

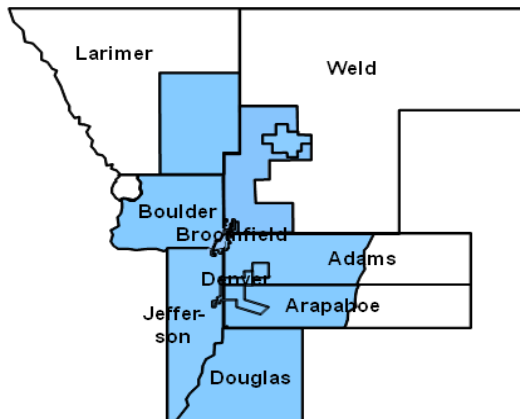


COLORADO

Air Pollution Control Division

Department of Public Health & Environment

Automobile Inspection and Readjustment (AIR) Program Annual Report Calendar Year 2017



July 1, 2018

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Executive Summary

The purpose of the Automobile Inspection and Readjustment Program is to improve air quality through the detection and repair of excessively emitting gasoline powered vehicles. Mobile source emissions constitute one of the larger categories of controllable emissions that contribute to summertime ozone concentrations. Lowering vehicle emissions by repairing high emitting vehicles contributes to a cleaner motor vehicle fleet and improves the air quality throughout Colorado's Front Range.

The State of Colorado operates a registration denial based motor vehicle emissions inspection program in the nine-county Front Range area. This includes all, or portions of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, Larimer, and Weld counties.

Vehicles are exempt from inspection for the first seven model years. Newer model year vehicles that undergo ownership change during this period are also exempt from inspection if they have at least 12 months remaining in their seven-year exemption period.

The Inspection and Maintenance network consists of 18 Air Care Colorado emissions inspection stations with 97 inspection lanes located throughout the nine-county program area. These centralized inspection stations inspect gasoline-powered vehicles regardless of age. Air Care Colorado also operates the Remote Sensing Clean Screen program, which consists of 22 on-road Remote Sensing Device units. There are also two independent test-only stations that only inspect 1981 and older gasoline-powered vehicles. Additionally, there are 20 licensed vehicle fleet owners who self-inspect their own qualifying commercial and government vehicles.

The Colorado Automobile Inspection and Readjustment (AIR) Program includes four primary inspections types, which are administered depending on the vehicle model year, weight, and dynamometer compatibility. The inspection types are:

- On-Board Diagnostic (OBD) - electronic query of the vehicle's computer control system for vehicles that are 11 years old and newer.
- I/M240 - dynamometer based emissions inspection for light-duty gasoline powered vehicles that are model years 1982 through 12 years old.
- Two-Speed Idle - measures vehicle emissions at idle and raised idle.

TSI inspections are administered to light-duty vehicles that are 1981 and older and all model year heavy-duty gasoline-powered vehicles.

- Remote Sensing- measures tailpipe emissions while a vehicle drives past an on-road remote sensing unit. Vehicles that meet the Clean Screen standards can forgo the traditional OBD or I/M240 dynamometer inspection performed at the Air Care Colorado testing facilities.

The AIR Program also includes a visual inspection to check for required emissions control equipment on vehicles that are model year 1995 and older. Additionally,

vehicles receive a gas cap pressure test (light-duty only) along with an inspection for visible smoke.

In calendar year 2017, there were 267,987 initial OBD inspections, 567,944 initial I/M240 inspections and 44,123 Two-Speed Idle inspections conducted throughout the AIR Program network. The OBD failure rate was 6.50%, the I/M240 inspection failure rate was 9.03%, and the Idle inspection failure rate was 8.19%. Remote sensing units observed 188,621 unique vehicles that met clean screen program requirements. Of these, 160,560 vehicles participated in the program.

The state estimates that the net cost of the total AIR program during 2017 was approximately \$66.5 million. This equates to \$8,905 per ton of ozone precursors removed from Colorado's airsheds. The net cost is a combination of vehicle inspection costs, repair costs, vehicle registration fees, motorist inconvenience, and estimated fuel savings. Motorists' inconvenience costs have been added to this year's analysis as a recommendation from the 2017 AIR Program audit. Previous program economic analysis did not include this cost due to the highly variable assumptions associated to these costs. Excluding motorists inconvenience cost, the net cost of the AIR Program would be \$50.5 million, which is consistent with the 2016 AIR Program costs of \$50.6 million.

Introduction

The State of Colorado has maintained an automotive emissions inspection program since 1981. The purpose of this program is to identify and repair high-emitting vehicles. Repair of these vehicles results in lower mobile source emissions and contributes to improvement in the program area's air quality. Mobile sources remain a significant source of controllable emissions that contribute to Front Range summertime ozone levels.

The current Automobile Inspection and Readjustment (AIR) program was authorized by HB93-1340, and began operations on January 1, 1995. It consists of an Inspection and Maintenance Program that uses an electronic query of the On-Board Diagnostic system for light-duty gasoline powered vehicles that are 11 years old and newer. A dynamometer-based I/M240 emissions inspection is used for model year 1982 through 12 years old light-duty gasoline powered vehicles. It includes a Two-Speed Idle emissions inspection for 1981 and older light-duty and all model year heavy-duty gasoline powered vehicles. A visual emissions control system inspection is conducted on all 1975 through 1995 model year vehicles. A gas cap pressure test (light-duty only) and a visual opacity (smoke) inspection is performed on all 1975 and newer light-duty vehicles.

The AIR Program is comprised of the nine-county Front Range area, including all or portions of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, Larimer, and Weld counties. Vehicles registered in the latter two North Front Range counties began to be inspected on November 1, 2010.

The inspection frequency is contingent on the vehicle model year. Model year 1982 and newer vehicles are inspected biennially (every two years), while 1981 and older model year vehicles are inspected annually. The inspection cycle for new vehicles begins after a seven model year exemption period. This allows the newest and cleanest model year vehicles to forgo periodic emissions inspections. Vehicles sold during their exemption period are also exempt from inspection as long as there are at least 12 months remaining in the exemption period.

To further improve motorist convenience, the AIR program includes a Clean Screen Program using remote sensing devices. The program monitors vehicle emissions while simultaneously photographing the license plate as a vehicle passes through infrared and ultraviolet beams of light. Vehicle owners are notified by their local County Clerk via registration renewal card if their vehicles have met the program criteria. Vehicles that pass the remote sensing inspection process are not required to be inspected at a traditional inspection facility and can continue through the vehicle registration process.

The contractor for the program is Envirotest Systems Corp. (Envirotest is an operating subsidiary of Opus Inspection). They operate and maintain all of the Air Care Colorado vehicle emissions inspection stations, the Clean Screen testing units and manage all related data and communication services. The Mobile Sources Program in the Air Pollution Control Division at the Colorado Department of Public Health and Environment designs, administers, and evaluates the program. The Emissions section in

the Division of Motor Vehicles at the Colorado Department of Revenue regulates the emissions inspection facilities and inspectors working in the emissions program areas. The AIR Program is enforced through the denial of vehicle registration by the County Clerks. Proof of a passing emissions inspection is a prerequisite to renewing a vehicle's registration.

Automobile Inspection and Readjustment Program

AIR Program Network

The AIR Program network consists of 18 Air Care Colorado emissions inspection stations with a total of 97 inspection lanes, two independent test-only stations that inspect model year 1981 and older gasoline-powered vehicles, and 20 fleet stations that are licensed to inspect qualifying commercial and governmental fleet vehicles. Fleet inspection stations are licensed to only test qualifying commercial and governmental fleet vehicles that they own.

The Clean Screen roadside inspection program consists of, on average, 11 remote sensing units deployed within the program area. The units are rotated among 92 locations throughout the program area, with the primary locations being highway on ramps.

The state operates six Emissions Technical Centers throughout the AIR program area to help both the motoring public and the repair industry. These centers provide technical support for the AIR program, and emissions repair assistance for vehicle owners. These centers also provide technical support for the Department of Revenue in assessing requirements for repair and hardship waivers.

New Program Developments

In 2017, Mobile Sources staff began a project to develop a methodology to identify vehicles with high evaporative emissions that are not identified by the traditional inspection and maintenance control strategies.

Evaporative emissions from automobiles contribute a large fraction of anthropogenic Volatile Organic Compounds (VOC) emissions. These emissions differ from exhaust emissions because they are generated in the fuel system, while the vehicle is both driven and parked. These sources include refueling emissions,

evaporative system leaks, and inoperative evaporative control systems. Evaporative system leak diagnosis and repair is likely to be a cost effective way to reduce VOC emissions.

The pilot project was conducted over the summer of 2017 and the preliminary results indicate that the new strategy may be a cost effective solution to identify additional VOC emissions. The project will continue in 2018 allowing staff to obtain supplementary data for analysis.

The Office of the State Auditor completed a periodic Performance Audit of the AIR Program, and presented the findings in December 2017. As a result of this audit, the State Auditor recommended the following modifications:

1. Using OBD information for specific diagnostic trouble codes in conjunction with the IM240 test results when setting the emissions pass/fail standards for OBD-equipped vehicles that are more than 11 years old.
2. Identifying ways to reduce the number of vehicles that qualify for Clean Screen program when the vehicle's Malfunction Indicator Light is illuminated.
3. Including an estimate of inconvenience costs in its calculations when reporting to the public about the AIR Program's overall cost-effectiveness.

To further evaluate these audit recommendations, the Mobile Sources staff is launching a study to evaluate the air quality benefits and additional program costs associated to adding specific diagnostic trouble codes as a part of the OBD control strategy for older model year vehicles. Additionally, an analysis will be completed to review the impacts to the Clean Screen Program if additional qualifying standards are implemented.

Motorist inconvenience costs are included in the AIR Program's cost-effectiveness calculations in this year's report; therefore, a sharp increase is to be expected compared to the 2016 Program costs. Inconvenience costs will be included moving forward using the methodology consistent with that used in the 2017 Air Program audit.

In May 2017, the Mobile Sources team hosted the Inspection and Maintenance Solutions Training Forum. The Training Forum continues to be the premier forum for jurisdictions to share vehicle emission testing program expertise, foresee and overcome mutual obstacles, and develop a synergy that benefits our program and the public. Colorado continues to be recognized by other states as an industry leader in research and program design.

On-Board Diagnostic Inspection Program

In 2017, vehicles model year 2007 through 2010 were required to receive an On-Board Diagnostic (OBD) inspection. Additionally, vehicles model year 1996 through 2006 received an alternate OBD inspection if the vehicle was incompatible with the I/M240 dynamometer, allowing OBD fail rates to be measured for these vehicles, as explained in the I/M240 section.

The OBD inspection involves a visual assessment of the Malfunction Indicator Light (MIL), also known as a check engine light, and an electronic query of the computer control system to determine if there are emissions problems. A vehicle's OBD system will command the MIL on if the emissions output could be or is elevated 1.5 times the Environmental Protection Agency certification levels.

Because of the way the OBD inspection interprets vehicle's sensors and computer control systems, an emissions related issue may be identified more readily than with the traditional dynamometer based I/M240 inspection that directly measures a vehicle's emissions.

The OBD inspection process also includes a functional inspection of the gas cap and a visual inspection of the exhaust for opacity (smoke).

OBD – Initial Inspection Results

There were a total of 267,987 initial OBD inspections conducted in 2017. A vehicle will fail the OBD inspection if the Malfunction Indicator Light is illuminated or not functioning (Visual Fail) and/or the MIL is commanded on by the OBD system. Furthermore, a failing test may occur if the vehicle is emitting visual opacity (smoke), or has a faulty or missing gas cap. In 2017, there were 17,420 vehicles that failed their initial OBD inspections, which included failures for the MIL commanded on, visual inspection of the MIL, gas cap pressure, and visual opacity, resulting in an OBD initial failure rate of 6.50%. Vehicles that fail their initial inspection must undergo repairs and then return to an emissions station for a post-repair emissions inspection. Figure 1 shows the overall OBD initial failure rates by model year and vehicle type. Additional information regarding initial OBD failures is available in the Initial OBD Inspection Report within Appendix A2.

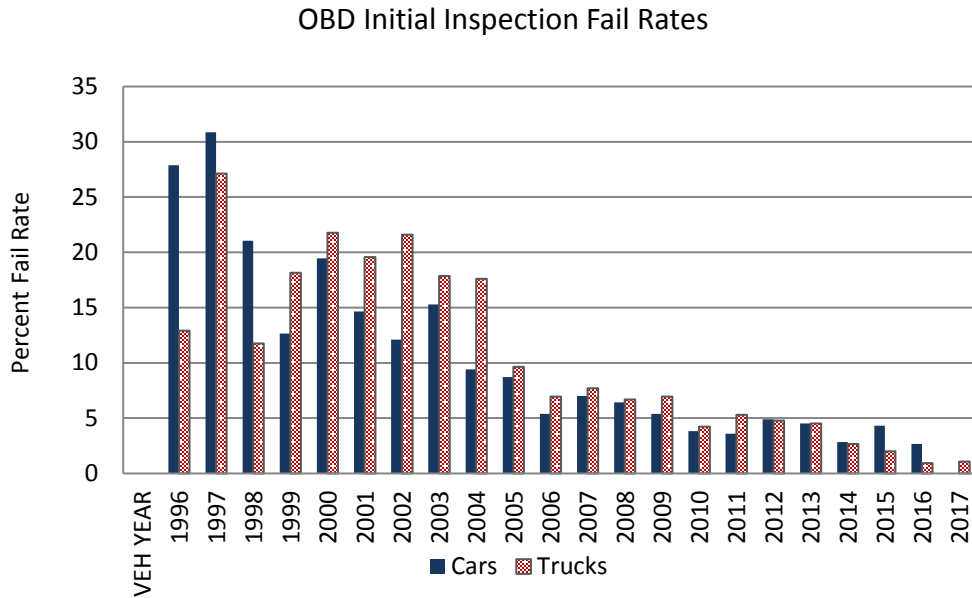


Figure 1 – OBD Initial Inspection Fail Rates by Model Year and Vehicle Type

Figure 1 demonstrates that the lowest failure rates are associated with the newest model year vehicles. This has prompted the state to exempt all new vehicles from periodic emissions inspections for the first seven model years. Nevertheless, some motorists had their vehicles inspected during the model year exemption period. This permits failure rates to be measured for 2010 and newer model year vehicles as shown in Figure 1.

Of the 17,420 overall failures, 10,843 vehicles failed their initial OBD MIL inspection resulting in an OBD MIL initial failure rate of 4.05%. Figure 2 shows the MIL failure rates by model year and vehicle type. These MIL failures include vehicles that failed for the MIL being commanded on and/or the visual MIL inspection, which is explained in the OBD visual inspection results section. Vehicles that failed for MIL and Gas Cap, as explained in OBD Initial Inspection Failure Report (Appendix A3), are also included.

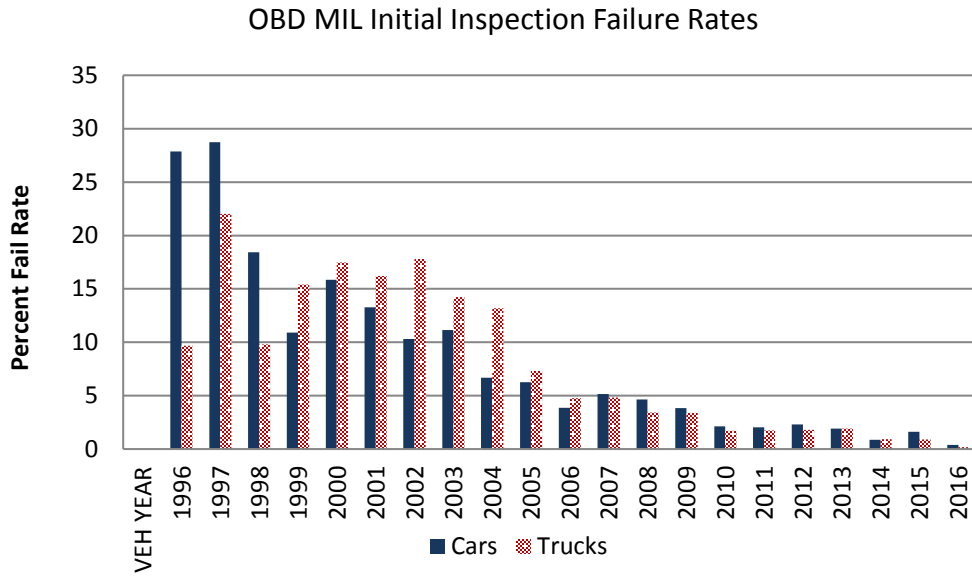


Figure 2 – OBD MIL Fail Rates by Model Year and Vehicle Type

Additional information on MIL inspection activity is available in the Initial OBD Inspection Failure Report in Appendix A3.

A vehicle’s OBD system may not communicate with the inspection equipment. If the MIL passes the visual inspection but the OBD system does not communicate the vehicle is given an alternate I/M240 inspection. In 2017, 2,816 vehicles did not communicate and received an alternate I/M240 inspection. The pass/fail results and emissions rates for these vehicles are included in the I/M240 section of this report. The purpose of administering an alternate I/M240 inspection is to maximize customer convenience, as it reduces the number of required trips to the inspection station.

In order for a vehicle’s emissions system to be properly evaluated, certain vehicle equipment parameters must be met before the diagnostic process can begin. These parameters are evaluated by the OBD system and will report the status of supported emissions systems through various “readiness monitors.” A vehicle will receive an OBD inspection if the supported readiness monitors are set to “Ready”. If the MIL passes the visual inspection but the required readiness monitors are not set to “Ready”, the vehicle is given an alternate I/M240 inspection. The readiness monitor standard varies by model year grouping so some vehicles may receive an OBD inspection with one or two readiness monitors set to “Not Ready”. In 2017, 13,751 vehicles were “Not Ready” to receive an OBD inspection and received an alternate I/M240 inspection instead. The pass/fail results and emissions rates for these vehicles are included in the I/M240 section of this report.

In 2017, 250,567 vehicles passed their initial OBD inspection (93.50%), with 15,886 (6.34%) of those passing with at least one readiness monitor set to “Not Ready”. Additionally, there were 17,420 (6.50%) vehicles that failed the OBD inspection with 3,755 (34.63%) of those failing with at least one readiness monitor set to “Not Ready”. Supplementary information on OBD readiness status is available in the Initial OBD Fail Readiness Monitor Summary Report and Initial OBD Pass Readiness Monitor Summary Report in Appendix A5 and A8.

Some vehicles are not compatible with the alternate I/M240 inspection due to the vehicle’s configuration, such as hybrids or all-wheel drive trucks with a wheel base that exceeds the limitations of the dynamometer. If the MIL passes the visual inspection, but the OBD system is “Not Ready” or a problem exists with the vehicle’s OBD system and the vehicle is not compatible with the dynamometer, then the vehicle receives an incomplete inspection. Vehicles that receive an incomplete inspection must have the OBD systems communication issue resolved or have the readiness monitors meet the “Ready” criteria. There were 8,450 (3.06%) initial incomplete inspections in 2017. Additional information regarding incomplete OBD inspections is available in the Initial OBD Incomplete Inspection Report within Appendix A10.

In addition to the mandatory OBD inspection performed on model year vehicles 2007 through 2010, an advisory only OBD inspection was completed on all 1996 through 2006 vehicles subject to the I/M240 inspection. The advisory OBD inspection included a visual MIL examination and a check of the MIL command status. These OBD inspection statistics are available in the OBD Initial Inspection Emissions Report in Appendix A9.

OBD – Gas Cap Inspection Results

Another element of the OBD Program inspection is a visual and functional inspection of gas caps. Inspectors verify that a gas cap is present, and then connect each gas cap to a device that pressurizes the cap and measures the decay of that pressure over time, which indicates a fuel vapor leak. If the gas cap is missing or if the pressure decay exceeds the standard, then the gas cap fails the inspection and the motorist is required to install a functional gas cap.

The benefit of this inspection is the reduction of gasoline vapors venting to the atmosphere, which is a major factor in ground-level ozone formation. EPA’s emissions model, MOVES, estimates that a functional gas cap program removes approximately one ton of hydrocarbons per day in Colorado.

For vehicles receiving an OBD inspection, there were 7,099 gas cap failures (2.65%) in 2017. Additional information on Gas Cap inspection activity is available in the Initial OBD Inspection Failure Report in Appendix A3.

Figure 3 shows the percentage of gas cap failures by model year

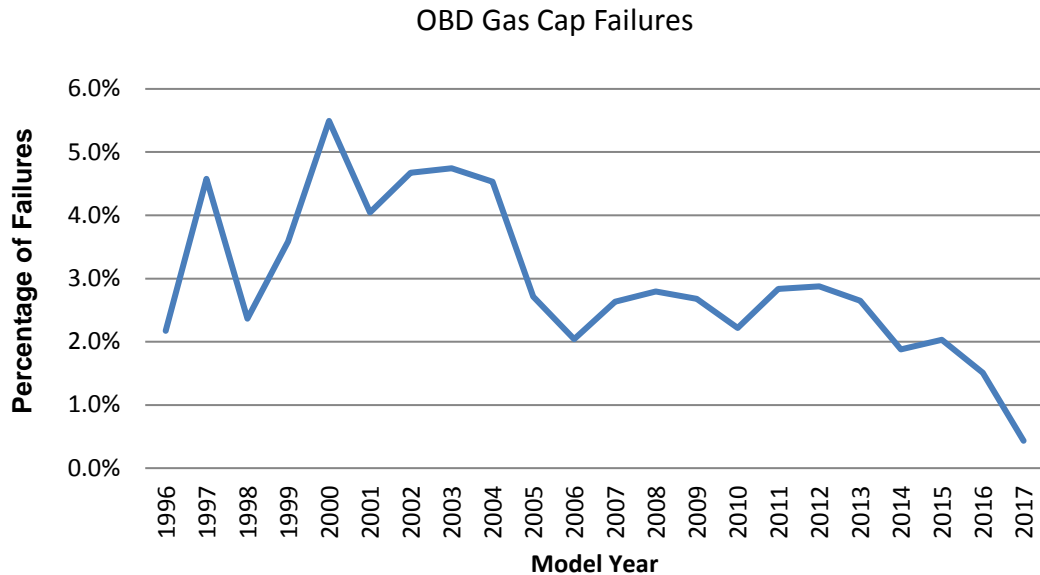


Figure 3 – OBD Gas Cap Failure Percentage by Model Year (1996-2017)

This chart only accounts for the gas cap failures associated with the OBD inspection.

OBD – Visual Inspection Results

Vehicles receiving an OBD inspection can fail for a visual inspection of its Malfunction Indicator Light. If the MIL bulb does not illuminate with the key on and engine off, or if it does not turn off after the engine is started, then the visual MIL inspection fails. Visual MIL failures can be in addition to the MIL commanded on failures. In 2017, 8,936 vehicles (3.33%) failed the visual MIL inspection. These vehicles are included in the overall OBD initial failure section. Additional information on visual MIL inspection activity is available in the Initial OBD Inspection Failure Report in Appendix A3.

OBD – Multiple Retests

Failing vehicles are required to undergo retesting after repairs are made. Some of the vehicles that fail their initial OBD inspection may continue to fail after their initial repair attempt. In 2017, 16,304 vehicles were given an OBD post-repair retest. Of these vehicles, 2,032 failed a second time, resulting in a 12.46% OBD initial retest failure rate. Additional information

on retest activity is available in the OBD Retest Frequency Report in Appendix A6.

As previously noted, a vehicle's OBD system must have the required readiness monitors set to "Ready" in order to get an OBD inspection. The program found 7,722 vehicles (27.12% of all initial OBD retest inspections) were "Not Ready" or had OBD communication issues during their initial post-repair inspections and received incomplete retests. When a vehicle has its battery disconnected or has its Diagnostic Trouble Codes manually cleared, the readiness monitors will remain in a "Not Ready" status until a manufacturer specific drive cycle is completed. The division has an extensive outreach program to educate and inform motorists and repair shops how to properly set readiness monitors after repairs are completed. The goal of this outreach is to reduce the number of vehicles that return for a retest without having the required readiness monitors set to "Ready". Additional information is provided in the OBD Retest Incomplete Inspection Report in Appendix A11.

OBD – Post-Repair Inspection Results

Vehicles that fail their OBD emissions inspection have potentially higher emissions than vehicles that pass OBD inspection. The improved emissions from repairing these vehicles generate the OBD program's air quality benefit. Additional information on retest activity is available in the OBD Retest Frequency Report in Appendix A6.

I/M240 Program Results

The I/M240 element of the program uses a 240-second loaded-mode transient dynamometer inspection cycle to measure exhaust emissions. This emissions inspection cycle is a derivative of the Federal Test Procedure that is used to certify new vehicles for emissions. The I/M240 inspection also includes a visual inspection of emissions control equipment for 1995 and older model year vehicles, a visual and pressure test of the gas cap and a visual inspection of the exhaust for opacity (smoke). Vehicles model year 1996 and newer that are I/M240 tested also receive a visual inspection of the OBD Malfunction Indicator Light as an advisory check.

I/M240 – Initial Inspection Results

In 2017, there were a total of 567,944 initial I/M240 inspections conducted. The majority of vehicles pass this initial I/M inspection. Vehicles that fail their initial inspections must undergo repairs and then return to an emissions inspection station for additional testing.

Vehicles can fail for a number of reasons, including missing or broken emission control equipment (1995 and older model year vehicles), excess exhaust emissions, visual opacity (smoke), or faulty or missing gas caps. In 2017, 51,264 vehicles failed their initial I/M240 inspections, resulting in an initial failure rate of 9.03%. Of these, 26,323 vehicles failed for excess exhaust emissions, or an exhaust emissions failure rate of 4.63%.

There were a small number of vehicles that were tested within their exemption period that are not included in Figures 4, 5, 6, 7, and 8. There were not enough vehicles for model years 2011 and newer to accurately represent average emissions rates.

Figure 4 shows the overall I/M240 initial failure rates by model year and vehicle type. Overall failures consist of vehicles with excessive exhaust emissions, gas cap pressure failures, opacity and/or visual equipment test failures.

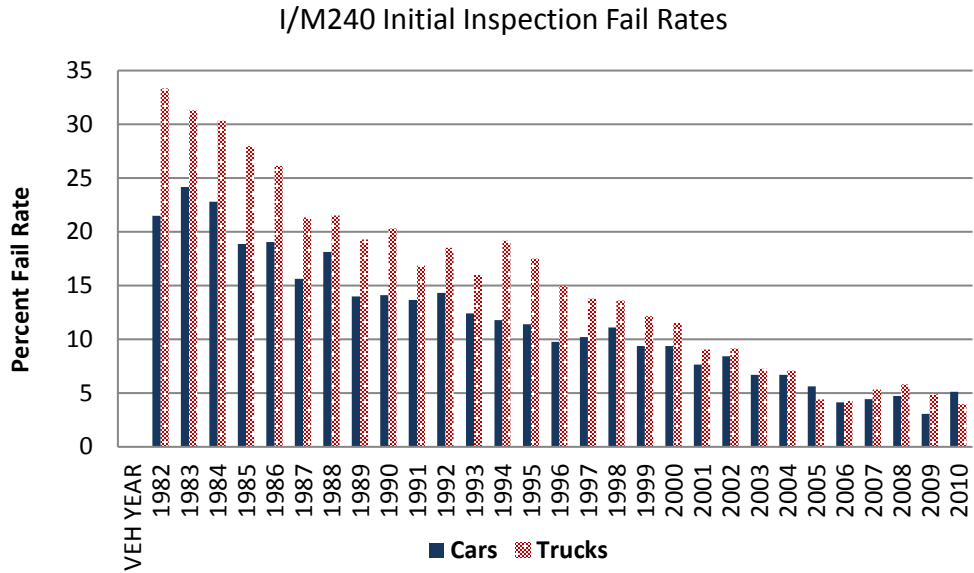


Figure 4– I/M240 Initial Inspection Fail Rates by Model Year and Vehicle Type (1982-2010)

In 2017, model year 2006 and older vehicles were required to receive I/M240 inspections, however; model year 2007 and newer vehicles may have received alternate I/M240 inspections if the vehicles’ OBD systems were “Not Ready” or did not communicate and therefore allowing I/M240 exhaust fail rates to be measured for these vehicles.

Figure 5 shows rates of vehicles that failed for excessive exhaust emissions, sorted by model year and vehicle type.

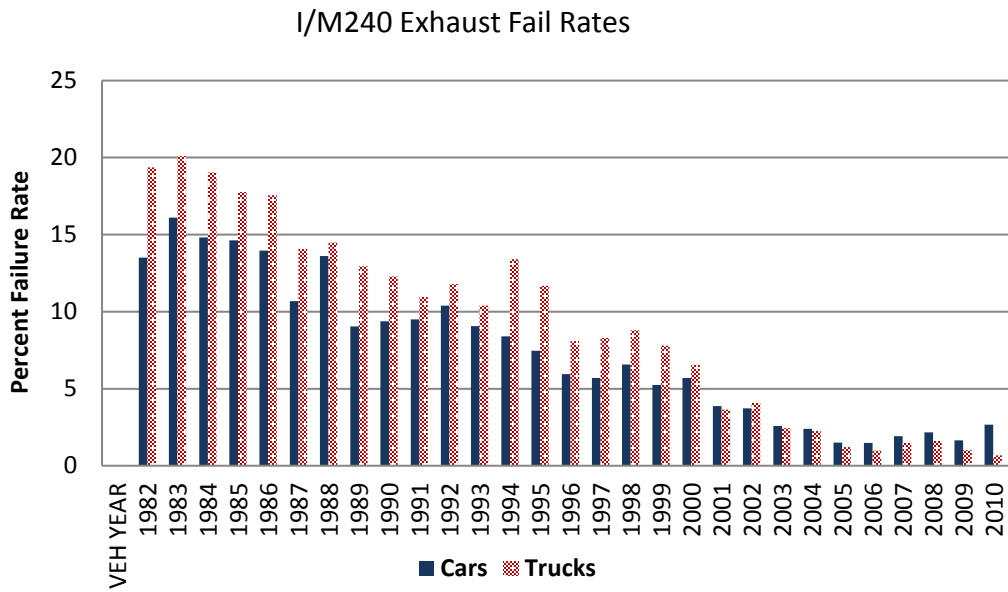


Figure 5 – I/M240 Exhaust Fail Rates by Model Year and Vehicle Type (1982-2010)

Figures 6, 7, and 8 show the initial exhaust emission results for hydrocarbons, carbon monoxide, and nitrogen oxides, respectively.

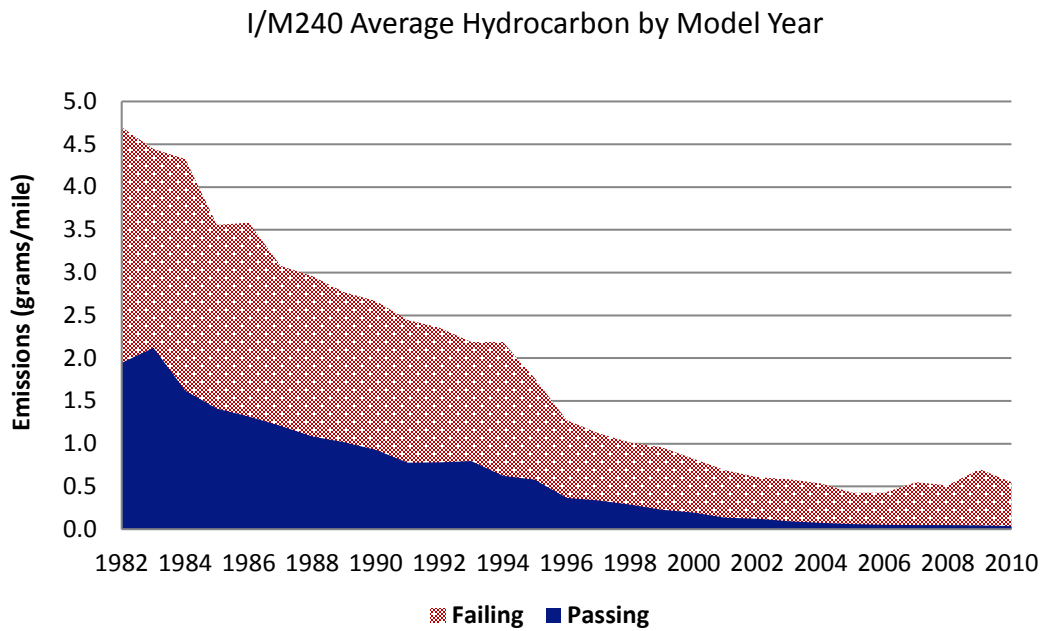


Figure 6 – I/M240 Average Hydrocarbon Emissions by Model Year (1982-2010)

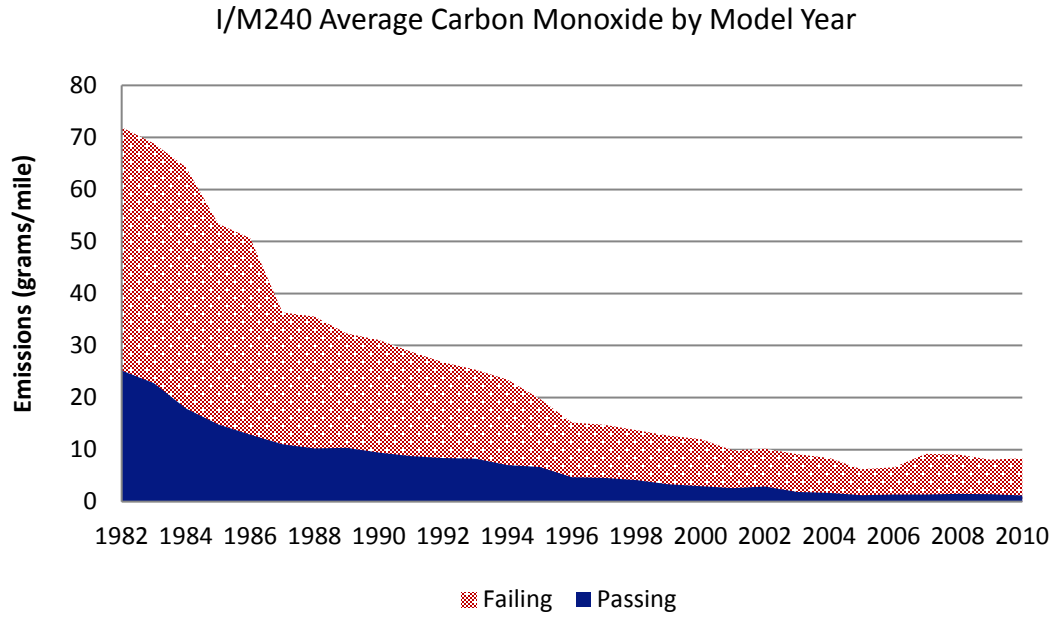


Figure 7 – I/M240 Average Carbon Monoxide Emissions by Model Year (1982-2010)

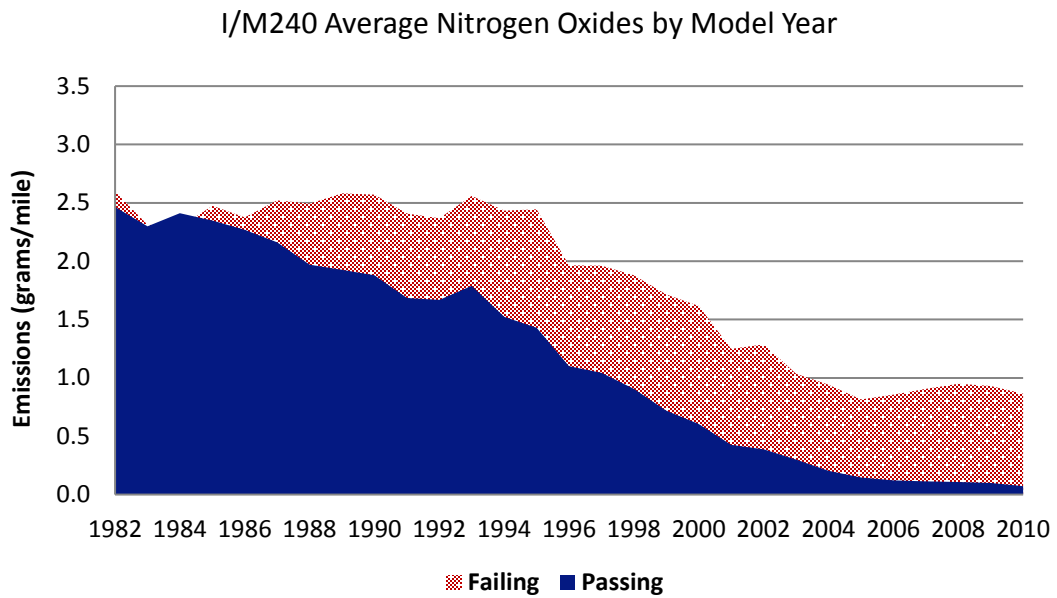


Figure 8 – I/M240 Average Nitrogen Oxides Emissions by Model Year (1982-2010)

Vehicles that fail for excessive exhaust emissions could fail for one or any combination of these criteria pollutants. Emission standards that are used to fail a vehicle are set accordingly for individual model years and vehicle types. All standards are set so that well-maintained vehicles will likely pass, with an adequate buffer to prevent marginal vehicles from falsely failing the inspection.

As these figures show, HC, CO, and NO_x emissions are highest for the oldest vehicles. As expected, average exhaust emissions drop significantly for newer vehicles (in terms of both passing and failing emissions).

I/M240 – Gas Cap Pressure Inspection Results

The inspection program includes a visual and functional test of each vehicle’s gas cap. Inspectors install each gas cap on a pressurizing device that measures pressure decay over time. If the pressure decay exceeds the standard, then the gas cap fails and the motorist is required to install a functional gas cap.

The benefit of this test is a reduction of gasoline vapors venting to the atmosphere, a significant factor in ground-level ozone formation. EPA’s emissions model, MOVES, estimates that a functional gas cap testing program removes approximately one ton of hydrocarbons each day in Colorado.

There were 26,002 vehicles subjected to the I/M240 inspection that failed the gas cap test in 2017; resulting in a failure rate of 4.36%. Figure 9 shows the number of gas cap pressure failures by model year.

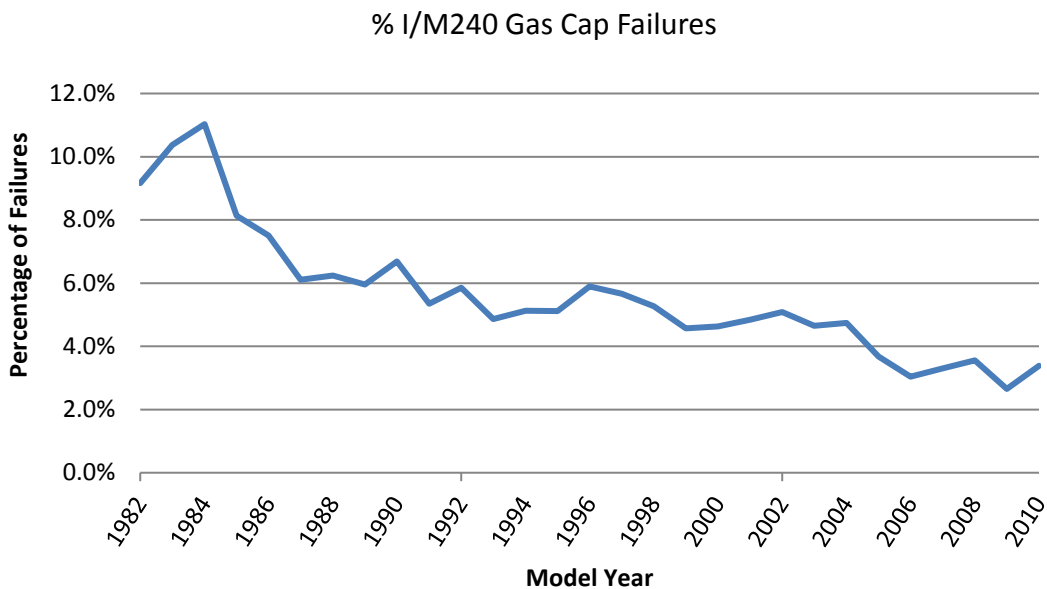


Figure 9 – I/M240 Gas Cap Failure Percentage by Model Year (1982-2010)

This chart only accounts for the gas cap failures associated with the I/M240 inspection.

I/M240 – Visual Inspection Results

All model year 1982 through 1995 vehicles are subjected to a visual inspection of their secondary air injection system, catalytic converter(s), and/or oxygen sensor(s).

In 2017, 386 vehicles failed for missing or improperly installed catalytic converter(s), 426 vehicles failed for a missing or tampered air injection system and 204 vehicles failed for a missing or tampered oxygen sensor(s).

I/M240 – Multiple Retests

Failing vehicles are required to undergo retesting after repairs are made. Some vehicles that fail their initial I/M240 inspections may continue to fail even after initial repairs.

In 2017, 47,882 vehicles received an initial post-repair I/M240 retest. Of these, 12,169 failed again, thus resulting in a 25.41% I/M240 initial retest failure rate. Additional information on retest activity is available in the I/M240 Retest Frequency Report in Appendix B6.

I/M240 – Post-Repair Inspection Results

Vehicles that fail their emissions inspection generally have much higher emissions than vehicles that pass. The improved emissions from repairing these vehicles generate the program's air quality benefit.

Table 1 shows the average emissions from all vehicles that failed their initial I/M240 inspections and received a subsequent retest, average emissions from vehicles that passed a subsequent retest, and the percent reduction by pollutants and vehicle types in grams per mile.

Table 1 - I/M240 Passed Retest Inspection Results (2017)

Vehicle Type	Failed Initial Inspection			Passed Retest			Percent Reduction		
	HC gpm	CO gpm	NOx gpm	HC gpm	CO gpm	NOx gpm	HC	CO	NOx
Cars	1.21	15.26	1.53	0.29	3.80	0.67	65.22	66.35	43.77
Trucks	1.56	20.69	2.15	0.46	5.64	1.08	56.63	61.61	37.38
TOTAL	1.42	18.49	1.90	0.39	4.88	0.91	59.72	63.28	39.46

Two-Speed Idle Inspection Results

The AIR Program requires non-exempt* model year 1981 and older gasoline-powered vehicles to undergo annual Two-Speed Idle inspection. Fleet-owned vehicles model year 1995 and older are Idle inspected annually. Fleet-owned vehicles model year 1996 and newer are OBD inspected annually (these vehicles are included in the OBD section). Heavy-duty gasoline-powered vehicles newer than model year 1981 undergo Idle inspection, but on a biennial (every two years) basis.

The Idle inspection measures vehicle emissions at idle and raised (2500 rpm) idle. Only hydrocarbon and carbon monoxide emissions are measured, with no engine load placed on the vehicle. NOx emissions are not measured as part of the two-speed idle inspection protocol because NOx is not produced in significant amounts at idle and when the vehicle is not under load. These inspections measure vehicle exhaust pollutant concentration levels in parts per million for hydrocarbon and percent for carbon monoxide, not the actual mass of emissions. The Two-Speed Idle inspection also includes a visual inspection of emissions control equipment (for 1975 through 1995 newer model year vehicles), a visual and pressure test of the gas cap (light-duty only) and a visual inspection of the exhaust for opacity (smoke).

*Exempt vehicles include vehicles registered as collector series, street rods, farm vehicles, or horseless carriage.

Two-Speed Idle – Initial Inspection Results

In 2017, 44,123 vehicles underwent Idle inspections within the program area. Of these vehicles, 3,615 (or 8.19%) failed their initial inspections, with 3,090 (7.00%) failing the exhaust portion of the inspection.

Figures 10, 11, and 12 show failure rates by model year, along with the average emissions of passing and failing vehicles by pollutant. Model year 1974 in these figures include all failing vehicles of model year 1974 and earlier. There were a small group of vehicles that were tested within their exemption period that are not included in Figures 10, 11, and 12. There were not enough vehicles for model years 2010 and newer to accurately represent average emissions rates.

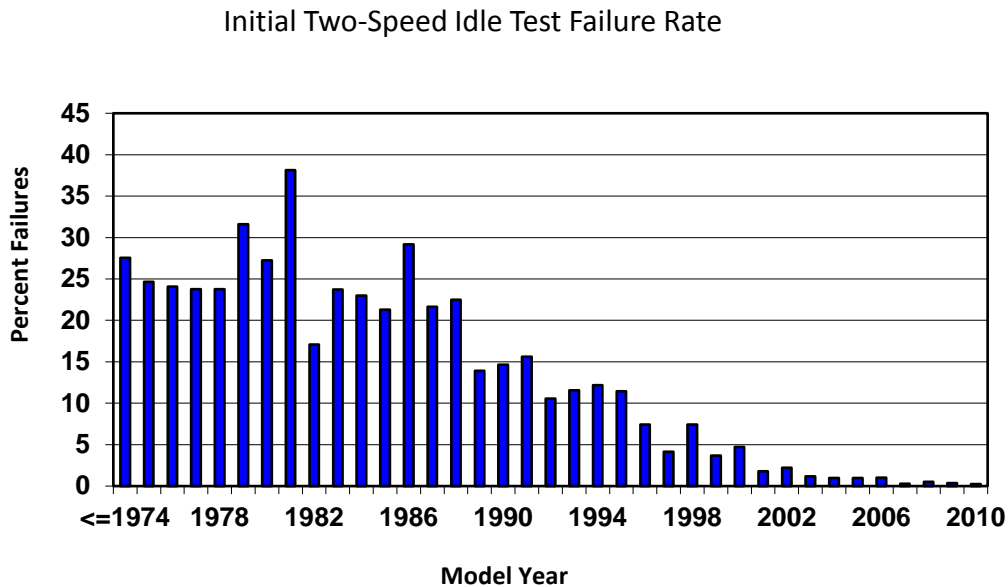


Figure 10 – Two-Speed Idle Inspection Initial Inspection Fail Rate by Model Year

Two-Speed Idle Test - Hydrocarbon

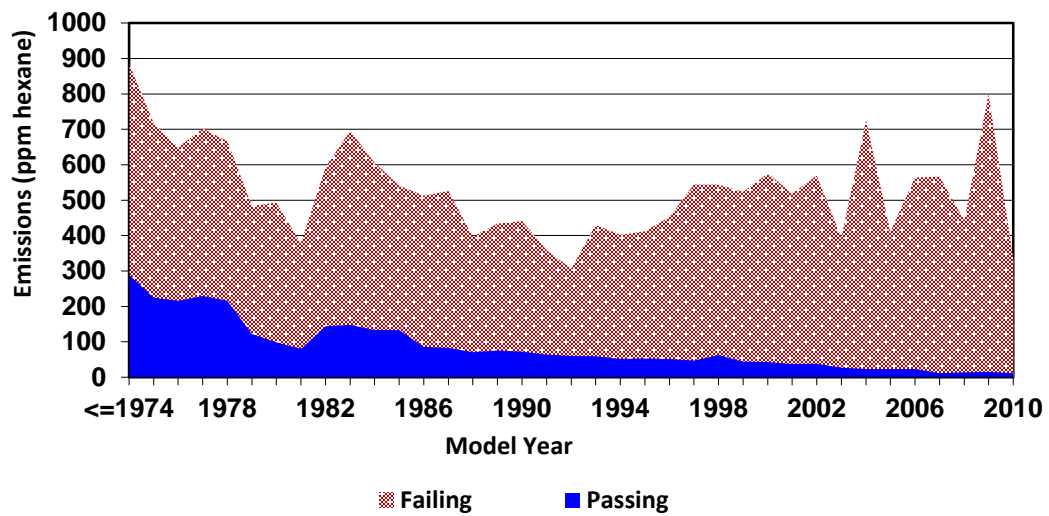


Figure 11 – Two-Speed Idle Inspection Average Hydrocarbon by Model Year

Two-Speed Idle Test - Carbon Monoxide

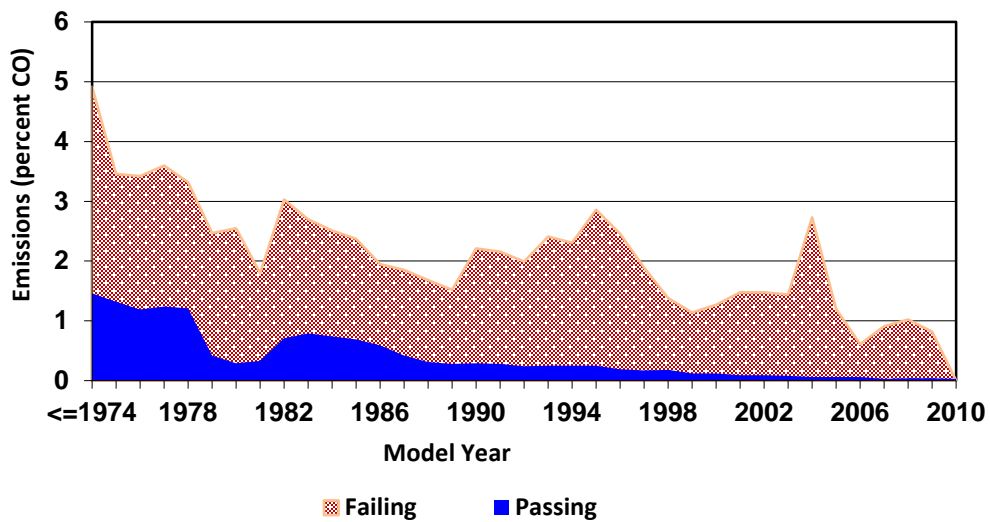


Figure 12 – Two-Speed Idle Inspection Average Carbon Monoxide by Model Year

Two-Speed Idle – Gas Cap Inspection Results

One function of the gas cap is to prevent harmful fuel vapors from escaping into the atmosphere. A gas cap pressure inspection is performed to test the gas cap's ability to hold pressurized vapors inside the fuel tank. Two-Speed Idle tested light-duty vehicles (model year 1975 and newer) must undergo a gas cap pressure inspection. Inspectors install a vehicle's gas cap on a device that pressurizes the cap and measures the decay of that pressure over time. If the pressure decay exceeds the standard, then the vehicle fails the inspection and motorists are required to install a functional cap. There were 424 gas cap failures during two-speed idle inspections in 2017. This is a failure rate of 10.25% of vehicles subjected to gas cap inspection.

Two-Speed Idle – Visual Inspection Results

Two-Speed Idle inspected vehicles undergo a visual inspection of the secondary air injection system, catalytic converter, and oxygen sensor. There were 3,615 vehicles that failed the Two-Speed Idle inspection in 2017. Of these, 216 vehicles failed for missing or improperly installed catalytic converter(s), 315 failed for a missing or tampered air injection system, and 16 failed for missing oxygen sensor(s).

Two-Speed Idle – Multiple Retests

Failing vehicles are required to undergo retesting after repairs are made. Some vehicles that failed their initial Idle inspections may continue to fail after their initial repairs. There were 3,090 vehicles given initial post repair retests in 2017. Of these vehicles, 1,099 failed again, resulting in a 35.57% initial Idle retest failure rate. Additional information on retest activity is available in the Idle Retest Frequency Report in Appendix C6.

Two-Speed Idle – Post-Repair Inspection Results

Vehicles that fail their initial Idle exhaust emissions inspections generally have much higher emissions than vehicles that pass the inspection initially. After failing their emissions inspections, vehicles must undergo repairs until they pass the inspection.

Table 2 shows the average emissions (in part per million and percent) at idle and raised idle (2500 rpm) from all vehicles that failed their initial Idle inspections and received subsequent retests, average emissions from vehicles that passed subsequent retests and the percent reduction by pollutant.

Table 2 - Two-Speed Idle Passed Retest Inspection Results (2017)

Vehicle Type	Failed Initial Idle		Failed Initial 2500		Passed Retest Idle		Passed Retest 2500		% Reduction Idle		% Reduction 2500	
	HC (ppm)	CO (%)	HC (ppm)	CO (%)	HC (ppm)	CO (%)	HC (ppm)	CO (%)	HC	CO	HC	CO
Cars	620.87	3.16	428.56	3.09	153.66	0.59	147.47	1.45	70.84	79.61	56.76	46.81
Trucks	644.18	2.88	398.19	2.31	155.20	0.71	132.24	1.15	73.18	73.07	62.61	44.40
Total	639.43	2.94	404.38	2.47	154.89	0.68	135.31	1.21	72.74	74.49	61.46	45.00

Unresolved Vehicles

A concern for any inspection program is “unresolved vehicles” which fail an initial inspection, never receive a passing inspection, and disappear from the registered fleet. Approximately 17.2% of vehicles that failed their initial inspection in 2017 did not receive a passing retest by March 2017. Out of the 71,869 initial failures, there were 12,327 vehicles that were unresolved as of March 2017. It is assumed that the vast majority of these vehicles are successfully repaired outside of the analysis period (calendar year 2017), move out of the program area, or are retired.

Smoking Vehicles

Smoking vehicles tend to be excessive emitters. They are of concern to the state for overall air quality reasons, and to the nearby motorists exposed to emissions from these vehicles.

CDPHE operates a Smoking Vehicle Hotline for motorists to report any excessively smoking vehicles they observe. Once reported, CDPHE provides registered owners of these vehicles with a brochure informing them that if their vehicle emits any visible smoke during their next regular emissions inspection, it will fail.

The brochure is designed to educate owners on the causes of visible smoke, its health effects, and potential danger, not only to other motorists but also to those in the smoking vehicle. The brochure also provides information regarding where a motorist may receive diagnostic help in determining and repairing their vehicle’s problem. Although the

smoking vehicle program is voluntary, the state encourages smoking vehicle owners to take advantage of diagnostic services available at State-operated Emission Technical Centers.

Vehicle information reported on the hotline is also transferred to Air Care Colorado lane inspectors, alerting them that the vehicle they are inspecting has been reported as a smoking vehicle. If the vehicle is smoking at the time of the inspection, then it fails the emissions inspection. In 2017, 595 vehicles failed the visible smoke portion of the emissions inspection (118 OBD inspections, 417 I/M240 inspections and 60 Two-Speed Idle inspections).

Waivers

A Certificate of Emissions Waiver (or “waiver”) is an emissions control document that satisfies the emissions inspection requirement for a vehicle for one inspection cycle, even though the vehicle was unable to meet emissions standards.

There are three types of waivers:

- A Repair Cost Waiver may be issued for a vehicle which fails an emissions inspection, receives emissions-related repairs that meet the minimum repair cost limit (\$715 for model year 1968 and newer vehicles, and \$75 for 1967 and older vehicles), and then fails a subsequent emissions inspection. In order to qualify for a repair cost waiver, repair expenses must pertain to the specific causes of the emissions failure. Documentation of this fact is required. This type of waiver is referenced in C.R.S. 42-4-306(7)(a)(II)(A) and AQCC Regulation No. 11. In 2017, there were 381 Repair Waivers issued by Department of Revenue (DOR).
- An Economic Hardship Waiver may be issued once in each vehicle’s lifetime if the vehicle owner has no other means of transportation and is receiving a recognized form of economic assistance. This type of waiver is referenced in C.R.S. 42-4-306(7)(a)(II)(C) and AQCC Regulation No. 11. In 2017, there were 310 Economic Hardship Waivers issued by DOR.
- A Diagnostic Waiver may be issued for a vehicle that fails a retest, has not met the repair cost limit, and a complete and documented physical and functional diagnosis of the vehicle (performed at one of the program’s Emissions Technical Centers) concludes that no additional emissions-related repairs would be effective or needed. This type of waiver is referenced in C.R.S. 42-4-310(1)(d)(IX). In 2017, there were 24 Diagnostic Waivers issued by CDPHE Technical Center staff.

Waivers are not issued for vehicles that have been tampered with (i.e. missing emissions control equipment), and/or are visibly smoking. Vehicles that fail the gas cap inspection are also not eligible to receive a waiver.

A vehicle owner can request a waiver by calling the Division of Motor Vehicles at the Department of Revenue. As part of the waiver process, a State Emissions Technical Center technician may evaluate the vehicle to both verify the aforementioned criteria and make useful repair recommendations to the vehicle owner.

Additional information on waivers is available in the Department of Revenue's section of this report.

Clean Screen Program Results

The state also operates a remote sensing based roadside emissions inspection program called Clean Screen or RapidScreen. This program permits vehicles that are seen two or more times in a year and meet certain rigorous emissions standards to pass a remote sensing emissions inspection as an alternative to the standard inspection at an emissions inspection station.

The state's emissions inspection contractor, on average, deploys 11 units daily in the nine county program area. These units operated a total of 20,497 hours in 2017, collecting approximately 3.9 million emissions records.

In 2017, the overall remote sensing evaluated fraction of testable vehicles was 28.84% (based on 769,603 total I/M eligible vehicles in the fleet, with 221,962 unique eligible vehicles assessed by remote sensing devices). The number of unique eligible vehicles evaluated includes both vehicles that did and did not pass Clean Screen standards.

Of the 221,962 vehicles evaluated by remote sensing units, 188,621 (84.98%) were identified as passing Clean Screen standards and issued a Clean Screen notice. Of those Clean Screen notices, 160,560 or 85.12% were redeemed. The redeemed numbers are calculated from each individual vehicle that passed Clean Screen requirements whose owners chose to use the passing Clean Screen results to register their vehicles in lieu of getting the traditional emissions inspections.

Clean Screen Average Vehicle Emissions Results

The Clean Screen program measures vehicle emissions under actual operating conditions. While there is variability to these measurements, when aggregated as a group, vehicle emissions trends may be observed. The following three graphs (Figure 13,14, and 15) detail the emissions results of remote sensing monitoring

for each of the three pollutants measured (HC, CO, and NO_x), grouped by vehicle model year.

The fleet average emissions are shown by the middle green line in each of the charts. It represents the average emissions for the model year 1982 and newer vehicle fleet that are evaluated through remote sensing. As defined on the charts, average fleet emissions for all three pollutants (HC, CO, and NO_x) show a pronounced downward trend to the newest vehicles that are the cleanest portion of the fleet.

The bottom blue line indicates the average emissions by model year for vehicles that met all the Clean Screen requirements and pass Clean Screen standards. It is noticeable that the average emission rates are much lower than the fleet as a whole, reflecting the tighter emissions standards these vehicles must meet. The red line shows the average emissions by model year for vehicles that met Clean Screen requirements but did not pass the Clean Screen standards.

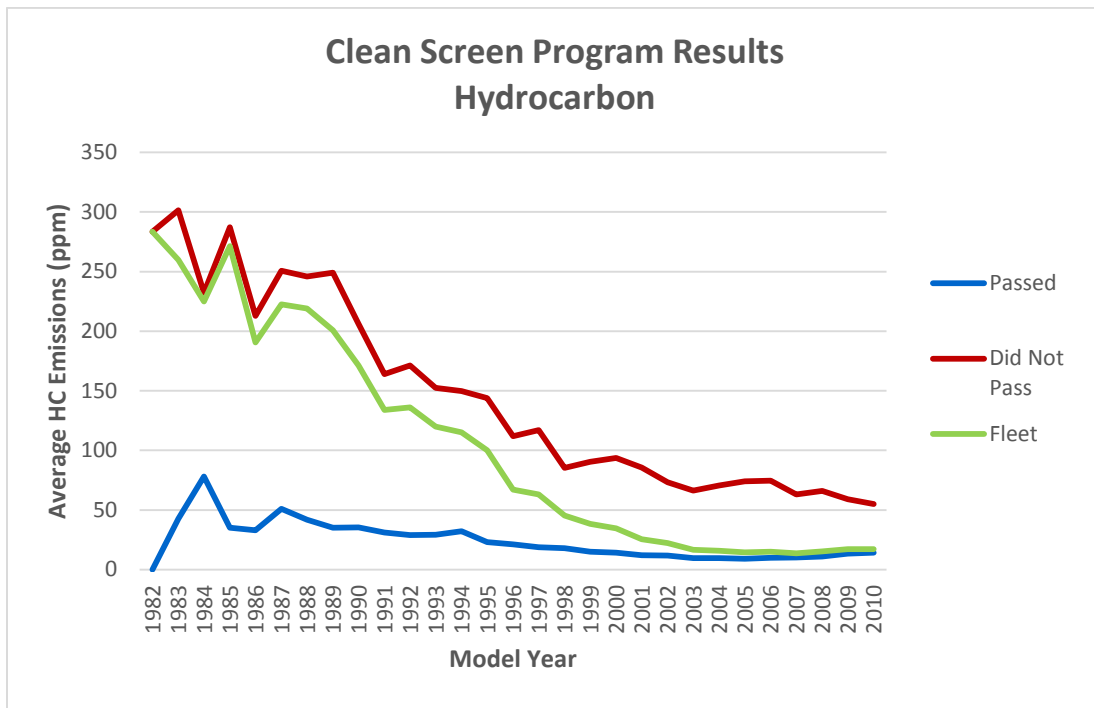


Figure 13 – Clean Screen Program Results – Average Hydrocarbon Emissions by Model Year (1982-2010)

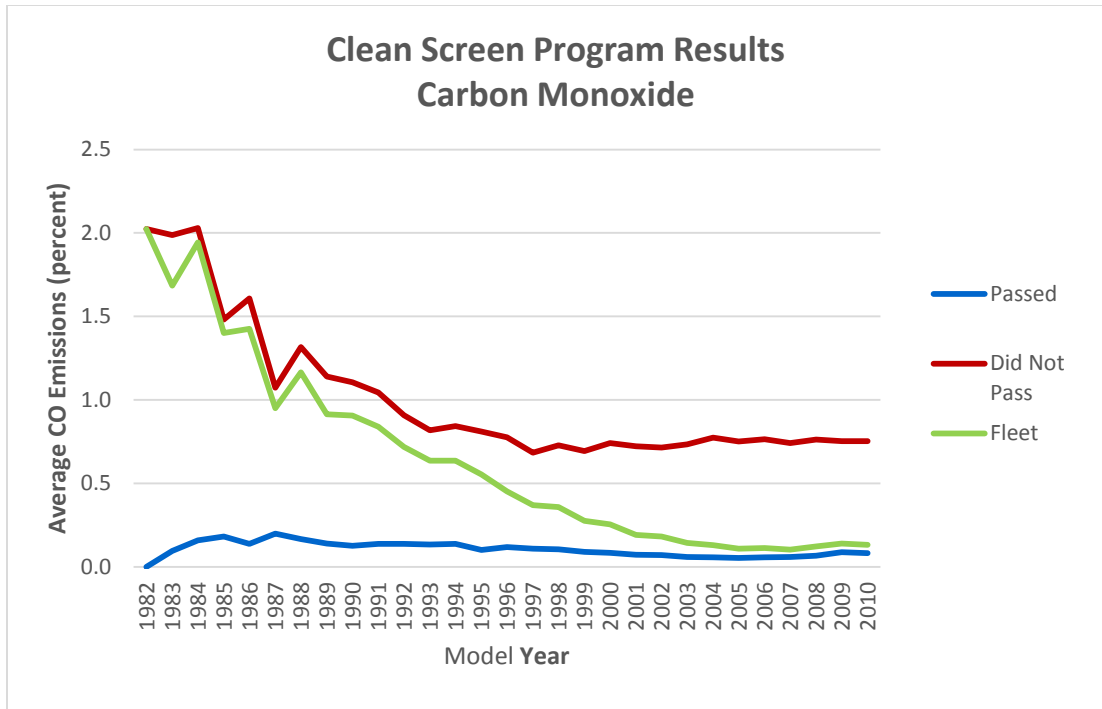


Figure 14 – Clean Screen Program Results – Average Carbon Monoxide Emissions by model year (1982-2010)

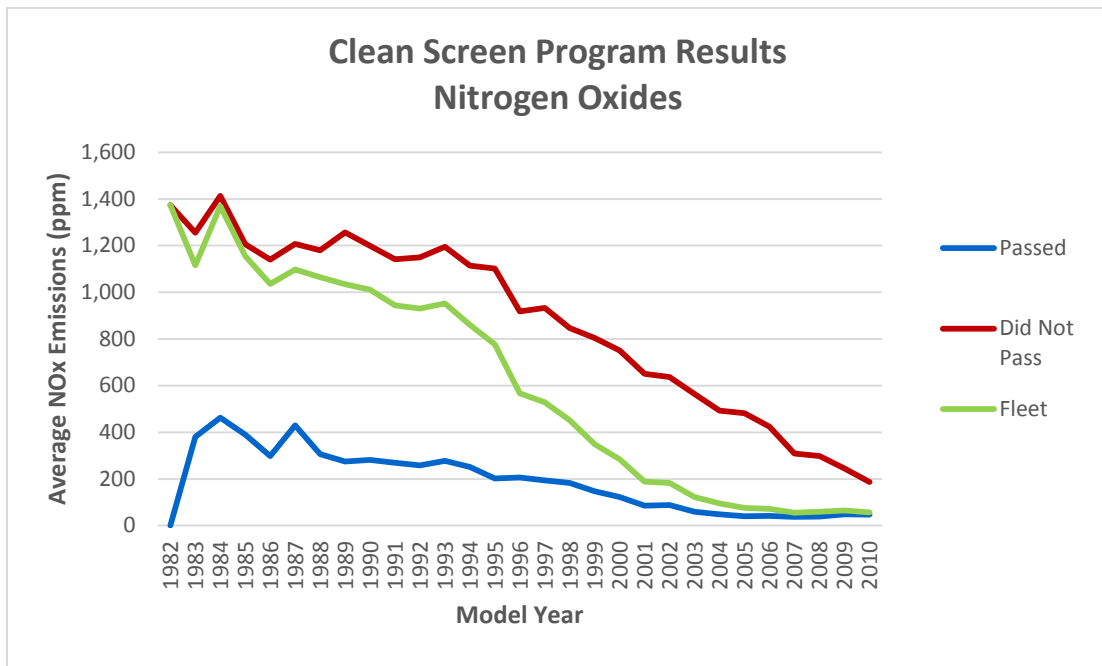


Figure 15 – Clean Screen Program Results – Average Nitrogen Oxides Emissions by model year (1982-2010)

Cost-Effectiveness of the AIR Program

As with any public program, it's important to evaluate the value that the AIR Program provides in relation to the overall program costs. Such analysis depends on assumptions about the program design and the financial impact to the motorist.

The state looks at the program's benefit as measured in tons per day of emissions reduced and the daily program operating costs. The analysis is completed using methodologies consistent with that used in the development of the State Implementation Plan.

This analysis included the inspection costs, the number of vehicles inspected, registration fees associated to the operation of the AIR Program, the average cost of repairs for vehicles undergoing repair, and the fuel economy benefit obtained from repairing excessively emitting vehicles. Additionally, motorist inconvenience costs have been added to this year's analysis as a recommendation from the 2017 AIR Program audit. Previous program economic analysis did not include this cost due to the highly variable assumptions associated to these costs.

Cost of Inspections

The total cost of inspections is defined as the cost of inspecting an individual vehicle multiplied by the number of vehicles undergoing paid inspections. The cost of OBD, I/M240, and Two Speed Idle (TSI) emissions inspections for 1982 and newer vehicles is \$25.00 per inspection. Inspections for 1981 and older vehicles cost \$15.00 per inspection.

Failing vehicles are entitled to a free retest within ten (10) calendar days after the initial inspection. Subsequent inspections (third, fifth, etc.) are considered to be new inspections requiring additional payment. In addition, some motorists undergo inspection after the ten day period and must pay for a new inspection. This cost is included in the total program inspection costs.

Clean Screen inspections cost \$25.00 for eligible vehicles whose owners wish to participate in this program. This fee is then added to the vehicle's registration renewal.

In 2017 there were a total of 1,040,614 initial inspections (including redeemed clean screen) conducted. Of these inspections, 267,987 were initial OBD inspections, 567,944 were initial I/M240 inspections, 44,123 were initial TSI inspections, and 160,560 were for vehicles that went through the Clean Screen process.

The state estimates that the program’s inspection costs amounted to \$26,730,225 in 2017.

Table 3 shows overall inspection costs per type of inspection.

Table 3 - Overall Inspection Cost by Inspection Type (2017)

Inspection Type	Initial Inspections	Total Paid Inspections	Cost
OBD	267,987	274,125	\$6,853,125
I/M240	567,944	591,989	\$14,799,725
Idle	44,123	45,555	\$1,063,375
Clean Screen	160,560	160,560	\$4,014,000
TOTAL	1,040,614	1,072,229	\$26,730,225

Registration Fees

As part of the total vehicle registration cost, the state collects a \$2.20 vehicle emissions fee from gasoline motor vehicles registered in the I/M program area. This helps to fund AIR program operations, program administration, motorist and repair industry assistance, outreach activities, and county registration activities. This fee is shared between County Clerks that administer vehicle registration renewals, and with the Colorado Departments of Revenue and Public Health and Environment that design, administer, evaluate, and enforce the program.

There were an estimated 3,099,222 I/M fee-eligible gasoline-powered vehicles registered in the enhanced nine-county I/M Program area as of December 31, 2017. This equates to a total registration-fee cost of \$6,818,288 for the entire program.

Repair Costs

Vehicles that failed their emissions inspections are required to undergo repair. Repair costs vary depending on the types of repairs and the shops performing them. To determine repair costs, the state collects data on the repair costs for failing vehicles.

In 2017, the average emissions repair cost for vehicles failing the OBD inspection was \$433.36 and for the I/M240 inspection was \$498.17. For vehicles receiving the Idle inspection, the average repair costs were \$337.95 for model year 1981 and older vehicles, and \$531.94 for model year 1982 and newer vehicles. For

vehicles failing the gas cap portion of the I/M inspection, the assumed replacement gas cap cost is \$20 each.

For the OBD inspected vehicles, 17,420 failed their initial OBD inspections. Of these vehicles, 10,961 failed for the MIL commanded on and/or visual MIL inspection, and other non-gas cap failures. There were 7,099 OBD inspected vehicles that failed the gas cap pressure inspection. Some vehicles failed for both OBD inspection and gas cap and are included in both the groups.

Of the I/M240 vehicles inspected, 51,264 vehicles failed their initial I/M240 inspections, with 27,441 of these vehicles failing for excess emissions only, or excess emissions in combination with failing visual inspection. Vehicles were also failed for excess opacity. For the gas cap portion of the test, there were 26,002 I/M240 vehicles that failed. There were some vehicles that failed for both excess emissions and gas cap. These vehicles are included in both the excess emissions/visual failure group and gas cap failure group.

In the two-speed idle tested vehicle group, 3,615 vehicles failed their initial Idle inspections. Of these vehicles, 3,542 failed the exhaust only, a combination of the exhaust and visual components of the inspection process, or excess opacity. For the gas cap portion of the test, there were 424 vehicles that failed gas cap inspection. Some of these vehicles failed for both excess emissions and gas cap and are included in both the excess emissions/visual failure group and gas cap failure group.

Table 4 details the total repair costs by inspection type.

Table 4 - Total Repair Costs by Inspection Type (2017)

Inspection Type	Excess Emissions/Visual		Gas Cap		TOTAL
	Count	Cost	Count	Cost	
OBD	10,961	\$4,750,059	7,099	\$141,980	\$4,892,039
I/M240	27,441	\$13,670,283	26,002	\$520,040	\$14,190,323
Idle	3,542	\$1,542,515	424	\$8,480	\$1,550,995
TOTAL	41,944	\$19,962,857	33,525	\$670,500	\$20,633,357

Fuel Savings

Vehicles that received emissions-related repairs achieve better fuel economy on average. The amount of the fuel economy improvement is highly dependent on the individual vehicle, the type of repair, and the effectiveness of that repair.

When a vehicle receives an I/M240 inspection, fuel economy is measured. Based on Colorado's I/M240 testing, a fuel economy improvement of 4.3% was achieved for all vehicles failing their initial I/M240 test and passing their final retest.

Using the estimated fuel savings, and assuming that these repairs prevent excessive emissions for the entire two-year emissions testing cycle, fixing exhaust and gas cap failures result in an estimated savings of 1,517,873 gallons of gasoline. Using a 2017 average cost of \$2.43 per gallon (Denver / Front Range annual average from the U.S. Energy Information Administration), vehicles undergoing emission repairs saved an estimated \$3,688,432 on gasoline as a result of reduced fuel usage.

Motorist Inconvenience Costs

Vehicle owners incur an inconvenience cost, which generally represents the time and effort expended in order to complete the emissions test at a brick-and-mortar test facility. These costs include:

- Vehicle operation costs associated with travel to and from the emissions inspection center.
- Time spent traveling to and from an emissions inspection center.
- Time waiting for and during the emission test.

To calculate direct vehicle operation costs, an average cost of 53.5 cents per mile was assumed, representing the 2017 IRS standard business mileage rate. The average travel to an inspection center was seven miles. Based on the number of vehicles undergoing IM inspections, average per mile cost of operation, and average travel to and from an emissions inspection center, a vehicle operation cost of \$7,283,351 was calculated.

Travel to and from an emissions inspection center averaged 22.24 minutes. Assuming half the hourly consumer wage rate of \$25.99 per hour (based on U.S. Bureau of Labor Statistics May 2017 state occupational employment and wage estimates for Colorado), this equates to a motorist travel time cost of \$4,683,917.

The average motorist experienced an average wait time before their vehicle is inspected of 8.05 minutes in 2017. Applying the same discounted average hourly consumer wage as above to the total wait times, produces a motorist wait time cost of \$1,695,884.

For 2017, the average emissions inspection took 11.24 minutes to complete. Once again applying the discounted hourly consumer wage rate to total test time, results in a motorist test time cost of \$2,368,039.

Inconvenience cost is the total of vehicle operation costs and motorist personal time costs, or a total of \$16,099,260.

There are no inconvenience costs for the Clean Screen inspection. Vehicles are inspected during on-road travel that incurs no inconvenience cost to the motorist. Vehicle owners are notified by the receipt of their vehicle registration renewal postcard, and payment is mailed in with the registration renewal payment.

Overall Program Costs

Overall program costs include inspection fees, vehicle registration fees, repair costs, and fuel economy savings, as well as motorist inconvenience costs. Table 5 details these costs, and the overall cost of the program.

Table 5 - Overall Program Cost (2017)

Annual I/M Program Cost (dollars)	
Inspection Fees	\$26,730,225
Registration Fees	\$6,818,288
Repair Costs	\$20,633,357
Fuel Economy Savings	-\$3,688,432
Inconvenience Costs	\$16,031,192
Total	\$66,524,630

Emission Benefits

Based on the U.S. EPA's MOVES model, Colorado's current AIR Program reduces total gaseous hydrocarbon emissions by 9.3 tons per day (tpd), carbon monoxide emissions by 118.0 tpd, nitrogen oxide (NOx) emissions by 9.2 tpd, and overall ozone precursors (TGH + [1/60]CO + NOx) by 20.5 tpd. Table 6 details the overall emissions program benefit by pollutant developed by the EPA's MOVES model.

Table 6 - Modeled Program Benefit (2017)

MOVES Emission Inventories and Program Benefit (tons/day)				
	TGH	CO	NOx	TGH + (1/60)CO + NOx
No IM	64.7	750.2	91.1	168.3
Current IM	55.4	632.2	81.9	147.8
TPD Benefit	9.3	118.0	9.2	20.5
%Benefit	14.4%	15.7%	10.1%	12.2%

Both total gaseous hydrocarbon and nitrogen oxide emissions can be ozone precursors. Carbon monoxide can be a weak ozone precursor. The combined TGH + (1/60) CO + NOx ozone precursor reduction would be equal to 20.5 tons per day. The generalized TGH + (1/60) CO + NOx formula has been used for California and other states to quantify ozone precursor emissions from motor vehicles. For this analysis, projections assume the use of 7.8 lb. Reid Vapor Pressure gasoline with a one pound waiver for ethanol and 100% market share for ethanol-blended gasoline.

Cost-Effectiveness

The AIR program’s cost-effectiveness is the ratio of the program’s cost to its benefits. As stated, the state calculates the entire program cost to be approximately \$66.5 million in 2017. This cost includes inspection costs, repair costs, motorist inconvenience costs, and registration renewal fees used to fund administrative expenses.

The State estimates the cost-effectiveness of the inspection program at \$8,905 per ton of ozone precursors removed from the AIR program area. Table 7 gives the specific breakdown of cost per ton removed by pollutant.

Table 7 - AIR Program Cost Effectiveness in Dollars per Ton (2017)

Cost Benefit Results	
Emission	Cost/Benefit (\$/ton)
TGH	19,598
CO	1,545
NOx	19,811
TGH + (1/60) CO + NOx	8,905

2017 Annual Report from the Colorado Department of Revenue

The Colorado Department of Revenue (DOR), in conjunction with the Colorado Department of Public Health and Environment (CHPHE), continues to operate the enhanced Colorado Vehicle Emissions Inspection and Maintenance (I/M) Program, which has been in place since 1995, designed to meet the requirements of the federal “Clean Air Act”, as amended by the federal “Clean Air Act Amendments of 1990”, 42 U.S.C. sec. 7401 et seq. DOR maintained quality assurance, auditing, licensing, and enforcement activities consistent with Colorado Revised Statutes (C.R.S.) and the Code of Colorado Regulations (C.C.R.) during 2017.

2017 Department of Revenue Audit Results

Pursuant to C.R.S. 42-4-305(6)(a), DOR oversees an ongoing quality assurance program. The objective of this program is to discover, correct, and prevent fraud, as well as to ensure proper calibration of emissions test equipment and adherence to proper testing procedures.

Record Audits

Pursuant to C.R.S. 42-4-305(6)(b)(I), DOR performed 240 record audits on all contractor-operated inspection centers and inspection-only facilities. Record audits are used to identify and correct anomalies in the vehicle inspection database, as well as to prompt for additional risk-based equipment audits. The record audit process also includes an ongoing evaluation of approximately 4.7 million vehicles currently registered statewide; this ensures that county clerks maintain a reasonable level of record accuracy.

Performance Audits

Pursuant to C.R.S. 42-4-305(6)(b)(I), DOR executed overt performance audits which were conducted contemporaneously with equipment audits at the enhanced inspection centers, resulting in 582 performance audits completed. Forty-four overt performance audits were completed at the independent inspection-only facilities and fleet testing facilities.

Equipment Audits

Pursuant to C.R.S. 42-4-305(6)(e)(I), DOR executed overt performance audits twice per year for each testing lane.

During 2017, 206 initial lane equipment audits were performed on 97 contractor-operated enhanced inspection lanes, 4 initial equipment audits performed at 2 independent inspection only stations, and 40 initial equipment audits performed at 20 operational fleet inspection stations. There were 4 occasions where a fleet testing facility was inoperable as a result of equipment failure. An equipment audit was unable to be conducted until repairs were completed. The facility was then returned to service.

There were 83 initial equipment audit failures (see Table 8), 13 of which resulted in the suspension of a testing lane. (Note: A lane is suspended and unable to test until its failures are mitigated.) CDPHE testing has shown that the gas calibrations are within the specified $\pm 1\%$, however the variance within this specification seems to be greater than past concentrations possibly explaining the increase in lane suspensions. Calibration gas concentrations are being evaluated for consistency. Efforts are now in place to use redundant calibration bottles during lane audits to mitigate lane suspensions as a result of this variation.

Table 8 - Audit Failures by Equipment Category (2017)

2017 Initial Equipment Audit Failures by Category	
Emissions Analyzer	65
Dynamometer	17
Gas Cap Analyzer	1

Covert Audits

Pursuant to C.R.S. 42-4-305(6)(c)(I), all enhanced inspection centers were subject to covert audits, using an unmarked motor vehicle, at least once per year per number of inspectors at each inspection-only facility and enhanced inspection center. All covert vehicles used in the audit process were tampered to fail the visual emission component inspection. Possible tampers included (but were not limited to) removed or tampered catalytic converters, air injection systems, oxygen sensors, and Check Engine lights.

Throughout 2017, 250 covert inspections were conducted at enhanced inspection centers, resulting in 223 tests conducted properly and 27 deficiencies. Additionally there was 1 covert test in which more than 1 emissions control component was not correctly identified, resulting in 28 emission control component violations. Table 9 categorizes these violations and the number of times components were incorrectly identified. In 11 of the 27 improper tests, the failing vehicles received passing results.

Table 9 - Emission Components Incorrectly Identified During Covert Audits (2017)

Emission Component Tampered	Number of Times Incorrectly Identified
Air Injection System	10
Catalytic Converter	8
Check Engine Light	4
Oxygen Sensor	6

Risk-Based Audits

Risk-based audits were prompted by suspicious emissions testing activity, data analysis, or consumer complaints.

Utilizing the above-named methods of detection, DOR conducted 365 risk-based equipment audits. While there were 48 initial equipment failures, 47 issues were resolved on the retest. Only 1 failure could not be immediately resolved which resulted in the lane’s suspension pending further repairs. Twelve risk-based covert audits were conducted, resulting in no violations.

Clean Screen Audits

DOR performed Remote Sensing (i.e., Clean Screen, or RapidScreen) mobile emissions testing equipment audits for quality assurance purposes (see Figure 16). A Phase I audit includes 9 gas readings from 3 different known gas blends. In the event that a gas reading is outside the allowable tolerance, a Phase II audit is initiated. A Phase II audit includes 6 additional gas readings from the specific gas blend that failed the Phase I audit.

DOR performed 729 audits in 2017, resulting in 104 Phase I failures, or a 14.27% initial failure rate. Of the 104 Phase I failures, 16 units failed the Phase II audit and

were suspended pending repairs and/or CDPHE evaluation. Note: The overall audit result is not a failure unless a secondary audit (Phase II) also fails.

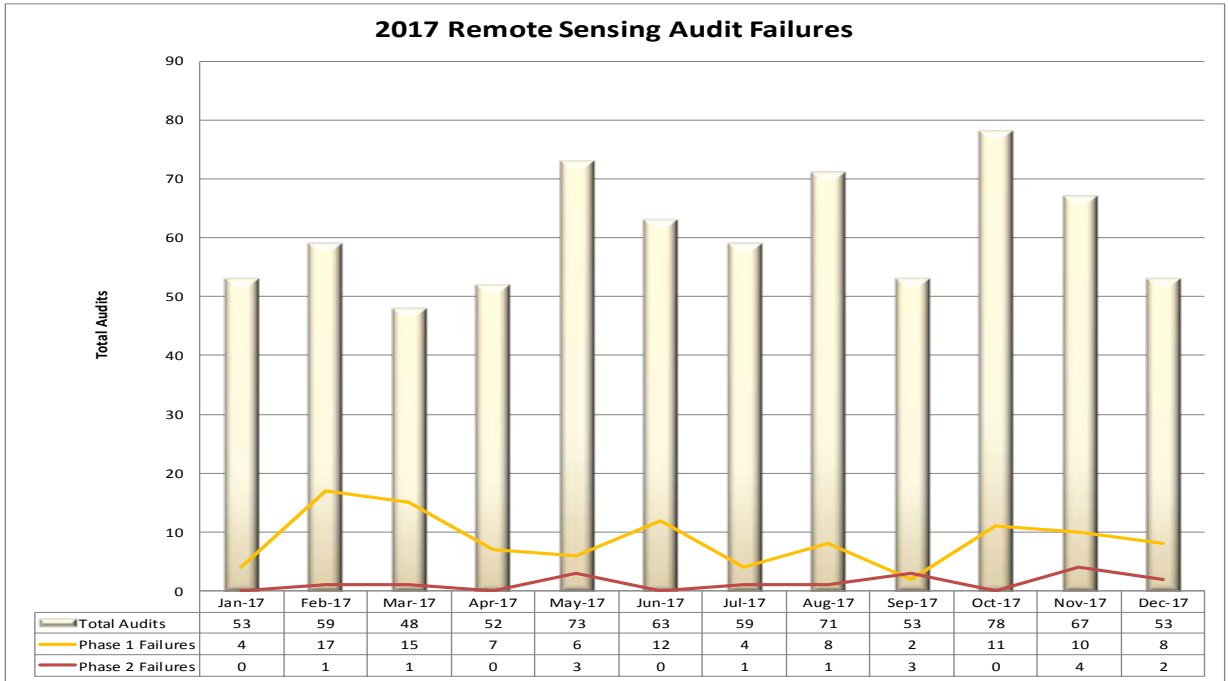


Figure 16 – Remote Sensing Audit Failure (2017)

2017 Enforcement Results

Hearing & Fines

In 2017, 62 hearings were conducted as a result of improper vehicle emission inspections. Hearing proceedings resulted in 22 inspectors placed on probation, with no inspector licenses revoked. Fines totaling \$39,180 were collected as a result of improper vehicle inspections.

Additionally, \$346,200 was collected as a result of wait-time violations. These violations occurred when motorist wait times at contractor inspection centers exceeded 15 minutes when averaged over a two-hour period. The wait-time calculation includes time spent in the queue and test time, whichever is greater. The fines assessed were consistent with C.R.S. and the terms of the contract held with OPUS. The total of all fines collected in 2017 was \$385,380. Figure 17 shows the

average total motorist wait time in relation to the amount of time spent in the queue and within the facility.

