# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Manufacturer** | Volkswagen Group of America, Inc. | **Manufacturer Code** | VGA |
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |
| **Certificate Number** | VVGAJ02.0V3T-012 | **CARB Executive Order #** | -- |
| **Certificate Issue Date** | 05/08/2026 | **Certificate Revision Date** | -- |
| **Certificate Effective Date** | 05/08/2026 | **Conditional Certificate** | No |
| **CSI Revision #** | -- | **CSI Submission/Revision Date** | 05/19/2026 08:26:50 AM |
| **Model Year** | 2027 | | |

## Test Group Information

| | | | |
|---|---|---|---|
| **CSI Type** | Update for Correction | **Running Change Reference Number** | -- |
| **GHG Exempt Status** | Not Exempt | | |

## Drive Sources and Fuel(s)

## Drive Source #1: Combustion Engine

| Fuel | Basic Fuel Metering System | Lean Burn Strategy Indicator |
|---|---|---|
| Gasoline | Spark Ignition Direct fuel injection | No |

| | | | |
|---|---|---|---|
| **Hybrid Indicator** | No | | |
| **Multiple Fuel Storage** | -- | **Rechargeable Energy Storage System Indicator** | -- |
| **Multiple Fuel Combustion** | -- | **Off-board Charge Capable Indicator** | -- |
| **Fuel Cell Indicator** | No | **EPA Vehicle Class** | LDV, LDT3, LDT2 |
| **Federal Clean Fuel Vehicle** | No | **Federal Clean Fuel Vehicle Standard** | -- |
| **Federal Clean Fuel Vehicle ILEV** | No | **California Partial Zero Emissions Vehicle Indicator** | -- |
| **Durability Group Name** | VVGAGPGNNV3T | **Durability Group Equivalency Factor** | 2.2 |
| **Reduced Fee Test Group** | No | **Certification Region Code(s)** | FA, CA |
| **Complies with HD GHG 2b/3 regulations?** | No | | |
| **Introduction into Commerce Date** | 07/13/2026 | **CAP2000 Conditional Certificate?** | No |
| **Independent Commercial Importer?** | No | **Alternative Fuel Converter Certificate?** | No |
| **SFTP Federal Composite Compliance Identifier** | Tier 3 | **SFTP Tier 2 Composite CO Option** | No |
| **SFTP LEV-III Composite Compliance Indicator** | No | | |
| **OBD Compliance Type** | CARB | **OBD Demonstration Vehicle Test Group** | VVGAJ02.0V3T |
| **Test Group OBD Compliance Level** | Full - no deficiencies | **Number of Test Group OBD Deficiencies** | 0 |
| **OBD Deficiencies Comments** | CARB Approval Ref. #: E-26-050 | | |
| **Mfr Test Group Comments** | -- | | |
| **Mfr Exhaust / Evap Standards Comments** | -- | | |

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

## Evaporative/Refueling Family Information

| | | | |
|---|---|---|---|
| **Evaporative Summary Information Type** | New | **Submission/Correction Date** | 03/26/2026 09:15:10 AM |
| **Integrated ORVR?** | Yes | **Fuel(s)** | Gasoline |
| **Multiple Fuel Storage** | -- | | |
| **Bladder Fuel Tank?** | No | | |
| **Fuel Tank Material** | Plastic | **Fuel Tank Material Description** | HDPE |
| **Fill Pipe Seal Type** | Liquid seal | | |
| **Air Intake System Vapor Storage Device?** | No | **Air Intake System Vapor Storage Device Description** | -- |
| **Fuel System Vapor Storage Canister?** | Yes | **Other Vapor Storage** | -- |
| **Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)** | 157 | **Number of Primary Canisters** | 1 |
| **Number of Bleed Canisters** | 1 | **Bleed Canister Total Working Capacity (grams)** | 4 |
| **Mfr Evaporative/Refueling Family Comments** | Volkswagen Atlas LEV IV Evap FEL 350 Integrated Bleeding Canister equipped. | | |

