

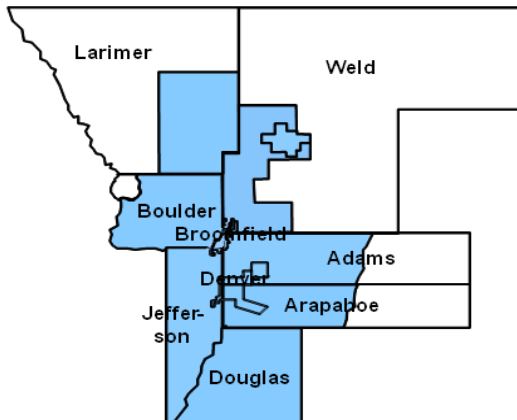
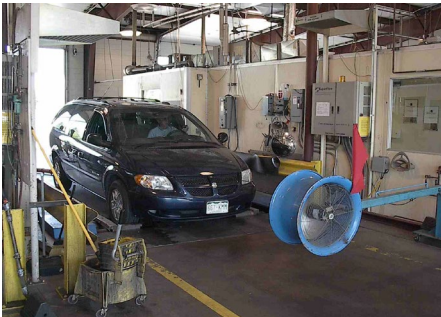


# COLORADO

## Air Pollution Control Division

Department of Public Health & Environment

# AUTOMOBILE INSPECTION AND READJUSTMENT (AIR) PROGRAM ANNUAL REPORT CALENDAR YEAR 2020



July 1, 2021



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## EXECUTIVE SUMMARY

In 2020, the pandemic presented many challenges for the Automobile Inspection and Readjustment (AIR) Program. The Colorado Department of Public Health and Environment (CDPHE) staff were tasked with making decisions to evaluate how to operate the I/M program in Colorado's nonattainment area while considering vehicle registration requirements, vehicle owner COVID-19 exposure, and a safe working environment for emissions testing staff.

The Colorado Department of Public Health and Environment considered exempting vehicles from emissions testing during the COVID-19 pandemic; however, on December 26th, 2019 the US Environmental Protection Agency (EPA) published a final rule reclassifying the Denver Metro/North Front Range ozone nonattainment area from Moderate to Serious; therefore, this was not a viable option.

On March 26, 2020 vehicle emissions testing was suspended for an indeterminate amount of time throughout the entire Denver Metro and Northern Front Range areas due to COVID-19 transmission concerns. On May 15th, 2020, vehicle emissions testing was approved to resume in limited testing facilities; however, program changes were required to reduce the amount of exposure for both vehicle owners and the emissions inspectors. CDPHE modified the emissions test with the utmost intent to protect Colorado's air quality while also reducing the potential for COVID-19 transmission.

As a result of the program modifications, the 2020 AIR Program report is different than previous reports. This report reflects vehicle test counts, by test type and test period, consistent with the program modifications explained in the New Program Developments section of this report.

The purpose of the AIR 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 AIR Program operates in the nine-county Front Range area. This includes all, or portions of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, Larimer, and Weld counties. The AIR Program is enforced in each participating county by a vehicle registration denial based process.

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 19 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 4 primary inspection types, which are administered depending on the vehicle model year, weight, and dynamometer compatibility. The 4 primary inspection types are:

1. On-Board Diagnostic (OBD) - electronic query of the vehicle's computer control system for vehicles that are 11 years old and newer.
2. I/M240 - dynamometer based emissions inspection for light-duty gasoline-powered vehicles that are model years 1982 through 12 years old.
3. Two-Speed Idle (TSI) - 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.
4. Remote Sensing - measures tailpipe emissions while a vehicle passes by 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 between model years 1975-1995. Additionally, vehicles receive a gas cap pressure test (light-duty only <= 8,500 lbs) along with an inspection for visible smoke.

In calendar year 2020, there were 554,472 initial OBD inspections, 222,029 initial I/M240 inspections and 38,451. Two-Speed Idle inspections conducted throughout the AIR Program network. The OBD failure rate was 6.02%, the I/M240 inspection failure rate was 10.6% and the Idle inspection failure rate was 7.34%. Remote sensing units observed 195,822 unique vehicles that met Clean Screen Program requirements. Of these, 151,484 vehicles participated in the program.

The state estimates that the net cost of the total AIR Program during 2020 was approximately \$60.3 million. This equates to \$10,097 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.

## 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 Program was authorized by HB93-1340, and began operations on January 1, 1995. It consists of an inspection and maintenance program that uses the following vehicle inspection methodologies:

- On-Board Diagnostic - 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 (TSI) - 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.
- Visual emissions control system inspection is conducted on all 1975 through 1995 model year vehicles.
- Gas cap pressure test (light-duty only) is performed on all 1975 and newer light-duty vehicles.
- Visual opacity (smoke) inspection is performed on all brick and mortar inspections.
- Remote Sensing - measures tailpipe emissions while a vehicle passes by 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 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 AIR 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 section in the Air Pollution Control Division at the Colorado Department of Public Health and Environment (CDPHE) 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 Program consists of, on average, 11 remote sensing units deployed within the program area. The units were rotated among 90 locations throughout the program area, with the primary locations being highway on ramps.

The division operates six Emissions Technical Centers throughout the AIR program area to help both the motoring public and the repair industry.

## ***New Program Developments***

The COVID-19 pandemic affected vehicle services across the entire state. CDPHE was tasked to re-evaluate the current program with the goals of protecting Colorado's air quality, limiting the amount of vehicle owner COVID-19 exposure, and providing a safe working environment for the emissions testing staff.

The program operated as designed until March 26, 2020, at which time it was suspended due to the pandemic. On May 15, 2020, the program resumed at a limited amount of testing facilities. Due to the pandemic, the testing procedure was modified at the time of the restart for vehicles model years 2000 and newer through vehicle age 12 years. Historically these vehicles would have received an I/M240 test requiring the owner to exit the vehicle and wait along with other owners in an enclosed waiting area. To limit COVID-19 exposure, the test was changed from the previously required I/M240 to an OBD interrogation inspection with the motorist waiting with their vehicle. This change reduced the amount of inspector interaction with the vehicle owners and also provided the recommended separation of motorists in the attempt to limit COVID-19 exposure.

As a result of these program modifications, the 2020 AIR Program report format is different from previous years reports. This report includes vehicle test counts, by test type for both the pre COVID-19 testing period and tests performed during the pandemic for the I/M240 and OBD Inspections.

## ***Emissions Technical Centers***

Pursuant to Colorado Revised Statutes, the division is required to operate Emissions Technical Centers throughout the program area. The division operates six centers that provide assistance to the motoring public, repair industry and the emissions testing contractor. These centers also provide technical support for the Department of Revenue in assessing requirements for repair and hardship waivers. The Emissions Technical Centers are a vital part to the success of the AIR Program. Technical center staff provide frontline vehicle

owner support and provide valuable input that has helped shape the current emissions program.

In 2020, these technical centers performed approximately 4,500 vehicle evaluations. Vehicle evaluations are completed to help assist the motoring public with proper emissions related repairs and to address potential vehicle tampering problems. In addition to vehicle evaluations, technical center staff received approximately 13,100 phone calls to answer questions from both the motoring public and repair industry.

## **ON-BOARD DIAGNOSTIC INSPECTION PROGRAM**

In 2020, vehicles model year 2010 through 2013 were required to receive an OBD inspection. Additionally, vehicles model year 1996 through 2009 received 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.

Due to the pandemic, starting May 15, 2020, vehicles model years 2000 and newer were also tested using the OBD inspection procedure. The only difference between the typical OBD test for model year vehicles 2010-2013 and the modified OBD test for vehicles model years 2000-2009 is that the OBD monitor readiness requirement is eliminated; therefore, the OBD pass/fail result was determined by if the Malfunction Indicator Light (MIL), also known as the check engine light, was commanded on or off. Additional information regarding OBD readiness requirements are provided later in this section. Vehicles model years 2000-2009 that arrived at the testing facility with the MIL illuminated received an I/M240 test with an advisory only OBD inspection.

The OBD inspection involves a visual assessment of the MIL 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 is elevated at least 1.5 times the Environmental Protection Agency certification levels.

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 554,472 initial OBD inspections conducted in 2020, 63,915 prior to the COVID-19 pandemic and 490,551 during the pandemic, a vehicle will fail the OBD inspection if the Malfunction Indicator Lamp 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 MIL is not commanded on and functioning properly however the vehicle is emitting visual opacity (smoke), or has a faulty or missing gas cap. In 2020, there were 33,374 vehicles that failed their initial OBD inspections, which included failures for the MIL commanded on, visual inspection of the MIL, gas cap pressure, and or visual opacity, resulting in an OBD initial failure rate of 6.02%. Table 1 shows the overall OBD inspection results by vehicle type prior to the pandemic and during the pandemic. 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 initial OBD failure rates for all vehicles that received an OBD inspection in 2020. Figures 1a and 1b shows the overall OBD initial failure rates for vehicles tested prior to and during COVID-19 pandemic. It should be noted that prior to the pandemic, and modified testing procedures, that a small amount of model year vehicles 2009 and older were required to receive a pass/fail OBD inspection. There are certain vehicles that are not compatible with the I/M240 inspection equipment, and instead receive an OBD inspection. The small number of vehicles tested in conjunction with the a higher likelihood of failure for the older model years inflates the failure rate in Figure 1a, especially for model years 1996-2000. Additional information regarding initial OBD failures is available in the Initial OBD Inspection Report within Appendix A2.

**Table 1 -2020 OBD Overall Inspection Results**

		Total	Pass	% Pass	Fail	% Fail
Pre-COVID	Cars	25,811	24,168	93.63%	1643	6.37%
	Trucks	38,110	35,669	93.59%	2441	6.41%
COVID	Cars	205,434	194,162	94.47%	11,272	5.49%
	Trucks	285,117	267,099	93.68%	18,018	6.32%
Annual	Cars	231,245	218,330	94.42%	12,915	5.58%
	Trucks	323,227	302,768	93.67%	20,459	6.33%
<b>Annual Total</b>		<b>554,472</b>	<b>521,098</b>	<b>93.98%</b>	<b>33,374</b>	<b>6.02%</b>

OBD Initial Inspection Fail Rates (Annual)

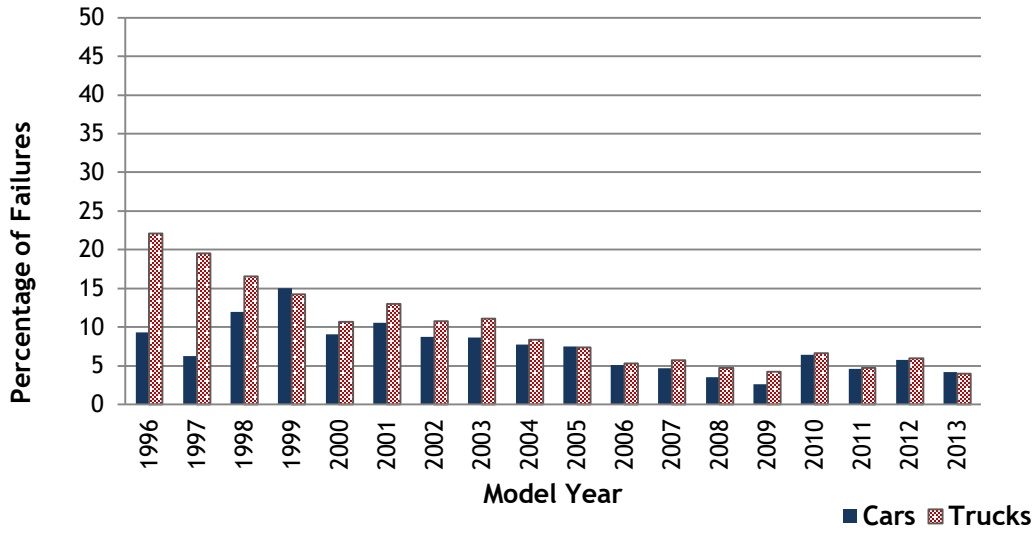


Figure 1 - OBD Initial Inspection Fail Rates by Model Year and Vehicle Type (Annual)

OBD Initial Inspection Fail Rates (Pre-COVID)

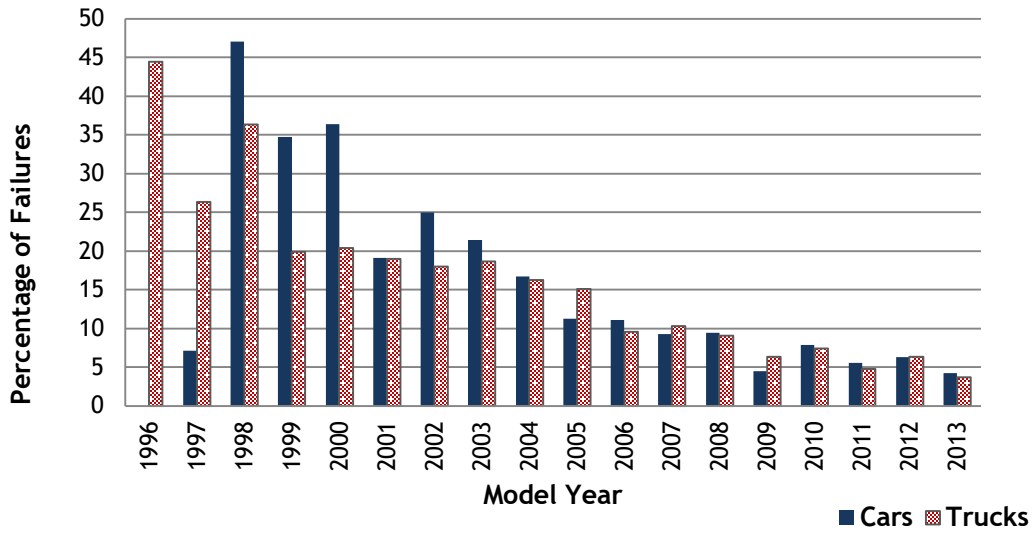
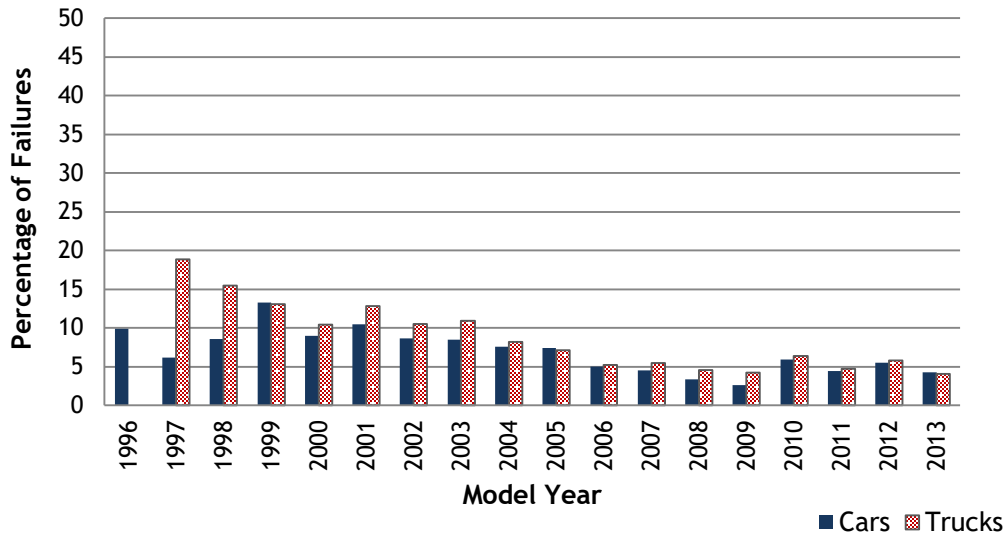


Figure 1a - OBD Initial Inspection Fail Rates by Model Year and Vehicle Type (Pre-COVID)



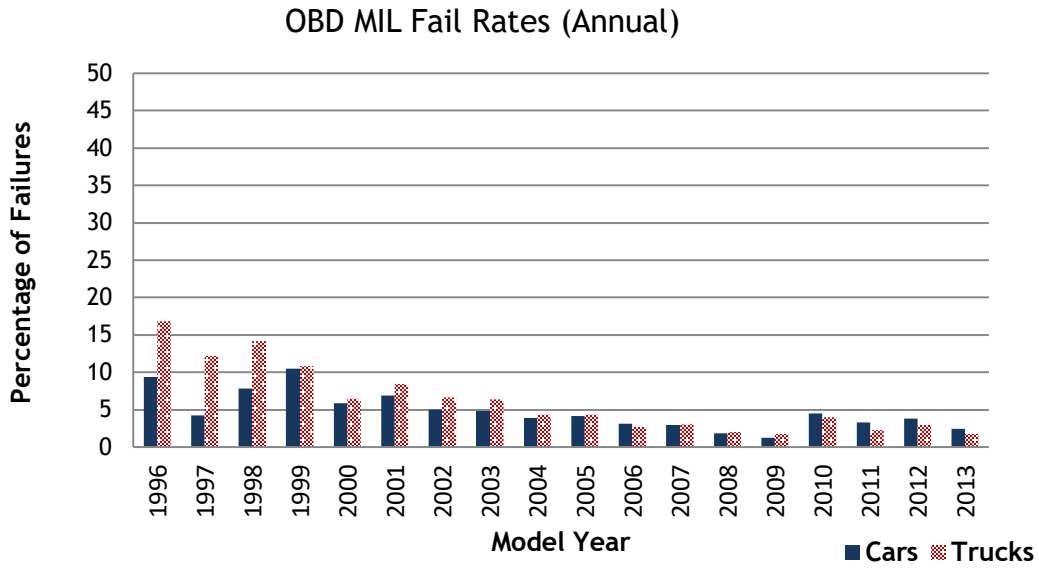
### OBD Initial Inspection Fail Rates (COVID)



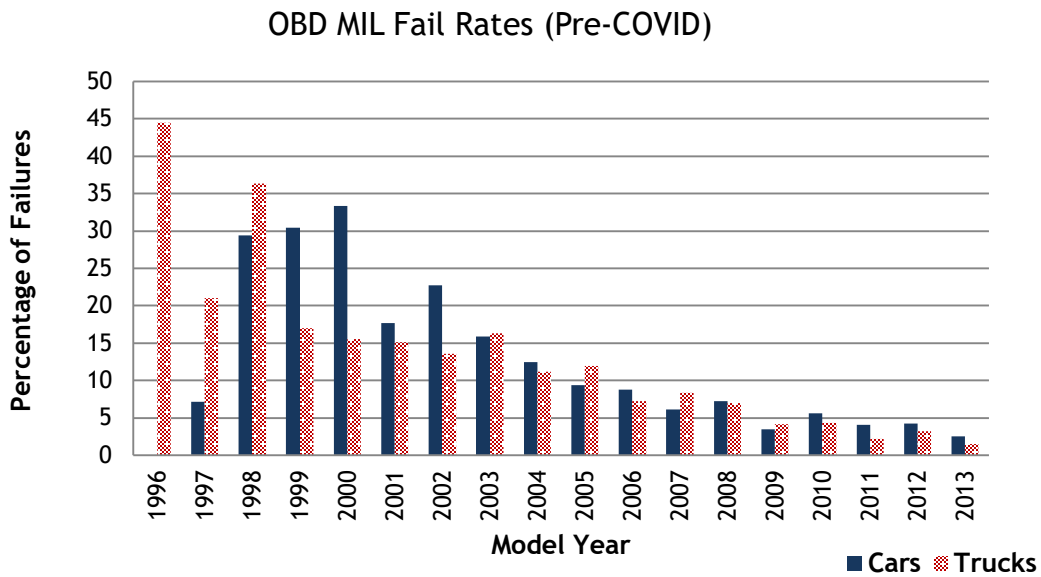
**Figure 1b: OBD Initial Inspection Fail Rates by Model Year and Vehicle Type (COVID)**

Figures 1, 1a and 1b demonstrate 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.

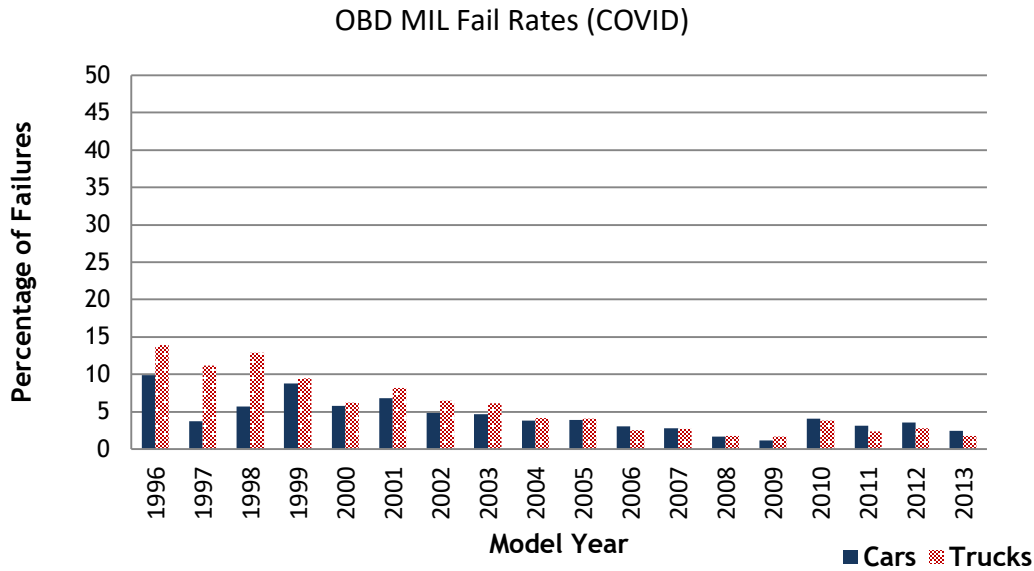
Of the 33,374 overall failures, 18,596 vehicles solely failed their initial OBD MIL inspection resulting in an OBD MIL initial failure rate of 3.35%. There are total of 19,020 vehicles that failed both the OBD MIL inspection and for opacity. Figure 2 shows the initial MIL failure rates for all vehicles that received an OBD inspection in 2020. Figures 2a and 2b show the initial MIL OBD initial failure rates for vehicles tested prior to and during the COVID-19 pandemic. Figure 2, 2a and 2b show 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 presented in these figures.



**Figure 2 - OBD MIL Fail Rates by Model Year and Vehicle Type (Annual)**



**Figure 2a - OBD MIL Fail Rates by Model Year and Vehicle Type (Pre-COVID)**



**Figure 2b - OBD MIL Fail Rates by Model Year and Vehicle Type (COVID)**

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. Prior to the pandemic, if the MIL passed the visual inspection but the OBD system did not communicate, the vehicle was given an alternate I/M240 inspection. During the pandemic, the test procedures were modified and the alternative I/M240 inspection was eliminated to reduce COVID-19 exposure. Vehicles that were unable to communicate with the OBD testing equipment were unable to be inspected until the vehicle was repaired. In 2020, prior to the pandemic, 742 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 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.” During the pandemic, model year vehicles 2000 - 2009 vehicles were not required to comply with the OBD readiness monitor

requirements; therefore, the number of passing OBD inspections as shown previously shown in Table 1 are likely inflated due to relaxed OBD testing procedures. The OBD testing procedures for 2010 and newer model year vehicles remained the same. Therefore, in 2020, 3,402 vehicles were “Not Ready” to receive an OBD inspection and prior to the pandemic 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.

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 32,210 (5.49%) initial incomplete inspections in 2020. During the COVID-19 pandemic, vehicles that received an incomplete inspection were not given an alternative I/M240 inspection and were required to be repaired prior to receiving a pass/fail OBD inspection. 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 2010 through 2013, and 2000 - 2009 during the pandemic, an advisory OBD inspection was completed on all 1996 and newer 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.

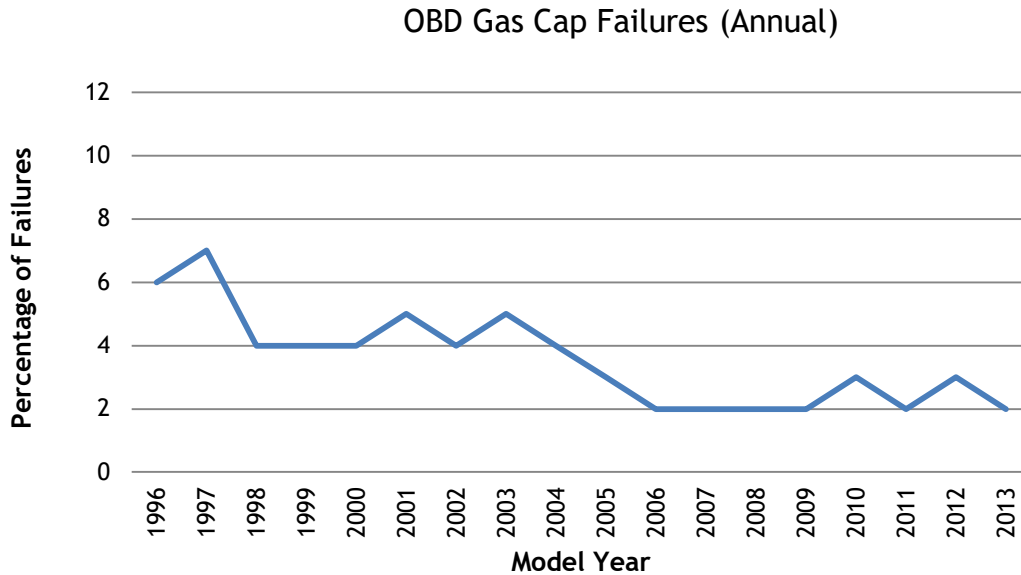
## ***OBD - Gas Cap Inspection Results***

Another element of the OBD 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 15,404 gas cap failures (2.63%) in 2020. 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 (1996-2013) (Annual)**

Note that Figure 3 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 2020, 5,456 vehicles (0.93%) failed the visual MIL inspection. During the COVID-19 pandemic, the visual MIL inspection was suspended to reduce COVID-19 exposure. All 2000-2009 vehicles were pre-screened in the vehicle waiting queue to identify if the vehicle MIL was illuminated. If the MIL was illuminated the vehicle received a pass/fail I/M240 inspection that included an advisory only MIL inspection. Prior to the pandemic, model year vehicles 2010 and newer MIL failures 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 2020, 29,717 vehicles were given an OBD post-repair retest. Of these vehicles, 3,620 failed a second time, resulting in a 12.18% 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. As previously mentioned, model year vehicles 2000 - 2009 vehicles were not required to comply with the OBD readiness monitor requirements during the pandemic. The program found 5,322 or 13.22% 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 typically have 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.

## ***OBD - Tampering Identification Results***

In 2020, prior to the pandemic, vehicles receiving an OBD inspection had to meet specific criteria to ensure that the OBD system had not been tampered. However, during the pandemic the tampering requirements were removed to help accommodate the modified testing procedures. It's not uncommon for the OBD system to be modified to report normal operating conditions when aftermarket emissions defeat devices have been installed. When a vehicle is identified as being tampered it is referred to an Emissions Technical Center

where the vehicle is subject to an evaluation and the vehicle owner is advised on what repairs need to be completed to obtain a passing inspection.

In 2020, 159 vehicles were identified and referred to the Emissions Technical Centers. Of those 159 vehicles, 108 were evaluated, repaired and received a passing emissions inspection. There were 51 vehicles that were unresolved at the time of this report.

## **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 1975-1995 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. As previously mentioned, during the pandemic vehicles model years 2000 -2009, with the MIL not illuminated, received a pass/fail OBD inspection. As a result, fewer I/M240 inspections were completed in 2020 than in previous years.

### ***I/M240 - Initial Inspection Results***

In 2020, there were 222,029 initial I/M240 inspections conducted. There were 123,284 inspections prior to the COVID-19 pandemic and 98,745 during the pandemic. 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 2020, 23,528 vehicles failed their initial I/M240 inspections, resulting in an initial failure rate of 10.6%. Of these, 13,338 vehicles failed for excess exhaust emissions, or an exhaust emissions failure rate of 6.01%. It should be noted that the I/M240 initial failure rate is higher than previous years due to vehicles model years 2000 - 2009 receiving an I/M240 inspection only when the MIL was illuminated during the pandemic. Table 2 shows the inspection results by vehicle type prior to the pandemic, during the pandemic and for the entire year. Table 3 shows that there was an increase in the initial exhaust inspection I/M240 failure rate during the pandemic. This is a result of the pandemic test procedure

modifications and only performing an I/M240 on 1999 and older vehicles and vehicles between model years 2000 - 2009 with the MIL illuminated.

**Table 2 - 2020 I/M240 Overall Inspection Results**

		<b>Total</b>	<b>Pass</b>	<b>% Pass</b>	<b>Fail</b>	<b>% Fail</b>
<b>Pre-COVID</b>	<b>Cars</b>	52,877	49,153	92.96%	3,724	7.04%
	<b>Trucks</b>	70,407	64,223	91.22%	6,184	8.78%
<b>COVID</b>	<b>Cars</b>	40,995	35,832	87.41%	5,163	12.59%
	<b>Trucks</b>	57,750	49,293	85.36%	8,457	14.64%
<b>Annual</b>	<b>Cars</b>	93,872	84,985	90.53%	8,887	9.47%
	<b>Trucks</b>	128,157	113,516	88.58%	14,641	11.42%
<b>Annual Total</b>		<b>222,029</b>	<b>198,501</b>	<b>89.40%</b>	<b>23,528</b>	<b>10.60%</b>

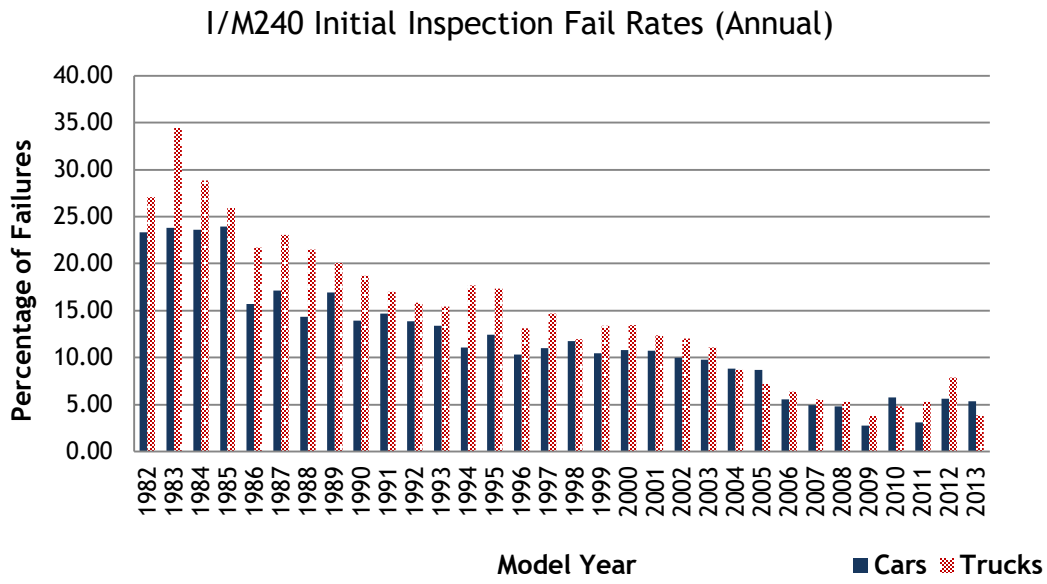
**Table 3 - 2020 I/M240 Initial Exhaust Failure Rate**

	<b>Pre-COVID</b>	<b>COVID</b>	<b>Annual</b>
<b>Failed for excess exhaust</b>	4,640	8,698	13,338
<b>Exhaust Failure Rate</b>	3.76%	8.81%	6.01%

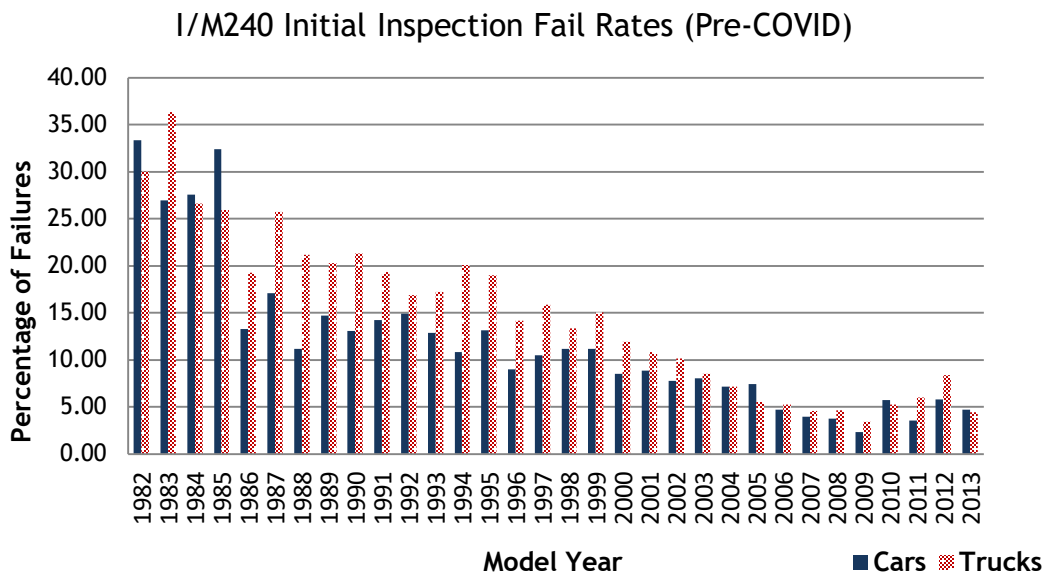
There were a small number of vehicles that were tested within their exemption period that are not included in Figures 4 through 8. There were not enough vehicles for model years 2014 and newer to accurately represent average emissions rates.

Figures 4, 4a and 4b show the overall I/M240 initial failure rates by model year and vehicle type for the entire year, prior to, and during the pandemic. Overall failures consist of vehicles with excessive exhaust emissions, gas cap pressure failures, opacity and/or visual equipment test failures.

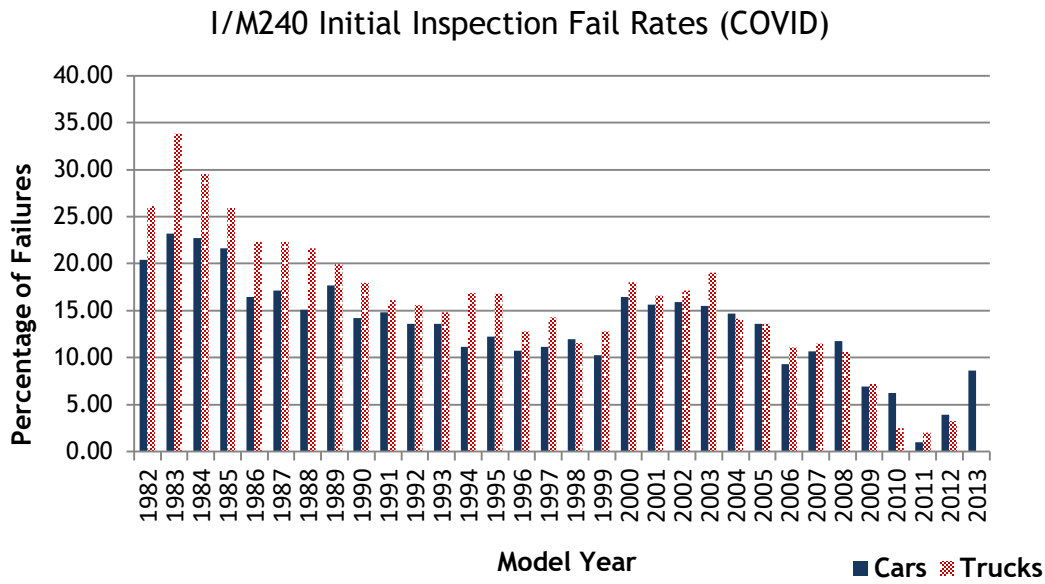




**Figure 4 - I/M240 Initial Inspection Fail Rates by Model Year and Vehicle Type (1982-2013) (Annual)**



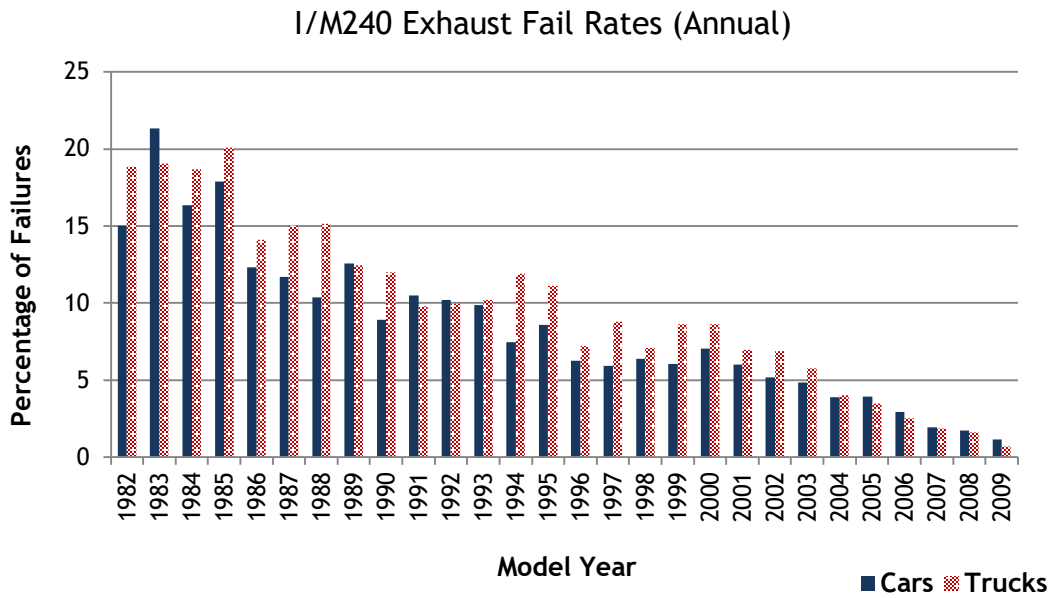
**Figure 4a - I/M240 Initial Inspection Fail Rates by Model Year and Vehicle Type (1982-2013) (Pre-COVID)**



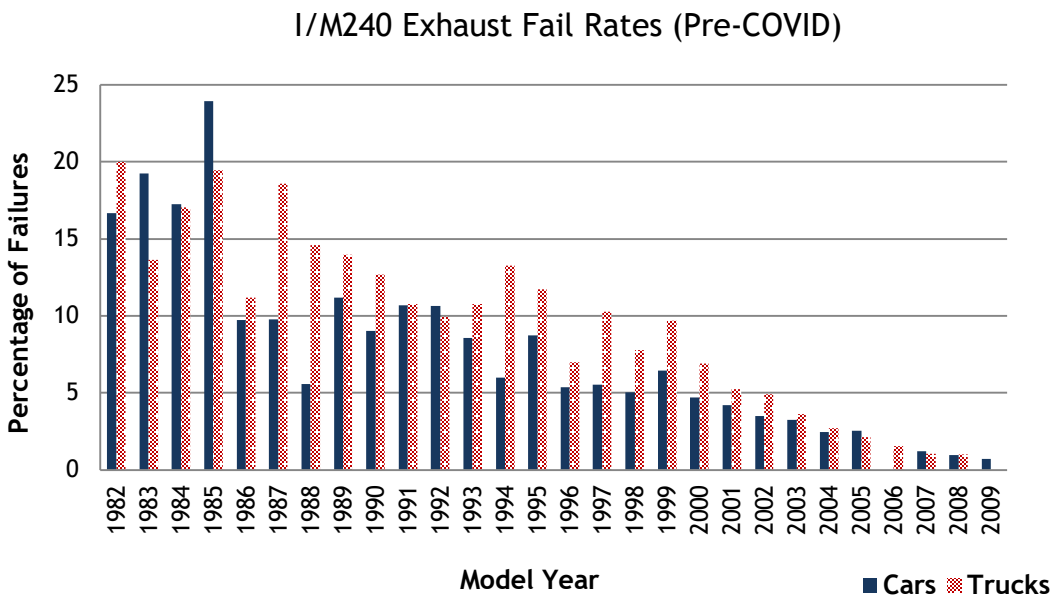
**Figure 4b - I/M240 Initial Inspection Fail Rates by Model Year and Vehicle Type (1982-2013) (COVID)**

Prior to the pandemic, model years 1982-2009 vehicles were required to receive I/M240 inspections, however; model years 2010 and newer vehicles may have received alternate I/M240 inspections if the vehicles' OBD systems were "Not Ready" or did not communicate; therefore, allowing I/M240 exhaust fail rates to be measured for these vehicles. During the pandemic, beginning May 15<sup>th</sup> when vehicle emissions testing resumed, vehicles 2000-2009 only received an I/M240 inspection if the MIL was illuminated. Additionally, for model years 2010 and newer, the alternate I/M240 inspection was discontinued during the pandemic; therefore, any vehicle that had an OBD system that was unable to communicate or was "Not Ready" received an incomplete inspection and was required to be repaired.

Figures 5, 5a and 5b show the excessive exhaust emissions vehicle fail rates for the entire year, prior to and during the pandemic. These figures are sorted by model year and vehicle type.



**Figure 5 - I/M240 Exhaust Fail Rates by Model Year and Vehicle Type (1982-2009) (Annual)**



**Figure 5a - I/M240 Exhaust Fail Rates by Model Year and Vehicle Type (1982-2009) (Pre-COVID)**

I/M240 Exhaust Fail Rates (COVID)

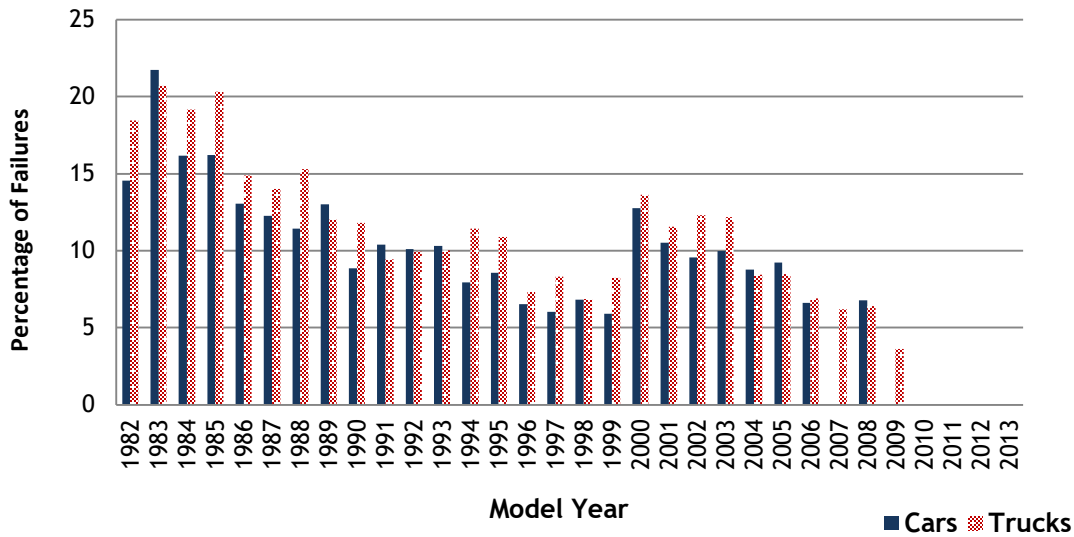


Figure 5b - I/M240 Exhaust Fail Rates by Model Year and Vehicle Type (1982-2009) (COVID)

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

I/M240 Average Hydrocarbon by Model Year

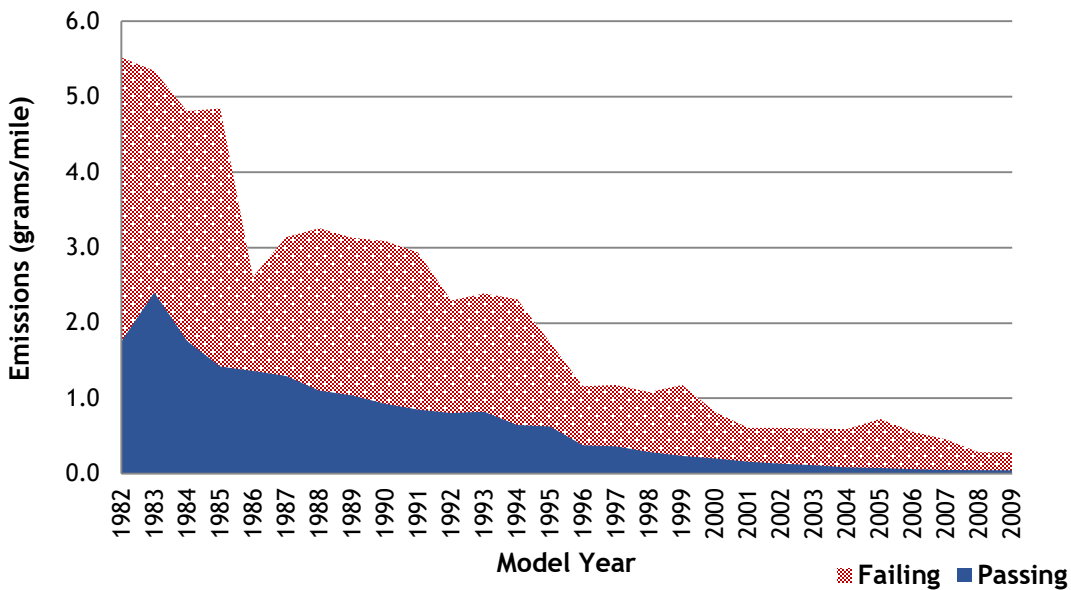


Figure 6 - I/M240 Average Hydrocarbon Emissions by Model Year (1982-2009) (Pre-COVID)

I/M240 Average Carbon Monoxide by Model Year

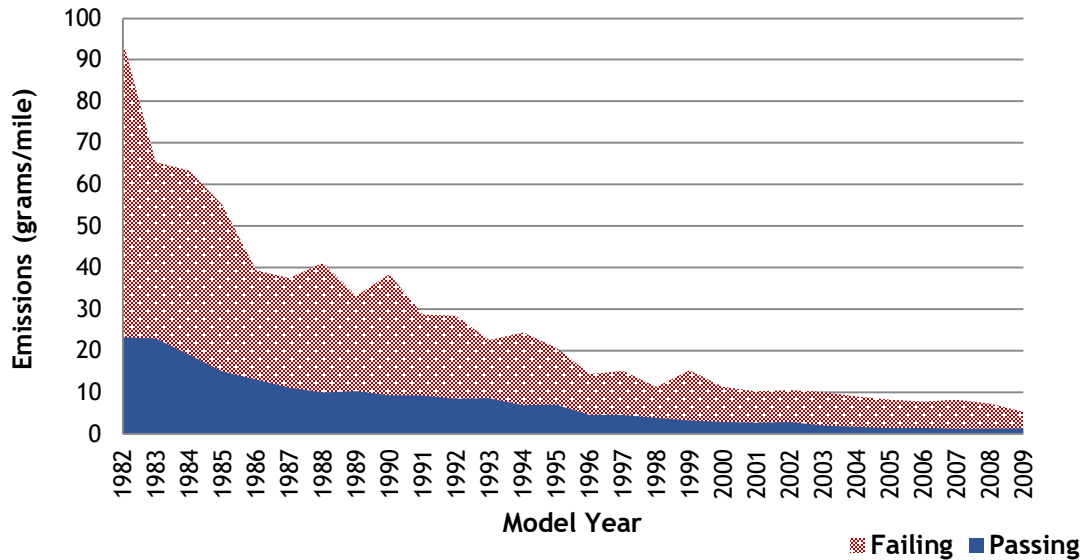


Figure 7 - I/M240 Average Carbon Monoxide Emissions by Model Year (1982-2009) (Pre-COVID)

I/M240 Average Nitrogen Oxides by Model Year

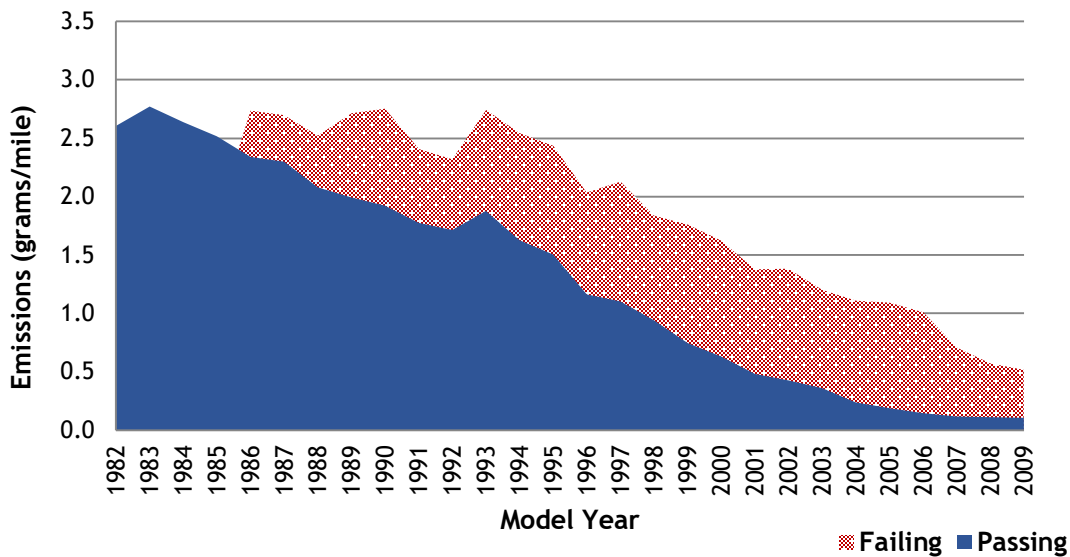


Figure 8 - I/M240 Average Nitrogen Oxides Emissions by Model Year (1982-2009) (Pre-COVID)

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.

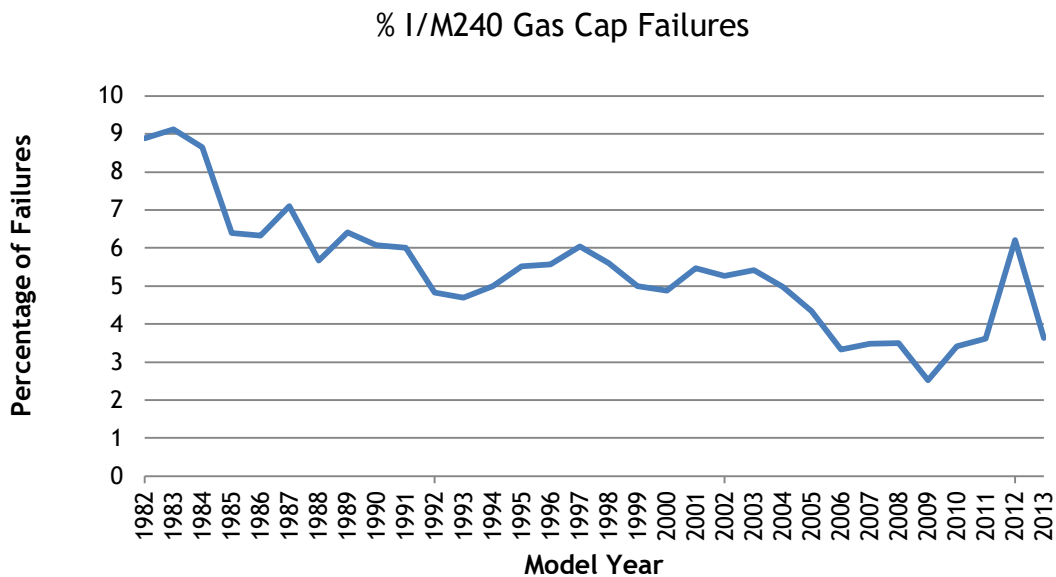
As these figures show, HC, CO, and NOx emissions are highest for the oldest vehicles. As expected, average exhaust emissions drop significantly for newer vehicles (in terms of both passing and failing emissions).

## ***I/M240 - Gas Cap Pressure Inspection Results***

The inspection 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 10,655 vehicles subjected to the I/M240 inspection that failed the gas cap test in 2020; resulting in a failure rate of 4.85%. Figure 9 shows the number of gas cap pressure failures by model year.



***Figure 9 - I/M240 Gas Cap Failure Percentage by Model Year (1982-2013)***

Note that Figure 9 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 2020, 269 vehicles failed for missing or improperly installed catalytic converter(s), 275 vehicles failed for a missing or tampered air injection system and 154 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 2020, 21,988 vehicles received an initial post-repair I/M240 retest. Of these, 6,183 failed again, thus resulting in a 28.12% 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.

Tables 4, 4a, and 4b show 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 4b once again shows that vehicles with the MIL illuminated tend to have higher exhaust emissions.

**Table 4 - I/M240 Passed Retest Inspection Results (2020) (Annual)**

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	1.44	17.49	1.62	0.35	4.25	0.75	64.73	68.09	42.30
Trucks	1.71	23.90	2.20	0.53	6.33	1.18	55.94	63.33	36.19
<b>TOTAL FLEET</b>	1.61	21.59	1.99	0.47	5.56	1.02	58.81	64.82	37.98

**Table 4a - I/M240 Passed Retest Inspection Results (2020) (Pre-COVID)**

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	1.00	13.19	1.50	0.24	3.20	0.56	62.82	66.89	49.24
Trucks	1.32	18.66	1.98	0.38	4.83	0.93	56.66	62.10	39.28
<b>TOTAL FLEET</b>	1.20	16.67	1.80	0.33	4.23	0.79	58.53	63.58	42.26

**Table 4b - I/M240 Passed Retest Inspection Results (2020) (COVID)**

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	1.73	20.31	1.69	0.43	5.01	0.88	65.47	68.63	38.38
Trucks	1.95	27.26	2.33	0.65	7.44	1.36	55.61	63.89	34.51
<b>TOTAL FLEET</b>	1.87	24.77	2.10	0.57	6.53	1.18	58.93	65.38	35.63



## TWO-SPEED IDLE INSPECTION RESULTS

The AIR Program requires non-exempt<sup>1</sup> model year 1981 and older gasoline-powered vehicles to undergo annual Two-Speed Idle inspections. 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. During the pandemic, the raised 2500 rpm portion of the inspection was not performed. This testing modification allowed vehicle owners to remain in their vehicles, therefore minimizing the potential for COVID-19 exposure. Only hydrocarbon and carbon monoxide emissions are measured, with no engine load placed on the vehicle. NO<sub>x</sub> emissions are not measured as part of the two-speed idle inspection protocol because NO<sub>x</sub> 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).

### *Two-Speed Idle - Initial Inspection Results*

In 2020, 38,451 vehicles underwent Idle inspections within the program area. Of these vehicles, 2,823 (7.34%) failed their initial inspections, with 2,437 (6.34%) 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 2014 and newer to accurately represent average emissions rates.

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<sup>1</sup> Exempt vehicles include vehicles registered as collector series, street rods, farm vehicles and horseless carriages.

Initial Two-Speed Idle Test Failure Rate

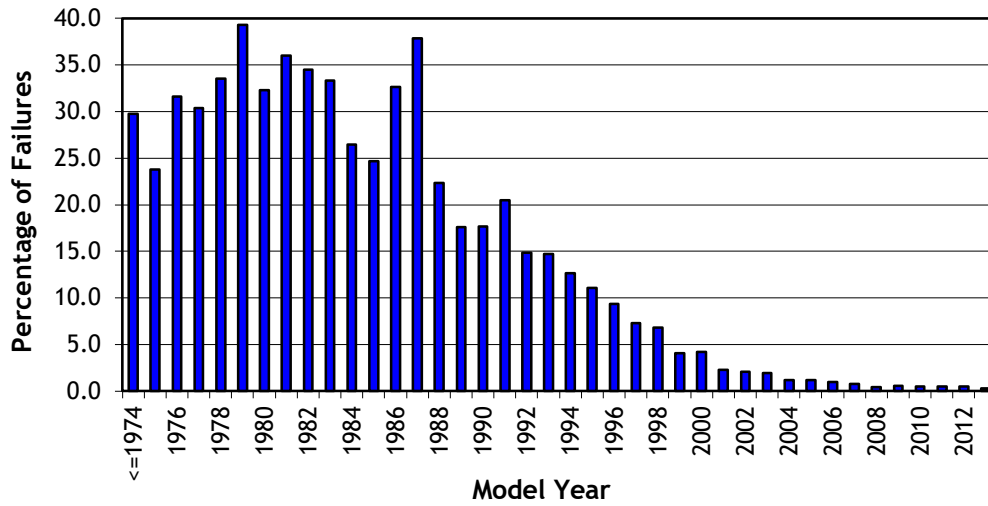


Figure 10 - Two-Speed Idle Inspection Initial Inspection Fail Rate by Model Year

Two-Speed Idle Test - Hydrocarbon

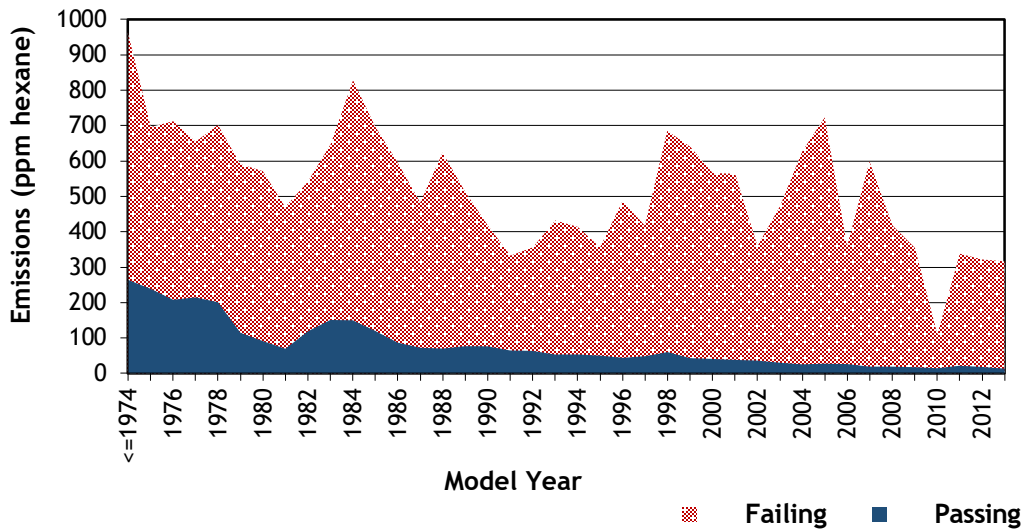


Figure 11 - Two-Speed Idle Inspection Average Hydrocarbon by Model Year

### Two-Speed Idle Test - Carbon Monoxide

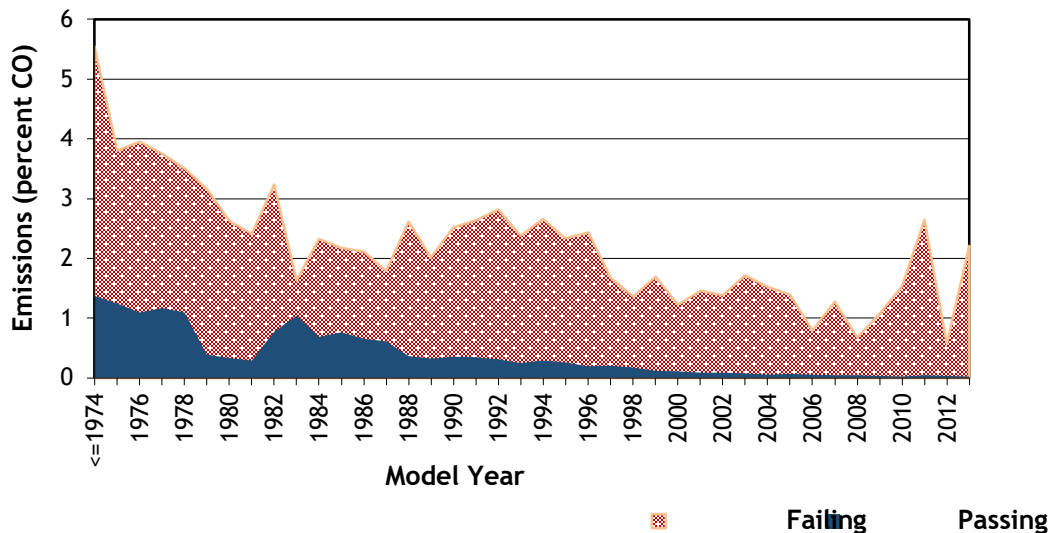


Figure 12 - Two-Speed Idle Inspection Average Carbon Monoxide by Model Year

### 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 293 gas cap failures during two-speed idle inspections in 2020. This is a failure rate of 7.72% 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 2,823 vehicles that failed the Two-Speed Idle inspection in 2020. Of these, 115 vehicles failed for missing or improperly installed catalytic converter(s), 161 failed for a missing or tampered air injection system, and 23 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 2,357 vehicles given initial post repair retests in 2020. Of these vehicles, 930 failed again, resulting in a 39.46% 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.

Tables 5, 5a, and 5b show 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 5 - Two-Speed Idle Passed Retest Inspection Results (2020) (Annual)***

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	614.66	3.18	549.41	3.16	135.41	0.51	155.39	0.73	74.59	81.55	67.76	73.73
Trucks	644.04	2.91	550.26	2.73	140.23	0.72	152.51	0.90	75.60	73.03	68.70	63.02
Total	637.69	2.97	550.08	2.82	139.26	0.68	153.09	0.87	75.41	74.82	68.51	65.41

***Table 5a - Two-Speed Idle Passed Retest Inspection Results (2020) (Pre-COVID)***

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	576.99	3.06	393.73	2.96	134.50	0.49	165.31	1.03	73.09	80.16	54.06	54.37
Trucks	669.22	2.63	435.56	2.07	148.85	0.63	135.60	0.86	74.30	74.22	65.30	54.32
Total	654.85	2.70	429.04	2.21	146.59	0.61	140.14	0.89	74.13	75.17	63.68	54.33

**Table 5b - Two-Speed Idle Passed Retest Inspection Results (2020) (COVID)**

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	620.43	3.20	573.26	3.19	135.66	0.51	153.32	.67	74.86	81.78	69.59	76.60
Trucks	637.79	2.98	578.73	2.90	137.79	0.75	157.30	.92	75.97	72.72	69.42	64.77
Total	633.79	3.03	577.47	2.96	137.33	0.70	156.49	.86	75.74	74.72	69.45	67.50

## 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 19.70% of vehicles that failed their initial inspection in 2020 did not receive a passing retest by March 2021. Out of the 59,725 initial failures, there were 11,765 vehicles that were unresolved as of March 2021. It is assumed that the vast majority of these vehicles are successfully repaired outside of the analysis period (calendar year 2020), 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. In 2020, CDPHE received 1,764 reports of smoking vehicles.

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 Emissions 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 2020, 700 vehicles failed the visible smoke portion of the emissions inspection (424 OBD inspections, 230 I/M240 inspections and 46 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:

1. 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 2020, there were 189 Repair Waivers issued by Department of Revenue (DOR).
2. 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 2020, there were 171 Economic Hardship Waivers issued by DOR.
3. 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 2020, there was one 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 the Clean Screen Program 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 19,232 hours in 2020, collecting approximately 2.7 million valid emissions records.

In 2020, the overall remote sensing evaluated fraction of testable vehicles was 27.73% (based on 812,988 total I/M eligible vehicles in the fleet, with 225,451 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 225,451 vehicles evaluated by remote sensing units, 195,822 (86.86%) were identified as passing Clean Screen standards. Prior to the pandemic, two percent of the vehicles passing Clean Screen standards are required to be tested at brick and mortar facilities. This requirement was removed during the pandemic to maximize the use of Remote Sensing. Therefore, 193,544 vehicles were issued a Clean Screen notice. Of those Clean Screen notices, 151,428 or 78.24% 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.

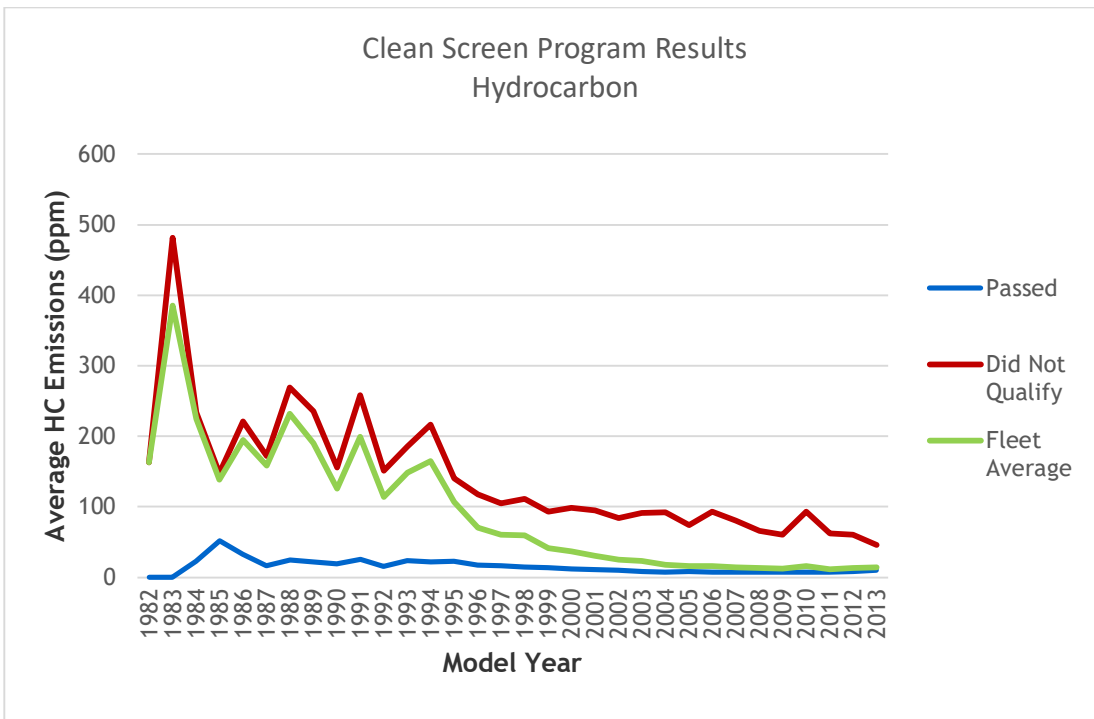
### ***Clean Screen Average Vehicle Emissions Results***

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 (Figures 13,14, and 15) detail the emissions results of remote sensing monitoring for each of the three pollutants measured (HC, CO, and NOx), 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 NOx) show a pronounced downward trend to the newest vehicles that are the cleanest portion of the fleet.

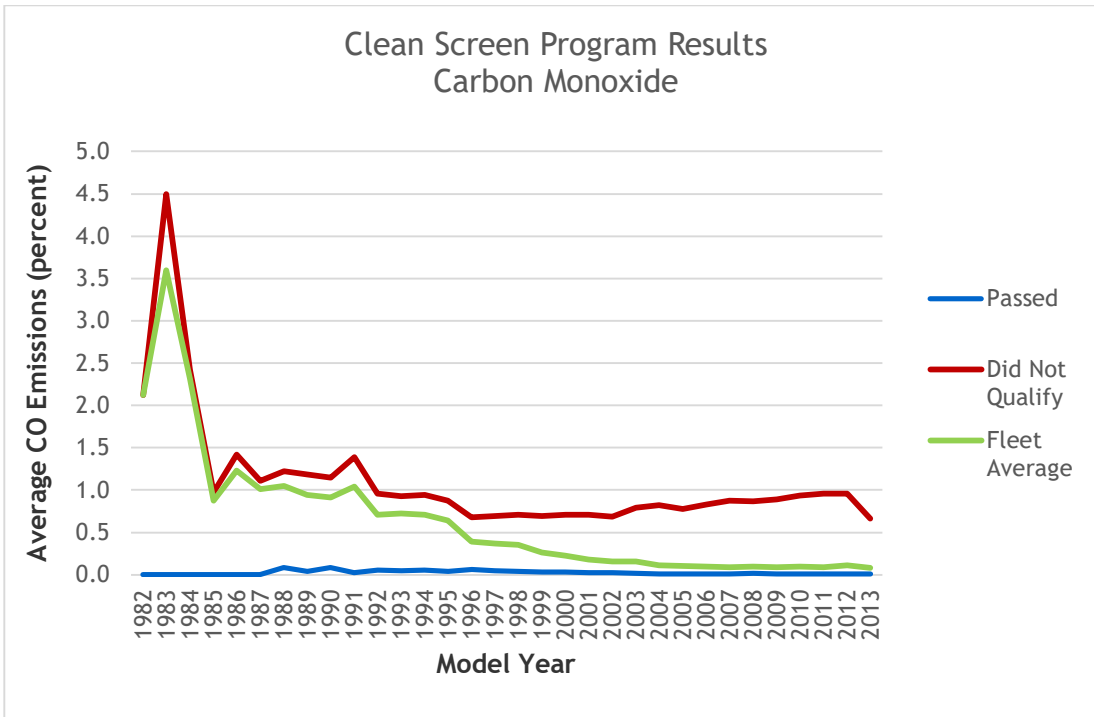
The bottom blue line indicates the average emissions by model year for vehicles that met all the Clean Screen requirements and pass Clean Screen standards. It is noticeable that the average emission rates are much lower than the fleet as a whole, reflecting the tighter emissions standards these vehicles must meet.

The red line shows the average emissions by model year for vehicles that qualified to participate in the Clean Screen Program but did not pass the Clean Screen standards.

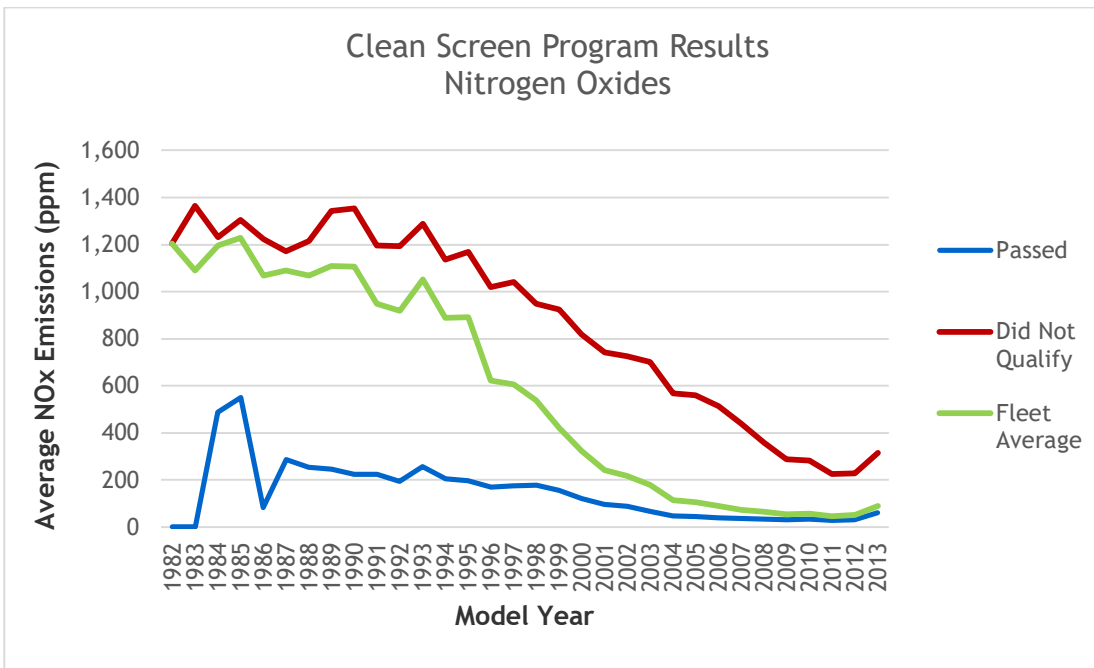


**Figure 13 - Clean Screen Program Results - Average Hydrocarbon Emissions by Model Year (1982-2013)**





**Figure 14 - Clean Screen Program Results - Average Carbon Monoxide Emissions by Model Year (1982-2013)**



**Figure 15 - Clean Screen Program Results - Average Nitrogen Oxides Emissions by Model Year (1982-2013)**

# EMERGING TECHNOLOGY AND VEHICLES EMISSIONS STUDIES

On a biennial basis, the Colorado Department of Public Health and Environment is required to conduct studies on present and developing vehicle emissions tests and technologies. The following section of this report fulfills the requirements of Section 42-4-307 (11), C.R.S. Previous reports were submitted in 1994, 1996, 1998, 2000, 2002, 2004, and 2006. For the 2008 report, the requirement to deliver a document to the Legislature was eliminated; however the analyses was still required to be performed. Therefore, beginning in 2008, the analyses elements were included as part of the Annual I/M Reports, but was not in a separate section. This continued with the 2010, 2012, 2014, 2016, and 2018 reports. Beginning with this report (2020) it is separated into a discrete segment as part of the Annual I/M Report.

## ***On-Board Diagnostics (OBD) Studies***

As noted earlier in this report, OBD technology is installed on all 1996 and newer light-duty cars and trucks. While OBD can have advantages in reduced test complexity, time, and additional monitored emissions sources, it also has disadvantages such as increased program costs. Therefore, CDPHE staff have focused on research projects that explores more targeted test procedures that can take advantage of additional emissions monitoring while not dramatically increasing program costs though high failure rates with little emissions benefits. One example of this is a research project at APCD's Aurora High Altitude Emissions Laboratory. The project recruited vehicles with OBD-identified evaporative faults. Once a motorist agreed to participate, their vehicles evaporative emissions are measured, any faults present identified and repaired, and the evaporative emissions measured post-repair to quantify any reductions. That project is scheduled to end in 2021 and a report will be written that provides the final results.

Related to this is a joint project between the Environmental Protection Agency (EPA), Eastern Research Group (ERG), and the APCD to explore hardware and software requirements for communicating with diesel vehicle OBD systems. In this project various diesel vehicles are voluntarily recruited to test pre-production hardware and software to assess the ability of the equipment to communicate with the vehicle and identify potential emissions faults. Depending on the outcome of the tests, an OBD test could be added to the diesel emissions program.

## ***Remote Sensing Device (RSD) Studies***

Rather than trying to shorten or enhance a state's emission test, this technology attempts to "pre-screen" a vehicle as it drives by a sensing device placed on a roadside. If multiple readings, or a single reading from known low-emitting vehicles indicate that the car or truck is a low polluter, the vehicle owner is exempted for one test cycle from having to visit a traditional test station. The major benefit of this program is increased convenience to owners of low polluting vehicles. A drawback is that some vehicles may be exempted that would normally fail the emissions test. However, by monitoring test conditions, this can be kept to a reasonable level that still meets air quality objectives. Related to this the APCD has had numerous projects over the last decade to improve this technology.

The most recent is a project to add nitrogen dioxide (NO<sub>2</sub>) and ammonia (NH<sub>3</sub>) channels to the current RSD equipment. The objective is to help quantify these emissions from diesel vehicles; especially heavy-duty diesel vehicles. NO<sub>2</sub> is a precursor for ozone (O<sub>3</sub>) formation and a significant portion of these emissions come from heavy-duty vehicles. NH<sub>3</sub> is a precursor for certain particulates and mobile source NH<sub>3</sub> emissions are not well understood so this project will likely have high interest with air quality agencies and groups. These channels will be installed in 2021, and initial data analyses will take place later in the year.

Another ongoing project is the identification of excess evaporative emissions by analyzing the RSD signal as a vehicle passes through the optical beam. This innovative method for measuring and testing real-world evaporative emissions was developed over two summers in Denver, CO by ERG, EPA, APCD, and the Regional Air Quality Council (RAQC) staff through a Cooperative Research and Development Agreement (CRADA) with EPA. The Coordinating Research Council (CRC) also supported the project as part of CRC project E-77-3. Ultimately, some of the data were used to update the MOVES evaporative emissions rates to more accurately estimate emission inventories.

## **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 with 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. Motorist inconvenience costs are also provided.

## ***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 2020, there were 966,380 initial inspections (including redeemed clean screen) conducted. Of these inspections, 554,472 were initial OBD inspections, 222,029 were initial I/M240 inspections, 38,451 were initial TSI inspections, and 151,428 were vehicles that redeemed a Clean Screen inspection.

The state estimates that the program's inspection costs amounted to \$24,702,045 in 2020. Table 6 shows overall inspection costs per type of inspection.

***Table 6 - Overall Inspection Cost by Inspection Type (2020)***

<b>Inspection Type</b>	<b>Initial Inspections</b>	<b>Total Paid Inspections</b>	<b>Cost</b>
<b>OBD</b>	554,472	563,860	\$14,096,475
<b>I/M240</b>	222,029	235,090	\$5,877,250
<b>Idle</b>	38,451	39,624	\$942,620
<b>Clean Screen</b>	151,428	151,428	\$3,785,700
<b>TOTAL</b>	966,136	1,070,027	\$24,702,045

## ***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 AIR 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 3,091,381 fee-eligible gasoline-powered vehicles registered in the enhanced nine-county AIR Program area as of December 31, 2020. This equates to a total registration-fee cost of \$6,801,027 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 2020, the average emissions repair cost for vehicles failing the OBD inspection was \$442.33 and for the I/M240 inspection was \$474.60. For vehicles receiving the Idle inspection, the average repair costs were \$328.31 for model year 1981 and older vehicles, and \$606.48 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, 33,374 failed their initial OBD inspections. Of these vehicles, 18,596 failed for the MIL commanded on and/or visual MIL inspection, and other non-gas cap failures. There were 15,404 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, 23,528 vehicles failed their initial I/M240 inspections, with 13,338 of these vehicles failing for excess emissions only, or excess emissions in combination with failing a visual inspection. Vehicles were also failed for excess opacity. For the gas cap portion of the test, there were 10,655 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, 2,823 vehicles failed their initial Idle inspections. Of these vehicles, 2,437 failed for 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 293 vehicles that failed the 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 7 details the total repair costs by inspection type.

**Table 7 - Total Repair Costs by Inspection Type (2020)**

Inspection Type	Excess Emissions/Visual/Opacity		Gas Cap		TOTAL
	Count	Cost	Count	Cost	
OBD	19,020	\$8,413,117	15,404	\$308,040	\$8,721,157
I/M240	13,338	\$6,109,526	10,655	\$213,100	\$6,322,626
Idle	2,437	\$1,281,160	293	\$5,860	\$1,287,020
<b>TOTAL</b>	<b>34,795</b>	<b>\$15,803,803</b>	<b>26,352</b>	<b>\$527,000</b>	<b>\$16,330,803</b>

## **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 5.09% 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 1,013,089 gallons of gasoline. Using a 2020 average cost of \$2.33 per gallon<sup>2</sup>, vehicles undergoing emission repairs saved an estimated \$2,358,100 on gasoline as a result of reduced fuel usage.

<sup>2</sup> Denver/Front Range annual average from the U.S. Energy Information Administration.

## ***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 57.5 cents per mile was assumed, representing the 2020 IRS standard business mileage rate. The average travel to an inspection center was seven miles. Based on the number of vehicles receiving inspections, average per mile cost of operation, and average travel to and from an emissions inspection center, a vehicle operation cost of \$7,109,519 was calculated.

Travel to and from an emissions inspection center averaged 22.24 minutes. Assuming half the hourly consumer wage rate of \$29.25 per hour<sup>3</sup>, this equates to a motorist travel time cost of \$4,787,665.

The average motorist experienced an average wait time before their vehicle is inspected of 4.53 minutes in 2020. Applying the same discounted average hourly consumer wage as above to the total wait times, produces a motorist wait time cost of \$1,053,150.

For 2020, the average emissions inspection took 8.30 minutes to complete. Once again applying the discounted hourly consumer wage rate to total test time, results in a motorist test time cost of \$1,829,818.

Inconvenience cost is the total of vehicle operation costs and motorist personal time costs, or a total of \$7,670,632.

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.

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<sup>3</sup> Based on U.S. Bureau of Labor Statistics May 2020 state occupational employment and wage estimates for Colorado.

## 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 8 details these costs, and the overall cost of the program.

**Table 8 - Overall Program Cost (2020)**

Annual AIR Program Cost (dollars)	
Inspection Fees	\$24,702,045
Registration Fees	\$6,801,027
Repair Costs	\$16,330,803
Fuel Economy Savings	-\$2,358,100
Inconvenience Costs	\$14,780,151
<b>Total</b>	<b>\$60,255,925</b>

## Emission Benefits

Based on the U.S. EPA's MOVES model, Colorado's current AIR Program reduces total gaseous hydrocarbon emissions by 8.03 tons per day (tpd), carbon monoxide emissions by 93.84 tpd, nitrogen oxide (NOx) emissions by 6.75 tpd, and overall ozone precursors (TGH + [1/60]CO + NOx) by 16.35 tpd. Table 9 details the overall emissions program benefit by pollutant developed by the EPA's MOVES model.

**Table 9 - Modeled Program Benefit (2020)**

MOVES Emission Inventories and Program Benefit (tons/day)				
	TGH	CO	NOx	TGH + (1/60)CO + NOx
No IM	56.52	614.74	67.45	134.21
Current IM	48.48	520.90	60.69	117.86
TPD Benefit	8.03	93.84	6.75	16.35
%Benefit	14.21%	15.27%	10.01%	12.18%

Both total gaseous hydrocarbon (TGH) 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 16.35 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 \$60.3 million in 2020. 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 \$10,097 ton of ozone precursors removed from the AIR Program area. Table 10 gives the specific breakdown of cost per ton removed by pollutant.

***Table 10 - AIR Program Cost Effectiveness in Dollars per Ton (2020)***

Cost Benefit Results	
Emission	Cost/Benefit (\$/ton)
TGH	20,558
CO	1,759
NOx	24,456
TGH + (1/60) CO + NOx	10,097

# 2020 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 2020.

## 2020 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 173 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 4.3 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 499 performance audits completed. Forty-two 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 2020, 187 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 44 initial equipment audits performed at 20 operational fleet inspection stations. There were 3 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 101 initial equipment audit failures (see Table 11), 8 of which resulted in the suspension of a testing lane. (Note: A lane is suspended and unable to test until its failures are mitigated.)

***Table 11 - Audit Failures by Equipment Category (2020)***

2020 Initial Equipment Audit Failures by Category	
Emissions Analyzer	86
Dynamometer	13
Gas Cap Analyzer	2

## ***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 2020, 223 covert inspections were conducted at enhanced inspection centers, resulting in 184 tests conducted properly and 39 deficiencies. In these covert tests, emissions control components were not correctly identified, resulting in 39 emission control component violations. Table 12 categorizes these violations and the number of times components were incorrectly identified. In 6 of the 39 improper tests, the failing vehicles received passing results.

**Table 12 - Emission Components Incorrectly Identified During Covert Audits (2020)**

Emission Component Tampered	Number of Times Incorrectly Identified
Air Injection System	0
Catalytic Converter	0
Check Engine Light	8
Oxygen Sensor	23

### ***Risk-Based Audits***

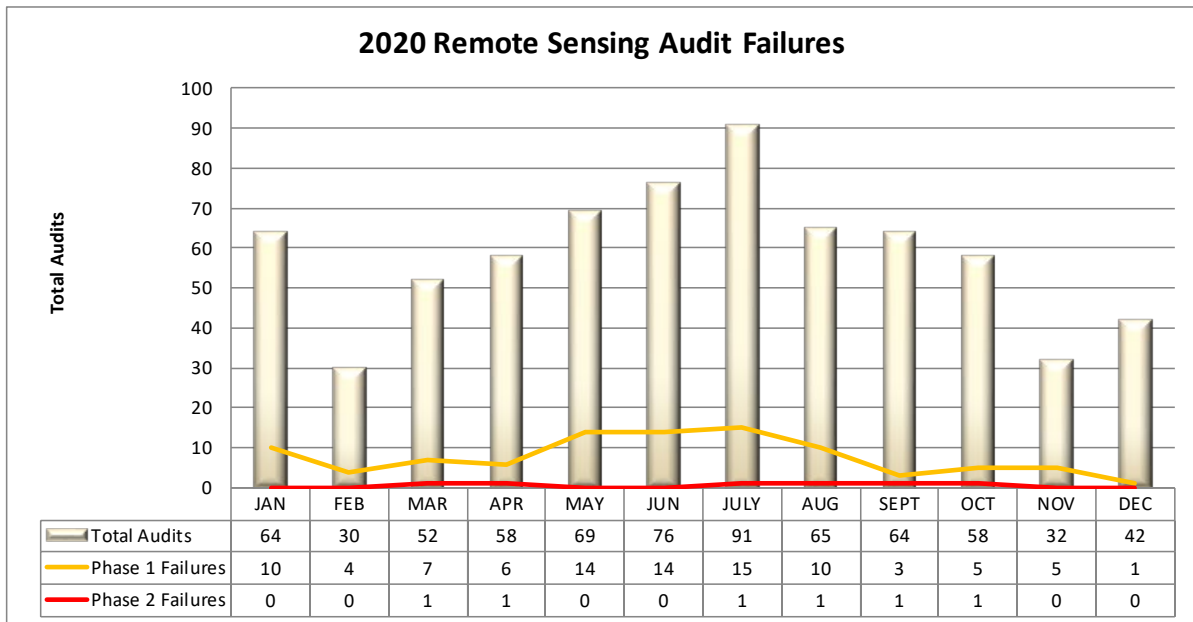
Risk-based audits were prompted by suspicious emissions testing activity, data analysis, or consumer complaints.

Utilizing the above-named methods of detection, DOR conducted 348 risk-based equipment audits. While there were 39 initial equipment failures, 39 issues were resolved on the retest. Six risk-based covert audits were conducted, resulting in zero violations.

### ***Remote Sensing Audits***

DOR performed Remote Sensing (i.e., Clean Screen, Rapid Screen, or RSD) 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 701 audits in 2020, resulting in 94 Phase I failures, or a 13.41% initial failure rate. Of the 94 Phase I failures, 6 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.



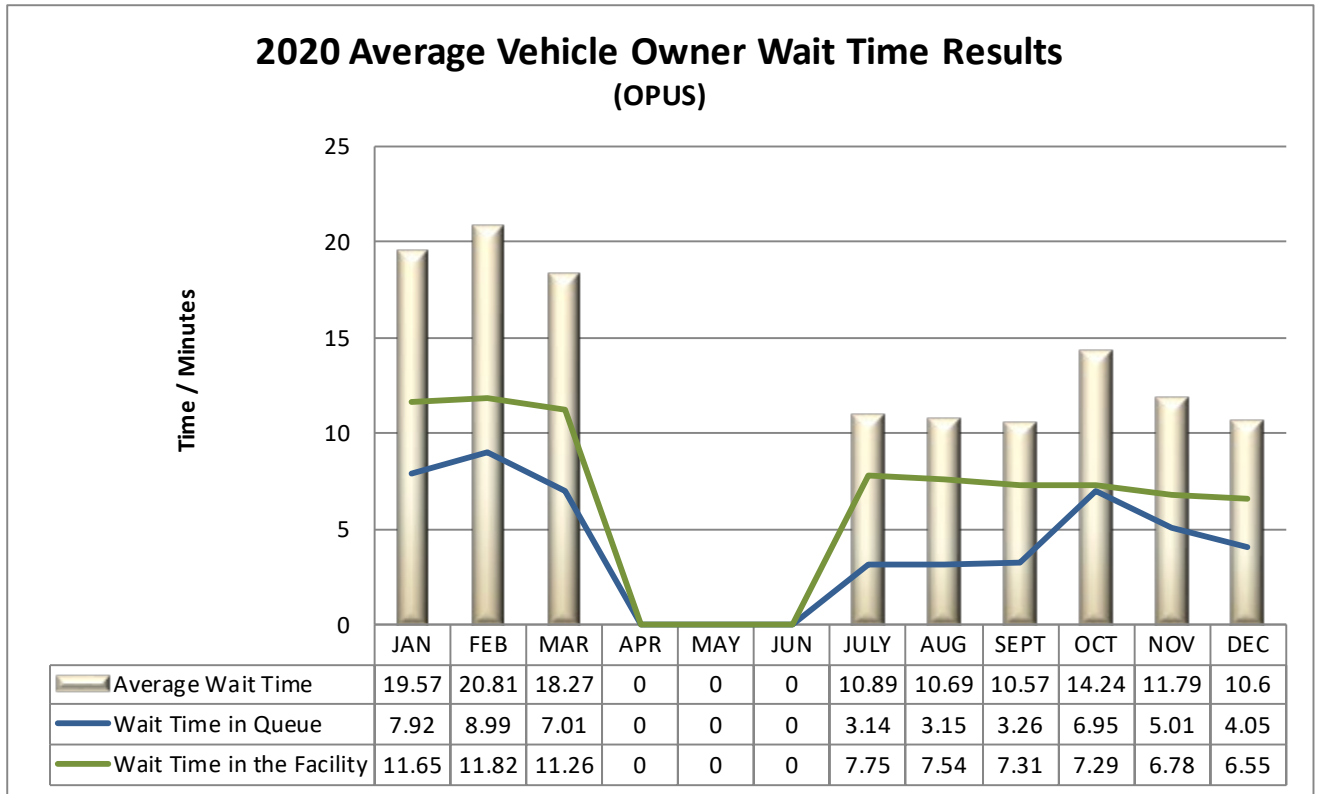
*Figure 16 - Remote Sensing Audit Failures (2020)*

## 2020 ENFORCEMENT RESULTS

### *Hearings & Fines*

In 2020, 76 hearings were conducted as a result of improper vehicle emission inspections. Hearing proceedings resulted in 34 inspectors placed on probation, with no inspector licenses revoked. Fines totaling \$38,800 were collected as a result of improper vehicle inspections.

Additionally, \$210,940 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 2020 was \$244,740. 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 (2020, OPUS only)**

## Complaints

A total of 152 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 \$64,655.45 in refunds to consumers. DOR responded to 15 emissions-related complaints against auto dealerships. A total of \$58,057.58 was refunded to consumers from those proceedings. Table 13 shows the 152 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 (42-4-309 (6)(a)(b)(c)) 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 13 - Complaints Opened by Category (2020) (Dealer Statutory 13, Procedural 2)**

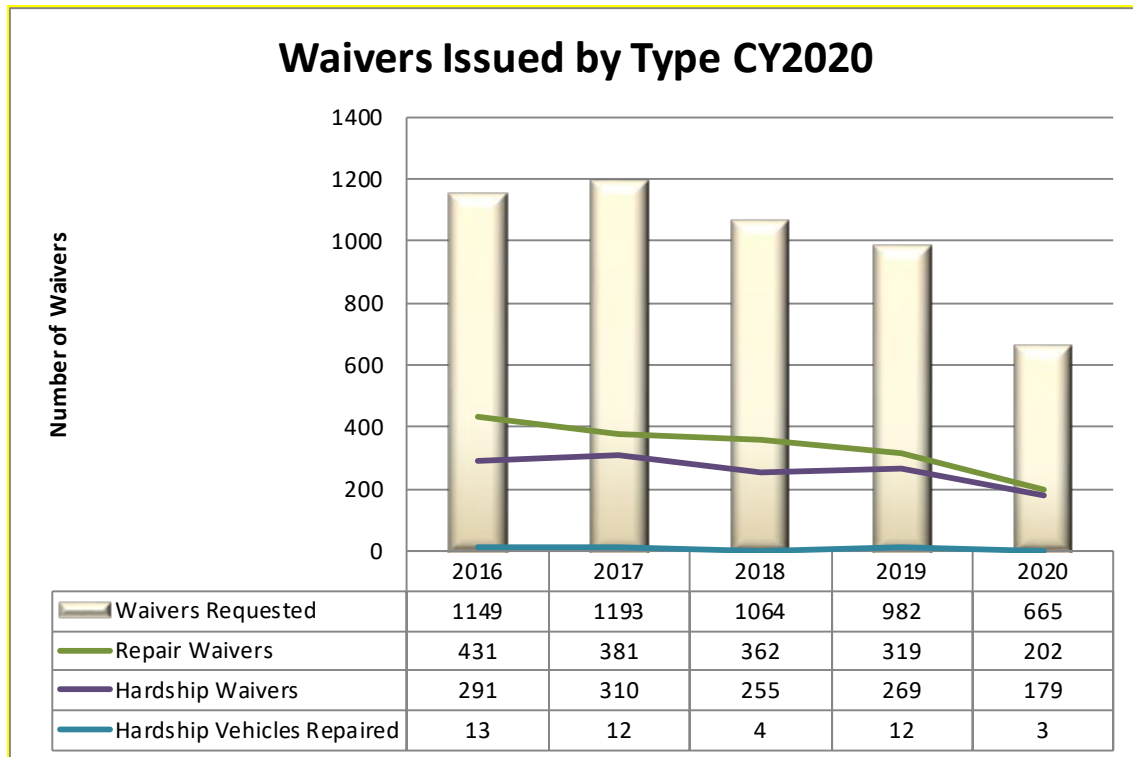
2020 Complaints Opened by Category	
Vehicle Damage	136
Procedural Claims	16
Statutory Non-Compliance	0

## **Waivers**

In 2020, 665 waiver applications were submitted to and processed by DOR. Of the 665 applications, 30% resulted in the issuance of Repair Waivers and 27% resulted in the issuance of Economic Hardship Waivers. The remaining 43% were not issued waivers.

In 2020, 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 3 vehicles (0.02%) 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 (2016 - 2020)**

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

- 13.1% 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.
- 10.8% 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.
- 4.1% 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)
- 9.0% 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)
- 5.7% 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)



- 0.5% of Waiver request vehicles were repaired through CDPHEs Repair Assistance Program for vehicles otherwise eligible for Hardship Waivers.
- 2.1% of Waiver requests had not yet been resolved at the completion of the calendar year.

## 2020 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 Rapid 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 14 shows the number of initial, renewed, and active licenses by license type for 2020.