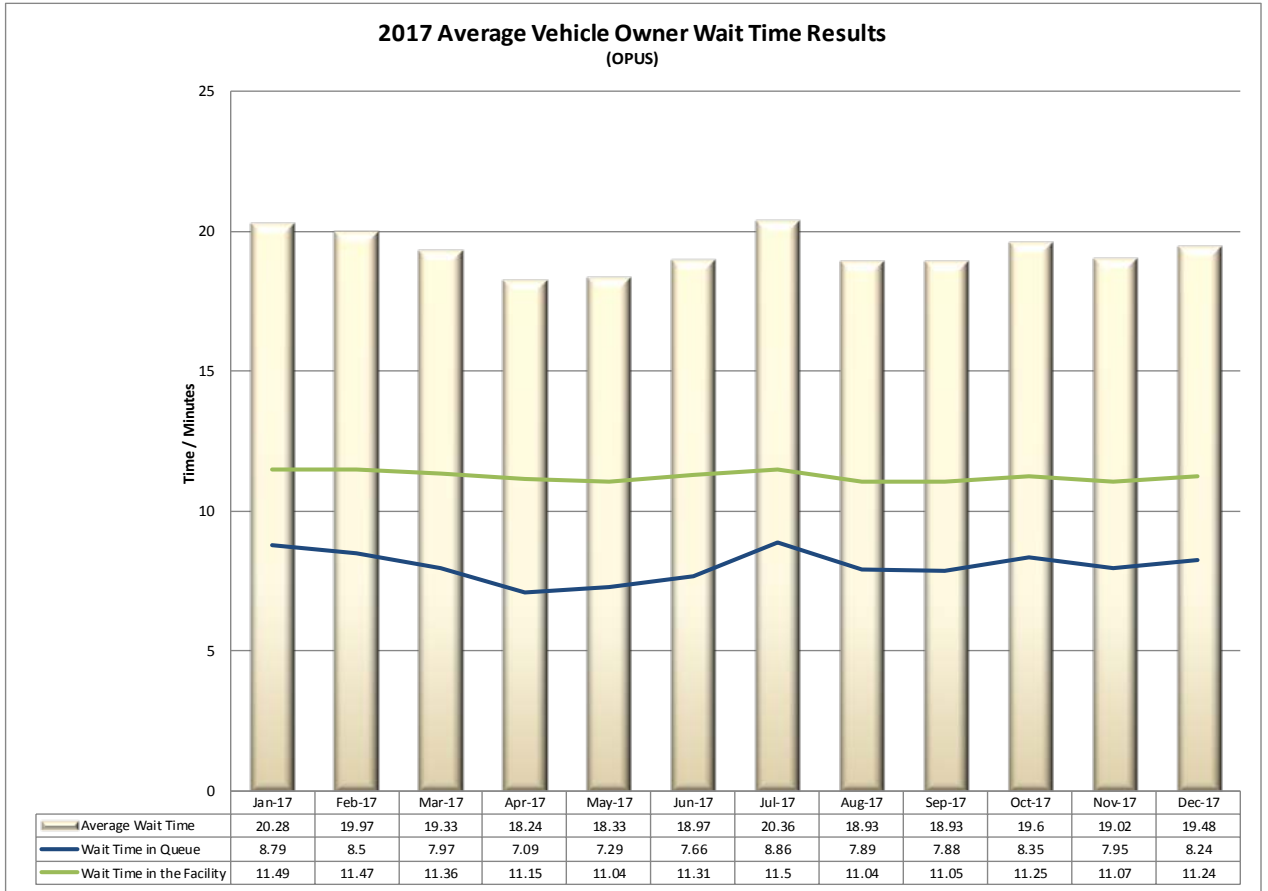


Figure 17 – Average Vehicle Owner Wait Time Results (2017, OPUS only)

Complaints

A total of 269 Vehicle Damage, Procedural and Statutory Non-Compliance complaints were opened against inspection stations operated by OPUS. DOR involvement in the complaint mitigation process resulted in \$43,150.48 in refunds to consumers. DOR responded to 23 emissions-related complaints against auto dealerships. A total of \$73,545.61 was refunded to consumers from those proceedings. Table 10 shows the 292 total complaints by category. Vehicle damage may occur when a consumer's vehicle was damaged through the negligence or omission of the contractor's agents. A Procedural Claim may occur when a

consumer's vehicle was not properly inspected as directed by statute or regulation. A Statutory Non-Compliance claim may occur when a consumer experienced a violation of Title 42 of the Colorado Revised Statutes as it pertains to purchasing a vehicle without a passing emissions test or emission equipment that is required, missing, or tampered.

Table 10 - Complaints Opened, by Category (2017)

2017 Complaints Opened by Category	
Vehicle Damage	235
Procedural Claims	47
Statutory Non-Compliance	10

Waivers

In 2017, 1,193 waiver applications were submitted to and processed by DOR. Of the 1,193 applications, 32% resulted in the issuance of Repair Waivers and 26% resulted in the issuance of Economic Hardship Waivers. The remaining 42% were not issued waivers.

In 2017, the Colorado Department of Public Health and Environment, Colorado Department of Revenue, and Regional Air Quality Council (RAQC) continued to operate a Repair Assistance Program. This program provides emissions related repairs to gasoline-powered vehicles registered through counties in the Denver Metropolitan Area (Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson) that qualify for an Economic Hardship Waiver. As a result of this program, emissions related repairs were performed on 12 vehicles (1%) that otherwise would have been issued a hardship waiver.

Figure 18 shows the total amount of emission waivers requested and issued by waiver type over a five-year period.

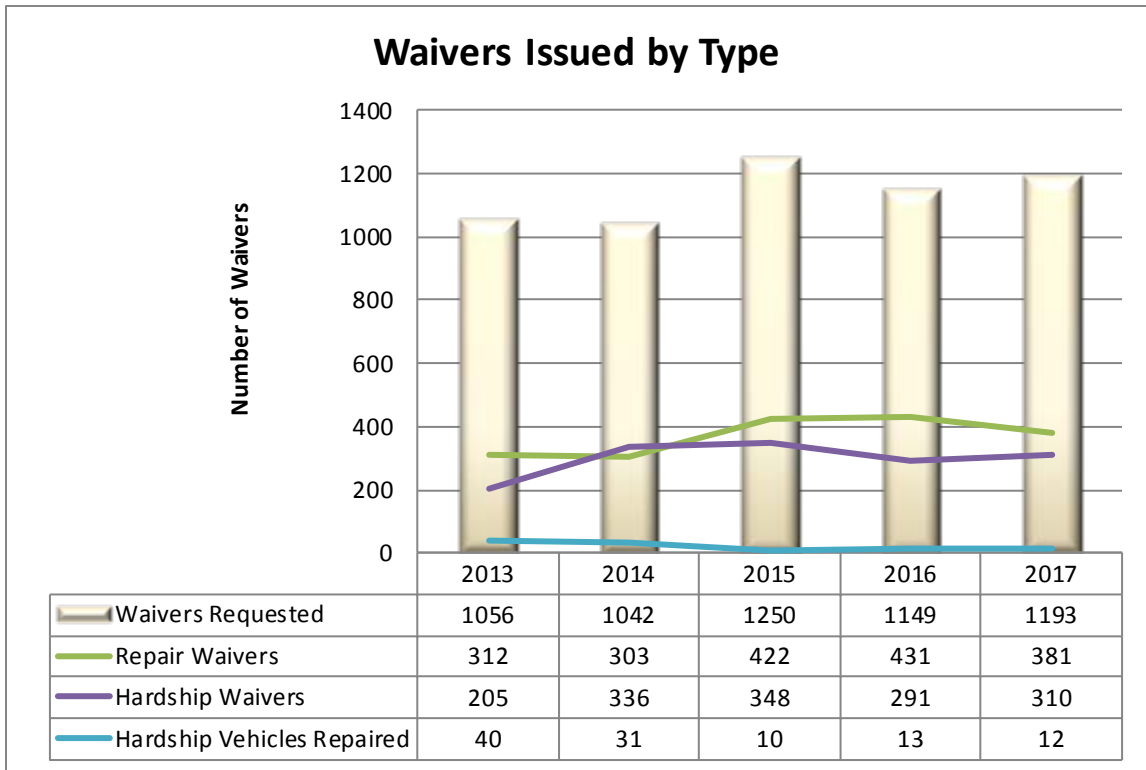


Figure 18 – Waivers Issued by Type (2013-2017)

The following program changes influenced the slight decrease in number of emissions waivers issued by DOR:

- February 2013: the hardship repair program was initiated and has reduced the amount of vehicles that would otherwise receive a hardship waiver.
- January 2015: mandatory OBD testing was implemented, which impacted the vehicle failure rate.

The following were the most common reasons a waiver was *not* issued:

- **13% of Waiver requests were not pursued** - after completing the waiver application, the vehicle owner withdrew the request or did not respond to requests for information or availability.
- **7% of Waiver requests passed inspection** - after requesting a waiver, additional repairs were made resulting in a passing emissions test. Vehicle owners are encouraged to use CDPHE’s Emissions Technical Centers for a free diagnosis of their vehicle. CDPHE technicians are often able to assist the owner and recommend minor repairs that allow the vehicle to pass the emissions inspection.
- **9% of Waiver requests had improper repairs to the vehicle** – repairs were performed that did not address the cause of the emissions failure. C.R.S 42-4-306(7)(b)(I)

- **5% of Waiver requests were tampered or emitting smoke** - when presented for a waiver, the vehicle was not equipped with the manufacturer’s required emission control equipment, or was emitting visible smoke above 5% opacity. C.R.S 42-4-306(7)(b)(I)
- **3% of Waiver requests did not meet minimum waiver limits for dollars spent to repair the vehicle** - vehicle owner had not incurred the minimum \$715 in repair costs to bring the vehicle into compliance. C.R.S 42-4-310(1)(d)(VI)
- **1% of Waiver request vehicles were repaired through CDPHEs Repair Assistance Program for vehicles otherwise eligible for Hardship Waivers.**
- **4% of Waiver requests had not yet been resolved at the completion of the calendar year.**

2017 Licensing Results

Pursuant to C.R.S. 42-4-305, DOR is responsible for issuing biennial inspection licenses to independent, fleet, and contractor emissions inspection stations, as well as to inspectors that are employed by the inspection facilities.

All Clean Screen testing sites are authorized annually in conjunction with the Colorado Department of Transportation (CDOT), as testing sites require frequent review due to road or traffic configuration changes. Table 4 shows the number of initial and renewed licenses by license type for 2017.

Table 11 - Licenses Issued and Renewed, by Type (2017)

License Type	Number of Initial Licenses	Number of Licenses Renewed
Fleet Inspector	5	37
Independent Inspector	0	1
Contractor Employed Inspectors	127	76
Independent Station	0	1
Fleet Station	1	17
Total	133	132

Authorized RSD Sites	168
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Appendix – Additional Reports

In addition to this report, the following detailed data reports are available:

Report	Content
A1 Initial Inspection Report All Test Type	Initial inspection pass/fail statistics, by inspection type, model year and vehicle class with an overall summary by vehicle type.
A2 Initial OBD Inspection Report	Initial OBD inspection pass/fail statistics by model year and vehicle type.
A3 Initial OBD Inspection Failure Report	Initial OBD inspection failure statistics by failure type, model year and vehicle type.
A4 Initial OBD Fail DTC Report	Initial OBD failing statistics with DTCs present by model year and vehicle type.
A5 Initial OBD Fail Readiness Monitor Summary Report	Initial OBD failing statistics with unset readiness monitors by model year and vehicle type.
A6 OBD Retest Frequency Report	OBD retest inspection statistics including multiple retest frequency and readiness status at the time of retests by model year and vehicle class.
A7 Initial OBD Pass DTC Report	Initial OBD passing statistics with DTCs present by model year and vehicle type.
A8 Initial OBD Pass Readiness Monitor Summary Report	Initial OBD passing statistics with unset readiness monitors by model year and vehicle type.
A9 OBD Initial Inspection Emissions Report (Vehicles that are dual tested)	Initial OBD pass/fail statistics including average emissions results by model year and vehicle type.

A10 Initial OBD Incomplete Inspection Report	Initial OBD inspection incomplete test statistics by incomplete reason, model year and vehicle type.
A11 OBD Retest Incomplete Inspection Report	OBD retest inspection incomplete test statistics by incomplete reason, model year and vehicle type.
B1 I/M240 Initial Inspection Report	Initial inspection pass/fail statistics, including average emissions results for overall total, passing and failing inspections by model year and vehicle class.
B2 I/M240 Initial Failure Report	Initial inspection failure statistics, including average emissions results for inspections which failed for both exhaust and visual components, exhaust only, and visual only by model year and vehicle class.
B3 I/M240 Initial Exhaust Failure Report	Initial exhaust failure statistics by model year, vehicle class, and pollutant.
B4 I/M240 Initial Failure for Other Report	Initial visual mandatory failure and gas cap pressure failure statistics by model year, vehicle class, and emissions component.
B5 I/M240 Retest Pass Reduction Report	Passing retest inspection statistics by model year and vehicle class.
B6 I/M240 Retest Frequency Report	Retest inspection statistics.
B7 I/M240 Fleet Characterization Summary Report – Initial Inspection Component	Initial inspection pass/fail statistics from vehicles that passed or failed with a final result of pass or waiver, including average emissions results by model year and vehicle class.

B8 I/M240 Fleet Characterization Summary Report – Final Inspection Component	Final inspection statistics from vehicles that passed or failed with a final result of pass or waiver, including average emissions results by model year and vehicle class.
B9 I/M240 Fleet Characterization Summary Report – Emissions Reduction Component	Emissions reduction statistics from vehicles that passed or failed with a final result of pass or waiver by model year and vehicle class.
C1 Idle Initial Inspection Report	Initial idle inspection pass/fail statistics, including average emissions results for passing and failing inspections by model year.
C2 Idle Initial Failure Report	Initial idle inspection failure statistics, including average emissions results for inspections which failed for both exhaust and visual components, exhaust only, and visual only by model year.
C3 Idle Initial Exhaust Failure Report	Initial idle exhaust failure statistics by model year, vehicle class, and pollutant.
C4 Idle Initial Failure for Other Report	Idle initial mandatory visual failure and gas cap pressure failure statistics by model year, vehicle class, and emissions component.
C5 Idle Retest Pass Reduction Report	Passing idle retest inspection statistics by model year and vehicle class.
C6 Idle Retest Frequency Report	Retest idle inspection statistics.
D1 I/M Eligible Vehicle Report, Evaluated Vehicles	Clean Screen observations performed in 2016 by model year and vehicle type.

Appendix A1

Initial Inspection Report All Test Type

Date Range
Between 1/1/2017 and 12/31/2017

Initial Inspection Report All Test Types (V 1.02)

Model Year	Type	Overall Total	OBD						IM240						Two Speed Idle					
			Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%
1974	HDGV	116	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	116	100.00	100	86.21	16	13.79
	LDGT1	338	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	338	100.00	243	71.89	95	28.11
	LDGT2	236	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	236	100.00	208	88.14	28	11.86
	LDGV	652	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	652	100.00	421	64.57	231	35.43
1974 Total		1,342	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,342	100.00	972	72.43	370	27.57
1975	HDGV	37	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	37	100.00	31	83.78	6	16.22
	LDGT1	22	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	22	100.00	13	59.09	9	40.91
	LDGT2	51	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	51	100.00	42	82.35	9	17.65
	LDGV	36	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	36	100.00	24	66.67	12	33.33
1975 Total		146	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	146	100.00	110	75.34	36	24.66
1976	HDGV	99	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	99	100.00	89	89.90	10	10.10
	LDGT1	125	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	125	100.00	84	67.20	41	32.80
	LDGT2	299	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	299	100.00	248	82.94	51	17.06
	LDGV	195	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	195	100.00	124	63.59	71	36.41
1976 Total		718	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	718	100.00	545	75.91	173	24.09
1977	HDGV	152	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	152	100.00	134	88.16	18	11.84
	LDGT1	115	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	115	100.00	70	60.87	45	39.13
	LDGT2	413	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	413	100.00	342	82.81	71	17.19
	LDGV	241	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	241	100.00	156	64.73	85	35.27
1977 Total		921	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	921	100.00	702	76.22	219	23.78
1978	HDGV	141	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	141	100.00	116	82.27	25	17.73
	LDGT1	147	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	147	100.00	98	66.67	49	33.33
	LDGT2	527	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	527	100.00	438	83.11	89	16.89
	LDGV	309	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	309	100.00	205	66.34	104	33.66
1978 Total		1,124	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,124	100.00	857	76.25	267	23.75
1979	HDGV	167	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	167	100.00	135	80.84	32	19.16
	LDGT1	183	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	183	100.00	126	68.85	57	31.15
	LDGT2	329	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	329	100.00	208	63.22	121	36.78
	LDGV	371	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	371	100.00	249	67.12	122	32.88
1979 Total		1,050	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,050	100.00	718	68.38	332	31.62
1980	HDGV	89	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	89	100.00	70	78.65	19	21.35
	LDGT1	163	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	163	100.00	117	71.78	46	28.22

			OBD						IM240						Two Speed Idle					
Model Year	Type	Overall Total	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%
	LDGT2	117	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	117	100.00	76	64.96	41	35.04
	LDGV	246	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	246	100.00	184	74.80	62	25.20
1980 Total		615	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	615	100.00	447	72.68	168	27.32
1981	HDGV	148	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	148	100.00	115	77.70	33	22.30
	LDGT1	198	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	198	100.00	100	50.51	98	49.49
	LDGT2	111	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	111	100.00	66	59.46	45	40.54
	LDGV	196	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	196	100.00	123	62.76	73	37.24
1981 Total		653	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	653	100.00	404	61.87	249	38.13
1982	HDGV	118	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	118	100.00	100	84.75	18	15.25
	LDGT1	175	0	0.00	0	0.00	0	0.00	173	98.86	114	65.90	59	34.10	2	1.14	0	0.00	2	100.00
	LDGT2	50	0	0.00	0	0.00	0	0.00	49	98.00	34	69.39	15	30.61	1	2.00	1	100.00	0	0.00
	LDGV	202	0	0.00	0	0.00	0	0.00	200	99.01	157	78.50	43	21.50	2	0.99	1	50.00	1	50.00
1982 Total		545	0	0.00	0	0.00	0	0.00	422	77.43	305	72.27	117	27.73	123	22.57	102	82.93	21	17.07
1983	HDGV	152	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	152	100.00	118	77.63	34	22.37
	LDGT1	272	0	0.00	0	0.00	0	0.00	271	99.63	197	72.69	74	27.31	1	0.37	1	100.00	0	0.00
	LDGT2	122	0	0.00	0	0.00	0	0.00	122	100.00	73	59.84	49	40.16	0	0.00	0	0.00	0	0.00
	LDGV	301	0	0.00	0	0.00	0	0.00	298	99.00	226	75.84	72	24.16	3	1.00	0	0.00	3	100.00
1983 Total		847	0	0.00	0	0.00	0	0.00	691	81.58	496	71.78	195	28.22	156	18.42	119	76.28	37	23.72
1984	HDGV	251	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	251	100.00	197	78.49	54	21.51
	LDGT1	465	0	0.00	0	0.00	0	0.00	461	99.14	336	72.89	125	27.11	4	0.86	2	50.00	2	50.00
	LDGT2	160	0	0.00	0	0.00	0	0.00	159	99.38	96	60.38	63	39.62	1	0.63	0	0.00	1	100.00
	LDGV	457	0	0.00	0	0.00	0	0.00	452	98.91	349	77.21	103	22.79	5	1.09	2	40.00	3	60.00
1984 Total		1,333	0	0.00	0	0.00	0	0.00	1,072	80.42	781	72.85	291	27.15	261	19.58	201	77.01	60	22.99
1985	HDGV	310	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	310	100.00	246	79.35	64	20.65
	LDGT1	717	0	0.00	0	0.00	0	0.00	712	99.30	535	75.14	177	24.86	5	0.70	3	60.00	2	40.00
	LDGT2	229	0	0.00	0	0.00	0	0.00	228	99.56	142	62.28	86	37.72	1	0.44	0	0.00	1	100.00
	LDGV	760	0	0.00	0	0.00	0	0.00	752	98.95	610	81.12	142	18.88	8	1.05	6	75.00	2	25.00
1985 Total		2,016	0	0.00	0	0.00	0	0.00	1,692	83.93	1,287	76.06	405	23.94	324	16.07	255	78.70	69	21.30
1986	HDGV	216	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	216	100.00	153	70.83	63	29.17
	LDGT1	854	0	0.00	0	0.00	0	0.00	851	99.65	663	77.91	188	22.09	3	0.35	1	33.33	2	66.67
	LDGT2	244	0	0.00	0	0.00	0	0.00	243	99.59	145	59.67	98	40.33	1	0.41	0	0.00	1	100.00
	LDGV	837	0	0.00	0	0.00	0	0.00	824	98.45	667	80.95	157	19.05	13	1.55	11	84.62	2	15.38
1986 Total		2,151	0	0.00	0	0.00	0	0.00	1,918	89.17	1,475	76.90	443	23.10	233	10.83	165	70.82	68	29.18
1987	HDGV	240	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	240	100.00	190	79.17	50	20.83
	LDGT1	1,132	0	0.00	0	0.00	0	0.00	1,118	98.76	902	80.68	216	19.32	14	1.24	9	64.29	5	35.71
	LDGT2	328	0	0.00	0	0.00	0	0.00	326	99.39	234	71.78	92	28.22	2	0.61	1	50.00	1	50.00

Model Year	Type	Overall Total	OBD						IM240						Two Speed Idle					
			Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%
	LDGV	1,125	0	0.00	0	0.00	0	0.00	1,113	98.93	939	84.37	174	15.63	12	1.07	10	83.33	2	16.67
1987 Total		2,825	0	0.00	0	0.00	0	0.00	2,557	90.51	2,075	81.15	482	18.85	268	9.49	210	78.36	58	21.64
1988	HDGV	306	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	306	100.00	245	80.07	61	19.93
	LDGT1	1,194	0	0.00	0	0.00	0	0.00	1,172	98.16	948	80.89	224	19.11	22	1.84	14	63.64	8	36.36
	LDGT2	435	0	0.00	0	0.00	0	0.00	430	98.85	309	71.86	121	28.14	5	1.15	2	40.00	3	60.00
	LDGV	1,149	0	0.00	0	0.00	0	0.00	1,131	98.43	926	81.87	205	18.13	18	1.57	11	61.11	7	38.89
1988 Total		3,084	0	0.00	0	0.00	0	0.00	2,733	88.62	2,183	79.88	550	20.12	351	11.38	272	77.49	79	22.51
1989	HDGV	612	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	612	100.00	538	87.91	74	12.09
	LDGT1	1,831	0	0.00	0	0.00	0	0.00	1,795	98.03	1,455	81.06	340	18.94	36	1.97	20	55.56	16	44.44
	LDGT2	696	0	0.00	0	0.00	0	0.00	692	99.43	552	79.77	140	20.23	4	0.57	4	100.00	0	0.00
	LDGV	1,831	0	0.00	0	0.00	0	0.00	1,801	98.36	1,549	86.01	252	13.99	30	1.64	25	83.33	5	16.67
1989 Total		4,970	0	0.00	0	0.00	0	0.00	4,288	86.28	3,556	82.93	732	17.07	682	13.72	587	86.07	95	13.93
1990	HDGV	465	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	465	100.00	409	87.96	56	12.04
	LDGT1	1,585	0	0.00	0	0.00	0	0.00	1,556	98.17	1,254	80.59	302	19.41	29	1.83	23	79.31	6	20.69
	LDGT2	679	0	0.00	0	0.00	0	0.00	674	99.26	523	77.60	151	22.40	5	0.74	3	60.00	2	40.00
	LDGV	2,243	0	0.00	0	0.00	0	0.00	2,189	97.59	1,880	85.88	309	14.12	54	2.41	37	68.52	17	31.48
1990 Total		4,972	0	0.00	0	0.00	0	0.00	4,419	88.88	3,657	82.76	762	17.24	553	11.12	472	85.35	81	14.65
1991	HDGV	528	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	528	100.00	455	86.17	73	13.83
	LDGT1	2,494	0	0.00	0	0.00	0	0.00	2,452	98.32	2,079	84.79	373	15.21	42	1.68	35	83.33	7	16.67
	LDGT2	746	0	0.00	0	0.00	0	0.00	742	99.46	577	77.76	165	22.24	4	0.54	2	50.00	2	50.00
	LDGV	3,435	0	0.00	0	0.00	0	0.00	3,368	98.05	2,908	86.34	460	13.66	67	1.95	49	73.13	18	26.87
1991 Total		7,203	0	0.00	0	0.00	0	0.00	6,562	91.10	5,564	84.79	998	15.21	641	8.90	541	84.40	100	15.60
1992	HDGV	616	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	616	100.00	552	89.61	64	10.39
	LDGT1	2,153	0	0.00	0	0.00	0	0.00	2,132	99.02	1,784	83.68	348	16.32	21	0.98	18	85.71	3	14.29
	LDGT2	1,086	0	0.00	0	0.00	0	0.00	1,084	99.82	837	77.21	247	22.79	2	0.18	2	100.00	0	0.00
	LDGV	3,381	0	0.00	0	0.00	0	0.00	3,328	98.43	2,851	85.67	477	14.33	53	1.57	47	88.68	6	11.32
1992 Total		7,236	0	0.00	0	0.00	0	0.00	6,544	90.44	5,472	83.62	1,072	16.38	692	9.56	619	89.45	73	10.55
1993	HDGV	783	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	783	100.00	698	89.14	85	10.86
	LDGT1	3,778	0	0.00	0	0.00	0	0.00	3,763	99.60	3,267	86.82	496	13.18	15	0.40	13	86.67	2	13.33
	LDGT2	1,477	0	0.00	0	0.00	0	0.00	1,471	99.59	1,130	76.82	341	23.18	6	0.41	5	83.33	1	16.67
	LDGV	4,502	0	0.00	0	0.00	0	0.00	4,475	99.40	3,920	87.60	555	12.40	27	0.60	19	70.37	8	29.63
1993 Total		10,540	0	0.00	0	0.00	0	0.00	9,709	92.12	8,317	85.66	1,392	14.34	831	7.88	735	88.45	96	11.55
1994	HDGV	913	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	913	100.00	812	88.94	101	11.06
	LDGT1	4,400	0	0.00	0	0.00	0	0.00	4,374	99.41	3,695	84.48	679	15.52	26	0.59	23	88.46	3	11.54
	LDGT2	2,481	0	0.00	0	0.00	0	0.00	2,453	98.87	1,824	74.36	629	25.64	28	1.13	18	64.29	10	35.71
	LDGV	5,340	0	0.00	0	0.00	0	0.00	5,272	98.73	4,651	88.22	621	11.78	68	1.27	56	82.35	12	17.65

			OBD						IM240						Two Speed Idle					
Model Year	Type	Overall Total	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%
1994 Total		13,134	0	0.00	0	0.00	0	0.00	12,099	92.12	10,170	84.06	1,929	15.94	1,035	7.88	909	87.83	126	12.17
1995	HDGV	1,342	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,342	100.00	1,200	89.42	142	10.58
	LDGT1	5,441	0	0.00	0	0.00	0	0.00	5,430	99.80	4,588	84.49	842	15.51	11	0.20	10	90.91	1	9.09
	LDGT2	3,451	0	0.00	0	0.00	0	0.00	3,431	99.42	2,722	79.34	709	20.66	20	0.58	11	55.00	9	45.00
	LDGV	7,855	0	0.00	0	0.00	0	0.00	7,769	98.91	6,884	88.61	885	11.39	86	1.09	71	82.56	15	17.44
1995 Total		18,089	0	0.00	0	0.00	0	0.00	16,630	91.93	14,194	85.35	2,436	14.65	1,459	8.07	1,292	88.55	167	11.45
1996	HDGV	1,200	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,200	100.00	1,111	92.58	89	7.42
	LDGT1	5,488	19	0.35	16	84.21	3	15.79	5,465	99.58	4,665	85.36	800	14.64	4	0.07	4	100.00	0	0.00
	LDGT2	2,866	12	0.42	11	91.67	1	8.33	2,854	99.58	2,410	84.44	444	15.56	0	0.00	0	0.00	0	0.00
	LDGV	8,032	61	0.76	44	72.13	17	27.87	7,964	99.15	7,186	90.23	778	9.77	7	0.09	6	85.71	1	14.29
1996 Total		17,586	92	0.52	71	77.17	21	22.83	16,283	92.59	14,261	87.58	2,022	12.42	1,211	6.89	1,121	92.57	90	7.43
1997	HDGV	1,810	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,810	100.00	1,736	95.91	74	4.09
	LDGT1	10,023	25	0.25	20	80.00	5	20.00	9,993	99.70	8,656	86.62	1,337	13.38	5	0.05	5	100.00	0	0.00
	LDGT2	4,269	34	0.80	23	67.65	11	32.35	4,225	98.97	3,604	85.30	621	14.70	10	0.23	8	80.00	2	20.00
	LDGV	11,771	94	0.80	65	69.15	29	30.85	11,676	99.19	10,483	89.78	1,193	10.22	1	0.01	1	100.00	0	0.00
1997 Total		27,873	153	0.55	108	70.59	45	29.41	25,894	92.90	22,743	87.83	3,151	12.17	1,826	6.55	1,750	95.84	76	4.16
1998	HDGV	1,144	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,144	100.00	1,058	92.48	86	7.52
	LDGT1	10,973	35	0.32	31	88.57	4	11.43	10,931	99.62	9,538	87.26	1,393	12.74	7	0.06	7	100.00	0	0.00
	LDGT2	4,201	16	0.38	14	87.50	2	12.50	4,181	99.52	3,520	84.19	661	15.81	4	0.10	4	100.00	0	0.00
	LDGV	12,827	76	0.59	60	78.95	16	21.05	12,748	99.38	11,334	88.91	1,414	11.09	3	0.02	3	100.00	0	0.00
1998 Total		29,145	127	0.44	105	82.68	22	17.32	27,860	95.59	24,392	87.55	3,468	12.45	1,158	3.97	1,072	92.57	86	7.43
1999	HDGV	2,489	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,489	100.00	2,397	96.30	92	3.70
	LDGT1	14,269	53	0.37	44	83.02	9	16.98	14,207	99.57	12,633	88.92	1,574	11.08	9	0.06	9	100.00	0	0.00
	LDGT2	7,850	889	11.32	727	81.78	162	18.22	6,958	88.64	5,962	85.69	996	14.31	3	0.04	3	100.00	0	0.00
	LDGV	17,139	174	1.02	152	87.36	22	12.64	16,958	98.94	15,368	90.62	1,590	9.38	7	0.04	7	100.00	0	0.00
1999 Total		41,747	1,116	2.67	923	82.71	193	17.29	38,123	91.32	33,963	89.09	4,160	10.91	2,508	6.01	2,416	96.33	92	3.67
2000	HDGV	2,331	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,331	100.00	2,222	95.32	109	4.68
	LDGT1	14,774	328	2.22	264	80.49	64	19.51	14,433	97.69	12,794	88.64	1,639	11.36	13	0.09	11	84.62	2	15.38
	LDGT2	7,124	1,253	17.59	973	77.65	280	22.35	5,859	82.24	5,160	88.07	699	11.93	12	0.17	12	100.00	0	0.00
	LDGV	19,621	221	1.13	178	80.54	43	19.46	19,389	98.82	17,569	90.61	1,820	9.39	11	0.06	10	90.91	1	9.09
2000 Total		43,850	1,802	4.11	1,415	78.52	387	21.48	39,681	90.49	35,523	89.52	4,158	10.48	2,367	5.40	2,255	95.27	112	4.73
2001	HDGV	2,750	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,750	100.00	2,701	98.22	49	1.78
	LDGT1	18,208	468	2.57	394	84.19	74	15.81	17,730	97.37	16,220	91.48	1,510	8.52	10	0.05	10	100.00	0	0.00
	LDGT2	9,991	1,889	18.91	1,502	79.51	387	20.49	8,098	81.05	7,273	89.81	825	10.19	4	0.04	3	75.00	1	25.00
	LDGV	23,480	437	1.86	373	85.35	64	14.65	23,035	98.10	21,270	92.34	1,765	7.66	8	0.03	8	100.00	0	0.00
2001 Total		54,429	2,794	5.13	2,269	81.21	525	18.79	48,863	89.77	44,763	91.61	4,100	8.39	2,772	5.09	2,722	98.20	50	1.80

Model Year	Type	Overall Total	OBD						IM240						Two Speed Idle					
			Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%
2002	HDGV	1,969	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,969	100.00	1,929	97.97	40	2.03
	LDGT1	18,170	186	1.02	135	72.58	51	27.42	17,970	98.90	16,456	91.57	1,514	8.43	14	0.08	14	100.00	0	0.00
	LDGT2	8,578	2,005	23.37	1,583	78.95	422	21.05	6,571	76.60	5,845	88.95	726	11.05	2	0.02	1	50.00	1	50.00
	LDGV	23,230	504	2.17	443	87.90	61	12.10	22,711	97.77	20,801	91.59	1,910	8.41	15	0.06	12	80.00	3	20.00
2002 Total		51,947	2,695	5.19	2,161	80.19	534	19.81	47,252	90.96	43,102	91.22	4,150	8.78	2,000	3.85	1,956	97.80	44	2.20
2003	HDGV	2,665	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,665	100.00	2,634	98.84	31	1.16
	LDGT1	21,490	51	0.24	44	86.27	7	13.73	21,419	99.67	19,947	93.13	1,472	6.87	20	0.09	20	100.00	0	0.00
	LDGT2	11,038	2,323	21.05	1,906	82.05	417	17.95	8,709	78.90	7,993	91.78	716	8.22	6	0.05	5	83.33	1	16.67
	LDGV	27,483	726	2.64	615	84.71	111	15.29	26,753	97.34	24,959	93.29	1,794	6.71	4	0.01	4	100.00	0	0.00
2003 Total		62,676	3,100	4.95	2,565	82.74	535	17.26	56,881	90.75	52,899	93.00	3,982	7.00	2,695	4.30	2,663	98.81	32	1.19
2004	HDGV	1,925	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,925	100.00	1,906	99.01	19	0.99
	LDGT1	20,122	58	0.29	47	81.03	11	18.97	20,050	99.64	18,694	93.24	1,356	6.76	14	0.07	14	100.00	0	0.00
	LDGT2	10,641	1,977	18.58	1,630	82.45	347	17.55	8,663	81.41	7,982	92.14	681	7.86	1	0.01	1	100.00	0	0.00
	LDGV	23,241	1,031	4.44	934	90.59	97	9.41	22,201	95.53	20,713	93.30	1,488	6.70	9	0.04	9	100.00	0	0.00
2004 Total		55,929	3,066	5.48	2,611	85.16	455	14.84	50,914	91.03	47,389	93.08	3,525	6.92	1,949	3.48	1,930	99.03	19	0.97
2005	HDGV	2,146	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,146	100.00	2,128	99.16	18	0.84
	LDGT1	27,375	204	0.75	189	92.65	15	7.35	27,155	99.20	26,089	96.07	1,066	3.93	16	0.06	13	81.25	3	18.75
	LDGT2	10,942	2,214	20.23	1,996	90.15	218	9.85	8,725	79.74	8,212	94.12	513	5.88	3	0.03	3	100.00	0	0.00
	LDGV	31,730	2,112	6.66	1,928	91.29	184	8.71	29,605	93.30	27,940	94.38	1,665	5.62	13	0.04	13	100.00	0	0.00
2005 Total		72,193	4,530	6.27	4,113	90.79	417	9.21	65,485	90.71	62,241	95.05	3,244	4.95	2,178	3.02	2,157	99.04	21	0.96
2006	HDGV	2,150	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,150	100.00	2,129	99.02	21	0.98
	LDGT1	21,205	1,293	6.10	1,257	97.22	36	2.78	19,896	93.83	19,165	96.33	731	3.67	16	0.08	16	100.00	0	0.00
	LDGT2	10,084	1,453	14.41	1,298	89.33	155	10.67	8,630	85.58	8,143	94.36	487	5.64	1	0.01	1	100.00	0	0.00
	LDGV	27,597	1,766	6.40	1,671	94.62	95	5.38	25,823	93.57	24,755	95.86	1,068	4.14	8	0.03	7	87.50	1	12.50
2006 Total		61,036	4,512	7.39	4,226	93.66	286	6.34	54,349	89.04	52,063	95.79	2,286	4.21	2,175	3.56	2,153	98.99	22	1.01
2007	HDGV	2,035	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,035	100.00	2,030	99.75	5	0.25
	LDGT1	28,583	25,305	88.53	23,458	92.70	1,847	7.30	3,259	11.40	3,099	95.09	160	4.91	19	0.07	19	100.00	0	0.00
	LDGT2	14,211	12,785	89.97	11,692	91.45	1,093	8.55	1,424	10.02	1,335	93.75	89	6.25	2	0.01	2	100.00	0	0.00
	LDGV	34,428	30,289	87.98	28,166	92.99	2,123	7.01	4,137	12.02	3,954	95.58	183	4.42	2	0.01	1	50.00	1	50.00
2007 Total		79,257	68,379	86.28	63,316	92.60	5,063	7.40	8,820	11.13	8,388	95.10	432	4.90	2,058	2.60	2,052	99.71	6	0.29
2008	HDGV	1,718	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,718	100.00	1,709	99.48	9	0.52
	LDGT1	20,238	18,069	89.28	17,000	94.08	1,069	5.92	2,163	10.69	2,052	94.87	111	5.13	6	0.03	6	100.00	0	0.00
	LDGT2	11,260	10,167	90.29	9,349	91.95	818	8.05	1,085	9.64	1,007	92.81	78	7.19	8	0.07	8	100.00	0	0.00
	LDGV	24,761	22,068	89.12	20,647	93.56	1,421	6.44	2,690	10.86	2,563	95.28	127	4.72	3	0.01	3	100.00	0	0.00
2008 Total		57,977	50,304	86.77	46,996	93.42	3,308	6.58	5,938	10.24	5,622	94.68	316	5.32	1,735	2.99	1,726	99.48	9	0.52
2009	HDGV	855	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	855	100.00	852	99.65	3	0.35

			OBD						IM240						Two Speed Idle					
Model Year	Type	Overall Total	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%
	LDGT1	8,464	7,636	90.22	7,172	93.92	464	6.08	826	9.76	790	95.64	36	4.36	2	0.02	2	100.00	0	0.00
	LDGT2	4,483	4,021	89.69	3,675	91.40	346	8.60	461	10.28	434	94.14	27	5.86	1	0.02	1	100.00	0	0.00
	LDGV	14,066	12,663	90.03	11,981	94.61	682	5.39	1,402	9.97	1,359	96.93	43	3.07	1	0.01	1	100.00	0	0.00
2009 Total		27,868	24,320	87.27	22,828	93.87	1,492	6.13	2,689	9.65	2,583	96.06	106	3.94	859	3.08	856	99.65	3	0.35
2010	HDGV	1,179	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,179	100.00	1,176	99.75	3	0.25
	LDGT1	28,659	26,686	93.12	25,712	96.35	974	3.65	1,965	6.86	1,891	96.23	74	3.77	8	0.03	7	87.50	1	12.50
	LDGT2	14,786	13,774	93.16	13,038	94.66	736	5.34	997	6.74	954	95.69	43	4.31	15	0.10	15	100.00	0	0.00
	LDGV	34,443	32,083	93.15	30,859	96.18	1,224	3.82	2,357	6.84	2,236	94.87	121	5.13	3	0.01	3	100.00	0	0.00
2010 Total		79,067	72,543	91.75	69,609	95.96	2,934	4.04	5,319	6.73	5,081	95.53	238	4.47	1,205	1.52	1,201	99.67	4	0.33
2011	HDGV	501	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	501	100.00	499	99.60	2	0.40
	LDGT1	5,189	4,836	93.20	4,655	96.26	181	3.74	351	6.76	335	95.44	16	4.56	2	0.04	2	100.00	0	0.00
	LDGT2	3,199	2,973	92.94	2,741	92.20	232	7.80	226	7.06	207	91.59	19	8.41	0	0.00	0	0.00	0	0.00
	LDGV	5,780	5,277	91.30	5,087	96.40	190	3.60	500	8.65	476	95.20	24	4.80	3	0.05	3	100.00	0	0.00
2011 Total		14,669	13,086	89.21	12,483	95.39	603	4.61	1,077	7.34	1,018	94.52	59	5.48	506	3.45	504	99.60	2	0.40
2012	HDGV	263	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	263	100.00	263	100.00	0	0.00
	LDGT1	1,719	1,589	92.44	1,527	96.10	62	3.90	130	7.56	124	95.38	6	4.62	0	0.00	0	0.00	0	0.00
	LDGT2	1,110	1,020	91.89	957	93.82	63	6.18	89	8.02	81	91.01	8	8.99	1	0.09	1	100.00	0	0.00
	LDGV	3,155	2,815	89.22	2,677	95.10	138	4.90	339	10.74	318	93.81	21	6.19	1	0.03	1	100.00	0	0.00
2012 Total		6,247	5,424	86.83	5,161	95.15	263	4.85	558	8.93	523	93.73	35	6.27	265	4.24	265	100.00	0	0.00
2013	HDGV	183	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	183	100.00	182	99.45	1	0.55
	LDGT1	1,222	1,171	95.83	1,137	97.10	34	2.90	51	4.17	48	94.12	3	5.88	0	0.00	0	0.00	0	0.00
	LDGT2	765	710	92.81	659	92.82	51	7.18	55	7.19	49	89.09	6	10.91	0	0.00	0	0.00	0	0.00
	LDGV	2,366	2,123	89.73	2,027	95.48	96	4.52	243	10.27	230	94.65	13	5.35	0	0.00	0	0.00	0	0.00
2013 Total		4,536	4,004	88.27	3,823	95.48	181	4.52	349	7.69	327	93.70	22	6.30	183	4.03	182	99.45	1	0.55
2014	HDGV	101	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	101	100.00	100	99.01	1	0.99
	LDGT1	978	942	96.32	927	98.41	15	1.59	36	3.68	36	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	500	481	96.20	458	95.22	23	4.78	19	3.80	19	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	1,503	1,401	93.21	1,361	97.14	40	2.86	102	6.79	98	96.08	4	3.92	0	0.00	0	0.00	0	0.00
2014 Total		3,082	2,824	91.63	2,746	97.24	78	2.76	157	5.09	153	97.45	4	2.55	101	3.28	100	99.01	1	0.99
2015	HDGV	97	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	97	100.00	97	100.00	0	0.00
	LDGT1	680	658	96.76	645	98.02	13	1.98	22	3.24	22	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	244	237	97.13	232	97.89	5	2.11	7	2.87	7	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	976	925	94.77	885	95.68	40	4.32	51	5.23	50	98.04	1	1.96	0	0.00	0	0.00	0	0.00
2015 Total		1,997	1,820	91.14	1,762	96.81	58	3.19	80	4.01	79	98.75	1	1.25	97	4.86	97	100.00	0	0.00
2016	HDGV	65	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	65	100.00	64	98.46	1	1.54
	LDGT1	412	405	98.30	402	99.26	3	0.74	7	1.70	7	100.00	0	0.00	0	0.00	0	0.00	0	0.00

Model Year	Type	Overall Total	OBD						IM240						Two Speed Idle					
			Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%
	LDGT2	132	130	98.48	128	98.46	2	1.54	2	1.52	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	549	526	95.81	512	97.34	14	2.66	22	4.01	21	95.45	1	4.55	1	0.18	1	100.00	0	0.00
2016 Total		1,158	1,061	91.62	1,042	98.21	19	1.79	31	2.68	30	96.77	1	3.23	66	5.70	65	98.48	1	1.52
2017	HDGV	31	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	31	100.00	31	100.00	0	0.00
	LDGT1	68	66	97.06	65	98.48	1	1.52	2	2.94	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	26	26	100.00	26	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	143	139	97.20	139	100.00	0	0.00	3	2.10	3	100.00	0	0.00	1	0.70	0	0.00	1	100.00
2017 Total		268	231	86.19	230	99.57	1	0.43	5	1.87	5	100.00	0	0.00	32	11.94	31	96.88	1	3.13
2018	HDGV	1	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	1	100.00	0	0.00
	LDGT2	2	2	100.00	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	2	2	100.00	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2018 Total		5	4	80.00	4	100.00	0	0.00	0	0.00	0	0.00	0	0.00	1	20.00	1	100.00	0	0.00
Grand Total		880,056	267,987	30.45	250,567	93.50	17,420	6.50	567,944	64.53	516,680	90.97	51,264	9.03	44,125	5.01	40,509	91.81	3,616	8.19

Initial Inspection Report All Test Types - Summary by Veh (V 1.02)

Type	Overall Total	OBD						IM240						Two Speed Idle						
		Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	
HDGV	37,409	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	37,409	100.00	35,658	95.32	1,751	4.68	
LDGT1	306,091	90,083	29.43	85,141	94.51	4,942	5.49	214,321	70.02	195,080	91.02	19,241	8.98	1,687	0.55	1,182	70.07	505	29.93	
LDGT2	152,569	60,391	39.58	54,620	90.44	5,771	9.56	89,942	58.95	79,397	88.28	10,545	11.72	2,236	1.47	1,745	78.04	491	21.96	
LDGV	383,987	117,513	30.60	110,806	94.29	6,707	5.71	263,681	68.67	242,203	91.85	21,478	8.15	2,793	0.73	1,924	68.89	869	31.11	
Grand Total		880,056	267,987	30.45	250,567	93.50	17,420	6.50	567,944	64.53	516,680	90.97	51,264	9.03	44,125	5.01	40,509	91.81	3,616	8.19

Appendix A2

Initial OBD Inspection Report

Date Range
Between 1/1/2017 and 12/31/2017

Initial OBD Inspection Report (V 1.03)

Model Year	Type	OBD Total All	OBD Total Pass/Fail	OBD Total Pass/Fail %	Pass		Fail	
					Count	%	Count	%
1996	LDGT1	28	19	70.37	16	84.21	3	15.79
	LDGT2	18	12	66.67	11	91.67	1	8.33
	LDGV	141	61	43.26	44	72.13	17	27.87
1996 Total		187	92	49.46	71	77.17	21	22.83
1997	LDGT1	50	25	50.00	20	80.00	5	20.00
	LDGT2	51	34	66.67	23	67.65	11	32.35
	LDGV	154	94	61.04	65	69.15	29	30.85
1997 Total		255	153	60.00	108	70.59	45	29.41
1998	LDGT1	51	35	68.63	31	88.57	4	11.43
	LDGT2	18	16	88.89	14	87.50	2	12.50
	LDGV	121	76	62.81	60	78.95	16	21.05
1998 Total		190	127	66.84	105	82.68	22	17.32
1999	LDGT1	69	53	79.10	44	83.02	9	16.98
	LDGT2	1,155	889	77.30	727	81.78	162	18.22
	LDGV	233	174	74.68	152	87.36	22	12.64
1999 Total		1,457	1,116	76.97	923	82.71	193	17.29
2000	LDGT1	453	328	72.57	264	80.49	64	19.51
	LDGT2	1,672	1,253	75.03	973	77.65	280	22.35
	LDGV	315	221	71.06	178	80.54	43	19.46
2000 Total		2,440	1,802	74.06	1,415	78.52	387	21.48
2001	LDGT1	590	468	79.32	394	84.19	74	15.81
	LDGT2	2,402	1,889	78.77	1,502	79.51	387	20.49
	LDGV	563	437	79.89	373	85.35	64	14.65
2001 Total		3,555	2,794	79.04	2,269	81.21	525	18.79
2002	LDGT1	221	186	84.16	135	72.58	51	27.42
	LDGT2	2,562	2,005	78.41	1,583	78.95	422	21.05
	LDGV	635	504	79.62	443	87.90	61	12.10
2002 Total		3,418	2,695	79.01	2,161	80.19	534	19.81
2003	LDGT1	75	51	75.00	44	86.27	7	13.73
	LDGT2	2,918	2,323	79.75	1,906	82.05	417	17.95
	LDGV	921	726	80.76	615	84.71	111	15.29
2003 Total		3,914	3,100	79.90	2,565	82.74	535	17.26
2004	LDGT1	75	58	77.33	47	81.03	11	18.97
	LDGT2	2,562	1,977	77.17	1,630	82.45	347	17.55
	LDGV	1,226	1,031	85.21	934	90.59	97	9.41
2004 Total		3,863	3,066	79.70	2,611	85.16	455	14.84
2005	LDGT1	246	204	83.27	189	92.65	15	7.35
	LDGT2	2,729	2,214	81.13	1,996	90.15	218	9.85
	LDGV	2,333	2,112	91.23	1,928	91.29	184	8.71
2005 Total		5,308	4,530	85.65	4,113	90.79	417	9.21
2006	LDGT1	1,374	1,293	94.10	1,257	97.22	36	2.78
	LDGT2	1,773	1,453	82.04	1,298	89.33	155	10.67

Model Year	Type	OBD Total All	OBD Total Pass/Fail	OBD Total Pass/Fail %	Pass		Fail	
					Count	%	Count	%
	LDGV	1,971	1,766	90.15	1,671	94.62	95	5.38
2006 Total		5,118	4,512	88.40	4,226	93.66	286	6.34
2007	LDGT1	25,446	25,305	99.50	23,458	92.70	1,847	7.30
	LDGT2	13,332	12,785	95.92	11,692	91.45	1,093	8.55
	LDGV	30,548	30,289	99.33	28,166	92.99	2,123	7.01
2007 Total		69,326	68,379	98.74	63,316	92.60	5,063	7.40
2008	LDGT1	18,174	18,069	99.47	17,000	94.08	1,069	5.92
	LDGT2	10,558	10,167	96.30	9,349	91.95	818	8.05
	LDGV	22,297	22,068	99.14	20,647	93.56	1,421	6.44
2008 Total		51,029	50,304	98.67	46,996	93.42	3,308	6.58
2009	LDGT1	7,662	7,636	99.66	7,172	93.92	464	6.08
	LDGT2	4,173	4,021	96.36	3,675	91.40	346	8.60
	LDGV	12,784	12,663	99.27	11,981	94.61	682	5.39
2009 Total		24,619	24,320	98.90	22,828	93.87	1,492	6.13
2010	LDGT1	26,751	26,686	99.81	25,712	96.35	974	3.65
	LDGT2	14,047	13,774	98.13	13,038	94.66	736	5.34
	LDGV	32,288	32,083	99.50	30,859	96.18	1,224	3.82
2010 Total		73,086	72,543	99.35	69,609	95.96	2,934	4.04
2011	LDGT1	4,846	4,836	99.86	4,655	96.26	181	3.74
	LDGT2	3,015	2,973	98.64	2,741	92.20	232	7.80
	LDGV	5,319	5,277	99.42	5,087	96.40	190	3.60
2011 Total		13,180	13,086	99.40	12,483	95.39	603	4.61
2012	LDGT1	1,595	1,589	99.69	1,527	96.10	62	3.90
	LDGT2	1,030	1,020	99.13	957	93.82	63	6.18
	LDGV	2,840	2,815	99.40	2,677	95.10	138	4.90
2012 Total		5,465	5,424	99.43	5,161	95.15	263	4.85
2013	LDGT1	1,174	1,171	99.83	1,137	97.10	34	2.90
	LDGT2	724	710	98.20	659	92.82	51	7.18
	LDGV	2,138	2,123	99.39	2,027	95.48	96	4.52
2013 Total		4,036	4,004	99.31	3,823	95.48	181	4.52
2014	LDGT1	948	942	99.79	927	98.41	15	1.59
	LDGT2	486	481	98.97	458	95.22	23	4.78
	LDGV	1,422	1,401	99.15	1,361	97.14	40	2.86
2014 Total		2,856	2,824	99.33	2,746	97.24	78	2.76
2015	LDGT1	664	658	99.85	645	98.02	13	1.98
	LDGT2	238	237	99.58	232	97.89	5	2.11
	LDGV	932	925	99.57	885	95.68	40	4.32
2015 Total		1,834	1,820	99.67	1,762	96.81	58	3.19
2016	LDGT1	407	405	100.00	402	99.26	3	0.74
	LDGT2	130	130	100.00	128	98.46	2	1.54
	LDGV	527	526	100.00	512	97.34	14	2.66
2016 Total		1,064	1,061	100.00	1,042	98.21	19	1.79
2017	LDGT1	66	66	100.00	65	98.48	1	1.52
	LDGT2	26	26	100.00	26	100.00	0	0.00
	LDGV	141	139	99.29	139	100.00	0	0.00
2017 Total		233	231	99.57	230	99.57	1	0.43

Model Year	Type	OBD Total All	OBD Total Pass/Fail	OBD Total Pass/Fail %	Pass		Fail	
					Count	%	Count	%
2018	LDGT2	2	2	100.00	2	100.00	0	0.00
	LDGV	2	2	100.00	2	100.00	0	0.00
2018 Total		4	4	100.00	4	100.00	0	0.00
Grand Total		276,437	267,987	97.08	250,567	93.50	17,420	6.50

Initial OBD Inspection Report - Summary by Veh (V 1.03)

Type	OBD Total All	OBD Total Pass/Fail	OBD Total Pass/Fail %	Pass		Fail	
				Count	%	Count	%
LDGT1	90,965	90,083	99.10	85,141	94.51	4,942	5.49
LDGT2	65,621	60,391	92.09	54,620	90.44	5,771	9.56
LDGV	119,851	117,513	98.29	110,806	94.29	6,707	5.71
Grand Total	276,437	267,987	97.08	250,567	93.50	17,420	6.50

Appendix A3

Initial OBD Inspection Failure Report

Date Range
Between 1/1/2017 and 12/31/2017

Initial OBD Inspection Failure Report (V 1.03)

Model Year	Type	Total Fail	Failed OBD Only						Failed Both OBD and Gas Cap						Failed Gas Cap Only		Failed Opacity	
			MIL Commanded on Count	MIL Commanded on %	Visual MIL Count	Visual MIL %	Both MIL Count	Both MIL %	Gas Cap and MIL on Count	Gas Cap and MIL on %	Gas Cap and Visual MIL Count	Gas Cap and Visual MIL %	Both MIL and Gas Cap Count	Both MIL and Gas Cap %	Count	%	Count	%
1996	LDGT1	3	0	0.00	0	0.00	2	66.67	0	0.00	0	0.00	0	0.00	1	33.33	0	0.00
	LDGT2	1	0	0.00	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	17	4	23.53	0	0.00	12	70.59	0	0.00	0	0.00	1	5.88	0	0.00	0	0.00
1996 Total		21	4	19.05	0	0.00	15	71.43	0	0.00	0	0.00	1	4.76	1	4.76	0	0.00
1997	LDGT1	5	1	20.00	0	0.00	2	40.00	0	0.00	0	0.00	1	20.00	1	20.00	0	0.00
	LDGT2	11	3	27.27	1	9.09	5	45.45	0	0.00	0	0.00	0	0.00	2	18.18	0	0.00
	LDGV	29	6	20.69	4	13.79	16	55.17	0	0.00	0	0.00	1	3.45	2	6.90	0	0.00
1997 Total		45	10	22.22	5	11.11	23	51.11	0	0.00	0	0.00	2	4.44	5	11.11	0	0.00
1998	LDGT1	4	0	0.00	1	25.00	2	50.00	0	0.00	0	0.00	0	0.00	1	25.00	0	0.00
	LDGT2	2	0	0.00	1	50.00	1	50.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	16	4	25.00	1	6.25	9	56.25	0	0.00	0	0.00	0	0.00	2	12.50	0	0.00
1998 Total		22	4	18.18	3	13.64	12	54.55	0	0.00	0	0.00	0	0.00	3	13.64	0	0.00
1999	LDGT1	9	1	11.11	0	0.00	5	55.56	0	0.00	0	0.00	0	0.00	3	33.33	0	0.00
	LDGT2	162	12	7.41	27	16.67	90	55.56	1	0.62	3	1.85	6	3.70	22	13.58	2	1.23
	LDGV	22	5	22.73	1	4.55	11	50.00	1	4.55	0	0.00	1	4.55	3	13.64	0	0.00
1999 Total		193	18	9.33	28	14.51	106	54.92	2	1.04	3	1.55	7	3.63	28	14.51	2	1.04
2000	LDGT1	64	5	7.81	6	9.38	26	40.63	2	3.13	1	1.56	2	3.13	20	31.25	3	4.69
	LDGT2	280	17	6.07	27	9.64	171	61.07	1	0.36	4	1.43	14	5.00	45	16.07	2	0.71
	LDGV	43	3	6.98	1	2.33	29	67.44	1	2.33	0	0.00	1	2.33	8	18.60	0	0.00
2000 Total		387	25	6.46	34	8.79	226	58.40	4	1.03	5	1.29	17	4.39	73	18.86	5	1.29
2001	LDGT1	74	6	8.11	2	2.70	39	52.70	1	1.35	0	0.00	3	4.05	23	31.08	0	0.00
	LDGT2	387	29	7.49	31	8.01	249	64.34	1	0.26	0	0.00	21	5.43	55	14.21	3	0.78
	LDGV	64	10	15.63	4	6.25	41	64.06	0	0.00	0	0.00	3	4.69	6	9.38	0	0.00
2001 Total		525	45	8.57	37	7.05	329	62.67	2	0.38	0	0.00	27	5.14	84	16.00	3	0.57
2002	LDGT1	51	7	13.73	0	0.00	30	58.82	1	1.96	1	1.96	3	5.88	9	17.65	0	0.00
	LDGT2	422	37	8.77	52	12.32	231	54.74	0	0.00	6	1.42	22	5.21	73	17.30	2	0.47
	LDGV	61	8	13.11	5	8.20	37	60.66	1	1.64	0	0.00	1	1.64	9	14.75	0	0.00
2002 Total		534	52	9.74	57	10.67	298	55.81	2	0.37	7	1.31	26	4.87	91	17.04	2	0.37
2003	LDGT1	7	0	0.00	0	0.00	5	71.43	0	0.00	0	0.00	1	14.29	1	14.29	0	0.00
	LDGT2	417	35	8.39	50	11.99	227	54.44	1	0.24	4	0.96	15	3.60	83	19.90	2	0.48
	LDGV	111	6	5.41	5	4.50	57	51.35	4	3.60	1	0.90	8	7.21	29	26.13	1	0.90
2003 Total		535	41	7.66	55	10.28	289	54.02	5	0.93	5	0.93	24	4.49	113	21.12	3	0.56
2004	LDGT1	11	2	18.18	1	9.09	4	36.36	0	0.00	0	0.00	0	0.00	4	36.36	0	0.00

Model Year	Type	Total Fail	Failed OBD Only						Failed Both OBD and Gas Cap						Failed Gas Cap Only		Failed Opacity	
			MIL Commanded on Count	MIL Commanded on %	Visual MIL Count	Visual MIL %	Both MIL Count	Both MIL %	Gas Cap and MIL on Count	Gas Cap and MIL on %	Gas Cap and Visual MIL Count	Gas Cap and Visual MIL %	Both MIL and Gas Cap Count	Both MIL and Gas Cap %	Count	%	Count	%
	LDGT2	347	30	8.65	52	14.99	162	46.69	4	1.15	2	0.58	11	3.17	83	23.92	3	0.86
	LDGV	97	7	7.22	1	1.03	54	55.67	2	2.06	0	0.00	5	5.15	28	28.87	0	0.00
2004 Total		455	39	8.57	54	11.87	220	48.35	6	1.32	2	0.44	16	3.52	115	25.27	3	0.66
2005	LDGT1	15	2	13.33	2	13.33	6	40.00	0	0.00	0	0.00	0	0.00	5	33.33	0	0.00
	LDGT2	218	22	10.09	33	15.14	103	47.25	0	0.00	1	0.46	8	3.67	50	22.94	2	0.92
	LDGV	184	20	10.87	4	2.17	100	54.35	1	0.54	0	0.00	7	3.80	51	27.72	1	0.54
2005 Total		417	44	10.55	39	9.35	209	50.12	1	0.24	1	0.24	15	3.60	106	25.42	3	0.72
2006	LDGT1	36	3	8.33	0	0.00	25	69.44	0	0.00	0	0.00	1	2.78	7	19.44	0	0.00
	LDGT2	155	8	5.16	17	10.97	72	46.45	0	0.00	1	0.65	4	2.58	52	33.55	1	0.65
	LDGV	95	18	18.95	6	6.32	43	45.26	0	0.00	0	0.00	1	1.05	26	27.37	1	1.05
2006 Total		286	29	10.14	23	8.04	140	48.95	0	0.00	1	0.35	6	2.10	85	29.72	2	0.70
2007	LDGT1	1,847	202	10.94	46	2.49	867	46.94	14	0.76	2	0.11	48	2.60	663	35.90	6	0.32
	LDGT2	1,093	108	9.88	36	3.29	479	43.82	7	0.64	6	0.55	26	2.38	427	39.07	5	0.46
	LDGV	2,123	295	13.90	89	4.19	1,115	52.52	10	0.47	4	0.19	52	2.45	542	25.53	18	0.85
2007 Total		5,063	605	11.95	171	3.38	2,461	48.61	31	0.61	12	0.24	126	2.49	1,632	32.23	29	0.57
2008	LDGT1	1,069	97	9.07	15	1.40	413	38.63	8	0.75	2	0.19	25	2.34	502	46.96	9	0.84
	LDGT2	818	62	7.58	16	1.96	306	37.41	3	0.37	1	0.12	17	2.08	409	50.00	6	0.73
	LDGV	1,421	185	13.02	50	3.52	741	52.15	9	0.63	1	0.07	41	2.89	387	27.23	7	0.49
2008 Total		3,308	344	10.40	81	2.45	1,460	44.14	20	0.60	4	0.12	83	2.51	1,298	39.24	22	0.67
2009	LDGT1	464	55	11.85	5	1.08	160	34.48	3	0.65	0	0.00	15	3.23	226	48.71	0	0.00
	LDGT2	346	36	10.40	7	2.02	103	29.77	2	0.58	2	0.58	8	2.31	185	53.47	3	0.87
	LDGV	682	93	13.64	17	2.49	359	52.64	4	0.59	0	0.00	13	1.91	194	28.45	6	0.88
2009 Total		1,492	184	12.33	29	1.94	622	41.69	9	0.60	2	0.13	36	2.41	605	40.55	9	0.60
2010	LDGT1	974	62	6.37	6	0.62	273	28.03	6	0.62	1	0.10	21	2.16	600	61.60	5	0.51
	LDGT2	736	57	7.74	14	1.90	239	32.47	4	0.54	0	0.00	13	1.77	407	55.30	2	0.27
	LDGV	1,224	128	10.46	23	1.88	501	40.93	5	0.41	1	0.08	26	2.12	526	42.97	15	1.23
2010 Total		2,934	247	8.42	43	1.47	1,013	34.53	15	0.51	2	0.07	60	2.04	1,533	52.25	22	0.75
2011	LDGT1	181	20	11.05	3	1.66	43	23.76	1	0.55	1	0.55	2	1.10	109	60.22	2	1.10
	LDGT2	232	15	6.47	1	0.43	39	16.81	2	0.86	1	0.43	8	3.45	166	71.55	2	0.86
	LDGV	190	24	12.63	7	3.68	74	38.95	0	0.00	0	0.00	2	1.05	79	41.58	4	2.11
2011 Total		603	59	9.78	11	1.82	156	25.87	3	0.50	2	0.33	12	1.99	354	58.71	8	1.33
2012	LDGT1	62	3	4.84	1	1.61	22	35.48	0	0.00	0	0.00	1	1.61	34	54.84	1	1.61
	LDGT2	63	4	6.35	0	0.00	13	20.63	0	0.00	0	0.00	3	4.76	41	65.08	2	3.17
	LDGV	138	18	13.04	4	2.90	39	28.26	0	0.00	0	0.00	4	2.90	73	52.90	0	0.00
2012 Total		263	25	9.51	5	1.90	74	28.14	0	0.00	0	0.00	8	3.04	148	56.27	3	1.14
2013	LDGT1	34	3	8.82	1	2.94	14	41.18	0	0.00	0	0.00	0	0.00	16	47.06	0	0.00
	LDGT2	51	5	9.80	1	1.96	10	19.61	0	0.00	0	0.00	2	3.92	33	64.71	0	0.00

Model Year	Type	Total Fail	Failed OBD Only						Failed Both OBD and Gas Cap						Failed Gas Cap Only		Failed Opacity	
			MIL Commanded on Count	MIL Commanded on %	Visual MIL Count	Visual MIL %	Both MIL Count	Both MIL %	Gas Cap and MIL on Count	Gas Cap and MIL on %	Gas Cap and Visual MIL Count	Gas Cap and Visual MIL %	Both MIL and Gas Cap Count	Both MIL and Gas Cap %	Count	%	Count	%
	LDGV	96	8	8.33	1	1.04	31	32.29	0	0.00	0	0.00	1	1.04	54	56.25	1	1.04
2013 Total		181	16	8.84	3	1.66	55	30.39	0	0.00	0	0.00	3	1.66	103	56.91	1	0.55
2014	LDGT1	15	2	13.33	0	0.00	5	33.33	0	0.00	0	0.00	0	0.00	8	53.33	0	0.00
	LDGT2	23	1	4.35	0	0.00	5	21.74	0	0.00	0	0.00	0	0.00	17	73.91	0	0.00
	LDGV	40	5	12.50	1	2.50	6	15.00	0	0.00	0	0.00	0	0.00	28	70.00	1	2.50
2014 Total		78	8	10.26	1	1.28	16	20.51	0	0.00	0	0.00	0	0.00	53	67.95	1	1.28
2015	LDGT1	13	0	0.00	0	0.00	5	38.46	0	0.00	0	0.00	0	0.00	8	61.54	0	0.00
	LDGT2	5	3	60.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	40.00	0	0.00
	LDGV	40	2	5.00	0	0.00	11	27.50	1	2.50	0	0.00	1	2.50	25	62.50	0	0.00
2015 Total		58	5	8.62	0	0.00	16	27.59	1	1.72	0	0.00	1	1.72	35	60.34	0	0.00
2016	LDGT1	3	0	0.00	0	0.00	1	33.33	0	0.00	0	0.00	0	0.00	2	66.67	0	0.00
	LDGT2	2	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	100.00	0	0.00
	LDGV	14	2	14.29	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	12	85.71	0	0.00
2016 Total		19	2	10.53	0	0.00	1	5.26	0	0.00	0	0.00	0	0.00	16	84.21	0	0.00
2017	LDGT1	1	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00
2017 Total		1	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00
Grand Total		17,420	1,806	10.37	679	3.90	7,741	44.44	101	0.58	46	0.26	470	2.70	6,482	37.21	118	0.68

Initial OBD Inspection Failure Report - Summary by Veh (V 1.03)

Type	Total Fail	Failed OBD Only						Failed Both OBD and Gas Cap						Failed Gas Cap Only		Failed Opacity	
		MIL Commanded on Count	MIL Commanded on %	Visual MIL Count	Visual MIL %	Both MIL Count	Both MIL %	Gas Cap and MIL on Count	Gas Cap and MIL on %	Gas Cap and Visual MIL Count	Gas Cap and Visual MIL %	Both MIL and Gas Cap Count	Both MIL and Gas Cap %	Count	%	Count	%
LDGT1	4,942	471	9.53	89	1.80	1,949	39.44	36	0.73	8	0.16	123	2.49	2,244	45.41	26	0.53
LDGT2	5,771	484	8.39	366	6.34	2,506	43.42	26	0.45	31	0.54	178	3.08	2,154	37.32	37	0.64
LDGV	6,707	851	12.69	224	3.34	3,286	48.99	39	0.58	7	0.10	169	2.52	2,084	31.07	55	0.82
Grand Total	17,420	1,806	10.37	679	3.90	7,741	44.44	101	0.58	46	0.26	470	2.70	6,482	37.21	118	0.68

Appendix A4

Initial OBD Fail DTC Report

Date Range
Between 1/1/2017 and 12/31/2017

Initial OBD Fail DTC Report (V 1.03)

Model Year	Type	Total Fail	Count of Tests by Number of DTC Present												No DTCs Available	
			0 Count	0 %	1 Count	1 %	2 Count	2 %	3 Count	3 %	4 Count	4 %	>= 5 Count	>= 5 %	Count	%
1996	LDGT1	2	0	0.00	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	1	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	17	0	0.00	7	41.18	4	23.53	2	11.76	1	5.88	3	17.65	0	0.00
1996 Total		20	0	0.00	10	50.00	4	20.00	2	10.00	1	5.00	3	15.00	0	0.00
1997	LDGT1	4	0	0.00	2	50.00	1	25.00	0	0.00	0	0.00	1	25.00	0	0.00
	LDGT2	9	0	0.00	5	55.56	0	0.00	1	11.11	1	11.11	1	11.11	1	11.11
	LDGV	27	1	3.70	12	44.44	6	22.22	3	11.11	1	3.70	2	7.41	2	7.41
1997 Total		40	1	2.50	19	47.50	7	17.50	4	10.00	2	5.00	4	10.00	3	7.50
1998	LDGT1	3	1	33.33	2	66.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	2	1	50.00	0	0.00	0	0.00	0	0.00	0	0.00	1	50.00	0	0.00
	LDGV	14	0	0.00	7	50.00	3	21.43	1	7.14	1	7.14	1	7.14	1	7.14
1998 Total		19	2	10.53	9	47.37	3	15.79	1	5.26	1	5.26	2	10.53	1	5.26
1999	LDGT1	6	0	0.00	5	83.33	0	0.00	0	0.00	1	16.67	0	0.00	0	0.00
	LDGT2	139	15	10.79	50	35.97	31	22.30	18	12.95	10	7.19	4	2.88	11	7.91
	LDGV	19	1	5.26	6	31.58	6	31.58	4	21.05	1	5.26	0	0.00	1	5.26
1999 Total		164	16	9.76	61	37.20	37	22.56	22	13.41	12	7.32	4	2.44	12	7.32
2000	LDGT1	42	4	9.52	16	38.10	6	14.29	4	9.52	3	7.14	4	9.52	5	11.90
	LDGT2	234	10	4.27	89	38.03	52	22.22	32	13.68	9	3.85	24	10.26	18	7.69
	LDGV	35	0	0.00	14	40.00	8	22.86	5	14.29	5	14.29	2	5.71	1	2.86
2000 Total		311	14	4.50	119	38.26	66	21.22	41	13.18	17	5.47	30	9.65	24	7.72
2001	LDGT1	51	1	1.96	26	50.98	14	27.45	6	11.76	1	1.96	2	3.92	1	1.96
	LDGT2	331	9	2.72	146	44.11	77	23.26	44	13.29	17	5.14	23	6.95	15	4.53
	LDGV	58	2	3.45	30	51.72	10	17.24	4	6.90	6	10.34	5	8.62	1	1.72
2001 Total		440	12	2.73	202	45.91	101	22.95	54	12.27	24	5.45	30	6.82	17	3.86
2002	LDGT1	42	1	2.38	22	52.38	8	19.05	1	2.38	4	9.52	6	14.29	0	0.00
	LDGT2	348	17	4.89	155	44.54	64	18.39	32	9.20	20	5.75	24	6.90	36	10.34
	LDGV	52	2	3.85	23	44.23	13	25.00	5	9.62	1	1.92	5	9.62	3	5.77
2002 Total		442	20	4.52	200	45.25	85	19.23	38	8.60	25	5.66	35	7.92	39	8.82
2003	LDGT1	6	0	0.00	4	66.67	1	16.67	1	16.67	0	0.00	0	0.00	0	0.00
	LDGT2	332	18	5.42	118	35.54	78	23.49	46	13.86	21	6.33	21	6.33	30	9.04
	LDGV	81	4	4.94	27	33.33	24	29.63	13	16.05	3	3.70	7	8.64	3	3.70
2003 Total		419	22	5.25	149	35.56	103	24.58	60	14.32	24	5.73	28	6.68	33	7.88

			Count of Tests by Number of DTC Present												No DTCs Available	
Model Year	Type	Total Fail	0 Count	0 %	1 Count	1 %	2 Count	2 %	3 Count	3 %	4 Count	4 %	>= 5 Count	>= 5 %	Count	%
2004	LDGT1	7	1	14.29	3	42.86	1	14.29	0	0.00	2	28.57	0	0.00	0	0.00
	LDGT2	261	14	5.36	94	36.02	71	27.20	26	9.96	12	4.60	12	4.60	32	12.26
	LDGV	69	2	2.90	23	33.33	26	37.68	9	13.04	3	4.35	6	8.70	0	0.00
2004 Total		337	17	5.04	120	35.61	98	29.08	35	10.39	17	5.04	18	5.34	32	9.50
2005	LDGT1	10	3	30.00	3	30.00	2	20.00	1	10.00	0	0.00	1	10.00	0	0.00
	LDGT2	167	12	7.19	56	33.53	31	18.56	25	14.97	14	8.38	9	5.39	20	11.98
	LDGV	132	3	2.27	41	31.06	48	36.36	17	12.88	9	6.82	13	9.85	1	0.76
2005 Total		309	18	5.83	100	32.36	81	26.21	43	13.92	23	7.44	23	7.44	21	6.80
2006	LDGT1	29	0	0.00	14	48.28	10	34.48	2	6.90	0	0.00	3	10.34	0	0.00
	LDGT2	102	4	3.92	34	33.33	24	23.53	15	14.71	2	1.96	10	9.80	13	12.75
	LDGV	68	7	10.29	36	52.94	7	10.29	4	5.88	6	8.82	7	10.29	1	1.47
2006 Total		199	11	5.53	84	42.21	41	20.60	21	10.55	8	4.02	20	10.05	14	7.04
2007	LDGT1	1,179	16	1.36	555	47.07	301	25.53	151	12.81	61	5.17	65	5.51	30	2.54
	LDGT2	662	17	2.57	357	53.93	149	22.51	67	10.12	30	4.53	26	3.93	16	2.42
	LDGV	1,565	37	2.36	801	51.18	387	24.73	144	9.20	84	5.37	77	4.92	35	2.24
2007 Total		3,406	70	2.06	1,713	50.29	837	24.57	362	10.63	175	5.14	168	4.93	81	2.38
2008	LDGT1	560	12	2.14	305	54.46	113	20.18	75	13.39	20	3.57	31	5.54	4	0.71
	LDGT2	405	8	1.98	219	54.07	82	20.25	42	10.37	19	4.69	24	5.93	11	2.72
	LDGV	1,027	30	2.92	562	54.72	212	20.64	94	9.15	57	5.55	55	5.36	17	1.66
2008 Total		1,992	50	2.51	1,086	54.52	407	20.43	211	10.59	96	4.82	110	5.52	32	1.61
2009	LDGT1	238	4	1.68	129	54.20	57	23.95	31	13.03	8	3.36	7	2.94	2	0.84
	LDGT2	158	4	2.53	74	46.84	43	27.22	14	8.86	6	3.80	13	8.23	4	2.53
	LDGV	486	4	0.82	259	53.29	116	23.87	53	10.91	21	4.32	25	5.14	8	1.65
2009 Total		882	12	1.36	462	52.38	216	24.49	98	11.11	35	3.97	45	5.10	14	1.59
2010	LDGT1	369	6	1.63	239	64.77	79	21.41	21	5.69	7	1.90	15	4.07	2	0.54
	LDGT2	327	7	2.14	169	51.68	88	26.91	28	8.56	14	4.28	17	5.20	4	1.22
	LDGV	684	17	2.49	384	56.14	167	24.42	69	10.09	15	2.19	26	3.80	6	0.88
2010 Total		1,380	30	2.17	792	57.39	334	24.20	118	8.55	36	2.61	58	4.20	12	0.87
2011	LDGT1	70	2	2.86	44	62.86	16	22.86	5	7.14	1	1.43	1	1.43	1	1.43
	LDGT2	66	2	3.03	34	51.52	11	16.67	11	16.67	6	9.09	2	3.03	0	0.00
	LDGV	107	7	6.54	60	56.07	27	25.23	6	5.61	2	1.87	4	3.74	1	0.93
2011 Total		243	11	4.53	138	56.79	54	22.22	22	9.05	9	3.70	7	2.88	2	0.82
2012	LDGT1	27	1	3.70	17	62.96	6	22.22	1	3.70	2	7.41	0	0.00	0	0.00
	LDGT2	20	1	5.00	16	80.00	2	10.00	1	5.00	0	0.00	0	0.00	0	0.00
	LDGV	65	1	1.54	41	63.08	17	26.15	0	0.00	1	1.54	2	3.08	3	4.62
2012 Total		112	3	2.68	74	66.07	25	22.32	2	1.79	3	2.68	2	1.79	3	2.68

			Count of Tests by Number of DTC Present												No DTCs Available	
Model Year	Type	Total Fail	0 Count	0 %	1 Count	1 %	2 Count	2 %	3 Count	3 %	4 Count	4 %	>= 5 Count	>= 5 %	Count	%
2013	LDGT1	18	1	5.56	14	77.78	3	16.67	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	18	1	5.56	8	44.44	5	27.78	0	0.00	2	11.11	1	5.56	1	5.56
	LDGV	41	1	2.44	28	68.29	5	12.20	3	7.32	2	4.88	2	4.88	0	0.00
2013 Total		77	3	3.90	50	64.94	13	16.88	3	3.90	4	5.19	3	3.90	1	1.30
2014	LDGT1	7	0	0.00	5	71.43	2	28.57	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	6	0	0.00	4	66.67	1	16.67	1	16.67	0	0.00	0	0.00	0	0.00
	LDGV	12	1	8.33	8	66.67	1	8.33	2	16.67	0	0.00	0	0.00	0	0.00
2014 Total		25	1	4.00	17	68.00	4	16.00	3	12.00	0	0.00	0	0.00	0	0.00
2015	LDGT1	5	0	0.00	3	60.00	1	20.00	0	0.00	1	20.00	0	0.00	0	0.00
	LDGT2	3	0	0.00	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	15	0	0.00	12	80.00	2	13.33	1	6.67	0	0.00	0	0.00	0	0.00
2015 Total		23	0	0.00	18	78.26	3	13.04	1	4.35	1	4.35	0	0.00	0	0.00
2016	LDGT1	1	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	2	0	0.00	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2016 Total		3	0	0.00	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2017	LDGT1	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2017 Total		0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Grand Total		10,843	313	2.89	5,426	50.04	2,519	23.23	1,141	10.52	513	4.73	590	5.44	341	3.14

Initial OBD Fail DTC Report - Summary by Veh (V 1.03)

			Count of Tests by Number of DTC Present												No DTCs Available	
Type	Total Fail	0 Count	0 %	1 Count	1 %	2 Count	2 %	3 Count	3 %	4 Count	4 %	>= 5 Count	>= 5 %	Count	%	
LDGT1	2,676	53	1.98	1,411	52.73	621	23.21	299	11.17	111	4.15	136	5.08	45	1.68	
LDGT2	3,591	140	3.90	1,632	45.45	809	22.53	403	11.22	183	5.10	212	5.90	212	5.90	
LDGV	4,576	120	2.62	2,383	52.08	1,089	23.80	439	9.59	219	4.79	242	5.29	84	1.84	
Grand Total		10,843	313	2.89	5,426	50.04	2,519	23.23	1,141	10.52	513	4.73	590	5.44	341	3.14

Appendix A5

Initial OBD Fail Readiness Monitor Summary Report

Date Range
Between 1/1/2017 and 12/31/2017

Initial OBD Fail Readiness Monitor Summary Report (V 1.04)

Model Year	Type	Total OBD Fail	% of Total Fail with Readiness Monitors	Total OBD Fail W/	CAT				EVAP				SAIR				O2				HO2				EGR				
					Ready Info	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%
1996	LDGV	17	64.71	17	17	100.00	7	41.18	5	29.41	3	60.00	4	23.53	4	100.00	17	100.00	8	47.06	17	100.00	15	88.24	6	35.29	4	66.67	
	LDGT1	2	100.00	2	2	100.00	0	0.00	1	50.00	0	0.00	0	0.00	0	0.00	2	100.00	1	50.00	1	100.00	1	100.00	2	100.00	1	50.00	
	LDGT2	1	100.00	1	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00	1	100.00	1	100.00	1	100.00	
1996	Total	20	70.00	20	20	100.00	7	35.00	6	30.00	3	50.00	4	20.00	4	100.00	20	100.00	9	45.00	19	95.00	17	89.47	9	45.00	6	66.67	
1997	LDGV	27	59.26	25	25	100.00	10	40.00	21	84.00	11	52.38	6	24.00	4	66.67	25	100.00	10	40.00	25	100.00	18	72.00	11	44.00	3	27.27	
	LDGT1	4	75.00	4	4	100.00	1	25.00	1	25.00	1	100.00	0	0.00	0	0.00	4	100.00	4	100.00	3	75.00	2	66.67	1	25.00	1	100.00	
	LDGT2	9	44.44	8	8	100.00	5	62.50	5	62.50	4	80.00	0	0.00	0	0.00	8	100.00	6	75.00	8	100.00	6	75.00	4	50.00	1	25.00	
1997	Total	40	57.50	37	37	100.00	16	43.24	27	72.97	16	59.26	6	16.22	4	66.67	37	100.00	20	54.05	36	97.30	26	72.22	16	43.24	5	31.25	
1998	LDGV	14	50.00	13	13	100.00	7	53.85	13	100.00	10	76.92	4	30.77	4	100.00	13	100.00	8	61.54	13	100.00	13	100.00	6	46.15	5	83.33	
	LDGT1	3	33.33	3	3	100.00	3	100.00	2	66.67	1	50.00	0	0.00	0	0.00	3	100.00	3	100.00	3	100.00	3	100.00	3	100.00	3	100.00	
	LDGT2	2	50.00	2	2	100.00	1	50.00	2	100.00	2	100.00	0	0.00	0	0.00	2	100.00	1	50.00	2	100.00	1	50.00	2	100.00	1	50.00	
1998	Total	19	47.37	18	18	100.00	11	61.11	17	94.44	13	76.47	4	22.22	4	100.00	18	100.00	12	66.67	18	100.00	17	94.44	11	61.11	9	81.82	
1999	LDGV	19	31.58	18	18	100.00	13	72.22	18	100.00	12	66.67	6	33.33	6	100.00	18	100.00	14	77.78	18	100.00	16	88.89	9	50.00	7	77.78	
	LDGT1	6	50.00	6	6	100.00	4	66.67	6	100.00	5	83.33	0	0.00	0	0.00	6	100.00	6	100.00	6	100.00	6	100.00	5	83.33	5	100.00	
	LDGT2	139	52.52	128	128	100.00	92	71.88	128	100.00	57	44.53	1	0.78	0	0.00	128	100.00	114	89.06	128	100.00	110	85.94	128	100.00	116	90.63	
1999	Total	164	50.00	152	152	100.00	109	71.71	152	100.00	74	48.68	7	4.61	6	85.71	152	100.00	134	88.16	152	100.00	132	86.84	142	93.42	128	90.14	
2000	LDGV	35	51.43	34	34	100.00	19	55.88	34	100.00	24	70.59	14	41.18	11	78.57	34	100.00	22	64.71	34	100.00	33	97.06	18	52.94	15	83.33	
	LDGT1	42	42.86	36	35	97.22	24	68.57	35	97.22	25	71.43	0	0.00	0	0.00	35	97.22	25	71.43	35	97.22	31	88.57	3	8.33	3	100.00	
	LDGT2	234	45.73	216	216	100.00	144	66.67	214	99.07	130	60.75	17	7.87	11	64.71	216	100.00	196	90.74	216	100.00	188	87.04	214	99.07	201	93.93	
2000	Total	311	45.98	286	285	99.65	187	65.61	283	98.95	179	63.25	31	10.84	22	70.97	285	99.65	243	85.26	285	99.65	252	88.42	235	82.17	219	93.19	
2001	LDGV	58	55.17	57	56	98.25	33	58.93	56	98.25	32	57.14	31	54.39	18	58.06	56	98.25	41	73.21	56	98.25	52	92.86	17	29.82	13	76.47	
	LDGT1	51	39.22	46	46	100.00	33	71.74	46	100.00	29	63.04	0	0.00	0	0.00	46	100.00	36	78.26	46	100.00	34	73.91	1	2.17	1	100.00	
	LDGT2	331	41.99	316	314	99.37	224	71.34	314	99.37	209	66.56	6	1.90	3	50.00	316	100.00	272	86.08	315	99.68	284	90.16	275	87.03	261	94.91	
2001	Total	440	43.41	419	416	99.28	290	69.71	416	99.28	270	64.90	37	8.83	21	56.76	418	99.76	349	83.49	417	99.52	370	88.73	293	69.93	275	93.86	
2002	LDGV	52	51.92	49	49	100.00	32	65.31	49	100.00	30	61.22	14	28.57	12	85.71	48	97.96	34	70.83	48	97.96	44	91.67	12	24.49	9	75.00	
	LDGT1	42	33.33	41	41	100.00	32	78.05	41	100.00	29	70.73	2	4.88	2	100.00	41	100.00	31	75.61	41	100.00	35	85.37	3	7.32	3	100.00	
	LDGT2	348	35.06	310	309	99.68	239	77.35	309	99.68	214	69.26	1	0.32	1	100.00	310	100.00	275	88.71	309	99.68	260	84.14	40	12.90	39	97.50	
2002	Total	442	36.88	400	399	99.75	303	75.94	399	99.75	273	68.42	17	4.25	15	88.24	399	99.75	340	85.21	398	99.50	339	85.18	55	13.75	51	92.73	
2003	LDGV	81	35.80	78	77	98.72	60	77.92	74	94.87	52	70.27	18	23.08	16	88.89	77	98.72	64	83.12	77	98.72	74	96.10	47	60.26	40	85.11	
	LDGT1	6	33.33	6	5	83.33	4	80.00	5	83.33	3	60.00	2	33.33	1	50.00	5	83.33	4	80.00	6	100.00	5	83.33	1	16.67	1	100.00	
	LDGT2	332	40.36	302	301	99.67	228	75.75	301	99.67	180	59.80	0	0.00	0	0.00	301	99.67	260	86.38	276	91.39	266	96.38	3	0.99	3	100.00	
2003	Total	419	39.38	386	383	99.22	292	76.24	380	98.45	235	61.84	20	5.18	17	85.00	383	99.22	328	85.64	359	93.01	345	96.10	51	13.21	44	86.27	
2004	LDGV	69	37.68	69	68	98.55	55	80.88	68	98.55	47	69.12	9	13.04	7	77.78	68	98.55	57	83.82	56	81.16	55	98.21	40	57.97	36	90.00	
	LDGT1	7	42.86	7	7	100.00	5	71.43	7	100.00	5	71.43	3	42.86	2	66.67	7	100.00	6	85.71	7	100.00	6	85.71	3	42.86	2	66.67	
	LDGT2	261	50.57	229	229	100.00	157	68.56	229	100.00	106	46.29	0	0.00	0	0.00	229	100.00	187	81.66	229	100.00	222	96.94	6	2.62	4	66.67	
2004	Total	337	47.77	305	304	99.67	217	71.38	304	99.67	158	51.97	12	3.93	9	75.00	304	99.67	250	82.24	292	95.74	283	96.92	49	16.07	42	85.71	
2005	LDGV	132	28.79	131	131	100.00	115	87.79	130	99.24	98	75.38	14	10.69	10	71.43	130	99.24	112	86.15	96	73.28	95	98.96	75	57.25	70	93.33	
	LDGT1	10	30.00	9	9	100.00	6	66.67	9	100.00	7	77.78	1	11.11	1	100.00	9	100.00	7	77.78	8	88.89	8	100.00	5	55.56	4	80.00	
	LDGT2	167	43.11	146	146	100.00	93	63.70	146	100.00	88	60.27	2	1.37	2	100.00	146	100.00	104	71.23	144	98.63	137	95.14	23	15.75	18	78.26	
2005	Total	309	36.57	286	286	100.00	214	74.83	285	99.65	193	67.72	17	5.94	13	76.47	285	99.65	223	78.25	248	86.71	240	96.77	103	36.01	92	89.32	
2006	LDGV	68	26.47	67	67	100.00	54	80.60	66	98.51	53	80.30	9	13.43	9	100.00	66	98.51	55	83.33	44	65.67	41	93.18	26	38.81	25	96.15	
	LDGT1	29	41.38	29	29	100.00	22	75.86	29	100.00	19	65.52	6	20.69	2	33.33	29	100.00	25	86.21	19	65.52	18	94.74	11	37.93	10	90.91	
	LDGT2																												