## Leak Family Details

| | | | |
|---|---|---|---|
| **Leak Family Indicator** | Yes | | |
| **Canister Bleed Test Indicator** | Yes | **Applicability of Evaporative Canister Bleed Test** | 50 State |
| **Evaporative Canister Bleed Test Comments** | -- | | |
| **CARB Fuel Only (Rig) Test Indicator** | No | **Applicability of CARB Fuel Only (Rig) Test** | -- |
| **CARB Fuel Only (Rig) Test Comments** | -- | | |

| Leak Family Name | Applicability of Leak Family Requirements | Leak Family Standard (inches) | Leak Family Description |
|---|---|---|---|
| VVGAR0157VCS-001 | 50 State | 0.02 | -- |

## Models Covered by this Certificate

| Carline Manufacturer | Division | Carline | Certification Region Code(s) | Drive System | Trans - Type | - # of Gears | Trans - Lockup |
|---|---|---|---|---|---|---|---|
| Volkswagen Group of America, Inc. | 1 - Volkswagen | 180 - Atlas | Federal | 2-Wheel Drive, Front | Semi-Automatic | 8 | Yes |
| Volkswagen Group of America, Inc. | 1 - Volkswagen | 185 - Atlas 4Motion | Federal | All Wheel Drive | Semi-Automatic | 8 | Yes |
| Volkswagen Group of America, Inc. | 1 - Volkswagen | 185 - Atlas 4Motion | California + CAA Section 177 states | All Wheel Drive | Semi-Automatic | 8 | Yes |
| Volkswagen Group of America, Inc. | 1 - Volkswagen | 180 - Atlas | California + CAA Section 177 states | 2-Wheel Drive, Front | Semi-Automatic | 8 | Yes |

## Engine Description

| | | | |
|---|---|---|---|
| **Hybrid Type** | -- | **Hybrid Description** | -- |
| **Engine Type** | 4-Stroke Spark Ignition | **Mfr Engine Description** | -- |
| **Engine Block Arrangement** | Inline | **Mfr Engine Block Arrangement Description** | -- |
| **Camless Valvetrain Indicator** | No | **Oil Viscosity/Classification** | 0W20 VW50800 |
| **Number of Cylinders/Rotors** | 4 | **Mechanically Variable Compression Ratio Indicator** | N |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

## After Treatment Device(s) (ATD)

| ATD Number | ATD Type | ATD Precious Metal | Substrate Material | Substrate Construction |
|---|---|---|---|---|
| 1 | Three-way catalyst | Platinum + Palladium + Rhodium | Ceramic | Monolith |
| 2 | Other | Gasoline particulate filter | Ceramic | Other |
| 3 | Three-way catalyst | Platinum + Palladium + Rhodium | Ceramic | Monolith |

| | |
|---|---|
| **Mfr After Treatment Device (ATD) Comments** | -- |
| **Direct Ozone Reduction (DOR) Device** | Not Equipped |
| **Mfr Emission Control Device Comments** | CAC/DFI/AIR/TC/WR-HO2S/TWC(2)/GPF/HO2S |

## Engine Configuration Number 1

| | | | |
|---|---|---|---|
| **Engine Displacement (liters)** | 2.0 | **Engine Rated Horsepower** | 282 |
| **Number of Inlet Valves Per Cylinder** | 2 | **Number of Exhaust Valves Per Cylinder** | 2 |
| **Air Aspiration Method** | Turbocharged | **Number of Air Aspiration Devices** | 1 |
| **Air Aspiration Device Configuration** | Single | **Charge Air Cooler Type** | Liquid |
| **Air Aspiration Drive Method(s)** | Mechanical | | |
| **Cylinder Deactivation** | No | | |
| **Cylinder Deactivation Description** | -- | | |
| **Variable Valve Timing** | Yes | | |
| **Variable Valve Timing System Description** | Hydraulic/Hydraulic | | |
| **Variable Valve Lift?** | No | | |
| **Variable Valve Lift System Description** | -- | | |
| **Number of Knock Sensors** | 1 | **Number of Air/Fuel Sensors** | 2 |
| **Air/Fuel Sensor # 1 Type** | Heated oxygen | **Air/Fuel Sensor # 1 Description** | -- |
| **Air/Fuel Sensor # 2 Type** | Heated oxygen | **Air/Fuel Sensor # 2 Description** | -- |
| **Mfr Air/Fuel Sensor Comments** | -- | | |
| **Exhaust Gas Recirculation** | No | **Cooled Exhaust Gas Recirculation** | No |
| **EGR Type** | -- | **Exhaust Gas Recirculation Description if 'Other'** | -- |
| **Closed Loop Air Injection System** | Yes | | |
| **Air Injection Type** | Secondary Air Injection | **Air Injection Type if 'Other'** | -- |
| **Mfr Engine Configuration Comments** | FAZA var: 0 | | |