*Table 14 - Licenses Issued and Renewed by Type (2020)*

License Type	Number of Initial Licenses	Number of Licenses Renewed	Total Active Licenses
Fleet Inspector	10	21	66
Independent Inspector	0	1	2
Contractor Employed Inspectors	104	91	247
Independent Station	0	2	2
Fleet Station	1	10	21
Total	115	125	338

Authorized RSD Sites	156
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## **Appendix A1**

### **Initial Inspection Report All Test Types**



Date Range  
Between 1/1/2020 and 12/31/2020

## 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	68	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	68	100.00	55	80.88	13	19.12
	LDGT1	179	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	179	100.00	132	73.74	47	26.26
	LDGT2	132	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	132	100.00	116	87.88	16	12.12
	LDGV	377	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	377	100.00	228	60.48	149	39.52
<b>1974 Total</b>		<b>756</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>756</b>	<b>100.00</b>	<b>531</b>	<b>70.24</b>	<b>225</b>	<b>29.76</b>
1975	HDGV	12	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	12	100.00	11	91.67	1	8.33
	LDGT1	6	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	100.00	2	33.33	4	66.67
	LDGT2	22	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	22	100.00	19	86.36	3	13.64
	LDGV	23	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	23	100.00	16	69.57	7	30.43
<b>1975 Total</b>		<b>63</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>63</b>	<b>100.00</b>	<b>48</b>	<b>76.19</b>	<b>15</b>	<b>23.81</b>
1976	HDGV	61	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	61	100.00	48	78.69	13	21.31
	LDGT1	82	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	82	100.00	45	54.88	37	45.12
	LDGT2	150	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	150	100.00	112	74.67	38	25.33
	LDGV	150	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	150	100.00	98	65.33	52	34.67
<b>1976 Total</b>		<b>443</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>443</b>	<b>100.00</b>	<b>303</b>	<b>68.40</b>	<b>140</b>	<b>31.60</b>
1977	HDGV	79	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	79	100.00	65	82.28	14	17.72
	LDGT1	72	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	72	100.00	41	56.94	31	43.06
	LDGT2	239	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	239	100.00	178	74.48	61	25.52
	LDGV	144	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	144	100.00	88	61.11	56	38.89
<b>1977 Total</b>		<b>534</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>534</b>	<b>100.00</b>	<b>372</b>	<b>69.66</b>	<b>162</b>	<b>30.34</b>
1978	HDGV	91	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	91	100.00	68	74.73	23	25.27
	LDGT1	109	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	109	100.00	62	56.88	47	43.12
	LDGT2	304	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	304	100.00	212	69.74	92	30.26
	LDGV	206	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	206	100.00	130	63.11	76	36.89
<b>1978 Total</b>		<b>710</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>710</b>	<b>100.00</b>	<b>472</b>	<b>66.48</b>	<b>238</b>	<b>33.52</b>
1979	HDGV	77	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	77	100.00	60	77.92	17	22.08
	LDGT1	164	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	164	100.00	111	67.68	53	32.32
	LDGT2	185	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	185	100.00	109	58.92	76	41.08
	LDGV	281	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	281	100.00	149	53.02	132	46.98
<b>1979 Total</b>		<b>707</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>707</b>	<b>100.00</b>	<b>429</b>	<b>60.68</b>	<b>278</b>	<b>39.32</b>
1980	HDGV	59	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	59	100.00	45	76.27	14	23.73
	LDGT1	117	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	117	100.00	71	60.68	46	39.32

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	58	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	58	100.00	36	62.07	22	37.93
	LDGV	178	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	178	100.00	127	71.35	51	28.65
<b>1980 Total</b>		412	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	412	100.00	279	67.72	133	32.28
1981	HDGV	72	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	72	100.00	54	75.00	18	25.00
	LDGT1	130	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	130	100.00	78	60.00	52	40.00
	LDGT2	63	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	63	100.00	46	73.02	17	26.98
	LDGV	152	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	152	100.00	89	58.55	63	41.45
<b>1981 Total</b>		417	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	417	100.00	267	64.03	150	35.97
1982	HDGV	51	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	51	100.00	35	68.63	16	31.37
	LDGT1	142	0	0.00	0	0.00	0	0.00	142	100.00	106	74.65	36	25.35	0	0.00	0	0.00	0	0.00
	LDGT2	31	0	0.00	0	0.00	0	0.00	28	90.32	18	64.29	10	35.71	3	9.68	0	0.00	3	100.00
	LDGV	137	0	0.00	0	0.00	0	0.00	133	97.08	102	76.69	31	23.31	4	2.92	3	75.00	1	25.00
<b>1982 Total</b>		361	0	0.00	0	0.00	0	0.00	303	83.93	226	74.59	77	25.41	58	16.07	38	65.52	20	34.48
1983	HDGV	68	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	68	100.00	46	67.65	22	32.35
	LDGT1	145	0	0.00	0	0.00	0	0.00	141	97.24	94	66.67	47	33.33	4	2.76	2	50.00	2	50.00
	LDGT2	48	0	0.00	0	0.00	0	0.00	48	100.00	30	62.50	18	37.50	0	0.00	0	0.00	0	0.00
	LDGV	167	0	0.00	0	0.00	0	0.00	164	98.20	125	76.22	39	23.78	3	1.80	2	66.67	1	33.33
<b>1983 Total</b>		428	0	0.00	0	0.00	0	0.00	353	82.48	249	70.54	104	29.46	75	17.52	50	66.67	25	33.33
1984	HDGV	142	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	142	100.00	106	74.65	36	25.35
	LDGT1	314	0	0.00	0	0.00	0	0.00	311	99.04	227	72.99	84	27.01	3	0.96	2	66.67	1	33.33
	LDGT2	93	0	0.00	0	0.00	0	0.00	91	97.85	59	64.84	32	35.16	2	2.15	1	50.00	1	50.00
	LDGV	326	0	0.00	0	0.00	0	0.00	318	97.55	243	76.42	75	23.58	8	2.45	5	62.50	3	37.50
<b>1984 Total</b>		875	0	0.00	0	0.00	0	0.00	720	82.29	529	73.47	191	26.53	155	17.71	114	73.55	41	26.45
1985	HDGV	153	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	153	100.00	118	77.12	35	22.88
	LDGT1	330	0	0.00	0	0.00	0	0.00	327	99.09	261	79.82	66	20.18	3	0.91	2	66.67	1	33.33
	LDGT2	102	0	0.00	0	0.00	0	0.00	101	99.02	56	55.45	45	44.55	1	0.98	1	100.00	0	0.00
	LDGV	339	0	0.00	0	0.00	0	0.00	330	97.35	251	76.06	79	23.94	9	2.65	4	44.44	5	55.56
<b>1985 Total</b>		924	0	0.00	0	0.00	0	0.00	758	82.03	568	74.93	190	25.07	166	17.97	125	75.30	41	24.70
1986	HDGV	127	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	127	100.00	88	69.29	39	30.71
	LDGT1	617	0	0.00	0	0.00	0	0.00	611	99.03	501	82.00	110	18.00	6	0.97	2	33.33	4	66.67
	LDGT2	141	0	0.00	0	0.00	0	0.00	141	100.00	88	62.41	53	37.59	0	0.00	0	0.00	0	0.00
	LDGV	507	0	0.00	0	0.00	0	0.00	496	97.83	418	84.27	78	15.73	11	2.17	7	63.64	4	36.36
<b>1986 Total</b>		1,392	0	0.00	0	0.00	0	0.00	1,248	89.66	1,007	80.69	241	19.31	144	10.34	97	67.36	47	32.64
1987	HDGV	120	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	120	100.00	79	65.83	41	34.17
	LDGT1	567	0	0.00	0	0.00	0	0.00	562	99.12	434	77.22	128	22.78	5	0.88	0	0.00	5	100.00
	LDGT2	186	0	0.00	0	0.00	0	0.00	183	98.39	139	75.96	44	24.04	3	1.61	1	33.33	2	66.67

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	559	0	0.00	0	0.00	0	0.00	555	99.28	460	82.88	95	17.12	4	0.72	2	50.00	2	50.00
<b>1987 Total</b>		1,432	0	0.00	0	0.00	0	0.00	1,300	90.78	1,033	79.46	267	20.54	132	9.22	82	62.12	50	37.88
1988	HDGV	252	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	252	100.00	198	78.57	54	21.43
	LDGT1	896	0	0.00	0	0.00	0	0.00	890	99.33	708	79.55	182	20.45	6	0.67	2	33.33	4	66.67
	LDGT2	304	0	0.00	0	0.00	0	0.00	300	98.68	226	75.33	74	24.67	4	1.32	3	75.00	1	25.00
	LDGV	780	0	0.00	0	0.00	0	0.00	773	99.10	662	85.64	111	14.36	7	0.90	6	85.71	1	14.29
<b>1988 Total</b>		2,232	0	0.00	0	0.00	0	0.00	1,963	87.95	1,596	81.30	367	18.70	269	12.05	209	77.70	60	22.30
1989	HDGV	342	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	342	100.00	284	83.04	58	16.96
	LDGT1	938	0	0.00	0	0.00	0	0.00	932	99.36	748	80.26	184	19.74	6	0.64	3	50.00	3	50.00
	LDGT2	340	0	0.00	0	0.00	0	0.00	336	98.82	266	79.17	70	20.83	4	1.18	2	50.00	2	50.00
	LDGV	832	0	0.00	0	0.00	0	0.00	820	98.56	681	83.05	139	16.95	12	1.44	11	91.67	1	8.33
<b>1989 Total</b>		2,452	0	0.00	0	0.00	0	0.00	2,088	85.15	1,695	81.18	393	18.82	364	14.85	300	82.42	64	17.58
1990	HDGV	350	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	350	100.00	294	84.00	56	16.00
	LDGT1	1,211	0	0.00	0	0.00	0	0.00	1,198	98.93	980	81.80	218	18.20	13	1.07	10	76.92	3	23.08
	LDGT2	469	0	0.00	0	0.00	0	0.00	462	98.51	370	80.09	92	19.91	7	1.49	6	85.71	1	14.29
	LDGV	1,408	0	0.00	0	0.00	0	0.00	1,382	98.15	1,189	86.03	193	13.97	26	1.85	16	61.54	10	38.46
<b>1990 Total</b>		3,438	0	0.00	0	0.00	0	0.00	3,042	88.48	2,539	83.46	503	16.54	396	11.52	326	82.32	70	17.68
1991	HDGV	304	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	304	100.00	242	79.61	62	20.39
	LDGT1	1,291	0	0.00	0	0.00	0	0.00	1,282	99.30	1,092	85.18	190	14.82	9	0.70	6	66.67	3	33.33
	LDGT2	428	0	0.00	0	0.00	0	0.00	424	99.07	324	76.42	100	23.58	4	0.93	1	25.00	3	75.00
	LDGV	1,419	0	0.00	0	0.00	0	0.00	1,394	98.24	1,189	85.29	205	14.71	25	1.76	23	92.00	2	8.00
<b>1991 Total</b>		3,442	0	0.00	0	0.00	0	0.00	3,100	90.06	2,605	84.03	495	15.97	342	9.94	272	79.53	70	20.47
1992	HDGV	442	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	442	100.00	379	85.75	63	14.25
	LDGT1	1,501	0	0.00	0	0.00	0	0.00	1,476	98.33	1,284	86.99	192	13.01	25	1.67	20	80.00	5	20.00
	LDGT2	807	0	0.00	0	0.00	0	0.00	800	99.13	631	78.88	169	21.13	7	0.87	5	71.43	2	28.57
	LDGV	1,910	0	0.00	0	0.00	0	0.00	1,900	99.48	1,636	86.11	264	13.89	10	0.52	8	80.00	2	20.00
<b>1992 Total</b>		4,660	0	0.00	0	0.00	0	0.00	4,176	89.61	3,551	85.03	625	14.97	484	10.39	412	85.12	72	14.88
1993	HDGV	473	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	473	100.00	408	86.26	65	13.74
	LDGT1	1,894	0	0.00	0	0.00	0	0.00	1,885	99.52	1,648	87.43	237	12.57	9	0.48	6	66.67	3	33.33
	LDGT2	867	0	0.00	0	0.00	0	0.00	864	99.65	677	78.36	187	21.64	3	0.35	2	66.67	1	33.33
	LDGV	1,984	0	0.00	0	0.00	0	0.00	1,967	99.14	1,703	86.58	264	13.42	17	0.86	12	70.59	5	29.41
<b>1993 Total</b>		5,218	0	0.00	0	0.00	0	0.00	4,716	90.38	4,028	85.41	688	14.59	502	9.62	428	85.26	74	14.74
1994	HDGV	717	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	717	100.00	638	88.98	79	11.02
	LDGT1	2,742	0	0.00	0	0.00	0	0.00	2,717	99.09	2,322	85.46	395	14.54	25	0.91	16	64.00	9	36.00
	LDGT2	1,697	0	0.00	0	0.00	0	0.00	1,665	98.11	1,286	77.24	379	22.76	32	1.89	21	65.63	11	34.38
	LDGV	2,546	0	0.00	0	0.00	0	0.00	2,522	99.06	2,243	88.94	279	11.06	24	0.94	22	91.67	2	8.33

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	%
<b>1994 Total</b>		7,702	0	0.00	0	0.00	0	0.00	6,904	89.64	5,851	84.75	1,053	15.25	798	10.36	697	87.34	101	12.66
1995	HDGV	844	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	844	100.00	758	89.81	86	10.19
	LDGT1	2,937	0	0.00	0	0.00	0	0.00	2,915	99.25	2,502	85.83	413	14.17	22	0.75	18	81.82	4	18.18
	LDGT2	2,046	0	0.00	0	0.00	0	0.00	2,010	98.24	1,569	78.06	441	21.94	36	1.76	27	75.00	9	25.00
	LDGV	3,275	0	0.00	0	0.00	0	0.00	3,235	98.78	2,832	87.54	403	12.46	40	1.22	35	87.50	5	12.50
<b>1995 Total</b>		9,102	0	0.00	0	0.00	0	0.00	8,160	89.65	6,903	84.60	1,257	15.40	942	10.35	838	88.96	104	11.04
1996	HDGV	983	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	983	100.00	896	91.15	87	8.85
	LDGT1	3,726	60	1.61	53	88.33	7	11.67	3,649	97.93	3,181	87.17	468	12.83	17	0.46	14	82.35	3	17.65
	LDGT2	2,219	35	1.58	21	60.00	14	40.00	2,164	97.52	1,870	86.41	294	13.59	20	0.90	18	90.00	2	10.00
	LDGV	4,338	75	1.73	68	90.67	7	9.33	4,239	97.72	3,802	89.69	437	10.31	24	0.55	18	75.00	6	25.00
<b>1996 Total</b>		11,266	170	1.51	142	83.53	28	16.47	10,052	89.22	8,853	88.07	1,199	11.93	1,044	9.27	946	90.61	98	9.39
1997	HDGV	1,087	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,087	100.00	1,018	93.65	69	6.35
	LDGT1	5,557	120	2.16	103	85.83	17	14.17	5,411	97.37	4,635	85.66	776	14.34	26	0.47	23	88.46	3	11.54
	LDGT2	2,415	69	2.86	49	71.01	20	28.99	2,332	96.56	1,972	84.56	360	15.44	14	0.58	9	64.29	5	35.71
	LDGV	5,232	95	1.82	89	93.68	6	6.32	5,114	97.74	4,552	89.01	562	10.99	23	0.44	16	69.57	7	30.43
<b>1997 Total</b>		14,291	284	1.99	241	84.86	43	15.14	12,857	89.97	11,159	86.79	1,698	13.21	1,150	8.05	1,066	92.70	84	7.30
1998	HDGV	944	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	944	100.00	889	94.17	55	5.83
	LDGT1	7,968	144	1.81	122	84.72	22	15.28	7,790	97.77	6,906	88.65	884	11.35	34	0.43	30	88.24	4	11.76
	LDGT2	3,162	61	1.93	49	80.33	12	19.67	3,083	97.50	2,665	86.44	418	13.56	18	0.57	14	77.78	4	22.22
	LDGV	7,342	192	2.62	169	88.02	23	11.98	7,116	96.92	6,280	88.25	836	11.75	34	0.46	27	79.41	7	20.59
<b>1998 Total</b>		19,416	397	2.04	340	85.64	57	14.36	17,989	92.65	15,851	88.11	2,138	11.89	1,030	5.30	960	93.20	70	6.80
1999	HDGV	1,653	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,653	100.00	1,591	96.25	62	3.75
	LDGT1	7,757	227	2.93	201	88.55	26	11.45	7,507	96.78	6,581	87.66	926	12.34	23	0.30	22	95.65	1	4.35
	LDGT2	4,543	718	15.80	609	84.82	109	15.18	3,813	83.93	3,225	84.58	588	15.42	12	0.26	8	66.67	4	33.33
	LDGV	8,052	286	3.55	243	84.97	43	15.03	7,738	96.10	6,927	89.52	811	10.48	28	0.35	25	89.29	3	10.71
<b>1999 Total</b>		22,005	1,231	5.59	1,053	85.54	178	14.46	19,058	86.61	16,733	87.80	2,325	12.20	1,716	7.80	1,646	95.92	70	4.08
2000	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	1,852	96.21	73	3.79
	LDGT1	10,912	7,558	69.26	6,837	90.46	721	9.54	3,336	30.57	2,918	87.47	418	12.53	18	0.16	15	83.33	3	16.67
	LDGT2	5,995	4,429	73.88	3,867	87.31	562	12.69	1,539	25.67	1,301	84.54	238	15.46	27	0.45	22	81.48	5	18.52
	LDGV	11,943	7,889	66.06	7,175	90.95	714	9.05	4,030	33.74	3,593	89.16	437	10.84	24	0.20	21	87.50	3	12.50
<b>2000 Total</b>		30,775	19,876	64.58	17,879	89.95	1,997	10.05	8,905	28.94	7,812	87.73	1,093	12.27	1,994	6.48	1,910	95.79	84	4.21
2001	HDGV	1,733	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,733	100.00	1,696	97.86	37	2.14
	LDGT1	10,214	6,640	65.01	5,748	86.57	892	13.43	3,558	34.83	3,154	88.65	404	11.35	16	0.16	16	100.00	0	0.00
	LDGT2	6,225	4,475	71.89	3,920	87.60	555	12.40	1,743	28.00	1,490	85.48	253	14.52	7	0.11	6	85.71	1	14.29
	LDGV	11,432	7,325	64.07	6,553	89.46	772	10.54	4,091	35.79	3,651	89.24	440	10.76	16	0.14	14	87.50	2	12.50
<b>2001 Total</b>		29,604	18,440	62.29	16,221	87.97	2,219	12.03	9,392	31.73	8,295	88.32	1,097	11.68	1,772	5.99	1,732	97.74	40	2.26

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	1,839	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,839	100.00	1,807	98.26	32	1.74
	LDGT1	14,622	10,039	68.66	9,015	89.80	1,024	10.20	4,563	31.21	4,050	88.76	513	11.24	20	0.14	16	80.00	4	20.00
	LDGT2	7,860	6,003	76.37	5,301	88.31	702	11.69	1,840	23.41	1,584	86.09	256	13.91	17	0.22	15	88.24	2	11.76
	LDGV	16,068	10,799	67.21	9,852	91.23	947	8.77	5,247	32.65	4,722	89.99	525	10.01	22	0.14	21	95.45	1	4.55
<b>2002 Total</b>		<b>40,389</b>	<b>26,841</b>	<b>66.46</b>	<b>24,168</b>	<b>90.04</b>	<b>2,673</b>	<b>9.96</b>	<b>11,650</b>	<b>28.84</b>	<b>10,356</b>	<b>88.89</b>	<b>1,294</b>	<b>11.11</b>	<b>1,898</b>	<b>4.70</b>	<b>1,859</b>	<b>97.95</b>	<b>39</b>	<b>2.05</b>
2003	HDGV	1,720	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,720	100.00	1,695	98.55	25	1.45
	LDGT1	12,874	8,444	65.59	7,598	89.98	846	10.02	4,408	34.24	3,928	89.11	480	10.89	22	0.17	20	90.91	2	9.09
	LDGT2	7,318	5,330	72.83	4,640	87.05	690	12.95	1,973	26.96	1,744	88.39	229	11.61	15	0.20	12	80.00	3	20.00
	LDGV	14,736	9,795	66.47	8,948	91.35	847	8.65	4,922	33.40	4,439	90.19	483	9.81	19	0.13	15	78.95	4	21.05
<b>2003 Total</b>		<b>36,648</b>	<b>23,569</b>	<b>64.31</b>	<b>21,186</b>	<b>89.89</b>	<b>2,383</b>	<b>10.11</b>	<b>11,303</b>	<b>30.84</b>	<b>10,111</b>	<b>89.45</b>	<b>1,192</b>	<b>10.55</b>	<b>1,776</b>	<b>4.85</b>	<b>1,742</b>	<b>98.09</b>	<b>34</b>	<b>1.91</b>
2004	HDGV	1,984	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,984	100.00	1,964	98.99	20	1.01
	LDGT1	18,963	13,250	69.87	12,301	92.84	949	7.16	5,694	30.03	5,220	91.68	474	8.32	19	0.10	17	89.47	2	10.53
	LDGT2	10,781	8,187	75.94	7,344	89.70	843	10.30	2,581	23.94	2,335	90.47	246	9.53	13	0.12	11	84.62	2	15.38
	LDGV	18,000	12,640	70.22	11,663	92.27	977	7.73	5,335	29.64	4,862	91.13	473	8.87	25	0.14	25	100.00	0	0.00
<b>2004 Total</b>		<b>49,728</b>	<b>34,077</b>	<b>68.53</b>	<b>31,308</b>	<b>91.87</b>	<b>2,769</b>	<b>8.13</b>	<b>13,610</b>	<b>27.37</b>	<b>12,417</b>	<b>91.23</b>	<b>1,193</b>	<b>8.77</b>	<b>2,041</b>	<b>4.10</b>	<b>2,017</b>	<b>98.82</b>	<b>24</b>	<b>1.18</b>
2005	HDGV	1,488	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,488	100.00	1,473	98.99	15	1.01
	LDGT1	17,033	11,394	66.89	10,658	93.54	736	6.46	5,617	32.98	5,231	93.13	386	6.87	22	0.13	22	100.00	0	0.00
	LDGT2	7,662	5,683	74.17	5,162	90.83	521	9.17	1,968	25.69	1,809	91.92	159	8.08	11	0.14	10	90.91	1	9.09
	LDGV	18,138	12,447	68.62	11,508	92.46	939	7.54	5,673	31.28	5,181	91.33	492	8.67	18	0.10	16	88.89	2	11.11
<b>2005 Total</b>		<b>44,321</b>	<b>29,524</b>	<b>66.61</b>	<b>27,328</b>	<b>92.56</b>	<b>2,196</b>	<b>7.44</b>	<b>13,258</b>	<b>29.91</b>	<b>12,221</b>	<b>92.18</b>	<b>1,037</b>	<b>7.82</b>	<b>1,539</b>	<b>3.47</b>	<b>1,521</b>	<b>98.83</b>	<b>18</b>	<b>1.17</b>
2006	HDGV	1,913	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,913	100.00	1,898	99.22	15	0.78
	LDGT1	19,819	14,456	72.94	13,807	95.51	649	4.49	5,343	26.96	5,054	94.59	289	5.41	20	0.10	19	95.00	1	5.00
	LDGT2	9,202	6,936	75.37	6,448	92.96	488	7.04	2,258	24.54	2,064	91.41	194	8.59	8	0.09	6	75.00	2	25.00
	LDGV	22,214	16,209	72.97	15,380	94.89	829	5.11	5,970	26.87	5,639	94.46	331	5.54	35	0.16	34	97.14	1	2.86
<b>2006 Total</b>		<b>53,148</b>	<b>37,601</b>	<b>70.75</b>	<b>35,635</b>	<b>94.77</b>	<b>1,966</b>	<b>5.23</b>	<b>13,571</b>	<b>25.53</b>	<b>12,757</b>	<b>94.00</b>	<b>814</b>	<b>6.00</b>	<b>1,976</b>	<b>3.72</b>	<b>1,957</b>	<b>99.04</b>	<b>19</b>	<b>0.96</b>
2007	HDGV	1,401	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,401	100.00	1,391	99.29	10	0.71
	LDGT1	18,358	12,842	69.95	12,213	95.10	629	4.90	5,488	29.89	5,193	94.62	295	5.38	28	0.15	28	100.00	0	0.00
	LDGT2	10,502	8,025	76.41	7,460	92.96	565	7.04	2,465	23.47	2,316	93.96	149	6.04	12	0.11	12	100.00	0	0.00
	LDGV	21,217	15,138	71.35	14,430	95.32	708	4.68	6,057	28.55	5,758	95.06	299	4.94	22	0.10	21	95.45	1	4.55
<b>2007 Total</b>		<b>51,478</b>	<b>36,005</b>	<b>69.94</b>	<b>34,103</b>	<b>94.72</b>	<b>1,902</b>	<b>5.28</b>	<b>14,010</b>	<b>27.22</b>	<b>13,267</b>	<b>94.70</b>	<b>743</b>	<b>5.30</b>	<b>1,463</b>	<b>2.84</b>	<b>1,452</b>	<b>99.25</b>	<b>11</b>	<b>0.75</b>
2008	HDGV	1,923	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,923	100.00	1,917	99.69	6	0.31
	LDGT1	23,386	18,185	77.76	17,532	96.41	653	3.59	5,188	22.18	4,974	95.88	214	4.12	13	0.06	11	84.62	2	15.38
	LDGT2	12,105	9,709	80.21	9,039	93.10	670	6.90	2,382	19.68	2,194	92.11	188	7.89	14	0.12	13	92.86	1	7.14
	LDGV	24,008	18,465	76.91	17,807	96.44	658	3.56	5,522	23.00	5,256	95.18	266	4.82	21	0.09	21	100.00	0	0.00
<b>2008 Total</b>		<b>61,422</b>	<b>46,359</b>	<b>75.48</b>	<b>44,378</b>	<b>95.73</b>	<b>1,981</b>	<b>4.27</b>	<b>13,092</b>	<b>21.31</b>	<b>12,424</b>	<b>94.90</b>	<b>668</b>	<b>5.10</b>	<b>1,971</b>	<b>3.21</b>	<b>1,962</b>	<b>99.54</b>	<b>9</b>	<b>0.46</b>
2009	HDGV	1,060	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,060	100.00	1,054	99.43	6	0.57



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	%
	LDGT1	15,786	12,484	79.08	12,082	96.78	402	3.22	3,292	20.85	3,189	96.87	103	3.13	10	0.06	10	100.00	0	0.00
	LDGT2	7,422	6,010	80.98	5,625	93.59	385	6.41	1,398	18.84	1,322	94.56	76	5.44	14	0.19	14	100.00	0	0.00
	LDGV	22,426	17,798	79.36	17,327	97.35	471	2.65	4,621	20.61	4,493	97.23	128	2.77	7	0.03	7	100.00	0	0.00
<b>2009 Total</b>		<b>46,694</b>	<b>36,292</b>	<b>77.72</b>	<b>35,034</b>	<b>96.53</b>	<b>1,258</b>	<b>3.47</b>	<b>9,311</b>	<b>19.94</b>	<b>9,004</b>	<b>96.70</b>	<b>307</b>	<b>3.30</b>	<b>1,091</b>	<b>2.34</b>	<b>1,085</b>	<b>99.45</b>	<b>6</b>	<b>0.55</b>
2010	HDGV	602	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	602	100.00	600	99.67	2	0.33
	LDGT1	11,382	11,027	96.88	10,430	94.59	597	5.41	352	3.09	338	96.02	14	3.98	3	0.03	3	100.00	0	0.00
	LDGT2	6,353	6,142	96.68	5,597	91.13	545	8.87	205	3.23	192	93.66	13	6.34	6	0.09	6	100.00	0	0.00
	LDGV	14,101	13,644	96.76	12,763	93.54	881	6.46	450	3.19	424	94.22	26	5.78	7	0.05	6	85.71	1	14.29
<b>2010 Total</b>		<b>32,438</b>	<b>30,813</b>	<b>94.99</b>	<b>28,790</b>	<b>93.43</b>	<b>2,023</b>	<b>6.57</b>	<b>1,007</b>	<b>3.10</b>	<b>954</b>	<b>94.74</b>	<b>53</b>	<b>5.26</b>	<b>618</b>	<b>1.91</b>	<b>615</b>	<b>99.51</b>	<b>3</b>	<b>0.49</b>
2011	HDGV	1,935	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,935	100.00	1,925	99.48	10	0.52
	LDGT1	26,379	25,805	97.82	24,930	96.61	875	3.39	561	2.13	539	96.08	22	3.92	13	0.05	13	100.00	0	0.00
	LDGT2	13,535	13,197	97.50	12,235	92.71	962	7.29	326	2.41	301	92.33	25	7.67	12	0.09	12	100.00	0	0.00
	LDGV	24,186	23,613	97.63	22,519	95.37	1,094	4.63	547	2.26	530	96.89	17	3.11	26	0.11	26	100.00	0	0.00
<b>2011 Total</b>		<b>66,035</b>	<b>62,615</b>	<b>94.82</b>	<b>59,684</b>	<b>95.32</b>	<b>2,931</b>	<b>4.68</b>	<b>1,434</b>	<b>2.17</b>	<b>1,370</b>	<b>95.54</b>	<b>64</b>	<b>4.46</b>	<b>1,986</b>	<b>3.01</b>	<b>1,976</b>	<b>99.50</b>	<b>10</b>	<b>0.50</b>
2012	HDGV	1,330	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,330	100.00	1,324	99.55	6	0.45
	LDGT1	12,550	12,165	96.93	11,615	95.48	550	4.52	376	3.00	359	95.48	17	4.52	9	0.07	9	100.00	0	0.00
	LDGT2	7,675	7,418	96.65	6,792	91.56	626	8.44	245	3.19	213	86.94	32	13.06	12	0.16	12	100.00	0	0.00
	LDGV	17,272	16,742	96.93	15,774	94.22	968	5.78	517	2.99	488	94.39	29	5.61	13	0.08	12	92.31	1	7.69
<b>2012 Total</b>		<b>38,827</b>	<b>36,325</b>	<b>93.56</b>	<b>34,181</b>	<b>94.10</b>	<b>2,144</b>	<b>5.90</b>	<b>1,138</b>	<b>2.93</b>	<b>1,060</b>	<b>93.15</b>	<b>78</b>	<b>6.85</b>	<b>1,364</b>	<b>3.51</b>	<b>1,357</b>	<b>99.49</b>	<b>7</b>	<b>0.51</b>
2013	HDGV	2,142	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,142	100.00	2,138	99.81	4	0.19
	LDGT1	36,465	36,031	98.81	35,108	97.44	923	2.56	420	1.15	410	97.62	10	2.38	14	0.04	14	100.00	0	0.00
	LDGT2	18,178	17,889	98.41	16,661	93.14	1,228	6.86	277	1.52	260	93.86	17	6.14	12	0.07	11	91.67	1	8.33
	LDGV	41,011	40,427	98.58	38,709	95.75	1,718	4.25	558	1.36	528	94.62	30	5.38	26	0.06	24	92.31	2	7.69
<b>2013 Total</b>		<b>97,796</b>	<b>94,347</b>	<b>96.47</b>	<b>90,478</b>	<b>95.90</b>	<b>3,869</b>	<b>4.10</b>	<b>1,255</b>	<b>1.28</b>	<b>1,198</b>	<b>95.46</b>	<b>57</b>	<b>4.54</b>	<b>2,194</b>	<b>2.24</b>	<b>2,187</b>	<b>99.68</b>	<b>7</b>	<b>0.32</b>
2014	HDGV	397	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	397	100.00	393	98.99	4	1.01
	LDGT1	4,848	4,784	98.68	4,672	97.66	112	2.34	63	1.30	57	90.48	6	9.52	1	0.02	1	100.00	0	0.00
	LDGT2	2,916	2,852	97.81	2,654	93.06	198	6.94	61	2.09	52	85.25	9	14.75	3	0.10	2	66.67	1	33.33
	LDGV	4,980	4,875	97.89	4,679	95.98	196	4.02	103	2.07	97	94.17	6	5.83	2	0.04	2	100.00	0	0.00
<b>2014 Total</b>		<b>13,141</b>	<b>12,511</b>	<b>95.21</b>	<b>12,005</b>	<b>95.96</b>	<b>506</b>	<b>4.04</b>	<b>227</b>	<b>1.73</b>	<b>206</b>	<b>90.75</b>	<b>21</b>	<b>9.25</b>	<b>403</b>	<b>3.07</b>	<b>398</b>	<b>98.76</b>	<b>5</b>	<b>1.24</b>
2015	HDGV	240	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	240	100.00	238	99.17	2	0.83
	LDGT1	1,290	1,275	98.84	1,229	96.39	46	3.61	15	1.16	13	86.67	2	13.33	0	0.00	0	0.00	0	0.00
	LDGT2	637	627	98.43	600	95.69	27	4.31	10	1.57	10	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	1,402	1,385	98.79	1,319	95.23	66	4.77	17	1.21	14	82.35	3	17.65	0	0.00	0	0.00	0	0.00
<b>2015 Total</b>		<b>3,569</b>	<b>3,287</b>	<b>92.10</b>	<b>3,148</b>	<b>95.77</b>	<b>139</b>	<b>4.23</b>	<b>42</b>	<b>1.18</b>	<b>37</b>	<b>88.10</b>	<b>5</b>	<b>11.90</b>	<b>240</b>	<b>6.72</b>	<b>238</b>	<b>99.17</b>	<b>2</b>	<b>0.83</b>
2016	HDGV	122	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	122	100.00	120	98.36	2	1.64
	LDGT1	824	815	98.91	794	97.42	21	2.58	9	1.09	9	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	293	289	98.63	276	95.50	13	4.50	4	1.37	4	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	733	723	98.64	692	95.71	31	4.29	9	1.23	8	88.89	1	11.11	1	0.14	0	0.00	1	100.00
<b>2016 Total</b>		1,972	1,827	92.65	1,762	96.44	65	3.56	22	1.12	21	95.45	1	4.55	123	6.24	120	97.56	3	2.44
2017	HDGV	93	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	93	100.00	93	100.00	0	0.00
	LDGT1	525	520	99.05	512	98.46	8	1.54	4	0.76	4	100.00	0	0.00	1	0.19	1	100.00	0	0.00
	LDGT2	196	194	98.98	187	96.39	7	3.61	1	0.51	1	100.00	0	0.00	1	0.51	1	100.00	0	0.00
	LDGV	387	384	99.22	368	95.83	16	4.17	3	0.78	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>2017 Total</b>		1,201	1,098	91.42	1,067	97.18	31	2.82	8	0.67	8	100.00	0	0.00	95	7.91	95	100.00	0	0.00
2018	HDGV	50	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	50	100.00	50	100.00	0	0.00
	LDGT1	326	325	99.69	320	98.46	5	1.54	1	0.31	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	147	145	98.64	142	97.93	3	2.07	2	1.36	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	183	180	98.36	178	98.89	2	1.11	3	1.64	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>2018 Total</b>		706	650	92.07	640	98.46	10	1.54	6	0.85	6	100.00	0	0.00	50	7.08	50	100.00	0	0.00
2019	HDGV	44	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	44	100.00	44	100.00	0	0.00
	LDGT1	137	137	100.00	135	98.54	2	1.46	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	56	56	100.00	55	98.21	1	1.79	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	96	95	98.96	94	98.95	1	1.05	1	1.04	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>2019 Total</b>		333	288	86.49	284	98.61	4	1.39	1	0.30	1	100.00	0	0.00	44	13.21	44	100.00	0	0.00
2020	HDGV	2	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	100.00	2	100.00	0	0.00
	LDGT1	15	15	100.00	14	93.33	1	6.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	6	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
	LDGV	23	23	100.00	22	95.65	1	4.35	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>2020 Total</b>		46	44	95.65	42	95.45	2	4.55	0	0.00	0	0.00	0	0.00	2	4.35	2	100.00	0	0.00
2021	HDGV	2	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	100.00	2	100.00	0	0.00
	LDGV	1	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
<b>2021 Total</b>		3	1	33.33	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	2	66.67	2	100.00	0	0.00
<b>Grand Total</b>		814,952	554,472	68.04	521,098	93.98	33,374	6.02	222,029	27.24	198,501	89.40	23,528	10.60	38,451	4.72	35,628	92.66	2,823	7.34

**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	33,516	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	33,516	100.00	32,149	95.92	1,367	4.08
LDGT1	298,100	208,742	70.02	198,029	94.87	10,713	5.13	88,034	29.53	78,851	89.57	9,183	10.43	1,324	0.44	935	70.62	389	29.38
LDGT2	156,115	114,485	73.33	104,739	91.49	9,746	8.51	40,123	25.70	34,665	86.40	5,458	13.60	1,507	0.97	1,112	73.79	395	26.21

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	327,221	231,245	70.67	218,330	94.42	12,915	5.58	93,872	28.69	84,985	90.53	8,887	9.47	2,104	0.64	1,432	68.06	672	31.94
<b>Grand Total</b>	<b>814,952</b>	<b>554,472</b>	<b>68.04</b>	<b>521,098</b>	<b>93.98</b>	<b>33,374</b>	<b>6.02</b>	<b>222,029</b>	<b>27.24</b>	<b>198,501</b>	<b>89.40</b>	<b>23,528</b>	<b>10.60</b>	<b>38,451</b>	<b>4.72</b>	<b>35,628</b>	<b>92.66</b>	<b>2,823</b>	<b>7.34</b>

## **Appendix A2**

### Initial OBD Inspection Report



Date Range  
Between 1/1/2020 and 12/31/2020

## 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	71	60	84.51	53	88.33	7	11.67
	LDGT2	61	35	57.38	21	60.00	14	40.00
	LDGV	94	75	79.79	68	90.67	7	9.33
<b>1996 Total</b>		<b>226</b>	<b>170</b>	<b>75.22</b>	<b>142</b>	<b>83.53</b>	<b>28</b>	<b>16.47</b>
1997	LDGT1	132	120	90.91	103	85.83	17	14.17
	LDGT2	85	69	81.18	49	71.01	20	28.99
	LDGV	120	95	79.17	89	93.68	6	6.32
<b>1997 Total</b>		<b>337</b>	<b>284</b>	<b>84.27</b>	<b>241</b>	<b>84.86</b>	<b>43</b>	<b>15.14</b>
1998	LDGT1	162	144	88.89	122	84.72	22	15.28
	LDGT2	75	61	81.33	49	80.33	12	19.67
	LDGV	208	192	92.31	169	88.02	23	11.98
<b>1998 Total</b>		<b>445</b>	<b>397</b>	<b>89.21</b>	<b>340</b>	<b>85.64</b>	<b>57</b>	<b>14.36</b>
1999	LDGT1	244	227	93.03	201	88.55	26	11.45
	LDGT2	804	718	89.30	609	84.82	109	15.18
	LDGV	311	286	91.96	243	84.97	43	15.03
<b>1999 Total</b>		<b>1,359</b>	<b>1,231</b>	<b>90.58</b>	<b>1,053</b>	<b>85.54</b>	<b>178</b>	<b>14.46</b>
2000	LDGT1	7,995	7,558	94.53	6,837	90.46	721	9.54
	LDGT2	4,884	4,429	90.68	3,867	87.31	562	12.69
	LDGV	8,335	7,889	94.65	7,175	90.95	714	9.05
<b>2000 Total</b>		<b>21,214</b>	<b>19,876</b>	<b>93.69</b>	<b>17,879</b>	<b>89.95</b>	<b>1,997</b>	<b>10.05</b>
2001	LDGT1	6,979	6,640	95.14	5,748	86.57	892	13.43
	LDGT2	5,027	4,475	89.02	3,920	87.60	555	12.40
	LDGV	7,671	7,325	95.49	6,553	89.46	772	10.54
<b>2001 Total</b>		<b>19,677</b>	<b>18,440</b>	<b>93.71</b>	<b>16,221</b>	<b>87.97</b>	<b>2,219</b>	<b>12.03</b>
2002	LDGT1	10,436	10,039	96.20	9,015	89.80	1,024	10.20
	LDGT2	6,563	6,003	91.47	5,301	88.31	702	11.69
	LDGV	11,266	10,799	95.85	9,852	91.23	947	8.77
<b>2002 Total</b>		<b>28,265</b>	<b>26,841</b>	<b>94.96</b>	<b>24,168</b>	<b>90.04</b>	<b>2,673</b>	<b>9.96</b>
2003	LDGT1	8,728	8,444	96.75	7,598	89.98	846	10.02
	LDGT2	5,933	5,330	89.84	4,640	87.05	690	12.95
	LDGV	10,204	9,795	95.99	8,948	91.35	847	8.65
<b>2003 Total</b>		<b>24,865</b>	<b>23,569</b>	<b>94.79</b>	<b>21,186</b>	<b>89.89</b>	<b>2,383</b>	<b>10.11</b>
2004	LDGT1	13,552	13,250	97.77	12,301	92.84	949	7.16
	LDGT2	9,043	8,187	90.53	7,344	89.70	843	10.30
	LDGV	13,137	12,640	96.22	11,663	92.27	977	7.73
<b>2004 Total</b>		<b>35,732</b>	<b>34,077</b>	<b>95.37</b>	<b>31,308</b>	<b>91.87</b>	<b>2,769</b>	<b>8.13</b>
2005	LDGT1	11,675	11,394	97.59	10,658	93.54	736	6.46
	LDGT2	6,298	5,683	90.23	5,162	90.83	521	9.17
	LDGV	12,887	12,447	96.59	11,508	92.46	939	7.54
<b>2005 Total</b>		<b>30,860</b>	<b>29,524</b>	<b>95.67</b>	<b>27,328</b>	<b>92.56</b>	<b>2,196</b>	<b>7.44</b>
2006	LDGT1	14,821	14,456	97.54	13,807	95.51	649	4.49
	LDGT2	7,360	6,936	94.24	6,448	92.96	488	7.04

Model Year	Type	OBD Total All	OBD Total Pass/Fail	OBD Total Pass/Fail %	Pass		Fail	
					Count	%	Count	%
	LDGV	16,700	16,209	97.06	15,380	94.89	829	5.11
<b>2006 Total</b>		38,881	37,601	96.71	35,635	94.77	1,966	5.23
2007	LDGT1	13,155	12,842	97.62	12,213	95.10	629	4.90
	LDGT2	8,461	8,025	94.85	7,460	92.96	565	7.04
	LDGV	15,655	15,138	96.70	14,430	95.32	708	4.68
<b>2007 Total</b>		37,271	36,005	96.60	34,103	94.72	1,902	5.28
2008	LDGT1	18,519	18,185	98.20	17,532	96.41	653	3.59
	LDGT2	10,088	9,709	96.24	9,039	93.10	670	6.90
	LDGV	18,965	18,465	97.36	17,807	96.44	658	3.56
<b>2008 Total</b>		47,572	46,359	97.45	44,378	95.73	1,981	4.27
2009	LDGT1	12,697	12,484	98.32	12,082	96.78	402	3.22
	LDGT2	6,170	6,010	97.41	5,625	93.59	385	6.41
	LDGV	18,214	17,798	97.72	17,327	97.35	471	2.65
<b>2009 Total</b>		37,081	36,292	97.87	35,034	96.53	1,258	3.47
2010	LDGT1	12,096	11,027	91.16	10,430	94.59	597	5.41
	LDGT2	7,027	6,142	87.41	5,597	91.13	545	8.87
	LDGV	15,048	13,644	90.67	12,763	93.54	881	6.46
<b>2010 Total</b>		34,171	30,813	90.17	28,790	93.43	2,023	6.57
2011	LDGT1	27,682	25,805	93.22	24,930	96.61	875	3.39
	LDGT2	14,684	13,197	89.87	12,235	92.71	962	7.29
	LDGV	25,768	23,613	91.64	22,519	95.37	1,094	4.63
<b>2011 Total</b>		68,134	62,615	91.90	59,684	95.32	2,931	4.68
2012	LDGT1	13,057	12,165	93.17	11,615	95.48	550	4.52
	LDGT2	8,190	7,418	90.57	6,792	91.56	626	8.44
	LDGV	18,194	16,742	92.02	15,774	94.22	968	5.78
<b>2012 Total</b>		39,441	36,325	92.10	34,181	94.10	2,144	5.90
2013	LDGT1	37,420	36,031	96.29	35,108	97.44	923	2.56
	LDGT2	19,358	17,889	92.41	16,661	93.14	1,228	6.86
	LDGV	43,119	40,427	93.76	38,709	95.75	1,718	4.25
<b>2013 Total</b>		99,897	94,347	94.44	90,478	95.90	3,869	4.10
2014	LDGT1	5,028	4,784	95.15	4,672	97.66	112	2.34
	LDGT2	3,258	2,852	87.54	2,654	93.06	198	6.94
	LDGV	5,366	4,875	90.85	4,679	95.98	196	4.02
<b>2014 Total</b>		13,652	12,511	91.64	12,005	95.96	506	4.04
2015	LDGT1	1,347	1,275	94.65	1,229	96.39	46	3.61
	LDGT2	680	627	92.21	600	95.69	27	4.31
	LDGV	1,477	1,385	93.77	1,319	95.23	66	4.77
<b>2015 Total</b>		3,504	3,287	93.81	3,148	95.77	139	4.23
2016	LDGT1	850	815	95.88	794	97.42	21	2.58
	LDGT2	313	289	92.33	276	95.50	13	4.50
	LDGV	762	723	94.88	692	95.71	31	4.29
<b>2016 Total</b>		1,925	1,827	94.91	1,762	96.44	65	3.56
2017	LDGT1	545	520	95.41	512	98.46	8	1.54
	LDGT2	209	194	92.82	187	96.39	7	3.61
	LDGV	402	384	95.52	368	95.83	16	4.17
<b>2017 Total</b>		1,156	1,098	94.98	1,067	97.18	31	2.82

Model Year	Type	OBD Total All	OBD Total Pass/Fail	OBD Total Pass/Fail %	Pass		Fail	
					Count	%	Count	%
2018	LDGT1	335	325	97.01	320	98.46	5	1.54
	LDGT2	150	145	96.67	142	97.93	3	2.07
	LDGV	190	180	94.74	178	98.89	2	1.11
<b>2018 Total</b>		675	650	96.30	640	98.46	10	1.54
2019	LDGT1	140	137	97.86	135	98.54	2	1.46
	LDGT2	56	56	100.00	55	98.21	1	1.79
	LDGV	100	95	95.00	94	98.95	1	1.05
<b>2019 Total</b>		296	288	97.30	284	98.61	4	1.39
2020	LDGT1	15	15	100.00	14	93.33	1	6.67
	LDGT2	7	6	85.71	6	100.00	0	0.00
	LDGV	23	23	100.00	22	95.65	1	4.35
<b>2020 Total</b>		45	44	97.78	42	95.45	2	4.55
2021	LDGV	1	1	100.00	1	100.00	0	0.00
<b>2021 Total</b>		1	1	100.00	1	100.00	0	0.00
<b>Grand Total</b>		<b>586,682</b>	<b>554,472</b>	<b>94.51</b>	<b>521,098</b>	<b>93.98</b>	<b>33,374</b>	<b>6.02</b>

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	217,681	208,742	95.89	198,029	94.87	10,713	5.13
LDGT2	124,784	114,485	91.75	104,739	91.49	9,746	8.51
LDGV	244,217	231,245	94.69	218,330	94.42	12,915	5.58
<b>Grand Total</b>	<b>586,682</b>	<b>554,472</b>	<b>94.51</b>	<b>521,098</b>	<b>93.98</b>	<b>33,374</b>	<b>6.02</b>





## **Appendix A3**

### Initial OBD Inspection Failure Report



Date Range  
Between 1/1/2020 and 12/31/2020

## 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	7	5	71.43	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	28.57	0	0.00
	LDGT2	14	4	28.57	0	0.00	3	21.43	2	14.29	0	0.00	2	14.29	3	21.43	1	7.14		
	LDGV	7	5	71.43	0	0.00	2	28.57	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>1996 Total</b>		<b>28</b>	<b>14</b>	<b>50.00</b>	<b>0</b>	<b>0.00</b>	<b>5</b>	<b>17.86</b>	<b>2</b>	<b>7.14</b>	<b>0</b>	<b>0.00</b>	<b>2</b>	<b>7.14</b>	<b>5</b>	<b>17.86</b>	<b>1</b>	<b>3.57</b>		
1997	LDGT1	17	9	52.94	0	0.00	0	0.00	1	5.88	1	5.88	0	0.00	6	35.29	0	0.00		
	LDGT2	20	6	30.00	0	0.00	4	20.00	0	0.00	0	0.00	2	10.00	6	30.00	2	10.00		
	LDGV	6	2	33.33	1	16.67	0	0.00	0	0.00	0	0.00	1	16.67	2	33.33	0	0.00		
<b>1997 Total</b>		<b>43</b>	<b>17</b>	<b>39.53</b>	<b>1</b>	<b>2.33</b>	<b>4</b>	<b>9.30</b>	<b>1</b>	<b>2.33</b>	<b>1</b>	<b>2.33</b>	<b>3</b>	<b>6.98</b>	<b>14</b>	<b>32.56</b>	<b>2</b>	<b>4.65</b>		
1998	LDGT1	22	14	63.64	0	0.00	4	18.18	1	4.55	0	0.00	0	0.00	3	13.64	0	0.00		
	LDGT2	12	8	66.67	1	8.33	1	8.33	0	0.00	0	0.00	0	0.00	2	16.67	0	0.00		
	LDGV	23	9	39.13	1	4.35	5	21.74	0	0.00	0	0.00	0	0.00	8	34.78	2	8.70		
<b>1998 Total</b>		<b>57</b>	<b>31</b>	<b>54.39</b>	<b>2</b>	<b>3.51</b>	<b>10</b>	<b>17.54</b>	<b>1</b>	<b>1.75</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>13</b>	<b>22.81</b>	<b>2</b>	<b>3.51</b>		
1999	LDGT1	26	13	50.00	0	0.00	0	0.00	2	7.69	0	0.00	0	0.00	10	38.46	1	3.85		
	LDGT2	109	41	37.61	8	7.34	31	28.44	1	0.92	1	0.92	5	4.59	22	20.18	1	0.92		
	LDGV	43	21	48.84	1	2.33	8	18.60	0	0.00	0	0.00	0	0.00	13	30.23	0	0.00		
<b>1999 Total</b>		<b>178</b>	<b>75</b>	<b>42.13</b>	<b>9</b>	<b>5.06</b>	<b>39</b>	<b>21.91</b>	<b>3</b>	<b>1.69</b>	<b>1</b>	<b>0.56</b>	<b>5</b>	<b>2.81</b>	<b>45</b>	<b>25.28</b>	<b>2</b>	<b>1.12</b>		
2000	LDGT1	721	338	46.88	12	1.66	21	2.91	15	2.08	1	0.14	3	0.42	321	44.52	13	1.80		
	LDGT2	562	260	46.26	16	2.85	71	12.63	22	3.91	5	0.89	7	1.25	176	31.32	5	0.89		
	LDGV	714	399	55.88	10	1.40	31	4.34	21	2.94	1	0.14	1	0.14	237	33.19	18	2.52		
<b>2000 Total</b>		<b>1,997</b>	<b>997</b>	<b>49.92</b>	<b>38</b>	<b>1.90</b>	<b>123</b>	<b>6.16</b>	<b>58</b>	<b>2.90</b>	<b>7</b>	<b>0.35</b>	<b>11</b>	<b>0.55</b>	<b>734</b>	<b>36.76</b>	<b>36</b>	<b>1.80</b>		
2001	LDGT1	892	482	54.04	7	0.78	40	4.48	34	3.81	1	0.11	1	0.11	320	35.87	7	0.78		
	LDGT2	555	249	44.86	22	3.96	76	13.69	18	3.24	0	0.00	8	1.44	178	32.07	4	0.72		
	LDGV	772	436	56.48	7	0.91	36	4.66	23	2.98	0	0.00	2	0.26	262	33.94	10	1.30		
<b>2001 Total</b>		<b>2,219</b>	<b>1,167</b>	<b>52.59</b>	<b>36</b>	<b>1.62</b>	<b>152</b>	<b>6.85</b>	<b>75</b>	<b>3.38</b>	<b>1</b>	<b>0.05</b>	<b>11</b>	<b>0.50</b>	<b>760</b>	<b>34.25</b>	<b>21</b>	<b>0.95</b>		
2002	LDGT1	1,024	531	51.86	9	0.88	35	3.42	35	3.42	1	0.10	5	0.49	400	39.06	11	1.07		
	LDGT2	702	286	40.74	21	2.99	114	16.24	21	2.99	0	0.00	11	1.57	241	34.33	9	1.28		
	LDGV	947	454	47.94	11	1.16	44	4.65	29	3.06	2	0.21	1	0.11	394	41.61	14	1.48		
<b>2002 Total</b>		<b>2,673</b>	<b>1,271</b>	<b>47.55</b>	<b>41</b>	<b>1.53</b>	<b>193</b>	<b>7.22</b>	<b>85</b>	<b>3.18</b>	<b>3</b>	<b>0.11</b>	<b>17</b>	<b>0.64</b>	<b>1,035</b>	<b>38.72</b>	<b>34</b>	<b>1.27</b>		
2003	LDGT1	846	370	43.74	9	1.06	31	3.66	24	2.84	0	0.00	2	0.24	396	46.81	14	1.65		
	LDGT2	690	262	37.97	33	4.78	121	17.54	18	2.61	1	0.14	11	1.59	237	34.35	10	1.45		
	LDGV	847	384	45.34	6	0.71	50	5.90	26	3.07	0	0.00	5	0.59	373	44.04	4	0.47		
<b>2003 Total</b>		<b>2,383</b>	<b>1,016</b>	<b>42.64</b>	<b>48</b>	<b>2.01</b>	<b>202</b>	<b>8.48</b>	<b>68</b>	<b>2.85</b>	<b>1</b>	<b>0.04</b>	<b>18</b>	<b>0.76</b>	<b>1,006</b>	<b>42.22</b>	<b>28</b>	<b>1.17</b>		
2004	LDGT1	949	365	38.46	6	0.63	38	4.00	20	2.11	1	0.11	5	0.53	499	52.58	17	1.79		

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	843	319	37.84	33	3.91	110	13.05	14	1.66	4	0.47	10	1.19	343	40.69	12	1.42
	LDGV	977	413	42.27	9	0.92	49	5.02	16	1.64	0	0.00	10	1.02	472	48.31	8	0.82
<b>2004 Total</b>		2,769	1,097	39.62	48	1.73	197	7.11	50	1.81	5	0.18	25	0.90	1,314	47.45	37	1.34
2005	LDGT1	736	337	45.79	8	1.09	39	5.30	19	2.58	0	0.00	1	0.14	322	43.75	12	1.63
	LDGT2	521	217	41.65	15	2.88	81	15.55	10	1.92	6	1.15	5	0.96	179	34.36	10	1.92
	LDGV	939	404	43.02	13	1.38	76	8.09	16	1.70	0	0.00	3	0.32	425	45.26	3	0.32
<b>2005 Total</b>		2,196	958	43.62	36	1.64	196	8.93	45	2.05	6	0.27	9	0.41	926	42.17	25	1.14
2006	LDGT1	649	273	42.06	5	0.77	39	6.01	9	1.39	0	0.00	2	0.31	314	48.38	7	1.08
	LDGT2	488	151	30.94	14	2.87	62	12.70	10	2.05	0	0.00	5	1.02	239	48.98	11	2.25
	LDGV	829	418	50.42	8	0.97	66	7.96	10	1.21	0	0.00	4	0.48	314	37.88	12	1.45
<b>2006 Total</b>		1,966	842	42.83	27	1.37	167	8.49	29	1.48	0	0.00	11	0.56	867	44.10	30	1.53
2007	LDGT1	629	227	36.09	6	0.95	38	6.04	10	1.59	0	0.00	5	0.79	335	53.26	9	1.43
	LDGT2	565	160	28.32	15	2.65	153	27.08	7	1.24	0	0.00	6	1.06	209	36.99	18	3.19
	LDGV	708	344	48.59	10	1.41	69	9.75	16	2.26	1	0.14	5	0.71	258	36.44	8	1.13
<b>2007 Total</b>		1,902	731	38.43	31	1.63	260	13.67	33	1.74	1	0.05	16	0.84	802	42.17	35	1.84
2008	LDGT1	653	171	26.19	5	0.77	33	5.05	10	1.53	0	0.00	2	0.31	428	65.54	5	0.77
	LDGT2	670	158	23.58	14	2.09	138	20.60	11	1.64	0	0.00	7	1.04	332	49.55	11	1.64
	LDGV	658	256	38.91	10	1.52	49	7.45	21	3.19	1	0.15	4	0.61	310	47.11	7	1.06
<b>2008 Total</b>		1,981	585	29.53	29	1.46	220	11.11	42	2.12	1	0.05	13	0.66	1,070	54.01	23	1.16
2009	LDGT1	402	130	32.34	5	1.24	6	1.49	6	1.49	0	0.00	2	0.50	248	61.69	5	1.24
	LDGT2	385	107	27.79	2	0.52	61	15.84	3	0.78	1	0.26	2	0.52	199	51.69	10	2.60
	LDGV	471	175	37.15	1	0.21	39	8.28	4	0.85	0	0.00	0	0.00	243	51.59	9	1.91
<b>2009 Total</b>		1,258	412	32.75	8	0.64	106	8.43	13	1.03	1	0.08	4	0.32	690	54.85	24	1.91
2010	LDGT1	597	158	26.47	13	2.18	155	25.96	11	1.84	0	0.00	4	0.67	254	42.55	2	0.34
	LDGT2	545	151	27.71	7	1.28	164	30.09	6	1.10	1	0.18	8	1.47	204	37.43	5	0.92
	LDGV	881	281	31.90	20	2.27	296	33.60	10	1.14	0	0.00	10	1.14	259	29.40	6	0.68
<b>2010 Total</b>		2,023	590	29.16	40	1.98	615	30.40	27	1.33	1	0.05	22	1.09	717	35.44	13	0.64
2011	LDGT1	875	258	29.49	15	1.71	194	22.17	10	1.14	0	0.00	12	1.37	377	43.09	9	1.03
	LDGT2	962	200	20.79	9	0.94	156	16.22	27	2.81	0	0.00	19	1.98	543	56.44	9	0.94
	LDGV	1,094	457	41.77	19	1.74	287	26.23	6	0.55	1	0.09	7	0.64	301	27.51	17	1.55
<b>2011 Total</b>		2,931	915	31.22	43	1.47	637	21.73	43	1.47	1	0.03	38	1.30	1,221	41.66	35	1.19
2012	LDGT1	550	144	26.18	10	1.82	149	27.09	7	1.27	0	0.00	5	0.91	230	41.82	6	1.09
	LDGT2	626	123	19.65	6	0.96	100	15.97	12	1.92	0	0.00	16	2.56	363	57.99	6	0.96
	LDGV	968	288	29.75	12	1.24	311	32.13	11	1.14	1	0.10	14	1.45	325	33.57	6	0.62
<b>2012 Total</b>		2,144	555	25.89	28	1.31	560	26.12	30	1.40	1	0.05	35	1.63	918	42.82	18	0.84
2013	LDGT1	923	269	29.14	22	2.38	191	20.69	7	0.76	1	0.11	9	0.98	411	44.53	13	1.41
	LDGT2	1,228	201	16.37	8	0.65	192	15.64	18	1.47	0	0.00	15	1.22	785	63.93	9	0.73

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	1,718	526	30.62	27	1.57	383	22.29	20	1.16	6	0.35	22	1.28	708	41.21	28	1.63
<b>2013 Total</b>		3,869	996	25.74	57	1.47	766	19.80	45	1.16	7	0.18	46	1.19	1,904	49.21	50	1.29
2014	LDGT1	112	28	25.00	0	0.00	24	21.43	0	0.00	0	0.00	0	0.00	60	53.57	0	0.00
	LDGT2	198	42	21.21	3	1.52	27	13.64	6	3.03	0	0.00	3	1.52	117	59.09	0	0.00
	LDGV	196	68	34.69	2	1.02	52	26.53	1	0.51	0	0.00	2	1.02	65	33.16	6	3.06
<b>2014 Total</b>		506	138	27.27	5	0.99	103	20.36	7	1.38	0	0.00	5	0.99	242	47.83	6	1.19
2015	LDGT1	46	11	23.91	0	0.00	8	17.39	0	0.00	0	0.00	1	2.17	25	54.35	1	2.17
	LDGT2	27	6	22.22	0	0.00	2	7.41	0	0.00	0	0.00	0	0.00	19	70.37	0	0.00
	LDGV	66	26	39.39	1	1.52	13	19.70	1	1.52	0	0.00	3	4.55	22	33.33	0	0.00
<b>2015 Total</b>		139	43	30.94	1	0.72	23	16.55	1	0.72	0	0.00	4	2.88	66	47.48	1	0.72
2016	LDGT1	21	8	38.10	0	0.00	1	4.76	1	4.76	0	0.00	0	0.00	11	52.38	0	0.00
	LDGT2	13	3	23.08	0	0.00	3	23.08	0	0.00	0	0.00	0	0.00	7	53.85	0	0.00
	LDGV	31	8	25.81	0	0.00	6	19.35	1	3.23	0	0.00	0	0.00	15	48.39	1	3.23
<b>2016 Total</b>		65	19	29.23	0	0.00	10	15.38	2	3.08	0	0.00	0	0.00	33	50.77	1	1.54
2017	LDGT1	8	0	0.00	0	0.00	1	12.50	0	0.00	0	0.00	0	0.00	7	87.50	0	0.00
	LDGT2	7	3	42.86	0	0.00	1	14.29	0	0.00	0	0.00	0	0.00	3	42.86	0	0.00
	LDGV	16	5	31.25	0	0.00	4	25.00	0	0.00	0	0.00	0	0.00	7	43.75	0	0.00
<b>2017 Total</b>		31	8	25.81	0	0.00	6	19.35	0	0.00	0	0.00	0	0.00	17	54.84	0	0.00
2018	LDGT1	5	1	20.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	80.00	0	0.00
	LDGT2	3	1	33.33	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	66.67	0	0.00
	LDGV	2	1	50.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	50.00	0	0.00
<b>2018 Total</b>		10	3	30.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	70.00	0	0.00
2019	LDGT1	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
	LDGT2	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
	LDGV	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
<b>2019 Total</b>		4	0	0.00	0	0.00	1	25.00	0	0.00	0	0.00	0	0.00	3	75.00	0	0.00
2020	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
	LDGV	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
<b>2020 Total</b>		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
<b>Grand Total</b>		<b>33,374</b>	<b>12,480</b>	<b>37.39</b>	<b>528</b>	<b>1.58</b>	<b>4,595</b>	<b>13.77</b>	<b>660</b>	<b>1.98</b>	<b>38</b>	<b>0.11</b>	<b>295</b>	<b>0.88</b>	<b>14,411</b>	<b>43.18</b>	<b>424</b>	<b>1.27</b>

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	10,713	4,142	38.66	132	1.23	1,047	9.77	222	2.07	6	0.06	59	0.55	4,986	46.54	132	1.23
LDGT2	9,746	2,958	30.35	227	2.33	1,671	17.15	206	2.11	19	0.19	142	1.46	4,410	45.25	133	1.36
LDGV	12,915	5,380	41.66	169	1.31	1,877	14.53	232	1.80	13	0.10	94	0.73	5,015	38.83	159	1.23
<b>Grand Total</b>	<b>33,374</b>	<b>12,480</b>	<b>37.39</b>	<b>528</b>	<b>1.58</b>	<b>4,595</b>	<b>13.77</b>	<b>660</b>	<b>1.98</b>	<b>38</b>	<b>0.11</b>	<b>295</b>	<b>0.88</b>	<b>14,411</b>	<b>43.18</b>	<b>424</b>	<b>1.27</b>

## **Appendix A4**

### **Initial OBD Fail DTC Report**





Date Range  
Between 1/1/2020 and 12/31/2020

## 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	5	0	0.00	3	60.00	1	20.00	1	20.00	0	0.00	0	0.00	0	0.00
	LDGT2	11	0	0.00	6	54.55	2	18.18	1	9.09	0	0.00	2	18.18	0	0.00
	LDGV	7	0	0.00	5	71.43	0	0.00	0	0.00	1	14.29	1	14.29	0	0.00
<b>1996 Total</b>		<b>23</b>	<b>0</b>	<b>0.00</b>	<b>14</b>	<b>60.87</b>	<b>3</b>	<b>13.04</b>	<b>2</b>	<b>8.70</b>	<b>1</b>	<b>4.35</b>	<b>3</b>	<b>13.04</b>	<b>0</b>	<b>0.00</b>
1997	LDGT1	11	0	0.00	2	18.18	5	45.45	3	27.27	1	9.09	0	0.00	0	0.00
	LDGT2	12	1	8.33	5	41.67	3	25.00	2	16.67	1	8.33	0	0.00	0	0.00
	LDGV	4	0	0.00	0	0.00	0	0.00	0	0.00	1	25.00	2	50.00	1	25.00
<b>1997 Total</b>		<b>27</b>	<b>1</b>	<b>3.70</b>	<b>7</b>	<b>25.93</b>	<b>8</b>	<b>29.63</b>	<b>5</b>	<b>18.52</b>	<b>3</b>	<b>11.11</b>	<b>2</b>	<b>7.41</b>	<b>1</b>	<b>3.70</b>
1998	LDGT1	19	0	0.00	9	47.37	6	31.58	2	10.53	1	5.26	1	5.26	0	0.00
	LDGT2	10	1	10.00	4	40.00	2	20.00	2	20.00	0	0.00	1	10.00	0	0.00
	LDGV	15	0	0.00	9	60.00	2	13.33	1	6.67	1	6.67	1	6.67	1	6.67
<b>1998 Total</b>		<b>44</b>	<b>1</b>	<b>2.27</b>	<b>22</b>	<b>50.00</b>	<b>10</b>	<b>22.73</b>	<b>5</b>	<b>11.36</b>	<b>2</b>	<b>4.55</b>	<b>3</b>	<b>6.82</b>	<b>1</b>	<b>2.27</b>
1999	LDGT1	15	0	0.00	4	26.67	2	13.33	2	13.33	4	26.67	3	20.00	0	0.00
	LDGT2	87	5	5.75	32	36.78	22	25.29	13	14.94	3	3.45	9	10.34	3	3.45
	LDGV	30	0	0.00	16	53.33	5	16.67	5	16.67	3	10.00	0	0.00	1	3.33
<b>1999 Total</b>		<b>132</b>	<b>5</b>	<b>3.79</b>	<b>52</b>	<b>39.39</b>	<b>29</b>	<b>21.97</b>	<b>20</b>	<b>15.15</b>	<b>10</b>	<b>7.58</b>	<b>12</b>	<b>9.09</b>	<b>4</b>	<b>3.03</b>
2000	LDGT1	390	11	2.82	155	39.74	114	29.23	46	11.79	25	6.41	35	8.97	4	1.03
	LDGT2	381	8	2.10	179	46.98	73	19.16	43	11.29	23	6.04	41	10.76	14	3.67
	LDGV	463	10	2.16	189	40.82	119	25.70	55	11.88	41	8.86	45	9.72	4	0.86
<b>2000 Total</b>		<b>1,234</b>	<b>29</b>	<b>2.35</b>	<b>523</b>	<b>42.38</b>	<b>306</b>	<b>24.80</b>	<b>144</b>	<b>11.67</b>	<b>89</b>	<b>7.21</b>	<b>121</b>	<b>9.81</b>	<b>22</b>	<b>1.78</b>
2001	LDGT1	565	3	0.53	223	39.47	128	22.65	90	15.93	53	9.38	64	11.33	4	0.71
	LDGT2	373	11	2.95	150	40.21	100	26.81	49	13.14	29	7.77	25	6.70	9	2.41
	LDGV	504	6	1.19	189	37.50	142	28.17	78	15.48	37	7.34	49	9.72	3	0.60
<b>2001 Total</b>		<b>1,442</b>	<b>20</b>	<b>1.39</b>	<b>562</b>	<b>38.97</b>	<b>370</b>	<b>25.66</b>	<b>217</b>	<b>15.05</b>	<b>119</b>	<b>8.25</b>	<b>138</b>	<b>9.57</b>	<b>16</b>	<b>1.11</b>
2002	LDGT1	616	5	0.81	239	38.80	167	27.11	85	13.80	48	7.79	68	11.04	4	0.65
	LDGT2	453	10	2.21	207	45.70	100	22.08	53	11.70	36	7.95	37	8.17	10	2.21
	LDGV	541	14	2.59	227	41.96	132	24.40	62	11.46	43	7.95	58	10.72	5	0.92
<b>2002 Total</b>		<b>1,610</b>	<b>29</b>	<b>1.80</b>	<b>673</b>	<b>41.80</b>	<b>399</b>	<b>24.78</b>	<b>200</b>	<b>12.42</b>	<b>127</b>	<b>7.89</b>	<b>163</b>	<b>10.12</b>	<b>19</b>	<b>1.18</b>
2003	LDGT1	436	8	1.83	181	41.51	100	22.94	62	14.22	32	7.34	52	11.93	1	0.23
	LDGT2	446	12	2.69	157	35.20	113	25.34	58	13.00	44	9.87	39	8.74	23	5.16
	LDGV	471	9	1.91	219	46.50	112	23.78	67	14.23	24	5.10	39	8.28	1	0.21
<b>2003 Total</b>		<b>1,353</b>	<b>29</b>	<b>2.14</b>	<b>557</b>	<b>41.17</b>	<b>325</b>	<b>24.02</b>	<b>187</b>	<b>13.82</b>	<b>100</b>	<b>7.39</b>	<b>130</b>	<b>9.61</b>	<b>25</b>	<b>1.85</b>

			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	435	4	0.92	168	38.62	114	26.21	57	13.10	39	8.97	51	11.72	2	0.46
	LDGT2	490	12	2.45	191	38.98	135	27.55	58	11.84	38	7.76	33	6.73	23	4.69
	LDGV	497	12	2.41	221	44.47	132	26.56	64	12.88	33	6.64	32	6.44	3	0.60
<b>2004 Total</b>		1,422	28	1.97	580	40.79	381	26.79	179	12.59	110	7.74	116	8.16	28	1.97
2005	LDGT1	404	12	2.97	175	43.32	122	30.20	41	10.15	19	4.70	35	8.66	0	0.00
	LDGT2	334	9	2.69	125	37.43	82	24.55	46	13.77	29	8.68	29	8.68	14	4.19
	LDGV	512	11	2.15	230	44.92	116	22.66	67	13.09	31	6.05	51	9.96	6	1.17
<b>2005 Total</b>		1,250	32	2.56	530	42.40	320	25.60	154	12.32	79	6.32	115	9.20	20	1.60
2006	LDGT1	328	9	2.74	155	47.26	85	25.91	25	7.62	17	5.18	35	10.67	2	0.61
	LDGT2	242	5	2.07	98	40.50	58	23.97	31	12.81	20	8.26	21	8.68	9	3.72
	LDGV	506	18	3.56	252	49.80	101	19.96	63	12.45	29	5.73	42	8.30	1	0.20
<b>2006 Total</b>		1,076	32	2.97	505	46.93	244	22.68	119	11.06	66	6.13	98	9.11	12	1.12
2007	LDGT1	286	6	2.10	135	47.20	69	24.13	38	13.29	17	5.94	18	6.29	3	1.05
	LDGT2	341	6	1.76	150	43.99	85	24.93	29	8.50	16	4.69	45	13.20	10	2.93
	LDGV	445	12	2.70	215	48.31	109	24.49	46	10.34	31	6.97	30	6.74	2	0.45
<b>2007 Total</b>		1,072	24	2.24	500	46.64	263	24.53	113	10.54	64	5.97	93	8.68	15	1.40
2008	LDGT1	221	7	3.17	111	50.23	46	20.81	36	16.29	7	3.17	14	6.33	0	0.00
	LDGT2	328	5	1.52	133	40.55	86	26.22	45	13.72	17	5.18	34	10.37	8	2.44
	LDGV	341	14	4.11	174	51.03	70	20.53	38	11.14	13	3.81	27	7.92	5	1.47
<b>2008 Total</b>		890	26	2.92	418	46.97	202	22.70	119	13.37	37	4.16	75	8.43	13	1.46
2009	LDGT1	149	5	3.36	76	51.01	39	26.17	16	10.74	10	6.71	3	2.01	0	0.00
	LDGT2	176	1	0.57	73	41.48	49	27.84	21	11.93	13	7.39	17	9.66	2	1.14
	LDGV	219	9	4.11	114	52.05	51	23.29	20	9.13	9	4.11	16	7.31	0	0.00
<b>2009 Total</b>		544	15	2.76	263	48.35	139	25.55	57	10.48	32	5.88	36	6.62	2	0.37
2010	LDGT1	341	13	3.81	169	49.56	93	27.27	35	10.26	14	4.11	12	3.52	5	1.47
	LDGT2	337	3	0.89	173	51.34	94	27.89	29	8.61	20	5.93	12	3.56	6	1.78
	LDGV	617	22	3.57	323	52.35	155	25.12	53	8.59	24	3.89	35	5.67	5	0.81
<b>2010 Total</b>		1,295	38	2.93	665	51.35	342	26.41	117	9.03	58	4.48	59	4.56	16	1.24
2011	LDGT1	489	11	2.25	308	62.99	105	21.47	39	7.98	14	2.86	8	1.64	4	0.82
	LDGT2	411	11	2.68	243	59.12	93	22.63	34	8.27	9	2.19	17	4.14	4	0.97
	LDGV	777	42	5.41	455	58.56	146	18.79	71	9.14	21	2.70	33	4.25	9	1.16
<b>2011 Total</b>		1,677	64	3.82	1,006	59.99	344	20.51	144	8.59	44	2.62	58	3.46	17	1.01
2012	LDGT1	315	8	2.54	192	60.95	70	22.22	25	7.94	11	3.49	7	2.22	2	0.63
	LDGT2	257	7	2.72	154	59.92	65	25.29	14	5.45	11	4.28	6	2.33	0	0.00
	LDGV	637	16	2.51	344	54.00	148	23.23	59	9.26	33	5.18	33	5.18	4	0.63
<b>2012 Total</b>		1,209	31	2.56	690	57.07	283	23.41	98	8.11	55	4.55	46	3.80	6	0.50

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	%
2013	LDGT1	499	23	4.61	298	59.72	104	20.84	39	7.82	16	3.21	14	2.81	5	1.00
	LDGT2	434	4	0.92	268	61.75	100	23.04	29	6.68	13	3.00	17	3.92	3	0.69
	LDGV	984	37	3.76	547	55.59	224	22.76	81	8.23	40	4.07	48	4.88	7	0.71
<b>2013 Total</b>		<b>1,917</b>	<b>64</b>	<b>3.34</b>	<b>1,113</b>	<b>58.06</b>	<b>428</b>	<b>22.33</b>	<b>149</b>	<b>7.77</b>	<b>69</b>	<b>3.60</b>	<b>79</b>	<b>4.12</b>	<b>15</b>	<b>0.78</b>
2014	LDGT1	52	0	0.00	35	67.31	13	25.00	4	7.69	0	0.00	0	0.00	0	0.00
	LDGT2	81	3	3.70	41	50.62	21	25.93	11	13.58	3	3.70	2	2.47	0	0.00
	LDGV	125	2	1.60	71	56.80	32	25.60	8	6.40	8	6.40	4	3.20	0	0.00
<b>2014 Total</b>		<b>258</b>	<b>5</b>	<b>1.94</b>	<b>147</b>	<b>56.98</b>	<b>66</b>	<b>25.58</b>	<b>23</b>	<b>8.91</b>	<b>11</b>	<b>4.26</b>	<b>6</b>	<b>2.33</b>	<b>0</b>	<b>0.00</b>
2015	LDGT1	20	0	0.00	13	65.00	6	30.00	0	0.00	1	5.00	0	0.00	0	0.00
	LDGT2	8	0	0.00	5	62.50	2	25.00	0	0.00	1	12.50	0	0.00	0	0.00
	LDGV	44	1	2.27	25	56.82	8	18.18	4	9.09	2	4.55	3	6.82	1	2.27
<b>2015 Total</b>		<b>72</b>	<b>1</b>	<b>1.39</b>	<b>43</b>	<b>59.72</b>	<b>16</b>	<b>22.22</b>	<b>4</b>	<b>5.56</b>	<b>4</b>	<b>5.56</b>	<b>3</b>	<b>4.17</b>	<b>1</b>	<b>1.39</b>
2016	LDGT1	10	0	0.00	7	70.00	2	20.00	1	10.00	0	0.00	0	0.00	0	0.00
	LDGT2	6	0	0.00	4	66.67	2	33.33	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	15	2	13.33	7	46.67	3	20.00	1	6.67	1	6.67	1	6.67	0	0.00
<b>2016 Total</b>		<b>31</b>	<b>2</b>	<b>6.45</b>	<b>18</b>	<b>58.06</b>	<b>7</b>	<b>22.58</b>	<b>2</b>	<b>6.45</b>	<b>1</b>	<b>3.23</b>	<b>1</b>	<b>3.23</b>	<b>0</b>	<b>0.00</b>
2017	LDGT1	1	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	4	0	0.00	3	75.00	0	0.00	1	25.00	0	0.00	0	0.00	0	0.00
	LDGV	9	0	0.00	8	88.89	1	11.11	0	0.00	0	0.00	0	0.00	0	0.00
<b>2017 Total</b>		<b>14</b>	<b>0</b>	<b>0.00</b>	<b>12</b>	<b>85.71</b>	<b>1</b>	<b>7.14</b>	<b>1</b>	<b>7.14</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>
2018	LDGT1	1	0	0.00	1	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	1	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>2018 Total</b>		<b>3</b>	<b>1</b>	<b>33.33</b>	<b>2</b>	<b>66.67</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>
2019	LDGT1	0	0	0.00	0	0.00	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	1	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>2019 Total</b>		<b>1</b>	<b>0</b>	<b>0.00</b>	<b>1</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>
2020	LDGT1	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>2020 Total</b>		<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>
<b>Grand Total</b>		<b>18,596</b>	<b>477</b>	<b>2.57</b>	<b>8,903</b>	<b>47.88</b>	<b>4,486</b>	<b>24.12</b>	<b>2,059</b>	<b>11.07</b>	<b>1,081</b>	<b>5.81</b>	<b>1,357</b>	<b>7.30</b>	<b>233</b>	<b>1.25</b>

**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	5,608	125	2.23	2,660	47.43	1,391	24.80	647	11.54	329	5.87	420	7.49	36	0.64
LDGT2	5,223	114	2.18	2,402	45.99	1,287	24.64	569	10.89	326	6.24	387	7.41	138	2.64
LDGV	7,765	238	3.07	3,841	49.47	1,808	23.28	843	10.86	426	5.49	550	7.08	59	0.76
<b>Grand Total</b>	<b>18,596</b>	<b>477</b>	<b>2.57</b>	<b>8,903</b>	<b>47.88</b>	<b>4,486</b>	<b>24.12</b>	<b>2,059</b>	<b>11.07</b>	<b>1,081</b>	<b>5.81</b>	<b>1,357</b>	<b>7.30</b>	<b>233</b>	<b>1.25</b>

## **Appendix A5**

### **Initial OBD Fail Readiness Monitor Summary Report**



Date Range  
Between 1/1/2020 and 12/31/2020

Initial OBD Fail Readiness Monitor Summary Report (V 1.04)

Model Year	Type	Total OBD Fail	% of Total Fail with Unset Readiness Monitors	Total OBD Fail W/ Ready Info	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	7	42.86	7	7	100.00	4	57.14	5	71.43	5	100.00	4	57.14	4	100.00	7	100.00	6	85.71	6	85.71	6	100.00	2	28.57	2	100.00
	LDGT1	5	60.00	5	5	100.00	2	40.00	3	60.00	2	66.67	0	0.00	0	0.00	5	100.00	5	100.00	4	80.00	4	100.00	5	100.00	4	80.00
	LDGT2	11	54.55	11	11	100.00	5	45.45	0	0.00	0	0.00	2	18.18	2	100.00	11	100.00	9	81.82	11	100.00	11	100.00	11	100.00	10	90.91
1996 Total		23	52.17	23	23	100.00	11	47.83	8	34.78	7	87.50	6	26.09	6	100.00	23	100.00	20	86.96	21	91.30	21	100.00	18	78.26	16	88.89
1997	LDGV	4	50.00	3	3	100.00	1	33.33	2	66.67	1	50.00	2	66.67	1	50.00	3	100.00	2	66.67	3	100.00	2	66.67	2	66.67	1	50.00
	LDGT1	11	54.55	11	11	100.00	5	45.45	6	54.55	4	66.67	0	0.00	0	0.00	11	100.00	9	81.82	11	100.00	10	90.91	7	63.64	6	85.71
	LDGT2	12	41.67	12	11	91.67	8	72.73	6	50.00	6	100.00	0	0.00	0	0.00	12	100.00	11	91.67	12	100.00	9	75.00	8	66.67	7	87.50
1997 Total		27	48.15	26	25	96.15	14	56.00	14	53.85	11	78.57	2	7.69	1	50.00	26	100.00	22	84.62	26	100.00	21	80.77	17	65.38	14	82.35
1998	LDGV	15	53.33	14	14	100.00	10	71.43	14	100.00	10	71.43	4	28.57	3	75.00	14	100.00	10	71.43	14	100.00	13	92.86	7	50.00	7	100.00
	LDGT1	19	47.37	19	19	100.00	13	68.42	19	100.00	12	63.16	0	0.00	0	0.00	19	100.00	17	89.47	19	100.00	18	94.74	17	89.47	16	94.12
	LDGT2	10	70.00	10	10	100.00	4	40.00	9	90.00	5	55.56	0	0.00	0	0.00	10	100.00	6	60.00	10	100.00	6	60.00	9	90.00	7	77.78
1998 Total		44	54.55	43	43	100.00	27	62.79	42	97.67	27	64.29	4	9.30	3	75.00	43	100.00	33	76.74	43	100.00	37	86.05	33	76.74	30	90.91
1999	LDGV	30	46.67	29	29	100.00	21	72.41	29	100.00	19	65.52	6	20.69	6	100.00	29	100.00	25	86.21	29	100.00	26	89.66	14	48.28	11	78.57
	LDGT1	15	46.67	15	15	100.00	12	80.00	13	86.67	8	61.54	0	0.00	0	0.00	15	100.00	13	86.67	15	100.00	13	86.67	6	40.00	5	83.33
	LDGT2	87	62.07	84	84	100.00	55	65.48	83	98.81	34	40.96	3	3.57	3	100.00	84	100.00	74	88.10	84	100.00	74	88.10	81	96.43	68	83.95
1999 Total		132	56.82	128	128	100.00	88	68.75	125	97.66	61	48.80	9	7.03	9	100.00	128	100.00	112	87.50	128	100.00	113	88.28	101	78.91	84	83.17
2000	LDGV	463	51.40	459	456	99.35	287	62.94	449	97.82	272	60.58	76	16.56	56	73.68	456	99.35	339	74.34	454	98.91	424	93.39	247	53.81	188	76.11
	LDGT1	390	54.36	386	386	100.00	237	61.40	362	93.78	226	62.43	6	1.55	4	66.67	386	100.00	291	75.39	386	100.00	325	84.20	205	53.11	158	77.07
	LDGT2	381	53.02	367	363	98.91	217	59.78	353	96.19	191	54.11	23	6.27	18	78.26	367	100.00	325	88.56	367	100.00	326	88.83	330	89.92	306	92.73
2000 Total		1,234	52.84	1,212	1,205	99.42	741	61.49	1,164	96.04	689	59.19	105	8.66	78	74.29	1,209	99.75	955	78.99	1,207	99.59	1,075	89.06	782	64.52	652	83.38
2001	LDGV	504	46.83	501	500	99.80	319	63.80	498	99.40	363	72.89	101	20.16	78	77.23	501	100.00	387	77.25	496	99.00	465	93.75	255	50.90	206	80.78
	LDGT1	565	48.85	558	558	100.00	367	65.77	558	100.00	372	66.67	32	5.73	14	43.75	558	100.00	439	78.67	558	100.00	502	89.96	249	44.62	210	84.34
	LDGT2	373	54.69	364	363	99.73	216	59.50	363	99.73	205	56.47	29	7.97	23	79.31	364	100.00	298	81.87	363	99.73	328	90.36	284	78.02	259	91.20
2001 Total		1,442	49.65	1,423	1,421	99.86	902	63.48	1,419	99.72	940	66.24	162	11.38	115	70.99	1,423	100.00	1,124	78.99	1,417	99.58	1,295	91.39	788	55.38	675	85.66
2002	LDGV	541	40.48	536	530	98.88	377	71.13	532	99.25	395	74.25	108	20.15	85	78.70	533	99.44	426	79.92	526	98.13	512	97.34	243	45.34	195	80.25
	LDGT1	616	44.16	611	611	100.00	414	67.76	611	100.00	434	71.03	7	1.15	3	42.86	611	100.00	496	81.18	611	100.00	563	92.14	216	35.35	189	87.50
	LDGT2	453	41.94	443	443	100.00	321	72.46	443	100.00	308	69.53	11	2.48	7	63.64	443	100.00	367	82.84	440	99.32	396	90.00	112	25.28	103	91.96
2002 Total		1,610	42.30	1,590	1,584	99.62	1,112	70.20	1,586	99.75	1,137	71.69	126	7.92	95	75.40	1,587	99.81	1,289	81.22	1,577	99.18	1,471	93.28	571	35.91	487	85.29
2003	LDGV	471	42.89	470	469	99.79	325	69.30	468	99.57	332	70.94	91	19.36	66	72.53	468	99.57	369	78.85	454	96.60	434	95.59	226	48.09	187	82.74
	LDGT1	436	39.68	435	434	99.77	310	71.43	435	100.00	317	72.87	4	0.92	2	50.00	435	100.00	340	78.16	431	99.08	394	91.42	143	32.87	137	95.80
	LDGT2	446	47.09	423	420	99.29	289	68.81	422	99.76	239	56.64	11	2.60	8	72.73	422	99.76	328	77.73	362	85.58	337	93.09	83	19.62	76	91.57
2003 Total		1,353	43.24	1,328	1,323	99.62	924	69.84	1,325	99.77	888	67.02	106	7.98	76	71.70	1,325	99.77	1,037	78.26	1,247	93.90	1,165	93.42	452	34.04	400	88.50
2004	LDGV	497	40.64	494	488	98.79	348	71.31	486	98.38	352	72.43	103	20.85	70	67.96	488	98.79	381	78.07	474	95.95	455	95.99	232	46.96	203	87.50
	LDGT1	435	38.39	433	433	100.00	309	71.36	433	100.00	318	73.44	37	8.55	33	89.19	433	100.00	331	76.44	430	99.31	401	93.26	157	36.26	138	87.90
	LDGT2	490	48.37	467	467	100.00	320	68.52	467	100.00	274	58.67	15	3.21	11	73.33	467	100.00	342	73.23	467	100.00	424	90.79	101	21.63	76	75.25
2004 Total		1,422	42.62	1,394	1,388	99.57	977	70.39	1,386	99.43	944	68.11	155	11.12	114	73.55	1,388	99.57	1,054	75.94	1,371	98.35	1,280	93.36	490	35.15	417	85.10
2005	LDGV	512	40.43	506	502	99.21	366	72.91	503	99.41	344	68.39	68	13.44	52	76.47	502	99.21	398	79.28	435	85.97	418	96.09	220	43.48	192	87.27
	LDGT1	404	44.80	404	404	100.00	277	68.56	404	100.00	280	69.31	31	7.67	28	90.32	404	100.00	313	77.48	385	95.30	350	90.91	162	40.10	124	76.54
	LDGT2	334	41.32	320	318	99.38	218	68.55	319	99.69	209	65.52	20	6.25	16	80.00	319	99.69	234	73.35	308	96.25	280	90.91	81	25.31	60	74.07
2005 Total		1,250	42.08	1,230	1,224	99.51	861	70.34	1,226	99.67	833	67.94	119	9.67	96	80.67	1,225	99.59	945	77.14	1,128	91.71	1,048	92.91	463	37.64	376	81.21
2006	LDGV	506	40.71	505	496	98.22	353	71.17	496	98.22	357	71.98	64	12.67	46	71.88	496	98.22	380	76.61	432	85.54	386	89.35	184	36.44	162	88.04
	LDGT1	328	40.24	326	324	99.39	236	72.84	324	99.39	228	70.37	41	12.58	37	90.24	324	99.39										





## **Appendix A6**

### OBD Retest Frequency Report



Date Range  
Between 1/1/2020 and 12/31/2020

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	7	1.14	6	85.71	5	83.33	1	14.29	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	21	1.24	16	76.19	11	68.75	5	23.81	4	80.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	9	1.33	7	77.78	6	85.71	1	11.11	1	100.00	1	11.11	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>1996 Total</b>		<b>37</b>	<b>1.24</b>	<b>29</b>	<b>78.38</b>	<b>22</b>	<b>75.86</b>	<b>7</b>	<b>18.92</b>	<b>6</b>	<b>85.71</b>	<b>1</b>	<b>2.70</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>
1997	LDGT1	18	1.22	15	83.33	9	60.00	2	11.11	1	50.00	1	5.56	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	25	1.40	20	80.00	16	80.00	2	8.00	1	50.00	1	4.00	0	0.00	2	8.00	1	50.00	0	0.00	0	0.00
	LDGV	16	1.63	10	62.50	5	50.00	3	18.75	1	33.33	2	12.50	1	50.00	1	6.25	1	100.00	0	0.00	0	0.00
<b>1997 Total</b>		<b>59</b>	<b>1.41</b>	<b>45</b>	<b>76.27</b>	<b>30</b>	<b>66.67</b>	<b>7</b>	<b>11.86</b>	<b>3</b>	<b>42.86</b>	<b>4</b>	<b>6.78</b>	<b>2</b>	<b>50.00</b>	<b>3</b>	<b>5.08</b>	<b>2</b>	<b>66.67</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>
1998	LDGT1	24	1.21	20	83.33	16	80.00	3	12.50	2	66.67	1	4.17	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	20	1.55	13	65.00	7	53.85	5	25.00	4	80.00	1	5.00	1	100.00	0	0.00	0	0.00	1	5.00	0	0.00
	LDGV	29	1.31	22	75.86	16	72.73	5	17.24	2	40.00	2	6.90	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>1998 Total</b>		<b>73</b>	<b>1.34</b>	<b>55</b>	<b>75.34</b>	<b>39</b>	<b>70.91</b>	<b>13</b>	<b>17.81</b>	<b>8</b>	<b>61.54</b>	<b>4</b>	<b>5.48</b>	<b>3</b>	<b>75.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>1</b>	<b>1.37</b>	<b>0</b>	<b>0.00</b>
1999	LDGT1	27	1.44	21	77.78	15	71.43	3	11.11	2	66.67	1	3.70	0	0.00	1	3.70	0	0.00	1	3.70	1	100.00
	LDGT2	163	1.54	115	70.55	87	75.65	27	16.56	16	59.26	9	5.52	3	33.33	8	4.91	5	62.50	4	2.45	2	50.00
	LDGV	50	1.42	37	74.00	30	81.08	8	16.00	5	62.50	3	6.00	2	66.67	1	2.00	0	0.00	1	2.00	1	100.00
<b>1999 Total</b>		<b>240</b>	<b>1.50</b>	<b>173</b>	<b>72.08</b>	<b>132</b>	<b>76.30</b>	<b>38</b>	<b>15.83</b>	<b>23</b>	<b>60.53</b>	<b>13</b>	<b>5.42</b>	<b>5</b>	<b>38.46</b>	<b>10</b>	<b>4.17</b>	<b>5</b>	<b>50.00</b>	<b>6</b>	<b>2.50</b>	<b>4</b>	<b>66.67</b>
2000	LDGT1	716	1.24	606	84.64	514	84.82	72	10.06	43	59.72	25	3.49	15	60.00	6	0.84	2	33.33	7	0.98	3	42.86
	LDGT2	619	1.31	493	79.64	388	78.70	88	14.22	53	60.23	23	3.72	11	47.83	10	1.62	8	80.00	5	0.81	3	60.00
	LDGV	731	1.36	577	78.93	442	76.60	95	13.00	56	58.95	32	4.38	13	40.63	15	2.05	7	46.67	12	1.64	5	41.67
<b>2000 Total</b>		<b>2,066</b>	<b>1.30</b>	<b>1,676</b>	<b>81.12</b>	<b>1,344</b>	<b>80.19</b>	<b>255</b>	<b>12.34</b>	<b>152</b>	<b>59.61</b>	<b>80</b>	<b>3.87</b>	<b>39</b>	<b>48.75</b>	<b>31</b>	<b>1.50</b>	<b>17</b>	<b>54.84</b>	<b>24</b>	<b>1.16</b>	<b>11</b>	<b>45.83</b>
2001	LDGT1	878	1.24	726	82.69	565	77.82	115	13.10	76	66.09	23	2.62	9	39.13	10	1.14	5	50.00	4	0.46	2	50.00
	LDGT2	629	1.39	492	78.22	401	81.50	82	13.04	51	62.20	28	4.45	15	53.57	11	1.75	1	9.09	16	2.54	9	56.25
	LDGV	751	1.23	627	83.49	500	79.74	89	11.85	56	62.92	24	3.20	13	54.17	6	0.80	0	0.00	5	0.67	2	40.00
<b>2001 Total</b>		<b>2,258</b>	<b>1.28</b>	<b>1,845</b>	<b>81.71</b>	<b>1,466</b>	<b>79.46</b>	<b>286</b>	<b>12.67</b>	<b>183</b>	<b>63.99</b>	<b>75</b>	<b>3.32</b>	<b>37</b>	<b>49.33</b>	<b>27</b>	<b>1.20</b>	<b>6</b>	<b>22.22</b>	<b>25</b>	<b>1.11</b>	<b>13</b>	<b>52.00</b>
2002	LDGT1	1,044	1.28	860	82.38	700	81.40	122	11.69	69	56.56	40	3.83	24	60.00	11	1.05	5	45.45	11	1.05	4	36.36
	LDGT2	769	1.25	639	83.09	534	83.57	95	12.35	72	75.79	20	2.60	13	65.00	8	1.04	5	62.50	7	0.91	4	57.14
	LDGV	934	1.26	788	84.37	659	83.63	93	9.96	60	64.52	28	3.00	9	32.14	14	1.50	9	64.29	11	1.18	2	18.18
<b>2002 Total</b>		<b>2,747</b>	<b>1.27</b>	<b>2,287</b>	<b>83.25</b>	<b>1,893</b>	<b>82.77</b>	<b>310</b>	<b>11.29</b>	<b>201</b>	<b>64.84</b>	<b>88</b>	<b>3.20</b>	<b>46</b>	<b>52.27</b>	<b>33</b>	<b>1.20</b>	<b>19</b>	<b>57.58</b>	<b>29</b>	<b>1.06</b>	<b>10</b>	<b>34.48</b>
2003	LDGT1	830	1.17	726	87.47	622	85.67	80	9.64	56	70.00	15	1.81	9	60.00	5	0.60	2	40.00	4	0.48	3	75.00
	LDGT2	744	1.23	627	84.27	529	84.37	84	11.29	62	73.81	20	2.69	12	60.00	8	1.08	4	50.00	5	0.67	3	60.00
	LDGV	839	1.22	727	86.65	620	85.28	74	8.82	46	62.16	23	2.74	13	56.52	7	0.83	3	42.86	8	0.95	2	25.00
<b>2003 Total</b>		<b>2,413</b>	<b>1.21</b>	<b>2,080</b>	<b>86.20</b>	<b>1,771</b>	<b>85.14</b>	<b>238</b>	<b>9.86</b>	<b>164</b>	<b>68.91</b>	<b>58</b>	<b>2.40</b>	<b>34</b>	<b>58.62</b>	<b>20</b>	<b>0.83</b>	<b>9</b>	<b>45.00</b>	<b>17</b>	<b>0.70</b>	<b>8</b>	<b>47.06</b>
2004	LDGT1	917	1.14	816	88.99	719	88.11	80	8.72	57	71.25	17	1.85	13	76.47	3	0.33	2	66.67	1	0.11	1	100.00
	LDGT2	832	1.15	742	89.18	654	88.14	67	8.05	49	73.13	15	1.80	5	33.33	7	0.84	5	71.43	1	0.12	1	100.00
	LDGV	932	1.16	830	89.06	731	88.07	70	7.51	43	61.43	21	2.25	13	61.90	7	0.75	3	42.86	4	0.43	1	25.00
<b>2004 Total</b>		<b>2,681</b>	<b>1.15</b>	<b>2,388</b>	<b>89.07</b>	<b>2,104</b>	<b>88.11</b>	<b>217</b>	<b>8.09</b>	<b>149</b>	<b>68.66</b>	<b>53</b>	<b>1.98</b>	<b>31</b>	<b>58.49</b>	<b>17</b>	<b>0.63</b>	<b>10</b>	<b>58.82</b>	<b>6</b>	<b>0.22</b>	<b>3</b>	<b>50.00</b>
2005	LDGT1	742	1.23	628	84.64	535	85.19	78	10.51	52	66.67	23	3.10	11	47.83	7	0.94	1	14.29	6	0.81	4	66.67
	LDGT2	550	1.18	471	85.64	406	86.20	64	11.64	54	84.38	11	2.00	7	63.64	2	0.36	0	0.00	2	0.36	0	0.00
	LDGV	920	1.16	807	87.72	707	87.61	87	9.46	61	70.11	20	2.17	11	55.00	5	0.54	3	60.00	1	0.11	1	100.00
<b>2005 Total</b>		<b>2,212</b>	<b>1.19</b>	<b>1,906</b>	<b>86.17</b>	<b>1,648</b>	<b>86.46</b>	<b>229</b>	<b>10.35</b>	<b>167</b>	<b>72.93</b>	<b>54</b>	<b>2.44</b>	<b>29</b>	<b>53.70</b>	<b>14</b>	<b>0.63</b>	<b>4</b>	<b>28.57</b>	<b>9</b>	<b>0.41</b>	<b>5</b>	<b>55.56</b>