Model Year	Type	Total OBD Fail	% of Total Fail with Unset Readiness Monitors	Total OBD Fail W/	CAT				EVAP				SAIR				O2			HO2				EGR					
					Ready Info	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%
					Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
2009	Total	882	34.69	867	865	99.77	694	80.23	865	99.77	640	73.99	77	8.88	70	90.91	865	99.77	697	80.58	865	99.77	807	93.29	630	72.66	559	88.73	
2010	LDGV	684	22.66	674	673	99.85	589	87.52	674	100.00	566	83.98	79	11.72	77	97.47	674	100.00	586	86.94	674	100.00	635	94.21	610	90.50	570	93.44	
	LDGT1	369	24.12	367	367	100.00	315	85.83	367	100.00	306	83.38	33	8.99	31	93.94	367	100.00	313	85.29	367	100.00	352	95.91	345	94.01	320	92.75	
	LDGT2	327	36.09	322	321	99.69	252	78.50	322	100.00	240	74.53	9	2.80	8	88.89	322	100.00	257	79.81	322	100.00	300	93.17	272	84.47	229	84.19	
2010	Total	1,380	26.23	1,363	1,361	99.85	1,156	84.94	1,363	100.00	1,112	81.58	121	8.88	116	95.87	1,363	100.00	1,156	84.81	1,363	100.00	1,287	94.42	1,227	90.02	1,119	91.20	
2011	LDGV	107	28.97	106	106	100.00	89	83.96	106	100.00	77	72.64	17	16.04	15	88.24	106	100.00	91	85.85	106	100.00	102	96.23	104	98.11	98	94.23	
	LDGT1	70	27.14	69	69	100.00	59	85.51	69	100.00	53	77.94	3	4.35	3	100.00	69	100.00	58	84.06	69	100.00	64	92.75	68	98.55	60	88.24	
	LDGT2	66	42.42	65	65	100.00	52	80.00	65	100.00	46	70.77	0	0.00	0	0.00	65	100.00	48	73.85	65	100.00	58	89.23	65	100.00	59	90.77	
2011	Total	243	32.10	240	240	100.00	200	83.33	239	99.58	176	73.64	20	8.33	18	90.00	240	100.00	197	82.08	240	100.00	224	93.33	237	98.75	217	91.56	
2012	LDGV	65	38.46	61	61	100.00	48	78.69	61	100.00	39	63.93	6	9.84	5	83.33	61	100.00	45	73.77	61	100.00	56	91.80	61	100.00	58	95.08	
	LDGT1	27	40.74	27	27	100.00	23	85.19	27	100.00	18	66.67	3	11.11	2	66.67	27	100.00	21	77.78	27	100.00	26	96.30	27	100.00	24	88.89	
	LDGT2	20	35.00	20	19	95.00	15	78.95	19	95.00	15	78.95	3	15.00	3	100.00	20	100.00	16	80.00	20	100.00	18	90.00	20	100.00	18	90.00	
2012	Total	112	38.39	108	107	99.07	86	80.37	107	99.07	72	67.29	12	11.11	10	83.33	108	100.00	82	75.93	108	100.00	100	92.59	108	100.00	100	92.59	
2013	LDGV	41	48.78	39	38	97.44	26	68.42	39	100.00	21	53.85	4	10.26	4	100.00	39	100.00	24	61.54	39	100.00	34	87.18	39	100.00	36	92.31	
	LDGT1	18	16.67	18	18	100.00	16	88.89	18	100.00	15	83.33	0	0.00	0	0.00	18	100.00	15	83.33	18	100.00	17	94.44	18	100.00	18	100.00	
	LDGT2	18	44.44	17	17	100.00	13	76.47	17	100.00	10	58.82	0	0.00	0	0.00	17	100.00	12	70.59	17	100.00	13	76.47	17	100.00	12	70.59	
2013	Total	77	40.26	74	73	98.65	55	75.34	74	100.00	46	62.16	4	5.41	4	100.00	74	100.00	51	68.92	74	100.00	64	86.49	74	100.00	66	89.19	
2014	LDGV	12	50.00	12	12	100.00	10	83.33	12	100.00	7	58.33	3	25.00	2	66.67	12	100.00	9	75.00	12	100.00	9	75.00	12	100.00	10	83.33	
	LDGT1	7	14.29	7	7	100.00	6	85.71	7	100.00	7	100.00	0	0.00	0	0.00	7	100.00	6	85.71	7	100.00	7	100.00	7	100.00	7	100.00	
	LDGT2	6	0.00	6	6	100.00	6	100.00	6	100.00	6	100.00	0	0.00	0	0.00	6	100.00	6	100.00	6	100.00	6	100.00	6	100.00	6	100.00	
2014	Total	25	28.00	25	25	100.00	22	88.00	25	100.00	20	80.00	3	12.00	2	66.67	25	100.00	21	84.00	25	100.00	22	88.00	25	100.00	23	92.00	
2015	LDGV	15	33.33	15	15	100.00	13	86.67	15	100.00	11	73.33	0	0.00	0	0.00	15	100.00	12	80.00	15	100.00	15	100.00	13	86.67	11	84.62	
	LDGT1	5	0.00	5	5	100.00	5	100.00	5	100.00	5	100.00	0	0.00	0	0.00	5	100.00	5	100.00	5	100.00	5	100.00	5	100.00	5	100.00	
	LDGT2	3	33.33	3	3	100.00	3	100.00	3	100.00	3	100.00	0	0.00	0	0.00	3	100.00	2	66.67	3	100.00	3	100.00	3	100.00	2	66.67	
2015	Total	23	26.09	23	23	100.00	21	91.30	23	100.00	19	82.61	0	0.00	0	0.00	23	100.00	19	82.61	23	100.00	23	100.00	21	91.30	18	85.71	
2016	LDGV	2	0.00	2	2	100.00	2	100.00	2	100.00	2	100.00	0	0.00	0	0.00	2	100.00	2	100.00	2	100.00	2	100.00	2	100.00	2	100.00	
	LDGT1	1	100.00	1	1	100.00	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00	1	100.00	1	100.00	1	100.00	
	LDGT2	0	0.00	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	
2016	Total	3	33.33	3	3	100.00	2	66.67	3	100.00	2	66.67	0	0.00	0	0.00	3	100.00	2	66.67	3	100.00	3	100.00	3	100.00	3	100.00	
2017	LDGT1	0	0.00	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	
2017	Total	0	0.00	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	
Grand Total		10,843	34.63	10,477	10,459	99.83	8,327	79.62	10,429	99.54	7,525	72.15	930	8.88	795	85.48	10,463	99.87	8,604	82.23	10,275	98.07	9,550	92.94	5,182	49.46	4,686	90.43	

Initial OBD Fail Readiness Monitor Summary Report - Summary by Veh(V 1.04)

Type	Total OBD Fail	% of Total Fail with Unset Readiness Monitors	Total OBD Fail W/	CAT				EVAP				SAIR				O2			HO2				EGR					
				Ready Info	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%
				Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
LDGV	4,576	31.03	4,479	4,469	99.78	3,619	80.98	4,450	99.35	3,407	76.56	583	13.02	488	83.70	4,468	99.75	3,687	82.52	4,325	96.56	4,063	93.94	2,345	52.36	2,135	91.04	
LDGT1	2,676	32.59	2,624	2,622	99.92	2,123	80.97	2,616	99.70	1,961	74.96	257	9.79	236	91.83	2,622	99.92	2,143	81.73	2,606	99.31	2,466	94.63	1,361	51.87	1,232	90.52	
LDGT2	3,591	40.74	3,374	3,368	99.82	2,585	76.75	3,363	99.67	2,157	64.14	90	2.67	71	78.89	3,373	99.97	2,774	82.24	3,344	99.11	3,021	90.34	1,476	43.75	1,319	89.36	
Grand Total	10,843	34.63	10,477	10,459	99.83	8,327	79.62	10,429	99.54	7,525	72.15	930	8.88	795	85.48	10,463	99.87	8,604	82.23	10,275	98.07	9,550	92.94	5,182	49.46	4,686	90.43	

Appendix A6

OBD Retest Frequency Report

Date Range
Between 1/1/2017 and 12/31/2017

OBD Retest Frequency Report (V 1.04)

Model Year	Type	Total	Avg Retest #	Retest #1 Inspected				Retest #2 Inspected				Retest #3 Inspected				Retest #4 Inspected				Retest >=5 Inspected			
				Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%
1996	LDGT1	1	1.00	1	100.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	2	2.00	1	50.00	1	100.00	0	0.00	0	0.00	1	50.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	33	2.30	11	33.33	4	36.36	9	27.27	2	22.22	7	21.21	2	28.57	4	12.12	2	50.00	2	6.06	1	50.00
1996 Total		36	2.25	13	36.11	6	46.15	9	25.00	2	22.22	8	22.22	2	25.00	4	11.11	2	50.00	2	5.56	1	50.00
1997	LDGT1	7	1.43	5	71.43	3	60.00	1	14.29	0	0.00	1	14.29	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	6	1.00	6	100.00	6	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	26	1.96	16	61.54	8	50.00	4	15.38	1	25.00	1	3.85	0	0.00	2	7.69	0	0.00	3	11.54	2	66.67
1997 Total		39	1.72	27	69.23	17	62.96	5	12.82	1	20.00	2	5.13	0	0.00	2	5.13	0	0.00	3	7.69	2	66.67
1998	LDGT1	13	3.08	5	38.46	4	80.00	1	7.69	0	0.00	1	7.69	0	0.00	2	15.38	0	0.00	4	30.77	2	50.00
	LDGT2	1	1.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	20	1.40	15	75.00	12	80.00	3	15.00	1	33.33	1	5.00	0	0.00	1	5.00	0	0.00	0	0.00	0	0.00
1998 Total		34	2.03	21	61.76	16	76.19	4	11.76	1	25.00	2	5.88	0	0.00	3	8.82	0	0.00	4	11.76	2	50.00
1999	LDGT1	11	1.27	9	81.82	7	77.78	1	9.09	1	100.00	1	9.09	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	227	1.71	142	62.56	87	61.27	46	20.26	26	56.52	18	7.93	5	27.78	12	5.29	4	33.33	9	3.96	4	44.44
	LDGV	26	1.27	21	80.77	16	76.19	4	15.38	2	50.00	0	0.00	0	0.00	1	3.85	0	0.00	0	0.00	0	0.00
1999 Total		264	1.65	172	65.15	110	63.95	51	19.32	29	56.86	19	7.20	6	31.58	13	4.92	4	30.77	9	3.41	4	44.44
2000	LDGT1	71	1.27	57	80.28	44	77.19	10	14.08	7	70.00	3	4.23	2	66.67	1	1.41	1	100.00	0	0.00	0	0.00
	LDGT2	389	1.49	272	69.92	188	69.12	71	18.25	41	57.75	30	7.71	15	50.00	10	2.57	6	60.00	6	1.54	3	50.00
	LDGV	47	1.32	35	74.47	21	60.00	9	19.15	3	33.33	3	6.38	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00
2000 Total		507	1.44	364	71.79	253	69.51	90	17.75	51	56.67	36	7.10	20	55.56	11	2.17	7	63.64	6	1.18	3	50.00
2001	LDGT1	89	1.53	67	75.28	54	80.60	13	14.61	10	76.92	3	3.37	2	66.67	2	2.25	1	50.00	4	4.49	0	0.00
	LDGT2	481	1.72	346	71.93	263	76.01	74	15.38	41	55.41	29	6.03	18	62.07	10	2.08	3	30.00	22	4.57	6	27.27
	LDGV	56	1.32	42	75.00	26	61.90	10	17.86	5	50.00	4	7.14	3	75.00	0	0.00	0	0.00	0	0.00	0	0.00
2001 Total		626	1.65	455	72.68	343	75.38	97	15.50	56	57.73	36	5.75	23	63.89	12	1.92	4	33.33	26	4.15	6	23.08
2002	LDGT1	56	1.38	42	75.00	31	73.81	10	17.86	7	70.00	2	3.57	0	0.00	1	1.79	0	0.00	1	1.79	1	100.00
	LDGT2	518	1.47	380	73.36	291	76.58	83	16.02	56	67.47	28	5.41	12	42.86	15	2.90	7	46.67	12	2.32	4	33.33
	LDGV	61	1.49	41	67.21	28	68.29	13	21.31	6	46.15	5	8.20	3	60.00	1	1.64	0	0.00	1	1.64	1	100.00
2002 Total		635	1.47	463	72.91	350	75.59	106	16.69	69	65.09	35	5.51	15	42.86	17	2.68	7	41.18	14	2.20	6	42.86
2003	LDGT1	4	1.00	4	100.00	4	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	483	1.28	392	81.16	319	81.38	63	13.04	45	71.43	17	3.52	11	64.71	6	1.24	2	33.33	5	1.04	3	60.00
	LDGV	120	1.33	96	80.00	71	73.96	15	12.50	9	60.00	4	3.33	2	50.00	4	3.33	1	25.00	1	0.83	0	0.00
2003 Total		607	1.29	492	81.05	394	80.08	78	12.85	54	69.23	21	3.46	13	61.90	10	1.65	3	30.00	6	0.99	3	50.00
2004	LDGT1	18	1.67	12	66.67	9	75.00	3	16.67	2	66.67	1	5.56	0	0.00	1	5.56	0	0.00	1	5.56	1	100.00
	LDGT2	417	1.32	327	78.42	250	76.45	63	15.11	44	69.84	17	4.08	8	47.06	6	1.44	3	50.00	4	0.96	2	50.00
	LDGV	88	1.40	72	81.82	57	79.17	9	10.23	4	44.44	2	2.27	1	50.00	1	1.14	0	0.00	4	4.55	0	0.00
2004 Total		523	1.34	411	78.59	316	76.89	75	14.34	50	66.67	20	3.82	9	45.00	8	1.53	3	37.50	9	1.72	3	33.33
2005	LDGT1	72	1.58	48	66.67	35	72.92	12	16.67	8	66.67	7	9.72	0	0.00	4	5.56	1	25.00	1	1.39	1	100.00
	LDGT2	239	1.33	197	82.43	168	85.28	28	11.72	23	82.14	4	1.67	2	50.00	3	1.26	0	0.00	7	2.93	3	42.86
	LDGV	248	1.38	192	77.42	147	76.56	34	13.71	16	47.06	13	5.24	6	46.15	5	2.02	2	40.00	4	1.61	3	75.00
2005 Total		559	1.38	437	78.18	350	80.09	74	13.24	47	63.51	24	4.29	8	33.33	12	2.15	3	25.00	12	2.15	7	58.33

Model Year	Type	Total	Avg Retest #	Retest #1 Inspected				Retest #2 Inspected				Retest #3 Inspected				Retest #4 Inspected				Retest >=5 Inspected			
				Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%
2006	LDGT1	274	1.66	178	64.96	127	71.35	50	18.25	29	58.00	25	9.12	13	52.00	11	4.01	3	27.27	10	3.65	2	20.00
	LDGT2	245	1.52	183	74.69	157	85.79	31	12.65	17	54.84	15	6.12	7	46.67	7	2.86	4	57.14	9	3.67	2	22.22
	LDGV	526	1.56	348	66.16	249	71.55	110	20.91	67	60.91	42	7.98	27	64.29	15	2.85	9	60.00	11	2.09	7	63.64
2006 Total		1,045	1.58	709	67.85	533	75.18	191	18.28	113	59.16	82	7.85	47	57.32	33	3.16	16	48.48	30	2.87	11	36.67
2007	LDGT1	1,851	1.14	1,682	90.87	1,512	89.89	121	6.54	84	69.42	27	1.46	10	37.04	13	0.70	7	53.85	8	0.43	5	62.50
	LDGT2	1,103	1.14	986	89.39	892	90.47	86	7.80	63	73.26	22	1.99	11	50.00	7	0.63	4	57.14	2	0.18	1	50.00
	LDGV	2,139	1.19	1,866	87.24	1,619	86.76	194	9.07	125	64.43	46	2.15	20	43.48	18	0.84	8	44.44	15	0.70	5	33.33
2007 Total		5,093	1.16	4,534	89.02	4,023	88.73	401	7.87	272	67.83	95	1.87	41	43.16	38	0.75	19	50.00	25	0.49	11	44.00
2008	LDGT1	1,101	1.12	1,008	91.55	922	91.47	69	6.27	52	75.36	14	1.27	8	57.14	4	0.36	1	25.00	6	0.54	1	16.67
	LDGT2	832	1.12	763	91.71	702	92.01	50	6.01	37	74.00	12	1.44	7	58.33	4	0.48	1	25.00	3	0.36	2	66.67
	LDGV	1,479	1.14	1,327	89.72	1,183	89.15	119	8.05	88	73.95	20	1.35	7	35.00	8	0.54	5	62.50	5	0.34	3	60.00
2008 Total		3,412	1.13	3,098	90.80	2,807	90.61	238	6.98	177	74.37	46	1.35	22	47.83	16	0.47	7	43.75	14	0.41	6	42.86
2009	LDGT1	488	1.14	439	89.96	401	91.34	37	7.58	29	78.38	8	1.64	5	62.50	2	0.41	0	0.00	2	0.41	0	0.00
	LDGT2	370	1.18	328	88.65	294	89.63	29	7.84	25	86.21	5	1.35	0	0.00	5	1.35	3	60.00	3	0.81	1	33.33
	LDGV	730	1.14	643	88.08	567	88.18	72	9.86	50	69.44	12	1.64	9	75.00	3	0.41	3	100.00	0	0.00	0	0.00
2009 Total		1,588	1.15	1,410	88.79	1,262	89.50	138	8.69	104	75.36	25	1.57	14	56.00	10	0.63	6	60.00	5	0.31	1	20.00
2010	LDGT1	946	1.04	915	96.72	884	96.61	25	2.64	18	72.00	4	0.42	3	75.00	2	0.21	2	100.00	0	0.00	0	0.00
	LDGT2	698	1.07	659	94.41	622	94.39	29	4.15	21	72.41	8	1.15	4	50.00	2	0.29	2	100.00	0	0.00	0	0.00
	LDGV	1,211	1.08	1,134	93.64	1,045	92.15	64	5.28	50	78.13	10	0.83	7	70.00	2	0.17	1	50.00	1	0.08	1	100.00
2010 Total		2,855	1.06	2,708	94.85	2,551	94.20	118	4.13	89	75.42	22	0.77	14	63.64	6	0.21	5	83.33	1	0.04	1	100.00
2011	LDGT1	161	1.06	153	95.03	144	94.12	6	3.73	4	66.67	2	1.24	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	213	1.05	203	95.31	189	93.10	10	4.69	10	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	165	1.07	157	95.15	150	95.54	5	3.03	3	60.00	2	1.21	1	50.00	1	0.61	1	100.00	0	0.00	0	0.00
2011 Total		539	1.06	513	95.18	483	94.15	21	3.90	17	80.95	4	0.74	3	75.00	1	0.19	1	100.00	0	0.00	0	0.00
2012	LDGT1	52	1.08	49	94.23	47	95.92	2	3.85	1	50.00	1	1.92	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	54	1.04	52	96.30	50	96.15	2	3.70	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	108	1.08	100	92.59	89	89.00	7	6.48	6	85.71	1	0.93	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2012 Total		214	1.07	201	93.93	186	92.54	11	5.14	9	81.82	2	0.93	1	50.00	0	0.00	0	0.00	0	0.00	0	0.00
2013	LDGT1	32	1.00	32	100.00	32	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	45	1.02	44	97.78	43	97.73	1	2.22	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	74	1.00	74	100.00	73	98.65	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2013 Total		151	1.01	150	99.34	148	98.67	1	0.66	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2014	LDGT1	14	1.00	14	100.00	13	92.86	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	21	1.00	21	100.00	21	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	33	1.03	32	96.97	31	96.88	1	3.03	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2014 Total		68	1.01	67	98.53	65	97.01	1	1.47	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2015	LDGT1	10	1.00	10	100.00	10	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	5	1.00	5	100.00	5	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	27	1.00	27	100.00	27	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2015 Total		42	1.00	42	100.00	42	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2016	LDGT1	1	1.00	1	100.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	1	1.00	1	100.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	14	1.00	14	100.00	14	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2016 Total		16	1.00	16	100.00	16	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

Model Year	Type	Total	Avg Retest #	Retest #1 Inspected				Retest #2 Inspected				Retest #3 Inspected				Retest #4 Inspected				Retest >=5 Inspected			
				Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%
2017	LDGT1	1	1.00	1	100.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2017 Total		1	1.00	1	100.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Overall Total		18,854	1.22	16,304	86.48	14,272	87.54	1,709	9.06	1,143	66.88	479	2.54	238	49.69	196	1.04	87	44.39	166	0.88	67	40.36

OBV Retest Frequency Report - Summary by Veh (V 1.04)

Type	Total	Avg Retest #	Retest #1 Inspected				Retest #2 Inspected				Retest #3 Inspected				Retest #4 Inspected				Retest >=5 Inspected			
			Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%
LDGT1	5,273	1.17	4,732	89.74	4,286	90.57	361	6.85	252	69.81	100	1.90	47	47.00	43	0.82	16	37.21	37	0.70	13	35.14
LDGT2	6,350	1.28	5,309	83.61	4,549	85.68	666	10.49	452	67.87	206	3.24	100	48.54	87	1.37	39	44.83	82	1.29	31	37.80
LDGV	7,231	1.20	6,263	86.61	5,437	86.81	682	9.43	439	64.37	173	2.39	91	52.60	66	0.91	32	48.48	47	0.65	23	48.94
Overall Total	18,854	1.22	16,304	86.48	14,272	87.54	1,709	9.06	1,143	66.88	479	2.54	238	49.69	196	1.04	87	44.39	166	0.88	67	40.36

Appendix A7

Initial OBD Pass DTC Report

Date Range
Between 1/1/2017 and 12/31/2017

Initial OBD Pass DTC Report (V 1.02)

			Count of Tests by Number of DTC Present											
Model Year	Type	Total Pass	0 Count	0 %	1 Count	1 %	2 Count	2 %	3 Count	3 %	4 Count	4 %	>= 5 Count	>= 5 %
1996	LDGT1	16	13	81.25	3	18.75	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	11	9	81.82	1	9.09	1	9.09	0	0.00	0	0.00	0	0.00
	LDGV	44	41	93.18	3	6.82	0	0.00	0	0.00	0	0.00	0	0.00
1996 Total		71	63	88.73	7	9.86	1	1.41	0	0.00	0	0.00	0	0.00
1997	LDGT1	20	14	70.00	5	25.00	1	5.00	0	0.00	0	0.00	0	0.00
	LDGT2	23	20	86.96	1	4.35	2	8.70	0	0.00	0	0.00	0	0.00
	LDGV	65	57	87.69	5	7.69	2	3.08	1	1.54	0	0.00	0	0.00
1997 Total		108	91	84.26	11	10.19	5	4.63	1	0.93	0	0.00	0	0.00
1998	LDGT1	31	27	87.10	3	9.68	1	3.23	0	0.00	0	0.00	0	0.00
	LDGT2	14	13	92.86	0	0.00	0	0.00	1	7.14	0	0.00	0	0.00
	LDGV	60	51	85.00	5	8.33	4	6.67	0	0.00	0	0.00	0	0.00
1998 Total		105	91	86.67	8	7.62	5	4.76	1	0.95	0	0.00	0	0.00
1999	LDGT1	44	42	95.45	1	2.27	1	2.27	0	0.00	0	0.00	0	0.00
	LDGT2	727	631	86.80	55	7.57	27	3.71	9	1.24	3	0.41	2	0.28
	LDGV	152	145	95.39	6	3.95	0	0.00	1	0.66	0	0.00	0	0.00
1999 Total		923	818	88.62	62	6.72	28	3.03	10	1.08	3	0.33	2	0.22
2000	LDGT1	264	240	90.91	17	6.44	4	1.52	1	0.38	1	0.38	1	0.38
	LDGT2	973	805	82.73	93	9.56	39	4.01	22	2.26	7	0.72	7	0.72
	LDGV	178	142	79.78	31	17.42	1	0.56	2	1.12	1	0.56	1	0.56
2000 Total		1,415	1,187	83.89	141	9.96	44	3.11	25	1.77	9	0.64	9	0.64
2001	LDGT1	394	353	89.59	26	6.60	10	2.54	2	0.51	1	0.25	2	0.51
	LDGT2	1,502	1,297	86.35	103	6.86	50	3.33	33	2.20	13	0.87	6	0.40
	LDGV	373	347	93.03	21	5.63	2	0.54	1	0.27	1	0.27	1	0.27
2001 Total		2,269	1,997	88.01	150	6.61	62	2.73	36	1.59	15	0.66	9	0.40
2002	LDGT1	135	127	94.07	6	4.44	2	1.48	0	0.00	0	0.00	0	0.00
	LDGT2	1,583	1,369	86.48	111	7.01	65	4.11	20	1.26	9	0.57	9	0.57
	LDGV	443	407	91.87	31	7.00	2	0.45	1	0.23	1	0.23	1	0.23
2002 Total		2,161	1,903	88.06	148	6.85	69	3.19	21	0.97	10	0.46	10	0.46
2003	LDGT1	44	44	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	1,906	1,683	88.30	150	7.87	30	1.57	25	1.31	11	0.58	7	0.37
	LDGV	615	545	88.62	49	7.97	10	1.63	5	0.81	3	0.49	3	0.49
2003 Total		2,565	2,272	88.58	199	7.76	40	1.56	30	1.17	14	0.55	10	0.39

			Count of Tests by Number of DTC Present											
Model Year	Type	Total Pass	0 Count	0 %	1 Count	1 %	2 Count	2 %	3 Count	3 %	4 Count	4 %	>= 5 Count	>= 5 %
2004	LDGT1	47	41	87.23	4	8.51	1	2.13	1	2.13	0	0.00	0	0.00
	LDGT2	1,630	1,469	90.12	85	5.21	39	2.39	31	1.90	4	0.25	2	0.12
	LDGV	934	867	92.83	44	4.71	17	1.82	6	0.64	0	0.00	0	0.00
2004 Total		2,611	2,377	91.04	133	5.09	57	2.18	38	1.46	4	0.15	2	0.08
2005	LDGT1	189	179	94.71	8	4.23	1	0.53	1	0.53	0	0.00	0	0.00
	LDGT2	1,996	1,785	89.43	126	6.31	44	2.20	29	1.45	8	0.40	4	0.20
	LDGV	1,928	1,756	91.08	100	5.19	41	2.13	21	1.09	5	0.26	5	0.26
2005 Total		4,113	3,720	90.44	234	5.69	86	2.09	51	1.24	13	0.32	9	0.22
2006	LDGT1	1,257	1,222	97.22	24	1.91	9	0.72	2	0.16	0	0.00	0	0.00
	LDGT2	1,298	1,168	89.98	63	4.85	35	2.70	16	1.23	6	0.46	10	0.77
	LDGV	1,671	1,529	91.50	100	5.98	22	1.32	8	0.48	3	0.18	9	0.54
2006 Total		4,226	3,919	92.74	187	4.42	66	1.56	26	0.62	9	0.21	19	0.45
2007	LDGT1	23,458	21,970	93.66	1,091	4.65	246	1.05	71	0.30	21	0.09	59	0.25
	LDGT2	11,692	10,931	93.49	517	4.42	180	1.54	41	0.35	15	0.13	8	0.07
	LDGV	28,166	26,264	93.25	1,412	5.01	313	1.11	90	0.32	35	0.12	52	0.18
2007 Total		63,316	59,165	93.44	3,020	4.77	739	1.17	202	0.32	71	0.11	119	0.19
2008	LDGT1	17,000	16,198	95.28	575	3.38	142	0.84	34	0.20	18	0.11	33	0.19
	LDGT2	9,349	8,696	93.02	425	4.55	155	1.66	47	0.50	12	0.13	14	0.15
	LDGV	20,647	19,321	93.58	1,018	4.93	208	1.01	55	0.27	26	0.13	19	0.09
2008 Total		46,996	44,215	94.08	2,018	4.29	505	1.07	136	0.29	56	0.12	66	0.14
2009	LDGT1	7,172	6,909	96.33	200	2.79	45	0.63	13	0.18	2	0.03	3	0.04
	LDGT2	3,675	3,402	92.57	191	5.20	59	1.61	13	0.35	5	0.14	5	0.14
	LDGV	11,981	11,371	94.91	467	3.90	98	0.82	33	0.28	6	0.05	6	0.05
2009 Total		22,828	21,682	94.98	858	3.76	202	0.88	59	0.26	13	0.06	14	0.06
2010	LDGT1	25,712	25,118	97.69	475	1.85	92	0.36	16	0.06	7	0.03	4	0.02
	LDGT2	13,038	12,432	95.35	408	3.13	162	1.24	20	0.15	9	0.07	7	0.05
	LDGV	30,859	29,879	96.82	773	2.50	162	0.52	34	0.11	3	0.01	8	0.03
2010 Total		69,609	67,429	96.87	1,656	2.38	416	0.60	70	0.10	19	0.03	19	0.03
2011	LDGT1	4,655	4,543	97.59	90	1.93	20	0.43	1	0.02	1	0.02	0	0.00
	LDGT2	2,741	2,607	95.11	99	3.61	22	0.80	10	0.36	2	0.07	1	0.04
	LDGV	5,087	4,871	95.75	179	3.52	23	0.45	11	0.22	1	0.02	2	0.04
2011 Total		12,483	12,021	96.30	368	2.95	65	0.52	22	0.18	4	0.03	3	0.02
2012	LDGT1	1,527	1,480	96.92	41	2.69	4	0.26	2	0.13	0	0.00	0	0.00
	LDGT2	957	918	95.92	29	3.03	8	0.84	1	0.10	1	0.10	0	0.00
	LDGV	2,677	2,556	95.48	89	3.32	18	0.67	4	0.15	3	0.11	7	0.26
2012 Total		5,161	4,954	95.99	159	3.08	30	0.58	7	0.14	4	0.08	7	0.14

			Count of Tests by Number of DTC Present											
Model Year	Type	Total Pass	0 Count	0 %	1 Count	1 %	2 Count	2 %	3 Count	3 %	4 Count	4 %	>= 5 Count	>= 5 %
2013	LDGT1	1,137	1,106	97.27	27	2.37	3	0.26	0	0.00	0	0.00	1	0.09
	LDGT2	659	636	96.51	18	2.73	3	0.46	2	0.30	0	0.00	0	0.00
	LDGV	2,027	1,936	95.51	72	3.55	10	0.49	5	0.25	4	0.20	0	0.00
2013 Total		3,823	3,678	96.21	117	3.06	16	0.42	7	0.18	4	0.10	1	0.03
2014	LDGT1	927	910	98.17	16	1.73	1	0.11	0	0.00	0	0.00	0	0.00
	LDGT2	458	441	96.29	9	1.97	7	1.53	1	0.22	0	0.00	0	0.00
	LDGV	1,361	1,330	97.72	23	1.69	7	0.51	1	0.07	0	0.00	0	0.00
2014 Total		2,746	2,681	97.63	48	1.75	15	0.55	2	0.07	0	0.00	0	0.00
2015	LDGT1	645	638	98.91	6	0.93	0	0.00	0	0.00	0	0.00	1	0.16
	LDGT2	232	227	97.84	3	1.29	0	0.00	1	0.43	1	0.43	0	0.00
	LDGV	885	868	98.08	14	1.58	3	0.34	0	0.00	0	0.00	0	0.00
2015 Total		1,762	1,733	98.35	23	1.31	3	0.17	1	0.06	1	0.06	1	0.06
2016	LDGT1	402	399	99.25	3	0.75	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	128	126	98.44	1	0.78	1	0.78	0	0.00	0	0.00	0	0.00
	LDGV	512	501	97.85	7	1.37	4	0.78	0	0.00	0	0.00	0	0.00
2016 Total		1,042	1,026	98.46	11	1.06	5	0.48	0	0.00	0	0.00	0	0.00
2017	LDGT1	65	65	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	26	26	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	139	136	97.84	2	1.44	0	0.00	0	0.00	1	0.72	0	0.00
2017 Total		230	227	98.70	2	0.87	0	0.00	0	0.00	1	0.43	0	0.00
2018	LDGT2	2	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	2	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2018 Total		4	4	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Grand Total		250,567	237,253	94.69	9,560	3.82	2,459	0.98	745	0.30	250	0.10	300	0.12

Initial OBD Pass DTC Report - Summary by Veh (V 1.02)

		Count of Tests by Number of DTC Present												
Type	Total Pass	0 Count	0 %	1 Count	1 %	2 Count	2 %	3 Count	3 %	4 Count	4 %	>= 5 Count	>= 5 %	
LDGT1	85,141	81,638	95.89	2,621	3.08	583	0.68	144	0.17	51	0.06	104	0.12	
LDGT2	54,620	50,693	92.81	2,488	4.56	929	1.70	322	0.59	106	0.19	82	0.15	
LDGV	110,806	104,922	94.69	4,451	4.02	947	0.85	279	0.25	93	0.08	114	0.10	
Grand Total		250,567	237,253	94.69	9,560	3.82	2,459	0.98	745	0.30	250	0.10	300	0.12

Appendix A8

Initial OBD Pass Readiness Monitor Summary Report

Date Range
Between 1/1/2017 and 12/31/2017

Initial OBD Pass Readiness Monitor Summary Report (V 1.03)

Model Year	Type	Total Pass	% of Total Pass with Unset Readiness Monitors	CAT				EVAP				SAIR				O2				HO2				EGR					
				Supported Count	Supported %	Ready Count	Ready %	Supported Count	Supported %	Ready Count	Ready %	Supported Count	Supported %	Ready Count	Ready %	Supported Count	Supported %	Ready Count	Ready %	Supported Count	Supported %	Ready Count	Ready %	Supported Count	Supported %	Ready Count	Ready %		
1996	LDGV	44	15.91	42	95.45	37	88.10	26	59.09	21	80.77	22	50.00	22	100.00	42	95.45	39	92.86	42	95.45	38	90.48	16	36.36	13	81.25		
	LDGT1	16	6.25	12	75.00	12	100.00	12	75.00	11	91.67	0	0.00	0	0.00	12	75.00	12	100.00	0	0.00	0	0.00	12	75.00	12	100.00		
	LDGT2	11	0.00	7	63.64	7	100.00	0	0.00	0	0.00	0	0.00	0	0.00	7	63.64	7	100.00	7	63.64	7	100.00	3	27.27	3	100.00		
1996 Total				71	11.27	61	85.92	56	91.80	38	53.52	32	84.21	22	30.99	22	100.00	61	85.92	58	95.08	49	69.01	45	91.84	31	43.66	28	90.32
1997	LDGV	65	13.85	65	100.00	59	90.77	45	69.23	39	86.67	34	52.31	32	94.12	65	100.00	62	95.38	65	100.00	61	93.85	20	30.77	16	80.00		
	LDGT1	20	15.00	16	80.00	16	100.00	8	40.00	5	62.50	0	0.00	0	0.00	16	80.00	16	100.00	9	45.00	9	100.00	8	40.00	8	100.00		
	LDGT2	23	0.00	22	95.65	22	100.00	14	60.87	14	100.00	0	0.00	0	0.00	22	95.65	22	100.00	22	95.65	22	100.00	8	34.78	8	100.00		
1997 Total				108	11.11	103	95.37	97	94.17	67	62.04	58	86.57	34	31.48	32	94.12	103	95.37	100	97.09	96	88.89	92	95.83	36	33.33	32	88.89
1998	LDGV	60	26.67	55	91.67	52	94.55	55	91.67	47	85.45	31	51.67	25	80.65	55	91.67	52	94.55	55	91.67	52	94.55	10	16.67	6	60.00		
	LDGT1	31	6.45	28	90.32	28	100.00	17	54.84	15	88.24	0	0.00	0	0.00	28	90.32	28	100.00	28	90.32	28	100.00	14	45.16	14	100.00		
	LDGT2	14	0.00	10	71.43	10	100.00	4	28.57	4	100.00	0	0.00	0	0.00	10	71.43	10	100.00	10	71.43	10	100.00	4	28.57	4	100.00		
1998 Total				105	17.14	93	88.57	90	96.77	76	72.38	66	86.84	31	29.52	25	80.65	93	88.57	90	96.77	93	88.57	90	96.77	28	26.67	24	85.71
1999	LDGV	152	13.16	149	98.03	149	100.00	149	98.03	133	89.26	109	71.71	105	96.33	149	98.03	149	100.00	149	98.03	149	100.00	55	36.18	52	94.55		
	LDGT1	44	4.55	34	77.27	34	100.00	19	43.18	17	89.47	0	0.00	0	0.00	34	77.27	34	100.00	34	77.27	34	100.00	13	29.55	13	100.00		
	LDGT2	727	28.06	717	98.62	717	100.00	716	98.49	512	71.51	16	2.20	16	100.00	717	98.62	717	100.00	717	98.62	717	100.00	715	98.35	705	98.60		
1999 Total				923	24.49	900	97.51	900	100.00	884	95.77	662	74.89	125	13.54	121	96.80	900	97.51	900	100.00	900	97.51	900	100.00	783	84.83	770	98.34
2000	LDGV	178	15.73	168	94.38	168	100.00	167	93.82	143	85.63	83	46.63	76	91.57	168	94.38	168	100.00	168	94.38	168	100.00	90	50.56	88	97.78		
	LDGT1	264	6.06	246	93.18	246	100.00	236	89.39	220	93.22	0	0.00	0	0.00	246	93.18	246	100.00	246	93.18	246	100.00	8	3.03	8	100.00		
	LDGT2	973	21.69	970	99.69	970	100.00	941	96.71	733	77.90	33	3.39	30	90.91	970	99.69	970	100.00	970	99.69	970	100.00	935	96.09	931	99.57		
2000 Total				1,415	18.02	1,384	97.81	1,384	100.00	1,344	94.98	1,096	81.55	116	8.20	106	91.38	1,384	97.81	1,384	100.00	1,384	97.81	1,384	100.00	1,033	73.00	1,027	99.42
2001	LDGV	373	10.99	360	96.51	360	100.00	356	95.44	321	90.17	141	37.80	135	95.74	360	96.51	360	100.00	360	96.51	360	100.00	93	24.93	93	100.00		
	LDGT1	394	13.20	317	80.46	317	100.00	316	80.20	264	83.54	0	0.00	0	0.00	317	80.46	317	100.00	317	80.46	317	100.00	14	3.55	14	100.00		
	LDGT2	1,502	18.64	1,494	99.47	1,494	100.00	1,494	99.47	1,239	82.93	25	1.66	17	68.00	1,494	99.47	1,494	100.00	1,494	99.47	1,494	100.00	1,352	90.01	1,335	98.74		
2001 Total				2,269	16.44	2,171	95.68	2,171	100.00	2,166	95.46	1,824	84.21	166	7.32	152	91.57	2,171	95.68	2,171	100.00	2,171	95.68	2,171	100.00	1,459	64.30	1,442	98.83
2002	LDGV	443	9.03	432	97.52	432	100.00	427	96.39	395	92.51	135	30.47	128	94.81	431	97.29	431	100.00	429	96.84	429	100.00	59	13.32	58	98.31		
	LDGT1	135	22.22	116	85.93	116	100.00	116	85.93	86	74.14	7	5.19	7	100.00	116	85.93	116	100.00	116	85.93	116	100.00	10	7.41	10	100.00		
	LDGT2	1,583	17.31	1,577	99.62	1,577	100.00	1,577	99.62	1,304	82.69	1	0.06	1	100.00	1,577	99.62	1,577	100.00	1,577	99.62	1,577	100.00	168	10.61	167	99.40		
2002 Total				2,161	15.92	2,125	98.33	2,125	100.00	2,120	98.10	1,785	84.20	143	6.62	136	95.10	2,124	98.29	2,124	100.00	2,122	98.20	2,122	100.00	237	10.97	235	99.16
2003	LDGV	615	8.29	594	96.59	594	100.00	586	95.28	545	93.00	233	37.89	224	96.14	590	95.93	590	100.00	586	95.28	586	100.00	294	47.80	293	99.66		
	LDGT1	44	6.82	33	75.00	33	100.00	33	75.00	30	90.91	9	20.45	9	100.00	33	75.00	33	100.00	31	70.45	31	100.00	14	31.82	14	100.00		
	LDGT2	1,906	31.06	1,896	99.48	1,896	100.00	1,896	99.48	1,304	68.78	3	0.16	3	100.00	1,896	99.48	1,896	100.00	1,727	90.61	1,727	100.00	12	0.63	12	100.00		
2003 Total				2,565	25.19	2,523	98.36	2,523	100.00	2,515	98.05	1,879	74.71	245	9.55	236	96.33	2,519	98.21	2,519	100.00	2,344	91.38	2,344	100.00	320	12.48	319	99.69
2004	LDGV	934	6.85	914	97.86	914	100.00	913	97.75	862	94.71	235	25.16	223	94.89	912	97.64	912	100.00	412	44.11	412	100.00	235	25.16	234	99.57		
	LDGT1	47	12.77	43	91.49	43	100.00	43	91.49	37	86.05	5	10.64	5	100.00	43	91.49	43	100.00	43	91.49	43	100.00	11	23.40	11	100.00		
	LDGT2	1,630	25.83	1,626	99.75	1,626	100.00	1,626	99.75	1,205	74.11	4	0.25	4	100.00	1,626	99.75	1,626	100.00	1,626	99.75	1,626	100.00	32	1.96	32	100.00		
2004 Total				2,611	18.81	2,583	98.93	2,583	100.00	2,582	98.89	2,104	81.49	244	9.35	232	95.08	2,581	98.85	2,581	100.00	2,081	79.70	2,081	100.00	278	10.65	277	99.64
2005	LDGV	1,928	6.43	1,889	97.98	1,889	100.00	1,886	97.82	1,771	93.90	208	10.79	200	96.15	1,889	97.98	1,889	100.00	642	33.30	642	100.00	415	21.52	414	99.76		
	LDGT1	189	8.47	177	93.65	177	100.00	177	93.65	161	90.96	15	7.94	15	100.00	177	93.65	177	100.00	121	64.02	121	100.00	90	47.62	90	100.00		
	LDGT2	1,996	16.68	1,981	99.25	1,981	100.00	1,981	99.25	1,648	83.19	42	2.10	42	100.00	1,981	99.25	1,981	100.00	1,941	97.24	1,941	100.00	333	16.68	333	100.00		
2005 Total				4,113	11.50	4,047	98.40	4,047	100.00	4,044	98.32	3,580	88.53	265	6.44	257	96.98	4,047	98.40	4,047	100.00	2,704	65.74	2,704	100.00	838	20.37	837	99.88
2006	LDGV	1,671	7.54	1,631	97.61	1,631	100.00	1,629	97.49	1,510	92.69	237	14.18	230	97.05	1,631	97.61	1,631	100.00	704	42.13	704	100.00	423	25.31	423	100.00		
	LDGT1	1,257	3.82	1,238	98.49	1,238	100.00	1,238	98.49	1,191	96.20	48	3.82	47	97.92	1,238	98.49	1,238	100.00	222	17.66	222	100.00	189	15.04	189	100.00		
	LDGT2	1,298	17.26																										

Model Year	Type	Total Pass	% of Total Pass with Unset Readiness Monitors	CAT				EVAP				SAIR				O2				HO2				EGR			
				Supported Count	Supported %	Ready Count	Ready %	Supported Count	Supported %	Ready Count	Ready %	Supported Count	Supported %	Ready Count	Ready %	Supported Count	Supported %	Ready Count	Ready %	Supported Count	Supported %	Ready Count	Ready %	Supported Count	Supported %	Ready Count	Ready %
2010	LDGV	30,859	3.06	30,823	99.88	30,823	100.00	30,823	99.88	29,934	97.12	2,087	6.76	2,080	99.66	30,823	99.88	30,823	100.00	30,823	99.88	30,823	100.00	28,522	92.43	28,474	99.83
	LDGT1	25,712	2.07	25,696	99.94	25,696	100.00	25,696	99.93	25,179	97.99	961	3.74	960	99.90	25,696	99.94	25,696	100.00	25,696	99.94	25,696	100.00	22,740	88.44	22,725	99.93
	LDGT2	13,038	5.11	13,003	99.73	13,003	100.00	13,003	99.73	12,341	94.91	1,493	11.45	1,493	100.00	13,003	99.73	13,003	100.00	13,003	99.73	13,003	100.00	9,882	75.79	9,878	99.96
2010 Total		69,609	3.08	69,522	99.88	69,522	100.00	69,521	99.87	67,454	97.03	4,541	6.52	4,533	99.82	69,522	99.88	69,522	100.00	69,522	99.88	69,522	100.00	61,144	87.84	61,077	99.89
2011	LDGV	5,087	6.19	5,076	99.78	5,076	100.00	5,076	99.78	4,775	94.07	476	9.36	472	99.16	5,076	99.78	5,076	100.00	5,076	99.78	5,076	100.00	4,916	96.64	4,906	99.80
	LDGT1	4,655	3.95	4,641	99.70	4,641	100.00	4,641	99.70	4,465	96.21	141	3.03	141	100.00	4,641	99.70	4,641	100.00	4,641	99.70	4,641	100.00	4,585	98.50	4,577	99.83
	LDGT2	2,741	8.35	2,735	99.78	2,735	100.00	2,735	99.78	2,507	91.66	207	7.55	206	99.52	2,735	99.78	2,735	100.00	2,735	99.78	2,735	100.00	2,663	97.15	2,663	100.00
2011 Total		12,483	5.83	12,452	99.75	12,452	100.00	12,452	99.75	11,747	94.34	824	6.60	819	99.39	12,452	99.75	12,452	100.00	12,452	99.75	12,452	100.00	12,164	97.44	12,146	99.85
2012	LDGV	2,677	7.55	2,673	99.85	2,673	100.00	2,672	99.81	2,474	92.59	236	8.82	236	100.00	2,673	99.85	2,673	100.00	2,673	99.85	2,673	100.00	2,622	97.95	2,618	99.85
	LDGT1	1,527	4.52	1,526	99.93	1,526	100.00	1,526	99.93	1,461	95.74	107	7.01	107	100.00	1,526	99.93	1,526	100.00	1,526	99.93	1,526	100.00	1,524	99.80	1,520	99.74
	LDGT2	957	8.46	948	99.06	948	100.00	946	98.85	865	91.44	51	5.33	51	100.00	948	99.06	948	100.00	948	99.06	948	100.00	940	98.22	940	100.00
2012 Total		5,161	6.82	5,147	99.73	5,147	100.00	5,144	99.67	4,800	93.31	394	7.63	394	100.00	5,147	99.73	5,147	100.00	5,147	99.73	5,147	100.00	5,086	98.55	5,078	99.84
2013	LDGV	2,027	7.99	1,970	97.19	1,970	100.00	1,969	97.14	1,817	92.28	152	7.50	152	100.00	1,970	97.19	1,970	100.00	1,970	97.19	1,970	100.00	1,950	96.20	1,940	99.49
	LDGT1	1,137	3.96	1,134	99.74	1,134	100.00	1,133	99.65	1,089	96.12	83	7.30	83	100.00	1,134	99.74	1,134	100.00	1,134	99.74	1,134	100.00	1,134	99.74	1,133	99.91
	LDGT2	659	6.22	649	98.48	649	100.00	649	98.48	609	93.84	54	8.19	54	100.00	649	98.48	649	100.00	649	98.48	649	100.00	643	97.57	642	99.84
2013 Total		3,823	6.49	3,753	98.17	3,753	100.00	3,751	98.12	3,515	93.71	289	7.56	289	100.00	3,753	98.17	3,753	100.00	3,753	98.17	3,753	100.00	3,727	97.49	3,715	99.68
2014	LDGV	1,361	5.51	1,352	99.34	1,352	100.00	1,352	99.34	1,279	94.60	86	6.32	86	100.00	1,352	99.34	1,352	100.00	1,352	99.34	1,352	100.00	1,333	97.94	1,331	99.85
	LDGT1	927	5.18	921	99.35	921	100.00	921	99.35	874	94.90	61	6.58	61	100.00	921	99.35	921	100.00	921	99.35	921	100.00	921	99.35	920	99.89
	LDGT2	458	3.49	451	98.47	451	100.00	451	98.47	437	96.90	37	8.08	37	100.00	451	98.47	451	100.00	451	98.47	451	100.00	446	97.38	444	99.55
2014 Total		2,746	5.06	2,724	99.20	2,724	100.00	2,724	99.20	2,590	95.08	184	6.70	184	100.00	2,724	99.20	2,724	100.00	2,724	99.20	2,724	100.00	2,700	98.32	2,695	99.81
2015	LDGV	885	4.29	876	98.98	876	100.00	876	98.98	840	95.89	44	4.97	44	100.00	876	98.98	876	100.00	876	98.98	876	100.00	861	97.29	859	99.77
	LDGT1	645	2.64	644	99.84	644	100.00	644	99.84	629	97.67	47	7.29	47	100.00	644	99.84	644	100.00	644	99.84	644	100.00	644	99.84	642	99.69
	LDGT2	232	3.02	231	99.57	231	100.00	231	99.57	224	96.97	24	10.34	24	100.00	231	99.57	231	100.00	231	99.57	231	100.00	231	99.57	231	100.00
2015 Total		1,762	3.52	1,751	99.38	1,751	100.00	1,751	99.38	1,693	96.69	115	6.53	115	100.00	1,751	99.38	1,751	100.00	1,751	99.38	1,751	100.00	1,736	98.52	1,732	99.77
2016	LDGV	512	4.30	509	99.41	509	100.00	509	99.41	487	95.68	11	2.15	11	100.00	509	99.41	509	100.00	509	99.41	509	100.00	509	99.41	509	100.00
	LDGT1	402	3.23	401	99.75	401	100.00	401	99.75	388	96.76	24	5.97	24	100.00	401	99.75	401	100.00	401	99.75	401	100.00	401	99.75	401	100.00
	LDGT2	128	2.34	122	95.31	122	100.00	122	95.31	119	97.54	13	10.16	13	100.00	122	95.31	122	100.00	122	95.31	122	100.00	122	95.31	122	100.00
2016 Total		1,042	3.65	1,032	99.04	1,032	100.00	1,032	99.04	994	96.32	48	4.61	48	100.00	1,032	99.04	1,032	100.00	1,032	99.04	1,032	100.00	1,032	99.04	1,032	100.00
2017	LDGV	139	5.04	138	99.28	138	100.00	138	99.28	131	94.93	6	4.32	6	100.00	138	99.28	138	100.00	138	99.28	138	100.00	138	99.28	138	100.00
	LDGT1	65	3.08	64	98.46	64	100.00	64	98.46	62	96.88	2	3.08	2	100.00	64	98.46	64	100.00	64	98.46	64	100.00	64	98.46	64	100.00
	LDGT2	26	11.54	26	100.00	26	100.00	26	100.00	23	88.46	3	11.54	3	100.00	26	100.00	26	100.00	26	100.00	26	100.00	26	100.00	26	100.00
2017 Total		230	5.22	228	99.13	228	100.00	228	99.13	216	94.74	11	4.78	11	100.00	228	99.13	228	100.00	228	99.13	228	100.00	228	99.13	228	100.00
2018	LDGV	2	0.00	2	100.00	2	100.00	2	100.00	2	100.00	0	0.00	0	0.00	2	100.00	2	100.00	2	100.00	2	100.00	2	100.00	2	100.00
	LDGT2	2	0.00	2	100.00	2	100.00	2	100.00	2	100.00	0	0.00	0	0.00	2	100.00	2	100.00	2	100.00	2	100.00	2	100.00	2	100.00
2018 Total		4	0.00	4	100.00	4	100.00	4	100.00	4	100.00	0	0.00	0	0.00	4	100.00	4	100.00	4	100.00	4	100.00	4	100.00	4	100.00
Overall Total		250,567	6.34	249,471	99.56	249,457	99.99	249,300	99.49	233,849	93.80	19,273	7.69	19,107	99.14	249,461	99.56	249,452	100.00	241,492	96.38	241,481	100.00	147,578	58.90	147,274	99.79

Initial OBD Pass Readiness Monitor Summary Report - Summary by Veh (V 1.03)

Type	Total Pass	% of Total Pass with Unset Readiness Monitors	CAT				EVAP				SAIR				O2				HO2				EGR			
			Supported Count	Supported %	Ready Count	Ready %	Supported Count	Supported %	Ready Count	Ready %	Supported Count	Supported %	Ready Count	Ready %	Supported Count	Supported %	Ready Count	Ready %	Supported Count	Supported %	Ready Count	Ready %	Supported Count	Supported %	Ready Count	Ready %
LDGV	110,806	5.35	110,273	99.52	110,259	99.99	110,203	99.46	104,574	94.89	10,123	9.14	9,978	98.57	110,264	99.51	110,255	99.99	104,197	94.04	104,186	99.99	67,418	60.84	67,253	99.76
LDGT1	85,141	3.95	84,835	99.64	84,835	100.00	84,787	99.58	81,488	96.11	4,398	5.17	4,392	99.86	84,834	99.64	84,834	100.00	83,175	97.69	83,175	100.00	53,755	63.14	53,697	99.89
LDGT2	54,620	12.09	54,363	99.53	54,363	100.00	54,310	99.43	47,787	87.99	4,752	8.70	4,737	99.68	54,363	99.53	54,363	100.00	54,120	99.08	54,120	100.00	26,405	48.34	26,324	99.69
Grand Total		250,567	6.34	249,471	99.56	249,457	99.99																			

Appendix A9

OBD Initial Inspection Emissions Report

Date Range
Between 1/1/2017 and 12/31/2017

OBD Initial Inspection Emissions Report (V 1.02)

Model Year	Type	Overall Total	Passing Initial OBD Inspection											Failing Initial OBD Inspection												
			Count	%	Pass IM240 Count	Pass IM240 %	Pass IM240 Avg HC (gpm)	Pass IM240 Avg CO (gpm)	Pass IM240 Avg Nox (gpm)	Fail IM240 Count	Fail IM240 %	Fail IM240 Avg HC (gpm)	Fail IM240 Avg CO (gpm)	Fail IM240 Avg Nox (gpm)	Count	%	Pass IM240 Count	Pass IM240 %	Pass IM240 Avg HC (gpm)	Pass IM240 Avg CO (gpm)	Pass IM240 Avg Nox (gpm)	Fail IM240 Count	Fail IM240 %	Fail IM240 Avg HC (gpm)	Fail IM240 Avg CO (gpm)	Fail IM240 Avg Nox (gpm)
1996	LDGT1	3,613	2,300	63.66	2,223	96.65	0.37	4.85	1.27	77	3.35	1.03	17.63	2.85	1,313	36.34	1,147	87.36	0.42	5.89	1.60	166	12.64	1.88	25.07	2.75
	LDGT2	1,840	1,176	63.91	1,136	96.60	0.48	5.72	1.26	40	3.40	1.47	16.86	3.41	664	36.09	558	84.04	0.52	6.50	1.48	106	15.96	4.31	29.15	2.51
	LDGV	4,887	3,485	71.31	3,390	97.27	0.29	3.63	0.77	95	2.73	1.38	18.53	1.56	1,402	28.69	1,229	87.66	0.35	4.40	0.95	173	12.34	1.61	18.92	1.98
1996 Total		10,340	6,961	67.32	6,749	96.95	0.35	4.39	1.02	212	3.05	1.27	17.88	2.37	3,379	32.68	2,934	86.83	0.41	5.38	1.30	445	13.17	2.35	23.65	2.39
1997	LDGT1	6,879	4,747	69.01	4,580	96.48	0.33	4.57	1.14	167	3.52	1.02	15.65	3.06	2,132	30.99	1,828	85.74	0.38	5.66	1.46	304	14.26	1.92	25.22	2.82
	LDGT2	2,989	1,876	62.76	1,812	96.59	0.40	5.15	1.23	64	3.41	1.31	14.51	3.08	1,113	37.24	905	81.31	0.44	6.06	1.53	208	18.69	2.49	25.06	3.10
	LDGV	7,681	5,693	74.12	5,564	97.73	0.29	3.50	0.69	129	2.27	1.18	17.79	1.51	1,988	25.88	1,719	86.47	0.34	4.52	0.88	269	13.53	1.68	20.96	2.00
1997 Total		17,549	12,316	70.18	11,956	97.08	0.32	4.16	0.95	360	2.92	1.13	16.21	2.51	5,233	29.82	4,452	85.08	0.38	5.30	1.25	781	14.92	1.99	23.71	2.61
1998	LDGT1	7,764	5,751	74.07	5,561	96.70	0.31	4.18	1.02	190	3.30	1.03	13.95	2.97	2,013	25.93	1,654	82.17	0.33	5.59	1.28	359	17.83	1.46	22.63	2.86
	LDGT2	2,932	1,968	67.12	1,908	96.95	0.32	4.18	1.12	60	3.05	0.96	15.81	2.94	964	32.88	750	77.80	0.38	5.43	1.36	214	22.20	2.72	26.52	2.87
	LDGV	9,386	7,070	75.32	6,869	97.16	0.23	3.37	0.62	201	2.84	1.22	18.62	1.33	2,316	24.68	1,977	85.36	0.28	4.12	0.71	339	14.64	1.33	21.19	1.71
1998 Total		20,082	14,789	73.64	14,338	96.95	0.27	3.79	0.84	451	3.05	1.10	16.28	2.23	5,293	26.36	4,381	82.77	0.31	4.90	1.04	912	17.23	1.71	23.01	2.43
1999	LDGT1	10,685	8,726	81.67	8,488	97.27	0.22	3.48	0.76	238	2.73	0.84	14.19	2.41	1,959	18.33	1,587	81.01	0.26	4.44	0.91	372	18.99	1.44	21.27	2.45
	LDGT2	4,980	3,704	74.38	3,538	95.52	0.25	2.96	0.86	166	4.48	0.97	12.93	2.83	1,276	25.62	978	76.65	0.31	3.85	1.00	298	23.35	1.51	24.69	2.59
	LDGV	12,778	10,141	79.36	9,931	97.93	0.20	2.88	0.56	210	2.07	0.97	13.64	1.64	2,637	20.64	2,293	86.95	0.24	3.73	0.68	344	13.05	1.37	21.43	1.74
1999 Total		28,443	22,571	79.36	21,957	97.28	0.22	3.13	0.68	614	2.72	0.92	13.66	2.26	5,872	20.64	4,858	82.73	0.26	3.99	0.82	1,014	17.27	1.73	22.33	2.25
2000	LDGT1	10,804	8,673	80.28	8,424	97.13	0.21	3.02	0.71	249	2.87	0.58	13.48	2.45	2,131	19.72	1,796	84.28	0.25	3.78	0.81	335	15.72	1.33	23.54	2.50
	LDGT2	4,131	3,220	77.95	3,128	97.14	0.20	2.87	0.69	92	2.86	0.79	9.87	2.69	911	22.05	719	78.92	0.27	3.83	0.84	192	21.08	1.79	26.11	2.62
	LDGV	14,494	11,027	76.08	10,810	98.03	0.15	2.49	0.43	217	1.97	1.08	14.57	1.93	3,467	23.92	2,974	85.78	0.21	3.54	0.58	493	14.22	1.52	20.56	1.96
2000 Total		29,429	22,920	77.88	22,362	97.57	0.18	2.74	0.57	558	2.43	0.81	13.31	2.29	6,509	22.12	5,489	84.33	0.23	3.65	0.69	1,020	15.67	1.51	22.58	2.26
2001	LDGT1	13,948	10,699	76.71	10,586	98.94	0.12	2.55	0.41	113	1.06	1.13	17.94	1.75	3,249	23.29	2,943	90.58	0.16	3.44	0.58	306	9.42	1.43	22.96	2.27
	LDGT2	5,856	4,709	80.41	4,628	98.28	0.19	2.54	0.58	81	1.72	0.68	10.54	2.46	1,147	19.59	989	86.22	0.25	3.37	0.75	158	13.78	1.86	15.62	2.90
	LDGV	17,647	13,515	76.59	13,378	98.99	0.10	2.07	0.29	137	1.01	1.34	13.32	2.06	4,132	23.41	3,703	89.62	0.16	3.15	0.44	429	10.38	1.17	19.37	1.91
2001 Total		37,451	28,923	77.23	28,592	98.86	0.12	2.33	0.38	331	1.14	1.11	14.22	2.06	8,528	22.77	7,635	89.53	0.17	3.29	0.54	893	10.47	1.38	19.94	2.21
2002	LDGT1	14,214	11,237	79.06	11,107	98.84	0.11	3.00	0.37	130	1.16	1.12	21.75	1.86	2,977	20.94	2,638	88.61	0.15	3.70	0.52	339	11.39	1.38	26.91	2.40
	LDGT2	4,903	3,888	79.30	3,830	98.51	0.16	2.30	0.61	58	1.49	0.59	11.10	2.60	1,015	20.70	882	86.90	0.23	3.39	0.77	133	13.10	1.57	20.55	2.76
	LDGV	17,556	13,813	78.68	13,666	98.94	0.09	2.47	0.26	147	1.06	1.04	11.75	2.21	3,743	21.32	3,342	89.29	0.16	3.43	0.41	401	10.71	1.09	18.02	2.39
2002 Total		36,673	28,938	78.91	28,603	98.84	0.11	2.65	0.35	335	1.16	0.99	15.52	2.14	7,735	21.09	6,862	88.71	0.16	3.53	0.50	873	11.29	1.28	21.86	2.45
2003	LDGT1	17,888	15,372	85.93	15,294	99.49	0.08	1.76	0.28	78	0.51	0.83	19.40	1.60	2,516	14.07	2,284	90.78	0.14	2.76	0.47	232	9.22	1.58	31.79	2.33
	LDGT2	6,804	5,683	83.52	5,631	99.08	0.12	1.68	0.36	52	0.92	2.10	18.50	2.41	1,121	16.48	996	88.85	0.20	3.15	0.59	125	11.15	2.33	34.39	2.62
	LDGV	21,713	18,249	84.05	18,125	99.32	0.06	1.49	0.21	124	0.68	1.33	12.27	2.09	3,464	15.95	3,116	89.95	0.12	2.41	0.35	348	10.05	1.27	18.29	2.35
2003 Total		46,405	39,304	84.70	39,050	99.35	0.08	1.62	0.26	254	0.65	1.33	15.73	2.01	7,101	15.30	6,396	90.07	0.14	2.65	0.43	705	9.93	1.56	25.59	2.39
2004	LDGT1	16,797	14,636	87.13	14,564	99.51	0.07	1.56	0.19	72	0.49	0.59	19.48	1.57	2,161	12.87	1,949	90.19	0.13	2.88	0.33	212	9.81	1.47	30.34	2.40
	LDGT2	6,477	5,530	85.38	5,506	99.57	0.08	1.41	0.19	24	0.43	0.80	12.84	2.57	947	14.62	845	89.23	0.14	2.59	0.37	102	10.77	2.21	24.62	3.00
	LDGV	17,824	15,182	85.18	15,084	99.35	0.05	1.31	0.16	98	0.65	2.00	19.40	2.11	2,642	14.82	2,401	90.88	0.11	2.40	0.29	241	9.12	1.32	17.58	2.30
2004 Total		41,098	35,348	86.01	35,154	99.45	0.06	1.43	0.17	194	0.55	1.33	18.61	1.97	5,750	13.99	5,195	90.35	0.12	2.61	0.32	555	9.65	1.54	23.75	2.47
2005	LDGT1	22,594	20,643	91.36	20,613	99.85	0.05	1.11	0.11	30	0.15	0.75	17.56	2.10	1,951	8.64	1,832	93.90	0.10	2.06	0.21	119	6.10	0.90	18.53	2.88
	LDGT2	6,823	6,202	90.90	6,136	98.94	0.09	1.35	0.18	66	1.06	1.04	17.87	2.64	621	9.10	549	88.41	0.14	2.62	0.37	72	11.59	2.73	32.46	2.67
	LDGV	24,563	22,157	90.20	22,039	99.47	0.04	1.04	0.13	118	0.53	1.67	17.45	2.31	2,406	9.80	2,235									

Model Year	Type	Overall Total	Passing Initial OBD Inspection												Failing Initial OBD Inspection											
			Count	%	Pass IM240 Count	Pass IM240 %	Pass IM240 Avg HC (gpm)	Pass IM240 Avg CO (gpm)	Pass IM240 Avg Nox (gpm)	Fail IM240 Count	Fail IM240 %	Fail IM240 Avg HC (gpm)	Fail IM240 Avg CO (gpm)	Fail IM240 Avg Nox (gpm)	Count	%	Pass IM240 Count	Pass IM240 %	Pass IM240 Avg HC (gpm)	Pass IM240 Avg CO (gpm)	Pass IM240 Avg Nox (gpm)	Fail IM240 Count	Fail IM240 %	Fail IM240 Avg HC (gpm)	Fail IM240 Avg CO (gpm)	Fail IM240 Avg Nox (gpm)
	LDGV	1,243	1,184	95.25	1,181	99.75	0.03	0.92	0.08	3	0.25	1.10	13.07	3.24	59	4.75	57	96.61	0.08	2.02	0.16	2	3.39	0.25	14.00	1.03
2007 Total		2,817	2,692	95.56	2,680	99.55	0.04	1.10	0.08	12	0.45	0.78	25.62	1.92	125	4.44	122	97.60	0.08	2.37	0.18	3	2.40	0.41	19.03	0.89
2008	LDGT1	736	696	94.57	694	99.71	0.04	1.30	0.09	2	0.29	0.14	13.82	1.56	40	5.43	37	92.50	0.07	2.60	0.19	3	7.50	0.29	26.48	2.08
	LDGT2	253	249	98.42	249	100.00	0.06	1.82	0.10	0	0.00	0.00	0.00	0.00	4	1.58	3	75.00	0.05	4.28	0.08	1	25.00	0.47	27.05	0.65
	LDGV	754	722	95.76	719	99.58	0.03	1.15	0.07	3	0.42	0.91	11.50	3.48	32	4.24	32	100.00	0.07	2.28	0.18	0	0.00	0.00	0.00	0.00
2008 Total		1,743	1,667	95.64	1,662	99.70	0.04	1.31	0.08	5	0.30	0.60	12.42	2.71	76	4.36	72	94.74	0.07	2.53	0.18	4	5.26	0.33	26.62	1.72
2009	LDGT1	241	234	97.10	234	100.00	0.03	1.32	0.09	0	0.00	0.00	0.00	0.00	7	2.90	7	100.00	0.05	1.68	0.27	0	0.00	0.00	0.00	0.00
	LDGT2	89	87	97.75	87	100.00	0.04	1.72	0.08	0	0.00	0.00	0.00	0.00	2	2.25	2	100.00	0.03	0.70	0.05	0	0.00	0.00	0.00	0.00
	LDGV	343	328	95.63	326	99.39	0.03	0.98	0.07	2	0.61	0.09	8.39	0.79	15	4.37	15	100.00	0.06	1.60	0.10	0	0.00	0.00	0.00	0.00
2009 Total		673	649	96.43	647	99.69	0.03	1.20	0.08	2	0.31	0.09	8.39	0.79	24	3.57	24	100.00	0.05	1.55	0.15	0	0.00	0.00	0.00	0.00
2010	LDGT1	860	852	99.07	851	99.88	0.02	0.99	0.05	1	0.12	0.29	52.01	0.08	8	0.93	8	100.00	0.03	1.76	0.15	0	0.00	0.00	0.00	0.00
	LDGT2	314	310	98.73	310	100.00	0.03	1.27	0.06	0	0.00	0.00	0.00	0.00	4	1.27	4	100.00	0.06	6.42	0.07	0	0.00	0.00	0.00	0.00
	LDGV	810	791	97.65	790	99.87	0.03	0.93	0.04	1	0.13	0.12	21.27	0.03	19	2.35	19	100.00	0.08	2.53	0.13	0	0.00	0.00	0.00	0.00
2010 Total		1,984	1,953	98.44	1,951	99.90	0.03	1.01	0.05	2	0.10	0.20	36.64	0.06	31	1.56	31	100.00	0.06	2.83	0.13	0	0.00	0.00	0.00	0.00
2011	LDGT1	10	10	100.00	10	100.00	0.02	1.32	0.07	0	0.00	0.00	0.00	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
	LDGT2	5	5	100.00	5	100.00	0.03	1.09	0.05	0	0.00	0.00	0.00	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
	LDGV	7	7	100.00	7	100.00	0.02	1.15	0.04	0	0.00	0.00	0.00	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
2011 Total		22	22	100.00	22	100.00	0.02	1.21	0.05	0	0.00	0.00	0.00	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
2012	LDGV	0	0		0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0		0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
2012 Total		0	0		0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0		0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
Grand Total		373,639	309,183	82.75	305,443	98.79	0.12	2.07	0.35	3,740	1.21	1.07	15.26	2.26	64,456	17.25	56,655	87.90	0.20	3.48	0.62	7,801	12.10	1.61	22.78	2.38

OBD Initial Inspection Emissions Report - Summary by Veh (V 1.02)

Type	Overall Total	Passing Initial OBD Inspection												Failing Initial OBD Inspection											
		Count	%	Pass IM240 Count	Pass IM240 %	Pass IM240 Avg HC (gpm)	Pass IM240 Avg CO (gpm)	Pass IM240 Avg Nox (gpm)	Fail IM240 Count	Fail IM240 %	Fail IM240 Avg HC (gpm)	Fail IM240 Avg CO (gpm)	Fail IM240 Avg Nox (gpm)	Count	%	Pass IM240 Count	Pass IM240 %	Pass IM240 Avg HC (gpm)	Pass IM240 Avg CO (gpm)	Pass IM240 Avg Nox (gpm)	Fail IM240 Count	Fail IM240 %	Fail IM240 Avg HC (gpm)	Fail IM240 Avg CO (gpm)	Fail IM240 Avg Nox (gpm)
LDGT1	144,722	120,846	83.50	119,465	98.86	0.12	2.22	0.38	1,381	1.14	0.88	16.04	2.39	23,876	16.50	21,064	88.22	0.20	3.74	0.71	2,812	11.78	1.48	24.81	2.54
LDGT2	55,922	45,543	81.44	44,791	98.35	0.16	2.18	0.47	752	1.65	1.03	13.76	2.79	10,379	18.56	8,715	83.97	0.27	3.89	0.86	1,664	16.03	2.37	25.39	2.76
LDGV	172,995	142,794	82.54	141,187	98.87	0.10	1.90	0.28	1,607	1.13	1.26	15.29	1.90	30,201	17.46	26,876	88.99	0.18	3.15	0.48	3,325	11.01	1.33	19.75	2.06
Grand Total	373,639	309,183	82.75	305,443	98.79	0.12	2.07	0.35	3,740	1.21	1.07	15.26	2.26	64,456	17.25	56,655	87.90	0.20	3.48	0.62	7,801	12.10	1.61	22.78	2.38

Appendix A10

Initial OBD Incomplete Inspection Report

Date Range
Between 1/1/2017 and 12/31/2017

Initial OBD Incomplete Inspection Report (V 1.00)

Model Year	Type	OBD Total All	Incomplete Total		Unable to Communicate - Communication Error		Unable to Communicate - Inaccessible		MIL Commanded Off and Not Ready		Potential Tampering Readiness Monitors	
			Count	%	Count	%	Count	%	Count	%	Count	%
1996	LDGT1	28	9	32.14	0	0.00	0	0.00	8	88.89	1	11.11
	LDGT2	18	6	33.33	0	0.00	0	0.00	6	100.00	0	0.00
	LDGV	141	80	56.74	3	3.75	1	1.25	76	95.00	0	0.00
1996 Total		187	95	50.80	3	3.16	1	1.05	90	94.74	1	1.05
1997	LDGT1	50	25	50.00	1	4.00	0	0.00	24	96.00	0	0.00
	LDGT2	51	17	33.33	0	0.00	0	0.00	17	100.00	0	0.00
	LDGV	154	60	38.96	7	11.67	0	0.00	53	88.33	0	0.00
1997 Total		255	102	40.00	8	7.84	0	0.00	94	92.16	0	0.00
1998	LDGT1	51	16	31.37	0	0.00	0	0.00	16	100.00	0	0.00
	LDGT2	18	2	11.11	0	0.00	1	50.00	1	50.00	0	0.00
	LDGV	121	45	37.19	2	4.44	1	2.22	42	93.33	0	0.00
1998 Total		190	63	33.16	2	3.17	2	3.17	59	93.65	0	0.00
1999	LDGT1	69	16	23.19	0	0.00	0	0.00	14	87.50	2	12.50
	LDGT2	1,155	266	23.03	48	18.05	1	0.38	212	79.70	5	1.88
	LDGV	233	59	25.32	9	15.25	0	0.00	50	84.75	0	0.00
1999 Total		1,457	341	23.40	57	16.72	1	0.29	276	80.94	7	2.05
2000	LDGT1	453	125	27.59	7	5.60	1	0.80	116	92.80	1	0.80
	LDGT2	1,672	419	25.06	84	20.05	0	0.00	333	79.47	2	0.48
	LDGV	315	94	29.84	21	22.34	1	1.06	68	72.34	4	4.26
2000 Total		2,440	638	26.15	112	17.55	2	0.31	517	81.03	7	1.10
2001	LDGT1	590	122	20.68	8	6.56	0	0.00	114	93.44	0	0.00
	LDGT2	2,402	513	21.36	124	24.17	1	0.19	384	74.85	4	0.78
	LDGV	563	126	22.38	7	5.56	1	0.79	102	80.95	16	12.70
2001 Total		3,555	761	21.41	139	18.27	2	0.26	600	78.84	20	2.63
2002	LDGT1	221	35	15.84	1	2.86	0	0.00	34	97.14	0	0.00
	LDGT2	2,562	557	21.74	143	25.67	0	0.00	409	73.43	5	0.90
	LDGV	635	131	20.63	15	11.45	0	0.00	114	87.02	2	1.53
2002 Total		3,418	723	21.15	159	21.99	0	0.00	557	77.04	7	0.97
2003	LDGT1	75	24	32.00	0	0.00	0	0.00	17	70.83	7	29.17
	LDGT2	2,918	595	20.39	182	30.59	0	0.00	408	68.57	5	0.84
	LDGV	921	195	21.17	9	4.62	0	0.00	164	84.10	22	11.28
2003 Total		3,914	814	20.80	191	23.46	0	0.00	589	72.36	34	4.18
2004	LDGT1	75	17	22.67	2	11.76	0	0.00	15	88.24	0	0.00
	LDGT2	2,562	585	22.83	250	42.74	0	0.00	335	57.26	0	0.00
	LDGV	1,226	195	15.91	10	5.13	0	0.00	169	86.67	16	8.21
2004 Total		3,863	797	20.63	262	32.87	0	0.00	519	65.12	16	2.01
2005	LDGT1	246	42	17.07	1	2.38	0	0.00	40	95.24	1	2.38
	LDGT2	2,729	515	18.87	207	40.19	0	0.00	308	59.81	0	0.00
	LDGV	2,333	221	9.47	26	11.76	0	0.00	177	80.09	18	8.14
2005 Total		5,308	778	14.66	234	30.08	0	0.00	525	67.48	19	2.44
2006	LDGT1	1,374	81	5.90	29	35.80	3	3.70	49	60.49	0	0.00

			Incomplete Total		Unable to Communicate - Communication Error		Unable to Communicate - Inaccessible		MIL Commanded Off and Not Ready		Potential Tampering Readiness Monitors	
Model Year	Type	OBD Total All	Count	%	Count	%	Count	%	Count	%	Count	%
	LDGT2	1,773	320	18.05	140	43.75	1	0.31	177	55.31	2	0.63
	LDGV	1,971	205	10.40	15	7.32	1	0.49	177	86.34	12	5.85
2006 Total		5,118	606	11.84	184	30.36	5	0.83	403	66.50	14	2.31
2007	LDGT1	25,446	141	0.55	11	7.80	1	0.71	114	80.85	15	10.64
	LDGT2	13,332	547	4.10	125	22.85	2	0.37	417	76.23	3	0.55
	LDGV	30,548	259	0.85	27	10.42	1	0.39	176	67.95	55	21.24
2007 Total		69,326	947	1.37	163	17.21	4	0.42	707	74.66	73	7.71
2008	LDGT1	18,174	105	0.58	20	19.05	0	0.00	76	72.38	9	8.57
	LDGT2	10,558	391	3.70	52	13.30	3	0.77	336	85.93	0	0.00
	LDGV	22,297	229	1.03	14	6.11	0	0.00	177	77.29	38	16.59
2008 Total		51,029	725	1.42	86	11.86	3	0.41	589	81.24	47	6.48
2009	LDGT1	7,662	26	0.34	2	7.69	0	0.00	24	92.31	0	0.00
	LDGT2	4,173	152	3.64	17	11.18	1	0.66	134	88.16	0	0.00
	LDGV	12,784	121	0.95	8	6.61	0	0.00	85	70.25	28	23.14
2009 Total		24,619	299	1.21	27	9.03	1	0.33	243	81.27	28	9.36
2010	LDGT1	26,751	65	0.24	12	18.46	0	0.00	40	61.54	13	20.00
	LDGT2	14,047	273	1.94	28	10.26	0	0.00	234	85.71	11	4.03
	LDGV	32,288	205	0.63	37	18.05	0	0.00	123	60.00	45	21.95
2010 Total		73,086	543	0.74	77	14.18	0	0.00	397	73.11	69	12.71
2011	LDGT1	4,846	10	0.21	2	20.00	0	0.00	5	50.00	3	30.00
	LDGT2	3,015	42	1.39	1	2.38	0	0.00	40	95.24	1	2.38
	LDGV	5,319	42	0.79	5	11.90	1	2.38	25	59.52	11	26.19
2011 Total		13,180	94	0.71	8	8.51	1	1.06	70	74.47	15	15.96
2012	LDGT1	1,595	6	0.38	0	0.00	0	0.00	5	83.33	1	16.67
	LDGT2	1,030	10	0.97	1	10.00	0	0.00	8	80.00	1	10.00
	LDGV	2,840	25	0.88	1	4.00	0	0.00	16	64.00	8	32.00
2012 Total		5,465	41	0.75	2	4.88	0	0.00	29	70.73	10	24.39
2013	LDGT1	1,174	3	0.26	0	0.00	0	0.00	2	66.67	1	33.33
	LDGT2	724	14	1.93	1	7.14	0	0.00	12	85.71	1	7.14
	LDGV	2,138	15	0.70	0	0.00	0	0.00	13	86.67	2	13.33
2013 Total		4,036	32	0.79	1	3.13	0	0.00	27	84.38	4	12.50
2014	LDGT1	948	6	0.63	1	16.67	0	0.00	1	16.67	4	66.67
	LDGT2	486	5	1.03	1	20.00	0	0.00	4	80.00	0	0.00
	LDGV	1,422	21	1.48	1	4.76	0	0.00	11	52.38	9	42.86
2014 Total		2,856	32	1.12	3	9.38	0	0.00	16	50.00	13	40.63
2015	LDGT1	664	6	0.90	0	0.00	0	0.00	1	16.67	5	83.33
	LDGT2	238	1	0.42	0	0.00	0	0.00	1	100.00	0	0.00
	LDGV	932	7	0.75	0	0.00	0	0.00	4	57.14	3	42.86
2015 Total		1,834	14	0.76	0	0.00	0	0.00	6	42.86	8	57.14
2016	LDGT1	407	2	0.49	0	0.00	0	0.00	0	0.00	2	100.00
	LDGT2	130	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	527	1	0.19	0	0.00	0	0.00	0	0.00	1	100.00
2016 Total		1,064	3	0.28	0	0.00	0	0.00	0	0.00	3	100.00
2017	LDGT1	66	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	26	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

			Incomplete Total		Unable to Communicate - Communication Error		Unable to Communicate - Inaccessible		MIL Commanded Off and Not Ready		Potential Tampering Readiness Monitors	
Model Year	Type	OBD Total All	Count	%	Count	%	Count	%	Count	%	Count	%
	LDGV	141	2	1.42	0	0.00	0	0.00	1	50.00	1	50.00
2017 Total		233	2	0.86	0	0.00	0	0.00	1	50.00	1	50.00
2018	LDGT2	2	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	2	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2018 Total		4	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Grand Total		276,437	8,450	3.06	1,718	20.33	22	0.26	6,314	74.72	396	4.69

Initial OBD Incomplete Inspection Report - Summary by Veh (V 1.00)

		Incomplete Total		Unable to Communicate - Communication Error		Unable to Communicate - Inaccessible		MIL Commanded Off and Not Ready		Potential Tampering Readiness Monitors		
Type	OBD Total All	Count	%	Count	%	Count	%	Count	%	Count	%	
LDGT1	90,965	882	0.97	97	11.00	5	0.57	715	81.07	65	7.37	
LDGT2	65,621	5,230	7.97	1,404	26.85	10	0.19	3,776	72.20	40	0.76	
LDGV	119,851	2,338	1.95	217	9.28	7	0.30	1,823	77.97	291	12.45	
Grand Total		276,437	8,450	3.06	1,718	20.33	22	0.26	6,314	74.72	396	4.69

Appendix A11

OBD Retest Incomplete Inspection Report

Date Range
Between 1/1/2017 and 12/31/2017

OBD Retest Incomplete Inspection Report (V 1.00)