## Official Test Numbers

| Test Group Fuel | FTP | US06 | SC03 | Cold CO | Highway | EPA City Litmus Value | EPA City Litmus Threshold | EPA Highway Litmus Value | EPA Highway Litmus Threshold | CREE Weighting Factor |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | VVGA10093537 | VVGA10093538 | VVGA10093541 | VVGA10093540 | VVGA10093536 | 17.5 | 17.1 | 26.9 | 24.4 | -- |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

## Emission Data Vehicle Information

| | | | |
|---|---|---|---|
| **Vehicle ID / Configuration** | VW426070057 / 0 | **Manufacturer Vehicle Configuration Number** | 0 |
| **Original Test Group Name** | VVGAJ02.0V3T | **Original Evaporative/Refueling Family** | VVGAR0157VCS |
| **Original Test Vehicle Model Year** | 2027 | | |

## Vehicle Model

| | | | |
|---|---|---|---|
| **Represented Test Vehicle Make** | Volkswagen | **Represented Test Vehicle Model** | Atlas 4Motion |

## Leak Family Details

| | | | |
|---|---|---|---|
| **Leak Family Identifier** | 001 | **Leak Family Name** | VVGAR0157VCS-001 |

## Drive Sources and Fuel System Details

| Drive Source and Fuel# | Drive Source | Fuel |
|---|---|---|
| 1 | Combustion Engine | Gasoline |

| | | | |
|---|---|---|---|
| **Hybrid Indicator** | No | | |
| **Multiple Fuel Storage** | -- | **Multiple Fuel Combustion** | -- |
| **Fuel Cell Indicator** | -- | **Rechargeable Energy Storage System Indicator** | -- |
| **Rechargeable Energy Storage System** | -- | **Rechargeable Energy Storage System, if 'Other'** | -- |
| **Off-board charge Capable Indicator** | -- | | |
| **Odometer Correction -- Initial** | 0 | **Odometer Correction Factor** | 1 |
| **Odometer Correction Sign** | - = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor | | |
| **Odometer Correction Units** | Miles | | |
| **Engine Code** | FAZA | **Rated Horsepower** | 282 |
| **Displacement (liters)** | 2 | | |
| **Air Aspiration Method** | Turbocharged | **Air Aspiration Method, if 'Other'** | |
| **Number of Air Aspiration Devices** | 1 | **Air Aspiration Device Configuration** | Single |
| **Charge Air Cooler Type** | Air | **Drive Mode While Testing** | All Wheel Drive |
| **Shift Indicator Light Usage** | Not eqipped | **Aged Emission Components** | 4,000 (mi) |
| **Curb Weight (lbs)** | 4753 | **Equivalent Test Weight (pounds)** | 5000 |
| **GVWR (lbs)** | 6041 | **N/V Ratio** | 26.3 |
| **Axle Ratio** | 3.51 | | |
| **Transmission Type** | Semi-Automatic | **# of Transmission Gears** | 8 |
| **Transmission Lockup** | Yes | **Creeper Gear** | No |

| Test Group | VVGAJ02.0V3T | Evaporative/Refueling Family | VVGAR0157VCS |
|---|---|---|---|

## Dynamometer Coefficients:

| Coefficient Category | Target Coefficients A (lbf) | Target Coefficients B (lbf/mph) | Target Coefficients C (lbf/mph**2) | Set Coefficients A (lbf) | Set Coefficients B (lbf/mph) | Set Coefficients C (lbf/mph**2) | EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients |
|---|---|---|---|---|---|---|---|
| **City/Highway/Evap** | 38.87 | 0.2639 | 0.025 | -9.48 | 0.1841 | 0.02243 | 15.3 |
| **Cold CO** | 42.75 | 0.2902 | 0.0275 | -14.9 | 0.0029 | 0.02562 | N/A |
| **US06** | 38.87 | 0.2639 | 0.025 | -9.48 | 0.1841 | 0.02243 | N/A |