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	629	1.12	573	91.10	512	89.35	44	7.00	33	75.00	8	1.27	5	62.50	3	0.48	2	66.67	1	0.16	1	100.00
	LDGT2	504	1.13	449	89.09	400	89.09	45	8.93	37	82.22	9	1.79	7	77.78	1	0.20	1	100.00	0	0.00	0	0.00
	LDGV	814	1.21	713	87.59	636	89.20	64	7.86	37	57.81	22	2.70	11	50.00	6	0.74	2	33.33	9	1.11	2	22.22
<b>2006 Total</b>		<b>1,947</b>	<b>1.16</b>	<b>1,735</b>	<b>89.11</b>	<b>1,548</b>	<b>89.22</b>	<b>153</b>	<b>7.86</b>	<b>107</b>	<b>69.93</b>	<b>39</b>	<b>2.00</b>	<b>23</b>	<b>58.97</b>	<b>10</b>	<b>0.51</b>	<b>5</b>	<b>50.00</b>	<b>10</b>	<b>0.51</b>	<b>3</b>	<b>30.00</b>
2007	LDGT1	619	1.09	579	93.54	537	92.75	30	4.85	21	70.00	7	1.13	4	57.14	2	0.32	2	100.00	1	0.16	0	0.00
	LDGT2	621	1.19	539	86.80	471	87.38	63	10.14	47	74.60	14	2.25	10	71.43	3	0.48	3	100.00	2	0.32	1	50.00
	LDGV	730	1.22	631	86.44	559	88.59	65	8.90	52	80.00	17	2.33	5	29.41	9	1.23	5	55.56	8	1.10	4	50.00
<b>2007 Total</b>		<b>1,970</b>	<b>1.17</b>	<b>1,749</b>	<b>88.78</b>	<b>1,567</b>	<b>89.59</b>	<b>158</b>	<b>8.02</b>	<b>120</b>	<b>75.95</b>	<b>38</b>	<b>1.93</b>	<b>19</b>	<b>50.00</b>	<b>14</b>	<b>0.71</b>	<b>10</b>	<b>71.43</b>	<b>11</b>	<b>0.56</b>	<b>5</b>	<b>45.45</b>
2008	LDGT1	680	1.10	622	91.47	573	92.12	50	7.35	40	80.00	7	1.03	6	85.71	1	0.15	0	0.00	0	0.00	0	0.00
	LDGT2	685	1.14	615	89.78	561	91.22	54	7.88	37	68.52	11	1.61	7	63.64	3	0.44	2	66.67	2	0.29	1	50.00
	LDGV	698	1.19	616	88.25	550	89.29	53	7.59	38	71.70	14	2.01	8	57.14	9	1.29	6	66.67	6	0.86	4	66.67
<b>2008 Total</b>		<b>2,063</b>	<b>1.14</b>	<b>1,853</b>	<b>89.82</b>	<b>1,684</b>	<b>90.88</b>	<b>157</b>	<b>7.61</b>	<b>115</b>	<b>73.25</b>	<b>32</b>	<b>1.55</b>	<b>21</b>	<b>65.63</b>	<b>13</b>	<b>0.63</b>	<b>8</b>	<b>61.54</b>	<b>8</b>	<b>0.39</b>	<b>5</b>	<b>62.50</b>
2009	LDGT1	487	1.24	434	89.12	398	91.71	37	7.60	27	72.97	9	1.85	7	77.78	2	0.41	2	100.00	5	1.03	1	20.00
	LDGT2	470	1.19	410	87.23	365	89.02	45	9.57	35	77.78	9	1.91	6	66.67	2	0.43	1	50.00	4	0.85	2	50.00
	LDGV	598	1.23	512	85.62	456	89.06	58	9.70	40	68.97	16	2.68	8	50.00	6	1.00	2	33.33	6	1.00	3	50.00
<b>2009 Total</b>		<b>1,555</b>	<b>1.22</b>	<b>1,356</b>	<b>87.20</b>	<b>1,219</b>	<b>89.90</b>	<b>140</b>	<b>9.00</b>	<b>102</b>	<b>72.86</b>	<b>34</b>	<b>2.19</b>	<b>21</b>	<b>61.76</b>	<b>10</b>	<b>0.64</b>	<b>5</b>	<b>50.00</b>	<b>15</b>	<b>0.96</b>	<b>6</b>	<b>40.00</b>
2010	LDGT1	603	1.14	541	89.72	480	88.72	48	7.96	37	77.08	9	1.49	6	66.67	4	0.66	1	25.00	1	0.17	1	100.00
	LDGT2	570	1.18	505	88.60	444	87.92	46	8.07	32	69.57	13	2.28	9	69.23	2	0.35	1	50.00	4	0.70	1	25.00
	LDGV	897	1.15	794	88.52	698	87.91	82	9.14	60	73.17	12	1.34	7	58.33	5	0.56	3	60.00	4	0.45	0	0.00
<b>2010 Total</b>		<b>2,070</b>	<b>1.15</b>	<b>1,840</b>	<b>88.89</b>	<b>1,622</b>	<b>88.15</b>	<b>176</b>	<b>8.50</b>	<b>129</b>	<b>73.30</b>	<b>34</b>	<b>1.64</b>	<b>22</b>	<b>64.71</b>	<b>11</b>	<b>0.53</b>	<b>5</b>	<b>45.45</b>	<b>9</b>	<b>0.43</b>	<b>2</b>	<b>22.22</b>
2011	LDGT1	823	1.06	778	94.53	724	93.06	40	4.86	31	77.50	5	0.61	5	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	953	1.09	883	92.65	806	91.28	59	6.19	46	77.97	7	0.73	2	28.57	3	0.31	2	66.67	1	0.10	1	100.00
	LDGV	1,023	1.13	919	89.83	819	89.12	80	7.82	60	75.00	18	1.76	10	55.56	5	0.49	3	60.00	1	0.10	1	100.00
<b>2011 Total</b>		<b>2,799</b>	<b>1.10</b>	<b>2,580</b>	<b>92.18</b>	<b>2,349</b>	<b>91.05</b>	<b>179</b>	<b>6.40</b>	<b>137</b>	<b>76.54</b>	<b>30</b>	<b>1.07</b>	<b>17</b>	<b>56.67</b>	<b>8</b>	<b>0.29</b>	<b>5</b>	<b>62.50</b>	<b>2</b>	<b>0.07</b>	<b>2</b>	<b>100.00</b>
2012	LDGT1	587	1.07	552	94.04	513	92.93	28	4.77	19	67.86	6	1.02	5	83.33	1	0.17	1	100.00	0	0.00	0	0.00
	LDGT2	695	1.13	633	91.08	584	92.26	44	6.33	31	70.45	10	1.44	5	50.00	5	0.72	1	20.00	3	0.43	0	0.00
	LDGV	1,049	1.14	932	88.85	815	87.45	96	9.15	71	73.96	15	1.43	11	73.33	4	0.38	3	75.00	2	0.19	0	0.00
<b>2012 Total</b>		<b>2,331</b>	<b>1.12</b>	<b>2,117</b>	<b>90.82</b>	<b>1,912</b>	<b>90.32</b>	<b>168</b>	<b>7.21</b>	<b>121</b>	<b>72.02</b>	<b>31</b>	<b>1.33</b>	<b>21</b>	<b>67.74</b>	<b>10</b>	<b>0.43</b>	<b>5</b>	<b>50.00</b>	<b>5</b>	<b>0.21</b>	<b>0</b>	<b>0.00</b>
2013	LDGT1	886	1.08	845	95.37	802	94.91	30	3.39	27	90.00	3	0.34	0	0.00	3	0.34	1	33.33	5	0.56	0	0.00
	LDGT2	1,179	1.08	1,111	94.23	1,047	94.24	51	4.33	37	72.55	12	1.02	7	58.33	3	0.25	2	66.67	2	0.17	1	50.00
	LDGV	1,592	1.08	1,486	93.34	1,375	92.53	85	5.34	65	76.47	16	1.01	9	56.25	4	0.25	3	75.00	1	0.06	0	0.00
<b>2013 Total</b>		<b>3,657</b>	<b>1.08</b>	<b>3,442</b>	<b>94.12</b>	<b>3,224</b>	<b>93.67</b>	<b>166</b>	<b>4.54</b>	<b>129</b>	<b>77.71</b>	<b>31</b>	<b>0.85</b>	<b>16</b>	<b>51.61</b>	<b>10</b>	<b>0.27</b>	<b>6</b>	<b>60.00</b>	<b>8</b>	<b>0.22</b>	<b>1</b>	<b>12.50</b>
2014	LDGT1	96	1.05	92	95.83	88	95.65	3	3.13	2	66.67	1	1.04	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	176	1.07	165	93.75	152	92.12	10	5.68	9	90.00	1	0.57	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	152	1.06	144	94.74	130	90.28	7	4.61	6	85.71	1	0.66	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>2014 Total</b>		<b>424</b>	<b>1.06</b>	<b>401</b>	<b>94.58</b>	<b>370</b>	<b>92.27</b>	<b>20</b>	<b>4.72</b>	<b>17</b>	<b>85.00</b>	<b>3</b>	<b>0.71</b>	<b>3</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>
2015	LDGT1	31	1.03	30	96.77	29	96.67	1	3.23	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	24	1.00	24	100.00	23	95.83	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	38	1.05	36	94.74	34	94.44	2	5.26	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>2015 Total</b>		<b>93</b>	<b>1.03</b>	<b>90</b>	<b>96.77</b>	<b>86</b>	<b>95.56</b>	<b>3</b>	<b>3.23</b>	<b>3</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>
2016	LDGT1	12	1.00	12	100.00	12	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	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	20	1.00	20	100.00	19	95.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>2016 Total</b>		<b>38</b>	<b>1.00</b>	<b>38</b>	<b>100.00</b>	<b>37</b>	<b>97.37</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>

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	8	1.00	8	100.00	8	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	1.00	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
	LDGV	9	1.00	9	100.00	8	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
<b>2017 Total</b>		<b>19</b>	<b>1.00</b>	<b>19</b>	<b>100.00</b>	<b>18</b>	<b>94.74</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>
2018	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	3	1.00	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	0.00	0	0.00
	LDGV	2	1.00	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
<b>2018 Total</b>		<b>9</b>	<b>1.00</b>	<b>9</b>	<b>100.00</b>	<b>9</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>
2019	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	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
<b>2019 Total</b>		<b>3</b>	<b>1.00</b>	<b>3</b>	<b>100.00</b>	<b>3</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>
2020	LDGV	2	1.50	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	0.00	0	0.00
<b>2020 Total</b>		<b>2</b>	<b>1.50</b>	<b>1</b>	<b>50.00</b>	<b>0</b>	<b>0.00</b>	<b>1</b>	<b>50.00</b>	<b>1</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>
<b>Overall Total</b>		<b>33,766</b>	<b>1.18</b>	<b>29,717</b>	<b>88.01</b>	<b>26,097</b>	<b>87.82</b>	<b>2,921</b>	<b>8.65</b>	<b>2,037</b>	<b>69.74</b>	<b>702</b>	<b>2.08</b>	<b>389</b>	<b>55.41</b>	<b>241</b>	<b>0.71</b>	<b>121</b>	<b>50.21</b>	<b>185</b>	<b>0.55</b>	<b>78</b>	<b>42.16</b>

**OBD 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	10,669	1.16	9,495	89.00	8,381	88.27	867	8.13	597	68.86	201	1.88	121	60.20	59	0.55	26	44.07	47	0.44	21	44.68
LDGT2	10,261	1.18	8,974	87.46	7,898	88.01	936	9.12	677	72.33	214	2.09	121	56.54	78	0.76	42	53.85	59	0.57	29	49.15
LDGV	12,836	1.19	11,248	87.63	9,818	87.29	1,118	8.71	763	68.25	287	2.24	147	51.22	104	0.81	53	50.96	79	0.62	28	35.44
<b>Overall Total</b>	<b>33,766</b>	<b>1.18</b>	<b>29,717</b>	<b>88.01</b>	<b>26,097</b>	<b>87.82</b>	<b>2,921</b>	<b>8.65</b>	<b>2,037</b>	<b>69.74</b>	<b>702</b>	<b>2.08</b>	<b>389</b>	<b>55.41</b>	<b>241</b>	<b>0.71</b>	<b>121</b>	<b>50.21</b>	<b>185</b>	<b>0.55</b>	<b>78</b>	<b>42.16</b>



## **Appendix A7**

### **Initial OBD Pass DTC Report**





Date Range  
Between 1/1/2020 and 12/31/2020

## 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	53	49	92.45	3	5.66	1	1.89	0	0.00	0	0.00	0	0.00
	LDGT2	21	20	95.24	1	4.76	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	68	66	97.06	2	2.94	0	0.00	0	0.00	0	0.00	0	0.00
<b>1996 Total</b>		142	135	95.07	6	4.23	1	0.70	0	0.00	0	0.00	0	0.00
1997	LDGT1	103	95	92.23	4	3.88	2	1.94	1	0.97	1	0.97	0	0.00
	LDGT2	49	44	89.80	3	6.12	1	2.04	0	0.00	1	2.04	0	0.00
	LDGV	89	83	93.26	6	6.74	0	0.00	0	0.00	0	0.00	0	0.00
<b>1997 Total</b>		241	222	92.12	13	5.39	3	1.24	1	0.41	2	0.83	0	0.00
1998	LDGT1	122	108	88.52	6	4.92	5	4.10	3	2.46	0	0.00	0	0.00
	LDGT2	49	45	91.84	3	6.12	1	2.04	0	0.00	0	0.00	0	0.00
	LDGV	169	151	89.35	12	7.10	2	1.18	2	1.18	2	1.18	0	0.00
<b>1998 Total</b>		340	304	89.41	21	6.18	8	2.35	5	1.47	2	0.59	0	0.00
1999	LDGT1	201	183	91.04	15	7.46	2	1.00	0	0.00	1	0.50	0	0.00
	LDGT2	609	522	85.71	40	6.57	30	4.93	7	1.15	5	0.82	5	0.82
	LDGV	243	229	94.24	13	5.35	1	0.41	0	0.00	0	0.00	0	0.00
<b>1999 Total</b>		1,053	934	88.70	68	6.46	33	3.13	7	0.66	6	0.57	5	0.47
2000	LDGT1	6,837	6,048	88.46	631	9.23	88	1.29	36	0.53	15	0.22	19	0.28
	LDGT2	3,867	3,525	91.16	213	5.51	68	1.76	37	0.96	12	0.31	12	0.31
	LDGV	7,175	6,468	90.15	514	7.16	100	1.39	37	0.52	16	0.22	40	0.56
<b>2000 Total</b>		17,879	16,041	89.72	1,358	7.60	256	1.43	110	0.62	43	0.24	71	0.40
2001	LDGT1	5,748	5,252	91.37	333	5.79	88	1.53	42	0.73	12	0.21	21	0.37
	LDGT2	3,920	3,501	89.31	247	6.30	90	2.30	59	1.51	16	0.41	7	0.18
	LDGV	6,553	5,705	87.06	620	9.46	140	2.14	47	0.72	20	0.31	21	0.32
<b>2001 Total</b>		16,221	14,458	89.13	1,200	7.40	318	1.96	148	0.91	48	0.30	49	0.30
2002	LDGT1	9,015	7,909	87.73	825	9.15	179	1.99	51	0.57	17	0.19	34	0.38
	LDGT2	5,301	4,853	91.55	269	5.07	122	2.30	38	0.72	11	0.21	8	0.15
	LDGV	9,852	8,683	88.13	876	8.89	193	1.96	46	0.47	27	0.27	27	0.27
<b>2002 Total</b>		24,168	21,445	88.73	1,970	8.15	494	2.04	135	0.56	55	0.23	69	0.29
2003	LDGT1	7,598	6,704	88.23	662	8.71	130	1.71	42	0.55	26	0.34	34	0.45
	LDGT2	4,640	4,168	89.83	320	6.90	85	1.83	40	0.86	10	0.22	17	0.37
	LDGV	8,948	7,915	88.46	752	8.40	183	2.05	43	0.48	21	0.23	34	0.38
<b>2003 Total</b>		21,186	18,787	88.68	1,734	8.18	398	1.88	125	0.59	57	0.27	85	0.40

			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	12,301	10,798	87.78	1,102	8.96	235	1.91	68	0.55	31	0.25	67	0.54
	LDGT2	7,344	6,781	92.33	345	4.70	119	1.62	70	0.95	21	0.29	8	0.11
	LDGV	11,663	10,418	89.33	934	8.01	204	1.75	57	0.49	24	0.21	26	0.22
<b>2004 Total</b>		<b>31,308</b>	<b>27,997</b>	<b>89.42</b>	<b>2,381</b>	<b>7.61</b>	<b>558</b>	<b>1.78</b>	<b>195</b>	<b>0.62</b>	<b>76</b>	<b>0.24</b>	<b>101</b>	<b>0.32</b>
2005	LDGT1	10,658	9,541	89.52	784	7.36	205	1.92	53	0.50	23	0.22	52	0.49
	LDGT2	5,162	4,710	91.24	278	5.39	100	1.94	53	1.03	15	0.29	6	0.12
	LDGV	11,508	10,444	90.75	743	6.46	220	1.91	65	0.56	17	0.15	19	0.17
<b>2005 Total</b>		<b>27,328</b>	<b>24,695</b>	<b>90.37</b>	<b>1,805</b>	<b>6.60</b>	<b>525</b>	<b>1.92</b>	<b>171</b>	<b>0.63</b>	<b>55</b>	<b>0.20</b>	<b>77</b>	<b>0.28</b>
2006	LDGT1	13,807	12,539	90.82	885	6.41	189	1.37	61	0.44	24	0.17	109	0.79
	LDGT2	6,448	5,757	89.28	436	6.76	141	2.19	61	0.95	18	0.28	35	0.54
	LDGV	15,380	14,012	91.11	1,015	6.60	232	1.51	66	0.43	23	0.15	32	0.21
<b>2006 Total</b>		<b>35,635</b>	<b>32,308</b>	<b>90.66</b>	<b>2,336</b>	<b>6.56</b>	<b>562</b>	<b>1.58</b>	<b>188</b>	<b>0.53</b>	<b>65</b>	<b>0.18</b>	<b>176</b>	<b>0.49</b>
2007	LDGT1	12,213	11,225	91.91	695	5.69	176	1.44	41	0.34	21	0.17	55	0.45
	LDGT2	7,460	6,844	91.74	402	5.39	139	1.86	40	0.54	20	0.27	15	0.20
	LDGV	14,430	13,263	91.91	826	5.72	224	1.55	62	0.43	23	0.16	32	0.22
<b>2007 Total</b>		<b>34,103</b>	<b>31,332</b>	<b>91.87</b>	<b>1,923</b>	<b>5.64</b>	<b>539</b>	<b>1.58</b>	<b>143</b>	<b>0.42</b>	<b>64</b>	<b>0.19</b>	<b>102</b>	<b>0.30</b>
2008	LDGT1	17,532	16,631	94.86	667	3.80	144	0.82	53	0.30	12	0.07	25	0.14
	LDGT2	9,039	8,348	92.36	476	5.27	140	1.55	45	0.50	15	0.17	15	0.17
	LDGV	17,807	16,664	93.58	874	4.91	173	0.97	54	0.30	16	0.09	26	0.15
<b>2008 Total</b>		<b>44,378</b>	<b>41,643</b>	<b>93.84</b>	<b>2,017</b>	<b>4.55</b>	<b>457</b>	<b>1.03</b>	<b>152</b>	<b>0.34</b>	<b>43</b>	<b>0.10</b>	<b>66</b>	<b>0.15</b>
2009	LDGT1	12,082	11,593	95.95	356	2.95	94	0.78	30	0.25	3	0.02	6	0.05
	LDGT2	5,625	5,131	91.22	328	5.83	128	2.28	19	0.34	10	0.18	9	0.16
	LDGV	17,327	16,452	94.95	681	3.93	136	0.78	33	0.19	11	0.06	14	0.08
<b>2009 Total</b>		<b>35,034</b>	<b>33,176</b>	<b>94.70</b>	<b>1,365</b>	<b>3.90</b>	<b>358</b>	<b>1.02</b>	<b>82</b>	<b>0.23</b>	<b>24</b>	<b>0.07</b>	<b>29</b>	<b>0.08</b>
2010	LDGT1	10,430	9,983	95.71	373	3.58	57	0.55	10	0.10	6	0.06	1	0.01
	LDGT2	5,597	5,176	92.48	288	5.15	102	1.82	20	0.36	8	0.14	3	0.05
	LDGV	12,763	12,039	94.33	566	4.43	109	0.85	29	0.23	9	0.07	11	0.09
<b>2010 Total</b>		<b>28,790</b>	<b>27,198</b>	<b>94.47</b>	<b>1,227</b>	<b>4.26</b>	<b>268</b>	<b>0.93</b>	<b>59</b>	<b>0.20</b>	<b>23</b>	<b>0.08</b>	<b>15</b>	<b>0.05</b>
2011	LDGT1	24,930	24,201	97.08	557	2.23	132	0.53	22	0.09	9	0.04	9	0.04
	LDGT2	12,235	11,541	94.33	507	4.14	141	1.15	30	0.25	11	0.09	5	0.04
	LDGV	22,519	21,510	95.52	776	3.45	176	0.78	37	0.16	12	0.05	8	0.04
<b>2011 Total</b>		<b>59,684</b>	<b>57,252</b>	<b>95.93</b>	<b>1,840</b>	<b>3.08</b>	<b>449</b>	<b>0.75</b>	<b>89</b>	<b>0.15</b>	<b>32</b>	<b>0.05</b>	<b>22</b>	<b>0.04</b>
2012	LDGT1	11,615	11,173	96.19	339	2.92	77	0.66	14	0.12	6	0.05	6	0.05
	LDGT2	6,792	6,414	94.43	268	3.95	75	1.10	19	0.28	7	0.10	9	0.13
	LDGV	15,774	14,904	94.48	696	4.41	130	0.82	34	0.22	7	0.04	3	0.02
<b>2012 Total</b>		<b>34,181</b>	<b>32,491</b>	<b>95.06</b>	<b>1,303</b>	<b>3.81</b>	<b>282</b>	<b>0.83</b>	<b>67</b>	<b>0.20</b>	<b>20</b>	<b>0.06</b>	<b>18</b>	<b>0.05</b>

			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	35,108	34,095	97.11	799	2.28	175	0.50	28	0.08	6	0.02	5	0.01
	LDGT2	16,661	15,770	94.65	668	4.01	163	0.98	36	0.22	14	0.08	10	0.06
	LDGV	38,709	37,148	95.97	1,260	3.26	224	0.58	45	0.12	17	0.04	15	0.04
<b>2013 Total</b>		90,478	87,013	96.17	2,727	3.01	562	0.62	109	0.12	37	0.04	30	0.03
2014	LDGT1	4,672	4,516	96.66	134	2.87	18	0.39	4	0.09	0	0.00	0	0.00
	LDGT2	2,654	2,510	94.57	107	4.03	30	1.13	5	0.19	1	0.04	1	0.04
	LDGV	4,679	4,485	95.85	146	3.12	35	0.75	7	0.15	1	0.02	5	0.11
<b>2014 Total</b>		12,005	11,511	95.89	387	3.22	83	0.69	16	0.13	2	0.02	6	0.05
2015	LDGT1	1,229	1,194	97.15	28	2.28	4	0.33	1	0.08	0	0.00	2	0.16
	LDGT2	600	570	95.00	20	3.33	8	1.33	1	0.17	1	0.17	0	0.00
	LDGV	1,319	1,270	96.29	37	2.81	8	0.61	2	0.15	0	0.00	2	0.15
<b>2015 Total</b>		3,148	3,034	96.38	85	2.70	20	0.64	4	0.13	1	0.03	4	0.13
2016	LDGT1	794	779	98.11	13	1.64	0	0.00	0	0.00	1	0.13	1	0.13
	LDGT2	276	259	93.84	10	3.62	4	1.45	2	0.72	1	0.36	0	0.00
	LDGV	692	666	96.24	21	3.03	4	0.58	0	0.00	1	0.14	0	0.00
<b>2016 Total</b>		1,762	1,704	96.71	44	2.50	8	0.45	2	0.11	3	0.17	1	0.06
2017	LDGT1	512	501	97.85	8	1.56	2	0.39	1	0.20	0	0.00	0	0.00
	LDGT2	187	182	97.33	3	1.60	1	0.53	1	0.53	0	0.00	0	0.00
	LDGV	368	358	97.28	7	1.90	3	0.82	0	0.00	0	0.00	0	0.00
<b>2017 Total</b>		1,067	1,041	97.56	18	1.69	6	0.56	2	0.19	0	0.00	0	0.00
2018	LDGT1	320	317	99.06	3	0.94	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	142	141	99.30	1	0.70	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	178	176	98.88	2	1.12	0	0.00	0	0.00	0	0.00	0	0.00
<b>2018 Total</b>		640	634	99.06	6	0.94	0	0.00	0	0.00	0	0.00	0	0.00
2019	LDGT1	135	134	99.26	1	0.74	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	55	55	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	94	93	98.94	1	1.06	0	0.00	0	0.00	0	0.00	0	0.00
<b>2019 Total</b>		284	282	99.30	2	0.70	0	0.00	0	0.00	0	0.00	0	0.00
2020	LDGT1	14	14	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	6	6	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	22	21	95.45	1	4.55	0	0.00	0	0.00	0	0.00	0	0.00
<b>2020 Total</b>		42	41	97.62	1	2.38	0	0.00	0	0.00	0	0.00	0	0.00
2021	LDGV	1	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>2021 Total</b>		1	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>Grand Total</b>		<b>521,098</b>	<b>485,679</b>	<b>93.20</b>	<b>25,837</b>	<b>4.96</b>	<b>6,188</b>	<b>1.19</b>	<b>1,810</b>	<b>0.35</b>	<b>658</b>	<b>0.13</b>	<b>926</b>	<b>0.18</b>

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	198,029	185,582	93.71	9,223	4.66	2,003	1.01	561	0.28	214	0.11	446	0.23
LDGT2	104,739	96,873	92.49	5,233	5.00	1,688	1.61	583	0.56	197	0.19	165	0.16
LDGV	218,330	203,224	93.08	11,381	5.21	2,497	1.14	666	0.31	247	0.11	315	0.14
<b>Grand Total</b>	<b>521,098</b>	<b>485,679</b>	<b>93.20</b>	<b>25,837</b>	<b>4.96</b>	<b>6,188</b>	<b>1.19</b>	<b>1,810</b>	<b>0.35</b>	<b>658</b>	<b>0.13</b>	<b>926</b>	<b>0.18</b>

## **Appendix A8**

### **Initial OBD Pass Readiness Monitor Summary Report**



Date Range  
Between 1/1/2020 and 12/31/2020

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	68	44.12	68	100.00	43	63.24	30	44.12	25	83.33	23	33.82	18	78.26	68	100.00	54	79.41	67	98.53	62	92.54	25	36.76	17	68.00
	LDGT1	53	43.40	52	98.11	36	69.23	29	54.72	22	75.86	0	0.00	0	0.00	52	98.11	48	92.31	35	66.04	33	94.29	31	58.49	25	80.65
	LDGT2	21	42.86	21	100.00	12	57.14	0	0.00	0	0.00	2	9.52	2	100.00	21	100.00	19	90.48	21	100.00	19	90.48	14	66.67	12	85.71
1996 Total		142	43.66	141	99.30	91	64.54	59	41.55	47	79.66	25	17.61	20	80.00	141	99.30	121	85.82	123	86.62	114	92.68	70	49.30	54	77.14
1997	LDGV	89	47.19	89	100.00	57	64.04	57	64.04	36	63.16	28	31.46	18	64.29	89	100.00	68	76.40	89	100.00	76	85.39	43	48.31	36	83.72
	LDGT1	103	43.69	99	96.12	63	63.64	41	39.81	29	70.73	1	0.97	1	100.00	99	96.12	88	88.89	93	90.29	87	93.55	36	34.95	33	91.67
	LDGT2	49	32.65	49	100.00	38	77.55	16	32.65	11	68.75	0	0.00	0	0.00	49	100.00	47	95.92	49	100.00	46	93.88	32	65.31	28	87.50
1997 Total		241	42.74	237	98.34	158	66.67	114	47.30	76	66.67	29	12.03	19	65.52	237	98.34	203	85.65	231	95.85	209	90.48	111	46.06	97	87.39
1998	LDGV	169	32.54	169	100.00	135	79.88	156	92.31	125	80.13	36	21.30	28	77.78	169	100.00	155	91.72	169	100.00	161	95.27	93	55.03	80	86.02
	LDGT1	122	28.69	122	100.00	89	72.95	82	67.21	65	79.27	0	0.00	0	0.00	122	100.00	109	89.34	122	100.00	113	92.62	59	48.36	51	86.44
	LDGT2	49	34.69	48	97.96	39	81.25	35	71.43	24	68.57	1	2.04	1	100.00	48	97.96	45	93.75	48	97.96	43	89.58	32	65.31	29	90.63
1998 Total		340	31.47	339	99.71	263	77.58	273	80.29	214	78.39	37	10.88	29	78.38	339	99.71	309	91.15	339	99.71	317	93.51	184	54.12	160	86.96
1999	LDGV	243	31.28	243	100.00	196	80.66	234	96.30	179	76.50	73	30.04	66	90.41	243	100.00	219	90.12	243	100.00	233	95.88	117	48.15	99	84.62
	LDGT1	201	30.35	198	98.51	155	78.28	141	70.15	106	75.18	0	0.00	0	0.00	198	98.51	190	95.96	198	98.51	188	94.95	65	32.34	62	95.38
	LDGT2	609	39.90	605	99.34	532	87.93	586	96.22	355	60.58	19	3.12	16	84.21	605	99.34	573	94.71	605	99.34	564	93.22	577	94.75	525	90.99
1999 Total		1,053	36.09	1,046	99.34	883	84.42	961	91.26	640	66.60	92	8.74	82	89.13	1,046	99.34	982	93.88	1,046	99.34	985	94.17	759	72.08	686	90.38
2000	LDGV	7,175	29.07	7,175	100.00	6,054	84.38	6,980	97.28	5,328	76.33	1,283	17.88	1,148	89.48	7,175	100.00	6,524	90.93	7,161	99.80	6,924	96.69	3,898	54.33	3,540	90.82
	LDGT1	6,837	28.62	6,827	99.85	5,678	83.17	5,715	83.59	4,414	77.24	115	1.68	92	80.00	6,827	99.85	6,392	93.63	6,827	99.85	6,473	94.81	2,688	39.32	2,421	90.07
	LDGT2	3,867	36.82	3,867	100.00	3,159	81.69	3,530	91.29	2,324	65.84	186	4.81	142	76.34	3,867	100.00	3,659	94.62	3,867	100.00	3,609	93.33	2,763	71.45	2,545	92.11
2000 Total		17,879	30.58	17,869	99.94	14,891	83.33	16,225	90.75	12,066	74.37	1,584	8.86	1,382	87.25	17,869	99.94	16,575	92.76	17,855	99.87	17,006	95.25	9,349	52.29	8,506	90.98
2001	LDGV	6,553	31.18	6,552	99.98	5,324	81.26	6,540	99.80	4,934	75.44	1,513	23.09	1,271	84.01	6,551	99.97	5,884	89.82	6,539	99.79	6,313	96.54	3,317	50.62	2,949	88.91
	LDGT1	5,748	31.28	5,700	99.16	4,793	84.09	5,699	99.15	4,216	73.98	401	6.98	273	68.08	5,700	99.16	5,182	90.91	5,700	99.16	5,344	93.75	2,299	40.00	2,048	89.08
	LDGT2	3,920	39.13	3,916	99.90	3,165	80.82	3,916	99.90	2,542	64.91	240	6.12	170	70.83	3,916	99.90	3,613	92.26	3,916	99.90	3,572	91.22	2,689	68.60	2,504	93.12
2001 Total		16,221	33.14	16,168	99.67	13,282	82.15	16,155	99.59	11,692	72.37	2,154	13.28	1,714	79.57	16,167	99.67	14,679	90.80	16,155	99.59	15,229	94.27	8,305	51.20	7,501	90.32
2002	LDGV	9,852	27.52	9,850	99.98	8,269	83.95	9,842	99.90	7,686	78.09	1,905	19.34	1,619	84.99	9,847	99.95	8,952	90.91	9,721	98.67	9,465	97.37	4,433	45.00	4,036	91.04
	LDGT1	9,015	26.71	9,011	99.96	7,841	87.02	9,011	99.96	6,993	77.61	138	1.53	105	76.09	9,011	99.96	8,248	91.53	9,011	99.96	8,573	95.14	2,810	31.17	2,619	93.20
	LDGT2	5,301	27.96	5,297	99.92	4,677	88.30	5,296	99.91	3,944	74.47	139	2.62	122	87.77	5,297	99.92	4,962	93.68	5,244	98.92	4,909	93.61	1,373	25.90	1,295	94.32
2002 Total		24,168	27.31	24,158	99.96	20,787	86.05	24,149	99.92	18,623	77.12	2,182	9.03	1,846	84.60	24,155	99.95	22,162	91.75	23,976	99.21	22,947	95.71	8,616	35.65	7,950	92.27
2003	LDGV	8,948	25.82	8,948	100.00	7,620	85.16	8,926	99.75	7,072	79.23	1,578	17.64	1,336	84.66	8,941	99.92	8,187	91.57	8,773	98.04	8,514	97.05	4,151	46.39	3,826	92.17
	LDGT1	7,598	25.98	7,594	99.95	6,656	87.65	7,592	99.92	5,853	77.09	123	1.62	108	87.80	7,594	99.95	6,981	91.93	7,495	98.64	7,177	95.76	2,424	31.90	2,286	94.31
	LDGT2	4,640	38.41	4,638	99.96	4,069	87.73	4,637	99.94	2,887	62.26	121	2.61	98	80.99	4,638	99.96	4,346	93.70	4,094	88.23	3,975	97.09	962	20.73	907	94.28
2003 Total		21,186	28.63	21,180	99.97	18,345	86.61	21,155	99.85	15,812	74.74	1,822	8.60	1,542	84.63	21,173	99.94	19,514	92.16	20,362	96.11	19,666	96.58	7,537	35.58	7,019	93.13
2004	LDGV	11,663	21.63	11,663	100.00	10,269	88.05	11,658	99.96	9,590	82.26	1,870	16.03	1,616	86.42	11,656	99.94	10,904	93.55	11,210	96.12	10,981	97.96	5,097	43.70	4,824	94.64
	LDGT1	12,301	19.01	12,296	99.96	11,120	90.44	12,295	99.95	10,314	83.89	635	5.16	561	88.35	12,296	99.96	11,482	93.38	12,087	98.26	11,854	98.07	4,262	34.65	4,064	95.35
	LDGT2	7,344	31.67	7,343	99.99	6,457	87.93	7,343	99.99	5,146	70.08	223	3.04	171	76.68	7,342	99.97	6,788	92.45	7,339	99.93	7,154	97.48	1,381	18.80	1,305	94.50
2004 Total		31,308	22.96	31,302	99.98	27,846	88.96	31,296	99.96	25,050	80.04	2,728	8.71	2,348	86.07	31,294	99.96	29,174	93.23	30,636	97.85	29,989	97.89	10,740	34.30	10,193	94.91
2005	LDGV	11,508	23.12	11,496	99.90	10,152	88.31	11,493	99.87	9,218	80.21	1,204	10.46	1,016	84.39	11,491	99.85	10,483	91.23	9,432	81.96	9,150	97.01	4,943	42.95	4,666	94.40
	LDGT1	10,658	23.02	10,650	99.92	9,436	88.60	10,649	99.92	8,727	81.95	792	7.43	737	93.06	10,650	99.92	9,700	91.08	9,531	89.43	9,086	95.33	4,331	40.64	4,115	95.01
	LDGT2	5,162	25.82	5,157	99.90	4,617	89.53	5,157	99.90	3,926	76.13	681	13.19	631	92.66	5,157	99.90	4,762	92.34	4,588	88.88	4,386	95.60	1,143	22.14	1,070	93.61
2005 Total		27,328	23.59	27,303	99.91	24,205	88.65	27,299	99.89	21,871	80.12	2,677	9.80	2,384	89.05	27,298	99.89	24,945	91.38	23,551	86.18	22,622	96.06	10,417	38.12	9,851	94.57
2006	LDGV	15,380	20.06	15,370	99.93	13,917	90.55	15,360	99.87	12																	



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	12,763	7.85	12,747	99.87	12,747	100.00	12,745	99.86	11,813	92.69	914	7.16	897	98.14	12,747	99.87	12,747	100.00	12,744	99.85	12,744	100.00	11,780	92.30	11,727	99.55
	LDGT1	10,430	5.34	10,423	99.93	10,423	100.00	10,423	99.93	9,878	94.77	421	4.04	417	99.05	10,423	99.93	10,423	100.00	10,423	99.93	10,423	100.00	9,253	88.72	9,245	99.91
	LDGT2	5,597	13.10	5,584	99.77	5,584	100.00	5,582	99.73	4,854	86.96	627	11.20	625	99.68	5,584	99.77	5,584	100.00	5,584	99.77	5,584	100.00	4,113	73.49	4,110	99.93
2010 Total		28,790	7.96	28,754	99.87	28,754	100.00	28,750	99.86	26,545	92.33	1,962	6.81	1,939	98.83	28,754	99.87	28,754	100.00	28,751	99.86	28,751	100.00	25,146	87.34	25,082	99.75
2011	LDGV	22,519	5.94	22,503	99.93	22,503	100.00	22,500	99.92	21,240	94.40	1,925	8.55	1,915	99.48	22,503	99.93	22,503	100.00	22,503	99.93	22,503	100.00	21,767	96.66	21,700	99.69
	LDGT1	24,930	3.81	24,923	99.97	24,923	100.00	24,923	99.97	23,998	96.29	643	2.58	642	99.84	24,923	99.97	24,923	100.00	24,923	99.97	24,923	100.00	24,630	98.80	24,607	99.91
	LDGT2	12,235	7.98	12,226	99.93	12,226	100.00	12,224	99.91	11,254	92.06	1,024	8.37	1,021	99.71	12,226	99.93	12,226	100.00	12,226	99.93	12,226	100.00	11,869	97.01	11,866	99.97
2011 Total		59,684	5.47	59,652	99.95	59,652	100.00	59,647	99.94	56,492	94.71	3,592	6.02	3,578	99.61	59,652	99.95	59,652	100.00	59,652	99.95	59,652	100.00	58,266	97.62	58,173	99.84
2012	LDGV	15,774	7.19	15,747	99.83	15,747	100.00	15,745	99.82	14,641	92.99	1,249	7.92	1,245	99.68	15,747	99.83	15,747	100.00	15,747	99.83	15,747	100.00	15,470	98.07	15,444	99.83
	LDGT1	11,615	5.03	11,611	99.97	11,611	100.00	11,608	99.94	11,036	95.07	815	7.02	814	99.88	11,611	99.97	11,611	100.00	11,611	99.97	11,611	100.00	11,597	99.85	11,586	99.91
	LDGT2	6,792	9.25	6,778	99.79	6,778	100.00	6,776	99.76	6,152	90.79	581	8.55	581	100.00	6,778	99.79	6,778	100.00	6,778	99.79	6,778	100.00	6,724	99.00	6,720	99.94
2012 Total		34,181	6.86	34,136	99.87	34,136	100.00	34,129	99.85	31,829	93.26	2,645	7.74	2,640	99.81	34,136	99.87	34,136	100.00	34,136	99.87	34,136	100.00	33,791	98.86	33,750	99.88
2013	LDGV	38,709	5.03	38,638	99.82	38,638	100.00	38,623	99.78	36,810	95.31	2,128	5.50	2,121	99.67	38,638	99.82	38,638	100.00	38,638	99.82	38,638	100.00	38,287	98.91	38,161	99.67
	LDGT1	35,108	3.15	35,097	99.97	35,097	100.00	35,097	99.97	34,008	96.90	2,819	8.03	2,819	100.00	35,097	99.97	35,097	100.00	35,097	99.97	35,097	100.00	35,097	99.97	35,079	99.95
	LDGT2	16,661	5.55	16,630	99.81	16,630	100.00	16,629	99.81	15,712	94.49	1,324	7.95	1,323	99.92	16,630	99.81	16,630	100.00	16,630	99.81	16,630	100.00	16,545	99.30	16,539	99.96
2013 Total		90,478	4.40	90,365	99.88	90,365	100.00	90,349	99.86	86,530	95.77	6,271	6.93	6,263	99.87	90,365	99.88	90,365	100.00	90,365	99.88	90,365	100.00	89,929	99.39	89,779	99.83
2014	LDGV	4,679	7.52	4,643	99.23	4,643	100.00	4,642	99.21	4,305	92.74	261	5.58	261	100.00	4,643	99.23	4,643	100.00	4,643	99.23	4,643	100.00	4,582	97.93	4,567	99.67
	LDGT1	4,672	7.68	4,667	99.89	4,667	100.00	4,666	99.87	4,310	92.37	301	6.44	301	100.00	4,667	99.89	4,667	100.00	4,667	99.89	4,667	100.00	4,667	99.89	4,664	99.94
	LDGT2	2,654	9.91	2,615	98.53	2,615	100.00	2,615	98.53	2,359	90.21	199	7.50	199	100.00	2,615	98.53	2,615	100.00	2,615	98.53	2,615	100.00	2,613	98.46	2,606	99.73
2014 Total		12,005	8.11	11,925	99.33	11,925	100.00	11,923	99.32	10,974	92.04	761	6.34	761	100.00	11,925	99.33	11,925	100.00	11,925	99.33	11,925	100.00	11,862	98.81	11,837	99.79
2015	LDGV	1,319	8.87	1,318	99.92	1,318	100.00	1,317	99.85	1,204	91.42	74	5.61	74	100.00	1,318	99.92	1,318	100.00	1,318	99.92	1,318	100.00	1,305	98.94	1,301	99.69
	LDGT1	1,229	6.75	1,229	100.00	1,229	100.00	1,228	99.92	1,153	93.89	114	9.28	114	100.00	1,229	100.00	1,229	100.00	1,229	100.00	1,229	100.00	1,228	99.92	1,220	99.35
	LDGT2	600	7.50	599	99.83	599	100.00	599	99.83	556	92.82	39	6.50	39	100.00	599	99.83	599	100.00	599	99.83	599	100.00	599	99.83	597	99.67
2015 Total		3,148	7.78	3,146	99.94	3,146	100.00	3,144	99.87	2,913	92.65	227	7.21	227	100.00	3,146	99.94	3,146	100.00	3,146	99.94	3,146	100.00	3,132	99.49	3,118	99.55
2016	LDGV	692	8.09	687	99.28	687	100.00	686	99.13	631	91.98	39	5.64	39	100.00	687	99.28	687	100.00	686	99.13	686	100.00	686	99.13	685	99.85
	LDGT1	794	3.15	794	100.00	794	100.00	794	100.00	771	97.10	41	5.16	41	100.00	794	100.00	794	100.00	794	100.00	794	100.00	794	100.00	792	99.75
	LDGT2	276	6.52	274	99.28	274	100.00	273	98.91	257	94.14	30	10.87	30	100.00	274	99.28	274	100.00	274	99.28	274	100.00	274	99.28	272	99.27
2016 Total		1,762	5.62	1,755	99.60	1,755	100.00	1,753	99.49	1,659	94.64	110	6.24	110	100.00	1,755	99.60	1,755	100.00	1,754	99.55	1,754	100.00	1,754	99.55	1,749	99.71
2017	LDGV	368	6.25	366	99.46	366	100.00	366	99.46	344	93.99	25	6.79	25	100.00	366	99.46	366	100.00	366	99.46	366	100.00	365	99.18	364	99.73
	LDGT1	512	4.49	511	99.80	511	100.00	510	99.61	487	95.49	19	3.71	19	100.00	511	99.80	511	100.00	511	99.80	511	100.00	511	99.80	511	100.00
	LDGT2	187	6.42	184	98.40	184	100.00	184	98.40	174	94.57	17	9.09	17	100.00	184	98.40	184	100.00	184	98.40	184	100.00	184	98.40	182	98.91
2017 Total		1,067	5.44	1,061	99.44	1,061	100.00	1,060	99.34	1,005	94.81	61	5.72	61	100.00	1,061	99.44	1,061	100.00	1,061	99.44	1,061	100.00	1,060	99.34	1,057	99.72
2018	LDGV	178	2.25	178	100.00	178	100.00	177	99.44	173	97.74	9	5.06	9	100.00	178	100.00	178	100.00	173	97.19	173	100.00	178	100.00	178	100.00
	LDGT1	320	1.56	319	99.69	319	100.00	318	99.38	313	98.43	15	4.69	15	100.00	319	99.69	319	100.00	319	99.69	319	100.00	319	99.69	319	100.00
	LDGT2	142	2.82	141	99.30	141	100.00	141	99.30	138	97.87	8	5.63	8	100.00	141	99.30	141	100.00	141	99.30	141	100.00	141	99.30	140	99.29
2018 Total		640	2.03	638	99.69	638	100.00	636	99.38	624	98.11	32	5.00	32	100.00	638	99.69	638	100.00	633	98.91	633	100.00	638	99.69	637	99.84
2019	LDGV	94	1.06	94	100.00	94	100.00	94	100.00	93	98.94	7	7.45	7	100.00	94	100.00	94	100.00	81	86.17	81	100.00	94	100.00	94	100.00
	LDGT1	135	1.48	134	99.26	134	100.00	134	99.26	132	98.51	4	2.96	4	100.00	134	99.26	134	100.00	130	96.30	130	100.00	134	99.26	134	100.00
	LDGT2	55	5.45	55	100.00	55	100.00	55	100.00	53	96.36	6	10.91	6	100.00	55	100.00	55	100.00	55	100.00	55	100.00	55	100.00	54	98.18
2019 Total		284	2.11	283	99.65	283	100.00	283	99.65	278	98.23	17	5.99	17	100.00	283	99.65	283	100.00	266	93.66	266	100.00	283	99.65	282	99.65
2020	LDGV																										

## **Appendix A9**

### **OBD Initial Inspection Emissions Report**



Date Range  
Between 1/1/2020 and 12/31/2020

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	1,085	800	73.73	758	94.75	0.41	4.93	1.32	42	5.25	1.22	16.88	2.76	285	26.27	252	88.42	0.43	5.85	1.54	33	11.58	2.01	28.41	2.91
	LDGT2	578	395	68.34	374	94.68	0.51	5.89	1.29	21	5.32	1.05	18.85	2.79	183	31.66	160	87.43	0.59	7.08	1.49	23	12.57	4.27	23.57	2.58
	LDGV	1,088	847	77.85	808	95.40	0.32	3.78	0.80	39	4.60	1.00	20.10	2.11	241	22.15	218	90.46	0.39	4.59	0.99	23	9.54	1.62	30.24	1.97
<b>1996 Total</b>		<b>2,751</b>	<b>2,042</b>	<b>74.23</b>	<b>1,940</b>	<b>95.00</b>	<b>0.39</b>	<b>4.64</b>	<b>1.10</b>	<b>102</b>	<b>5.00</b>	<b>1.10</b>	<b>18.52</b>	<b>2.52</b>	<b>709</b>	<b>25.77</b>	<b>630</b>	<b>88.86</b>	<b>0.46</b>	<b>5.73</b>	<b>1.34</b>	<b>79</b>	<b>11.14</b>	<b>2.55</b>	<b>27.53</b>	<b>2.54</b>
1997	LDGT1	1,745	1,231	70.54	1,159	94.15	0.39	4.93	1.23	72	5.85	1.06	18.67	3.05	514	29.46	446	86.77	0.41	5.83	1.45	68	13.23	2.71	30.30	2.98
	LDGT2	746	488	65.42	454	93.03	0.45	5.39	1.30	34	6.97	1.00	15.10	3.13	258	34.58	206	79.84	0.44	5.79	1.47	52	20.16	1.49	21.46	2.40
	LDGV	1,426	1,100	77.14	1,072	97.45	0.34	3.82	0.77	28	2.55	1.20	22.76	1.36	326	22.86	282	86.50	0.39	4.46	0.87	44	13.50	1.38	25.27	1.83
<b>1997 Total</b>		<b>3,917</b>	<b>2,819</b>	<b>71.97</b>	<b>2,685</b>	<b>95.25</b>	<b>0.38</b>	<b>4.57</b>	<b>1.06</b>	<b>134</b>	<b>4.75</b>	<b>1.07</b>	<b>18.62</b>	<b>2.72</b>	<b>1,098</b>	<b>28.03</b>	<b>934</b>	<b>85.06</b>	<b>0.41</b>	<b>5.41</b>	<b>1.28</b>	<b>164</b>	<b>14.94</b>	<b>1.97</b>	<b>26.14</b>	<b>2.49</b>
1998	LDGT1	2,421	1,945	80.34	1,876	96.45	0.32	4.22	1.05	69	3.55	1.18	17.14	2.71	476	19.66	390	81.93	0.36	5.22	1.32	86	18.07	1.55	28.64	2.47
	LDGT2	954	696	72.96	665	95.55	0.33	4.06	1.14	31	4.45	1.48	20.00	2.68	258	27.04	199	77.13	0.41	5.32	1.44	59	22.87	3.66	18.54	2.86
	LDGV	2,128	1,687	79.28	1,618	95.91	0.25	3.33	0.64	69	4.09	1.44	20.69	1.30	441	20.72	384	87.07	0.30	4.15	0.72	57	12.93	1.62	22.11	1.92
<b>1998 Total</b>		<b>5,503</b>	<b>4,328</b>	<b>78.65</b>	<b>4,159</b>	<b>96.10</b>	<b>0.30</b>	<b>3.85</b>	<b>0.91</b>	<b>169</b>	<b>3.90</b>	<b>1.34</b>	<b>19.11</b>	<b>2.13</b>	<b>1,175</b>	<b>21.35</b>	<b>973</b>	<b>82.81</b>	<b>0.35</b>	<b>4.82</b>	<b>1.11</b>	<b>202</b>	<b>17.19</b>	<b>2.19</b>	<b>23.85</b>	<b>2.43</b>
1999	LDGT1	2,480	2,055	82.86	1,953	95.04	0.25	3.63	0.83	102	4.96	1.29	23.05	2.44	425	17.14	341	80.24	0.24	4.08	0.90	84	19.76	2.26	33.61	2.48
	LDGT2	1,242	904	72.79	850	94.03	0.28	3.13	0.88	54	5.97	1.98	22.03	2.26	338	27.21	250	73.96	0.29	3.76	0.99	88	26.04	2.29	26.69	2.43
	LDGV	2,436	1,933	79.35	1,872	96.84	0.24	3.06	0.61	61	3.16	1.29	13.74	1.55	503	20.65	429	85.29	0.28	3.85	0.73	74	14.71	1.43	19.90	1.86
<b>1999 Total</b>		<b>6,158</b>	<b>4,892</b>	<b>79.44</b>	<b>4,675</b>	<b>95.56</b>	<b>0.25</b>	<b>3.31</b>	<b>0.75</b>	<b>217</b>	<b>4.44</b>	<b>1.46</b>	<b>20.18</b>	<b>2.14</b>	<b>1,266</b>	<b>20.56</b>	<b>1,020</b>	<b>80.57</b>	<b>0.27</b>	<b>3.90</b>	<b>0.85</b>	<b>246</b>	<b>19.43</b>	<b>2.02</b>	<b>27.01</b>	<b>2.28</b>
2000	LDGT1	1,839	1,422	77.32	1,383	97.26	0.21	2.81	0.72	39	2.74	0.41	10.23	2.07	417	22.68	344	82.49	0.25	3.61	0.77	73	17.51	0.89	16.68	2.49
	LDGT2	781	588	75.29	574	97.62	0.21	2.84	0.70	14	2.38	0.54	10.35	2.54	193	24.71	147	76.17	0.32	3.88	0.88	46	23.83	2.45	20.71	2.75
	LDGV	2,016	1,476	73.21	1,452	98.37	0.16	2.47	0.45	24	1.63	0.56	12.64	1.61	540	26.79	473	87.59	0.23	3.34	0.60	67	12.41	1.64	20.18	1.95
<b>2000 Total</b>		<b>4,636</b>	<b>3,486</b>	<b>75.19</b>	<b>3,409</b>	<b>97.79</b>	<b>0.19</b>	<b>2.67</b>	<b>0.60</b>	<b>77</b>	<b>2.21</b>	<b>0.48</b>	<b>11.00</b>	<b>2.01</b>	<b>1,150</b>	<b>24.81</b>	<b>964</b>	<b>83.83</b>	<b>0.25</b>	<b>3.52</b>	<b>0.70</b>	<b>186</b>	<b>16.17</b>	<b>1.54</b>	<b>18.93</b>	<b>2.36</b>
2001	LDGT1	1,954	1,374	70.32	1,352	98.40	0.14	2.58	0.47	22	1.60	0.56	16.79	2.31	580	29.68	521	89.83	0.18	3.59	0.57	59	10.17	0.89	23.73	2.41
	LDGT2	884	637	72.06	612	96.08	0.21	2.64	0.65	25	3.92	1.06	14.38	2.49	247	27.94	207	83.81	0.25	3.47	0.75	40	16.19	1.26	20.42	2.63
	LDGV	2,063	1,437	69.66	1,425	99.16	0.11	2.12	0.32	12	0.84	0.84	11.46	1.90	626	30.34	561	89.62	0.18	3.14	0.48	65	10.38	1.95	18.87	1.72
<b>2001 Total</b>		<b>4,901</b>	<b>3,448</b>	<b>70.35</b>	<b>3,389</b>	<b>98.29</b>	<b>0.14</b>	<b>2.40</b>	<b>0.44</b>	<b>59</b>	<b>1.71</b>	<b>0.83</b>	<b>14.68</b>	<b>2.31</b>	<b>1,453</b>	<b>29.65</b>	<b>1,289</b>	<b>88.71</b>	<b>0.19</b>	<b>3.37</b>	<b>0.56</b>	<b>164</b>	<b>11.29</b>	<b>1.40</b>	<b>21.00</b>	<b>2.19</b>
2002	LDGT1	2,561	1,927	75.24	1,908	99.01	0.11	2.92	0.38	19	0.99	0.65	24.32	1.52	634	24.76	549	86.59	0.17	3.66	0.56	85	13.41	1.31	31.72	1.90
	LDGT2	1,008	758	75.20	746	98.42	0.19	2.51	0.68	12	1.58	0.49	8.30	2.12	250	24.80	208	83.20	0.25	3.55	0.83	42	16.80	1.06	16.24	3.23
	LDGV	2,813	2,128	75.65	2,112	99.25	0.10	2.37	0.27	16	0.75	2.97	11.51	2.61	685	24.35	611	89.20	0.18	3.36	0.44	74	10.80	0.98	11.76	2.32
<b>2002 Total</b>		<b>6,382</b>	<b>4,813</b>	<b>75.42</b>	<b>4,766</b>	<b>99.02</b>	<b>0.12</b>	<b>2.61</b>	<b>0.38</b>	<b>47</b>	<b>0.98</b>	<b>1.40</b>	<b>15.87</b>	<b>2.04</b>	<b>1,569</b>	<b>24.58</b>	<b>1,368</b>	<b>87.19</b>	<b>0.18</b>	<b>3.51</b>	<b>0.55</b>	<b>201</b>	<b>12.81</b>	<b>1.14</b>	<b>21.14</b>	<b>2.33</b>
2003	LDGT1	2,680	2,090	77.99	2,077	99.38	0.10	1.90	0.34	13	0.62	0.65	10.76	2.72	590	22.01	526	89.15	0.16	2.79	0.54	64	10.85	1.27	28.47	2.32
	LDGT2	1,074	815	75.88	809	99.26	0.14	1.96	0.43	6	0.74	1.03	12.33	2.16	259	24.12	229	88.42	0.23	3.63	0.62	30	11.58	1.85	30.77	2.54
	LDGV	2,804	2,152	76.75	2,135	99.21	0.08	1.48	0.24	17	0.79	0.85	14.34	1.79	652	23.25	584	89.57	0.14	2.50	0.38	68	10.43	1.19	21.40	2.37
<b>2003 Total</b>		<b>6,558</b>	<b>5,057</b>	<b>77.11</b>	<b>5,021</b>	<b>99.29</b>	<b>0.10</b>	<b>1.73</b>	<b>0.31</b>	<b>36</b>	<b>0.71</b>	<b>0.81</b>	<b>12.71</b>	<b>2.18</b>	<b>1,501</b>	<b>22.89</b>	<b>1,339</b>	<b>89.21</b>	<b>0.16</b>	<b>2.81</b>	<b>0.48</b>	<b>162</b>	<b>10.79</b>	<b>1.34</b>	<b>25.93</b>	<b>2.38</b>
2004	LDGT1	3,565	2,954	82.86	2,942	99.59	0.07	1.51	0.21	12	0.41	0.33	20.85	1.34	611	17.14	535	87.56	0.13	2.55	0.38	76	12.44	1.08	19.91	3.06
	LDGT2	1,496	1,200	80.21	1,196	99.67	0.09	1.51	0.23	4	0.33	0.86	8.50	3.16	296	19.79	258	87.16	0.17	3.08	0.43	38	12.84	2.30	26.92	3.27
	LDGV	3,182	2,584	81.21	2,566	99.30	0.06	1.31	0.18	18	0.70	0.84	20.74	1.77	598	18.79	549	91.81	0.12	2.28	0.32	49	8.19	0.72	18.01	2.20
<b>2004 Total</b>		<b>8,243</b>	<b>6,738</b>	<b>81.74</b>	<b>6,704</b>	<b>99.50</b>	<b>0.07</b>	<b>1.43</b>	<b>0.20</b>	<b>34</b>	<b>0.50</b>	<b>0.66</b>	<b>19.34</b>	<b>1.78</b>	<b>1,505</b>	<b>18.26</b>	<b>1,342</b>	<b>89.17</b>	<b>0.13</b>	<b>2.54</b>	<b>0.37</b>	<b>163</b>	<b>10.83</b>	<b>1.26</b>	<b>20.97</b>	<b>2.85</b>
2005	LDGT1	3,469	2,819	81.26	2,810	99.68	0.07	1.21	0.14	9	0.32	1.09	42.33	2.69	650	18.74	596	91.69	0.12	2.24	0.22	54	8.31	0.86	16.35	2.83
	LDGT2	1,194	999	83.67	991	99.20	0.10	1.46	0.20	8	0.80	1.15	19.36	2.16	195	16.33	168	86.15	0.18	2.68	0.44	27	13.85	4.46	29.89	2.39
	LDGV	3,457	2,819	81.54	2,805	99.50	0.05	1.12	0.18	14	0.50	1.63	12.39	2.53	638	18.46	580	90.91	0.10	2.01	0.24	58	9.09	2.47	17.46	2.30
<b>2005 Total</b>		<b>8,120</b>	<b>6,637</b>	<b>81.74</b>	<b>6,606</b>	<b>99.53</b>	<b>0.06</b>	<b>1.21</b>	<b>0.16</b>	<b>31</b>	<b>0.47</b>	<b>1.35&lt;/</b>														

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	4,110	3,678	89.49	3,671	99.81	0.04	1.15	0.11	7	0.19	0.51	11.24	2.18	432	10.51	398	92.13	0.08	1.90	0.15	34	7.87	1.24	22.36	2.46
<b>2007 Total</b>		9,662	8,591	88.92	8,578	99.85	0.05	1.15	0.10	13	0.15	0.54	8.82	2.74	1,071	11.08	997	93.09	0.08	1.98	0.18	74	6.91	2.12	33.02	2.40
2008	LDGT1	3,966	3,700	93.29	3,693	99.81	0.04	1.14	0.11	7	0.19	0.39	23.19	1.66	266	6.71	254	95.49	0.07	2.22	0.17	12	4.51	0.54	37.48	2.91
	LDGT2	1,677	1,526	91.00	1,514	99.21	0.06	1.26	0.10	12	0.79	0.43	27.19	0.48	151	9.00	136	90.07	0.10	2.40	0.20	15	9.93	0.91	34.99	1.60
	LDGV	3,872	3,495	90.26	3,481	99.60	0.04	1.19	0.10	14	0.40	1.86	23.15	3.38	377	9.74	360	95.49	0.08	1.81	0.16	17	4.51	1.25	43.66	1.77
<b>2008 Total</b>		9,515	8,721	91.66	8,688	99.62	0.04	1.18	0.10	33	0.38	1.03	24.62	1.96	794	8.34	750	94.46	0.08	2.05	0.17	44	5.54	0.94	39.02	2.02
2009	LDGT1	2,542	2,408	94.73	2,403	99.79	0.04	1.41	0.10	5	0.21	0.49	4.25	3.17	134	5.27	129	96.27	0.06	2.60	0.18	5	3.73	0.39	18.34	1.75
	LDGT2	1,030	943	91.55	943	100.00	0.05	0.92	0.09	0	0.00	0.00	0.00	0.00	87	8.45	81	93.10	0.09	2.14	0.20	6	6.90	1.04	13.72	2.81
	LDGV	3,427	3,211	93.70	3,203	99.75	0.04	1.26	0.10	8	0.25	1.38	31.02	1.28	216	6.30	204	94.44	0.08	1.92	0.13	12	5.56	0.44	15.48	1.59
<b>2009 Total</b>		6,999	6,562	93.76	6,549	99.80	0.04	1.27	0.10	13	0.20	1.04	20.72	2.01	437	6.24	414	94.74	0.08	2.17	0.16	23	5.26	0.59	15.64	1.95
2010	LDGT1	41	39	95.12	39	100.00	0.05	1.62	0.17	0	0.00	0.00	0.00	0.00	2	4.88	2	100.00	0.02	1.27	0.03	0	0.00	0.00	0.00	0.00
	LDGT2	25	22	88.00	22	100.00	0.03	1.71	0.07	0	0.00	0.00	0.00	0.00	3	12.00	3	100.00	0.17	6.53	0.28	0	0.00	0.00	0.00	0.00
	LDGV	64	61	95.31	61	100.00	0.06	1.33	0.11	0	0.00	0.00	0.00	0.00	3	4.69	3	100.00	0.02	1.74	0.08	0	0.00	0.00	0.00	0.00
<b>2010 Total</b>		130	122	93.85	122	100.00	0.05	1.49	0.12	0	0.00	0.00	0.00	0.00	8	6.15	8	100.00	0.07	3.42	0.14	0	0.00	0.00	0.00	0.00
2011	LDGT1	98	97	98.98	97	100.00	0.04	1.39	0.10	0	0.00	0.00	0.00	0.00	1	1.02	1	100.00	0.00	0.58	0.02	0	0.00	0.00	0.00	0.00
	LDGT2	50	49	98.00	49	100.00	0.04	1.46	0.08	0	0.00	0.00	0.00	0.00	1	2.00	1	100.00	0.05	1.75	0.75	0	0.00	0.00	0.00	0.00
	LDGV	66	62	93.94	62	100.00	0.03	1.01	0.06	0	0.00	0.00	0.00	0.00	4	6.06	4	100.00	0.04	2.54	0.23	0	0.00	0.00	0.00	0.00
<b>2011 Total</b>		214	208	97.20	208	100.00	0.04	1.30	0.08	0	0.00	0.00	0.00	0.00	6	2.80	6	100.00	0.03	2.08	0.28	0	0.00	0.00	0.00	0.00
2012	LDGT1	41	40	97.56	40	100.00	0.03	1.17	0.08	0	0.00	0.00	0.00	0.00	1	2.44	1	100.00	0.00	0.46	0.06	0	0.00	0.00	0.00	0.00
	LDGT2	15	14	93.33	14	100.00	0.03	1.64	0.11	0	0.00	0.00	0.00	0.00	1	6.67	1	100.00	0.03	0.56	0.05	0	0.00	0.00	0.00	0.00
	LDGV	40	40	100.00	40	100.00	0.04	1.51	0.10	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
<b>2012 Total</b>		96	94	97.92	94	100.00	0.03	1.39	0.09	0	0.00	0.00	0.00	0.00	2	2.08	2	100.00	0.02	0.51	0.06	0	0.00	0.00	0.00	0.00
2013	LDGT1	67	67	100.00	67	100.00	0.03	1.45	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	30	30	100.00	30	100.00	0.04	1.42	0.17	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	58	54	93.10	53	98.15	0.03	0.88	0.06	1	1.85	1.71	25.98	4.82	4	6.90	3	75.00	0.03	1.28	0.02	1	25.00	0.12	0.49	1.96
<b>2013 Total</b>		155	151	97.42	150	99.34	0.03	1.25	0.08	1	0.66	1.71	25.98	4.82	4	2.58	3	75.00	0.03	1.28	0.02	1	25.00	0.12	0.49	1.96
2014	LDGV	1	1	100.00	1	100.00	0.02	0.77	0.06	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
<b>2014 Total</b>		1	1	100.00	1	100.00	0.02	0.77	0.06	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
<b>Grand Total</b>		92,729	76,262	82.24	75,252	98.68	0.12	1.96	0.33	1,010	1.32	1.13	18.06	2.26	16,467	17.76	14,523	88.19	0.20	3.24	0.57	1,944	11.81	1.70	23.61	2.40

**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	37,940	31,475	82.96	31,054	98.66	0.12	2.11	0.37	421	1.34	0.98	18.69	2.51	6,465	17.04	5,713	88.37	0.19	3.43	0.63	752	11.63	1.48	26.79	2.53
LDGT2	15,899	12,750	80.19	12,518	98.18	0.15	2.05	0.42	232	1.82	1.22	17.80	2.47	3,149	19.81	2,644	83.96	0.26	3.65	0.76	505	16.04	2.37	23.58	2.68
LDGV	38,890	32,037	82.38	31,680	98.89	0.10	1.78	0.26	357	1.11	1.26	17.50	1.83	6,853	17.62	6,166	89.98	0.17	2.89	0.43	687	10.02	1.45	20.16	2.05
<b>Grand Total</b>	92,729	76,262	82.24	75,252	98.68	0.12	1.96	0.33	1,010	1.32	1.13	18.06	2.26	16,467	17.76	14,523	88.19	0.20	3.24	0.57	1,944	11.81	1.70	23.61	2.40

## **Appendix A10**

### **Initial OBD Incomplete Inspection Report**



Date Range  
Between 1/1/2020 and 12/31/2020

## 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	71	11	15.49	4	36.36	1	9.09	6	54.55	0	0.00
	LDGT2	61	26	42.62	2	7.69	2	7.69	22	84.62	0	0.00
	LDGV	94	19	20.21	9	47.37	3	15.79	7	36.84	0	0.00
<b>1996 Total</b>		<b>226</b>	<b>56</b>	<b>24.78</b>	<b>15</b>	<b>26.79</b>	<b>6</b>	<b>10.71</b>	<b>35</b>	<b>62.50</b>	<b>0</b>	<b>0.00</b>
1997	LDGT1	132	12	9.09	3	25.00	4	33.33	5	41.67	0	0.00
	LDGT2	85	16	18.82	3	18.75	0	0.00	13	81.25	0	0.00
	LDGV	120	25	20.83	9	36.00	3	12.00	13	52.00	0	0.00
<b>1997 Total</b>		<b>337</b>	<b>53</b>	<b>15.73</b>	<b>15</b>	<b>28.30</b>	<b>7</b>	<b>13.21</b>	<b>31</b>	<b>58.49</b>	<b>0</b>	<b>0.00</b>
1998	LDGT1	162	18	11.11	9	50.00	3	16.67	6	33.33	0	0.00
	LDGT2	75	14	18.67	9	64.29	0	0.00	5	35.71	0	0.00
	LDGV	208	16	7.69	7	43.75	1	6.25	8	50.00	0	0.00
<b>1998 Total</b>		<b>445</b>	<b>48</b>	<b>10.79</b>	<b>25</b>	<b>52.08</b>	<b>4</b>	<b>8.33</b>	<b>19</b>	<b>39.58</b>	<b>0</b>	<b>0.00</b>
1999	LDGT1	244	17	6.97	9	52.94	4	23.53	4	23.53	0	0.00
	LDGT2	804	86	10.70	45	52.33	4	4.65	37	43.02	0	0.00
	LDGV	311	25	8.04	14	56.00	3	12.00	8	32.00	0	0.00
<b>1999 Total</b>		<b>1,359</b>	<b>128</b>	<b>9.42</b>	<b>68</b>	<b>53.13</b>	<b>11</b>	<b>8.59</b>	<b>49</b>	<b>38.28</b>	<b>0</b>	<b>0.00</b>
2000	LDGT1	7,995	437	5.47	419	95.88	4	0.92	14	3.20	0	0.00
	LDGT2	4,884	455	9.32	371	81.54	4	0.88	80	17.58	0	0.00
	LDGV	8,335	446	5.35	428	95.96	9	2.02	9	2.02	0	0.00
<b>2000 Total</b>		<b>21,214</b>	<b>1,338</b>	<b>6.31</b>	<b>1,218</b>	<b>91.03</b>	<b>17</b>	<b>1.27</b>	<b>103</b>	<b>7.70</b>	<b>0</b>	<b>0.00</b>
2001	LDGT1	6,979	339	4.86	321	94.69	2	0.59	16	4.72	0	0.00
	LDGT2	5,027	552	10.98	462	83.70	2	0.36	88	15.94	0	0.00
	LDGV	7,671	346	4.51	313	90.46	4	1.16	29	8.38	0	0.00
<b>2001 Total</b>		<b>19,677</b>	<b>1,237</b>	<b>6.29</b>	<b>1,096</b>	<b>88.60</b>	<b>8</b>	<b>0.65</b>	<b>133</b>	<b>10.75</b>	<b>0</b>	<b>0.00</b>
2002	LDGT1	10,436	397	3.80	385	96.98	4	1.01	8	2.02	0	0.00
	LDGT2	6,563	560	8.53	465	83.04	1	0.18	94	16.79	0	0.00
	LDGV	11,266	467	4.15	429	91.86	8	1.71	30	6.42	0	0.00
<b>2002 Total</b>		<b>28,265</b>	<b>1,424</b>	<b>5.04</b>	<b>1,279</b>	<b>89.82</b>	<b>13</b>	<b>0.91</b>	<b>132</b>	<b>9.27</b>	<b>0</b>	<b>0.00</b>
2003	LDGT1	8,728	284	3.25	279	98.24	2	0.70	3	1.06	0	0.00
	LDGT2	5,933	603	10.16	525	87.06	4	0.66	74	12.27	0	0.00
	LDGV	10,204	409	4.01	349	85.33	7	1.71	53	12.96	0	0.00
<b>2003 Total</b>		<b>24,865</b>	<b>1,296</b>	<b>5.21</b>	<b>1,153</b>	<b>88.97</b>	<b>13</b>	<b>1.00</b>	<b>130</b>	<b>10.03</b>	<b>0</b>	<b>0.00</b>
2004	LDGT1	13,552	302	2.23	295	97.68	1	0.33	6	1.99	0	0.00
	LDGT2	9,043	856	9.47	771	90.07	5	0.58	80	9.35	0	0.00
	LDGV	13,137	497	3.78	448	90.14	3	0.60	46	9.26	0	0.00
<b>2004 Total</b>		<b>35,732</b>	<b>1,655</b>	<b>4.63</b>	<b>1,514</b>	<b>91.48</b>	<b>9</b>	<b>0.54</b>	<b>132</b>	<b>7.98</b>	<b>0</b>	<b>0.00</b>
2005	LDGT1	11,675	281	2.41	244	86.83	13	4.63	24	8.54	0	0.00
	LDGT2	6,298	615	9.77	533	86.67	1	0.16	81	13.17	0	0.00
	LDGV	12,887	440	3.41	371	84.32	13	2.95	56	12.73	0	0.00
<b>2005 Total</b>		<b>30,860</b>	<b>1,336</b>	<b>4.33</b>	<b>1,148</b>	<b>85.93</b>	<b>27</b>	<b>2.02</b>	<b>161</b>	<b>12.05</b>	<b>0</b>	<b>0.00</b>
2006	LDGT1	14,821	365	2.46	315	86.30	2	0.55	48	13.15	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	7,360	424	5.76	382	90.09	1	0.24	41	9.67	0	0.00
	LDGV	16,700	491	2.94	415	84.52	5	1.02	71	14.46	0	0.00
<b>2006 Total</b>		<b>38,881</b>	<b>1,280</b>	<b>3.29</b>	<b>1,112</b>	<b>86.88</b>	<b>8</b>	<b>0.63</b>	<b>160</b>	<b>12.50</b>	<b>0</b>	<b>0.00</b>
2007	LDGT1	13,155	313	2.38	269	85.94	1	0.32	43	13.74	0	0.00
	LDGT2	8,461	436	5.15	303	69.50	2	0.46	131	30.05	0	0.00
	LDGV	15,655	517	3.30	417	80.66	13	2.51	87	16.83	0	0.00
<b>2007 Total</b>		<b>37,271</b>	<b>1,266</b>	<b>3.40</b>	<b>989</b>	<b>78.12</b>	<b>16</b>	<b>1.26</b>	<b>261</b>	<b>20.62</b>	<b>0</b>	<b>0.00</b>
2008	LDGT1	18,519	334	1.80	293	87.72	8	2.40	33	9.88	0	0.00
	LDGT2	10,088	379	3.76	234	61.74	4	1.06	141	37.20	0	0.00
	LDGV	18,965	500	2.64	396	79.20	5	1.00	99	19.80	0	0.00
<b>2008 Total</b>		<b>47,572</b>	<b>1,213</b>	<b>2.55</b>	<b>923</b>	<b>76.09</b>	<b>17</b>	<b>1.40</b>	<b>273</b>	<b>22.51</b>	<b>0</b>	<b>0.00</b>
2009	LDGT1	12,697	213	1.68	181	84.98	3	1.41	29	13.62	0	0.00
	LDGT2	6,170	160	2.59	99	61.88	3	1.88	58	36.25	0	0.00
	LDGV	18,214	416	2.28	368	88.46	4	0.96	44	10.58	0	0.00
<b>2009 Total</b>		<b>37,081</b>	<b>789</b>	<b>2.13</b>	<b>648</b>	<b>82.13</b>	<b>10</b>	<b>1.27</b>	<b>131</b>	<b>16.60</b>	<b>0</b>	<b>0.00</b>
2010	LDGT1	12,096	1,069	8.84	114	10.66	1	0.09	954	89.24	0	0.00
	LDGT2	7,027	885	12.59	88	9.94	2	0.23	795	89.83	0	0.00
	LDGV	15,048	1,404	9.33	204	14.53	5	0.36	1,195	85.11	0	0.00
<b>2010 Total</b>		<b>34,171</b>	<b>3,358</b>	<b>9.83</b>	<b>406</b>	<b>12.09</b>	<b>8</b>	<b>0.24</b>	<b>2,944</b>	<b>87.67</b>	<b>0</b>	<b>0.00</b>
2011	LDGT1	27,682	1,877	6.78	319	17.00	2	0.11	1,556	82.90	0	0.00
	LDGT2	14,684	1,487	10.13	192	12.91	5	0.34	1,290	86.75	0	0.00
	LDGV	25,768	2,155	8.36	384	17.82	4	0.19	1,767	82.00	0	0.00
<b>2011 Total</b>		<b>68,134</b>	<b>5,519</b>	<b>8.10</b>	<b>895</b>	<b>16.22</b>	<b>11</b>	<b>0.20</b>	<b>4,613</b>	<b>83.58</b>	<b>0</b>	<b>0.00</b>
2012	LDGT1	13,057	892	6.83	140	15.70	1	0.11	751	84.19	0	0.00
	LDGT2	8,190	772	9.43	110	14.25	1	0.13	661	85.62	0	0.00
	LDGV	18,194	1,452	7.98	239	16.46	2	0.14	1,211	83.40	0	0.00
<b>2012 Total</b>		<b>39,441</b>	<b>3,116</b>	<b>7.90</b>	<b>489</b>	<b>15.69</b>	<b>4</b>	<b>0.13</b>	<b>2,623</b>	<b>84.18</b>	<b>0</b>	<b>0.00</b>
2013	LDGT1	37,420	1,389	3.71	318	22.89	2	0.14	1,069	76.96	0	0.00
	LDGT2	19,358	1,469	7.59	202	13.75	1	0.07	1,266	86.18	0	0.00
	LDGV	43,119	2,692	6.24	444	16.49	4	0.15	2,244	83.36	0	0.00
<b>2013 Total</b>		<b>99,897</b>	<b>5,550</b>	<b>5.56</b>	<b>964</b>	<b>17.37</b>	<b>7</b>	<b>0.13</b>	<b>4,579</b>	<b>82.50</b>	<b>0</b>	<b>0.00</b>
2014	LDGT1	5,028	244	4.85	57	23.36	1	0.41	186	76.23	0	0.00
	LDGT2	3,258	406	12.46	32	7.88	0	0.00	374	92.12	0	0.00
	LDGV	5,366	491	9.15	71	14.46	3	0.61	417	84.93	0	0.00
<b>2014 Total</b>		<b>13,652</b>	<b>1,141</b>	<b>8.36</b>	<b>160</b>	<b>14.02</b>	<b>4</b>	<b>0.35</b>	<b>977</b>	<b>85.63</b>	<b>0</b>	<b>0.00</b>
2015	LDGT1	1,347	72	5.35	18	25.00	0	0.00	54	75.00	0	0.00
	LDGT2	680	53	7.79	3	5.66	1	1.89	49	92.45	0	0.00
	LDGV	1,477	92	6.23	19	20.65	0	0.00	73	79.35	0	0.00
<b>2015 Total</b>		<b>3,504</b>	<b>217</b>	<b>6.19</b>	<b>40</b>	<b>18.43</b>	<b>1</b>	<b>0.46</b>	<b>176</b>	<b>81.11</b>	<b>0</b>	<b>0.00</b>
2016	LDGT1	850	35	4.12	12	34.29	0	0.00	23	65.71	0	0.00
	LDGT2	313	24	7.67	4	16.67	0	0.00	20	83.33	0	0.00
	LDGV	762	39	5.12	6	15.38	0	0.00	33	84.62	0	0.00
<b>2016 Total</b>		<b>1,925</b>	<b>98</b>	<b>5.09</b>	<b>22</b>	<b>22.45</b>	<b>0</b>	<b>0.00</b>	<b>76</b>	<b>77.55</b>	<b>0</b>	<b>0.00</b>
2017	LDGT1	545	25	4.59	10	40.00	0	0.00	15	60.00	0	0.00
	LDGT2	209	15	7.18	3	20.00	1	6.67	11	73.33	0	0.00

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	%
	LDGV	402	18	4.48	8	44.44	0	0.00	10	55.56	0	0.00
<b>2017 Total</b>		<b>1,156</b>	<b>58</b>	<b>5.02</b>	<b>21</b>	<b>36.21</b>	<b>1</b>	<b>1.72</b>	<b>36</b>	<b>62.07</b>	<b>0</b>	<b>0.00</b>
2018	LDGT1	335	10	2.99	8	80.00	0	0.00	2	20.00	0	0.00
	LDGT2	150	5	3.33	3	60.00	0	0.00	2	40.00	0	0.00
	LDGV	190	10	5.26	1	10.00	0	0.00	9	90.00	0	0.00
<b>2018 Total</b>		<b>675</b>	<b>25</b>	<b>3.70</b>	<b>12</b>	<b>48.00</b>	<b>0</b>	<b>0.00</b>	<b>13</b>	<b>52.00</b>	<b>0</b>	<b>0.00</b>
2019	LDGT1	140	3	2.14	3	100.00	0	0.00	0	0.00	0	0.00
	LDGT2	56	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	100	5	5.00	2	40.00	0	0.00	3	60.00	0	0.00
<b>2019 Total</b>		<b>296</b>	<b>8</b>	<b>2.70</b>	<b>5</b>	<b>62.50</b>	<b>0</b>	<b>0.00</b>	<b>3</b>	<b>37.50</b>	<b>0</b>	<b>0.00</b>
2020	LDGT1	15	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	7	1	14.29	1	100.00	0	0.00	0	0.00	0	0.00
	LDGV	23	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>2020 Total</b>		<b>45</b>	<b>1</b>	<b>2.22</b>	<b>1</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>
2021	LDGV	1	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>2021 Total</b>		<b>1</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>
<b>Grand Total</b>		<b>586,682</b>	<b>32,210</b>	<b>5.49</b>	<b>14,218</b>	<b>44.14</b>	<b>202</b>	<b>0.63</b>	<b>17,790</b>	<b>55.23</b>	<b>0</b>	<b>0.00</b>

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

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	%
LDGT1	217,681	8,939	4.11	4,025	45.03	59	0.66	4,855	54.31	0	0.00
LDGT2	124,784	10,299	8.25	4,842	47.01	44	0.43	5,413	52.56	0	0.00
LDGV	244,217	12,972	5.31	5,351	41.25	99	0.76	7,522	57.99	0	0.00
<b>Grand Total</b>	<b>586,682</b>	<b>32,210</b>	<b>5.49</b>	<b>14,218</b>	<b>44.14</b>	<b>202</b>	<b>0.63</b>	<b>17,790</b>	<b>55.23</b>	<b>0</b>	<b>0.00</b>



## **Appendix A11**

### **OBD Retest Incomplete Inspection Report**



Date Range  
Between 1/1/2020 and 12/31/2020

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	7	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	27	6	22.22	1	16.67	1	0.17	4	66.67	0	0.00	1	16.67
	LDGV	12	3	25.00	1	33.33	0	0.00	2	66.67	0	0.00	0	0.00
<b>1996 Total</b>		<b>46</b>	<b>9</b>	<b>19.57</b>	<b>2</b>	<b>22.22</b>	<b>1</b>	<b>0.11</b>	<b>6</b>	<b>66.67</b>	<b>0</b>	<b>0.00</b>	<b>1</b>	<b>11.11</b>
1997	LDGT1	21	3	14.29	0	0.00	1	0.33	2	66.67	0	0.00	1	33.33
	LDGT2	35	10	28.57	0	0.00	1	0.10	9	90.00	0	0.00	9	90.00
	LDGV	21	5	23.81	0	0.00	1	0.20	4	80.00	0	0.00	2	40.00
<b>1997 Total</b>		<b>77</b>	<b>18</b>	<b>23.38</b>	<b>0</b>	<b>0.00</b>	<b>3</b>	<b>0.17</b>	<b>15</b>	<b>83.33</b>	<b>0</b>	<b>0.00</b>	<b>12</b>	<b>66.67</b>
1998	LDGT1	24	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	26	6	23.08	2	33.33	0	0.00	4	66.67	0	0.00	0	0.00
	LDGV	38	9	23.68	2	22.22	1	0.11	6	66.67	0	0.00	6	66.67
<b>1998 Total</b>		<b>88</b>	<b>15</b>	<b>17.05</b>	<b>4</b>	<b>26.67</b>	<b>1</b>	<b>0.07</b>	<b>10</b>	<b>66.67</b>	<b>0</b>	<b>0.00</b>	<b>6</b>	<b>40.00</b>
1999	LDGT1	28	1	3.57	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00
	LDGT2	211	48	22.75	5	10.42	2	0.04	41	85.42	0	0.00	27	56.25
	LDGV	62	12	19.35	0	0.00	0	0.00	12	100.00	0	0.00	9	75.00
<b>1999 Total</b>		<b>301</b>	<b>61</b>	<b>20.27</b>	<b>5</b>	<b>8.20</b>	<b>2</b>	<b>0.03</b>	<b>54</b>	<b>88.52</b>	<b>0</b>	<b>0.00</b>	<b>37</b>	<b>60.66</b>
2000	LDGT1	740	24	3.24	11	45.83	2	0.08	11	45.83	0	0.00	22	91.67
	LDGT2	707	88	12.45	20	22.73	0	0.00	68	77.27	0	0.00	62	70.45
	LDGV	772	41	5.31	34	82.93	1	0.02	6	14.63	0	0.00	34	82.93
<b>2000 Total</b>		<b>2,219</b>	<b>153</b>	<b>6.89</b>	<b>65</b>	<b>42.48</b>	<b>3</b>	<b>0.02</b>	<b>85</b>	<b>55.56</b>	<b>0</b>	<b>0.00</b>	<b>118</b>	<b>77.12</b>
2001	LDGT1	903	25	2.77	15	60.00	1	0.04	9	36.00	0	0.00	17	68.00
	LDGT2	710	81	11.41	11	13.58	0	0.00	70	86.42	0	0.00	40	49.38
	LDGV	785	34	4.33	22	64.71	0	0.00	12	35.29	0	0.00	27	79.41
<b>2001 Total</b>		<b>2,398</b>	<b>140</b>	<b>5.84</b>	<b>48</b>	<b>34.29</b>	<b>1</b>	<b>0.01</b>	<b>91</b>	<b>65.00</b>	<b>0</b>	<b>0.00</b>	<b>84</b>	<b>60.00</b>
2002	LDGT1	1,074	30	2.79	26	86.67	1	0.03	3	10.00	0	0.00	18	60.00
	LDGT2	837	68	8.12	21	30.88	0	0.00	47	69.12	0	0.00	51	75.00
	LDGV	987	53	5.37	25	47.17	0	0.00	28	52.83	0	0.00	46	86.79
<b>2002 Total</b>		<b>2,898</b>	<b>151</b>	<b>5.21</b>	<b>72</b>	<b>47.68</b>	<b>1</b>	<b>0.01</b>	<b>78</b>	<b>51.66</b>	<b>0</b>	<b>0.00</b>	<b>115</b>	<b>76.16</b>
2003	LDGT1	843	13	1.54	12	92.31	1	0.08	0	0.00	0	0.00	13	100.00
	LDGT2	821	77	9.38	27	35.06	2	0.03	48	62.34	0	0.00	59	76.62
	LDGV	882	43	4.88	19	44.19	2	0.05	22	51.16	0	0.00	32	74.42
<b>2003 Total</b>		<b>2,546</b>	<b>133</b>	<b>5.22</b>	<b>58</b>	<b>43.61</b>	<b>5</b>	<b>0.04</b>	<b>70</b>	<b>52.63</b>	<b>0</b>	<b>0.00</b>	<b>104</b>	<b>78.20</b>
2004	LDGT1	930	13	1.40	9	69.23	2	0.15	2	15.38	0	0.00	10	76.92
	LDGT2	897	65	7.25	23	35.38	0	0.00	42	64.62	0	0.00	49	75.38
	LDGV	975	43	4.41	23	53.49	2	0.05	18	41.86	0	0.00	36	83.72
<b>2004 Total</b>		<b>2,802</b>	<b>121</b>	<b>4.32</b>	<b>55</b>	<b>45.45</b>	<b>4</b>	<b>0.03</b>	<b>62</b>	<b>51.24</b>	<b>0</b>	<b>0.00</b>	<b>95</b>	<b>78.51</b>
2005	LDGT1	759	17	2.24	15	88.24	0	0.00	2	11.76	0	0.00	15	88.24
	LDGT2	608	58	9.54	15	25.86	0	0.00	43	74.14	0	0.00	40	68.97
	LDGV	966	46	4.76	12	26.09	0	0.00	34	73.91	0	0.00	26	56.52
<b>2005 Total</b>		<b>2,333</b>	<b>121</b>	<b>5.19</b>	<b>42</b>	<b>34.71</b>	<b>0</b>	<b>0.00</b>	<b>79</b>	<b>65.29</b>	<b>0</b>	<b>0.00</b>	<b>81</b>	<b>66.94</b>

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	655	26	3.97	11	42.31	2	0.08	13	50.00	0	0.00	20	76.92
	LDGT2	532	28	5.26	5	17.86	0	0.00	23	82.14	0	0.00	23	82.14
	LDGV	870	56	6.44	15	26.79	1	0.02	40	71.43	0	0.00	31	55.36
<b>2006 Total</b>		2,057	110	5.35	31	28.18	3	0.03	76	69.09	0	0.00	74	67.27
2007	LDGT1	642	23	3.58	9	39.13	0	0.00	14	60.87	0	0.00	18	78.26
	LDGT2	675	54	8.00	6	11.11	0	0.00	48	88.89	0	0.00	42	77.78
	LDGV	788	58	7.36	14	24.14	1	0.02	43	74.14	0	0.00	41	70.69
<b>2007 Total</b>		2,105	135	6.41	29	21.48	1	0.01	105	77.78	0	0.00	101	74.81
2008	LDGT1	701	21	3.00	7	33.33	0	0.00	14	66.67	0	0.00	15	71.43
	LDGT2	750	65	8.67	12	18.46	0	0.00	53	81.54	0	0.00	40	61.54
	LDGV	749	51	6.81	15	29.41	0	0.00	36	70.59	0	0.00	44	86.27
<b>2008 Total</b>		2,200	137	6.23	34	24.82	0	0.00	103	75.18	0	0.00	99	72.26
2009	LDGT1	534	47	8.80	6	12.77	0	0.00	41	87.23	0	0.00	31	65.96
	LDGT2	513	43	8.38	5	11.63	0	0.00	38	88.37	0	0.00	29	67.44
	LDGV	660	62	9.39	8	12.90	0	0.00	54	87.10	0	0.00	47	75.81
<b>2009 Total</b>		1,707	152	8.90	19	12.50	0	0.00	133	87.50	0	0.00	107	70.39
2010	LDGT1	890	287	32.25	20	6.97	0	0.00	267	93.03	0	0.00	247	86.06
	LDGT2	894	324	36.24	8	2.47	0	0.00	316	97.53	0	0.00	250	77.16
	LDGV	1,404	507	36.11	15	2.96	0	0.00	492	97.04	0	0.00	406	80.08
<b>2010 Total</b>		3,188	1,118	35.07	43	3.85	0	0.00	1,075	96.15	0	0.00	903	80.77
2011	LDGT1	1,208	385	31.87	18	4.68	1	0.00	366	95.06	0	0.00	333	86.49
	LDGT2	1,360	407	29.93	18	4.42	0	0.00	389	95.58	0	0.00	350	86.00
	LDGV	1,586	563	35.50	34	6.04	1	0.00	528	93.78	0	0.00	489	86.86
<b>2011 Total</b>		4,154	1,355	32.62	70	5.17	2	0.00	1,283	94.69	0	0.00	1,172	86.49
2012	LDGT1	860	273	31.74	11	4.03	0	0.00	262	95.97	0	0.00	239	87.55
	LDGT2	979	284	29.01	31	10.92	0	0.00	253	89.08	0	0.00	234	82.39
	LDGV	1,574	525	33.35	17	3.24	0	0.00	508	96.76	0	0.00	421	80.19
<b>2012 Total</b>		3,413	1,082	31.70	59	5.45	0	0.00	1,023	94.55	0	0.00	894	82.62
2013	LDGT1	1,169	283	24.21	23	8.13	0	0.00	260	91.87	0	0.00	268	94.70
	LDGT2	1,516	337	22.23	21	6.23	0	0.00	316	93.77	0	0.00	302	89.61
	LDGV	2,244	652	29.06	24	3.68	0	0.00	628	96.32	0	0.00	553	84.82
<b>2013 Total</b>		4,929	1,272	25.81	68	5.35	0	0.00	1,204	94.65	0	0.00	1,123	88.29
2014	LDGT1	122	26	21.31	1	3.85	0	0.00	25	96.15	0	0.00	25	96.15
	LDGT2	236	60	25.42	1	1.67	0	0.00	59	98.33	0	0.00	52	86.67
	LDGV	240	88	36.67	6	6.82	0	0.00	82	93.18	0	0.00	75	85.23
<b>2014 Total</b>		598	174	29.10	8	4.60	0	0.00	166	95.40	0	0.00	152	87.36
2015	LDGT1	42	11	26.19	1	9.09	0	0.00	10	90.91	0	0.00	11	100.00
	LDGT2	28	4	14.29	0	0.00	0	0.00	4	100.00	0	0.00	4	100.00
	LDGV	54	16	29.63	0	0.00	0	0.00	16	100.00	0	0.00	13	81.25
<b>2015 Total</b>		124	31	25.00	1	3.23	0	0.00	30	96.77	0	0.00	28	90.32
2016	LDGT1	16	4	25.00	0	0.00	0	0.00	4	100.00	0	0.00	4	100.00
	LDGT2	9	3	33.33	1	33.33	0	0.00	2	66.67	0	0.00	3	100.00
	LDGV	26	6	23.08	0	0.00	0	0.00	6	100.00	0	0.00	6	100.00
<b>2016 Total</b>		51	13	25.49	1	7.69	0	0.00	12	92.31	0	0.00	13	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	8	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	2	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	10	1	10.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00
<b>2017 Total</b>		<b>20</b>	<b>1</b>	<b>5.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>1</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>1</b>	<b>100.00</b>
2018	LDGT1	4	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	4	1	25.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00
	LDGV	2	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>2018 Total</b>		<b>10</b>	<b>1</b>	<b>10.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>1</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>1</b>	<b>100.00</b>
2019	LDGT1	1	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	1	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	2	1	50.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00
<b>2019 Total</b>		<b>4</b>	<b>1</b>	<b>25.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>1</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>1</b>	<b>100.00</b>
2020	LDGV	2	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
<b>2020 Total</b>		<b>2</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>
<b>Grand Total</b>		<b>40,270</b>	<b>6,504</b>	<b>16.15</b>	<b>714</b>	<b>10.98</b>	<b>27</b>	<b>0.00</b>	<b>5,763</b>	<b>88.61</b>	<b>0</b>	<b>0.00</b>	<b>5,322</b>	<b>81.83</b>

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	12,181	1,512	12.41	195	12.90	11	0.01	1,306	86.38	0	0.00	1,308	86.51	
LDGT2	12,378	2,117	17.10	233	11.01	6	0.00	1,878	88.71	0	0.00	1,668	78.79	
LDGV	15,711	2,875	18.30	286	9.95	10	0.00	2,579	89.70	0	0.00	2,346	81.60	
<b>Grand Total</b>		<b>40,270</b>	<b>6,504</b>	<b>16.15</b>	<b>714</b>	<b>10.98</b>	<b>27</b>	<b>0.00</b>	<b>5,763</b>	<b>88.61</b>	<b>0</b>	<b>0.00</b>	<b>5,322</b>	<b>81.83</b>





