: #3 HC+NOx 8510570497

CVS Cal.	CO+CO2 8510570123		BAR-90 Multipoint			2WD Dyno. Cal.	
4-25-11	JKC	OK	4-25-11	JKC	OK	4-29-11	Chad OK
5-23-11	JKC	OK	5-23-11	JKC	OK	5-16-11	Chad OK
6-20-11	JKC	OK	6-20-11	JKC	OK	6-13-11	Chad OK

Lane: #__

Calibration Records Audit (3rd Quarter, 20 11) Date: 2-16-12

Vehicle Emission Test Site: Crown Point Station #4

Constant Volume Sampling System (equipment checks and ten point calibrations) — Dynamometer Calibration

Date calibration performed – result — Date calibration performed – result

Lane: #1

CVS Cals.	BAR-90 Multipoint	4WD Dyno Cals.
7-7-11 JC OK	7-28-11 JKC OK	7-11-11 Chad OK
8-22-11 JKC OK	8-22-11 JKC OK	8-8-11 Chad OK
9-29-11 JKC OK	9-29-11 JKC OK	9-14-11 Chad OK

Lane: #2

CVS Cals.	BAR-90 Multipoint	2WD Dyno Cals.
7-28-11 JC OK	7-28-11 JKC OK	7-11-11 Chad OK
8-22-11 JKC OK	8-22-11 JKC OK	8-8-11 Chad OK
9-29-11 JKC OK	9-29-1 JKC OK	9-14-11 Chad OK

Lane: #3

CVS Cals.	BAR-90 Multipoint	2WD Dyno Cals.
7-29-11 JC OK	7-29-11 JC OK	7-11-11 Chad OK
8-22-11 JKC OK	8-22-11 JKC OK	8-8-11 Chad OK
9-29-11 JKC OK	9-29-11 JKC OK	9-14-11 Chad OK

Lane: #__

Calibration Records Audit (4th Quarter, 2011) Date: 2-16-12

Vehicle Emission Test Site: Crown Point, Station # 4 PAD

Constant Volume Sampling System (equipment checks and ten point calibrations) **Dynamometer Calibration**

Date calibration performed – result **Date calibration performed – result**

Lane: #1

CVS Cals			BAR-90 Multipoint			4WD Dyno Cals	
10-31-11	JKC	OK	10-31-11	JKC	OK	10-17-11	Chad OK
11-14-11	JKC	OK	11-14-11	JKC	OK	11-7-11	Chad OK
12-5-11	JKC	OK	12-5-11	JKC	OK	12-12-11	Chad OK

Lane: #2

CVS Cals			BAR-90 Multipoint			~~4WD~~ 2WD Dyno Cals	
10-31-11	JKC	OK	10-31-11	JKC	OK	10-11-11	Chad OK
11-14-11	JKC	OK	11-14-11	JKC	OK	11-28-11	Chad OK
12-5-11	JKC	OK	12-5-11	JKC	OK	12-15-11	Chad OK

Lane: #3

CVS Cals BAR-90 Multipoint 2WD Dyno Cals

NP Cals. — Dedicated OBDII only lane.

Lane: #__

Lane#1 Yearly SAO(CFV) cal. 10-31-11 JKC CVS SN 1331 OK

Lane#2 SAO(CFV) cal. 11-8-11 JC CVS SN 1327 OK

Lane#3 No SAO(CFV) cal. dedicated OBDII Lane

Calibration Records Audit (1st Quarter, 2011) **Date:** 6/24/11

Vehicle Emission Test Site: Valpo, Site #5

Constant Volume Sampling System
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result **Date calibration performed – result**

Lane: #1 HC+NOx 8510440417

CVS — CO+CO2 8510440312			BAR-90 Multipoint			4 WD Dyno		
1-10-11	JC	OK	1-10-11	JC	OK	1-3-11	Chad	OK
2-14-11	CAM	OK	2-14-11	CAM	OK	2-7-11	Chad	OK
3-28-11	JC	OK	3-28-11	JC	OK	3-7-11	Chad	OK