**Emission Control Device Comments** --

**Manufacturer Test Vehicle Comments** MY27 VW Atlas 4Motion ETW 5000

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Test #** | **VVGA10093537** | **Test Procedure** | **21 - Federal fuel 2-day exhaust (w/can load)** |
| **Exhaust Test # for this Evap Test** | -- | **Test Fuel Type** | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| **Test Date** | 02/24/2026 | **Fuel** | Gasoline |
| **Fuel Batch ID** | WB0036 | **Fuel Calibration Number** | 1 |
| **Vehicle Class** | LDT2 (LVW 3751-5750, GVW 0-6000), LDV/Passenger Car | **DF Type** | Mfr. Determined |
| **Verify Test Lab ID** | Volkswagen AG WOB2 | | |
| **E10 Evaporative Test Measurement Method** | -- | | |
| **Test Start Odometer Reading** | 4553 | **Odometer Units** | M |
| **4WD Test Dyno** | Yes | **Diesel Adjustment Factor Usage** | -- |
| **State of Charge Delta** | -- | | |
| **Drive Cycle Speed Tolerance Criteria** | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | **Road Speed Fan Usage** | Yes |

## Test Results

# Certification Summary Information Report

| Test Group | VVGAJ02.0V3T | Evaporative/Refueling Family | VVGAR0157VCS |
|---|---|---|---|

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|---|---|---|
| CO2 BAG 1 (Bag 1 Carbon Dioxide) | 392.6314947 | -- |
| CO BAG 1 (Bag 1 Carbon Monoxide) | 0.6732554 | -- |
| FE BAG 1 (Bag 1 Fuel Economy) | 22.0160224 | 22.0160224 |
| CH4 BAG 1 (Bag 1 Methane) | 0.0074 | -- |
| NMOG BAG 1 (Bag 1 Non-methane organic gases) | 0.0177 | -- |
| CO2 BAG 2 (Bag 2 Carbon Dioxide) | 411.1556879 | -- |
| CO BAG 2 (Bag 2 Carbon Monoxide) | 0.0185037 | -- |
| FE BAG 2 (Bag 2 Fuel Economy) | 21.0830738 | 21.0830738 |
| CH4 BAG 2 (Bag 2 Methane) | 0 | -- |
| NMOG BAG 2 (Bag 2 Non-methane organic gases) | 0 | -- |
| CO2 BAG 3 (Bag 3 Carbon Dioxide) | 344.7692823 | -- |
| CO BAG 3 (Bag 3 Carbon Monoxide) | 0.0724121 | -- |
| FE BAG 3 (Bag 3 Fuel Economy) | 25.1356754 | 25.1356754 |
| CH4 BAG 3 (Bag 3 Methane) | 0.002 | -- |
| NMOG BAG 3 (Bag 3 Non-methane organic gases) | 0.0002 | -- |
| METHANE (CH4 - Methane) | 0.0021112 | -- |
| CO (Carbon Monoxide) | 0.1688398 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | 0.3024311 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | -0.3106969 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | 0.0572929 | -- |
| MFR FE (Manufacturer Fuel Economy) | 22.3 | 22.3 |
| NOX (Nitrogen Oxide) | 0.0090667 | -- |
| N2O (Nitrous Oxide) | 0.00052 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0.0033747 | -- |
| NMOG (Non-methane organic gases) | 0.0034 | -- |
| PM (Particulate Matter) | 0.0001323 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0.005454 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|---|---|---|
| Carbon-Related Exhaust Emissions | 389 | 389 |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|---|---|---|
| Carbon dioxide | 389.1194233 | -- |

**Manufacturer Test Comments**

VW MY27 Atlas 4Motion EDV_FTP Tested as Atlas 4Motion EDV ETW: 5000 RLHP: 15.3

# Certification Summary Information Report

| Test Group | VVGAJ02.0V3T | Evaporative/Refueling Family | VVGAR0157VCS |
|---|---|---|---|