## **Appendix B1**

### I/M240 Initial Inspection Report



Date  
Between 1/1/2020 and 12/31/2020

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	133	2.6925	35.4610	2.2257	102	76.69%	1.7023	19.8086	2.2637	31	23.31%	5.9507	86.9625	2.1006
	LDGT1	142	2.9924	41.0348	2.5096	106	74.65%	2.0671	27.6062	2.7449	36	25.35%	5.7170	80.5746	1.8168
	LDGT2	28	3.0384	46.7621	3.2412	18	64.29%	2.6127	36.4138	2.9697	10	35.71%	3.8047	65.3892	3.7298
<b>1982 Total</b>		303	2.8650	39.1175	2.4526	226	74.59%	1.9459	24.7884	2.5456	77	25.41%	5.5627	81.1742	2.1795
1983	LDGV	164	2.0948	28.4234	1.8857	125	76.22%	1.3366	12.3806	1.9175	39	23.78%	4.5249	79.8427	1.7838
	LDGT1	141	3.6590	44.6893	2.3890	94	66.67%	2.8276	31.2836	2.4243	47	33.33%	5.3218	71.5006	2.3186
	LDGT2	48	3.2230	51.7664	3.0542	30	62.50%	2.3809	34.5063	3.3795	18	37.50%	4.6265	80.5331	2.5121
<b>1983 Total</b>		353	2.8730	38.0947	2.2456	249	70.54%	2.0253	22.1824	2.2849	104	29.46%	4.9026	76.1922	2.1515
1984	LDGV	318	2.2688	21.6033	1.9599	243	76.42%	1.3765	11.7113	1.9524	75	23.58%	5.1597	53.6536	1.9844
	LDGT1	311	2.4933	35.2316	2.4065	227	72.99%	1.9120	22.5362	2.3624	84	27.01%	4.0641	69.5393	2.5255
	LDGT2	91	3.1536	44.2517	3.0949	59	64.84%	2.2446	28.4056	3.0142	32	35.16%	4.8295	73.4678	3.2438
<b>1984 Total</b>		720	2.4776	30.3525	2.2963	529	73.47%	1.7031	18.2183	2.2468	191	26.53%	4.6225	63.9596	2.4334
1985	LDGV	330	1.5432	15.6297	1.8610	251	76.06%	1.0638	10.6427	1.8182	79	23.94%	3.0661	31.4746	1.9971
	LDGT1	327	2.4101	27.7050	2.6274	261	79.82%	1.8205	18.0185	2.6495	66	20.18%	4.7419	66.0106	2.5399
	LDGT2	101	4.4246	54.4210	2.5061	56	55.45%	1.9136	22.5773	2.8860	45	44.55%	7.5494	94.0487	2.0335
<b>1985 Total</b>		758	2.3011	26.0077	2.2776	568	74.93%	1.4953	15.2086	2.3055	190	25.07%	4.7101	58.2915	2.1943
1986	LDGV	496	1.2604	13.6850	1.7444	418	84.27%	0.9589	7.9763	1.7439	78	15.73%	2.8762	44.2779	1.7474
	LDGT1	611	1.9143	23.4196	2.4593	501	82.00%	1.6296	16.3960	2.4823	110	18.00%	3.2110	55.4084	2.3549
	LDGT2	141	3.5154	38.8941	2.9023	88	62.41%	1.8770	19.7450	2.7852	53	37.59%	6.2356	70.6889	3.0968
<b>1986 Total</b>		1248	1.8353	21.2990	2.2253	1007	80.69%	1.3728	13.1937	2.2022	241	19.31%	3.7678	55.1665	2.3214
1987	LDGV	555	1.4343	12.5742	1.7858	460	82.88%	0.9660	8.0515	1.7489	95	17.12%	3.7016	34.4731	1.9647
	LDGT1	562	1.8291	21.7707	2.3823	434	77.22%	1.4040	14.3625	2.3844	128	22.78%	3.2706	46.8892	2.3751
	LDGT2	183	2.6032	25.7759	2.9107	139	75.96%	1.8564	13.7393	2.8042	44	24.04%	4.9623	63.8006	3.2471
<b>1987 Total</b>		1300	1.7695	18.4083	2.2020	1033	79.46%	1.2698	11.4683	2.1579	267	20.54%	3.7027	45.2584	2.3728
1988	LDGV	773	1.0517	10.5622	1.5381	662	85.64%	0.7542	7.5214	1.4913	111	14.36%	2.8258	28.6975	1.8175
	LDGT1	890	1.7089	17.2468	2.2188	708	79.55%	1.3053	11.8505	2.1137	182	20.45%	3.2788	38.2389	2.6279
	LDGT2	300	2.0343	19.4790	2.6662	226	75.33%	1.4906	12.2628	2.5633	74	24.67%	3.6947	41.5178	2.9805
<b>1988 Total</b>		1963	1.4998	14.9557	2.0192	1596	81.30%	1.1030	10.1132	1.9192	367	18.70%	3.2257	36.0142	2.4539
1989	LDGV	820	1.1652	11.7927	1.6314	681	83.05%	0.7585	7.6937	1.5845	139	16.95%	3.1575	31.8746	1.8611
	LDGT1	932	1.5054	16.9691	2.1272	748	80.26%	1.2087	12.5197	2.0554	184	19.74%	2.7115	35.0569	2.4194
	LDGT2	336	1.9144	15.6810	2.7803	266	79.17%	1.5277	12.1466	2.6253	70	20.83%	3.3840	29.1115	3.3695
<b>1989 Total</b>		2088	1.4376	14.7289	2.0376	1695	81.18%	1.0779	10.5222	1.9556	393	18.82%	2.9891	32.8724	2.3912
1990	LDGV	1382	0.9361	10.5426	1.5761	1189	86.03%	0.6983	7.5796	1.5139	193	13.97%	2.4014	28.7961	1.9594
	LDGT1	1198	1.4184	15.8340	2.1371	980	81.80%	1.1368	10.5684	2.0626	218	18.20%	2.6844	39.5049	2.4721
	LDGT2	462	1.7878	16.9969	2.6081	370	80.09%	1.4641	13.4535	2.5097	92	19.91%	3.0898	31.2476	3.0039
<b>1990 Total</b>		3042	1.2554	13.6067	1.9538	2539	83.46%	0.9791	9.5892	1.8708	503	16.54%	2.6500	33.8857	2.3726
1991	LDGV	1394	0.9321	9.5792	1.5194	1189	85.29%	0.6113	6.8476	1.4339	205	14.71%	2.7924	25.4224	2.0152
	LDGT1	1282	1.1971	12.8905	1.8936	1092	85.18%	1.0043	10.7423	1.8026	190	14.82%	2.3051	25.2370	2.4170
	LDGT2	424	1.6169	18.3875	2.4966	324	76.42%	1.2920	14.6129	2.3869	100	23.58%	2.6695	30.6171	2.8521

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)
<b>1991 Total</b>		3100	1.1353	12.1533	1.8078	2605	84.03%	0.8607	9.4460	1.7070	495	15.97%	2.5805	26.4007	2.3385
1992	LDGV	1900	0.8009	8.9733	1.4186	1636	86.11%	0.5534	6.0678	1.3690	264	13.89%	2.3342	26.9786	1.7259
	LDGT1	1476	1.1882	13.3179	1.7938	1284	86.99%	0.9660	10.0907	1.7109	192	13.01%	2.6743	34.8995	2.3481
	LDGT2	800	1.6843	16.9014	2.4715	631	78.88%	1.3440	13.2246	2.3599	169	21.13%	2.9545	30.6297	2.8885
<b>1992 Total</b>		4176	1.1070	12.0277	1.7529	3551	85.03%	0.8431	8.7942	1.6687	625	14.97%	2.6064	30.3992	2.2314
1993	LDGV	1967	0.7254	8.2802	1.4983	1703	86.58%	0.5586	5.7720	1.4393	264	13.42%	1.8009	24.4602	1.8787
	LDGT1	1885	1.1911	12.6868	2.0402	1648	87.43%	0.9715	9.8639	1.9442	237	12.57%	2.7179	32.3159	2.7077
	LDGT2	864	1.6844	17.2842	2.4804	677	78.36%	1.3432	14.0807	2.3289	187	21.64%	2.9198	28.8820	3.0286
<b>1993 Total</b>		4716	1.0872	11.6911	1.8948	4028	85.41%	0.8594	8.8426	1.7954	688	14.59%	2.4209	28.3681	2.4768
1994	LDGV	2522	0.5917	6.5384	1.1943	2243	88.94%	0.4310	4.9382	1.1247	279	11.06%	1.8836	19.4030	1.7544
	LDGT1	2717	0.9709	10.1425	1.8281	2322	85.46%	0.7762	8.1064	1.6918	395	14.54%	2.1154	22.1114	2.6296
	LDGT2	1665	1.2919	14.1325	2.2183	1286	77.24%	0.9612	10.2862	2.0179	379	22.76%	2.4140	27.1836	2.8985
<b>1994 Total</b>		6904	0.9098	9.7882	1.6907	5851	84.75%	0.6845	7.3710	1.5460	1053	15.25%	2.1614	23.2194	2.4945
1995	LDGV	3235	0.5840	6.5950	1.0733	2832	87.54%	0.4183	4.7799	1.0032	403	12.46%	1.7484	19.3501	1.5661
	LDGT1	2915	0.8898	10.2055	1.8271	2502	85.83%	0.7512	8.0140	1.7382	413	14.17%	1.7300	23.4819	2.3655
	LDGT2	2010	1.1799	13.4281	2.1265	1569	78.06%	0.8955	10.1581	1.9492	441	21.94%	2.1916	25.0624	2.7575
<b>1995 Total</b>		8160	0.8400	9.5679	1.6020	6903	84.60%	0.6474	7.1745	1.4846	1257	15.40%	1.8979	22.7117	2.2468
1996	LDGV	4239	0.3948	4.8548	0.8613	3802	89.69%	0.3171	3.8605	0.7905	437	10.31%	1.0712	13.5056	1.4770
	LDGT1	3649	0.5081	6.4438	1.4810	3181	87.17%	0.4132	5.1417	1.3733	468	12.83%	1.1528	15.2939	2.2125
	LDGT2	2164	0.6239	7.3614	1.4140	1870	86.41%	0.5039	6.0335	1.3077	294	13.59%	1.3873	15.8074	2.0902
<b>1996 Total</b>		10052	0.4852	5.9712	1.2052	8853	88.07%	0.3911	4.7799	1.1092	1199	11.93%	1.1806	14.7680	1.9144
1997	LDGV	5114	0.4230	5.2341	0.8310	4552	89.01%	0.3430	4.0316	0.7787	562	10.99%	1.0709	14.9743	1.2547
	LDGT1	5411	0.4904	6.7710	1.4028	4635	85.66%	0.3863	5.1075	1.2768	776	14.34%	1.1126	16.7071	2.1557
	LDGT2	2332	0.5668	7.1425	1.4703	1972	84.56%	0.4304	5.6858	1.3216	360	15.44%	1.3141	15.1220	2.2850
<b>1997 Total</b>		12857	0.4775	6.2271	1.1876	11159	86.79%	0.3764	4.7708	1.0815	1698	13.21%	1.1415	15.7975	1.8849
1998	LDGV	7116	0.3590	4.6249	0.7030	6280	88.25%	0.2669	3.5630	0.6481	836	11.75%	1.0507	12.6025	1.1156
	LDGT1	7790	0.4014	5.6338	1.1764	6906	88.65%	0.3346	4.5387	1.0784	884	11.35%	0.9232	14.1891	1.9422
	LDGT2	3083	0.5390	5.8233	1.3183	2665	86.44%	0.3590	4.5026	1.1614	418	13.56%	1.6861	14.2440	2.3190
<b>1998 Total</b>		17989	0.4082	5.2672	1.0135	15851	88.11%	0.3119	4.1461	0.9219	2138	11.89%	1.1222	13.5795	1.6926
1999	LDGV	7738	0.3135	4.1553	0.6869	6927	89.52%	0.2441	3.2917	0.6148	811	10.48%	0.9061	11.5318	1.3025
	LDGT1	7507	0.3612	5.4646	0.9554	6581	87.66%	0.2655	3.9776	0.8353	926	12.34%	1.0410	16.0332	1.8089
	LDGT2	3813	0.4496	5.1924	1.0693	3225	84.58%	0.2874	3.3762	0.8947	588	15.42%	1.3394	15.1535	2.0267
<b>1999 Total</b>		19058	0.3595	4.8785	0.8692	16733	87.80%	0.2609	3.5777	0.7555	2325	12.20%	1.0694	14.2406	1.6874
2000	LDGV	4030	0.2810	4.0809	0.6153	3593	89.16%	0.1918	2.9379	0.5152	437	10.84%	1.0148	13.4792	1.4382
	LDGT1	3336	0.3164	4.6809	0.8906	2918	87.47%	0.2399	3.2631	0.7645	418	12.53%	0.8503	14.5785	1.7709
	LDGT2	1539	0.3739	4.8567	0.9695	1301	84.54%	0.2485	3.3621	0.7653	238	15.46%	1.0598	13.0267	2.0856
<b>2000 Total</b>		8905	0.3103	4.4398	0.7796	7812	87.73%	0.2192	3.1300	0.6500	1093	12.27%	0.9617	13.8011	1.7064
2001	LDGV	4091	0.2383	3.6037	0.5061	3651	89.24%	0.1490	2.6707	0.4003	440	10.76%	0.9791	11.3449	1.3840
	LDGT1	3558	0.2349	4.5237	0.6467	3154	88.65%	0.1608	3.0763	0.5316	404	11.35%	0.8138	15.8238	1.5457
	LDGT2	1743	0.3236	4.4426	0.8666	1490	85.48%	0.2453	3.2534	0.7104	253	14.52%	0.7841	11.4466	1.7862
<b>2001 Total</b>		9392	0.2528	4.1079	0.6263	8295	88.32%	0.1708	2.9296	0.5059	1097	11.68%	0.8732	13.0178	1.5363
2002	LDGV	5247	0.2033	3.5824	0.4630	4722	89.99%	0.1356	2.9188	0.3543	525	10.01%	0.8125	9.5514	1.4404
	LDGT1	4563	0.2308	5.1417	0.5851	4050	88.76%	0.1396	3.3795	0.4698	513	11.24%	0.9513	19.0538	1.4955

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	1840	0.2889	4.1160	0.9081	1584	86.09%	0.2186	2.9760	0.7347	256	13.91%	0.7241	11.1696	1.9814
<b>2002 Total</b>		11650	0.2276	4.2774	0.5811	10356	88.89%	0.1498	3.1077	0.4577	1294	11.11%	0.8501	13.6387	1.5693
2003	LDGV	4922	0.1501	2.8215	0.3954	4439	90.19%	0.1059	2.0339	0.3060	483	9.81%	0.5565	10.0594	1.2166
	LDGT1	4408	0.1996	3.7668	0.5354	3928	89.11%	0.1319	2.4403	0.4292	480	10.89%	0.7538	14.6223	1.4048
	LDGT2	1973	0.3028	3.9941	0.6677	1744	88.39%	0.1863	2.7222	0.5395	229	11.61%	1.1897	13.6808	1.6441
<b>2003 Total</b>		11303	0.1961	3.3948	0.4975	10111	89.45%	0.1299	2.3105	0.3941	1192	10.55%	0.7576	12.5925	1.3745
2004	LDGV	5335	0.1344	2.4021	0.3190	4862	91.13%	0.0870	1.7609	0.2372	473	8.87%	0.6225	8.9922	1.1595
	LDGT1	5694	0.1364	3.0475	0.3601	5220	91.68%	0.0976	2.0539	0.2699	474	8.32%	0.5640	13.9902	1.3536
	LDGT2	2581	0.1879	3.0338	0.4325	2335	90.47%	0.1204	2.1448	0.3118	246	9.53%	0.8284	11.4721	1.5785
<b>2004 Total</b>		13610	0.1454	2.7919	0.3577	12417	91.23%	0.0977	1.9563	0.2650	1193	8.77%	0.6417	11.4894	1.3230
2005	LDGV	5673	0.1310	2.1622	0.2920	5181	91.33%	0.0716	1.4979	0.2094	492	8.67%	0.7571	9.1581	1.1620
	LDGT1	5617	0.1201	2.2931	0.2644	5231	93.13%	0.0887	1.6570	0.1848	386	6.87%	0.5456	10.9129	1.3426
	LDGT2	1968	0.2372	3.0437	0.3922	1809	91.92%	0.1283	1.9500	0.2777	159	8.08%	1.4759	15.4863	1.6951
<b>2005 Total</b>		13258	0.1422	2.3485	0.2952	12221	92.18%	0.0873	1.6329	0.2090	1037	7.82%	0.7886	10.7816	1.3110
2006	LDGV	5970	0.1026	2.0877	0.2158	5639	94.46%	0.0640	1.5707	0.1476	331	5.54%	0.7601	10.8954	1.3769
	LDGT1	5343	0.0869	2.1898	0.2125	5054	94.59%	0.0669	1.7584	0.1695	289	5.41%	0.4379	9.7354	0.9646
	LDGT2	2258	0.1642	2.3477	0.2932	2064	91.41%	0.0926	1.5332	0.1896	194	8.59%	0.9263	11.0141	1.3964
<b>2006 Total</b>		13571	0.1067	2.1712	0.2274	12757	94.00%	0.0698	1.6390	0.1631	814	6.00%	0.6853	10.5118	1.2351
2007	LDGV	6057	0.0724	1.6896	0.1664	5758	95.06%	0.0546	1.3452	0.1230	299	4.94%	0.4145	8.3213	1.0018
	LDGT1	5488	0.0696	1.9897	0.1656	5193	94.62%	0.0477	1.4684	0.1255	295	5.38%	0.4545	11.1660	0.8709
	LDGT2	2465	0.1102	1.6349	0.2040	2316	93.96%	0.0776	1.1845	0.1391	149	6.04%	0.6170	8.6347	1.2119
<b>2007 Total</b>		14010	0.0779	1.7975	0.1727	13267	94.70%	0.0559	1.3654	0.1268	743	5.30%	0.4710	9.5136	0.9920
2008	LDGV	5522	0.0742	1.7721	0.1532	5256	95.18%	0.0526	1.3617	0.1150	266	4.82%	0.5007	9.8826	0.9070
	LDGT1	5188	0.0523	1.6434	0.1445	4974	95.88%	0.0447	1.3260	0.1206	214	4.12%	0.2276	9.0200	0.6997
	LDGT2	2382	0.1023	2.2880	0.1618	2194	92.11%	0.0681	1.5679	0.1214	188	7.89%	0.5011	10.6911	0.6343
<b>2008 Total</b>		13092	0.0706	1.8150	0.1513	12424	94.90%	0.0522	1.3838	0.1184	668	5.10%	0.4133	9.8338	0.7639
2009	LDGV	4621	0.0678	1.7002	0.1302	4493	97.23%	0.0502	1.3885	0.1082	128	2.77%	0.6850	12.6414	0.9052
	LDGT1	3292	0.0471	1.6898	0.1229	3189	96.87%	0.0428	1.5784	0.1132	103	3.13%	0.1797	5.1392	0.4232
	LDGT2	1398	0.0652	1.4374	0.1307	1322	94.56%	0.0568	1.1789	0.1146	76	5.44%	0.2105	5.9336	0.4100
<b>2009 Total</b>		9311	0.0601	1.6571	0.1277	9004	96.70%	0.0485	1.4250	0.1109	307	3.30%	0.3980	8.4638	0.6209
2010	LDGV	450	0.1021	2.0392	0.1818	424	94.22%	0.0579	1.6119	0.1120	26	5.78%	0.8235	9.0076	1.3208
	LDGT1	352	0.0576	1.7856	0.1378	338	96.02%	0.0501	1.5991	0.1234	14	3.98%	0.2396	6.2874	0.4869
	LDGT2	205	0.0689	2.0066	0.2080	192	93.66%	0.0623	1.7188	0.1336	13	6.34%	0.1671	6.2581	1.3076
<b>2010 Total</b>		1007	0.0798	1.9439	0.1718	954	94.74%	0.0560	1.6289	0.1204	53	5.26%	0.5082	7.6147	1.0973
2011	LDGV	547	0.0729	1.9679	0.1286	530	96.89%	0.0517	1.7115	0.0884	17	3.11%	0.7346	9.9619	1.3837
	LDGT1	561	0.1028	2.0218	0.1232	539	96.08%	0.0444	1.6465	0.1066	22	3.92%	1.5334	11.2169	0.5294
	LDGT2	326	0.0516	1.2352	0.0920	301	92.33%	0.0452	1.1651	0.0756	25	7.67%	0.1287	2.0802	0.2900
<b>2011 Total</b>		1434	0.0798	1.8224	0.1182	1370	95.54%	0.0474	1.5658	0.0927	64	4.46%	0.7725	7.3145	0.6628
2012	LDGV	517	0.0680	1.9779	0.1476	488	94.39%	0.0548	1.7745	0.1024	29	5.61%	0.2905	5.4004	0.9084
	LDGT1	376	0.0474	2.1298	0.1171	359	95.48%	0.0438	2.0105	0.1047	17	4.52%	0.1243	4.6476	0.3779
	LDGT2	245	0.0791	1.9855	0.1464	213	86.94%	0.0583	1.5167	0.1056	32	13.06%	0.2179	5.1060	0.4177
<b>2012 Total</b>		1138	0.0636	2.0297	0.1373	1060	93.15%	0.0518	1.8026	0.1038	78	6.85%	0.2245	5.1155	0.5915
2013	LDGV	558	0.0806	1.9638	0.1615	528	94.62%	0.0418	1.3996	0.0811	30	5.38%	0.7639	11.8935	1.5757

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	420	0.0378	1.5524	0.0857	410	97.62%	0.0359	1.5163	0.0724	10	2.38%	0.1149	3.0359	0.6309
	LDGT2	277	0.0577	1.2777	0.1352	260	93.86%	0.0498	1.2099	0.1240	17	6.14%	0.1788	2.3157	0.3064
<b>2013 Total</b>		1255	0.0612	1.6747	0.1303	1198	95.46%	0.0415	1.3983	0.0874	57	4.54%	0.4755	7.4830	1.0314
2014	LDGV	103	0.0988	2.1356	0.2267	97	94.17%	0.0402	1.5908	0.1117	6	5.83%	1.0467	10.9433	2.0864
	LDGT1	63	0.0517	2.1025	0.1375	57	90.48%	0.0366	1.6705	0.0557	6	9.52%	0.1949	6.2057	0.9146
	LDGT2	61	0.0764	1.2133	0.0982	52	85.25%	0.0385	0.8057	0.0441	9	14.75%	0.2953	3.5686	0.4108
<b>2014 Total</b>		227	0.0797	1.8786	0.1674	206	90.75%	0.0388	1.4147	0.0791	21	9.25%	0.4813	6.4291	1.0335
2015	LDGV	17	0.3662	4.9545	0.7273	14	82.35%	0.0913	2.2594	0.1544	3	17.65%	1.6492	17.5318	3.4008
	LDGT1	15	0.0254	2.0186	0.0587	13	86.67%	0.0192	0.6193	0.0473	2	13.33%	0.0661	11.1140	0.1326
	LDGT2	10	0.0857	1.4034	0.0420	10	100.00%	0.0857	1.4034	0.0420	0	0.00%	0.0000	0.0000	0.0000
<b>2015 Total</b>		42	0.1777	3.0605	0.3253	37	88.10%	0.0644	1.4518	0.0864	5	11.90%	1.0159	14.9647	2.0935
2016	LDGV	9	0.2045	2.9546	0.5154	8	88.89%	0.0167	0.8660	0.0412	1	11.11%	1.7064	19.6637	4.3090
	LDGT1	9	0.0359	1.2451	0.0841	9	100.00%	0.0359	1.2451	0.0841	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	4	0.0779	1.0733	0.0687	4	100.00%	0.0779	1.0733	0.0687	0	0.00%	0.0000	0.0000	0.0000
<b>2016 Total</b>		22	0.1125	1.9132	0.2578	21	95.45%	0.0366	1.0679	0.0649	1	4.55%	1.7064	19.6637	4.3090
2017	LDGV	3	0.0131	0.6339	0.0436	3	100.00%	0.0131	0.6339	0.0436	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	4	0.0276	1.7008	0.0511	4	100.00%	0.0276	1.7008	0.0511	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	1	0.0200	0.2547	0.0364	1	100.00%	0.0200	0.2547	0.0364	0	0.00%	0.0000	0.0000	0.0000
<b>2017 Total</b>		8	0.0212	1.1200	0.0464	8	100.00%	0.0212	1.1200	0.0464	0	0.00%	0.0000	0.0000	0.0000
2018	LDGV	3	0.0644	0.6572	0.0570	3	100.00%	0.0644	0.6572	0.0570	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	1	0.0383	1.2516	0.0317	1	100.00%	0.0383	1.2516	0.0317	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	2	0.0666	1.8192	0.0424	2	100.00%	0.0666	1.8192	0.0424	0	0.00%	0.0000	0.0000	0.0000
<b>2018 Total</b>		6	0.0608	1.1436	0.0480	6	100.00%	0.0608	1.1436	0.0480	0	0.00%	0.0000	0.0000	0.0000
2019	LDGV	1	0.0199	0.6083	0.0000	1	100.00%	0.0199	0.6083	0.0000	0	0.00%	0.0000	0.0000	0.0000
<b>2019 Total</b>		1	0.0199	0.6083	0.0000	1	100.00%	0.0199	0.6083	0.0000	0	0.00%	0.0000	0.0000	0.0000
<b>Overall Total</b>		<b>222029</b>	<b>0.4038</b>	<b>5.2888</b>	<b>0.7967</b>	<b>198501</b>	<b>89.40%</b>	<b>0.2863</b>	<b>3.7449</b>	<b>0.6842</b>	<b>23528</b>	<b>10.60%</b>	<b>1.3948</b>	<b>18.3149</b>	<b>1.7463</b>

**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	93872	0.3216	4.2424	0.6099	84985	90.53%	0.2227	3.0464	0.5278	8887	9.47%	1.2682	15.6793	1.3953
LDGT1	88034	0.4214	5.8319	0.8798	78851	89.57%	0.3149	4.1665	0.7669	9183	10.43%	1.3365	20.1319	1.8490
LDGT2	40123	0.5571	6.5456	1.0516	34665	86.40%	0.3773	4.4981	0.8795	5458	13.60%	1.6989	19.5494	2.1452
<b>Overall Total</b>	<b>222029</b>	<b>0.4038</b>	<b>5.2888</b>	<b>0.7967</b>	<b>198501</b>	<b>89.40%</b>	<b>0.2863</b>	<b>3.7449</b>	<b>0.6842</b>	<b>23528</b>	<b>10.60%</b>	<b>1.3948</b>	<b>18.3149</b>	<b>1.7463</b>

## **Appendix B2**

### **I/M240 Initial Failure Report**





Date  
Between 1/1/2020 and 12/31/2020

## 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	9	6.34%	8.5243	121.0363	1.4097	16	11.27%	6.1775	87.6464	1.9612	11	7.75%	2.7503	37.1831	1.9399
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	7	25.00%	4.6415	81.5143	4.0006	3	10.71%	1.8522	27.7638	3.0978
	LDGV	3	2.26%	11.2354	186.9169	0.7558	17	12.78%	7.6033	110.7511	2.0757	11	8.27%	1.9553	22.9379	2.5057
<b>1982 Total</b>		<b>12</b>	<b>3.96%</b>	<b>9.2021</b>	<b>137.5065</b>	<b>1.2462</b>	<b>40</b>	<b>13.20%</b>	<b>6.5146</b>	<b>96.3928</b>	<b>2.3668</b>	<b>25</b>	<b>8.25%</b>	<b>2.2927</b>	<b>29.7849</b>	<b>2.3278</b>
1983	LDGT1	7	4.96%	9.8603	93.0927	2.4687	17	12.06%	5.8576	107.4555	2.2812	23	16.31%	3.5445	38.3538	2.3005
	LDGT2	5	10.42%	6.5561	94.3412	4.2333	7	14.58%	4.9233	99.2807	1.5621	6	12.50%	2.6722	47.1542	2.1861
	LDGV	5	3.05%	4.9353	76.3202	1.6868	30	18.29%	4.8608	89.2707	1.6942	4	2.44%	1.4932	13.5360	2.5776
<b>1983 Total</b>		<b>17</b>	<b>4.82%</b>	<b>7.4399</b>	<b>88.5268</b>	<b>2.7577</b>	<b>54</b>	<b>15.30%</b>	<b>5.1827</b>	<b>96.2931</b>	<b>1.8618</b>	<b>33</b>	<b>9.35%</b>	<b>3.1372</b>	<b>36.9456</b>	<b>2.3133</b>
1984	LDGT1	12	3.86%	6.8282	104.1410	2.2710	39	12.54%	4.5106	95.1158	2.0618	33	10.61%	2.5313	26.7300	3.1661
	LDGT2	4	4.40%	3.5906	55.4400	4.4837	20	21.98%	6.2444	96.5960	3.0882	8	8.79%	1.9117	24.6610	3.0129
	LDGV	14	4.40%	11.8304	109.2667	1.6709	38	11.95%	5.0307	59.5411	2.2067	23	7.23%	1.3125	10.0750	1.8079
<b>1984 Total</b>		<b>30</b>	<b>4.17%</b>	<b>8.7308</b>	<b>100.0395</b>	<b>2.2859</b>	<b>97</b>	<b>13.47%</b>	<b>5.0718</b>	<b>81.4845</b>	<b>2.3302</b>	<b>64</b>	<b>8.89%</b>	<b>2.0158</b>	<b>20.4860</b>	<b>2.6588</b>
1985	LDGT1	11	3.36%	7.1276	117.8022	2.0892	37	11.31%	5.5560	74.4930	2.7040	18	5.50%	1.6106	16.9243	2.4780
	LDGT2	11	10.89%	7.9822	130.5304	1.8778	27	26.73%	8.9366	98.1588	2.1166	7	6.93%	1.5186	20.8672	1.9574
	LDGV	11	3.33%	6.0448	64.2633	1.4270	48	14.55%	3.1681	32.5966	2.0897	20	6.06%	1.1832	10.7481	2.0883
<b>1985 Total</b>		<b>33</b>	<b>4.35%</b>	<b>7.0516</b>	<b>104.1986</b>	<b>1.7980</b>	<b>112</b>	<b>14.78%</b>	<b>5.3476</b>	<b>62.2426</b>	<b>2.2991</b>	<b>45</b>	<b>5.94%</b>	<b>1.4063</b>	<b>14.7927</b>	<b>2.2238</b>
1986	LDGT1	16	2.62%	5.1528	88.1478	3.0813	51	8.35%	3.8373	76.2709	2.2353	43	7.04%	1.7457	18.4824	2.2264
	LDGT2	14	9.93%	8.6817	116.5158	2.2834	25	17.73%	6.9654	71.7481	3.8045	14	9.93%	2.4863	22.9706	2.6465
	LDGV	13	2.62%	5.4654	72.9612	1.6744	48	9.68%	2.8734	49.7883	1.7243	17	3.43%	0.9042	6.7850	1.8684
<b>1986 Total</b>		<b>43</b>	<b>3.45%</b>	<b>6.3963</b>	<b>92.7926</b>	<b>2.3962</b>	<b>124</b>	<b>9.94%</b>	<b>4.0948</b>	<b>65.1077</b>	<b>2.3539</b>	<b>74</b>	<b>5.93%</b>	<b>1.6925</b>	<b>16.6443</b>	<b>2.2237</b>
1987	LDGT1	15	2.67%	5.5887	84.9091	3.2277	65	11.57%	4.0592	61.7160	2.0717	48	8.54%	1.4782	14.9301	2.5195
	LDGT2	4	2.19%	5.0284	81.7285	3.5798	28	15.30%	6.3048	80.9904	3.2941	12	6.56%	1.8077	17.7152	3.0264
	LDGV	9	1.62%	3.8592	46.0848	1.7558	56	10.09%	5.1766	47.2054	2.0724	30	5.41%	0.9010	7.2227	1.8263
<b>1987 Total</b>		<b>28</b>	<b>2.15%</b>	<b>4.9527</b>	<b>71.9755</b>	<b>2.8049</b>	<b>149</b>	<b>11.46%</b>	<b>4.9011</b>	<b>59.8844</b>	<b>2.3017</b>	<b>90</b>	<b>6.92%</b>	<b>1.3298</b>	<b>12.7323</b>	<b>2.3560</b>
1988	LDGT1	25	2.81%	5.2323	58.5200	3.5109	111	12.47%	3.6712	44.9609	2.5998	46	5.17%	1.2703	10.9961	2.2157
	LDGT2	7	2.33%	4.4953	82.7999	2.3475	37	12.33%	5.2247	57.0770	3.3687	30	10.00%	1.6208	12.6956	2.6496
	LDGV	13	1.68%	4.1712	30.0648	2.5474	67	8.67%	3.4431	38.2102	1.6747	31	4.01%	0.9273	7.5645	1.8199
<b>1988 Total</b>		<b>45</b>	<b>2.29%</b>	<b>4.8111</b>	<b>54.0765</b>	<b>3.0516</b>	<b>215</b>	<b>10.95%</b>	<b>3.8675</b>	<b>44.9423</b>	<b>2.4438</b>	<b>107</b>	<b>5.45%</b>	<b>1.2692</b>	<b>10.4784</b>	<b>2.2227</b>
1989	LDGT1	21	2.25%	4.7743	47.9581	2.6544	91	9.76%	3.2738	49.4347	2.5478	72	7.73%	1.3993	13.1222	2.1885
	LDGT2	8	2.38%	7.0282	31.3448	4.7656	38	11.31%	3.7256	38.8490	3.4870	24	7.14%	1.6284	12.9494	2.7180
	LDGV	17	2.07%	8.4089	37.3400	2.3099	86	10.49%	3.0914	40.8032	1.9147	36	4.39%	0.8356	7.9643	1.5212
<b>1989 Total</b>		<b>46</b>	<b>2.20%</b>	<b>6.5095</b>	<b>41.1447</b>	<b>2.8943</b>	<b>215</b>	<b>10.30%</b>	<b>3.2807</b>	<b>44.1111</b>	<b>2.4606</b>	<b>132</b>	<b>6.32%</b>	<b>1.2872</b>	<b>11.6841</b>	<b>2.1028</b>
1990	LDGT1	26	2.17%	4.3364	52.8170	2.9395	117	9.77%	3.2933	55.1328	2.6056	75	6.26%	1.1618	10.5104	2.1019
	LDGT2	10	2.16%	6.6514	78.3050	2.8322	46	9.96%	3.4510	34.8744	3.0676	36	7.79%	1.6390	13.5419	2.9703
	LDGV	13	0.94%	2.7859	37.7117	2.0496	110	7.96%	3.3765	41.3948	2.1577	70	5.07%	0.7976	7.3424	1.6308
<b>1990 Total</b>		<b>49</b>	<b>1.61%</b>	<b>4.3975</b>	<b>54.0111</b>	<b>2.6815</b>	<b>273</b>	<b>8.97%</b>	<b>3.3534</b>	<b>46.1838</b>	<b>2.5030</b>	<b>181</b>	<b>5.95%</b>	<b>1.1159</b>	<b>9.8881</b>	<b>2.0925</b>
1991	LDGT1	10	0.78%	3.7177	27.7834	3.9879	91	7.10%	3.2645	38.8370	2.7644	89	6.94%	1.1653	11.0452	1.8852
	LDGT2	13	3.07%	5.1007	55.4731	3.6763	53	12.50%	3.0057	34.9275	3.0554	34	8.02%	1.2160	14.3941	2.2200
	LDGV	14	1.00%	6.6235	38.5502	2.4770	132	9.47%	3.3238	32.4397	2.1977	59	4.23%	0.6945	6.6077	1.4972
<b>1991 Total</b>		<b>37</b>	<b>1.19%</b>	<b>5.3031</b>	<b>41.5861</b>	<b>3.3067</b>	<b>276</b>	<b>8.90%</b>	<b>3.2432</b>	<b>35.0267</b>	<b>2.5492</b>	<b>182</b>	<b>5.87%</b>	<b>1.0222</b>	<b>10.2323</b>	<b>1.8220</b>
1992	LDGT1	13	0.88%	6.0845	70.3433	2.6965	99	6.71%	3.4379	49.6012	2.6625	80	5.42%	1.1753	10.9466	1.9024

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	16	2.00%	4.6867	38.6240	4.0444	98	12.25%	3.4697	38.9295	3.0277	55	6.88%	1.5326	13.5152	2.3042
	LDGV	16	0.84%	3.1496	40.7207	2.3748	178	9.37%	2.9297	33.9649	1.7969	70	3.68%	0.6337	6.0725	1.3970
<b>1992 Total</b>		<b>45</b>	<b>1.08%</b>	<b>4.5440</b>	<b>48.5328</b>	<b>3.0614</b>	<b>375</b>	<b>8.98%</b>	<b>3.2050</b>	<b>39.3903</b>	<b>2.3471</b>	<b>205</b>	<b>4.91%</b>	<b>1.0862</b>	<b>9.9714</b>	<b>1.8376</b>
1993	LDGT1	20	1.06%	2.8415	33.8404	3.6875	128	6.79%	3.7521	47.2049	2.9411	89	4.72%	1.2026	10.5599	2.1517
	LDGT2	15	1.74%	4.3315	32.7232	3.7011	117	13.54%	3.5299	35.6940	3.2649	55	6.37%	1.2371	13.3432	2.3427
	LDGV	15	0.76%	3.9420	32.4434	1.7720	179	9.10%	2.0674	30.9681	1.9751	70	3.56%	0.6604	6.1077	1.6548
<b>1993 Total</b>		<b>50</b>	<b>1.06%</b>	<b>3.6186</b>	<b>33.0861</b>	<b>3.1169</b>	<b>424</b>	<b>8.99%</b>	<b>2.9796</b>	<b>37.1739</b>	<b>2.6226</b>	<b>214</b>	<b>4.54%</b>	<b>1.0341</b>	<b>9.8189</b>	<b>2.0383</b>
1994	LDGT1	19	0.70%	2.1876	27.5879	3.5056	216	7.95%	3.0219	31.9472	2.9661	160	5.89%	0.8829	8.1827	2.0712
	LDGT2	35	2.10%	3.4116	32.0391	3.5872	251	15.08%	2.8034	32.7315	3.0993	93	5.59%	0.9877	10.3829	2.0974
	LDGV	18	0.71%	2.7735	23.1892	3.0107	170	6.74%	2.5275	26.4618	1.8721	91	3.61%	0.5046	5.4673	1.2861
<b>1994 Total</b>		<b>72</b>	<b>1.04%</b>	<b>2.9291</b>	<b>28.6520</b>	<b>3.4215</b>	<b>637</b>	<b>9.23%</b>	<b>2.8039</b>	<b>30.7923</b>	<b>2.7266</b>	<b>344</b>	<b>4.98%</b>	<b>0.8112</b>	<b>8.0592</b>	<b>1.8706</b>
1995	LDGT1	27	0.93%	2.8893	39.3810	3.8575	208	7.14%	2.4678	34.8734	2.7998	178	6.11%	0.6921	7.7590	1.6318
	LDGT2	35	1.74%	3.3241	34.0042	3.2720	277	13.78%	2.6359	30.8362	2.9959	129	6.42%	0.9304	10.2382	2.1060
	LDGV	25	0.77%	2.3592	22.8194	1.7685	253	7.82%	2.3256	26.0162	1.7561	125	3.86%	0.4582	5.1639	1.1411
<b>1995 Total</b>		<b>87</b>	<b>1.07%</b>	<b>2.9119</b>	<b>32.4588</b>	<b>3.0217</b>	<b>738</b>	<b>9.04%</b>	<b>2.4821</b>	<b>30.3217</b>	<b>2.5156</b>	<b>432</b>	<b>5.29%</b>	<b>0.6956</b>	<b>7.7484</b>	<b>1.6314</b>
1996	LDGT1	26	0.71%	2.8895	27.9747	3.1580	236	6.47%	1.6041	22.4140	2.8259	206	5.65%	0.4166	5.5363	1.3905
	LDGT2	20	0.92%	2.4479	37.1587	3.2541	138	6.38%	2.0841	22.0354	2.6433	136	6.28%	0.5244	6.3479	1.3578
	LDGV	12	0.28%	1.8810	24.6373	2.1224	253	5.97%	1.4860	19.0360	1.8426	172	4.06%	0.4045	4.5942	0.8940
<b>1996 Total</b>		<b>58</b>	<b>0.58%</b>	<b>2.5286</b>	<b>30.4511</b>	<b>2.9769</b>	<b>627</b>	<b>6.24%</b>	<b>1.6621</b>	<b>20.9676</b>	<b>2.3890</b>	<b>514</b>	<b>5.11%</b>	<b>0.4411</b>	<b>5.4358</b>	<b>1.2157</b>
1997	LDGT1	39	0.72%	1.6292	18.3814	2.5662	423	7.82%	1.5900	24.8507	2.8117	314	5.80%	0.4052	5.5286	1.2209
	LDGT2	19	0.81%	1.7150	21.8376	2.5463	200	8.58%	1.8485	20.9265	2.9326	141	6.05%	0.5020	5.9837	1.3313
	LDGV	17	0.33%	1.5285	20.6321	1.4152	285	5.57%	1.6752	24.0992	1.6310	260	5.08%	0.3787	4.6020	0.8317
<b>1997 Total</b>		<b>75</b>	<b>0.58%</b>	<b>1.6281</b>	<b>19.7672</b>	<b>2.3003</b>	<b>908</b>	<b>7.06%</b>	<b>1.6737</b>	<b>23.7504</b>	<b>2.4678</b>	<b>715</b>	<b>5.56%</b>	<b>0.4146</b>	<b>5.2814</b>	<b>1.1011</b>
1998	LDGT1	38	0.49%	1.5849	27.0830	2.1383	453	5.82%	1.3258	21.2917	2.6155	393	5.04%	0.3951	4.7555	1.1472
	LDGT2	27	0.88%	4.9712	23.8168	2.7713	254	8.24%	2.0256	18.2506	2.8215	137	4.44%	0.4094	4.9290	1.2983
	LDGV	41	0.58%	1.9887	25.7472	1.6397	414	5.82%	1.6879	19.5394	1.4933	381	5.35%	0.2574	3.6503	0.6487
<b>1998 Total</b>		<b>106</b>	<b>0.59%</b>	<b>2.6036</b>	<b>25.7344</b>	<b>2.1067</b>	<b>1,121</b>	<b>6.23%</b>	<b>1.6181</b>	<b>19.9555</b>	<b>2.2477</b>	<b>911</b>	<b>5.06%</b>	<b>0.3397</b>	<b>4.3194</b>	<b>0.9614</b>
1999	LDGT1	30	0.40%	2.1006	27.0572	2.7375	540	7.19%	1.4825	23.4411	2.3815	356	4.74%	0.2819	3.8675	0.8623
	LDGT2	29	0.76%	1.8125	30.0779	2.5162	376	9.86%	1.7934	19.3333	2.4955	183	4.80%	0.3315	4.2004	0.9861
	LDGV	25	0.32%	2.0153	14.4351	1.8613	444	5.74%	1.3374	17.5269	1.7954	342	4.42%	0.2652	3.5364	0.6217
<b>1999 Total</b>		<b>84</b>	<b>0.44%</b>	<b>1.9758</b>	<b>24.3435</b>	<b>2.4003</b>	<b>1,360</b>	<b>7.14%</b>	<b>1.5211</b>	<b>20.3746</b>	<b>2.2216</b>	<b>881</b>	<b>4.62%</b>	<b>0.2857</b>	<b>3.8081</b>	<b>0.7946</b>
2000	LDGT1	19	0.57%	2.5701	37.7686	2.4073	242	7.25%	1.0981	20.1928	2.3501	157	4.71%	0.2603	3.1182	0.8011
	LDGT2	10	0.65%	1.4089	42.1116	2.4925	149	9.68%	1.4521	16.2652	2.7904	79	5.13%	0.2756	3.2372	0.7047
	LDGV	22	0.55%	4.9099	29.7528	1.9783	262	6.50%	1.1386	18.1036	1.8801	153	3.80%	0.2428	3.2203	0.6039
<b>2000 Total</b>		<b>51</b>	<b>0.57%</b>	<b>3.3517</b>	<b>35.1624</b>	<b>2.2390</b>	<b>653</b>	<b>7.33%</b>	<b>1.1951</b>	<b>18.4584</b>	<b>2.2620</b>	<b>389</b>	<b>4.37%</b>	<b>0.2565</b>	<b>3.1825</b>	<b>0.7040</b>
2001	LDGT1	19	0.53%	2.1561	34.4590	2.2816	205	5.76%	1.2451	25.0125	2.2938	180	5.06%	0.1808	3.3919	0.6159
	LDGT2	13	0.75%	0.7249	14.7575	2.5302	132	7.57%	1.2385	18.0910	2.6501	108	6.20%	0.2359	2.9271	0.6409
	LDGV	8	0.20%	1.0469	15.3671	1.7589	237	5.79%	1.6631	18.2899	2.1608	195	4.77%	0.1450	2.7390	0.4246
<b>2001 Total</b>		<b>40</b>	<b>0.43%</b>	<b>1.4691</b>	<b>24.2376</b>	<b>2.2578</b>	<b>574</b>	<b>6.11%</b>	<b>1.4162</b>	<b>20.6451</b>	<b>2.3208</b>	<b>483</b>	<b>5.14%</b>	<b>0.1787</b>	<b>3.0244</b>	<b>0.5443</b>
2002	LDGT1	16	0.35%	1.0157	19.8229	2.2998	275	6.03%	1.5937	31.7413	2.2544	222	4.87%	0.1510	3.2818	0.4975
	LDGT2	14	0.76%	1.1766	10.3531	3.5501	136	7.39%	1.0579	17.3243	2.7660	106	5.76%	0.2362	3.3808	0.7675
	LDGV	10	0.19%	0.9106	11.4888	2.1562	261	4.97%	1.4628	15.7193	2.4428	254	4.84%	0.1405	3.1372	0.3821
<b>2002 Total</b>		<b>40</b>	<b>0.34%</b>	<b>1.0457</b>	<b>14.4250</b>	<b>2.7015</b>	<b>672</b>	<b>5.77%</b>	<b>1.4344</b>	<b>22.6008</b>	<b>2.4311</b>	<b>582</b>	<b>5.00%</b>	<b>0.1619</b>	<b>3.2368</b>	<b>0.4963</b>
2003	LDGT1	12	0.27%	0.8374	22.0734	2.5274	229	5.20%	1.3969	27.2220	2.3282	239	5.42%	0.1334	2.1756	0.4638

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	6	0.30%	1.9180	42.0171	1.6788	119	6.03%	2.0328	21.8794	2.6501	104	5.27%	0.1831	2.6649	0.4909
	LDGV	14	0.28%	1.0157	9.5223	2.7633	225	4.57%	1.0164	18.9886	2.0749	244	4.96%	0.1060	1.8564	0.3364
<b>2003 Total</b>		<b>32</b>	<b>0.28%</b>	<b>1.1180</b>	<b>20.3218</b>	<b>2.4715</b>	<b>573</b>	<b>5.07%</b>	<b>1.3796</b>	<b>22.8795</b>	<b>2.2956</b>	<b>587</b>	<b>5.19%</b>	<b>0.1308</b>	<b>2.1296</b>	<b>0.4156</b>
2004	LDGT1	13	0.23%	0.9305	26.0348	2.0139	211	3.71%	1.0704	27.2120	2.5437	250	4.39%	0.1177	2.2046	0.3148
	LDGT2	10	0.39%	1.5511	27.0999	3.6401	96	3.72%	1.7594	23.3729	3.2013	140	5.42%	0.1383	2.1954	0.3184
	LDGV	12	0.22%	1.2020	10.9150	2.7868	196	3.67%	1.2945	18.2818	2.2045	265	4.97%	0.0993	2.0344	0.3128
<b>2004 Total</b>		<b>35</b>	<b>0.26%</b>	<b>1.2009</b>	<b>21.1552</b>	<b>2.7435</b>	<b>503</b>	<b>3.70%</b>	<b>1.2892</b>	<b>22.9995</b>	<b>2.5370</b>	<b>655</b>	<b>4.81%</b>	<b>0.1147</b>	<b>2.1338</b>	<b>0.3148</b>
2005	LDGT1	14	0.25%	1.4777	15.1175	3.1043	161	2.87%	1.0343	22.3801	2.6092	211	3.76%	0.1108	1.8841	0.2592
	LDGT2	4	0.20%	18.1517	34.4277	2.1165	84	4.27%	1.8002	26.0159	2.8658	71	3.61%	0.1527	1.9615	0.2862
	LDGV	15	0.26%	1.1737	12.3493	2.3378	207	3.65%	1.6296	19.0240	2.3263	270	4.76%	0.0650	1.4170	0.2041
<b>2005 Total</b>		<b>33</b>	<b>0.25%</b>	<b>3.3606</b>	<b>16.1999</b>	<b>2.6361</b>	<b>452</b>	<b>3.41%</b>	<b>1.4493</b>	<b>21.5188</b>	<b>2.5273</b>	<b>552</b>	<b>4.16%</b>	<b>0.0938</b>	<b>1.6656</b>	<b>0.2357</b>
2006	LDGT1	4	0.07%	1.3846	61.5604	0.0547	96	1.80%	1.1049	22.9117	2.5806	189	3.54%	0.0790	1.9458	0.1630
	LDGT2	6	0.27%	1.1062	35.8224	3.0285	86	3.81%	1.8940	20.5412	2.7024	102	4.52%	0.0998	1.5222	0.1992
	LDGV	3	0.05%	0.3670	5.9313	2.3162	172	2.88%	1.3796	19.3390	2.4188	156	2.61%	0.0846	1.6813	0.2100
<b>2006 Total</b>		<b>13</b>	<b>0.10%</b>	<b>1.0213</b>	<b>36.8438</b>	<b>1.9491</b>	<b>354</b>	<b>2.61%</b>	<b>1.4301</b>	<b>20.5999</b>	<b>2.5316</b>	<b>447</b>	<b>3.29%</b>	<b>0.0857</b>	<b>1.7568</b>	<b>0.1877</b>
2007	LDGT1	5	0.09%	0.4838	4.0148	4.0353	92	1.68%	1.3145	31.9960	2.3185	198	3.61%	0.0541	1.6680	0.1183
	LDGT2	7	0.28%	2.6229	24.8491	2.0918	42	1.70%	1.5647	23.7665	3.6042	100	4.06%	0.0785	1.1443	0.1456
	LDGV	3	0.05%	0.4213	23.3493	1.9211	115	1.90%	0.9451	18.0385	2.3295	181	2.99%	0.0772	1.8983	0.1430
<b>2007 Total</b>		<b>15</b>	<b>0.11%</b>	<b>1.4695</b>	<b>17.6044</b>	<b>2.7055</b>	<b>249</b>	<b>1.78%</b>	<b>1.1861</b>	<b>24.1616</b>	<b>2.5405</b>	<b>479</b>	<b>3.42%</b>	<b>0.0679</b>	<b>1.6457</b>	<b>0.1333</b>
2008	LDGT1	1	0.02%	0.4369	32.6803	0.5209	56	1.08%	0.7171	28.9157	2.3712	157	3.03%	0.0516	1.7728	0.1047
	LDGT2	3	0.13%	5.2342	157.2130	0.5781	61	2.56%	1.0938	21.4462	1.5858	124	5.21%	0.0950	1.8554	0.1676
	LDGV	4	0.07%	1.6552	16.2054	3.0253	92	1.67%	1.2378	24.9592	2.2502	170	3.08%	0.0747	1.5748	0.1303
<b>2008 Total</b>		<b>8</b>	<b>0.06%</b>	<b>2.8451</b>	<b>71.1426</b>	<b>1.7946</b>	<b>209</b>	<b>1.60%</b>	<b>1.0562</b>	<b>24.9940</b>	<b>2.0887</b>	<b>451</b>	<b>3.44%</b>	<b>0.0722</b>	<b>1.7208</b>	<b>0.1316</b>
2009	LDGT1	0	0.00%	0.0000	0.0000	0.0000	19	0.58%	0.7758	20.2158	1.8282	84	2.55%	0.0449	1.7291	0.1054
	LDGT2	2	0.14%	0.2547	9.9578	1.8452	11	0.79%	1.0121	31.2198	1.9187	63	4.51%	0.0691	1.3908	0.1011
	LDGV	2	0.04%	1.6269	19.2756	0.8397	50	1.08%	1.5917	28.7193	2.0657	76	1.64%	0.0637	1.8892	0.1434
<b>2009 Total</b>		<b>4</b>	<b>0.04%</b>	<b>0.9408</b>	<b>14.6167</b>	<b>1.3425</b>	<b>80</b>	<b>0.86%</b>	<b>1.3182</b>	<b>27.0436</b>	<b>1.9891</b>	<b>223</b>	<b>2.40%</b>	<b>0.0581</b>	<b>1.6881</b>	<b>0.1171</b>
2010	LDGT1	0	0.00%	0.0000	0.0000	0.0000	3	0.85%	1.0054	26.8307	1.9515	11	3.13%	0.0308	0.6847	0.0875
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	6	2.93%	0.2784	9.4366	2.5097	7	3.41%	0.0717	3.5336	0.2773
	LDGV	0	0.00%	0.0000	0.0000	0.0000	13	2.89%	1.4976	16.4483	2.5308	13	2.89%	0.1493	1.5670	0.1108
<b>2010 Total</b>		<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>22</b>	<b>2.18%</b>	<b>1.0980</b>	<b>15.9518</b>	<b>2.4461</b>	<b>31</b>	<b>3.08%</b>	<b>0.0897</b>	<b>1.6980</b>	<b>0.1401</b>
2011	LDGT1	0	0.00%	0.0000	0.0000	0.0000	7	1.25%	4.7246	31.0743	1.5066	15	2.67%	0.0441	1.9501	0.0734
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	1	0.31%	1.9672	11.6308	4.4991	24	7.36%	0.0521	1.6822	0.1146
	LDGV	1	0.18%	0.5616	8.0493	2.9874	9	1.65%	1.2888	16.6207	2.2235	7	1.28%	0.0467	1.6738	0.0749
<b>2011 Total</b>		<b>1</b>	<b>0.07%</b>	<b>0.5616</b>	<b>8.0493</b>	<b>2.9874</b>	<b>17</b>	<b>1.19%</b>	<b>2.7434</b>	<b>22.2786</b>	<b>2.0621</b>	<b>46</b>	<b>3.21%</b>	<b>0.0487</b>	<b>1.7683</b>	<b>0.0951</b>
2012	LDGT1	0	0.00%	0.0000	0.0000	0.0000	3	0.80%	0.5005	18.2049	1.8494	14	3.72%	0.0437	1.7425	0.0625
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	3	1.22%	1.8538	40.4511	3.8399	29	11.84%	0.0487	1.4496	0.0637
	LDGV	0	0.00%	0.0000	0.0000	0.0000	9	1.74%	0.8221	13.1275	2.6542	20	3.87%	0.0512	1.9232	0.1228
<b>2012 Total</b>		<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>15</b>	<b>1.32%</b>	<b>0.9641</b>	<b>19.6077</b>	<b>2.7304</b>	<b>63</b>	<b>5.54%</b>	<b>0.0484</b>	<b>1.6650</b>	<b>0.0822</b>
2013	LDGT1	0	0.00%	0.0000	0.0000	0.0000	2	0.48%	0.4225	9.0251	2.7737	8	1.90%	0.0380	1.5385	0.0952
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	1	0.36%	2.4319	27.2072	4.2674	16	5.78%	0.0380	0.7600	0.0589
	LDGV	0	0.00%	0.0000	0.0000	0.0000	17	3.05%	1.3173	20.1057	2.6784	13	2.33%	0.0402	1.1545	0.1336
<b>2013 Total</b>		<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>20</b>	<b>1.59%</b>	<b>1.2835</b>	<b>19.3527</b>	<b>2.7674</b>	<b>37</b>	<b>2.95%</b>	<b>0.0388</b>	<b>1.0669</b>	<b>0.0930</b>
2014	LDGT1	0	0.00%	0.0000	0.0000	0.0000	1	1.59%	0.7652	5.7389	4.1486	5	7.94%	0.0808	6.2990	0.2678

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	1	1.64%	2.4785	28.8994	3.3952	8	13.11%	0.0224	0.4022	0.0377
	LDGV	0	0.00%	0.0000	0.0000	0.0000	4	3.88%	1.5410	15.9254	3.0651	2	1.94%	0.0580	0.9792	0.1292
<b>2014 Total</b>		<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6</b>	<b>2.64%</b>	<b>1.5680</b>	<b>16.3900</b>	<b>3.3007</b>	<b>15</b>	<b>6.61%</b>	<b>0.0466</b>	<b>2.4448</b>	<b>0.1266</b>
2015	LDGT1	0	0.00%	0.0000	0.0000	0.0000	1	6.67%	0.0975	17.4155	0.2498	1	6.67%	0.0347	4.8126	0.0154
	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	3	17.65%	1.6492	17.5318	3.4008	0	0.00%	0.0000	0.0000	0.0000
<b>2015 Total</b>		<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4</b>	<b>9.52%</b>	<b>1.2613</b>	<b>17.5028</b>	<b>2.6131</b>	<b>1</b>	<b>2.38%</b>	<b>0.0347</b>	<b>4.8126</b>	<b>0.0154</b>
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	1	11.11%	1.7064	19.6637	4.3090	0	0.00%	0.0000	0.0000	0.0000
<b>2016 Total</b>		<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1</b>	<b>4.55%</b>	<b>1.7064</b>	<b>19.6637</b>	<b>4.3090</b>	<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>
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
	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	0	0.00%	0.0000	0.0000	0.0000
<b>2017 Total</b>		<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>
2018	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	0	0.00%	0.0000	0.0000	0.0000
<b>2018 Total</b>		<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>
2019	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
<b>2019 Total</b>		<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>
<b>Grand Total</b>		<b>1,189</b>	<b>0.54%</b>	<b>3.4953</b>	<b>39.9511</b>	<b>2.6340</b>	<b>12,149</b>	<b>5.47%</b>	<b>2.0290</b>	<b>27.6119</b>	<b>2.3986</b>	<b>10,190</b>	<b>4.59%</b>	<b>0.3935</b>	<b>4.7060</b>	<b>0.8650</b>

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	467	0.53%	3.2720	43.5952	2.8044	4,541	5.16%	1.9509	31.3024	2.5491	4,175	4.74%	0.4518	5.3576	0.9806	
LDGT2	347	0.86%	3.8097	42.6942	3.0518	2,927	7.30%	2.3492	27.2275	2.8506	2,184	5.44%	0.4921	5.5818	1.0557	
LDGV	375	0.40%	3.4823	32.8746	2.0351	4,681	4.99%	1.9046	24.2721	1.9701	3,831	4.08%	0.2739	3.4967	0.6304	
<b>Grand Total</b>	<b>1,189</b>	<b>0.54%</b>	<b>3.4953</b>	<b>39.9511</b>	<b>2.6340</b>	<b>12,149</b>	<b>5.47%</b>	<b>2.0290</b>	<b>27.6119</b>	<b>2.3986</b>	<b>10,190</b>	<b>4.59%</b>	<b>0.3935</b>	<b>4.7060</b>	<b>0.8650</b>	

## **Appendix B3**

### I/M240 Initial Exhaust Failure Report



Date  
Between 1/1/2020 and 12/31/2020

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	13	65.00%	11.0313	161.9819	0.9798	17	85.00%	8.9928	140.5841	1.0484	2	10.00%	2.8629	14.7417	8.0796
	LDGT1	9	36.00%	12.9527	123.8455	1.6190	23	92.00%	6.9868	105.7545	1.5079	1	4.00%	2.9472	13.3371	8.3362
	LDGT2	2	28.57%	7.4259	164.0898	0.6016	4	57.14%	6.4450	131.8708	0.6550	3	42.86%	2.2368	14.3723	8.4614
<b>1982 Total</b>		24	46.15%	11.4514	147.8564	1.1880	44	84.62%	7.7126	121.5856	1.2528	6	11.54%	2.5639	14.3229	8.3133
1983	LDGV	20	57.14%	7.2135	114.8143	1.5423	30	85.71%	5.1690	99.7979	1.1943	4	11.43%	2.9360	10.1163	5.3891
	LDGT1	12	50.00%	10.5793	121.9735	1.7671	19	79.17%	6.5848	124.1400	1.4740	3	12.50%	3.3857	22.1720	7.0669
	LDGT2	5	41.67%	7.6664	120.3441	2.4499	10	83.33%	5.6355	112.6904	2.2419	1	8.33%	4.8022	12.0221	9.1534
<b>1983 Total</b>		37	52.11%	8.3663	117.8834	1.7379	59	83.10%	5.7040	109.8220	1.4620	8	11.27%	3.3379	14.8754	6.4888
1984	LDGV	29	55.77%	10.9057	97.4220	2.0102	37	71.15%	8.1710	95.2912	1.2616	10	19.23%	2.9042	18.2768	5.4024
	LDGT1	19	37.25%	8.3663	126.1489	1.8135	44	86.27%	5.0065	109.4648	1.4119	4	7.84%	2.1272	19.1665	8.9841
	LDGT2	12	50.00%	8.9106	119.3820	2.1660	17	70.83%	6.8387	118.1763	1.4943	6	25.00%	2.7486	21.2057	8.5760
<b>1984 Total</b>		60	47.24%	9.7025	110.9108	1.9791	98	77.17%	6.5191	105.6247	1.3694	20	15.75%	2.7021	19.3334	7.0708
1985	LDGV	35	59.32%	5.2926	43.4161	2.0457	48	81.36%	4.0005	45.3931	1.5613	6	10.17%	1.7617	13.2795	5.0014
	LDGT1	24	50.00%	9.3459	105.1787	2.2559	34	70.83%	5.6483	111.0018	1.5118	10	20.83%	3.3445	18.0728	6.5903
	LDGT2	20	52.63%	13.8541	122.8950	2.1956	35	92.11%	7.5597	115.6816	1.7520	1	2.63%	5.1445	7.6695	9.4689
<b>1985 Total</b>		79	54.48%	8.6915	82.3007	2.1475	117	80.69%	5.5441	85.4853	1.6039	17	11.72%	2.8918	15.7691	6.1988
1986	LDGV	34	55.74%	5.0042	71.3307	1.8109	49	80.33%	3.6181	65.7510	1.1402	7	11.48%	2.0758	11.4499	5.3910
	LDGT1	25	37.31%	7.0538	111.4060	1.9092	55	82.09%	4.3651	92.6926	1.6814	10	14.93%	2.9107	18.2515	7.4006
	LDGT2	19	48.72%	13.2911	120.2334	2.6006	30	76.92%	8.2710	108.2864	2.3928	7	17.95%	3.6292	18.7177	7.7283
<b>1986 Total</b>		78	46.71%	7.6797	96.0875	2.0348	134	80.24%	4.9664	86.3320	1.6427	24	14.37%	2.8768	16.4037	6.9101
1987	LDGV	40	61.54%	7.3092	59.2100	1.9044	48	73.85%	5.8054	60.5961	1.5185	13	20.00%	1.5381	13.1021	4.5738
	LDGT1	34	42.50%	7.1652	91.9079	1.7477	65	81.25%	4.6114	77.5214	1.6359	12	15.00%	2.6848	17.5396	6.3216
	LDGT2	14	43.75%	11.5990	139.2082	2.0985	23	71.88%	7.6414	107.6001	2.1927	8	25.00%	1.9546	15.6813	7.4759
<b>1987 Total</b>		88	49.72%	7.9361	84.5702	1.8748	136	76.84%	5.5453	76.6346	1.6886	33	18.64%	2.0561	15.3410	5.9129
1988	LDGV	51	63.75%	4.9233	42.7324	1.6682	53	66.25%	3.5601	51.3094	1.2037	13	16.25%	2.3519	8.8856	4.8106
	LDGT1	67	49.26%	6.3799	64.6043	2.5439	92	67.65%	4.6293	64.1196	1.6254	35	25.74%	2.7828	13.3096	6.2413
	LDGT2	25	56.82%	7.7848	84.9070	2.4944	31	70.45%	5.9753	80.1551	2.0030	13	29.55%	2.9812	17.9837	6.4890
<b>1988 Total</b>		143	55.00%	6.1060	60.3533	2.2229	176	67.69%	4.5444	63.0864	1.5649	61	23.46%	2.7332	13.3629	5.9892
1989	LDGV	66	64.08%	5.5594	46.9765	1.9682	68	66.02%	3.9025	55.7315	1.4130	16	15.53%	2.5371	13.1638	5.0035
	LDGT1	49	43.75%	5.7891	59.5139	2.2058	82	73.21%	3.7585	61.8128	1.7291	20	17.86%	1.7868	13.8265	6.3309
	LDGT2	26	56.52%	6.1896	44.3416	3.2748	28	60.87%	4.9292	52.9487	3.1547	13	28.26%	2.2143	16.4328	6.8237
<b>1989 Total</b>		141	54.02%	5.7554	50.8476	2.2917	178	68.20%	3.9976	58.0953	1.8326	49	18.77%	2.1452	14.3016	6.0282
1990	LDGV	66	53.66%	5.1955	53.9322	1.7745	76	61.79%	3.7960	60.5125	1.3172	38	30.89%	2.3803	12.7601	4.4781
	LDGT1	63	44.06%	5.6848	78.7364	2.0807	109	76.22%	3.8342	67.7593	1.9075	28	19.58%	1.8665	15.8781	6.4732
	LDGT2	27	48.21%	6.6509	61.7425	2.3291	30	53.57%	4.5121	65.8911	2.0452	14	25.00%	1.4610	13.0682	5.5181
<b>1990 Total</b>		156	48.45%	5.6450	65.3011	1.9942	215	66.77%	3.9153	64.9369	1.7180	80	24.84%	2.0396	13.9053	5.3584
1991	LDGV	103	70.55%	4.7957	38.8906	2.0002	71	48.63%	3.6327	56.6771	1.3661	47	32.19%	3.1266	15.7567	4.3550
	LDGT1	56	55.45%	4.8419	44.5418	2.4820	60	59.41%	3.9288	53.5180	1.8838	29	28.71%	1.9331	15.6690	5.5344
	LDGT2	35	53.03%	5.0414	49.1362	2.8222	38	57.58%	4.3220	56.9824	2.2464	26	39.39%	2.2977	16.3791	5.4810



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)
<b>1991 Total</b>		194	61.98%	4.8534	42.3703	2.2876	169	53.99%	3.8928	55.6242	1.7478	102	32.59%	2.5760	15.8904	4.9774
1992	LDGV	120	61.86%	4.2396	42.6113	1.9587	150	77.32%	2.9220	42.2451	1.5028	30	15.46%	2.6972	12.0391	4.6633
	LDGT1	65	58.04%	5.3417	64.4406	2.7383	75	66.96%	4.0362	70.1146	1.9630	27	24.11%	2.7504	21.9416	5.8973
	LDGT2	70	61.40%	4.9523	46.6021	2.6288	58	50.88%	4.7546	60.0971	2.3869	35	30.70%	1.9229	20.2139	5.5760
<b>1992 Total</b>		255	60.71%	4.7161	49.2711	2.3414	283	67.38%	3.5929	53.2897	1.8060	92	21.90%	2.4183	18.0552	5.3727
1993	LDGV	110	56.70%	3.3581	40.8084	1.7413	127	65.46%	2.3838	43.4370	1.2146	49	25.26%	1.7537	9.5302	4.6049
	LDGT1	87	58.78%	5.1349	55.9921	2.6728	78	52.70%	4.5275	72.6541	1.6809	55	37.16%	2.1424	17.4371	5.4468
	LDGT2	79	59.85%	5.1097	43.4137	2.6958	75	56.82%	4.5328	50.9827	2.5756	48	36.36%	2.1062	18.6642	5.6541
<b>1993 Total</b>		276	58.23%	4.4196	46.3403	2.3082	280	59.07%	3.5566	53.5972	1.7090	152	32.07%	2.0057	15.2756	5.2409
1994	LDGV	120	63.83%	3.6736	31.7756	1.7441	102	54.26%	3.3975	41.7722	1.2985	59	31.38%	1.4165	10.0652	3.8887
	LDGT1	115	48.94%	4.7885	41.3001	2.6417	132	56.17%	3.7577	46.6862	1.8580	89	37.87%	1.7813	14.5907	5.3271
	LDGT2	150	52.45%	4.4910	42.1132	2.7524	172	60.14%	3.6120	45.5478	2.4503	110	38.46%	1.7634	17.4040	5.2353
<b>1994 Total</b>		385	54.30%	4.3251	38.6482	2.4050	406	57.26%	3.6055	44.9694	1.9683	258	36.39%	1.6902	14.7553	4.9590
1995	LDGV	175	62.95%	3.3667	31.0679	1.5394	143	51.44%	2.7135	44.0154	1.0601	92	33.09%	1.3143	8.3793	3.4650
	LDGT1	108	45.96%	4.2069	47.1270	2.9256	142	60.43%	2.9423	50.7274	1.9083	84	35.74%	1.8586	15.5558	5.2564
	LDGT2	165	52.88%	4.1669	39.3341	2.8231	207	66.35%	3.1450	40.1138	2.4919	111	35.58%	2.2057	19.5075	5.4540
<b>1995 Total</b>		448	54.30%	3.8640	37.9838	2.3464	492	59.64%	2.9611	44.3111	1.9073	287	34.79%	1.8184	14.7837	4.7586
1996	LDGV	125	47.17%	2.6710	26.1209	1.4131	113	42.64%	1.8476	37.4378	1.0919	113	42.64%	0.7761	7.2478	3.2354
	LDGT1	132	50.38%	2.7967	31.7595	2.6385	146	55.73%	2.0698	34.4507	2.3278	116	44.27%	1.3473	12.3975	4.4940
	LDGT2	80	50.63%	3.6213	31.8547	2.5724	94	59.49%	2.6323	34.0552	2.2139	50	31.65%	2.2611	12.4302	4.8773
<b>1996 Total</b>		337	49.20%	2.9458	29.6906	2.1683	353	51.53%	2.1485	35.3016	1.9019	279	40.73%	1.2797	10.3176	4.0530
1997	LDGV	135	44.70%	3.0793	34.0548	1.3358	156	51.66%	1.7029	40.4552	0.9928	116	38.41%	1.0832	9.0147	2.9168
	LDGT1	178	38.53%	3.2378	39.2880	2.8570	247	53.46%	2.1510	37.7781	2.1292	243	52.60%	1.2405	12.3922	4.0977
	LDGT2	97	44.29%	3.4965	31.0809	2.8786	109	49.77%	2.6553	33.8537	2.5027	114	52.05%	1.6482	12.1292	4.1710
<b>1997 Total</b>		410	41.71%	3.2468	35.6232	2.3612	512	52.09%	2.1218	37.7583	1.8625	473	48.12%	1.3002	11.5005	3.8257
1998	LDGV	183	40.22%	3.5269	29.5508	1.2493	205	45.05%	1.8039	37.2741	0.9862	218	47.91%	0.9721	8.6984	2.4593
	LDGT1	170	34.62%	3.0126	39.8312	2.5185	215	43.79%	2.2010	39.9120	1.8880	296	60.29%	0.7911	9.7761	3.5347
	LDGT2	111	39.50%	4.9790	27.3789	2.7480	141	50.18%	3.6315	29.6947	2.5579	182	64.77%	1.4136	13.7606	3.6449
<b>1998 Total</b>		464	37.82%	3.6858	32.7978	2.0729	561	45.72%	2.4154	36.3801	1.7268	696	56.72%	1.0106	10.4805	3.2267
1999	LDGV	166	35.39%	3.0201	28.8868	1.6173	172	36.67%	1.7846	36.4639	1.0547	285	60.77%	0.9915	8.4653	2.5766
	LDGT1	162	28.42%	4.2931	59.1131	2.1173	196	34.39%	3.1356	56.7439	1.5620	395	69.30%	0.7644	8.7397	3.0932
	LDGT2	138	34.07%	4.2091	38.7381	2.4758	159	39.26%	3.3454	40.2758	2.0254	283	69.88%	1.2357	10.7789	3.1192
<b>1999 Total</b>		466	32.27%	3.8147	42.3120	2.0454	527	36.50%	2.7580	45.1564	1.5362	963	66.69%	0.9701	9.2577	2.9480
2000	LDGV	104	36.62%	3.1049	30.5096	1.6179	120	42.25%	2.2815	35.9710	0.9972	165	58.10%	0.8950	8.5306	2.8437
	LDGT1	66	25.29%	3.8423	56.1888	1.8794	85	32.57%	2.8221	53.4623	1.3477	186	71.26%	0.6519	10.7190	2.9958
	LDGT2	44	27.67%	3.9715	35.9450	2.6155	47	29.56%	3.4306	42.0343	1.8969	125	78.62%	1.1609	10.3325	3.3294
<b>2000 Total</b>		214	30.40%	3.5105	39.5469	1.9037	252	35.80%	2.6781	43.0017	1.2832	476	67.61%	0.8698	9.8589	3.0307
2001	LDGV	74	30.20%	4.4952	41.2460	1.7214	83	33.88%	3.3187	43.8556	0.9843	163	66.53%	1.1198	6.8547	2.9961
	LDGT1	58	25.89%	3.9848	59.4820	2.0587	105	46.88%	2.2029	48.6010	1.0712	131	58.48%	0.8181	9.6482	3.4753
	LDGT2	46	31.72%	2.6697	31.5695	2.5267	52	35.86%	2.1442	35.6014	2.0205	106	73.10%	0.8575	12.5596	3.3107
<b>2001 Total</b>		178	28.99%	3.8571	44.6874	2.0394	240	39.09%	2.5761	44.1433	1.2468	400	65.15%	0.9515	9.2814	3.2364
2002	LDGV	88	32.47%	3.5594	27.4515	2.3218	85	31.37%	2.3852	37.0236	1.5229	197	72.69%	1.0219	8.6052	3.1526
	LDGT1	97	33.33%	3.9050	62.9182	1.8710	158	54.30%	2.3955	52.2737	1.1778	157	53.95%	1.0325	11.4914	3.6629

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	41	27.33%	2.8131	36.4977	2.8538	45	30.00%	2.0718	40.6156	2.4416	119	79.33%	0.6851	8.7590	3.3951
<b>2002 Total</b>		226	31.74%	3.5724	44.3151	2.2248	288	40.45%	2.3419	45.9512	1.4771	473	66.43%	0.9407	9.6019	3.3830
2003	LDGV	67	28.03%	2.5327	35.2590	1.9989	84	35.15%	1.6903	42.4830	1.0439	170	71.13%	0.7376	8.3413	2.7913
	LDGT1	62	25.73%	3.9702	63.4352	1.9668	122	50.62%	2.1677	46.8054	1.2545	141	58.51%	1.0942	11.6410	3.5372
	LDGT2	47	37.60%	4.7161	42.1392	2.1862	54	43.20%	3.7738	42.4593	1.9167	88	70.40%	1.5762	13.3978	3.4455
<b>2003 Total</b>		176	29.09%	3.6222	47.0220	2.0376	260	42.98%	2.3471	44.5063	1.3240	399	65.95%	1.0486	10.6226	3.1992
2004	LDGV	53	25.48%	3.9077	34.2966	2.2236	80	38.46%	2.1979	37.7681	1.1417	141	67.79%	0.7475	7.8718	3.1189
	LDGT1	65	29.02%	2.7816	60.9384	1.7532	114	50.89%	1.6170	48.6656	1.2098	129	57.59%	0.6247	8.2736	4.0238
	LDGT2	43	40.57%	3.6440	40.7011	3.8881	50	47.17%	3.0769	42.2126	3.0278	82	77.36%	1.1752	15.7522	4.0067
<b>2004 Total</b>		161	29.93%	3.3826	46.7631	2.4783	244	45.35%	2.1066	43.7703	1.5600	352	65.43%	0.8021	9.8548	3.6574
2005	LDGV	75	33.78%	4.0019	36.2134	1.9768	81	36.49%	3.1830	42.7636	1.1383	152	68.47%	0.7706	7.6941	3.2057
	LDGT1	53	30.29%	2.5783	37.2044	2.6170	82	46.86%	1.5650	40.4326	1.5095	110	62.86%	0.7690	8.7862	3.9378
	LDGT2	31	35.23%	6.1116	45.0508	3.2537	50	56.82%	3.9427	39.3256	2.8456	67	76.14%	1.5502	15.9984	3.4562
<b>2005 Total</b>		159	32.78%	3.9387	38.2668	2.4392	213	43.92%	2.7384	41.0592	1.6820	329	67.84%	0.9288	9.7504	3.5015
2006	LDGV	57	32.57%	3.2735	36.2393	2.5481	74	42.29%	2.1338	38.0056	1.6932	125	71.43%	1.0906	9.5786	3.2398
	LDGT1	24	24.00%	3.5031	66.4527	1.6297	44	44.00%	2.0728	49.8407	1.2587	65	65.00%	0.8941	7.7752	3.6511
	LDGT2	28	30.43%	4.8519	36.2721	3.2550	48	52.17%	2.0025	34.1551	2.1467	65	70.65%	1.8173	13.1498	3.5925
<b>2006 Total</b>		109	29.70%	3.7295	42.9002	2.5275	166	45.23%	2.0797	40.0292	1.7092	255	69.48%	1.2258	10.0292	3.4345
2007	LDGV	29	24.58%	2.7978	41.3122	1.8599	43	36.44%	1.5977	43.8728	0.9719	81	68.64%	0.5944	5.9444	3.2519
	LDGT1	22	22.68%	4.5019	90.4543	1.2945	43	44.33%	2.4727	64.3748	0.6043	58	59.79%	1.1127	8.4655	3.7851
	LDGT2	16	32.65%	4.2361	47.3172	4.1426	29	59.18%	2.6214	36.8910	2.8404	35	71.43%	1.2167	14.5809	4.4529
<b>2007 Total</b>		67	25.38%	3.7008	58.8824	2.2193	115	43.56%	2.1830	49.7781	1.3056	174	65.91%	0.8923	8.5220	3.6712
2008	LDGV	39	40.63%	2.6359	43.0614	2.5669	48	50.00%	1.5267	44.7093	1.5188	60	62.50%	0.9429	9.9414	3.4766
	LDGT1	13	22.81%	2.0747	77.0694	1.0377	28	49.12%	1.1024	55.7931	0.7102	32	56.14%	0.3529	4.6924	3.8709
	LDGT2	10	15.63%	6.4655	73.5073	2.0862	44	68.75%	1.6003	37.9646	0.8977	25	39.06%	2.0415	18.4252	3.2016
<b>2008 Total</b>		62	28.57%	3.1359	55.1027	2.1687	120	55.30%	1.4547	44.8225	1.1024	117	53.92%	1.0163	10.3185	3.5257
2009	LDGV	18	34.62%	3.7730	46.3719	2.5080	29	55.77%	2.3375	46.9647	1.1592	29	55.77%	1.0689	11.8254	3.4422
	LDGT1	4	21.05%	2.0299	35.9735	0.9049	8	42.11%	0.7460	41.2935	0.5008	10	52.63%	0.4821	6.6447	3.3094
	LDGT2	3	23.08%	2.5997	39.7574	3.5560	9	69.23%	1.1955	38.5090	1.3354	6	46.15%	1.0296	9.7615	3.8851
<b>2009 Total</b>		25	29.76%	3.3533	43.9144	2.3773	46	54.76%	1.8373	44.3241	1.0792	45	53.57%	0.9332	10.3989	3.4717
2010	LDGV	6	46.15%	2.9006	25.6008	3.5576	6	46.15%	2.4738	28.5492	2.5075	10	76.92%	1.2757	12.0314	3.1237
	LDGT1	0	0.00%	0.0000	0.0000	0.0000	2	66.67%	1.0077	35.6239	1.4363	2	66.67%	0.9214	13.7519	2.7726
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	2	33.33%	0.2762	21.9391	0.8076	4	66.67%	0.2795	3.1853	3.3607
<b>2010 Total</b>		6	27.27%	2.9006	25.6008	3.5576	10	45.45%	1.7411	28.6421	1.9533	16	72.73%	0.9824	10.0350	3.1390
2011	LDGV	3	30.00%	3.1770	26.7014	3.7603	4	40.00%	1.8270	28.1175	1.0836	7	70.00%	1.6286	14.5698	3.2058
	LDGT1	1	14.29%	29.8605	51.4611	0.8324	4	57.14%	7.9926	49.0996	0.4225	3	42.86%	0.3673	7.0404	2.9520
	LDGT2	1	100.00%	1.9672	11.6308	4.4991	0	0.00%	0.0000	0.0000	0.0000	1	100.00%	1.9672	11.6308	4.4991
<b>2011 Total</b>		5	27.78%	8.2718	28.6392	3.3225	8	44.44%	4.9099	38.6086	0.7530	11	61.11%	1.3154	12.2492	3.2541
2012	LDGV	2	22.22%	1.8329	14.3751	3.9019	4	44.44%	0.8541	18.2865	1.3967	7	77.78%	0.9821	11.4747	3.3189
	LDGT1	0	0.00%	0.0000	0.0000	0.0000	3	100.00%	0.5005	18.2049	1.8494	1	33.33%	0.6711	17.5318	2.8203
	LDGT2	2	66.67%	2.6687	34.3739	5.5702	3	100.00%	1.8538	40.4511	3.8399	2	66.67%	2.6687	34.3739	5.5702
<b>2012 Total</b>		4	26.67%	2.2508	24.3745	4.7360	10	66.67%	1.0480	24.9114	2.2655	10	66.67%	1.2884	16.6602	3.7193
2013	LDGV	8	47.06%	2.1723	29.9217	3.3555	9	52.94%	1.8048	30.7476	2.4766	14	82.35%	1.3950	14.6213	3.2091

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	50.00%	0.7958	17.0003	2.5873	2	100.00%	0.4225	9.0251	2.7737
	LDGT2	1	100.00%	2.4319	27.2072	4.2674	1	100.00%	2.4319	27.2072	4.2674	1	100.00%	2.4319	27.2072	4.2674
<b>2013 Total</b>		9	45.00%	2.2011	29.6201	3.4568	11	55.00%	1.7701	29.1760	2.6495	17	85.00%	1.3415	14.7032	3.2201
2014	LDGV	3	75.00%	1.6736	16.7796	2.4305	2	50.00%	1.6332	19.4078	2.2901	4	100.00%	1.5410	15.9254	3.0651
	LDGT1	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	1	100.00%	0.7652	5.7389	4.1486
	LDGT2	1	100.00%	2.4785	28.8994	3.3952	1	100.00%	2.4785	28.8994	3.3952	1	100.00%	2.4785	28.8994	3.3952
<b>2014 Total</b>		4	66.67%	1.8748	19.8095	2.6717	3	50.00%	1.9150	22.5717	2.6585	6	100.00%	1.5680	16.3900	3.3007
2015	LDGV	2	66.67%	1.9866	19.3195	3.9066	2	66.67%	1.9866	19.3195	3.9066	3	100.00%	1.6492	17.5318	3.4008
	LDGT1	0	0.00%	0.0000	0.0000	0.0000	1	100.00%	0.0975	17.4155	0.2498	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
<b>2015 Total</b>		2	50.00%	1.9866	19.3195	3.9066	3	75.00%	1.3569	18.6848	2.6877	3	75.00%	1.6492	17.5318	3.4008
2016	LDGV	1	100.00%	1.7064	19.6637	4.3090	1	100.00%	1.7064	19.6637	4.3090	1	100.00%	1.7064	19.6637	4.3090
	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
<b>2016 Total</b>		1	100.00%	1.7064	19.6637	4.3090	1	100.00%	1.7064	19.6637	4.3090	1	100.00%	1.7064	19.6637	4.3090
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
	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
<b>2017 Total</b>		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
2018	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
<b>2018 Total</b>		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
2019	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
<b>2019 Total</b>		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
<b>Grand Total</b>		5,449	40.85%	4.2898	45.7448	2.2157	6,730	50.46%	3.0623	49.3141	1.6574	6,684	50.11%	1.2016	10.9261	3.6829

**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	2,220	43.91%	3.8981	38.3912	1.7747	2,420	47.86%	2.7403	45.1690	1.2092	2,447	48.40%	1.1010	8.8598	3.1590
LDGT1	1,840	36.74%	4.3557	55.6797	2.3497	2,614	52.20%	2.9894	54.7548	1.6472	2,485	49.62%	1.0915	11.0115	3.9464
LDGT2	1,389	42.43%	4.8284	44.3370	2.7430	1,696	51.80%	3.6342	46.8433	2.3129	1,752	53.51%	1.4982	13.6908	4.0408
<b>Grand Total</b>	5,449	40.85%	4.2898	45.7448	2.2157	6,730	50.46%	3.0623	49.3141	1.6574	6,684	50.11%	1.2016	10.9261	3.6829

## **Appendix B4**

I/M240 Initial Failure for Other Report



Date  
Between 1/1/2020 and 12/31/2020

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	142	122	85.92	20	14.08	139	99.29	1	0.70	97	94.17	6	5.83	41	95.35	2	4.65	114	89.06	14	10.94	142	100.00	0	0.00
	LDGT2	28	25	89.29	3	10.71	26	100.00	0	0.00	25	100.00	0	0.00	4	100.00	0	0.00	23	88.46	3	11.54	28	100.00	0	0.00
	LDGV	133	119	89.47	14	10.53	130	99.24	1	0.75	80	93.02	6	6.98	94	95.92	4	4.08	109	93.97	7	6.03	133	100.00	0	0.00
<b>1982 Total</b>		<b>303</b>	<b>266</b>	<b>87.79</b>	<b>37</b>	<b>12.21</b>	<b>295</b>	<b>99.33</b>	<b>2</b>	<b>0.66</b>	<b>202</b>	<b>94.39</b>	<b>12</b>	<b>5.61</b>	<b>139</b>	<b>95.86</b>	<b>6</b>	<b>4.14</b>	<b>246</b>	<b>91.11</b>	<b>24</b>	<b>8.89</b>	<b>303</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>
1983	LDGT1	141	111	78.72	30	21.28	138	98.57	2	1.42	96	87.27	14	12.73	52	96.30	2	3.70	107	84.92	19	15.08	140	99.29	1	0.71
	LDGT2	48	37	77.08	11	22.92	43	89.58	5	10.42	39	92.86	3	7.14	9	100.00	0	0.00	39	84.78	7	15.22	48	100.00	0	0.00
	LDGV	164	155	94.51	9	5.49	161	98.77	2	1.22	79	95.18	4	4.82	134	98.53	2	1.47	143	97.95	3	2.05	163	99.39	1	0.61
<b>1983 Total</b>		<b>353</b>	<b>303</b>	<b>85.84</b>	<b>50</b>	<b>14.16</b>	<b>342</b>	<b>97.44</b>	<b>9</b>	<b>2.55</b>	<b>214</b>	<b>91.06</b>	<b>21</b>	<b>8.94</b>	<b>195</b>	<b>97.99</b>	<b>4</b>	<b>2.01</b>	<b>289</b>	<b>90.88</b>	<b>29</b>	<b>9.12</b>	<b>351</b>	<b>99.43</b>	<b>2</b>	<b>0.57</b>
1984	LDGT1	311	266	85.53	45	14.47	296	96.73	10	3.22	214	94.69	12	5.31	159	97.55	4	2.45	236	88.39	31	11.61	311	100.00	0	0.00
	LDGT2	91	79	86.81	12	13.19	86	96.63	3	3.30	86	97.73	2	2.27	19	95.00	1	5.00	82	91.11	8	8.89	90	98.90	1	1.10
	LDGV	318	281	88.36	37	11.64	312	98.42	5	1.57	168	93.85	11	6.15	266	97.08	8	2.92	284	94.04	18	5.96	314	98.74	4	1.26
<b>1984 Total</b>		<b>720</b>	<b>626</b>	<b>86.94</b>	<b>94</b>	<b>13.06</b>	<b>694</b>	<b>97.47</b>	<b>18</b>	<b>2.50</b>	<b>468</b>	<b>94.93</b>	<b>25</b>	<b>5.07</b>	<b>444</b>	<b>97.16</b>	<b>13</b>	<b>2.84</b>	<b>602</b>	<b>91.35</b>	<b>57</b>	<b>8.65</b>	<b>715</b>	<b>99.31</b>	<b>5</b>	<b>0.69</b>
1985	LDGT1	327	298	91.13	29	8.87	322	99.38	2	0.61	152	93.25	11	6.75	227	99.56	1	0.44	270	94.08	17	5.92	325	99.39	2	0.61
	LDGT2	101	83	82.18	18	17.82	95	95.96	4	3.96	88	92.63	7	7.37	27	100.00	0	0.00	85	87.63	12	12.37	100	99.01	1	0.99
	LDGV	330	299	90.61	31	9.39	318	96.66	11	3.33	169	95.48	8	4.52	285	98.62	4	1.38	303	94.98	16	5.02	329	99.70	1	0.30
<b>1985 Total</b>		<b>758</b>	<b>680</b>	<b>89.71</b>	<b>78</b>	<b>10.29</b>	<b>735</b>	<b>97.74</b>	<b>17</b>	<b>2.24</b>	<b>409</b>	<b>94.02</b>	<b>26</b>	<b>5.98</b>	<b>539</b>	<b>99.08</b>	<b>5</b>	<b>0.92</b>	<b>658</b>	<b>93.60</b>	<b>45</b>	<b>6.40</b>	<b>754</b>	<b>99.47</b>	<b>4</b>	<b>0.53</b>
1986	LDGT1	611	552	90.34	59	9.66	601	98.85	7	1.15	318	96.36	12	3.64	428	99.07	4	0.93	543	93.14	40	6.86	609	99.67	2	0.33
	LDGT2	141	113	80.14	28	19.86	135	96.43	5	3.55	120	90.91	12	9.09	41	87.23	6	12.77	121	88.32	16	11.68	140	99.29	1	0.71
	LDGV	496	466	93.95	30	6.05	489	98.99	5	1.01	242	97.58	6	2.42	443	99.11	4	0.89	461	95.84	20	4.16	494	99.60	2	0.40
<b>1986 Total</b>		<b>1,248</b>	<b>1,131</b>	<b>90.63</b>	<b>117</b>	<b>9.38</b>	<b>1,225</b>	<b>98.63</b>	<b>17</b>	<b>1.36</b>	<b>680</b>	<b>95.77</b>	<b>30</b>	<b>4.23</b>	<b>912</b>	<b>98.49</b>	<b>14</b>	<b>1.51</b>	<b>1,125</b>	<b>93.67</b>	<b>76</b>	<b>6.33</b>	<b>1,243</b>	<b>99.60</b>	<b>5</b>	<b>0.40</b>
1987	LDGT1	562	499	88.79	63	11.21	556	99.29	4	0.71	202	96.19	8	3.81	453	98.69	6	1.31	466	90.84	47	9.16	561	99.82	1	0.18
	LDGT2	183	167	91.26	16	8.74	179	99.44	1	0.55	168	98.25	3	1.75	129	100.00	0	0.00	165	92.18	14	7.82	183	100.00	0	0.00
	LDGV	555	516	92.97	39	7.03	551	99.28	4	0.72	211	97.24	6	2.76	507	99.22	4	0.78	508	95.13	26	4.87	554	99.82	1	0.18
<b>1987 Total</b>		<b>1,300</b>	<b>1,182</b>	<b>90.92</b>	<b>118</b>	<b>9.08</b>	<b>1,286</b>	<b>99.31</b>	<b>9</b>	<b>0.69</b>	<b>581</b>	<b>97.16</b>	<b>17</b>	<b>2.84</b>	<b>1,089</b>	<b>99.09</b>	<b>10</b>	<b>0.91</b>	<b>1,139</b>	<b>92.90</b>	<b>87</b>	<b>7.10</b>	<b>1,298</b>	<b>99.85</b>	<b>2</b>	<b>0.15</b>
1988	LDGT1	890	819	92.02	71	7.98	883	99.33	6	0.67	456	96.82	15	3.18	801	99.63	3	0.37	815	93.46	57	6.54	889	99.89	1	0.11
	LDGT2	300	263	87.67	37	12.33	296	98.67	4	1.33	264	97.42	7	2.58	264	100.00	0	0.00	267	89.90	30	10.10	300	100.00	0	0.00
	LDGV	773	729	94.31	44	5.69	764	98.96	8	1.03	290	97.97	6	2.03	735	99.06	7	0.94	731	97.08	22	2.92	770	99.61	3	0.39
<b>1988 Total</b>		<b>1,963</b>	<b>1,811</b>	<b>92.26</b>	<b>152</b>	<b>7.74</b>	<b>1,943</b>	<b>99.08</b>	<b>18</b>	<b>0.92</b>	<b>1,010</b>	<b>97.30</b>	<b>28</b>	<b>2.70</b>	<b>1,800</b>	<b>99.45</b>	<b>10</b>	<b>0.55</b>	<b>1,813</b>	<b>94.33</b>	<b>109</b>	<b>5.67</b>	<b>1,959</b>	<b>99.80</b>	<b>4</b>	<b>0.20</b>
1989	LDGT1	932	839	90.02	93	9.98	923	99.14	8	0.86	393	96.09	16	3.91	870	99.89	1	0.11	834	92.26	70	7.74	929	99.68	3	0.32
	LDGT2	336	304	90.48	32	9.52	332	99.10	3	0.89	164	99.39	1	0.61	303	99.34	2	0.66	310	92.26	26	7.74	336	100.00	0	0.00
	LDGV	820	767	93.54	53	6.46	813	99.15	7	0.85	277	96.85	9	3.15	774	99.61	3	0.39	769	95.65	35	4.35	819	99.88	1	0.12
<b>1989 Total</b>		<b>2,088</b>	<b>1,910</b>	<b>91.48</b>	<b>178</b>	<b>8.52</b>	<b>2,068</b>	<b>99.14</b>	<b>18</b>	<b>0.86</b>	<b>834</b>	<b>96.98</b>	<b>26</b>	<b>3.02</b>	<b>1,947</b>	<b>99.69</b>	<b>6</b>	<b>0.31</b>	<b>1,913</b>	<b>93.59</b>	<b>131</b>	<b>6.41</b>	<b>2,084</b>	<b>99.81</b>	<b>4</b>	<b>0.19</b>
1990	LDGT1	1,198	1,097	91.57	101	8.43	1,187	99.08	11	0.92	498	97.46	13	2.54	1,164	99.66	4	0.34	1,077	93.01	81	6.99	1,194	99.67	4	0.33
	LDGT2	462	416	90.04	46	9.96	456	98.92	5	1.08	202	98.06	4	1.94	459	99.35	3	0.65	423	92.16	36	7.84	460	99.57	2	0.43
	LDGV	1,382	1,299	93.99	83	6.01	1,374	99.57	6	0.43	293	97.67	7	2.33	1,362	99.42	8	0.58	1,299	95.30	64	4.70	1,382	100.00	0	0.00
<b>1990 Total</b>		<b>3,042</b>	<b>2,812</b>	<b>92.44</b>	<b>230</b>	<b>7.56</b>	<b>3,017</b>	<b>99.28</b>	<b>22</b>	<b>0.72</b>	<b>993</b>	<b>97.64</b>	<b>24</b>	<b>2.36</b>	<b>2,985</b>	<b>99.50</b>	<b>15</b>	<b>0.50</b>	<b>2,799</b>	<b>93.93</b>	<b>181</b>	<b>6.07</b>	<b>3,036</b>	<b>99.80</b>	<b>6</b>	<b>0.20</b>
1991	LDGT1	1,282	1,183	92.28	99	7.72	1,271	99.37	8	0.62	450	99.56	2	0.44	1,269	99.69	4	0.31	1,172	93.16	86	6.84	1,281	99.92	1	0.08
	LDGT2	424	377	88.92	47	11.08	418	98.82	5	1.18	192	97.96	4	2.04	421	99.76	1	0.24	382	90.09	42	9.91	424	100.00	0	0.00
	LDGV	1,394	1,321	94.76	73	5.24	1,385	99.50	7	0.50	236	98.33	4	1.67	1,380	99.71	4	0.29	1,322	95.94	56	4.06	1,391	99.78	3	0.22
<b>1991 Total</b>		<b>3,100</b>	<b>2,881</b>	<b>92.94</b>	<b>219</b>	<b>7.06</b>	<b>3,074</b>	<b>99.35</b>	<b>20</b>	<b>0.65</b>	<b>878</b>	<b>98.87</b>	<b>10</b>	<b>1.13</b>	<b>3,070</b>	<b>99.71</b>	<b>9</b>	<b>0.29</b>	<b>2,876</b>	<b>93.99</b>	<b>184</b>	<b>6.01</b>	<b>3,096</b>	<b>99.87</b>	<b>4</b>	<b>0.13</b>
1992	LDGT1	1,476	1,383	93.70	93	6.30	1,466	99.32	10	0.68	529	98.88	6	1.12	1,469	99.59	6	0.41	1,401	94.98	74	5.02	1,473	99.80	3	0.20
	LDGT2	800	729	91.13	71	8.88	789	98.63	11	1.38	329	98.21	6	1.79	799	100.00	0	0.00	741	92.86	57	7.14	798	99.75	2	0.25
	LDGV	1,900	1,																							