Model Year	Type	OBD Retest Total All	Incomplete Total		Unable to Communicate - Communication Error		Unable to Communicate - Inaccessible		MIL Commanded Off and Not Ready		Potential Tampering Readiness Monitors		Retest # 1	
			Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
1996	LDGT1	2	1	50.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00
	LDGT2	2	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	64	31	48.44	1	3.23	0	0.00	30	96.77	0	0.00	15	48.39
1996 Total		68	32	47.06	1	3.13	0	0.00	31	96.88	0	0.00	16	50.00
1997	LDGT1	11	4	36.36	0	0.00	0	0.00	4	100.00	0	0.00	2	50.00
	LDGT2	13	7	53.85	1	14.29	0	0.00	6	85.71	0	0.00	6	85.71
	LDGV	47	21	44.68	1	4.76	0	0.00	20	95.24	0	0.00	17	80.95
1997 Total		71	32	45.07	2	6.25	0	0.00	30	93.75	0	0.00	25	78.13
1998	LDGT1	20	7	35.00	0	0.00	0	0.00	7	100.00	0	0.00	3	42.86
	LDGT2	1	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	34	14	41.18	1	7.14	0	0.00	13	92.86	0	0.00	14	100.00
1998 Total		55	21	38.18	1	4.76	0	0.00	20	95.24	0	0.00	17	80.95
1999	LDGT1	16	5	31.25	0	0.00	0	0.00	5	100.00	0	0.00	4	80.00
	LDGT2	397	170	42.82	8	4.71	0	0.00	162	95.29	0	0.00	104	61.18
	LDGV	45	19	42.22	0	0.00	0	0.00	19	100.00	0	0.00	15	78.95
1999 Total		458	194	42.36	8	4.12	0	0.00	186	95.88	0	0.00	123	63.40
2000	LDGT1	127	56	44.09	4	7.14	0	0.00	51	91.07	1	1.79	36	64.29
	LDGT2	690	301	43.62	10	3.32	0	0.00	291	96.68	0	0.00	217	72.09
	LDGV	74	27	36.49	3	11.11	0	0.00	24	88.89	0	0.00	17	62.96
2000 Total		891	384	43.10	17	4.43	0	0.00	366	95.31	1	0.26	270	70.31
2001	LDGT1	121	32	26.45	1	3.13	0	0.00	31	96.88	0	0.00	26	81.25
	LDGT2	847	366	43.21	28	7.65	1	0.00	331	90.44	6	1.64	260	71.04
	LDGV	106	50	47.17	3	6.00	0	0.00	46	92.00	1	2.00	39	78.00
2001 Total		1,074	448	41.71	32	7.14	1	0.00	408	91.07	7	1.56	325	72.54
2002	LDGT1	110	54	49.09	1	1.85	0	0.00	53	98.15	0	0.00	34	62.96
	LDGT2	862	344	39.91	17	4.94	0	0.00	323	93.90	4	1.16	243	70.64
	LDGV	111	50	45.05	5	10.00	0	0.00	45	90.00	0	0.00	28	56.00
2002 Total		1,083	448	41.37	23	5.13	0	0.00	421	93.97	4	0.89	305	68.08
2003	LDGT1	11	7	63.64	0	0.00	0	0.00	4	57.14	3	42.86	7	100.00
	LDGT2	714	231	32.35	22	9.52	0	0.00	209	90.48	0	0.00	171	74.03
	LDGV	182	62	34.07	2	3.23	0	0.00	58	93.55	2	3.23	46	74.19
2003 Total		907	300	33.08	24	8.00	0	0.00	271	90.33	5	1.67	224	74.67
2004	LDGT1	31	13	41.94	0	0.00	0	0.00	13	100.00	0	0.00	7	53.85
	LDGT2	630	213	33.81	16	7.51	0	0.00	197	92.49	0	0.00	151	70.89
	LDGV	149	61	40.94	3	4.92	0	0.00	57	93.44	1	1.64	52	85.25
2004 Total		810	287	35.43	19	6.62	0	0.00	267	93.03	1	0.35	210	73.17
2005	LDGT1	143	71	49.65	4	5.63	0	0.00	67	94.37	0	0.00	49	69.01
	LDGT2	394	155	39.34	13	8.39	0	0.00	142	91.61	0	0.00	130	83.87
	LDGV	389	141	36.25	3	2.13	0	0.00	138	97.87	0	0.00	84	59.57
2005 Total		926	367	39.63	20	5.45	0	0.00	347	94.55	0	0.00	263	71.66

Model Year	Type	OBD Retest Total All	Incomplete Total		Unable to Communicate - Communication Error		Unable to Communicate - Inaccessible		MIL Commanded Off and Not Ready		Potential Tampering Readiness Monitors		Retest # 1	
			Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
2006	LDGT1	499	225	45.09	10	4.44	0	0.00	214	95.11	1	0.44	126	56.00
	LDGT2	386	141	36.53	4	2.84	0	0.00	137	97.16	0	0.00	91	64.54
	LDGV	888	362	40.77	12	3.31	0	0.00	344	95.03	6	1.66	233	64.36
2006 Total		1,773	728	41.06	26	3.57	0	0.00	695	95.47	7	0.96	450	61.81
2007	LDGT1	2,819	968	34.34	46	4.75	2	0.00	920	95.04	0	0.00	828	85.54
	LDGT2	1,569	466	29.70	9	1.93	1	0.00	453	97.21	3	0.64	403	86.48
	LDGV	3,337	1,198	35.90	48	4.01	4	0.00	1,142	95.33	4	0.33	1,007	84.06
2007 Total		7,725	2,632	34.07	103	3.91	7	0.00	2,515	95.55	7	0.27	2,238	85.03
2008	LDGT1	1,524	423	27.76	8	1.89	0	0.00	415	98.11	0	0.00	367	86.76
	LDGT2	1,117	285	25.51	10	3.51	0	0.00	275	96.49	0	0.00	244	85.61
	LDGV	2,353	874	37.14	32	3.66	5	0.01	837	95.77	0	0.00	727	83.18
2008 Total		4,994	1,582	31.68	50	3.16	5	0.00	1,527	96.52	0	0.00	1,338	84.58
2009	LDGT1	684	196	28.65	3	1.53	0	0.00	193	98.47	0	0.00	174	88.78
	LDGT2	543	173	31.86	5	2.89	1	0.01	167	96.53	0	0.00	142	82.08
	LDGV	1,183	453	38.29	15	3.31	1	0.00	430	94.92	7	1.55	392	86.53
2009 Total		2,410	822	34.11	23	2.80	2	0.00	790	96.11	7	0.85	708	86.13
2010	LDGT1	1,189	243	20.44	5	2.06	0	0.00	238	97.94	0	0.00	224	92.18
	LDGT2	948	250	26.37	2	0.80	0	0.00	245	98.00	3	1.20	202	80.80
	LDGV	1,744	533	30.56	12	2.25	0	0.00	521	97.75	0	0.00	483	90.62
2010 Total		3,881	1,026	26.44	19	1.85	0	0.00	1,004	97.86	3	0.29	909	88.60
2011	LDGT1	227	66	29.07	2	3.03	0	0.00	64	96.97	0	0.00	61	92.42
	LDGT2	266	53	19.92	0	0.00	0	0.00	53	100.00	0	0.00	50	94.34
	LDGV	230	65	28.26	0	0.00	0	0.00	65	100.00	0	0.00	64	98.46
2011 Total		723	184	25.45	2	1.09	0	0.00	182	98.91	0	0.00	175	95.11
2012	LDGT1	67	15	22.39	1	6.67	0	0.00	14	93.33	0	0.00	15	100.00
	LDGT2	67	13	19.40	0	0.00	0	0.00	13	100.00	0	0.00	13	100.00
	LDGV	152	44	28.95	7	15.91	1	0.02	36	81.82	0	0.00	39	88.64
2012 Total		286	72	25.17	8	11.11	1	0.01	63	87.50	0	0.00	67	93.06
2013	LDGT1	40	8	20.00	0	0.00	0	0.00	8	100.00	0	0.00	8	100.00
	LDGT2	59	14	23.73	1	7.14	0	0.00	13	92.86	0	0.00	14	100.00
	LDGV	90	16	17.78	0	0.00	0	0.00	16	100.00	0	0.00	16	100.00
2013 Total		189	38	20.11	1	2.63	0	0.00	37	97.37	0	0.00	38	100.00
2014	LDGT1	17	3	17.65	0	0.00	0	0.00	3	100.00	0	0.00	3	100.00
	LDGT2	21	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	46	13	28.26	0	0.00	0	0.00	13	100.00	0	0.00	12	92.31
2014 Total		84	16	19.05	0	0.00	0	0.00	16	100.00	0	0.00	15	93.75
2015	LDGT1	12	2	16.67	0	0.00	0	0.00	2	100.00	0	0.00	2	100.00
	LDGT2	6	1	16.67	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00
	LDGV	28	1	3.57	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00
2015 Total		46	4	8.70	0	0.00	0	0.00	4	100.00	0	0.00	4	100.00
2016	LDGT1	2	1	50.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00
	LDGT2	1	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	15	1	6.67	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00
2016 Total		18	2	11.11	0	0.00	0	0.00	2	100.00	0	0.00	2	100.00

Model Year	Type	OBD Retest Total All	Incomplete Total		Unable to Communicate - Communication Error		Unable to Communicate - Inaccessible		MIL Commanded Off and Not Ready		Potential Tampering Readiness Monitors		Retest # 1	
			Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
2017	LDGT1	1	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2017 Total		1	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Grand Total		28,473	9,619	33.78	379	3.94	16	0.00	9,182	95.46	42	0.44	7,722	80.28

OBD Retest Incomplete Inspection Report - Summary by Veh (V 1.00)

Type	OBD Retest Total All	Incomplete Total		Unable to Communicate - Communication Error		Unable to Communicate - Inaccessible		MIL Commanded Off and Not Ready		Potential Tampering Readiness Monitors		Retest # 1		
		Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	
LDGT1	7,673	2,400	31.28	85	3.54	2	0.00	2,308	96.17	5	0.21	1,978	82.42	
LDGT2	9,533	3,183	33.39	146	4.59	3	0.00	3,018	94.82	16	0.50	2,442	76.72	
LDGV	11,267	4,036	35.82	148	3.67	11	0.00	3,856	95.54	21	0.52	3,302	81.81	
Grand Total		28,473	9,619	33.78	379	3.94	16	0.00	9,182	95.46	42	0.44	7,722	80.28

Appendix B1

I/M240 Initial Inspection Report

Date

Between 1/1/2017 and 12/31/2017

Initial Inspection Report (V1.01)

Vehicle		All Initial Inspections				Passing Initial Inspections					Failing Initial Inspections				
Year	Type	Total	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)
1982	LDGV	200	2.1535	26.4070	2.0342	157	78.50%	1.5883	19.0912	2.0088	43	21.50%	4.2171	53.1181	2.1273
	LDGT1	173	3.1465	46.0632	2.9126	114	65.90%	2.2077	30.3236	2.9824	59	34.10%	4.9604	76.4752	2.7778
	LDGT2	49	3.4299	58.1875	2.9564	34	69.39%	2.7147	36.1647	2.8347	15	30.61%	5.0510	108.1058	3.2322
1982 Total		422	2.7088	38.1552	2.5014	305	72.27%	1.9454	25.1928	2.4647	117	27.73%	4.6989	71.9462	2.5970
1983	LDGV	298	1.7746	21.8935	1.9200	226	75.84%	1.2496	12.1743	1.9684	72	24.16%	3.4226	52.4008	1.7681
	LDGT1	271	3.4247	42.7031	2.5121	197	72.69%	2.9917	31.0264	2.5646	74	27.31%	4.5773	73.7883	2.3723
	LDGT2	122	3.7808	54.3042	2.7673	73	59.84%	2.4655	33.2913	2.5997	49	40.16%	5.7404	85.6092	3.0171
1983 Total		691	2.7760	35.7770	2.3018	496	71.78%	2.1205	22.7699	2.2981	195	28.22%	4.4432	68.8618	2.3113
1984	LDGV	452	1.7663	19.6549	1.9943	349	77.21%	1.2426	10.7190	1.9955	103	22.79%	3.5406	49.9332	1.9899
	LDGT1	461	2.6519	34.6162	2.5688	336	72.89%	1.9053	22.8416	2.6474	125	27.11%	4.6586	66.2663	2.3574
	LDGT2	159	3.1714	49.2385	2.9238	96	60.38%	2.0018	26.6192	3.0986	63	39.62%	4.9537	83.7060	2.6574
1984 Total		1072	2.3555	30.4767	2.3792	781	72.85%	1.6211	17.8888	2.4116	291	27.15%	4.3268	64.2608	2.2923
1985	LDGV	752	1.3433	15.4937	1.8289	610	81.12%	1.0040	10.7222	1.7968	142	18.88%	2.8010	35.9908	1.9667
	LDGT1	712	2.2742	27.0671	2.8012	535	75.14%	1.7684	17.5558	2.8166	177	24.86%	3.8033	55.8162	2.7544
	LDGT2	228	2.7548	43.0526	2.8636	142	62.28%	1.8184	22.3160	2.9447	86	37.72%	4.3009	77.2920	2.7298
1985 Total		1692	1.9253	24.0774	2.3774	1287	76.06%	1.4116	14.8421	2.3474	405	23.94%	3.5575	53.4254	2.4730
1986	LDGV	824	1.3809	13.7014	1.8864	667	80.95%	0.9393	7.8482	1.8669	157	19.05%	3.2567	38.5685	1.9694
	LDGT1	851	2.0336	24.7300	2.5147	663	77.91%	1.5893	16.3013	2.5337	188	22.09%	3.6006	54.4545	2.4477
	LDGT2	243	2.7078	37.3727	2.9018	145	59.67%	1.7896	20.2376	2.9135	98	40.33%	4.0664	62.7256	2.8845
1986 Total		1918	1.8386	21.5937	2.2938	1475	76.90%	1.3151	12.8657	2.2695	443	23.10%	3.5818	50.6542	2.3748
1987	LDGV	1113	1.1082	10.9241	1.8164	939	84.37%	0.8602	7.5671	1.7630	174	15.63%	2.4469	29.0402	2.1049
	LDGT1	1118	1.8014	18.9266	2.4150	902	80.68%	1.4222	14.0727	2.3897	216	19.32%	3.3846	39.1961	2.5207
	LDGT2	326	2.2780	21.9178	2.9984	234	71.78%	1.7739	13.3993	2.8773	92	28.22%	3.5600	43.5844	3.3067
1987 Total		2557	1.5604	15.8247	2.2288	2075	81.15%	1.2075	11.0528	2.1611	482	18.85%	3.0796	36.3674	2.5206
1988	LDGV	1131	1.0906	12.2228	1.6814	926	81.87%	0.7690	8.0104	1.6070	205	18.13%	2.5432	31.2506	2.0179
	LDGT1	1172	1.5976	17.0271	2.2307	948	80.89%	1.2749	11.7928	2.1402	224	19.11%	2.9631	39.1793	2.6137
	LDGT2	430	2.0619	18.8529	2.6908	309	71.86%	1.4396	12.0355	2.5387	121	28.14%	3.6508	36.2628	3.0793
1988 Total		2733	1.4608	15.3262	2.0758	2183	79.88%	1.0836	10.2227	1.9704	550	20.12%	2.9579	35.5824	2.4941
1989	LDGV	1801	0.9369	10.5385	1.6286	1549	86.01%	0.7183	7.7731	1.5842	252	13.99%	2.2811	27.5371	1.9019
	LDGT1	1795	1.4885	17.1575	2.1496	1455	81.06%	1.1631	12.3443	2.0123	340	18.94%	2.8807	37.7548	2.7374
	LDGT2	692	1.8538	15.3051	2.8131	552	79.77%	1.4652	12.1968	2.6592	140	20.23%	3.3860	27.5611	3.4201
1989 Total		4288	1.3158	14.0785	2.0379	3556	82.93%	1.0162	10.3302	1.9262	732	17.07%	2.7709	32.2876	2.5804
1990	LDGV	2189	0.8749	10.5847	1.6283	1880	85.88%	0.6558	7.4696	1.5527	309	14.12%	2.2079	29.5378	2.0884
	LDGT1	1556	1.4339	14.8866	2.2145	1254	80.59%	1.1160	10.8131	2.0997	302	19.41%	2.7540	31.8011	2.6913
	LDGT2	674	1.8898	17.6840	2.7065	523	77.60%	1.4425	13.3298	2.5307	151	22.40%	3.4390	32.7653	3.3153
1990 Total		4419	1.2265	13.1823	1.9992	3657	82.76%	0.9261	9.4542	1.8801	762	17.24%	2.6683	31.0744	2.5705
1991	LDGV	3368	0.7758	9.1772	1.5466	2908	86.34%	0.5655	6.5095	1.4523	460	13.66%	2.1056	26.0416	2.1426
	LDGT1	2452	1.1772	13.5947	1.8885	2079	84.79%	0.9397	10.4304	1.7956	373	15.21%	2.5008	31.2318	2.4064
	LDGT2	742	1.7201	17.7902	2.6146	577	77.76%	1.2735	14.0550	2.4619	165	22.24%	3.2818	30.8518	3.1488

Vehicle		All Initial Inspections				Passing Initial Inspections					Failing Initial Inspections				
Year	Type	Total	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)
1991 Total		6562	1.0326	11.8018	1.7951	5564	84.79%	0.7787	8.7571	1.6853	998	15.21%	2.4478	28.7767	2.4075
1992	LDGV	3328	0.7135	8.6000	1.4839	2851	85.67%	0.5389	6.0589	1.4118	477	14.33%	1.7573	23.7880	1.9147
	LDGT1	2132	1.1369	12.7190	1.8444	1784	83.68%	0.8837	9.5614	1.7178	348	16.32%	2.4351	28.9063	2.4934
	LDGT2	1084	1.8435	17.3230	2.5717	837	77.21%	1.3840	13.7243	2.4283	247	22.79%	3.4008	29.5176	3.0577
1992 Total		6544	1.0386	11.3869	1.7815	5472	83.62%	0.7806	8.3733	1.6670	1072	16.38%	2.3560	26.7697	2.3660
1993	LDGV	4475	0.6711	7.8049	1.5197	3920	87.60%	0.5248	5.5977	1.4459	555	12.40%	1.7047	23.3946	2.0409
	LDGT1	3763	1.0944	11.7618	2.0757	3267	86.82%	0.9184	9.4913	1.9822	496	13.18%	2.2542	26.7165	2.6915
	LDGT2	1471	1.7276	16.8349	2.5962	1130	76.82%	1.3802	13.9068	2.4101	341	23.18%	2.8788	26.5380	3.2127
1993 Total		9709	0.9953	10.7066	1.8983	8317	85.66%	0.7956	8.2561	1.7876	1392	14.34%	2.1881	25.3483	2.5598
1994	LDGV	5272	0.5786	6.6881	1.2211	4651	88.22%	0.4082	5.0101	1.1458	621	11.78%	1.8554	19.2556	1.7852
	LDGT1	4374	0.9780	10.7702	1.8661	3695	84.48%	0.7396	7.9927	1.7313	679	15.52%	2.2755	25.8849	2.5996
	LDGT2	2453	1.3223	13.9574	2.2755	1824	74.36%	0.9450	10.1778	2.0621	629	25.64%	2.4163	24.9176	2.8944
1994 Total		12099	0.8738	9.6377	1.6681	10170	84.06%	0.6249	7.0206	1.5229	1929	15.94%	2.1861	23.4353	2.4335
1995	LDGV	7769	0.5001	5.8653	1.0770	6884	88.61%	0.3857	4.6250	0.9928	885	11.39%	1.3896	15.5133	1.7321
	LDGT1	5430	0.8537	9.8322	1.8862	4588	84.49%	0.6854	7.6571	1.7311	842	15.51%	1.7706	21.6840	2.7309
	LDGT2	3431	1.1625	12.8177	2.2254	2722	79.34%	0.8843	10.2331	2.0260	709	20.66%	2.2304	22.7404	2.9908
1995 Total		16630	0.7522	8.5949	1.5781	14194	85.35%	0.5782	6.6806	1.4296	2436	14.65%	1.7660	19.7496	2.4437
1996	LDGV	7964	0.3872	4.8824	0.8839	7186	90.23%	0.3066	3.8442	0.8166	778	9.77%	1.1318	14.4718	1.5057
	LDGT1	5465	0.4866	6.5855	1.5317	4665	85.36%	0.3950	5.2237	1.4054	800	14.64%	1.0208	14.5266	2.2680
	LDGT2	2854	0.7277	7.8279	1.4915	2410	84.44%	0.4955	6.0032	1.3565	444	15.56%	1.9878	17.7323	2.2242
1996 Total		16283	0.4802	5.9703	1.2078	14261	87.58%	0.3674	4.6603	1.1005	2022	12.42%	1.2759	15.2094	1.9651
1997	LDGV	11676	0.3819	4.8782	0.8158	10483	89.78%	0.3061	3.8582	0.7525	1193	10.22%	1.0482	13.8407	1.3716
	LDGT1	9993	0.4396	6.2624	1.3910	8656	86.62%	0.3479	4.9303	1.2664	1337	13.38%	1.0329	14.8867	2.1975
	LDGT2	4225	0.5604	7.1346	1.5237	3604	85.30%	0.4079	5.5637	1.3419	621	14.70%	1.4454	16.2516	2.5791
1997 Total		25894	0.4333	5.7805	1.1533	22743	87.83%	0.3382	4.5365	1.0415	3151	12.17%	1.1200	14.7597	1.9600
1998	LDGV	12748	0.3166	4.6348	0.7119	11334	88.91%	0.2448	3.5886	0.6444	1414	11.09%	0.8924	13.0202	1.2532
	LDGT1	10931	0.3947	5.6634	1.2554	9538	87.26%	0.3165	4.5448	1.1089	1393	12.74%	0.9308	13.3226	2.2586
	LDGT2	4181	0.5150	6.4230	1.3935	3520	84.19%	0.3415	4.6209	1.2001	661	15.81%	1.4390	16.0197	2.4234
1998 Total		27860	0.3770	5.3067	1.0274	24392	87.55%	0.2868	4.1115	0.9062	3468	12.45%	1.0120	13.7134	1.8801
1999	LDGV	16958	0.2686	3.8982	0.6525	15368	90.62%	0.2114	3.1256	0.5885	1590	9.38%	0.8209	11.3660	1.2709
	LDGT1	14207	0.2945	4.6085	0.9147	12633	88.92%	0.2313	3.6724	0.7973	1574	11.08%	0.8010	12.1216	1.8569
	LDGT2	6958	0.4240	4.9682	1.0723	5962	85.69%	0.2572	3.1813	0.8848	996	14.31%	1.4222	15.6645	2.1946
1999 Total		38123	0.3066	4.3582	0.8268	33963	89.09%	0.2269	3.3388	0.7182	4160	10.91%	0.9573	12.6811	1.7138
2000	LDGV	19389	0.2326	3.5980	0.5607	17569	90.61%	0.1648	2.7683	0.4740	1820	9.39%	0.8878	11.6072	1.3981
	LDGT1	14433	0.2729	4.1703	0.8493	12794	88.64%	0.2205	3.1966	0.7344	1639	11.36%	0.6819	11.7712	1.7461
	LDGT2	5859	0.3111	4.3964	0.8652	5160	88.07%	0.2188	3.1666	0.7274	699	11.93%	0.9924	13.4749	1.8823
2000 Total		39681	0.2589	3.9240	0.7107	35523	89.52%	0.1927	2.9804	0.6046	4158	10.48%	0.8242	11.9858	1.6167
2001	LDGV	23035	0.1614	2.9705	0.4025	21270	92.34%	0.1154	2.3723	0.3374	1765	7.66%	0.7159	10.1792	1.1863
	LDGT1	17730	0.1722	3.4675	0.5140	16220	91.48%	0.1327	2.8082	0.4548	1510	8.52%	0.5965	10.5487	1.1490
	LDGT2	8098	0.2658	3.3502	0.7185	7273	89.81%	0.2047	2.8276	0.6220	825	10.19%	0.8048	7.9566	1.5687
2001 Total		48863	0.1827	3.2137	0.4953	44763	91.61%	0.1362	2.6042	0.4262	4100	8.39%	0.6898	9.8681	1.2495
2002	LDGV	22711	0.1473	3.2454	0.3759	20801	91.59%	0.1090	2.7618	0.2999	1910	8.41%	0.5647	8.5123	1.2031
	LDGT1	17970	0.1620	4.0198	0.4756	16456	91.57%	0.1191	3.2032	0.4070	1514	8.43%	0.6286	12.8960	1.2221

Vehicle		All Initial Inspections				Passing Initial Inspections					Failing Initial Inspections				
Year	Type	Total	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)
	LDGT2	6571	0.2372	3.2962	0.7596	5845	88.95%	0.1810	2.5952	0.6496	726	11.05%	0.6894	8.9399	1.6455
2002 Total		47252	0.1654	3.5470	0.4672	43102	91.22%	0.1226	2.9077	0.3882	4150	8.78%	0.6098	10.1864	1.2874
2003	LDGV	26753	0.1094	2.0840	0.2960	24959	93.29%	0.0758	1.7027	0.2439	1794	6.71%	0.5764	7.3888	1.0209
	LDGT1	21419	0.1204	2.5157	0.3627	19947	93.13%	0.0944	1.9761	0.3214	1472	6.87%	0.4723	9.8284	0.9234
	LDGT2	8709	0.1953	2.8195	0.4889	7993	91.78%	0.1380	2.0036	0.4158	716	8.22%	0.8355	11.9273	1.3041
2003 Total		56881	0.1267	2.3592	0.3507	52899	93.00%	0.0922	1.8513	0.2991	3982	7.00%	0.5845	9.1067	1.0358
2004	LDGV	22201	0.1011	1.9431	0.2376	20713	93.30%	0.0665	1.5542	0.1871	1488	6.70%	0.5817	7.3560	0.9400
	LDGT1	20050	0.1027	2.3319	0.2568	18694	93.24%	0.0777	1.8045	0.2144	1356	6.76%	0.4468	9.6034	0.8419
	LDGT2	8663	0.1313	2.1853	0.2995	7982	92.14%	0.0899	1.6861	0.2271	681	7.86%	0.6159	8.0361	1.1489
2004 Total		50914	0.1068	2.1374	0.2557	47389	93.08%	0.0749	1.6751	0.2046	3525	6.92%	0.5364	8.3519	0.9426
2005	LDGV	29605	0.0686	1.4211	0.1771	27940	94.38%	0.0486	1.1834	0.1438	1665	5.62%	0.4032	5.4107	0.7367
	LDGT1	27155	0.0678	1.3893	0.1494	26089	96.07%	0.0603	1.2444	0.1269	1066	3.93%	0.2499	4.9347	0.7008
	LDGT2	8725	0.1412	2.1665	0.2734	8212	94.12%	0.0962	1.5764	0.2087	513	5.88%	0.8624	11.6128	1.3087
2005 Total		65485	0.0779	1.5072	0.1785	62241	95.05%	0.0598	1.2608	0.1453	3244	4.95%	0.4254	6.2351	0.8153
2006	LDGV	25823	0.0682	1.5987	0.1492	24755	95.86%	0.0481	1.3584	0.1140	1068	4.14%	0.5352	7.1695	0.9655
	LDGT1	19896	0.0547	1.5078	0.1390	19165	96.33%	0.0487	1.3748	0.1218	731	3.67%	0.2109	4.9940	0.5895
	LDGT2	8630	0.0985	1.5934	0.1896	8143	94.36%	0.0735	1.2298	0.1397	487	5.64%	0.5161	7.6740	1.0238
2006 Total		54349	0.0681	1.5646	0.1519	52063	95.79%	0.0523	1.3443	0.1209	2286	4.21%	0.4274	6.5813	0.8577
2007	LDGV	4137	0.0717	1.6560	0.1543	3954	95.58%	0.0488	1.3069	0.1104	183	4.42%	0.5662	9.1990	1.1034
	LDGT1	3259	0.0620	1.8750	0.1303	3099	95.09%	0.0441	1.4541	0.1092	160	4.91%	0.4094	10.0273	0.5382
	LDGT2	1424	0.1114	1.7363	0.1912	1335	93.75%	0.0672	1.3389	0.1264	89	6.25%	0.7745	7.6965	1.1642
2007 Total		8820	0.0745	1.7499	0.1514	8388	95.10%	0.0500	1.3664	0.1125	432	4.90%	0.5510	9.1962	0.9066
2008	LDGV	2690	0.0856	1.8380	0.1664	2563	95.28%	0.0475	1.4006	0.1023	127	4.72%	0.8549	10.6647	1.4599
	LDGT1	2163	0.0566	1.7983	0.1358	2052	94.87%	0.0424	1.4824	0.1064	111	5.13%	0.3181	7.6374	0.6790
	LDGT2	1085	0.0742	2.2692	0.1465	1007	92.81%	0.0620	1.7865	0.1193	78	7.19%	0.2312	8.5006	0.4983
2008 Total		5938	0.0730	1.9023	0.1516	5622	94.68%	0.0483	1.4996	0.1068	316	5.32%	0.5124	9.0671	0.9483
2009	LDGV	1402	0.0840	1.6798	0.1324	1359	96.93%	0.0464	1.3696	0.0970	43	3.07%	1.2725	11.4840	1.2525
	LDGT1	826	0.0512	1.6865	0.1344	790	95.64%	0.0392	1.4704	0.1071	36	4.36%	0.3142	6.4280	0.7352
	LDGT2	461	0.0665	1.6211	0.1258	434	94.14%	0.0511	1.4143	0.0915	27	5.86%	0.3138	4.9453	0.6783
2009 Total		2689	0.0709	1.6718	0.1319	2583	96.06%	0.0450	1.4080	0.0991	106	3.94%	0.7028	8.1014	0.9305
2010	LDGV	2357	0.0833	1.7703	0.1341	2236	94.87%	0.0402	1.2862	0.0729	121	5.13%	0.8801	10.7163	1.2637
	LDGT1	1965	0.0353	1.3067	0.0750	1891	96.23%	0.0300	1.0969	0.0659	74	3.77%	0.1705	6.6671	0.3073
	LDGT2	997	0.0518	1.3932	0.1090	954	95.69%	0.0420	1.2620	0.0827	43	4.31%	0.2705	4.3049	0.6941
2010 Total		5319	0.0597	1.5283	0.1076	5081	95.53%	0.0367	1.2112	0.0722	238	4.47%	0.5493	8.2989	0.8635
2011	LDGV	500	0.0734	1.8919	0.1434	476	95.20%	0.0382	1.6156	0.0768	24	4.80%	0.7705	7.3711	1.4644
	LDGT1	351	0.0416	1.5686	0.0800	335	95.44%	0.0419	1.5491	0.0809	16	4.56%	0.0364	1.9772	0.0609
	LDGT2	226	0.0540	1.2068	0.0839	207	91.59%	0.0368	0.8523	0.0575	19	8.41%	0.2417	5.0688	0.3716
2011 Total		1077	0.0590	1.6428	0.1103	1018	94.52%	0.0391	1.4385	0.0743	59	5.48%	0.4011	5.1669	0.7319
2012	LDGV	339	0.0634	1.7788	0.1349	318	93.81%	0.0374	1.5491	0.0789	21	6.19%	0.4574	5.2574	0.9827
	LDGT1	130	0.0387	1.8775	0.0784	124	95.38%	0.0379	1.6651	0.0749	6	4.62%	0.0547	6.2684	0.1504
	LDGT2	89	0.0476	1.1536	0.1087	81	91.01%	0.0353	0.7711	0.0576	8	8.99%	0.1722	5.0267	0.6255
2012 Total		558	0.0552	1.7021	0.1175	523	93.73%	0.0372	1.4561	0.0747	35	6.27%	0.3232	5.3780	0.7584
2013	LDGV	243	0.0726	1.7069	0.1592	230	94.65%	0.0394	1.3210	0.0763	13	5.35%	0.6601	8.5349	1.6276

Vehicle		All Initial Inspections				Passing Initial Inspections					Failing Initial Inspections				
Year	Type	Total	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)
	LDGT1	51	0.0361	2.0511	0.0424	48	94.12%	0.0342	1.7424	0.0420	3	5.88%	0.0666	6.9899	0.0490
	LDGT2	55	0.0877	1.4268	0.2318	49	89.09%	0.0387	1.0174	0.0719	6	10.91%	0.4879	4.7702	1.5380
2013 Total		349	0.0696	1.7130	0.1536	327	93.70%	0.0385	1.3373	0.0706	22	6.30%	0.5322	7.2975	1.3879
2014	LDGV	102	0.0556	1.6536	0.1297	98	96.08%	0.0265	1.3152	0.0617	4	3.92%	0.7682	9.9456	1.7970
	LDGT1	36	0.0280	1.8362	0.0610	36	100.00%	0.0280	1.8362	0.0610	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	19	0.0417	0.8055	0.0552	19	100.00%	0.0417	0.8055	0.0552	0	0.00%	0.0000	0.0000	0.0000
2014 Total		157	0.0476	1.5928	0.1049	153	97.45%	0.0287	1.3745	0.0607	4	2.55%	0.7682	9.9456	1.7970
2015	LDGV	51	0.0258	0.9737	0.0529	50	98.04%	0.0260	0.9813	0.0531	1	1.96%	0.0137	0.5949	0.0425
	LDGT1	22	0.0246	1.2399	0.0527	22	100.00%	0.0246	1.2399	0.0527	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	7	0.0669	1.0700	0.0515	7	100.00%	0.0669	1.0700	0.0515	0	0.00%	0.0000	0.0000	0.0000
2015 Total		80	0.0291	1.0553	0.0527	79	98.75%	0.0292	1.0612	0.0529	1	1.25%	0.0137	0.5949	0.0425
2016	LDGV	22	0.0184	0.8613	0.0588	21	95.45%	0.0179	0.7910	0.0616	1	4.55%	0.0280	2.3374	0.0000
	LDGT1	7	0.0147	0.5591	0.0418	7	100.00%	0.0147	0.5591	0.0418	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	2	0.0487	1.1481	0.0330	2	100.00%	0.0487	1.1481	0.0330	0	0.00%	0.0000	0.0000	0.0000
2016 Total		31	0.0195	0.8116	0.0533	30	96.77%	0.0192	0.7607	0.0550	1	3.23%	0.0280	2.3374	0.0000
2017	LDGV	3	0.0194	0.5582	0.4601	3	100.00%	0.0194	0.5582	0.4601	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	2	0.0174	0.4769	0.0571	2	100.00%	0.0174	0.4769	0.0571	0	0.00%	0.0000	0.0000	0.0000
2017 Total		5	0.0186	0.5257	0.2989	5	100.00%	0.0186	0.5257	0.2989	0	0.00%	0.0000	0.0000	0.0000
Overall Total		567944	0.2978	4.1960	0.6538	516680	90.97%	0.2131	3.1094	0.5577	51264	9.03%	1.1514	15.1478	1.6230

Summary by Vehicle Type (V1.01)

Vehicle Type	All Initial Inspections				Passing Initial Inspections					Failing Initial Inspections				
	Total	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)
LDGV	263681	0.2370	3.4995	0.5174	242203	91.85%	0.1703	2.6635	0.4464	21478	8.15%	0.9895	12.9262	1.3173
LDGT1	214321	0.3110	4.5692	0.7165	195080	91.02%	0.2326	3.4184	0.6192	19241	8.98%	1.1058	16.2375	1.7037
LDGT2	89942	0.4447	5.3486	0.9045	79397	88.28%	0.2960	3.7103	0.7459	10545	11.72%	1.5645	17.6845	2.0985
Overall Total	567944	0.2978	4.1960	0.6538	516680	90.97%	0.2131	3.1094	0.5577	51264	9.03%	1.1514	15.1478	1.6230

Appendix B2

I/M240 Initial Failure Report

Date

Between 1/1/2017 and 12/31/2017

Initial Failure Report (V1.03)

Vehicle		Failure for Both Exhaust and Other					Failure for Exhaust Only					Failure for Other				
Year	Type	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx (gpm)	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
1982	LDGT1	6	3.47%	6.2545	124.3812	2.0178	25	14.45%	7.6488	122.7264	2.2493	28	16.18%	2.2828	24.9140	3.4126
	LDGT2	3	6.12%	8.4941	177.1593	2.0723	9	18.37%	4.7937	108.8488	3.3596	3	6.12%	2.3796	36.8232	4.0096
	LDGV	5	2.50%	6.6348	94.2740	2.7009	22	11.00%	5.3259	66.5123	1.8320	16	8.00%	1.9370	21.8398	2.3540
1982 Total		14	3.32%	6.8702	124.9382	2.2735	56	13.27%	6.2774	98.4120	2.2638	47	11.14%	2.1713	24.6276	3.0903
1983	LDGT1	14	5.17%	6.7123	120.7229	1.3812	26	9.59%	5.3611	104.7846	2.2248	34	12.55%	3.0988	30.7593	2.8933
	LDGT2	9	7.38%	5.5130	92.7179	3.6324	30	24.59%	6.7324	100.6394	3.1261	10	8.20%	2.9691	34.1208	2.1362
	LDGV	10	3.36%	4.0846	90.7673	1.1301	38	12.75%	4.5096	66.3754	1.7909	24	8.05%	1.4258	14.2883	1.9980
1983 Total		33	4.78%	5.5889	104.0077	1.9191	94	13.60%	5.4545	87.9345	2.3370	68	9.84%	2.4893	25.4403	2.4659
1984	LDGT1	31	6.72%	8.5353	108.4740	2.1768	44	9.54%	5.0067	86.1088	1.9568	50	10.85%	1.9488	22.6361	2.8219
	LDGT2	9	5.66%	13.5152	175.0775	1.9111	34	21.38%	3.9718	91.4933	2.7228	20	12.58%	2.7702	29.3504	2.8819
	LDGV	17	3.76%	5.6887	87.1415	1.9703	50	11.06%	4.5071	64.5261	1.9165	36	7.96%	1.1839	12.0946	2.1012
1984 Total		57	5.32%	8.4726	112.6280	2.0733	128	11.94%	4.5367	79.1083	2.1445	106	9.89%	1.8440	20.3228	2.5884
1985	LDGT1	22	3.09%	6.4956	88.3006	3.0940	85	11.94%	4.7696	77.7108	2.7090	70	9.83%	1.7837	19.0204	2.7030
	LDGT2	19	8.33%	7.0227	103.5088	3.0011	41	17.98%	4.4390	97.9545	2.2572	26	11.40%	2.0943	25.5506	3.2767
	LDGV	18	2.39%	4.1754	46.6284	1.9560	92	12.23%	3.1095	42.5033	1.9583	32	4.26%	1.1407	11.2837	1.9969
1985 Total		59	3.49%	5.9575	80.4846	2.7169	218	12.88%	4.0068	66.6599	2.3072	128	7.57%	1.6860	18.4127	2.6430
1986	LDGT1	29	3.41%	5.9141	105.2889	1.6684	90	10.58%	4.2711	67.3379	2.6371	69	8.11%	1.7536	16.2848	2.5283
	LDGT2	12	4.94%	4.7401	87.2068	3.6327	61	25.10%	4.8376	75.4393	3.0261	25	10.29%	1.8616	19.9533	2.1797
	LDGV	18	2.18%	5.7463	72.2102	1.4323	97	11.77%	3.7316	45.4779	2.0894	42	5.10%	1.0930	8.1931	1.9224
1986 Total		59	3.08%	5.6241	91.5194	1.9959	248	12.93%	4.1994	60.7805	2.5186	136	7.09%	1.5695	14.4602	2.2771
1987	LDGT1	17	1.52%	4.0570	66.9466	2.1982	125	11.18%	4.2477	49.7986	2.4928	74	6.62%	1.7722	14.9113	2.6418
	LDGT2	12	3.68%	7.0907	86.7652	2.6551	49	15.03%	3.6911	52.2985	3.6458	31	9.51%	1.9860	13.0952	3.0229
	LDGV	9	0.81%	5.9436	103.4743	0.8685	110	9.88%	2.9377	33.3636	2.3228	55	4.94%	0.8932	8.2132	1.8715
1987 Total		38	1.49%	5.4618	81.8564	2.0276	284	11.11%	3.6443	43.8643	2.6259	160	6.26%	1.5115	12.2570	2.4509
1988	LDGT1	26	2.22%	3.9764	65.2875	2.4078	121	10.32%	3.7442	51.1161	2.7766	77	6.57%	1.3935	11.6056	2.4274
	LDGT2	14	3.26%	9.1295	69.6226	4.2566	71	16.51%	3.7502	41.2606	3.3584	36	8.37%	1.3242	13.4328	2.0709
	LDGV	22	1.95%	4.2343	53.2694	2.1811	132	11.67%	2.9184	36.3862	2.1443	51	4.51%	0.8427	8.4603	1.6205
1988 Total		62	2.27%	5.2315	62.0019	2.7448	324	11.86%	3.4091	42.9553	2.6465	164	6.00%	1.2070	11.0286	2.0983
1989	LDGT1	40	2.23%	4.2799	58.0758	2.9149	189	10.53%	3.5311	48.3691	2.8664	111	6.18%	1.2692	12.3589	2.4539
	LDGT2	10	1.45%	5.1915	40.2778	3.6005	83	11.99%	4.1761	34.4526	3.6068	47	6.79%	1.6065	12.6852	3.0520
	LDGV	15	0.83%	3.0436	31.4589	2.2450	148	8.22%	3.0846	38.7478	2.0477	89	4.94%	0.8164	8.2335	1.6016
1989 Total		65	1.52%	4.1349	49.1953	2.8658	420	9.79%	3.5012	42.2286	2.7242	247	5.76%	1.1702	10.9345	2.2606
1990	LDGT1	32	2.06%	3.3938	40.6724	3.9058	147	9.45%	3.8306	46.9985	2.7415	123	7.90%	1.3008	11.3304	2.3154
	LDGT2	15	2.23%	5.5719	36.8800	3.2896	80	11.87%	4.4112	45.8136	3.7287	56	8.31%	1.4788	13.0227	2.7315
	LDGV	21	0.96%	3.3126	24.9337	2.6081	184	8.41%	2.8868	42.1537	2.2868	104	4.75%	0.7836	8.1471	1.6325
1990 Total		68	1.54%	3.8492	34.9754	3.3691	411	9.30%	3.5211	44.5989	2.7301	283	6.40%	1.1459	10.4954	2.1468
1991	LDGT1	28	1.14%	3.2656	56.4648	2.4475	212	8.65%	3.3058	40.2921	2.7194	133	5.42%	1.0568	11.4775	1.8988
	LDGT2	11	1.48%	2.8122	28.3399	2.8739	99	13.34%	4.3516	40.0231	3.4612	55	7.41%	1.4501	14.8459	2.6416
	LDGV	42	1.25%	2.3795	23.1141	2.7614	278	8.25%	2.8069	36.1477	2.3872	140	4.16%	0.6307	6.8520	1.4711
1991 Total		81	1.23%	2.7446	35.3524	2.6682	589	8.98%	3.2461	38.2908	2.6873	328	5.00%	0.9409	10.0681	1.8408
1992	LDGT1	26	1.22%	3.7180	44.9029	3.0850	183	8.58%	3.2620	40.3818	2.7814	139	6.52%	1.1064	10.8059	2.0036

Vehicle		Failure for Both Exhaust and Other						Failure for Exhaust Only						Failure for Other				
Year	Type	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx (gpm)	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)		
	LDGT2	27	2.49%	5.7591	30.6768	3.4043	143	13.19%	4.0278	37.7603	3.3138	77	7.10%	1.4094	13.8032	2.4607		
	LDGV	31	0.93%	2.9746	28.7638	2.4899	315	9.47%	2.1274	30.7545	2.0196	131	3.94%	0.5793	5.8590	1.5265		
1992 Total		84	1.28%	4.0997	34.3741	2.9680	641	9.80%	2.8753	35.0659	2.5258	347	5.30%	0.9746	9.6035	1.9249		
1993	LDGT1	34	0.90%	3.1844	38.9375	4.1436	264	7.02%	3.0741	37.7524	3.0002	198	5.26%	1.0012	9.9034	2.0305		
	LDGT2	28	1.90%	2.6807	32.0514	4.3513	218	14.82%	3.5796	31.4979	3.4580	95	6.46%	1.3291	13.5315	2.3143		
	LDGV	33	0.74%	2.7036	32.2306	2.6543	373	8.34%	2.0510	29.6057	2.1693	149	3.33%	0.6166	5.8890	1.5836		
1993 Total		95	0.98%	2.8689	34.5781	3.6875	855	8.81%	2.7566	32.6036	2.7544	442	4.55%	0.9420	9.3300	1.9408		
1994	LDGT1	33	0.75%	4.7254	48.7846	3.8322	407	9.30%	2.9234	34.1346	2.9212	239	5.46%	0.8339	8.6745	1.8817		
	LDGT2	50	2.04%	3.8146	43.8469	3.3097	425	17.33%	2.8021	28.1102	3.1766	154	6.28%	0.8974	9.9611	1.9808		
	LDGV	36	0.68%	2.8408	26.8862	2.2416	407	7.72%	2.3765	24.5742	1.9895	178	3.38%	0.4644	5.5512	1.2259		
1994 Total		119	0.98%	3.7726	40.0852	3.1315	1,239	10.24%	2.7021	28.9276	2.7027	571	4.72%	0.7358	8.0478	1.7040		
1995	LDGT1	60	1.10%	3.2769	29.8394	3.7137	478	8.80%	2.2609	29.6529	3.1730	304	5.60%	0.7024	7.5442	1.8419		
	LDGT2	44	1.28%	2.8578	27.1415	3.5559	452	13.17%	2.7517	28.1725	3.3451	213	6.21%	0.9945	10.3040	2.1223		
	LDGV	42	0.54%	2.1860	15.6048	2.7913	538	6.92%	1.8688	21.5520	2.0173	305	3.93%	0.4349	4.8490	1.0831		
1995 Total		146	0.88%	2.8368	24.9314	3.4008	1,468	8.83%	2.2683	26.2282	2.8024	822	4.94%	0.6788	7.2593	1.6330		
1996	LDGT1	37	0.68%	1.4894	17.3379	3.0936	373	6.83%	1.6404	23.7896	2.9848	390	7.14%	0.3837	5.4007	1.5041		
	LDGT2	25	0.88%	5.5750	27.6129	2.7907	238	8.34%	2.7420	25.4601	2.8251	181	6.34%	0.5007	6.2061	1.3559		
	LDGV	32	0.40%	2.3132	22.9120	2.1418	441	5.54%	1.5948	20.8835	1.8758	305	3.83%	0.3384	4.3154	0.9038		
1996 Total		94	0.58%	2.8564	21.9682	2.6890	1,052	6.46%	1.8705	22.9493	2.4838	876	5.38%	0.3921	5.1893	1.2645		
1997	LDGT1	69	0.69%	2.1404	18.8276	3.2178	689	6.89%	1.4618	22.4399	2.8611	579	5.79%	0.3906	5.4288	1.2863		
	LDGT2	53	1.25%	2.3999	22.0180	3.1358	368	8.71%	1.8370	21.1844	3.1333	200	4.73%	0.4719	5.6472	1.4117		
	LDGV	53	0.45%	1.5616	18.6161	2.1651	611	5.23%	1.6130	21.7698	1.7942	529	4.53%	0.3444	4.2041	0.8041		
1997 Total		175	0.68%	2.0437	19.7298	2.8742	1,668	6.44%	1.6000	21.9175	2.5303	1,308	5.05%	0.3843	4.9669	1.1105		
1998	LDGT1	75	0.69%	2.2842	23.8073	3.1343	803	7.35%	1.1561	17.5760	2.8872	515	4.71%	0.3824	5.1638	1.1508		
	LDGT2	36	0.86%	2.5475	24.1572	3.3282	415	9.93%	1.8687	20.5413	2.9110	210	5.02%	0.3998	5.6891	1.3047		
	LDGV	61	0.48%	1.0876	17.9169	1.7515	777	6.10%	1.3514	19.5010	1.6654	576	4.52%	0.2525	3.7593	0.6445		
1998 Total		172	0.62%	1.9150	21.7915	2.6845	1,995	7.16%	1.3804	18.9425	2.4163	1,301	4.67%	0.3277	4.6268	0.9515		
1999	LDGT1	62	0.44%	1.8553	20.8810	2.9852	873	6.14%	1.1165	17.4430	2.5060	639	4.50%	0.2677	4.0015	0.8607		
	LDGT2	47	0.68%	1.2370	13.4063	3.1630	667	9.59%	1.8995	20.7362	2.6310	282	4.05%	0.3240	4.0451	1.0011		
	LDGV	38	0.22%	0.9888	12.0334	1.8217	852	5.02%	1.2959	17.8623	1.7903	700	4.13%	0.2336	3.4230	0.6088		
1999 Total		147	0.39%	1.4336	16.2040	2.7413	2,392	6.27%	1.3987	18.5107	2.2859	1,621	4.25%	0.2628	3.7593	0.7763		
2000	LDGT1	56	0.39%	1.6105	26.5687	2.6326	853	5.91%	0.9981	18.0274	2.5154	730	5.06%	0.2412	3.3256	0.7792		
	LDGT2	31	0.53%	1.4702	23.9301	2.5610	391	6.67%	1.4823	19.7023	2.5977	277	4.73%	0.2473	3.5145	0.7966		
	LDGV	50	0.26%	1.5011	15.7981	2.1366	1,055	5.44%	1.3407	17.3833	1.9614	715	3.69%	0.1765	2.7914	0.5153		
2000 Total		137	0.35%	1.5388	22.0407	2.4353	2,299	5.79%	1.2377	18.0167	2.2752	1,722	4.34%	0.2153	3.1342	0.6724		
2001	LDGT1	42	0.24%	0.9774	22.4299	2.5062	529	2.98%	1.3401	23.1495	2.1553	939	5.30%	0.1605	2.9184	0.5214		
	LDGT2	24	0.30%	1.1027	12.9123	2.6107	346	4.27%	1.5347	14.0545	2.7062	455	5.62%	0.2341	3.0582	0.6488		
	LDGV	44	0.19%	1.2615	13.5014	1.9937	844	3.66%	1.3052	18.1351	2.0170	877	3.81%	0.1214	2.3559	0.3464		
2001 Total		110	0.23%	1.1184	16.7819	2.3240	1,719	3.52%	1.3621	18.8569	2.1983	2,271	4.65%	0.1601	2.7292	0.4793		
2002	LDGT1	40	0.22%	1.5018	23.1303	2.4401	626	3.48%	1.2596	25.5890	2.2252	848	4.72%	0.1215	3.0433	0.4242		
	LDGT2	27	0.41%	1.0419	13.5438	3.5120	308	4.69%	1.2426	15.9694	2.6854	391	5.95%	0.2294	3.0847	0.6975		
	LDGV	46	0.20%	1.1230	14.0649	2.2573	799	3.52%	1.1418	16.0232	2.3347	1,065	4.69%	0.1076	2.6375	0.3086		
2002 Total		113	0.24%	1.2377	17.1494	2.6218	1,733	3.67%	1.2023	19.4690	2.3575	2,304	4.88%	0.1334	2.8627	0.4172		
2003	LDGT1	28	0.13%	1.1799	23.1041	3.2644	427	1.99%	1.2940	27.3767	2.1275	1,017	4.75%	0.1078	2.0950	0.3533		

Vehicle		Failure for Both Exhaust and Other					Failure for Exhaust Only					Failure for Other				
Year	Type	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx (gpm)	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
	LDGT2	26	0.30%	3.1119	31.3606	2.6007	253	2.91%	1.7236	25.8902	2.5290	437	5.02%	0.1859	2.6873	0.5179
	LDGV	34	0.13%	0.9057	12.3491	2.4622	658	2.46%	1.3735	16.5663	2.2355	1,102	4.12%	0.0903	1.7560	0.2512
2003 Total		88	0.15%	1.6448	21.3882	2.7584	1,338	2.35%	1.4143	21.7793	2.2565	2,556	4.49%	0.1136	2.0501	0.3375
2004	LDGT1	19	0.09%	0.8406	17.9849	3.5522	401	2.00%	1.2551	27.1384	2.1305	936	4.67%	0.0924	1.9209	0.2349
	LDGT2	20	0.23%	5.1231	16.4804	2.7344	202	2.33%	1.2892	20.8981	2.9487	459	5.30%	0.1232	2.0078	0.2877
	LDGV	27	0.12%	3.1143	18.3927	2.6330	506	2.28%	1.4052	17.7246	2.2308	955	4.30%	0.0737	1.5502	0.2082
2004 Total		66	0.13%	3.0685	17.6958	2.9283	1,109	2.18%	1.3298	21.7066	2.3253	2,350	4.62%	0.0908	1.7872	0.2344
2005	LDGT1	6	0.02%	0.6043	9.7151	3.7252	215	0.79%	0.9161	18.1575	2.7682	845	3.11%	0.0778	1.5364	0.1533
	LDGT2	9	0.10%	0.8203	13.1849	2.4296	209	2.40%	1.9207	25.3242	2.7415	295	3.38%	0.1138	1.8507	0.2594
	LDGV	29	0.10%	1.3864	14.5199	2.5093	416	1.41%	1.3684	17.2478	2.3392	1,220	4.12%	0.0507	1.1579	0.1481
2005 Total		44	0.07%	1.1640	13.5916	2.6588	840	1.28%	1.3901	19.4901	2.5491	2,360	3.60%	0.0683	1.3800	0.1639
2006	LDGT1	11	0.06%	1.7694	30.1086	2.9111	123	0.62%	0.7896	19.8350	2.5677	597	3.00%	0.0630	1.4736	0.1392
	LDGT2	9	0.10%	1.5293	12.5679	2.6601	140	1.62%	1.4807	23.1358	3.0228	338	3.92%	0.0895	1.1393	0.1522
	LDGV	14	0.05%	1.3227	27.2551	2.2709	371	1.44%	1.3827	16.7585	2.4578	683	2.64%	0.0587	1.5491	0.1282
2006 Total		34	0.06%	1.5219	24.2905	2.5810	634	1.17%	1.2893	18.7636	2.6039	1,618	2.98%	0.0667	1.4357	0.1373
2007	LDGT1	1	0.03%	0.3868	2.4530	4.5926	39	1.20%	1.5184	35.8519	1.6958	120	3.68%	0.0492	1.6974	0.1283
	LDGT2	3	0.21%	0.8913	20.5580	3.4915	27	1.90%	2.2720	19.8256	3.0948	59	4.14%	0.0832	1.4920	0.1623
	LDGV	3	0.07%	1.0267	11.0404	3.6822	76	1.84%	1.2677	19.1487	2.3529	104	2.51%	0.0402	1.8749	0.1159
2007 Total		7	0.08%	0.8773	13.8926	3.7305	142	1.61%	1.5275	23.8649	2.3135	283	3.21%	0.0530	1.7198	0.1308
2008	LDGT1	1	0.05%	0.6484	9.1843	2.0932	29	1.34%	1.0743	24.7574	2.2525	81	3.74%	0.0432	1.4889	0.0982
	LDGT2	2	0.18%	0.1564	21.3577	0.3131	20	1.84%	0.7161	27.3567	1.5777	56	5.16%	0.0607	1.3071	0.1194
	LDGV	3	0.11%	2.0293	23.8582	6.7398	55	2.04%	1.7930	21.0720	2.8875	69	2.57%	0.0561	1.7953	0.0925
2008 Total		6	0.10%	1.1748	20.5791	3.8231	104	1.75%	1.3855	23.3083	2.4585	206	3.47%	0.0523	1.5421	0.1021
2009	LDGT1	0	0.00%	0.0000	0.0000	0.0000	8	0.97%	1.2752	21.2861	2.9743	28	3.39%	0.0396	2.1829	0.0954
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	5	1.08%	1.4007	17.7765	3.0805	22	4.77%	0.0668	2.0292	0.1323
	LDGV	1	0.07%	4.1444	9.4715	3.7601	22	1.57%	2.2549	19.7758	2.1439	20	1.43%	0.0483	2.4636	0.1466
2009 Total		1	0.04%	4.1444	9.4715	3.7601	35	1.30%	1.9090	19.8354	2.4675	70	2.60%	0.0506	2.2148	0.1216
2010	LDGT1	1	0.05%	0.2427	11.6823	3.0045	8	0.41%	1.2100	50.9800	1.7041	65	3.31%	0.0414	1.1360	0.0939
	LDGT2	1	0.10%	1.5318	19.0480	5.1564	10	1.00%	0.8764	12.8109	2.1226	32	3.21%	0.0418	1.1860	0.1083
	LDGV	3	0.13%	0.9196	16.3168	2.0616	60	2.55%	1.6455	19.1305	2.2979	58	2.46%	0.0862	1.7223	0.1526
2010 Total		5	0.09%	0.9067	15.9361	2.8691	78	1.47%	1.5022	21.5869	2.2145	155	2.91%	0.0583	1.3657	0.1189
2011	LDGT1	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	16	4.56%	0.0364	1.9772	0.0609
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	2	0.88%	1.9536	33.5468	2.9515	17	7.52%	0.0403	1.7185	0.0681
	LDGV	0	0.00%	0.0000	0.0000	0.0000	10	2.00%	1.7286	15.0067	3.2477	14	2.80%	0.0862	1.9171	0.1907
2011 Total		0	0.00%	0.0000	0.0000	0.0000	12	1.11%	1.7661	18.0967	3.1983	47	4.36%	0.0526	1.8657	0.1021
2012	LDGT1	0	0.00%	0.0000	0.0000	0.0000	1	0.77%	0.1581	26.5904	0.4389	5	3.85%	0.0340	2.2039	0.0927
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	1	1.12%	1.1857	34.5791	4.6039	7	7.87%	0.0274	0.8049	0.0572
	LDGV	0	0.00%	0.0000	0.0000	0.0000	6	1.77%	1.5524	14.8707	3.3260	15	4.42%	0.0195	1.4121	0.0454
2012 Total		0	0.00%	0.0000	0.0000	0.0000	8	1.43%	1.3323	18.7992	3.1248	27	4.84%	0.0242	1.4013	0.0572
2013	LDGT1	0	0.00%	0.0000	0.0000	0.0000	1	1.96%	0.1584	18.9653	0.0425	2	3.92%	0.0207	1.0022	0.0522
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	1	1.82%	2.8000	26.1558	9.0453	5	9.09%	0.0255	0.4931	0.0365
	LDGV	0	0.00%	0.0000	0.0000	0.0000	7	2.88%	1.2064	14.5168	2.9340	6	2.47%	0.0227	1.5559	0.1034
2013 Total		0	0.00%	0.0000	0.0000	0.0000	9	2.58%	1.2670	16.3043	3.2917	13	3.72%	0.0235	1.0620	0.0698
2014	LDGT1	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000

Vehicle		Failure for Both Exhaust and Other					Failure for Exhaust Only					Failure for Other				
Year	Type	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx (gpm)	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGV	0	0.00%	0.0000	0.0000	0.0000	2	1.96%	1.5130	18.2899	3.5548	2	1.96%	0.0234	1.6012	0.0393
2014 Total		0	0.00%	0.0000	0.0000	0.0000	2	1.27%	1.5130	18.2899	3.5548	2	1.27%	0.0234	1.6013	0.0394
2015	LDGT1	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGV	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	1	1.96%	0.0137	0.5949	0.0425
2015 Total		0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	1	1.25%	0.0137	0.5949	0.0425
2016	LDGT1	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGV	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	1	4.55%	0.0280	2.3374	0.0000
2016 Total		0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	1	3.23%	0.0280	2.3374	0.0000
2017	LDGT1	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGV	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2017 Total		0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
Grand Total		2,179	0.38%	2.9021	34.4017	2.7778	24,144	4.25%	1.8703	25.0069	2.4514	24,941	4.39%	0.3025	3.9216	0.7201

Initial Failure Report - Summary by Veh (V1.03)

Vehicle		Failure for Both Exhaust and Other					Failure for Exhaust Only					Failure for Other				
Type	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx (gpm)	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	
LDGT1	846	0.39%	3.0324	40.7862	2.9855	8,394	3.92%	1.8187	27.8350	2.6157	10,001	4.67%	0.3444	4.4270	0.8298	
LDGT2	576	0.64%	3.5400	35.8079	3.1710	5,398	6.00%	2.3147	26.5062	2.9476	4,571	5.08%	0.4297	4.9831	0.9605	
LDGV	757	0.29%	2.2711	26.1966	2.2464	10,352	3.93%	1.6804	21.9320	2.0596	10,369	3.93%	0.2061	2.9663	0.5084	
Grand Total	2,179	0.38%	2.9021	34.4017	2.7778	24,144	4.25%	1.8703	25.0069	2.4514	24,941	4.39%	0.3025	3.9216	0.7201	

Appendix B3

I/M240 Initial Exhaust Failure Report

Date

Between 1/1/2017 and 12/31/2017

Initial Exhaust Failure Report (V1.01)

Vehicle		HC Failures					CO Failures					NOX Failures				
Year	Type	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
1982	LDGV	18	66.67%	7.4679	88.4015	1.4338	18	66.67%	6.2851	94.8201	1.1036	4	14.81%	0.9317	9.3928	5.9063
	LDGT1	19	61.29%	9.0494	135.3587	1.8746	24	77.42%	7.4970	149.0721	1.4857	2	6.45%	2.6163	19.7641	8.5865
	LDGT2	6	50.00%	8.7264	158.2029	2.4282	10	83.33%	6.7161	149.7063	1.9521	2	16.67%	0.7326	7.0273	8.4662
1982 Total		43	61.43%	8.3423	118.8898	1.7673	52	74.29%	6.9273	130.4145	1.4431	8	11.43%	1.3031	11.3942	7.2163
1983	LDGV	20	41.67%	7.4461	102.4591	1.5264	44	91.67%	4.5961	76.4114	1.3627	4	8.33%	4.1133	39.5586	5.7698
	LDGT1	16	40.00%	9.2985	132.1062	1.6195	36	90.00%	5.8940	121.4265	1.3001	4	10.00%	4.6644	28.4204	8.7099
	LDGT2	12	30.77%	13.1366	93.6300	3.5425	29	74.36%	6.0743	120.5460	2.0773	8	20.51%	5.0603	50.1113	8.9471
1983 Total		48	37.80%	9.4862	110.1342	2.0614	109	85.83%	5.4181	103.0210	1.5322	16	12.60%	4.7246	42.0504	8.0934
1984	LDGV	40	59.70%	6.8579	90.5840	1.5555	52	77.61%	5.1698	86.4879	1.4366	6	8.96%	1.0680	16.2850	5.9667
	LDGT1	32	42.67%	10.9950	115.5129	1.9160	67	89.33%	6.7784	104.0664	1.5247	6	8.00%	2.6364	16.3206	7.9129
	LDGT2	13	30.23%	13.8201	176.8039	1.5604	35	81.40%	6.5777	131.2865	1.5421	8	18.60%	1.7552	14.8091	7.4437
1984 Total		85	45.95%	9.4802	113.1555	1.6920	154	83.24%	6.1896	104.3172	1.4989	20	10.81%	1.8134	15.7053	7.1414
1985	LDGV	56	50.91%	5.1302	53.9104	1.9045	83	75.45%	3.3167	53.5531	1.3076	12	10.91%	1.6218	9.8967	5.6481
	LDGT1	46	42.99%	8.1509	101.9975	2.3881	84	78.50%	5.3044	96.4915	1.8815	18	16.82%	2.6059	20.0791	7.6302
	LDGT2	29	48.33%	8.3709	128.5502	2.1140	55	91.67%	5.5344	107.3434	2.1005	5	8.33%	2.0949	18.1301	7.3668
1985 Total		131	47.29%	6.9083	87.3193	2.1207	222	80.14%	4.6182	83.1265	1.7212	35	12.64%	2.1955	16.3096	6.9130
1986	LDGV	64	55.65%	6.0818	65.8109	1.7401	88	76.52%	4.3611	61.7704	1.3649	18	15.65%	2.1592	16.2113	5.3460
	LDGT1	64	53.78%	6.6040	95.6771	2.1062	93	78.15%	4.7689	92.3321	1.5484	15	12.61%	2.7504	21.5343	7.3978
	LDGT2	34	46.58%	7.9017	90.8827	3.1692	55	75.34%	5.3685	96.4897	2.1186	14	19.18%	2.5607	21.0476	7.3921
1986 Total		162	52.77%	6.6700	82.8719	2.1847	236	76.87%	4.7566	81.9051	1.6129	47	15.31%	2.4675	19.3508	6.6103
1987	LDGV	50	42.02%	5.6944	54.4474	2.1087	84	70.59%	3.4630	50.1989	1.4319	28	23.53%	1.7275	12.7474	5.1019
	LDGT1	47	33.10%	8.9375	72.1872	1.9128	108	76.06%	4.6909	64.0381	1.5127	27	19.01%	1.9990	11.1339	6.4532
	LDGT2	30	49.18%	6.6168	81.6996	2.7536	39	63.93%	5.0395	84.5420	2.1972	16	26.23%	2.7620	15.4842	6.9362
1987 Total		127	39.44%	7.1125	67.4501	2.1885	231	71.74%	4.3032	62.4674	1.5989	71	22.05%	2.0639	12.7506	6.0291
1988	LDGV	89	57.79%	4.5439	49.6497	1.8890	100	64.94%	3.4936	54.3961	1.2640	31	20.13%	1.4514	9.1685	5.1445
	LDGT1	73	49.66%	5.8292	73.5172	2.1805	106	72.11%	4.1526	69.0104	1.9502	30	20.41%	1.9473	15.9264	6.0393
	LDGT2	42	49.41%	7.5606	60.6671	3.0172	52	61.18%	5.5031	66.9157	2.6672	26	30.59%	3.3591	20.3792	6.2785
1988 Total		204	52.85%	5.6249	60.4588	2.2256	258	66.84%	4.1694	62.9237	1.8288	87	22.54%	2.1925	14.8491	5.7920
1989	LDGV	96	58.90%	4.3823	44.1574	1.9243	99	60.74%	3.5302	55.5190	1.2244	35	21.47%	1.5641	13.2664	4.7190
	LDGT1	102	44.54%	6.0372	73.0227	2.1180	160	69.87%	4.1663	66.5347	1.9628	58	25.33%	1.8212	15.2577	6.0530
	LDGT2	44	47.31%	7.1511	44.3739	3.0003	49	52.69%	4.9392	54.6307	2.4953	34	36.56%	2.9399	14.4021	6.1618
1989 Total		242	49.90%	5.5832	56.3631	2.2016	308	63.51%	4.0848	61.1001	1.8102	127	26.19%	2.0499	14.4799	5.7145
1990	LDGV	114	55.61%	4.3534	51.2579	1.8353	117	57.07%	3.4570	63.4333	1.4118	68	33.17%	1.6437	12.0877	4.4288
	LDGT1	81	45.25%	6.1445	61.9089	2.3673	122	68.16%	4.2298	60.9994	1.9994	47	26.26%	1.9688	14.9021	6.2344
	LDGT2	43	45.26%	7.9403	65.6968	3.4013	61	64.21%	5.3504	61.5121	2.6924	34	35.79%	2.9243	20.5308	6.3369
1990 Total		238	49.69%	5.6110	57.4915	2.2993	300	62.63%	4.1563	62.0529	1.9111	149	31.11%	2.0385	14.9021	5.4337
1991	LDGV	231	72.19%	3.4446	39.1838	2.2337	149	46.56%	3.3199	61.8169	1.5781	101	31.56%	1.8736	12.7692	4.4384
	LDGT1	121	50.42%	5.1624	54.4282	2.3461	144	60.00%	3.8433	61.2206	1.4769	62	25.83%	1.7768	14.0866	5.8633
	LDGT2	54	49.09%	7.0370	54.7880	2.5762	56	50.91%	5.7378	63.4726	2.3815	41	37.27%	1.7469	15.7763	5.7460

Vehicle		HC Failures					CO Failures					NOx Failures				
Year	Type	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
1991 Total		406	60.60%	4.4344	45.8025	2.3128	349	52.09%	3.9238	61.8366	1.6652	204	30.45%	1.8187	13.7739	5.1342
1992	LDGV	188	54.34%	3.3166	39.5894	1.8497	216	62.43%	2.4034	43.9945	1.2887	87	25.14%	1.4385	9.4325	4.3936
	LDGT1	113	54.07%	4.7560	48.6516	2.5898	128	61.24%	3.7218	57.4786	1.8324	59	28.23%	2.2880	16.9271	5.5318
	LDGT2	92	54.12%	6.6617	46.6019	2.6175	98	57.65%	5.6402	52.6637	2.4561	59	34.71%	2.4661	17.3981	5.5617
1992 Total		393	54.21%	4.5135	43.8367	2.2423	442	60.97%	3.5029	49.8216	1.7050	205	28.28%	1.9787	13.8820	5.0574
1993	LDGV	212	52.22%	3.3360	39.9671	1.7930	237	58.37%	2.4882	45.5020	1.2975	119	29.31%	0.9837	8.8932	4.3965
	LDGT1	140	46.98%	4.9231	49.1334	2.7001	168	56.38%	3.6193	56.2238	1.7810	112	37.58%	2.0670	15.8084	5.4857
	LDGT2	136	55.28%	5.1556	39.9125	2.6340	108	43.90%	4.2895	51.0436	2.6271	96	39.02%	1.8557	17.4708	5.8335
1993 Total		488	51.37%	4.2984	42.5816	2.2876	513	54.00%	3.2378	50.1799	1.7358	327	34.42%	1.6108	13.7799	5.1914
1994	LDGV	281	63.43%	3.4615	30.2428	1.6441	242	54.63%	2.9386	39.2547	1.2564	128	28.89%	1.6806	9.8635	4.0294
	LDGT1	205	46.59%	5.2515	50.3662	2.6284	275	62.50%	3.8467	49.0605	2.1689	169	38.41%	1.8017	16.3604	5.0826
	LDGT2	255	53.68%	4.4229	35.9256	2.8694	283	59.58%	3.5247	40.8201	2.5199	186	39.16%	1.7807	16.9979	5.2809
1994 Total		741	54.57%	4.2876	37.7656	2.3381	800	58.91%	3.4581	43.1792	2.0171	483	35.57%	1.7615	14.8842	4.8799
1995	LDGV	313	53.97%	3.0328	28.7423	1.5868	256	44.14%	2.4758	39.5898	1.2484	255	43.97%	1.0261	8.4760	3.4937
	LDGT1	226	42.01%	4.2121	43.4221	2.8806	283	52.60%	3.0181	46.1324	2.0899	240	44.61%	1.6378	13.1093	5.1263
	LDGT2	262	52.82%	4.2133	34.2832	3.0705	306	61.69%	3.3177	36.8084	2.7450	211	42.54%	2.1588	18.0086	5.1665
1995 Total		801	49.63%	3.7517	34.6966	2.4372	845	52.35%	2.9623	40.7738	2.0722	706	43.74%	1.5726	12.9001	4.5487
1996	LDGV	211	44.61%	3.0195	32.2252	1.5270	194	41.01%	2.1588	42.7578	1.1158	246	52.01%	0.9813	8.8242	2.9245
	LDGT1	207	50.49%	2.6269	30.9130	3.0475	230	56.10%	1.9942	34.3080	2.3500	193	47.07%	1.2370	12.0065	4.6241
	LDGT2	167	63.50%	4.3629	31.8169	2.6675	166	63.12%	4.0513	35.2815	2.6556	96	36.50%	1.5212	14.0036	4.5112
1996 Total		585	51.05%	3.2641	31.6443	2.3906	590	51.48%	2.6271	37.3603	2.0302	535	46.68%	1.1704	10.9016	3.8224
1997	LDGV	284	42.77%	3.0135	31.9036	1.5404	319	48.04%	1.9017	37.4810	1.1471	314	47.29%	1.0067	9.3065	2.9826
	LDGT1	296	39.05%	3.0403	34.0771	2.8147	382	50.40%	2.0964	35.3214	2.1084	421	55.54%	0.9685	11.4601	4.1211
	LDGT2	217	51.54%	3.2058	28.7515	3.2461	234	55.58%	2.6646	31.3473	2.9214	237	56.29%	1.4718	13.8887	4.3611
1997 Total		797	43.24%	3.0758	31.8526	2.4781	935	50.73%	2.1722	35.0636	1.9839	972	52.74%	1.1035	11.3565	3.8118
1998	LDGV	295	35.20%	2.9106	32.8377	1.4081	364	43.44%	1.7205	36.4214	1.0404	487	58.11%	0.9116	9.1801	2.4281
	LDGT1	274	31.21%	3.0494	35.7805	2.8356	313	35.65%	2.2940	37.2032	2.2847	630	71.75%	0.7410	9.9900	3.5418
	LDGT2	187	41.46%	3.8707	33.6916	3.0293	214	47.45%	3.1623	34.2816	2.5892	310	68.74%	1.3936	13.4074	3.6531
1998 Total		756	34.89%	3.1984	34.1155	2.3265	891	41.12%	2.2683	36.1821	1.8495	1,427	65.85%	0.9410	10.4560	3.1859
1999	LDGV	311	34.94%	2.8477	30.5136	1.6036	315	35.39%	1.8471	38.3478	0.9484	556	62.47%	0.8413	8.1718	2.4858
	LDGT1	247	26.42%	3.3304	39.2563	2.5435	304	32.51%	2.4881	40.5326	1.7297	700	74.87%	0.7216	9.0284	3.1315
	LDGT2	252	35.29%	4.2786	37.3164	2.8135	275	38.52%	3.6747	40.3638	2.3355	536	75.07%	1.3514	11.7367	3.2176
1999 Total		810	31.90%	3.4401	35.2960	2.2666	894	35.21%	2.6273	39.7109	1.6408	1,792	70.58%	0.9471	9.5727	2.9569
2000	LDGV	356	32.22%	3.3208	31.5583	1.7454	366	33.12%	2.1559	39.3173	1.0516	742	67.15%	0.8285	8.5821	2.6520
	LDGT1	221	24.31%	3.0752	43.7216	2.2807	333	36.63%	1.9613	39.2129	1.7311	653	71.84%	0.6862	9.4770	3.1813
	LDGT2	125	29.62%	3.8935	44.3320	2.3649	132	31.28%	3.1362	46.4382	2.1987	330	78.20%	0.8853	10.7576	3.1020
2000 Total		702	28.82%	3.3455	37.6620	2.0243	831	34.11%	2.2337	40.4066	1.5061	1,725	70.81%	0.7855	9.3371	2.9385
2001	LDGV	283	31.87%	3.2080	33.1711	1.8801	307	34.57%	2.0146	39.7852	1.1373	604	68.02%	0.8562	8.4503	2.7397
	LDGT1	162	28.37%	3.6073	46.0988	1.8764	283	49.56%	1.9048	40.2803	1.0989	309	54.12%	0.9609	10.2921	3.5012
	LDGT2	103	27.84%	4.1827	23.6749	2.3382	104	28.11%	3.3539	29.7516	2.0800	286	77.30%	1.1080	10.8779	3.2922
2001 Total		548	29.96%	3.5092	35.2079	1.9651	694	37.94%	2.1705	38.4835	1.2629	1,199	65.55%	0.9432	9.5040	3.0678
2002	LDGV	258	30.53%	2.8023	30.6708	2.1315	259	30.65%	1.9404	38.1796	1.2194	610	72.19%	0.7460	8.1201	3.0244
	LDGT1	193	28.98%	3.3738	49.0656	1.8926	341	51.20%	1.7977	43.6133	1.0900	357	53.60%	0.6961	9.2541	3.6239

Vehicle		HC Failures					CO Failures					NOX Failures				
Year	Type	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
	LDGT2	91	27.16%	3.3170	29.2117	2.7205	105	31.34%	2.3598	34.8152	2.2899	258	77.01%	0.7694	9.7621	3.3199
2002 Total		542	29.36%	3.0922	36.9760	2.1453	705	38.19%	1.9339	40.3067	1.3163	1,225	66.36%	0.7364	8.7964	3.2613
2003	LDGV	234	33.82%	3.1802	27.5796	2.2470	219	31.65%	2.0184	38.2292	1.3547	498	71.97%	1.0164	8.9238	2.9420
	LDGT1	119	26.15%	3.7231	58.4280	2.2491	244	53.63%	1.8534	44.7214	1.1918	253	55.60%	1.1562	11.2869	3.4757
	LDGT2	100	35.84%	4.2339	52.8106	1.9809	112	40.14%	3.3081	53.6817	1.9540	191	68.46%	0.9616	11.6622	3.4845
2003 Total		453	31.77%	3.5554	41.2530	2.1888	575	40.32%	2.1996	43.9940	1.4023	942	66.06%	1.0428	10.1137	3.1953
2004	LDGV	178	33.40%	3.6432	31.9188	2.1417	186	34.90%	2.2615	39.8317	1.4582	369	69.23%	1.1712	8.9063	3.0763
	LDGT1	97	23.10%	3.9897	64.9956	1.8669	230	54.76%	1.7791	43.6762	1.0644	225	53.57%	0.8058	11.4917	3.6440
	LDGT2	65	29.28%	4.4559	43.4276	3.1596	87	39.19%	3.2250	40.3076	2.5146	175	78.83%	1.0336	12.9081	3.5635
2004 Total		340	28.94%	3.8974	43.5556	2.2579	503	42.81%	2.2076	41.6719	1.4608	769	65.45%	1.0330	10.5735	3.3533
2005	LDGV	167	37.53%	2.9133	26.1243	2.4976	170	38.20%	1.8148	34.2911	1.7259	314	70.56%	1.0315	10.0352	3.1847
	LDGT1	47	21.27%	2.6590	39.1191	2.6728	85	38.46%	1.2219	37.5473	1.3232	147	66.52%	0.7041	7.2735	3.9562
	LDGT2	75	34.40%	4.3121	44.5098	3.2794	112	51.38%	2.8956	38.8829	2.5468	161	73.85%	1.5494	15.4321	3.3435
2005 Total		289	32.69%	3.2350	33.0090	2.7290	367	41.52%	2.0073	36.4465	1.8832	622	70.36%	1.0882	10.7795	3.4081
2006	LDGV	142	36.88%	3.0608	28.9263	2.8442	147	38.18%	2.2542	35.0401	2.1348	289	75.06%	1.0347	10.7499	3.1385
	LDGT1	33	24.63%	2.4414	44.9002	3.0152	59	44.03%	1.3097	40.2053	1.6567	90	67.16%	0.7054	9.0558	3.6392
	LDGT2	53	35.57%	3.0765	37.2927	4.0904	85	57.05%	2.0710	32.3234	2.9603	115	77.18%	1.4144	15.6360	3.6758
2006 Total		228	34.13%	2.9748	33.1832	3.1586	291	43.56%	2.0092	35.2938	2.2790	494	73.95%	1.0631	11.5787	3.3548
2007	LDGV	30	37.97%	2.4481	24.2338	3.2491	33	41.77%	1.6307	34.4857	1.9809	55	69.62%	1.2913	11.3351	3.3017
	LDGT1	10	25.00%	4.4170	61.8300	2.9867	30	75.00%	1.7528	44.3097	1.3036	16	40.00%	1.0394	12.8483	3.7932
	LDGT2	12	40.00%	4.4822	24.3669	4.3565	18	60.00%	2.9743	26.7537	3.1198	23	76.67%	1.5222	14.6009	3.9644
2007 Total		52	34.90%	3.2961	31.4945	3.4542	81	54.36%	1.9745	36.4060	1.9832	94	63.09%	1.3049	12.3918	3.5475
2008	LDGV	30	51.72%	2.8702	28.6654	3.8106	34	58.62%	1.8260	29.7544	2.8115	42	72.41%	1.6447	16.0248	4.0744
	LDGT1	8	26.67%	3.2315	56.1507	2.5771	15	50.00%	1.6141	45.1101	1.4380	18	60.00%	0.5110	7.3281	3.3985
	LDGT2	5	22.73%	1.7938	50.2410	3.3792	20	90.91%	0.6338	28.5176	1.3062	6	27.27%	1.1901	19.5097	4.1584
2008 Total		43	39.09%	2.8122	36.2878	3.5310	69	62.73%	1.4344	32.7341	2.0766	66	60.00%	1.2942	13.9698	3.8977
2009	LDGV	9	39.13%	5.0313	17.8324	2.4904	13	56.52%	1.3892	29.5691	2.2379	14	60.87%	1.6383	17.3804	3.5970
	LDGT1	4	50.00%	2.1281	29.9020	4.0462	3	37.50%	1.8439	37.9502	2.2218	6	75.00%	1.1009	12.1436	3.7503
	LDGT2	2	40.00%	2.2418	23.2521	3.9555	4	80.00%	1.6109	19.9802	3.3362	4	80.00%	1.5296	18.0558	3.7181
2009 Total		15	41.67%	3.8852	21.7736	3.1006	20	55.56%	1.5018	28.9085	2.4551	24	66.67%	1.4859	16.1838	3.6555
2010	LDGV	29	46.03%	2.7353	27.4354	2.3194	26	41.27%	1.9661	33.5524	2.0669	47	74.60%	1.5911	14.1073	2.8837
	LDGT1	3	33.33%	2.2816	95.4242	2.3181	5	55.56%	1.6615	76.9247	1.4258	5	55.56%	0.6871	11.2462	3.2846
	LDGT2	4	36.36%	1.7486	14.1258	2.8557	6	54.55%	0.9045	18.4649	2.5370	8	72.73%	0.8626	13.6883	3.0776
2010 Total		36	43.37%	2.5879	31.6223	2.3789	37	44.58%	1.7528	36.9669	2.0565	60	72.29%	1.4186	13.8130	2.9430
2011	LDGV	7	70.00%	2.3073	17.3918	3.7701	6	60.00%	1.7545	18.2675	3.0300	9	90.00%	1.9187	15.0073	3.6070
	LDGT1	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	1	50.00%	2.8716	18.5410	5.7009	2	100.00%	1.9536	33.5468	2.9515	1	50.00%	2.8716	18.5410	5.7009
2011 Total		8	66.67%	2.3779	17.5354	4.0115	8	66.67%	1.8043	22.0873	3.0104	10	83.33%	2.0140	15.3607	3.8164
2012	LDGV	3	50.00%	2.5478	21.2340	4.0981	2	33.33%	3.2091	25.0635	4.4091	6	100.00%	1.5524	14.8707	3.3260
	LDGT1	0	0.00%	0.0000	0.0000	0.0000	1	100.00%	0.1581	26.5904	0.4389	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	1	100.00%	1.1857	34.5791	4.6039	1	100.00%	1.1857	34.5791	4.6039
2012 Total		3	37.50%	2.5478	21.2340	4.0981	4	50.00%	1.9405	27.8241	3.4653	7	87.50%	1.5000	17.6862	3.5085
2013	LDGV	4	57.14%	1.6879	15.8373	3.4412	3	42.86%	1.4083	19.6967	2.2431	6	85.71%	1.3157	13.1920	3.3702

Vehicle		HC Failures					CO Failures					NOX Failures				
Year	Type	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
	LDGT1	0	0.00%	0.0000	0.0000	0.0000	1	100.00%	0.1584	18.9653	0.0425	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	1	100.00%	2.8000	26.1558	9.0453	1	100.00%	2.8000	26.1558	9.0453	1	100.00%	2.8000	26.1558	9.0453
2013 Total		5	55.56%	1.9103	17.9010	4.5620	5	55.56%	1.4367	20.8422	3.1634	7	77.78%	1.5277	15.0440	4.1809
2014	LDGV	1	50.00%	1.8928	22.5975	1.4632	1	50.00%	1.8928	22.5975	1.4632	1	50.00%	1.1331	13.9823	5.6463
	LDGT1	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2014 Total		1	50.00%	1.8928	22.5975	1.4632	1	50.00%	1.8928	22.5975	1.4632	1	50.00%	1.1331	13.9823	5.6463
2015	LDGV	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2015 Total		0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2016	LDGV	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2016 Total		0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2017	LDGV	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2017 Total		0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
Grand Total		10,322	39.21%	3.9469	41.1856	2.3070	12,320	46.80%	2.8598	46.0260	1.7371	14,456	54.92%	1.1039	10.8107	3.5526

Summary by Vehicle Type (V1.01)

Vehicle Type	HC Failures					CO Failures					NOX Failures				
	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
LDGV	4,604	41.44%	3.3817	35.0070	1.8825	4,749	42.75%	2.4090	42.8814	1.2897	6,105	54.96%	1.0064	9.2162	3.0447
LDGT1	3,206	34.70%	4.1943	49.9556	2.4824	4,657	50.40%	2.8102	49.3556	1.7212	4,872	52.73%	1.0060	10.8935	3.9027
LDGT2	2,512	42.05%	4.6672	41.3167	2.8611	2,914	48.78%	3.6738	45.8298	2.4915	3,479	58.24%	1.4121	13.4929	3.9535
Grand Total	10,322	39.21%	3.9469	41.1856	2.3070	12,320	46.80%	2.8598	46.0260	1.7371	14,456	54.92%	1.1039	10.8107	3.5526

Appendix B4

I/M240 Initial Failure for Other Report

Date

Between 1/1/2017 and 12/31/2017

Initial Failure for Other Report (V1.03)