Lane: #2 HC+NOx 85105704070

CVS — CO+CO2 8510570156			BAR-90 Multipoint			2 WD Dyno		
1-10-11	JC	OK	1-10-11	JC	OK	1-3-11	Chad	OK
2-14-11	CAM	OK	2-14-11	CAM	OK	2-7-11	Chad	OK
3-28-11	JC	OK	3-28-11	JC	OK	3-7-11	Chad	OK

Lane: #3 HC+NOx 8510570242

CVS — CO+CO2 8510570205			BAR-90 Multipoint			2 WD Dyno		
1-10-11	JC	OK	1-10-11	JC	OK	1-5-10	Chad	OK
2-14-11	CAM	OK	2-14-11	CAM	OK	2-7-11	Chad	OK
3-28-11	JC	OK	3-28-11	JC	OK	3-7-11	Chad	OK

Lane: #__

Calibration Records Audit (2nd Quarter, 2011) **Date:**

Vehicle Emission Test Site: Valpo, Station #5

Constant Volume Sampling System **Dynamometer Calibration**
(equipment checks and ten point calibrations)

Date calibration performed – result **Date calibration performed – result**

Lane: #1

CVS Cal.			BAR-90 Multipoint			4WD Dyno Cal.	
4-18-11	CAM	OK	4-18-11	CAM	OK	4-11-11	Chad OK
5-9-11	CAM	OK	5-9-11	CAM	OK	5-2-11	Chad OK
6-27-11	CAM	OK	6-27-11	CAM	OK	6-6-11	Chad OK

Lane: #2

CVS Cal.			BAR-90 Multipoint			2WD Dyno Cal.	
4-18-11	CAM	OK	4-18-11	CAM	OK	4-6-11	Chad OK
5-9-11	CAM	OK	5-9-11	CAM	OK	5-2-11	Chad OK
6-27-11	CAM	OK	6-27-11	CAM	OK	6-3-11	Chad OK

Lane: #3

CVS Cal.			BAR-90 Multipoint			2WD Dyno Cal.	
4-18-11	CAM	OK	4-18-11	CAM	OK	4-12-11	Chad OK
5-9-11	CAM	OK	5-9-11	CAM	OK	5-2-11	Chad OK
6-27-11	CAM	OK	6-27-11	CAM	OK	6-3-11	Chad OK

Lane: #__

Calibration Records Audit (3rd Quarter, 20 11) Date:

Vehicle Emission Test Site: Valparaiso, Station #5

Constant Volume Sampling System (equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

CVS Cal.	BAR-90 Multipoint	4WD Dyno Cal.
7-18-11 CAM OK	7-18-11 CAM OK	7-4-11 Chad OK
8-22-11 CAM OK	8-22-11 CAM OK	8-1-11 Chad OK
9-26-11 CAM OK	9-26-11 CAM OK	9-5-11 Chad OK

Lane: #2

CVS Cal.	BAR-90 Multipoint	2WD Dyno Cal.
7-18-11 CAM OK	7-18-11 CAM OK	7-4-11 Chad OK
8-22-11 CAM OK	8-22-11 CAM OK	8-1-11 Chad OK
9-26-11 CAM OK	9-26-11 CAM OK	9-5-11 Chad OK

Lane: #3

CVS Cal.	BAR-90 Multipoint	2WD Dyno Cal.
7-18-11 CAM OK	7-18-11 CAM OK	7-4-11 Chad OK
8-22-11 CAM OK	8-22-11 CAM OK	8-1-11 Chad OK
9-26-11 CAM OK	9-26-11 CAM OK	9-5-11 Chad OK

Lane: #__

Calibration Records Audit (4th Quarter, 20 11) Date: 2-15-12

Vehicle Emission Test Site: Valpo, Station 5

Constant Volume Sampling System (equipment checks and ten point calibrations) | Dynamometer Calibration

Date calibration performed – result | Date calibration performed – result

Lane: # 1

CVS Cal.			BAR-90 Multipoint			4WD Dyno Cal.	
10-24-11	JC	OK	10-24-11	JC	OK	10-3-11	Chad OK
11-21-11	CAM	OK	11-21-11	CAM	OK	11-7-11	Chad OK
12-19-11	JC	OK	12-19-11	JC	OK	12-12-11	Chad OK

Lane: # 2

CVS Cal.			BAR-90 Multipoint			2WD Dyno Cal	
10-24-11	JC	OK	10-24-11	JC	OK	10-3-11	Chad OK
11-21-11	CAM	OK	11-21-11	CAM	OK	11-2-11	Chad OK
12-19-11	JC	OK	12-19-11	JC	OK	12-8-11	CAM OK

Lane: #3

CVS Cal.	BAR-90 Multipoint	2WD Dyno Cal.