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	2,915	2710	92.97	205	7.03	2896	99.42	17	0.58	529	99.44	3	0.56	2,910	99.83	5	0.17	2,715	93.88	177	6.12	2910	99.83	5	0.17
	LDGT2	2,010	1846	91.84	164	8.16	1998	99.40	12	0.60	696	99.00	7	1.00	2,005	99.75	5	0.25	1,855	92.47	151	7.53	2010	100.00	0	0.00
	LDGV	3,235	3085	95.36	150	4.64	3225	99.69	10	0.31	374	99.47	2	0.53	3,219	99.54	15	0.46	3,098	96.27	120	3.73	3229	99.81	6	0.19
<b>1995 Total</b>		<b>8,160</b>	<b>7641</b>	<b>93.64</b>	<b>519</b>	<b>6.36</b>	<b>8119</b>	<b>99.52</b>	<b>39</b>	<b>0.48</b>	<b>1599</b>	<b>99.26</b>	<b>12</b>	<b>0.74</b>	<b>8,134</b>	<b>99.69</b>	<b>25</b>	<b>0.31</b>	<b>7,668</b>	<b>94.48</b>	<b>448</b>	<b>5.52</b>	<b>8149</b>	<b>99.87</b>	<b>11</b>	<b>0.13</b>
1996	LDGT1	3,649	3417	93.64	232	6.36	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3,418	93.72	229	6.28	3646	99.92	3	0.08
	LDGT2	2,164	2008	92.79	156	7.21	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,009	92.88	154	7.12	2162	99.91	2	0.09
	LDGV	4,239	4055	95.66	184	4.34	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4,047	95.86	175	4.14	4229	99.76	10	0.24
<b>1996 Total</b>		<b>10,052</b>	<b>9480</b>	<b>94.31</b>	<b>572</b>	<b>5.69</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>9,474</b>	<b>94.44</b>	<b>558</b>	<b>5.56</b>	<b>10037</b>	<b>99.85</b>	<b>15</b>	<b>0.15</b>
1997	LDGT1	5,411	5058	93.48	353	6.52	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5,027	93.49	350	6.51	5407	99.93	4	0.07
	LDGT2	2,332	2172	93.14	160	6.86	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,172	93.34	155	6.66	2327	99.79	5	0.21
	LDGV	5,114	4837	94.58	277	5.42	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4,823	94.75	267	5.25	5104	99.80	10	0.20
<b>1997 Total</b>		<b>12,857</b>	<b>12067</b>	<b>93.86</b>	<b>790</b>	<b>6.14</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>12,022</b>	<b>93.97</b>	<b>772</b>	<b>6.03</b>	<b>12838</b>	<b>99.85</b>	<b>19</b>	<b>0.15</b>
1998	LDGT1	7,790	7359	94.47	431	5.53	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7,355	94.49	429	5.51	7788	99.97	2	0.03
	LDGT2	3,083	2919	94.68	164	5.32	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,918	94.74	162	5.26	3081	99.94	2	0.06
	LDGV	7,116	6694	94.07	422	5.93	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6,672	94.13	416	5.87	7110	99.92	6	0.08
<b>1998 Total</b>		<b>17,989</b>	<b>16972</b>	<b>94.35</b>	<b>1017</b>	<b>5.65</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>16,945</b>	<b>94.39</b>	<b>1,007</b>	<b>5.61</b>	<b>17979</b>	<b>99.94</b>	<b>10</b>	<b>0.06</b>
1999	LDGT1	7,507	7121	94.86	386	5.14	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7,123	94.94	380	5.06	7501	99.92	6	0.08
	LDGT2	3,813	3601	94.44	212	5.56	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3,598	94.49	210	5.51	3811	99.95	2	0.05
	LDGV	7,738	7371	95.26	367	4.74	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7,345	95.32	361	4.68	7732	99.92	6	0.08
<b>1999 Total</b>		<b>19,058</b>	<b>18093</b>	<b>94.94</b>	<b>965</b>	<b>5.06</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>18,066</b>	<b>95.00</b>	<b>951</b>	<b>5.00</b>	<b>19044</b>	<b>99.93</b>	<b>14</b>	<b>0.07</b>
2000	LDGT1	3,336	3160	94.72	176	5.28	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3,159	94.78	174	5.22	3334	99.94	2	0.06
	LDGT2	1,539	1450	94.22	89	5.78	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,447	94.27	88	5.73	1538	99.94	1	0.06
	LDGV	4,030	3855	95.66	175	4.34	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3,849	95.75	171	4.25	4025	99.88	5	0.12
<b>2000 Total</b>		<b>8,905</b>	<b>8465</b>	<b>95.06</b>	<b>440</b>	<b>4.94</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>8,455</b>	<b>95.13</b>	<b>433</b>	<b>4.87</b>	<b>8897</b>	<b>99.91</b>	<b>8</b>	<b>0.09</b>
2001	LDGT1	3,558	3359	94.41	199	5.59	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3,365	94.60	192	5.40	3551	99.80	7	0.20
	LDGT2	1,743	1622	93.06	121	6.94	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,621	93.05	121	6.95	1743	100.00	0	0.00
	LDGV	4,091	3888	95.04	203	4.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3,882	95.10	200	4.90	4088	99.93	3	0.07
<b>2001 Total</b>		<b>9,392</b>	<b>8869</b>	<b>94.43</b>	<b>523</b>	<b>5.57</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>8,868</b>	<b>94.53</b>	<b>513</b>	<b>5.47</b>	<b>9382</b>	<b>99.89</b>	<b>10</b>	<b>0.11</b>
2002	LDGT1	4,563	4325	94.78	238	5.22	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4,315	94.86	234	5.14	4559	99.91	4	0.09
	LDGT2	1,840	1720	93.48	120	6.52	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,722	93.59	118	6.41	1837	99.84	3	0.16
	LDGV	5,247	4983	94.97	264	5.03	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4,973	95.03	260	4.97	5243	99.92	4	0.08
<b>2002 Total</b>		<b>11,650</b>	<b>11028</b>	<b>94.66</b>	<b>622</b>	<b>5.34</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>11,010</b>	<b>94.73</b>	<b>612</b>	<b>5.27</b>	<b>11639</b>	<b>99.91</b>	<b>11</b>	<b>0.09</b>
2003	LDGT1	4,408	4157	94.31	251	5.69	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4,151	94.36	248	5.64	4405	99.93	3	0.07
	LDGT2	1,973	1863	94.42	110	5.58	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,859	94.46	109	5.54	1972	99.95	1	0.05
	LDGV	4,922	4664	94.76	258	5.24	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4,660	94.83	254	5.17	4918	99.92	4	0.08
<b>2003 Total</b>		<b>11,303</b>	<b>10684</b>	<b>94.52</b>	<b>619</b>	<b>5.48</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>10,670</b>	<b>94.58</b>	<b>611</b>	<b>5.42</b>	<b>11295</b>	<b>99.93</b>	<b>8</b>	<b>0.07</b>
2004	LDGT1	5,694	5431	95.38	263	4.62	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5,429	95.41	261	4.59	5691	99.95	3	0.05
	LDGT2	2,581	2431	94.19	150	5.81	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,435	94.42	144	5.58	2575	99.77	6	0.23
	LDGV	5,335	5058	94.81	277	5.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5,051	94.87	273	5.13	5331	99.93	4	0.07
<b>2004 Total</b>		<b>13,610</b>	<b>12920</b>	<b>94.93</b>	<b>690</b>	<b>5.07</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>12,915</b>	<b>95.01</b>	<b>678</b>	<b>4.99</b>	<b>13597</b>	<b>99.90</b>	<b>13</b>	<b>0.10</b>
2005	LDGT1	5,617	5392	95.99	225	4.01	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5,393	96.10	219	3.90	5611	99.89	6	0.11
	LDGT2	1,968	1893	96.19	75	3.81	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,894	96.34	72	3.66	1965	99.85	3	0.15
	LDGV	5,673	5388	94.98	285	5.02	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5,381	95.00	283	5.00	5671	99.96	2	0.04
<b>2005 Total</b>		<b>13,258</b>	<b>12673</b>	<b>95.59</b>	<b>585</b>																					

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	3,292	3208	97.45	84	2.55	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3,038	97.31	84	2.69	3292	100.00	0	0.00
	LDGT2	1,398	1333	95.35	65	4.65	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,098	94.57	63	5.43	1396	99.86	2	0.14
	LDGV	4,621	4543	98.31	78	1.69	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4,514	98.32	77	1.68	4620	99.98	1	0.02
<b>2009 Total</b>		<b>9,311</b>	<b>9084</b>	<b>97.56</b>	<b>227</b>	<b>2.44</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>8,650</b>	<b>97.48</b>	<b>224</b>	<b>2.52</b>	<b>9308</b>	<b>99.97</b>	<b>3</b>	<b>0.03</b>
2010	LDGT1	352	341	96.88	11	3.13	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	311	96.58	11	3.42	352	100.00	0	0.00
	LDGT2	205	198	96.59	7	3.41	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	133	95.00	7	5.00	205	100.00	0	0.00
	LDGV	450	437	97.11	13	2.89	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	406	97.13	12	2.87	449	99.78	1	0.22
<b>2010 Total</b>		<b>1,007</b>	<b>976</b>	<b>96.92</b>	<b>31</b>	<b>3.08</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>850</b>	<b>96.59</b>	<b>30</b>	<b>3.41</b>	<b>1006</b>	<b>99.90</b>	<b>1</b>	<b>0.10</b>
2011	LDGT1	561	546	97.33	15	2.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	515	97.17	15	2.83	561	100.00	0	0.00
	LDGT2	326	302	92.64	24	7.36	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	241	90.94	24	9.06	326	100.00	0	0.00
	LDGV	547	539	98.54	8	1.46	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	468	98.53	7	1.47	546	99.82	1	0.18
<b>2011 Total</b>		<b>1,434</b>	<b>1387</b>	<b>96.72</b>	<b>47</b>	<b>3.28</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>1,224</b>	<b>96.38</b>	<b>46</b>	<b>3.62</b>	<b>1433</b>	<b>99.93</b>	<b>1</b>	<b>0.07</b>
2012	LDGT1	376	362	96.28	14	3.72	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	348	96.13	14	3.87	376	100.00	0	0.00
	LDGT2	245	216	88.16	29	11.84	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	173	86.07	28	13.93	244	99.59	1	0.41
	LDGV	517	497	96.13	20	3.87	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	416	95.41	20	4.59	517	100.00	0	0.00
<b>2012 Total</b>		<b>1,138</b>	<b>1075</b>	<b>94.46</b>	<b>63</b>	<b>5.54</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>937</b>	<b>93.79</b>	<b>62</b>	<b>6.21</b>	<b>1137</b>	<b>99.91</b>	<b>1</b>	<b>0.09</b>
2013	LDGT1	420	412	98.10	8	1.90	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	375	97.91	8	2.09	420	100.00	0	0.00
	LDGT2	277	261	94.22	16	5.78	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	157	90.75	16	9.25	277	100.00	0	0.00
	LDGV	558	545	97.67	13	2.33	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	451	97.20	13	2.80	558	100.00	0	0.00
<b>2013 Total</b>		<b>1,255</b>	<b>1218</b>	<b>97.05</b>	<b>37</b>	<b>2.95</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>983</b>	<b>96.37</b>	<b>37</b>	<b>3.63</b>	<b>1255</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>
2014	LDGT1	63	58	92.06	5	7.94	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	50	90.91	5	9.09	63	100.00	0	0.00
	LDGT2	61	53	86.89	8	13.11	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	34	80.95	8	19.05	61	100.00	0	0.00
	LDGV	103	101	98.06	2	1.94	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	82	97.62	2	2.38	103	100.00	0	0.00
<b>2014 Total</b>		<b>227</b>	<b>212</b>	<b>93.39</b>	<b>15</b>	<b>6.61</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>166</b>	<b>91.71</b>	<b>15</b>	<b>8.29</b>	<b>227</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>
2015	LDGT1	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	13	92.86	1	7.14	15	100.00	0	0.00
	LDGT2	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	9	100.00	0	0.00	10	100.00	0	0.00
	LDGV	17	17	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	13	100.00	0	0.00	17	100.00	0	0.00
<b>2015 Total</b>		<b>42</b>	<b>41</b>	<b>97.62</b>	<b>1</b>	<b>2.38</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>35</b>	<b>97.22</b>	<b>1</b>	<b>2.78</b>	<b>42</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>
2016	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	8	100.00	0	0.00	9	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	0	0.00	0	0.00	4	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	8	100.00	0	0.00	9	100.00	0	0.00
<b>2016 Total</b>		<b>22</b>	<b>22</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>16</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>22</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>
2017	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	3	100.00	0	0.00	4	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	0	0.00	0	0.00	1	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
<b>2017 Total</b>		<b>8</b>	<b>8</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>6</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>8</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>
2018	LDGT1	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
	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	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
<b>2018 Total</b>		<b>6</b>	<b>6</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>3</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>6</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>
2019	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
<b>2019 Total</b>		<b>1</b>	<b>1</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>1</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>1</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>
<b>Grand Total</b>		<b>222,029</b>	<b>210650</b>	<b>94.87</b>	<b>11379</b>	<b>5.13</b>	<b>38504</b>	<b>99.31</b>	<b>269</b>	<b>0.12</b>	<b>11742</b>	<b>97.71</b>	<b>275</b>	<b>2.29</b>	<b>36,989</b>	<b>99.59</b>	<b>154</b>	<b>0.41</b>	<b>209,237</b>	<b>95.15</b>	<b>10,655</b>	<b>4.85</b>	<b>221799</b>	<b>99.90</b>	<b>230</b>	<b>0.10</b>

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 %							





## **Appendix B5**

### I/M240 Retest Pass Reduction Report



Date  
Between 1/1/2020 and 12/31/2020

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	35	5.7259	82.6024	2.2984	20	57.14%	2.0185	21.4406	2.2340	2.1485	51.56%	25.3895	54.22%	0.2948	11.66%	392.00
	LDGT1	66	5.5976	92.3885	1.5412	30	45.45%	2.5097	33.2677	2.3999	2.1843	46.53%	47.3528	58.74%	-0.6824	-39.73%	155.50
	LDGT2	20	3.6381	73.3467	3.3498	11	55.00%	2.3876	32.5117	2.3270	1.8960	44.26%	42.8012	56.83%	0.7750	24.98%	0.00
<b>1982 Total</b>		121	5.3108	86.4104	2.0592	61	50.41%	2.3266	29.2537	2.3323	2.1206	47.68%	39.3309	57.35%	-0.0992	-4.44%	234.33
1983	LDGV	61	4.3988	67.5972	2.3636	26	42.62%	1.4444	16.1535	2.1673	2.9222	66.92%	39.1347	70.78%	0.2864	11.67%	0.00
	LDGT1	67	4.6877	64.9056	3.0647	35	52.24%	3.1126	38.1484	2.3204	0.9319	23.04%	22.4395	37.04%	0.2511	9.77%	365.50
	LDGT2	39	6.1909	88.7601	2.9243	14	35.90%	3.1368	41.7601	2.4505	2.9434	48.41%	43.3991	50.96%	0.1511	5.81%	0.00
<b>1983 Total</b>		167	4.9332	71.4596	2.7758	75	44.91%	2.5388	31.1977	2.2916	1.9973	44.03%	32.1396	50.74%	0.2447	9.65%	365.50
1984	LDGV	105	5.7715	58.4856	2.0184	52	49.52%	1.2963	14.0500	1.8029	1.7117	56.90%	23.0191	62.10%	0.2921	13.94%	669.00
	LDGT1	146	5.4405	88.9164	2.0818	65	44.52%	2.2613	28.4843	2.6991	1.8238	44.65%	34.8507	55.03%	-0.0991	-3.81%	120.00
	LDGT2	68	7.2706	111.2296	2.9306	23	33.82%	2.0132	32.1576	2.5153	2.4074	54.46%	36.9928	53.50%	0.8543	25.35%	0.00
<b>1984 Total</b>		319	5.9395	83.6564	2.2419	140	43.89%	1.8621	23.7265	2.3360	1.8780	50.21%	30.8080	56.49%	0.2028	7.99%	486.00
1985	LDGV	153	4.4808	46.7961	1.7202	60	39.22%	1.0702	9.8346	1.8275	1.4969	58.31%	26.0688	72.61%	0.0456	2.43%	323.00
	LDGT1	114	4.4538	77.5325	2.2837	56	49.12%	1.7595	19.3607	2.4294	1.9706	52.83%	30.8896	61.47%	0.3549	12.75%	256.50
	LDGT2	69	5.2856	104.3478	1.7686	26	37.68%	1.8454	23.0711	2.9289	3.1261	62.88%	53.0455	69.69%	-0.7391	-33.75%	276.50
<b>1985 Total</b>		336	4.6369	69.0431	1.9213	142	42.26%	1.4840	16.0150	2.2665	1.9820	57.18%	32.9093	67.27%	0.0239	1.04%	294.00
1986	LDGV	127	2.3284	38.6270	2.1371	62	48.82%	1.0574	8.3478	2.0565	1.0117	48.90%	22.6132	73.04%	0.1535	6.94%	472.00
	LDGT1	164	2.9147	56.8849	2.3819	78	47.56%	1.8358	19.6036	2.4168	0.5068	21.63%	20.7967	51.48%	-0.1043	-4.51%	363.50
	LDGT2	71	5.7103	66.4231	3.0116	36	50.70%	1.6930	22.1584	2.5215	2.5213	59.83%	38.0104	63.17%	0.1906	7.03%	541.00
<b>1986 Total</b>		362	3.2573	52.3502	2.4195	176	48.62%	1.5324	16.1611	2.3113	1.0967	41.71%	24.9576	60.70%	0.0468	1.99%	431.44
1987	LDGV	149	3.3437	44.6359	2.0699	75	50.34%	1.0202	8.3161	1.8584	1.5394	60.14%	21.9544	72.53%	-0.0083	-0.45%	243.50
	LDGT1	187	3.6462	60.3766	2.2574	109	58.29%	1.3940	15.3819	2.3193	1.6658	54.44%	26.2655	63.07%	0.1913	7.62%	466.50
	LDGT2	70	3.5878	47.9928	3.6754	33	47.14%	1.7283	13.7302	3.0949	1.8244	51.35%	22.9515	62.57%	0.4221	12.00%	756.33
<b>1987 Total</b>		406	3.5251	52.4647	2.4331	217	53.45%	1.3156	12.6886	2.2779	1.6462	55.58%	24.2715	65.67%	0.1574	6.46%	464.45
1988	LDGV	175	2.7834	34.1335	1.7807	84	48.00%	0.9514	7.8024	1.4583	1.8224	65.70%	20.7374	72.66%	0.2875	16.47%	994.20
	LDGT1	304	3.9527	50.8839	2.3291	151	49.67%	1.3285	13.1112	2.1958	1.7867	57.35%	21.2735	61.87%	0.2191	9.07%	474.00
	LDGT2	117	3.4461	41.2394	3.2581	64	54.70%	1.4735	12.6140	2.4525	1.5663	51.53%	21.4549	62.98%	0.7906	24.38%	134.33
<b>1988 Total</b>		596	3.5099	44.0723	2.3505	299	50.17%	1.2536	11.5133	2.0436	1.7495	58.26%	21.1617	64.76%	0.3607	15.00%	595.69
1989	LDGV	184	2.8389	30.6862	2.2343	110	59.78%	0.9119	8.2173	1.8116	1.6188	63.97%	16.0491	66.14%	0.2014	10.00%	128.00
	LDGT1	286	2.9313	47.5481	2.3251	154	53.85%	1.3095	12.5782	2.0534	1.4313	52.22%	22.6999	64.35%	0.1954	8.69%	865.50
	LDGT2	95	3.1252	25.2279	3.3961	56	58.95%	1.6260	13.0879	2.5645	1.1753	41.96%	8.2059	38.54%	0.7905	23.56%	0.00
<b>1989 Total</b>		565	2.9338	38.3039	2.4756	320	56.64%	1.2282	11.1683	2.0597	1.4509	54.16%	17.8772	61.55%	0.3016	12.77%	373.83
1990	LDGV	231	2.1504	30.6451	2.0575	141	61.04%	0.8611	7.7136	1.6135	0.8176	48.71%	15.7049	67.06%	0.3038	15.85%	318.80
	LDGT1	308	2.6019	46.7332	2.3743	178	57.79%	1.2978	12.0481	2.1750	1.0356	44.38%	24.0190	66.60%	0.3332	13.29%	292.63
	LDGT2	145	4.1682	33.3011	2.7446	82	56.55%	1.4534	12.8543	2.7779	1.6150	52.63%	9.8605	43.41%	0.2823	9.23%	952.00
<b>1990 Total</b>		684	2.7815	38.4525	2.3458	401	58.63%	1.1760	10.6889	2.1008	1.0775	47.81%	18.2003	63.00%	0.3125	12.95%	424.44
1991	LDGV	288	3.4176	26.6179	1.9848	156	54.17%	0.7303	6.8982	1.4838	1.5944	68.59%	14.3066	67.47%	0.4699	24.05%	215.60
	LDGT1	288	2.8823	32.7998	2.5563	168	58.33%	1.0880	11.3540	1.7772	0.8815	44.76%	12.0147	51.41%	0.6273	26.09%	177.40

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	144	3.1897	35.8800	2.8577	82	56.94%	1.3456	13.4740	2.4249	1.3575	50.22%	15.6446	53.73%	0.1955	7.46%	309.00
<b>1991 Total</b>		720	3.1579	30.9431	2.3880	406	56.39%	1.0026	10.0701	1.7953	1.2516	55.52%	13.6285	57.51%	0.4796	21.08%	215.25
1992	LDGV	353	2.6868	31.5150	1.6818	199	56.37%	0.6450	6.2247	1.4388	1.2142	65.31%	18.8406	75.17%	0.1287	8.21%	457.50
	LDGT1	269	2.7140	35.2864	2.4511	162	60.22%	1.0922	10.7249	1.7899	0.8880	44.85%	15.0409	58.38%	0.5656	24.01%	853.20
	LDGT2	251	3.7408	42.3864	3.0978	135	53.78%	1.3426	12.8150	2.1367	1.5219	53.13%	13.2953	50.92%	0.8580	28.65%	317.00
<b>1992 Total</b>		873	2.9982	35.8028	2.3260	496	56.82%	0.9809	9.4883	1.7434	1.1914	54.84%	16.0903	62.91%	0.4699	21.23%	493.20
1993	LDGV	376	1.7156	21.9204	2.1525	209	55.59%	0.6356	6.3153	1.4760	0.8463	57.11%	13.2503	67.72%	0.3951	21.12%	438.17
	LDGT1	361	2.9907	39.5227	2.8656	191	52.91%	1.0916	10.0959	1.9319	1.2065	52.50%	19.5728	65.97%	0.7638	28.34%	467.00
	LDGT2	303	3.4753	32.1204	3.0986	161	53.14%	1.4383	12.5288	2.2733	1.4262	49.79%	12.1802	49.29%	0.8279	26.70%	431.57
<b>1993 Total</b>		1040	2.6709	31.0021	2.6756	561	53.94%	1.0212	9.3856	1.8600	1.1354	52.65%	15.0958	61.66%	0.6449	25.74%	442.24
1994	LDGV	382	2.6710	22.8505	1.9429	221	57.85%	0.5353	5.7623	1.2972	1.1885	68.95%	11.0908	65.81%	0.3863	22.95%	193.40
	LDGT1	536	2.2488	26.9697	2.8277	326	60.82%	0.8838	8.7349	1.8970	0.6953	44.03%	8.5709	49.53%	0.7000	26.95%	454.75
	LDGT2	672	2.6153	29.4974	2.8280	310	46.13%	1.0373	10.3034	2.0029	1.0782	50.97%	12.7221	55.25%	0.8109	28.82%	466.17
<b>1994 Total</b>		1590	2.5052	27.0484	2.6153	857	53.90%	0.8494	8.5357	1.7807	0.9610	53.08%	10.7223	55.68%	0.6592	27.02%	408.89
1995	LDGV	551	2.0723	20.8186	1.7607	329	59.71%	0.4885	5.2584	1.0717	1.0197	67.61%	12.4205	70.26%	0.4984	31.74%	330.15
	LDGT1	618	2.1461	28.3243	2.4664	377	61.00%	0.7557	8.3083	1.7410	0.8924	54.15%	14.6276	63.78%	0.5598	24.33%	360.79
	LDGT2	649	2.2604	25.3338	2.9581	355	54.70%	0.9582	10.0536	1.9639	0.7890	45.16%	10.6935	51.54%	0.7807	28.44%	566.23
<b>1995 Total</b>		1818	2.1645	24.9819	2.4280	1061	58.36%	0.7406	7.9465	1.6080	0.8973	54.78%	12.6269	61.37%	0.6147	27.65%	404.57
1996	LDGV	550	1.3210	13.0042	1.6857	371	67.45%	0.4314	4.8965	0.9122	0.5494	56.02%	6.7482	57.95%	0.4384	32.46%	401.70
	LDGT1	572	1.2712	16.2874	2.3614	386	67.48%	0.4461	5.3106	1.4399	0.6531	59.42%	9.0412	63.00%	0.6420	30.84%	589.21
	LDGT2	408	1.7162	20.2880	2.3629	265	64.95%	0.5326	5.9023	1.4810	0.6565	55.21%	11.1057	65.30%	0.5151	25.81%	295.88
<b>1996 Total</b>		1530	1.4078	16.1740	2.1189	1022	66.80%	0.4632	5.3137	1.2590	0.6164	57.09%	8.7442	62.20%	0.5352	29.83%	457.28
1997	LDGV	711	1.2380	17.5327	1.3921	463	65.12%	0.3998	4.7144	0.8842	0.5645	58.54%	8.9059	65.39%	0.2764	23.82%	496.75
	LDGT1	1072	1.2016	18.5850	2.3204	656	61.19%	0.4180	5.6509	1.3122	0.5587	57.20%	9.7003	63.19%	0.6882	34.40%	498.08
	LDGT2	501	1.9352	18.7570	2.6071	320	63.87%	0.4850	5.9972	1.3196	0.7595	61.03%	10.7545	64.20%	0.8158	38.20%	318.13
<b>1997 Total</b>		2284	1.3738	18.2952	2.0943	1439	63.00%	0.4271	5.4266	1.1761	0.6052	58.63%	9.6791	64.08%	0.5841	33.18%	453.97
1998	LDGV	1040	1.1163	12.7140	1.2895	707	67.98%	0.3066	4.1521	0.6800	0.5534	64.35%	6.5278	61.12%	0.3638	34.85%	470.50
	LDGT1	1178	1.0313	15.5344	2.2280	782	66.38%	0.3921	5.0654	1.1962	0.4647	54.24%	8.6422	63.05%	0.6782	36.18%	483.45
	LDGT2	590	1.9367	15.7353	2.6230	330	55.93%	0.4519	5.3855	1.3570	0.8621	65.61%	7.8572	59.33%	0.8161	37.55%	369.00
<b>1998 Total</b>		2808	1.2530	14.5320	1.9634	1819	64.78%	0.3697	4.7685	1.0247	0.5713	60.71%	7.6779	61.69%	0.5810	36.18%	457.95
1999	LDGV	997	0.9358	11.9901	1.4395	665	66.70%	0.2867	3.8195	0.6759	0.4657	61.89%	6.3697	62.51%	0.4257	38.64%	631.88
	LDGT1	1305	1.2048	17.9064	2.1364	811	62.15%	0.3043	4.1578	0.9906	0.5886	65.92%	10.0457	70.73%	0.7957	44.55%	633.27
	LDGT2	903	1.3470	15.0746	2.2640	498	55.15%	0.3659	4.2021	1.0349	0.4698	56.22%	7.6015	64.40%	0.8552	45.25%	882.25
<b>1999 Total</b>		3205	1.1612	15.2681	1.9556	1974	61.59%	0.3139	4.0550	0.8957	0.5172	62.23%	8.1907	66.89%	0.6861	43.37%	683.77
2000	LDGV	631	0.9329	12.5337	1.8778	384	60.86%	0.2625	3.6886	0.6079	0.4541	63.37%	7.3039	66.44%	0.8512	58.34%	314.78
	LDGT1	774	1.0045	17.2058	2.1197	407	52.58%	0.2903	4.2296	1.0390	0.4484	60.70%	8.4478	66.64%	0.6936	40.03%	442.08
	LDGT2	387	1.2066	14.3678	2.5017	219	56.59%	0.3083	4.1051	1.0111	0.5845	65.47%	9.3042	69.39%	0.8497	45.66%	936.33
<b>2000 Total</b>		1792	1.0229	14.9478	2.1170	1010	56.36%	0.2836	3.9969	0.8690	0.4801	62.86%	8.1986	67.23%	0.7874	47.54%	456.13
2001	LDGV	597	1.0506	13.9367	1.5352	395	66.16%	0.2173	3.2793	0.5253	0.5887	73.04%	8.9963	73.29%	0.6763	56.28%	275.00
	LDGT1	567	0.8511	19.6587	1.8004	364	64.20%	0.2260	4.0539	0.7542	0.4236	65.21%	10.3970	71.95%	0.6915	47.83%	1367.00
	LDGT2	383	0.8714	12.2107	2.2058	218	56.92%	0.2766	3.5158	0.8128	0.3290	54.32%	6.8014	65.92%	0.7951	49.45%	403.00

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)	
<b>2001 Total</b>		1547	0.9331	15.6066	1.7984	977	63.15%	0.2338	3.6207	0.6747	0.4692	66.75%	9.0284	71.38%	0.7085	51.22%	583.27
2002	LDGV	760	1.0718	10.7238	1.7666	479	63.03%	0.2088	3.3228	0.4563	0.4377	67.71%	4.9080	59.63%	0.8309	64.55%	597.88
	LDGT1	815	1.0312	26.4038	1.7424	505	61.96%	0.2083	4.4419	0.6991	0.4724	69.40%	13.2246	74.86%	0.7844	52.88%	838.62
	LDGT2	399	0.9286	11.8108	2.3149	249	62.41%	0.2511	3.4606	0.8656	0.3827	60.39%	5.3558	60.75%	0.9352	51.93%	422.83
<b>2002 Total</b>		1974	1.0261	17.4172	1.8674	1233	62.46%	0.2171	3.8090	0.6384	0.4408	67.00%	8.4047	68.81%	0.8329	56.61%	674.89
2003	LDGV	694	0.8218	12.3708	1.4782	444	63.98%	0.1563	2.5734	0.4274	0.4059	72.20%	7.4086	74.22%	0.6991	62.06%	193.40
	LDGT1	642	0.7026	16.1690	1.6491	426	66.36%	0.1719	3.1569	0.5482	0.3248	65.40%	8.9282	73.88%	0.7435	57.56%	408.50
	LDGT2	311	1.4744	17.4552	1.8894	200	64.31%	0.2367	3.3603	0.6732	0.9653	80.31%	8.7481	72.25%	0.8047	54.45%	776.17
<b>2003 Total</b>		1647	0.8986	14.8114	1.6224	1070	64.97%	0.1775	2.9528	0.5215	0.4782	72.93%	8.2640	73.68%	0.7365	58.55%	468.00
2004	LDGV	660	0.9329	12.9192	1.5307	443	67.12%	0.1428	2.7093	0.3814	0.3947	73.43%	7.5310	73.54%	0.6827	64.16%	291.56
	LDGT1	635	0.7217	16.6450	1.5290	435	68.50%	0.1593	3.0851	0.4604	0.3188	66.68%	9.2806	75.05%	0.7738	62.70%	695.86
	LDGT2	411	1.3043	16.7649	2.0161	248	60.34%	0.1986	3.2936	0.5576	0.4950	71.36%	8.3925	71.82%	0.8811	61.24%	481.00
<b>2004 Total</b>		1706	0.9438	15.2325	1.6470	1126	66.00%	0.1615	2.9832	0.4507	0.3875	70.58%	8.3967	73.79%	0.7616	62.82%	469.83
2005	LDGV	631	0.6759	9.4693	1.4818	444	70.36%	0.1257	2.1877	0.3207	0.3458	73.33%	4.9059	69.16%	0.7386	69.72%	296.22
	LDGT1	502	0.6696	12.3871	1.5854	364	72.51%	0.1494	2.8674	0.3603	0.2911	66.08%	6.0187	67.73%	0.7924	68.74%	312.33
	LDGT2	243	1.4980	18.5046	2.1639	148	60.91%	0.2355	3.4234	0.5321	1.0903	82.24%	12.4573	78.44%	1.0607	66.59%	388.00
<b>2005 Total</b>		1376	0.8188	12.1294	1.6401	956	69.48%	0.1517	2.6378	0.3685	0.4402	74.36%	6.4986	71.13%	0.8089	68.70%	307.00
2006	LDGV	410	0.6914	10.9619	1.5230	287	70.00%	0.1573	2.5369	0.3101	0.3903	71.27%	7.3205	74.26%	0.8251	72.68%	672.00
	LDGT1	349	0.6941	11.4143	1.2062	271	77.65%	0.1261	2.3570	0.3177	0.3212	71.81%	6.2105	72.49%	0.5269	62.38%	370.00
	LDGT2	276	1.0056	13.2746	1.8225	186	67.39%	0.1767	2.8171	0.4039	0.7662	81.26%	9.1246	76.41%	0.8661	68.20%	696.00
<b>2006 Total</b>		1035	0.7761	11.7312	1.4960	744	71.88%	0.1508	2.5414	0.3363	0.4591	75.27%	7.3672	74.35%	0.7267	68.36%	576.67
2007	LDGV	374	0.5901	9.8747	1.2940	285	76.20%	0.1123	2.3446	0.2346	0.3545	75.94%	5.7170	70.92%	0.7411	75.95%	258.86
	LDGT1	376	0.4371	15.2817	1.1489	266	70.74%	0.0755	2.1720	0.2034	0.1648	68.59%	6.3292	74.45%	0.4983	71.02%	16.00
	LDGT2	178	1.5349	10.9081	1.3744	144	80.90%	0.1374	2.1671	0.2876	0.6421	82.38%	5.9062	73.16%	0.6879	70.52%	1357.00
<b>2007 Total</b>		928	0.7093	12.2637	1.2506	695	74.89%	0.1034	2.2418	0.2336	0.3415	76.76%	5.9905	72.77%	0.6372	73.17%	454.20
2008	LDGV	324	0.6146	12.6894	1.1482	256	79.01%	0.1000	2.0776	0.1831	0.3478	77.67%	6.9020	76.86%	0.6728	78.60%	498.50
	LDGT1	255	0.2495	9.9881	1.0654	212	83.14%	0.0791	2.2462	0.1871	0.1113	58.46%	6.3023	73.72%	0.4034	68.32%	819.50
	LDGT2	236	0.3965	13.0746	0.7222	180	76.27%	0.1107	3.1501	0.1979	0.2000	64.37%	8.1433	72.11%	0.2606	56.84%	324.50
<b>2008 Total</b>		815	0.4372	11.9557	0.9990	648	79.51%	0.0961	2.4307	0.1885	0.2294	70.47%	7.0506	74.36%	0.4702	71.38%	547.50
2009	LDGV	155	0.7961	17.4976	0.9808	116	74.84%	0.1315	2.7560	0.2045	0.4117	75.80%	8.6150	75.76%	0.5868	74.16%	722.00
	LDGT1	117	0.2650	7.6354	0.6497	95	81.20%	0.0561	1.8060	0.1516	0.0817	59.31%	1.4023	43.71%	0.2692	63.98%	0.00
	LDGT2	82	0.4091	7.2663	0.7780	72	87.80%	0.0585	1.0674	0.0845	0.1701	74.40%	4.4487	80.65%	0.3227	79.24%	0.00
<b>2009 Total</b>		354	0.5309	11.8681	0.8244	283	79.94%	0.0876	2.0075	0.1562	0.2395	73.22%	5.1338	71.89%	0.4130	72.56%	722.00
2010	LDGV	45	0.8957	13.8442	1.6983	30	66.67%	0.1645	3.2852	0.2950	0.5493	76.96%	7.5104	69.57%	1.1560	79.67%	0.00
	LDGT1	18	0.4055	4.1455	1.2828	14	77.78%	0.0785	1.3581	0.1350	0.0779	49.81%	1.1639	46.15%	0.3350	71.28%	0.00
	LDGT2	19	0.5694	17.9748	1.6752	14	73.68%	0.0700	2.2472	0.3515	0.5798	89.23%	18.9737	89.41%	0.9442	72.87%	0.00
<b>2010 Total</b>		82	0.7125	12.6723	1.6017	58	70.73%	0.1209	2.5695	0.2700	0.4429	78.55%	8.7455	77.29%	0.9067	77.05%	0.00
2011	LDGV	19	0.7965	13.1863	1.4539	17	89.47%	0.1154	2.5487	0.2328	0.7158	86.12%	10.5678	80.57%	1.2498	84.30%	0.00
	LDGT1	29	2.4073	25.1068	0.5161	22	75.86%	0.0450	1.7537	0.1326	1.4884	97.07%	9.4632	84.37%	0.3969	74.96%	0.00
	LDGT2	30	0.2823	11.9312	0.5471	25	83.33%	0.0692	1.8321	0.1921	0.0916	56.96%	3.1442	63.18%	0.1436	42.77%	0.00
<b>2011 Total</b>		78	1.1976	17.1355	0.7565	64	82.05%	0.0731	1.9955	0.1825	0.7376	90.98%	7.2882	78.51%	0.5245	74.19%	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	63	0.8591	18.5026	1.4341	37	58.73%	0.1141	2.8416	0.1947	0.5590	83.05%	10.2533	78.30%	0.9691	83.27%	280.00
	LDGT1	19	0.1318	5.7906	0.3445	16	84.21%	0.0565	2.5035	0.1741	0.0187	24.90%	0.6913	21.64%	0.0176	9.18%	0.00
	LDGT2	36	0.2598	5.4849	0.4038	35	97.22%	0.0520	1.6710	0.0943	0.2138	80.44%	3.9386	70.21%	0.3202	77.25%	0.00
<b>2012 Total</b>		<b>118</b>	<b>0.5592</b>	<b>12.4843</b>	<b>0.9444</b>	<b>88</b>	<b>74.58%</b>	<b>0.0789</b>	<b>2.3146</b>	<b>0.1510</b>	<b>0.3235</b>	<b>80.39%</b>	<b>6.0032</b>	<b>72.17%</b>	<b>0.5380</b>	<b>78.08%</b>	<b>280.00</b>
2013	LDGV	42	0.8411	12.4300	1.8336	34	80.95%	0.1447	2.8852	0.1814	0.5604	79.48%	7.7826	72.95%	1.3808	88.39%	358.00
	LDGT1	9	0.1222	3.2565	0.3721	8	88.89%	0.0244	1.0673	0.0376	0.0136	35.77%	0.4712	30.63%	0.0576	60.52%	0.00
	LDGT2	17	0.0370	0.7150	0.0562	16	94.12%	0.0354	1.1964	0.0604	0.0023	6.05%	-0.4539	-61.12%	-0.0051	-9.28%	14.00
<b>2013 Total</b>		<b>68</b>	<b>0.5449</b>	<b>8.2871</b>	<b>1.1958</b>	<b>58</b>	<b>85.29%</b>	<b>0.0980</b>	<b>2.1686</b>	<b>0.1282</b>	<b>0.3310</b>	<b>77.16%</b>	<b>4.5020</b>	<b>67.49%</b>	<b>0.8160</b>	<b>86.42%</b>	<b>186.00</b>
2014	LDGV	12	1.2447	14.2721	2.1863	6	50.00%	0.2792	2.6424	0.3144	0.7085	71.73%	7.5941	74.19%	1.8480	85.46%	0.00
	LDGT1	5	0.0808	6.2990	0.2678	5	100.00%	0.0508	4.6718	0.1450	0.0300	37.13%	1.6272	25.83%	0.1228	45.85%	0.00
	LDGT2	7	0.3703	4.4506	0.5173	6	85.71%	0.0335	0.6106	0.0376	-0.0147	-77.67%	-0.2347	-62.45%	0.0001	0.18%	0.00
<b>2014 Total</b>		<b>24</b>	<b>0.7472</b>	<b>9.7464</b>	<b>1.2998</b>	<b>17</b>	<b>70.83%</b>	<b>0.1253</b>	<b>2.5222</b>	<b>0.1669</b>	<b>0.2537</b>	<b>66.94%</b>	<b>3.0760</b>	<b>54.95%</b>	<b>0.6884</b>	<b>80.48%</b>	<b>0.00</b>
2015	LDGV	2	1.3140	16.0433	3.2009	1	50.00%	0.3322	3.3655	0.6419	0.8833	72.67%	6.6131	66.27%	2.4323	79.12%	0.00
	LDGT1	1	0.0347	4.8126	0.0154	1	100.00%	0.0178	0.9539	0.0367	0.0169	48.70%	3.8587	80.18%	-0.0213	-138.31%	0.00
<b>2015 Total</b>		<b>3</b>	<b>0.8876</b>	<b>12.2997</b>	<b>2.1391</b>	<b>2</b>	<b>66.67%</b>	<b>0.1750</b>	<b>2.1597</b>	<b>0.3393</b>	<b>0.4501</b>	<b>72.00%</b>	<b>5.2359</b>	<b>70.80%</b>	<b>1.2055</b>	<b>78.04%</b>	<b>0.00</b>
2016	LDGV	0	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%	0.00
	LDGT2	0	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%	0.00
<b>2016 Total</b>		<b>0</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.00%</b>	<b>0.00</b>
<b>Grand Total</b>		<b>32971</b>	<b>1.6105</b>	<b>21.5869</b>	<b>1.9863</b>	<b>20495</b>	<b>62.16%</b>	<b>0.4663</b>	<b>5.5575</b>	<b>1.0163</b>	<b>0.6657</b>	<b>58.81%</b>	<b>10.2384</b>	<b>64.82%</b>	<b>0.6223</b>	<b>37.98%</b>	<b>474.54</b>

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	11887	1.4413	17.4846	1.6160	7608	64.00%	0.3511	4.2456	0.7466	0.6444	64.73%	9.0606	68.09%	0.5474	42.30%	411.05	
LDGT1	12954	1.5354	24.6812	2.0585	8126	62.73%	0.5023	6.1955	1.1256	0.6058	54.67%	11.3155	64.62%	0.6236	35.65%	519.16	
LDGT2	8130	1.9777	22.6548	2.4125	4761	58.56%	0.5888	6.5650	1.2608	0.8019	57.66%	10.2820	61.03%	0.7400	36.99%	506.14	
<b>Grand Total</b>	<b>32971</b>	<b>1.6105</b>	<b>21.5869</b>	<b>1.9863</b>	<b>20495</b>	<b>62.16%</b>	<b>0.4663</b>	<b>5.5575</b>	<b>1.0163</b>	<b>0.6657</b>	<b>58.81%</b>	<b>10.2384</b>	<b>64.82%</b>	<b>0.6223</b>	<b>37.98%</b>	<b>474.54</b>	

## **Appendix B6**

### I/M240 Retest Frequency Report





Date  
Between 1/1/2020 and 12/31/2020

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	35	1.4	25	71.43%	15	60.00%	5	14.29%	3	60.00%	3	8.57%	2	66.67%	1	2.86%	0	0.00%	1	2.86%	0	0.00%
	LDGT1	66	2.2	30	45.45%	13	43.33%	17	25.76%	10	58.82%	7	10.61%	3	42.86%	4	6.06%	0	0.00%	8	12.12%	4	50.00%
	LDGT2	20	2.0	10	50.00%	6	60.00%	5	25.00%	3	60.00%	1	5.00%	0	0.00%	2	10.00%	1	50.00%	2	10.00%	1	50.00%
<b>1982 Total</b>		121	1.9	65	53.72%	34	52.31%	27	22.31%	16	59.26%	11	9.09%	5	45.45%	7	5.79%	1	14.29%	11	9.09%	5	45.45%
1983	LDGV	61	1.9	34	55.74%	14	41.18%	16	26.23%	8	50.00%	4	6.56%	0	0.00%	4	6.56%	2	50.00%	3	4.92%	2	66.67%
	LDGT1	67	1.8	37	55.22%	22	59.46%	14	20.90%	6	42.86%	8	11.94%	4	50.00%	5	7.46%	1	20.00%	3	4.48%	2	66.67%
	LDGT2	39	2.4	15	38.46%	7	46.67%	7	17.95%	1	14.29%	6	15.38%	4	66.67%	2	5.13%	0	0.00%	9	23.08%	2	22.22%
<b>1983 Total</b>		167	1.9	86	51.50%	43	50.00%	37	22.16%	15	40.54%	18	10.78%	8	44.44%	11	6.59%	3	27.27%	15	8.98%	6	40.00%
1984	LDGV	105	1.5	68	64.76%	36	52.94%	23	21.90%	10	43.48%	8	7.62%	4	50.00%	5	4.76%	2	40.00%	1	0.95%	0	0.00%
	LDGT1	146	2.0	78	53.42%	41	52.56%	27	18.49%	10	37.04%	16	10.96%	5	31.25%	10	6.85%	4	40.00%	15	10.27%	5	33.33%
	LDGT2	68	1.8	30	44.12%	15	50.00%	15	22.06%	3	20.00%	8	11.76%	3	37.50%	6	8.82%	0	0.00%	9	13.24%	2	22.22%
<b>1984 Total</b>		319	1.8	176	55.17%	92	52.27%	65	20.38%	23	35.38%	32	10.03%	12	37.50%	21	6.58%	6	28.57%	25	7.84%	7	28.00%
1985	LDGV	153	1.9	73	47.71%	38	52.05%	31	20.26%	10	32.26%	20	13.07%	4	20.00%	13	8.50%	4	30.77%	16	10.46%	4	25.00%
	LDGT1	114	1.9	59	51.75%	33	55.93%	27	23.68%	12	44.44%	14	12.28%	5	35.71%	8	7.02%	3	37.50%	6	5.26%	3	50.00%
	LDGT2	69	1.6	37	53.62%	17	45.95%	14	20.29%	6	42.86%	8	11.59%	1	12.50%	6	8.70%	1	16.67%	4	5.80%	1	25.00%
<b>1985 Total</b>		336	1.8	169	50.30%	88	52.07%	72	21.43%	28	38.89%	42	12.50%	10	23.81%	27	8.04%	8	29.63%	26	7.74%	8	30.77%
1986	LDGV	127	1.8	66	51.97%	43	65.15%	24	18.90%	8	33.33%	15	11.81%	2	13.33%	11	8.66%	4	36.36%	11	8.66%	5	45.45%
	LDGT1	164	1.7	90	54.88%	54	60.00%	32	19.51%	10	31.25%	19	11.59%	4	21.05%	15	9.15%	9	60.00%	8	4.88%	1	12.50%
	LDGT2	71	1.3	43	60.56%	26	60.47%	17	23.94%	9	52.94%	3	4.23%	1	33.33%	2	2.82%	0	0.00%	6	8.45%	0	0.00%
<b>1986 Total</b>		362	1.6	199	54.97%	123	61.81%	73	20.17%	27	36.99%	37	10.22%	7	18.92%	28	7.73%	13	46.43%	25	6.91%	6	24.00%
1987	LDGV	149	1.8	84	56.38%	57	67.86%	25	16.78%	6	24.00%	13	8.72%	5	38.46%	7	4.70%	3	42.86%	20	13.42%	4	20.00%
	LDGT1	187	1.5	122	65.24%	82	67.21%	34	18.18%	17	50.00%	13	6.95%	6	46.15%	7	3.74%	2	28.57%	11	5.88%	2	18.18%
	LDGT2	70	1.8	39	55.71%	21	53.85%	14	20.00%	4	28.57%	7	10.00%	2	28.57%	7	10.00%	5	71.43%	3	4.29%	1	33.33%
<b>1987 Total</b>		406	1.6	245	60.34%	160	65.31%	73	17.98%	27	36.99%	33	8.13%	13	39.39%	21	5.17%	10	47.62%	34	8.37%	7	20.59%
1988	LDGV	175	1.6	98	56.00%	57	58.16%	32	18.29%	10	31.25%	25	14.29%	10	40.00%	11	6.29%	5	45.45%	9	5.14%	2	22.22%
	LDGT1	304	1.7	166	54.61%	106	63.86%	54	17.76%	20	37.04%	32	10.53%	9	28.13%	21	6.91%	9	42.86%	31	10.20%	7	22.58%
	LDGT2	117	1.6	72	61.54%	44	61.11%	23	19.66%	12	52.17%	11	9.40%	3	27.27%	7	5.98%	2	28.57%	4	3.42%	3	75.00%
<b>1988 Total</b>		596	1.7	336	56.38%	207	61.61%	109	18.29%	42	38.53%	68	11.41%	22	32.35%	39	6.54%	16	41.03%	44	7.38%	12	27.27%
1989	LDGV	184	1.5	120	65.22%	82	68.33%	30	16.30%	14	46.67%	16	8.70%	7	43.75%	9	4.89%	2	22.22%	9	4.89%	5	55.56%
	LDGT1	286	1.9	164	57.34%	108	65.85%	49	17.13%	17	34.69%	27	9.44%	12	44.44%	16	5.59%	6	37.50%	30	10.49%	11	36.67%
	LDGT2	95	1.6	65	68.42%	40	61.54%	16	16.84%	11	68.75%	5	5.26%	2	40.00%	3	3.16%	2	66.67%	6	6.32%	1	16.67%
<b>1989 Total</b>		565	1.7	349	61.77%	230	65.90%	95	16.81%	42	44.21%	48	8.50%	21	43.75%	28	4.96%	10	35.71%	45	7.96%	17	37.78%
1990	LDGV	231	1.4	163	70.56%	107	65.64%	42	18.18%	20	47.62%	17	7.36%	10	58.82%	6	2.60%	3	50.00%	3	1.30%	1	33.33%
	LDGT1	308	1.5	194	62.99%	130	67.01%	55	17.86%	23	41.82%	32	10.39%	15	46.88%	15	4.87%	8	53.33%	12	3.90%	2	16.67%
	LDGT2	145	1.6	89	61.38%	61	68.54%	26	17.93%	11	42.31%	11	7.59%	5	45.45%	5	3.45%	0	0.00%	14	9.66%	5	35.71%

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%	
<b>1990 Total</b>			684	1.5	446	65.20%	298	66.82%	123	17.98%	54	43.90%	60	8.77%	30	50.00%	26	3.80%	11	42.31%	29	4.24%	8	27.59%
1991	LDGV	288	1.4	183	63.54%	120	65.57%	58	20.14%	17	29.31%	25	8.68%	10	40.00%	10	3.47%	5	50.00%	12	4.17%	4	33.33%	
	LDGT1	288	1.5	188	65.28%	124	65.96%	53	18.40%	24	45.28%	21	7.29%	10	47.62%	13	4.51%	4	30.77%	13	4.51%	6	46.15%	
	LDGT2	144	1.5	92	63.89%	57	61.96%	29	20.14%	16	55.17%	12	8.33%	4	33.33%	8	5.56%	3	37.50%	3	2.08%	2	66.67%	
<b>1991 Total</b>			720	1.5	463	64.31%	301	65.01%	140	19.44%	57	40.71%	58	8.06%	24	41.38%	31	4.31%	12	38.71%	28	3.89%	12	42.86%
1992	LDGV	353	1.4	238	67.42%	152	63.87%	61	17.28%	28	45.90%	26	7.37%	13	50.00%	9	2.55%	3	33.33%	19	5.38%	3	15.79%	
	LDGT1	269	1.5	174	64.68%	121	69.54%	47	17.47%	23	48.94%	23	8.55%	9	39.13%	12	4.46%	4	33.33%	13	4.83%	5	38.46%	
	LDGT2	251	1.6	151	60.16%	94	62.25%	46	18.33%	23	50.00%	18	7.17%	8	44.44%	11	4.38%	4	36.36%	25	9.96%	6	24.00%	
<b>1992 Total</b>			873	1.5	563	64.49%	367	65.19%	154	17.64%	74	48.05%	67	7.67%	30	44.78%	32	3.67%	11	34.38%	57	6.53%	14	24.56%
1993	LDGV	376	1.5	237	63.03%	145	61.18%	75	19.95%	36	48.00%	34	9.04%	17	50.00%	15	3.99%	8	53.33%	15	3.99%	3	20.00%	
	LDGT1	361	1.4	222	61.50%	145	65.32%	66	18.28%	23	34.85%	34	9.42%	12	35.29%	19	5.26%	8	42.11%	20	5.54%	3	15.00%	
	LDGT2	303	1.8	174	57.43%	97	55.75%	72	23.76%	37	51.39%	29	9.57%	15	51.72%	10	3.30%	4	40.00%	18	5.94%	8	44.44%	
<b>1993 Total</b>			1040	1.6	633	60.87%	387	61.14%	213	20.48%	96	45.07%	97	9.33%	44	45.36%	44	4.23%	20	45.45%	53	5.10%	14	26.42%
1994	LDGV	382	1.5	241	63.09%	159	65.98%	78	20.42%	35	44.87%	36	9.42%	16	44.44%	15	3.93%	6	40.00%	12	3.14%	5	41.67%	
	LDGT1	536	1.5	360	67.16%	250	69.44%	88	16.42%	41	46.59%	40	7.46%	19	47.50%	15	2.80%	10	66.67%	33	6.16%	6	18.18%	
	LDGT2	672	1.8	339	50.45%	189	55.75%	149	22.17%	60	40.27%	76	11.31%	25	32.89%	46	6.85%	13	28.26%	62	9.23%	23	37.10%	
<b>1994 Total</b>			1590	1.6	940	59.12%	598	63.62%	315	19.81%	136	43.17%	152	9.56%	60	39.47%	76	4.78%	29	38.16%	107	6.73%	34	31.78%
1995	LDGV	551	1.4	359	65.15%	246	68.52%	105	19.06%	51	48.57%	41	7.44%	19	46.34%	15	2.72%	5	33.33%	31	5.63%	8	25.81%	
	LDGT1	618	1.6	395	63.92%	269	68.10%	110	17.80%	52	47.27%	55	8.90%	26	47.27%	33	5.34%	19	57.58%	25	4.05%	11	44.00%	
	LDGT2	649	1.7	382	58.86%	237	62.04%	125	19.26%	64	51.20%	59	9.09%	21	35.59%	38	5.86%	17	44.74%	45	6.93%	16	35.56%	
<b>1995 Total</b>			1818	1.6	1136	62.49%	752	66.20%	340	18.70%	167	49.12%	155	8.53%	66	42.58%	86	4.73%	41	47.67%	101	5.56%	35	34.65%
1996	LDGV	550	1.3	402	73.09%	308	76.62%	76	13.82%	42	55.26%	32	5.82%	14	43.75%	13	2.36%	3	23.08%	27	4.91%	4	14.81%	
	LDGT1	572	1.3	428	74.83%	317	74.07%	86	15.03%	50	58.14%	32	5.59%	13	40.63%	10	1.75%	2	20.00%	16	2.80%	4	25.00%	
	LDGT2	408	1.4	283	69.36%	213	75.27%	65	15.93%	29	44.62%	31	7.60%	11	35.48%	16	3.92%	7	43.75%	13	3.19%	5	38.46%	
<b>1996 Total</b>			1530	1.3	1113	72.75%	838	75.29%	227	14.84%	121	53.30%	95	6.21%	38	40.00%	39	2.55%	12	30.77%	56	3.66%	13	23.21%
1997	LDGV	711	1.4	505	71.03%	362	71.68%	113	15.89%	63	55.75%	51	7.17%	21	41.18%	25	3.52%	12	48.00%	17	2.39%	5	29.41%	
	LDGT1	1072	1.4	709	66.14%	502	70.80%	190	17.72%	92	48.42%	94	8.77%	29	30.85%	43	4.01%	16	37.21%	36	3.36%	17	47.22%	
	LDGT2	501	1.5	328	65.47%	245	74.70%	75	14.97%	40	53.33%	45	8.98%	15	33.33%	23	4.59%	8	34.78%	30	5.99%	12	40.00%	
<b>1997 Total</b>			2284	1.4	1542	67.51%	1109	71.92%	378	16.55%	195	51.59%	190	8.32%	65	34.21%	91	3.98%	36	39.56%	83	3.63%	34	40.96%
1998	LDGV	1040	1.3	746	71.73%	571	76.54%	162	15.58%	81	50.00%	70	6.73%	31	44.29%	34	3.27%	12	35.29%	28	2.69%	12	42.86%	
	LDGT1	1178	1.4	822	69.78%	607	73.84%	193	16.38%	107	55.44%	80	6.79%	41	51.25%	36	3.06%	14	38.89%	47	3.99%	13	27.66%	
	LDGT2	590	1.5	381	64.58%	244	64.04%	109	18.47%	50	45.87%	53	8.98%	19	35.85%	27	4.58%	9	33.33%	20	3.39%	8	40.00%	
<b>1998 Total</b>			2808	1.4	1949	69.41%	1422	72.96%	464	16.52%	238	51.29%	203	7.23%	91	44.83%	97	3.45%	35	36.08%	95	3.38%	33	34.74%
1999	LDGV	997	1.3	718	72.02%	545	75.91%	150	15.05%	68	45.33%	64	6.42%	25	39.06%	31	3.11%	12	38.71%	34	3.41%	15	44.12%	
	LDGT1	1305	1.5	857	65.67%	608	70.95%	236	18.08%	103	43.64%	111	8.51%	55	49.55%	49	3.75%	26	53.06%	52	3.98%	19	36.54%	
	LDGT2	903	1.6	553	61.24%	355	64.20%	174	19.27%	70	40.23%	79	8.75%	37	46.84%	44	4.87%	15	34.09%	53	5.87%	21	39.62%	
<b>1999 Total</b>			3205	1.5	2128	66.40%	1508	70.86%	560	17.47%	241	43.04%	254	7.93%	117	46.06%	124	3.87%	53	42.74%	139	4.34%	55	39.57%
2000	LDGV	631	1.5	400	63.39%	279	69.75%	112	17.75%	56	50.00%	61	9.67%	32	52.46%	29	4.60%	7	24.14%	29	4.60%	10	34.48%	
	LDGT1	774	1.7	440	56.85%	277	62.95%	149	19.25%	62	41.61%	74	9.56%	29	39.19%	42	5.43%	17	40.48%	69	8.91%	22	31.88%	

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%
	LDGT2	387	1.6	233	60.21%	159	68.24%	79	20.41%	33	41.77%	37	9.56%	12	32.43%	16	4.13%	5	31.25%	22	5.68%	10	45.45%
<b>2000 Total</b>		1792	1.6	1073	59.88%	715	66.64%	340	18.97%	151	44.41%	172	9.60%	73	42.44%	87	4.85%	29	33.33%	120	6.70%	42	35.00%
2001	LDGV	597	1.4	422	70.69%	310	73.46%	93	15.58%	52	55.91%	41	6.87%	19	46.34%	20	3.35%	8	40.00%	21	3.52%	6	28.57%
	LDGT1	567	1.4	393	69.31%	285	72.52%	87	15.34%	42	48.28%	44	7.76%	22	50.00%	19	3.35%	9	47.37%	24	4.23%	6	25.00%
	LDGT2	383	1.5	233	60.84%	159	68.24%	70	18.28%	32	45.71%	33	8.62%	11	33.33%	18	4.70%	8	44.44%	29	7.57%	8	27.59%
<b>2001 Total</b>		1547	1.4	1048	67.74%	754	71.95%	250	16.16%	126	50.40%	118	7.63%	52	44.07%	57	3.68%	25	43.86%	74	4.78%	20	27.03%
2002	LDGV	760	1.4	520	68.42%	381	73.27%	117	15.39%	50	42.74%	59	7.76%	22	37.29%	32	4.21%	9	28.13%	32	4.21%	17	53.13%
	LDGT1	815	1.5	515	63.19%	385	74.76%	143	17.55%	69	48.25%	70	8.59%	23	32.86%	39	4.79%	14	35.90%	48	5.89%	14	29.17%
	LDGT2	399	1.7	245	61.40%	178	72.65%	65	16.29%	34	52.31%	32	8.02%	14	43.75%	24	6.02%	10	41.67%	33	8.27%	13	39.39%
<b>2002 Total</b>		1974	1.5	1280	64.84%	944	73.75%	325	16.46%	153	47.08%	161	8.16%	59	36.65%	95	4.81%	33	34.74%	113	5.72%	44	38.94%
2003	LDGV	694	1.4	467	67.29%	358	76.66%	102	14.70%	44	43.14%	52	7.49%	16	30.77%	32	4.61%	13	40.63%	41	5.91%	13	31.71%
	LDGT1	642	1.4	459	71.50%	345	75.16%	97	15.11%	48	49.48%	35	5.45%	13	37.14%	22	3.43%	9	40.91%	29	4.52%	11	37.93%
	LDGT2	311	1.5	211	67.85%	155	73.46%	46	14.79%	23	50.00%	22	7.07%	12	54.55%	10	3.22%	4	40.00%	22	7.07%	6	27.27%
<b>2003 Total</b>		1647	1.4	1137	69.03%	858	75.46%	245	14.88%	115	46.94%	109	6.62%	41	37.61%	64	3.89%	26	40.63%	92	5.59%	30	32.61%
2004	LDGV	660	1.4	461	69.85%	349	75.70%	108	16.36%	53	49.07%	49	7.42%	25	51.02%	22	3.33%	9	40.91%	20	3.03%	7	35.00%
	LDGT1	635	1.4	464	73.07%	351	75.65%	97	15.28%	50	51.55%	42	6.61%	16	38.10%	17	2.68%	12	70.59%	15	2.36%	6	40.00%
	LDGT2	411	1.5	263	63.99%	193	73.38%	68	16.55%	21	30.88%	37	9.00%	15	40.54%	22	5.35%	9	40.91%	21	5.11%	10	47.62%
<b>2004 Total</b>		1706	1.4	1188	69.64%	893	75.17%	273	16.00%	124	45.42%	128	7.50%	56	43.75%	61	3.58%	30	49.18%	56	3.28%	23	41.07%
2005	LDGV	631	1.3	465	73.69%	366	78.71%	85	13.47%	47	55.29%	38	6.02%	16	42.11%	22	3.49%	8	36.36%	21	3.33%	7	33.33%
	LDGT1	502	1.3	392	78.09%	312	79.59%	61	12.15%	33	54.10%	19	3.78%	9	47.37%	11	2.19%	6	54.55%	19	3.78%	4	21.05%
	LDGT2	243	1.5	150	61.73%	106	70.67%	51	20.99%	25	49.02%	23	9.47%	7	30.43%	11	4.53%	7	63.64%	8	3.29%	3	37.50%
<b>2005 Total</b>		1376	1.3	1007	73.18%	784	77.86%	197	14.32%	105	53.30%	80	5.81%	32	40.00%	44	3.20%	21	47.73%	48	3.49%	14	29.17%
2006	LDGV	410	1.4	291	70.98%	228	78.35%	69	16.83%	30	43.48%	33	8.05%	17	51.52%	13	3.17%	9	69.23%	4	0.98%	3	75.00%
	LDGT1	349	1.2	278	79.66%	236	84.89%	40	11.46%	18	45.00%	16	4.58%	10	62.50%	8	2.29%	3	37.50%	7	2.01%	4	57.14%
	LDGT2	276	1.4	191	69.20%	148	77.49%	45	16.30%	22	48.89%	19	6.88%	10	52.63%	11	3.99%	5	45.45%	10	3.62%	1	10.00%
<b>2006 Total</b>		1035	1.3	760	73.43%	612	80.53%	154	14.88%	70	45.45%	68	6.57%	37	54.41%	32	3.09%	17	53.13%	21	2.03%	8	38.10%
2007	LDGV	374	1.2	303	81.02%	255	84.16%	36	9.63%	21	58.33%	13	3.48%	4	30.77%	8	2.14%	3	37.50%	14	3.74%	2	14.29%
	LDGT1	376	1.3	279	74.20%	231	82.80%	42	11.17%	21	50.00%	19	5.05%	6	31.58%	13	3.46%	4	30.77%	23	6.12%	4	17.39%
	LDGT2	178	1.2	146	82.02%	128	87.67%	16	8.99%	8	50.00%	8	4.49%	3	37.50%	5	2.81%	3	60.00%	3	1.69%	2	66.67%
<b>2007 Total</b>		928	1.2	728	78.45%	614	84.34%	94	10.13%	50	53.19%	40	4.31%	13	32.50%	26	2.80%	10	38.46%	40	4.31%	8	20.00%
2008	LDGV	324	1.2	257	79.32%	225	87.55%	36	11.11%	16	44.44%	16	4.94%	8	50.00%	8	2.47%	3	37.50%	7	2.16%	4	57.14%
	LDGT1	255	1.2	210	82.35%	192	91.43%	20	7.84%	11	55.00%	10	3.92%	5	50.00%	4	1.57%	2	50.00%	11	4.31%	2	18.18%
	LDGT2	236	1.3	179	75.85%	151	84.36%	30	12.71%	13	43.33%	17	7.20%	9	52.94%	7	2.97%	4	57.14%	3	1.27%	3	100.00%
<b>2008 Total</b>		815	1.2	646	79.26%	568	87.93%	86	10.55%	40	46.51%	43	5.28%	22	51.16%	19	2.33%	9	47.37%	21	2.58%	9	42.86%
2009	LDGV	155	1.3	118	76.13%	99	83.90%	18	11.61%	9	50.00%	8	5.16%	3	37.50%	5	3.23%	3	60.00%	6	3.87%	2	33.33%
	LDGT1	117	1.1	99	84.62%	91	91.92%	8	6.84%	2	25.00%	4	3.42%	0	0.00%	4	3.42%	2	50.00%	2	1.71%	0	0.00%
	LDGT2	82	1.1	74	90.24%	69	93.24%	3	3.66%	1	33.33%	2	2.44%	0	0.00%	2	2.44%	1	50.00%	1	1.22%	1	100.00%
<b>2009 Total</b>		354	1.2	291	82.20%	259	89.00%	29	8.19%	12	41.38%	14	3.95%	3	21.43%	11	3.11%	6	54.55%	9	2.54%	3	33.33%
2010	LDGV	45	1.3	33	73.33%	24	72.73%	7	15.56%	4	57.14%	3	6.67%	1	33.33%	1	2.22%	0	0.00%	1	2.22%	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%
	LDGT1	18	1.1	14	77.78%	13	92.86%	1	5.56%	0	0.00%	1	5.56%	1	100.00%	0	0.00%	0	0.00%	2	11.11%	0	0.00%
	LDGT2	19	1.2	14	73.68%	11	78.57%	4	21.05%	3	75.00%	1	5.26%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
<b>2010 Total</b>		<b>82</b>	<b>1.3</b>	<b>61</b>	<b>74.39%</b>	<b>48</b>	<b>78.69%</b>	<b>12</b>	<b>14.63%</b>	<b>7</b>	<b>58.33%</b>	<b>5</b>	<b>6.10%</b>	<b>2</b>	<b>40.00%</b>	<b>1</b>	<b>1.22%</b>	<b>0</b>	<b>0.00%</b>	<b>3</b>	<b>3.66%</b>	<b>1</b>	<b>33.33%</b>
2011	LDGV	19	1.1	17	89.47%	15	88.24%	2	10.53%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	29	1.3	22	75.86%	19	86.36%	3	10.34%	2	66.67%	1	3.45%	0	0.00%	1	3.45%	0	0.00%	2	6.90%	1	50.00%
	LDGT2	30	1.2	25	83.33%	22	88.00%	3	10.00%	2	66.67%	1	3.33%	0	0.00%	1	3.33%	1	100.00%	0	0.00%	0	0.00%
<b>2011 Total</b>		<b>78</b>	<b>1.2</b>	<b>64</b>	<b>82.05%</b>	<b>56</b>	<b>87.50%</b>	<b>8</b>	<b>10.26%</b>	<b>6</b>	<b>75.00%</b>	<b>2</b>	<b>2.56%</b>	<b>0</b>	<b>0.00%</b>	<b>2</b>	<b>2.56%</b>	<b>1</b>	<b>50.00%</b>	<b>2</b>	<b>2.56%</b>	<b>1</b>	<b>50.00%</b>
2012	LDGV	63	1.7	35	55.56%	26	74.29%	11	17.46%	4	36.36%	9	14.29%	2	22.22%	5	7.94%	4	80.00%	3	4.76%	1	33.33%
	LDGT1	19	1.1	17	89.47%	15	88.24%	2	10.53%	1	50.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	36	1.0	35	97.22%	34	97.14%	1	2.78%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
<b>2012 Total</b>		<b>118</b>	<b>1.3</b>	<b>87</b>	<b>73.73%</b>	<b>75</b>	<b>86.21%</b>	<b>14</b>	<b>11.86%</b>	<b>6</b>	<b>42.86%</b>	<b>9</b>	<b>7.63%</b>	<b>2</b>	<b>22.22%</b>	<b>5</b>	<b>4.24%</b>	<b>4</b>	<b>80.00%</b>	<b>3</b>	<b>2.54%</b>	<b>1</b>	<b>33.33%</b>
2013	LDGV	42	1.3	33	78.57%	28	84.85%	6	14.29%	4	66.67%	2	4.76%	1	50.00%	1	2.38%	1	100.00%	0	0.00%	0	0.00%
	LDGT1	9	1.0	9	100.00%	8	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%
	LDGT2	17	1.1	16	94.12%	15	93.75%	1	5.88%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
<b>2013 Total</b>		<b>68</b>	<b>1.2</b>	<b>58</b>	<b>85.29%</b>	<b>51</b>	<b>87.93%</b>	<b>7</b>	<b>10.29%</b>	<b>5</b>	<b>71.43%</b>	<b>2</b>	<b>2.94%</b>	<b>1</b>	<b>50.00%</b>	<b>1</b>	<b>1.47%</b>	<b>1</b>	<b>100.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>
2014	LDGV	12	1.3	8	66.67%	5	62.50%	3	25.00%	0	0.00%	1	8.33%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	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	0.00%	0	0.00%
	LDGT2	7	1.0	7	100.00%	6	85.71%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
<b>2014 Total</b>		<b>24</b>	<b>1.1</b>	<b>20</b>	<b>83.33%</b>	<b>16</b>	<b>80.00%</b>	<b>3</b>	<b>12.50%</b>	<b>0</b>	<b>0.00%</b>	<b>1</b>	<b>4.17%</b>	<b>1</b>	<b>100.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>
2015	LDGV	2	3.0	1	50.00%	0	0.00%	0	0.00%	0	0.00%	1	50.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	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%
<b>2015 Total</b>		<b>3</b>	<b>2.0</b>	<b>2</b>	<b>66.67%</b>	<b>1</b>	<b>50.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>1</b>	<b>33.33%</b>	<b>1</b>	<b>100.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>
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	0.00%	0	0.00%
	LDGT2	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	0.00%	0	0.00%
<b>2016 Total</b>		<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>
<b>Overall Total</b>		<b>32971</b>	<b>1.4</b>	<b>21988</b>	<b>66.69%</b>	<b>15805</b>	<b>71.88%</b>	<b>5502</b>	<b>16.69%</b>	<b>2569</b>	<b>46.69%</b>	<b>2573</b>	<b>7.80%</b>	<b>1058</b>	<b>41.12%</b>	<b>1,333</b>	<b>4.04%</b>	<b>539</b>	<b>40.44%</b>	<b>1575</b>	<b>4.78%</b>	<b>524</b>	<b>33.27%</b>

**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	11887	1.4	8191	68.91%	6005	73.31%	1911	16.08%	902	47.20%	886	7.45%	378	42.66%	432	3.63%	168	38.89%	467	3.93%	155	33.19%	
LDGT1	12954	1.4	8692	67.10%	6298	72.46%	2128	16.43%	999	46.95%	993	7.67%	411	41.39%	511	3.94%	223	43.64%	630	4.86%	195	30.95%	
LDGT2	8130	1.5	5105	62.79%	3502	68.60%	1463	18.00%	668	45.66%	694	8.54%	269	38.76%	390	4.80%	148	37.95%	478	5.88%	174	36.40%	
<b>Overall Total</b>		<b>32971</b>	<b>1.4</b>	<b>21988</b>	<b>66.69%</b>	<b>15805</b>	<b>71.88%</b>	<b>5502</b>	<b>16.69%</b>	<b>2569</b>	<b>46.69%</b>	<b>2573</b>	<b>7.80%</b>	<b>1058</b>	<b>41.12%</b>	<b>1,333</b>	<b>4.04%</b>	<b>539</b>	<b>40.44%</b>	<b>1575</b>	<b>4.78%</b>	<b>524</b>	<b>33.27%</b>

## **Appendix B7**

I/M240 Fleet Characterization Summary Report

Initial Inspection Component



Date  
Between 1/1/2020 and 12/31/2020

**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	126	3.1487	29.7900	2.2605	102	80.95%	1.7023	19.8086	2.2637	24	19.05%	9.2961	72.2112	2.2468
	LDGT1	136	2.6465	39.3006	2.5183	106	77.94%	2.0671	27.6062	2.7449	30	22.06%	4.6940	80.6206	1.7175
	LDGT2	29	3.2465	51.1686	3.0199	18	62.07%	2.6127	36.4138	2.9697	11	37.93%	4.2836	75.3129	3.1020
<b>1982 Total</b>		291	2.9238	36.3653	2.4567	226	77.66%	1.9459	24.7884	2.5456	65	22.34%	6.3238	76.6173	2.1472
1983	LDGV	154	1.8962	20.5390	2.0022	125	81.17%	1.3366	12.3806	1.9175	29	18.83%	4.3081	55.7043	2.3673
	LDGT1	130	3.2916	39.8394	2.4814	94	72.31%	2.8276	31.2836	2.4243	36	27.69%	4.5030	62.1795	2.6306
	LDGT2	44	3.5579	50.6231	3.1320	30	68.18%	2.3809	34.5063	3.3795	14	31.82%	6.0801	85.1592	2.6016
<b>1983 Total</b>		328	2.6721	32.2242	2.3437	249	75.91%	2.0253	22.1824	2.2849	79	24.09%	4.7109	63.8749	2.5288
1984	LDGV	296	1.6734	16.2071	1.9929	243	82.09%	1.3765	11.7113	1.9524	53	17.91%	3.0345	36.8202	2.1786
	LDGT1	293	2.4001	31.7638	2.4156	227	77.47%	1.9120	22.5362	2.3624	66	22.53%	4.0791	63.5011	2.5988
	LDGT2	82	2.8549	39.8341	3.1139	59	71.95%	2.2446	28.4056	3.0142	23	28.05%	4.4206	69.1505	3.3697
<b>1984 Total</b>		671	2.1351	25.8875	2.3145	529	78.84%	1.7031	18.2183	2.2468	142	21.16%	3.7445	54.4578	2.5668
1985	LDGV	311	1.3538	15.5161	1.8288	251	80.71%	1.0638	10.6427	1.8182	60	19.29%	2.5671	35.9034	1.8730
	LDGT1	320	2.1746	23.9445	2.6755	261	81.56%	1.8205	18.0185	2.6495	59	18.44%	3.7409	50.1593	2.7903
	LDGT2	83	2.9441	40.5852	2.6530	56	67.47%	1.9136	22.5773	2.8860	27	32.53%	5.0814	77.9349	2.1697
<b>1985 Total</b>		714	1.9065	22.2077	2.3041	568	79.55%	1.4953	15.2086	2.3055	146	20.45%	3.5064	49.4373	2.2986
1986	LDGV	481	1.1104	11.3413	1.8009	418	86.90%	0.9589	7.9763	1.7439	63	13.10%	2.1161	33.6681	2.1789
	LDGT1	581	1.7372	19.8092	2.4706	501	86.23%	1.6296	16.3960	2.4823	80	13.77%	2.4108	41.1839	2.3978
	LDGT2	124	2.5556	31.4809	2.7640	88	70.97%	1.8770	19.7450	2.7852	36	29.03%	4.2143	60.1688	2.7121
<b>1986 Total</b>		1186	1.5686	17.5952	2.2297	1007	84.91%	1.3728	13.1937	2.2022	179	15.09%	2.6698	42.3569	2.3840
1987	LDGV	538	1.2097	11.2176	1.7632	460	85.50%	0.9660	8.0515	1.7489	78	14.50%	2.6469	29.8895	1.8478
	LDGT1	545	1.7439	20.0352	2.4084	434	79.63%	1.4040	14.3625	2.3844	111	20.37%	3.0729	42.2152	2.5023
	LDGT2	173	2.1798	18.3147	2.9455	139	80.35%	1.8564	13.7393	2.8042	34	19.65%	3.5020	37.0202	3.5231
<b>1987 Total</b>		1256	1.5751	16.0213	2.2060	1033	82.25%	1.2698	11.4683	2.1579	223	17.75%	2.9893	37.1119	2.4290
1988	LDGV	749	0.9879	9.9691	1.5218	662	88.38%	0.7542	7.5214	1.4913	87	11.62%	2.7662	28.5939	1.7538
	LDGT1	863	1.6341	16.1247	2.1650	708	82.04%	1.3053	11.8505	2.1137	155	17.96%	3.1360	35.6478	2.3993
	LDGT2	290	1.8325	17.0752	2.7133	226	77.93%	1.4906	12.2628	2.5633	64	22.07%	3.0398	34.0689	3.2431
<b>1988 Total</b>		1902	1.4099	13.8455	1.9953	1596	83.91%	1.1030	10.1132	1.9192	306	16.09%	3.0107	33.3121	2.3922
1989	LDGV	795	1.0188	10.4344	1.6434	681	85.66%	0.7585	7.6937	1.5845	114	14.34%	2.5733	26.8063	1.9953
	LDGT1	902	1.4703	16.4053	2.0884	748	82.93%	1.2087	12.5197	2.0554	154	17.07%	2.7407	35.2781	2.2488
	LDGT2	324	1.7521	13.9624	2.7501	266	82.10%	1.5277	12.1466	2.6253	58	17.90%	2.7814	22.2897	3.3228
<b>1989 Total</b>		2021	1.3378	13.6649	2.0195	1695	83.87%	1.0779	10.5222	1.9556	326	16.13%	2.6894	30.0048	2.3512
1990	LDGV	1333	0.8057	9.2763	1.5591	1189	89.20%	0.6983	7.5796	1.5139	144	10.80%	1.6926	23.2860	1.9326
	LDGT1	1162	1.3266	14.5776	2.1331	980	84.34%	1.1368	10.5684	2.0626	182	15.66%	2.3485	36.1660	2.5125
	LDGT2	453	1.7918	15.2135	2.6078	370	81.68%	1.4641	13.4535	2.5097	83	18.32%	3.2526	23.0589	3.0452
<b>1990 Total</b>		2948	1.1625	12.2783	1.9465	2539	86.13%	0.9791	9.5892	1.8708	409	13.87%	2.3010	28.9714	2.4164
1991	LDGV	1347	0.8144	8.6158	1.4927	1189	88.27%	0.6113	6.8476	1.4339	158	11.73%	2.3424	21.9223	1.9354
	LDGT1	1261	1.1337	12.4278	1.8854	1092	86.60%	1.0043	10.7423	1.8026	169	13.40%	1.9697	23.3187	2.4207
	LDGT2	407	1.5742	17.5115	2.4428	324	79.61%	1.2920	14.6129	2.3869	83	20.39%	2.6759	28.8267	2.6612
<b>1991 Total</b>		3015	1.0505	11.4110	1.7852	2605	86.40%	0.8607	9.4460	1.7070	410	13.60%	2.2563	23.8956	2.2824



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	1838	0.7145	8.2406	1.3908	1636	89.01%	0.5534	6.0678	1.3690	202	10.99%	2.0193	25.8378	1.5676
	LDGT1	1446	1.0796	11.8468	1.7831	1284	88.80%	0.9660	10.0907	1.7109	162	11.20%	1.9802	25.7658	2.3555
	LDGT2	771	1.6249	16.2049	2.4787	631	81.84%	1.3440	13.2246	2.3599	140	18.16%	2.8908	29.6374	3.0145
<b>1992 Total</b>		4055	1.0178	11.0409	1.7376	3551	87.57%	0.8431	8.7942	1.6687	504	12.43%	2.2488	26.8701	2.2228
1993	LDGV	1914	0.6611	7.2849	1.4862	1703	88.98%	0.5586	5.7720	1.4393	211	11.02%	1.4886	19.4958	1.8645
	LDGT1	1843	1.1148	12.0203	2.0242	1648	89.42%	0.9715	9.8639	1.9442	195	10.58%	2.3262	30.2446	2.7003
	LDGT2	843	1.6447	16.1370	2.4782	677	80.31%	1.3432	14.0807	2.3289	166	19.69%	2.8740	24.5231	3.0871
<b>1993 Total</b>		4600	1.0232	10.8044	1.8835	4028	87.57%	0.8594	8.8426	1.7954	572	12.43%	2.1762	24.6191	2.5043
1994	LDGV	2467	0.5497	6.0085	1.1763	2243	90.92%	0.4310	4.9382	1.1247	224	9.08%	1.7390	16.7263	1.6931
	LDGT1	2651	0.8767	9.2421	1.8056	2322	87.59%	0.7762	8.1064	1.6918	329	12.41%	1.5855	17.2572	2.6087
	LDGT2	1602	1.1851	12.7771	2.1810	1286	80.27%	0.9612	10.2862	2.0179	316	19.73%	2.0961	22.9143	2.8451
<b>1994 Total</b>		6720	0.8302	8.8977	1.6641	5851	87.07%	0.6845	7.3710	1.5460	869	12.93%	1.8108	19.1775	2.4587
1995	LDGV	3164	0.5336	6.1456	1.0615	2832	89.51%	0.4183	4.7799	1.0032	332	10.49%	1.5174	17.7955	1.5589
	LDGT1	2879	0.8686	9.9680	1.8119	2502	86.91%	0.7512	8.0140	1.7382	377	13.09%	1.6481	22.9359	2.3008
	LDGT2	1927	1.0548	12.1468	2.0955	1569	81.42%	0.8955	10.1581	1.9492	358	18.58%	1.7532	20.8625	2.7365
<b>1995 Total</b>		7970	0.7806	8.9773	1.5825	6903	86.61%	0.6474	7.1745	1.4846	1067	13.39%	1.6427	20.6408	2.2162
1996	LDGV	4175	0.3781	4.6040	0.8404	3802	91.07%	0.3171	3.8605	0.7905	373	8.93%	0.9999	12.1826	1.3492
	LDGT1	3572	0.4886	6.1615	1.4516	3181	89.05%	0.4132	5.1417	1.3733	391	10.95%	1.1021	14.4580	2.0885
	LDGT2	2136	0.5901	7.3994	1.3928	1870	87.55%	0.5039	6.0335	1.3077	266	12.45%	1.1959	17.0020	1.9913
<b>1996 Total</b>		9883	0.4638	5.7711	1.1807	8853	89.58%	0.3911	4.7799	1.1092	1030	10.42%	1.0893	14.2910	1.7957
1997	LDGV	5016	0.4004	4.9200	0.8139	4552	90.75%	0.3430	4.0316	0.7787	464	9.25%	0.9632	13.6353	1.1597
	LDGT1	5293	0.4608	6.3833	1.3665	4635	87.57%	0.3863	5.1075	1.2768	658	12.43%	0.9854	15.3697	1.9981
	LDGT2	2294	0.5446	7.2335	1.4363	1972	85.96%	0.4304	5.6858	1.3216	322	14.04%	1.2445	16.7121	2.1386
<b>1997 Total</b>		12603	0.4520	5.9556	1.1593	11159	88.54%	0.3764	4.7708	1.0815	1444	11.46%	1.0361	15.1117	1.7600
1998	LDGV	6993	0.3274	4.2912	0.6900	6280	89.80%	0.2669	3.5630	0.6481	713	10.20%	0.8604	10.7056	1.0589
	LDGT1	7694	0.3877	5.4773	1.1604	6906	89.76%	0.3346	4.5387	1.0784	788	10.24%	0.8528	13.7031	1.8790
	LDGT2	2998	0.4645	5.4744	1.2748	2665	88.89%	0.3590	4.5026	1.1614	333	11.11%	1.3088	13.2515	2.1821
<b>1998 Total</b>		17685	0.3769	5.0078	0.9938	15851	89.63%	0.3119	4.1461	0.9219	1834	10.37%	0.9386	12.4557	1.6152
1999	LDGV	7597	0.2888	3.9169	0.6579	6927	91.18%	0.2441	3.2917	0.6148	670	8.82%	0.7512	10.3803	1.1035
	LDGT1	7399	0.3347	5.1054	0.9412	6581	88.94%	0.2655	3.9776	0.8353	818	11.06%	0.8915	14.1790	1.7932
	LDGT2	3729	0.3683	4.6367	1.0286	3225	86.48%	0.2874	3.3762	0.8947	504	13.52%	0.8859	12.7025	1.8852
<b>1999 Total</b>		18725	0.3228	4.5298	0.8437	16733	89.36%	0.2609	3.5777	0.7555	1992	10.64%	0.8429	12.5278	1.5845
2000	LDGV	3979	0.2431	3.7174	0.6076	3593	90.30%	0.1918	2.9379	0.5152	386	9.70%	0.7212	10.9739	1.4673
	LDGT1	3337	0.3026	4.4625	0.8896	2918	87.44%	0.2399	3.2631	0.7645	419	12.56%	0.7392	12.8156	1.7608
	LDGT2	1522	0.3442	4.8907	0.9242	1301	85.48%	0.2485	3.3621	0.7653	221	14.52%	0.9078	13.8893	1.8594
<b>2000 Total</b>		8838	0.2830	4.2008	0.7686	7812	88.39%	0.2192	3.1300	0.6500	1026	11.61%	0.7688	12.3540	1.6716
2001	LDGV	4053	0.2197	3.6408	0.4815	3651	90.08%	0.1490	2.6707	0.4003	402	9.92%	0.8621	12.4511	1.2187
	LDGT1	3521	0.2119	4.2630	0.6270	3154	89.58%	0.1608	3.0763	0.5316	367	10.42%	0.6507	14.4623	1.4470
	LDGT2	1708	0.2913	4.1550	0.8250	1490	87.24%	0.2453	3.2534	0.7104	218	12.76%	0.6056	10.3172	1.6079
<b>2001 Total</b>		9282	0.2299	3.9715	0.5999	8295	89.37%	0.1708	2.9296	0.5059	987	10.63%	0.7268	12.7276	1.3896
2002	LDGV	5208	0.1836	3.4316	0.4431	4722	90.67%	0.1356	2.9188	0.3543	486	9.33%	0.6497	8.4144	1.3063
	LDGT1	4559	0.2001	4.9849	0.5840	4050	88.84%	0.1396	3.3795	0.4698	509	11.16%	0.6820	17.7584	1.4922
	LDGT2	1835	0.2754	3.7776	0.8812	1584	86.32%	0.2186	2.9760	0.7347	251	13.68%	0.6338	8.8364	1.8060

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)
<b>2002 Total</b>		11602	0.2046	4.0967	0.5678	10356	89.26%	0.1498	3.1077	0.4577	1246	10.74%	0.6597	12.3165	1.4829
2003	LDGV	4888	0.1480	2.7691	0.3817	4439	90.81%	0.1059	2.0339	0.3060	449	9.19%	0.5642	10.0371	1.1302
	LDGT1	4356	0.1676	3.3834	0.5146	3928	90.17%	0.1319	2.4403	0.4292	428	9.83%	0.4953	12.0389	1.2983
	LDGT2	1947	0.2910	3.6991	0.6413	1744	89.57%	0.1863	2.7222	0.5395	203	10.43%	1.1902	12.0921	1.5153
<b>2003 Total</b>		11191	0.1805	3.1700	0.4786	10111	90.35%	0.1299	2.3105	0.3941	1080	9.65%	0.6545	11.2166	1.2692
2004	LDGV	5308	0.1254	2.4761	0.3082	4862	91.60%	0.0870	1.7609	0.2372	446	8.40%	0.5448	10.2726	1.0823
	LDGT1	5660	0.1279	2.8807	0.3463	5220	92.23%	0.0976	2.0539	0.2699	440	7.77%	0.4871	12.6905	1.2528
	LDGT2	2587	0.1775	3.0968	0.4249	2335	90.26%	0.1204	2.1448	0.3118	252	9.74%	0.7067	11.9174	1.4730
<b>2004 Total</b>		13555	0.1364	2.7635	0.3464	12417	91.60%	0.0977	1.9563	0.2650	1138	8.40%	0.5584	11.5717	1.2348
2005	LDGV	5627	0.1032	1.9399	0.2775	5181	92.07%	0.0716	1.4979	0.2094	446	7.93%	0.4703	7.0739	1.0686
	LDGT1	5599	0.1117	2.1279	0.2510	5231	93.43%	0.0887	1.6570	0.1848	368	6.57%	0.4382	8.8218	1.1917
	LDGT2	1958	0.2190	3.0042	0.3783	1809	92.39%	0.1283	1.9500	0.2777	149	7.61%	1.3191	15.8023	1.6003
<b>2005 Total</b>		13184	0.1240	2.1778	0.2812	12221	92.70%	0.0873	1.6329	0.2090	963	7.30%	0.5894	9.0923	1.1979
2006	LDGV	5930	0.0877	1.9740	0.1970	5639	95.09%	0.0640	1.5707	0.1476	291	4.91%	0.5467	9.7884	1.1535
	LDGT1	5326	0.0867	2.1096	0.2051	5054	94.89%	0.0669	1.7584	0.1695	272	5.11%	0.4555	8.6356	0.8658
	LDGT2	2251	0.1629	2.3962	0.2798	2064	91.69%	0.0926	1.5332	0.1896	187	8.31%	0.9395	11.9219	1.2760
<b>2006 Total</b>		13507	0.0998	2.0978	0.2140	12757	94.45%	0.0698	1.6390	0.1631	750	5.55%	0.6116	9.9023	1.0797
2007	LDGV	6045	0.0743	1.6681	0.1639	5758	95.25%	0.0546	1.3452	0.1230	287	4.75%	0.4687	8.1461	0.9834
	LDGT1	5459	0.0571	1.8111	0.1536	5193	95.13%	0.0477	1.4684	0.1255	266	4.87%	0.2404	8.5013	0.7017
	LDGT2	2460	0.1187	1.5878	0.1881	2316	94.15%	0.0776	1.1845	0.1391	144	5.85%	0.7795	8.0734	0.9755
<b>2007 Total</b>		13964	0.0754	1.7098	0.1641	13267	95.01%	0.0559	1.3654	0.1268	697	4.99%	0.4458	8.2666	0.8742
2008	LDGV	5512	0.0710	1.7155	0.1494	5256	95.36%	0.0526	1.3617	0.1150	256	4.64%	0.4478	8.9796	0.8559
	LDGT1	5188	0.0507	1.6220	0.1421	4974	95.88%	0.0447	1.3260	0.1206	214	4.12%	0.1894	8.5017	0.6413
	LDGT2	2375	0.0878	2.3194	0.1498	2194	92.38%	0.0681	1.5679	0.1214	181	7.62%	0.3257	11.4279	0.4945
<b>2008 Total</b>		13075	0.0660	1.7881	0.1466	12424	95.02%	0.0522	1.3838	0.1184	651	4.98%	0.3289	9.5032	0.6849
2009	LDGV	4609	0.0626	1.6398	0.1253	4493	97.48%	0.0502	1.3885	0.1082	116	2.52%	0.5432	11.3710	0.7913
	LDGT1	3284	0.0455	1.6256	0.1221	3189	97.11%	0.0428	1.5784	0.1132	95	2.89%	0.1378	3.2083	0.4208
	LDGT2	1394	0.0657	1.4030	0.1298	1322	94.84%	0.0568	1.1789	0.1146	72	5.16%	0.2287	5.5160	0.4072
<b>2009 Total</b>		9287	0.0570	1.5992	0.1249	9004	96.95%	0.0485	1.4250	0.1109	283	3.05%	0.3271	7.1413	0.5692
2010	LDGV	454	0.1013	2.2188	0.2004	424	93.39%	0.0579	1.6119	0.1120	30	6.61%	0.7137	10.7955	1.4510
	LDGT1	352	0.0543	1.6358	0.1372	338	96.02%	0.0501	1.5991	0.1234	14	3.98%	0.1563	2.5219	0.4700
	LDGT2	207	0.1036	3.1021	0.2179	192	92.75%	0.0623	1.7188	0.1336	15	7.25%	0.6328	20.8083	1.2981
<b>2010 Total</b>		1013	0.0854	2.1967	0.1820	954	94.18%	0.0560	1.6289	0.1204	59	5.82%	0.5609	11.3779	1.1793
2011	LDGV	547	0.0759	2.0659	0.1317	530	96.89%	0.0517	1.7115	0.0884	17	3.11%	0.8312	13.1165	1.4826
	LDGT1	561	0.1028	2.0218	0.1232	539	96.08%	0.0444	1.6465	0.1066	22	3.92%	1.5334	11.2169	0.5294
	LDGT2	326	0.0541	1.4573	0.0955	301	92.33%	0.0452	1.1651	0.0756	25	7.67%	0.1608	4.9762	0.3357
<b>2011 Total</b>		1434	0.0815	1.9103	0.1201	1370	95.54%	0.0474	1.5658	0.0927	64	4.46%	0.8107	9.2837	0.7069
2012	LDGV	525	0.0984	2.5723	0.1772	488	92.95%	0.0548	1.7745	0.1024	37	7.05%	0.6731	13.0949	1.1638
	LDGT1	375	0.0451	2.0611	0.1085	359	95.73%	0.0438	2.0105	0.1047	16	4.27%	0.0752	3.1948	0.1917
	LDGT2	248	0.0876	2.0944	0.1492	213	85.89%	0.0583	1.5167	0.1056	35	14.11%	0.2658	5.6096	0.4144
<b>2012 Total</b>		1148	0.0786	2.3021	0.1487	1060	92.33%	0.0518	1.8026	0.1038	88	7.67%	0.4024	8.3178	0.6890
2013	LDGV	562	0.0819	1.9603	0.1707	528	93.95%	0.0418	1.3996	0.0811	34	6.05%	0.7051	10.6678	1.5623
	LDGT1	418	0.0359	1.5167	0.0728	410	98.09%	0.0359	1.5163	0.0724	8	1.91%	0.0380	1.5385	0.0952

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	276	0.0491	1.1828	0.1200	260	94.20%	0.0498	1.2099	0.1240	16	5.80%	0.0377	0.7425	0.0553
<b>2013 Total</b>		1256	0.0594	1.6418	0.1270	1198	95.38%	0.0415	1.3983	0.0874	58	4.62%	0.4290	6.6706	0.9442
2014	LDGV	103	0.0954	2.0944	0.2312	97	94.17%	0.0402	1.5908	0.1117	6	5.83%	0.9876	10.2365	2.1625
	LDGT1	62	0.0402	2.0438	0.0728	57	91.94%	0.0366	1.6705	0.0557	5	8.06%	0.0808	6.2990	0.2678
	LDGT2	58	0.0365	0.7612	0.0434	52	89.66%	0.0385	0.8057	0.0441	6	10.34%	0.0189	0.3758	0.0377
<b>2014 Total</b>		223	0.0647	1.7336	0.1383	206	92.38%	0.0388	1.4147	0.0791	17	7.62%	0.3790	5.5982	0.8553
2015	LDGV	15	0.1662	2.7740	0.3491	14	93.33%	0.0913	2.2594	0.1544	1	6.67%	1.2155	9.9786	3.0742
	LDGT1	14	0.0203	0.9189	0.0450	13	92.86%	0.0192	0.6193	0.0473	1	7.14%	0.0347	4.8126	0.0154
	LDGT2	10	0.0857	1.4034	0.0420	10	100.00%	0.0857	1.4034	0.0420	0	0.00%	0.0000	0.0000	0.0000
<b>2015 Total</b>		39	0.0932	1.7566	0.1612	37	94.87%	0.0644	1.4518	0.0864	2	5.13%	0.6251	7.3956	1.5448
2016	LDGV	8	0.0167	0.8660	0.0412	8	100.00%	0.0167	0.8660	0.0412	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	9	0.0359	1.2451	0.0841	9	100.00%	0.0359	1.2451	0.0841	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	4	0.0779	1.0733	0.0687	4	100.00%	0.0779	1.0733	0.0687	0	0.00%	0.0000	0.0000	0.0000
<b>2016 Total</b>		21	0.0366	1.0679	0.0649	21	100.00%	0.0366	1.0679	0.0649	0	0.00%	0.0000	0.0000	0.0000
2017	LDGV	3	0.0131	0.6339	0.0436	3	100.00%	0.0131	0.6339	0.0436	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	4	0.0276	1.7008	0.0511	4	100.00%	0.0276	1.7008	0.0511	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	1	0.0200	0.2547	0.0364	1	100.00%	0.0200	0.2547	0.0364	0	0.00%	0.0000	0.0000	0.0000
<b>2017 Total</b>		8	0.0212	1.1200	0.0464	8	100.00%	0.0212	1.1200	0.0464	0	0.00%	0.0000	0.0000	0.0000
2018	LDGV	3	0.0644	0.6572	0.0570	3	100.00%	0.0644	0.6572	0.0570	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	1	0.0383	1.2516	0.0317	1	100.00%	0.0383	1.2516	0.0317	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	2	0.0666	1.8192	0.0424	2	100.00%	0.0666	1.8192	0.0424	0	0.00%	0.0000	0.0000	0.0000
<b>2018 Total</b>		6	0.0608	1.1436	0.0480	6	100.00%	0.0608	1.1436	0.0480	0	0.00%	0.0000	0.0000	0.0000
2019	LDGV	1	0.0199	0.6083	0.0000	1	100.00%	0.0199	0.6083	0.0000	0	0.00%	0.0000	0.0000	0.0000
<b>2019 Total</b>		1	0.0199	0.6083	0.0000	1	100.00%	0.0199	0.6083	0.0000	0	0.00%	0.0000	0.0000	0.0000
<b>Grand Total</b>		<b>219207</b>	<b>0.3679</b>	<b>4.9040</b>	<b>0.7753</b>	<b>198501</b>	<b>90.55%</b>	<b>0.2863</b>	<b>3.7449</b>	<b>0.6842</b>	<b>20706</b>	<b>9.45%</b>	<b>1.1507</b>	<b>16.0158</b>	<b>1.6484</b>