Vehicle		Visual Overall					CAT				AIS				O2				Gas Cap				Opacity			
Year	Type	Total	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %
1982	LDGT1	173	139	80.35	34	19.65	166	97.65	4	2.31	123	92.48	10	7.52	38	97.44	1	2.56	133	85.81	22	14.19	172	99.42	1	0.58
	LDGT2	49	43	87.76	6	12.24	46	97.87	1	2.04	40	95.24	2	4.76	3	75.00	1	25.00	42	95.45	2	4.55	49	100.00	0	0.00
	LDGV	200	179	89.50	21	10.50	194	97.49	5	2.50	116	94.31	7	5.69	156	98.73	2	1.27	162	94.19	10	5.81	200	100.00	0	0.00
1982 Total		422	361	85.55	61	14.45	406	97.60	10	2.37	279	93.62	19	6.38	197	98.01	4	1.99	337	90.84	34	9.16	421	99.76	1	0.24
1983	LDGT1	271	223	82.29	48	17.71	263	97.77	6	2.21	215	92.27	18	7.73	91	96.81	3	3.19	219	87.60	31	12.40	270	99.63	1	0.37
	LDGT2	122	103	84.43	19	15.57	119	100.00	0	0.00	107	96.40	4	3.60	24	92.31	2	7.69	104	88.89	13	11.11	122	100.00	0	0.00
	LDGV	298	264	88.59	34	11.41	287	96.96	9	3.02	158	92.40	13	7.60	233	98.73	3	1.27	239	91.92	21	8.08	296	99.33	2	0.67
1983 Total		691	590	85.38	101	14.62	669	97.81	15	2.17	480	93.20	35	6.80	348	97.75	8	2.25	562	89.63	65	10.37	688	99.57	3	0.43
1984	LDGT1	461	380	82.43	81	17.57	443	97.36	12	2.60	320	92.49	26	7.51	225	96.15	9	3.85	340	87.18	50	12.82	460	99.78	1	0.22
	LDGT2	159	130	81.76	29	18.24	152	96.20	6	3.77	137	91.33	13	8.67	30	100.00	0	0.00	133	86.36	21	13.64	159	100.00	0	0.00
	LDGV	452	399	88.27	53	11.73	446	98.89	5	1.11	256	95.17	13	4.83	398	98.51	6	1.49	390	91.55	36	8.45	449	99.34	3	0.66
1984 Total		1,072	909	84.79	163	15.21	1041	97.84	23	2.15	713	93.20	52	6.80	653	97.75	15	2.25	863	88.97	107	11.03	1068	99.63	4	0.37
1985	LDGT1	712	620	87.08	92	12.92	696	98.72	9	1.26	383	95.51	18	4.49	437	98.42	7	1.58	584	89.43	69	10.57	711	99.86	1	0.14
	LDGT2	228	183	80.26	45	19.74	222	97.37	6	2.63	202	93.52	14	6.48	56	90.32	6	9.68	191	86.82	29	13.18	227	99.56	1	0.44
	LDGV	752	702	93.35	50	6.65	741	98.93	8	1.06	383	96.23	15	3.77	663	99.25	5	0.75	682	95.65	31	4.35	750	99.73	2	0.27
1985 Total		1,692	1505	88.95	187	11.05	1659	98.63	23	1.36	968	95.37	47	4.63	1,156	98.47	18	1.53	1,457	91.87	129	8.13	1688	99.76	4	0.24
1986	LDGT1	851	753	88.48	98	11.52	837	98.59	12	1.41	447	94.50	26	5.50	623	99.36	4	0.64	729	90.90	73	9.10	850	99.88	1	0.12
	LDGT2	243	206	84.77	37	15.23	237	98.34	4	1.65	218	95.61	10	4.39	74	94.87	4	5.13	209	88.56	27	11.44	243	100.00	0	0.00
	LDGV	824	764	92.72	60	7.28	814	98.91	9	1.09	364	95.79	16	4.21	759	99.35	5	0.65	738	95.35	36	4.65	821	99.64	3	0.36
1986 Total		1,918	1723	89.83	195	10.17	1888	98.69	25	1.30	1029	95.19	52	4.81	1,456	99.12	13	0.88	1,676	92.49	136	7.51	1914	99.79	4	0.21
1987	LDGT1	1,118	1027	91.86	91	8.14	1108	99.46	6	0.54	487	96.63	17	3.37	906	99.23	7	0.77	979	93.51	68	6.49	1118	100.00	0	0.00
	LDGT2	326	283	86.81	43	13.19	322	99.38	2	0.61	298	96.75	10	3.25	238	100.00	0	0.00	291	90.09	32	9.91	325	99.69	1	0.31
	LDGV	1,113	1049	94.25	64	5.75	1105	99.37	7	0.63	427	99.07	4	0.93	1,060	99.72	3	0.28	1,004	95.44	48	4.56	1107	99.46	6	0.54
1987 Total		2,557	2359	92.26	198	7.74	2535	99.41	15	0.59	1212	97.51	31	2.49	2,204	99.55	10	0.45	2,274	93.89	148	6.11	2550	99.73	7	0.27
1988	LDGT1	1,172	1069	91.21	103	8.79	1165	99.40	7	0.60	625	97.20	18	2.80	1,087	99.36	7	0.64	1,079	93.58	74	6.42	1170	99.83	2	0.17
	LDGT2	430	380	88.37	50	11.63	424	99.07	4	0.93	388	97.98	8	2.02	381	99.22	3	0.78	387	90.85	39	9.15	428	99.53	2	0.47
	LDGV	1,131	1058	93.55	73	6.45	1122	99.29	8	0.71	389	97.49	10	2.51	1,092	99.54	5	0.46	1,028	95.10	53	4.90	1128	99.73	3	0.27
1988 Total		2,733	2507	91.73	226	8.27	2711	99.30	19	0.70	1402	97.50	36	2.50	2,560	99.42	15	0.58	2,494	93.76	166	6.24	2726	99.74	7	0.26
1989	LDGT1	1,795	1644	91.59	151	8.41	1782	99.39	11	0.61	777	97.25	22	2.75	1,676	99.11	15	0.89	1,646	93.58	113	6.42	1795	100.00	0	0.00
	LDGT2	692	635	91.76	57	8.24	688	99.57	3	0.43	348	98.03	7	1.97	634	99.53	3	0.47	644	93.06	48	6.94	691	99.86	1	0.14
	LDGV	1,801	1697	94.23	104	5.77	1792	99.61	7	0.39	524	98.50	8	1.50	1,741	99.83	3	0.17	1,657	94.90	89	5.10	1798	99.83	3	0.17
1989 Total		4,288	3976	92.72	312	7.28	4262	99.51	21	0.49	1649	97.81	37	2.19	4,051	99.48	21	0.52	3,947	94.04	250	5.96	4284	99.91	4	0.09
1990	LDGT1	1,556	1401	90.04	155	9.96	1542	99.23	12	0.77	699	96.68	24	3.32	1,507	99.67	5	0.33	1,392	91.94	122	8.06	1554	99.87	2	0.13
	LDGT2	674	603	89.47	71	10.53	664	98.81	8	1.19	328	97.62	8	2.38	668	99.85	1	0.15	610	91.04	60	8.96	673	99.85	1	0.15
	LDGV	2,189	2064	94.29	125	5.71	2178	99.63	8	0.37	378	98.95	4	1.05	2,177	99.86	3	0.14	2,045	94.98	108	5.02	2183	99.73	6	0.27
1990 Total		4,419	4068	92.06	351	7.94	4384	99.37	28	0.63	1405	97.50	36	2.50	4,352	99.79	9	0.21	4,047	93.31	290	6.69	4410	99.80	9	0.20
1991	LDGT1	2,452	2291	93.43	161	6.57	2440	99.67	8	0.33	839	99.17	7	0.83	2,434	99.79	5	0.21	2,269	94.07	143	5.93	2449	99.88	3	0.12
	LDGT2	742	676	91.11	66	8.89	734	99.19	6	0.81	337	99.12	3	0.88	736	99.59	3	0.41	684	92.31	57	7.69	742	100.00	0	0.00
	LDGV	3,368	3186	94.60	182	5.40	3341	99.35	22	0.65	430	99.54	2	0.46	3,350	99.76	8	0.24	3,171	95.60	146	4.40	3355	99.61	13	0.39
1991 Total		6,562	6153	93.77	409	6.23	6515	99.45	36	0.55	1606	99.26	12	0.74	6,520	99.76	16	0.24	6,124	94.65	346	5.35	6546	99.76	16	0.24
1992	LDGT1	2,132	1967	92.26	165	7.74	2130	99.91	2	0.09	671	99.26	5	0.74	2,124	99.72	6	0.28	1,976	92.73	155	7.27	2132	100.00	0	0.00
	LDGT2	1,084	980	90.41	104	9.59	1075	99.17	9	0.83	439	97.99	9	2.01	1,084	10										

Vehicle		Visual Overall					CAT				AIS				O2				Gas Cap				Opacity			
Year	Type	Total	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %
1995	LDGT1	5,430	5066	93.30	364	6.70	5402	99.50	27	0.50	866	99.31	6	0.69	5,420	99.89	6	0.11	5,072	93.98	325	6.02	5423	99.87	7	0.13
	LDGT2	3,431	3174	92.51	257	7.49	3411	99.45	19	0.55	1186	99.41	7	0.59	3,422	99.80	7	0.20	3,195	93.34	228	6.66	3426	99.85	5	0.15
	LDGV	7,769	7422	95.53	347	4.47	7745	99.70	23	0.30	635	97.99	13	2.01	7,752	99.81	15	0.19	7,406	96.21	292	3.79	7756	99.83	13	0.17
1995 Total		16,630	15662	94.18	968	5.82	16558	99.59	69	0.41	2687	99.04	26	0.96	16,594	99.83	28	0.17	15,673	94.88	845	5.12	16605	99.85	25	0.15
1996	LDGT1	5,465	5038	92.19	427	7.81	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5,041	92.29	421	7.71	5459	99.89	6	0.11
	LDGT2	2,854	2648	92.78	206	7.22	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,643	92.77	206	7.23	2854	100.00	0	0.00
	LDGV	7,964	7627	95.77	337	4.23	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7,582	95.83	330	4.17	7957	99.91	7	0.09
1996 Total		16,283	15313	94.04	970	5.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	15,266	94.10	957	5.90	16270	99.92	13	0.08
1997	LDGT1	9,993	9345	93.52	648	6.48	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	9,309	93.54	643	6.46	9988	99.95	5	0.05
	LDGT2	4,225	3972	94.01	253	5.99	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3,971	94.10	249	5.90	4221	99.91	4	0.09
	LDGV	11,676	11094	95.02	582	4.98	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	11,006	95.12	565	4.88	11658	99.85	18	0.15
1997 Total		25,894	24411	94.27	1483	5.73	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	24,286	94.34	1,457	5.66	25867	99.90	27	0.10
1998	LDGT1	10,931	10341	94.60	590	5.40	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	10,345	94.69	580	5.31	10921	99.91	10	0.09
	LDGT2	4,181	3935	94.12	246	5.88	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3,933	94.11	246	5.89	4180	99.98	1	0.02
	LDGV	12,748	12111	95.00	637	5.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	11,956	94.98	632	5.02	12741	99.95	7	0.05
1998 Total		27,860	26387	94.71	1473	5.29	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	26,234	94.73	1,458	5.27	27842	99.94	18	0.06
1999	LDGT1	14,207	13506	95.07	701	4.93	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	13,512	95.15	688	4.85	14191	99.89	16	0.11
	LDGT2	6,958	6629	95.27	329	4.73	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6,621	95.35	323	4.65	6952	99.91	6	0.09
	LDGV	16,958	16220	95.65	738	4.35	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	16,048	95.71	720	4.29	16940	99.89	18	0.11
1999 Total		38,123	36355	95.36	1768	4.64	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	36,181	95.43	1,731	4.57	38083	99.90	40	0.10
2000	LDGT1	14,433	13647	94.55	786	5.45	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	13,650	94.63	775	5.37	14421	99.92	12	0.08
	LDGT2	5,859	5551	94.74	308	5.26	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5,534	94.78	305	5.22	5856	99.95	3	0.05
	LDGV	19,389	18624	96.05	765	3.95	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	18,448	96.11	747	3.89	19369	99.90	20	0.10
2000 Total		39,681	37822	95.32	1859	4.68	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	37,632	95.37	1,827	4.63	39646	99.91	35	0.09
2001	LDGT1	17,730	16749	94.47	981	5.53	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	16,746	94.49	976	5.51	17723	99.96	7	0.04
	LDGT2	8,098	7619	94.08	479	5.92	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7,605	94.07	479	5.93	8098	100.00	0	0.00
	LDGV	23,035	22114	96.00	921	4.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	21,856	96.07	895	3.93	23007	99.88	28	0.12
2001 Total		48,863	46482	95.13	2381	4.87	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	46,207	95.16	2,350	4.84	48828	99.93	35	0.07
2002	LDGT1	17,970	17082	95.06	888	4.94	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	17,056	95.10	879	4.90	17961	99.95	9	0.05
	LDGT2	6,571	6153	93.64	418	6.36	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6,145	93.67	415	6.33	6567	99.94	4	0.06
	LDGV	22,711	21600	95.11	1111	4.89	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	21,332	95.13	1,093	4.87	22693	99.92	18	0.08
2002 Total		47,252	44835	94.88	2417	5.12	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	44,533	94.91	2,387	5.09	47221	99.93	31	0.07
2003	LDGT1	21,419	20374	95.12	1045	4.88	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	20,340	95.13	1,042	4.87	21416	99.99	3	0.01
	LDGT2	8,709	8246	94.68	463	5.32	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	8,234	94.71	460	5.29	8706	99.97	3	0.03
	LDGV	26,753	25617	95.75	1136	4.25	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	25,187	95.74	1,122	4.26	26739	99.95	14	0.05
2003 Total		56,881	54237	95.35	2644	4.65	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	53,761	95.35	2,624	4.65	56861	99.96	20	0.04
2004	LDGT1	20,050	19095	95.24	955	4.76	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	19,059	95.27	946	4.73	20040	99.95	10	0.05
	LDGT2	8,663	8184	94.47	479	5.53	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	8,173	94.57	469	5.43	8652	99.87	11	0.13
	LDGV	22,201	21219	95.58	982	4.42	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	20,902	95.53	978	4.47	22197	99.98	4	0.02
2004 Total		50,914	48498	95.25	2416	4.75	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	48,134	95.26	2,393	4.74	50889	99.95	25	0.05
2005	LDGT1	27,155	26304	96.87	851	3.13	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	26,264	96.87	848	3.13	27151	99.99	4	0.01
	LDGT2	8,725	8421	96.52	304	3.48	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	8,414	96.55	301	3.45	8722	99.97	3	0.03
	LDGV	29,605	28356	95.78	1249	4.22	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	27,925	95.75	1,241	4.25	29594	99.96	11	0.04
2005 Total		65,485	63081	96.33	2404	3.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	62,603	96.32	2,390	3.68	65467	99.97	18	0.03
2006	LDGT1	19,896	19288	96.94	608	3.06	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	19,264	96.96	605	3.04	19893	99.98	3	0.02
	LDGT2	8,630	8283	95.98	347	4.02	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	8,271	96.02	343	3.98	8626	99.95	4	0.05
	LDGV	25,823	25126	97.30	697	2.70	0	0.00	0	0.00	0	0.00	0	0.00	0											

Vehicle		Visual Overall					CAT				AIS				O2				Gas Cap				Opacity			
Year	Type	Total	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %
2009	LDGT1	826	798	96.61	28	3.39	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	752	96.66	26	3.34	824	99.76	2	0.24
	LDGT2	461	439	95.23	22	4.77	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	381	94.54	22	5.46	461	100.00	0	0.00
	LDGV	1,402	1381	98.50	21	1.50	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,363	98.55	20	1.45	1401	99.93	1	0.07
2009 Total		2,689	2618	97.36	71	2.64	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,496	97.35	68	2.65	2686	99.89	3	0.11
2010	LDGT1	1,965	1899	96.64	66	3.36	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,766	96.40	66	3.60	1965	100.00	0	0.00
	LDGT2	997	964	96.69	33	3.31	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	618	94.93	33	5.07	997	100.00	0	0.00
	LDGV	2,357	2296	97.41	61	2.59	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,069	97.32	57	2.68	2353	99.83	4	0.17
2010 Total		5,319	5159	96.99	160	3.01	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4,453	96.62	156	3.38	5315	99.92	4	0.08
2011	LDGT1	351	335	95.44	16	4.56	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	305	95.02	16	4.98	351	100.00	0	0.00
	LDGT2	226	209	92.48	17	7.52	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	161	90.96	16	9.04	225	99.56	1	0.44
	LDGV	500	486	97.20	14	2.80	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	411	96.93	13	3.07	499	99.80	1	0.20
2011 Total		1,077	1030	95.64	47	4.36	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	877	95.12	45	4.88	1075	99.81	2	0.19
2012	LDGT1	130	125	96.15	5	3.85	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	118	95.93	5	4.07	130	100.00	0	0.00
	LDGT2	89	82	92.13	7	7.87	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	64	90.14	7	9.86	89	100.00	0	0.00
	LDGV	339	324	95.58	15	4.42	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	275	94.83	15	5.17	339	100.00	0	0.00
2012 Total		558	531	95.16	27	4.84	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	457	94.42	27	5.58	558	100.00	0	0.00
2013	LDGT1	51	49	96.08	2	3.92	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	41	95.35	2	4.65	51	100.00	0	0.00
	LDGT2	55	50	90.91	5	9.09	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	30	85.71	5	14.29	55	100.00	0	0.00
	LDGV	243	237	97.53	6	2.47	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	197	97.04	6	2.96	243	100.00	0	0.00
2013 Total		349	336	96.28	13	3.72	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	268	95.37	13	4.63	349	100.00	0	0.00
2014	LDGT1	36	36	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	30	100.00	0	0.00	36	100.00	0	0.00
	LDGT2	19	19	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	12	100.00	0	0.00	19	100.00	0	0.00
	LDGV	102	100	98.04	2	1.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	91	97.85	2	2.15	102	100.00	0	0.00
2014 Total		157	155	98.73	2	1.27	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	133	98.52	2	1.48	157	100.00	0	0.00
2015	LDGT1	22	22	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	20	100.00	0	0.00	22	100.00	0	0.00
	LDGT2	7	7	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	100.00	0	0.00	7	100.00	0	0.00
	LDGV	51	50	98.04	1	1.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	42	97.67	1	2.33	51	100.00	0	0.00
2015 Total		80	79	98.75	1	1.25	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	69	98.57	1	1.43	80	100.00	0	0.00
2016	LDGT1	7	7	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	100.00	0	0.00	7	100.00	0	0.00
	LDGT2	2	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	100.00	0	0.00
	LDGV	22	21	95.45	1	4.55	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	18	94.74	1	5.26	22	100.00	0	0.00
2016 Total		31	30	96.77	1	3.23	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	25	96.15	1	3.85	31	100.00	0	0.00
2017	LDGT1	2	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	100.00	0	0.00	2	100.00	0	0.00
	LDGV	3	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	100.00	0	0.00	3	100.00	0	0.00
2017 Total		5	5	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	100.00	0	0.00	5	100.00	0	0.00
Grand Total		567,944	540824	95.22	27120	4.78	70866	99.46	386	0.07	19339	97.84	426	2.16	68,370	99.70	204	0.30	536,157	95.37	26,002	4.63	567527	99.93	417	0.07

Initial Failure for Other Report - Summary by Veh (V1.03)

Vehicle		Visual Overall					CAT				AIS				O2				Gas Cap				Opacity			
Type	Total	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	
LDGT1	214,321	203474	94.94	10847	5.06	26087	99.48	137	0.06	8549	97.70	201	2.30	24,689	99.66	84	0.34	202,869	95.11	10,437	4.89	214,208	99.95	113	0.05	
LDGT2	89,942	84795	94.28	5147	5.72	11986	99.19	98	0.11	5519	98.06	109	1.94	11,261	99.64	41	0.36	84,315	94.49	4,920	5.51	89,881	99.93	61	0.07	
LDGV	263,681	252555	95.78	11126	4.22	32793	99.54	151	0.06	5271	97.85	116	2.15	32,420	99.76	79	0.24	248,973	95.90	10,645	4.10	263,438	99.91	243	0.09	
Grand Total		567,944	540824	95.22	27120	4.78	70866	99.46	386	0.07	19339	97.84	426	2.16	68,370	99.70	204	0.30	536,157	95.37	26,002	4.63	567527	99.93	417	0.07

Appendix B5

I/M240 Retest Pass Reduction Report

Date

Between 1/1/2017 and 12/31/2017

Retest Pass Reduction Report (V1.01)

Vehicle		Initial Exhaust Emissions				Passing Retest Exhaust Emissions					Emission Reductions					Average Repair Costs	
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Avg HC(gpm)	Avg HC%(gpm)	Avg CO(gpm)	Avg CO%(gpm)	Avg NOx(gpm)	Avg NOx%(gpm)	
1982	LDGV	58	4.0741	58.0712	2.1671	36	62.07%	1.6112	21.3788	1.7758	2.0965	56.54%	31.3487	59.45%	0.2408	11.94%	941.00
	LDGT1	92	5.5647	94.8812	2.4543	46	50.00%	2.3868	30.7502	2.9054	2.0798	46.56%	42.8239	58.21%	-0.3865	-15.34%	340.00
	LDGT2	29	8.0326	122.9406	2.7879	8	27.59%	2.0869	43.4471	2.1900	2.1871	51.17%	23.6371	35.23%	2.6297	54.56%	258.00
1982 Total		179	5.4815	87.4999	2.4153	90	50.28%	2.0499	28.1303	2.3900	2.0960	50.56%	36.5283	56.49%	0.1325	5.25%	513.00
1983	LDGV	126	4.1938	68.8910	1.7797	54	42.86%	1.4521	16.3840	1.8072	2.3921	62.23%	33.2340	66.98%	-0.1124	-6.63%	1200.50
	LDGT1	103	4.8633	88.4929	1.8618	49	47.57%	2.7073	33.3362	2.3344	0.9810	26.60%	31.1665	48.32%	-0.1128	-5.08%	171.00
	LDGT2	120	6.3182	98.7802	3.2688	38	31.67%	2.6819	34.5342	2.8164	3.0871	53.51%	51.0672	59.66%	0.0060	0.21%	960.00
1983 Total		349	5.1219	84.9532	2.3159	141	40.40%	2.2197	27.1667	2.2624	2.0890	48.48%	37.3216	57.87%	-0.0806	-3.70%	577.86
1984	LDGV	184	3.1903	45.0430	2.3303	88	47.83%	1.3427	13.6021	2.0303	1.6349	54.91%	25.1894	64.94%	0.0741	3.52%	333.25
	LDGT1	192	4.6816	73.1708	2.0545	98	51.04%	2.0333	25.7872	2.5205	2.2712	52.76%	37.3901	59.18%	-0.1693	-7.20%	460.11
	LDGT2	111	4.2010	81.6474	2.7941	49	44.14%	1.7378	26.0864	3.0150	1.4510	45.50%	41.8527	61.60%	-0.1008	-3.46%	151.50
1984 Total		487	4.0086	64.4755	2.3273	235	48.25%	1.7131	21.2867	2.4400	1.8619	52.08%	33.7518	61.32%	-0.0639	-2.69%	385.13
1985	LDGV	264	3.1718	41.0300	1.9503	112	42.42%	1.1507	10.1100	1.9307	1.5635	57.60%	23.6338	70.04%	0.0615	3.09%	352.40
	LDGT1	268	3.9814	66.1663	2.6224	148	55.22%	1.9072	21.2798	2.8617	1.5623	45.03%	28.3573	57.13%	-0.0291	-1.03%	532.75
	LDGT2	161	4.7499	91.7225	2.8043	72	44.72%	2.1340	23.8315	3.1601	1.9913	48.27%	36.8545	60.73%	-0.1165	-3.83%	496.33
1985 Total		693	3.8515	62.5279	2.4086	332	47.91%	1.7012	18.0650	2.6123	1.6557	49.32%	28.6066	61.29%	-0.0175	-0.67%	458.07
1986	LDGV	251	3.9718	52.4000	1.6948	120	47.81%	1.1229	9.1279	1.7163	1.5420	57.86%	23.0603	71.64%	0.0586	3.30%	283.88
	LDGT1	299	4.4619	66.7590	2.2184	159	53.18%	1.6861	18.9556	2.5329	1.8084	51.75%	29.3926	60.79%	0.0153	0.60%	550.50
	LDGT2	186	4.1986	73.2348	2.8203	72	38.71%	1.8446	17.9897	2.6925	1.7270	48.35%	31.6120	63.73%	0.2344	8.01%	484.67
1986 Total		736	4.2282	63.4987	2.1920	351	47.69%	1.5261	15.3976	2.2865	1.7006	52.70%	27.6830	64.26%	0.0750	3.18%	395.13
1987	LDGV	283	2.5219	30.9697	2.2078	150	53.00%	1.0238	8.8399	1.8553	1.1151	52.13%	16.7704	65.48%	0.2275	10.92%	122.00
	LDGT1	333	4.2947	52.4183	2.3319	181	54.35%	1.3971	14.9844	2.3079	1.3142	48.47%	17.6558	54.09%	0.3398	12.84%	231.00
	LDGT2	147	4.0914	55.3977	3.0181	75	51.02%	1.8638	13.8479	2.8697	1.6361	46.75%	19.2328	58.14%	0.4667	13.99%	263.33
1987 Total		763	3.5980	45.0369	2.4181	406	53.21%	1.3454	12.5043	2.2445	1.3001	49.14%	17.6200	58.49%	0.3218	12.54%	211.83
1988	LDGV	335	3.3365	40.0497	2.0638	156	46.57%	0.8640	8.2247	1.6352	1.5087	63.58%	20.0646	70.93%	0.3352	17.01%	281.00
	LDGT1	393	3.5422	50.9021	2.5557	185	47.07%	1.3409	12.1720	2.3487	1.3042	49.31%	21.0658	63.38%	0.3966	14.45%	367.50
	LDGT2	208	4.0498	45.8195	3.0946	104	50.00%	1.3380	12.8904	2.2803	2.3276	63.50%	22.0913	63.15%	0.7171	23.92%	809.38
1988 Total		936	3.5814	45.8885	2.4994	445	47.54%	1.1730	10.9561	2.0826	1.6151	57.93%	20.9545	65.67%	0.4500	17.77%	585.87
1989	LDGV	378	3.1314	38.3650	1.9997	200	52.91%	0.8746	8.4950	1.6340	1.1851	57.54%	18.1416	68.11%	0.2169	11.72%	535.71
	LDGT1	555	3.3031	47.8575	2.6647	283	50.99%	1.2893	12.1329	2.3300	1.3867	51.82%	24.6859	67.05%	0.2567	9.92%	379.00
	LDGT2	205	3.7098	27.8911	3.6345	105	51.22%	1.4946	11.8443	2.8405	1.5388	50.73%	13.2280	52.76%	0.6217	17.96%	339.00
1989 Total		1138	3.3193	41.1077	2.6185	588	51.67%	1.1849	10.8440	2.1845	1.3453	53.17%	20.4139	65.31%	0.3083	12.37%	427.85
1990	LDGV	454	2.4534	31.0197	2.2791	251	55.29%	0.8020	8.1805	1.7266	1.2231	60.40%	17.2953	67.89%	0.3147	15.42%	252.88
	LDGT1	490	2.7987	34.4521	2.9139	276	56.33%	1.2462	12.0240	2.2449	1.1841	48.72%	17.2728	58.96%	0.4103	15.45%	1197.75
	LDGT2	213	3.3505	29.9630	3.3762	126	59.15%	1.4355	12.9586	2.5417	1.3532	48.52%	11.3393	46.67%	0.5915	18.88%	296.67
1990 Total		1157	2.7648	32.2788	2.7499	653	56.44%	1.1120	10.7269	2.1030	1.2317	52.55%	16.1366	60.07%	0.4085	16.27%	657.63
1991	LDGV	714	2.7741	27.6751	2.2709	376	52.66%	0.6760	6.6651	1.5092	1.3029	65.84%	15.9946	70.59%	0.6006	28.47%	517.64
	LDGT1	504	2.6062	32.9805	2.5685	303	60.12%	1.0411	10.7862	1.8590	1.1074	51.54%	15.1519	58.42%	0.5817	23.83%	358.94

Vehicle		Initial Exhaust Emissions				Passing Retest Exhaust Emissions					Emission Reductions					Average Repair Costs	
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Avg HC(gpm)	Avg HC%(gpm)	Avg CO(gpm)	Avg CO%(gpm)	Avg NOx(gpm)	Avg NOx%(gpm)	
	LDGT2	286	3.9536	35.0766	3.7566	147	51.40%	1.2403	12.0746	2.6223	1.8066	59.29%	17.0530	58.55%	0.7209	21.56%	262.00
1991 Total		1504	2.9421	30.8604	2.6532	826	54.92%	0.9103	9.1395	1.8356	1.3209	59.20%	15.8738	63.46%	0.6151	25.10%	408.57
1992	LDGV	693	2.0786	22.8158	2.1247	379	54.69%	0.6585	6.4552	1.5715	0.9193	58.26%	14.4659	69.14%	0.3337	17.52%	370.75
	LDGT1	504	2.5795	34.1322	2.5312	295	58.53%	1.0897	10.9190	1.9449	1.1091	50.44%	16.4078	60.04%	0.5538	22.16%	356.78
	LDGT2	454	4.1527	37.1109	3.1805	201	44.27%	1.2602	12.6586	2.2508	1.4794	54.00%	13.0866	50.83%	0.7944	26.09%	638.78
1992 Total		1651	2.8019	30.2013	2.5391	875	53.00%	0.9421	9.3852	1.8534	1.1119	54.13%	14.8037	61.20%	0.5137	21.70%	446.97
1993	LDGV	797	2.1020	26.7089	2.0870	444	55.71%	0.6340	6.5381	1.5751	1.0391	62.11%	15.6446	70.53%	0.3853	19.66%	402.15
	LDGT1	720	2.6333	32.6391	2.8818	439	60.97%	1.0316	10.3696	1.9980	0.9915	49.01%	16.3608	61.21%	0.5905	22.81%	372.35
	LDGT2	583	3.1940	25.7184	3.4266	301	51.63%	1.3101	12.5750	2.3153	1.0925	45.47%	10.3221	45.08%	0.9423	28.93%	589.83
1993 Total		2100	2.5873	28.4671	2.7314	1184	56.38%	0.9533	9.4934	1.9201	1.0350	52.05%	14.5571	60.53%	0.6030	23.90%	438.96
1994	LDGV	905	1.8701	19.5446	1.9414	483	53.37%	0.5330	5.7176	1.3189	0.9405	63.83%	11.8910	67.53%	0.3252	19.78%	659.50
	LDGT1	1045	2.4330	27.6077	2.7798	596	57.03%	0.8256	8.4879	1.8553	1.0873	56.84%	14.1058	62.43%	0.7434	28.61%	323.39
	LDGT2	1117	2.6033	28.2405	3.0520	513	45.93%	0.9427	10.0840	1.8917	1.2271	56.55%	13.8844	57.93%	0.9375	33.14%	406.00
1994 Total		3067	2.3289	25.4589	2.6315	1592	51.91%	0.7746	8.1617	1.7043	1.0878	58.41%	13.3625	62.08%	0.6791	28.49%	434.43
1995	LDGV	1351	1.6506	16.5846	1.8982	737	54.55%	0.4774	5.0605	1.1577	0.7812	62.07%	8.5675	62.87%	0.5281	31.33%	376.88
	LDGT1	1181	2.1268	25.0667	2.9998	701	59.36%	0.7339	7.6763	1.8251	0.9319	55.94%	12.6146	62.17%	0.8869	32.70%	438.66
	LDGT2	1147	2.6974	26.4243	3.1134	615	53.62%	0.9358	10.0684	1.9116	1.1232	54.55%	11.2755	52.83%	1.0665	35.81%	573.84
1995 Total		3679	2.1298	22.3752	2.6307	2053	55.80%	0.7023	7.4539	1.6114	0.9351	57.11%	10.7606	59.08%	0.8119	33.50%	462.97
1996	LDGV	1060	1.1712	15.0521	1.6961	658	62.08%	0.3685	4.4481	0.9079	0.5782	61.07%	8.6872	66.14%	0.4666	33.95%	544.63
	LDGT1	1038	1.3555	16.9473	2.6078	709	68.30%	0.4106	5.3973	1.4790	0.5042	55.11%	7.5323	58.26%	0.7563	33.84%	456.73
	LDGT2	652	2.1245	18.5810	2.5227	387	59.36%	0.5307	6.1931	1.4197	0.8419	61.34%	8.9777	59.18%	0.7582	34.82%	411.20
1996 Total		2750	1.4668	16.6041	2.2362	1754	63.78%	0.4213	5.2168	1.2517	0.6065	59.01%	8.2844	61.36%	0.6481	34.11%	484.34
1997	LDGV	1523	1.3130	14.9101	1.5309	1012	66.45%	0.3660	4.5330	0.8270	0.5946	61.90%	8.1796	64.34%	0.4103	33.16%	575.00
	LDGT1	1845	1.0865	16.9780	2.4509	1166	63.20%	0.3914	5.5541	1.3801	0.4896	55.57%	8.9017	61.58%	0.7206	34.30%	450.64
	LDGT2	917	1.7913	18.7822	2.8539	531	57.91%	0.4457	5.5552	1.3606	0.8445	65.46%	9.0207	61.89%	1.1455	45.71%	429.85
1997 Total		4285	1.3178	16.6291	2.2101	2709	63.22%	0.3926	5.1728	1.1696	0.5984	60.39%	8.6553	62.59%	0.6879	37.03%	491.79
1998	LDGV	1815	1.0143	14.8974	1.3500	1178	64.90%	0.2908	4.0190	0.6881	0.4965	63.07%	7.5904	65.38%	0.4229	38.06%	553.57
	LDGT1	1951	0.9828	13.9352	2.5602	1228	62.94%	0.3581	4.9330	1.2503	0.4503	55.70%	6.7825	57.89%	0.9416	42.96%	478.52
	LDGT2	1006	1.4576	14.9929	2.6832	578	57.46%	0.3759	4.9962	1.2605	0.7561	66.79%	8.3875	62.67%	1.0806	46.16%	647.73
1998 Total		4772	1.0949	14.5241	2.1258	2984	62.53%	0.3350	4.5844	1.0303	0.5278	61.17%	7.4123	61.79%	0.7637	42.57%	541.82
1999	LDGV	2069	0.8236	12.2082	1.5034	1347	65.10%	0.2575	3.6811	0.6538	0.4542	63.82%	6.8779	65.14%	0.5313	44.83%	491.10
	LDGT1	2164	0.8200	12.9541	2.1150	1414	65.34%	0.2788	4.1826	0.9625	0.3779	57.54%	6.8263	62.01%	0.8181	45.94%	633.75
	LDGT2	1522	1.5537	16.0656	2.4128	844	55.45%	0.3258	3.7097	1.0265	0.7799	70.53%	10.5379	73.96%	1.0165	49.76%	489.07
1999 Total		5755	1.0153	13.5088	1.9738	3605	62.64%	0.2819	3.8845	0.8621	0.5005	63.97%	7.7146	66.51%	0.7574	46.77%	556.11
2000	LDGV	2457	1.0017	12.9865	1.6488	1547	62.96%	0.2200	3.4127	0.6030	0.5343	70.83%	7.2556	68.01%	0.7093	54.05%	610.44
	LDGT1	2264	0.8032	13.3353	2.0509	1406	62.10%	0.2540	3.7629	0.8958	0.3112	55.06%	6.0353	61.60%	0.7135	44.34%	687.21
	LDGT2	959	1.0992	14.7356	2.1605	586	61.11%	0.2833	3.9205	0.9470	0.5639	66.56%	8.5371	68.53%	0.7251	43.36%	512.67
2000 Total		5680	0.9390	13.4208	1.8955	3539	62.31%	0.2440	3.6359	0.7763	0.4506	64.87%	6.9830	65.76%	0.7136	47.90%	635.40
2001	LDGV	2205	0.7479	11.2522	1.3929	1528	69.30%	0.1675	2.9516	0.4535	0.3800	69.41%	5.4759	64.98%	0.5989	56.91%	449.71
	LDGT1	1865	0.7552	13.3183	1.4258	1375	73.73%	0.1855	3.5305	0.5705	0.3187	63.21%	6.3762	64.36%	0.4865	46.03%	469.68
	LDGT2	1076	0.9216	9.0075	1.9002	742	68.96%	0.2647	3.4429	0.7823	0.3341	55.79%	3.8632	52.88%	0.6490	45.34%	418.88

Vehicle		Initial Exhaust Emissions				Passing Retest Exhaust Emissions					Emission Reductions					Average Repair Costs	
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Avg HC(gpm)	Avg HC%(gpm)	Avg CO(gpm)	Avg CO%(gpm)	Avg NOx(gpm)	Avg NOx%(gpm)	
2001 Total		5146	0.7869	11.5316	1.5109	3645	70.83%	0.1941	3.2700	0.5646	0.3475	64.17%	5.4872	62.66%	0.5667	50.09%	451.19
2002	LDGV	2355	0.6147	9.6557	1.4756	1727	73.33%	0.1569	3.0613	0.3849	0.3074	66.20%	4.8466	61.29%	0.6967	64.41%	547.27
	LDGT1	1916	0.7223	15.5439	1.4405	1348	70.35%	0.1563	3.7586	0.5322	0.3131	66.70%	7.3419	66.14%	0.5378	50.26%	630.82
	LDGT2	955	0.7290	10.6663	1.9735	649	67.96%	0.2495	3.3818	0.8423	0.3254	56.61%	4.4211	56.66%	0.7515	47.15%	378.71
2002 Total		5226	0.6750	11.9991	1.5537	3724	71.26%	0.1728	3.3696	0.5179	0.3126	64.40%	5.6757	62.75%	0.6487	55.61%	552.08
2003	LDGV	2122	0.7163	8.5725	1.2480	1605	75.64%	0.1282	2.2720	0.3300	0.3111	70.81%	3.9578	63.53%	0.5702	63.34%	569.84
	LDGT1	1731	0.6139	12.8696	1.1204	1356	78.34%	0.1303	2.6934	0.4311	0.2651	67.04%	6.0751	69.28%	0.3723	46.34%	278.35
	LDGT2	861	1.0314	15.2325	1.5217	653	75.84%	0.1990	3.0265	0.6038	0.5114	71.99%	7.8459	72.16%	0.5742	48.75%	467.88
2003 Total		4714	0.7363	11.3668	1.2511	3614	76.67%	0.1418	2.5665	0.4174	0.3300	69.95%	5.4548	68.00%	0.4967	54.34%	454.42
2004	LDGV	1811	0.6936	8.4304	1.1742	1375	75.92%	0.1192	2.1556	0.2792	0.3877	76.48%	4.0416	65.22%	0.5387	65.87%	599.29
	LDGT1	1633	0.5604	12.7625	1.0560	1253	76.73%	0.1150	2.5715	0.3102	0.2509	68.58%	6.1750	70.60%	0.4318	58.19%	491.55
	LDGT2	814	0.6308	10.4955	1.4725	635	78.01%	0.1483	2.5935	0.4159	0.2556	63.28%	4.8898	65.34%	0.5844	58.43%	588.00
2004 Total		4258	0.6305	10.4866	1.1859	3263	76.63%	0.1232	2.4006	0.3177	0.3094	71.52%	5.0259	67.68%	0.5066	61.45%	547.60
2005	LDGV	1868	0.4838	7.0074	0.8632	1542	82.55%	0.0867	1.7022	0.2109	0.2642	75.30%	3.3528	66.33%	0.3644	63.34%	395.43
	LDGT1	1151	0.3215	6.5382	0.8650	988	85.84%	0.0896	1.7572	0.1904	0.1073	54.49%	2.9272	62.49%	0.3529	64.95%	369.44
	LDGT2	698	0.9653	14.1592	1.6995	465	66.62%	0.1568	2.6419	0.3798	0.4694	74.96%	7.5272	74.02%	0.7747	67.11%	446.55
2005 Total		3717	0.5239	8.2051	1.0208	2995	80.58%	0.0985	1.8663	0.2304	0.2443	71.26%	3.8605	67.41%	0.4243	64.81%	403.44
2006	LDGV	1153	0.6526	7.8006	1.0892	921	79.88%	0.0963	1.9657	0.1950	0.3250	77.14%	3.8838	66.40%	0.5926	75.24%	610.38
	LDGT1	773	0.2363	5.1874	0.6876	711	91.98%	0.0755	1.6144	0.2013	0.0962	56.02%	2.8801	64.08%	0.2934	59.31%	534.67
	LDGT2	542	0.7120	9.4999	1.3522	423	78.04%	0.1168	1.8366	0.2552	0.2759	70.26%	4.3709	70.41%	0.5960	70.02%	782.80
2006 Total		2468	0.5353	7.3553	1.0212	2055	83.27%	0.0933	1.8176	0.2096	0.2357	71.64%	3.6368	66.68%	0.4898	70.03%	636.83
2007	LDGV	226	0.7920	10.2070	1.3890	168	74.34%	0.1242	2.7783	0.2680	0.3602	74.36%	5.1565	64.99%	0.7071	72.52%	0.00
	LDGT1	190	0.6265	14.6738	0.7026	156	82.11%	0.0659	2.0044	0.1782	0.3236	83.09%	6.7382	77.07%	0.3162	63.95%	987.50
	LDGT2	100	1.6764	8.7555	1.7353	82	82.00%	0.1251	1.9962	0.3216	0.6743	84.35%	4.6349	69.90%	0.9565	74.84%	963.00
2007 Total		516	0.9025	11.5705	1.2033	406	78.68%	0.1020	2.3230	0.2443	0.4096	80.07%	5.6589	70.90%	0.6073	71.31%	979.33
2008	LDGV	164	0.9192	12.8918	1.8081	114	69.51%	0.1303	2.8793	0.2020	0.6657	83.63%	7.8413	73.14%	1.0204	83.47%	0.00
	LDGT1	136	0.3991	9.4191	1.0063	116	85.29%	0.0614	2.1474	0.1252	0.2239	78.48%	6.2061	74.29%	0.6234	83.27%	152.00
	LDGT2	87	0.2002	9.5101	0.3833	76	87.36%	0.0868	3.2802	0.1437	0.1179	57.59%	4.5995	58.37%	0.2412	62.66%	0.00
2008 Total		387	0.5748	10.9112	1.2060	306	79.07%	0.0934	2.7014	0.1584	0.3622	79.50%	6.4163	70.37%	0.6764	81.02%	152.00
2009	LDGV	67	1.3519	18.0821	1.6515	43	64.18%	0.1524	2.3931	0.2641	1.2418	89.07%	10.1163	80.87%	1.2452	82.50%	205.00
	LDGT1	39	0.2108	4.3680	0.6619	36	92.31%	0.0686	2.8814	0.1539	0.1453	67.92%	1.3195	31.41%	0.4866	75.98%	220.00
	LDGT2	32	0.3792	5.6284	1.0875	28	87.50%	0.0729	2.1357	0.1405	0.2615	78.19%	2.7022	55.86%	0.6768	82.81%	0.00
2009 Total		138	0.8039	11.3185	1.2411	107	77.54%	0.1034	2.4900	0.1947	0.6163	85.63%	5.2165	67.69%	0.8412	81.21%	212.50
2010	LDGV	150	1.2447	10.9065	1.3478	110	73.33%	0.1521	2.2067	0.3047	0.7495	83.13%	7.8066	77.96%	0.7649	71.51%	0.00
	LDGT1	76	0.2408	9.7331	0.2610	73	96.05%	0.0532	1.2816	0.1195	0.0915	63.21%	5.0273	79.69%	0.0570	32.29%	0.00
	LDGT2	52	0.3510	5.4579	1.0653	45	86.54%	0.0849	1.7003	0.2005	0.1718	66.92%	2.1630	55.99%	0.4759	70.35%	0.00
2010 Total		278	0.8031	9.5666	0.9978	228	82.01%	0.1072	1.8105	0.2248	0.4248	79.85%	5.8029	76.22%	0.4812	68.15%	0.00
2011	LDGV	21	0.5308	6.0067	1.2609	20	95.24%	0.1474	2.0291	0.2054	0.3785	71.97%	3.9901	66.29%	0.9499	82.22%	0.00
	LDGT1	15	0.0375	2.0117	0.0605	15	100.00%	0.0398	2.2433	0.0736	-0.0023	-6.11%	-0.2316	-11.51%	-0.0131	-21.63%	0.00
	LDGT2	19	0.0915	4.1128	0.0735	18	94.74%	0.0539	1.9778	0.0722	0.0416	43.56%	2.3425	54.22%	0.0033	4.34%	0.00
2011 Total		55	0.2445	4.2629	0.5233	53	96.36%	0.0852	2.0723	0.1229	0.1563	64.72%	2.2357	51.90%	0.3559	74.34%	0.00

Vehicle		Initial Exhaust Emissions				Passing Retest Exhaust Emissions					Emission Reductions						Average Repair Costs
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Avg HC(gpm)	Avg HC%(gpm)	Avg CO(gpm)	Avg CO%(gpm)	Avg NOx(gpm)	Avg NOx%(gpm)	
2012	LDGV	18	0.1468	2.8522	0.5105	16	88.89%	0.0197	1.2585	0.0673	0.0752	79.27%	0.9138	42.06%	0.1924	74.08%	0.00
	LDGT1	7	0.0491	5.4117	0.1346	7	100.00%	0.0591	2.3730	0.0895	-0.0099	-20.24%	3.0387	56.15%	0.0451	33.48%	0.00
	LDGT2	9	0.2848	8.3103	1.0676	8	88.89%	0.0419	0.8263	0.0593	0.1303	75.68%	4.2003	83.56%	0.5663	90.53%	0.00
2012 Total		34	0.1632	4.8240	0.5806	31	91.18%	0.0343	1.3987	0.0703	0.0702	67.18%	2.2417	61.58%	0.2556	78.44%	0.00
2013	LDGV	10	0.4183	6.6544	1.2306	9	90.00%	0.0306	1.5623	0.0651	0.2978	90.68%	4.4575	74.05%	0.9845	93.80%	0.00
	LDGT1	2	0.0207	1.0022	0.0522	2	100.00%	0.0160	0.6180	0.0417	0.0048	23.13%	0.3843	38.34%	0.0105	20.11%	0.00
	LDGT2	7	1.2143	11.5067	3.8975	5	71.43%	0.1085	1.4789	0.1832	0.4715	81.29%	4.1682	73.81%	1.6552	90.03%	0.00
2013 Total		19	0.6697	7.8471	2.0891	16	84.21%	0.0531	1.4182	0.0991	0.3155	85.59%	3.8579	73.12%	1.0723	91.54%	0.00
2014	LDGV	3	0.6465	8.6000	0.5140	2	66.67%	0.0226	1.6107	0.0468	0.0009	3.63%	-0.0094	-0.59%	-0.0075	-18.93%	0.00
2014 Total		3	0.6465	8.6000	0.5140	2	66.67%	0.0226	1.6107	0.0468	0.0009	3.63%	-0.0094	-0.59%	-0.0075	-18.93%	0.00
2015	LDGV	1	0.0137	0.5949	0.0425	1	100.00%	0.0139	0.5321	0.0414	-0.0002	-1.46%	0.0628	10.56%	0.0011	2.59%	0.00
2015 Total		1	0.0137	0.5949	0.0425	1	100.00%	0.0139	0.5321	0.0414	-0.0002	-1.46%	0.0628	10.56%	0.0011	2.59%	0.00
2016	LDGV	1	0.0280	2.3374	0.0000	1	100.00%	0.0326	3.1137	0.0349	-0.0046	-16.43%	-0.7763	-33.21%	-0.0349	0.00%	0.00
2016 Total		1	0.0280	2.3374	0.0000	1	100.00%	0.0326	3.1137	0.0349	-0.0046	-16.43%	-0.7763	-33.21%	-0.0349	0.00%	0.00
Grand Total		68642	1.4157	18.4844	1.8989	44809	65.28%	0.3887	4.8795	0.9124	0.5761	59.71%	8.4063	63.27%	0.5946	39.46%	498.17

Retest Pass Reduction Report - Summary by Veh (V1.01)

Vehicle		Initial Exhaust Emissions				Passing Retest Exhaust Emissions					Emission Reductions						Average Repair Costs
Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Avg HC(gpm)	Avg HC%(gpm)	Avg CO(gpm)	Avg CO%(gpm)	Avg NOx(gpm)	Avg NOx%(gpm)		
LDGV	27892	1.2096	15.2567	1.5348	18510	66.36%	0.2918	3.8000	0.6678	0.5470	65.21%	7.4919	66.35%	0.5197	43.76%	504.71	
LDGT1	25475	1.3484	20.2127	1.9757	17118	67.20%	0.4201	5.4324	1.0241	0.5102	54.84%	8.9211	62.15%	0.5711	35.80%	489.01	
LDGT2	15275	1.9045	21.4956	2.4357	9181	60.10%	0.5256	6.0248	1.1971	0.7577	59.04%	9.2899	60.66%	0.7894	39.74%	503.15	
Grand Total	68642	1.4157	18.4844	1.8989	44809	65.28%	0.3887	4.8795	0.9124	0.5761	59.71%	8.4063	63.27%	0.5946	39.46%	498.17	

Appendix B6

I/M240 Retest Frequency Report

Date
Between 1/1/2017 and 12/31/2017

Retest Frequency Report (V1.01)

Vehicle			Avg Retest #	Retest #1				Retest #2				Retest #3				Retest #4				Retest >= #5			
Year	Type	Total		Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt %	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%
1982	LDGV	58	1.6	39	67.24%	24	61.54%	11	18.97%	8	72.73%	3	5.17%	1	33.33%	2	3.45%	2	100.00%	3	5.17%	1	33.33%
	LDGT1	92	1.6	54	58.70%	32	59.26%	21	22.83%	6	28.57%	10	10.87%	5	50.00%	5	5.43%	1	20.00%	2	2.17%	2	100.00%
	LDGT2	29	2.1	11	37.93%	5	45.45%	7	24.14%	1	14.29%	5	17.24%	0	0.00%	4	13.79%	1	25.00%	2	6.90%	1	50.00%
1982 Total		179	1.6	104	58.10%	61	58.65%	39	21.79%	15	38.46%	18	10.06%	6	33.33%	11	6.15%	4	36.36%	7	3.91%	4	57.14%
1983	LDGV	126	1.7	64	50.79%	34	53.13%	26	20.63%	11	42.31%	16	12.70%	6	37.50%	8	6.35%	1	12.50%	12	9.52%	2	16.67%
	LDGT1	103	1.7	57	55.34%	35	61.40%	19	18.45%	8	42.11%	8	7.77%	2	25.00%	5	4.85%	1	20.00%	14	13.59%	3	21.43%
	LDGT2	120	3.3	43	35.83%	16	37.21%	20	16.67%	5	25.00%	14	11.67%	2	14.29%	14	11.67%	7	50.00%	29	24.17%	8	27.59%
1983 Total		349	2.1	164	46.99%	85	51.83%	65	18.62%	24	36.92%	38	10.89%	10	26.32%	27	7.74%	9	33.33%	55	15.76%	13	23.64%
1984	LDGV	184	1.8	99	53.80%	65	65.66%	32	17.39%	5	15.63%	23	12.50%	8	34.78%	9	4.89%	4	44.44%	21	11.41%	6	28.57%
	LDGT1	192	1.8	104	54.17%	62	59.62%	44	22.92%	21	47.73%	17	8.85%	7	41.18%	8	4.17%	1	12.50%	19	9.90%	7	36.84%
	LDGT2	111	1.9	59	53.15%	28	47.46%	26	23.42%	9	34.62%	14	12.61%	6	42.86%	6	5.41%	3	50.00%	6	5.41%	3	50.00%
1984 Total		487	1.8	262	53.80%	155	59.16%	102	20.94%	35	34.31%	54	11.09%	21	38.89%	23	4.72%	8	34.78%	46	9.45%	16	34.78%
1985	LDGV	264	1.7	134	50.76%	73	54.48%	55	20.83%	22	40.00%	27	10.23%	7	25.93%	19	7.20%	3	15.79%	29	10.98%	7	24.14%
	LDGT1	268	1.5	161	60.07%	106	65.84%	50	18.66%	20	40.00%	27	10.07%	13	48.15%	15	5.60%	5	33.33%	15	5.60%	4	26.67%
	LDGT2	161	2.1	77	47.83%	41	53.25%	34	21.12%	13	38.24%	20	12.42%	6	30.00%	11	6.83%	6	54.55%	19	11.80%	6	31.58%
1985 Total		693	1.7	372	53.68%	220	59.14%	139	20.06%	55	39.57%	74	10.68%	26	35.14%	45	6.49%	14	31.11%	63	9.09%	17	26.98%
1986	LDGV	251	1.7	142	56.57%	82	57.75%	46	18.33%	20	43.48%	24	9.56%	7	29.17%	16	6.37%	7	43.75%	23	9.16%	4	17.39%
	LDGT1	299	1.8	173	57.86%	108	62.43%	56	18.73%	24	42.86%	29	9.70%	15	51.72%	10	3.34%	2	20.00%	31	10.37%	10	32.26%
	LDGT2	186	2.0	87	46.77%	38	43.68%	43	23.12%	16	37.21%	23	12.37%	9	39.13%	12	6.45%	1	8.33%	21	11.29%	8	38.10%
1986 Total		736	1.8	402	54.62%	228	56.72%	145	19.70%	60	41.38%	76	10.33%	31	40.79%	38	5.16%	10	26.32%	75	10.19%	22	29.33%
1987	LDGV	283	1.8	168	59.36%	103	61.31%	56	19.79%	24	42.86%	22	7.77%	9	40.91%	11	3.89%	5	45.45%	26	9.19%	9	34.62%
	LDGT1	333	1.5	202	60.66%	131	64.85%	63	18.92%	24	38.10%	38	11.41%	11	28.95%	18	5.41%	11	61.11%	12	3.60%	4	33.33%
	LDGT2	147	1.9	74	50.34%	51	68.92%	26	17.69%	11	42.31%	17	11.56%	5	29.41%	9	6.12%	3	33.33%	21	14.29%	5	23.81%
1987 Total		763	1.7	444	58.19%	285	64.19%	145	19.00%	59	40.69%	77	10.09%	25	32.47%	38	4.98%	19	50.00%	59	7.73%	18	30.51%
1988	LDGV	335	1.7	182	54.33%	102	56.04%	72	21.49%	32	44.44%	31	9.25%	11	35.48%	16	4.78%	3	18.75%	34	10.15%	8	23.53%
	LDGT1	393	1.8	210	53.44%	133	63.33%	64	16.28%	18	28.13%	42	10.69%	14	33.33%	24	6.11%	4	16.67%	53	13.49%	16	30.19%
	LDGT2	208	1.7	115	55.29%	74	64.35%	38	18.27%	8	21.05%	29	13.94%	15	51.72%	11	5.29%	3	27.27%	15	7.21%	4	26.67%
1988 Total		936	1.8	507	54.17%	309	60.95%	174	18.59%	58	33.33%	102	10.90%	40	39.22%	51	5.45%	10	19.61%	102	10.90%	28	27.45%
1989	LDGV	378	1.7	223	58.99%	137	61.43%	74	19.58%	33	44.59%	34	8.99%	9	26.47%	24	6.35%	15	62.50%	23	6.08%	6	26.09%
	LDGT1	555	1.8	309	55.68%	183	59.22%	118	21.26%	58	49.15%	54	9.73%	17	31.48%	31	5.59%	12	38.71%	43	7.75%	13	30.23%
	LDGT2	205	1.6	125	60.98%	68	54.40%	45	21.95%	22	48.89%	22	10.73%	9	40.91%	8	3.90%	4	50.00%	5	2.44%	2	40.00%
1989 Total		1138	1.7	657	57.73%	388	59.06%	237	20.83%	113	47.68%	110	9.67%	35	31.82%	63	5.54%	31	49.21%	71	6.24%	21	29.58%
1990	LDGV	454	1.5	279	61.45%	175	62.72%	93	20.48%	43	46.24%	44	9.69%	21	47.73%	20	4.41%	7	35.00%	18	3.96%	5	27.78%
	LDGT1	490	1.7	286	58.37%	187	65.38%	94	19.18%	46	48.94%	50	10.20%	18	36.00%	29	5.92%	9	31.03%	31	6.33%	16	51.61%
	LDGT2	213	1.8	127	59.62%	81	63.78%	43	20.19%	21	48.84%	21	9.86%	14	66.67%	8	3.76%	4	50.00%	14	6.57%	6	42.86%
1990 Total		1157	1.6	692	59.81%	443	64.02%	230	19.88%	110	47.83%	115	9.94%	53	46.09%	57	4.93%	20	35.09%	63	5.45%	27	42.86%

Vehicle			Avg Retest #	Retest #1				Retest #2				Retest #3				Retest #4				Retest >= #5			
Year	Type	Total		Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt %	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%
1991	LDGV	714	1.6	418	58.54%	260	62.20%	138	19.33%	62	44.93%	71	9.94%	19	26.76%	42	5.88%	16	38.10%	45	6.30%	19	42.22%
	LDGT1	504	1.5	340	67.46%	224	65.88%	87	17.26%	43	49.43%	42	8.33%	22	52.38%	17	3.37%	8	47.06%	18	3.57%	6	33.33%
	LDGT2	286	1.8	161	56.29%	94	58.39%	60	20.98%	28	46.67%	25	8.74%	11	44.00%	15	5.24%	7	46.67%	25	8.74%	7	28.00%
1991 Total		1504	1.6	919	61.10%	578	62.89%	285	18.95%	133	46.67%	138	9.18%	52	37.68%	74	4.92%	31	41.89%	88	5.85%	32	36.36%
1992	LDGV	693	1.5	434	62.63%	275	63.36%	128	18.47%	55	42.97%	55	7.94%	24	43.64%	34	4.91%	13	38.24%	42	6.06%	12	28.57%
	LDGT1	504	1.6	321	63.69%	213	66.36%	96	19.05%	47	48.96%	38	7.54%	13	34.21%	24	4.76%	11	45.83%	25	4.96%	11	44.00%
	LDGT2	454	1.9	230	50.66%	121	52.61%	93	20.48%	33	35.48%	62	13.66%	26	41.94%	30	6.61%	10	33.33%	39	8.59%	11	28.21%
1992 Total		1651	1.6	985	59.66%	609	61.83%	317	19.20%	135	42.59%	155	9.39%	63	40.65%	88	5.33%	34	38.64%	106	6.42%	34	32.08%
1993	LDGV	797	1.6	486	60.98%	314	64.61%	157	19.70%	71	45.22%	73	9.16%	31	42.47%	32	4.02%	12	37.50%	49	6.15%	16	32.65%
	LDGT1	720	1.5	470	65.28%	318	67.66%	131	18.19%	63	48.09%	64	8.89%	28	43.75%	28	3.89%	17	60.71%	27	3.75%	13	48.15%
	LDGT2	583	1.8	330	56.60%	190	57.58%	125	21.44%	58	46.40%	59	10.12%	24	40.68%	29	4.97%	13	44.83%	40	6.86%	16	40.00%
1993 Total		2100	1.6	1286	61.24%	822	63.92%	413	19.67%	192	46.49%	196	9.33%	83	42.35%	89	4.24%	42	47.19%	116	5.52%	45	38.79%
1994	LDGV	905	1.6	550	60.77%	346	62.91%	170	18.78%	65	38.24%	93	10.28%	36	38.71%	44	4.86%	17	38.64%	48	5.30%	19	39.58%
	LDGT1	1045	1.6	642	61.44%	428	66.67%	190	18.18%	83	43.68%	105	10.05%	46	43.81%	54	5.17%	22	40.74%	54	5.17%	17	31.48%
	LDGT2	1117	1.8	580	51.92%	324	55.86%	209	18.71%	87	41.63%	124	11.10%	47	37.90%	71	6.36%	21	29.58%	133	11.91%	34	25.56%
1994 Total		3067	1.7	1772	57.78%	1098	61.96%	569	18.55%	235	41.30%	322	10.50%	129	40.06%	169	5.51%	60	35.50%	235	7.66%	70	29.79%
1995	LDGV	1351	1.6	822	60.84%	523	63.63%	258	19.10%	111	43.02%	120	8.88%	50	41.67%	59	4.37%	20	33.90%	92	6.81%	33	35.87%
	LDGT1	1181	1.5	758	64.18%	522	68.87%	198	16.77%	93	46.97%	99	8.38%	42	42.42%	54	4.57%	20	37.04%	72	6.10%	24	33.33%
	LDGT2	1147	1.7	664	57.89%	406	61.14%	232	20.23%	96	41.38%	126	10.99%	57	45.24%	61	5.32%	28	45.90%	64	5.58%	28	43.75%
1995 Total		3679	1.6	2244	60.99%	1451	64.66%	688	18.70%	300	43.60%	345	9.38%	149	43.19%	174	4.73%	68	39.08%	228	6.20%	85	37.28%
1996	LDGV	1060	1.4	723	68.21%	515	71.23%	179	16.89%	82	45.81%	80	7.55%	31	38.75%	43	4.06%	17	39.53%	35	3.30%	13	37.14%
	LDGT1	1038	1.4	754	72.64%	572	75.86%	157	15.13%	74	47.13%	69	6.65%	35	50.72%	29	2.79%	13	44.83%	29	2.79%	15	51.72%
	LDGT2	652	1.5	421	64.57%	285	67.70%	115	17.64%	60	52.17%	50	7.67%	18	36.00%	30	4.60%	8	26.67%	36	5.52%	16	44.44%
1996 Total		2750	1.4	1898	69.02%	1372	72.29%	451	16.40%	216	47.89%	199	7.24%	84	42.21%	102	3.71%	38	37.25%	100	3.64%	44	44.00%
1997	LDGV	1523	1.4	1096	71.96%	812	74.09%	232	15.23%	116	50.00%	102	6.70%	53	51.96%	39	2.56%	15	38.46%	54	3.55%	16	29.63%
	LDGT1	1845	1.4	1264	68.51%	903	71.44%	316	17.13%	148	46.84%	137	7.43%	66	48.18%	59	3.20%	23	38.98%	69	3.74%	26	37.68%
	LDGT2	917	1.6	574	62.60%	376	65.51%	167	18.21%	86	51.50%	81	8.83%	36	44.44%	42	4.58%	18	42.86%	53	5.78%	15	28.30%
1997 Total		4285	1.4	2934	68.47%	2091	71.27%	715	16.69%	350	48.95%	320	7.47%	155	48.44%	140	3.27%	56	40.00%	176	4.11%	57	32.39%
1998	LDGV	1815	1.3	1295	71.35%	945	72.97%	290	15.98%	139	47.93%	130	7.16%	48	36.92%	59	3.25%	26	44.07%	41	2.26%	20	48.78%
	LDGT1	1951	1.5	1311	67.20%	917	69.95%	348	17.84%	177	50.86%	149	7.64%	67	44.97%	75	3.84%	36	48.00%	68	3.49%	31	45.59%
	LDGT2	1006	1.5	636	63.22%	409	64.31%	205	20.38%	98	47.80%	96	9.54%	40	41.67%	42	4.17%	21	50.00%	27	2.68%	10	37.04%
1998 Total		4772	1.4	3242	67.94%	2271	70.05%	843	17.67%	414	49.11%	375	7.86%	155	41.33%	176	3.69%	83	47.16%	136	2.85%	61	44.85%
1999	LDGV	2069	1.4	1459	70.52%	1060	72.65%	333	16.09%	166	49.85%	144	6.96%	71	49.31%	61	2.95%	29	47.54%	72	3.48%	21	29.17%
	LDGT1	2164	1.4	1504	69.50%	1093	72.67%	360	16.64%	182	50.56%	156	7.21%	75	48.08%	70	3.23%	39	55.71%	74	3.42%	25	33.78%
	LDGT2	1522	1.6	934	61.37%	584	62.53%	293	19.25%	139	47.44%	134	8.80%	62	46.27%	66	4.34%	27	40.91%	95	6.24%	32	33.68%
1999 Total		5755	1.5	3897	67.72%	2737	70.23%	986	17.13%	487	49.39%	434	7.54%	208	47.93%	197	3.42%	95	48.22%	241	4.19%	78	32.37%
2000	LDGV	2457	1.4	1666	67.81%	1183	71.01%	412	16.77%	194	47.09%	198	8.06%	95	47.98%	89	3.62%	45	50.56%	92	3.74%	30	32.61%
	LDGT1	2264	1.4	1514	66.87%	1086	71.73%	384	16.96%	170	44.27%	183	8.08%	77	42.08%	90	3.98%	42	46.67%	93	4.11%	31	33.33%
	LDGT2	959	1.4	633	66.01%	442	69.83%	166	17.31%	82	49.40%	81	8.45%	33	40.74%	41	4.28%	19	46.34%	38	3.96%	10	26.32%
2000 Total		5680	1.4	3813	67.13%	2711	71.10%	962	16.94%	446	46.36%	462	8.13%	205	44.37%	220	3.87%	106	48.18%	223	3.93%	71	31.84%

Vehicle			Avg Retest #	Retest #1				Retest #2				Retest #3				Retest #4				Retest >= #5			
Year	Type	Total		Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt %	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%
2001	LDGV	2205	1.3	1634	74.10%	1249	76.44%	313	14.20%	174	55.59%	124	5.62%	55	44.35%	58	2.63%	24	41.38%	76	3.45%	26	34.21%
	LDGT1	1865	1.3	1437	77.05%	1178	81.98%	235	12.60%	120	51.06%	91	4.88%	38	41.76%	47	2.52%	15	31.91%	55	2.95%	24	43.64%
	LDGT2	1076	1.4	770	71.56%	614	79.74%	144	13.38%	69	47.92%	65	6.04%	27	41.54%	35	3.25%	14	40.00%	62	5.76%	18	29.03%
2001 Total		5146	1.3	3841	74.64%	3041	79.17%	692	13.45%	363	52.46%	280	5.44%	120	42.86%	140	2.72%	53	37.86%	193	3.75%	68	35.23%
2002	LDGV	2355	1.3	1801	76.48%	1436	79.73%	314	13.33%	172	54.78%	127	5.39%	59	46.46%	65	2.76%	35	53.85%	48	2.04%	25	52.08%
	LDGT1	1916	1.3	1417	73.96%	1132	79.89%	253	13.20%	116	45.85%	123	6.42%	50	40.65%	63	3.29%	28	44.44%	60	3.13%	22	36.67%
	LDGT2	955	1.4	689	72.15%	525	76.20%	139	14.55%	70	50.36%	64	6.70%	29	45.31%	30	3.14%	12	40.00%	33	3.46%	13	39.39%
2002 Total		5226	1.3	3907	74.76%	3093	79.17%	706	13.51%	358	50.71%	314	6.01%	138	43.95%	158	3.02%	75	47.47%	141	2.70%	60	42.55%
2003	LDGV	2122	1.2	1674	78.89%	1397	83.45%	253	11.92%	132	52.17%	101	4.76%	40	39.60%	49	2.31%	18	36.73%	45	2.12%	18	40.00%
	LDGT1	1731	1.2	1397	80.70%	1202	86.04%	176	10.17%	93	52.84%	74	4.27%	28	37.84%	38	2.20%	20	52.63%	46	2.66%	13	28.26%
	LDGT2	861	1.2	682	79.21%	565	82.84%	99	11.50%	54	54.55%	41	4.76%	17	41.46%	24	2.79%	10	41.67%	15	1.74%	7	46.67%
2003 Total		4714	1.2	3753	79.61%	3164	84.31%	528	11.20%	279	52.84%	216	4.58%	85	39.35%	111	2.35%	48	43.24%	106	2.25%	38	35.85%
2004	LDGV	1811	1.2	1425	78.69%	1212	85.05%	192	10.60%	89	46.35%	87	4.80%	37	42.53%	45	2.48%	21	46.67%	62	3.42%	16	25.81%
	LDGT1	1633	1.2	1299	79.55%	1107	85.22%	168	10.29%	82	48.81%	76	4.65%	29	38.16%	38	2.33%	20	52.63%	52	3.18%	15	28.85%
	LDGT2	814	1.2	658	80.84%	561	85.26%	83	10.20%	39	46.99%	38	4.67%	20	52.63%	15	1.84%	6	40.00%	20	2.46%	9	45.00%
2004 Total		4258	1.2	3382	79.43%	2880	85.16%	443	10.40%	210	47.40%	201	4.72%	86	42.79%	98	2.30%	47	47.96%	134	3.15%	40	29.85%
2005	LDGV	1868	1.1	1589	85.06%	1406	88.48%	157	8.40%	82	52.23%	65	3.48%	33	50.77%	30	1.61%	10	33.33%	27	1.45%	11	40.74%
	LDGT1	1151	1.1	1011	87.84%	928	91.79%	70	6.08%	34	48.57%	33	2.87%	14	42.42%	17	1.48%	3	17.65%	20	1.74%	9	45.00%
	LDGT2	698	1.4	487	69.77%	375	77.00%	100	14.33%	47	47.00%	47	6.73%	18	38.30%	27	3.87%	11	40.74%	37	5.30%	14	37.84%
2005 Total		3717	1.2	3087	83.05%	2709	87.76%	327	8.80%	163	49.85%	145	3.90%	65	44.83%	74	1.99%	24	32.43%	84	2.26%	34	40.48%
2006	LDGV	1153	1.2	969	84.04%	825	85.14%	111	9.63%	61	54.95%	42	3.64%	20	47.62%	16	1.39%	8	50.00%	15	1.30%	7	46.67%
	LDGT1	773	1.1	720	93.14%	678	94.17%	38	4.92%	25	65.79%	8	1.03%	4	50.00%	5	0.65%	3	60.00%	2	0.26%	1	50.00%
	LDGT2	542	1.2	446	82.29%	381	85.43%	50	9.23%	22	44.00%	26	4.80%	11	42.31%	10	1.85%	6	60.00%	10	1.85%	3	30.00%
2006 Total		2468	1.1	2135	86.51%	1884	88.24%	199	8.06%	108	54.27%	76	3.08%	35	46.05%	31	1.26%	17	54.84%	27	1.09%	11	40.74%
2007	LDGV	226	1.2	174	76.99%	143	82.18%	30	13.27%	14	46.67%	14	6.19%	7	50.00%	6	2.65%	3	50.00%	2	0.88%	1	50.00%
	LDGT1	190	1.2	158	83.16%	144	91.14%	14	7.37%	6	42.86%	9	4.74%	4	44.44%	4	2.11%	0	0.00%	5	2.63%	2	40.00%
	LDGT2	100	1.2	84	84.00%	74	88.10%	9	9.00%	3	33.33%	6	6.00%	4	66.67%	1	1.00%	1	100.00%	0	0.00%	0	0.00%
2007 Total		516	1.2	416	80.62%	361	86.78%	53	10.27%	23	43.40%	29	5.62%	15	51.72%	11	2.13%	4	36.36%	7	1.36%	3	42.86%
2008	LDGV	164	1.3	121	73.78%	96	79.34%	21	12.80%	11	52.38%	10	6.10%	2	20.00%	6	3.66%	3	50.00%	6	3.66%	2	33.33%
	LDGT1	136	1.2	115	84.56%	105	91.30%	13	9.56%	8	61.54%	4	2.94%	1	25.00%	2	1.47%	1	50.00%	2	1.47%	1	50.00%
	LDGT2	87	1.1	76	87.36%	70	92.11%	6	6.90%	4	66.67%	2	2.30%	0	0.00%	2	2.30%	1	50.00%	1	1.15%	1	100.00%
2008 Total		387	1.2	312	80.62%	271	86.86%	40	10.34%	23	57.50%	16	4.13%	3	18.75%	10	2.58%	5	50.00%	9	2.33%	4	44.44%
2009	LDGV	67	1.5	44	65.67%	30	68.18%	14	20.90%	7	50.00%	7	10.45%	5	71.43%	1	1.49%	0	0.00%	1	1.49%	1	100.00%
	LDGT1	39	1.1	37	94.87%	34	91.89%	2	5.13%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	32	1.2	27	84.38%	25	92.59%	3	9.38%	1	33.33%	2	6.25%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2009 Total		138	1.3	108	78.26%	89	82.41%	19	13.77%	10	52.63%	9	6.52%	7	77.78%	1	0.72%	0	0.00%	1	0.72%	1	100.00%
2010	LDGV	150	1.2	120	80.00%	95	79.17%	19	12.67%	12	63.16%	7	4.67%	2	28.57%	3	2.00%	0	0.00%	1	0.67%	1	100.00%
	LDGT1	76	1.0	74	97.37%	72	97.30%	1	1.32%	0	0.00%	1	1.32%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	52	1.2	45	86.54%	40	88.89%	5	9.62%	4	80.00%	1	1.92%	0	0.00%	1	1.92%	1	100.00%	0	0.00%	0	0.00%
2010 Total		278	1.1	239	85.97%	207	86.61%	25	8.99%	16	64.00%	9	3.24%	3	33.33%	4	1.44%	1	25.00%	1	0.36%	1	100.00%

Vehicle			Avg Retest #	Retest #1				Retest #2				Retest #3				Retest #4				Retest >= #5			
Year	Type	Total		Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt %	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%
2011	LDGV	21	1.1	20	95.24%	19	95.00%	1	4.76%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	15	1.0	15	100.00%	15	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	19	1.1	18	94.74%	17	94.44%	1	5.26%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2011 Total		55	1.0	53	96.36%	51	96.23%	2	3.64%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2012	LDGV	18	1.0	18	100.00%	16	88.89%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	7	1.0	7	100.00%	7	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	9	1.1	8	88.89%	7	87.50%	1	11.11%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2012 Total		34	1.0	33	97.06%	30	90.91%	1	2.94%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2013	LDGV	10	1.0	10	100.00%	9	90.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	2	1.0	2	100.00%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	7	1.4	5	71.43%	4	80.00%	1	14.29%	0	0.00%	1	14.29%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2013 Total		19	1.1	17	89.47%	15	88.24%	1	5.26%	0	0.00%	1	5.26%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2014	LDGV	3	1.0	3	100.00%	2	66.67%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2014 Total		3	1.0	3	100.00%	2	66.67%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2015	LDGV	1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2015 Total		1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2016	LDGV	1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2016 Total		1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Overall Total		68642	1.4	47882	69.76%	35713	74.59%	10541	15.36%	4993	47.37%	4906	7.15%	2088	42.56%	2,420	3.53%	1,012	41.82%	2893	4.21%	1,003	34.67%

Retest Frequency Report Summary by Veh (V1.01)

Vehicle		Avg Retest #	Retest #1				Retest #2				Retest #3				Retest #4				Retest >= #5			
Type	Total		Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt %	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%
LDGV	27892	1.4	19883	71.29%	14965	75.27%	4187	15.01%	2014	48.10%	1874	6.72%	797	42.53%	906	3.25%	379	41.83%	1042	3.74%	355	34.07%
LDGT1	25475	1.4	18123	71.14%	13857	76.46%	3766	14.78%	1791	47.56%	1736	6.81%	742	42.74%	859	3.37%	367	42.72%	991	3.89%	361	36.43%
LDGT2	15275	1.5	9876	64.65%	6891	69.78%	2588	16.94%	1188	45.90%	1296	8.48%	549	42.36%	655	4.29%	266	40.61%	860	5.63%	287	33.37%
Overall Total	68642	1.4	47882	69.76%	35713	74.59%	10541	15.36%	4993	47.37%	4906	7.15%	2088	42.56%	2,420	3.53%	1,012	41.82%	2893	4.21%	1,003	34.67%

Appendix B7

I/M240 Fleet Characterization Summary Report

Initial Inspection Component

Date

Between 1/1/2017 and 12/31/2017

IM240 Fleet Initial Inspection Report (V1.01)

Vehicle		Overall Initial Exhaust Emissions				Pass Initial Test Exhaust Emissions					Pass or Waived Retest Initial Exhaust Emissions				
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
1982	LDGV	194	1.9837	25.3252	2.0303	157	80.93%	1.5883	19.0912	2.0088	37	19.07%	3.6617	51.7776	2.1218
	LDGT1	160	2.8571	42.7581	2.8492	114	71.25%	2.2077	30.3236	2.9824	46	28.75%	4.4666	73.5741	2.5190
	LDGT2	42	3.0117	42.0541	3.2128	34	80.95%	2.7147	36.1647	2.8347	8	19.05%	4.2740	67.0842	4.8198
1982 Total		396	2.4456	34.1431	2.4866	305	77.02%	1.9454	25.1928	2.4647	91	22.98%	4.1224	64.1412	2.5597
1983	LDGV	281	1.7519	19.4580	1.9269	226	80.43%	1.2496	12.1743	1.9684	55	19.57%	3.8158	49.3871	1.7563
	LDGT1	246	3.1305	37.6945	2.4963	197	80.08%	2.9917	31.0264	2.5646	49	19.92%	3.6883	64.5027	2.2216
	LDGT2	111	3.5965	51.1993	2.6759	73	65.77%	2.4655	33.2913	2.5997	38	34.23%	5.7691	85.6014	2.8224
1983 Total		638	2.6044	32.0120	2.2768	496	77.74%	2.1205	22.7699	2.2981	142	22.26%	4.2945	64.2942	2.2022
1984	LDGV	440	1.5915	16.5107	2.0234	349	79.32%	1.2426	10.7190	1.9955	91	20.68%	2.9295	38.7231	2.1302
	LDGT1	437	2.4490	32.1386	2.5813	336	76.89%	1.9053	22.8416	2.6474	101	23.11%	4.2576	63.0671	2.3614
	LDGT2	145	2.4029	40.5825	3.0363	96	66.21%	2.0018	26.6192	3.0986	49	33.79%	3.1888	67.9391	2.9142
1984 Total		1022	2.0733	26.6084	2.4057	781	76.42%	1.6211	17.8888	2.4116	241	23.58%	3.5388	54.8655	2.3865
1985	LDGV	725	1.2736	14.3690	1.8298	610	84.14%	1.0040	10.7222	1.7968	115	15.86%	2.7035	33.7133	2.0053
	LDGT1	685	2.1415	24.7374	2.8170	535	78.10%	1.7684	17.5558	2.8166	150	21.90%	3.4723	50.3519	2.8185
	LDGT2	215	2.5988	35.3944	2.9708	142	66.05%	1.8184	22.3160	2.9447	73	33.95%	4.1169	60.8346	3.0216
1985 Total		1625	1.8148	21.5215	2.3969	1287	79.20%	1.4116	14.8421	2.3474	338	20.80%	3.3500	46.9548	2.5857
1986	LDGV	787	1.2024	11.5595	1.8529	667	84.75%	0.9393	7.8482	1.8669	120	15.25%	2.6649	32.1881	1.7749
	LDGT1	829	1.9753	23.1826	2.5264	663	79.98%	1.5893	16.3013	2.5337	166	20.02%	3.5169	50.6665	2.4972
	LDGT2	217	2.3809	29.9805	2.9180	145	66.82%	1.7896	20.2376	2.9135	72	33.18%	3.5716	49.6016	2.9269
1986 Total		1833	1.6915	18.9970	2.2836	1475	80.47%	1.3151	12.8657	2.2695	358	19.53%	3.2423	44.2585	2.3415
1987	LDGV	1092	1.0385	10.0920	1.8105	939	85.99%	0.8602	7.5671	1.7630	153	14.01%	2.1328	25.5880	2.1023
	LDGT1	1086	1.6405	17.3519	2.4281	902	83.06%	1.4222	14.0727	2.3897	184	16.94%	2.7106	33.4271	2.6167
	LDGT2	311	2.2136	18.8279	2.9812	234	75.24%	1.7739	13.3993	2.8773	77	24.76%	3.5497	35.3253	3.2972
1987 Total		2489	1.4480	14.3512	2.2263	2075	83.37%	1.2075	11.0528	2.1611	414	16.63%	2.6531	30.8831	2.5532
1988	LDGV	1085	1.0024	11.0325	1.6584	926	85.35%	0.7690	8.0104	1.6070	159	14.65%	2.3615	28.6328	1.9583
	LDGT1	1136	1.5226	15.5809	2.2360	948	83.45%	1.2749	11.7928	2.1402	188	16.55%	2.7715	34.6828	2.7191
	LDGT2	417	2.0296	18.4809	2.6509	309	74.10%	1.4396	12.0355	2.5387	108	25.90%	3.7176	36.9218	2.9717
1988 Total		2638	1.3888	14.1686	2.0640	2183	82.75%	1.0836	10.2227	1.9704	455	17.25%	2.8528	33.1001	2.5132
1989	LDGV	1751	0.8730	9.9542	1.6175	1549	88.46%	0.7183	7.7731	1.5842	202	11.54%	2.0597	26.6794	1.8728
	LDGT1	1749	1.4301	16.6939	2.1034	1455	83.19%	1.1631	12.3443	2.0123	294	16.81%	2.7510	38.2198	2.5541
	LDGT2	658	1.7176	14.2574	2.7909	552	83.89%	1.4652	12.1968	2.6592	106	16.11%	3.0319	24.9885	3.4767
1989 Total		4158	1.2410	13.4701	2.0075	3556	85.52%	1.0162	10.3302	1.9262	602	14.48%	2.5685	32.0177	2.4879
1990	LDGV	2138	0.8263	9.6810	1.6136	1880	87.93%	0.6558	7.4696	1.5527	258	12.07%	2.0683	25.7956	2.0574
	LDGT1	1532	1.3563	14.1718	2.2011	1254	81.85%	1.1160	10.8131	2.0997	278	18.15%	2.4403	29.3220	2.6582
	LDGT2	650	1.7133	15.6687	2.6442	523	80.46%	1.4425	13.3298	2.5307	127	19.54%	2.8286	25.3004	3.1115
1990 Total		4320	1.1477	12.1745	1.9770	3657	84.65%	0.9261	9.4542	1.8801	663	15.35%	2.3699	27.1794	2.5112
1991	LDGV	3292	0.7338	8.4687	1.5293	2908	88.34%	0.5655	6.5095	1.4523	384	11.66%	2.0082	23.3051	2.1121
	LDGT1	2386	1.0978	12.5136	1.8777	2079	87.13%	0.9397	10.4304	1.7956	307	12.87%	2.1688	26.6213	2.4333
	LDGT2	730	1.6962	17.5782	2.6405	577	79.04%	1.2735	14.0550	2.4619	153	20.96%	3.2903	30.8651	3.3143
1991 Total		6408	0.9790	11.0126	1.7856	5564	86.83%	0.7787	8.7571	1.6853	844	13.17%	2.2991	25.8818	2.4468

Vehicle		Overall Initial Exhaust Emissions				Pass Initial Test Exhaust Emissions					Pass or Waived Retest Initial Exhaust Emissions				
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
1992	LDGV	3237	0.6630	7.8318	1.4709	2851	88.08%	0.5389	6.0589	1.4118	386	11.92%	1.5797	20.9267	1.9077
	LDGT1	2083	1.0734	12.1800	1.8290	1784	85.65%	0.8837	9.5614	1.7178	299	14.35%	2.2055	27.8040	2.4927
	LDGT2	1043	1.6843	16.4555	2.5478	837	80.25%	1.3840	13.7243	2.4283	206	19.75%	2.9043	27.5526	3.0335
1992 Total		6363	0.9648	10.6688	1.7647	5472	86.00%	0.7806	8.3733	1.6670	891	14.00%	2.0959	24.7665	2.3643
1993	LDGV	4371	0.6475	7.3550	1.5003	3920	89.68%	0.5248	5.5977	1.4459	451	10.32%	1.7135	22.6298	1.9727
	LDGT1	3714	1.0526	11.5882	2.0559	3267	87.96%	0.9184	9.4913	1.9822	447	12.04%	2.0335	26.9140	2.5950
	LDGT2	1439	1.6001	15.8323	2.5939	1130	78.53%	1.3802	13.9068	2.4101	309	21.47%	2.4039	22.8735	3.2659
1993 Total		9524	0.9494	10.2867	1.8822	8317	87.33%	0.7956	8.2561	1.7876	1207	12.67%	2.0087	24.2788	2.5342
1994	LDGV	5145	0.5128	6.2664	1.1934	4651	90.40%	0.4082	5.0101	1.1458	494	9.60%	1.4976	18.0950	1.6416
	LDGT1	4302	0.9153	10.1326	1.8526	3695	85.89%	0.7396	7.9927	1.7313	607	14.11%	1.9849	23.1588	2.5910
	LDGT2	2353	1.2252	13.2799	2.2414	1824	77.52%	0.9450	10.1778	2.0621	529	22.48%	2.1916	23.9758	2.8595
1994 Total		11800	0.8016	9.0745	1.6427	10170	86.19%	0.6249	7.0206	1.5229	1630	13.81%	1.9043	21.8893	2.3904
1995	LDGV	7632	0.4742	5.5369	1.0609	6884	90.20%	0.3857	4.6250	0.9928	748	9.80%	1.2888	13.9291	1.6880
	LDGT1	5297	0.8166	9.3598	1.8648	4588	86.62%	0.6854	7.6571	1.7311	709	13.38%	1.6658	20.3784	2.7295
	LDGT2	3348	1.1070	12.3436	2.2032	2722	81.30%	0.8843	10.2331	2.0260	626	18.70%	2.0750	21.5204	2.9739
1995 Total		16277	0.7158	8.1810	1.5575	14194	87.20%	0.5782	6.6806	1.4296	2083	12.80%	1.6534	18.4057	2.4290
1996	LDGV	7851	0.3610	4.6347	0.8651	7186	91.53%	0.3066	3.8442	0.8166	665	8.47%	0.9493	13.1770	1.3899
	LDGT1	5380	0.4651	6.2718	1.5172	4665	86.71%	0.3950	5.2237	1.4054	715	13.29%	0.9223	13.1103	2.2464
	LDGT2	2801	0.6265	7.2955	1.4734	2410	86.04%	0.4955	6.0032	1.3565	391	13.96%	1.4339	15.2607	2.1937
1996 Total		16032	0.4423	5.6490	1.1902	14261	88.95%	0.3674	4.6603	1.1005	1771	11.05%	1.0454	13.6101	1.9131
1997	LDGV	11502	0.3640	4.6404	0.7962	10483	91.14%	0.3061	3.8582	0.7525	1019	8.86%	0.9598	12.6874	1.2458
	LDGT1	9835	0.4129	6.0922	1.3681	8656	88.01%	0.3479	4.9303	1.2664	1179	11.99%	0.8894	14.6224	2.1142
	LDGT2	4144	0.5268	6.7651	1.4964	3604	86.97%	0.4079	5.5637	1.3419	540	13.03%	1.3207	14.7835	2.5280
1997 Total		25481	0.4093	5.5463	1.1308	22743	89.25%	0.3382	4.5365	1.0415	2738	10.75%	1.0007	13.9340	1.8726
1998	LDGV	12528	0.2972	4.3664	0.6896	11334	90.47%	0.2448	3.5886	0.6444	1194	9.53%	0.7951	11.7492	1.1188
	LDGT1	10786	0.3779	5.4216	1.2359	9538	88.43%	0.3165	4.5448	1.1089	1248	11.57%	0.8473	12.1221	2.2071
	LDGT2	4106	0.4548	5.8790	1.3639	3520	85.73%	0.3415	4.6209	1.2001	586	14.27%	1.1353	13.4362	2.3475
1998 Total		27420	0.3526	5.0080	1.0055	24392	88.96%	0.2868	4.1115	0.9062	3028	11.04%	0.8824	12.2294	1.8051
1999	LDGV	16732	0.2527	3.7362	0.6381	15368	91.85%	0.2114	3.1256	0.5885	1364	8.15%	0.7173	10.6158	1.1968
	LDGT1	14065	0.2756	4.4254	0.8985	12633	89.82%	0.2313	3.6724	0.7973	1432	10.18%	0.6662	11.0684	1.7916
	LDGT2	6822	0.3672	4.5745	1.0342	5962	87.39%	0.2572	3.1813	0.8848	860	12.61%	1.1294	14.2332	2.0702
1999 Total		37619	0.2820	4.1459	0.8073	33963	90.28%	0.2269	3.3388	0.7182	3656	9.72%	0.7943	11.6440	1.6352
2000	LDGV	19132	0.2157	3.4208	0.5435	17569	91.83%	0.1648	2.7683	0.4740	1563	8.17%	0.7883	10.7550	1.3244
	LDGT1	14217	0.2556	3.8696	0.8244	12794	89.99%	0.2205	3.1966	0.7344	1423	10.01%	0.5712	9.9210	1.6332
	LDGT2	5752	0.2830	4.1180	0.8264	5160	89.71%	0.2188	3.1666	0.7274	592	10.29%	0.8427	12.4111	1.6889
2000 Total		39101	0.2401	3.6866	0.6872	35523	90.85%	0.1927	2.9804	0.6046	3578	9.15%	0.7110	10.6973	1.5075
2001	LDGV	22811	0.1446	2.7816	0.3865	21270	93.24%	0.1154	2.3723	0.3374	1541	6.76%	0.5480	8.4307	1.0642
	LDGT1	17602	0.1621	3.3650	0.5026	16220	92.15%	0.1327	2.8082	0.4548	1382	7.85%	0.5063	9.8998	1.0634
	LDGT2	8018	0.2437	3.2457	0.6978	7273	90.71%	0.2047	2.8276	0.6220	745	9.29%	0.6242	7.3264	1.4375
2001 Total		48431	0.1674	3.0705	0.4802	44763	92.43%	0.1362	2.6042	0.4262	3668	7.57%	0.5477	8.7599	1.1397
2002	LDGV	22534	0.1365	3.1583	0.3604	20801	92.31%	0.1090	2.7618	0.2999	1733	7.69%	0.4663	7.9178	1.0866
	LDGT1	17828	0.1473	3.8424	0.4598	16456	92.30%	0.1191	3.2032	0.4070	1372	7.70%	0.4863	11.5093	1.0939
	LDGT2	6499	0.2208	3.1365	0.7451	5845	89.94%	0.1810	2.5952	0.6496	654	10.06%	0.5771	7.9743	1.5993