NO Calibrations - This is now a dedicated OBD II lane

Lane: #__

Yearly CAD (CFV) Cal. 11-21-11 CAM OK
CVS SN 1346, lane #1

Yearly CAD (CFV) Cal. lane #2 11-21-11 CAM OK
CVS SN 1340

Yearly CAD (CFV) Cal. lane #3 11-21-11 CAM OK
CVS SN 1347

Calibration Records Audit (1st Quarter, 2011) **Date:** 4-23-11

Vehicle Emission Test Site: Gary, Station #8 PAH

Constant Volume Sampling System (equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1 HC+NOx B5IR570216

CVS	CO+CO2		BAR-90 multipoint			4WD Dyno Cal	
1-3-11	JKC	OK	1-3-11	JKC	OK	1-27-11	Chad OK
2-7-11	JKC	OK	2-7-11	JKC	OK	2-28-11	Chad OK
3-14-11	JKC	OK	3-14-11	JKC	OK	3-21-11	Chad OK

Lane: #2 HC+NOx B5IR440408

CVS	CO+CO2 B5IR570232		BAR-90 multipoint			2WD Dyno Cal	
1-3-11	JKC	OK	1-3-11	JKC	OK	1-27-11	Chad OK
2-7-11	JKC	OK	2-7-11	JKC	OK	2-28-11	Chad OK
3-14-11	JKC	OK	3-14-11	JKC	OK	3-22-11	Chad OK

Lane: #3 HC+NOx B5IR570277

CVS	CO+CO2 B5IR570124		BAR-90 multipoint			2WD Dyno Cal	
1-3-11	JKC	OK	1-3-11	JKC	OK	1-26-11	Chad OK
2-7-11	JKC	OK	2-7-11	JKC	OK	2-25-11	Chad OK
3-14-11	JKC	OK	3-14-11	JKC	OK	3-22-11	Chad OK

Lane: #__

Replaced CO/CO2 Bench in lane 3 on 2/11/11

Calibration Records Audit (3rd Quarter, 2011) Date: 11-17-11 PAK and 1-20-12

Vehicle Emission Test Site: Gary - Station #8

Constant Volume Sampling System (equipment checks and ten point calibrations) **Dynamometer Calibration**

Date calibration performed – result **Date calibration performed – result**

Lane: #1 HC+NOx 8510570216

CVS cal.	CO+CO2		BAR-90 Multipoint			4WD Dyno Cal.
7-25-11	JC	OK	7-25-11	JC	OK	7-25-11 Chad OK
8-8-11	JKC	OK	8-8-11	JKC	OK	8-29-11 Chad OK
9-12-11	JC	OK	9-12-11	JC	OK	9-26-11 Chad OK

Lane: #2 HC+NOx 8510440408

CVS Cal.	CO+CO2 8510570303 2		BAR-90 Multipoint			2WD Dyno Cal.
7-25-11	JC	OK	7-25-11	JC	OK	7-29-11 Chad OK
8-8-11	JKC	OK	8-8-11	JKC	OK	8-26-11 Chad OK
9-29-11	JC	OK	9-29-11	JC	OK	9-28-11 Chad OK

CAD CFV Annual Cal. JC 9/13/11 OK

Lane: #3 HC+NOx 8510570277

CVS Cal.	CO+CO2 8510440313		BAR-90 Multipoint			2WD Dyno Cal.
7-25-11	JC	OK	7-25-11	JC	OK	7-29-11 Chad OK
8-8-11	JKC	OK	8-8-11	JKC	OK	8-27-11 Chad OK
9-29-11	JC	OK	9-29-11	JC	OK	9-28-11 Chad OK