**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	92674	0.2896	3.9219	0.5920	84985	91.70%	0.2227	3.0464	0.5278	7689	8.30%	1.0290	13.5983	1.3014	
LDGT1	87055	0.3904	5.4354	0.8606	78851	90.58%	0.3149	4.1665	0.7669	8204	9.42%	1.1160	17.6309	1.7608	
LDGT2	39478	0.5025	6.0375	1.0174	34665	87.81%	0.3773	4.4981	0.8795	4813	12.19%	1.4040	17.1248	2.0111	
<b>Grand Total</b>		<b>219207</b>	<b>0.3679</b>	<b>4.9040</b>	<b>198501</b>	<b>90.55%</b>	<b>0.2863</b>	<b>3.7449</b>	<b>0.6842</b>	<b>20706</b>	<b>9.45%</b>	<b>1.1507</b>	<b>16.0158</b>	<b>1.6484</b>	

## **Appendix B8**

I/M240 Fleet Characterization Summary Report

Final Inspection Component



Date  
Between 1/1/2020 and 12/31/2020

## 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	126	1.9749	22.1805	2.2118	20	15.87%	2.0185	21.4406	2.2340	4	3.17%	8.7087	86.3633	0.7749
	LDGT1	136	2.1647	28.8551	2.6688	30	22.06%	2.5097	33.2677	2.3999	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	29	2.5273	34.9337	2.7259	11	37.93%	2.3876	32.5117	2.3270	0	0.00%	0.0000	0.0000	0.0000
<b>1982 Total</b>		291	2.1187	26.5708	2.4766	61	20.96%	2.3266	29.2537	2.3323	4	1.37%	8.7087	86.3633	0.7749
1983	LDGV	154	1.4126	14.0910	1.9674	26	16.88%	1.4444	16.1535	2.1673	3	1.95%	4.3057	67.4783	2.3133
	LDGT1	130	2.9062	33.7151	2.3979	35	26.92%	3.1126	38.1484	2.3204	1	0.77%	3.0637	107.1086	2.6306
	LDGT2	44	2.6214	36.8143	3.0839	14	31.82%	3.1368	41.7601	2.4505	0	0.00%	0.0000	0.0000	0.0000
<b>1983 Total</b>		328	2.1667	24.9171	2.2878	75	22.87%	2.5388	31.1977	2.2916	4	1.22%	3.9952	77.3859	2.3926
1984	LDGV	296	1.3653	12.1479	1.9429	52	17.57%	1.2963	14.0500	1.8029	1	0.34%	2.2231	19.3451	6.9208
	LDGT1	293	2.0002	24.2246	2.4336	65	22.18%	2.2613	28.4843	2.6991	1	0.34%	5.0565	130.5982	1.3349
	LDGT2	82	2.1797	29.4580	2.8742	23	28.05%	2.0132	32.1576	2.5153	0	0.00%	0.0000	0.0000	0.0000
<b>1984 Total</b>		671	1.7421	19.5367	2.2710	140	20.86%	1.8621	23.7265	2.3360	2	0.30%	3.6398	74.9717	4.1279
1985	LDGV	311	1.0650	10.4868	1.8200	60	19.29%	1.0702	9.8346	1.8275	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	320	1.8234	18.6829	2.6124	56	17.50%	1.7595	19.3607	2.4294	3	0.94%	3.2664	63.8263	2.8013
	LDGT2	83	1.9683	23.9940	2.8840	26	31.33%	1.8454	23.0711	2.9289	1	1.20%	8.2286	127.3275	1.6050
<b>1985 Total</b>		714	1.5099	15.7303	2.2988	142	19.89%	1.4840	16.0150	2.2665	4	0.56%	4.5070	79.7016	2.5023
1986	LDGV	481	0.9785	8.4679	1.7809	62	12.89%	1.0574	8.3478	2.0565	1	0.21%	4.2921	221.4130	0.1708
	LDGT1	581	1.6614	17.0578	2.4700	78	13.43%	1.8358	19.6036	2.4168	2	0.34%	2.8132	83.5498	1.4837
	LDGT2	124	1.8236	20.4456	2.7086	36	29.03%	1.6930	22.1584	2.5215	0	0.00%	0.0000	0.0000	0.0000
<b>1986 Total</b>		1186	1.4014	13.9283	2.2155	176	14.84%	1.5324	16.1611	2.3113	3	0.25%	3.3061	129.5042	1.0460
1987	LDGV	538	0.9904	8.1402	1.7608	75	13.94%	1.0202	8.3161	1.8584	3	0.56%	3.9930	17.3447	1.1462
	LDGT1	545	1.4109	14.8233	2.3690	109	20.00%	1.3940	15.3819	2.3193	2	0.37%	3.8526	84.3835	1.7524
	LDGT2	173	1.8273	13.7809	2.8826	33	19.08%	1.7283	13.7302	3.0949	1	0.58%	1.0402	21.2373	6.7678
<b>1987 Total</b>		1256	1.2882	11.8171	2.1792	217	17.28%	1.3156	12.6886	2.2779	6	0.48%	3.4541	40.3397	2.2852
1988	LDGV	749	0.7836	7.5844	1.4846	84	11.21%	0.9514	7.8024	1.4583	3	0.40%	2.5675	15.3967	0.7391
	LDGT1	863	1.3152	12.2022	2.1290	151	17.50%	1.3285	13.1112	2.1958	4	0.46%	2.5603	40.1363	2.3242
	LDGT2	290	1.4868	12.3403	2.5388	64	22.07%	1.4735	12.6140	2.4525	0	0.00%	0.0000	0.0000	0.0000
<b>1988 Total</b>		1902	1.1320	10.4048	1.9377	299	15.72%	1.2536	11.5133	2.0436	7	0.37%	2.5634	29.5336	1.6449
1989	LDGV	795	0.7919	8.0896	1.6138	110	13.84%	0.9119	8.2173	1.8116	4	0.50%	3.1618	71.9789	1.1540
	LDGT1	902	1.2259	12.5297	2.0550	154	17.07%	1.3095	12.5782	2.0534	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	324	1.5801	13.2675	2.6046	56	17.28%	1.6260	13.0879	2.5645	2	0.62%	7.2731	167.3716	0.9798
<b>1989 Total</b>		2021	1.1119	10.9014	1.9696	320	15.83%	1.2282	11.1683	2.0597	6	0.30%	4.5322	103.7765	1.0959
1990	LDGV	1333	0.7196	7.6189	1.5273	141	10.58%	0.8611	7.7136	1.6135	3	0.23%	2.5234	18.7335	2.7844
	LDGT1	1162	1.1679	10.8627	2.0820	178	15.32%	1.2978	12.0481	2.1750	4	0.34%	2.9991	30.2234	2.7095
	LDGT2	453	1.4673	13.4436	2.5529	82	18.10%	1.4534	12.8543	2.7779	1	0.22%	3.8091	58.0673	0.0706
<b>1990 Total</b>		2948	1.0112	9.7925	1.9035	401	13.60%	1.1760	10.6889	2.1008	8	0.27%	2.9219	29.3952	2.4077
1991	LDGV	1347	0.6387	6.9152	1.4394	156	11.58%	0.7303	6.8982	1.4838	2	0.15%	9.7854	48.4411	1.2653
	LDGT1	1261	1.0168	10.8555	1.8006	168	13.32%	1.0880	11.3540	1.7772	1	0.08%	2.7291	50.7741	3.6470
	LDGT2	407	1.3001	14.3483	2.4072	82	20.15%	1.3456	13.4740	2.4249	1	0.25%	0.2129	0.3165	7.5358
<b>1991 Total</b>		3015	0.8861	9.5666	1.7211	406	13.47%	1.0026	10.0701	1.7953	4	0.13%	5.6282	36.9932	3.4283

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	1838	0.5650	6.1327	1.3767	199	10.83%	0.6450	6.2247	1.4388	3	0.16%	1.5499	35.3722	1.4730
	LDGT1	1446	0.9801	10.1618	1.7198	162	11.20%	1.0922	10.7249	1.7899	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	771	1.3466	13.3257	2.3114	135	17.51%	1.3426	12.8150	2.1367	5	0.65%	1.7812	39.8715	0.9215
<b>1992 Total</b>		4055	0.8616	8.9371	1.6768	496	12.23%	0.9809	9.4883	1.7434	8	0.20%	1.6945	38.1843	1.1283
1993	LDGV	1914	0.5684	5.8400	1.4435	209	10.92%	0.6356	6.3153	1.4760	2	0.10%	1.8718	14.0856	1.6376
	LDGT1	1843	0.9872	9.9792	1.9420	191	10.36%	1.0916	10.0959	1.9319	4	0.22%	2.4746	51.9330	1.5393
	LDGT2	843	1.3721	13.8159	2.3218	161	19.10%	1.4383	12.5288	2.2733	5	0.59%	3.1591	19.4066	2.9227
<b>1993 Total</b>		4600	0.8835	8.9601	1.8042	561	12.20%	1.0212	9.3856	1.8600	11	0.24%	2.6761	30.2669	2.1860
1994	LDGV	2467	0.4430	5.0118	1.1407	221	8.96%	0.5353	5.7623	1.2972	3	0.12%	2.6188	4.7321	1.6362
	LDGT1	2651	0.7914	8.1866	1.7194	326	12.30%	0.8838	8.7349	1.8970	3	0.11%	2.5218	10.6670	3.8026
	LDGT2	1602	0.9802	10.3382	2.0284	310	19.35%	1.0373	10.3034	2.0029	6	0.37%	2.1048	23.2829	5.6077
<b>1994 Total</b>		6720	0.7085	7.5340	1.5806	857	12.75%	0.8494	8.5357	1.7807	12	0.18%	2.3376	15.4912	4.1635
1995	LDGV	3164	0.4265	4.8450	1.0100	329	10.40%	0.4885	5.2584	1.0717	3	0.09%	1.3769	20.9923	0.6618
	LDGT1	2879	0.7518	8.0525	1.7386	377	13.09%	0.7557	8.3083	1.7410	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	1927	0.9091	10.1586	1.9516	355	18.42%	0.9582	10.0536	1.9639	3	0.16%	2.2255	22.8853	1.7824
<b>1995 Total</b>		7970	0.6607	7.2884	1.5008	1061	13.31%	0.7406	7.9465	1.6080	6	0.08%	1.8012	21.9388	1.2221
1996	LDGV	4175	0.3291	4.0043	0.8013	371	8.89%	0.4314	4.8965	0.9122	2	0.05%	4.1606	111.8189	0.7192
	LDGT1	3572	0.4180	5.1904	1.3823	386	10.81%	0.4461	5.3106	1.4399	5	0.14%	1.3268	26.8614	2.6212
	LDGT2	2136	0.5086	6.0216	1.3289	265	12.41%	0.5326	5.9023	1.4810	1	0.05%	2.9831	15.3929	0.7185
<b>1996 Total</b>		9883	0.4000	4.8690	1.1253	1022	10.34%	0.4632	5.3137	1.2590	8	0.08%	2.2423	46.6672	1.9078
1997	LDGV	5016	0.3483	4.0996	0.7884	463	9.23%	0.3998	4.7144	0.8842	1	0.02%	0.5188	29.2176	0.6444
	LDGT1	5293	0.3915	5.1810	1.2812	656	12.39%	0.4180	5.6509	1.3122	2	0.04%	3.8459	21.4134	1.2400
	LDGT2	2294	0.4389	5.7345	1.3225	320	13.95%	0.4850	5.9972	1.3196	2	0.09%	1.4732	11.7076	2.6281
<b>1997 Total</b>		12603	0.3829	4.8514	1.0926	1439	11.42%	0.4271	5.4266	1.1761	5	0.04%	2.2314	19.0919	1.6761
1998	LDGV	6993	0.2720	3.6546	0.6522	707	10.11%	0.3066	4.1521	0.6800	6	0.09%	1.5712	40.9923	1.6547
	LDGT1	7694	0.3405	4.5990	1.0922	782	10.16%	0.3921	5.0654	1.1962	6	0.08%	0.4351	13.1185	3.4175
	LDGT2	2998	0.3698	4.6105	1.1850	330	11.01%	0.4519	5.3855	1.3570	3	0.10%	0.9082	15.2456	3.2682
<b>1998 Total</b>		17685	0.3184	4.2275	0.9339	1819	10.29%	0.3697	4.7685	1.0247	15	0.08%	0.9842	24.6934	2.6825
1999	LDGV	7597	0.2484	3.3664	0.6204	665	8.75%	0.2867	3.8195	0.6759	5	0.07%	1.1213	46.6402	1.0102
	LDGT1	7399	0.2706	4.0026	0.8545	811	10.96%	0.3043	4.1578	0.9906	7	0.09%	1.1554	9.5247	3.1420
	LDGT2	3729	0.3017	3.5189	0.9159	498	13.35%	0.3659	4.2021	1.0349	6	0.16%	2.6481	23.5314	2.4434
<b>1999 Total</b>		18725	0.2678	3.6482	0.7718	1974	10.54%	0.3139	4.0550	0.8957	18	0.10%	1.6435	24.5034	2.3170
2000	LDGV	3979	0.1991	3.0126	0.5250	384	9.65%	0.2625	3.6886	0.6079	2	0.05%	1.2500	7.4240	2.2394
	LDGT1	3337	0.2479	3.4336	0.8059	407	12.20%	0.2903	4.2296	1.0390	12	0.36%	0.7363	17.9036	2.9877
	LDGT2	1522	0.2608	3.5743	0.8015	219	14.39%	0.3083	4.1051	1.0111	2	0.13%	3.0951	83.4375	1.4116
<b>2000 Total</b>		8838	0.2282	3.2683	0.6787	1010	11.43%	0.2836	3.9969	0.8690	16	0.18%	1.0954	24.7853	2.6972
2001	LDGV	4053	0.1609	2.7584	0.4144	395	9.75%	0.2173	3.2793	0.5253	7	0.17%	3.1669	19.0839	1.4980
	LDGT1	3521	0.1682	3.1985	0.5553	364	10.34%	0.2260	4.0539	0.7542	3	0.09%	0.9890	27.8923	1.3511
	LDGT2	1708	0.2493	3.2869	0.7235	218	12.76%	0.2766	3.5158	0.8128	0	0.00%	0.0000	0.0000	0.0000
<b>2001 Total</b>		9282	0.1800	3.0226	0.5247	977	10.53%	0.2338	3.6207	0.6747	10	0.11%	2.5135	21.7264	1.4540
2002	LDGV	5208	0.1434	2.9710	0.3678	479	9.20%	0.2088	3.3228	0.4563	7	0.13%	0.9028	14.1492	3.4292
	LDGT1	4559	0.1477	3.5065	0.4972	505	11.08%	0.2083	4.4419	0.6991	4	0.09%	0.6844	13.9387	2.7491
	LDGT2	1835	0.2232	3.0572	0.7541	249	13.57%	0.2511	3.4606	0.8656	2	0.11%	0.4515	17.0889	2.2596

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)
<b>2002 Total</b>		11602	0.1577	3.1951	0.4798	1233	10.63%	0.2171	3.8090	0.6384	13	0.11%	0.7662	14.5367	3.0400
2003	LDGV	4888	0.1116	2.0946	0.3188	444	9.08%	0.1563	2.5734	0.4274	5	0.10%	1.1731	13.4360	2.0882
	LDGT1	4356	0.1363	2.5309	0.4413	426	9.78%	0.1719	3.1569	0.5482	2	0.05%	1.1568	47.2085	1.5569
	LDGT2	1947	0.1920	2.8029	0.5590	200	10.27%	0.2367	3.3603	0.6732	3	0.15%	0.5144	12.5828	4.2582
<b>2003 Total</b>		11191	0.1352	2.3877	0.4083	1070	9.56%	0.1775	2.9528	0.5215	10	0.09%	0.9722	19.9345	2.6329
2004	LDGV	5308	0.0927	1.8476	0.2511	443	8.35%	0.1428	2.7093	0.3814	3	0.06%	1.9392	15.0580	3.4906
	LDGT1	5660	0.1029	2.1510	0.2871	435	7.69%	0.1593	3.0851	0.4604	5	0.09%	0.6851	22.3341	3.1050
	LDGT2	2587	0.1292	2.2678	0.3402	248	9.59%	0.1986	3.2936	0.5576	4	0.15%	0.9260	10.4329	3.4803
<b>2004 Total</b>		13555	0.1039	2.0545	0.2831	1126	8.31%	0.1615	2.9832	0.4507	12	0.09%	1.0789	16.5480	3.3265
2005	LDGV	5627	0.0759	1.5531	0.2190	444	7.89%	0.1257	2.1877	0.3207	2	0.04%	0.2329	3.6977	2.4882
	LDGT1	5599	0.0928	1.7375	0.1989	364	6.50%	0.1494	2.8674	0.3603	4	0.07%	0.2831	4.2530	3.9123
	LDGT2	1958	0.1364	2.0605	0.2980	148	7.56%	0.2355	3.4234	0.5321	1	0.05%	0.1017	0.3020	2.4912
<b>2005 Total</b>		13184	0.0921	1.7068	0.2222	956	7.25%	0.1517	2.6378	0.3685	7	0.05%	0.2428	3.5299	3.3024
2006	LDGV	5930	0.0688	1.6206	0.1571	287	4.84%	0.1573	2.5369	0.3101	4	0.07%	0.5225	6.2810	2.4884
	LDGT1	5326	0.0703	1.7921	0.1783	271	5.09%	0.1261	2.3570	0.3177	1	0.02%	2.2726	18.9539	6.6351
	LDGT2	2251	0.1001	1.6493	0.2074	186	8.26%	0.1767	2.8171	0.4039	1	0.04%	1.4220	24.1461	0.4683
<b>2006 Total</b>		13507	0.0746	1.6930	0.1738	744	5.51%	0.1508	2.5414	0.3363	6	0.04%	0.9641	11.3706	2.8429
2007	LDGV	6045	0.0575	1.3945	0.1290	285	4.71%	0.1123	2.3446	0.2346	2	0.03%	0.4795	7.9473	2.3450
	LDGT1	5459	0.0490	1.5027	0.1293	266	4.87%	0.0755	2.1720	0.2034	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	2460	0.0811	1.2421	0.1478	144	5.85%	0.1374	2.1671	0.2876	0	0.00%	0.0000	0.0000	0.0000
<b>2007 Total</b>		13964	0.0583	1.4099	0.1325	695	4.98%	0.1034	2.2418	0.2336	2	0.01%	0.4795	7.9473	2.3450
2008	LDGV	5512	0.0548	1.3949	0.1182	256	4.64%	0.1000	2.0776	0.1831	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	5188	0.0461	1.3641	0.1253	212	4.09%	0.0791	2.2462	0.1871	2	0.04%	0.0357	2.6651	5.3669
	LDGT2	2375	0.0718	1.7044	0.1272	180	7.58%	0.1107	3.1501	0.1979	1	0.04%	1.0724	40.7906	0.2242
<b>2008 Total</b>		13075	0.0544	1.4389	0.1227	648	4.96%	0.0961	2.4307	0.1885	3	0.02%	0.3812	15.3736	3.6527
2009	LDGV	4609	0.0522	1.4229	0.1106	116	2.52%	0.1315	2.7560	0.2045	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	3284	0.0432	1.5850	0.1143	95	2.89%	0.0561	1.8060	0.1516	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	1394	0.0569	1.1732	0.1131	72	5.16%	0.0585	1.0674	0.0845	0	0.00%	0.0000	0.0000	0.0000
<b>2009 Total</b>		9287	0.0497	1.4428	0.1123	283	3.05%	0.0876	2.0075	0.1562	0	0.00%	0.0000	0.0000	0.0000
2010	LDGV	454	0.0650	1.7225	0.1241	30	6.61%	0.1645	3.2852	0.2950	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	352	0.0512	1.5895	0.1238	14	3.98%	0.0785	1.3581	0.1350	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	207	0.0644	1.8188	0.1541	14	6.76%	0.0700	2.2472	0.3515	1	0.48%	0.3941	15.0325	1.3315
<b>2010 Total</b>		1013	0.0601	1.6960	0.1301	58	5.73%	0.1209	2.5695	0.2700	1	0.10%	0.3941	15.0325	1.3315
2011	LDGV	547	0.0537	1.7375	0.0929	17	3.11%	0.1154	2.5487	0.2328	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	561	0.0445	1.6507	0.1076	22	3.92%	0.0450	1.7537	0.1326	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	326	0.0470	1.2162	0.0845	25	7.67%	0.0692	1.8321	0.1921	0	0.00%	0.0000	0.0000	0.0000
<b>2011 Total</b>		1434	0.0486	1.5850	0.0967	64	4.46%	0.0731	1.9955	0.1825	0	0.00%	0.0000	0.0000	0.0000
2012	LDGV	525	0.0590	1.8497	0.1089	37	7.05%	0.1141	2.8416	0.1947	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	375	0.0443	2.0316	0.1077	16	4.27%	0.0565	2.5035	0.1741	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	248	0.0574	1.5385	0.1040	35	14.11%	0.0520	1.6710	0.0943	0	0.00%	0.0000	0.0000	0.0000
<b>2012 Total</b>		1148	0.0538	1.8419	0.1075	88	7.67%	0.0789	2.3146	0.1510	0	0.00%	0.0000	0.0000	0.0000
2013	LDGV	562	0.0480	1.4895	0.0872	34	6.05%	0.1447	2.8852	0.1814	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	418	0.0357	1.5077	0.0717	8	1.91%	0.0244	1.0673	0.0376	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	276	0.0489	1.2091	0.1203	16	5.80%	0.0354	1.1964	0.0604	0	0.00%	0.0000	0.0000	0.0000
<b>2013 Total</b>		1256	0.0441	1.4339	0.0893	58	4.62%	0.0980	2.1686	0.1282	0	0.00%	0.0000	0.0000	0.0000
2014	LDGV	103	0.0541	1.6521	0.1235	6	5.83%	0.2792	2.6424	0.3144	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	62	0.0378	1.9126	0.0629	5	8.06%	0.0508	4.6718	0.1450	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	58	0.0380	0.7855	0.0434	6	10.34%	0.0335	0.6106	0.0376	0	0.00%	0.0000	0.0000	0.0000
<b>2014 Total</b>		223	0.0454	1.4991	0.0858	17	7.62%	0.1253	2.5222	0.1669	0	0.00%	0.0000	0.0000	0.0000
2015	LDGV	15	0.1073	2.3331	0.1869	1	6.67%	0.3322	3.3655	0.6419	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	14	0.0191	0.6432	0.0465	1	7.14%	0.0178	0.9539	0.0367	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	10	0.0857	1.4034	0.0420	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
<b>2015 Total</b>		39	0.0701	1.4881	0.0994	2	5.13%	0.1750	2.1597	0.3393	0	0.00%	0.0000	0.0000	0.0000
2016	LDGV	8	0.0167	0.8660	0.0412	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	9	0.0359	1.2451	0.0841	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	4	0.0779	1.0733	0.0687	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
<b>2016 Total</b>		21	0.0366	1.0679	0.0649	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2017	LDGV	3	0.0131	0.6339	0.0436	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	4	0.0276	1.7008	0.0511	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	1	0.0200	0.2547	0.0364	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
<b>2017 Total</b>		8	0.0212	1.1200	0.0464	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2018	LDGV	3	0.0644	0.6572	0.0570	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	1	0.0383	1.2516	0.0317	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	2	0.0666	1.8192	0.0424	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
<b>2018 Total</b>		6	0.0608	1.1436	0.0480	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2019	LDGV	1	0.0199	0.6083	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
<b>2019 Total</b>		1	0.0199	0.6083	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
<b>Grand Total</b>		219207	0.3049	3.9407	0.7169	20495	9.35%	0.4663	5.5575	1.0163	211	0.10%	2.0775	31.1551	2.4427

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	92674	0.2352	3.1711	0.5469	7608	8.21%	0.3511	4.2456	0.7466	81	0.09%	2.5207	33.0813	1.8449	
LDGT1	87055	0.3335	4.3781	0.8022	8126	9.33%	0.5023	6.1955	1.1256	78	0.09%	1.5700	28.9894	2.8312	
LDGT2	39478	0.4052	4.7828	0.9280	4761	12.06%	0.5888	6.5650	1.2608	52	0.13%	2.1484	31.4033	2.7913	
<b>Grand Total</b>	219207	0.3049	3.9407	0.7169	20495	9.35%	0.4663	5.5575	1.0163	211	0.10%	2.0775	31.1551	2.4427	

## **Appendix B9**

I/M240 Fleet Characterization Summary Report

Emissions Reduction Component



Date  
Between 1/1/2020 and 12/31/2020

**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	126	3.1487	29.7900	2.2605	126	1.9749	22.1805	2.2118	1.1738	37.28%	7.6096	25.54%	0.0488	2.16%
	LDGT1	136	2.6465	39.3006	2.5183	136	2.1647	28.8551	2.6688	0.4818	18.21%	10.4455	26.58%	-0.1505	-5.98%
	LDGT2	29	3.2465	51.1686	3.0199	29	2.5273	34.9337	2.7259	0.7192	22.15%	16.2349	31.73%	0.2940	9.73%
<b>1982 Total</b>		291	2.9238	36.3653	2.4567	291	2.1187	26.5708	2.4766	0.8051	27.54%	9.7945	26.93%	-0.0199	-0.81%
1983	LDGV	154	1.8962	20.5390	2.0022	154	1.4126	14.0910	1.9674	0.4835	25.50%	6.4480	31.39%	0.0348	1.74%
	LDGT1	130	3.2916	39.8394	2.4814	130	2.9062	33.7151	2.3979	0.3854	11.71%	6.1243	15.37%	0.0835	3.37%
	LDGT2	44	3.5579	50.6231	3.1320	44	2.6214	36.8143	3.0839	0.9365	26.32%	13.8088	27.28%	0.0481	1.53%
<b>1983 Total</b>		328	2.6721	32.2242	2.3437	328	2.1667	24.9171	2.2878	0.5054	18.91%	7.3072	22.68%	0.0559	2.38%
1984	LDGV	296	1.6734	16.2071	1.9929	296	1.3653	12.1479	1.9429	0.3081	18.41%	4.0592	25.05%	0.0500	2.51%
	LDGT1	293	2.4001	31.7638	2.4156	293	2.0002	24.2246	2.4336	0.3999	16.66%	7.5392	23.74%	-0.0179	-0.74%
	LDGT2	82	2.8549	39.8341	3.1139	82	2.1797	29.4580	2.8742	0.6752	23.65%	10.3760	26.05%	0.2396	7.70%
<b>1984 Total</b>		671	2.1351	25.8875	2.3145	671	1.7421	19.5367	2.2710	0.3931	18.41%	6.3508	24.53%	0.0435	1.88%
1985	LDGV	311	1.3538	15.5161	1.8288	311	1.0650	10.4868	1.8200	0.2888	21.33%	5.0294	32.41%	0.0088	0.48%
	LDGT1	320	2.1746	23.9445	2.6755	320	1.8234	18.6829	2.6124	0.3512	16.15%	5.2616	21.97%	0.0631	2.36%
	LDGT2	83	2.9441	40.5852	2.6530	83	1.9683	23.9940	2.8840	0.9758	33.14%	16.5912	40.88%	-0.2310	-8.71%
<b>1985 Total</b>		714	1.9065	22.2077	2.3041	714	1.5099	15.7303	2.2988	0.3966	20.80%	6.4775	29.17%	0.0052	0.23%
1986	LDGV	481	1.1104	11.3413	1.8009	481	0.9785	8.4679	1.7809	0.1319	11.88%	2.8734	25.34%	0.0200	1.11%
	LDGT1	581	1.7372	19.8092	2.4706	581	1.6614	17.0578	2.4700	0.0758	4.36%	2.7513	13.89%	0.0006	0.02%
	LDGT2	124	2.5556	31.4809	2.7640	124	1.8236	20.4456	2.7086	0.7320	28.64%	11.0353	35.05%	0.0553	2.00%
<b>1986 Total</b>		1186	1.5686	17.5952	2.2297	1186	1.4014	13.9283	2.2155	0.1672	10.66%	3.6670	20.84%	0.0142	0.64%
1987	LDGV	538	1.2097	11.2176	1.7632	538	0.9904	8.1402	1.7608	0.2193	18.13%	3.0774	27.43%	0.0024	0.14%
	LDGT1	545	1.7439	20.0352	2.4084	545	1.4109	14.8233	2.3690	0.3329	19.09%	5.2119	26.01%	0.0393	1.63%
	LDGT2	173	2.1798	18.3147	2.9455	173	1.8273	13.7809	2.8826	0.3526	16.17%	4.5338	24.76%	0.0629	2.14%
<b>1987 Total</b>		1256	1.5751	16.0213	2.2060	1256	1.2882	11.8171	2.1792	0.2869	18.22%	4.2042	26.24%	0.0268	1.21%
1988	LDGV	749	0.9879	9.9691	1.5218	749	0.7836	7.5844	1.4846	0.2043	20.68%	2.3846	23.92%	0.0372	2.45%
	LDGT1	863	1.6341	16.1247	2.1650	863	1.3152	12.2022	2.1290	0.3189	19.52%	3.9225	24.33%	0.0359	1.66%
	LDGT2	290	1.8325	17.0752	2.7133	290	1.4868	12.3403	2.5388	0.3457	18.86%	4.7349	27.73%	0.1745	6.43%
<b>1988 Total</b>		1902	1.4099	13.8455	1.9953	1902	1.1320	10.4048	1.9377	0.2779	19.71%	3.4407	24.85%	0.0576	2.88%
1989	LDGV	795	1.0188	10.4344	1.6434	795	0.7919	8.0896	1.6138	0.2269	22.27%	2.3448	22.47%	0.0296	1.80%
	LDGT1	902	1.4703	16.4053	2.0884	902	1.2259	12.5297	2.0550	0.2444	16.62%	3.8756	23.62%	0.0334	1.60%
	LDGT2	324	1.7521	13.9624	2.7501	324	1.5801	13.2675	2.6046	0.1720	9.82%	0.6949	4.98%	0.1455	5.29%
<b>1989 Total</b>		2021	1.3378	13.6649	2.0195	2021	1.1119	10.9014	1.9696	0.2259	16.88%	2.7635	20.22%	0.0499	2.47%
1990	LDGV	1333	0.8057	9.2763	1.5591	1333	0.7196	7.6189	1.5273	0.0861	10.68%	1.6574	17.87%	0.0318	2.04%
	LDGT1	1162	1.3266	14.5776	2.1331	1162	1.1679	10.8627	2.0820	0.1587	11.96%	3.7149	25.48%	0.0510	2.39%
	LDGT2	453	1.7918	15.2135	2.6078	453	1.4673	13.4436	2.5529	0.3245	18.11%	1.7699	11.63%	0.0549	2.11%
<b>1990 Total</b>		2948	1.1625	12.2783	1.9465	2948	1.0112	9.7925	1.9035	0.1513	13.02%	2.4857	20.24%	0.0430	2.21%
1991	LDGV	1347	0.8144	8.6158	1.4927	1347	0.6387	6.9152	1.4394	0.1757	21.57%	1.7006	19.74%	0.0533	3.57%
	LDGT1	1261	1.1337	12.4278	1.8854	1261	1.0168	10.8555	1.8006	0.1169	10.31%	1.5722	12.65%	0.0848	4.50%
	LDGT2	407	1.5742	17.5115	2.4428	407	1.3001	14.3483	2.4072	0.2741	17.41%	3.1632	18.06%	0.0356	1.46%
<b>1991 Total</b>		3015	1.0505	11.4110	1.7852	3015	0.8861	9.5666	1.7211	0.1644	15.65%	1.8444	16.16%	0.0641	3.59%

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	1838	0.7145	8.2406	1.3908	1838	0.5650	6.1327	1.3767	0.1496	20.93%	2.1079	25.58%	0.0141	1.01%
	LDGT1	1446	1.0796	11.8468	1.7831	1446	0.9801	10.1618	1.7198	0.0995	9.22%	1.6851	14.22%	0.0634	3.55%
	LDGT2	771	1.6249	16.2049	2.4787	771	1.3466	13.3257	2.3114	0.2783	17.13%	2.8792	17.77%	0.1673	6.75%
<b>1992 Total</b>		<b>4055</b>	<b>1.0178</b>	<b>11.0409</b>	<b>1.7376</b>	<b>4055</b>	<b>0.8616</b>	<b>8.9371</b>	<b>1.6768</b>	<b>0.1562</b>	<b>15.34%</b>	<b>2.1038</b>	<b>19.05%</b>	<b>0.0608</b>	<b>3.50%</b>
1993	LDGV	1914	0.6611	7.2849	1.4862	1914	0.5684	5.8400	1.4435	0.0927	14.03%	1.4449	19.83%	0.0427	2.87%
	LDGT1	1843	1.1148	12.0203	2.0242	1843	0.9872	9.9792	1.9420	0.1276	11.45%	2.0410	16.98%	0.0822	4.06%
	LDGT2	843	1.6447	16.1370	2.4782	843	1.3721	13.8159	2.3218	0.2725	16.57%	2.3211	14.38%	0.1564	6.31%
<b>1993 Total</b>		<b>4600</b>	<b>1.0232</b>	<b>10.8044</b>	<b>1.8835</b>	<b>4600</b>	<b>0.8835</b>	<b>8.9601</b>	<b>1.8042</b>	<b>0.1397</b>	<b>13.65%</b>	<b>1.8443</b>	<b>17.07%</b>	<b>0.0793</b>	<b>4.21%</b>
1994	LDGV	2467	0.5497	6.0085	1.1763	2467	0.4430	5.0118	1.1407	0.1068	19.42%	0.9968	16.59%	0.0355	3.02%
	LDGT1	2651	0.8767	9.2421	1.8056	2651	0.7914	8.1866	1.7194	0.0852	9.72%	1.0555	11.42%	0.0862	4.77%
	LDGT2	1602	1.1851	12.7771	2.1810	1602	0.9802	10.3382	2.0284	0.2048	17.29%	2.4389	19.09%	0.1526	7.00%
<b>1994 Total</b>		<b>6720</b>	<b>0.8302</b>	<b>8.8977</b>	<b>1.6641</b>	<b>6720</b>	<b>0.7085</b>	<b>7.5340</b>	<b>1.5806</b>	<b>0.1217</b>	<b>14.65%</b>	<b>1.3637</b>	<b>15.33%</b>	<b>0.0834</b>	<b>5.01%</b>
1995	LDGV	3164	0.5336	6.1456	1.0615	3164	0.4265	4.8450	1.0100	0.1071	20.08%	1.3006	21.16%	0.0515	4.85%
	LDGT1	2879	0.8686	9.9680	1.8119	2879	0.7518	8.0525	1.7386	0.1169	13.45%	1.9155	19.22%	0.0733	4.05%
	LDGT2	1927	1.0548	12.1468	2.0955	1927	0.9091	10.1586	1.9516	0.1457	13.81%	1.9881	16.37%	0.1438	6.86%
<b>1995 Total</b>		<b>7970</b>	<b>0.7806</b>	<b>8.9773</b>	<b>1.5825</b>	<b>7970</b>	<b>0.6607</b>	<b>7.2884</b>	<b>1.5008</b>	<b>0.1200</b>	<b>15.37%</b>	<b>1.6889</b>	<b>18.81%</b>	<b>0.0817</b>	<b>5.16%</b>
1996	LDGV	4175	0.3781	4.6040	0.8404	4175	0.3291	4.0043	0.8013	0.0490	12.96%	0.5997	13.03%	0.0391	4.66%
	LDGT1	3572	0.4886	6.1615	1.4516	3572	0.4180	5.1904	1.3823	0.0706	14.44%	0.9711	15.76%	0.0693	4.78%
	LDGT2	2136	0.5901	7.3994	1.3928	2136	0.5086	6.0216	1.3289	0.0815	13.80%	1.3778	18.62%	0.0639	4.59%
<b>1996 Total</b>		<b>9883</b>	<b>0.4638</b>	<b>5.7711</b>	<b>1.1807</b>	<b>9883</b>	<b>0.4000</b>	<b>4.8690</b>	<b>1.1253</b>	<b>0.0638</b>	<b>13.76%</b>	<b>0.9021</b>	<b>15.63%</b>	<b>0.0554</b>	<b>4.69%</b>
1997	LDGV	5016	0.4004	4.9200	0.8139	5016	0.3483	4.0996	0.7884	0.0521	13.01%	0.8203	16.67%	0.0255	3.14%
	LDGT1	5293	0.4608	6.3833	1.3665	5293	0.3915	5.1810	1.2812	0.0692	15.03%	1.2022	18.83%	0.0853	6.24%
	LDGT2	2294	0.5446	7.2335	1.4363	2294	0.4389	5.7345	1.3225	0.1057	19.41%	1.4990	20.72%	0.1138	7.92%
<b>1997 Total</b>		<b>12603</b>	<b>0.4520</b>	<b>5.9556</b>	<b>1.1593</b>	<b>12603</b>	<b>0.3829</b>	<b>4.8514</b>	<b>1.0926</b>	<b>0.0691</b>	<b>15.28%</b>	<b>1.1043</b>	<b>18.54%</b>	<b>0.0667</b>	<b>5.75%</b>
1998	LDGV	6993	0.3274	4.2912	0.6900	6993	0.2720	3.6546	0.6522	0.0554	16.92%	0.6366	14.83%	0.0378	5.48%
	LDGT1	7694	0.3877	5.4773	1.1604	7694	0.3405	4.5990	1.0922	0.0472	12.16%	0.8784	16.04%	0.0682	5.88%
	LDGT2	2998	0.4645	5.4744	1.2748	2998	0.3698	4.6105	1.1850	0.0947	20.39%	0.8638	15.78%	0.0897	7.04%
<b>1998 Total</b>		<b>17685</b>	<b>0.3769</b>	<b>5.0078</b>	<b>0.9938</b>	<b>17685</b>	<b>0.3184</b>	<b>4.2275</b>	<b>0.9339</b>	<b>0.0585</b>	<b>15.51%</b>	<b>0.7803</b>	<b>15.58%</b>	<b>0.0598</b>	<b>6.02%</b>
1999	LDGV	7597	0.2888	3.9169	0.6579	7597	0.2484	3.3664	0.6204	0.0404	13.99%	0.5504	14.05%	0.0375	5.70%
	LDGT1	7399	0.3347	5.1054	0.9412	7399	0.2706	4.0026	0.8545	0.0641	19.15%	1.1028	21.60%	0.0867	9.21%
	LDGT2	3729	0.3683	4.6367	1.0286	3729	0.3017	3.5189	0.9159	0.0666	18.09%	1.1178	24.11%	0.1127	10.95%
<b>1999 Total</b>		<b>18725</b>	<b>0.3228</b>	<b>4.5298</b>	<b>0.8437</b>	<b>18725</b>	<b>0.2678</b>	<b>3.6482</b>	<b>0.7718</b>	<b>0.0550</b>	<b>17.04%</b>	<b>0.8817</b>	<b>19.46%</b>	<b>0.0719</b>	<b>8.52%</b>
2000	LDGV	3979	0.2431	3.7174	0.6076	3979	0.1991	3.0126	0.5250	0.0440	18.10%	0.7049	18.96%	0.0825	13.59%
	LDGT1	3337	0.3026	4.4625	0.8896	3337	0.2479	3.4336	0.8059	0.0548	18.10%	1.0289	23.06%	0.0836	9.40%
	LDGT2	1522	0.3442	4.8907	0.9242	1522	0.2608	3.5743	0.8015	0.0834	24.23%	1.3164	26.92%	0.1226	13.27%
<b>2000 Total</b>		<b>8838</b>	<b>0.2830</b>	<b>4.2008</b>	<b>0.7686</b>	<b>8838</b>	<b>0.2282</b>	<b>3.2683</b>	<b>0.6787</b>	<b>0.0549</b>	<b>19.38%</b>	<b>0.9325</b>	<b>22.20%</b>	<b>0.0899</b>	<b>11.69%</b>
2001	LDGV	4053	0.2197	3.6408	0.4815	4053	0.1609	2.7584	0.4144	0.0589	26.79%	0.8824	24.24%	0.0671	13.94%
	LDGT1	3521	0.2119	4.2630	0.6270	3521	0.1682	3.1985	0.5553	0.0436	20.59%	1.0646	24.97%	0.0717	11.44%
	LDGT2	1708	0.2913	4.1550	0.8250	1708	0.2493	3.2869	0.7235	0.0420	14.41%	0.8681	20.89%	0.1015	12.30%
<b>2001 Total</b>		<b>9282</b>	<b>0.2299</b>	<b>3.9715</b>	<b>0.5999</b>	<b>9282</b>	<b>0.1800</b>	<b>3.0226</b>	<b>0.5247</b>	<b>0.0500</b>	<b>21.73%</b>	<b>0.9489</b>	<b>23.89%</b>	<b>0.0752</b>	<b>12.53%</b>
2002	LDGV	5208	0.1836	3.4316	0.4431	5208	0.1434	2.9710	0.3678	0.0402	21.91%	0.4606	13.42%	0.0753	17.00%
	LDGT1	4559	0.2001	4.9849	0.5840	4559	0.1477	3.5065	0.4972	0.0525	26.22%	1.4784	29.66%	0.0868	14.86%
	LDGT2	1835	0.2754	3.7776	0.8812	1835	0.2232	3.0572	0.7541	0.0521	18.93%	0.7205	19.07%	0.1271	14.42%

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
<b>2002 Total</b>		11602	0.2046	4.0967	0.5678	11602	0.1577	3.1951	0.4798	0.0469	22.93%	0.9016	22.01%	0.0880	15.50%
2003	LDGV	4888	0.1480	2.7691	0.3817	4888	0.1116	2.0946	0.3188	0.0364	24.61%	0.6745	24.36%	0.0629	16.47%
	LDGT1	4356	0.1676	3.3834	0.5146	4356	0.1363	2.5309	0.4413	0.0313	18.69%	0.8525	25.20%	0.0732	14.23%
	LDGT2	1947	0.2910	3.6991	0.6413	1947	0.1920	2.8029	0.5590	0.0990	34.02%	0.8962	24.23%	0.0823	12.83%
<b>2003 Total</b>		11191	0.1805	3.1700	0.4786	11191	0.1352	2.3877	0.4083	0.0453	25.11%	0.7823	24.68%	0.0703	14.68%
2004	LDGV	5308	0.1254	2.4761	0.3082	5308	0.0927	1.8476	0.2511	0.0328	26.12%	0.6285	25.38%	0.0571	18.54%
	LDGT1	5660	0.1279	2.8807	0.3463	5660	0.1029	2.1510	0.2871	0.0250	19.56%	0.7297	25.33%	0.0593	17.11%
	LDGT2	2587	0.1775	3.0968	0.4249	2587	0.1292	2.2678	0.3402	0.0484	27.24%	0.8290	26.77%	0.0847	19.92%
<b>2004 Total</b>		13555	0.1364	2.7635	0.3464	13555	0.1039	2.0545	0.2831	0.0325	23.83%	0.7090	25.66%	0.0633	18.27%
2005	LDGV	5627	0.1032	1.9399	0.2775	5627	0.0759	1.5531	0.2190	0.0273	26.43%	0.3867	19.94%	0.0585	21.08%
	LDGT1	5599	0.1117	2.1279	0.2510	5599	0.0928	1.7375	0.1989	0.0189	16.91%	0.3904	18.35%	0.0521	20.76%
	LDGT2	1958	0.2190	3.0042	0.3783	1958	0.1364	2.0605	0.2980	0.0825	37.69%	0.9436	31.41%	0.0803	21.22%
<b>2005 Total</b>		13184	0.1240	2.1778	0.2812	13184	0.0921	1.7068	0.2222	0.0319	25.74%	0.4710	21.63%	0.0590	20.99%
2006	LDGV	5930	0.0877	1.9740	0.1970	5930	0.0688	1.6206	0.1571	0.0189	21.51%	0.3533	17.90%	0.0399	20.26%
	LDGT1	5326	0.0867	2.1096	0.2051	5326	0.0703	1.7921	0.1783	0.0164	18.94%	0.3175	15.05%	0.0268	13.07%
	LDGT2	2251	0.1629	2.3962	0.2798	2251	0.1001	1.6493	0.2074	0.0628	38.56%	0.7469	31.17%	0.0724	25.88%
<b>2006 Total</b>		13507	0.0998	2.0978	0.2140	13507	0.0746	1.6930	0.1738	0.0252	25.26%	0.4048	19.30%	0.0402	18.77%
2007	LDGV	6045	0.0743	1.6681	0.1639	6045	0.0575	1.3945	0.1290	0.0168	22.61%	0.2736	16.40%	0.0349	21.27%
	LDGT1	5459	0.0571	1.8111	0.1536	5459	0.0490	1.5027	0.1293	0.0080	14.07%	0.3084	17.03%	0.0243	15.81%
	LDGT2	2460	0.1187	1.5878	0.1881	2460	0.0811	1.2421	0.1478	0.0376	31.67%	0.3457	21.77%	0.0403	21.41%
<b>2007 Total</b>		13964	0.0754	1.7098	0.1641	13964	0.0583	1.4099	0.1325	0.0170	22.60%	0.2999	17.54%	0.0317	19.30%
2008	LDGV	5512	0.0710	1.7155	0.1494	5512	0.0548	1.3949	0.1182	0.0162	22.76%	0.3206	18.69%	0.0312	20.91%
	LDGT1	5188	0.0507	1.6220	0.1421	5188	0.0461	1.3641	0.1253	0.0046	9.01%	0.2579	15.90%	0.0167	11.78%
	LDGT2	2375	0.0878	2.3194	0.1498	2375	0.0718	1.7044	0.1272	0.0160	18.21%	0.6150	26.52%	0.0226	15.08%
<b>2008 Total</b>		13075	0.0660	1.7881	0.1466	13075	0.0544	1.4389	0.1227	0.0115	17.47%	0.3492	19.53%	0.0239	16.32%
2009	LDGV	4609	0.0626	1.6398	0.1253	4609	0.0522	1.4229	0.1106	0.0104	16.55%	0.2168	13.22%	0.0148	11.78%
	LDGT1	3284	0.0455	1.6256	0.1221	3284	0.0432	1.5850	0.1143	0.0024	5.19%	0.0406	2.50%	0.0078	6.38%
	LDGT2	1394	0.0657	1.4030	0.1298	1394	0.0569	1.1732	0.1131	0.0088	13.37%	0.2298	16.38%	0.0167	12.84%
<b>2009 Total</b>		9287	0.0570	1.5992	0.1249	9287	0.0497	1.4428	0.1123	0.0073	12.80%	0.1564	9.78%	0.0126	10.08%
2010	LDGV	454	0.1013	2.2188	0.2004	454	0.0650	1.7225	0.1241	0.0363	35.85%	0.4963	22.37%	0.0764	38.11%
	LDGT1	352	0.0543	1.6358	0.1372	352	0.0512	1.5895	0.1238	0.0031	5.70%	0.0463	2.83%	0.0133	9.71%
	LDGT2	207	0.1036	3.1021	0.2179	207	0.0644	1.8188	0.1541	0.0392	37.85%	1.2832	41.37%	0.0639	29.30%
<b>2010 Total</b>		1013	0.0854	2.1967	0.1820	1013	0.0601	1.6960	0.1301	0.0254	29.69%	0.5007	22.79%	0.0519	28.52%
2011	LDGV	547	0.0759	2.0659	0.1317	547	0.0537	1.7375	0.0929	0.0222	29.31%	0.3284	15.90%	0.0388	29.49%
	LDGT1	561	0.1028	2.0218	0.1232	561	0.0445	1.6507	0.1076	0.0584	56.76%	0.3711	18.36%	0.0156	12.64%
	LDGT2	326	0.0541	1.4573	0.0955	326	0.0470	1.2162	0.0845	0.0070	12.99%	0.2411	16.55%	0.0110	11.53%
<b>2011 Total</b>		1434	0.0815	1.9103	0.1201	1434	0.0486	1.5850	0.0967	0.0329	40.40%	0.3253	17.03%	0.0234	19.49%
2012	LDGV	525	0.0984	2.5723	0.1772	525	0.0590	1.8497	0.1089	0.0394	40.05%	0.7226	28.09%	0.0683	38.55%
	LDGT1	375	0.0451	2.0611	0.1085	375	0.0443	2.0316	0.1077	0.0008	1.77%	0.0295	1.43%	0.0008	0.69%
	LDGT2	248	0.0876	2.0944	0.1492	248	0.0574	1.5385	0.1040	0.0302	34.46%	0.5558	26.54%	0.0452	30.28%
<b>2012 Total</b>		1148	0.0786	2.3021	0.1487	1148	0.0538	1.8419	0.1075	0.0248	31.53%	0.4602	19.99%	0.0412	27.74%
2013	LDGV	562	0.0819	1.9603	0.1707	562	0.0480	1.4895	0.0872	0.0339	41.37%	0.4708	24.02%	0.0835	48.93%
	LDGT1	418	0.0359	1.5167	0.0728	418	0.0357	1.5077	0.0717	0.0003	0.72%	0.0090	0.59%	0.0011	1.51%

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	276	0.0491	1.1828	0.1200	276	0.0489	1.2091	0.1203	0.0001	0.27%	-0.0263	-2.22%	-0.0003	-0.25%
<b>2013</b>	<b>Total</b>	1256	0.0594	1.6418	0.1270	1256	0.0441	1.4339	0.0893	0.0153	25.73%	0.2079	12.66%	0.0377	29.67%
2014	LDGV	103	0.0954	2.0944	0.2312	103	0.0541	1.6521	0.1235	0.0413	43.27%	0.4424	21.12%	0.1077	46.57%
	LDGT1	62	0.0402	2.0438	0.0728	62	0.0378	1.9126	0.0629	0.0024	6.02%	0.1312	6.42%	0.0099	13.60%
	LDGT2	58	0.0365	0.7612	0.0434	58	0.0380	0.7855	0.0434	-0.0015	-4.16%	-0.0243	-3.19%	0.0000	0.02%
<b>2014</b>	<b>Total</b>	223	0.0647	1.7336	0.1383	223	0.0454	1.4991	0.0858	0.0193	29.89%	0.2345	13.53%	0.0525	37.95%
2015	LDGV	15	0.1662	2.7740	0.3491	15	0.1073	2.3331	0.1869	0.0589	35.43%	0.4409	15.89%	0.1622	46.45%
	LDGT1	14	0.0203	0.9189	0.0450	14	0.0191	0.6432	0.0465	0.0012	5.95%	0.2756	30.00%	-0.0015	-3.38%
	LDGT2	10	0.0857	1.4034	0.0420	10	0.0857	1.4034	0.0420	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
<b>2015</b>	<b>Total</b>	39	0.0932	1.7566	0.1612	39	0.0701	1.4881	0.0994	0.0231	24.77%	0.2685	15.29%	0.0618	38.35%
2016	LDGV	8	0.0167	0.8660	0.0412	8	0.0167	0.8660	0.0412	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT1	9	0.0359	1.2451	0.0841	9	0.0359	1.2451	0.0841	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT2	4	0.0779	1.0733	0.0687	4	0.0779	1.0733	0.0687	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
<b>2016</b>	<b>Total</b>	21	0.0366	1.0679	0.0649	21	0.0366	1.0679	0.0649	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
2017	LDGV	3	0.0131	0.6339	0.0436	3	0.0131	0.6339	0.0436	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT1	4	0.0276	1.7008	0.0511	4	0.0276	1.7008	0.0511	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT2	1	0.0200	0.2547	0.0364	1	0.0200	0.2547	0.0364	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
<b>2017</b>	<b>Total</b>	8	0.0212	1.1200	0.0464	8	0.0212	1.1200	0.0464	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
2018	LDGV	3	0.0644	0.6572	0.0570	3	0.0644	0.6572	0.0570	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT1	1	0.0383	1.2516	0.0317	1	0.0383	1.2516	0.0317	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT2	2	0.0666	1.8192	0.0424	2	0.0666	1.8192	0.0424	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
<b>2018</b>	<b>Total</b>	6	0.0608	1.1436	0.0480	6	0.0608	1.1436	0.0480	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
2019	LDGV	1	0.0199	0.6083	0.0000	1	0.0199	0.6083	0.0000	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
<b>2019</b>	<b>Total</b>	1	0.0199	0.6083	0.0000	1	0.0199	0.6083	0.0000	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
<b>Grand Total</b>		<b>219207</b>	<b>0.3679</b>	<b>4.9040</b>	<b>0.7753</b>	<b>219207</b>	<b>0.3049</b>	<b>3.9407</b>	<b>0.7169</b>	<b>0.0631</b>	<b>17.15%</b>	<b>0.9632</b>	<b>19.64%</b>	<b>0.0583</b>	<b>7.52%</b>

**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	92674	0.2896	3.9219	0.5920	92674	0.2352	3.1711	0.5469	0.0543	18.77%	0.7508	19.14%	0.0451	7.61%	
LDGT1	87055	0.3904	5.4354	0.8606	87055	0.3335	4.3781	0.8022	0.0569	14.57%	1.0572	19.45%	0.0583	6.78%	
LDGT2	39478	0.5025	6.0375	1.0174	39478	0.4052	4.7828	0.9280	0.0973	19.37%	1.2547	20.78%	0.0895	8.79%	
<b>Grand Total</b>	<b>219207</b>	<b>0.3679</b>	<b>4.9040</b>	<b>0.7753</b>	<b>219207</b>	<b>0.3049</b>	<b>3.9407</b>	<b>0.7169</b>	<b>0.0631</b>	<b>17.15%</b>	<b>0.9632</b>	<b>19.64%</b>	<b>0.0583</b>	<b>7.52%</b>	

## **Appendix C1**

### Idle Initial Inspection Report





Date  
Between 1/1/2020 and 12/31/2020

## 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	377	540.47	2.99	533.88	3.31	228	60.48%	270.80	1.29	287.08	1.85	149	39.52%	953.11	5.60	911.52	5.55
	LDGT	179	393.14	2.10	454.32	2.52	132	73.74%	238.28	0.95	287.11	1.44	47	26.26%	828.09	5.31	923.94	5.55
	HDGT	200	417.27	2.37	445.06	2.91	171	85.50%	275.01	1.81	301.31	2.47	29	14.50%	1256.12	5.68	1292.70	5.47
<b>1974 Total</b>		<b>756</b>	<b>472.99</b>	<b>2.62</b>	<b>491.54</b>	<b>3.02</b>	<b>531</b>	<b>70.24%</b>	<b>264.07</b>	<b>1.37</b>	<b>291.67</b>	<b>1.95</b>	<b>225</b>	<b>29.76%</b>	<b>966.05</b>	<b>5.55</b>	<b>963.25</b>	<b>5.54</b>
1975	LDGV	23	336.15	1.82	385.19	2.12	16	69.57%	188.38	0.66	184.39	0.74	7	30.43%	673.91	4.46	844.16	5.28
	LDGT	6	234.97	2.33	245.75	2.49	2	33.33%	138.85	0.43	106.90	0.68	4	66.67%	283.03	3.29	315.18	3.40
	HDGT	34	375.86	1.78	417.91	2.52	30	88.24%	272.69	1.60	312.60	2.43	4	11.76%	1149.65	3.17	1207.70	3.23
<b>1975 Total</b>		<b>63</b>	<b>347.94</b>	<b>1.85</b>	<b>389.57</b>	<b>2.37</b>	<b>48</b>	<b>76.19%</b>	<b>239.01</b>	<b>1.24</b>	<b>261.29</b>	<b>1.79</b>	<b>15</b>	<b>23.81%</b>	<b>696.54</b>	<b>3.80</b>	<b>800.04</b>	<b>4.23</b>
1976	LDGV	150	366.84	1.90	362.03	2.26	98	65.33%	144.84	0.54	146.88	1.07	52	34.67%	785.22	4.47	767.51	4.52
	LDGT	82	330.07	1.87	319.03	2.11	45	54.88%	149.91	0.61	136.44	1.17	37	45.12%	549.18	3.39	541.09	3.26
	HDGT	211	381.50	2.12	416.47	2.37	160	75.83%	262.79	1.57	312.35	1.97	51	24.17%	753.92	3.82	743.10	3.64
<b>1976 Total</b>		<b>443</b>	<b>367.01</b>	<b>2.00</b>	<b>380.00</b>	<b>2.29</b>	<b>303</b>	<b>68.40%</b>	<b>207.87</b>	<b>1.09</b>	<b>232.71</b>	<b>1.56</b>	<b>140</b>	<b>31.60%</b>	<b>711.44</b>	<b>3.95</b>	<b>698.78</b>	<b>3.87</b>
1977	LDGV	144	284.15	1.30	313.61	1.73	88	61.11%	98.31	0.26	121.70	0.84	56	38.89%	576.20	2.93	615.18	3.14
	LDGT	72	281.33	1.55	298.38	1.77	41	56.94%	102.61	0.28	127.75	0.61	31	43.06%	517.69	3.24	524.06	3.31
	HDGT	318	391.69	2.33	418.97	2.53	243	76.42%	275.69	1.64	313.50	1.88	75	23.58%	767.51	4.57	760.69	4.66
<b>1977 Total</b>		<b>534</b>	<b>347.81</b>	<b>1.95</b>	<b>374.30</b>	<b>2.22</b>	<b>372</b>	<b>69.66%</b>	<b>214.65</b>	<b>1.17</b>	<b>247.65</b>	<b>1.49</b>	<b>162</b>	<b>30.34%</b>	<b>653.57</b>	<b>3.75</b>	<b>665.11</b>	<b>3.87</b>
1978	LDGV	206	262.48	1.19	265.27	1.48	130	63.11%	90.16	0.28	106.44	0.66	76	36.89%	557.25	2.76	536.95	2.88
	LDGT	109	273.94	1.67	250.60	1.89	62	56.88%	92.10	0.34	89.95	0.68	47	43.12%	513.82	3.43	462.53	3.48
	HDGT	395	449.89	2.32	451.15	2.51	280	70.89%	276.45	1.63	282.86	1.83	115	29.11%	872.19	4.01	860.91	4.16
<b>1978 Total</b>		<b>710</b>	<b>368.50</b>	<b>1.89</b>	<b>366.43</b>	<b>2.11</b>	<b>472</b>	<b>66.48%</b>	<b>200.93</b>	<b>1.09</b>	<b>208.93</b>	<b>1.36</b>	<b>238</b>	<b>33.52%</b>	<b>700.85</b>	<b>3.50</b>	<b>678.79</b>	<b>3.62</b>
1979	LDGV	281	312.72	1.40	326.58	1.64	149	53.02%	93.48	0.30	103.07	0.69	132	46.98%	560.21	2.65	578.88	2.72
	LDGT	349	301.94	1.59	316.46	1.89	220	63.04%	114.98	0.31	136.36	0.79	129	36.96%	620.80	3.78	623.60	3.78
	HDGT	77	262.68	1.28	283.56	1.47	60	77.92%	165.88	0.96	181.02	1.17	17	22.08%	604.32	2.44	645.44	2.50
<b>1979 Total</b>		<b>707</b>	<b>301.95</b>	<b>1.48</b>	<b>316.90</b>	<b>1.75</b>	<b>429</b>	<b>60.68%</b>	<b>114.63</b>	<b>0.39</b>	<b>131.05</b>	<b>0.81</b>	<b>278</b>	<b>39.32%</b>	<b>591.02</b>	<b>3.16</b>	<b>603.70</b>	<b>3.20</b>
1980	LDGV	178	171.75	0.81	198.02	1.01	127	71.35%	68.27	0.18	96.24	0.34	51	28.65%	429.44	2.36	451.46	2.66
	LDGT	175	265.46	1.18	261.79	1.47	107	61.14%	83.70	0.23	94.54	0.61	68	38.86%	551.46	2.69	524.96	2.82
	HDGT	59	411.00	1.52	415.83	1.58	45	76.27%	172.97	0.97	159.31	1.06	14	23.73%	1176.08	3.32	1240.36	3.27
<b>1980 Total</b>		<b>412</b>	<b>245.81</b>	<b>1.07</b>	<b>256.30</b>	<b>1.29</b>	<b>279</b>	<b>67.72%</b>	<b>91.07</b>	<b>0.33</b>	<b>105.76</b>	<b>0.56</b>	<b>133</b>	<b>32.28%</b>	<b>570.42</b>	<b>2.63</b>	<b>572.08</b>	<b>2.81</b>
1981	LDGV	152	250.93	1.26	258.82	1.57	89	58.55%	64.51	0.14	65.95	0.21	63	41.45%	514.28	2.85	531.29	3.50
	LDGT	193	169.98	0.79	163.95	0.91	124	64.25%	56.53	0.17	62.69	0.22	69	35.75%	373.87	1.92	345.93	2.16
	HDGT	72	253.25	1.31	255.67	1.20	54	75.00%	107.57	0.82	126.23	0.76	18	25.00%	690.29	2.78	643.97	2.52
<b>1981 Total</b>		<b>417</b>	<b>213.87</b>	<b>1.05</b>	<b>214.37</b>	<b>1.20</b>	<b>267</b>	<b>64.03%</b>	<b>69.51</b>	<b>0.29</b>	<b>76.63</b>	<b>0.32</b>	<b>150</b>	<b>35.97%</b>	<b>470.81</b>	<b>2.41</b>	<b>459.55</b>	<b>2.76</b>
1982	LDGV	4	72.18	0.47	88.00	0.73	3	75.00%	82.47	0.41	90.70	0.41	1	25.00%	41.30	0.64	79.90	1.67
	LDGT	3	886.90	2.94	954.57	2.99	0	0.00%	0.00	0.00	0.00	0.00	3	100.00%	886.90	2.94	954.57	2.99
	HDGT	51	242.58	1.63	228.58	1.60	35	68.63%	121.71	0.80	140.18	0.81	16	31.37%	506.96	3.46	421.97	3.33
<b>1982 Total</b>		<b>58</b>	<b>264.15</b>	<b>1.62</b>	<b>256.44</b>	<b>1.61</b>	<b>38</b>	<b>65.52%</b>	<b>118.62</b>	<b>0.77</b>	<b>136.27</b>	<b>0.78</b>	<b>20</b>	<b>34.48%</b>	<b>540.67</b>	<b>3.24</b>	<b>484.76</b>	<b>3.19</b>
1983	LDGV	3	42.10	0.12	42.63	0.05	2	66.67%	31.50	0.08	33.20	0.08	1	33.33%	63.30	0.20	61.50	0.00
	LDGT	4	289.08	0.15	314.40	0.16	2	50.00%	104.65	0.18	108.05	0.20	2	50.00%	473.50	0.12	520.75	0.13
	HDGT	68	330.13	1.35	341.93	1.39	46	67.65%	158.04	1.12	174.81	1.15	22	32.35%	689.94	1.84	691.37	1.91

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
<b>1983 Total</b>		75	316.42	1.24	328.49	1.27	50	66.67%	150.85	1.04	166.47	1.07	25	33.33%	647.56	1.63	652.52	1.69
1984	LDGV	8	320.26	1.69	374.29	1.76	5	62.50%	23.00	0.06	24.44	0.07	3	37.50%	815.70	4.40	957.37	4.58
	LDGT	5	141.66	0.16	148.86	0.16	3	60.00%	125.77	0.13	130.33	0.13	2	40.00%	165.50	0.20	176.65	0.21
	HDGT	142	336.14	1.13	337.85	1.15	106	74.65%	156.51	0.74	162.89	0.78	36	25.35%	865.05	2.27	853.01	2.27
<b>1984 Total</b>		155	329.05	1.12	333.63	1.15	114	73.55%	149.84	0.69	155.96	0.73	41	26.45%	827.31	2.33	827.65	2.34
1985	LDGV	9	195.59	1.94	203.14	2.04	4	44.44%	88.40	0.30	94.98	0.35	5	55.56%	281.34	3.25	289.68	3.40
	LDGT	4	65.85	0.53	66.38	0.54	3	75.00%	63.20	0.23	62.87	0.26	1	25.00%	73.80	1.42	76.90	1.40
	HDGT	153	271.08	1.08	270.92	1.08	118	77.12%	122.24	0.79	130.65	0.80	35	22.88%	772.85	2.05	743.86	2.05
<b>1985 Total</b>		166	262.04	1.11	262.32	1.12	125	75.30%	119.74	0.76	127.88	0.77	41	24.70%	695.86	2.18	672.20	2.20
1986	LDGV	11	97.46	0.51	115.90	0.54	7	63.64%	46.73	0.13	50.04	0.17	4	36.36%	186.25	1.17	231.15	1.19
	LDGT	6	659.73	2.02	680.03	1.64	2	33.33%	100.50	0.35	107.65	0.34	4	66.67%	939.35	2.85	966.23	2.29
	HDGT	127	246.53	1.13	253.01	1.22	88	69.29%	89.48	0.69	92.10	0.78	39	30.71%	600.88	2.12	616.10	2.20
<b>1986 Total</b>		144	252.36	1.12	260.33	1.18	97	67.36%	86.62	0.65	89.38	0.73	47	32.64%	594.40	2.11	613.14	2.12
1987	LDGV	4	254.45	1.32	275.00	1.28	2	50.00%	123.20	0.30	125.05	0.32	2	50.00%	385.70	2.33	424.95	2.25
	LDGT	8	584.96	1.43	608.40	1.63	1	12.50%	117.40	0.15	123.10	0.15	7	87.50%	651.76	1.61	677.73	1.84
	HDGT	120	203.26	1.03	217.07	0.99	79	65.83%	70.53	0.62	83.56	0.65	41	34.17%	459.01	1.80	474.33	1.65
<b>1987 Total</b>		132	227.94	1.06	242.55	1.04	82	62.12%	72.38	0.61	85.05	0.64	50	37.88%	483.06	1.79	500.83	1.70
1988	LDGV	7	80.64	0.67	87.24	0.69	6	85.71%	70.05	0.44	74.30	0.46	1	14.29%	144.20	2.02	164.90	2.04
	LDGT	10	257.76	1.25	272.60	1.34	5	50.00%	47.66	0.11	53.90	0.12	5	50.00%	467.86	2.40	491.30	2.55
	HDGT	252	194.31	0.86	205.19	0.92	198	78.57%	70.61	0.37	77.59	0.45	54	21.43%	647.88	2.65	673.07	2.67
<b>1988 Total</b>		269	193.71	0.87	204.63	0.93	209	77.70%	70.05	0.37	76.93	0.44	60	22.30%	624.48	2.62	649.45	2.65
1989	LDGV	12	43.30	0.18	47.49	0.21	11	91.67%	44.83	0.19	49.52	0.22	1	8.33%	26.50	0.00	25.20	0.00
	LDGT	10	299.62	1.71	304.07	1.75	5	50.00%	75.74	0.13	53.86	0.16	5	50.00%	523.50	3.30	554.28	3.33
	HDGT	342	153.10	0.60	153.91	0.62	284	83.04%	78.02	0.33	84.00	0.39	58	16.96%	520.69	1.93	496.25	1.73
<b>1989 Total</b>		364	153.50	0.61	154.53	0.64	300	82.42%	76.77	0.32	82.24	0.38	64	17.58%	513.19	2.01	493.42	1.82
1990	LDGV	26	161.50	0.62	171.18	0.80	16	61.54%	36.97	0.06	37.84	0.07	10	38.46%	360.74	1.51	384.54	1.97
	LDGT	20	191.84	0.79	152.21	0.80	16	80.00%	103.15	0.35	78.05	0.37	4	20.00%	546.58	2.52	448.83	2.53
	HDGT	350	132.11	0.75	143.93	0.83	294	84.00%	77.06	0.38	80.27	0.43	56	16.00%	421.08	2.70	478.13	2.95
<b>1990 Total</b>		396	137.05	0.74	146.14	0.83	326	82.32%	76.38	0.36	78.08	0.41	70	17.68%	419.63	2.52	463.09	2.79
1991	LDGV	25	78.72	0.34	86.89	0.39	23	92.00%	61.10	0.15	66.93	0.20	2	8.00%	281.25	2.45	316.40	2.58
	LDGT	13	164.46	0.98	172.36	1.02	7	53.85%	53.54	0.11	57.27	0.11	6	46.15%	293.87	1.99	306.63	2.08
	HDGT	304	120.73	0.84	128.43	0.94	242	79.61%	65.31	0.36	63.75	0.45	62	20.39%	337.06	2.71	380.87	2.84
<b>1991 Total</b>		342	119.32	0.81	127.06	0.90	272	79.53%	64.65	0.34	63.85	0.42	70	20.47%	331.76	2.64	372.67	2.77
1992	LDGV	10	93.53	0.38	104.44	0.38	8	80.00%	62.44	0.15	66.84	0.18	2	20.00%	217.90	1.34	254.85	1.17
	LDGT	32	184.85	0.63	169.01	0.66	25	78.13%	72.08	0.22	52.01	0.27	7	21.88%	587.59	2.07	586.89	2.05
	HDGT	442	101.68	0.69	103.50	0.78	379	85.75%	62.94	0.31	66.60	0.42	63	14.25%	334.74	2.95	325.50	2.92
<b>1992 Total</b>		484	107.01	0.68	107.85	0.76	412	85.12%	63.48	0.31	65.72	0.41	72	14.88%	356.07	2.82	348.95	2.79
1993	LDGV	17	151.68	0.69	174.75	0.72	12	70.59%	54.76	0.12	59.99	0.13	5	29.41%	384.28	2.08	450.18	2.14
	LDGT	12	200.52	0.75	221.09	0.76	8	66.67%	50.24	0.15	57.78	0.17	4	33.33%	501.08	1.97	547.73	1.95
	HDGT	473	105.12	0.55	110.82	0.65	408	86.26%	53.19	0.25	54.31	0.33	65	13.74%	431.10	2.43	465.54	2.63
<b>1993 Total</b>		502	108.98	0.56	115.62	0.65	428	85.26%	53.18	0.25	54.53	0.32	74	14.74%	431.72	2.38	468.94	2.56
1994	LDGV	24	72.26	0.30	87.50	0.33	22	91.67%	56.66	0.19	65.80	0.21	2	8.33%	243.80	1.58	326.20	1.63
	LDGT	57	188.68	0.74	172.35	0.81	37	64.91%	83.50	0.27	77.70	0.34	20	35.09%	383.25	1.61	347.46	1.70

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	717	92.79	0.59	101.50	0.68	638	88.98%	51.53	0.29	54.35	0.35	79	11.02%	426.00	2.96	482.27	3.31
<b>1994 Total</b>		798	99.02	0.59	106.14	0.68	697	87.34%	53.39	0.29	55.95	0.35	101	12.66%	413.93	2.66	452.49	2.96
1995	LDGV	40	61.26	0.17	81.75	0.20	35	87.50%	36.83	0.10	42.49	0.15	5	12.50%	232.28	0.67	356.62	0.56
	LDGT	58	150.47	0.53	169.07	0.56	45	77.59%	72.99	0.27	76.06	0.31	13	22.41%	418.66	1.43	491.03	1.45
	HDGT	844	80.36	0.50	81.44	0.61	758	89.81%	49.39	0.26	52.89	0.36	86	10.19%	353.27	2.58	333.08	2.79
<b>1995 Total</b>		942	83.86	0.49	86.85	0.59	838	88.96%	50.14	0.26	53.70	0.35	104	11.04%	355.63	2.34	353.95	2.52
1996	LDGV	24	116.45	0.55	124.65	0.55	18	75.00%	32.73	0.05	36.68	0.08	6	25.00%	367.62	2.05	388.55	1.96
	LDGT	37	113.39	0.34	120.11	0.35	32	86.49%	57.60	0.19	62.03	0.20	5	13.51%	470.46	1.29	491.82	1.31
	HDGT	983	83.70	0.40	86.43	0.46	896	91.15%	43.65	0.19	45.37	0.27	87	8.85%	496.21	2.52	509.23	2.47
<b>1996 Total</b>		1,044	85.51	0.40	88.50	0.46	946	90.61%	43.91	0.19	45.77	0.26	98	9.39%	487.02	2.43	500.95	2.38
1997	LDGV	23	108.51	0.23	123.62	0.24	16	69.57%	38.23	0.07	43.49	0.09	7	30.43%	269.17	0.58	306.76	0.59
	LDGT	40	56.54	0.20	60.03	0.22	32	80.00%	50.31	0.22	52.93	0.23	8	20.00%	81.46	0.14	88.43	0.17
	HDGT	1,087	75.36	0.32	79.14	0.39	1018	93.65%	48.51	0.21	49.90	0.29	69	6.35%	471.50	1.96	510.62	1.86
<b>1997 Total</b>		1,150	75.37	0.31	79.37	0.38	1066	92.70%	48.41	0.21	49.89	0.28	84	7.30%	417.49	1.67	453.42	1.59
1998	LDGV	34	94.01	0.39	101.59	0.42	27	79.41%	54.56	0.11	60.14	0.12	7	20.59%	246.17	1.46	261.44	1.57
	LDGT	52	100.07	0.31	104.46	0.33	44	84.62%	45.14	0.15	48.88	0.16	8	15.38%	402.20	1.22	410.15	1.23
	HDGT	944	102.96	0.24	102.19	0.29	889	94.17%	60.97	0.17	62.62	0.22	55	5.83%	781.71	1.37	741.77	1.41
<b>1998 Total</b>		1,030	102.52	0.25	102.29	0.29	960	93.20%	60.06	0.17	61.92	0.21	70	6.80%	684.78	1.36	655.83	1.40
1999	LDGV	28	48.11	0.08	55.16	0.09	25	89.29%	28.62	0.06	34.12	0.07	3	10.71%	210.47	0.27	230.53	0.26
	LDGT	35	109.95	0.26	119.53	0.26	30	85.71%	43.23	0.13	47.02	0.15	5	14.29%	510.24	1.06	554.60	0.93
	HDGT	1,653	66.84	0.19	70.75	0.23	1591	96.25%	43.32	0.12	46.60	0.17	62	3.75%	670.47	1.81	690.49	1.90
<b>1999 Total</b>		1,716	67.41	0.19	71.49	0.23	1646	95.92%	43.09	0.12	46.41	0.17	70	4.08%	639.31	1.69	661.07	1.76
2000	LDGV	24	54.18	0.11	57.65	0.11	21	87.50%	29.14	0.08	32.48	0.08	3	12.50%	229.43	0.28	233.90	0.30
	LDGT	45	67.16	0.18	70.52	0.18	37	82.22%	44.67	0.14	48.79	0.14	8	17.78%	171.20	0.35	171.04	0.35
	HDGT	1,925	62.95	0.15	65.02	0.18	1852	96.21%	40.87	0.11	42.24	0.13	73	3.79%	623.22	1.35	643.04	1.53
<b>2000 Total</b>		1,994	62.94	0.15	65.05	0.18	1910	95.79%	40.81	0.11	42.25	0.13	84	4.21%	566.11	1.22	583.47	1.38
2001	LDGV	16	47.06	0.20	59.40	0.21	14	87.50%	11.15	0.01	14.52	0.01	2	12.50%	298.45	1.53	373.55	1.57
	LDGT	23	21.07	0.03	23.29	0.04	22	95.65%	20.34	0.03	22.53	0.03	1	4.35%	37.10	0.04	40.00	0.05
	HDGT	1,733	50.36	0.12	50.70	0.15	1696	97.86%	38.51	0.09	39.53	0.11	37	2.14%	593.50	1.50	562.71	1.67
<b>2001 Total</b>		1,772	49.95	0.12	50.42	0.15	1732	97.74%	38.06	0.09	39.11	0.11	40	2.26%	564.84	1.46	540.18	1.63
2002	LDGV	22	12.24	0.01	14.35	0.01	21	95.45%	12.67	0.01	14.89	0.01	1	4.55%	3.20	0.00	3.00	0.00
	LDGT	37	21.89	0.04	23.60	0.04	31	83.78%	24.41	0.04	26.35	0.05	6	16.22%	8.87	0.01	9.38	0.01
	HDGT	1,839	43.51	0.12	45.04	0.15	1807	98.26%	36.53	0.09	38.06	0.12	32	1.74%	437.27	1.68	439.10	1.55
<b>2002 Total</b>		1,898	42.72	0.11	44.27	0.14	1859	97.95%	36.06	0.09	37.61	0.12	39	2.05%	360.23	1.38	361.81	1.27
2003	LDGV	19	30.08	0.07	35.21	0.07	15	78.95%	14.40	0.01	18.55	0.01	4	21.05%	88.88	0.31	97.68	0.32
	LDGT	37	38.87	0.09	45.62	0.11	32	86.49%	24.69	0.06	28.66	0.08	5	13.51%	129.64	0.26	154.18	0.29
	HDGT	1,720	38.58	0.11	41.03	0.14	1695	98.55%	30.27	0.08	32.29	0.11	25	1.45%	601.42	2.24	633.74	2.18
<b>2003 Total</b>		1,776	38.49	0.11	41.06	0.14	1742	98.09%	30.03	0.08	32.10	0.11	34	1.91%	471.74	1.72	500.15	1.69
2004	LDGV	25	38.65	0.10	38.68	0.11	25	100.00%	38.65	0.10	38.68	0.11	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	32	23.26	0.02	26.23	0.03	28	87.50%	13.79	0.01	15.33	0.01	4	12.50%	89.60	0.13	102.58	0.18
	HDGT	1,984	32.62	0.08	35.82	0.11	1964	98.99%	25.47	0.06	27.77	0.09	20	1.01%	734.69	1.79	826.62	1.78
<b>2004 Total</b>		2,041	32.55	0.08	35.71	0.11	2017	98.82%	25.47	0.06	27.73	0.09	24	1.18%	627.18	1.52	705.94	1.52
2005	LDGV	18	55.79	0.13	63.44	0.14	16	88.89%	9.11	0.02	10.35	0.02	2	11.11%	429.25	1.00	488.20	1.09

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	33	20.60	0.03	21.24	0.03	32	96.97%	20.78	0.03	21.42	0.03	1	3.03%	15.00	0.00	15.50	0.00
	HDGT	1,488	35.54	0.08	38.01	0.11	1473	98.99%	27.67	0.07	29.31	0.09	15	1.01%	808.76	1.53	891.99	1.83
<b>2005 Total</b>		1,539	35.46	0.08	37.94	0.10	1521	98.83%	27.33	0.07	28.94	0.09	18	1.17%	722.49	1.39	798.43	1.65
2006	LDGV	35	13.65	0.01	16.53	0.02	34	97.14%	14.01	0.01	16.99	0.02	1	2.86%	1.50	0.00	1.10	0.00
	LDGT	28	36.11	0.19	39.60	0.19	25	89.29%	22.11	0.02	24.02	0.03	3	10.71%	152.77	1.56	169.43	1.58
	HDGT	1,913	29.58	0.07	31.10	0.09	1898	99.22%	26.45	0.06	27.93	0.08	15	0.78%	425.13	0.68	432.08	0.66
<b>2006 Total</b>		1,976	29.39	0.07	30.96	0.09	1957	99.04%	26.18	0.06	27.69	0.08	19	0.96%	359.83	0.79	367.93	0.77
2007	LDGV	22	15.76	0.03	16.54	0.04	21	95.45%	16.23	0.03	16.91	0.03	1	4.55%	5.80	0.07	8.60	0.23
	LDGT	40	9.78	0.02	11.10	0.02	40	100.00%	9.78	0.02	11.10	0.02	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1,401	23.88	0.05	22.51	0.07	1391	99.29%	19.31	0.04	19.14	0.07	10	0.71%	658.40	1.40	492.05	1.39
<b>2007 Total</b>		1,463	23.37	0.05	22.11	0.07	1452	99.25%	19.01	0.04	18.88	0.06	11	0.75%	599.07	1.28	448.10	1.28
2008	LDGV	21	7.40	0.01	7.59	0.01	21	100.00%	7.40	0.01	7.59	0.01	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	27	13.08	0.09	21.40	0.17	24	88.89%	8.47	0.01	9.07	0.01	3	11.11%	50.00	0.75	120.03	1.42
	HDGT	1,923	21.01	0.04	21.55	0.06	1917	99.69%	19.19	0.04	20.48	0.06	6	0.31%	600.40	0.65	365.45	0.56
<b>2008 Total</b>		1,971	20.75	0.04	21.40	0.06	1962	99.54%	18.93	0.04	20.20	0.06	9	0.46%	416.93	0.68	283.64	0.85
2009	LDGV	7	13.46	0.01	14.56	0.01	7	100.00%	13.46	0.01	14.56	0.01	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	24	7.85	0.02	9.12	0.03	24	100.00%	7.85	0.02	9.12	0.03	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1,060	19.60	0.03	20.11	0.06	1054	99.43%	17.70	0.03	18.53	0.06	6	0.57%	353.65	1.07	298.95	0.74
<b>2009 Total</b>		1,091	19.30	0.03	19.84	0.06	1085	99.45%	17.45	0.03	18.29	0.06	6	0.55%	353.65	1.07	298.95	0.74
2010	LDGV	7	3.04	0.02	3.63	0.03	6	85.71%	2.83	0.03	3.50	0.03	1	14.29%	4.30	0.00	4.40	0.00
	LDGT	9	5.01	0.03	6.44	0.04	9	100.00%	5.01	0.03	6.44	0.04	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	602	15.23	0.03	17.58	0.06	600	99.67%	14.74	0.02	17.07	0.05	2	0.33%	162.75	2.30	168.20	2.14
<b>2010 Total</b>		618	14.94	0.03	17.26	0.06	615	99.51%	14.48	0.02	16.79	0.05	3	0.49%	109.93	1.53	113.60	1.42
2011	LDGV	26	9.15	0.01	10.95	0.02	26	100.00%	9.15	0.01	10.95	0.02	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	25	8.16	0.01	7.64	0.01	25	100.00%	8.16	0.01	7.64	0.01	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1,935	23.60	0.06	26.17	0.08	1925	99.48%	21.97	0.04	24.75	0.07	10	0.52%	337.32	2.65	298.50	2.56
<b>2011 Total</b>		1,986	23.21	0.06	25.74	0.08	1976	99.50%	21.63	0.04	24.36	0.06	10	0.50%	337.32	2.65	298.50	2.56
2012	LDGV	13	5.40	0.01	5.94	0.01	12	92.31%	5.18	0.00	5.61	0.00	1	7.69%	8.00	0.14	9.90	0.14
	LDGT	21	10.38	0.01	11.88	0.01	21	100.00%	10.38	0.01	11.88	0.01	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1,330	19.89	0.03	20.15	0.06	1324	99.55%	18.28	0.03	18.97	0.05	6	0.45%	375.03	0.64	279.43	0.78
<b>2012 Total</b>		1,364	19.61	0.03	19.88	0.05	1357	99.49%	18.04	0.03	18.74	0.05	7	0.51%	322.60	0.57	240.93	0.69
2013	LDGV	26	80.83	0.24	81.34	0.24	24	92.31%	10.88	0.03	12.24	0.03	2	7.69%	920.15	2.86	910.55	2.73
	LDGT	26	9.30	0.02	10.25	0.03	25	96.15%	7.76	0.02	8.70	0.02	1	3.85%	47.80	0.09	48.90	0.08
	HDGT	2,142	13.58	0.02	15.19	0.04	2138	99.81%	13.46	0.02	15.06	0.03	4	0.19%	80.63	2.42	80.65	2.42
<b>2013 Total</b>		2,194	14.33	0.03	15.91	0.04	2187	99.68%	13.36	0.02	14.96	0.03	7	0.32%	315.80	2.21	313.23	2.17
2014	LDGV	2	7.60	0.03	8.95	0.03	2	100.00%	7.60	0.03	8.95	0.03	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	4	78.68	0.16	84.70	0.17	3	75.00%	21.43	0.03	21.27	0.04	1	25.00%	250.40	0.53	275.00	0.56
	HDGT	397	25.16	0.05	26.50	0.07	393	98.99%	18.83	0.04	20.10	0.06	4	1.01%	646.85	1.14	655.28	1.51
<b>2014 Total</b>		403	25.60	0.05	26.99	0.07	398	98.76%	18.80	0.04	20.05	0.05	5	1.24%	567.56	1.02	579.22	1.32
2015	HDGT	240	19.87	0.06	21.20	0.06	238	99.17%	19.54	0.05	20.66	0.06	2	0.83%	59.10	0.30	85.70	0.55
<b>2015 Total</b>		240	19.87	0.06	21.20	0.06	238	99.17%	19.54	0.05	20.66	0.06	2	0.83%	59.10	0.30	85.70	0.55
2016	LDGV	1	762.60	0.14	1078.20	0.11	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	762.60	0.14	1078.20	0.11
	HDGT	122	23.16	0.06	24.21	0.07	120	98.36%	20.65	0.04	21.64	0.04	2	1.64%	173.65	1.81	178.00	1.78

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
<b>2016 Total</b>		123	29.17	0.07	32.78	0.07	120	97.56%	20.65	0.04	21.64	0.04	3	2.44%	369.97	1.25	478.07	1.22
2017	LDGT	2	2.35	0.00	2.80	0.00	2	100.00%	2.35	0.00	2.80	0.00	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	93	25.42	0.04	28.71	0.05	93	100.00%	25.42	0.04	28.71	0.05	0	0.00%	0.00	0.00	0.00	0.00
<b>2017 Total</b>		95	24.94	0.04	28.16	0.05	95	100.00%	24.94	0.04	28.16	0.05	0	0.00%	0.00	0.00	0.00	0.00
2018	HDGT	50	16.38	0.03	17.74	0.03	50	100.00%	16.38	0.03	17.74	0.03	0	0.00%	0.00	0.00	0.00	0.00
<b>2018 Total</b>		50	16.38	0.03	17.74	0.03	50	100.00%	16.38	0.03	17.74	0.03	0	0.00%	0.00	0.00	0.00	0.00
2019	HDGT	44	26.16	0.05	27.74	0.06	44	100.00%	26.16	0.05	27.74	0.06	0	0.00%	0.00	0.00	0.00	0.00
<b>2019 Total</b>		44	26.16	0.05	27.74	0.06	44	100.00%	26.16	0.05	27.74	0.06	0	0.00%	0.00	0.00	0.00	0.00
2020	HDGT	2	47.15	0.01	52.40	0.03	2	100.00%	47.15	0.01	52.40	0.03	0	0.00%	0.00	0.00	0.00	0.00
<b>2020 Total</b>		2	47.15	0.01	52.40	0.03	2	100.00%	47.15	0.01	52.40	0.03	0	0.00%	0.00	0.00	0.00	0.00
2021	HDGT	2	12.80	0.01	37.95	0.01	2	100.00%	12.80	0.01	37.95	0.01	0	0.00%	0.00	0.00	0.00	0.00
<b>2021 Total</b>		2	12.80	0.01	37.95	0.01	2	100.00%	12.80	0.01	37.95	0.01	0	0.00%	0.00	0.00	0.00	0.00
<b>Grand Total</b>		<b>38,451</b>	<b>84.09</b>	<b>0.36</b>	<b>87.44</b>	<b>0.42</b>	<b>35628</b>	<b>92.66%</b>	<b>44.53</b>	<b>0.17</b>	<b>47.73</b>	<b>0.23</b>	<b>2,823</b>	<b>7.34%</b>	<b>583.43</b>	<b>2.81</b>	<b>588.68</b>	<b>2.89</b>

**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	2,104	265.61	1.32	274.01	1.54	1432	68.06%	99.88	0.37	110.25	0.63	672	31.94%	618.78	3.34	622.99	3.48
LDGT	1,984	207.68	1.02	214.82	1.18	1410	71.07%	81.89	0.27	91.48	0.47	574	28.93%	516.68	2.86	517.80	2.94
HDGT	34,363	65.84	0.26	68.67	0.31	32786	95.41%	40.50	0.15	43.12	0.20	1577	4.59%	592.66	2.57	599.86	2.62
<b>Overall Total</b>	<b>38,451</b>	<b>84.09</b>	<b>0.36</b>	<b>87.44</b>	<b>0.42</b>	<b>35628</b>	<b>92.66%</b>	<b>44.53</b>	<b>0.17</b>	<b>47.73</b>	<b>0.23</b>	<b>2823</b>	<b>7.34%</b>	<b>583.43</b>	<b>2.81</b>	<b>588.68</b>	<b>2.89</b>



## **Appendix C2**

### **Idle Initial Failure Report**





Date  
Between 1/1/2020 and 12/31/2020

## 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	13	19.12%	1245.12	5.82	1459.02	6.27	0	0.00%	0.00	0.00	0.00	0.00
	LDGT1	1	0.56%	2000.00	10.90	2000.00	11.21	45	25.14%	818.68	5.29	917.76	5.52	1	0.56%	79.60	0.68	126.00	1.48
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	16	12.12%	1265.05	5.56	1157.56	4.83	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	2	0.53%	1786.35	2.34	1785.50	2.45	146	38.73%	947.16	5.68	903.13	5.63	1	0.27%	156.60	0.14	389.30	0.95
<b>1974 Total</b>		<b>3</b>	<b>0.40%</b>	<b>1857.57</b>	<b>5.19</b>	<b>1857.00</b>	<b>5.37</b>	<b>220</b>	<b>29.10%</b>	<b>961.60</b>	<b>5.60</b>	<b>957.47</b>	<b>5.58</b>	<b>2</b>	<b>0.26%</b>	<b>118.10</b>	<b>0.41</b>	<b>257.65</b>	<b>1.22</b>
1975	HDGV	0	0.00%	0.00	0.00	0.00	0.00	1	8.33%	1390.90	6.94	1596.40	6.98	0	0.00%	0.00	0.00	0.00	0.00
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	3	50.00%	265.10	4.11	316.77	4.18	1	16.67%	336.80	0.81	310.40	1.05
	LDGT2	1	4.55%	2000.00	0.30	2000.00	0.31	1	4.55%	1048.10	2.59	1060.80	2.67	1	4.55%	159.60	2.83	173.60	2.94
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	7	30.43%	673.91	4.46	844.16	5.28	0	0.00%	0.00	0.00	0.00	0.00
<b>1975 Total</b>		<b>1</b>	<b>1.59%</b>	<b>2000.00</b>	<b>0.30</b>	<b>2000.00</b>	<b>0.31</b>	<b>12</b>	<b>19.05%</b>	<b>662.64</b>	<b>4.43</b>	<b>793.05</b>	<b>4.93</b>	<b>2</b>	<b>3.17%</b>	<b>248.20</b>	<b>1.82</b>	<b>242.00</b>	<b>2.00</b>
1976	HDGV	0	0.00%	0.00	0.00	0.00	0.00	12	19.67%	1180.19	4.21	1259.96	3.95	1	1.64%	85.50	1.55	88.90	1.55
	LDGT1	4	4.88%	1139.65	7.14	1152.90	7.15	25	30.49%	555.98	3.72	520.57	3.48	8	9.76%	232.71	0.50	299.33	0.63
	LDGT2	1	0.67%	714.50	6.94	821.50	7.33	23	15.33%	901.89	4.99	832.12	4.72	14	9.33%	196.03	1.50	194.96	1.49
	LDGV	3	2.00%	1834.40	6.44	1813.17	6.37	46	30.67%	764.00	4.62	744.58	4.68	3	2.00%	61.50	0.10	73.37	0.10
<b>1976 Total</b>		<b>8</b>	<b>1.81%</b>	<b>1347.04</b>	<b>6.85</b>	<b>1359.08</b>	<b>6.88</b>	<b>106</b>	<b>23.93%</b>	<b>791.97</b>	<b>4.44</b>	<b>769.09</b>	<b>4.32</b>	<b>26</b>	<b>5.87%</b>	<b>187.54</b>	<b>1.03</b>	<b>208.97</b>	<b>1.07</b>
1977	HDGV	0	0.00%	0.00	0.00	0.00	0.00	13	16.46%	839.08	5.44	1132.38	5.98	1	1.27%	522.10	0.79	563.50	0.63
	LDGT1	10	13.89%	607.01	3.22	635.02	2.99	18	25.00%	528.58	3.71	477.88	3.80	3	4.17%	154.63	0.48	431.27	1.40
	LDGT2	3	1.26%	1411.10	6.40	1402.60	6.82	38	15.90%	991.71	5.57	878.53	5.50	20	8.37%	210.73	2.02	208.79	2.07
	LDGV	8	5.56%	599.60	3.55	655.08	3.59	42	29.17%	639.88	3.16	685.17	3.44	6	4.17%	99.18	0.52	72.05	0.40
<b>1977 Total</b>		<b>21</b>	<b>3.93%</b>	<b>719.06</b>	<b>3.80</b>	<b>752.31</b>	<b>3.77</b>	<b>111</b>	<b>20.79%</b>	<b>765.61</b>	<b>4.34</b>	<b>770.13</b>	<b>4.50</b>	<b>30</b>	<b>5.62%</b>	<b>193.19</b>	<b>1.52</b>	<b>215.51</b>	<b>1.62</b>
1978	HDGV	1	1.10%	2000.00	9.36	2000.00	9.71	17	18.68%	1247.38	5.87	1265.97	5.62	5	5.49%	293.36	2.90	269.26	2.92
	LDGT1	6	5.50%	947.58	4.44	988.38	4.92	33	30.28%	531.55	4.03	450.13	3.98	8	7.34%	115.36	0.16	119.28	0.35
	LDGT2	2	0.66%	864.85	4.13	981.75	4.85	56	18.42%	1165.06	4.81	1137.60	4.87	34	11.18%	254.60	1.78	249.04	2.24
	LDGV	10	4.85%	796.48	3.43	863.59	3.51	59	28.64%	569.95	2.93	532.63	3.05	7	3.40%	108.41	0.38	106.69	0.54
<b>1978 Total</b>		<b>19</b>	<b>2.68%</b>	<b>914.74</b>	<b>4.13</b>	<b>975.25</b>	<b>4.42</b>	<b>165</b>	<b>23.24%</b>	<b>834.04</b>	<b>4.09</b>	<b>797.01</b>	<b>4.12</b>	<b>54</b>	<b>7.61%</b>	<b>218.61</b>	<b>1.46</b>	<b>213.24</b>	<b>1.80</b>
1979	HDGV	1	1.30%	2000.00	7.24	2000.00	7.33	9	11.69%	792.51	2.74	859.92	2.82	7	9.09%	162.97	1.36	176.17	1.40
	LDGT1	10	6.10%	644.50	4.74	724.94	5.34	36	21.95%	612.20	3.99	584.00	3.70	7	4.27%	178.89	0.55	195.89	0.67
	LDGT2	8	4.32%	523.43	3.96	448.51	4.13	63	34.05%	722.55	4.11	733.24	4.14	5	2.70%	127.74	0.34	203.52	0.43
	LDGV	11	3.91%	848.49	3.24	779.96	3.72	107	38.08%	582.10	2.87	608.59	2.88	14	4.98%	166.39	0.53	193.80	0.69
<b>1979 Total</b>		<b>30</b>	<b>4.24%</b>	<b>732.19</b>	<b>4.06</b>	<b>713.90</b>	<b>4.49</b>	<b>215</b>	<b>30.41%</b>	<b>637.10</b>	<b>3.41</b>	<b>651.52</b>	<b>3.39</b>	<b>33</b>	<b>4.67%</b>	<b>162.46</b>	<b>0.68</b>	<b>191.98</b>	<b>0.80</b>
1980	HDGV	2	3.39%	1220.85	0.46	1227.55	0.40	11	18.64%	1269.78	4.10	1349.60	4.07	1	1.69%	55.80	0.36	64.30	0.21
	LDGT1	8	6.84%	928.15	4.38	873.80	4.60	30	25.64%	528.00	3.35	579.25	3.26	8	6.84%	107.89	0.35	117.04	0.37
	LDGT2	3	5.17%	679.63	0.84	278.93	1.68	15	25.86%	731.75	2.76	611.27	3.24	4	6.90%	89.00	0.10	96.80	0.16
	LDGV	3	1.69%	867.90	6.13	611.73	4.34	38	21.35%	473.69	2.58	518.10	3.07	10	5.62%	129.71	0.42	150.13	0.63
<b>1980 Total</b>		<b>16</b>	<b>3.88%</b>	<b>906.84</b>	<b>3.55</b>	<b>757.34</b>	<b>3.48</b>	<b>94</b>	<b>22.82%</b>	<b>625.36</b>	<b>3.03</b>	<b>649.79</b>	<b>3.27</b>	<b>23</b>	<b>5.58%</b>	<b>111.83</b>	<b>0.34</b>	<b>125.61</b>	<b>0.44</b>
1981	HDGV	2	2.78%	368.60	5.10	332.65	4.26	15	20.83%	776.42	2.61	725.82	2.42	1	1.39%	41.80	0.66	38.80	0.67
	LDGT1	9	6.92%	409.11	2.02	436.19	2.21	31	23.85%	432.13	2.73	449.82	2.79	12	9.23%	79.93	0.12	88.98	0.12
	LDGT2	4	6.35%	238.75	3.48	163.13	1.95	11	17.46%	612.13	1.29	381.95	2.95	2	3.17%	35.75	0.08	38.75	0.37
	LDGV	9	5.92%	1109.68	4.46	930.19	5.60	46	30.26%	473.49	2.99	530.93	3.65	8	5.26%	79.01	0.24	84.60	0.28
<b>1981 Total</b>		<b>24</b>	<b>5.76%</b>	<b>640.05</b>	<b>3.43</b>	<b>567.30</b>	<b>3.61</b>	<b>103</b>	<b>24.70%</b>	<b>519.96</b>	<b>2.67</b>	<b>518.99</b>	<b>3.13</b>	<b>23</b>	<b>5.52%</b>	<b>74.11</b>	<b>0.18</b>	<b>80.90</b>	<b>0.22</b>
1982	HDGV	1	1.96%	74.50	3.13	79.20	3.11	12	23.53%	597.76	4.09	509.18	3.63	3	5.88%	287.93	1.08	187.40	2.18