Vehicle		Overall Initial Exhaust Emissions				Pass Initial Test Exhaust Emissions					Pass or Waived Retest Initial Exhaust Emissions				
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
2002 Total		46861	0.1523	3.4155	0.4516	43102	91.98%	0.1226	2.9077	0.3882	3759	8.02%	0.4929	9.2385	1.1785
2003	LDGV	26572	0.0998	1.9800	0.2844	24959	93.93%	0.0758	1.7027	0.2439	1613	6.07%	0.4710	6.2708	0.9106
	LDGT1	21314	0.1139	2.4141	0.3537	19947	93.59%	0.0944	1.9761	0.3214	1367	6.41%	0.3989	8.8058	0.8254
	LDGT2	8648	0.1822	2.7005	0.4736	7993	92.43%	0.1380	2.0036	0.4158	655	7.57%	0.7213	11.2047	1.1789
2003 Total		56534	0.1177	2.2539	0.3395	52899	93.57%	0.0922	1.8513	0.2991	3635	6.43%	0.4890	8.1132	0.9269
2004	LDGV	22094	0.0941	1.8463	0.2270	20713	93.75%	0.0665	1.5542	0.1871	1381	6.25%	0.5076	6.2278	0.8250
	LDGT1	19955	0.0973	2.2524	0.2483	18694	93.68%	0.0777	1.8045	0.2144	1261	6.32%	0.3881	8.8931	0.7512
	LDGT2	8617	0.1131	2.1133	0.2840	7982	92.63%	0.0899	1.6861	0.2271	635	7.37%	0.4039	7.4833	1.0003
2004 Total		50666	0.0986	2.0517	0.2451	47389	93.53%	0.0749	1.6751	0.2046	3277	6.47%	0.4415	7.4967	0.8305
2005	LDGV	29490	0.0646	1.3883	0.1670	27940	94.74%	0.0486	1.1834	0.1438	1550	5.26%	0.3529	5.0832	0.5858
	LDGT1	27079	0.0655	1.3707	0.1425	26089	96.34%	0.0603	1.2444	0.1269	990	3.66%	0.2001	4.6998	0.5548
	LDGT2	8678	0.1247	2.0376	0.2596	8212	94.63%	0.0962	1.5764	0.2087	466	5.37%	0.6260	10.1657	1.1564
2005 Total		65247	0.0729	1.4674	0.1692	62241	95.39%	0.0598	1.2608	0.1453	3006	4.61%	0.3449	5.7449	0.6641
2006	LDGV	25679	0.0615	1.5199	0.1385	24755	96.40%	0.0481	1.3584	0.1140	924	3.60%	0.4227	5.8484	0.7930
	LDGT1	19876	0.0531	1.4864	0.1352	19165	96.42%	0.0487	1.3748	0.1218	711	3.58%	0.1717	4.4944	0.4947
	LDGT2	8569	0.0914	1.4852	0.1761	8143	95.03%	0.0735	1.2298	0.1397	426	4.97%	0.4343	6.3682	0.8717
2006 Total		54124	0.0632	1.5021	0.1432	52063	96.19%	0.0523	1.3443	0.1209	2061	3.81%	0.3385	5.4887	0.7064
2007	LDGV	4122	0.0665	1.5771	0.1456	3954	95.92%	0.0488	1.3069	0.1104	168	4.08%	0.4844	7.9349	0.9751
	LDGT1	3256	0.0606	1.8030	0.1284	3099	95.18%	0.0441	1.4541	0.1092	157	4.82%	0.3872	8.6890	0.5075
	LDGT2	1418	0.1098	1.6600	0.1934	1335	94.15%	0.0672	1.3389	0.1264	83	5.85%	0.7957	6.8242	1.2717
2007 Total		8796	0.0713	1.6741	0.1470	8388	95.36%	0.0500	1.3664	0.1125	408	4.64%	0.5103	7.9991	0.8555
2008	LDGV	2678	0.0795	1.7988	0.1505	2563	95.71%	0.0475	1.4006	0.1023	115	4.29%	0.7920	10.6728	1.2263
	LDGT1	2168	0.0554	1.8501	0.1408	2052	94.65%	0.0424	1.4824	0.1064	116	5.35%	0.2853	8.3536	0.7486
	LDGT2	1083	0.0720	2.2141	0.1379	1007	92.98%	0.0620	1.7865	0.1193	76	7.02%	0.2048	7.8797	0.3849
2008 Total		5929	0.0693	1.8934	0.1447	5622	94.82%	0.0483	1.4996	0.1068	307	5.18%	0.4552	9.1050	0.8375
2009	LDGV	1403	0.0885	1.7476	0.1403	1359	96.86%	0.0464	1.3696	0.0970	44	3.14%	1.3883	13.4219	1.4770
	LDGT1	826	0.0468	1.5894	0.1303	790	95.64%	0.0392	1.4704	0.1071	36	4.36%	0.2139	4.2009	0.6404
	LDGT2	462	0.0683	1.6218	0.1355	434	93.94%	0.0511	1.4143	0.0915	28	6.06%	0.3344	4.8379	0.8173
2009 Total		2691	0.0722	1.6775	0.1364	2583	95.99%	0.0450	1.4080	0.0991	108	4.01%	0.7236	8.1227	1.0271
2010	LDGV	2346	0.0806	1.6954	0.1197	2236	95.31%	0.0402	1.2862	0.0729	110	4.69%	0.9015	10.0133	1.0696
	LDGT1	1964	0.0343	1.2906	0.0701	1891	96.28%	0.0300	1.0969	0.0659	73	3.72%	0.1447	6.3089	0.1765
	LDGT2	999	0.0517	1.3792	0.1094	954	95.50%	0.0420	1.2620	0.0827	45	4.50%	0.2567	3.8633	0.6764
2010 Total		5309	0.0580	1.4861	0.0994	5081	95.71%	0.0367	1.2112	0.0722	228	4.29%	0.5320	7.6134	0.7060
2011	LDGV	496	0.0579	1.7932	0.1203	476	95.97%	0.0382	1.6156	0.0768	20	4.03%	0.5258	6.0191	1.1553
	LDGT1	350	0.0417	1.5689	0.0800	335	95.71%	0.0419	1.5491	0.0809	15	4.29%	0.0375	2.0117	0.0605
	LDGT2	225	0.0415	1.1298	0.0590	207	92.00%	0.0368	0.8523	0.0575	18	8.00%	0.0956	4.3204	0.0755
2011 Total		1071	0.0491	1.5805	0.0943	1018	95.05%	0.0391	1.4385	0.0743	53	4.95%	0.2415	4.3080	0.4787
2012	LDGV	334	0.0402	1.5790	0.0876	318	95.21%	0.0374	1.5491	0.0789	16	4.79%	0.0948	2.1723	0.2598
	LDGT1	131	0.0385	1.8653	0.0781	124	94.66%	0.0379	1.6651	0.0749	7	5.34%	0.0491	5.4117	0.1346
	LDGT2	89	0.0476	1.1536	0.1087	81	91.01%	0.0353	0.7711	0.0576	8	8.99%	0.1722	5.0267	0.6255
2012 Total		554	0.0410	1.5783	0.0887	523	94.40%	0.0372	1.4561	0.0747	31	5.60%	0.1045	3.6404	0.3259
2013	LDGV	239	0.0503	1.4979	0.1129	230	96.23%	0.0394	1.3210	0.0763	9	3.77%	0.3284	6.0198	1.0496
	LDGT1	50	0.0337	1.7128	0.0424	48	96.00%	0.0342	1.7424	0.0420	2	4.00%	0.0207	1.0022	0.0522

Vehicle		Overall Initial Exhaust Emissions				Pass Initial Test Exhaust Emissions					Pass or Waived Retest Initial Exhaust Emissions				
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
	LDGT2	54	0.0889	1.4461	0.2354	49	90.74%	0.0387	1.0174	0.0719	5	9.26%	0.5800	5.6471	1.8384
2013 Total		343	0.0539	1.5211	0.1219	327	95.34%	0.0385	1.3373	0.0706	16	4.66%	0.3686	5.2761	1.1714
2014	LDGV	100	0.0264	1.3209	0.0612	98	98.00%	0.0265	1.3152	0.0617	2	2.00%	0.0234	1.6012	0.0393
	LDGT1	36	0.0280	1.8362	0.0610	36	100.00%	0.0280	1.8362	0.0610	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	19	0.0417	0.8055	0.0552	19	100.00%	0.0417	0.8055	0.0552	0	0.00%	0.0000	0.0000	0.0000
2014 Total		155	0.0287	1.3774	0.0604	153	98.71%	0.0287	1.3745	0.0607	2	1.29%	0.0234	1.6012	0.0393
2015	LDGV	51	0.0258	0.9737	0.0529	50	98.04%	0.0260	0.9813	0.0531	1	1.96%	0.0137	0.5949	0.0425
	LDGT1	22	0.0246	1.2399	0.0527	22	100.00%	0.0246	1.2399	0.0527	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	7	0.0669	1.0700	0.0515	7	100.00%	0.0669	1.0700	0.0515	0	0.00%	0.0000	0.0000	0.0000
2015 Total		80	0.0291	1.0553	0.0527	79	98.75%	0.0292	1.0612	0.0529	1	1.25%	0.0137	0.5949	0.0425
2016	LDGV	22	0.0184	0.8613	0.0588	21	95.45%	0.0179	0.7910	0.0616	1	4.55%	0.0280	2.3374	0.0000
	LDGT1	7	0.0147	0.5591	0.0418	7	100.00%	0.0147	0.5591	0.0418	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	2	0.0487	1.1481	0.0330	2	100.00%	0.0487	1.1481	0.0330	0	0.00%	0.0000	0.0000	0.0000
2016 Total		31	0.0195	0.8116	0.0533	30	96.77%	0.0192	0.7607	0.0550	1	3.23%	0.0280	2.3374	0.0000
2017	LDGV	3	0.0194	0.5582	0.4601	3	100.00%	0.0194	0.5582	0.4601	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	2	0.0174	0.4769	0.0571	2	100.00%	0.0174	0.4769	0.0571	0	0.00%	0.0000	0.0000	0.0000
2017 Total		5	0.0186	0.5257	0.2989	5	100.00%	0.0186	0.5257	0.2989	0	0.00%	0.0000	0.0000	0.0000
Grand Total		561971	0.2752	3.9460	0.6352	516680	91.94%	0.2131	3.1094	0.5577	45291	8.06%	0.9831	13.4908	1.5195

IM240 Fleet Initial Inspection Report - Summary by Veh (V1.01)

Vehicle		Overall Initial Exhaust Emissions				Pass Initial Test Exhaust Emissions					Pass or Waived Retest Initial Exhaust Emissions				
Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	
LDGV	260889	0.2191	3.2899	0.5003	242203	92.84%	0.1703	2.6635	0.4464	18686	7.16%	0.8520	11.4090	1.1984	
LDGT1	212391	0.2909	4.3321	0.6998	195080	91.85%	0.2326	3.4184	0.6192	17311	8.15%	0.9483	14.6298	1.6081	
LDGT2	88691	0.4024	4.9515	0.8773	79397	89.52%	0.2960	3.7103	0.7459	9294	10.48%	1.3118	15.5550	2.0003	
Grand Total	561971	0.2752	3.9460	0.6352	516680	91.94%	0.2131	3.1094	0.5577	45291	8.06%	0.9831	13.4908	1.5195	

Appendix B8

I/M240 Fleet Characterization Summary Report

Final Inspection Component

Date

Between 1/1/2017 and 12/31/2017

IM240 Fleet Final Inspection Report (V1.01)

Vehicle		Overall Final Exhaust Emissions					Pass Retest Exhaust Emissions					Waived Exhaust Emissions				
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	
1982	LDGV	194	1.6152	19.5093	1.9782	36	18.56%	1.6112	21.3788	1.7758	1	0.52%	5.9911	17.8435	4.4693	
	LDGT1	160	2.2592	30.4463	2.9603	46	28.75%	2.3868	30.7502	2.9054	0	0.00%	0.0000	0.0000	0.0000	
	LDGT2	42	2.5951	37.5518	2.7119	8	19.05%	2.0869	43.4471	2.1900	0	0.00%	0.0000	0.0000	0.0000	
1982 Total		396	1.9793	25.8419	2.4528	90	22.73%	2.0499	28.1303	2.3900	1	0.25%	5.9911	17.8435	4.4693	
1983	LDGV	281	1.2912	13.0612	1.9464	54	19.22%	1.4521	16.3840	1.8072	1	0.36%	2.0053	34.0511	4.4850	
	LDGT1	246	2.9351	31.4865	2.5188	49	19.92%	2.7073	33.3362	2.3344	0	0.00%	0.0000	0.0000	0.0000	
	LDGT2	111	2.5396	33.7168	2.6739	38	34.23%	2.6819	34.5342	2.8164	0	0.00%	0.0000	0.0000	0.0000	
1983 Total		638	2.1422	23.7593	2.2936	141	22.10%	2.2197	27.1667	2.2624	1	0.16%	2.0053	34.0511	4.4850	
1984	LDGV	440	1.2811	11.7386	2.0004	88	20.00%	1.3427	13.6021	2.0303	3	0.68%	3.9486	75.6913	1.6881	
	LDGT1	437	1.9488	23.8948	2.6228	98	22.43%	2.0333	25.7872	2.5205	3	0.69%	4.0518	80.0321	3.2147	
	LDGT2	145	1.9126	26.4392	3.0704	49	33.79%	1.7378	26.0864	3.0150	0	0.00%	0.0000	0.0000	0.0000	
1984 Total		1022	1.6562	19.0222	2.4183	235	22.99%	1.7131	21.2867	2.4400	6	0.59%	4.0002	77.8617	2.4514	
1985	LDGV	725	1.0319	10.6799	1.8208	112	15.45%	1.1507	10.1100	1.9307	3	0.41%	2.2625	23.3502	2.6018	
	LDGT1	685	1.8039	18.5713	2.8229	148	21.61%	1.9072	21.2798	2.8617	2	0.29%	3.6721	89.8021	1.6329	
	LDGT2	215	1.9320	23.0524	3.0098	72	33.49%	2.1340	23.8315	3.1601	1	0.47%	3.5142	71.5343	1.4413	
1985 Total		1625	1.4764	15.6434	2.4005	332	20.43%	1.7012	18.0650	2.6123	6	0.37%	2.9410	53.5315	2.0854	
1986	LDGV	787	0.9673	8.0433	1.8439	120	15.25%	1.1229	9.1279	1.7163	0	0.00%	0.0000	0.0000	0.0000	
	LDGT1	829	1.6256	17.3806	2.5328	159	19.18%	1.6861	18.9556	2.5329	7	0.84%	3.6956	83.8325	2.4426	
	LDGT2	217	1.8078	19.4918	2.8402	72	33.18%	1.8446	17.9897	2.6925	0	0.00%	0.0000	0.0000	0.0000	
1986 Total		1833	1.3646	13.6216	2.2734	351	19.15%	1.5261	15.3976	2.2865	7	0.38%	3.6956	83.8325	2.4426	
1987	LDGV	1092	0.8857	7.7869	1.7789	150	13.74%	1.0238	8.8399	1.8553	3	0.27%	1.9746	23.9247	2.9480	
	LDGT1	1086	1.4223	14.4231	2.3719	181	16.67%	1.3971	14.9844	2.3079	3	0.28%	2.9501	85.9052	0.9023	
	LDGT2	311	1.8045	13.9234	2.8663	75	24.12%	1.8638	13.8479	2.8697	2	0.64%	3.1509	78.0725	1.4537	
1987 Total		2489	1.2346	11.4492	2.1735	406	16.31%	1.3454	12.5043	2.2445	8	0.32%	2.6345	60.7043	1.8073	
1988	LDGV	1085	0.7878	8.1136	1.6121	156	14.38%	0.8640	8.2247	1.6352	3	0.28%	2.6061	34.1803	1.9923	
	LDGT1	1136	1.3049	12.0712	2.1718	185	16.29%	1.3409	12.1720	2.3487	3	0.26%	8.5722	93.8264	1.2178	
	LDGT2	417	1.4487	12.8552	2.4674	104	24.94%	1.3380	12.8904	2.2803	4	0.96%	5.0264	75.2588	1.8211	
1988 Total		2638	1.1150	10.5674	1.9883	445	16.87%	1.1730	10.9561	2.0826	10	0.38%	5.3640	68.5055	1.6915	
1989	LDGV	1751	0.7373	7.8661	1.5927	200	11.42%	0.8746	8.4950	1.6340	2	0.11%	1.7292	16.9980	4.0339	
	LDGT1	1749	1.2050	12.6892	2.0630	283	16.18%	1.2893	12.1329	2.3300	11	0.63%	4.5764	72.6137	1.8951	
	LDGT2	658	1.4727	12.1467	2.6923	105	15.96%	1.4946	11.8443	2.8405	1	0.15%	3.3095	16.2777	5.4168	
1989 Total		4158	1.0504	10.5723	1.9645	588	14.14%	1.1849	10.8440	2.1845	14	0.34%	4.0792	60.6446	2.4522	
1990	LDGV	2138	0.6868	7.6861	1.5743	251	11.74%	0.8020	8.1805	1.7266	7	0.33%	4.8823	48.1288	1.9298	
	LDGT1	1532	1.1425	11.0584	2.1276	276	18.02%	1.2462	12.0240	2.2449	2	0.13%	3.4867	31.6315	3.3860	
	LDGT2	650	1.4510	13.4706	2.5295	126	19.38%	1.4355	12.9586	2.5417	1	0.15%	7.8442	151.6079	0.3733	
1990 Total		4320	0.9634	9.7524	1.9142	653	15.12%	1.1120	10.7269	2.1030	10	0.23%	4.8994	55.1773	2.0654	
1991	LDGV	3292	0.5827	6.5887	1.4614	376	11.42%	0.6760	6.6651	1.5092	8	0.24%	2.4762	31.7958	2.5105	
	LDGT1	2386	0.9557	10.5435	1.8066	303	12.70%	1.0411	10.7862	1.8590	4	0.17%	2.7979	50.9536	3.5341	
	LDGT2	730	1.2744	13.7535	2.5016	147	20.14%	1.2403	12.0746	2.6223	6	0.82%	2.1992	25.8943	3.3614	
1991 Total		6408	0.8004	8.8775	1.7084	826	12.89%	0.9103	9.1395	1.8356	18	0.28%	2.4554	34.0859	3.0216	

Vehicle		Overall Final Exhaust Emissions				Pass Retest Exhaust Emissions				Waived Exhaust Emissions					
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
1992	LDGV	3237	0.5578	6.1775	1.4318	379	11.71%	0.6585	6.4552	1.5715	7	0.22%	2.7983	39.4528	2.0189
	LDGT1	2083	0.9164	9.8454	1.7500	295	14.16%	1.0897	10.9190	1.9449	4	0.19%	2.7423	57.3252	1.7300
	LDGT2	1043	1.3815	13.7154	2.3966	201	19.27%	1.2602	12.6586	2.2508	5	0.48%	5.8362	54.7151	2.9472
1992 Total		6363	0.8102	8.6138	1.6941	875	13.75%	0.9421	9.3852	1.8534	16	0.25%	3.7337	48.6903	2.2368
1993	LDGV	4371	0.5395	5.7221	1.4611	444	10.16%	0.6340	6.5381	1.5751	7	0.16%	2.7674	23.6385	2.7213
	LDGT1	3714	0.9342	9.6526	1.9861	439	11.82%	1.0316	10.3696	1.9980	8	0.22%	2.0787	36.1809	2.9221
	LDGT2	1439	1.3662	13.6629	2.3966	301	20.92%	1.3101	12.5750	2.3153	8	0.56%	1.5008	20.1468	3.5495
1993 Total		9524	0.8183	8.4546	1.8072	1184	12.43%	0.9533	9.4934	1.9201	23	0.24%	2.0873	26.7866	3.0792
1994	LDGV	5145	0.4219	5.1065	1.1638	483	9.39%	0.5330	5.7176	1.3189	11	0.21%	1.3356	19.0627	1.9741
	LDGT1	4302	0.7634	8.1968	1.7480	596	13.85%	0.8256	8.4879	1.8553	11	0.26%	5.3770	60.9725	1.5373
	LDGT2	2353	0.9571	10.2314	2.0365	513	21.80%	0.9427	10.0840	1.8917	16	0.68%	2.7983	21.0686	3.7611
1994 Total		11800	0.6531	7.2551	1.5508	1592	13.49%	0.7746	8.1617	1.7043	38	0.32%	3.1213	32.0391	2.6001
1995	LDGV	7632	0.3982	4.7062	1.0097	737	9.66%	0.4774	5.0605	1.1577	11	0.14%	2.8864	31.7863	1.6541
	LDGT1	5297	0.6944	7.6794	1.7475	701	13.23%	0.7339	7.6763	1.8251	8	0.15%	2.4165	20.7231	4.3255
	LDGT2	3348	0.8975	10.2844	2.0072	615	18.37%	0.9358	10.0684	1.9116	11	0.33%	2.0083	35.0538	2.7003
1995 Total		16277	0.5973	6.8211	1.4550	2053	12.61%	0.7023	7.4539	1.6114	30	0.18%	2.4391	30.0342	2.7501
1996	LDGV	7851	0.3129	3.9049	0.8257	658	8.38%	0.3685	4.4481	0.9079	7	0.09%	1.5729	15.1602	2.5037
	LDGT1	5380	0.3983	5.2611	1.4179	709	13.18%	0.4106	5.3973	1.4790	6	0.11%	1.4452	18.2947	3.9218
	LDGT2	2801	0.5127	6.0594	1.3689	387	13.82%	0.5307	6.1931	1.4197	4	0.14%	9.1074	26.9786	3.9147
1996 Total		16032	0.3764	4.7364	1.1194	1754	10.94%	0.4213	5.2168	1.2517	17	0.11%	3.3007	19.0473	3.3362
1997	LDGV	11502	0.3118	3.9220	0.7601	1012	8.80%	0.3660	4.5330	0.8270	7	0.06%	1.0583	11.1932	2.3682
	LDGT1	9835	0.3543	5.0288	1.2817	1166	11.86%	0.3914	5.5541	1.3801	13	0.13%	1.2199	23.5301	2.6137
	LDGT2	4144	0.4152	5.5758	1.3512	531	12.81%	0.4457	5.5552	1.3606	9	0.22%	1.5552	11.6536	4.5167
1997 Total		25481	0.3450	4.6182	1.0575	2709	10.63%	0.3926	5.1728	1.1696	29	0.11%	1.2850	16.8664	3.1450
1998	LDGV	12528	0.2503	3.6482	0.6497	1178	9.40%	0.2908	4.0190	0.6881	16	0.13%	1.1651	18.5359	1.5653
	LDGT1	10786	0.3241	4.6175	1.1292	1228	11.39%	0.3581	4.9330	1.2503	20	0.19%	1.8729	19.9012	3.3962
	LDGT2	4106	0.3479	4.6961	1.2118	578	14.08%	0.3759	4.9962	1.2605	8	0.19%	1.1227	16.1084	2.8332
1998 Total		27420	0.2939	4.1864	0.9225	2984	10.88%	0.3350	4.5844	1.0303	44	0.16%	1.4791	18.7151	2.6280
1999	LDGV	16732	0.2160	3.1799	0.5954	1347	8.05%	0.2575	3.6811	0.6538	17	0.10%	1.0772	12.5622	2.2082
	LDGT1	14065	0.2384	3.7405	0.8163	1414	10.05%	0.2788	4.1826	0.9625	18	0.13%	2.0181	16.8441	2.6692
	LDGT2	6822	0.2681	3.2833	0.9068	844	12.37%	0.3258	3.7097	1.0265	16	0.23%	1.2635	18.8009	2.7860
1999 Total		37619	0.2338	3.4083	0.7345	3605	9.58%	0.2819	3.8845	0.8621	51	0.14%	1.4678	16.0307	2.5522
2000	LDGV	19132	0.1702	2.8311	0.4860	1547	8.09%	0.2200	3.4127	0.6030	16	0.08%	1.3220	15.5607	2.4050
	LDGT1	14217	0.2244	3.2675	0.7535	1406	9.89%	0.2540	3.7629	0.8958	17	0.12%	0.7244	15.6747	3.3130
	LDGT2	5752	0.2256	3.2480	0.7530	586	10.19%	0.2833	3.9205	0.9470	6	0.10%	0.4259	7.6334	3.8190
2000 Total		39101	0.1981	3.0511	0.6226	3539	9.05%	0.2440	3.6359	0.7763	39	0.10%	0.9236	14.3908	3.0183
2001	LDGV	22811	0.1193	2.4200	0.3462	1528	6.70%	0.1675	2.9516	0.4535	13	0.06%	0.7657	17.9651	2.0545
	LDGT1	17602	0.1372	2.8663	0.4646	1375	7.81%	0.1855	3.5305	0.5705	7	0.04%	0.9252	6.8438	2.3857
	LDGT2	8018	0.2104	2.8863	0.6377	742	9.25%	0.2647	3.4429	0.7823	3	0.04%	0.6133	7.4024	3.0332
2001 Total		48431	0.1409	2.6594	0.4375	3645	7.53%	0.1941	3.2700	0.5646	23	0.05%	0.7943	13.2026	2.2829
2002	LDGV	22534	0.1129	2.7862	0.3070	1727	7.66%	0.1569	3.0613	0.3849	6	0.03%	0.7145	8.4899	2.2557
	LDGT1	17828	0.1232	3.2809	0.4192	1348	7.56%	0.1563	3.7586	0.5322	24	0.13%	1.1000	29.7604	2.4502
	LDGT2	6499	0.1883	2.6868	0.6703	649	9.99%	0.2495	3.3818	0.8423	5	0.08%	0.7778	19.6516	2.5987

Vehicle		Overall Final Exhaust Emissions				Pass Retest Exhaust Emissions				Waived Exhaust Emissions					
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
2002 Total		46861	0.1273	2.9607	0.4001	3724	7.95%	0.1728	3.3696	0.5179	35	0.07%	0.9879	24.6699	2.4380
2003	LDGV	26572	0.0794	1.7403	0.2500	1605	6.04%	0.1282	2.2720	0.3300	8	0.03%	1.3646	12.3750	3.0522
	LDGT1	21314	0.0971	2.0300	0.3298	1356	6.36%	0.1303	2.6934	0.4311	11	0.05%	0.9153	18.1052	3.2427
	LDGT2	8648	0.1428	2.0845	0.4306	653	7.55%	0.1990	3.0265	0.6038	2	0.02%	1.1988	17.9965	3.0921
2003 Total		56534	0.0958	1.9022	0.3077	3614	6.39%	0.1418	2.5665	0.4174	21	0.04%	1.1135	15.9119	3.1558
2004	LDGV	22094	0.0700	1.5944	0.1934	1375	6.22%	0.1192	2.1556	0.2792	6	0.03%	0.6590	11.8162	2.1791
	LDGT1	19955	0.0804	1.8647	0.2213	1253	6.28%	0.1150	2.5715	0.3102	8	0.04%	1.0920	31.9484	2.4687
	LDGT2	8617	0.0942	1.7530	0.2410	635	7.37%	0.1483	2.5935	0.4159	0	0.00%	0.0000	0.0000	0.0000
2004 Total		50666	0.0782	1.7278	0.2125	3263	6.44%	0.1232	2.4006	0.3177	14	0.03%	0.9065	23.3203	2.3446
2005	LDGV	29490	0.0508	1.2136	0.1480	1542	5.23%	0.0867	1.7022	0.2109	8	0.03%	0.8779	12.6632	2.6920
	LDGT1	27079	0.0615	1.2647	0.1294	988	3.65%	0.0896	1.7572	0.1904	2	0.01%	1.4657	22.7039	3.3101
	LDGT2	8678	0.0995	1.6365	0.2181	465	5.36%	0.1568	2.6419	0.3798	1	0.01%	0.8005	28.2353	2.0018
2005 Total		65247	0.0617	1.2911	0.1496	2995	4.59%	0.0985	1.8663	0.2304	11	0.02%	0.9778	15.9044	2.7416
2006	LDGV	25679	0.0499	1.3807	0.1173	921	3.59%	0.0963	1.9657	0.1950	3	0.01%	1.0675	5.9825	3.3794
	LDGT1	19876	0.0497	1.3834	0.1247	711	3.58%	0.0755	1.6144	0.2013	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	8569	0.0772	1.2654	0.1465	423	4.94%	0.1168	1.8366	0.2552	3	0.04%	4.4900	17.6185	3.4771
2006 Total		54124	0.0541	1.3635	0.1246	2055	3.80%	0.0933	1.8176	0.2096	6	0.01%	2.7788	11.8005	3.4282
2007	LDGV	4122	0.0519	1.3669	0.1168	168	4.08%	0.1242	2.7783	0.2680	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	3256	0.0451	1.4802	0.1133	156	4.79%	0.0659	2.0044	0.1782	1	0.03%	0.0229	0.3142	2.5326
	LDGT2	1418	0.0710	1.3935	0.1381	82	5.78%	0.1251	1.9962	0.3216	1	0.07%	0.6358	24.8912	0.7452
2007 Total		8796	0.0524	1.4131	0.1189	406	4.62%	0.1020	2.3230	0.2443	2	0.02%	0.3294	12.6027	1.6389
2008	LDGV	2678	0.0512	1.4652	0.1072	114	4.26%	0.1303	2.8793	0.2020	1	0.04%	0.3878	5.7223	1.9822
	LDGT1	2168	0.0434	1.5180	0.1075	116	5.35%	0.0614	2.1474	0.1252	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	1083	0.0637	1.8914	0.1210	76	7.02%	0.0868	3.2802	0.1437	0	0.00%	0.0000	0.0000	0.0000
2008 Total		5929	0.0506	1.5623	0.1098	306	5.16%	0.0934	2.7014	0.1584	1	0.02%	0.3878	5.7223	1.9822
2009	LDGV	1403	0.0506	1.4336	0.1022	43	3.06%	0.1524	2.3931	0.2641	1	0.07%	1.3243	47.1369	0.2812
	LDGT1	826	0.0405	1.5319	0.1091	36	4.36%	0.0686	2.8814	0.1539	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	462	0.0525	1.4580	0.0944	28	6.06%	0.0729	2.1357	0.1405	0	0.00%	0.0000	0.0000	0.0000
2009 Total		2691	0.0478	1.4680	0.1030	107	3.98%	0.1034	2.4900	0.1947	1	0.04%	1.3243	47.1369	0.2812
2010	LDGV	2346	0.0454	1.3293	0.0838	110	4.69%	0.1521	2.2067	0.3047	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	1964	0.0309	1.1038	0.0679	73	3.72%	0.0532	1.2816	0.1195	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	999	0.0439	1.2817	0.0880	45	4.50%	0.0849	1.7003	0.2005	0	0.00%	0.0000	0.0000	0.0000
2010 Total		5309	0.0398	1.2369	0.0787	228	4.29%	0.1072	1.8105	0.2248	0	0.00%	0.0000	0.0000	0.0000
2011	LDGV	496	0.0426	1.6323	0.0820	20	4.03%	0.1474	2.0291	0.2054	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	350	0.0418	1.5789	0.0806	15	4.29%	0.0398	2.2433	0.0736	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	225	0.0381	0.9424	0.0587	18	8.00%	0.0539	1.9778	0.0722	0	0.00%	0.0000	0.0000	0.0000
2011 Total		1071	0.0414	1.4699	0.0767	53	4.95%	0.0852	2.0723	0.1229	0	0.00%	0.0000	0.0000	0.0000
2012	LDGV	334	0.0366	1.5352	0.0783	16	4.79%	0.0197	1.2585	0.0673	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	131	0.0391	1.7029	0.0757	7	5.34%	0.0591	2.3730	0.0895	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	89	0.0359	0.7760	0.0578	8	8.99%	0.0419	0.8263	0.0593	0	0.00%	0.0000	0.0000	0.0000
2012 Total		554	0.0370	1.4529	0.0744	31	5.60%	0.0343	1.3987	0.0703	0	0.00%	0.0000	0.0000	0.0000
2013	LDGV	239	0.0390	1.3301	0.0758	9	3.77%	0.0306	1.5623	0.0651	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	50	0.0335	1.6974	0.0420	2	4.00%	0.0160	0.6180	0.0417	0	0.00%	0.0000	0.0000	0.0000

Vehicle		Overall Final Exhaust Emissions					Pass Retest Exhaust Emissions					Waived Exhaust Emissions				
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	
	LDGT2	54	0.0452	1.0601	0.0822	5	9.26%	0.1085	1.4789	0.1832	0	0.00%	0.0000	0.0000	0.0000	
2013 Total		343	0.0392	1.3411	0.0719	16	4.66%	0.0531	1.4182	0.0991	0	0.00%	0.0000	0.0000	0.0000	
2014	LDGV	100	0.0264	1.3211	0.0614	2	2.00%	0.0226	1.6107	0.0468	0	0.00%	0.0000	0.0000	0.0000	
	LDGT1	36	0.0280	1.8362	0.0610	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	
	LDGT2	19	0.0417	0.8055	0.0552	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	
2014 Total		155	0.0287	1.3775	0.0605	2	1.29%	0.0226	1.6107	0.0468	0	0.00%	0.0000	0.0000	0.0000	
2015	LDGV	51	0.0258	0.9725	0.0529	1	1.96%	0.0139	0.5321	0.0414	0	0.00%	0.0000	0.0000	0.0000	
	LDGT1	22	0.0246	1.2399	0.0527	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	
	LDGT2	7	0.0669	1.0700	0.0515	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	
2015 Total		80	0.0291	1.0545	0.0527	1	1.25%	0.0139	0.5321	0.0414	0	0.00%	0.0000	0.0000	0.0000	
2016	LDGV	22	0.0186	0.8966	0.0603	1	4.55%	0.0326	3.1137	0.0349	0	0.00%	0.0000	0.0000	0.0000	
	LDGT1	7	0.0147	0.5591	0.0418	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	
	LDGT2	2	0.0487	1.1481	0.0330	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	
2016 Total		31	0.0197	0.8366	0.0544	1	3.23%	0.0326	3.1137	0.0349	0	0.00%	0.0000	0.0000	0.0000	
2017	LDGV	3	0.0194	0.5582	0.4601	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	
	LDGT1	2	0.0174	0.4769	0.0571	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	
2017 Total		5	0.0186	0.5257	0.2989	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	
Grand Total		561971	0.2287	3.2715	0.5878	44809	7.97%	0.3887	4.8795	0.9124	482	0.09%	2.0500	27.5778	2.6692	

Summary by Vehicle Type (V1.01)

Vehicle		Overall Final Exhaust Emissions					Pass Retest Exhaust Emissions					Waived Exhaust Emissions				
Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)		
LDGV	260889	0.1799	2.7566	0.4634	18510	7.09%	0.2918	3.8000	0.6678	176	0.07%	1.7091	21.1344	2.2627		
LDGT1	212391	0.2495	3.6087	0.6537	17118	8.06%	0.4201	5.4324	1.0241	193	0.09%	2.1750	34.2629	2.7451		
LDGT2	88691	0.3224	3.9785	0.7957	9181	10.35%	0.5256	6.0248	1.1971	113	0.13%	2.3676	26.1958	3.1728		
Grand Total	561971	0.2287	3.2715	0.5878	44809	7.97%	0.3887	4.8795	0.9124	482	0.09%	2.0500	27.5778	2.6692		

Appendix B9

I/M240 Fleet Characterization Summary Report

Emissions Reduction Component

Date

Between 1/1/2017 and 12/31/2017

IM240 Fleet Emission Reduction Report (V1.01)

Vehicle		Overall Initial Exhaust Emissions				Overall Final Exhaust Emissions						Emission Reduction			
Year	Type	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Avg HC (gpm)	% Improvement	Avg CO (gpm)	% Improvement	Avg NOx(gpm)	% Improvement
1982	LDGV	194	1.9837	25.3252	2.0303	194	1.6152	19.5093	1.9782	0.3685	18.58%	5.8159	22.97%	0.0521	2.57%
	LDGT1	160	2.8571	42.7581	2.8492	160	2.2592	30.4463	2.9603	0.5979	20.93%	12.3119	28.79%	-0.1111	-3.90%
	LDGT2	42	3.0117	42.0541	3.2128	42	2.5951	37.5518	2.7119	0.4166	13.83%	4.5023	10.71%	0.5009	15.59%
	1982 Total	396	2.4456	34.1431	2.4866	396	1.9793	25.8419	2.4528	0.4663	19.07%	8.3012	24.31%	0.0338	1.36%
1983	LDGV	281	1.7519	19.4580	1.9269	281	1.2912	13.0612	1.9464	0.4607	26.30%	6.3968	32.87%	-0.0195	-1.01%
	LDGT1	246	3.1305	37.6945	2.4963	246	2.9351	31.4865	2.5188	0.1954	6.24%	6.2080	16.47%	-0.0225	-0.90%
	LDGT2	111	3.5965	51.1993	2.6759	111	2.5396	33.7168	2.6739	1.0569	29.39%	17.4825	34.15%	0.0021	0.08%
	1983 Total	638	2.6044	32.0120	2.2768	638	2.1422	23.7593	2.2936	0.4621	17.74%	8.2527	25.78%	-0.0169	-0.74%
1984	LDGV	440	1.5915	16.5107	2.0234	440	1.2811	11.7386	2.0004	0.3104	19.50%	4.7722	28.90%	0.0230	1.14%
	LDGT1	437	2.4490	32.1386	2.5813	437	1.9488	23.8948	2.6228	0.5002	20.43%	8.2438	25.65%	-0.0415	-1.61%
	LDGT2	145	2.4029	40.5825	3.0363	145	1.9126	26.4392	3.0704	0.4903	20.41%	14.1433	34.85%	-0.0341	-1.12%
	1984 Total	1022	2.0733	26.6084	2.4057	1022	1.6562	19.0222	2.4183	0.4171	20.12%	7.5862	28.51%	-0.0127	-0.53%
1985	LDGV	725	1.2736	14.3690	1.8298	725	1.0319	10.6799	1.8208	0.2417	18.98%	3.6892	25.67%	0.0091	0.49%
	LDGT1	685	2.1415	24.7374	2.8170	685	1.8039	18.5713	2.8229	0.3376	15.76%	6.1661	24.93%	-0.0059	-0.21%
	LDGT2	215	2.5988	35.3944	2.9708	215	1.9320	23.0524	3.0098	0.6668	25.66%	12.3420	34.87%	-0.0390	-1.31%
	1985 Total	1625	1.8148	21.5215	2.3969	1625	1.4764	15.6434	2.4005	0.3384	18.64%	5.8781	27.31%	-0.0036	-0.15%
1986	LDGV	787	1.2024	11.5595	1.8529	787	0.9673	8.0433	1.8439	0.2351	19.55%	3.5162	30.42%	0.0089	0.48%
	LDGT1	829	1.9753	23.1826	2.5264	829	1.6256	17.3806	2.5328	0.3496	17.70%	5.8020	25.03%	-0.0064	-0.25%
	LDGT2	217	2.3809	29.9805	2.9180	217	1.8078	19.4918	2.8402	0.5730	24.07%	10.4888	34.99%	0.0778	2.67%
	1986 Total	1833	1.6915	18.9970	2.2836	1833	1.3646	13.6216	2.2734	0.3269	19.33%	5.3754	28.30%	0.0102	0.44%
1987	LDGV	1092	1.0385	10.0920	1.8105	1092	0.8857	7.7869	1.7789	0.1528	14.71%	2.3051	22.84%	0.0316	1.75%
	LDGT1	1086	1.6405	17.3519	2.4281	1086	1.4223	14.4231	2.3719	0.2182	13.30%	2.9288	16.88%	0.0562	2.31%
	LDGT2	311	2.2136	18.8279	2.9812	311	1.8045	13.9234	2.8663	0.4091	18.48%	4.9045	26.05%	0.1149	3.86%
	1987 Total	2489	1.4480	14.3512	2.2263	2489	1.2346	11.4492	2.1735	0.2134	14.74%	2.9021	20.22%	0.0528	2.37%
1988	LDGV	1085	1.0024	11.0325	1.6584	1085	0.7878	8.1136	1.6121	0.2146	21.41%	2.9189	26.46%	0.0464	2.80%
	LDGT1	1136	1.5226	15.5809	2.2360	1136	1.3049	12.0712	2.1718	0.2177	14.30%	3.5097	22.53%	0.0643	2.87%
	LDGT2	417	2.0296	18.4809	2.6509	417	1.4487	12.8552	2.4674	0.5809	28.62%	5.6257	30.44%	0.1835	6.92%
	1988 Total	2638	1.3888	14.1686	2.0640	2638	1.1150	10.5674	1.9883	0.2738	19.72%	3.6012	25.42%	0.0757	3.67%
1989	LDGV	1751	0.8730	9.9542	1.6175	1751	0.7373	7.8661	1.5927	0.1357	15.55%	2.0881	20.98%	0.0248	1.53%
	LDGT1	1749	1.4301	16.6939	2.1034	1749	1.2050	12.6892	2.0630	0.2250	15.74%	4.0047	23.99%	0.0404	1.92%
	LDGT2	658	1.7176	14.2574	2.7909	658	1.4727	12.1467	2.6923	0.2449	14.26%	2.1107	14.80%	0.0986	3.53%
	1989 Total	4158	1.2410	13.4701	2.0075	4158	1.0504	10.5723	1.9645	0.1906	15.36%	2.8979	21.51%	0.0430	2.14%
1990	LDGV	2138	0.8263	9.6810	1.6136	2138	0.6868	7.6861	1.5743	0.1395	16.88%	1.9949	20.61%	0.0393	2.43%
	LDGT1	1532	1.3563	14.1718	2.2011	1532	1.1425	11.0584	2.1276	0.2138	15.76%	3.1133	21.97%	0.0735	3.34%
	LDGT2	650	1.7133	15.6687	2.6442	650	1.4510	13.4706	2.5295	0.2623	15.31%	2.1981	14.03%	0.1147	4.34%
	1990 Total	4320	1.1477	12.1745	1.9770	4320	0.9634	9.7524	1.9142	0.1843	16.06%	2.4221	19.89%	0.0627	3.17%
1991	LDGV	3292	0.7338	8.4687	1.5293	3292	0.5827	6.5887	1.4614	0.1510	20.58%	1.8799	22.20%	0.0679	4.44%
	LDGT1	2386	1.0978	12.5136	1.8777	2386	0.9557	10.5435	1.8066	0.1422	12.95%	1.9701	15.74%	0.0711	3.79%
	LDGT2	730	1.6962	17.5782	2.6405	730	1.2744	13.7535	2.5016	0.4218	24.87%	3.8247	21.76%	0.1390	5.26%
	1991 Total	6408	0.9790	11.0126	1.7856	6408	0.8004	8.8775	1.7084	0.1786	18.24%	2.1351	19.39%	0.0772	4.32%

Vehicle		Overall Initial Exhaust Emissions				Overall Final Exhaust Emissions				Emission Reduction					
Year	Type	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Avg HC (gpm)	% Improvement	Avg CO (gpm)	% Improvement	Avg NOx(gpm)	% Improvement
1992	LDGV	3237	0.6630	7.8318	1.4709	3237	0.5578	6.1775	1.4318	0.1052	15.87%	1.6543	21.12%	0.0391	2.66%
	LDGT1	2083	1.0734	12.1800	1.8290	2083	0.9164	9.8454	1.7500	0.1570	14.63%	2.3346	19.17%	0.0790	4.32%
	LDGT2	1043	1.6843	16.4555	2.5478	1043	1.3815	13.7154	2.3966	0.3028	17.98%	2.7401	16.65%	0.1512	5.94%
	1992 Total	6363	0.9648	10.6688	1.7647	6363	0.8102	8.6138	1.6941	0.1546	16.02%	2.0550	19.26%	0.0706	4.00%
1993	LDGV	4371	0.6475	7.3550	1.5003	4371	0.5395	5.7221	1.4611	0.1080	16.67%	1.6330	22.20%	0.0392	2.61%
	LDGT1	3714	1.0526	11.5882	2.0559	3714	0.9342	9.6526	1.9861	0.1183	11.24%	1.9356	16.70%	0.0699	3.40%
	LDGT2	1439	1.6001	15.8323	2.5939	1439	1.3662	13.6629	2.3966	0.2338	14.61%	2.1693	13.70%	0.1973	7.60%
	1993 Total	9524	0.9494	10.2867	1.8822	9524	0.8183	8.4546	1.8072	0.1310	13.80%	1.8320	17.81%	0.0750	3.99%
1994	LDGV	5145	0.5128	6.2664	1.1934	5145	0.4219	5.1065	1.1638	0.0909	17.73%	1.1599	18.51%	0.0296	2.48%
	LDGT1	4302	0.9153	10.1326	1.8526	4302	0.7634	8.1968	1.7480	0.1519	16.60%	1.9358	19.10%	0.1046	5.65%
	LDGT2	2353	1.2252	13.2799	2.2414	2353	0.9571	10.2314	2.0365	0.2681	21.89%	3.0485	22.96%	0.2049	9.14%
	1994 Total	11800	0.8016	9.0745	1.6427	11800	0.6531	7.2551	1.5508	0.1485	18.53%	1.8194	20.05%	0.0919	5.59%
1995	LDGV	7632	0.4742	5.5369	1.0609	7632	0.3982	4.7062	1.0097	0.0760	16.04%	0.8307	15.00%	0.0513	4.83%
	LDGT1	5297	0.8166	9.3598	1.8648	5297	0.6944	7.6794	1.7475	0.1222	14.96%	1.6805	17.95%	0.1173	6.29%
	LDGT2	3348	1.1070	12.3436	2.2032	3348	0.8975	10.2844	2.0072	0.2095	18.92%	2.0592	16.68%	0.1960	8.90%
	1995 Total	16277	0.7158	8.1810	1.5575	16277	0.5973	6.8211	1.4550	0.1185	16.56%	1.3599	16.62%	0.1025	6.58%
1996	LDGV	7851	0.3610	4.6347	0.8651	7851	0.3129	3.9049	0.8257	0.0481	13.33%	0.7298	15.75%	0.0394	4.55%
	LDGT1	5380	0.4651	6.2718	1.5172	5380	0.3983	5.2611	1.4179	0.0668	14.37%	1.0107	16.11%	0.0993	6.54%
	LDGT2	2801	0.6265	7.2955	1.4734	2801	0.5127	6.0594	1.3689	0.1138	18.17%	1.2361	16.94%	0.1045	7.09%
	1996 Total	16032	0.4423	5.6490	1.1902	16032	0.3764	4.7364	1.1194	0.0659	14.90%	0.9125	16.15%	0.0709	5.95%
1997	LDGV	11502	0.3640	4.6404	0.7962	11502	0.3118	3.9220	0.7601	0.0522	14.34%	0.7184	15.48%	0.0362	4.54%
	LDGT1	9835	0.4129	6.0922	1.3681	9835	0.3543	5.0288	1.2817	0.0586	14.19%	1.0633	17.45%	0.0864	6.31%
	LDGT2	4144	0.5268	6.7651	1.4964	4144	0.4152	5.5758	1.3512	0.1116	21.19%	1.1893	17.58%	0.1453	9.71%
	1997 Total	25481	0.4093	5.5463	1.1308	25481	0.3450	4.6182	1.0575	0.0643	15.71%	0.9281	16.73%	0.0733	6.48%
1998	LDGV	12528	0.2972	4.3664	0.6896	12528	0.2503	3.6482	0.6497	0.0469	15.79%	0.7182	16.45%	0.0399	5.79%
	LDGT1	10786	0.3779	5.4216	1.2359	10786	0.3241	4.6175	1.1292	0.0538	14.23%	0.8041	14.83%	0.1067	8.64%
	LDGT2	4106	0.4548	5.8790	1.3639	4106	0.3479	4.6961	1.2118	0.1069	23.51%	1.1829	20.12%	0.1521	11.15%
	1998 Total	27420	0.3526	5.0080	1.0055	27420	0.2939	4.1864	0.9225	0.0586	16.63%	0.8216	16.41%	0.0830	8.25%
1999	LDGV	16732	0.2527	3.7362	0.6381	16732	0.2160	3.1799	0.5954	0.0367	14.51%	0.5563	14.89%	0.0427	6.69%
	LDGT1	14065	0.2756	4.4254	0.8985	14065	0.2384	3.7405	0.8163	0.0372	13.50%	0.6849	15.48%	0.0822	9.15%
	LDGT2	6822	0.3672	4.5745	1.0342	6822	0.2681	3.2833	0.9068	0.0991	26.99%	1.2912	28.23%	0.1275	12.32%
	1999 Total	37619	0.2820	4.1459	0.8073	37619	0.2338	3.4083	0.7345	0.0482	17.09%	0.7376	17.79%	0.0728	9.02%
2000	LDGV	19132	0.2157	3.4208	0.5435	19132	0.1702	2.8311	0.4860	0.0455	21.10%	0.5897	17.24%	0.0574	10.57%
	LDGT1	14217	0.2556	3.8696	0.8244	14217	0.2244	3.2675	0.7535	0.0312	12.20%	0.6021	15.56%	0.0709	8.60%
	LDGT2	5752	0.2830	4.1180	0.8264	5752	0.2256	3.2480	0.7530	0.0574	20.29%	0.8700	21.13%	0.0734	8.88%
	2000 Total	39101	0.2401	3.6866	0.6872	39101	0.1981	3.0511	0.6226	0.0421	17.51%	0.6354	17.24%	0.0647	9.41%
2001	LDGV	22811	0.1446	2.7816	0.3865	22811	0.1193	2.4200	0.3462	0.0254	17.53%	0.3616	13.00%	0.0403	10.44%
	LDGT1	17602	0.1621	3.3650	0.5026	17602	0.1372	2.8663	0.4646	0.0249	15.36%	0.4988	14.82%	0.0380	7.56%
	LDGT2	8018	0.2437	3.2457	0.6978	8018	0.2104	2.8863	0.6377	0.0333	13.65%	0.3594	11.07%	0.0600	8.60%
	2001 Total	48431	0.1674	3.0705	0.4802	48431	0.1409	2.6594	0.4375	0.0265	15.83%	0.4111	13.39%	0.0427	8.90%
2002	LDGV	22534	0.1365	3.1583	0.3604	22534	0.1129	2.7862	0.3070	0.0236	17.33%	0.3720	11.78%	0.0535	14.83%
	LDGT1	17828	0.1473	3.8424	0.4598	17828	0.1232	3.2809	0.4192	0.0241	16.37%	0.5615	14.61%	0.0407	8.84%
	LDGT2	6499	0.2208	3.1365	0.7451	6499	0.1883	2.6868	0.6703	0.0326	14.74%	0.4496	14.34%	0.0748	10.04%

Vehicle		Overall Initial Exhaust Emissions				Overall Final Exhaust Emissions						Emission Reduction			
Year	Type	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Avg HC (gpm)	% Improvement	Avg CO (gpm)	% Improvement	Avg NOx(gpm)	% Improvement
2002	Total	46861	0.1523	3.4155	0.4516	46861	0.1273	2.9607	0.4001	0.0251	16.46%	0.4549	13.32%	0.0516	11.42%
2003	LDGV	26572	0.0998	1.9800	0.2844	26572	0.0794	1.7403	0.2500	0.0204	20.48%	0.2397	12.11%	0.0344	12.11%
	LDGT1	21314	0.1139	2.4141	0.3537	21314	0.0971	2.0300	0.3298	0.0168	14.76%	0.3841	15.91%	0.0238	6.74%
	LDGT2	8648	0.1822	2.7005	0.4736	8648	0.1428	2.0845	0.4306	0.0393	21.59%	0.6160	22.81%	0.0430	9.08%
2003	Total	56534	0.1177	2.2539	0.3395	56534	0.0958	1.9022	0.3077	0.0220	18.66%	0.3517	15.60%	0.0317	9.35%
2004	LDGV	22094	0.0941	1.8463	0.2270	22094	0.0700	1.5944	0.1934	0.0241	25.64%	0.2519	13.64%	0.0336	14.80%
	LDGT1	19955	0.0973	2.2524	0.2483	19955	0.0804	1.8647	0.2213	0.0169	17.33%	0.3877	17.21%	0.0270	10.87%
	LDGT2	8617	0.1131	2.1133	0.2840	8617	0.0942	1.7530	0.2410	0.0188	16.66%	0.3603	17.05%	0.0431	15.16%
2004	Total	50666	0.0986	2.0517	0.2451	50666	0.0782	1.7278	0.2125	0.0204	20.66%	0.3238	15.78%	0.0326	13.31%
2005	LDGV	29490	0.0646	1.3883	0.1670	29490	0.0508	1.2136	0.1480	0.0138	21.33%	0.1747	12.59%	0.0190	11.40%
	LDGT1	27079	0.0655	1.3707	0.1425	27079	0.0615	1.2647	0.1294	0.0039	6.01%	0.1060	7.74%	0.0131	9.19%
	LDGT2	8678	0.1247	2.0376	0.2596	8678	0.0995	1.6365	0.2181	0.0251	20.16%	0.4011	19.68%	0.0415	15.99%
2005	Total	65247	0.0729	1.4674	0.1692	65247	0.0617	1.2911	0.1496	0.0112	15.36%	0.1763	12.02%	0.0196	11.56%
2006	LDGV	25679	0.0615	1.5199	0.1385	25679	0.0499	1.3807	0.1173	0.0116	18.90%	0.1392	9.16%	0.0211	15.27%
	LDGT1	19876	0.0531	1.4864	0.1352	19876	0.0497	1.3834	0.1247	0.0034	6.48%	0.1030	6.93%	0.0105	7.76%
	LDGT2	8569	0.0914	1.4852	0.1761	8569	0.0772	1.2654	0.1465	0.0143	15.59%	0.2198	14.80%	0.0295	16.77%
2006	Total	54124	0.0632	1.5021	0.1432	54124	0.0541	1.3635	0.1246	0.0090	14.31%	0.1387	9.23%	0.0186	12.96%
2007	LDGV	4122	0.0665	1.5771	0.1456	4122	0.0519	1.3669	0.1168	0.0147	22.07%	0.2102	13.33%	0.0288	19.79%
	LDGT1	3256	0.0606	1.8030	0.1284	3256	0.0451	1.4802	0.1133	0.0155	25.58%	0.3228	17.91%	0.0152	11.80%
	LDGT2	1418	0.1098	1.6600	0.1934	1418	0.0710	1.3935	0.1381	0.0389	35.40%	0.2665	16.05%	0.0553	28.60%
2007	Total	8796	0.0713	1.6741	0.1470	8796	0.0524	1.4131	0.1189	0.0189	26.48%	0.2609	15.59%	0.0280	19.07%
2008	LDGV	2678	0.0795	1.7988	0.1505	2678	0.0512	1.4652	0.1072	0.0283	35.63%	0.3336	18.55%	0.0433	28.78%
	LDGT1	2168	0.0554	1.8501	0.1408	2168	0.0434	1.5180	0.1075	0.0120	21.61%	0.3321	17.95%	0.0334	23.69%
	LDGT2	1083	0.0720	2.2141	0.1379	1083	0.0637	1.8914	0.1210	0.0083	11.49%	0.3228	14.58%	0.0169	12.27%
2008	Total	5929	0.0693	1.8934	0.1447	5929	0.0506	1.5623	0.1098	0.0187	26.95%	0.3311	17.49%	0.0349	24.09%
2009	LDGV	1403	0.0885	1.7476	0.1403	1403	0.0506	1.4336	0.1022	0.0379	42.85%	0.3140	17.97%	0.0380	27.11%
	LDGT1	826	0.0468	1.5894	0.1303	826	0.0405	1.5319	0.1091	0.0063	13.53%	0.0575	3.62%	0.0212	16.27%
	LDGT2	462	0.0683	1.6218	0.1355	462	0.0525	1.4580	0.0944	0.0158	23.20%	0.1638	10.10%	0.0410	30.28%
2009	Total	2691	0.0722	1.6775	0.1364	2691	0.0478	1.4680	0.1030	0.0244	33.83%	0.2095	12.49%	0.0334	24.47%
2010	LDGV	2346	0.0806	1.6954	0.1197	2346	0.0454	1.3293	0.0838	0.0351	43.63%	0.3660	21.59%	0.0359	29.97%
	LDGT1	1964	0.0343	1.2906	0.0701	1964	0.0309	1.1038	0.0679	0.0034	9.91%	0.1869	14.48%	0.0021	3.02%
	LDGT2	999	0.0517	1.3792	0.1094	999	0.0439	1.2817	0.0880	0.0077	14.98%	0.0974	7.06%	0.0214	19.59%
2010	Total	5309	0.0580	1.4861	0.0994	5309	0.0398	1.2369	0.0787	0.0182	31.45%	0.2492	16.77%	0.0207	20.79%
2011	LDGV	496	0.0579	1.7932	0.1203	496	0.0426	1.6323	0.0820	0.0153	26.36%	0.1609	8.97%	0.0383	31.83%
	LDGT1	350	0.0417	1.5689	0.0800	350	0.0418	1.5789	0.0806	-0.0001	-0.24%	-0.0099	-0.63%	-0.0006	-0.70%
	LDGT2	225	0.0415	1.1298	0.0590	225	0.0381	0.9424	0.0587	0.0033	8.04%	0.1874	16.59%	0.0003	0.44%
2011	Total	1071	0.0491	1.5805	0.0943	1071	0.0414	1.4699	0.0767	0.0077	15.74%	0.1106	7.00%	0.0176	18.68%
2012	LDGV	334	0.0402	1.5790	0.0876	334	0.0366	1.5352	0.0783	0.0036	8.97%	0.0438	2.77%	0.0092	10.53%
	LDGT1	131	0.0385	1.8653	0.0781	131	0.0391	1.7029	0.0757	-0.0005	-1.38%	0.1624	8.71%	0.0024	3.08%
	LDGT2	89	0.0476	1.1536	0.1087	89	0.0359	0.7760	0.0578	0.0117	24.60%	0.3776	32.73%	0.0509	46.83%
2012	Total	554	0.0410	1.5783	0.0887	554	0.0370	1.4529	0.0744	0.0039	9.58%	0.1254	7.95%	0.0143	16.12%
2013	LDGV	239	0.0503	1.4979	0.1129	239	0.0390	1.3301	0.0758	0.0112	22.31%	0.1679	11.21%	0.0371	32.83%
	LDGT1	50	0.0337	1.7128	0.0424	50	0.0335	1.6974	0.0420	0.0002	0.57%	0.0154	0.90%	0.0004	0.99%

Vehicle		Overall Initial Exhaust Emissions				Overall Final Exhaust Emissions				Emission Reduction					
Year	Type	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Avg HC (gpm)	% Improvement	Avg CO (gpm)	% Improvement	Avg NOx(gpm)	% Improvement
	LDGT2	54	0.0889	1.4461	0.2354	54	0.0452	1.0601	0.0822	0.0437	49.13%	0.3859	26.69%	0.1533	65.09%
2013 Total		343	0.0539	1.5211	0.1219	343	0.0392	1.3411	0.0719	0.0147	27.29%	0.1800	11.83%	0.0500	41.03%
2014	LDGV	100	0.0264	1.3209	0.0612	100	0.0264	1.3211	0.0614	0.0000	0.06%	-0.0002	-0.01%	-0.0001	-0.24%
	LDGT1	36	0.0280	1.8362	0.0610	36	0.0280	1.8362	0.0610	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT2	19	0.0417	0.8055	0.0552	19	0.0417	0.8055	0.0552	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
2014 Total		155	0.0287	1.3774	0.0604	155	0.0287	1.3775	0.0605	0.0000	0.04%	-0.0001	-0.01%	-0.0001	-0.16%
2015	LDGV	51	0.0258	0.9737	0.0529	51	0.0258	0.9725	0.0529	-0.0000	-0.02%	0.0012	0.13%	0.0000	0.04%
	LDGT1	22	0.0246	1.2399	0.0527	22	0.0246	1.2399	0.0527	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT2	7	0.0669	1.0700	0.0515	7	0.0669	1.0700	0.0515	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
2015 Total		80	0.0291	1.0553	0.0527	80	0.0291	1.0545	0.0527	-0.0000	-0.01%	0.0008	0.07%	0.0000	0.03%
2016	LDGV	22	0.0184	0.8613	0.0588	22	0.0186	0.8966	0.0603	-0.0002	-1.14%	-0.0353	-4.10%	-0.0016	-2.70%
	LDGT1	7	0.0147	0.5591	0.0418	7	0.0147	0.5591	0.0418	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT2	2	0.0487	1.1481	0.0330	2	0.0487	1.1481	0.0330	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
2016 Total		31	0.0195	0.8116	0.0533	31	0.0197	0.8366	0.0544	-0.0001	-0.76%	-0.0250	-3.09%	-0.0011	-2.11%
2017	LDGV	3	0.0194	0.5582	0.4601	3	0.0194	0.5582	0.4601	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT1	2	0.0174	0.4769	0.0571	2	0.0174	0.4769	0.0571	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
2017 Total		5	0.0186	0.5257	0.2989	5	0.0186	0.5257	0.2989	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
Grand Total		561971	0.2752	3.9460	0.6352	561971	0.2287	3.2715	0.5878	0.0465	16.89%	0.6745	17.09%	0.0474	7.47%

IM240 Fleet Emission Reduction Report -Summary by Veh (V1.01)

Vehicle		Overall Initial Exhaust Emissions				Overall Final Exhaust Emissions				Emission Reduction					
Type	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Avg HC (gpm)	% Improvement	Avg CO (gpm)	% Improvement	Avg NOx(gpm)	% Improvement	
LDGV	260889	0.2191	3.2899	0.5003	260889	0.1799	2.7566	0.4634	0.0392	17.87%	0.5333	16.21%	0.0369	7.38%	
LDGT1	212391	0.2909	4.3321	0.6998	212391	0.2495	3.6087	0.6537	0.0415	14.25%	0.7234	16.70%	0.0460	6.58%	
LDGT2	88691	0.4024	4.9515	0.8773	88691	0.3224	3.9785	0.7957	0.0800	19.89%	0.9730	19.65%	0.0817	9.31%	
Grand Total	561971	0.2752	3.9460	0.6352	561971	0.2287	3.2715	0.5878	0.0465	16.89%	0.6745	17.09%	0.0474	7.47%	

Appendix C1

Idle Initial Inspection Report

Date
Between 1/1/2017 and 12/31/2017

Idle Initial Inspection Report (V1.01)

Vehicle		All Initial Inspections					Passing Initial Inspections						Failing Initial Inspections					
Year	Type	Total	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm
1974	LDGV	652	518.49	2.59	408.76	2.99	421	64.57%	300.30	1.26	270.01	2.17	231	35.43%	916.14	5.02	661.63	4.48
	LDGT	338	380.74	2.16	327.06	2.70	243	71.89%	250.15	1.14	236.27	2.05	95	28.11%	714.78	4.76	559.30	4.36
	HDGT	352	405.60	2.34	402.89	2.89	308	87.50%	306.82	1.99	333.23	2.64	44	12.50%	1097.08	4.77	890.49	4.60
1974 Total		1,342	454.19	2.41	386.64	2.89	972	72.43%	289.83	1.46	281.61	2.29	370	27.57%	885.96	4.92	662.57	4.47
1975	LDGV	36	295.56	1.38	215.76	2.03	24	66.67%	164.32	0.58	155.30	1.61	12	33.33%	558.06	2.97	336.68	2.85
	LDGT	22	257.99	1.68	207.19	1.96	13	59.09%	99.64	0.69	87.35	1.11	9	40.91%	486.71	3.12	380.29	3.18
	HDGT	88	389.28	2.08	328.62	2.22	73	82.95%	267.35	1.67	252.36	2.04	15	17.05%	982.72	4.05	699.77	3.10
1975 Total		146	346.39	1.84	282.50	2.13	110	75.34%	225.05	1.32	211.68	1.84	36	24.66%	717.16	3.46	498.87	3.04
1976	LDGV	195	288.07	1.59	232.79	2.03	124	63.59%	132.46	0.47	115.42	1.26	71	36.41%	559.83	3.53	437.77	3.38
	LDGT	125	256.32	1.27	195.09	1.86	84	67.20%	145.76	0.57	122.64	1.28	41	32.80%	482.85	2.70	343.53	3.04
	HDGT	398	356.03	1.94	279.88	2.54	337	84.67%	264.31	1.61	239.88	2.40	61	15.33%	862.77	3.76	500.90	3.34
1976 Total		718	320.22	1.73	252.33	2.29	545	75.91%	216.04	1.19	193.49	1.97	173	24.09%	648.40	3.42	437.69	3.28
1977	LDGV	241	267.86	1.24	218.06	1.66	156	64.73%	92.80	0.26	92.07	0.92	85	35.27%	589.14	3.05	449.31	3.02
	LDGT	115	278.93	1.65	232.98	1.94	70	60.87%	144.81	0.44	144.47	1.32	45	39.13%	487.57	3.53	370.66	2.90
	HDGT	565	386.54	2.07	334.48	2.34	476	84.25%	286.95	1.68	264.92	2.08	89	15.75%	919.16	4.16	706.52	3.73
1977 Total		921	342.05	1.80	291.34	2.11	702	76.22%	229.63	1.24	214.49	1.74	219	23.78%	702.39	3.60	537.68	3.28
1978	LDGV	309	256.38	1.09	227.35	1.54	205	66.34%	103.23	0.31	114.14	0.91	104	33.66%	558.24	2.64	450.49	2.78
	LDGT	147	238.37	0.95	216.19	1.61	98	66.67%	117.99	0.47	144.09	1.17	49	33.33%	479.13	1.92	360.40	2.50
	HDGT	668	372.95	2.16	297.82	2.30	554	82.93%	275.54	1.67	243.27	2.06	114	17.07%	846.31	4.55	562.88	3.46
1978 Total		1,124	323.30	1.71	267.77	2.00	857	76.25%	216.31	1.21	201.04	1.68	267	23.75%	666.72	3.32	481.94	3.02
1979	LDGV	371	208.73	1.05	174.97	1.54	249	67.12%	101.00	0.28	100.49	1.02	122	32.88%	428.62	2.64	326.99	2.60
	LDGT	512	237.12	0.99	221.34	1.64	334	65.23%	107.89	0.31	137.15	1.22	178	34.77%	479.63	2.26	379.32	2.45
	HDGT	167	296.52	1.37	231.27	1.65	135	80.84%	198.14	0.99	150.73	1.38	32	19.16%	711.56	2.98	571.07	2.76
1979 Total		1,050	236.54	1.07	206.54	1.61	718	68.38%	122.47	0.42	126.99	1.18	332	31.62%	483.24	2.47	378.57	2.53
1980	LDGV	244	175.73	0.67	170.25	1.39	183	75.00%	76.98	0.23	120.99	0.99	61	25.00%	472.01	2.02	318.04	2.57
	LDGT	280	193.40	0.96	167.17	1.76	193	68.93%	87.72	0.21	95.84	1.23	87	31.07%	427.83	2.64	325.42	2.93
	HDGT	89	329.81	1.38	236.48	1.62	70	78.65%	185.10	0.70	111.41	1.12	19	21.35%	862.98	3.88	697.26	3.48
1980 Total		613	206.17	0.91	178.46	1.59	446	72.76%	98.60	0.29	108.60	1.11	167	27.24%	493.47	2.55	365.03	2.86
1981	LDGV	196	153.62	0.68	162.87	1.40	123	62.76%	55.47	0.12	51.13	0.27	73	37.24%	319.00	1.62	351.14	3.31
	LDGT	309	203.93	0.83	145.80	1.04	166	53.72%	64.64	0.13	55.59	0.26	143	46.28%	365.63	1.64	250.53	1.95
	HDGT	148	225.31	1.29	187.67	1.36	115	77.70%	129.59	0.84	99.14	1.02	33	22.30%	558.88	2.86	496.15	2.56
1981 Total		653	193.68	0.89	160.41	1.22	404	61.87%	80.34	0.33	66.63	0.48	249	38.13%	377.57	1.80	312.58	2.43
1982	LDGV	2	115.40	1.52	98.80	0.71	1	50.00%	150.10	1.71	141.40	1.13	1	50.00%	80.70	1.33	56.20	0.28
	LDGT	3	493.87	2.72	228.27	0.75	1	33.33%	23.40	0.00	7.60	0.00	2	66.67%	729.10	4.08	338.60	1.13
	HDGT	118	215.59	1.06	128.39	1.33	100	84.75%	145.11	0.70	88.69	1.04	18	15.25%	607.12	3.01	348.93	2.91
1982 Total		123	220.75	1.10	130.35	1.31	102	82.93%	143.97	0.71	88.42	1.04	21	17.07%	593.67	3.03	334.01	2.61
1983	LDGV	3	147.43	1.69	218.37	3.21	0	0.00%	0.00	0.00	0.00	0.00	3	100.00%	147.43	1.69	218.37	3.21
	LDGT	1	62.40	0.30	20.20	0.22	1	100.00%	62.40	0.30	20.20	0.22	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	152	282.19	1.24	171.24	1.09	118	77.63%	148.96	0.79	94.99	0.73	34	22.37%	744.60	2.79	435.89	2.31

Vehicle		All Initial Inspections					Passing Initial Inspections						Failing Initial Inspections					
Year	Type	Total	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm
1983 Total		156	278.19	1.24	171.18	1.12	119	76.28%	148.23	0.79	94.36	0.73	37	23.72%	696.18	2.70	418.25	2.38
1984	LDGV	5	414.14	1.88	421.26	2.15	2	40.00%	62.70	0.49	39.30	0.42	3	60.00%	648.43	2.80	675.90	3.30
	LDGT	5	151.86	0.10	95.00	0.32	2	40.00%	83.25	0.01	59.75	0.11	3	60.00%	197.60	0.15	118.50	0.47
	HDGT	251	240.15	1.15	155.86	0.97	197	78.49%	134.52	0.75	78.50	0.72	54	21.51%	625.48	2.62	438.06	1.88
1984 Total		261	241.79	1.15	159.77	0.98	201	77.01%	133.30	0.74	77.92	0.71	60	22.99%	605.23	2.51	433.98	1.88
1985	LDGV	8	77.08	0.39	69.13	0.49	6	75.00%	37.65	0.09	33.45	0.15	2	25.00%	195.35	1.28	176.15	1.51
	LDGT	6	318.95	2.23	311.02	2.25	3	50.00%	85.83	0.39	84.67	0.13	3	50.00%	552.07	4.08	537.37	4.36
	HDGT	310	221.88	1.04	163.90	0.87	246	79.35%	136.13	0.71	100.46	0.65	64	20.65%	551.49	2.32	407.76	1.69
1985 Total		324	220.10	1.05	164.29	0.88	255	78.70%	133.22	0.69	98.70	0.64	69	21.30%	541.20	2.37	406.68	1.80
1986	LDGV	13	117.45	0.63	108.75	0.58	11	84.62%	65.70	0.26	71.81	0.39	2	15.38%	402.10	2.67	311.90	1.61
	LDGT	4	212.20	0.56	227.30	1.10	1	25.00%	58.30	0.83	85.90	0.42	3	75.00%	263.50	0.47	274.43	1.32
	HDGT	216	215.79	1.02	149.97	1.00	153	70.83%	87.51	0.61	71.36	0.79	63	29.17%	527.32	2.00	340.87	1.51
1986 Total		233	210.24	0.99	148.99	0.98	165	70.82%	85.88	0.59	71.48	0.76	68	29.18%	512.00	1.95	337.09	1.51
1987	LDGV	12	199.63	0.17	93.06	0.24	10	83.33%	32.66	0.15	27.39	0.21	2	16.67%	1034.45	0.23	421.40	0.39
	LDGT	16	228.91	0.97	142.48	1.08	10	62.50%	184.78	0.55	108.66	0.54	6	37.50%	302.47	1.65	198.83	1.98
	HDGT	240	174.66	0.74	139.78	0.72	190	79.17%	80.50	0.43	69.04	0.49	50	20.83%	532.45	1.94	408.56	1.58
1987 Total		268	179.01	0.73	137.84	0.72	210	78.36%	83.19	0.42	68.95	0.48	58	21.64%	525.97	1.85	387.31	1.58
1988	LDGV	18	173.39	0.62	125.80	0.48	11	61.11%	61.36	0.18	54.90	0.29	7	38.89%	349.43	1.30	237.21	0.79
	LDGT	27	200.64	0.45	167.17	0.61	16	59.26%	95.14	0.35	98.03	0.51	11	40.74%	354.10	0.61	267.75	0.76
	HDGT	306	137.58	0.63	116.37	0.64	245	80.07%	69.74	0.31	63.90	0.43	61	19.93%	410.08	1.91	327.13	1.49
1988 Total		351	144.27	0.62	120.76	0.63	272	77.49%	70.89	0.31	65.54	0.43	79	22.51%	396.91	1.68	310.89	1.33
1989	LDGV	30	76.07	0.52	59.62	0.47	25	83.33%	38.44	0.14	38.13	0.21	5	16.67%	264.24	2.40	167.10	1.78
	LDGT	40	202.89	0.37	131.34	0.65	24	60.00%	113.33	0.32	96.46	0.51	16	40.00%	337.22	0.44	183.65	0.86
	HDGT	612	123.02	0.46	103.13	0.54	538	87.91%	75.89	0.29	65.11	0.41	74	12.09%	465.64	1.69	379.55	1.48
1989 Total		682	125.64	0.46	102.87	0.54	587	86.07%	75.83	0.28	65.24	0.40	95	13.93%	433.41	1.52	335.37	1.39
1990	LDGV	54	167.93	0.56	158.31	0.93	37	68.52%	71.79	0.17	62.49	0.34	17	31.48%	377.17	1.39	366.85	2.22
	LDGT	34	131.67	0.49	100.20	0.54	26	76.47%	105.77	0.35	75.74	0.37	8	23.53%	215.85	0.95	179.69	1.11
	HDGT	465	121.20	0.58	100.26	0.66	409	87.96%	70.27	0.30	68.80	0.47	56	12.04%	493.19	2.64	330.03	2.04
1990 Total		553	126.41	0.57	105.92	0.68	472	85.35%	72.34	0.29	68.68	0.46	81	14.65%	441.45	2.21	322.91	1.98
1991	LDGV	67	79.05	0.28	91.26	0.70	49	73.13%	30.50	0.09	29.87	0.16	18	26.87%	211.21	0.80	258.38	2.15
	LDGT	46	137.60	0.44	89.34	0.44	37	80.43%	104.97	0.32	61.84	0.28	9	19.57%	271.73	0.94	202.42	1.09
	HDGT	528	111.72	0.62	93.43	0.71	455	86.17%	64.55	0.29	56.69	0.51	73	13.83%	405.74	2.64	322.41	1.98
1991 Total		641	110.16	0.57	92.91	0.69	541	84.40%	64.23	0.28	54.61	0.46	100	15.60%	358.66	2.16	300.09	1.93
1992	LDGV	53	65.14	0.31	69.62	0.38	47	88.68%	52.13	0.12	56.05	0.24	6	11.32%	167.03	1.80	175.93	1.50
	LDGT	23	120.36	0.36	74.48	0.39	20	86.96%	95.17	0.30	65.66	0.35	3	13.04%	288.33	0.78	133.33	0.67
	HDGT	616	86.74	0.43	74.69	0.56	552	89.61%	59.62	0.24	45.54	0.41	64	10.39%	320.60	2.06	326.16	1.84
1992 Total		692	86.20	0.42	74.30	0.54	619	89.45%	60.20	0.24	46.98	0.40	73	10.55%	306.65	1.99	305.89	1.76
1993	LDGV	27	113.27	0.51	137.65	0.99	19	70.37%	51.54	0.12	45.09	0.18	8	29.63%	259.88	1.41	357.48	2.93
	LDGT	21	112.06	0.42	68.94	0.43	18	85.71%	86.73	0.23	56.48	0.25	3	14.29%	264.07	1.58	143.70	1.52
	HDGT	783	101.59	0.50	89.59	0.65	698	89.14%	58.97	0.25	54.56	0.46	85	10.86%	451.58	2.54	377.23	2.23
1993 Total		831	102.24	0.50	90.63	0.66	735	88.45%	59.46	0.25	54.36	0.45	96	11.55%	429.75	2.41	368.28	2.26
1994	LDGV	68	69.49	0.23	91.23	0.44	56	82.35%	40.93	0.10	46.44	0.18	12	17.65%	202.80	0.83	300.28	1.68
	LDGT	54	128.24	0.54	97.29	0.64	41	75.93%	63.31	0.30	53.22	0.36	13	24.07%	333.00	1.30	236.30	1.54

Vehicle		All Initial Inspections					Passing Initial Inspections						Failing Initial Inspections					
Year	Type	Total	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm
	HDGT	913	94.55	0.52	70.51	0.61	812	88.94%	52.21	0.26	37.58	0.35	101	11.06%	434.91	2.61	335.25	2.70
1994 Total		1,035	94.66	0.50	73.27	0.60	909	87.83%	52.02	0.25	38.83	0.34	126	12.17%	402.29	2.31	321.71	2.48
1995	LDGV	86	101.64	0.33	103.73	0.44	71	82.56%	27.72	0.06	28.99	0.12	15	17.44%	451.57	1.65	457.53	1.99
	LDGT	31	157.28	0.38	76.79	0.43	21	67.74%	60.56	0.19	51.61	0.25	10	32.26%	360.41	0.78	129.66	0.81
	HDGT	1,342	92.37	0.57	69.63	0.71	1200	89.42%	54.55	0.26	40.47	0.44	142	10.58%	411.99	3.14	316.04	3.01
1995 Total		1,459	94.30	0.55	71.79	0.69	1292	88.55%	53.17	0.25	40.02	0.42	167	11.45%	412.46	2.86	317.59	2.79
1996	LDGV	7	57.17	0.01	92.37	0.09	6	85.71%	26.50	0.01	31.45	0.10	1	14.29%	241.20	0.01	457.90	0.01
	LDGT	4	53.20	0.23	62.30	0.36	4	100.00%	53.20	0.23	62.30	0.36	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1,200	81.76	0.36	54.51	0.41	1111	92.58%	51.86	0.19	36.91	0.27	89	7.42%	454.96	2.49	274.19	2.18
1996 Total		1,211	81.52	0.36	54.76	0.41	1121	92.57%	51.73	0.19	36.98	0.27	90	7.43%	452.58	2.46	276.23	2.15
1997	LDGV	1	141.10	0.40	153.50	0.49	1	100.00%	141.10	0.40	153.50	0.49	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	15	47.20	0.11	48.83	0.14	13	86.67%	34.30	0.06	32.88	0.10	2	13.33%	131.05	0.40	152.50	0.37
	HDGT	1,810	68.09	0.24	49.05	0.25	1736	95.91%	47.33	0.17	34.97	0.22	74	4.09%	555.03	1.93	379.40	0.97
1997 Total		1,826	67.96	0.24	49.10	0.25	1750	95.84%	47.29	0.17	35.02	0.22	76	4.16%	543.88	1.89	373.43	0.95
1998	LDGV	3	76.63	0.28	62.33	0.30	3	100.00%	76.63	0.28	62.33	0.30	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	11	40.85	0.18	43.25	0.21	11	100.00%	40.85	0.18	43.25	0.21	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1,144	99.10	0.27	59.74	0.31	1058	92.48%	62.94	0.18	40.56	0.24	86	7.52%	544.05	1.38	295.61	1.17
1998 Total		1,158	98.49	0.27	59.59	0.31	1072	92.57%	62.75	0.18	40.65	0.24	86	7.43%	544.05	1.38	295.61	1.17
1999	LDGV	7	12.29	0.01	16.73	0.01	7	100.00%	12.29	0.01	16.73	0.01	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	12	48.14	0.14	53.45	0.16	12	100.00%	48.14	0.14	53.45	0.16	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	2,489	61.94	0.16	46.94	0.22	2397	96.30%	44.24	0.12	37.35	0.20	92	3.70%	523.16	1.14	296.63	0.76
1999 Total		2,508	61.73	0.16	46.88	0.22	2416	96.33%	44.16	0.12	37.37	0.20	92	3.67%	523.16	1.14	296.63	0.76
2000	LDGV	11	56.11	0.27	50.06	0.16	10	90.91%	42.70	0.05	48.61	0.06	1	9.09%	190.20	2.51	64.60	1.15
	LDGT	25	70.95	0.06	103.36	0.37	23	92.00%	22.24	0.03	23.35	0.05	2	8.00%	631.15	0.46	1023.40	4.09
	HDGT	2,331	68.40	0.17	50.44	0.21	2222	95.32%	43.38	0.12	31.91	0.16	109	4.68%	578.53	1.27	428.24	1.21
2000 Total		2,367	68.37	0.17	51.00	0.21	2255	95.27%	43.16	0.12	31.90	0.16	112	4.73%	576.00	1.27	435.62	1.26
2001	LDGV	8	7.01	0.01	11.85	0.02	8	100.00%	7.01	0.01	11.85	0.02	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	14	17.74	0.03	21.31	0.05	13	92.86%	17.22	0.04	20.52	0.05	1	7.14%	24.60	0.00	31.70	0.00
	HDGT	2,750	46.25	0.12	36.70	0.17	2701	98.22%	37.49	0.09	29.55	0.15	49	1.78%	529.25	1.51	430.75	1.47
2001 Total		2,772	46.00	0.12	36.55	0.17	2722	98.20%	37.30	0.09	29.46	0.15	50	1.80%	519.15	1.48	422.77	1.44
2002	LDGV	15	50.19	0.18	55.74	0.18	12	80.00%	18.15	0.08	21.17	0.09	3	20.00%	178.37	0.57	194.03	0.58
	LDGT	16	17.74	0.05	19.32	0.05	15	93.75%	17.22	0.05	18.16	0.05	1	6.25%	25.60	0.00	36.70	0.03
	HDGT	1,969	50.39	0.12	40.81	0.20	1929	97.97%	38.73	0.09	30.37	0.17	40	2.03%	612.69	1.59	544.43	1.74
2002 Total		2,000	50.13	0.12	40.75	0.20	1956	97.80%	38.44	0.09	30.22	0.17	44	2.20%	569.74	1.48	509.00	1.62
2003	LDGV	4	50.50	0.15	54.63	0.14	4	100.00%	50.50	0.15	54.63	0.14	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	26	13.46	0.03	15.45	0.04	25	96.15%	10.02	0.00	12.11	0.01	1	3.85%	99.50	0.60	99.00	0.57
	HDGT	2,665	31.65	0.09	26.08	0.13	2634	98.84%	27.27	0.08	22.30	0.12	31	1.16%	403.88	1.47	348.02	1.20
2003 Total		2,695	31.50	0.09	26.02	0.13	2663	98.81%	27.14	0.08	22.25	0.12	32	1.19%	394.37	1.44	340.24	1.18
2004	LDGV	9	15.86	0.02	17.82	0.02	9	100.00%	15.86	0.02	17.82	0.02	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	15	21.44	0.01	23.23	0.02	15	100.00%	21.44	0.01	23.23	0.02	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1,925	30.49	0.09	25.73	0.14	1906	99.01%	23.56	0.06	18.13	0.11	19	0.99%	725.72	2.73	788.00	3.32
2004 Total		1,949	30.36	0.09	25.67	0.14	1930	99.03%	23.51	0.06	18.16	0.11	19	0.97%	725.72	2.73	788.00	3.32
2005	LDGV	13	24.66	0.06	27.81	0.08	13	100.00%	24.66	0.06	27.81	0.08	0	0.00%	0.00	0.00	0.00	0.00