Lane: #__

Calibration Records Audit (4th Quarter, 2011) **Date:** 1-20-2012

Vehicle Emission Test Site: Barry, station #8 PAL

Constant Volume Sampling System (equipment checks and ten point calibrations) **Dynamometer Calibration**

Date calibration performed – result **Date calibration performed – result**

Lane: #1

CVS Calibrations		BAR-90 Multipoint		4WD Dyno Cals.
10-17-11	JKC OK	10-17-11	JKC OK	10-24-11 Chad OK
11-21-11	JC OK	11-21-11	JC OK	11-14-11 Chad OK
12-19-11	JKC OK	12-19-11	JKC OK	12-19-11 Chad OK

Lane: #2

CVS Calibrations		BAR-90 Multipoint		2WD Dyno Cals.
10-17-11	JKC OK	10-17-11	JKC OK	10-27-11 Chad OK
11-21-11	JC OK	11-21-11	JC OK	11-14-11 Chad OK
12-19-11	JKC OK	12-19-11	JKC OK	12-15-11 Chad OK

Lane: #3

CVS Calibrations		BAR-90 Multipoint		2WD Dyno Cals.
10-17-11	JKC OK	10-17-11	JKC OK	10-27-11 Chad OK
11-21-11	JC OK	11-21-11	JC OK	11-14-11 Chad OK
12-19-11	JKC OK	12-19-11	JKC OK	12-15-11 Chad OK

Lane: #__

Lane #1 SAC(CFV) Cal. 11-8-11 JC OK
Lane #2 SAC(CFV) Cal. 9-13-11 JC OK
Lane #3 SAC(CFV) Cal. 11-1-11 JKC/JC OK

Calibration Records Audit (1st Quarter, 20 11) **Date:** 6-24-11

Vehicle Emission Test Site: Portage, Station 9

Constant Volume Sampling System (equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1 HC+NOx B510570218

CVS — CO+CO2 B510440217			BAR-90 Multical			4WD Dyno.	
1-31-11	JC	OK	1-31-11	JC	OK	1-10-11	Chad OK
2-28-11	CAM	OK	2-28-11	CAM	OK	2-21-11	Chad OK
3-14-11	JC	OK	3-14-11	JC	OK	3-11-11	Chad OK

Lane: #2 HC+NOx B510570223

CVS — CO+CO2 B510570230			BAR-90 Multipoint			2WD Dyno	
1-31-11	JC	OK	1-31-11	JC	OK	1-13-11	Chad OK
2-28-11	CAM	OK	2-28-11	CAM	OK	2-25-11	Chad OK
3-14-11	JC	OK	3-14-11	JC	OK	3-11-11	Chad OK

Lane: #3 HC+NOx B510570205

CVS — CO+CO2 B510570203			BAR-90 Multipoint			2WD Dyno	
1-31-11	JC	OK	1-31-11	JC	OK	1-13-11	Chad OK
2-28-11	CAM	OK	2-28-11	CAM	OK	2-25-11	Chad OK
3-14-11	JC	OK	3-14-11	JC	OK	3-11-11	Chad OK

Lane: #__

Calibration Records Audit (2nd Quarter, 2011) **Date: 10-21-11**

Vehicle Emission Test Site: Portage, Station #4 PAK

Constant Volume Sampling System **Dynamometer Calibration**
(equipment checks and ten point calibrations)

Date calibration performed – result **Date calibration performed – result**

Lane: #1 VOC+NOX 85105702218

CVS cal.	CO+CO2 85104017		BAR-90 Multipoint		4WD Dyno Cal.	
4-11-11	CAM	OK	4-11-11	CAM OK	4-18-11	Chad OK
5-2-11	CAM	OK	5-2-11	CAM OK	5-16-11	Chad OK
6-20-11	CAM	OK	6-20-11	CAM OK	6-15-11	Chad OK

Lane: #2 VOC+NOx 85105702223

CVS cal	CO+CO2 85105702030		BAR-90 Multipoint		2WD Dyno Cal.	
4-11-11	CAM	OK	4-11-11	Cam OK	4-21-11	Chad OK
5-2-11	CAM	OK	5-2-11	CAM OK	5-12-11	Chad OK
6-20-11	CAM	OK	6-20-11	CAM OK	6-24-11	Chad OK