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
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	2	66.67%	1322.70	4.40	1424.15	4.44	1	33.33%	15.30	0.02	15.40	0.10
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	25.00%	41.30	0.64	79.90	1.67	0	0.00%	0.00	0.00	0.00	0.00
<b>1982 Total</b>		<b>1</b>	<b>1.72%</b>	<b>74.50</b>	<b>3.13</b>	<b>79.20</b>	<b>3.11</b>	<b>15</b>	<b>25.86%</b>	<b>657.32</b>	<b>3.90</b>	<b>602.55</b>	<b>3.61</b>	<b>4</b>	<b>6.90%</b>	<b>219.78</b>	<b>0.81</b>	<b>144.40</b>	<b>1.66</b>
1983	HDGV	2	2.94%	158.25	4.19	180.00	4.52	17	25.00%	833.02	1.85	823.78	1.91	3	4.41%	233.60	0.19	281.97	0.19
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	2	50.00%	473.50	0.12	520.75	0.13	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	1	33.33%	63.30	0.20	61.50	0.00
<b>1983 Total</b>		<b>2</b>	<b>2.67%</b>	<b>158.25</b>	<b>4.19</b>	<b>180.00</b>	<b>4.52</b>	<b>19</b>	<b>25.33%</b>	<b>795.18</b>	<b>1.67</b>	<b>791.88</b>	<b>1.72</b>	<b>4</b>	<b>5.33%</b>	<b>191.03</b>	<b>0.19</b>	<b>226.85</b>	<b>0.14</b>
1984	HDGV	5	3.52%	690.26	3.20	586.04	2.85	29	20.42%	929.77	2.23	940.91	2.23	2	1.41%	363.55	0.55	245.80	1.33
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	1	33.33%	208.10	0.29	225.80	0.31	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%	122.90	0.11	127.50	0.11
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	3	37.50%	815.70	4.40	957.37	4.58	0	0.00%	0.00	0.00	0.00	0.00
<b>1984 Total</b>		<b>5</b>	<b>3.23%</b>	<b>690.26</b>	<b>3.20</b>	<b>586.04</b>	<b>2.85</b>	<b>33</b>	<b>21.29%</b>	<b>897.53</b>	<b>2.37</b>	<b>920.74</b>	<b>2.39</b>	<b>3</b>	<b>1.94%</b>	<b>283.33</b>	<b>0.40</b>	<b>206.37</b>	<b>0.92</b>
1985	HDGV	4	2.61%	1535.10	3.82	1605.23	3.88	24	15.69%	832.51	2.16	772.92	2.06	7	4.58%	132.70	0.66	152.01	0.99
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	1	33.33%	73.80	1.42	76.90	1.40	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	3	33.33%	460.10	5.41	468.57	5.48	2	22.22%	13.20	0.01	21.35	0.28
<b>1985 Total</b>		<b>4</b>	<b>2.41%</b>	<b>1535.10</b>	<b>3.82</b>	<b>1605.23</b>	<b>3.88</b>	<b>28</b>	<b>16.87%</b>	<b>765.51</b>	<b>2.48</b>	<b>715.45</b>	<b>2.40</b>	<b>9</b>	<b>5.42%</b>	<b>106.14</b>	<b>0.52</b>	<b>122.98</b>	<b>0.83</b>
1986	HDGV	4	3.15%	670.15	4.53	629.20	4.42	32	25.20%	635.97	1.98	660.33	2.07	3	2.36%	134.27	0.44	126.93	0.64
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	4	66.67%	939.35	2.85	966.23	2.29	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	3	27.27%	198.77	1.46	257.60	1.49	1	9.09%	148.70	0.29	151.80	0.29
<b>1986 Total</b>		<b>4</b>	<b>2.78%</b>	<b>670.15</b>	<b>4.53</b>	<b>629.20</b>	<b>4.42</b>	<b>39</b>	<b>27.08%</b>	<b>633.46</b>	<b>2.03</b>	<b>660.72</b>	<b>2.05</b>	<b>4</b>	<b>2.78%</b>	<b>137.88</b>	<b>0.40</b>	<b>133.15</b>	<b>0.55</b>
1987	HDGV	4	3.33%	814.80	4.73	701.38	3.47	33	27.50%	462.88	1.58	494.10	1.48	4	3.33%	71.25	0.64	84.25	1.25
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	5	100.00%	615.66	1.74	638.98	2.02	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	1	33.33%	1263.60	0.89	1300.40	0.81	1	33.33%	220.40	1.68	248.80	1.95	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	2	50.00%	385.70	2.33	424.95	2.25	0	0.00%	0.00	0.00	0.00	0.00
<b>1987 Total</b>		<b>5</b>	<b>3.79%</b>	<b>904.56</b>	<b>3.96</b>	<b>821.18</b>	<b>2.93</b>	<b>41</b>	<b>31.06%</b>	<b>471.83</b>	<b>1.64</b>	<b>502.41</b>	<b>1.60</b>	<b>4</b>	<b>3.03%</b>	<b>71.25</b>	<b>0.64</b>	<b>84.25</b>	<b>1.25</b>
1988	HDGV	4	1.59%	646.65	1.59	641.43	2.18	47	18.65%	679.57	2.88	711.30	2.85	3	1.19%	152.90	0.58	116.33	0.50
	LDGT1	1	16.67%	144.90	2.35	150.50	2.35	3	50.00%	639.63	3.21	668.07	3.46	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	1	25.00%	275.50	0.03	301.80	0.03	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%	144.20	2.02	164.90	2.04	0	0.00%	0.00	0.00	0.00	0.00
<b>1988 Total</b>		<b>5</b>	<b>1.86%</b>	<b>546.30</b>	<b>1.74</b>	<b>543.24</b>	<b>2.21</b>	<b>52</b>	<b>19.33%</b>	<b>659.20</b>	<b>2.83</b>	<b>690.42</b>	<b>2.82</b>	<b>3</b>	<b>1.12%</b>	<b>152.90</b>	<b>0.58</b>	<b>116.33</b>	<b>0.50</b>
1989	HDGV	1	0.29%	524.70	0.65	598.00	0.64	54	15.79%	541.53	2.02	513.15	1.69	3	0.88%	144.33	0.69	158.03	2.70
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	3	50.00%	509.20	5.14	504.53	5.18	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	1	25.00%	875.10	0.97	944.50	0.99	1	25.00%	214.80	0.11	313.30	0.14	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	1	8.33%	26.50	0.00	25.20	0.00
<b>1989 Total</b>		<b>2</b>	<b>0.55%</b>	<b>699.90</b>	<b>0.81</b>	<b>771.25</b>	<b>0.82</b>	<b>58</b>	<b>15.93%</b>	<b>534.22</b>	<b>2.15</b>	<b>509.26</b>	<b>1.85</b>	<b>4</b>	<b>1.10%</b>	<b>114.88</b>	<b>0.52</b>	<b>124.83</b>	<b>2.03</b>
1990	HDGV	2	0.57%	551.95	1.57	621.25	1.91	49	14.00%	449.12	2.97	513.14	3.23	5	1.43%	93.96	0.52	77.76	0.68
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	3	23.08%	599.00	2.17	463.23	2.21	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	1	14.29%	389.30	3.57	405.60	3.48	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	1	3.85%	1019.20	2.20	1028.50	2.16	7	26.92%	323.60	1.71	354.29	2.36	2	7.69%	161.50	0.47	168.45	0.50
<b>1990 Total</b>		<b>4</b>	<b>1.01%</b>	<b>628.10</b>	<b>2.23</b>	<b>669.15</b>	<b>2.37</b>	<b>59</b>	<b>14.90%</b>	<b>441.85</b>	<b>2.78</b>	<b>491.76</b>	<b>3.07</b>	<b>7</b>	<b>1.77%</b>	<b>113.26</b>	<b>0.50</b>	<b>103.67</b>	<b>0.63</b>
1991	HDGV	2	0.66%	742.40	1.89	779.30	2.04	57	18.75%	335.71	2.86	382.52	3.00	3	0.99%	92.53	0.44	83.90	0.41
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	2	22.22%	321.10	1.13	319.15	0.95	1	11.11%	107.80	0.52	108.20	0.52
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	3	75.00%	337.73	3.06	364.43	3.35	0	0.00%	0.00	0.00	0.00	0.00

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
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	4.00%	553.80	4.88	624.90	5.14	1	4.00%	8.70	0.01	7.90	0.01
<b>1991 Total</b>		2	0.58%	742.40	1.89	779.30	2.04	63	18.42%	338.80	2.84	383.50	2.98	5	1.46%	78.82	0.37	73.56	0.35
1992	HDGV	0	0.00%	0.00	0.00	0.00	0.00	57	12.90%	360.84	3.24	350.62	3.20	6	1.36%	86.73	0.21	86.85	0.27
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	4	16.00%	840.18	2.06	832.73	2.01	1	4.00%	81.00	0.03	20.00	0.01
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	2	28.57%	335.70	3.12	378.65	3.16	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	2	20.00%	217.90	1.34	254.85	1.17	0	0.00%	0.00	0.00	0.00	0.00
<b>1992 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	65	13.43%	385.17	3.10	378.21	3.06	7	1.45%	85.91	0.18	77.30	0.23
1993	HDGV	1	0.21%	81.70	2.18	83.40	2.38	55	11.63%	501.01	2.78	541.09	3.03	9	1.90%	42.73	0.28	46.26	0.28
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	2	22.22%	571.90	0.28	633.95	0.28	1	11.11%	24.40	0.00	25.90	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	1	33.33%	836.10	7.32	897.10	7.23	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	5	29.41%	384.28	2.08	450.18	2.14	0	0.00%	0.00	0.00	0.00	0.00
<b>1993 Total</b>		1	0.20%	81.70	2.18	83.40	2.38	63	12.55%	499.31	2.72	542.48	2.93	10	1.99%	40.90	0.25	44.22	0.25
1994	HDGV	4	0.56%	653.85	2.69	715.33	2.78	67	9.34%	457.35	3.28	520.00	3.64	8	1.12%	49.51	0.42	49.79	0.77
	LDGT1	2	8.00%	644.30	5.63	679.85	5.61	5	20.00%	437.36	0.67	529.52	0.91	2	8.00%	38.80	0.11	41.00	0.10
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	7	21.88%	544.31	2.24	363.83	2.31	4	12.50%	75.43	0.41	78.28	0.46
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	2	8.33%	243.80	1.58	326.20	1.63	0	0.00%	0.00	0.00	0.00	0.00
<b>1994 Total</b>		6	0.75%	650.67	3.67	703.50	3.72	81	10.15%	458.36	2.98	502.31	3.31	14	1.75%	55.39	0.37	56.67	0.59
1995	HDGV	3	0.36%	219.73	3.67	294.63	4.13	72	8.53%	397.83	2.84	366.59	3.05	11	1.30%	98.05	0.55	124.25	0.73
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	4	18.18%	610.58	2.62	796.18	2.50	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	9	25.00%	333.37	0.91	355.41	0.99	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	2	5.00%	495.60	1.65	808.60	1.15	3	7.50%	56.73	0.01	55.30	0.17
<b>1995 Total</b>		3	0.32%	219.73	3.67	294.63	4.13	87	9.24%	403.19	2.60	395.34	2.77	14	1.49%	89.20	0.44	109.47	0.61
1996	HDGV	1	0.10%	2000.00	8.82	2000.00	8.93	84	8.55%	487.60	2.48	502.43	2.45	2	0.20%	105.90	0.87	49.20	0.25
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	3	17.65%	42.20	0.20	51.93	0.23
	LDGT2	1	5.00%	225.70	0.71	303.30	0.66	1	5.00%	2000.00	5.17	2000.00	5.17	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	6	25.00%	367.62	2.05	388.55	1.96	0	0.00%	0.00	0.00	0.00	0.00
<b>1996 Total</b>		2	0.19%	1112.85	4.77	1151.65	4.80	91	8.72%	496.31	2.48	511.38	2.44	5	0.48%	67.68	0.46	50.84	0.24
1997	HDGV	1	0.09%	1166.30	1.15	1043.90	1.32	64	5.89%	481.43	2.07	524.69	1.95	4	0.37%	138.93	0.47	152.23	0.58
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	3	11.54%	83.53	0.18	88.83	0.22
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	1	7.14%	264.50	0.38	288.70	0.39	4	28.57%	34.15	0.06	38.05	0.07
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	7	30.43%	269.17	0.58	306.76	0.59	0	0.00%	0.00	0.00	0.00	0.00
<b>1997 Total</b>		1	0.09%	1166.30	1.15	1043.90	1.32	72	6.26%	457.78	1.90	500.22	1.80	11	0.96%	85.72	0.24	93.42	0.30
1998	HDGV	0	0.00%	0.00	0.00	0.00	0.00	52	5.51%	821.05	1.44	778.43	1.48	3	0.32%	99.70	0.19	106.17	0.19
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	4	11.76%	228.95	0.77	249.38	0.77	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	2	11.11%	1085.20	2.93	1073.05	2.98	2	11.11%	65.70	0.41	68.80	0.42
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	6	17.65%	285.48	1.70	302.05	1.83	1	2.94%	10.30	0.00	17.80	0.00
<b>1998 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	64	6.21%	742.09	1.47	709.91	1.51	6	0.58%	73.47	0.23	78.98	0.24
1999	HDGV	0	0.00%	0.00	0.00	0.00	0.00	59	3.57%	703.06	1.90	723.90	2.00	3	0.18%	29.57	0.03	33.30	0.05
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	1	4.35%	171.80	1.84	133.40	0.60	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	4	33.33%	594.85	0.87	659.90	1.01	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	2	7.14%	281.40	0.37	310.25	0.36	1	3.57%	68.60	0.08	71.10	0.06
<b>1999 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	66	3.85%	675.67	1.79	698.54	1.87	4	0.23%	39.33	0.04	42.75	0.06
2000	HDGV	0	0.00%	0.00	0.00	0.00	0.00	68	3.53%	662.47	1.43	683.06	1.62	5	0.26%	89.40	0.32	98.70	0.34
	LDGT1	1	5.56%	428.50	0.52	394.60	0.44	2	11.11%	225.90	0.39	236.95	0.39	0	0.00%	0.00	0.00	0.00	0.00

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
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	1	3.70%	215.90	0.72	227.10	0.72	4	14.81%	68.35	0.20	68.18	0.21
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	2	8.33%	340.85	0.41	346.45	0.43	1	4.17%	6.60	0.03	8.80	0.05
<b>2000 Total</b>		1	0.05%	428.50	0.52	394.60	0.44	73	3.66%	635.58	1.36	655.37	1.54	10	0.50%	72.70	0.24	77.50	0.26
2001	HDGV	0	0.00%	0.00	0.00	0.00	0.00	30	1.73%	709.00	1.80	671.69	2.02	7	0.40%	98.47	0.21	95.66	0.18
	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	14.29%	37.10	0.04	40.00	0.05
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	2	12.50%	298.45	1.53	373.55	1.57	0	0.00%	0.00	0.00	0.00	0.00
<b>2001 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	32	1.81%	683.34	1.78	653.05	1.99	8	0.45%	90.80	0.19	88.70	0.17
2002	HDGV	0	0.00%	0.00	0.00	0.00	0.00	25	1.36%	540.63	2.10	548.95	1.93	7	0.38%	68.13	0.17	46.79	0.17
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	4	20.00%	6.10	0.01	6.80	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	2	11.76%	14.40	0.01	14.55	0.01
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	1	4.55%	3.20	0.00	3.00	0.00
<b>2002 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	25	1.32%	540.63	2.10	548.95	1.93	14	0.74%	38.09	0.09	27.63	0.09
2003	HDGV	1	0.06%	1363.10	8.07	1483.40	8.24	18	1.05%	737.63	2.59	777.85	2.51	6	0.35%	65.82	0.22	59.78	0.20
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	1	4.55%	213.10	0.32	231.80	0.32	1	4.55%	96.80	0.10	119.20	0.14
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	1	6.67%	245.60	0.69	306.00	0.76	2	13.33%	46.35	0.09	56.95	0.11
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	4	21.05%	88.88	0.31	97.68	0.32
<b>2003 Total</b>		1	0.06%	1363.10	8.07	1483.40	8.24	20	1.13%	686.81	2.38	726.96	2.31	13	0.73%	72.30	0.22	75.58	0.22
2004	HDGV	0	0.00%	0.00	0.00	0.00	0.00	18	0.91%	814.70	1.99	916.86	1.98	2	0.10%	14.60	0.02	14.40	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	2	10.53%	1.80	0.00	2.65	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	1	7.69%	300.90	0.16	356.80	0.33	1	7.69%	53.90	0.35	48.20	0.39
	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
<b>2004 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	19	0.93%	787.66	1.89	887.38	1.89	5	0.24%	17.34	0.08	16.46	0.09
2005	HDGV	0	0.00%	0.00	0.00	0.00	0.00	15	1.01%	808.76	1.53	891.99	1.83	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	1	9.09%	15.00	0.00	15.50	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	5.56%	854.20	2.00	972.00	2.17	1	5.56%	4.30	0.00	4.40	0.00
<b>2005 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	16	1.04%	811.60	1.56	896.99	1.85	2	0.13%	9.65	0.00	9.95	0.00
2006	HDGV	0	0.00%	0.00	0.00	0.00	0.00	12	0.63%	529.06	0.85	537.85	0.83	3	0.16%	9.43	0.03	9.00	0.02
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	1	5.00%	447.70	4.69	499.50	4.73	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	2	25.00%	5.30	0.00	4.40	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	1	2.86%	1.50	0.00	1.10	0.00
<b>2006 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	13	0.66%	522.80	1.14	534.90	1.13	6	0.30%	6.73	0.02	6.15	0.01
2007	HDGV	0	0.00%	0.00	0.00	0.00	0.00	9	0.64%	728.54	1.56	545.48	1.54	1	0.07%	27.10	0.01	11.20	0.01
	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	1	4.55%	5.80	0.07	8.60	0.23
<b>2007 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	9	0.62%	728.54	1.56	545.48	1.54	2	0.14%	16.45	0.04	9.90	0.12
2008	HDGV	0	0.00%	0.00	0.00	0.00	0.00	4	0.21%	890.85	0.98	537.05	0.84	2	0.10%	19.50	0.00	22.25	0.00
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	1	7.69%	141.10	2.25	352.80	4.25	1	7.69%	3.00	0.00	2.80	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	7.14%	5.90	0.00	4.50	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
<b>2008 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	5	0.25%	740.90	1.23	500.20	1.52	4	0.20%	11.98	0.00	12.95	0.00
2009	HDGV	0	0.00%	0.00	0.00	0.00	0.00	6	0.57%	353.65	1.07	298.95	0.74	0	0.00%	0.00	0.00	0.00	0.00

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	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
<b>2009 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	6	0.55%	353.65	1.07	298.95	0.74	0	0.00%	0.00	0.00	0.00	0.00
2010	HDGV	0	0.00%	0.00	0.00	0.00	0.00	2	0.33%	162.75	2.30	168.20	2.14	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	0	0.00%	0.00	0.00	0.00	0.00	1	14.29%	4.30	0.00	4.40	0.00
<b>2010 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	2	0.32%	162.75	2.30	168.20	2.14	1	0.16%	4.30	0.00	4.40	0.00
2011	HDGV	0	0.00%	0.00	0.00	0.00	0.00	8	0.41%	401.50	3.27	355.44	3.16	2	0.10%	80.60	0.15	70.75	0.15
	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
<b>2011 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	8	0.40%	401.50	3.27	355.44	3.16	2	0.10%	80.60	0.15	70.75	0.15
2012	HDGV	0	0.00%	0.00	0.00	0.00	0.00	5	0.38%	446.56	0.77	331.48	0.94	1	0.08%	17.40	0.00	19.20	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	0	0.00%	0.00	0.00	0.00	0.00	1	7.69%	8.00	0.14	9.90	0.14
<b>2012 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	5	0.37%	446.56	0.77	331.48	0.94	2	0.15%	12.70	0.07	14.55	0.07
2013	HDGV	0	0.00%	0.00	0.00	0.00	0.00	3	0.14%	107.33	3.23	107.13	3.22	1	0.05%	0.50	0.01	1.20	0.01
	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	8.33%	47.80	0.09	48.90	0.08
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	3.85%	1838.40	5.70	1818.90	5.41	1	3.85%	1.90	0.02	2.20	0.04
<b>2013 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	4	0.18%	540.10	3.84	535.08	3.77	3	0.14%	16.73	0.04	17.43	0.04
2014	HDGV	0	0.00%	0.00	0.00	0.00	0.00	4	1.01%	646.85	1.14	655.28	1.51	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	1	33.33%	250.40	0.53	275.00	0.56	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
<b>2014 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	5	1.24%	567.56	1.02	579.22	1.32	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	1	0.42%	9.20	0.00	85.70	0.55
<b>2015 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	1	0.42%	9.20	0.00	85.70	0.55
2016	HDGV	0	0.00%	0.00	0.00	0.00	0.00	1	0.82%	277.50	3.03	289.70	3.01	1	0.82%	69.80	0.58	66.30	0.54
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	762.60	0.14	1078.20	0.11	0	0.00%	0.00	0.00	0.00	0.00
<b>2016 Total</b>		0	0.00%	0.00	0.00	0.00	0.00	2	1.63%	520.05	1.59	683.95	1.56	1	0.81%	69.80	0.58	66.30	0.54
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
	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
<b>2017 Total</b>		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	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
<b>2018 Total</b>		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
2019	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
<b>2019 Total</b>		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
2020	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
<b>2020 Total</b>		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

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
2021	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
<b>2021 Total</b>		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
<b>Grand Total</b>		171	0.44%	805.90	3.79	790.89	3.91	2,266	5.89%	644.96	3.11	651.51	3.17	385	1.00%	123.70	0.64	130.27	0.78

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	46	0.14%	797.55	3.55	794.65	3.51	1,183	3.53%	603.24	2.50	620.80	2.56	137	0.41%	107.92	0.53	106.29	0.69	
LDGT1	52	3.93%	725.55	4.10	749.28	4.30	270	20.39%	575.15	3.57	585.69	3.55	67	5.06%	112.47	0.27	138.31	0.39	
LDGT2	26	1.73%	715.87	3.42	654.77	3.45	262	17.39%	872.92	4.10	823.74	4.16	107	7.10%	169.29	1.22	171.55	1.40	
LDGV	47	2.23%	952.79	3.89	908.55	4.13	551	26.19%	660.34	3.70	667.79	3.83	74	3.52%	97.17	0.31	108.02	0.40	
<b>Grand Total</b>		171	0.44%	805.90	3.79	790.89	3.91	2,266	5.89%	644.96	3.11	651.51	3.17	385	1.00%	123.70	0.64	130.27	0.78

## **Appendix C3**

### Idle Initial Exhaust Failure Report





Date  
Between 1/1/2020 and 12/31/2020

## 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	148	99.33%	1119.79	6.05	1063.38	5.99	60	40.54%	1673.60	5.65	1549.43	6.08	131	88.51%	866.15	6.23	840.77	5.95
	LDGT	46	97.87%	999.39	5.79	1100.28	6.09	16	34.78%	1602.78	5.60	1752.72	6.11	41	89.13%	763.93	5.86	845.68	6.08
	HDGT	29	100.00%	1316.60	6.26	1365.47	6.16	18	62.07%	1663.79	4.52	1580.82	4.70	17	58.62%	948.99	8.10	1137.46	7.71
<b>1974 Total</b>		<b>223</b>	<b>99.11%</b>	<b>1119.88</b>	<b>6.02</b>	<b>1108.18</b>	<b>6.03</b>	<b>94</b>	<b>42.15%</b>	<b>1659.66</b>	<b>5.43</b>	<b>1590.04</b>	<b>5.82</b>	<b>189</b>	<b>84.75%</b>	<b>851.42</b>	<b>6.32</b>	<b>868.52</b>	<b>6.13</b>
1975	LDGV	7	100.00%	810.20	5.04	964.30	5.60	3	42.86%	1189.93	5.01	1301.20	4.86	6	85.71%	620.33	5.05	795.85	5.98
	LDGT	3	75.00%	265.10	4.11	316.77	4.18	0	0.00%	0.00	0.00	0.00	0.00	3	100.00%	265.10	4.11	316.77	4.18
	HDGT	3	75.00%	1457.48	4.19	1563.40	4.24	3	100.00%	1479.67	3.28	1552.40	3.32	1	33.33%	1390.90	6.94	1596.40	6.98
<b>1975 Total</b>		<b>13</b>	<b>86.67%</b>	<b>869.81</b>	<b>4.65</b>	<b>992.66</b>	<b>4.99</b>	<b>6</b>	<b>46.15%</b>	<b>1334.80</b>	<b>4.15</b>	<b>1426.80</b>	<b>4.09</b>	<b>10</b>	<b>76.92%</b>	<b>590.82</b>	<b>4.96</b>	<b>732.18</b>	<b>5.54</b>
1976	LDGV	49	94.23%	993.76	5.25	986.82	5.27	25	51.02%	1343.24	5.29	1334.23	5.56	44	89.80%	795.19	5.23	789.44	5.11
	LDGT	29	78.38%	750.79	4.53	736.93	4.35	13	44.83%	1086.81	4.05	1090.48	4.04	25	86.21%	576.06	4.77	553.09	4.52
	HDGT	36	70.59%	1093.21	5.05	1084.11	4.85	18	50.00%	1527.00	3.02	1527.63	3.09	23	63.89%	753.72	6.63	737.00	6.22
<b>1976 Total</b>		<b>114</b>	<b>81.43%</b>	<b>958.93</b>	<b>5.01</b>	<b>949.61</b>	<b>4.92</b>	<b>56</b>	<b>49.12%</b>	<b>1342.78</b>	<b>4.27</b>	<b>1339.81</b>	<b>4.41</b>	<b>92</b>	<b>80.70%</b>	<b>725.28</b>	<b>5.45</b>	<b>712.10</b>	<b>5.23</b>
1977	LDGV	50	89.29%	718.00	3.90	749.72	4.13	31	62.00%	894.25	3.36	900.90	3.54	36	72.00%	566.22	4.36	619.53	4.63
	LDGT	28	90.32%	625.80	4.24	628.32	4.27	16	57.14%	831.89	3.67	799.64	3.81	21	75.00%	468.77	4.67	497.79	4.62
	HDGT	54	72.00%	1062.28	5.93	1023.40	6.07	26	48.15%	1418.60	4.37	1276.93	4.90	38	70.37%	818.48	6.99	849.94	6.88
<b>1977 Total</b>		<b>132</b>	<b>81.48%</b>	<b>828.84</b>	<b>4.75</b>	<b>827.24</b>	<b>4.90</b>	<b>73</b>	<b>55.30%</b>	<b>1067.34</b>	<b>3.79</b>	<b>1012.64</b>	<b>4.08</b>	<b>95</b>	<b>71.97%</b>	<b>645.58</b>	<b>5.48</b>	<b>684.78</b>	<b>5.53</b>
1978	LDGV	69	90.79%	689.92	3.54	656.11	3.67	39	56.52%	892.79	2.82	846.51	2.96	48	69.57%	525.09	4.13	501.41	4.25
	LDGT	39	82.98%	753.55	4.84	667.92	4.86	15	38.46%	1229.23	5.57	1055.36	5.67	35	89.74%	549.68	4.53	501.87	4.50
	HDGT	76	66.09%	1272.66	5.73	1272.32	5.72	48	63.16%	1555.95	4.05	1498.46	4.16	46	60.53%	977.06	7.48	1036.35	7.34
<b>1978 Total</b>		<b>184</b>	<b>77.31%</b>	<b>940.82</b>	<b>4.71</b>	<b>909.42</b>	<b>4.76</b>	<b>102</b>	<b>55.43%</b>	<b>1254.34</b>	<b>3.80</b>	<b>1184.02</b>	<b>3.92</b>	<b>129</b>	<b>70.11%</b>	<b>692.93</b>	<b>5.43</b>	<b>692.29</b>	<b>5.42</b>
1979	LDGV	118	89.39%	726.54	3.52	725.21	3.52	69	58.47%	904.29	2.92	904.69	3.04	82	69.49%	576.98	4.03	574.19	3.92
	LDGT	117	90.70%	765.88	4.76	761.62	4.75	72	61.54%	959.88	4.44	952.83	4.47	95	81.20%	618.85	5.00	616.71	4.96
	HDGT	10	58.82%	1012.05	3.56	1067.21	3.64	6	60.00%	1228.07	1.96	1326.83	2.25	5	50.00%	752.84	5.47	755.66	5.30
<b>1979 Total</b>		<b>245</b>	<b>88.13%</b>	<b>756.06</b>	<b>4.15</b>	<b>755.13</b>	<b>4.15</b>	<b>147</b>	<b>60.00%</b>	<b>944.73</b>	<b>3.63</b>	<b>945.50</b>	<b>3.71</b>	<b>182</b>	<b>74.29%</b>	<b>603.66</b>	<b>4.57</b>	<b>601.37</b>	<b>4.50</b>
1980	LDGV	41	80.39%	562.44	3.32	593.85	3.61	22	53.66%	772.58	2.56	808.32	2.78	29	70.73%	403.02	3.90	431.15	4.23
	LDGT	56	82.35%	703.62	4.01	684.61	4.10	37	66.07%	879.35	3.08	826.42	3.33	35	62.50%	517.85	5.01	534.69	4.92
	HDGT	13	92.86%	1400.50	4.54	1452.85	4.54	11	84.62%	1442.48	3.46	1525.90	3.46	7	53.85%	1334.53	6.24	1338.06	6.23
<b>1980 Total</b>		<b>110</b>	<b>82.71%</b>	<b>741.52</b>	<b>3.83</b>	<b>749.85</b>	<b>3.98</b>	<b>70</b>	<b>63.64%</b>	<b>934.28</b>	<b>2.98</b>	<b>930.65</b>	<b>3.18</b>	<b>71</b>	<b>64.55%</b>	<b>551.46</b>	<b>4.67</b>	<b>571.60</b>	<b>4.77</b>
1981	LDGV	55	87.30%	737.58	4.40	746.35	4.83	38	69.09%	769.54	3.95	774.21	4.31	35	63.64%	702.89	4.89	716.11	5.39
	LDGT	55	79.71%	522.12	3.25	470.99	3.29	33	60.00%	666.24	2.71	586.08	2.89	33	60.00%	378.00	3.79	355.90	3.70
	HDGT	17	94.44%	798.19	3.10	719.03	2.67	11	64.71%	982.95	1.60	898.65	1.22	9	52.94%	572.37	4.93	499.49	4.43
<b>1981 Total</b>		<b>127</b>	<b>84.67%</b>	<b>655.77</b>	<b>3.76</b>	<b>628.61</b>	<b>3.92</b>	<b>82</b>	<b>64.57%</b>	<b>756.60</b>	<b>3.13</b>	<b>715.19</b>	<b>3.32</b>	<b>77</b>	<b>60.63%</b>	<b>548.39</b>	<b>4.42</b>	<b>536.41</b>	<b>4.55</b>
1982	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	2	66.67%	1449.17	5.81	1525.07	5.87	2	100.00%	1322.70	4.40	1424.15	4.44	1	50.00%	1702.10	8.64	1726.90	8.73
	HDGT	13	81.25%	660.54	4.38	465.28	3.44	3	23.08%	1535.27	3.12	1037.80	0.56	11	84.62%	421.98	4.72	309.14	4.23
<b>1982 Total</b>		<b>16</b>	<b>80.00%</b>	<b>799.71</b>	<b>4.63</b>	<b>652.30</b>	<b>3.87</b>	<b>5</b>	<b>31.25%</b>	<b>1450.24</b>	<b>3.63</b>	<b>1192.34</b>	<b>2.11</b>	<b>12</b>	<b>75.00%</b>	<b>528.66</b>	<b>5.05</b>	<b>427.28</b>	<b>4.60</b>
1983	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	2	100.00%	473.50	0.12	520.75	0.13	2	100.00%	473.50	0.12	520.75	0.13	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	19	86.36%	823.90	2.33	818.21	2.42	12	63.16%	1071.43	1.04	1048.23	1.12	8	42.11%	452.59	4.26	473.18	4.37
<b>1983 Total</b>		<b>21</b>	<b>84.00%</b>	<b>792.04</b>	<b>2.13</b>	<b>791.17</b>	<b>2.21</b>	<b>14</b>	<b>66.67%</b>	<b>986.01</b>	<b>0.91</b>	<b>972.88</b>	<b>0.98</b>	<b>8</b>	<b>38.10%</b>	<b>452.59</b>	<b>4.26</b>	<b>473.18</b>	<b>4.37</b>
1984	LDGV	3	100.00%	719.54	5.23	822.38	5.46	3	100.00%	815.70	4.40	957.37	4.58	2	66.67%	575.30	6.48	619.90	6.78

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	1	50.00%	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	34	94.44%	929.84	2.84	928.67	2.80	26	76.47%	1062.34	1.76	1064.20	1.73	13	38.24%	664.83	5.01	657.63	4.93
<b>1984 Total</b>		38	92.68%	905.94	3.11	916.60	3.10	29	76.32%	1036.82	2.03	1053.14	2.03	15	39.47%	652.89	5.20	652.60	5.18
1985	LDGV	3	60.00%	460.10	5.41	468.57	5.48	3	100.00%	460.10	5.41	468.57	5.48	3	100.00%	460.10	5.41	468.57	5.48
	LDGT	1	100.00%	73.80	1.42	76.90	1.40	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	73.80	1.42	76.90	1.40
	HDGT	28	80.00%	1053.49	2.89	1013.45	2.86	22	78.57%	1120.03	1.90	1066.56	1.89	12	42.86%	931.52	4.72	916.09	4.64
<b>1985 Total</b>		32	78.05%	942.76	3.23	910.87	3.21	25	78.13%	1040.84	2.32	994.80	2.32	16	50.00%	789.52	4.65	779.73	4.59
1986	LDGV	3	75.00%	260.47	2.46	281.00	2.45	1	33.33%	354.10	3.04	378.00	2.99	2	66.67%	213.65	2.17	232.50	2.19
	LDGT	4	100.00%	1060.31	3.06	1089.47	2.44	3	75.00%	1221.60	3.34	1253.80	2.65	4	100.00%	939.35	2.85	966.23	2.29
	HDGT	36	92.31%	732.12	2.75	742.02	2.80	24	66.67%	885.77	1.70	906.04	1.68	19	52.78%	538.04	4.07	534.84	4.20
<b>1986 Total</b>		43	91.49%	748.77	2.77	761.82	2.73	28	65.12%	902.76	1.93	924.44	1.83	25	58.14%	576.30	3.72	579.68	3.74
1987	LDGV	2	100.00%	448.30	2.54	490.53	2.42	1	50.00%	573.50	2.96	621.70	2.78	2	100.00%	385.70	2.33	424.95	2.25
	LDGT	7	100.00%	771.78	2.06	804.20	2.20	6	85.71%	729.65	1.72	757.35	1.82	3	42.86%	856.03	2.75	897.90	2.95
	HDGT	37	90.24%	535.24	2.47	544.90	2.18	29	78.38%	585.53	1.74	608.41	1.58	16	43.24%	444.09	3.78	429.79	3.26
<b>1987 Total</b>		46	92.00%	568.01	2.41	582.98	2.19	36	78.26%	609.22	1.77	633.60	1.65	21	45.65%	497.38	3.50	496.20	3.11
1988	LDGV	1	100.00%	144.20	2.02	164.90	2.04	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	144.20	2.02	164.90	2.04
	LDGT	5	100.00%	637.47	3.52	663.95	3.66	3	60.00%	659.23	3.14	689.17	3.28	3	60.00%	615.70	3.91	638.73	4.05
	HDGT	51	94.44%	729.48	3.40	760.49	3.40	43	84.31%	773.04	2.73	802.29	2.76	29	56.86%	664.89	4.40	698.51	4.33
<b>1988 Total</b>		57	95.00%	715.08	3.40	745.62	3.40	46	80.70%	765.62	2.76	794.91	2.80	33	57.89%	644.64	4.29	676.90	4.24
1989	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	5	100.00%	615.38	5.22	646.45	5.27	4	80.00%	600.68	4.10	614.53	4.13	2	40.00%	644.80	7.45	710.30	7.56
	HDGT	55	94.83%	559.51	2.39	526.86	1.99	43	78.18%	633.96	1.69	609.66	1.53	25	45.45%	431.47	3.60	384.46	2.78
<b>1989 Total</b>		60	93.75%	564.04	2.62	536.56	2.26	47	78.33%	631.13	1.90	610.07	1.75	27	45.00%	447.27	3.88	408.59	3.13
1990	LDGV	8	80.00%	510.40	2.36	531.18	2.81	6	75.00%	486.90	1.91	492.03	1.91	4	50.00%	545.65	3.05	589.90	4.18
	LDGT	4	100.00%	617.77	3.14	557.77	3.16	4	100.00%	546.58	2.52	448.83	2.53	2	50.00%	760.15	4.38	775.65	4.42
	HDGT	51	91.07%	520.02	3.41	569.36	3.53	29	56.86%	668.00	2.92	721.09	2.84	36	70.59%	400.83	3.81	447.13	4.08
<b>1990 Total</b>		63	90.00%	526.08	3.26	563.78	3.41	39	61.90%	627.68	2.72	657.92	2.66	42	66.67%	431.73	3.77	476.37	4.11
1991	LDGV	1	50.00%	553.80	4.88	624.90	5.14	1	100.00%	553.80	4.88	624.90	5.14	1	100.00%	553.80	4.88	624.90	5.14
	LDGT	5	83.33%	382.09	2.61	400.84	2.63	3	60.00%	435.73	2.57	420.77	2.37	4	80.00%	341.85	2.64	385.90	2.83
	HDGT	59	95.16%	365.15	3.13	424.17	3.24	27	45.76%	541.01	2.55	603.24	2.51	45	76.27%	259.64	3.48	316.73	3.67
<b>1991 Total</b>		65	92.86%	371.28	3.13	427.11	3.23	31	47.69%	531.23	2.63	586.28	2.58	50	76.92%	272.10	3.44	328.43	3.63
1992	LDGV	2	100.00%	217.90	1.34	254.85	1.17	1	50.00%	230.10	0.58	268.20	0.64	1	50.00%	205.70	2.10	241.50	1.70
	LDGT	6	85.71%	872.33	3.67	783.53	3.63	4	66.67%	919.85	3.15	750.08	3.01	3	50.00%	808.97	4.36	828.13	4.47
	HDGT	57	90.48%	412.37	3.50	400.25	3.44	26	45.61%	598.64	2.96	579.73	2.86	45	78.95%	304.74	3.81	296.54	3.78
<b>1992 Total</b>		65	90.28%	447.75	3.46	430.15	3.40	31	47.69%	628.20	2.91	591.66	2.81	49	75.38%	333.59	3.81	327.97	3.78
1993	LDGV	5	100.00%	497.67	2.98	594.10	3.07	4	80.00%	429.65	2.38	506.45	2.46	2	40.00%	633.70	4.17	769.40	4.31
	LDGT	3	75.00%	704.00	3.80	765.53	3.75	3	100.00%	659.97	2.62	721.67	2.59	1	33.33%	836.10	7.32	897.10	7.23
	HDGT	56	86.15%	556.71	3.17	605.09	3.46	30	53.57%	768.67	2.53	836.21	2.86	40	71.43%	397.74	3.64	431.75	3.91
<b>1993 Total</b>		64	86.49%	559.65	3.18	612.29	3.45	37	57.81%	723.21	2.52	791.27	2.79	43	67.19%	418.91	3.75	458.28	4.01
1994	LDGV	2	100.00%	313.00	3.09	334.30	3.16	1	50.00%	313.00	3.09	334.30	3.16	1	50.00%	313.00	3.09	334.30	3.16
	LDGT	14	70.00%	630.54	3.01	523.01	3.02	12	85.71%	584.81	2.41	518.94	2.49	6	42.86%	722.00	4.21	531.13	4.07
	HDGT	71	89.87%	545.87	3.73	602.44	3.97	37	52.11%	726.52	3.42	759.65	3.38	56	78.87%	426.51	3.94	498.56	4.36
<b>1994 Total</b>		87	86.14%	555.23	3.61	585.04	3.80	50	57.47%	684.24	3.17	693.37	3.16	63	72.41%	452.85	3.95	499.06	4.31
1995	LDGV	2	40.00%	521.30	2.05	906.77	1.36	2	100.00%	495.60	1.65	808.60	1.15	1	50.00%	572.70	2.84	1103.10	1.78
	LDGT	13	100.00%	562.20	2.16	572.15	2.20	9	69.23%	520.02	1.53	535.04	1.53	3	23.08%	688.73	4.04	683.47	4.24

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	75	87.21%	447.73	3.23	412.38	3.41	39	52.00%	573.85	2.86	525.19	3.10	59	78.67%	364.36	3.47	337.81	3.61
<b>1995 Total</b>		90	86.54%	461.84	3.08	442.47	3.22	50	55.56%	561.03	2.57	538.30	2.74	63	70.00%	383.12	3.49	366.42	3.61
1996	LDGV	6	100.00%	398.82	2.43	421.92	2.33	3	50.00%	273.97	0.60	319.20	0.63	2	33.33%	586.10	5.18	576.00	4.89
	LDGT	2	40.00%	1408.57	3.68	1434.43	3.67	2	100.00%	1112.85	2.94	1151.65	2.92	1	50.00%	2000.00	5.17	2000.00	5.17
	HDGT	85	97.70%	572.58	3.09	584.65	2.99	56	65.88%	666.39	2.36	685.43	2.26	50	58.82%	467.52	3.90	471.77	3.81
<b>1996 Total</b>		93	94.90%	586.96	3.07	599.87	2.98	61	65.59%	661.73	2.29	682.71	2.20	53	56.99%	500.91	3.97	504.54	3.88
1997	LDGV	7	100.00%	405.67	0.38	423.90	0.36	3	42.86%	405.67	0.38	423.90	0.36	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	1	12.50%	264.50	0.38	288.70	0.39	1	100.00%	264.50	0.38	288.70	0.39	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	65	94.20%	541.85	2.38	620.66	2.33	44	67.69%	640.21	1.72	716.55	1.85	35	53.85%	418.19	3.20	500.11	2.93
<b>1997 Total</b>		73	86.90%	533.59	2.28	609.55	2.23	48	65.75%	617.73	1.61	689.35	1.73	35	47.95%	418.19	3.20	500.11	2.93
1998	LDGV	6	85.71%	366.24	3.25	386.54	3.37	3	50.00%	385.13	2.71	408.23	2.88	2	33.33%	337.90	4.06	354.00	4.10
	LDGT	6	75.00%	730.70	2.05	729.57	2.09	4	66.67%	674.53	1.80	674.95	1.84	3	50.00%	805.60	2.38	802.40	2.42
	HDGT	52	94.55%	874.18	1.75	824.95	1.77	51	98.08%	832.68	1.42	788.45	1.45	13	25.00%	1036.95	3.06	968.12	3.01
<b>1998 Total</b>		64	91.43%	827.54	1.88	787.32	1.90	58	90.63%	798.63	1.51	760.96	1.55	18	28.13%	920.72	3.06	872.26	3.03
1999	LDGV	2	66.67%	281.40	0.37	310.25	0.36	2	100.00%	281.40	0.37	310.25	0.36	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	5	100.00%	609.04	1.14	671.07	1.13	4	80.00%	594.85	0.87	659.90	1.01	3	60.00%	627.97	1.50	685.97	1.28
	HDGT	59	95.16%	772.24	2.38	813.79	2.50	50	84.75%	796.95	1.80	824.72	1.94	24	40.68%	720.77	3.58	791.00	3.67
<b>1999 Total</b>		66	94.29%	746.65	2.22	789.62	2.33	56	84.85%	764.10	1.68	794.58	1.82	27	40.91%	710.46	3.35	779.33	3.41
2000	LDGV	2	66.67%	340.85	0.41	346.45	0.43	2	100.00%	340.85	0.41	346.45	0.43	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	4	50.00%	334.20	0.45	316.20	0.40	2	50.00%	334.20	0.45	316.20	0.40	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	68	93.15%	727.73	1.73	765.80	1.95	63	92.65%	698.07	1.28	712.88	1.44	16	23.53%	844.51	3.46	974.19	3.97
<b>2000 Total</b>		74	88.10%	708.92	1.66	744.87	1.88	67	90.54%	676.54	1.23	690.10	1.38	16	21.62%	844.51	3.46	974.19	3.97
2001	LDGV	2	100.00%	322.83	1.89	405.77	1.95	2	100.00%	298.45	1.53	373.55	1.57	1	50.00%	371.60	2.60	470.20	2.71
	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	30	81.08%	770.56	2.26	730.78	2.42	26	86.67%	785.23	1.69	736.05	1.82	11	36.67%	735.86	3.61	718.33	3.86
<b>2001 Total</b>		32	80.00%	736.98	2.24	706.41	2.39	28	87.50%	750.46	1.68	710.16	1.80	12	37.50%	705.51	3.52	697.65	3.76
2002	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	25	78.13%	579.04	2.59	583.36	2.34	23	92.00%	566.78	1.92	573.89	1.74	9	36.00%	610.36	4.29	607.57	3.86
<b>2002 Total</b>		25	64.10%	579.04	2.59	583.36	2.34	23	92.00%	566.78	1.92	573.89	1.74	9	36.00%	610.36	4.29	607.57	3.86
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	2	40.00%	245.60	0.69	306.00	0.76	1	50.00%	245.60	0.69	306.00	0.76	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	19	76.00%	766.37	3.38	825.94	3.39	16	84.21%	869.93	2.87	932.18	2.96	12	63.16%	628.30	4.05	684.28	3.96
<b>2003 Total</b>		21	61.76%	748.41	3.28	808.01	3.30	17	80.95%	833.20	2.74	895.35	2.83	12	57.14%	628.30	4.05	684.28	3.96
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	1	25.00%	300.90	0.16	356.80	0.33	1	100.00%	300.90	0.16	356.80	0.33	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	18	90.00%	929.76	2.60	1037.40	2.57	17	94.44%	853.79	1.92	958.67	1.87	8	44.44%	1091.19	4.04	1204.71	4.05
<b>2004 Total</b>		19	79.17%	905.57	2.51	1011.23	2.48	18	94.74%	823.08	1.83	925.23	1.79	8	42.11%	1091.19	4.04	1204.71	4.05
2005	LDGV	1	50.00%	854.20	2.00	972.00	2.17	1	100.00%	854.20	2.00	972.00	2.17	1	100.00%	854.20	2.00	972.00	2.17
	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	15	100.00%	948.91	1.79	1022.35	2.06	13	86.67%	898.96	1.39	988.02	1.76	4	26.67%	1111.23	3.09	1133.90	3.03
<b>2005 Total</b>		16	88.89%	938.94	1.81	1017.05	2.07	14	87.50%	895.76	1.43	986.88	1.79	5	31.25%	1059.82	2.87	1101.52	2.86
2006	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%	447.70	4.69	499.50	4.73	1	100.00%	447.70	4.69	499.50	4.73	1	100.00%	447.70	4.69	499.50	4.73
	HDGT	12	80.00%	531.18	0.94	537.32	0.90	11	91.67%	552.06	0.72	560.30	0.69	2	16.67%	416.30	2.18	410.90	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
<b>2006 Total</b>		13	68.42%	520.05	1.44	532.27	1.41	12	92.31%	543.37	1.05	555.23	1.03	3	23.08%	426.77	3.02	440.43	2.93
2007	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	9	90.00%	873.97	2.32	734.53	2.29	9	100.00%	728.54	1.56	545.48	1.54	2	22.22%	1528.40	5.74	1585.25	5.66
<b>2007 Total</b>		9	81.82%	873.97	2.32	734.53	2.29	9	100.00%	728.54	1.56	545.48	1.54	2	22.22%	1528.40	5.74	1585.25	5.66
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	1	33.33%	141.10	2.25	352.80	4.25	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	141.10	2.25	352.80	4.25
	HDGT	4	66.67%	890.85	0.98	537.05	0.84	4	100.00%	890.85	0.98	537.05	0.84	0	0.00%	0.00	0.00	0.00	0.00
<b>2008 Total</b>		5	55.56%	740.90	1.23	500.20	1.52	4	80.00%	890.85	0.98	537.05	0.84	1	20.00%	141.10	2.25	352.80	4.25
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	6	100.00%	363.41	1.22	272.67	0.79	5	83.33%	384.04	0.79	338.84	0.65	2	33.33%	311.85	2.29	107.25	1.15
<b>2009 Total</b>		6	100.00%	363.41	1.22	272.67	0.79	5	83.33%	384.04	0.79	338.84	0.65	2	33.33%	311.85	2.29	107.25	1.15
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	2	100.00%	162.75	2.30	168.20	2.14	0	0.00%	0.00	0.00	0.00	0.00	2	100.00%	162.75	2.30	168.20	2.14
<b>2010 Total</b>		2	66.67%	162.75	2.30	168.20	2.14	0	0.00%	0.00	0.00	0.00	0.00	2	100.00%	162.75	2.30	168.20	2.14
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	8	80.00%	436.16	4.15	366.15	3.93	6	75.00%	481.72	3.54	427.52	3.29	5	62.50%	381.50	4.87	292.50	4.70
<b>2011 Total</b>		8	80.00%	436.16	4.15	366.15	3.93	6	75.00%	481.72	3.54	427.52	3.29	5	62.50%	381.50	4.87	292.50	4.70
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	5	83.33%	446.56	0.77	331.48	0.94	4	80.00%	523.53	0.13	380.30	0.32	1	20.00%	138.70	3.36	136.20	3.40
<b>2012 Total</b>		5	71.43%	446.56	0.77	331.48	0.94	4	80.00%	523.53	0.13	380.30	0.32	1	20.00%	138.70	3.36	136.20	3.40
2013	LDGV	1	50.00%	1838.40	5.70	1818.90	5.41	1	100.00%	1838.40	5.70	1818.90	5.41	1	100.00%	1838.40	5.70	1818.90	5.41
	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	75.00%	107.33	3.23	107.13	3.22	0	0.00%	0.00	0.00	0.00	0.00	3	100.00%	107.33	3.23	107.13	3.22
<b>2013 Total</b>		4	57.14%	799.76	4.22	791.84	4.09	1	25.00%	1838.40	5.70	1818.90	5.41	4	100.00%	540.10	3.85	535.08	3.77
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	1	100.00%	250.40	0.53	275.00	0.56	1	100.00%	250.40	0.53	275.00	0.56	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	4	100.00%	593.78	1.56	612.20	2.13	4	100.00%	646.85	1.14	655.28	1.51	1	25.00%	381.50	3.24	439.90	4.63
<b>2014 Total</b>		5	100.00%	536.55	1.39	556.00	1.87	5	100.00%	567.56	1.02	579.22	1.32	1	20.00%	381.50	3.24	439.90	4.63
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
<b>2015 Total</b>		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	1	100.00%	762.60	0.14	1078.20	0.11	1	100.00%	762.60	0.14	1078.20	0.11	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	50.00%	277.50	3.03	289.70	3.01	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	277.50	3.03	289.70	3.01
<b>2016 Total</b>		2	66.67%	520.05	1.59	683.95	1.56	1	50.00%	762.60	0.14	1078.20	0.11	1	50.00%	277.50	3.03	289.70	3.01
2017	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
<b>2017 Total</b>		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

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	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
<b>2018 Total</b>		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
2019	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
	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
<b>2019 Total</b>		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
2020	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
<b>2020 Total</b>		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
2021	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
<b>2021 Total</b>		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
<b>Grand Total</b>		<b>2,437</b>	<b>86.33%</b>	<b>744.20</b>	<b>3.71</b>	<b>746.95</b>	<b>3.75</b>	<b>1,535</b>	<b>62.99%</b>	<b>885.39</b>	<b>2.81</b>	<b>876.98</b>	<b>2.90</b>	<b>1,529</b>	<b>62.74%</b>	<b>602.45</b>	<b>4.62</b>	<b>616.42</b>	<b>4.60</b>

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	598	88.99%	814.57	4.37	808.61	4.46	328	54.85%	1002.18	3.66	985.60	3.87	438	73.24%	674.08	4.91	676.07	4.91
LDGT	469	81.71%	723.79	4.19	716.22	4.22	274	58.42%	881.39	3.53	858.96	3.64	330	70.36%	592.93	4.73	597.71	4.71
HDGT	1,370	86.87%	719.65	3.25	730.03	3.26	933	68.10%	845.51	2.30	844.08	2.34	761	55.55%	565.35	4.40	590.20	4.38
<b>Grand Total</b>	<b>2,437</b>	<b>86.33%</b>	<b>744.20</b>	<b>3.71</b>	<b>746.95</b>	<b>3.75</b>	<b>1,535</b>	<b>62.99%</b>	<b>885.39</b>	<b>2.81</b>	<b>876.98</b>	<b>2.90</b>	<b>1,529</b>	<b>62.74%</b>	<b>602.45</b>	<b>4.62</b>	<b>616.42</b>	<b>4.60</b>



## **Appendix C4**

### Idle Initial Failure for Other Report





Date  
Between 1/1/2020 and 12/31/2020

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	68	68	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	68	100.00	0	0.00
	LDGT1	179	177	98.88	2	5.88	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	177	98.88	2	1.12
	LDGT2	132	132	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	132	100.00	0	0.00
	LDGV	377	374	99.20	3	3.41	1	100.00	0	0.00	6	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	374	99.20	3	0.80
<b>1974 Total</b>		<b>756</b>	<b>751</b>	<b>99.34</b>	<b>5</b>	<b>2.86</b>	<b>1</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>6</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>751</b>	<b>99.34</b>	<b>5</b>	<b>0.66</b>
1975	HDGV	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	4	100.00	0	0.00	12	100.00	0	0.00
	LDGT1	6	5	83.33	1	16.67	0	0.00	0	0.00	2	66.67	1	33.33	0	0.00	0	0.00	4	100.00	0	0.00	6	100.00	0	0.00
	LDGT2	22	20	90.91	2	9.09	0	0.00	0	0.00	2	66.67	1	33.33	0	0.00	0	0.00	8	88.89	1	11.11	22	100.00	0	0.00
	LDGV	23	23	100.00	0	0.00	14	100.00	0	0.00	6	100.00	0	0.00	0	0.00	0	0.00	16	100.00	0	0.00	23	100.00	0	0.00
<b>1975 Total</b>		<b>63</b>	<b>60</b>	<b>95.24</b>	<b>3</b>	<b>4.76</b>	<b>14</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>10</b>	<b>83.33</b>	<b>2</b>	<b>16.67</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>32</b>	<b>96.97</b>	<b>1</b>	<b>3.03</b>	<b>63</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>
1976	HDGV	61	60	98.36	1	1.64	5	100.00	0	0.00	7	100.00	0	0.00	1	100.00	0	0.00	30	96.77	1	3.23	61	100.00	0	0.00
	LDGT1	82	70	85.37	12	14.63	30	88.24	4	4.88	33	94.29	2	5.71	5	100.00	0	0.00	61	91.04	6	8.96	82	100.00	0	0.00
	LDGT2	150	135	90.00	15	10.00	12	85.71	2	1.33	12	85.71	2	14.29	2	100.00	0	0.00	61	82.43	13	17.57	149	99.33	1	0.67
	LDGV	150	144	96.00	6	4.00	96	97.96	2	1.33	63	95.45	3	4.55	6	100.00	0	0.00	102	98.08	2	1.92	149	99.33	1	0.67
<b>1976 Total</b>		<b>443</b>	<b>409</b>	<b>92.33</b>	<b>34</b>	<b>7.67</b>	<b>143</b>	<b>94.70</b>	<b>8</b>	<b>1.81</b>	<b>115</b>	<b>94.26</b>	<b>7</b>	<b>5.74</b>	<b>14</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>254</b>	<b>92.03</b>	<b>22</b>	<b>7.97</b>	<b>441</b>	<b>99.55</b>	<b>2</b>	<b>0.45</b>
1977	HDGV	79	78	98.73	1	1.27	5	100.00	0	0.00	11	100.00	0	0.00	1	100.00	0	0.00	38	97.44	1	2.56	79	100.00	0	0.00
	LDGT1	72	59	81.94	13	18.06	44	89.80	5	6.94	33	78.57	9	21.43	6	100.00	0	0.00	49	87.50	7	12.50	71	98.61	1	1.39
	LDGT2	239	216	90.38	23	9.62	9	64.29	5	2.09	14	82.35	3	17.65	2	100.00	0	0.00	116	85.93	19	14.07	239	100.00	0	0.00
	LDGV	144	130	90.28	14	9.72	116	96.67	4	2.78	71	94.67	4	5.33	1	100.00	0	0.00	95	93.14	7	6.86	144	100.00	0	0.00
<b>1977 Total</b>		<b>534</b>	<b>483</b>	<b>90.45</b>	<b>51</b>	<b>9.55</b>	<b>174</b>	<b>92.55</b>	<b>14</b>	<b>2.62</b>	<b>129</b>	<b>88.97</b>	<b>16</b>	<b>11.03</b>	<b>10</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>298</b>	<b>89.76</b>	<b>34</b>	<b>10.24</b>	<b>533</b>	<b>99.81</b>	<b>1</b>	<b>0.19</b>
1978	HDGV	91	85	93.41	6	6.59	7	77.78	2	2.20	9	81.82	2	18.18	2	100.00	0	0.00	45	95.74	2	4.26	90	98.90	1	1.10
	LDGT1	109	95	87.16	14	12.84	59	96.72	2	1.83	61	98.39	1	1.61	11	100.00	0	0.00	70	86.42	11	13.58	109	100.00	0	0.00
	LDGT2	304	268	88.16	36	11.84	43	79.63	11	3.62	27	90.00	3	10.00	6	100.00	0	0.00	138	84.15	26	15.85	301	99.01	3	0.99
	LDGV	206	189	91.75	17	8.25	172	96.63	6	2.91	100	97.09	3	2.91	9	100.00	0	0.00	144	93.51	10	6.49	205	99.51	1	0.49
<b>1978 Total</b>		<b>710</b>	<b>637</b>	<b>89.72</b>	<b>73</b>	<b>10.28</b>	<b>281</b>	<b>93.05</b>	<b>21</b>	<b>2.96</b>	<b>197</b>	<b>95.63</b>	<b>9</b>	<b>4.37</b>	<b>28</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>397</b>	<b>89.01</b>	<b>49</b>	<b>10.99</b>	<b>705</b>	<b>99.30</b>	<b>5</b>	<b>0.70</b>
1979	HDGV	77	69	89.61	8	10.39	15	100.00	0	0.00	32	84.21	6	15.79	3	100.00	0	0.00	40	95.24	2	4.76	77	100.00	0	0.00
	LDGT1	164	147	89.63	17	10.37	123	94.62	7	4.27	105	93.75	7	6.25	9	100.00	0	0.00	122	93.85	8	6.15	164	100.00	0	0.00
	LDGT2	185	172	92.97	13	7.03	156	96.30	6	3.24	92	93.88	6	6.12	8	100.00	0	0.00	133	96.38	5	3.62	185	100.00	0	0.00
	LDGV	281	256	91.10	25	8.90	235	96.71	8	2.85	137	97.16	4	2.84	13	100.00	0	0.00	195	93.30	14	6.70	280	99.64	1	0.36
<b>1979 Total</b>		<b>707</b>	<b>644</b>	<b>91.09</b>	<b>63</b>	<b>8.91</b>	<b>529</b>	<b>96.18</b>	<b>21</b>	<b>2.97</b>	<b>366</b>	<b>94.09</b>	<b>23</b>	<b>5.91</b>	<b>33</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>490</b>	<b>94.41</b>	<b>29</b>	<b>5.59</b>	<b>706</b>	<b>99.86</b>	<b>1</b>	<b>0.14</b>
1980	HDGV	59	56	94.92	3	5.08	8	100.00	0	0.00	31	93.94	2	6.06	2	100.00	0	0.00	29	96.67	1	3.33	59	100.00	0	0.00
	LDGT1	117	101	86.32	16	13.68	92	96.84	3	2.56	82	91.11	8	8.89	9	100.00	0	0.00	94	93.07	7	6.93	117	100.00	0	0.00
	LDGT2	58	51	87.93	7	12.07	48	97.96	1	1.72	36	92.31	3	7.69	2	100.00	0	0.00	36	87.80	5	12.20	58	100.00	0	0.00
	LDGV	178	165	92.70	13	7.30	162	97.59	4	2.25	124	96.12	5	3.88	52	100.00	0	0.00	136	95.10	7	4.90	177	99.44	1	0.56
<b>1980 Total</b>		<b>412</b>	<b>373</b>	<b>90.53</b>	<b>39</b>	<b>9.47</b>	<b>310</b>	<b>97.48</b>	<b>8</b>	<b>1.94</b>	<b>273</b>	<b>93.81</b>	<b>18</b>	<b>6.19</b>	<b>65</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>295</b>	<b>93.65</b>	<b>20</b>	<b>6.35</b>	<b>411</b>	<b>99.76</b>	<b>1</b>	<b>0.24</b>
1981	HDGV	72	69	95.83	3	4.17	4	80.00	1	1.39	63	98.44	1	1.56	2	100.00	0	0.00	2	66.67	1	33.33	72	100.00	0	0.00
	LDGT1	130	109	83.85	21	16.15	122	97.60	3	2.31	92	93.88	6	6.12	23	100.00	0	0.00	93	86.11	15	13.89	130	100.00	0	0.00
	LDGT2	63	57	90.48	6	9.52	53	96.36	2	3.17	42	95.45	2	4.55	6	100.00	0	0.00	35	89.74	4	10.26	63	100.00	0	0.00
	LDGV	152	135	88.82	17	11.18	144	96.00	6	3.95	91	89.22	11	10.78	97	96.04	4	3.96	114	94.21	7	5.79	151	99.34	1	0.66
<b>1981 Total</b>		<b>417</b>	<b>370</b>	<b>88.73</b>	<b>47</b>	<b>11.27</b>	<b>323</b>	<b>96.42</b>	<b>12</b>	<b>2.88</b>	<b>288</b>	<b>93.51</b>	<b>20</b>	<b>6.49</b>	<b>128</b>	<b>96.97</b>	<b>4</b>	<b>3.03</b>	<b>244</b>	<b>90.04</b>	<b>27</b>	<b>9.96</b>	<b>416</b>	<b>99.76</b>	<b>1</b>	<b>0.24</b>
1982	HDGV	51	47	92.16	4	7.84	4	100.00	0	0.00	43	91.49	4	8.51	1	100.00	0	0.00	1	100.00	0	0.00	51	100.00	0	0.00
	LDGT2	3	2	66.67	1	33.33	3	100.00	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	2	66.67	1	33.33	3	100.00	0	0.00
	LDGV	4	4	100.00	0	0.00	4	100.00	0	0.00	3	100.00	0	0.00	2	100.00	0	0.00	3	100.00	0	0.00	4	100.00	0	0.00
<b>1982 Total</b>		<b>58</b>	<b>53</b>	<b>91.38</b>	<b>5</b>	<b>8.62</b>	<b>11</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>47</b>	<b>92.16</b>	<b>4</b>	<b>7.84</b>	<b>3</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>6</b>	<b>85.71</b>	<b>1</b>	<b>14.29</b>	<b>58</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>
1983	HDGV	68	63	92.65	5	7.35	5	100.00																		

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 %
<b>1984 Total</b>		155	147	94.84	8	5.16	34	100.00	0	0.00	133	95.00	7	5.00	19	100.00	0	0.00	15	93.75	1	6.25	155	100.00	0	0.00
1985	HDGV	153	142	92.81	11	7.19	9	100.00	0	0.00	137	94.48	8	5.52	7	100.00	0	0.00	1	50.00	1	50.00	150	98.04	3	1.96
	LDGT1	3	3	100.00	0	0.00	3	100.00	0	0.00	1	100.00	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	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	9	7	77.78	2	22.22	9	100.00	0	0.00	7	100.00	0	0.00	7	100.00	0	0.00	6	75.00	2	25.00	9	100.00	0	0.00
<b>1985 Total</b>		166	153	92.17	13	7.83	22	100.00	0	0.00	146	94.81	8	5.19	16	100.00	0	0.00	11	78.57	3	21.43	163	98.19	3	1.81
1986	HDGV	127	120	94.49	7	5.51	13	92.86	1	0.79	114	95.00	6	5.00	9	90.00	1	10.00	0	0.00	0	0.00	127	100.00	0	0.00
	LDGT1	6	6	100.00	0	0.00	6	100.00	0	0.00	1	100.00	0	0.00	5	100.00	0	0.00	6	100.00	0	0.00	6	100.00	0	0.00
	LDGV	11	10	90.91	1	9.09	11	100.00	0	0.00	8	100.00	0	0.00	6	85.71	1	14.29	7	100.00	0	0.00	11	100.00	0	0.00
<b>1986 Total</b>		144	136	94.44	8	5.56	30	96.77	1	0.69	123	95.35	6	4.65	20	90.91	2	9.09	13	100.00	0	0.00	144	100.00	0	0.00
1987	HDGV	120	112	93.33	8	6.67	37	100.00	0	0.00	109	94.78	6	5.22	29	100.00	0	0.00	3	100.00	0	0.00	118	98.33	2	1.67
	LDGT1	5	5	100.00	0	0.00	5	100.00	0	0.00	2	100.00	0	0.00	4	100.00	0	0.00	5	100.00	0	0.00	5	100.00	0	0.00
	LDGT2	3	2	66.67	1	33.33	3	100.00	0	0.00	1	50.00	1	50.00	2	100.00	0	0.00	3	100.00	0	0.00	3	100.00	0	0.00
	LDGV	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	3	100.00	0	0.00	4	100.00	0	0.00
<b>1987 Total</b>		132	123	93.18	9	6.82	49	100.00	0	0.00	113	94.17	7	5.83	39	100.00	0	0.00	14	100.00	0	0.00	130	98.48	2	1.52
1988	HDGV	252	245	97.22	7	2.78	204	99.51	1	0.40	228	97.85	5	2.15	162	100.00	0	0.00	7	100.00	0	0.00	250	99.21	2	0.79
	LDGT1	6	5	83.33	1	16.67	5	100.00	0	0.00	1	50.00	1	50.00	5	100.00	0	0.00	5	100.00	0	0.00	6	100.00	0	0.00
	LDGT2	4	4	100.00	0	0.00	4	100.00	0	0.00	4	100.00	0	0.00	4	100.00	0	0.00	2	100.00	0	0.00	4	100.00	0	0.00
	LDGV	7	7	100.00	0	0.00	7	100.00	0	0.00	6	100.00	0	0.00	6	100.00	0	0.00	5	100.00	0	0.00	7	100.00	0	0.00
<b>1988 Total</b>		269	261	97.03	8	2.97	220	99.55	1	0.37	239	97.55	6	2.45	177	100.00	0	0.00	19	100.00	0	0.00	267	99.26	2	0.74
1989	HDGV	342	338	98.83	4	1.17	308	99.68	1	0.29	268	99.26	2	0.74	272	99.63	1	0.37	5	100.00	0	0.00	342	100.00	0	0.00
	LDGT1	6	6	100.00	0	0.00	6	100.00	0	0.00	1	100.00	0	0.00	5	100.00	0	0.00	6	100.00	0	0.00	6	100.00	0	0.00
	LDGT2	4	3	75.00	1	25.00	4	100.00	0	0.00	2	100.00	0	0.00	4	100.00	0	0.00	3	75.00	1	25.00	4	100.00	0	0.00
	LDGV	12	11	91.67	1	8.33	11	100.00	0	0.00	5	100.00	0	0.00	9	90.00	1	10.00	9	100.00	0	0.00	12	100.00	0	0.00
<b>1989 Total</b>		364	358	98.35	6	1.65	329	99.70	1	0.27	276	99.28	2	0.72	290	99.32	2	0.68	23	95.83	1	4.17	364	100.00	0	0.00
1990	HDGV	350	343	98.00	7	2.00	336	98.82	4	1.14	226	100.00	0	0.00	339	99.41	2	0.59	3	100.00	0	0.00	348	99.43	2	0.57
	LDGT1	13	13	100.00	0	0.00	13	100.00	0	0.00	2	100.00	0	0.00	13	100.00	0	0.00	11	100.00	0	0.00	13	100.00	0	0.00
	LDGT2	7	6	85.71	1	14.29	7	100.00	0	0.00	4	100.00	0	0.00	7	100.00	0	0.00	6	85.71	1	14.29	7	100.00	0	0.00
	LDGV	26	23	88.46	3	11.54	24	96.00	1	3.85	6	100.00	0	0.00	23	92.00	2	8.00	23	95.83	1	4.17	26	100.00	0	0.00
<b>1990 Total</b>		396	385	97.22	11	2.78	380	98.70	5	1.26	238	100.00	0	0.00	382	98.96	4	1.04	43	95.56	2	4.44	394	99.49	2	0.51
1991	HDGV	304	299	98.36	5	1.64	296	99.33	2	0.66	171	98.84	2	1.16	296	99.33	2	0.67	3	100.00	0	0.00	304	100.00	0	0.00
	LDGT1	9	8	88.89	1	11.11	9	100.00	0	0.00	2	100.00	0	0.00	9	100.00	0	0.00	8	88.89	1	11.11	9	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	25	24	96.00	1	4.00	24	100.00	0	0.00	3	100.00	0	0.00	25	100.00	0	0.00	21	95.45	1	4.55	25	100.00	0	0.00
<b>1991 Total</b>		342	335	97.95	7	2.05	333	99.40	2	0.58	177	98.88	2	1.12	334	99.40	2	0.60	36	94.74	2	5.26	342	100.00	0	0.00
1992	HDGV	442	436	98.64	6	1.36	435	99.77	1	0.23	266	98.88	3	1.12	432	99.54	2	0.46	2	100.00	0	0.00	441	99.77	1	0.23
	LDGT1	25	24	96.00	1	4.00	25	100.00	0	0.00	1	100.00	0	0.00	24	100.00	0	0.00	24	96.00	1	4.00	25	100.00	0	0.00
	LDGT2	7	7	100.00	0	0.00	7	100.00	0	0.00	3	100.00	0	0.00	7	100.00	0	0.00	6	100.00	0	0.00	7	100.00	0	0.00
	LDGV	10	10	100.00	0	0.00	10	100.00	0	0.00	2	100.00	0	0.00	10	100.00	0	0.00	10	100.00	0	0.00	10	100.00	0	0.00
<b>1992 Total</b>		484	477	98.55	7	1.45	477	99.79	1	0.21	272	98.91	3	1.09	473	99.58	2	0.42	42	97.67	1	2.33	483	99.79	1	0.21
1993	HDGV	473	463	97.89	10	2.11	459	98.71	6	1.27	257	97.35	7	2.65	464	99.57	2	0.43	1	100.00	0	0.00	473	100.00	0	0.00
	LDGT1	9	8	88.89	1	11.11	9	100.00	0	0.00	1	100.00	0	0.00	9	100.00	0	0.00	8	88.89	1	11.11	9	100.00	0	0.00
	LDGT2	3	3	100.00	0	0.00	3	100.00	0	0.00	1	100.00	0	0.00	3	100.00	0	0.00	3	100.00	0	0.00	3	100.00	0	0.00
	LDGV	17	17	100.00	0	0.00	17	100.00	0	0.00	2	100.00	0	0.00	17	100.00	0	0.00	15	100.00	0	0.00	17	100.00	0	0.00
<b>1993 Total</b>		502	491	97.81	11	2.19	488	98.79	6	1.20	261	97.39	7	2.61	493	99.60	2	0.40	27	96.43	1	3.57	502	100.00	0	0.00
1994	HDGV	717	705	98.33	12	1.67	684	98.99	7	0.98	400	98.77	5	1.23	710	100.00	0	0.00	1	100.00	0	0.00	716	99.86	1	0.14
	LDGT1	25	21	84.00	4	16.00	25	100.00	0	0.00	2	100.00	0	0.00	25	100.00	0	0.00	21	84.00	4	16.00	25	100.00	0	0.00
	LDGT2	32	28	87.50	4	12.50	32	100.00	0	0.00	8	100.00	0	0.00	31	100.00	0	0.00	27	87.10	4	12.90	32	100.00	0	0.00
	LDGV	24	24	100.00	0	0.00	24	100.00	0	0.00	2	100.00	0	0.00	24	100.00	0	0.00	23	100.00	0	0.00	24	100.00	0	0.00
<b>1994 Total</b>		798	778	97.49	20	2.51	765	99.09	7	0.88	412	98.80	5	1.20	790	100.00	0	0.00	72	90.00	8	10.00	797	99.87	1	0.13
1995	HDGV	844	830	98.34	14	1.66	807	99.14	7	0.83	440	99.32	3	0.68	833	99.64	3	0.36	2	50.00	2	50.00	843	99.88	1	0.12
	LDGT1	22	22	100.00	0	0.00	22	100.00	0	0.00	4	100.00	0	0.00	22	100.00	0	0.00	20	100.00	0	0.00	22	100.00	0	0.00
	LDGT2	36	36	100.00	0	0.00	36	100.00	0	0.00	4	100.00	0	0.00	36	100.00	0	0.00	33	100.00	0	0.00	36	100.00	0	0.00
	LDGV	40	37	92.50	3	7.50	40	100.00	0	0.00	12	92.31	1	7.69	38	95.00	2	5.00	32	96.97	1	3.03	40	100.00	0	

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 %
	LDGT1	17	14	82.35	3	17.65	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	14	82.35	3	17.65	17	100.00	0	0.00
	LDGT2	20	19	95.00	1	5.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	19	95.00	1	5.00	20	100.00	0	0.00
	LDGV	24	24	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	21	100.00	0	0.00	24	100.00	0	0.00
<b>1996 Total</b>		<b>1,044</b>	<b>1037</b>	<b>99.33</b>	<b>7</b>	<b>0.67</b>	<b>2</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>2</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>58</b>	<b>90.63</b>	<b>6</b>	<b>9.38</b>	<b>1043</b>	<b>99.90</b>	<b>1</b>	<b>0.10</b>
1997	HDGV	1,087	1082	99.54	5	0.46	16	100.00	0	0.00	2	100.00	0	0.00	16	100.00	0	0.00	6	85.71	1	14.29	1083	99.63	4	0.37
	LDGT1	26	23	88.46	3	11.54	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	22	88.00	3	12.00	26	100.00	0	0.00
	LDGT2	14	10	71.43	4	28.57	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	10	71.43	4	28.57	14	100.00	0	0.00
	LDGV	23	23	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	23	100.00	0	0.00	23	100.00	0	0.00
<b>1997 Total</b>		<b>1,150</b>	<b>1138</b>	<b>98.96</b>	<b>12</b>	<b>1.04</b>	<b>16</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>2</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>16</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>61</b>	<b>88.41</b>	<b>8</b>	<b>11.59</b>	<b>1146</b>	<b>99.65</b>	<b>4</b>	<b>0.35</b>
1998	HDGV	944	941	99.68	3	0.32	7	100.00	0	0.00	0	0.00	0	0.00	7	100.00	0	0.00	4	80.00	1	20.00	942	99.79	2	0.21
	LDGT1	34	34	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	34	100.00	0	0.00	34	100.00	0	0.00
	LDGT2	18	16	88.89	2	11.11	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	15	88.24	2	11.76	18	100.00	0	0.00
	LDGV	34	33	97.06	1	2.94	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	31	96.88	1	3.13	34	100.00	0	0.00
<b>1998 Total</b>		<b>1,030</b>	<b>1024</b>	<b>99.42</b>	<b>6</b>	<b>0.58</b>	<b>7</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>7</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>84</b>	<b>95.45</b>	<b>4</b>	<b>4.55</b>	<b>1028</b>	<b>99.81</b>	<b>2</b>	<b>0.19</b>
1999	HDGV	1,653	1650	99.82	3	0.18	1	100.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00	8	80.00	2	20.00	1652	99.94	1	0.06
	LDGT1	23	23	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	22	100.00	0	0.00	23	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	10	100.00	0	0.00	12	100.00	0	0.00
	LDGV	28	27	96.43	1	3.57	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	26	96.30	1	3.70	28	100.00	0	0.00
<b>1999 Total</b>		<b>1,716</b>	<b>1712</b>	<b>99.77</b>	<b>4</b>	<b>0.23</b>	<b>1</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>1</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>66</b>	<b>95.65</b>	<b>3</b>	<b>4.35</b>	<b>1715</b>	<b>99.94</b>	<b>1</b>	<b>0.06</b>
2000	HDGV	1,925	1920	99.74	5	0.26	12	100.00	0	0.00	1	100.00	0	0.00	12	100.00	0	0.00	38	90.48	4	9.52	1924	99.95	1	0.05
	LDGT1	18	17	94.44	1	5.56	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	18	100.00	0	0.00	17	94.44	1	5.56
	LDGT2	27	23	85.19	4	14.81	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	22	84.62	4	15.38	27	100.00	0	0.00
	LDGV	24	23	95.83	1	4.17	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	23	95.83	1	4.17	24	100.00	0	0.00
<b>2000 Total</b>		<b>1,994</b>	<b>1983</b>	<b>99.45</b>	<b>11</b>	<b>0.55</b>	<b>12</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>1</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>12</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>101</b>	<b>91.82</b>	<b>9</b>	<b>8.18</b>	<b>1992</b>	<b>99.90</b>	<b>2</b>	<b>0.10</b>
2001	HDGV	1,733	1726	99.60	7	0.40	12	100.00	0	0.00	0	0.00	0	0.00	12	100.00	0	0.00	21	77.78	6	22.22	1732	99.94	1	0.06
	LDGT1	16	16	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	16	100.00	0	0.00	16	100.00	0	0.00
	LDGT2	7	6	85.71	1	14.29	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	85.71	1	14.29	7	100.00	0	0.00
	LDGV	16	16	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	15	100.00	0	0.00	16	100.00	0	0.00
<b>2001 Total</b>		<b>1,772</b>	<b>1764</b>	<b>99.55</b>	<b>8</b>	<b>0.45</b>	<b>12</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>12</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>58</b>	<b>89.23</b>	<b>7</b>	<b>10.77</b>	<b>1771</b>	<b>99.94</b>	<b>1</b>	<b>0.06</b>
2002	HDGV	1,839	1832	99.62	7	0.38	9	100.00	0	0.00	0	0.00	0	0.00	9	100.00	0	0.00	39	84.78	7	15.22	1839	100.00	0	0.00
	LDGT1	20	16	80.00	4	20.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	16	80.00	4	20.00	20	100.00	0	0.00
	LDGT2	17	15	88.24	2	11.76	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	12	85.71	2	14.29	17	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	21	95.45	1	4.55	22	100.00	0	0.00
<b>2002 Total</b>		<b>1,898</b>	<b>1884</b>	<b>99.26</b>	<b>14</b>	<b>0.74</b>	<b>9</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>9</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>88</b>	<b>86.27</b>	<b>14</b>	<b>13.73</b>	<b>1898</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>
2003	HDGV	1,720	1713	99.59	7	0.41	18	100.00	0	0.00	0	0.00	0	0.00	18	100.00	0	0.00	30	85.71	5	14.29	1718	99.88	2	0.12
	LDGT1	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	20	95.24	1	4.76	22	100.00	0	0.00
	LDGT2	15	13	86.67	2	13.33	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	11	91.67	1	8.33	14	93.33	1	6.67
	LDGV	19	15	78.95	4	21.05	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	15	78.95	4	21.05	19	100.00	0	0.00
<b>2003 Total</b>		<b>1,776</b>	<b>1762</b>	<b>99.21</b>	<b>14</b>	<b>0.79</b>	<b>18</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>18</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>76</b>	<b>87.36</b>	<b>11</b>	<b>12.64</b>	<b>1773</b>	<b>99.83</b>	<b>3</b>	<b>0.17</b>
2004	HDGV	1,984	1982	99.90	2	0.10	17	100.00	0	0.00	3	100.00	0	0.00	17	100.00	0	0.00	10	90.91	1	9.09	1983	99.95	1	0.05
	LDGT1	19	17	89.47	2	10.53	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	17	89.47	2	10.53	19	100.00	0	0.00
	LDGT2	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
	LDGV	25	25	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	24	100.00	0	0.00	25	100.00	0	0.00
<b>2004 Total</b>		<b>2,041</b>	<b>2036</b>	<b>99.76</b>	<b>5</b>	<b>0.24</b>	<b>17</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>3</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>17</b>	<b>100.00</b>	<b>0</b>	<b>0.00</b>	<b>63</b>	<b>94.03</b>	<b>4</b>	<b>5.97</b>	<b>2040</b>	<b>99.95</b>	<b>1</b>	<b>0.05</b>
2005	HDGV	1,488	1488	100.00	0	0.00	17	100.00	0	0.00	5	100.00	0	0.00	17	100.00	0	0.00	3	100.00	0	0.00	1488	100.00	0	0.00
	LDGT1	22	2																							

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 %
	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	12	100.00	0	0.00	12	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	20	95.24	1	4.76	22	100.00	0	0.00
<b>2007 Total</b>		1,463	1461	99.86	2	0.14	49	100.00	0	0.00	30	100.00	0	0.00	49	100.00	0	0.00	62	98.41	1	1.59	1462	99.93	1	0.07
2008	HDGV	1,923	1921	99.90	2	0.10	35	100.00	0	0.00	9	100.00	0	0.00	35	100.00	0	0.00	1	33.33	2	66.67	1923	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	14	13	92.86	1	7.14	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	13	92.86	1	7.14	14	100.00	0	0.00
	LDGV	21	21	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	21	100.00	0	0.00
<b>2008 Total</b>		1,971	1967	99.80	4	0.20	35	100.00	0	0.00	9	100.00	0	0.00	35	100.00	0	0.00	46	92.00	4	8.00	1971	100.00	0	0.00
2009	HDGV	1,060	1060	100.00	0	0.00	62	100.00	0	0.00	17	100.00	0	0.00	62	100.00	0	0.00	13	100.00	0	0.00	1060	100.00	0	0.00
	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	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	13	100.00	0	0.00	14	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
<b>2009 Total</b>		1,091	1091	100.00	0	0.00	62	100.00	0	0.00	17	100.00	0	0.00	62	100.00	0	0.00	43	100.00	0	0.00	1091	100.00	0	0.00
2010	HDGV	602	602	100.00	0	0.00	28	100.00	0	0.00	9	100.00	0	0.00	28	100.00	0	0.00	3	100.00	0	0.00	602	100.00	0	0.00
	LDGT1	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
	LDGT2	6	6	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	6	100.00	0	0.00
	LDGV	7	6	85.71	1	14.29	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	85.71	1	14.29	7	100.00	0	0.00
<b>2010 Total</b>		618	617	99.84	1	0.16	28	100.00	0	0.00	9	100.00	0	0.00	28	100.00	0	0.00	17	94.44	1	5.56	618	100.00	0	0.00
2011	HDGV	1,935	1933	99.90	2	0.10	31	100.00	0	0.00	9	100.00	0	0.00	31	100.00	0	0.00	0	0.00	1	100.00	1934	99.95	1	0.05
	LDGT1	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
	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	9	100.00	0	0.00	12	100.00	0	0.00
	LDGV	26	26	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	25	100.00	0	0.00	26	100.00	0	0.00
<b>2011 Total</b>		1,986	1984	99.90	2	0.10	31	100.00	0	0.00	9	100.00	0	0.00	31	100.00	0	0.00	46	97.87	1	2.13	1985	99.95	1	0.05
2012	HDGV	1,330	1329	99.92	1	0.08	53	100.00	0	0.00	30	100.00	0	0.00	53	100.00	0	0.00	2	66.67	1	33.33	1330	100.00	0	0.00
	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	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	9	100.00	0	0.00	12	100.00	0	0.00
	LDGV	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	11	91.67	1	8.33	13	100.00	0	0.00
<b>2012 Total</b>		1,364	1362	99.85	2	0.15	53	100.00	0	0.00	30	100.00	0	0.00	53	100.00	0	0.00	31	93.94	2	6.06	1364	100.00	0	0.00
2013	HDGV	2,142	2141	99.95	1	0.05	34	100.00	0	0.00	6	100.00	0	0.00	34	100.00	0	0.00	15	93.75	1	6.25	2142	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	13	100.00	0	0.00	14	100.00	0	0.00
	LDGT2	12	11	91.67	1	8.33	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	8	88.89	1	11.11	12	100.00	0	0.00
	LDGV	26	25	96.15	1	3.85	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	20	95.24	1	4.76	26	100.00	0	0.00
<b>2013 Total</b>		2,194	2191	99.86	3	0.14	34	100.00	0	0.00	6	100.00	0	0.00	34	100.00	0	0.00	56	94.92	3	5.08	2194	100.00	0	0.00
2014	HDGV	397	397	100.00	0	0.00	19	100.00	0	0.00	13	100.00	0	0.00	19	100.00	0	0.00	1	100.00	0	0.00	397	100.00	0	0.00
	LDGT1	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
	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	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	1	100.00	0	0.00	2	100.00	0	0.00
<b>2014 Total</b>		403	403	100.00	0	0.00	19	100.00	0	0.00	13	100.00	0	0.00	19	100.00	0	0.00	6	100.00	0	0.00	403	100.00	0	0.00
2015	HDGV	240	239	99.58	1	0.42	10	100.00	0	0.00	2	100.00	0	0.00	10	100.00	0	0.00	0	0.00	1	100.00	240	100.00	0	0.00
<b>2015 Total</b>		240	239	99.58	1	0.42	10	100.00	0	0.00	2	100.00	0	0.00	10	100.00	0	0.00	0	0.00	1	100.00	240	100.00	0	0.00
2016	HDGV	122	121	99.18	1	0.82	7	100.00	0	0.00	1	100.00	0	0.00	7	100.00	0	0.00	0	0.00	1	100.00	122	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	0	0.00	0	0.00	1	100.00	0	0.00
<b>2016 Total</b>		123	122	99.19	1	0.81	7	100.00	0	0.00	1	100.00	0	0.00	7	100.00	0	0.00	0	0.00	1	100.00	123	100.00	0	0.00
2017	HDGV	93	93	100.00	0	0.00	9	100.00	0	0.00	0	0.00	0	0.00	9	100.00	0	0.00	0	0.00	0	0.00	93	100.00	0	0.00
	LDGT1	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
	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	0	0.00	0	0.00	1	100.00	0	0.00
<b>2017 Total</b>		95	95	100.00	0	0.00	9	100.00	0	0.00	0	0.00	0	0.00	9	100.00	0	0.00	1	100.00	0	0.00	95	100.00	0	0.00
2018	HDGV	50	50	100.00	0	0.00	3	100.00	0	0.00	0	0.00	0	0.00	3	100.00	0	0.00	0	0.00	0	0.00	50	100.00	0	0.00
<b>2018 Total</b>		50	50	100.00	0	0.00	3	100.00	0	0.00	0	0.00	0	0.00	3	100.00	0	0.00	0	0.00	0</					

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

Vehicle Type	Visual Overall					CAT				AIS				O2				Gas Cap				Opacity			
	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 %
HDGV	33,516	33333	99.45	183	0.55	4141	99.21	33	0.10	3135	97.72	73	2.28	4,053	99.68	13	0.32	430	89.58	50	10.42	33487	99.91	29	0.09
LDGT1	1,324	1205	91.01	119	10.09	604	96.18	24	2.04	431	92.49	35	7.51	189	100.00	0	0.00	924	92.49	75	7.51	1320	99.70	4	0.30
LDGT2	1,507	1374	91.17	133	9.37	426	94.04	27	1.90	257	92.45	21	7.55	124	100.00	0	0.00	822	88.96	102	11.04	1502	99.67	5	0.33
LDGV	2,104	1983	94.25	121	6.67	1136	97.34	31	1.71	662	95.39	32	4.61	359	97.29	10	2.71	1,327	95.26	66	4.74	2096	99.62	8	0.38
<b>Grand Total</b>	<b>38,451</b>	<b>37895</b>	<b>98.55</b>	<b>556</b>	<b>1.47</b>	<b>6307</b>	<b>98.21</b>	<b>115</b>	<b>0.30</b>	<b>4485</b>	<b>96.53</b>	<b>161</b>	<b>3.47</b>	<b>4,725</b>	<b>99.52</b>	<b>23</b>	<b>0.48</b>	<b>3,503</b>	<b>92.28</b>	<b>293</b>	<b>7.72</b>	<b>38405</b>	<b>99.88</b>	<b>46</b>	<b>0.12</b>



## **Appendix C5**

### Idle Retest Pass Reduction Report





Date  
Between 1/1/2020 and 12/31/2020

## 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	125	898.75	5.56	760.59	5.18	63	50.40%	292.58	1.41	313.17	1.83	563.35	65.82%	4.02	73.97%	450.20	58.98%	3.18	63.46%	599.33
	LDGT	43	956.54	6.33	865.40	6.11	20	46.51%	366.08	1.48	259.27	2.58	418.53	53.34%	4.71	76.15%	453.67	63.63%	2.92	53.07%	0.00
	HDGT	26	1286.02	5.18	1269.59	5.19	21	80.77%	328.32	2.33	399.85	3.30	903.80	73.35%	3.01	56.38%	848.15	67.96%	1.67	33.56%	0.00
<b>1974 Total</b>		194	963.46	5.68	852.04	5.39	104	53.61%	313.93	1.61	320.30	2.27	604.25	65.81%	3.95	71.02%	531.23	62.38%	2.82	55.41%	599.33
1975	LDGV	4	658.30	2.67	665.30	4.03	2	50.00%	64.20	0.51	68.75	0.54	238.90	78.82%	1.80	78.04%	309.05	81.80%	4.31	88.95%	0.00
	LDGT	3	538.97	2.17	593.73	2.84	2	66.67%	199.50	1.11	207.15	1.68	39.10	16.39%	1.30	53.94%	-11.45	-5.85%	-0.23	-15.46%	0.00
	HDGT	6	1315.78	4.84	1370.10	4.55	5	83.33%	303.42	2.18	329.78	2.53	875.52	74.26%	2.14	49.58%	914.34	73.49%	2.02	44.35%	303.00
<b>1975 Total</b>		13	934.22	3.55	974.08	4.00	9	69.23%	227.17	1.57	244.52	1.90	548.18	70.70%	1.88	54.48%	574.10	70.13%	2.03	51.64%	303.00
1976	LDGV	61	774.04	4.19	699.31	4.27	29	47.54%	149.82	0.59	145.92	0.73	603.13	80.10%	3.46	85.50%	530.64	78.43%	3.50	82.79%	747.00
	LDGT	43	469.75	3.82	375.55	3.82	23	53.49%	170.95	0.64	175.60	0.88	220.67	56.35%	2.93	81.99%	105.03	37.43%	2.27	72.09%	125.00
	HDGT	72	942.87	3.60	822.48	3.37	47	65.28%	335.13	2.23	348.60	2.59	496.68	59.71%	1.23	35.47%	358.68	50.71%	0.45	14.89%	0.00
<b>1976 Total</b>		176	768.76	3.86	670.60	3.79	99	56.25%	242.70	1.38	249.04	1.64	463.74	65.64%	2.28	62.22%	350.12	58.44%	1.77	51.79%	436.00
1977	LDGV	88	542.01	2.98	504.50	2.84	38	43.18%	119.56	0.45	147.22	0.70	364.41	75.30%	2.00	81.61%	300.02	67.08%	1.75	71.39%	171.00
	LDGT	34	432.19	3.53	362.22	3.63	17	50.00%	87.98	0.52	112.19	0.82	229.95	72.33%	1.63	76.02%	154.41	57.92%	1.47	64.14%	0.00
	HDGT	95	925.37	4.81	825.04	4.90	62	65.26%	315.88	2.21	319.77	2.30	512.58	61.87%	2.41	52.10%	440.64	57.95%	2.32	50.19%	133.67
<b>1977 Total</b>		217	692.64	3.87	622.54	3.87	117	53.92%	219.00	1.39	233.57	1.57	423.39	65.91%	2.16	60.81%	353.38	60.21%	2.01	56.21%	143.00
1978	LDGV	110	576.09	2.87	486.67	3.14	45	40.91%	120.19	0.42	151.56	0.58	386.22	76.27%	2.31	84.67%	263.85	63.52%	2.32	80.15%	0.00
	LDGT	49	516.70	2.89	358.52	2.32	28	57.14%	103.23	0.31	100.48	0.29	351.69	77.31%	2.56	89.25%	174.78	63.50%	2.07	87.80%	72.50
	HDGT	154	969.99	4.16	872.03	4.01	103	66.88%	286.99	2.07	316.38	2.22	522.99	64.57%	1.88	47.57%	389.01	55.15%	1.46	39.72%	129.40
<b>1978 Total</b>		313	760.60	3.51	656.21	3.44	176	56.23%	215.11	1.37	239.89	1.49	460.77	68.17%	2.10	60.51%	322.93	57.38%	1.78	54.38%	99.00
1979	LDGV	162	647.34	2.81	600.33	2.65	88	54.32%	132.54	0.37	180.52	0.68	392.64	74.76%	1.82	82.95%	305.22	62.84%	1.42	67.76%	271.00
	LDGT	212	610.93	3.48	553.71	3.27	88	41.51%	117.43	0.42	167.03	0.84	460.00	79.66%	2.96	87.66%	373.44	69.10%	2.29	73.21%	1383.50
	HDGT	15	615.41	3.05	561.49	3.05	11	73.33%	239.03	1.57	262.54	1.56	229.14	48.94%	1.84	53.85%	135.26	34.00%	1.62	50.87%	0.00
<b>1979 Total</b>		389	626.27	3.19	573.43	3.00	187	48.07%	131.69	0.46	179.00	0.81	414.72	75.90%	2.36	83.53%	327.33	64.65%	1.84	69.60%	641.83
1980	LDGV	51	571.66	2.35	519.21	2.16	37	72.55%	107.15	0.34	122.44	0.70	407.34	79.17%	2.22	86.86%	346.26	73.88%	1.84	72.55%	0.00
	LDGT	109	740.62	3.14	537.43	3.27	52	47.71%	113.48	0.27	117.38	0.63	437.06	79.39%	2.06	88.48%	298.87	71.80%	1.91	75.17%	581.67
	HDGT	16	1331.55	4.39	1324.66	4.35	8	50.00%	285.30	1.02	366.85	1.94	775.78	73.11%	5.19	83.53%	742.25	66.92%	4.33	69.08%	0.00
<b>1980 Total</b>		176	745.38	3.02	603.72	3.04	97	55.11%	125.24	0.36	139.89	0.76	453.66	78.37%	2.38	86.98%	353.51	71.65%	2.09	73.17%	581.67
1981	LDGV	90	541.97	2.90	482.19	3.22	40	44.44%	63.39	0.18	60.56	0.25	356.76	84.91%	2.31	92.86%	338.19	84.81%	2.85	91.87%	268.00
	LDGT	107	458.54	2.69	367.27	2.51	49	45.79%	67.30	0.15	68.93	0.19	244.91	78.44%	1.88	92.45%	240.58	77.73%	2.08	91.65%	215.33
	HDGT	37	667.23	3.83	471.40	3.24	18	48.65%	149.92	0.93	150.02	0.92	677.57	81.88%	2.04	68.68%	448.24	74.92%	1.09	54.12%	63.00
<b>1981 Total</b>		234	523.63	2.95	427.93	2.90	107	45.73%	79.74	0.29	79.44	0.34	359.51	81.85%	2.07	87.58%	312.00	79.71%	2.20	86.74%	222.63
1982	LDGV	2	41.30	0.64	79.90	1.67	1	50.00%	20.40	0.45	22.20	0.60	20.90	50.61%	0.19	29.69%	57.70	72.22%	1.07	64.07%	0.00
	LDGT	8	895.74	0.70	844.38	0.29	2	25.00%	19.85	0.10	21.90	0.13	551.60	96.53%	-0.01	-11.76%	546.50	96.15%	-0.01	-4.17%	0.00
	HDGT	24	914.41	3.40	807.65	3.20	10	41.67%	119.97	0.67	130.78	0.78	498.37	80.60%	3.57	84.30%	344.42	72.48%	2.75	77.94%	1046.50
<b>1982 Total</b>		34	858.66	2.60	773.48	2.42	13	38.24%	96.91	0.56	105.68	0.66	469.83	82.90%	2.76	83.11%	353.45	76.98%	2.19	76.79%	1046.50
1983	LDGV	1	92.80	0.01	61.50	0.00	1	100.00%	41.00	0.00	46.90	0.01	51.80	55.82%	0.01	100.00%	14.60	23.74%	-0.01	0.00%	0.00
	LDGT	2	558.60	0.12	520.75	0.13	1	50.00%	28.60	0.12	30.20	0.12	537.00	94.94%	0.02	14.29%	528.00	94.59%	0.02	14.29%	0.00
	HDGT	32	830.59	0.77	674.13	0.96	13	40.63%	195.21	0.43	228.85	0.43	494.05	71.68%	0.84	66.44%	348.53	60.36%	1.04	70.59%	280.00