Vehicle		All Initial Inspections					Passing Initial Inspections						Failing Initial Inspections					
Year	Type	Total	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm
	LDGT	19	86.54	0.10	100.01	0.12	16	84.21%	17.68	0.02	20.89	0.03	3	15.79%	453.80	0.52	521.93	0.59
	HDGT	2,146	26.40	0.07	21.59	0.09	2128	99.16%	23.20	0.06	18.24	0.08	18	0.84%	404.27	1.32	417.81	1.03
2005 Total		2,178	26.91	0.07	22.31	0.09	2157	99.04%	23.17	0.06	18.31	0.08	21	0.96%	411.35	1.20	432.68	0.97
2006	LDGV	8	17.45	0.02	30.35	0.39	7	87.50%	16.47	0.01	17.99	0.01	1	12.50%	24.30	0.08	116.90	3.05
	LDGT	17	20.13	0.03	23.77	0.04	17	100.00%	20.13	0.03	23.77	0.04	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	2,150	29.18	0.07	20.85	0.08	2129	99.02%	23.65	0.06	17.97	0.08	21	0.98%	589.80	0.63	312.63	0.44
2006 Total		2,175	29.07	0.07	20.91	0.08	2153	98.99%	23.60	0.06	18.02	0.08	22	1.01%	564.09	0.61	303.73	0.56
2007	LDGV	2	63.00	0.25	82.95	0.94	1	50.00%	2.20	0.00	2.50	0.00	1	50.00%	123.80	0.50	163.40	1.88
	LDGT	21	9.11	0.01	10.38	0.03	21	100.00%	9.11	0.01	10.38	0.03	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	2,035	13.39	0.04	11.60	0.05	2030	99.75%	11.81	0.03	10.52	0.05	5	0.25%	655.00	0.99	449.58	0.72
2007 Total		2,058	13.40	0.04	11.66	0.05	2052	99.71%	11.78	0.03	10.52	0.05	6	0.29%	566.47	0.91	401.88	0.91
2008	LDGV	3	5.00	0.01	4.70	0.00	3	100.00%	5.00	0.01	4.70	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	14	20.04	0.05	21.37	0.05	14	100.00%	20.04	0.05	21.37	0.05	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1,718	16.04	0.05	16.55	0.09	1709	99.48%	13.79	0.04	14.14	0.08	9	0.52%	442.51	1.02	474.21	1.53
2008 Total		1,735	16.05	0.05	16.57	0.09	1726	99.48%	13.83	0.04	14.18	0.08	9	0.52%	442.51	1.02	474.21	1.53
2009	LDGV	1	6.60	0.00	18.50	0.00	1	100.00%	6.60	0.00	18.50	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	3	3.93	0.01	4.27	0.01	3	100.00%	3.93	0.01	4.27	0.01	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	855	18.04	0.04	17.71	0.10	852	99.65%	15.29	0.04	16.59	0.09	3	0.35%	799.33	0.82	334.70	1.84
2009 Total		859	17.98	0.04	17.66	0.10	856	99.65%	15.24	0.04	16.55	0.09	3	0.35%	799.33	0.82	334.70	1.84
2010	LDGV	3	2.43	0.00	2.87	0.01	3	100.00%	2.43	0.00	2.87	0.01	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	23	5.44	0.01	5.70	0.01	22	95.65%	5.67	0.01	5.94	0.01	1	4.35%	0.30	0.00	0.30	0.00
	HDGT	1,179	12.63	0.03	13.19	0.09	1176	99.75%	11.53	0.03	12.61	0.09	3	0.25%	444.47	0.00	239.73	0.20
2010 Total		1,205	12.46	0.03	13.02	0.09	1201	99.67%	11.40	0.03	12.46	0.09	4	0.33%	333.43	0.00	179.88	0.15
2011	LDGV	3	14.60	0.04	25.40	0.10	3	100.00%	14.60	0.04	25.40	0.10	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	2	15.50	0.01	20.65	0.00	2	100.00%	15.50	0.01	20.65	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	501	14.79	0.03	15.23	0.07	499	99.60%	13.88	0.03	14.39	0.07	2	0.40%	242.15	1.31	224.80	0.92
2011 Total		506	14.79	0.03	15.31	0.07	504	99.60%	13.89	0.03	14.48	0.07	2	0.40%	242.15	1.31	224.80	0.92
2012	LDGV	1	0.30	0.00	0.20	0.00	1	100.00%	0.30	0.00	0.20	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	1	2.40	0.02	4.50	0.08	1	100.00%	2.40	0.02	4.50	0.08	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	263	13.48	0.03	13.95	0.08	263	100.00%	13.48	0.03	13.95	0.08	0	0.00%	0.00	0.00	0.00	0.00
2012 Total		265	13.39	0.03	13.86	0.08	265	100.00%	13.39	0.03	13.86	0.08	0	0.00%	0.00	0.00	0.00	0.00
2013	HDGT	183	9.93	0.03	10.34	0.05	182	99.45%	9.17	0.02	10.30	0.05	1	0.55%	147.80	2.12	17.20	0.06
2013 Total		183	9.93	0.03	10.34	0.05	182	99.45%	9.17	0.02	10.30	0.05	1	0.55%	147.80	2.12	17.20	0.06
2014	HDGT	101	17.98	0.07	15.52	0.11	100	99.01%	15.46	0.03	12.83	0.08	1	0.99%	270.10	3.64	285.10	3.61
2014 Total		101	17.98	0.07	15.52	0.11	100	99.01%	15.46	0.03	12.83	0.08	1	0.99%	270.10	3.64	285.10	3.61
2015	HDGT	97	6.10	0.01	6.64	0.04	97	100.00%	6.10	0.01	6.64	0.04	0	0.00%	0.00	0.00	0.00	0.00
2015 Total		97	6.10	0.01	6.64	0.04	97	100.00%	6.10	0.01	6.64	0.04	0	0.00%	0.00	0.00	0.00	0.00
2016	LDGV	1	154.00	1.30	149.90	1.34	1	100.00%	154.00	1.30	149.90	1.34	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	65	15.49	0.02	11.07	0.03	64	98.46%	10.49	0.02	9.29	0.03	1	1.54%	336.00	0.08	125.00	0.38
2016 Total		66	17.59	0.04	13.17	0.05	65	98.48%	12.69	0.04	11.45	0.05	1	1.52%	336.00	0.08	125.00	0.38
2017	LDGV	1	1334.80	5.51	305.00	4.17	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	1334.80	5.51	305.00	4.17
	HDGT	31	8.15	0.04	8.06	0.06	31	100.00%	8.15	0.04	8.06	0.06	0	0.00%	0.00	0.00	0.00	0.00
2017 Total		32	49.60	0.21	17.34	0.19	31	96.88%	8.15	0.04	8.06	0.06	1	3.13%	1334.80	5.51	305.00	4.17

Vehicle		All Initial Inspections					Passing Initial Inspections						Failing Initial Inspections					
Year	Type	Total	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm
2018	HDGT	1	3.10	0.03	1.90	0.01	1	100.00%	3.10	0.03	1.90	0.01	0	0.00%	0.00	0.00	0.00	0.00
2018 Total		1	3.10	0.03	1.90	0.01	1	100.00%	3.10	0.03	1.90	0.01	0	0.00%	0.00	0.00	0.00	0.00
Grand Total		44,123	96.99	0.43	78.19	0.53	40508	91.81%	56.46	0.23	48.50	0.36	3,615	8.19%	551.24	2.62	410.80	2.48

Summary by Vehicle Type (V1.01)

Vehicle Type	All Initial Inspections					Passing Initial Inspections						Failing Initial Inspections					
	Total	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm
LDGV	2,791	269.03	1.28	226.60	1.71	1923	68.90%	127.85	0.46	125.07	1.03	868	31.10%	581.83	3.10	451.54	3.21
LDGT	2,397	220.96	1.03	186.32	1.47	1649	68.79%	112.11	0.39	113.34	0.97	748	31.21%	460.94	2.42	347.23	2.55
HDGT	38,935	77.03	0.33	60.89	0.39	36936	94.87%	50.25	0.21	41.62	0.30	1999	5.13%	571.75	2.49	416.90	2.13
Overall Total	44,123	96.99	0.43	78.19	0.53	40508	91.81%	56.46	0.23	48.50	0.36	3615	8.19%	551.24	2.62	410.80	2.48

Appendix C2

Idle Initial Failure Report

Date
Between 1/1/2017 and 12/31/2017

Idle Initial Failure Report (V1.03)

Vehicle		Failure for Both Exhaust and Other						Failure for Exhaust Only						Failure for Other					
Year	Type	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm
1974	HDGV	0	0.00%	0.00	0.00	0.00	0.00	16	13.79%	1218.15	4.14	1080.59	4.52	0	0.00%	0.00	0.00	0.00	0.00
	LDGT1	4	1.18%	833.33	3.81	750.38	2.71	90	26.63%	712.78	4.82	552.55	4.43	1	0.30%	421.10	3.39	401.90	5.06
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	27	11.44%	1029.60	5.32	736.74	4.63	1	0.42%	981.80	0.19	2000.00	5.16
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	229	35.12%	921.64	5.05	665.89	4.51	2	0.31%	286.35	1.28	174.45	0.79
1974 Total		4	0.30%	833.33	3.81	750.38	2.71	362	26.97%	890.87	4.97	661.32	4.50	4	0.30%	493.90	1.54	687.70	2.95
1975	HDGV	0	0.00%	0.00	0.00	0.00	0.00	4	10.81%	1217.50	4.80	885.93	1.79	2	5.41%	182.70	0.22	176.90	0.24
	LDGT1	2	9.09%	754.10	0.35	579.20	0.39	5	22.73%	522.38	5.30	432.86	5.40	2	9.09%	130.15	0.42	49.95	0.45
	LDGT2	1	1.96%	966.10	6.20	305.90	5.82	5	9.80%	1343.64	5.56	922.28	5.79	3	5.88%	607.03	2.39	560.60	1.35
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	9	25.00%	666.41	3.87	397.91	3.45	3	8.33%	233.00	0.27	152.97	1.07
1975 Total		3	2.05%	824.77	2.30	488.10	2.20	23	15.75%	878.17	4.71	604.37	4.09	10	6.85%	314.58	0.93	259.44	0.86
1976	HDGV	0	0.00%	0.00	0.00	0.00	0.00	7	7.07%	1163.59	3.72	780.43	2.89	3	3.03%	225.47	1.15	192.57	4.49
	LDGT1	15	12.00%	635.25	4.43	467.35	3.70	18	14.40%	500.19	2.18	325.98	2.93	8	6.40%	158.09	0.64	150.84	2.04
	LDGT2	5	1.67%	1373.54	4.85	1022.52	5.44	33	11.04%	1046.56	4.88	534.84	3.59	13	4.35%	184.85	1.12	134.75	1.88
	LDGV	15	7.69%	676.31	3.97	460.26	3.81	44	22.56%	619.16	4.12	504.34	3.76	12	6.15%	196.66	0.83	165.55	1.47
1976 Total		35	4.87%	758.31	4.29	543.62	4.00	102	14.21%	773.81	4.00	501.68	3.50	36	5.01%	186.23	0.92	153.41	1.99
1977	HDGV	1	0.66%	784.80	7.81	262.30	1.33	16	10.53%	1147.99	4.36	1188.16	3.82	1	0.66%	586.00	1.70	383.00	1.55
	LDGT1	15	13.04%	685.45	4.05	313.51	2.93	28	24.35%	406.50	3.49	422.35	3.05	2	1.74%	138.35	0.28	75.60	0.64
	LDGT2	3	0.73%	1420.10	6.50	923.10	5.01	51	12.35%	1037.56	4.78	727.16	3.98	17	4.12%	287.68	1.62	198.23	2.90
	LDGV	19	7.88%	764.61	3.54	750.92	3.92	56	23.24%	614.31	3.32	399.64	2.83	10	4.15%	114.81	0.63	154.37	2.38
1977 Total		38	4.13%	785.64	4.09	578.99	3.54	151	16.40%	775.28	3.95	598.03	3.37	30	3.26%	230.05	1.20	181.59	2.53
1978	HDGV	1	0.71%	1478.20	8.07	350.70	3.45	23	16.31%	1018.14	5.08	809.92	4.10	1	0.71%	583.00	4.88	589.40	4.95
	LDGT1	11	7.48%	654.37	3.15	562.95	4.25	23	15.65%	648.11	2.39	424.47	2.43	15	10.20%	91.51	0.29	113.61	1.33
	LDGT2	10	1.90%	1504.03	5.71	820.13	4.56	45	8.54%	974.32	5.66	620.57	3.81	34	6.45%	356.36	2.27	249.21	2.19
	LDGV	16	5.18%	924.02	3.03	680.94	3.26	72	23.30%	565.60	3.06	461.98	3.05	16	5.18%	159.36	0.35	168.33	1.05
1978 Total		38	3.38%	1013.18	3.90	674.72	3.89	163	14.50%	753.94	3.97	549.57	3.32	66	5.87%	251.85	1.40	203.94	1.76
1979	HDGV	3	1.80%	895.23	3.18	440.27	2.44	22	13.17%	827.70	3.37	677.40	2.63	7	4.19%	267.84	1.64	292.96	3.33
	LDGT1	16	8.74%	739.51	2.79	559.06	2.85	28	15.30%	633.29	2.78	451.97	2.94	13	7.10%	77.62	0.44	139.46	1.24
	LDGT2	25	7.60%	649.27	3.38	589.42	2.74	64	19.45%	544.98	2.81	391.48	2.81	32	9.73%	115.31	0.30	134.86	1.37
	LDGV	18	4.85%	644.11	3.30	416.02	3.46	80	21.56%	471.09	3.20	371.71	2.87	24	6.47%	125.42	0.30	111.14	1.05
1979 Total		62	5.90%	682.96	3.19	524.03	2.96	194	18.48%	559.32	3.03	424.48	2.83	76	7.24%	126.11	0.45	142.72	1.43
1980	HDGV	0	0.00%	0.00	0.00	0.00	0.00	17	19.10%	943.89	4.22	751.89	3.16	2	2.25%	175.30	1.00	232.85	6.18
	LDGT1	8	4.91%	748.91	4.19	463.55	3.85	25	15.34%	422.07	3.58	274.39	3.46	13	7.98%	91.35	0.48	189.93	1.35
	LDGT2	6	5.13%	775.02	3.47	389.97	4.16	19	16.24%	678.69	3.96	539.85	3.82	16	13.68%	121.58	0.27	167.33	1.41
	LDGV	8	3.25%	976.03	5.13	445.98	4.71	35	14.23%	552.26	2.25	382.17	2.79	19	7.72%	104.31	0.32	138.18	1.24
1980 Total		22	3.58%	838.62	4.33	437.09	4.25	96	15.61%	612.73	3.28	450.78	3.23	50	8.13%	109.31	0.37	164.75	1.52
1981	HDGV	2	1.35%	422.25	5.58	605.40	4.17	26	17.57%	627.86	3.00	541.20	2.38	5	3.38%	254.86	1.00	218.20	2.83
	LDGT1	29	14.65%	569.20	2.68	369.31	2.82	60	30.30%	340.67	1.46	258.08	1.67	9	4.55%	54.22	0.18	36.76	0.24
	LDGT2	17	15.32%	415.67	1.47	257.99	2.58	24	21.62%	315.33	1.77	194.77	2.02	4	3.60%	53.90	0.21	60.10	0.48
	LDGV	16	8.16%	505.59	1.99	573.76	3.71	49	25.00%	305.50	1.75	330.37	3.68	8	4.08%	28.54	0.05	33.14	0.20
1981 Total		64	9.80%	507.93	2.28	398.23	3.02	159	24.35%	372.97	1.85	317.10	2.46	26	3.98%	84.85	0.30	74.13	0.76
1982	HDGV	2	1.69%	644.00	4.32	333.80	5.85	10	8.47%	850.06	3.99	476.54	2.56	6	5.08%	189.93	0.95	141.30	2.52

Vehicle		Failure for Both Exhaust and Other						Failure for Exhaust Only						Failure for Other					
Year	Type	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm
	LDGT1	1	50.00%	1099.20	3.04	501.50	0.62	1	50.00%	359.00	5.12	175.70	1.64	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	1	50.00%	80.70	1.33	56.20	0.28	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	1982 Total	4	3.25%	616.97	3.25	306.33	3.15	11	8.94%	805.42	4.09	449.19	2.47	6	4.88%	189.93	0.95	141.30	2.52
1983	HDGV	8	5.26%	1091.54	3.56	711.08	3.69	18	11.84%	802.90	3.18	434.25	2.08	8	5.26%	266.50	1.15	164.40	1.45
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	3	100.00%	147.43	1.69	218.37	3.21	0	0.00%	0.00	0.00	0.00	0.00
	1983 Total	8	5.13%	1091.54	3.56	711.08	3.69	21	13.46%	709.26	2.97	403.41	2.24	8	5.13%	266.50	1.15	164.40	1.45
1984	HDGV	6	2.39%	693.85	6.49	189.87	2.67	38	15.14%	730.78	2.48	564.99	1.87	10	3.98%	184.32	0.84	104.67	1.43
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	2	50.00%	287.55	0.23	167.90	0.66	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	17.70	0.01	19.70	0.09
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	3	60.00%	648.43	2.80	675.90	3.30	0	0.00%	0.00	0.00	0.00	0.00
	1984 Total	6	2.30%	693.85	6.49	189.87	2.67	43	16.48%	704.42	2.40	554.26	1.91	11	4.21%	169.17	0.77	96.95	1.30
1985	HDGV	9	2.90%	610.67	3.60	459.39	3.18	46	14.84%	620.61	2.27	453.40	1.40	9	2.90%	139.04	1.33	122.84	1.70
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	2	40.00%	715.70	5.92	746.85	6.26	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	224.80	0.39	118.40	0.57	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	12.50%	224.00	1.90	227.10	2.15	1	12.50%	166.70	0.66	125.20	0.87
	1985 Total	9	2.78%	610.67	3.60	459.39	3.18	50	15.43%	608.57	2.37	453.91	1.59	10	3.09%	141.81	1.26	123.08	1.62
1986	HDGV	11	5.09%	715.09	2.73	568.87	2.47	46	21.30%	533.70	2.01	319.85	1.41	6	2.78%	134.17	0.62	84.02	0.59
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	2	66.67%	329.75	0.65	366.80	1.02	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	131.00	0.12	89.70	1.92	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	1	7.69%	417.60	4.82	142.60	2.71	1	7.69%	386.60	0.52	481.20	0.51	0	0.00%	0.00	0.00	0.00	0.00
	1986 Total	12	5.15%	690.30	2.91	533.35	2.49	50	21.46%	514.55	1.89	320.35	1.38	6	2.58%	134.17	0.62	84.02	0.59
1987	HDGV	7	2.92%	743.30	4.66	541.00	3.99	41	17.08%	514.05	1.54	399.38	1.21	2	0.83%	171.65	0.49	133.20	0.82
	LDGT1	1	7.14%	709.00	7.59	477.00	9.17	4	28.57%	238.80	0.56	141.43	0.64	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	1	50.00%	150.60	0.09	150.30	0.13
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	8.33%	2000.00	0.32	772.00	0.44	1	8.33%	68.90	0.14	70.80	0.34
	1987 Total	8	2.99%	739.01	5.02	533.00	4.64	46	17.16%	522.42	1.43	385.05	1.14	4	1.49%	140.70	0.30	121.88	0.53
1988	HDGV	4	1.31%	415.10	2.34	338.75	0.27	47	15.36%	476.96	2.17	367.41	1.55	10	3.27%	93.71	0.50	133.17	1.69
	LDGT1	1	4.55%	222.00	0.61	126.00	0.52	6	27.27%	335.50	0.55	209.50	0.74	1	4.55%	162.00	0.04	107.00	0.52
	LDGT2	1	20.00%	382.70	1.13	264.00	1.14	1	20.00%	1101.50	1.60	1176.40	1.78	1	20.00%	13.90	0.00	14.80	0.01
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	6	33.33%	378.23	1.39	262.82	0.84	1	5.56%	176.60	0.80	83.60	0.44
	1988 Total	6	1.71%	377.52	1.85	290.83	0.46	60	17.09%	463.35	1.92	354.64	1.40	13	3.70%	99.20	0.45	118.24	1.38
1989	HDGV	5	0.82%	555.78	1.34	636.16	2.24	55	8.99%	549.70	2.02	425.63	1.66	14	2.29%	103.21	0.53	106.87	0.53
	LDGT1	1	2.78%	300.50	0.00	155.40	0.04	15	41.67%	339.67	0.47	185.53	0.91	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	4	13.33%	324.48	2.99	201.95	2.16	1	3.33%	23.30	0.05	27.70	0.28
	1989 Total	6	0.88%	513.23	1.11	556.03	1.88	74	10.85%	494.95	1.76	364.87	1.53	15	2.20%	97.88	0.50	101.59	0.51
1990	HDGV	3	0.65%	730.57	4.21	758.83	4.66	43	9.25%	561.12	3.03	358.87	2.19	10	2.15%	129.90	0.49	77.37	0.60
	LDGT1	1	3.45%	235.00	0.39	132.00	1.15	5	17.24%	187.40	0.40	141.60	0.48	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	2	40.00%	277.40	2.62	298.75	2.67	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	13	24.07%	479.35	1.79	465.85	2.81	4	7.41%	45.10	0.08	45.13	0.30
	1990 Total	4	0.72%	606.68	3.25	602.13	3.78	63	11.39%	505.58	2.55	361.79	2.20	14	2.53%	105.67	0.37	68.16	0.52
1991	HDGV	1	0.19%	319.50	0.45	103.80	0.38	61	11.55%	452.73	3.03	363.88	2.16	11	2.08%	153.01	0.69	112.30	1.11

Vehicle		Failure for Both Exhaust and Other						Failure for Exhaust Only						Failure for Other					
Year	Type	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm
	LDGT1	1	2.38%	476.00	0.73	204.00	0.58	5	11.90%	312.32	0.81	146.46	0.87	1	2.38%	17.20	0.04	10.90	0.08
	LDGT2	1	25.00%	172.40	0.20	618.60	0.55	1	25.00%	218.40	3.44	256.00	4.24	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	15	22.39%	226.07	0.86	293.80	2.51	3	4.48%	136.90	0.50	81.30	0.33
1991 Total		3	0.47%	322.63	0.46	308.80	0.50	82	12.79%	399.85	2.50	336.49	2.17	15	2.34%	140.73	0.61	99.34	0.89
1992	HDGV	4	0.65%	568.75	1.59	527.88	1.17	48	7.79%	359.99	2.50	382.36	2.29	12	1.95%	80.32	0.47	34.13	0.25
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	3	14.29%	288.33	0.78	133.33	0.67	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	4	7.55%	157.68	2.61	196.38	1.98	2	3.77%	185.75	0.17	135.05	0.53
1992 Total		4	0.58%	568.75	1.59	527.88	1.17	55	7.95%	341.37	2.42	355.25	2.18	14	2.02%	95.38	0.42	48.55	0.29
1993	HDGV	1	0.13%	735.90	0.12	858.70	1.75	74	9.45%	495.86	2.86	410.21	2.45	10	1.28%	95.49	0.42	85.03	0.62
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	1	6.67%	237.20	3.27	199.20	1.94	1	6.67%	148.00	0.23	81.00	0.36
	LDGT2	1	16.67%	407.00	1.23	150.90	2.26	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	1	3.70%	135.00	1.76	107.10	0.45	5	18.52%	350.30	1.77	518.90	4.40	2	7.41%	96.25	0.35	79.10	0.50
1993 Total		3	0.36%	425.97	1.04	372.23	1.49	80	9.63%	483.53	2.79	414.36	2.57	13	1.56%	99.65	0.39	83.81	0.58
1994	HDGV	1	0.11%	800.40	2.37	827.10	2.35	90	9.86%	469.05	2.85	351.50	2.94	10	1.10%	91.08	0.45	139.74	0.54
	LDGT1	1	3.85%	497.00	4.07	137.00	1.42	2	7.69%	377.00	0.77	130.00	1.13	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	2	7.14%	278.55	1.20	119.40	0.95	6	21.43%	394.62	1.43	394.43	2.34	2	7.14%	76.60	0.16	34.75	0.22
	LDGV	2	2.94%	339.90	0.63	644.95	5.20	5	7.35%	301.52	1.54	415.20	1.56	5	7.35%	49.24	0.21	47.48	0.40
1994 Total		6	0.58%	422.38	1.68	415.47	2.68	103	9.95%	454.80	2.67	352.80	2.80	17	1.64%	77.07	0.35	100.25	0.46
1995	HDGV	4	0.30%	1048.20	5.59	820.50	4.41	124	9.24%	429.82	3.38	321.16	3.26	14	1.04%	72.31	0.27	126.55	0.45
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	1	9.09%	114.60	0.22	154.90	0.42
	LDGT2	2	10.00%	1226.35	1.65	188.15	0.37	3	15.00%	224.97	1.14	169.27	1.72	4	20.00%	90.48	0.21	64.40	0.45
	LDGV	1	1.16%	293.20	0.01	448.10	0.22	9	10.47%	641.70	2.56	635.22	3.04	5	5.81%	141.00	0.33	139.58	0.46
1995 Total		7	0.48%	991.24	3.67	586.63	2.65	136	9.32%	439.32	3.28	338.60	3.21	24	1.64%	91.41	0.27	120.09	0.45
1996	HDGV	0	0.00%	0.00	0.00	0.00	0.00	84	7.00%	475.99	2.62	288.11	2.29	5	0.42%	101.62	0.27	40.36	0.30
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	14.29%	241.20	0.01	457.90	0.01	0	0.00%	0.00	0.00	0.00	0.00
1996 Total		0	0.00%	0.00	0.00	0.00	0.00	85	7.02%	473.23	2.59	290.11	2.26	5	0.41%	101.62	0.27	40.36	0.30
1997	HDGV	0	0.00%	0.00	0.00	0.00	0.00	70	3.87%	583.78	2.03	399.01	1.00	4	0.22%	52.03	0.23	36.23	0.34
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	1	10.00%	255.30	0.80	300.30	0.74	1	10.00%	6.80	0.00	4.70	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
1997 Total		0	0.00%	0.00	0.00	0.00	0.00	71	3.89%	579.15	2.01	397.62	1.00	5	0.27%	42.98	0.18	29.92	0.27
1998	HDGV	0	0.00%	0.00	0.00	0.00	0.00	83	7.26%	561.62	1.43	304.65	1.20	3	0.26%	58.13	0.16	45.47	0.35
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
1998 Total		0	0.00%	0.00	0.00	0.00	0.00	83	7.17%	561.62	1.43	304.65	1.20	3	0.26%	58.13	0.16	45.47	0.35
1999	HDGV	0	0.00%	0.00	0.00	0.00	0.00	88	3.54%	542.96	1.18	306.12	0.78	4	0.16%	87.50	0.30	87.95	0.20
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
1999 Total		0	0.00%	0.00	0.00	0.00	0.00	88	3.51%	542.96	1.18	306.12	0.78	4	0.16%	87.50	0.30	87.95	0.20
2000	HDGV	0	0.00%	0.00	0.00	0.00	0.00	105	4.50%	596.04	1.31	442.08	1.24	4	0.17%	118.98	0.34	64.98	0.39

Vehicle		Failure for Both Exhaust and Other						Failure for Exhaust Only						Failure for Other					
Year	Type	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	1	7.69%	1223.40	0.89	2000.00	8.16	1	7.69%	38.90	0.02	46.80	0.02
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	9.09%	190.20	2.51	64.60	1.15	0	0.00%	0.00	0.00	0.00	0.00
2000 Total		0	0.00%	0.00	0.00	0.00	0.00	107	4.52%	598.11	1.31	453.11	1.30	5	0.21%	102.96	0.28	61.34	0.31
2001	HDGV	1	0.04%	257.30	2.09	199.50	0.78	43	1.56%	589.97	1.66	479.28	1.63	5	0.18%	61.38	0.18	59.58	0.19
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	1	25.00%	24.60	0.00	31.70	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2001 Total		1	0.04%	257.30	2.09	199.50	0.78	43	1.55%	589.97	1.66	479.28	1.63	6	0.22%	55.25	0.15	54.93	0.16
2002	HDGV	0	0.00%	0.00	0.00	0.00	0.00	37	1.88%	656.09	1.69	584.36	1.86	3	0.15%	77.50	0.31	52.03	0.26
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	1	50.00%	25.60	0.00	36.70	0.03
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	2	13.33%	262.65	0.85	286.05	0.88	1	6.67%	9.80	0.00	10.00	0.00
2002 Total		0	0.00%	0.00	0.00	0.00	0.00	39	1.95%	635.91	1.65	569.06	1.81	5	0.25%	53.58	0.18	40.56	0.16
2003	HDGV	0	0.00%	0.00	0.00	0.00	0.00	24	0.90%	489.73	1.81	426.58	1.43	7	0.26%	109.53	0.31	78.69	0.42
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	1	16.67%	99.50	0.60	99.00	0.57
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2003 Total		0	0.00%	0.00	0.00	0.00	0.00	24	0.89%	489.73	1.81	426.58	1.43	8	0.30%	108.28	0.34	81.23	0.44
2004	HDGV	0	0.00%	0.00	0.00	0.00	0.00	18	0.94%	759.92	2.88	829.22	3.47	0	0.00%	0.00	0.00	46.00	0.61
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2004 Total		0	0.00%	0.00	0.00	0.00	0.00	18	0.92%	759.92	2.88	829.22	3.47	0	0.00%	0.00	0.00	46.00	0.61
2005	HDGV	0	0.00%	0.00	0.00	0.00	0.00	13	0.61%	545.33	1.78	563.98	1.33	5	0.23%	37.52	0.11	37.74	0.26
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	1	6.25%	1351.70	1.56	1542.10	1.75	2	12.50%	4.85	0.00	11.85	0.02
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2005 Total		0	0.00%	0.00	0.00	0.00	0.00	14	0.64%	602.93	1.77	633.85	1.36	7	0.32%	28.19	0.08	30.34	0.19
2006	HDGV	0	0.00%	0.00	0.00	0.00	0.00	16	0.74%	768.54	0.83	407.37	0.58	4	0.19%	22.25	0.00	9.46	0.02
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	12.50%	24.30	0.08	116.90	3.05	0	0.00%	0.00	0.00	0.00	0.00
2006 Total		0	0.00%	0.00	0.00	0.00	0.00	17	0.78%	724.76	0.79	390.28	0.72	4	0.18%	22.25	0.00	9.46	0.02
2007	HDGV	0	0.00%	0.00	0.00	0.00	0.00	5	0.25%	655.00	0.99	449.58	0.72	0	0.00%	0.00	0.00	0.00	0.00
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	50.00%	123.80	0.50	163.40	1.88	0	0.00%	0.00	0.00	0.00	0.00
2007 Total		0	0.00%	0.00	0.00	0.00	0.00	6	0.29%	566.47	0.91	401.88	0.91	0	0.00%	0.00	0.00	0.00	0.00
2008	HDGV	0	0.00%	0.00	0.00	0.00	0.00	7	0.41%	568.74	1.31	608.83	1.96	1	0.06%	1.40	0.00	3.05	0.03
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2008 Total		0	0.00%	0.00	0.00	0.00	0.00	7	0.40%	568.74	1.31	608.83	1.96	1	0.06%	1.40	0.00	3.05	0.03

Vehicle		Failure for Both Exhaust and Other						Failure for Exhaust Only						Failure for Other					
Year	Type	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm
2009	HDGV	0	0.00%	0.00	0.00	0.00	0.00	2	0.23%	1095.00	0.94	444.05	2.48	1	0.12%	208.00	0.57	116.00	0.56
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2009 Total		0	0.00%	0.00	0.00	0.00	0.00	2	0.23%	1095.00	0.94	444.05	2.48	1	0.12%	208.00	0.57	116.00	0.56
2010	HDGV	0	0.00%	0.00	0.00	0.00	0.00	3	0.25%	444.47	0.00	239.73	0.20	0	0.00%	0.00	0.00	0.00	0.00
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	1	12.50%	0.30	0.00	0.30	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2010 Total		0	0.00%	0.00	0.00	0.00	0.00	3	0.25%	444.47	0.00	239.73	0.20	1	0.08%	0.30	0.00	0.30	0.00
2011	HDGV	0	0.00%	0.00	0.00	0.00	0.00	2	0.40%	242.15	1.31	224.80	0.92	0	0.00%	0.00	0.00	0.00	0.00
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2011 Total		0	0.00%	0.00	0.00	0.00	0.00	2	0.40%	242.15	1.31	224.80	0.92	0	0.00%	0.00	0.00	0.00	0.00
2012	HDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2012 Total		0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2013	HDGV	0	0.00%	0.00	0.00	0.00	0.00	1	0.55%	147.80	2.12	17.20	0.06	0	0.00%	0.00	0.00	0.00	0.00
2013 Total		0	0.00%	0.00	0.00	0.00	0.00	1	0.55%	147.80	2.12	17.20	0.06	0	0.00%	0.00	0.00	0.00	0.00
2014	HDGV	0	0.00%	0.00	0.00	0.00	0.00	1	0.99%	270.10	3.64	285.10	3.61	0	0.00%	0.00	0.00	0.00	0.00
2014 Total		0	0.00%	0.00	0.00	0.00	0.00	1	0.99%	270.10	3.64	285.10	3.61	0	0.00%	0.00	0.00	0.00	0.00
2015	HDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2015 Total		0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2016	HDGV	0	0.00%	0.00	0.00	0.00	0.00	1	1.54%	336.00	0.08	125.00	0.38	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2016 Total		0	0.00%	0.00	0.00	0.00	0.00	1	1.52%	336.00	0.08	125.00	0.38	0	0.00%	0.00	0.00	0.00	0.00
2017	HDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	1334.80	5.51	305.00	4.17	0	0.00%	0.00	0.00	0.00	0.00
2017 Total		0	0.00%	0.00	0.00	0.00	0.00	1	3.13%	1334.80	5.51	305.00	4.17	0	0.00%	0.00	0.00	0.00	0.00
2018	HDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2018 Total		0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
Grand Total		353	0.80%	711.28	3.35	509.97	3.23	2,737	6.20%	608.38	2.91	450.98	2.62	523	1.19%	146.71	0.65	134.71	1.22

Idle Initial Failure Report - Summary by Veh (V1.03)

Vehicle		Failure for Both Exhaust and Other						Failure for Exhaust Only						Failure for Other					
Type	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	
HDGV	74	0.20%	726.40	3.65	527.22	2.91	1,475	3.94%	574.88	2.39	427.91	2.00	199	0.53%	130.35	0.61	110.73	1.03	
LDGT1	107	6.34%	651.58	3.27	440.76	3.08	327	19.38%	516.19	2.92	390.02	2.90	71	4.21%	95.36	0.40	121.15	1.14	
LDGT2	74	3.31%	798.04	3.32	533.77	3.21	284	12.70%	798.18	4.06	537.19	3.46	133	5.95%	217.42	1.08	189.42	1.72	
LDGV	98	3.51%	699.53	3.23	554.56	3.64	651	23.31%	647.77	3.58	496.26	3.54	120	4.30%	125.84	0.38	122.46	1.03	
Grand Total	353	0.80%	711.28	3.35	509.97	3.23	2,737	6.20%	608.38	2.91	450.98	2.62	523	1.19%	146.71	0.65	134.71	1.22	

Appendix C3

Idle Initial Exhaust Failure Report

Date
Between 1/1/2017 and 12/31/2017

Idle Initial Exhaust Failure Report (V1.01)

Vehicle		Overall Exhaust Failures						HC Failures						CO Failures					
Year	Type	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total %	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm
1974	LDGV	229	99.13%	1049.02	5.36	733.66	4.71	86	37.55%	1610.66	4.44	1127.12	4.31	191	83.41%	796.13	5.77	556.51	4.89
	LDGT	94	98.95%	816.03	5.07	596.42	4.41	27	28.72%	1461.44	4.21	1055.34	3.67	81	86.17%	600.90	5.36	443.45	4.66
	HDGT	43	97.73%	1173.27	5.38	876.17	4.89	27	62.79%	1408.80	3.67	1074.25	3.81	25	58.14%	918.88	7.23	662.24	6.05
1974 Total		366	98.92%	1006.22	5.29	716.70	4.66	140	38.25%	1542.95	4.25	1103.08	4.09	297	81.15%	753.22	5.78	534.57	4.92
1975	LDGV	9	75.00%	810.69	3.91	421.58	3.35	4	44.44%	1107.18	3.05	562.98	2.34	8	88.89%	662.45	4.35	350.89	3.86
	LDGT	7	77.78%	730.58	4.69	592.70	4.84	3	42.86%	1077.57	3.66	859.10	3.91	5	71.43%	522.38	5.30	432.86	5.40
	HDGT	10	66.67%	1367.23	6.16	837.26	4.59	7	70.00%	1520.36	4.86	1079.04	3.62	6	60.00%	1188.58	7.68	555.18	5.73
1975 Total		26	72.22%	1010.51	4.99	626.82	4.20	14	53.85%	1307.42	4.09	884.46	3.31	19	73.08%	791.74	5.65	436.97	4.86
1976	LDGV	59	83.10%	751.43	4.70	566.06	4.13	29	49.15%	992.92	4.51	737.79	4.14	49	83.05%	608.52	4.82	464.42	4.12
	LDGT	33	80.49%	610.84	3.33	406.26	3.36	11	33.33%	1136.32	1.42	701.14	2.20	25	75.76%	379.62	4.17	276.51	3.87
	HDGT	45	73.77%	1178.47	5.22	628.90	3.86	26	57.78%	1489.26	3.10	806.27	2.74	25	55.56%	855.26	7.43	444.43	5.02
1976 Total		137	79.19%	852.75	4.56	550.61	3.88	66	48.18%	1212.35	3.44	758.66	3.26	99	72.26%	613.02	5.31	411.92	4.29
1977	LDGV	75	88.24%	766.09	4.08	538.25	3.51	43	57.33%	971.55	3.68	692.23	3.13	56	74.67%	608.33	4.39	420.02	3.80
	LDGT	43	95.56%	636.70	4.39	423.05	3.45	16	37.21%	1020.58	4.73	595.68	3.85	37	86.05%	470.69	4.25	348.40	3.27
	HDGT	71	79.78%	1165.23	5.30	877.53	4.35	43	60.56%	1447.65	3.56	1102.47	3.58	43	60.56%	882.82	7.03	652.59	5.12
1977 Total		189	86.30%	881.50	4.59	635.19	3.80	102	53.97%	1179.95	3.80	850.03	3.43	136	71.96%	657.67	5.19	474.07	4.07
1978	LDGV	88	84.62%	722.41	3.64	565.58	3.49	52	59.09%	915.37	3.11	706.80	3.37	64	72.73%	565.64	4.06	450.84	3.58
	LDGT	34	69.39%	696.92	2.97	496.45	3.22	20	58.82%	949.50	2.04	635.92	2.60	22	64.71%	467.31	3.82	369.67	3.78
	HDGT	79	69.30%	1181.06	6.11	757.56	4.18	45	56.96%	1462.93	4.65	898.26	3.58	55	69.62%	950.44	7.31	642.45	4.67
1978 Total		201	75.28%	896.03	4.49	628.74	3.71	117	58.21%	1131.80	3.52	768.32	3.32	141	70.15%	700.40	5.29	512.91	4.04
1979	LDGV	98	80.33%	579.47	3.62	437.29	3.12	50	51.02%	780.05	3.13	558.44	2.85	78	79.59%	450.90	3.93	359.64	3.30
	LDGT	133	74.72%	685.84	3.53	508.28	3.12	80	60.15%	870.80	2.77	638.29	2.64	87	65.41%	515.77	4.22	388.72	3.55
	HDGT	25	78.13%	878.18	3.53	678.67	2.70	13	52.00%	1268.58	1.79	1002.70	2.08	14	56.00%	515.66	5.15	377.78	3.27
1979 Total		256	77.11%	659.69	3.56	494.35	3.08	143	55.86%	875.23	2.81	643.50	2.66	179	69.92%	487.49	4.17	375.19	3.42
1980	LDGV	42	68.85%	767.99	3.52	442.71	3.70	26	61.90%	909.40	2.80	524.22	3.02	26	61.90%	626.57	4.25	361.20	4.38
	LDGT	58	66.67%	707.58	4.40	465.94	4.05	31	53.45%	934.45	4.39	613.95	4.44	49	84.48%	564.06	4.40	372.30	3.81
	HDGT	17	89.47%	1174.87	4.65	892.15	3.48	8	47.06%	1692.78	3.85	1339.63	3.31	13	76.47%	856.16	5.15	616.78	3.58
1980 Total		117	70.06%	792.25	4.14	516.54	3.85	65	55.56%	1017.76	3.69	667.37	3.73	88	75.21%	625.68	4.46	405.14	3.94
1981	LDGV	65	89.04%	600.20	3.62	583.84	4.33	30	46.15%	654.78	3.24	627.99	3.85	27	41.54%	539.56	4.04	534.79	4.87
	LDGT	130	90.91%	553.93	2.96	336.05	2.27	75	57.69%	609.21	2.28	359.35	1.88	53	40.77%	475.71	3.94	303.07	2.82
	HDGT	28	84.85%	634.79	3.61	521.22	2.85	17	60.71%	848.80	2.35	736.24	2.36	16	57.14%	407.41	4.96	292.77	3.36
1981 Total		223	89.56%	578.27	3.23	428.87	2.89	122	54.71%	653.80	2.52	477.93	2.43	96	43.05%	482.28	4.14	366.53	3.49
1982	LDGV	1	100.00%	80.70	1.33	56.20	0.28	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	80.70	1.33	56.20	0.28
	LDGT	2	100.00%	729.10	4.08	338.60	1.13	2	100.00%	729.10	4.08	338.60	1.13	2	100.00%	729.10	4.08	338.60	1.13
	HDGT	12	66.67%	931.63	4.72	551.53	3.65	8	66.67%	1076.96	3.78	607.46	3.25	8	66.67%	786.30	5.67	495.59	4.04
1982 Total		15	71.43%	852.53	4.44	487.38	3.01	10	66.67%	1007.39	3.84	553.69	2.82	11	73.33%	711.75	4.98	427.10	3.17
1983	LDGV	3	100.00%	233.13	2.85	360.50	5.27	1	33.33%	275.60	3.49	481.80	7.67	2	66.67%	211.90	2.53	299.85	4.08
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	26	76.47%	1003.66	4.10	567.34	3.02	20	76.92%	1066.89	3.05	612.78	2.62	14	53.85%	913.34	5.61	502.43	3.61
1983 Total		29	78.38%	941.19	4.00	550.57	3.21	21	72.41%	1029.20	3.07	606.54	2.86	16	55.17%	825.66	5.22	477.11	3.66
1984	LDGV	3	100.00%	1010.93	4.75	1042.20	4.91	2	66.67%	875.50	3.86	896.85	4.00	1	33.33%	1281.80	6.55	1332.90	6.72

Vehicle		Overall Exhaust Failures						HC Failures						CO Failures					
Year	Type	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total %	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm
	LDGT	2	66.67%	287.55	0.23	167.90	0.66	2	100.00%	287.55	0.23	167.90	0.66	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	44	81.48%	775.03	3.54	513.97	2.26	29	65.91%	961.75	2.19	708.01	1.52	22	50.00%	528.91	5.32	258.19	3.23
1984 Total		49	81.67%	770.26	3.49	529.91	2.34	33	67.35%	915.66	2.17	686.72	1.62	23	46.94%	561.64	5.37	304.91	3.39
1985	LDGV	1	50.00%	224.00	1.90	227.10	2.15	1	100.00%	224.00	1.90	227.10	2.15	1	100.00%	224.00	1.90	227.10	2.15
	LDGT	3	100.00%	617.52	4.81	621.16	5.12	3	100.00%	552.07	4.08	537.37	4.36	2	66.67%	715.70	5.92	746.85	6.26
	HDGT	55	85.94%	642.42	2.73	444.46	1.70	33	60.00%	877.46	1.32	646.41	0.87	27	49.09%	355.14	4.46	197.64	2.72
1985 Total		59	85.51%	628.07	2.86	451.16	1.97	37	62.71%	833.42	1.56	626.23	1.19	30	50.85%	374.81	4.47	235.24	2.93
1986	LDGV	2	100.00%	407.27	3.39	255.47	1.98	2	100.00%	402.10	2.67	311.90	1.61	1	50.00%	417.60	4.82	142.60	2.71
	LDGT	3	100.00%	507.90	0.66	593.00	0.73	1	33.33%	507.90	0.66	593.00	0.73	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	57	90.48%	612.24	2.65	390.04	1.86	42	73.68%	714.52	1.84	455.89	1.43	28	49.12%	458.81	3.88	291.28	2.51
1986 Total		62	91.18%	602.52	2.66	387.33	1.85	45	72.58%	696.04	1.85	452.53	1.43	29	46.77%	457.39	3.91	286.15	2.52
1987	LDGV	1	50.00%	2000.00	0.32	772.00	0.44	1	100.00%	2000.00	0.32	772.00	0.44	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	5	83.33%	447.60	3.32	255.80	3.99	4	80.00%	382.25	2.26	200.50	2.69	1	20.00%	709.00	7.59	477.00	9.17
	HDGT	48	96.00%	602.23	2.45	453.75	1.97	37	77.08%	649.02	1.63	499.16	1.45	19	39.58%	511.09	4.05	365.33	2.97
1987 Total		54	93.10%	612.30	2.49	442.92	2.11	42	77.78%	655.78	1.66	477.21	1.55	20	37.04%	520.99	4.23	370.91	3.28
1988	LDGV	6	85.71%	610.50	2.90	168.12	0.61	4	66.67%	515.58	2.06	190.45	0.60	1	16.67%	990.20	6.26	78.80	0.63
	LDGT	9	81.82%	521.19	0.87	428.20	0.94	8	88.89%	448.65	0.78	334.68	0.83	1	11.11%	1101.50	1.60	1176.40	1.78
	HDGT	51	83.61%	510.93	2.58	381.31	1.66	39	76.47%	560.69	1.90	429.35	1.30	28	54.90%	441.61	3.53	314.40	2.17
1988 Total		66	83.54%	518.22	2.41	373.36	1.52	51	77.27%	539.58	1.74	395.76	1.17	30	45.45%	481.90	3.55	335.28	2.11
1989	LDGV	4	80.00%	447.82	4.71	217.12	2.51	3	75.00%	423.00	3.97	226.17	2.36	2	50.00%	485.05	5.83	203.55	2.72
	LDGT	16	100.00%	354.70	0.44	180.16	0.81	15	93.75%	354.70	0.44	180.16	0.81	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	60	81.08%	591.21	2.47	448.08	2.02	48	80.00%	645.28	1.85	520.53	1.69	27	45.00%	495.09	3.57	319.29	2.59
1989 Total		80	84.21%	546.32	2.26	393.62	1.85	66	82.50%	569.14	1.62	429.80	1.52	29	36.25%	494.40	3.73	311.30	2.60
1990	LDGV	13	76.47%	645.57	2.38	601.66	3.06	8	61.54%	721.99	2.10	667.91	2.76	7	53.85%	558.23	2.71	525.94	3.39
	LDGT	8	100.00%	271.83	1.69	207.90	1.77	4	50.00%	269.05	1.23	162.48	1.32	2	25.00%	277.40	2.62	298.75	2.67
	HDGT	46	82.14%	681.63	3.53	451.68	2.79	29	63.04%	783.65	3.03	528.41	2.46	32	69.57%	589.17	3.98	382.14	3.09
1990 Total		67	82.72%	645.05	3.18	461.28	2.76	41	61.19%	721.41	2.67	519.93	2.41	41	61.19%	568.68	3.69	402.62	3.12
1991	LDGV	15	83.33%	316.56	1.35	352.06	2.51	7	46.67%	335.74	0.86	343.01	1.51	3	20.00%	271.80	2.50	373.17	4.83
	LDGT	8	88.89%	312.63	1.31	174.54	1.40	6	75.00%	339.60	0.80	156.05	0.83	2	25.00%	231.70	2.83	230.00	3.11
	HDGT	62	84.93%	518.24	3.41	422.08	2.40	31	50.00%	701.20	2.91	588.57	2.01	46	74.19%	394.93	3.75	309.88	2.66
1991 Total		85	85.00%	479.69	3.02	393.86	2.33	44	51.76%	593.75	2.30	490.52	1.77	51	60.00%	381.29	3.64	310.47	2.81
1992	LDGV	4	66.67%	180.75	4.72	111.05	2.60	0	0.00%	0.00	0.00	0.00	0.00	2	50.00%	180.75	4.72	111.05	2.60
	LDGT	3	100.00%	288.33	0.78	133.33	0.67	3	100.00%	288.33	0.78	133.33	0.67	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	52	81.25%	379.70	2.67	404.28	2.53	23	44.23%	628.54	1.67	653.15	1.80	34	65.38%	211.36	3.35	235.92	3.02
1992 Total		59	80.82%	368.86	2.65	381.71	2.44	26	44.07%	589.29	1.57	593.17	1.67	36	61.02%	209.66	3.43	228.98	2.99
1993	LDGV	6	75.00%	419.60	2.34	608.16	3.91	4	66.67%	435.45	2.20	620.75	4.05	4	66.67%	403.75	2.47	595.58	3.77
	LDGT	2	66.67%	322.10	2.25	175.05	2.10	2	100.00%	322.10	2.25	175.05	2.10	2	100.00%	322.10	2.25	175.05	2.10
	HDGT	75	88.24%	556.55	3.33	462.67	3.03	49	65.33%	671.17	2.74	572.77	2.73	49	65.33%	441.93	3.92	352.57	3.33
1993 Total		83	86.46%	538.06	3.22	462.79	3.06	55	66.27%	641.33	2.69	561.79	2.80	55	66.27%	434.79	3.75	363.79	3.31
1994	LDGV	7	58.33%	382.57	2.03	527.34	1.88	5	71.43%	369.84	1.57	485.26	1.54	2	28.57%	414.40	3.19	632.55	2.72
	LDGT	11	84.62%	437.56	1.82	329.52	1.95	8	72.73%	457.16	1.62	311.98	1.67	7	63.64%	415.16	2.05	349.57	2.27
	HDGT	91	90.10%	527.67	3.24	384.85	3.25	56	61.54%	656.09	2.95	480.99	2.92	69	75.82%	423.44	3.47	306.82	3.52
1994 Total		109	86.51%	511.56	3.03	385.99	3.06	69	63.30%	612.28	2.69	461.70	2.68	78	71.56%	422.46	3.33	319.01	3.39
1995	LDGV	10	66.67%	914.75	3.39	904.37	4.16	7	70.00%	784.74	2.50	787.67	3.19	4	40.00%	1142.28	4.94	1108.60	5.86
	LDGT	5	50.00%	1049.24	1.84	147.98	1.09	3	60.00%	934.67	1.26	158.13	0.45	2	40.00%	1221.10	2.72	132.75	2.04

Vehicle		Overall Exhaust Failures						HC Failures						CO Failures					
Year	Type	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total %	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm
	HDGT	128	90.14%	517.49	3.99	391.87	3.82	74	57.81%	627.67	3.74	476.46	3.74	99	77.34%	435.14	4.19	328.63	3.88
1995 Total		143	85.63%	554.68	3.90	415.24	3.77	84	58.74%	651.72	3.54	491.03	3.57	105	73.43%	477.05	4.19	354.61	3.92
1996	LDGV	1	100.00%	241.20	0.01	457.90	0.01	1	100.00%	241.20	0.01	457.90	0.01	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	84	94.38%	513.96	3.06	321.37	2.57	59	70.24%	586.48	2.46	341.78	2.04	53	63.10%	433.22	3.73	298.65	3.16
1996 Total		85	94.44%	511.54	3.03	322.58	2.55	60	70.59%	580.73	2.42	343.72	2.00	53	62.35%	433.22	3.73	298.65	3.16
1997	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	1	50.00%	255.30	0.80	300.30	0.74	1	100.00%	255.30	0.80	300.30	0.74	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	70	94.59%	577.25	2.38	382.55	1.13	51	72.86%	732.39	1.65	517.01	1.09	32	45.71%	330.00	3.55	168.26	1.18
1997 Total		71	93.42%	573.42	2.36	381.57	1.12	52	73.24%	723.22	1.63	512.84	1.09	32	45.07%	330.00	3.55	168.26	1.18
1998	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	83	96.51%	595.78	1.73	323.93	1.53	79	95.18%	582.18	1.37	314.36	1.12	18	21.69%	655.45	3.31	365.93	3.29
1998 Total		83	96.51%	595.78	1.73	323.93	1.53	79	95.18%	582.18	1.37	314.36	1.12	18	21.69%	655.45	3.31	365.93	3.29
1999	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	88	95.65%	593.92	1.38	319.14	0.86	82	93.18%	568.17	1.05	312.72	0.70	16	18.18%	725.89	3.05	352.00	1.64
1999 Total		88	95.65%	593.92	1.38	319.14	0.86	82	93.18%	568.17	1.05	312.72	0.70	16	18.18%	725.89	3.05	352.00	1.64
2000	LDGV	1	100.00%	190.20	2.51	64.60	1.15	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	190.20	2.51	64.60	1.15
	LDGT	1	50.00%	1223.40	0.89	2000.00	8.16	1	100.00%	1223.40	0.89	2000.00	8.16	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	105	96.33%	632.39	1.62	485.02	1.50	100	95.24%	616.66	1.27	456.96	1.17	23	21.90%	700.76	3.17	607.03	2.94
2000 Total		107	95.54%	633.58	1.62	493.78	1.55	101	94.39%	622.67	1.26	472.23	1.24	24	22.43%	679.49	3.14	584.43	2.87
2001	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	44	89.80%	643.18	2.09	487.81	2.07	37	84.09%	649.65	1.50	531.32	1.48	15	34.09%	627.23	3.54	380.49	3.52
2001 Total		44	88.00%	643.18	2.09	487.81	2.07	37	84.09%	649.65	1.50	531.32	1.48	15	34.09%	627.23	3.54	380.49	3.52
2002	LDGV	2	66.67%	262.65	0.85	286.05	0.88	2	100.00%	262.65	0.85	286.05	0.88	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	37	92.50%	713.16	2.12	683.13	2.49	31	83.78%	740.78	1.50	675.38	1.83	10	27.03%	627.53	4.07	707.18	4.56
2002 Total		39	88.64%	692.21	2.07	664.67	2.42	33	84.62%	711.81	1.46	651.78	1.77	10	25.64%	627.53	4.07	707.18	4.56
2003	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	24	77.42%	503.06	2.16	495.48	1.86	15	62.50%	662.49	1.49	623.13	1.64	13	54.17%	319.09	2.92	348.18	2.12
2003 Total		24	75.00%	503.06	2.16	495.48	1.86	15	62.50%	662.49	1.49	623.13	1.64	13	54.17%	319.09	2.92	348.18	2.12
2004	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	18	94.74%	854.18	3.53	966.73	4.27	13	72.22%	961.50	2.79	1079.13	3.52	11	61.11%	727.34	4.39	833.89	5.16
2004 Total		18	94.74%	854.18	3.53	966.73	4.27	13	72.22%	961.50	2.79	1079.13	3.52	11	61.11%	727.34	4.39	833.89	5.16
2005	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	1	33.33%	1351.70	1.56	1542.10	1.75	1	100.00%	1351.70	1.56	1542.10	1.75	1	100.00%	1351.70	1.56	1542.10	1.75
	HDGT	13	72.22%	560.80	2.04	615.33	1.69	10	76.92%	630.07	1.50	682.60	1.31	5	38.46%	422.26	3.11	480.80	2.43
2005 Total		14	66.67%	653.85	1.98	724.36	1.69	11	78.57%	695.67	1.51	760.74	1.35	6	42.86%	577.17	2.85	657.68	2.32
2006	LDGV	1	100.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	16	76.19%	725.61	0.98	393.24	0.64	16	100.00%	768.54	0.83	407.37	0.58	2	12.50%	382.15	2.16	280.20	1.15

Vehicle		Overall Exhaust Failures						HC Failures						CO Failures					
Year	Type	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total %	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm
2006 Total		17	77.27%	725.61	0.98	393.24	0.64	16	94.12%	768.54	0.83	407.37	0.58	2	11.76%	382.15	2.16	280.20	1.15
2007	LDGV	1	100.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	5	100.00%	655.00	0.99	449.58	0.72	4	80.00%	767.60	0.54	529.48	0.18	1	20.00%	204.60	2.82	130.00	2.89
2007 Total		6	100.00%	655.00	0.99	449.58	0.72	4	66.67%	767.60	0.54	529.48	0.18	1	16.67%	204.60	2.82	130.00	2.89
2008	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	7	77.78%	545.36	1.71	582.90	2.29	6	85.71%	642.20	1.17	672.82	1.29	2	28.57%	254.85	3.35	313.15	5.29
2008 Total		7	77.78%	545.36	1.71	582.90	2.29	6	85.71%	642.20	1.17	672.82	1.29	2	28.57%	254.85	3.35	313.15	5.29
2009	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	2	66.67%	1095.00	0.94	444.05	2.48	2	100.00%	1095.00	0.94	444.05	2.48	0	0.00%	0.00	0.00	0.00	0.00
2009 Total		2	66.67%	1095.00	0.94	444.05	2.48	2	100.00%	1095.00	0.94	444.05	2.48	0	0.00%	0.00	0.00	0.00	0.00
2010	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	3	100.00%	444.47	0.00	239.73	0.20	3	100.00%	444.47	0.00	239.73	0.20	0	0.00%	0.00	0.00	0.00	0.00
2010 Total		3	75.00%	444.47	0.00	239.73	0.20	3	100.00%	444.47	0.00	239.73	0.20	0	0.00%	0.00	0.00	0.00	0.00
2011	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	2	100.00%	242.15	1.31	224.80	0.92	1	50.00%	313.40	0.49	320.40	0.44	1	50.00%	170.90	2.12	129.20	1.39
2011 Total		2	100.00%	242.15	1.31	224.80	0.92	1	50.00%	313.40	0.49	320.40	0.44	1	50.00%	170.90	2.12	129.20	1.39
2012	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2012 Total		0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2013	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1	100.00%	147.80	2.12	17.20	0.06	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	147.80	2.12	17.20	0.06
2013 Total		1	100.00%	147.80	2.12	17.20	0.06	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	147.80	2.12	17.20	0.06
2014	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1	100.00%	270.10	3.64	285.10	3.61	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	270.10	3.64	285.10	3.61
2014 Total		1	100.00%	270.10	3.64	285.10	3.61	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	270.10	3.64	285.10	3.61
2015	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2015 Total		0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2016	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1	100.00%	336.00	0.08	125.00	0.38	1	100.00%	336.00	0.08	125.00	0.38	0	0.00%	0.00	0.00	0.00	0.00
2016 Total		1	100.00%	336.00	0.08	125.00	0.38	1	100.00%	336.00	0.08	125.00	0.38	0	0.00%	0.00	0.00	0.00	0.00
2017	LDGV	1	100.00%	1334.80	5.51	305.00	4.17	1	100.00%	1334.80	5.51	305.00	4.17	1	100.00%	1334.80	5.51	305.00	4.17
	LDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2017 Total		1	100.00%	1334.80	5.51	305.00	4.17	1	100.00%	1334.80	5.51	305.00	4.17	1	100.00%	1334.80	5.51	305.00	4.17

Vehicle		Overall Exhaust Failures						HC Failures						CO Failures					
Year	Type	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total %	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm
2018	HDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2018 Total		0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
Grand Total		3,089	85.45%	705.20	3.51	505.23	3.02	1,910	61.83%	831.64	2.54	594.76	2.36	1,816	58.79%	572.21	4.53	411.06	3.72

Summary by Vehicle Type (V1.01)

Vehicle Type	Overall Exhaust Failures						HC Failures						CO Failures					
	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total %	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm
LDGV	748	86.18%	790.89	4.21	582.42	3.88	369	49.33%	1005.70	3.45	738.03	3.42	532	71.12%	641.89	4.74	474.50	4.19
LDGT	612	81.82%	653.45	3.57	452.34	3.16	327	53.43%	805.45	2.65	540.15	2.53	381	62.25%	522.99	4.37	376.98	3.71
HDGT	1,729	86.49%	686.04	3.19	490.06	2.61	1,214	70.21%	785.78	2.23	565.92	1.99	903	52.23%	551.94	4.48	388.07	3.44
Grand Total	3,089	85.45%	705.20	3.51	505.23	3.02	1,910	61.83%	831.64	2.54	594.76	2.36	1,816	58.79%	572.21	4.53	411.06	3.72

Appendix C4

Idle Initial Failure for Other Report

Date

Between 1/1/2017 and 12/31/2017

Idle Initial Failure for Other Report (V1.03)

Vehicle		Other Overall					CAT				AIS				O2				Gas Cap				Opacity					
Year	Type	Total	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %		
1974	HDGV	116	116	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	116	100.00	0	0.00		
	LDGT1	338	333	98.52	5	6.67	0	0.00	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	333	98.52	5	1.48		
	LDGT2	236	235	99.58	1	2.04	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	235	99.58	1	0.42		
	LDGV	652	650	99.69	2	1.55	1	100.00	0	0.00	5	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	650	99.69	2	0.31		
1974 Total		1,342	1334	99.40	8	3.04	1	100.00	0	0.00	6	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1334	99.40	8	0.60		
1975	HDGV	37	35	94.59	2	5.41	0	0.00	0	0.00	3	75.00	1	25.00	0	0.00	0	0.00	8	88.89	1	11.11	37	100.00	0	0.00		
	LDGT1	22	18	81.82	4	18.18	8	88.89	1	4.55	5	71.43	2	28.57	1	100.00	0	0.00	10	83.33	2	16.67	22	100.00	0	0.00		
	LDGT2	51	47	92.16	4	7.84	1	33.33	2	3.92	2	66.67	1	33.33	0	0.00	4	66.67	2	33.33	51	100.00	0	0.00	0	0.00		
	LDGV	36	33	91.67	3	8.33	22	91.67	2	5.56	13	100.00	0	0.00	1	100.00	0	0.00	23	92.00	2	8.00	36	100.00	0	0.00		
1975 Total		146	133	91.10	13	8.90	31	86.11	5	3.42	23	85.19	4	14.81	2	100.00	0	0.00	45	86.54	7	13.46	146	100.00	0	0.00		
1976	HDGV	99	96	96.97	3	3.03	2	100.00	0	0.00	12	85.71	2	14.29	1	100.00	0	0.00	18	94.74	1	5.26	99	100.00	0	0.00		
	LDGT1	125	102	81.60	23	18.40	51	89.47	6	4.80	43	87.76	6	12.24	4	100.00	0	0.00	77	83.70	15	16.30	125	100.00	0	0.00		
	LDGT2	299	281	93.98	18	6.02	18	85.71	3	1.00	17	85.00	3	15.00	0	0.00	0	0.00	56	81.16	13	18.84	296	99.00	3	1.00		
	LDGV	195	168	86.15	27	13.85	139	92.05	12	6.15	73	87.95	10	12.05	2	100.00	0	0.00	126	92.65	10	7.35	194	99.49	1	0.51		
1976 Total		718	647	90.11	71	9.89	210	90.91	21	2.92	145	87.35	21	12.65	7	100.00	0	0.00	277	87.66	39	12.34	714	99.44	4	0.56		
1977	HDGV	152	150	98.68	2	1.32	5	100.00	0	0.00	8	100.00	0	0.00	1	100.00	0	0.00	34	94.44	2	5.56	152	100.00	0	0.00		
	LDGT1	115	98	85.22	17	14.78	64	90.14	7	6.09	69	85.19	12	14.81	6	100.00	0	0.00	82	93.18	6	6.82	115	100.00	0	0.00		
	LDGT2	413	393	95.16	20	4.84	14	73.68	5	1.21	24	88.89	3	11.11	3	100.00	0	0.00	55	77.46	16	22.54	413	100.00	0	0.00		
	LDGV	241	212	87.97	29	12.03	187	95.41	9	3.73	121	90.30	13	9.70	3	100.00	0	0.00	161	92.53	13	7.47	240	99.59	1	0.41		
1977 Total		921	853	92.62	68	7.38	270	92.78	21	2.28	222	88.80	28	11.20	13	100.00	0	0.00	332	89.97	37	10.03	920	99.89	1	0.11		
1978	HDGV	141	139	98.58	2	1.42	10	100.00	0	0.00	11	100.00	0	0.00	2	100.00	0	0.00	23	92.00	2	8.00	141	100.00	0	0.00		
	LDGT1	147	121	82.31	26	17.69	79	92.94	6	4.08	71	87.65	10	12.35	4	100.00	0	0.00	94	87.04	14	12.96	145	98.64	2	1.36		
	LDGT2	527	483	91.65	44	8.35	54	79.41	14	2.66	48	90.57	5	9.43	2	100.00	0	0.00	44	60.27	29	39.73	524	99.43	3	0.57		
	LDGV	309	277	89.64	32	10.36	245	95.70	11	3.56	154	95.65	7	4.35	8	100.00	0	0.00	219	93.19	16	6.81	306	99.03	3	0.97		
1978 Total		1,124	1020	90.75	104	9.25	388	92.60	31	2.76	284	92.81	22	7.19	16	100.00	0	0.00	380	86.17	61	13.83	1116	99.29	8	0.71		
1979	HDGV	167	157	94.01	10	5.99	10	83.33	2	1.20	84	92.31	7	7.69	4	100.00	0	0.00	26	96.30	1	3.70	167	100.00	0	0.00		
	LDGT1	183	154	84.15	29	15.85	138	95.83	6	3.28	115	95.04	6	4.96	4	100.00	0	0.00	132	86.27	21	13.73	182	99.45	1	0.55		
	LDGT2	329	272	82.67	57	17.33	285	95.96	12	3.65	172	89.12	21	10.88	6	100.00	0	0.00	231	87.17	34	12.83	328	99.70	1	0.30		
	LDGV	371	329	88.68	42	11.32	314	96.32	12	3.23	183	92.89	14	7.11	21	100.00	0	0.00	255	91.40	24	8.60	371	100.00	0	0.00		
1979 Total		1,050	912	86.86	138	13.14	747	95.89	32	3.05	554	92.03	48	7.97	35	100.00	0	0.00	644	88.95	80	11.05	1048	99.81	2	0.19		
1980	HDGV	89	87	97.75	2	2.25	8	100.00	0	0.00	59	96.72	2	3.28	1	100.00	0	0.00	20	100.00	0	0.00	89	100.00	0	0.00		
	LDGT1	163	142	87.12	21	12.88	133	97.79	3	1.84	113	94.96	6	5.04	12	100.00	0	0.00	114	87.69	16	12.31	163	100.00	0	0.00		
	LDGT2	117	95	81.20	22	18.80	102	96.23	4	3.42	85	90.43	9	9.57	4	100.00	0	0.00	72	81.82	16	18.18	117	100.00	0	0.00		
	LDGV	246	219	89.02	27	10.98	230	98.29	4	1.63	170	93.41	12	6.59	71	98.61	1	1.39	171	93.44	12	6.56	244	99.19	2	0.81		
1980 Total		615	543	88.29	72	11.71	473	97.73	11	1.79	427	93.64	29	6.36	88	98.88	1	1.12	377	89.55	44	10.45	613	99.67	2	0.33		
1981	HDGV	148	141	95.27	7	4.73	13	100.00	0	0.00	127	96.21	5	3.79	5	100.00	0	0.00	8	100.00	0	0.00	146	98.65	2	1.35		
	LDGT1	198	160	80.81	38	19.19	178	95.19	9	4.55	143	90.51	15	9.49	40	97.56	1	2.44	142	84.52	26	15.48	198	100.00	0	0.00		
	LDGT2	111	90	81.08	21	18.92	96	95.05	5	4.50	83	90.22	9	9.78	5	100.00	0	0.00	76	86.36	12	13.64	111	100.00	0	0.00		
	LDGV	196	172	87.76	24	12.24	187	95.90	8	4.08	117	93.60	8	6.40	123	97.62	3	2.38	128	90.78	13	9.22	194	98.98	2	1.02		
1981 Total		653	563	86.22	90	13.78	474	95.56	22	3.37	470	92.70	37	7.30	173	97.74	4	2.26	354	87.41	51	12.59	649	99.39	4	0.61		
1982	HDGV	118	110	93.22	8	6.78	5	100.00	0	0.00	105	92.92	8	7.08	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00	118	100.00	0	0.00
	LDGT1	2	1	50.00	1	50.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	50.00	1	50.00	2	100.00	0	0.00		
	LDGT2	1	1	100.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00		
	LDGV	2	1	50.00	1	50.00	1	100.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00	0	0.00	1	100.00	2	100.00	0	0.00		
1982 Total		123	113	91.8																								

Vehicle		Other Overall					CAT				AIS				O2				Gas Cap				Opacity			
Year	Type	Total	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %
	LDGV	5	5	100.00	0	0.00	4	100.00	0	0.00	3	100.00	0	0.00	2	100.00	0	0.00	2	100.00	0	0.00	5	100.00	0	0.00
1984 Total		261	244	93.49	17	6.51	24	96.00	1	0.38	235	94.76	13	5.24	15	100.00	0	0.00	9	90.00	1	10.00	259	99.23	2	0.77
1985	HDGV	310	292	94.19	18	5.81	20	90.91	2	0.65	290	95.71	13	4.29	10	100.00	0	0.00	0	0.00	2	100.00	309	99.68	1	0.32
	LDGT1	5	5	100.00	0	0.00	5	100.00	0	0.00	4	100.00	0	0.00	2	100.00	0	0.00	5	100.00	0	0.00	5	100.00	0	0.00
	LDGT2	1	1	100.00	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00
	LDGV	8	7	87.50	1	12.50	7	87.50	1	12.50	6	100.00	0	0.00	6	100.00	0	0.00	4	100.00	0	0.00	8	100.00	0	0.00
1985 Total		324	305	94.14	19	5.86	33	91.67	3	0.93	300	95.85	13	4.15	19	100.00	0	0.00	10	83.33	2	16.67	323	99.69	1	0.31
1986	HDGV	216	199	92.13	17	7.87	10	90.91	1	0.46	198	94.29	12	5.71	8	100.00	0	0.00	1	25.00	3	75.00	215	99.54	1	0.46
	LDGT1	3	3	100.00	0	0.00	3	100.00	0	0.00	0	0.00	0	0.00	2	100.00	0	0.00	3	100.00	0	0.00	3	100.00	0	0.00
	LDGT2	1	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00
	LDGV	13	12	92.31	1	7.69	12	92.31	1	7.69	9	90.00	1	10.00	10	100.00	0	0.00	5	100.00	0	0.00	13	100.00	0	0.00
1986 Total		233	215	92.27	18	7.73	25	92.59	2	0.86	207	94.09	13	5.91	20	100.00	0	0.00	10	76.92	3	23.08	232	99.57	1	0.43
1987	HDGV	240	231	96.25	9	3.75	102	99.03	1	0.42	221	96.09	9	3.91	63	100.00	0	0.00	5	100.00	0	0.00	240	100.00	0	0.00
	LDGT1	14	13	92.86	1	7.14	13	100.00	0	0.00	1	100.00	0	0.00	13	100.00	0	0.00	12	92.31	1	7.69	14	100.00	0	0.00
	LDGT2	2	1	50.00	1	50.00	2	100.00	0	0.00	1	50.00	1	50.00	1	50.00	1	50.00	1	50.00	1	50.00	2	100.00	0	0.00
	LDGV	12	11	91.67	1	8.33	11	100.00	0	0.00	9	100.00	0	0.00	10	100.00	0	0.00	4	80.00	1	20.00	12	100.00	0	0.00
1987 Total		268	256	95.52	12	4.48	128	99.22	1	0.37	232	95.87	10	4.13	87	98.86	1	1.14	22	88.00	3	12.00	268	100.00	0	0.00
1988	HDGV	306	292	95.42	14	4.58	231	97.88	5	1.63	284	95.30	14	4.70	202	100.00	0	0.00	3	100.00	0	0.00	306	100.00	0	0.00
	LDGT1	22	20	90.91	2	9.09	22	100.00	0	0.00	0	0.00	0	0.00	22	100.00	0	0.00	20	90.91	2	9.09	22	100.00	0	0.00
	LDGT2	5	3	60.00	2	40.00	5	100.00	0	0.00	5	100.00	0	0.00	4	100.00	0	0.00	1	33.33	2	66.67	5	100.00	0	0.00
	LDGV	18	17	94.44	1	5.56	18	100.00	0	0.00	10	100.00	0	0.00	16	100.00	0	0.00	11	91.67	1	8.33	18	100.00	0	0.00
1988 Total		351	332	94.59	19	5.41	276	98.22	5	1.42	299	95.53	14	4.47	244	100.00	0	0.00	35	87.50	5	12.50	351	100.00	0	0.00
1989	HDGV	612	593	96.90	19	3.10	545	98.38	9	1.47	460	97.46	12	2.54	501	99.80	1	0.20	5	71.43	2	28.57	610	99.67	2	0.33
	LDGT1	36	35	97.22	1	2.78	36	100.00	0	0.00	2	66.67	1	33.33	36	100.00	0	0.00	36	100.00	0	0.00	36	100.00	0	0.00
	LDGT2	4	4	100.00	0	0.00	4	100.00	0	0.00	1	100.00	0	0.00	4	100.00	0	0.00	4	100.00	0	0.00	4	100.00	0	0.00
	LDGV	30	29	96.67	1	3.33	30	100.00	0	0.00	9	100.00	0	0.00	30	100.00	0	0.00	24	96.00	1	4.00	30	100.00	0	0.00
1989 Total		682	661	96.92	21	3.08	615	98.56	9	1.32	472	97.32	13	2.68	571	99.83	1	0.17	69	95.83	3	4.17	680	99.71	2	0.29
1990	HDGV	465	452	97.20	13	2.80	449	98.46	7	1.51	291	97.32	8	2.68	444	100.00	0	0.00	1	33.33	2	66.67	465	100.00	0	0.00
	LDGT1	29	28	96.55	1	3.45	29	100.00	0	0.00	3	100.00	0	0.00	29	100.00	0	0.00	26	96.30	1	3.70	29	100.00	0	0.00
	LDGT2	5	5	100.00	0	0.00	5	100.00	0	0.00	3	100.00	0	0.00	5	100.00	0	0.00	5	100.00	0	0.00	5	100.00	0	0.00
	LDGV	54	50	92.59	4	7.41	49	100.00	0	0.00	10	100.00	0	0.00	49	100.00	0	0.00	41	91.11	4	8.89	54	100.00	0	0.00
1990 Total		553	535	96.75	18	3.25	532	98.70	7	1.27	307	97.46	8	2.54	527	100.00	0	0.00	73	91.25	7	8.75	553	100.00	0	0.00
1991	HDGV	528	516	97.73	12	2.27	517	99.42	3	0.57	287	97.95	6	2.05	518	100.00	0	0.00	1	25.00	3	75.00	527	99.81	1	0.19
	LDGT1	42	40	95.24	2	4.76	42	100.00	0	0.00	1	100.00	0	0.00	42	100.00	0	0.00	38	97.44	1	2.56	41	97.62	1	2.38
	LDGT2	4	3	75.00	1	25.00	3	100.00	0	0.00	2	100.00	0	0.00	3	100.00	0	0.00	2	66.67	1	33.33	4	100.00	0	0.00
	LDGV	67	64	95.52	3	4.48	64	100.00	0	0.00	19	95.00	1	5.00	67	100.00	0	0.00	52	96.30	2	3.70	67	100.00	0	0.00
1991 Total		641	623	97.19	18	2.81	626	99.52	3	0.47	309	97.78	7	2.22	630	100.00	0	0.00	93	93.00	7	7.00	639	99.69	2	0.31
1992	HDGV	616	600	97.40	16	2.60	600	98.20	11	1.79	376	98.95	4	1.05	613	99.84	1	0.16	1	33.33	2	66.67	615	99.84	1	0.16
	LDGT1	21	21	100.00	0	0.00	21	100.00	0	0.00	0	0.00	0	0.00	21	100.00	0	0.00	20	100.00	0	0.00	21	100.00	0	0.00
	LDGT2	2	2	100.00	0	0.00	2	100.00	0	0.00	0	0.00	0	0.00	2	100.00	0	0.00	2	100.00	0	0.00	2	100.00	0	0.00
	LDGV	53	51	96.23	2	3.77	52	98.11	1	1.89	16	100.00	0	0.00	52	100.00	0	0.00	36	97.30	1	2.70	53	100.00	0	0.00
1992 Total		692	674	97.40	18	2.60	675	98.25	12	1.73	392	98.99	4	1.01	688	99.85	1	0.15	59	95.16	3	4.84	691	99.86	1	0.14
1993	HDGV	783	772	98.60	11	1.40	765	99.35	5	0.64	420	99.29	3	0.71	775	99.87	1	0.13	5	71.43	2	28.57	781	99.74	2	0.26
	LDGT1	15	14	93.33	1	6.67	15	100.00	0	0.00	1	100.00	0	0.00	15	100.00	0	0.00	14	93.33	1	6.67	15	100.00	0	0.00
	LDGT2	6	5	83.33	1	16.67	6	100.00	0	0.00	3	100.00	0	0.00	6	100.00	0	0.00	5	83.33	1	16.67	6	100.00	0	0.00
	LDGV	27	24	88.89	3	11.11	27	100.00	0	0.00	11	100.00	0	0.00	26	96.30	1	3.70	17	89.47	2	10.53	27	100.00	0	0.00
1993 Total		831	815	98.07	16	1.93	813	99.39	5	0.60	435	99.32	3	0.68	822	99.76	2	0.24	41	87.23	6	12.77	829	99.76	2	0.24
1994	HDGV	913	902	98.80	11	1.20	874	99.09	8	0.88	494	99.60	2	0.40	899	99.89	1	0.11	3	100.00	0	0.00	912	99.89	1	0.11
	LDGT1	26	25	96.15	1	3.85																				

Vehicle		Other Overall					CAT				AIS				O2				Gas Cap				Opacity			
Year	Type	Total	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %	Pass	Pass %	Fail	Fail %
1995 Total		1,459	1428	97.88	31	2.12	1384	99.14	12	0.82	722	99.45	4	0.55	1,447	99.79	3	0.21	90	88.24	12	11.76	1456	99.79	3	0.21
1996	HDGV	1,200	1195	99.58	5	0.42	8	100.00	0	0.00	2	100.00	0	0.00	7	100.00	0	0.00	0	0.00	4	100.00	1199	99.92	1	0.08
	LDGT1	4	4	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	100.00	0	0.00	4	100.00	0	0.00
	LDGV	7	7	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	100.00	0	0.00	7	100.00	0	0.00
1996 Total		1,211	1206	99.59	5	0.41	8	100.00	0	0.00	2	100.00	0	0.00	7	100.00	0	0.00	10	71.43	4	28.57	1210	99.92	1	0.08
1997	HDGV	1,810	1806	99.78	4	0.22	17	100.00	0	0.00	0	0.00	0	0.00	17	100.00	0	0.00	0	0.00	3	100.00	1809	99.94	1	0.06
	LDGT1	5	5	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5	100.00	0	0.00	5	100.00	0	0.00
	LDGT2	10	9	90.00	1	10.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	9	90.00	1	10.00	10	100.00	0	0.00
	LDGV	1	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00
1997 Total		1,826	1821	99.73	5	0.27	17	100.00	0	0.00	0	0.00	0	0.00	17	100.00	0	0.00	15	78.95	4	21.05	1825	99.95	1	0.05
1998	HDGV	1,144	1141	99.74	3	0.26	13	100.00	0	0.00	0	0.00	0	0.00	13	100.00	0	0.00	2	40.00	3	60.00	1144	100.00	0	0.00
	LDGT1	7	7	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	100.00	0	0.00	7	100.00	0	0.00
	LDGT2	4	4	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	100.00	0	0.00	4	100.00	0	0.00
	LDGV	3	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	100.00	0	0.00	3	100.00	0	0.00
1998 Total		1,158	1155	99.74	3	0.26	13	100.00	0	0.00	0	0.00	0	0.00	13	100.00	0	0.00	16	84.21	3	15.79	1158	100.00	0	0.00
1999	HDGV	2,489	2485	99.84	4	0.16	4	100.00	0	0.00	0	0.00	0	0.00	4	100.00	0	0.00	8	80.00	2	20.00	2487	99.92	2	0.08
	LDGT1	9	9	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	9	100.00	0	0.00	9	100.00	0	0.00
	LDGT2	3	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	100.00	0	0.00	3	100.00	0	0.00
	LDGV	7	7	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	100.00	0	0.00	7	100.00	0	0.00
1999 Total		2,508	2504	99.84	4	0.16	4	100.00	0	0.00	0	0.00	0	0.00	4	100.00	0	0.00	27	93.10	2	6.90	2506	99.92	2	0.08
2000	HDGV	2,331	2327	99.83	4	0.17	16	100.00	0	0.00	1	100.00	0	0.00	16	100.00	0	0.00	25	86.21	4	13.79	2331	100.00	0	0.00
	LDGT1	13	12	92.31	1	7.69	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	12	92.31	1	7.69	13	100.00	0	0.00
	LDGT2	12	12	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	11	100.00	0	0.00	12	100.00	0	0.00
	LDGV	11	11	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	9	100.00	0	0.00	11	100.00	0	0.00
2000 Total		2,367	2362	99.79	5	0.21	16	100.00	0	0.00	1	100.00	0	0.00	16	100.00	0	0.00	57	91.94	5	8.06	2367	100.00	0	0.00
2001	HDGV	2,750	2744	99.78	6	0.22	36	100.00	0	0.00	2	100.00	0	0.00	36	100.00	0	0.00	30	88.24	4	11.76	2748	99.93	2	0.07
	LDGT1	10	10	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	10	100.00	0	0.00	10	100.00	0	0.00
	LDGT2	4	3	75.00	1	25.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	75.00	1	25.00	4	100.00	0	0.00
	LDGV	8	8	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	100.00	0	0.00	8	100.00	0	0.00
2001 Total		2,772	2765	99.75	7	0.25	36	100.00	0	0.00	2	100.00	0	0.00	36	100.00	0	0.00	50	90.91	5	9.09	2770	99.93	2	0.07
2002	HDGV	1,969	1966	99.85	3	0.15	18	100.00	0	0.00	2	100.00	0	0.00	18	100.00	0	0.00	44	93.62	3	6.38	1969	100.00	0	0.00
	LDGT1	14	14	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	14	100.00	0	0.00	14	100.00	0	0.00
	LDGT2	2	1	50.00	1	50.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	50.00	1	50.00	2	100.00	0	0.00
	LDGV	15	14	93.33	1	6.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	14	93.33	1	6.67	15	100.00	0	0.00
2002 Total		2,000	1995	99.75	5	0.25	18	100.00	0	0.00	2	100.00	0	0.00	18	100.00	0	0.00	73	93.59	5	6.41	2000	100.00	0	0.00
2003	HDGV	2,665	2658	99.74	7	0.26	47	100.00	0	0.00	1	100.00	0	0.00	47	100.00	0	0.00	47	92.16	4	7.84	2662	99.89	3	0.11
	LDGT1	20	20	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	20	100.00	0	0.00	20	100.00	0	0.00
	LDGT2	6	5	83.33	1	16.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	100.00	0	0.00	5	83.33	1	16.67
	LDGV	4	4	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	100.00	0	0.00	4	100.00	0	0.00
2003 Total		2,695	2687	99.70	8	0.30	47	100.00	0	0.00	1	100.00	0	0.00	47	100.00	0	0.00	76	95.00	4	5.00	2691	99.85	4	0.15
2004	HDGV	1,925	1925	100.00	0	0.00	28	100.00	0	0.00	0	0.00	0	0.00	28	100.00	0	0.00	46	100.00	0	0.00	1925	100.00	0	0.00
	LDGT1	14	14	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	14	100.00	0	0.00	14	100.00	0	0.00
	LDGT2	1	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00
	LDGV	9	9	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	100.00	0	0.00	9	100.00	0	0.00
2004 Total		1,949	1949	100.00	0	0.00	28	100.00	0	0.00	0	0.00	0	0.00	28	100.00	0	0.00	68	100.00	0	0.00	1949	100.00	0	0.00
2005	HDGV	2,146	2141	99.77	5	0.23	31	100.00	0	0.00	1	100.00	0	0.00	31	100.00	0	0.00	44	91.67	4	8.33	2145	99.95	1	0.05
	LDGT1	16	14	87.50	2	12.50	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	14	87.50	2	12.50	16	100.00	0	0.00
	LDGT2	3	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	100.00	0	0.00	3	100.00	0	0.00
	LDGV	13	13	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	12	100.00	0	0.00	13	100.00	0	0.00
2005 Total		2,178	2171	99.68	7	0.32	31																			

Appendix C5

Idle Retest Pass Reduction Report

Date

Between 1/1/2017 and 12/31/2017

Idle Retest Pass Reduction Report (V1.01)