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NMHC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fed | 120,000 miles | Federal Tier 4 Bin 30 | CREE | 389 | -- | -- | -- | 0.387 | -- | 389 | -- | -- |
| Fed | 120,000 miles | Federal Tier 4 Bin 30 | METHANE | 0.0021 | -- | -- | -- | 0.002 | -- | 0.004 | 0.030 | Pass |
| Fed | 120,000 miles | Federal Tier 4 Bin 30 | N2O | 0.0005 | -- | -- | -- | 0.0006 | -- | 0.001 | 0.010 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | CO | 0.17 | -- | -- | -- | 0.29 | -- | 0.5 | 1.0 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | CO-COMP | 0.48 | -- | -- | -- | -- | -- | 0.5 | 4.2 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | NMOG | 0.0034 | -- | 1.0991 | -- | 0.0076 | -- | 0.011 | 99.000 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | NMOG+NOX | 0.0125 | -- | -- | -- | -- | -- | 0.02 | 0.030 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | NMOG+NOX-COMP | 0.0202 | -- | -- | -- | -- | -- | 0.02 | 0.040 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | NOX | 0.0091 | -- | -- | -- | 0 | -- | 0.009 | 99.000 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | PM | 0.0001 | -- | -- | -- | 0 | -- | 0 | 0.003 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | CO | 0.17 | -- | -- | -- | 0.29 | -- | 0.5 | 1.0 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NMOG | 0.0034 | -- | 1.0991 | -- | 0.0076 | -- | 0.011 | 99.000 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NMOG+NOX | 0.0125 | -- | -- | -- | -- | -- | 0.02 | 0.030 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NOX | 0.0091 | -- | -- | -- | 0 | -- | 0.009 | 99.000 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | PM | 0.0001 | -- | -- | -- | 0 | -- | 0 | 0.001 | Pass |

**NOTE: For Non-charge depleting tests, the Rounded Result for CREE/OPT-CREE Emission names are Verify-calculated values.**

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Test #** | **VVGA10093539** | **Test Procedure** | **52 - Fed. fuel 50 F exh.** |
| **Exhaust Test # for this Evap Test** | -- | **Test Fuel Type** | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| **Test Date** | 03/06/2026 | **Fuel** | Gasoline |
| **Fuel Batch ID** | WB0036 | **Fuel Calibration Number** | 1 |
| **Vehicle Class** | LDT2 (LVW 3751-5750, GVW 0-6000) | **DF Type** | Mfr. Determined |
| **Verify Test Lab ID** | Volkswagen AG WOB2 | | |
| **E10 Evaporative Test Measurement Method** | -- | | |
| **Test Start Odometer Reading** | 4648 | **Odometer Units** | M |
| **4WD Test Dyno** | Yes | **Diesel Adjustment Factor Usage** | -- |
| **State of Charge Delta** | -- | | |
| **Drive Cycle Speed Tolerance Criteria** | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | **Road Speed Fan Usage** | Yes |

## Test Results

# Certification Summary Information Report

| Test Group | VVGAJ02.0V3T | Evaporative/Refueling Family | VVGAR0157VCS |
|---|---|---|---|