Lane: #3 HC+NOx 85105702205

CVS cal.	CO+CO2 85105705083		BAR-90 Multipoint		2WD Dyno. cal.	
4-11-11	CAM	OK	4-11-11	CAM OK	4-18-11	Chad OK
5-2-11	CAM	OK	5-2-11	CAM OK	5-18-11	Chad OK
6-20-11	CAM	OK	6-20-11	CAM OK	6-20-11	Chad OK

Lane: #__

Calibration Records Audit (3rd Quarter, 2011) Date: 2-15-12

Vehicle Emission Test Site: Portage, Station #9

Constant Volume Sampling System (equipment checks and ten point calibrations) | Dynamometer Calibration

Date calibration performed – result | Date calibration performed – result

Lane: #1

CVS Cal.	BAR-90 Multipoint	4WD Dyno Cal
7-25-11 CAM OK	7-25-11 CAM OK	7-18-11 Chad OK
8-8-11 CAM OK	8-29-11 CAM OK	8-8-11 Chad OK
9-19-11 CAM OK	9-19-11 CAM OK	9-19-11 Chad OK

Lane: #2

CVS Cal.	BAR-90 Multipoint	2WD Dyno Cal.
7-25-11 CAM OK	7-25-11 CAM OK	7-27-11 Chad OK
8-8-11 CAM OK	8-29-11 CAM OK	8-11-11 Chad OK
9-19-11 CAM OK	9-19-11 CAM OK	9-22-11 Chad OK

Lane: #3

CVS Cal.	BAR-90 Multipoint	2WD Dyno Cal.
7-25-11 CAM OK	7-25-11 CAM OK	7-27-11 Chad OK
8-8-11 CAM OK	8-29-11 CAM OK	8-11-11 Chad OK
9-19-11 CAM OK	9-19-11 CAM OK	9-29-11 Chad OK

Lane: #__

Calibration Records Audit (4th Quarter, 20 11) Date: 2-15-12

Vehicle Emission Test Site: Portage, Station #9 [illegible]

Constant Volume Sampling System (equipment checks and ten point calibrations) **Dynamometer Calibration**

Date calibration performed – result **Date calibration performed – result**

Lane: #1

CVS Cal.		BAR-90 Multipoint		4WD Dyno Cal.	
10-17-11	JC OK	10-17-11	JC OK	10-17-11	Chad OK
11-7-11	CAM OK	11-7-11	CAM OK	11-14-11	Chad OK
12-12-11	CAM OK	12-12-11	CAM OK	12-12-11	Chad OK

Lane: #2

CVS Cal.		BAR-90 Multipoint		2WD Dyno Cal.	
10-17-11	JC OK	10-17-11	JC OK	10-26-11	Chad OK
11-7-11	CAM OK	11-7-11	CAM OK	11-2-11	Chad OK
12-12-11	CAM OK	12-12-11	CAM OK	12-8-11	CAM OK

Lane: #3

CVS Cal.	BAR-90 Multipoint	2WD Dyno Cal.
No Cals. — Now a dedicated OBD II lane.		

Lane: #__

Lane #1 SAD (CFV) Cal. 12-12-11 CAM CVS SN 1393 OK

Lane #2 SAD (CFV) Cal. 12-12-11 CAM CVS SN 1328 OK

Lane #3 No Cal. now a dedicated OBD II lane

2011 Indiana response to:

40 CFR Part 51-Subpart S Inspection/Maintenance Program Requirements
51.366 – Data Analysis and Reporting Requirements

(c) Quality Control Report

(3) The number and percentage of stations that have failed equipment audits:

None

(4) Number and percentage of stations and lanes shut down as a result of equipment audits:

None

During the course of our calibration paperwork audits at the test sites we have found that if an analyzer or dynamometer has experienced some difficulty holding a calibration it is replaced.

On a daily basis, as soon as a problem manifests itself with a failed daily calibration or failed zero/span check the test equipment is locked out and the lane is automatically shut down. Inoperable equipment is repaired or replaced timely manner.