Vehicle		Initial Exhaust Emissions					Passing Retest Exhaust Emissions						Emission Reductions								Average Repair Costs
Year	Type	Total	Avg HC Idle	Avg CO Idle	Avg HC2500 rpm	Avg CO2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC2500 rpm	Avg CO2500 rpm	Avg HC Idle	Avg HC % Idle	Avg CO Idle	Avg CO % Idle	Avg HC2500 rpm	Avg HC% 2500rpm	Avg CO2500 rpm	Avg CO% 2500rpm	
1974	LDGV	206	945.90	5.26	613.40	4.12	107	51.94%	323.19	1.47	252.80	2.77	503.32	60.90%	3.68	71.44%	227.70	47.39%	1.16	29.56%	132.14
	LDGT	80	760.46	4.77	492.06	3.79	54	67.50%	337.63	1.27	293.89	2.68	356.53	51.36%	3.52	73.51%	174.86	37.30%	1.62	37.70%	201.00
	HDGT	49	1088.95	5.01	734.92	4.73	28	57.14%	359.47	2.67	304.17	3.87	650.99	64.43%	2.16	44.69%	330.69	52.09%	0.62	13.84%	95.00
	1974 Total	335	922.54	5.11	602.20	4.13	189	56.42%	332.69	1.59	272.15	2.91	483.26	59.23%	3.41	68.17%	227.86	45.57%	1.21	29.45%	142.20
1975	LDGV	4	443.28	3.32	167.50	2.86	3	75.00%	155.00	0.70	126.17	2.54	334.03	68.30%	3.06	81.47%	43.97	25.84%	0.50	16.47%	0.00
	LDGT	5	330.78	4.76	258.70	3.87	3	60.00%	213.53	0.97	141.90	2.56	55.33	20.58%	4.01	80.58%	46.70	24.76%	1.63	38.98%	0.00
	HDGT	16	844.13	4.19	660.17	2.98	10	62.50%	337.27	1.53	393.68	1.92	506.30	60.02%	1.78	53.78%	241.86	38.06%	0.26	11.86%	185.00
	1975 Total	25	677.32	4.16	501.05	3.14	16	64.00%	279.89	1.27	296.31	2.16	389.44	58.18%	2.44	65.80%	168.16	36.20%	0.56	20.66%	185.00
1976	LDGV	87	667.26	3.62	443.54	3.75	48	55.17%	163.61	0.67	150.29	1.96	397.21	70.83%	2.74	80.36%	209.35	58.21%	1.35	40.81%	172.50
	LDGT	73	598.31	3.04	361.52	3.26	43	58.90%	172.80	0.62	186.85	2.02	357.60	67.42%	1.93	75.65%	141.94	43.17%	1.22	37.67%	296.00
	HDGT	72	939.23	4.58	569.55	3.67	56	77.78%	357.08	1.70	245.07	1.97	546.08	60.46%	2.35	58.08%	281.28	53.44%	1.13	36.44%	596.50
	1976 Total	232	729.97	3.74	456.84	3.57	147	63.36%	240.00	1.05	197.09	1.98	442.34	64.83%	2.35	69.23%	217.03	52.41%	1.23	38.28%	366.80
1977	LDGV	107	739.66	3.65	467.99	2.71	61	57.01%	107.02	0.38	127.63	1.39	509.62	82.64%	3.17	89.35%	236.20	64.92%	1.46	51.25%	680.00
	LDGT	72	503.29	3.90	351.48	2.82	36	50.00%	119.82	0.46	132.11	0.94	319.93	72.75%	2.70	85.53%	189.39	58.91%	1.47	61.17%	200.00
	HDGT	103	912.27	4.51	531.10	3.38	83	80.58%	373.82	2.21	339.88	3.12	513.00	57.85%	2.16	49.36%	175.93	34.11%	0.36	10.33%	80.50
	1977 Total	282	742.36	4.03	461.29	2.98	180	63.83%	232.60	1.24	226.40	2.10	473.24	67.05%	2.61	67.77%	199.05	46.79%	0.96	31.29%	260.25
1978	LDGV	113	605.41	2.71	417.61	2.87	68	60.18%	141.04	0.45	145.90	1.58	344.81	70.97%	1.84	80.22%	167.76	53.48%	0.83	34.49%	1042.00
	LDGT	62	464.72	2.73	277.67	2.63	35	56.45%	114.48	0.37	153.73	1.37	257.96	69.26%	1.94	83.96%	89.57	36.81%	0.87	38.97%	227.00
	HDGT	168	1010.88	4.74	645.21	3.63	100	59.52%	363.21	2.08	303.27	2.44	508.79	58.35%	2.45	54.14%	279.99	48.00%	0.92	27.50%	0.00
	1978 Total	343	778.58	3.71	503.79	3.20	203	59.18%	245.90	1.24	224.77	1.97	410.62	62.54%	2.16	63.53%	209.57	48.25%	0.89	31.04%	553.00
1979	LDGV	152	500.16	3.02	337.76	2.45	86	56.58%	116.49	0.41	151.12	1.14	328.27	73.81%	2.04	83.28%	124.20	45.11%	0.98	46.23%	910.00
	LDGT	250	595.12	2.71	497.70	2.60	124	49.60%	122.96	0.37	121.84	1.60	331.47	72.94%	1.85	83.51%	221.25	64.49%	0.31	16.04%	258.20
	HDGT	45	774.34	3.59	620.09	2.74	30	66.67%	208.11	1.61	237.83	2.04	491.62	70.26%	1.96	54.97%	332.47	58.30%	0.78	27.59%	0.00
	1979 Total	447	580.87	2.90	455.63	2.56	240	53.69%	131.29	0.54	146.83	1.49	350.34	72.74%	1.93	78.27%	200.38	57.71%	0.61	28.95%	366.83
1980	LDGV	66	506.95	2.07	334.18	2.75	47	71.21%	119.94	0.39	155.05	1.60	326.21	73.12%	1.82	82.31%	168.51	52.08%	1.17	42.32%	0.00
	LDGT	104	508.64	2.92	310.99	2.95	69	66.35%	101.65	0.32	135.93	1.34	259.48	71.85%	1.97	86.02%	132.38	49.34%	0.97	41.88%	0.00
	HDGT	18	671.34	3.62	561.09	3.33	13	72.22%	217.03	1.01	239.98	1.98	456.88	67.80%	2.65	72.46%	313.78	56.66%	1.33	40.24%	64.00
	1980 Total	188	523.62	2.69	343.08	2.92	129	68.62%	119.94	0.42	153.39	1.50	303.68	71.69%	1.98	82.69%	163.83	51.65%	1.08	41.84%	64.00
1981	LDGV	97	273.19	1.61	276.85	3.59	48	49.48%	70.60	0.13	57.54	0.30	163.51	69.84%	1.20	90.20%	159.00	73.43%	2.42	89.09%	175.00
	LDGT	223	424.96	2.16	275.66	2.43	99	44.39%	59.56	0.10	55.33	0.32	287.43	82.84%	1.53	93.79%	150.40	73.10%	1.47	82.37%	1036.67
	HDGT	50	644.48	3.24	501.99	2.48	28	56.00%	177.73	0.92	108.51	1.15	454.34	71.88%	2.10	69.63%	333.54	75.45%	1.08	48.34%	104.00
	1981 Total	370	414.84	2.16	306.56	2.74	175	47.30%	81.50	0.24	64.45	0.44	280.15	77.46%	1.53	86.46%	182.07	73.86%	1.67	78.99%	524.00
1982	LDGV	2	0.00	0.00	0.00	0.00	1	50.00%	65.30	0.47	67.70	0.51	-65.30	0.00%	-0.47	0.00%	-67.70	0.00%	-0.51	0.00%	0.00
	LDGT	4	739.88	2.94	436.45	0.81	3	75.00%	59.03	0.24	52.70	0.16	569.47	90.61%	2.60	91.66%	362.07	87.29%	0.71	81.30%	1050.00
	HDGT	27	818.33	2.95	441.97	2.45	16	59.26%	276.49	1.02	187.23	1.56	330.68	54.46%	1.53	59.97%	145.63	43.75%	0.83	34.64%	0.00
	1982 Total	33	759.22	2.77	414.52	2.10	20	60.61%	233.31	0.88	161.07	1.30	346.70	59.77%	1.59	64.48%	167.43	50.97%	0.74	36.39%	1050.00
1983	LDGV	6	216.42	2.72	350.08	5.44	3	50.00%	40.77	0.38	45.60	0.45	116.47	74.07%	1.57	80.48%	172.77	79.12%	2.76	86.07%	0.00
	HDGT	42	860.45	2.55	504.74	2.08	24	57.14%	200.07	1.08	141.03	1.32	528.41	72.54%	1.94	64.23%	321.41	69.50%	0.78	37.10%	0.00
	1983 Total	48	779.94	2.57	485.41	2.50	27	56.25%	182.37	1.00	130.43	1.23	482.64	72.58%	1.90	65.45%	304.90	70.04%	1.00	44.94%	0.00

Vehicle		Initial Exhaust Emissions					Passing Retest Exhaust Emissions						Emission Reductions								Average Repair Costs
Year	Type	Total	Avg HC Idle	Avg CO Idle	Avg HC2500 rpm	Avg CO2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC2500 rpm	Avg CO2500 rpm	Avg HC Idle	Avg HC % Idle	Avg CO Idle	Avg CO % Idle	Avg HC2500 rpm	Avg HC% 2500rpm	Avg CO2500 rpm	Avg CO% 2500rpm	
1984	LDGV	7	805.26	3.98	828.51	4.39	2	28.57%	66.40	0.11	52.80	0.17	701.90	91.36%	3.59	97.02%	730.65	93.26%	4.15	96.06%	0.00
	LDGT	10	773.08	3.58	459.20	1.00	3	30.00%	90.27	0.03	98.93	0.09	581.60	86.56%	2.61	98.74%	292.17	74.70%	0.48	84.30%	0.00
	HDGT	81	721.69	3.00	490.23	1.99	42	51.85%	175.31	0.78	145.74	1.19	513.14	74.54%	1.77	69.38%	305.74	67.72%	0.52	30.36%	468.00
1984 Total		98	732.90	3.13	511.23	2.06	47	47.96%	165.25	0.71	138.80	1.07	525.54	76.08%	1.90	72.95%	322.95	69.94%	0.67	38.43%	468.00
1985	LDGV	1	330.20	3.00	329.40	3.00	1	100.00%	51.30	0.11	54.70	0.11	278.90	84.46%	2.89	96.33%	274.70	83.39%	2.89	96.33%	0.00
	LDGT	4	232.15	4.00	246.13	5.06	0	0.00%	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00
	HDGT	95	644.21	2.65	414.00	1.70	49	51.58%	229.13	1.03	135.26	1.17	392.01	63.11%	1.65	61.66%	274.13	66.96%	0.48	29.25%	95.00
1985 Total		100	624.59	2.71	406.44	1.84	50	50.00%	225.57	1.01	133.65	1.15	389.75	63.34%	1.68	62.44%	274.14	67.23%	0.53	31.64%	95.00
1986	LDGV	5	358.64	2.04	347.90	2.06	2	40.00%	165.35	0.56	129.20	0.61	317.35	65.74%	2.70	82.80%	184.10	58.76%	0.48	43.98%	0.00
	LDGT	5	269.86	1.36	258.98	1.73	3	60.00%	60.87	0.19	67.17	0.22	246.97	80.23%	1.12	85.75%	255.97	79.21%	1.25	85.19%	0.00
	HDGT	112	533.31	2.14	298.97	1.30	52	46.43%	119.97	0.81	97.85	0.65	411.83	77.44%	1.09	57.36%	199.95	67.14%	0.43	39.73%	120.00
1986 Total		122	515.35	2.10	299.33	1.35	57	46.72%	118.45	0.77	97.34	0.63	399.84	77.15%	1.15	59.89%	202.35	67.52%	0.47	43.05%	120.00
1987	LDGV	6	1666.67	0.37	643.33	0.37	1	16.67%	472.30	1.64	52.50	0.19	1527.70	76.39%	-1.20	-272.73%	719.50	93.20%	0.25	56.82%	0.00
	LDGT	8	263.85	1.28	163.38	1.57	6	75.00%	69.62	0.17	94.53	0.35	118.35	62.96%	0.21	54.19%	26.30	21.77%	0.13	27.24%	0.00
	HDGT	65	477.75	2.27	287.46	1.51	38	58.46%	133.14	0.66	113.18	0.62	344.76	72.14%	1.53	69.95%	172.80	60.42%	0.65	50.98%	1013.33
1987 Total		79	546.39	2.03	301.92	1.43	45	56.96%	132.21	0.61	109.35	0.58	340.86	72.05%	1.29	67.78%	165.42	60.20%	0.57	49.70%	1013.33
1988	LDGV	13	626.40	1.29	391.91	2.05	6	46.15%	82.58	0.29	70.88	0.43	539.23	86.72%	1.33	82.04%	266.35	78.98%	1.44	76.85%	0.00
	LDGT	14	228.91	0.49	171.91	0.57	8	57.14%	86.61	0.22	78.04	0.34	182.06	67.76%	0.26	53.75%	98.44	55.78%	0.28	45.11%	0.00
	HDGT	101	603.82	2.56	436.56	1.85	53	52.48%	102.41	0.44	105.17	0.78	406.75	79.89%	1.63	78.89%	258.24	71.06%	0.78	50.27%	1234.50
1988 Total		128	565.11	2.20	403.08	1.73	67	52.34%	98.75	0.40	98.86	0.69	391.78	79.87%	1.44	78.35%	239.88	70.82%	0.78	53.03%	1234.50
1989	LDGV	5	312.28	1.50	182.34	1.36	3	60.00%	102.30	0.19	85.93	0.55	239.80	70.10%	1.96	91.02%	84.40	49.55%	0.66	54.57%	77.00
	LDGT	14	279.17	0.99	229.97	1.44	11	78.57%	108.51	0.42	103.68	0.48	167.48	60.68%	0.29	40.33%	95.64	47.98%	0.31	38.71%	0.00
	HDGT	112	668.60	2.28	475.47	1.67	55	49.11%	111.56	0.54	102.02	0.73	399.95	78.19%	1.40	72.27%	225.08	68.81%	0.58	44.21%	649.25
1989 Total		131	613.38	2.11	438.05	1.64	69	52.67%	110.67	0.50	101.59	0.68	355.93	76.28%	1.24	71.20%	198.33	66.13%	0.54	44.09%	534.80
1990	LDGV	22	369.40	1.66	297.90	2.24	15	68.18%	102.15	0.30	113.35	0.60	332.08	76.48%	0.89	75.03%	240.63	67.98%	1.36	69.47%	0.00
	LDGT	11	328.57	2.01	258.88	2.06	5	45.45%	78.08	0.29	99.62	0.42	151.88	66.05%	0.89	75.76%	83.26	45.53%	1.12	72.95%	0.00
	HDGT	85	571.93	3.07	273.06	2.04	43	50.59%	110.97	0.48	82.35	0.62	347.21	75.78%	2.47	83.70%	160.91	66.15%	1.37	69.02%	132.33
1990 Total		118	511.48	2.71	276.37	2.08	63	53.39%	106.26	0.42	91.10	0.60	328.10	75.54%	1.97	82.37%	173.73	65.60%	1.35	69.37%	132.33
1991	LDGV	23	328.99	1.08	306.61	2.63	13	56.52%	89.64	0.27	79.52	0.31	247.45	73.41%	0.62	69.57%	221.81	73.61%	1.55	83.44%	198.50
	LDGT	7	295.29	0.50	184.91	0.47	6	85.71%	64.40	0.24	62.77	0.28	272.28	80.87%	0.34	58.86%	137.37	68.64%	0.04	12.82%	0.00
	HDGT	117	538.22	3.56	388.51	2.13	57	48.72%	111.85	0.57	111.39	0.92	297.46	72.67%	2.19	79.46%	202.36	64.50%	1.10	54.50%	366.00
1991 Total		147	493.91	3.03	366.00	2.13	76	51.70%	104.31	0.49	102.10	0.76	286.92	73.34%	1.77	78.38%	200.56	66.27%	1.09	58.89%	282.25
1992	LDGV	10	339.88	1.24	275.75	0.94	6	60.00%	51.77	0.05	42.50	0.22	260.23	83.41%	1.94	97.49%	167.15	79.73%	1.27	85.55%	0.00
	LDGT	2	259.50	0.73	143.00	0.71	2	100.00%	50.50	0.13	53.50	0.40	209.00	80.54%	0.60	82.76%	89.50	62.59%	0.31	43.26%	0.00
	HDGT	99	396.35	2.81	316.73	2.22	60	60.61%	97.16	0.47	86.23	0.81	304.75	75.82%	2.17	82.18%	244.06	73.89%	1.01	55.41%	810.00
1992 Total		111	388.80	2.63	309.91	2.07	68	61.26%	91.79	0.42	81.41	0.75	298.01	76.45%	2.10	83.25%	232.73	74.08%	1.01	57.52%	810.00
1993	LDGV	9	204.12	1.45	187.67	1.64	6	66.67%	89.83	0.27	77.27	0.40	114.85	56.11%	1.02	79.12%	110.38	58.82%	1.58	79.80%	0.00
	LDGT	3	351.17	4.35	156.90	1.57	1	33.33%	88.10	0.18	105.90	0.52	239.90	73.14%	4.21	95.90%	93.30	46.84%	1.42	73.20%	0.00
	HDGT	117	559.73	3.06	355.19	2.43	71	60.68%	85.47	0.45	89.45	1.09	331.09	79.48%	2.20	82.90%	159.97	64.14%	0.89	45.06%	417.60
1993 Total		129	530.07	2.98	338.89	2.35	78	60.47%	85.84	0.44	88.72	1.03	313.29	78.49%	2.13	83.04%	155.30	63.64%	0.95	48.09%	417.60
1994	LDGV	19	385.76	1.05	373.42	1.32	12	63.16%	65.13	0.06	50.64	0.21	304.46	82.38%	0.92	93.88%	294.63	85.33%	1.18	85.08%	0.00
	LDGT	29	257.56	1.05	207.62	1.72	7	24.14%	97.39	0.30	62.09	0.45	120.89	55.38%	0.25	45.36%	43.90	41.42%	0.42	48.60%	0.00
	HDGT	170	611.26	3.26	303.39	2.62	87	51.18%	116.31	0.61	100.91	1.00	453.10	79.57%	2.27	78.76%	190.74	65.40%	1.41	58.56%	374.40

Vehicle		Initial Exhaust Emissions					Passing Retest Exhaust Emissions						Emission Reductions								Average Repair Costs
Year	Type	Total	Avg HC Idle	Avg CO Idle	Avg HC2500 rpm	Avg CO2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC2500 rpm	Avg CO2500 rpm	Avg HC Idle	Avg HC % Idle	Avg CO Idle	Avg CO % Idle	Avg HC2500 rpm	Avg HC% 2500rpm	Avg CO2500 rpm	Avg CO% 2500rpm	
1994 Total		218	544.56	2.77	296.76	2.39	106	48.62%	109.26	0.53	92.65	0.87	414.33	79.13%	1.99	78.94%	192.80	67.54%	1.32	60.20%	374.40
1995	LDGV	21	517.66	1.85	470.47	1.98	14	66.67%	68.04	0.19	74.67	0.21	327.44	82.80%	0.93	82.82%	262.37	77.85%	0.87	80.52%	0.00
	LDGT	19	223.98	1.01	178.34	1.41	11	57.89%	84.00	0.24	58.89	0.38	130.41	60.82%	0.91	79.44%	130.65	68.93%	1.49	79.79%	665.00
	HDGT	235	674.40	3.58	345.03	3.20	119	50.64%	111.92	0.61	95.22	1.34	406.79	78.42%	2.39	79.66%	182.98	65.77%	1.45	52.07%	556.11
1995 Total		275	631.31	3.27	343.10	2.98	144	52.36%	105.52	0.54	90.45	1.16	377.97	78.18%	2.13	79.78%	186.70	67.37%	1.40	54.78%	567.00
1996	LDGV	1	414.50	0.03	457.90	0.01	1	100.00%	12.30	0.00	5.30	0.00	402.20	97.03%	0.03	100.00%	452.60	98.84%	0.01	100.00%	0.00
	LDGT	1	235.20	0.88	99.60	0.69	1	100.00%	165.90	0.66	81.90	0.62	69.30	29.46%	0.22	25.00%	17.70	17.77%	0.07	10.14%	0.00
	HDGT	143	584.39	2.99	251.18	2.22	64	44.76%	111.99	0.51	70.85	0.68	441.92	79.78%	2.29	81.89%	165.12	69.97%	1.43	67.86%	134.00
1996 Total		145	580.81	2.96	251.56	2.20	66	45.52%	111.30	0.50	70.03	0.67	435.67	79.65%	2.23	81.62%	167.24	70.49%	1.39	67.57%	134.00
1997	LDGT	3	737.13	0.68	175.60	0.29	2	66.67%	65.45	0.14	67.80	0.16	93.40	58.80%	0.25	64.47%	84.70	55.54%	0.22	58.11%	0.00
	HDGT	94	672.04	2.43	356.51	1.10	62	65.96%	112.38	0.57	68.00	0.57	440.50	79.67%	2.02	78.15%	262.21	79.41%	0.47	45.30%	215.00
1997 Total		97	674.05	2.38	350.91	1.08	64	65.98%	110.91	0.55	67.99	0.55	429.66	79.48%	1.97	78.08%	256.66	79.06%	0.46	45.44%	215.00
1998	HDGT	131	727.91	1.74	287.60	0.98	77	58.78%	150.68	0.34	77.05	0.36	565.96	78.97%	1.43	80.89%	207.64	72.93%	0.64	64.05%	882.25
1998 Total		131	727.91	1.74	287.60	0.98	77	58.78%	150.68	0.34	77.05	0.36	565.96	78.97%	1.43	80.89%	207.64	72.93%	0.64	64.05%	882.25
1999	LDGT	1	392.50	0.32	38.70	0.02	0	0.00%	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00
	HDGT	115	670.47	1.57	269.17	0.90	79	68.70%	123.58	0.32	82.72	0.47	501.27	80.22%	1.18	78.45%	177.93	68.26%	0.37	44.04%	949.00
1999 Total		116	668.08	1.56	267.19	0.89	79	68.10%	123.58	0.32	82.72	0.47	501.27	80.22%	1.18	78.45%	177.93	68.26%	0.37	44.04%	949.00
2000	LDGV	1	190.20	2.51	64.60	1.15	1	100.00%	196.40	0.39	192.00	0.52	-6.20	-3.26%	2.12	84.46%	-127.40	-197.21%	0.63	54.78%	0.00
	LDGT	1	38.90	0.02	46.80	0.02	1	100.00%	18.10	0.01	21.80	0.01	20.80	53.47%	0.01	50.00%	25.00	53.42%	0.01	50.00%	0.00
	HDGT	157	766.86	1.56	435.08	1.14	87	55.41%	126.67	0.28	72.99	0.41	624.38	83.13%	1.42	83.61%	337.43	82.22%	0.90	69.00%	136.00
2000 Total		159	758.66	1.55	430.31	1.13	89	55.97%	126.23	0.28	73.76	0.40	610.51	82.87%	1.41	83.62%	328.70	81.67%	0.89	68.86%	136.00
2001	LDGT	1	24.60	0.00	31.70	0.00	1	100.00%	5.50	0.01	10.30	0.03	19.10	77.64%	-0.01		21.40	67.51%	-0.03	0.00%	0.00
	HDGT	60	657.55	1.63	463.19	1.30	46	76.67%	97.30	0.36	69.49	0.40	515.66	84.13%	1.46	80.18%	309.64	81.67%	0.99	70.98%	217.33
2001 Total		61	647.17	1.60	456.11	1.28	47	77.05%	95.34	0.35	68.23	0.40	505.10	84.12%	1.43	80.17%	303.51	81.65%	0.97	70.94%	217.33
2002	LDGV	2	171.60	0.56	165.00	0.54	2	100.00%	35.15	0.06	34.15	0.07	136.45	79.52%	0.50	89.29%	130.85	79.30%	0.47	86.92%	23.00
	LDGT	3	238.97	0.92	109.90	1.37	2	66.67%	119.85	0.25	93.75	0.23	15.80	11.65%	0.25	50.00%	-13.30	-16.53%	0.11	31.82%	0.00
	HDGT	49	780.04	2.08	601.05	1.92	40	81.63%	81.47	0.27	128.51	0.55	557.78	87.26%	1.63	85.96%	304.38	70.31%	1.10	66.41%	0.00
2002 Total		54	727.44	1.96	557.61	1.83	44	81.48%	81.10	0.26	122.64	0.52	514.00	86.37%	1.51	85.55%	282.05	69.70%	1.02	66.40%	23.00
2003	HDGT	31	402.62	1.63	296.60	1.25	27	87.10%	75.56	0.29	69.19	0.53	265.67	77.86%	1.45	83.21%	189.49	73.25%	0.80	60.29%	352.50
2003 Total		31	402.62	1.63	296.60	1.25	27	87.10%	75.56	0.29	69.19	0.53	265.67	77.86%	1.45	83.21%	189.49	73.25%	0.80	60.29%	352.50
2004	HDGT	33	699.19	2.09	548.14	2.22	17	51.52%	61.13	0.09	68.32	0.21	777.16	92.71%	3.18	97.11%	614.26	89.99%	3.21	93.88%	639.50
2004 Total		33	699.19	2.09	548.14	2.22	17	51.52%	61.13	0.09	68.32	0.21	777.16	92.71%	3.18	97.11%	614.26	89.99%	3.21	93.88%	639.50
2005	LDGT	2	7.70	0.00	11.85	0.02	2	100.00%	5.35	0.00	8.70	0.01	2.35	30.52%	0.00		3.15	26.58%	0.01	33.33%	0.00
	HDGT	26	614.24	1.18	323.55	0.85	16	61.54%	105.73	0.38	81.17	0.46	483.24	82.05%	1.20	75.90%	263.01	76.42%	0.67	58.95%	0.00
2005 Total		28	570.91	1.09	301.28	0.79	18	64.29%	94.58	0.34	73.12	0.41	429.81	81.96%	1.07	75.90%	234.14	76.20%	0.59	58.90%	0.00
2006	LDGV	1	24.30	0.08	116.90	3.05	0	0.00%	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00
	HDGT	14	676.29	0.87	504.89	0.58	13	92.86%	67.74	0.28	63.60	0.32	506.72	88.21%	0.53	65.46%	326.28	83.69%	0.16	33.49%	0.00
2006 Total		15	632.82	0.82	479.03	0.74	13	86.67%	67.74	0.28	63.60	0.32	506.72	88.21%	0.53	65.46%	326.28	83.69%	0.16	33.49%	0.00
2007	LDGV	1	123.80	0.50	163.40	1.88	1	100.00%	142.70	0.64	163.50	0.64	-18.90	-15.27%	-0.14	-28.00%	-0.10	-0.06%	1.24	65.96%	0.00
	HDGT	5	679.84	0.94	444.08	0.73	5	100.00%	75.02	0.20	40.40	0.25	604.82	88.97%	0.74	78.51%	403.68	90.90%	0.48	65.84%	0.00
2007 Total		6	587.17	0.87	397.30	0.92	6	100.00%	86.30	0.28	60.92	0.31	500.87	85.30%	0.59	68.27%	336.38	84.67%	0.61	65.88%	0.00
2008	HDGT	9	435.31	1.15	382.99	1.39	9	100.00%	46.14	0.31	57.52	1.02	389.17	89.40%	0.84	72.94%	325.47	84.98%	0.37	26.71%	0.00
2008 Total		9	435.31	1.15	382.99	1.39	9	100.00%	46.14	0.31	57.52	1.02	389.17	89.40%	0.84	72.94%	325.47	84.98%	0.37	26.71%	0.00

Vehicle		Initial Exhaust Emissions					Passing Retest Exhaust Emissions					Emission Reductions								Average Repair Costs	
Year	Type	Total	Avg HC Idle	Avg CO Idle	Avg HC2500 rpm	Avg CO2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC2500 rpm	Avg CO2500 rpm	Avg HC Idle	Avg HC % Idle	Avg CO Idle	Avg CO % Idle	Avg HC2500 rpm	Avg HC% 2500rpm	Avg CO2500 rpm		Avg CO% 2500rpm
2009	HDGT	4	393.10	3.55	138.55	2.30	3	75.00%	93.00	0.28	128.33	1.00	169.07	64.51%	2.08	88.03%	-35.97	-38.94%	0.53	34.57%	0.00
2009 Total		4	393.10	3.55	138.55	2.30	3	75.00%	93.00	0.28	128.33	1.00	169.07	64.51%	2.08	88.03%	-35.97	-38.94%	0.53	34.57%	0.00
2010	LDGT	2	161.35	0.00	23.95	0.00	1	50.00%	10.60	0.10	12.90	0.01	-10.30	-3433.33%	-0.10		-12.60	-4200.00%	-0.01	0.00%	0.00
	HDGT	4	383.70	0.02	179.80	0.15	4	100.00%	98.38	0.19	36.85	0.28	285.33	74.36%	-0.17	-1150.00%	142.95	79.51%	-0.14	-91.53%	0.00
2010 Total		6	309.58	0.01	127.85	0.10	5	83.33%	80.82	0.17	32.06	0.23	226.20	73.68%	-0.16	-1316.67%	111.84	77.72%	-0.11	-93.22%	0.00
2011	HDGT	3	176.67	0.87	149.87	0.61	3	100.00%	22.83	0.07	23.67	0.05	153.83	87.08%	0.81	92.37%	126.20	84.21%	0.56	91.26%	2304.00
2011 Total		3	176.67	0.87	149.87	0.61	3	100.00%	22.83	0.07	23.67	0.05	153.83	87.08%	0.81	92.37%	126.20	84.21%	0.56	91.26%	2304.00
2016	HDGT	1	0.00	0.00	0.00	0.00	1	100.00%	79.00	0.03	33.00	0.02	-79.00	0.00%	-0.03	0.00%	-33.00	0.00%	-0.02	0.00%	
2016 Total		1	0.00	0.00	0.00	0.00	1	100.00%	79.00	0.03	33.00	0.02	-79.00	0.00%	-0.03	0.00%	-33.00	0.00%	-0.02	0.00%	0.00
Grand Total		4858	631.93	2.91	399.63	2.44	2764	56.90%	154.89	0.68	135.31	1.21	407.16	72.44%	1.97	74.20%	213.81	61.24%	0.98	44.69%	462.53

Summary by Vehicle Type (V1.01)

Initial Exhaust Emissions						Passing Retest Exhaust Emissions						Emission Reductions								Average Repair Costs
Vehicle Type	Total	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Avg HC Idle	Avg HC % Idle	Avg CO Idle	Avg CO % Idle	Avg HC 2500 rpm	Avg HC% 2500 rpm	Avg CO 2500 rpm	Avg CO% 2500 rpm	
LDGV	987	615.20	3.14	424.65	3.06	558	56.53%	153.66	0.59	147.47	1.45	371.49	70.74%	2.27	79.53%	192.96	56.68%	1.27	46.73%	304.79
LDGT	1013	506.21	2.70	354.21	2.59	539	53.21%	127.77	0.41	129.98	1.24	290.65	69.46%	1.89	82.00%	158.23	54.90%	0.97	43.79%	452.65
HDGT	2858	682.26	2.90	407.09	2.17	1667	58.33%	164.07	0.81	132.97	1.13	456.77	73.57%	1.89	70.16%	238.76	64.23%	0.89	44.09%	505.89
Grand Total	4858	631.93	2.91	399.63	2.44	2764	56.90%	154.89	0.68	135.31	1.21	407.16	72.44%	1.97	74.20%	213.81	61.24%	0.98	44.69%	462.53

Appendix C6

Idle Retest Frequency Report

Date
Between 1/1/2017 and 12/31/2017

Idle Retest Frequency Report (V1.01)

Vehicle		Avg Retest		Retest #1				Retest #2				Retest #3				Retest #4				Retest >= #5			
Year	Type	Total	#	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt %	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%
1974	LDGV	206	1.3	140	67.96%	79	56.43%	42	20.39%	23	54.76%	12	5.83%	2	16.67%	8	3.88%	3	37.50%	4	2	0	0.00%
	LDGT	80	1.2	67	83.75%	46	68.66%	12	15.00%	7	58.33%	1	1.25%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	49	1.5	33	67.35%	19	57.58%	10	20.41%	6	60.00%	3	6.12%	1	33.33%	2	4.08%	1	50.00%	1	2	1	100.00%
1974 Total		335	1.3	240	71.64%	144	60.00%	64	19.10%	36	56.25%	16	4.78%	4	25.00%	10	2.99%	4	40.00%	5	1	1	20.00%
1975	LDGV	4	1.0	3	75.00%	3	100.00%	1	25.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	5	1.0	4	80.00%	3	75.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	20	0	0.00%
	HDGT	16	1.9	10	62.50%	7	70.00%	2	12.50%	1	50.00%	1	6.25%	0	0.00%	2	12.50%	1	50.00%	1	6	1	100.00%
1975 Total		25	1.6	17	68.00%	13	76.47%	3	12.00%	1	33.33%	1	4.00%	0	0.00%	2	8.00%	1	50.00%	2	8	1	50.00%
1976	LDGV	87	1.5	55	63.22%	33	60.00%	19	21.84%	11	57.89%	7	8.05%	2	28.57%	4	4.60%	1	25.00%	2	2	1	50.00%
	LDGT	73	1.5	48	65.75%	32	66.67%	11	15.07%	5	45.45%	8	10.96%	2	25.00%	4	5.48%	3	75.00%	2	3	1	50.00%
	HDGT	72	1.3	58	80.56%	46	79.31%	10	13.89%	7	70.00%	1	1.39%	0	0.00%	2	2.78%	2	100.00%	1	1	1	100.00%
1976 Total		232	1.4	161	69.40%	111	68.94%	40	17.24%	23	57.50%	16	6.90%	4	25.00%	10	4.31%	6	60.00%	5	2	3	60.00%
1977	LDGV	107	1.8	61	57.01%	36	59.02%	23	21.50%	14	60.87%	11	10.28%	5	45.45%	6	5.61%	2	33.33%	6	6	4	66.67%
	LDGT	72	1.9	41	56.94%	21	51.22%	13	18.06%	6	46.15%	9	12.50%	4	44.44%	5	6.94%	3	60.00%	4	6	2	50.00%
	HDGT	103	1.3	84	81.55%	68	80.95%	14	13.59%	11	78.57%	3	2.91%	2	66.67%	1	0.97%	1	100.00%	1	1	1	100.00%
1977 Total		282	1.6	186	65.96%	125	67.20%	50	17.73%	31	62.00%	23	8.16%	11	47.83%	12	4.26%	6	50.00%	11	4	7	63.64%
1978	LDGV	113	1.5	76	67.26%	49	64.47%	21	18.58%	13	61.90%	6	5.31%	3	50.00%	3	2.65%	1	33.33%	7	6	2	28.57%
	LDGT	62	1.7	39	62.90%	25	64.10%	12	19.35%	3	25.00%	5	8.06%	3	60.00%	3	4.84%	2	66.67%	3	5	2	66.67%
	HDGT	168	1.5	108	64.29%	71	65.74%	34	20.24%	16	47.06%	14	8.33%	7	50.00%	7	4.17%	5	71.43%	5	3	1	20.00%
1978 Total		343	1.5	223	65.01%	145	65.02%	67	19.53%	32	47.76%	25	7.29%	13	52.00%	13	3.79%	8	61.54%	15	4	5	33.33%
1979	LDGV	152	1.5	100	65.79%	62	62.00%	29	19.08%	15	51.72%	9	5.92%	4	44.44%	5	3.29%	1	20.00%	9	6	4	44.44%
	LDGT	250	1.6	145	58.00%	82	56.55%	51	20.40%	23	45.10%	27	10.80%	11	40.74%	13	5.20%	5	38.46%	14	6	3	21.43%
	HDGT	45	1.4	32	71.11%	21	65.63%	9	20.00%	8	88.89%	1	2.22%	0	0.00%	2	4.44%	1	50.00%	1	2	0	0.00%
1979 Total		447	1.6	277	61.97%	165	59.57%	89	19.91%	46	51.69%	37	8.28%	15	40.54%	20	4.47%	7	35.00%	24	5	7	29.17%
1980	LDGV	66	1.4	51	77.27%	39	76.47%	9	13.64%	5	55.56%	3	4.55%	1	33.33%	2	3.03%	1	50.00%	1	2	1	100.00%
	LDGT	104	1.5	74	71.15%	53	71.62%	20	19.23%	9	45.00%	7	6.73%	4	57.14%	2	1.92%	2	100.00%	1	1	1	100.00%
	HDGT	18	1.4	13	72.22%	9	69.23%	4	22.22%	3	75.00%	1	5.56%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
1980 Total		188	1.5	138	73.40%	101	73.19%	33	17.55%	17	51.52%	11	5.85%	6	54.55%	4	2.13%	3	75.00%	2	1	2	100.00%
1981	LDGV	97	1.6	56	57.73%	29	51.79%	25	25.77%	12	48.00%	9	9.28%	5	55.56%	3	3.09%	2	66.67%	4	4	0	0.00%
	LDGT	223	1.8	117	52.47%	62	52.99%	48	21.52%	16	33.33%	26	11.66%	11	42.31%	15	6.73%	6	40.00%	17	8	4	23.53%
	HDGT	50	1.6	29	58.00%	18	62.07%	11	22.00%	5	45.45%	7	14.00%	4	57.14%	3	6.00%	1	33.33%	0	0	0	0.00%
1981 Total		370	1.7	202	54.59%	109	53.96%	84	22.70%	33	39.29%	42	11.35%	20	47.62%	21	5.68%	9	42.86%	21	6	4	19.05%
1982	LDGV	2	2.0	1	50.00%	0	0.00%	1	50.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	4	1.7	2	50.00%	1	50.00%	2	50.00%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	27	1.5	17	62.96%	10	58.82%	7	25.93%	4	57.14%	3	11.11%	2	66.67%	0	0.00%	0	0.00%	0	0	0	0.00%
1982 Total		33	1.6	20	60.61%	11	55.00%	10	30.30%	7	70.00%	3	9.09%	2	66.67%	0	0.00%	0	0.00%	0	0	0	0.00%
1983	LDGV	6	2.0	3	50.00%	2	66.67%	1	16.67%	0	0.00%	1	16.67%	0	0.00%	1	16.67%	1	100.00%	0	0	0	0.00%
	LDGT	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	42	1.4	28	66.67%	17	60.71%	8	19.05%	5	62.50%	2	4.76%	2	100.00%	1	2.38%	0	0.00%	3	7	0	0.00%

Vehicle		Avg Retest		Retest #1				Retest #2				Retest #3				Retest #4				Retest >= #5			
Year	Type	Total	#	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt %	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%
1983 Total		48	1.4	31	64.58%	19	61.29%	9	18.75%	5	55.56%	3	6.25%	2	66.67%	2	4.17%	1	50.00%	3	6	0	0.00%
1984	LDGV	7	3.0	2	28.57%	0	0.00%	2	28.57%	1	50.00%	1	14.29%	0	0.00%	1	14.29%	1	100.00%	1	14	0	0.00%
	LDGT	10	3.7	4	40.00%	0	0.00%	2	20.00%	2	100.00%	1	10.00%	0	0.00%	0	0.00%	0	0.00%	3	30	1	33.33%
	HDGT	81	1.6	49	60.49%	29	59.18%	17	20.99%	8	47.06%	7	8.64%	1	14.29%	5	6.17%	2	40.00%	3	4	2	66.67%
1984 Total		98	1.8	55	56.12%	29	52.73%	21	21.43%	11	52.38%	9	9.18%	1	11.11%	6	6.12%	3	50.00%	7	7	3	42.86%
1985	LDGV	1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	4	0.0	2	50.00%	0	0.00%	1	25.00%	0	0.00%	1	25.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	95	1.7	58	61.05%	36	62.07%	15	15.79%	6	40.00%	7	7.37%	3	42.86%	4	4.21%	1	25.00%	11	12	3	27.27%
1985 Total		100	1.7	61	61.00%	37	60.66%	16	16.00%	6	37.50%	8	8.00%	3	37.50%	4	4.00%	1	25.00%	11	11	3	27.27%
1986	LDGV	5	5.5	2	40.00%	0	0.00%	1	20.00%	1	100.00%	1	20.00%	0	0.00%	0	0.00%	0	0.00%	1	20	1	100.00%
	LDGT	5	1.3	4	80.00%	2	50.00%	1	20.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	112	1.8	61	54.46%	29	47.54%	25	22.32%	13	52.00%	11	9.82%	4	36.36%	9	8.04%	2	22.22%	6	5	4	66.67%
1986 Total		122	1.9	67	54.92%	31	46.27%	27	22.13%	15	55.56%	12	9.84%	4	33.33%	9	7.38%	2	22.22%	7	6	5	71.43%
1987	LDGV	6	5.0	2	33.33%	0	0.00%	1	16.67%	0	0.00%	1	16.67%	0	0.00%	1	16.67%	0	0.00%	1	17	1	100.00%
	LDGT	8	1.3	6	75.00%	4	66.67%	2	25.00%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	65	1.7	40	61.54%	21	52.50%	17	26.15%	10	58.82%	6	9.23%	5	83.33%	1	1.54%	1	100.00%	1	2	1	100.00%
1987 Total		79	1.8	48	60.76%	25	52.08%	20	25.32%	12	60.00%	7	8.86%	5	71.43%	2	2.53%	1	50.00%	2	3	2	100.00%
1988	LDGV	13	1.5	7	53.85%	4	57.14%	3	23.08%	1	33.33%	3	23.08%	1	33.33%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	14	2.0	7	50.00%	5	71.43%	3	21.43%	1	33.33%	2	14.29%	1	50.00%	0	0.00%	0	0.00%	2	14	1	50.00%
	HDGT	101	1.6	61	60.40%	33	54.10%	24	23.76%	16	66.67%	7	6.93%	1	14.29%	4	3.96%	1	25.00%	5	5	2	40.00%
1988 Total		128	1.6	75	58.59%	42	56.00%	30	23.44%	18	60.00%	12	9.38%	3	25.00%	4	3.13%	1	25.00%	7	5	3	42.86%
1989	LDGV	5	1.7	3	60.00%	1	33.33%	2	40.00%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	14	1.2	10	71.43%	10	100.00%	2	14.29%	0	0.00%	2	14.29%	1	50.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	112	1.5	64	57.14%	42	65.63%	21	18.75%	7	33.33%	10	8.93%	4	40.00%	4	3.57%	0	0.00%	13	12	2	15.38%
1989 Total		131	1.4	77	58.78%	53	68.83%	25	19.08%	9	36.00%	12	9.16%	5	41.67%	4	3.05%	0	0.00%	13	10	2	15.38%
1990	LDGV	22	1.9	14	63.64%	10	71.43%	3	13.64%	2	66.67%	1	4.55%	1	100.00%	1	4.55%	0	0.00%	3	14	2	66.67%
	LDGT	11	1.4	6	54.55%	3	50.00%	4	36.36%	2	50.00%	0	0.00%	0	0.00%	1	9.09%	0	0.00%	0	0	0	0.00%
	HDGT	85	1.7	47	55.29%	28	59.57%	19	22.35%	7	36.84%	9	10.59%	4	44.44%	5	5.88%	1	20.00%	5	6	3	60.00%
1990 Total		118	1.7	67	56.78%	41	61.19%	26	22.03%	11	42.31%	10	8.47%	5	50.00%	7	5.93%	1	14.29%	8	7	5	62.50%
1991	LDGV	23	1.7	15	65.22%	9	60.00%	3	13.04%	1	33.33%	3	13.04%	2	66.67%	1	4.35%	0	0.00%	1	4	1	100.00%
	LDGT	7	1.7	6	85.71%	5	83.33%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	14	1	100.00%
	HDGT	117	1.6	69	58.97%	43	62.32%	21	17.95%	8	38.10%	12	10.26%	2	16.67%	6	5.13%	2	33.33%	9	8	2	22.22%
1991 Total		147	1.6	90	61.22%	57	63.33%	24	16.33%	9	37.50%	15	10.20%	4	26.67%	7	4.76%	2	28.57%	11	7	4	36.36%
1992	LDGV	10	1.0	7	70.00%	6	85.71%	1	10.00%	0	0.00%	1	10.00%	0	0.00%	1	10.00%	0	0.00%	0	0	0	0.00%
	LDGT	2	1.0	2	100.00%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	99	1.6	64	64.65%	40	62.50%	20	20.20%	13	65.00%	7	7.07%	2	28.57%	5	5.05%	3	60.00%	3	3	2	66.67%
1992 Total		111	1.5	73	65.77%	48	65.75%	21	18.92%	13	61.90%	8	7.21%	2	25.00%	6	5.41%	3	50.00%	3	3	2	66.67%
1993	LDGV	9	1.2	7	77.78%	5	71.43%	2	22.22%	1	50.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	3	2.0	2	66.67%	0	0.00%	1	33.33%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	117	1.3	82	70.09%	54	65.85%	25	21.37%	14	56.00%	8	6.84%	2	25.00%	2	1.71%	1	50.00%	0	0	0	0.00%
1993 Total		129	1.3	91	70.54%	59	64.84%	28	21.71%	16	57.14%	8	6.20%	2	25.00%	2	1.55%	1	50.00%	0	0	0	0.00%
1994	LDGV	19	1.9	12	63.16%	9	75.00%	2	10.53%	0	0.00%	2	10.53%	2	100.00%	0	0.00%	0	0.00%	3	16	1	33.33%

Vehicle		Avg Retest		Retest #1				Retest #2				Retest #3				Retest #4				Retest >= #5			
Year	Type	Total	#	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt %	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%
	LDGT	29	2.6	11	37.93%	3	27.27%	6	20.69%	2	33.33%	5	17.24%	0	0.00%	4	13.79%	0	0.00%	3	10	2	66.67%
	HDGT	170	1.8	97	57.06%	55	56.70%	33	19.41%	17	51.52%	15	8.82%	6	40.00%	9	5.29%	4	44.44%	16	9	5	31.25%
1994 Total		218	1.9	120	55.05%	67	55.83%	41	18.81%	19	46.34%	22	10.09%	8	36.36%	13	5.96%	4	30.77%	22	10	8	36.36%
1995	LDGV	21	1.3	17	80.95%	10	58.82%	4	19.05%	4	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	19	1.7	11	57.89%	8	72.73%	3	15.79%	0	0.00%	3	15.79%	1	33.33%	2	10.53%	2	100.00%	0	0	0	0.00%
	HDGT	235	1.7	132	56.17%	78	59.09%	54	22.98%	21	38.89%	24	10.21%	10	41.67%	12	5.11%	3	25.00%	13	6	7	53.85%
1995 Total		275	1.7	160	58.18%	96	60.00%	61	22.18%	25	40.98%	27	9.82%	11	40.74%	14	5.09%	5	35.71%	13	5	7	53.85%
1996	LDGV	1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	143	1.9	75	52.45%	40	53.33%	27	18.88%	10	37.04%	16	11.19%	8	50.00%	8	5.59%	2	25.00%	17	12	4	23.53%
1996 Total		145	1.9	77	53.10%	42	54.55%	27	18.62%	10	37.04%	16	11.03%	8	50.00%	8	5.52%	2	25.00%	17	12	4	23.53%
1997	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	3	1.0	3	100.00%	2	66.67%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	94	1.3	66	70.21%	44	66.67%	22	23.40%	16	72.73%	4	4.26%	2	50.00%	1	1.06%	0	0.00%	1	1	0	0.00%
1997 Total		97	1.3	69	71.13%	46	66.67%	22	22.68%	16	72.73%	4	4.12%	2	50.00%	1	1.03%	0	0.00%	1	1	0	0.00%
1998	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	131	1.6	84	64.12%	51	60.71%	28	21.37%	15	53.57%	12	9.16%	7	58.33%	4	3.05%	2	50.00%	3	2	2	66.67%
1998 Total		131	1.6	84	64.12%	51	60.71%	28	21.37%	15	53.57%	12	9.16%	7	58.33%	4	3.05%	2	50.00%	3	2	2	66.67%
1999	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	1	0.0	0	0.00%	0	0.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	115	1.3	84	73.04%	61	72.62%	21	18.26%	13	61.90%	6	5.22%	1	16.67%	4	3.48%	4	100.00%	0	0	0	0.00%
1999 Total		116	1.3	84	72.41%	61	72.62%	22	18.97%	13	59.09%	6	5.17%	1	16.67%	4	3.45%	4	100.00%	0	0	0	0.00%
2000	LDGV	1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	157	1.8	91	57.96%	52	57.14%	35	22.29%	20	57.14%	15	9.55%	9	60.00%	5	3.18%	1	20.00%	11	7	5	45.45%
2000 Total		159	1.8	93	58.49%	54	58.06%	35	22.01%	20	57.14%	15	9.43%	9	60.00%	5	3.14%	1	20.00%	11	7	5	45.45%
2001	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	60	1.2	47	78.33%	39	82.98%	8	13.33%	5	62.50%	3	5.00%	1	33.33%	1	1.67%	0	0.00%	1	2	1	100.00%
2001 Total		61	1.2	48	78.69%	40	83.33%	8	13.11%	5	62.50%	3	4.92%	1	33.33%	1	1.64%	0	0.00%	1	2	1	100.00%
2002	LDGV	2	1.0	2	100.00%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	3	1.0	3	100.00%	2	66.67%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	49	1.2	42	85.71%	34	80.95%	6	12.24%	5	83.33%	1	2.04%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2002 Total		54	1.2	47	87.04%	38	80.85%	6	11.11%	5	83.33%	1	1.85%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2003	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	31	1.0	30	96.77%	26	86.67%	1	3.23%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2003 Total		31	1.0	30	96.77%	26	86.67%	1	3.23%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2004	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	33	1.9	18	54.55%	12	66.67%	5	15.15%	1	20.00%	4	12.12%	3	75.00%	1	3.03%	0	0.00%	5	15	1	20.00%

Vehicle		Avg Retest		Retest #1				Retest #2				Retest #3				Retest #4				Retest >= #5			
Year	Type	Total	#	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%
2004 Total		33	1.9	18	54.55%	12	66.67%	5	15.15%	1	20.00%	4	12.12%	3	75.00%	1	3.03%	0	0.00%	5	15	1	20.00%
2005	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	2	1.0	2	100.00%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	26	1.3	18	69.23%	14	77.78%	3	11.54%	1	33.33%	2	7.69%	0	0.00%	2	7.69%	0	0.00%	1	4	1	100.00%
2005 Total		28	1.3	20	71.43%	16	80.00%	3	10.71%	1	33.33%	2	7.14%	0	0.00%	2	7.14%	0	0.00%	1	4	1	100.00%
2006	LDGV	1	0.0	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	14	1.1	13	92.86%	12	92.31%	1	7.14%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2006 Total		15	1.1	14	93.33%	12	85.71%	1	6.67%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2007	LDGV	1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	5	1.0	5	100.00%	5	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2007 Total		6	1.0	6	100.00%	6	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2008	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	9	1.0	9	100.00%	9	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2008 Total		9	1.0	9	100.00%	9	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2009	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	4	1.3	3	75.00%	2	66.67%	1	25.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2009 Total		4	1.3	3	75.00%	2	66.67%	1	25.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2010	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	2	1.0	2	100.00%	1	50.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	4	1.3	3	75.00%	3	100.00%	1	25.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2010 Total		6	1.2	5	83.33%	4	80.00%	1	16.67%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2011	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	3	1.0	3	100.00%	3	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2011 Total		3	1.0	3	100.00%	3	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2012	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2012 Total		0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2013	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2013 Total		0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2014	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2014 Total		0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2015	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2015 Total		0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2016	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2016 Total		1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%

Vehicle			Avg Retest #	Retest #1				Retest #2				Retest #3				Retest #4				Retest >= #5			
Year	Type	Total	#	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt %	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%
Overall Total		4,858	1.5	3090	63.61%	1951	63.14%	949	19.53%	485	51.11%	390	8.03%	162	41.54%	198	4.08%	78	39.39%	231	5	88	38.10%

Idle Retest Frequency Report (V1.01)

Vehicle		Avg Retest #	Retest #1				Retest #2				Retest #3				Retest #4				Retest >= #5				
Type	Total	#	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt %	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	
LDGV	987	1.5	641	64.94%	392	61.15%	195	19.76%	107	54.87%	71	7.19%	28	39.44%	37	3.75%	13	35.14%	43	4	18	41.86%	
LDGT	1,013	1.6	621	61.30%	377	60.71%	195	19.25%	82	42.05%	97	9.58%	39	40.21%	49	4.84%	23	46.94%	51	5	18	35.29%	
HDGT	2,858	1.5	1828	63.96%	1182	64.66%	559	19.56%	296	52.95%	222	7.77%	95	42.79%	112	3.92%	42	37.50%	137	5	52	37.96%	
Overall Total		4,858	1.5	3090	63.61%	1951	63.14%	949	19.53%	485	51.11%	390	8.03%	162	41.54%	198	4.08%	78	39.39%	231	5	88	38.10%

Appendix D1

I/M Eligible Vehicle Report

Evaluated Vehicles

Colorado

I/M Eligible Vehicle Report, Evaluated Vehicles

Monday, 26-March-2018

Report Start: **Jan, 2017** Report Period: **Year**

County: **All Counties**

Model Year	Veh. Type	Emis. Due Veh.	Meet Time and Location Criteria					Total	Percent	CO	HC	NOX	Accel	Emis. Due Veh. Evaluated	
			No			Yes									
			0 Hits	1 Hit	2+ Hits	1 Hit	2+ Hits								
1982															
	P	16	0	10	0	0	6	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	
			0.00%	62.50%	0.00%	0.00%	37.50%	Not Clean:	6	100.00%	1.9525	418.0750	1,570.0000	1.58	37.50%
	T	29	0	19	0	0	10	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	
			0.00%	65.52%	0.00%	0.00%	34.48%	Not Clean:	10	100.00%	2.0650	202.4800	1,254.3550	-0.01	34.48%
	U	487	487	0	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	
			100.00%	0.00%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
Total For 1982		532	487	29	0	0	16	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	
			91.54%	5.45%	0.00%	0.00%	3.01%	Not Clean:	16	100.00%	2.0228	283.3281	1,372.7219	0.59	3.01%
1983															
	P	25	0	18	0	0	7	Clean:	3	42.86%	0.1033	56.8667	494.9500	1.17	
			0.00%	72.00%	0.00%	0.00%	28.00%	Not Clean:	4	57.14%	1.4275	99.3250	1,292.7500	0.35	28.00%
	T	50	0	33	1	0	16	Clean:	1	6.25%	0.0700	0.0000	37.5000	-2.00	
			0.00%	66.00%	2.00%	0.00%	32.00%	Not Clean:	15	93.75%	2.1083	370.8767	1,337.6200	1.26	32.00%
	U	622	619	1	0	0	2	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	
			99.52%	0.16%	0.00%	0.00%	0.32%	Not Clean:	2	100.00%	2.1925	183.5500	557.7750	1.43	0.32%
Total For 1983		697	619	52	1	0	25	Clean:	4	16.00%	0.0950	42.6500	380.5875	0.37	
			88.81%	7.46%	0.14%	0.00%	3.59%	Not Clean:	21	84.00%	1.9867	301.3119	1,254.8024	1.10	3.59%
1984															
	P	47	0	31	0	0	16	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	
			0.00%	65.96%	0.00%	0.00%	34.04%	Not Clean:	16	100.00%	1.9381	171.3812	1,285.9406	1.17	34.04%
	T	61	0	34	1	0	26	Clean:	2	7.69%	0.1575	78.1000	462.0500	1.43	
			0.00%	55.74%	1.64%	0.00%	42.62%	Not Clean:	24	92.31%	2.1687	282.2500	1,465.1479	1.22	42.62%
	U	946	944	1	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	
			99.79%	0.11%	0.00%	0.00%	0.11%	Not Clean:	1	100.00%	0.1450	0.0000	2,206.7500	2.45	0.11%
Total For 1984		1,054	944	66	1	0	43	Clean:	2	4.65%	0.1575	78.1000	462.0500	1.43	
			89.56%	6.26%	0.09%	0.00%	4.08%	Not Clean:	41	95.35%	2.0294	232.1000	1,413.3012	1.23	4.08%

Model Year	Veh. Type	Emis. Due Veh.	Meet Time and Location Criteria					Total	Percent	CO	HC	NOX	Accel	Emis. Due Veh. Evaluated	
			No			Yes									
			0 Hits	1 Hit	2+ Hits	1 Hit	2+ Hits								
1985															
P	67	0	48	0	0	19	Clean:	2	10.53%	0.1975	19.2000	474.4000	0.73		
			0.00%	71.64%	0.00%	0.00%	28.36%	Not Clean:	17	89.47%	0.9626	194.0382	1,162.7912	1.46	28.36%
T	125	0	81	0	0	44	Clean:	2	4.55%	0.1650	51.3250	304.6500	0.43		
			0.00%	64.80%	0.00%	0.00%	35.20%	Not Clean:	42	95.45%	1.7133	328.5524	1,205.9143	1.19	35.20%
U	1,582	1,578	3	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.75%	0.19%	0.00%	0.00%	0.06%	Not Clean:	1	100.00%	0.5800	125.7500	1,948.3000	0.90	0.06%
Total For 1985	1,774	1,578	132	0	0	64	Clean:	4	6.25%	0.1813	35.2625	389.5250	0.58		
			88.95%	7.44%	0.00%	0.00%	3.61%	Not Clean:	60	93.75%	1.4818	287.0600	1,206.0692	1.26	3.61%
1986															
P	82	0	51	0	0	31	Clean:	8	25.81%	0.1006	31.4812	197.2875	0.21		
			0.00%	62.20%	0.00%	0.00%	37.80%	Not Clean:	23	74.19%	1.3476	154.6130	1,042.2348	1.65	37.80%
T	159	0	85	0	0	74	Clean:	5	6.76%	0.1960	35.7200	460.9500	1.17		
			0.00%	53.46%	0.00%	0.00%	46.54%	Not Clean:	69	93.24%	1.6952	232.3594	1,172.6725	1.07	46.54%
U	1,532	1,531	1	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.93%	0.07%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
Total For 1986	1,773	1,531	137	0	0	105	Clean:	13	12.38%	0.1373	33.1115	298.6962	0.58		
			86.35%	7.73%	0.00%	0.00%	5.92%	Not Clean:	92	87.62%	1.6083	212.9228	1,140.0630	1.22	5.92%
1987															
P	127	0	83	0	0	44	Clean:	10	22.73%	0.2260	30.7150	387.0950	0.82		
			0.00%	65.35%	0.00%	0.00%	34.65%	Not Clean:	34	77.27%	0.8100	170.8000	1,080.2088	1.01	34.65%
T	225	0	127	0	0	98	Clean:	10	10.20%	0.1695	71.1200	471.8400	0.86		
			0.00%	56.44%	0.00%	0.00%	43.56%	Not Clean:	88	89.80%	1.1737	281.5716	1,255.8108	1.08	43.56%
U	2,171	2,170	1	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.95%	0.05%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
Total For 1987	2,523	2,170	211	0	0	142	Clean:	20	14.08%	0.1978	50.9175	429.4675	0.84		
			86.01%	8.36%	0.00%	0.00%	5.63%	Not Clean:	122	85.92%	1.0723	250.7008	1,206.8725	1.06	5.63%
1988															
P	142	0	83	0	0	59	Clean:	15	25.42%	0.1243	42.7000	320.5867	1.11		
			0.00%	58.45%	0.00%	0.00%	41.55%	Not Clean:	44	74.58%	1.1107	155.7420	1,110.8432	1.49	41.55%
T	285	0	176	1	0	108	Clean:	7	6.48%	0.2550	40.2429	275.2928	1.69		
			0.00%	61.75%	0.35%	0.00%	37.89%	Not Clean:	101	93.52%	1.3956	278.5708	1,221.1906	0.96	37.89%
U	2,116	2,115	0	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.95%	0.00%	0.00%	0.00%	0.05%	Not Clean:	1	100.00%	2.2050	891.6500	33.8500	1.05	0.05%
Total For 1988	2,543	2,115	259	1	0	168	Clean:	22	13.10%	0.1659	41.9182	306.1750	1.30		
			83.17%	10.18%	0.04%	0.00%	6.61%	Not Clean:	146	86.90%	1.3153	245.7531	1,179.8027	1.12	6.61%

Model Year	Veh. Type	Emis. Due Veh.	Meet Time and Location Criteria					Total	Percent	CO	HC	NOX	Accel	Emis. Due Veh. Evaluated	
			No			Yes									
			0 Hits	1 Hit	2+ Hits	1 Hit	2+ Hits								
1989															
P	255	0	114	0	10	131	Clean:	44	31.21%	0.1134	28.2705	232.6784	0.67		
			0.00%	44.71%	0.00%	3.92%	51.37%	Not Clean:	97	68.79%	1.1714	207.5392	1,075.3191	1.60	55.29%
T	438	0	238	1	2	197	Clean:	33	16.58%	0.1723	44.4333	330.5758	0.90		
			0.00%	54.34%	0.23%	0.46%	44.98%	Not Clean:	166	83.42%	1.1243	274.6349	1,366.0452	0.92	45.43%
U	3,580	3,577	2	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.92%	0.06%	0.00%	0.00%	0.03%	Not Clean:	1	100.00%	0.6150	25.7000	670.9500	1.55	0.03%
Total For 1989		4,273	3,577	354	1	12	329	Clean:	77	22.58%	0.1386	35.1974	274.6344	0.77	
								Not Clean:	264	77.42%	1.1397	249.0394	1,256.5924	1.17	7.98%
1990															
P	348	0	176	0	5	167	Clean:	45	26.16%	0.1312	37.6489	305.9456	0.97		
			0.00%	50.57%	0.00%	1.44%	47.99%	Not Clean:	127	73.84%	0.9624	200.6854	1,170.6016	1.24	49.43%
T	433	0	205	4	5	219	Clean:	36	16.07%	0.1175	32.8403	250.4111	0.89		
			0.00%	47.34%	0.92%	1.15%	50.58%	Not Clean:	188	83.93%	1.2026	209.9918	1,218.8021	1.07	51.73%
U	3,190	3,188	2	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.94%	0.06%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
Total For 1990		3,971	3,188	383	4	10	386	Clean:	81	20.45%	0.1251	35.5117	281.2636	0.94	
								Not Clean:	315	79.55%	1.1057	206.2397	1,199.3689	1.14	9.97%
1991															
P	495	0	283	0	10	202	Clean:	69	32.55%	0.1417	31.7225	280.7420	0.78		
			0.00%	57.17%	0.00%	2.02%	40.81%	Not Clean:	143	67.45%	0.8649	154.1101	1,159.9608	1.22	42.83%
T	630	0	307	1	4	318	Clean:	52	16.15%	0.1321	30.2423	254.9115	0.78		
			0.00%	48.73%	0.16%	0.63%	50.48%	Not Clean:	270	83.85%	1.1363	169.5457	1,135.7818	1.04	51.11%
U	5,225	5,221	3	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.92%	0.06%	0.00%	0.00%	0.02%	Not Clean:	1	100.00%	1.9350	132.0500	278.8000	0.80	0.02%
Total For 1991		6,350	5,221	593	1	14	521	Clean:	121	22.62%	0.1376	31.0864	269.6413	0.78	
								Not Clean:	414	77.38%	1.0445	164.1236	1,142.0635	1.10	8.43%
1992															
P	551	0	301	0	11	239	Clean:	84	33.60%	0.1455	25.4554	266.7935	0.96		
			0.00%	54.63%	0.00%	2.00%	43.38%	Not Clean:	166	66.40%	0.8852	160.3352	1,101.2852	1.09	45.37%
T	681	0	326	3	11	341	Clean:	65	18.47%	0.1280	33.4846	246.8062	0.74		
			0.00%	47.87%	0.44%	1.62%	50.07%	Not Clean:	287	81.53%	0.9071	177.5868	1,180.8909	0.96	51.69%
U	4,712	4,710	1	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.96%	0.02%	0.00%	0.00%	0.02%	Not Clean:	1	100.00%	4.7700	219.2000	429.5500	0.50	0.02%
Total For 1992		5,944	4,710	628	3	22	581	Clean:	149	24.71%	0.1379	28.9581	258.0742	0.87	
								Not Clean:	454	75.29%	0.9076	171.3706	1,150.1291	1.01	10.14%

Model Year	Veh. Type	Emis. Due Veh.	Meet Time and Location Criteria					Total	Percent	CO	HC	NOX	Accel	Emis. Due Veh. Evaluated	
			No			Yes									
			0 Hits	1 Hit	2+ Hits	1 Hit	2+ Hits								
1993															
P	836	0	411	0	20	405	Clean:	146	34.35%	0.1283	26.7271	272.3565	1.03		
		0.00%	49.16%	0.00%	2.39%	48.44%	Not Clean:	279	65.65%	0.7206	139.3464	1,180.9586	1.08	50.84%	
T	1,131	0	535	3	17	576	Clean:	122	20.57%	0.1385	32.8090	286.6078	0.78		
		0.00%	47.30%	0.27%	1.50%	50.93%	Not Clean:	471	79.43%	0.8746	160.4689	1,205.5083	1.07	52.43%	
U	7,374	7,368	2	0	0	4	Clean:	3	75.00%	0.1283	19.3833	220.4000	0.82		
		99.92%	0.03%	0.00%	0.00%	0.05%	Not Clean:	1	25.00%	0.6600	108.4000	512.7000	1.25	0.05%	
Total For 1993		9,341	7,368	948	3	37	985	Clean:	271	26.52%	0.1329	29.3838	278.1970	0.92	
								Not Clean:	751	73.48%	0.8171	152.5525	1,195.4654	1.07	10.94%
1994															
P	968	0	478	0	45	445	Clean:	211	43.06%	0.1304	28.4900	212.0355	0.75		
		0.00%	49.38%	0.00%	4.65%	45.97%	Not Clean:	279	56.94%	0.7757	158.7228	1,034.1900	1.05	50.62%	
T	1,586	0	746	4	8	828	Clean:	180	21.53%	0.1452	36.6714	296.6683	0.91		
		0.00%	47.04%	0.25%	0.50%	52.21%	Not Clean:	656	78.47%	0.8723	146.0889	1,148.7686	1.08	52.71%	
U	8,195	8,194	0	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
		99.99%	0.00%	0.00%	0.00%	0.01%	Not Clean:	1	100.00%	0.2100	57.1500	1,137.8500	0.85	0.01%	
Total For 1994		10,749	8,194	1,224	4	53	1,274	Clean:	391	29.46%	0.1372	32.2564	250.9969	0.82	
								Not Clean:	936	70.54%	0.8428	149.7598	1,114.6037	1.07	12.35%
1995															
P	1,601	0	649	0	171	781	Clean:	487	51.16%	0.0958	20.2432	181.8599	0.75		
		0.00%	40.54%	0.00%	10.68%	48.78%	Not Clean:	465	48.84%	0.7929	139.3320	912.9443	1.17	59.46%	
T	2,340	0	998	14	84	1,244	Clean:	340	25.60%	0.1055	26.9312	230.9679	0.66		
		0.00%	42.65%	0.60%	3.59%	53.16%	Not Clean:	988	74.40%	0.8179	146.4260	1,192.6496	1.04	56.75%	
U	11,954	11,946	2	0	0	6	Clean:	1	16.67%	0.2650	39.6000	138.7500	2.05		
		99.93%	0.02%	0.00%	0.00%	0.05%	Not Clean:	5	83.33%	0.9950	68.5600	850.4300	1.98	0.05%	
Total For 1995		15,895	11,946	1,649	14	255	2,031	Clean:	828	36.22%	0.1000	23.0129	201.9729	0.72	
								Not Clean:	1,458	63.78%	0.8105	143.8965	1,102.2696	1.09	14.38%
1996															
P	1,637	0	668	0	128	841	Clean:	522	53.87%	0.1121	21.1398	188.4414	0.68		
		0.00%	40.81%	0.00%	7.82%	51.37%	Not Clean:	447	46.13%	0.8972	128.1236	747.4063	1.19	59.19%	
T	2,429	0	942	11	133	1,343	Clean:	683	46.27%	0.1219	21.4137	218.8177	0.79		
		0.00%	38.78%	0.45%	5.48%	55.29%	Not Clean:	793	53.73%	0.7073	102.7221	1,015.1573	1.22	60.77%	
U	10,642	10,638	4	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
		99.96%	0.04%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%	
Total For 1996		14,708	10,638	1,614	11	261	2,184	Clean:	1,205	49.28%	0.1177	21.2950	205.6588	0.74	
								Not Clean:	1,240	50.72%	0.7757	111.8789	918.6374	1.21	16.62%

Model Year	Veh. Type	Emis. Due Veh.	Meet Time and Location Criteria					Total	Percent	CO	HC	NOX	Accel	Emis. Due Veh. Evaluated	
			No			Yes									
			0 Hits	1 Hit	2+ Hits	1 Hit	2+ Hits								
1997															
P	2,651	0	922	0	386	1,343	Clean:	1,106	63.97%	0.0917	17.1542	150.0770	0.66		
			0.00%	34.78%	0.00%	14.56%	50.66%	Not Clean:	623	36.03%	0.8242	103.0646	704.4758	1.24	65.22%
T	4,293	0	1742	25	171	2,355	Clean:	1,228	48.61%	0.1243	20.1491	234.5123	0.91		
			0.00%	40.58%	0.58%	3.98%	54.86%	Not Clean:	1,298	51.39%	0.6148	123.8305	1,043.3289	1.09	58.84%
U	17,766	17,762	1	0	0	3	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.98%	0.01%	0.00%	0.00%	0.02%	Not Clean:	3	100.00%	0.8433	84.0500	511.0167	1.62	0.02%
Total For 1997	24,710	17,762	2,665	25	557	3,701	Clean:	2,334	54.81%	0.1088	18.7300	194.5014	0.79		
			71.88%	10.79%	0.10%	2.25%	14.98%	Not Clean:	1,924	45.19%	0.6829	117.0444	932.7767	1.14	17.23%
1998															
P	2,954	0	979	0	413	1,562	Clean:	1,279	64.76%	0.0950	17.1945	145.9232	0.78		
			0.00%	33.14%	0.00%	13.98%	52.88%	Not Clean:	696	35.24%	0.9414	102.3691	671.7537	1.08	66.86%
T	4,574	0	1736	23	259	2,556	Clean:	1,567	55.67%	0.1131	18.5327	212.4538	0.89		
			0.00%	37.95%	0.50%	5.66%	55.88%	Not Clean:	1,248	44.33%	0.6091	76.1081	943.4280	1.10	61.54%
U	16,514	16,512	0	0	0	2	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.99%	0.00%	0.00%	0.00%	0.01%	Not Clean:	2	100.00%	0.8200	36.6250	812.8750	0.40	0.01%
Total For 1998	24,042	16,512	2,715	23	672	4,120	Clean:	2,846	59.39%	0.1050	17.9313	182.5548	0.84		
			68.68%	11.29%	0.10%	2.80%	17.14%	Not Clean:	1,946	40.61%	0.7282	85.4599	846.1277	1.09	19.93%
1999															
P	3,997	0	1155	0	731	2,111	Clean:	1,973	69.42%	0.0807	14.1956	115.6028	0.70		
			0.00%	28.90%	0.00%	18.29%	52.81%	Not Clean:	869	30.58%	0.8506	87.9617	655.0283	1.20	71.10%
T	7,791	0	2581	41	765	4,404	Clean:	3,577	69.20%	0.0943	15.6070	163.8094	0.83		
			0.00%	33.13%	0.53%	9.82%	56.53%	Not Clean:	1,592	30.80%	0.6058	91.9759	885.1123	1.08	66.35%
U	25,933	25,927	3	0	0	3	Clean:	3	100.00%	0.1133	39.6000	280.9167	1.28		
			99.98%	0.01%	0.00%	0.00%	0.01%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.01%
Total For 1999	37,721	25,927	3,739	41	1,496	6,518	Clean:	5,553	69.29%	0.0895	15.1185	146.7447	0.78		
			68.73%	9.91%	0.11%	3.97%	17.28%	Not Clean:	2,461	30.71%	0.6923	90.5585	803.8677	1.12	21.25%
2000															
P	4,653	0	1435	0	785	2,433	Clean:	2,386	74.15%	0.0784	14.6050	102.9463	0.75		
			0.00%	30.84%	0.00%	16.87%	52.29%	Not Clean:	832	25.85%	0.8889	84.2028	613.9374	1.29	69.16%
T	7,912	0	1967	51	1,245	4,649	Clean:	4,366	74.08%	0.0853	13.8881	132.0646	0.78		
			0.00%	24.86%	0.64%	15.74%	58.76%	Not Clean:	1,528	25.92%	0.6599	98.7839	823.9857	1.17	74.49%
U	23,887	23,878	4	0	0	5	Clean:	4	80.00%	0.1950	28.1000	392.6625	0.95		
			99.96%	0.02%	0.00%	0.00%	0.02%	Not Clean:	1	20.00%	0.1000	8.2500	1,174.8500	1.00	0.02%
Total For 2000	36,452	23,878	3,406	51	2,030	7,087	Clean:	6,756	74.10%	0.0829	14.1497	121.9353	0.77		
			65.51%	9.34%	0.14%	5.57%	19.44%	Not Clean:	2,361	25.90%	0.7403	93.6073	750.1148	1.21	25.01%

Model Year	Veh. Type	Emis. Due Veh.	Meet Time and Location Criteria					Total	Percent	CO	HC	NOX	Accel	Emis. Due Veh. Evaluated	
			No			Yes									
			0 Hits	1 Hit	2+ Hits	1 Hit	2+ Hits								
2001															
P	6,335	0	1288	0	1,701	3,346	Clean:	4,124	81.71%	0.0629	11.3533	67.5272	0.66		
			0.00%	20.33%	0.00%	26.85%	52.82%	Not Clean:	923	18.29%	0.7979	93.4267	598.9184	1.26	79.67%
T	11,042	0	2430	72	2,210	6,330	Clean:	6,987	81.81%	0.0769	12.7299	96.8314	0.77		
			0.00%	22.01%	0.65%	20.01%	57.33%	Not Clean:	1,553	18.19%	0.6775	81.2566	680.0231	1.25	77.34%
U	33,822	33,801	9	0	0	12	Clean:	8	66.67%	0.0913	13.0688	223.8375	1.19		
			99.94%	0.03%	0.00%	0.00%	0.04%	Not Clean:	4	33.33%	0.1513	62.2000	1,077.4125	1.89	0.04%
Total For 2001	51,199	33,801	3,727	72	3,911	9,688	Clean:	11,119	81.76%	0.0717	12.2195	86.0540	0.73		
			66.02%	7.28%	0.14%	7.64%	18.92%	Not Clean:	2,480	18.24%	0.7215	85.7553	650.4787	1.25	26.56%
2002															
P	5,914	0	1192	0	1,520	3,202	Clean:	3,855	81.64%	0.0641	11.5538	67.1513	0.69		
			0.00%	20.16%	0.00%	25.70%	54.14%	Not Clean:	867	18.36%	0.7842	82.0832	615.2386	1.15	79.84%
T	10,477	0	1957	28	2,209	6,283	Clean:	7,092	83.51%	0.0743	11.9668	100.1690	0.73		
			0.00%	18.68%	0.27%	21.08%	59.97%	Not Clean:	1,400	16.49%	0.6715	67.8500	648.8001	1.11	81.05%
U	27,576	27,568	2	0	0	6	Clean:	3	50.00%	0.1533	17.4833	88.3333	0.13		
			99.97%	0.01%	0.00%	0.00%	0.02%	Not Clean:	3	50.00%	0.7067	126.5667	1,821.9334	1.23	0.02%
Total For 2002	43,967	27,568	3,151	28	3,729	9,491	Clean:	10,950	82.83%	0.0707	11.8229	88.5417	0.72		
			62.70%	7.17%	0.06%	8.48%	21.59%	Not Clean:	2,270	17.17%	0.7146	73.3638	637.5320	1.13	30.07%
2003															
P	8,178	0	1046	0	2,700	4,432	Clean:	6,094	85.45%	0.0557	9.3395	54.1238	0.68		
			0.00%	12.79%	0.00%	33.02%	54.19%	Not Clean:	1,038	14.55%	0.7613	62.1252	556.5710	1.26	87.21%
T	14,655	0	1514	45	4,633	8,463	Clean:	11,606	88.62%	0.0594	9.8246	63.0160	0.68		
			0.00%	10.33%	0.31%	31.61%	57.75%	Not Clean:	1,490	11.38%	0.7160	69.2699	569.1792	1.18	89.36%
U	39,112	39,099	5	0	0	8	Clean:	6	75.00%	0.1350	11.5250	49.5833	1.07		
			99.97%	0.01%	0.00%	0.00%	0.02%	Not Clean:	2	25.00%	0.3650	95.9000	1,352.2750	1.45	0.02%
Total For 2003	61,945	39,099	2,565	45	7,333	12,903	Clean:	17,706	87.50%	0.0581	9.6582	59.9509	0.68		
			63.12%	4.14%	0.07%	11.84%	20.83%	Not Clean:	2,530	12.50%	0.7343	66.3597	564.6254	1.21	32.67%
2004															
P	6,586	0	698	0	2,226	3,662	Clean:	5,147	87.42%	0.0560	9.6256	48.2154	0.67		
			0.00%	10.60%	0.00%	33.80%	55.60%	Not Clean:	741	12.58%	0.7945	63.7076	492.1059	1.41	89.40%
T	13,079	0	1010	44	4,152	7,873	Clean:	10,912	90.74%	0.0556	9.5174	49.1643	0.70		
			0.00%	7.72%	0.34%	31.75%	60.20%	Not Clean:	1,113	9.26%	0.7596	75.0213	491.9487	1.22	91.94%
U	28,421	28,410	4	0	0	7	Clean:	6	85.71%	0.0667	22.1667	141.3667	0.69		
			99.96%	0.01%	0.00%	0.00%	0.02%	Not Clean:	1	14.29%	0.3900	12.7500	1,132.8000	0.55	0.02%
Total For 2004	48,086	28,410	1,712	44	6,378	11,542	Clean:	16,065	89.65%	0.0557	9.5568	48.8947	0.69		
			59.08%	3.56%	0.09%	13.26%	24.00%	Not Clean:	1,855	10.35%	0.7733	70.4684	492.3570	1.29	37.27%

Model Year	Veh. Type	Emis. Due Veh.	Meet Time and Location Criteria					Total	Percent	CO	HC	NOX	Accel	Emis. Due Veh. Evaluated	
			No			Yes									
			0 Hits	1 Hit	2+ Hits	1 Hit	2+ Hits								
2005															
P	10,514	0	1318	0	3,561	5,635	Clean:	8,336	90.65%	0.0504	9.1307	37.3935	0.71		
			0.00%	12.54%	0.00%	33.87%	53.60%	Not Clean:	860	9.35%	0.7536	63.4212	465.9717	1.18	87.46%
T	18,965	0	1662	91	5,925	11,287	Clean:	15,968	92.77%	0.0528	9.2767	41.6416	0.74		
			0.00%	8.76%	0.48%	31.24%	59.51%	Not Clean:	1,244	7.23%	0.7501	81.4275	493.3661	1.18	90.76%
U	44,586	44,575	0	0	0	11	Clean:	10	90.91%	0.1115	18.2650	110.0800	1.04		
			99.98%	0.00%	0.00%	0.00%	0.02%	Not Clean:	1	9.09%	0.5850	6.8500	87.8000	0.40	0.02%
Total For 2005		74,065	44,575	2,980	91	9,486	16,933	Clean:	24,314	92.03%	0.0520	9.2303	40.2133	0.73	
			60.18%	4.02%	0.12%	12.81%	22.86%	Not Clean:	2,105	7.97%	0.7515	74.0356	481.9814	1.18	35.67%
2006															
P	8,386	0	1559	0	2,258	4,569	Clean:	6,190	90.67%	0.0596	10.4316	40.6212	0.81		
			0.00%	18.59%	0.00%	26.93%	54.48%	Not Clean:	637	9.33%	0.8294	77.5247	383.6749	1.43	81.41%
T	14,798	0	1486	77	4,203	9,032	Clean:	12,268	92.69%	0.0548	9.5779	42.2880	0.78		
			0.00%	10.04%	0.52%	28.40%	61.04%	Not Clean:	967	7.31%	0.7203	72.7356	451.7099	1.13	89.44%
U	30,774	30,757	11	0	0	6	Clean:	6	100.00%	0.1067	21.7167	161.7167	2.04		
			99.94%	0.04%	0.00%	0.00%	0.02%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.02%
Total For 2006		53,958	30,757	3,056	77	6,461	13,607	Clean:	18,464	92.01%	0.0564	9.8680	41.7680	0.79	
			57.00%	5.66%	0.14%	11.97%	25.22%	Not Clean:	1,604	7.99%	0.7636	74.6375	424.6910	1.25	37.19%
2007															
P	12,380	0	2358	0	3,282	6,740	Clean:	9,305	92.85%	0.0565	10.5076	35.9474	0.82		
			0.00%	19.05%	0.00%	26.51%	54.44%	Not Clean:	717	7.15%	0.7235	71.4544	341.9232	1.28	80.95%
T	22,736	0	3736	87	5,228	13,685	Clean:	17,714	93.66%	0.0586	10.1221	38.5863	0.85		
			0.00%	16.43%	0.38%	22.99%	60.19%	Not Clean:	1,199	6.34%	0.7532	58.0551	289.3030	1.32	83.19%
U	46,433	46,414	9	0	0	10	Clean:	9	90.00%	0.0606	17.7222	48.5667	0.73		
			99.96%	0.02%	0.00%	0.00%	0.02%	Not Clean:	1	10.00%	0.1000	111.6500	40.7000	1.20	0.02%
Total For 2007		81,549	46,414	6,103	87	8,510	20,435	Clean:	27,028	93.38%	0.0579	10.2574	37.6811	0.84	
			56.92%	7.48%	0.11%	10.44%	25.06%	Not Clean:	1,917	6.62%	0.7417	63.0947	308.8544	1.30	35.49%
2008															
P	8,115	0	2148	0	1,463	4,504	Clean:	5,489	91.99%	0.0649	11.6574	40.1460	0.90		
			0.00%	26.47%	0.00%	18.03%	55.50%	Not Clean:	478	8.01%	0.7981	90.0360	347.9805	1.28	73.53%
T	13,901	0	2356	63	2,822	8,660	Clean:	10,574	92.09%	0.0682	10.6747	38.3477	0.88		
			0.00%	16.95%	0.45%	20.30%	62.30%	Not Clean:	908	7.91%	0.7434	53.5102	271.8764	1.27	82.60%
U	25,392	25,375	9	0	0	8	Clean:	7	87.50%	0.1071	6.5857	55.8071	0.80		
			99.93%	0.04%	0.00%	0.00%	0.03%	Not Clean:	1	12.50%	0.6150	47.8000	35.4500	0.70	0.03%
Total For 2008		47,408	25,375	4,513	63	4,285	13,172	Clean:	16,070	92.05%	0.0671	11.0086	38.9696	0.89	
			53.52%	9.52%	0.13%	9.04%	27.78%	Not Clean:	1,387	7.95%	0.7621	66.0939	297.9336	1.27	36.82%

Model Year	Veh. Type	Emis. Due Veh.	Meet Time and Location Criteria					Total	Percent	CO	HC	NOX	Accel	Emis. Due Veh. Evaluated	
			No			Yes									
			0 Hits	1 Hit	2+ Hits	1 Hit	2+ Hits								
2009															
P	609	0	213	0	63	333	Clean:	372	93.94%	0.0763	12.4367	43.1309	1.08		
			0.00%	34.98%	0.00%	10.34%	54.68%	Not Clean:	24	6.06%	0.6540	99.0854	129.8271	1.20	65.02%
T	624	0	109	1	100	414	Clean:	477	92.80%	0.0796	11.3190	42.8510	0.99		
			0.00%	17.47%	0.16%	16.03%	66.35%	Not Clean:	37	7.20%	0.8697	41.7527	266.1324	1.37	82.37%
U	8,414	5,080	1369	0	0	1,965	Clean:	1,797	91.45%	0.0906	14.2127	51.5916	1.24		
			60.38%	16.27%	0.00%	0.00%	23.35%	Not Clean:	168	8.55%	0.7415	57.1821	256.2342	1.22	23.35%
Total For 2009		9,647	5,080	1,691	1	163	2,712	Clean:	2,646	92.03%	0.0866	13.4413	48.8265	1.17	
			52.66%	17.53%	0.01%	1.69%	28.11%	Not Clean:	229	7.97%	0.7530	59.0808	244.5856	1.24	29.80%
2010															
P	895	0	180	0	80	635	Clean:	648	90.63%	0.0794	13.0709	44.6206	1.36		
			0.00%	20.11%	0.00%	8.94%	70.95%	Not Clean:	67	9.37%	0.7116	38.6276	207.5993	1.81	79.89%
T	1,882	0	235	4	219	1,424	Clean:	1,538	93.61%	0.0693	11.2152	39.8298	1.16		
			0.00%	12.49%	0.21%	11.64%	75.66%	Not Clean:	105	6.39%	0.9889	60.8005	149.5790	1.30	87.30%
U	89,950	50,021	16763	0	0	23,166	Clean:	21,396	92.36%	0.0818	14.3716	47.0209	1.22		
			55.61%	18.64%	0.00%	0.00%	25.75%	Not Clean:	1,770	7.64%	0.7393	55.4398	189.0270	1.38	25.75%
Total For 2010		92,727	50,021	17,178	4	299	25,225	Clean:	23,582	92.39%	0.0809	14.1300	46.4860	1.22	
			53.94%	18.53%	0.00%	0.32%	27.20%	Not Clean:	1,942	7.61%	0.7518	55.1496	187.5349	1.39	27.53%
Overall Total		769,603	479,465	67,480	696	55,974	165,988	Clean:	188,621	84.98%	0.0667	11.5338	62.1956	0.83	
			62.30%	8.77%	0.09%	7.27%	21.57%	Not Clean:	33,341	15.02%	0.7667	93.7403	681.1091	1.19	28.84%