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|---|---|---|
| CO2 BAG 1 (Bag 1 Carbon Dioxide) | 431.368083 | -- |
| CO BAG 1 (Bag 1 Carbon Monoxide) | 1.9945 | -- |
| FE BAG 1 (Bag 1 Fuel Economy) | 19.9433448 | 19.9433448 |
| CH4 BAG 1 (Bag 1 Methane) | 0.0153 | -- |
| NMOG BAG 1 (Bag 1 Non-methane organic gases) | 0.0494 | -- |
| CO2 BAG 2 (Bag 2 Carbon Dioxide) | 421.6883616 | -- |
| CO BAG 2 (Bag 2 Carbon Monoxide) | 0 | -- |
| FE BAG 2 (Bag 2 Fuel Economy) | 20.5577328 | 20.5577328 |
| CH4 BAG 2 (Bag 2 Methane) | 0 | -- |
| NMOG BAG 2 (Bag 2 Non-methane organic gases) | 0.0015 | -- |
| CO2 BAG 3 (Bag 3 Carbon Dioxide) | 363.0636612 | -- |
| CO BAG 3 (Bag 3 Carbon Monoxide) | 0.036 | -- |
| FE BAG 3 (Bag 3 Fuel Economy) | 23.8733114 | 23.8733114 |
| CH4 BAG 3 (Bag 3 Methane) | 0.0014 | -- |
| NMOG BAG 3 (Bag 3 Non-methane organic gases) | 0.0009 | -- |
| METHANE (CH4 - Methane) | 0.0035415 | -- |
| CO (Carbon Monoxide) | 0.4229002 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | 1.541507 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | 0.7276786 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | 2.02278 | -- |
| MFR FE (Manufacturer Fuel Economy) | 21.2 | 21.2 |
| NOX (Nitrogen Oxide) | 0.0063234 | -- |
| N2O (Nitrous Oxide) | 0.00043 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0.0102269 | -- |
| NMOG (Non-methane organic gases) | 0.0102 | -- |
| PM (Particulate Matter) | 0.00003 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0.0136041 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|---|---|---|
| Carbon-Related Exhaust Emissions | 409 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|---|---|---|
| Carbon dioxide | 407.5988767 | -- |

**Manufacturer Test Comments**

VW MY27 Atlas 4Motion EDV_FTP50°F Tested as Atlas 4Motion EDV ETW: 5000 RLHP: 15.3

# Certification Summary Information Report

| Test Group | VVGAJ02.0V3T | Evaporative/Refueling Family | VVGAR0157VCS |
|---|---|---|---|

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NMHC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CA | 4,000 miles | California LEV-IV SULEV30 | CO | 0.42 | -- | -- | -- | -- | -- | 0.4 | 1.0 | Pass |
| CA | 4,000 miles | California LEV-IV SULEV30 | NMOG | 0.0102 | -- | 1.0991 | -- | -- | -- | 0.01 | 99.999 | Pass |
| CA | 4,000 miles | California LEV-IV SULEV30 | NMOG+NOX | 0.0165 | -- | -- | -- | -- | -- | 0.016 | 0.060 | Pass |
| CA | 4,000 miles | California LEV-IV SULEV30 | NOX | 0.0063 | -- | -- | -- | -- | -- | 0.006 | 99.999 | Pass |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Test #** | **VVGA10093540** | **Test Procedure** | **11 - Cold CO** |
| **Exhaust Test # for this Evap Test** | -- | **Test Fuel Type** | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| **Test Date** | 03/18/2026 | **Fuel** | Gasoline |
| **Fuel Batch ID** | WB0036 | **Fuel Calibration Number** | 1 |
| **Vehicle Class** | LDT2 (LVW 3751-5750, GVW 0-6000), LDV/Passenger Car | **DF Type** | Mfr. Determined |
| **Verify Test Lab ID** | Volkswagen AG WOB2 | | |
| **E10 Evaporative Test Measurement Method** | -- | | |
| **Test Start Odometer Reading** | 4675 | **Odometer Units** | M |
| **4WD Test Dyno** | Yes | **Diesel Adjustment Factor Usage** | -- |
| **State of Charge Delta** | -- | | |
| **Drive Cycle Speed Tolerance Criteria** | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | **Road Speed Fan Usage** | Yes |

## Test Results

# Certification Summary Information Report

| Test Group | VVGAJ02.0V3T | Evaporative/Refueling Family | VVGAR0157VCS |
|---|---|---|---|