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	
<b>1983 Total</b>		35	793.97	0.71	647.86	0.88	15	42.86%	173.82	0.38	203.47	0.38	467.43	72.89%	0.73	66.03%	338.23	62.44%	0.90	70.13%	280.00
1984	LDGV	3	667.23	7.54	713.47	7.75	1	33.33%	22.90	0.00	40.30	0.08	309.60	93.11%	3.61	100.00%	298.90	88.12%	3.79	97.93%	0.00
	LDGT	4	612.60	2.06	633.95	1.37	2	50.00%	144.00	0.62	104.95	0.33	579.70	80.10%	0.47	42.86%	582.05	84.72%	0.82	71.18%	250.00
	HDGT	57	763.42	3.30	623.91	2.63	36	63.16%	191.58	1.06	164.62	1.10	545.14	74.00%	2.09	66.30%	448.65	73.16%	1.40	56.15%	688.00
<b>1984 Total</b>		64	749.49	3.42	628.74	2.79	39	60.94%	184.81	1.01	158.37	1.03	540.87	74.53%	2.04	66.90%	451.65	74.04%	1.44	58.19%	469.00
1985	LDGV	4	235.63	2.64	232.33	2.79	3	75.00%	11.50	0.00	12.73	0.03	118.97	91.19%	1.70	100.00%	118.40	90.29%	1.84	98.57%	0.00
	LDGT	1	79.50	1.42	76.90	1.40	1	100.00%	57.10	0.49	58.30	0.49	22.40	28.18%	0.93	65.49%	18.60	24.19%	0.91	65.00%	0.00
	HDGT	57	831.78	2.29	725.58	2.20	31	54.39%	190.03	0.93	197.45	0.90	459.54	70.75%	0.46	33.26%	368.15	65.09%	0.45	33.33%	162.00
<b>1985 Total</b>		62	781.19	2.30	683.30	2.23	35	56.45%	170.93	0.84	177.65	0.81	417.86	70.97%	0.58	41.03%	336.76	65.47%	0.58	41.70%	162.00
1986	LDGV	8	202.00	1.22	186.68	1.13	4	50.00%	66.23	0.17	39.82	0.08	180.53	73.16%	1.07	86.49%	191.33	82.77%	1.11	93.07%	246.00
	LDGT	8	1153.68	3.48	1124.89	2.63	1	12.50%	39.40	0.09	45.50	0.15	53.20	57.45%	1.29	93.48%	58.00	56.04%	1.06	87.60%	0.00
	HDGT	45	523.36	1.70	445.88	1.89	22	48.89%	103.53	0.62	114.48	0.59	327.82	76.00%	1.63	72.29%	270.31	70.25%	1.77	75.02%	214.50
<b>1986 Total</b>		61	563.88	1.87	500.94	1.88	27	44.26%	95.63	0.54	100.86	0.50	295.83	75.57%	1.53	74.07%	250.74	71.31%	1.64	76.77%	225.00
1987	LDGV	2	450.35	2.83	424.95	2.25	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
	LDGT	5	883.50	2.80	879.66	2.86	2	40.00%	65.75	0.42	94.90	0.55	163.10	71.27%	0.17	29.06%	136.75	59.03%	0.51	47.87%	456.00
	HDGT	57	472.55	2.33	424.98	1.95	23	40.35%	67.06	0.55	72.02	0.62	405.73	85.82%	1.06	65.68%	344.76	82.72%	0.73	53.99%	579.00
<b>1987 Total</b>		64	503.96	2.38	460.50	2.03	25	39.06%	66.96	0.54	73.85	0.62	386.32	85.23%	0.99	64.56%	328.12	81.63%	0.71	53.60%	517.50
1988	LDGV	1	144.20	2.02	164.90	2.04	1	100.00%	49.50	0.65	69.20	0.86	94.70	65.67%	1.37	67.82%	95.70	58.04%	1.18	57.84%	0.00
	LDGT	10	542.77	4.16	649.78	4.30	6	60.00%	73.92	0.20	80.73	0.31	349.70	82.55%	3.20	94.03%	381.40	82.53%	2.73	89.95%	0.00
	HDGT	74	603.56	2.48	528.81	1.78	28	37.84%	102.91	0.35	142.14	0.45	567.95	84.66%	2.58	87.99%	440.28	75.60%	1.65	78.72%	408.00
<b>1988 Total</b>		85	591.00	2.68	538.76	2.08	35	41.18%	96.41	0.33	129.53	0.43	517.01	84.28%	2.65	88.78%	420.34	76.44%	1.82	80.77%	408.00
1989	LDGV	2	414.10	2.69	114.60	0.82	2	100.00%	115.55	0.32	75.80	0.41	298.55	72.10%	2.37	88.08%	38.80	33.86%	0.41	50.31%	0.00
	LDGT	5	556.68	3.74	546.14	3.77	1	20.00%	159.30	0.61	161.10	0.60	437.70	73.32%	0.19	23.75%	426.20	72.57%	0.22	26.83%	0.00
	HDGT	84	604.12	2.86	531.57	2.65	40	47.62%	95.54	0.43	98.37	0.60	394.78	80.52%	1.77	80.56%	331.43	77.11%	1.48	71.09%	0.00
<b>1989 Total</b>		91	597.34	2.90	523.20	2.67	43	47.25%	97.95	0.43	98.77	0.59	391.30	79.98%	1.76	80.51%	320.02	76.41%	1.40	70.27%	0.00
1990	LDGV	22	453.90	1.86	476.40	2.64	10	45.45%	109.20	0.39	114.39	0.43	372.64	77.34%	0.92	70.41%	373.45	76.55%	1.29	74.90%	0.00
	LDGT	8	642.00	2.64	367.63	2.07	3	37.50%	74.50	0.36	84.70	0.44	441.37	85.56%	2.56	87.57%	432.40	83.62%	2.51	85.18%	0.00
	HDGT	101	500.11	2.52	506.43	2.24	42	41.58%	118.47	0.74	131.17	0.83	319.10	72.93%	1.58	68.29%	272.50	67.51%	1.21	59.17%	0.00
<b>1990 Total</b>		131	501.01	2.42	492.91	2.30	55	41.98%	114.39	0.65	125.59	0.74	335.51	74.57%	1.52	69.94%	299.58	70.46%	1.30	63.65%	0.00
1991	LDGV	5	518.62	4.08	501.50	4.11	1	20.00%	7.10	0.00	7.70	0.00	1.60	18.39%	0.01	100.00%	0.20	2.53%	0.01	100.00%	0.00
	LDGT	12	444.63	3.91	390.98	3.21	4	33.33%	94.85	0.47	80.43	0.36	173.33	64.63%	1.77	79.11%	136.88	62.99%	0.81	69.25%	0.00
	HDGT	91	434.37	3.68	393.31	3.36	42	46.15%	94.55	0.43	96.87	0.57	337.18	78.10%	2.75	86.51%	295.02	75.28%	2.47	81.18%	423.50
<b>1991 Total</b>		108	439.41	3.72	398.06	3.38	47	43.52%	92.71	0.42	93.58	0.54	316.10	77.32%	2.61	86.04%	275.29	74.63%	2.28	80.76%	423.50
1992	LDGV	2	265.50	1.24	254.85	1.17	2	100.00%	60.20	0.08	63.40	0.09	205.30	77.33%	1.16	93.52%	191.45	75.12%	1.08	92.31%	0.00
	LDGT	9	441.26	2.35	414.20	2.18	3	33.33%	62.17	0.46	75.90	0.41	465.77	88.22%	3.40	88.08%	429.37	84.98%	3.31	88.89%	0.00
	HDGT	85	302.14	3.39	262.73	3.11	44	51.76%	90.72	0.56	84.66	0.61	230.61	71.77%	2.29	80.40%	200.73	70.33%	1.91	75.82%	593.00
<b>1992 Total</b>		96	314.42	3.25	276.77	2.98	49	51.04%	87.73	0.53	83.26	0.58	243.97	73.55%	2.31	81.27%	214.35	72.02%	1.96	77.30%	593.00
1993	LDGV	9	483.76	1.30	239.64	0.85	4	44.44%	106.68	0.30	105.73	0.30	270.80	71.74%	0.75	71.63%	133.98	55.89%	0.48	61.46%	185.00
	LDGT	9	456.94	3.91	429.11	3.65	3	33.33%	50.90	0.08	79.97	0.14	63.23	55.40%	0.06	42.86%	28.93	26.57%	-0.00	-2.50%	0.00
	HDGT	104	538.33	3.22	487.40	3.07	51	49.04%	78.41	0.46	114.05	0.86	388.11	83.19%	2.38	83.85%	285.60	71.46%	1.87	68.53%	441.33
<b>1993 Total</b>		122	528.30	3.13	464.83	2.95	58	47.54%	78.93	0.43	111.71	0.78	363.22	82.15%	2.14	83.39%	261.87	70.10%	1.68	68.18%	377.25
1994	LDGV	4	668.50	2.13	562.73	1.88	3	75.00%	102.90	0.20	105.57	0.21	671.27	86.71%	1.54	88.31%	533.30	83.48%	1.23	85.25%	0.00
	LDGT	35	389.62	1.95	315.09	1.93	14	40.00%	96.13	0.37	102.28	0.39	241.95	71.57%	1.24	77.07%	144.14	58.49%	1.17	75.24%	221.00

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	
	HDGT	94	541.71	3.46	488.21	3.56	54	57.45%	110.77	0.70	116.79	0.87	375.20	77.21%	2.56	78.63%	345.16	74.72%	2.56	74.70%	775.50
<b>1994 Total</b>		133	505.50	3.02	444.90	3.08	71	53.38%	107.55	0.61	113.46	0.74	361.44	77.07%	2.26	78.71%	313.47	73.43%	2.23	74.98%	590.67
1995	LDGV	6	297.10	0.74	324.65	0.58	6	100.00%	62.18	0.15	64.72	0.14	234.92	79.07%	0.60	80.49%	259.93	80.07%	0.44	75.86%	0.00
	LDGT	25	503.37	1.25	482.97	1.36	8	32.00%	92.79	0.25	71.50	0.32	291.88	75.88%	0.71	73.83%	324.94	81.96%	0.82	72.19%	0.00
	HDGT	141	443.00	2.82	318.02	2.81	81	57.45%	116.91	0.60	131.16	1.01	286.04	70.99%	1.89	75.92%	180.23	57.88%	1.61	61.33%	267.50
<b>1995 Total</b>		172	446.68	2.52	342.22	2.52	95	55.23%	111.43	0.54	121.94	0.90	283.30	71.77%	1.71	75.94%	197.45	61.82%	1.47	61.99%	267.50
1996	LDGV	15	426.67	3.00	425.70	2.98	3	20.00%	138.87	0.56	94.83	0.22	309.63	69.04%	1.63	74.39%	330.57	77.71%	1.74	88.79%	379.00
	LDGT	7	449.69	1.16	437.96	1.12	5	71.43%	32.36	0.05	35.36	0.07	468.04	93.53%	1.31	96.48%	456.46	92.81%	1.23	94.49%	0.00
	HDGT	117	588.93	2.85	505.69	2.36	69	58.97%	92.20	0.49	110.30	0.72	409.19	81.61%	2.15	81.40%	308.60	73.67%	1.39	65.78%	1714.00
<b>1996 Total</b>		139	564.41	2.78	493.64	2.36	77	55.40%	90.13	0.47	104.84	0.66	409.14	81.95%	2.08	81.69%	319.06	75.27%	1.40	67.82%	1269.00
1997	LDGV	5	315.76	0.57	314.72	0.59	5	100.00%	67.40	0.21	77.84	0.22	248.36	78.65%	0.36	63.64%	236.88	75.27%	0.37	63.14%	1479.00
	LDGT	7	65.06	0.17	59.81	0.13	7	100.00%	38.69	0.12	42.33	0.12	26.37	40.54%	0.05	27.59%	17.49	29.23%	0.01	7.45%	0.00
	HDGT	103	625.88	2.18	528.14	1.72	59	57.28%	104.15	0.47	114.49	0.52	443.93	81.00%	1.73	78.51%	333.64	74.45%	1.20	69.78%	562.00
<b>1997 Total</b>		115	578.26	1.99	490.36	1.57	71	61.74%	95.11	0.42	104.79	0.46	388.99	80.35%	1.47	77.75%	295.66	73.83%	1.03	69.04%	714.83
1998	LDGV	7	199.86	0.73	202.17	0.80	5	71.43%	35.70	0.06	46.94	0.06	164.72	82.19%	0.56	90.65%	159.14	77.22%	0.65	91.32%	0.00
	LDGT	6	182.15	0.65	180.93	0.63	6	100.00%	79.50	0.22	91.93	0.37	102.65	56.35%	0.43	65.72%	89.00	49.19%	0.27	42.22%	0.00
	HDGT	82	864.39	1.79	584.26	1.45	42	51.22%	136.80	0.40	140.81	0.48	641.28	82.42%	1.26	75.74%	435.68	75.57%	0.81	63.15%	1343.00
<b>1998 Total</b>		95	772.34	1.64	530.63	1.35	53	55.79%	120.77	0.35	126.42	0.42	535.34	81.59%	1.10	75.84%	370.35	74.55%	0.74	63.50%	1343.00
1999	LDGV	4	207.25	0.23	205.18	0.23	3	75.00%	118.07	0.15	98.53	0.20	31.70	21.17%	0.01	8.00%	50.10	33.71%	-0.04	-25.00%	0.00
	LDGT	5	272.76	1.50	257.00	0.89	3	60.00%	111.17	0.27	117.97	0.27	183.70	62.30%	1.06	79.55%	161.73	57.82%	0.55	66.80%	0.00
	HDGT	77	778.28	1.70	592.85	1.66	52	67.53%	108.59	0.32	166.70	0.64	612.76	84.95%	1.35	80.90%	389.13	70.01%	0.97	60.23%	798.00
<b>1999 Total</b>		86	722.33	1.62	555.29	1.54	58	67.44%	109.22	0.31	160.66	0.60	560.51	83.69%	1.26	80.44%	359.83	69.13%	0.90	59.94%	798.00
2000	LDGV	4	252.40	0.31	250.33	0.30	3	75.00%	65.73	0.20	72.77	0.20	169.33	72.04%	0.10	33.33%	161.13	68.89%	0.10	32.97%	0.00
	LDGT	10	305.82	0.30	298.49	0.27	7	70.00%	71.20	0.18	78.61	0.21	44.93	38.69%	0.07	28.73%	29.69	27.41%	0.02	8.07%	0.00
	HDGT	105	771.36	1.45	617.83	1.33	63	60.00%	126.68	0.32	130.67	0.41	494.75	79.62%	1.10	77.71%	412.03	75.92%	0.95	69.78%	1080.67
<b>2000 Total</b>		119	714.79	1.31	578.64	1.21	73	61.34%	118.85	0.30	123.30	0.38	438.25	78.67%	0.96	76.32%	365.06	74.75%	0.83	68.28%	1080.67
2001	LDGV	3	366.53	1.84	405.77	1.95	1	33.33%	82.70	0.02	102.40	0.05	225.10	73.13%	0.31	93.94%	174.50	63.02%	0.38	88.37%	0.00
	LDGT	2	47.75	0.05	49.90	0.05	2	100.00%	29.80	0.03	31.60	0.03	17.95	37.59%	0.02	33.33%	18.30	36.67%	0.02	40.00%	0.00
	HDGT	38	539.85	1.76	433.54	1.88	33	86.84%	105.74	0.35	105.63	0.41	410.99	79.54%	1.36	79.29%	295.87	73.69%	1.34	76.56%	500.00
<b>2001 Total</b>		43	504.87	1.69	413.76	1.80	36	83.72%	100.88	0.33	101.43	0.38	383.99	79.19%	1.25	79.31%	277.08	73.20%	1.24	76.59%	500.00
2002	LDGV	1	3.20	0.00	3.00	0.00	1	100.00%	13.20	0.01	7.30	0.00	-10.00	-312.50%	-0.01		-4.30	-143.33%	0.00	0.00%	0.00
	LDGT	7	8.64	0.01	8.56	0.01	7	100.00%	19.09	0.03	20.26	0.04	-10.44	-120.83%	-0.02	-283.33%	-11.70	-136.73%	-0.03	-257.14%	0.00
	HDGT	43	560.98	1.67	498.77	1.53	31	72.09%	97.32	0.31	93.43	0.35	434.40	81.70%	1.24	80.01%	335.16	78.20%	1.00	74.35%	0.00
<b>2002 Total</b>		51	474.23	1.41	421.76	1.29	39	76.47%	81.12	0.25	78.08	0.28	343.16	80.88%	0.98	79.54%	264.20	77.19%	0.79	73.80%	0.00
2003	LDGV	4	102.18	0.33	97.68	0.32	4	100.00%	56.72	0.14	70.65	0.18	45.45	44.48%	0.19	56.82%	27.03	27.67%	0.15	44.96%	0.00
	LDGT	10	139.98	0.24	133.36	0.22	7	70.00%	51.67	0.11	55.10	0.14	41.93	44.80%	0.07	39.20%	36.07	39.56%	0.04	24.41%	0.00
	HDGT	31	549.34	1.89	488.89	1.79	28	90.32%	74.57	0.29	106.03	0.41	436.69	85.41%	1.72	85.59%	353.97	76.95%	1.49	78.52%	0.00
<b>2003 Total</b>		45	418.62	1.38	375.11	1.31	39	86.67%	68.63	0.24	93.26	0.34	325.71	82.60%	1.27	83.96%	263.38	73.85%	1.09	76.51%	0.00
2004	LDGT	4	113.35	0.20	102.58	0.18	4	100.00%	17.63	0.08	13.53	0.07	95.73	84.45%	0.11	57.69%	89.05	86.81%	0.12	63.89%	0.00
	HDGT	23	550.88	1.53	531.87	1.50	15	65.22%	71.05	0.29	71.45	0.33	550.69	88.57%	1.30	81.96%	525.47	88.03%	1.20	78.70%	0.00
<b>2004 Total</b>		27	486.06	1.33	468.27	1.30	19	70.37%	59.81	0.24	59.26	0.27	454.91	88.38%	1.05	81.19%	433.59	87.98%	0.98	78.25%	0.00
2005	LDGV	3	464.30	1.02	473.93	0.98	2	66.67%	37.35	0.14	20.10	0.04	150.75	80.14%	0.27	66.67%	204.80	91.06%	0.35	90.79%	0.00
	LDGT	1	17.40	0.00	15.50	0.00	1	100.00%	5.10	0.00	6.20	0.00	12.30	70.69%	0.00		9.30	60.00%	0.00	0.00%	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	
	HDGT	13	702.75	1.39	841.71	2.11	8	61.54%	89.54	0.33	93.24	0.31	532.25	85.60%	0.61	64.81%	713.99	88.45%	1.23	79.95%	0.00
<b>2005 Total</b>		17	620.36	1.24	728.21	1.79	11	64.71%	72.37	0.27	72.03	0.23	415.62	85.17%	0.49	64.99%	557.35	88.56%	0.95	80.58%	0.00
2006	LDGV	1	1.50	0.00	1.10	0.00	1	100.00%	0.70	0.01	0.80	0.01	0.80	53.33%	-0.01		0.30	27.27%	-0.01	0.00%	0.00
	LDGT	3	177.93	1.55	169.43	1.58	3	100.00%	7.93	0.00	8.37	0.00	170.00	95.54%	1.55	100.00%	161.07	95.06%	1.58	100.00%	0.00
	HDGT	23	471.36	0.67	404.44	0.57	12	52.17%	99.43	0.30	110.77	0.30	231.73	69.98%	0.22	42.49%	235.85	68.04%	0.24	44.29%	0.00
<b>2006 Total</b>		27	421.35	0.74	363.39	0.66	16	59.26%	76.10	0.23	84.69	0.22	205.73	73.00%	0.46	66.88%	207.11	70.98%	0.47	67.90%	0.00
2007	LDGV	1	5.80	0.07	8.60	0.23	1	100.00%	3.60	0.03	6.40	0.13	2.20	37.93%	0.04	57.14%	2.20	25.58%	0.10	43.48%	0.00
	HDGT	15	1047.95	1.68	646.13	1.56	10	66.67%	74.34	0.17	61.34	0.18	797.82	91.48%	1.36	88.79%	712.47	92.07%	1.34	88.29%	0.00
<b>2007 Total</b>		16	982.81	1.58	606.29	1.48	11	68.75%	67.91	0.16	56.35	0.17	725.49	91.44%	1.24	88.64%	647.90	92.00%	1.22	87.62%	0.00
2008	LDGT	4	107.43	1.10	90.85	1.06	4	100.00%	5.30	0.02	23.90	0.29	102.13	95.07%	1.08	98.17%	66.95	73.69%	0.78	73.18%	0.00
	HDGT	6	661.58	0.68	416.00	0.59	5	83.33%	96.68	0.14	57.72	0.17	488.44	83.48%	0.47	76.87%	225.30	79.61%	0.34	66.67%	0.00
<b>2008 Total</b>		10	439.92	0.84	285.94	0.78	9	90.00%	56.07	0.09	42.69	0.22	316.74	84.96%	0.74	89.40%	154.92	78.40%	0.53	70.74%	0.00
2009	HDGT	5	320.60	1.13	202.36	0.72	5	100.00%	150.78	0.44	98.96	0.38	169.82	52.97%	0.69	61.35%	103.40	51.10%	0.34	47.49%	0.00
<b>2009 Total</b>		5	320.60	1.13	202.36	0.72	5	100.00%	150.78	0.44	98.96	0.38	169.82	52.97%	0.69	61.35%	103.40	51.10%	0.34	47.49%	0.00
2010	LDGV	1	4.60	0.00	4.40	0.00	1	100.00%	15.90	0.12	16.40	0.15	-11.30	-245.65%	-0.12		-12.00	-272.73%	-0.15	0.00%	0.00
	HDGT	2	0.00	0.00	0.00	0.00	2	100.00%	2.80	0.00	4.05	0.02	-2.80	0.00%	0.00	0.00%	-4.05	0.00%	-0.02	0.00%	0.00
<b>2010 Total</b>		3	1.53	0.00	1.47	0.00	3	100.00%	7.17	0.04	8.17	0.06	-5.63	-367.39%	-0.04		-6.70	-456.82%	-0.06	0.00%	0.00
2011	HDGT	11	401.24	2.62	282.61	1.88	10	90.91%	63.67	0.05	68.29	0.07	330.16	83.83%	2.82	98.32%	191.99	73.76%	1.98	96.73%	0.00
<b>2011 Total</b>		11	401.24	2.62	282.61	1.88	10	90.91%	63.67	0.05	68.29	0.07	330.16	83.83%	2.82	98.32%	191.99	73.76%	1.98	96.73%	0.00
2012	LDGV	1	10.40	0.14	9.90	0.14	1	100.00%	5.30	0.10	6.50	0.16	5.10	49.04%	0.04	28.57%	3.40	34.34%	-0.02	-14.29%	0.00
	HDGT	6	625.47	0.97	520.62	1.10	6	100.00%	113.33	0.30	53.97	0.35	512.13	81.88%	0.67	69.31%	466.65	89.63%	0.76	68.53%	0.00
<b>2012 Total</b>		7	537.60	0.85	447.66	0.96	7	100.00%	97.90	0.27	47.19	0.32	439.70	81.79%	0.58	68.35%	400.47	89.46%	0.64	66.81%	0.00
2013	LDGV	1	1.90	0.02	2.20	0.04	1	100.00%	4.20	0.05	4.40	0.06	-2.30	-121.05%	-0.03	-150.00%	-2.20	-100.00%	-0.02	-50.00%	0.00
	LDGT	1	49.90	0.08	48.90	0.08	1	100.00%	63.50	0.09	64.60	0.09	-13.60	-27.25%	-0.01	-12.50%	-15.70	-32.11%	-0.01	-12.50%	30.00
	HDGT	9	81.86	2.29	73.33	2.24	5	55.56%	19.52	0.09	19.82	0.08	29.66	60.31%	1.29	93.60%	24.34	55.12%	1.27	93.92%	0.00
<b>2013 Total</b>		11	71.68	1.88	64.65	1.85	7	63.64%	23.61	0.08	24.01	0.08	18.91	44.47%	0.91	91.68%	14.83	38.18%	0.90	91.84%	30.00
2014	LDGT	1	286.70	0.56	275.00	0.56	1	100.00%	141.80	0.23	150.50	0.23	144.90	50.54%	0.33	58.93%	124.50	45.27%	0.33	58.93%	0.00
	HDGT	1	381.50	3.24	439.90	4.63	1	100.00%	47.00	0.03	37.30	0.02	334.50	87.68%	3.21	99.07%	402.60	91.52%	4.61	99.57%	0.00
<b>2014 Total</b>		2	334.10	1.90	357.45	2.59	2	100.00%	94.40	0.13	93.90	0.13	239.70	71.74%	1.77	93.16%	263.55	73.73%	2.47	95.18%	0.00
2015	HDGT	1	9.20	0.00	9.40	0.00	1	100.00%	7.40	0.00	7.30	0.00	1.80	19.57%	0.00		2.10	22.34%	0.00	0.00%	0.00
<b>2015 Total</b>		1	9.20	0.00	9.40	0.00	1	100.00%	7.40	0.00	7.30	0.00	1.80	19.57%	0.00		2.10	22.34%	0.00	0.00%	0.00
2016	LDGV	1	984.00	0.12	1078.20	0.11	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
	LDGT	1	71.10	0.58	66.30	0.54	1	100.00%	23.70	0.01	23.00	0.00	47.40	66.67%	0.57	98.28%	43.30	65.31%	0.54	100.00%	0.00
	HDGT	1	294.40	2.99	289.70	3.01	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
<b>2016 Total</b>		3	449.83	1.23	478.07	1.22	1	33.33%	23.70	0.01	23.00	0.00	47.40	66.67%	0.57	98.28%	43.30	65.31%	0.54	100.00%	0.00
<b>Grand Total</b>		3803	629.63	2.93	543.14	2.79	2051	53.93%	139.26	0.68	153.09	0.87	415.29	74.89%	1.96	74.26%	329.66	68.29%	1.63	65.18%	486.06

**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		814	613.91	3.18	548.73	3.16	413	50.74%	135.41	0.51	155.39	0.73	396.30	74.53%	2.24	81.51%	325.92	67.72%	2.04	73.71%	397.83

Vehicle Type	Initial Exhaust Emissions					Passing Retest Exhaust Emissions						Emission Reductions								Average Repair Costs
	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	
LDGT	810	558.31	3.03	473.67	2.89	389	48.02%	109.09	0.37	117.60	0.62	316.98	74.40%	2.10	84.95%	251.85	68.17%	1.75	73.96%	425.67
HDGT	2179	662.02	2.81	566.87	2.61	1249	57.32%	149.93	0.83	163.39	0.99	452.20	75.10%	1.82	68.67%	355.13	68.49%	1.45	59.35%	540.28
<b>Grand Total</b>	<b>3803</b>	<b>629.63</b>	<b>2.93</b>	<b>543.14</b>	<b>2.79</b>	<b>2051</b>	<b>53.93%</b>	<b>139.26</b>	<b>0.68</b>	<b>153.09</b>	<b>0.87</b>	<b>415.29</b>	<b>74.89%</b>	<b>1.96</b>	<b>74.26%</b>	<b>329.66</b>	<b>68.29%</b>	<b>1.63</b>	<b>65.18%</b>	<b>486.06</b>



## **Appendix C6**

### Idle Retest Frequency Report





Date  
Between 1/1/2020 and 12/31/2020

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	125	1.5	87	69.60%	44	50.57%	22	17.60%	10	45.45%	11	8.80%	6	54.55%	5	4.00%	3	60.00%	0	0	0	0.00%
	LDGT	43	1.4	30	69.77%	13	43.33%	11	25.58%	6	54.55%	2	4.65%	1	50.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	26	1.3	21	80.77%	18	85.71%	2	7.69%	1	50.00%	1	3.85%	0	0.00%	2	7.69%	2	100.00%	0	0	0	0.00%
<b>1974 Total</b>		194	1.4	138	71.13%	75	54.35%	35	18.04%	17	48.57%	14	7.22%	7	50.00%	7	3.61%	5	71.43%	0	0	0	0.00%
1975	LDGV	4	1.0	4	100.00%	2	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%
	LDGT	3	1.0	2	66.67%	2	100.00%	1	33.33%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	6	1.8	3	50.00%	3	100.00%	1	16.67%	0	0.00%	2	33.33%	2	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
<b>1975 Total</b>		13	1.4	9	69.23%	7	77.78%	2	15.38%	0	0.00%	2	15.38%	2	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
1976	LDGV	61	1.4	41	67.21%	20	48.78%	14	22.95%	6	42.86%	5	8.20%	3	60.00%	1	1.64%	0	0.00%	0	0	0	0.00%
	LDGT	43	1.6	27	62.79%	15	55.56%	8	18.60%	5	62.50%	3	6.98%	1	33.33%	4	9.30%	2	50.00%	1	2	0	0.00%
	HDGT	72	1.5	50	69.44%	38	76.00%	9	12.50%	2	22.22%	8	11.11%	4	50.00%	2	2.78%	1	50.00%	3	4	2	66.67%
<b>1976 Total</b>		176	1.5	118	67.05%	73	61.86%	31	17.61%	13	41.94%	16	9.09%	8	50.00%	7	3.98%	3	42.86%	4	2	2	50.00%
1977	LDGV	88	1.7	46	52.27%	24	52.17%	22	25.00%	8	36.36%	10	11.36%	2	20.00%	5	5.68%	2	40.00%	5	6	2	40.00%
	LDGT	34	1.2	24	70.59%	15	62.50%	8	23.53%	1	12.50%	2	5.88%	1	50.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	95	1.4	63	66.32%	48	76.19%	17	17.89%	8	47.06%	9	9.47%	4	44.44%	3	3.16%	1	33.33%	3	3	1	33.33%
<b>1977 Total</b>		217	1.5	133	61.29%	87	65.41%	47	21.66%	17	36.17%	21	9.68%	7	33.33%	8	3.69%	3	37.50%	8	4	3	37.50%
1978	LDGV	110	1.6	60	54.55%	32	53.33%	24	21.82%	5	20.83%	13	11.82%	3	23.08%	10	9.09%	3	30.00%	3	3	2	66.67%
	LDGT	49	1.5	35	71.43%	19	54.29%	10	20.41%	6	60.00%	2	4.08%	2	100.00%	0	0.00%	0	0.00%	2	4	1	50.00%
	HDGT	154	1.3	114	74.03%	77	67.54%	29	18.83%	21	72.41%	6	3.90%	4	66.67%	2	1.30%	0	0.00%	3	2	1	33.33%
<b>1978 Total</b>		313	1.4	209	66.77%	128	61.24%	63	20.13%	32	50.79%	21	6.71%	9	42.86%	12	3.83%	3	25.00%	8	3	4	50.00%
1979	LDGV	162	1.6	103	63.58%	60	58.25%	34	20.99%	12	35.29%	17	10.49%	12	70.59%	5	3.09%	3	60.00%	3	2	1	33.33%
	LDGT	212	1.9	111	52.36%	52	46.85%	44	20.75%	14	31.82%	27	12.74%	9	33.33%	16	7.55%	10	62.50%	14	7	3	21.43%
	HDGT	15	1.5	11	73.33%	9	81.82%	1	6.67%	1	100.00%	2	13.33%	0	0.00%	0	0.00%	0	0.00%	1	7	1	100.00%
<b>1979 Total</b>		389	1.7	225	57.84%	121	53.78%	79	20.31%	27	34.18%	46	11.83%	21	45.65%	21	5.40%	13	61.90%	18	5	5	27.78%
1980	LDGV	51	1.2	39	76.47%	30	76.92%	9	17.65%	5	55.56%	3	5.88%	2	66.67%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	109	1.7	63	57.80%	36	57.14%	22	20.18%	8	36.36%	11	10.09%	4	36.36%	5	4.59%	1	20.00%	8	7	3	37.50%
	HDGT	16	1.4	10	62.50%	5	50.00%	5	31.25%	3	60.00%	1	6.25%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
<b>1980 Total</b>		176	1.5	112	63.64%	71	63.39%	36	20.45%	16	44.44%	15	8.52%	6	40.00%	5	2.84%	1	20.00%	8	5	3	37.50%
1981	LDGV	90	1.8	51	56.67%	26	50.98%	18	20.00%	6	33.33%	10	11.11%	4	40.00%	5	5.56%	1	20.00%	6	7	3	50.00%
	LDGT	107	1.5	65	60.75%	33	50.77%	20	18.69%	8	40.00%	14	13.08%	7	50.00%	4	3.74%	1	25.00%	4	4	0	0.00%
	HDGT	37	2.2	14	37.84%	8	57.14%	9	24.32%	5	55.56%	4	10.81%	2	50.00%	3	8.11%	1	33.33%	7	19	2	28.57%
<b>1981 Total</b>		234	1.7	130	55.56%	67	51.54%	47	20.09%	19	40.43%	28	11.97%	13	46.43%	12	5.13%	3	25.00%	17	7	5	29.41%
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	8	2.5	2	25.00%	1	50.00%	2	25.00%	0	0.00%	3	37.50%	0	0.00%	1	12.50%	1	100.00%	0	0	0	0.00%
	HDGT	24	2.1	12	50.00%	6	50.00%	4	16.67%	2	50.00%	2	8.33%	0	0.00%	3	12.50%	1	33.33%	3	13	1	33.33%
<b>1982 Total</b>		34	2.2	15	44.12%	7	46.67%	7	20.59%	3	42.86%	5	14.71%	0	0.00%	4	11.76%	2	50.00%	3	9	1	33.33%
1983	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	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	32	1.9	16	50.00%	7	43.75%	8	25.00%	3	37.50%	5	15.63%	1	20.00%	2	6.25%	1	50.00%	1	3	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%	
<b>1983 Total</b>			35	1.8	19	54.29%	9	47.37%	8	22.86%	3	37.50%	5	14.29%	1	20.00%	2	5.71%	1	50.00%	1	3	1	100.00%
1984	LDGV	3	1.0	2	66.67%	1	50.00%	1	33.33%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
	LDGT	4	2.0	2	50.00%	1	50.00%	0	0.00%	0	0.00%	1	25.00%	1	100.00%	0	0.00%	0	0.00%	1	25	0	0.00%	
	HDGT	57	1.6	37	64.91%	21	56.76%	14	24.56%	9	64.29%	6	10.53%	6	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
<b>1984 Total</b>			64	1.6	41	64.06%	23	56.10%	15	23.44%	9	60.00%	7	10.94%	7	100.00%	0	0.00%	0	0.00%	1	2	0	0.00%
1985	LDGV	4	1.0	4	100.00%	3	75.00%	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	57	1.7	32	56.14%	17	53.13%	16	28.07%	11	68.75%	4	7.02%	0	0.00%	4	7.02%	2	50.00%	1	2	1	100.00%	
<b>1985 Total</b>			62	1.6	37	59.68%	21	56.76%	16	25.81%	11	68.75%	4	6.45%	0	0.00%	4	6.45%	2	50.00%	1	2	1	100.00%
1986	LDGV	8	2.0	4	50.00%	2	50.00%	2	25.00%	1	50.00%	1	12.50%	0	0.00%	1	12.50%	1	100.00%	0	0	0	0.00%	
	LDGT	8	1.0	3	37.50%	1	33.33%	2	25.00%	0	0.00%	2	25.00%	0	0.00%	1	12.50%	0	0.00%	0	0	0	0.00%	
	HDGT	45	1.4	29	64.44%	16	55.17%	10	22.22%	4	40.00%	4	8.89%	2	50.00%	1	2.22%	0	0.00%	1	2	0	0.00%	
<b>1986 Total</b>			61	1.4	36	59.02%	19	52.78%	14	22.95%	5	35.71%	7	11.48%	2	28.57%	3	4.92%	1	33.33%	1	2	0	0.00%
1987	LDGV	2	0.0	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	0	0.00%	
	LDGT	5	1.0	4	80.00%	2	50.00%	1	20.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
	HDGT	57	1.8	30	52.63%	14	46.67%	14	24.56%	4	28.57%	8	14.04%	2	25.00%	4	7.02%	2	50.00%	1	2	1	100.00%	
<b>1987 Total</b>			64	1.7	36	56.25%	16	44.44%	15	23.44%	4	26.67%	8	12.50%	2	25.00%	4	6.25%	2	50.00%	1	2	1	100.00%
1988	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	10	2.0	5	50.00%	2	40.00%	3	30.00%	2	66.67%	2	20.00%	2	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
	HDGT	74	2.2	36	48.65%	16	44.44%	16	21.62%	4	25.00%	8	10.81%	4	50.00%	4	5.41%	0	0.00%	10	14	4	40.00%	
<b>1988 Total</b>			85	2.1	42	49.41%	19	45.24%	19	22.35%	6	31.58%	10	11.76%	6	60.00%	4	4.71%	0	0.00%	10	12	4	40.00%
1989	LDGV	2	2.0	1	50.00%	1	100.00%	0	0.00%	0	0.00%	1	50.00%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
	LDGT	5	1.0	4	80.00%	1	25.00%	1	20.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
	HDGT	84	1.7	48	57.14%	28	58.33%	17	20.24%	7	41.18%	8	9.52%	1	12.50%	6	7.14%	0	0.00%	5	6	4	80.00%	
<b>1989 Total</b>			91	1.7	53	58.24%	30	56.60%	18	19.78%	7	38.89%	9	9.89%	2	22.22%	6	6.59%	0	0.00%	5	5	4	80.00%
1990	LDGV	22	2.1	11	50.00%	6	54.55%	4	18.18%	1	25.00%	3	13.64%	0	0.00%	3	13.64%	2	66.67%	1	5	1	100.00%	
	LDGT	8	1.0	6	75.00%	3	50.00%	1	12.50%	0	0.00%	1	12.50%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
	HDGT	101	1.6	56	55.45%	27	48.21%	22	21.78%	7	31.82%	14	13.86%	6	42.86%	5	4.95%	1	20.00%	4	4	1	25.00%	
<b>1990 Total</b>			131	1.7	73	55.73%	36	49.32%	27	20.61%	8	29.63%	18	13.74%	6	33.33%	8	6.11%	3	37.50%	5	4	2	40.00%
1991	LDGV	5	1.0	2	40.00%	1	50.00%	1	20.00%	0	0.00%	1	20.00%	0	0.00%	1	20.00%	0	0.00%	0	0	0	0.00%	
	LDGT	12	1.8	5	41.67%	3	60.00%	4	33.33%	0	0.00%	2	16.67%	0	0.00%	1	8.33%	1	100.00%	0	0	0	0.00%	
	HDGT	91	2.1	48	52.75%	22	45.83%	19	20.88%	8	42.11%	11	12.09%	4	36.36%	8	8.79%	4	50.00%	5	5	4	80.00%	
<b>1991 Total</b>			108	2.0	55	50.93%	26	47.27%	24	22.22%	8	33.33%	14	12.96%	4	28.57%	10	9.26%	5	50.00%	5	5	4	80.00%
1992	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	9	1.0	5	55.56%	3	60.00%	1	11.11%	0	0.00%	1	11.11%	0	0.00%	1	11.11%	0	0.00%	1	11	0	0.00%	
	HDGT	85	1.6	49	57.65%	30	61.22%	18	21.18%	8	44.44%	9	10.59%	4	44.44%	4	4.71%	0	0.00%	5	6	2	40.00%	
<b>1992 Total</b>			96	1.6	56	58.33%	35	62.50%	19	19.79%	8	42.11%	10	10.42%	4	40.00%	5	5.21%	0	0.00%	6	6	2	33.33%
1993	LDGV	9	2.5	3	33.33%	1	33.33%	3	33.33%	2	66.67%	1	11.11%	0	0.00%	1	11.11%	0	0.00%	1	11	1	100.00%	
	LDGT	9	1.3	4	44.44%	2	50.00%	2	22.22%	1	50.00%	1	11.11%	0	0.00%	1	11.11%	0	0.00%	1	11	0	0.00%	
	HDGT	104	1.7	58	55.77%	33	56.90%	22	21.15%	10	45.45%	10	9.62%	3	30.00%	5	4.81%	3	60.00%	9	9	2	22.22%	
<b>1993 Total</b>			122	1.8	65	53.28%	36	55.38%	27	22.13%	13	48.15%	12	9.84%	3	25.00%	7	5.74%	3	42.86%	11	9	3	27.27%
1994	LDGV	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%	

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	35	2.4	16	45.71%	9	56.25%	7	20.00%	2	28.57%	3	8.57%	0	0.00%	3	8.57%	1	33.33%	6	17	2	33.33%
	HDGT	94	1.7	56	59.57%	33	58.93%	19	20.21%	10	52.63%	10	10.64%	7	70.00%	3	3.19%	2	66.67%	6	6	2	33.33%
<b>1994 Total</b>		133	1.9	74	55.64%	43	58.11%	28	21.05%	14	50.00%	13	9.77%	7	53.85%	6	4.51%	3	50.00%	12	9	4	33.33%
1995	LDGV	6	1.3	5	83.33%	5	100.00%	0	0.00%	0	0.00%	1	16.67%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	25	2.0	11	44.00%	3	27.27%	7	28.00%	2	28.57%	5	20.00%	3	60.00%	2	8.00%	0	0.00%	0	0	0	0.00%
	HDGT	141	1.6	83	58.87%	55	66.27%	28	19.86%	12	42.86%	15	10.64%	8	53.33%	7	4.96%	5	71.43%	8	6	1	12.50%
<b>1995 Total</b>		172	1.6	99	57.56%	63	63.64%	35	20.35%	14	40.00%	21	12.21%	12	57.14%	9	5.23%	5	55.56%	8	5	1	12.50%
1996	LDGV	15	1.7	6	40.00%	1	16.67%	4	26.67%	2	50.00%	1	6.67%	0	0.00%	1	6.67%	0	0.00%	3	20	0	0.00%
	LDGT	7	1.6	4	57.14%	3	75.00%	2	28.57%	1	50.00%	1	14.29%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	117	1.6	74	63.25%	45	60.81%	25	21.37%	11	44.00%	13	11.11%	10	76.92%	4	3.42%	2	50.00%	1	1	1	100.00%
<b>1996 Total</b>		139	1.6	84	60.43%	49	58.33%	31	22.30%	14	45.16%	15	10.79%	11	73.33%	5	3.60%	2	40.00%	4	3	1	25.00%
1997	LDGV	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%
	LDGT	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	0	0.00%
	HDGT	103	1.5	68	66.02%	41	60.29%	24	23.30%	12	50.00%	6	5.83%	4	66.67%	2	1.94%	0	0.00%	3	3	2	66.67%
<b>1997 Total</b>		115	1.4	80	69.57%	53	66.25%	24	20.87%	12	50.00%	6	5.22%	4	66.67%	2	1.74%	0	0.00%	3	3	2	66.67%
1998	LDGV	7	1.4	5	71.43%	3	60.00%	2	28.57%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	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%
	HDGT	82	1.7	50	60.98%	28	56.00%	18	21.95%	7	38.89%	5	6.10%	3	60.00%	3	3.66%	0	0.00%	6	7	4	66.67%
<b>1998 Total</b>		95	1.6	61	64.21%	37	60.66%	20	21.05%	9	45.00%	5	5.26%	3	60.00%	3	3.16%	0	0.00%	6	6	4	66.67%
1999	LDGV	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%
	LDGT	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%
	HDGT	77	1.5	50	64.94%	35	70.00%	17	22.08%	10	58.82%	8	10.39%	5	62.50%	2	2.60%	2	100.00%	0	0	0	0.00%
<b>1999 Total</b>		86	1.5	56	65.12%	38	67.86%	20	23.26%	13	65.00%	8	9.30%	5	62.50%	2	2.33%	2	100.00%	0	0	0	0.00%
2000	LDGV	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%
	LDGT	10	1.1	8	80.00%	6	75.00%	2	20.00%	1	50.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	105	1.4	67	63.81%	44	65.67%	24	22.86%	14	58.33%	9	8.57%	4	44.44%	4	3.81%	1	25.00%	1	1	0	0.00%
<b>2000 Total</b>		119	1.4	78	65.55%	52	66.67%	27	22.69%	16	59.26%	9	7.56%	4	44.44%	4	3.36%	1	25.00%	1	1	0	0.00%
2001	LDGV	3	1.0	2	66.67%	1	50.00%	1	33.33%	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	38	1.1	34	89.47%	31	91.18%	3	7.89%	1	33.33%	0	0.00%	0	0.00%	1	2.63%	1	100.00%	0	0	0	0.00%
<b>2001 Total</b>		43	1.1	38	88.37%	34	89.47%	4	9.30%	1	25.00%	0	0.00%	0	0.00%	1	2.33%	1	100.00%	0	0	0	0.00%
2002	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	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	0	0.00%
	HDGT	43	1.4	30	69.77%	23	76.67%	8	18.60%	4	50.00%	4	9.30%	3	75.00%	1	2.33%	1	100.00%	0	0	0	0.00%
<b>2002 Total</b>		51	1.3	38	74.51%	31	81.58%	8	15.69%	4	50.00%	4	7.84%	3	75.00%	1	1.96%	1	100.00%	0	0	0	0.00%
2003	LDGV	4	1.0	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	0	0.00%
	LDGT	10	1.4	7	70.00%	6	85.71%	1	10.00%	0	0.00%	1	10.00%	0	0.00%	1	10.00%	1	100.00%	0	0	0	0.00%
	HDGT	31	1.1	29	93.55%	26	89.66%	2	6.45%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
<b>2003 Total</b>		45	1.1	40	88.89%	36	90.00%	3	6.67%	2	66.67%	1	2.22%	0	0.00%	1	2.22%	1	100.00%	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	4	1.0	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	0	0.00%
	HDGT	23	1.3	16	69.57%	13	81.25%	3	13.04%	1	33.33%	2	8.70%	0	0.00%	1	4.35%	0	0.00%	1	4	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%	
<b>2004 Total</b>			27	1.3	20	74.07%	17	85.00%	3	11.11%	1	33.33%	2	7.41%	0	0.00%	1	3.70%	0	0.00%	1	4	1	100.00%
2005	LDGV	3	2.5	2	66.67%	1	50.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	33.33%	1	100.00%	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	13	1.3	10	76.92%	6	60.00%	3	23.08%	2	66.67%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
<b>2005 Total</b>			17	1.5	13	76.47%	8	61.54%	3	17.65%	2	66.67%	0	0.00%	0	0.00%	1	5.88%	1	100.00%	0	0	0	0.00%
2006	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	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%	
	HDGT	23	1.6	14	60.87%	8	57.14%	5	21.74%	2	40.00%	3	13.04%	1	33.33%	1	4.35%	1	100.00%	0	0	0	0.00%	
<b>2006 Total</b>			27	1.4	18	66.67%	12	66.67%	5	18.52%	2	40.00%	3	11.11%	1	33.33%	1	3.70%	1	100.00%	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	15	1.6	9	60.00%	7	77.78%	3	20.00%	2	66.67%	1	6.67%	0	0.00%	1	6.67%	0	0.00%	1	7	1	100.00%	
<b>2007 Total</b>			16	1.5	10	62.50%	8	80.00%	3	18.75%	2	66.67%	1	6.25%	0	0.00%	1	6.25%	0	0.00%	1	6	1	100.00%
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	4	1.0	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	0	0.00%	
	HDGT	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%	
<b>2008 Total</b>			10	1.1	9	90.00%	8	88.89%	1	10.00%	1	100.00%	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	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%	
<b>2009 Total</b>			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%
2010	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	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%	
<b>2010 Total</b>			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	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	11	1.1	10	90.91%	9	90.00%	1	9.09%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
<b>2011 Total</b>			11	1.1	10	90.91%	9	90.00%	1	9.09%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2012	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	6	1.2	5	83.33%	5	100.00%	1	16.67%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
<b>2012 Total</b>			7	1.1	6	85.71%	6	100.00%	1	14.29%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2013	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	9	1.8	5	55.56%	3	60.00%	2	22.22%	0	0.00%	2	22.22%	2	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
<b>2013 Total</b>			11	1.6	7	63.64%	5	71.43%	2	18.18%	0	0.00%	2	18.18%	2	100.00%	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%	
	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	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%	
<b>2014 Total</b>			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%
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%	

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	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%
<b>2015 Total</b>		<b>1</b>	<b>1.0</b>	<b>1</b>	<b>100.00%</b>	<b>1</b>	<b>100.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00%</b>
2016	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	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	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%
<b>2016 Total</b>		<b>3</b>	<b>1.0</b>	<b>3</b>	<b>100.00%</b>	<b>1</b>	<b>33.33%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00%</b>
<b>Overall Total</b>		<b>3,803</b>	<b>1.6</b>	<b>2357</b>	<b>61.98%</b>	<b>1427</b>	<b>60.54%</b>	<b>768</b>	<b>20.19%</b>	<b>335</b>	<b>43.62%</b>	<b>362</b>	<b>9.52%</b>	<b>162</b>	<b>44.75%</b>	<b>167</b>	<b>4.39%</b>	<b>68</b>	<b>40.72%</b>	<b>149</b>	<b>4</b>	<b>59</b>	<b>39.60%</b>

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	814	1.5	509	62.53%	288	56.58%	166	20.39%	65	39.16%	78	9.58%	34	43.59%	39	4.79%	16	41.03%	22	3	10	45.45%	
LDGT	810	1.6	486	60.00%	271	55.76%	162	20.00%	59	36.42%	84	10.37%	32	38.10%	40	4.94%	18	45.00%	38	5	9	23.68%	
HDGT	2,179	1.6	1362	62.51%	868	63.73%	440	20.19%	211	47.95%	200	9.18%	96	48.00%	88	4.04%	34	38.64%	89	4	40	44.94%	
<b>Overall Total</b>		<b>3,803</b>	<b>1.6</b>	<b>2357</b>	<b>61.98%</b>	<b>1427</b>	<b>60.54%</b>	<b>768</b>	<b>20.19%</b>	<b>335</b>	<b>43.62%</b>	<b>362</b>	<b>9.52%</b>	<b>162</b>	<b>44.75%</b>	<b>167</b>	<b>4.39%</b>	<b>68</b>	<b>40.72%</b>	<b>149</b>	<b>4</b>	<b>59</b>	<b>39.60%</b>



## **Appendix D1**

### **I/M Eligible Vehicle Report**

#### **Evaluated Vehicles**





# Colorado

## I/M Eligible Vehicle Report, Evaluated Vehicles

Thursday, 08-April-2021

Report Start: **Jan, 2020**

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								
<b>1982</b>															
	<b>P</b>	4	0	1	0	0	3	<b>Clean:</b>	0	0.00%	0.0000	0.0000	0.0000	0.00	
			0.00%	25.00%	0.00%	0.00%	75.00%	<b>Not Clean:</b>	3	100.00%	0.6667	96.8333	1,559.3333	1.67	75.00%
	<b>T</b>	4	0	3	0	0	1	<b>Clean:</b>	0	0.00%	0.0000	0.0000	0.0000	0.00	
			0.00%	75.00%	0.00%	0.00%	25.00%	<b>Not Clean:</b>	1	100.00%	6.5000	360.0000	138.5000	2.00	25.00%
	<b>U</b>	313	313	0	0	0	0	<b>Clean:</b>	0	0.00%	0.0000	0.0000	0.0000	0.00	
			100.00%	0.00%	0.00%	0.00%	0.00%	<b>Not Clean:</b>	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
<b>Total For 1982</b>		<b>321</b>	<b>313</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>Clean:</b>	<b>0</b>	<b>0.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.00</b>	
			97.51%	1.25%	0.00%	0.00%	1.25%	<b>Not Clean:</b>	<b>4</b>	<b>100.00%</b>	<b>2.1250</b>	<b>162.6250</b>	<b>1,204.1250</b>	<b>1.75</b>	<b>1.25%</b>
<b>1983</b>															
	<b>P</b>	4	0	1	0	1	2	<b>Clean:</b>	1	33.33%	0.0000	0.0000	0.0000	0.00	
			0.00%	25.00%	0.00%	25.00%	50.00%	<b>Not Clean:</b>	2	66.67%	3.2500	394.2500	1,762.5000	1.25	75.00%
	<b>T</b>	12	0	10	0	0	2	<b>Clean:</b>	0	0.00%	0.0000	0.0000	0.0000	0.00	
			0.00%	83.33%	0.00%	0.00%	16.67%	<b>Not Clean:</b>	2	100.00%	5.7500	568.7500	965.5000	1.00	16.67%
	<b>U</b>	333	332	1	0	0	0	<b>Clean:</b>	0	0.00%	0.0000	0.0000	0.0000	0.00	
			99.70%	0.30%	0.00%	0.00%	0.00%	<b>Not Clean:</b>	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
<b>Total For 1983</b>		<b>349</b>	<b>332</b>	<b>12</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>Clean:</b>	<b>1</b>	<b>20.00%</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.00</b>	
			95.13%	3.44%	0.00%	0.29%	1.15%	<b>Not Clean:</b>	<b>4</b>	<b>80.00%</b>	<b>4.5000</b>	<b>481.5000</b>	<b>1,364.0000</b>	<b>1.13</b>	<b>1.43%</b>
<b>1984</b>															
	<b>P</b>	13	0	7	0	0	6	<b>Clean:</b>	1	16.67%	0.0000	22.5000	487.0000	1.00	
			0.00%	53.85%	0.00%	0.00%	46.15%	<b>Not Clean:</b>	5	83.33%	1.7000	381.1000	936.8000	0.30	46.15%
	<b>T</b>	33	0	17	0	0	16	<b>Clean:</b>	0	0.00%	0.0000	0.0000	0.0000	0.00	
			0.00%	51.52%	0.00%	0.00%	48.48%	<b>Not Clean:</b>	16	100.00%	2.6563	187.9063	1,322.7813	0.91	48.48%
	<b>U</b>	592	591	1	0	0	0	<b>Clean:</b>	0	0.00%	0.0000	0.0000	0.0000	0.00	
			99.83%	0.17%	0.00%	0.00%	0.00%	<b>Not Clean:</b>	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
<b>Total For 1984</b>		<b>638</b>	<b>591</b>	<b>25</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>Clean:</b>	<b>1</b>	<b>4.55%</b>	<b>0.0000</b>	<b>22.5000</b>	<b>487.0000</b>	<b>1.00</b>	
			92.63%	3.92%	0.00%	0.00%	3.45%	<b>Not Clean:</b>	<b>21</b>	<b>95.45%</b>	<b>2.4286</b>	<b>233.9048</b>	<b>1,230.8810</b>	<b>0.76</b>	<b>3.45%</b>

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								
<b>1985</b>															
P	13	13	0	9	0	0	4	Clean:	1	25.00%	0.0000	74.0000	686.5000	1.00	
			0.00%	69.23%	0.00%	0.00%	30.77%	Not Clean:	3	75.00%	0.1667	27.1667	1,819.0000	1.33	30.77%
T	34	34	0	18	0	0	16	Clean:	1	6.25%	0.0000	29.0000	412.0000	0.00	
			0.00%	52.94%	0.00%	0.00%	47.06%	Not Clean:	15	93.75%	1.1333	171.8333	1,202.2333	1.27	47.06%
U	636	636	635	1	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	
			99.84%	0.16%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
<b>Total For 1985</b>		<b>683</b>	<b>635</b>	<b>28</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>Clean:</b>	<b>2</b>	<b>10.00%</b>	<b>0.0000</b>	<b>51.5000</b>	<b>549.2500</b>	<b>0.50</b>	
			92.97%	4.10%	0.00%	0.00%	2.93%	<b>Not Clean:</b>	<b>18</b>	<b>90.00%</b>	<b>0.9722</b>	<b>147.7222</b>	<b>1,305.0278</b>	<b>1.28</b>	<b>2.93%</b>
<b>1986</b>															
P	34	34	0	20	0	2	12	Clean:	5	35.71%	0.0000	39.0000	99.9000	0.80	
			0.00%	58.82%	0.00%	5.88%	35.29%	Not Clean:	9	64.29%	1.1667	369.7222	909.7778	1.61	41.18%
T	71	71	0	41	0	1	29	Clean:	1	3.33%	0.0000	0.0000	0.0000	0.00	
			0.00%	57.75%	0.00%	1.41%	40.85%	Not Clean:	29	96.67%	1.5000	174.6897	1,319.9655	0.93	42.25%
U	1,003	1,003	1,002	1	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	
			99.90%	0.10%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
<b>Total For 1986</b>		<b>1,108</b>	<b>1,002</b>	<b>62</b>	<b>0</b>	<b>3</b>	<b>41</b>	<b>Clean:</b>	<b>6</b>	<b>13.64%</b>	<b>0.0000</b>	<b>32.5000</b>	<b>83.2500</b>	<b>0.67</b>	
			90.43%	5.60%	0.00%	0.27%	3.70%	<b>Not Clean:</b>	<b>38</b>	<b>86.36%</b>	<b>1.4211</b>	<b>220.8816</b>	<b>1,222.8158</b>	<b>1.09</b>	<b>3.97%</b>
<b>1987</b>															
P	38	38	0	20	0	1	17	Clean:	3	16.67%	0.0000	12.3333	284.1667	0.67	
			0.00%	52.63%	0.00%	2.63%	44.74%	Not Clean:	15	83.33%	1.4667	152.8333	1,249.0000	1.03	47.37%
T	85	85	0	47	1	1	36	Clean:	2	5.41%	0.0000	22.0000	291.5000	0.75	
			0.00%	55.29%	1.18%	1.18%	42.35%	Not Clean:	35	94.59%	0.9571	180.8714	1,138.5857	0.84	43.53%
U	998	998	998	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%
<b>Total For 1987</b>		<b>1,121</b>	<b>998</b>	<b>67</b>	<b>1</b>	<b>2</b>	<b>53</b>	<b>Clean:</b>	<b>5</b>	<b>9.09%</b>	<b>0.0000</b>	<b>16.2000</b>	<b>287.1000</b>	<b>0.70</b>	
			89.03%	5.98%	0.09%	0.18%	4.73%	<b>Not Clean:</b>	<b>50</b>	<b>90.91%</b>	<b>1.1100</b>	<b>172.4600</b>	<b>1,171.7100</b>	<b>0.90</b>	<b>4.91%</b>
<b>1988</b>															
P	53	53	0	33	0	0	20	Clean:	7	35.00%	0.0000	17.8571	146.5714	1.50	
			0.00%	62.26%	0.00%	0.00%	37.74%	Not Clean:	13	65.00%	1.6538	220.0000	945.5000	0.42	37.74%
T	147	147	0	88	0	0	59	Clean:	5	8.47%	0.2000	34.6000	406.2000	1.20	
			0.00%	59.86%	0.00%	0.00%	40.14%	Not Clean:	54	91.53%	1.1204	280.8056	1,278.6204	1.16	40.14%
U	1,601	1,601	1,601	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%
<b>Total For 1988</b>		<b>1,801</b>	<b>1,601</b>	<b>121</b>	<b>0</b>	<b>0</b>	<b>79</b>	<b>Clean:</b>	<b>12</b>	<b>15.19%</b>	<b>0.0833</b>	<b>24.8333</b>	<b>254.7500</b>	<b>1.38</b>	
			88.90%	6.72%	0.00%	0.00%	4.39%	<b>Not Clean:</b>	<b>67</b>	<b>84.81%</b>	<b>1.2239</b>	<b>269.0075</b>	<b>1,213.9851</b>	<b>1.01</b>	<b>4.39%</b>

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								
<b>1989</b>															
P	67	0	43	0	4	20	Clean:	9	37.50%	0.0000	24.1111	196.8889	0.61		
			0.00%	64.18%	0.00%	5.97%	29.85%	Not Clean:	15	62.50%	1.4000	111.3000	779.7333	1.57	35.82%
T	191	0	93	0	2	96	Clean:	17	17.35%	0.0588	20.9706	269.7353	0.71		
			0.00%	48.69%	0.00%	1.05%	50.26%	Not Clean:	81	82.65%	1.1481	258.2901	1,446.3889	0.98	51.31%
U	1,654	1,653	1	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%
<b>Total For 1989</b>	<b>1,912</b>	<b>1,653</b>	<b>137</b>	<b>0</b>	<b>6</b>	<b>116</b>	<b>Clean:</b>	<b>26</b>	<b>21.31%</b>	<b>0.0385</b>	<b>22.0577</b>	<b>244.5192</b>	<b>0.67</b>		
			86.45%	7.17%	0.00%	0.31%	6.07%	Not Clean:	96	78.69%	1.1875	235.3229	1,342.2240	1.07	6.38%
<b>1990</b>															
P	126	0	62	0	5	59	Clean:	21	32.81%	0.0476	19.1905	209.4286	0.21		
			0.00%	49.21%	0.00%	3.97%	46.83%	Not Clean:	43	67.19%	1.1512	108.3721	1,413.3256	1.07	50.79%
T	242	0	136	0	3	103	Clean:	16	15.09%	0.1250	19.1563	241.9688	1.28		
			0.00%	56.20%	0.00%	1.24%	42.56%	Not Clean:	90	84.91%	1.1444	178.4667	1,323.5333	1.22	43.80%
U	2,441	2,441	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%
<b>Total For 1990</b>	<b>2,809</b>	<b>2,441</b>	<b>198</b>	<b>0</b>	<b>8</b>	<b>162</b>	<b>Clean:</b>	<b>37</b>	<b>21.76%</b>	<b>0.0811</b>	<b>19.1757</b>	<b>223.5000</b>	<b>0.68</b>		
			86.90%	7.05%	0.00%	0.28%	5.77%	Not Clean:	133	78.24%	1.1466	155.8045	1,352.5639	1.17	6.05%
<b>1991</b>															
P	143	0	79	0	6	58	Clean:	22	34.38%	0.0227	16.2955	212.2273	1.23		
			0.00%	55.24%	0.00%	4.20%	40.56%	Not Clean:	42	65.63%	1.0595	190.2024	1,320.6905	1.55	44.76%
T	246	0	136	1	2	107	Clean:	22	20.18%	0.0227	35.6364	234.6818	0.75		
			0.00%	55.28%	0.41%	0.81%	43.50%	Not Clean:	87	79.82%	1.5287	291.3161	1,140.7011	1.28	44.31%
U	2,404	2,403	0	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.96%	0.00%	0.00%	0.00%	0.04%	Not Clean:	1	100.00%	3.0000	199.0000	618.5000	2.00	0.04%
<b>Total For 1991</b>	<b>2,793</b>	<b>2,403</b>	<b>215</b>	<b>1</b>	<b>8</b>	<b>166</b>	<b>Clean:</b>	<b>44</b>	<b>25.29%</b>	<b>0.0227</b>	<b>25.9659</b>	<b>223.4545</b>	<b>0.99</b>		
			86.04%	7.70%	0.04%	0.29%	5.94%	Not Clean:	130	74.71%	1.3885	257.9385	1,194.8346	1.37	6.23%
<b>1992</b>															
P	196	0	109	0	6	81	Clean:	34	39.08%	0.0588	14.5588	223.2647	0.66		
			0.00%	55.61%	0.00%	3.06%	41.33%	Not Clean:	53	60.92%	0.7264	114.8396	1,230.9434	1.60	44.39%
T	341	0	132	1	22	186	Clean:	47	22.60%	0.0532	16.1915	174.0851	0.64		
			0.00%	38.71%	0.29%	6.45%	54.55%	Not Clean:	161	77.40%	1.0342	162.6180	1,179.2671	1.08	61.00%
U	3,307	3,306	1	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.97%	0.03%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
<b>Total For 1992</b>	<b>3,844</b>	<b>3,306</b>	<b>242</b>	<b>1</b>	<b>28</b>	<b>267</b>	<b>Clean:</b>	<b>81</b>	<b>27.46%</b>	<b>0.0556</b>	<b>15.5062</b>	<b>194.7284</b>	<b>0.65</b>		
			86.00%	6.30%	0.03%	0.73%	6.95%	Not Clean:	214	72.54%	0.9579	150.7850	1,192.0654	1.21	7.67%

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								
<b>1993</b>															
P	239	0	133	0	1	105	Clean:	34	32.08%	0.0441	22.3676	256.1618	0.74		
			0.00%	55.65%	0.00%	0.42%	43.93%	Not Clean:	72	67.92%	0.6181	88.2708	1,376.3194	0.94	44.35%
T	448	0	186	2	13	247	Clean:	50	19.23%	0.0500	25.4000	257.8900	0.83		
			0.00%	41.52%	0.45%	2.90%	55.13%	Not Clean:	210	80.77%	1.0357	218.6310	1,258.9405	1.18	58.04%
U	3,485	3,485	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%
<b>Total For 1993</b>		<b>4,172</b>	<b>3,485</b>	<b>319</b>	<b>2</b>	<b>14</b>	<b>352</b>	<b>Clean:</b>	<b>84</b>	<b>22.95%</b>	<b>0.0476</b>	<b>24.1726</b>	<b>257.1905</b>	<b>0.79</b>	
			83.53%	7.65%	0.05%	0.34%	8.44%	Not Clean:	282	77.05%	0.9291	185.3475	1,288.9096	1.12	8.77%
<b>1994</b>															
P	314	0	143	0	28	143	Clean:	71	41.52%	0.0423	18.5986	174.1408	0.63		
			0.00%	45.54%	0.00%	8.92%	45.54%	Not Clean:	100	58.48%	0.9950	177.5000	974.2600	1.05	54.46%
T	785	0	374	3	31	377	Clean:	82	20.10%	0.0671	24.1341	232.6707	0.57		
			0.00%	47.64%	0.38%	3.95%	48.03%	Not Clean:	326	79.90%	0.9248	228.1994	1,185.2086	1.19	51.97%
U	5,156	5,156	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%
<b>Total For 1994</b>		<b>6,255</b>	<b>5,156</b>	<b>517</b>	<b>3</b>	<b>59</b>	<b>520</b>	<b>Clean:</b>	<b>153</b>	<b>26.42%</b>	<b>0.0556</b>	<b>21.5654</b>	<b>205.5098</b>	<b>0.60</b>	
			82.43%	8.27%	0.05%	0.94%	8.31%	Not Clean:	426	73.58%	0.9413	216.2981	1,135.6901	1.16	9.26%
<b>1995</b>															
P	436	0	187	0	45	204	Clean:	105	42.17%	0.0476	20.5810	138.7619	0.79		
			0.00%	42.89%	0.00%	10.32%	46.79%	Not Clean:	144	57.83%	0.8750	114.0000	940.1840	1.55	57.11%
T	989	0	435	4	34	516	Clean:	122	22.18%	0.0328	24.6025	249.2869	0.76		
			0.00%	43.98%	0.40%	3.44%	52.17%	Not Clean:	428	77.82%	0.8738	148.6741	1,243.6939	1.24	55.61%
U	5,786	5,784	1	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.97%	0.02%	0.00%	0.00%	0.02%	Not Clean:	1	100.00%	0.5000	133.0000	1,335.5000	1.50	0.02%
<b>Total For 1995</b>		<b>7,211</b>	<b>5,784</b>	<b>623</b>	<b>4</b>	<b>79</b>	<b>721</b>	<b>Clean:</b>	<b>227</b>	<b>28.38%</b>	<b>0.0396</b>	<b>22.7423</b>	<b>198.1630</b>	<b>0.77</b>	
			80.21%	8.64%	0.06%	1.10%	10.00%	Not Clean:	573	71.63%	0.8735	139.9328	1,167.5794	1.32	11.09%
<b>1996</b>															
P	589	0	261	0	63	265	Clean:	170	51.83%	0.0353	17.6647	157.8029	0.71		
			0.00%	44.31%	0.00%	10.70%	44.99%	Not Clean:	158	48.17%	0.6614	121.7057	855.7247	1.06	55.69%
T	1,263	0	462	10	130	661	Clean:	352	44.50%	0.0710	17.6804	175.7472	0.71		
			0.00%	36.58%	0.79%	10.29%	52.34%	Not Clean:	439	55.50%	0.6891	115.8827	1,078.6651	1.24	62.63%
U	7,609	7,606	3	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%
<b>Total For 1996</b>		<b>9,461</b>	<b>7,606</b>	<b>726</b>	<b>10</b>	<b>193</b>	<b>926</b>	<b>Clean:</b>	<b>522</b>	<b>46.65%</b>	<b>0.0594</b>	<b>17.6753</b>	<b>169.9033</b>	<b>0.71</b>	
			80.39%	7.67%	0.11%	2.04%	9.79%	Not Clean:	597	53.35%	0.6817	117.4238	1,019.6625	1.19	11.83%

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								
<b>1997</b>															
P	792	0	272	0	157	363	Clean:	343	65.96%	0.0306	15.0233	109.9650	0.73		
		0.00%	34.34%	0.00%	19.82%	45.83%	Not Clean:	177	34.04%	1.1328	111.7062	776.2740	1.13	65.66%	
T	1,799	0	693	9	112	985	Clean:	472	43.03%	0.0636	17.7426	223.3390	0.83		
		0.00%	38.52%	0.50%	6.23%	54.75%	Not Clean:	625	56.97%	0.5728	103.6608	1,116.4360	1.20	60.98%	
U	9,056	9,054	1	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
		99.98%	0.01%	0.00%	0.00%	0.01%	Not Clean:	1	100.00%	0.5000	28.0000	117.5000	0.00	0.01%	
<b>Total For 1997</b>		<b>11,647</b>	<b>9,054</b>	<b>966</b>	<b>9</b>	<b>269</b>	<b>1,349</b>	<b>Clean:</b>	<b>815</b>	<b>50.37%</b>	<b>0.0497</b>	<b>16.5982</b>	<b>175.6245</b>	<b>0.79</b>	
								<b>Not Clean:</b>	<b>803</b>	<b>49.63%</b>	<b>0.6961</b>	<b>105.3400</b>	<b>1,040.2123</b>	<b>1.18</b>	<b>13.89%</b>
<b>1998</b>															
P	1,176	0	481	0	158	537	Clean:	422	60.72%	0.0355	13.7986	121.8922	0.75		
		0.00%	40.90%	0.00%	13.44%	45.66%	Not Clean:	273	39.28%	0.9212	155.7454	653.4304	1.04	59.10%	
T	2,588	0	1144	7	154	1,283	Clean:	711	49.48%	0.0436	14.7511	209.8094	0.84		
		0.00%	44.20%	0.27%	5.95%	49.57%	Not Clean:	726	50.52%	0.6295	94.6612	1,058.1109	1.23	55.53%	
U	12,406	12,404	2	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
		99.98%	0.02%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%	
<b>Total For 1998</b>		<b>16,170</b>	<b>12,404</b>	<b>1,627</b>	<b>7</b>	<b>312</b>	<b>1,820</b>	<b>Clean:</b>	<b>1,133</b>	<b>53.14%</b>	<b>0.0406</b>	<b>14.3963</b>	<b>177.0635</b>	<b>0.81</b>	
								<b>Not Clean:</b>	<b>999</b>	<b>46.86%</b>	<b>0.7092</b>	<b>111.3539</b>	<b>947.5225</b>	<b>1.18</b>	<b>13.18%</b>
<b>1999</b>															
P	1,280	0	470	0	217	593	Clean:	561	69.26%	0.0348	13.4456	133.5553	0.79		
		0.00%	36.72%	0.00%	16.95%	46.33%	Not Clean:	249	30.74%	0.9458	107.9137	786.3253	1.27	63.28%	
T	3,247	0	1151	18	368	1,710	Clean:	1,323	63.67%	0.0317	13.7850	163.9146	0.78		
		0.00%	35.45%	0.55%	11.33%	52.66%	Not Clean:	755	36.33%	0.6126	88.2166	967.4344	1.22	64.00%	
U	13,611	13,608	2	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
		99.98%	0.01%	0.00%	0.00%	0.01%	Not Clean:	1	100.00%	0.0000	10.0000	1,926.0000	4.00	0.01%	
<b>Total For 1999</b>		<b>18,138</b>	<b>13,608</b>	<b>1,623</b>	<b>18</b>	<b>585</b>	<b>2,304</b>	<b>Clean:</b>	<b>1,884</b>	<b>65.21%</b>	<b>0.0326</b>	<b>13.6839</b>	<b>154.8745</b>	<b>0.78</b>	
								<b>Not Clean:</b>	<b>1,005</b>	<b>34.79%</b>	<b>0.6945</b>	<b>93.0189</b>	<b>923.5164</b>	<b>1.24</b>	<b>15.93%</b>
<b>2000</b>															
P	1,964	0	597	0	434	933	Clean:	1,002	73.30%	0.0254	11.2001	84.5758	0.71		
		0.00%	30.40%	0.00%	22.10%	47.51%	Not Clean:	365	26.70%	0.9014	106.0274	713.2384	1.35	69.60%	
T	4,508	0	1337	41	714	2,416	Clean:	2,193	70.06%	0.0312	11.8637	136.7959	0.77		
		0.00%	29.66%	0.91%	15.84%	53.59%	Not Clean:	937	29.94%	0.6366	95.9312	857.6217	1.29	69.43%	
U	19,555	19,549	2	0	0	4	Clean:	2	50.00%	0.0000	19.7500	365.0000	1.00		
		99.97%	0.01%	0.00%	0.00%	0.02%	Not Clean:	2	50.00%	0.2500	52.2500	1,208.7500	0.75	0.02%	
<b>Total For 2000</b>		<b>26,027</b>	<b>19,549</b>	<b>1,936</b>	<b>41</b>	<b>1,148</b>	<b>3,353</b>	<b>Clean:</b>	<b>3,197</b>	<b>71.03%</b>	<b>0.0294</b>	<b>11.6606</b>	<b>120.5719</b>	<b>0.75</b>	
								<b>Not Clean:</b>	<b>1,304</b>	<b>28.97%</b>	<b>0.7101</b>	<b>98.6902</b>	<b>817.7462</b>	<b>1.31</b>	<b>17.29%</b>

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								
<b>2001</b>															
P	2,076	0	548	0	540	988	Clean:	1,175	76.90%	0.0170	9.6043	76.6221	0.60		
			0.00%	26.40%	0.00%	26.01%	47.59%	Not Clean:	353	23.10%	0.7592	87.3555	673.8584	1.17	73.60%
T	4,831	0	1094	37	1,083	2,617	Clean:	2,861	77.32%	0.0252	11.6001	102.9007	0.72		
			0.00%	22.65%	0.77%	22.42%	54.17%	Not Clean:	839	22.68%	0.6794	97.8236	769.9517	1.17	76.59%
U	18,068	18,063	2	0	0	3	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.97%	0.01%	0.00%	0.00%	0.02%	Not Clean:	3	100.00%	3.3333	129.5000	433.3333	1.50	0.02%
<b>Total For 2001</b>		<b>24,975</b>	<b>18,063</b>	<b>1,644</b>	<b>37</b>	<b>1,623</b>	<b>3,608</b>	<b>Clean:</b>	<b>4,036</b>	<b>77.16%</b>	<b>0.0228</b>	<b>11.0191</b>	<b>95.2502</b>	<b>0.69</b>	
								<b>Not Clean:</b>	<b>1,195</b>	<b>22.84%</b>	<b>0.7096</b>	<b>94.8109</b>	<b>740.7209</b>	<b>1.17</b>	<b>20.94%</b>
<b>2002</b>															
P	2,729	0	521	0	884	1,324	Clean:	1,750	79.26%	0.0180	8.7389	56.0943	0.60		
			0.00%	19.09%	0.00%	32.39%	48.52%	Not Clean:	458	20.74%	0.7598	108.2871	632.9782	1.23	80.91%
T	6,370	0	1474	23	1,503	3,370	Clean:	3,895	79.93%	0.0217	10.7750	101.1412	0.73		
			0.00%	23.14%	0.36%	23.59%	52.90%	Not Clean:	978	20.07%	0.6467	72.8144	768.7388	1.24	76.50%
U	25,078	25,072	2	0	0	4	Clean:	2	50.00%	0.2500	19.0000	244.5000	2.75		
			99.98%	0.01%	0.00%	0.00%	0.02%	Not Clean:	2	50.00%	0.2500	14.2500	534.7500	4.00	0.02%
<b>Total For 2002</b>		<b>34,177</b>	<b>25,072</b>	<b>1,997</b>	<b>23</b>	<b>2,387</b>	<b>4,698</b>	<b>Clean:</b>	<b>5,647</b>	<b>79.70%</b>	<b>0.0206</b>	<b>10.1469</b>	<b>87.2320</b>	<b>0.69</b>	
								<b>Not Clean:</b>	<b>1,438</b>	<b>20.30%</b>	<b>0.6822</b>	<b>84.0309</b>	<b>725.1739</b>	<b>1.24</b>	<b>20.73%</b>
<b>2003</b>															
P	2,711	0	353	0	1,004	1,354	Clean:	1,914	81.17%	0.0144	7.9065	53.3406	0.61		
			0.00%	13.02%	0.00%	37.03%	49.94%	Not Clean:	444	18.83%	0.7962	93.0203	720.3491	1.64	86.98%
T	6,164	0	819	29	1,912	3,404	Clean:	4,416	83.07%	0.0225	8.9781	73.4629	0.66		
			0.00%	13.29%	0.47%	31.02%	55.22%	Not Clean:	900	16.93%	0.7883	90.9644	691.6472	1.20	86.24%
U	21,317	21,315	0	0	0	2	Clean:	2	100.00%	0.2500	8.2500	84.0000	0.75		
			99.99%	0.00%	0.00%	0.00%	0.01%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.01%
<b>Total For 2003</b>		<b>30,192</b>	<b>21,315</b>	<b>1,172</b>	<b>29</b>	<b>2,916</b>	<b>4,760</b>	<b>Clean:</b>	<b>6,332</b>	<b>82.49%</b>	<b>0.0201</b>	<b>8.6540</b>	<b>67.3838</b>	<b>0.64</b>	
								<b>Not Clean:</b>	<b>1,344</b>	<b>17.51%</b>	<b>0.7909</b>	<b>91.6436</b>	<b>701.1291</b>	<b>1.35</b>	<b>25.42%</b>
<b>2004</b>															
P	3,521	0	366	0	1,433	1,722	Clean:	2,675	84.79%	0.0140	7.7269	47.4574	0.60		
			0.00%	10.39%	0.00%	40.70%	48.91%	Not Clean:	480	15.21%	0.8188	100.7281	644.9208	1.54	89.61%
T	9,562	0	940	48	3,447	5,127	Clean:	7,588	88.50%	0.0117	7.6724	48.1995	0.68		
			0.00%	9.83%	0.50%	36.05%	53.62%	Not Clean:	986	11.50%	0.8291	87.8534	531.5243	1.22	89.67%
U	30,544	30,538	2	0	0	4	Clean:	4	100.00%	0.0000	18.3750	49.8750	1.88		
			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%
<b>Total For 2004</b>		<b>43,627</b>	<b>30,538</b>	<b>1,308</b>	<b>48</b>	<b>4,880</b>	<b>6,853</b>	<b>Clean:</b>	<b>10,267</b>	<b>87.51%</b>	<b>0.0123</b>	<b>7.6908</b>	<b>48.0068</b>	<b>0.66</b>	
								<b>Not Clean:</b>	<b>1,466</b>	<b>12.49%</b>	<b>0.8257</b>	<b>92.0689</b>	<b>568.6528</b>	<b>1.33</b>	<b>26.89%</b>

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								
<b>2005</b>															
P	3,573	0	297	0	1,502	1,774	Clean:	2,850	87.00%	0.0102	7.0139	38.5974	0.61		
			0.00%	8.31%	0.00%	42.04%	49.65%	Not Clean:	426	13.00%	0.8005	78.5035	570.5657	1.43	91.69%
T	8,010	0	781	42	2,777	4,410	Clean:	6,348	88.33%	0.0117	8.2912	47.0206	0.69		
			0.00%	9.75%	0.52%	34.67%	55.06%	Not Clean:	839	11.67%	0.7664	72.0864	556.8713	1.30	89.73%
U	24,981	24,973	4	0	0	4	Clean:	3	75.00%	0.0000	12.5000	136.1667	0.50		
			99.97%	0.02%	0.00%	0.00%	0.02%	Not Clean:	1	25.00%	2.0000	30.0000	85.0000	1.50	0.02%
<b>Total For 2005</b>		<b>36,564</b>	<b>24,973</b>	<b>1,082</b>	<b>42</b>	<b>4,279</b>	<b>6,188</b>	<b>Clean:</b>	<b>9,201</b>	<b>87.90%</b>	<b>0.0112</b>	<b>7.8969</b>	<b>44.4406</b>	<b>0.66</b>	
			68.30%	2.96%	0.11%	11.70%	16.92%	Not Clean:	1,266	12.10%	0.7788	74.2125	561.1066	1.35	28.63%
<b>2006</b>															
P	4,389	0	378	0	1,914	2,097	Clean:	3,543	88.33%	0.0097	7.1789	34.3257	0.59		
			0.00%	8.61%	0.00%	43.61%	47.78%	Not Clean:	468	11.67%	0.9637	95.4113	473.9380	1.53	91.39%
T	9,727	0	669	75	3,635	5,348	Clean:	8,096	90.13%	0.0087	7.3668	40.9349	0.68		
			0.00%	6.88%	0.77%	37.37%	54.98%	Not Clean:	887	9.87%	0.7554	91.7897	534.6302	1.22	92.35%
U	30,956	30,949	3	0	0	4	Clean:	4	100.00%	0.0000	4.7500	45.8750	2.13		
			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%
<b>Total For 2006</b>		<b>45,072</b>	<b>30,949</b>	<b>1,050</b>	<b>75</b>	<b>5,549</b>	<b>7,449</b>	<b>Clean:</b>	<b>11,643</b>	<b>89.58%</b>	<b>0.0090</b>	<b>7.3088</b>	<b>38.9254</b>	<b>0.65</b>	
			68.67%	2.33%	0.17%	12.31%	16.53%	Not Clean:	1,355	10.42%	0.8273	93.0406	513.6679	1.33	28.84%
<b>2007</b>															
P	4,366	0	345	0	1,842	2,179	Clean:	3,602	89.58%	0.0100	7.6047	33.9053	0.61		
			0.00%	7.90%	0.00%	42.19%	49.91%	Not Clean:	419	10.42%	0.9344	80.9117	410.2840	1.48	92.10%
T	9,583	0	742	55	3,513	5,273	Clean:	8,034	91.44%	0.0083	7.3914	36.9599	0.70		
			0.00%	7.74%	0.57%	36.66%	55.02%	Not Clean:	752	8.56%	0.8404	80.1975	457.8930	1.25	91.68%
U	27,439	27,430	7	0	0	2	Clean:	2	100.00%	0.2500	16.7500	57.0000	-1.25		
			99.97%	0.03%	0.00%	0.00%	0.01%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.01%
<b>Total For 2007</b>		<b>41,388</b>	<b>27,430</b>	<b>1,094</b>	<b>55</b>	<b>5,355</b>	<b>7,454</b>	<b>Clean:</b>	<b>11,638</b>	<b>90.86%</b>	<b>0.0089</b>	<b>7.4590</b>	<b>36.0179</b>	<b>0.67</b>	
			66.28%	2.64%	0.13%	12.94%	18.01%	Not Clean:	1,171	9.14%	0.8740	80.4530	440.8578	1.33	30.95%
<b>2008</b>															
P	4,995	0	624	0	2,028	2,343	Clean:	3,971	90.85%	0.0105	7.2601	28.9827	0.67		
			0.00%	12.49%	0.00%	40.60%	46.91%	Not Clean:	400	9.15%	0.9300	81.8425	474.0400	1.54	87.51%
T	12,236	0	1165	66	4,260	6,745	Clean:	9,925	90.19%	0.0159	7.4725	34.1690	0.73		
			0.00%	9.52%	0.54%	34.82%	55.12%	Not Clean:	1,080	9.81%	0.8481	60.1028	314.1685	1.35	89.94%
U	35,025	35,020	2	0	0	3	Clean:	3	100.00%	0.0000	0.0000	49.0000	1.67		
			99.99%	0.01%	0.00%	0.00%	0.01%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.01%
<b>Total For 2008</b>		<b>52,256</b>	<b>35,020</b>	<b>1,791</b>	<b>66</b>	<b>6,288</b>	<b>9,091</b>	<b>Clean:</b>	<b>13,899</b>	<b>90.38%</b>	<b>0.0143</b>	<b>7.4102</b>	<b>32.6905</b>	<b>0.72</b>	
			67.02%	3.43%	0.13%	12.03%	17.40%	Not Clean:	1,480	9.62%	0.8703	65.9784	357.3770	1.40	29.43%



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								
<b>2009</b>															
P	5,017	0	791	0	1,879	2,347	Clean:	3,869	91.55%	0.0080	7.4411	30.0505	0.69		
			0.00%	15.77%	0.00%	37.45%	46.78%	Not Clean:	357	8.45%	0.9062	58.7087	312.8319	1.26	84.23%
T	8,566	0	1176	53	2,731	4,606	Clean:	6,697	91.28%	0.0113	7.3915	33.2609	0.76		
			0.00%	13.73%	0.62%	31.88%	53.77%	Not Clean:	640	8.72%	0.8813	61.6930	275.3297	1.46	85.65%
U	28,341	28,335	5	0	0	1	Clean:	1	100.00%	0.0000	1.5000	1.0000	2.00		
			99.98%	0.02%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
<b>Total For 2009</b>		<b>41,924</b>	<b>28,335</b>	<b>1,972</b>	<b>53</b>	<b>4,610</b>	<b>6,954</b>	<b>Clean:</b>	<b>10,567</b>	<b>91.38%</b>	<b>0.0101</b>	<b>7.4091</b>	<b>32.0824</b>	<b>0.74</b>	
			67.59%	4.70%	0.13%	11.00%	16.59%	Not Clean:	997	8.62%	0.8902	60.6244	288.7583	1.39	27.58%
<b>2010</b>															
P	2,629	0	428	0	874	1,327	Clean:	1,970	89.50%	0.0081	7.8414	29.5817	0.79		
			0.00%	16.28%	0.00%	33.24%	50.48%	Not Clean:	231	10.50%	1.0043	160.7446	334.4935	1.62	83.72%
T	5,060	0	539	12	1,621	2,888	Clean:	4,113	91.22%	0.0131	7.5439	34.0811	0.78		
			0.00%	10.65%	0.24%	32.04%	57.08%	Not Clean:	396	8.78%	0.8914	54.0556	253.9811	1.30	89.11%
U	12,958	12,954	3	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.97%	0.02%	0.00%	0.00%	0.01%	Not Clean:	1	100.00%	0.5000	11.0000	64.0000	1.00	0.01%
<b>Total For 2010</b>		<b>20,647</b>	<b>12,954</b>	<b>970</b>	<b>12</b>	<b>2,495</b>	<b>4,216</b>	<b>Clean:</b>	<b>6,083</b>	<b>90.64%</b>	<b>0.0115</b>	<b>7.6402</b>	<b>32.6240</b>	<b>0.78</b>	
			62.74%	4.70%	0.06%	12.08%	20.42%	Not Clean:	628	9.36%	0.9323	93.2309	283.2938	1.42	32.50%
<b>2011</b>															
P	6,087	0	997	0	2,193	2,897	Clean:	4,648	91.32%	0.0098	7.7352	27.7707	0.75		
			0.00%	16.38%	0.00%	36.03%	47.59%	Not Clean:	442	8.68%	0.9174	67.1369	290.3959	1.25	83.62%
T	16,908	0	1208	126	6,041	9,533	Clean:	14,322	91.96%	0.0088	7.1505	28.8490	0.74		
			0.00%	7.14%	0.75%	35.73%	56.38%	Not Clean:	1,252	8.04%	0.9673	57.3726	200.8802	1.35	92.11%
U	41,454	40,980	390	0	0	84	Clean:	74	88.10%	0.0068	15.0135	49.9527	1.48		
			98.86%	0.94%	0.00%	0.00%	0.20%	Not Clean:	10	11.90%	1.5000	486.4000	276.6000	3.05	0.20%
<b>Total For 2011</b>		<b>64,449</b>	<b>40,980</b>	<b>2,595</b>	<b>126</b>	<b>8,234</b>	<b>12,514</b>	<b>Clean:</b>	<b>19,044</b>	<b>91.79%</b>	<b>0.0091</b>	<b>7.3238</b>	<b>28.6678</b>	<b>0.74</b>	
			63.59%	4.03%	0.20%	12.78%	19.42%	Not Clean:	1,704	8.21%	0.9575	62.4231	224.5440	1.33	32.19%
<b>2012</b>															
P	2,842	0	471	0	903	1,468	Clean:	2,109	88.95%	0.0138	8.0986	29.2629	0.81		
			0.00%	16.57%	0.00%	31.77%	51.65%	Not Clean:	262	11.05%	0.8588	59.6279	232.0630	1.36	83.43%
T	5,201	0	471	26	1,526	3,178	Clean:	4,245	90.24%	0.0119	7.7931	33.5078	0.83		
			0.00%	9.06%	0.50%	29.34%	61.10%	Not Clean:	459	9.76%	1.0196	60.7222	227.1776	1.37	90.44%
U	13,474	13,144	271	0	0	59	Clean:	53	89.83%	0.0377	18.3774	54.0660	1.26		
			97.55%	2.01%	0.00%	0.00%	0.44%	Not Clean:	6	10.17%	0.4167	68.8333	162.8333	2.00	0.44%
<b>Total For 2012</b>		<b>21,517</b>	<b>13,144</b>	<b>1,213</b>	<b>26</b>	<b>2,429</b>	<b>4,705</b>	<b>Clean:</b>	<b>6,407</b>	<b>89.81%</b>	<b>0.0127</b>	<b>7.9812</b>	<b>32.2806</b>	<b>0.83</b>	
			61.09%	5.64%	0.12%	11.29%	21.87%	Not Clean:	727	10.19%	0.9567	60.3948	228.4072	1.37	33.16%

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								
<b>2013</b>															
	<b>P</b>	11,885	0	2341	0	3,837	5,707	<b>Clean:</b>	8,503	89.09%	0.0128	7.6330	28.2770	0.79	
			0.00%	19.70%	0.00%	32.28%	48.02%	<b>Not Clean:</b>	1,041	10.91%	0.9011	57.9385	263.9078	1.60	80.30%
	<b>T</b>	25,843	0	2790	119	8,290	14,644	<b>Clean:</b>	20,871	91.00%	0.0115	7.4949	30.9202	0.77	
			0.00%	10.80%	0.46%	32.08%	56.67%	<b>Not Clean:</b>	2,063	9.00%	0.8968	46.7116	226.7799	1.39	88.74%
	<b>U</b>	67,444	66,834	497	0	0	113	<b>Clean:</b>	101	89.38%	0.0099	10.4307	61.6584	1.13	
			99.10%	0.74%	0.00%	0.00%	0.17%	<b>Not Clean:</b>	12	10.62%	0.6667	46.4167	314.2083	1.21	0.17%
<b>Total For 2013</b>		<b>105,172</b>	<b>66,834</b>	<b>5,628</b>	<b>119</b>	<b>12,127</b>	<b>20,464</b>	<b>Clean:</b>	<b>29,475</b>	<b>90.44%</b>	<b>0.0119</b>	<b>7.5448</b>	<b>30.2630</b>	<b>0.78</b>	
			63.55%	5.35%	0.11%	11.53%	19.46%	<b>Not Clean:</b>	<b>3,116</b>	<b>9.56%</b>	<b>0.8973</b>	<b>50.4612</b>	<b>239.5204</b>	<b>1.46</b>	<b>30.99%</b>
<b>Overall Total</b>		<b>678,420</b>	<b>467,528</b>	<b>32,964</b>	<b>808</b>	<b>65,887</b>	<b>111,233</b>	<b>Clean:</b>	<b>152,469</b>	<b>86.08%</b>	<b>0.0135</b>	<b>8.1187</b>	<b>45.7077</b>	<b>0.72</b>	
			<b>68.91%</b>	<b>4.86%</b>	<b>0.12%</b>	<b>9.71%</b>	<b>16.40%</b>	<b>Not Clean:</b>	<b>24,651</b>	<b>13.92%</b>	<b>0.8323</b>	<b>89.1512</b>	<b>599.6853</b>	<b>1.32</b>	<b>26.11%</b>