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|---|---|---|
| CO2 BAG 1 (Bag 1 Carbon Dioxide) | 521.2781089 | -- |
| CO BAG 1 (Bag 1 Carbon Monoxide) | 1.708 | -- |
| FE BAG 1 (Bag 1 Fuel Economy) | 16.508656 | 16.508656 |
| CH4 BAG 1 (Bag 1 Methane) | 0.0277 | -- |
| NMOG BAG 1 (Bag 1 Non-methane organic gases) | 0.3915 | -- |
| CO2 BAG 2 (Bag 2 Carbon Dioxide) | 460.9536193 | -- |
| CO BAG 2 (Bag 2 Carbon Monoxide) | 0.0002 | -- |
| FE BAG 2 (Bag 2 Fuel Economy) | 18.8060518 | 18.8060518 |
| CH4 BAG 2 (Bag 2 Methane) | 0 | -- |
| NMOG BAG 2 (Bag 2 Non-methane organic gases) | 0.0065 | -- |
| CO2 BAG 3 (Bag 3 Carbon Dioxide) | 396.1508082 | -- |
| CO BAG 3 (Bag 3 Carbon Monoxide) | 0.0905 | -- |
| FE BAG 3 (Bag 3 Fuel Economy) | 21.8747675 | 21.8747675 |
| CH4 BAG 3 (Bag 3 Methane) | 0.0014 | -- |
| NMOG BAG 3 (Bag 3 Non-methane organic gases) | 0.002 | -- |
| METHANE (CH4 - Methane) | 0.0061311 | -- |
| CO (Carbon Monoxide) | 0.3780669 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | 1.292992 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | 0.5566604 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | 1.804054 | -- |
| MFR FE (Manufacturer Fuel Economy) | 19 | 19 |
| NOX (Nitrogen Oxide) | 0.0485047 | -- |
| N2O (Nitrous Oxide) | 0.0015567 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0.0770196 | -- |
| NMOG (Non-methane organic gases) | 0.077 | -- |
| PM (Particulate Matter) | 0.0001087 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0.082812 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|---|---|---|
| Carbon-Related Exhaust Emissions | 457 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|---|---|---|
| Carbon dioxide | 455.6540495 | -- |

**Manufacturer Test Comments**

VW MY27 Atlas 4Motion EDV_FTP 20°F Tested as Atlas 4Motion EDV ETW: 5000 RLHP: 15.3

# Certification Summary Information Report

| Test Group | VVGAJ02.0V3T | Evaporative/Refueling Family | VVGAR0157VCS |
|---|---|---|---|

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fed | 50,000 miles | Federal Tier 4 Bin 30 | CO | 0.38 | -- | -- | -- | 0.1 | -- | 0.5 | 10.0 | Pass |
| Fed | 120,000 miles | Federal Tier 4 Bin 30 | HC-NM | 0.08 | -- | -- | -- | 0.0055 | -- | 0.1 | 0.3 | Pass |
| CA | 50,000 miles | California LEV-IV SULEV30 | CO | 0.38 | -- | -- | -- | 0.1 | -- | 0.5 | 12.5 | Pass |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Test #** | **VVGA10093542** | **Test Procedure** | **58 - Partial Soak (PS) - 40 minute** |
| **Exhaust Test # for this Evap Test** | -- | **Test Fuel Type** | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| **Test Date** | 03/04/2026 | **Fuel** | Gasoline |
| **Fuel Batch ID** | WB0036 | **Fuel Calibration Number** | 1 |
| **Vehicle Class** | LDT2 (LVW 3751-5750, GVW 0-6000), LDV/Passenger Car | **DF Type** | Mfr. Determined |
| **Verify Test Lab ID** | Volkswagen AG WOB2 | | |
| **E10 Evaporative Test Measurement Method** | -- | | |
| **Test Start Odometer Reading** | 4626 | **Odometer Units** | M |
| **4WD Test Dyno** | Yes | **Diesel Adjustment Factor Usage** | -- |
| **State of Charge Delta** | -- | | |
| **Drive Cycle Speed Tolerance Criteria** | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | **Road Speed Fan Usage** | Yes |

## Test Results

| Test Group | VVGAJ02.0V3T | Evaporative/Refueling Family | VVGAR0157VCS |
|---|---|---|---|

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|---|---|---|
| CO2 BAG 1 (Bag 1 Carbon Dioxide) | 353.5529209 | -- |
| CO BAG 1 (Bag 1 Carbon Monoxide) | 0.1721 | -- |
| FE BAG 1 (Bag 1 Fuel Economy) | 24.4987349 | 24.4987349 |
| CH4 BAG 1 (Bag 1 Methane) | 0.0041 | -- |
| NMOG BAG 1 (Bag 1 Non-methane organic gases) | 0.0076 | -- |
| CO2 BAG 2 (Bag 2 Carbon Dioxide) | 415.9925713 | -- |
| CO BAG 2 (Bag 2 Carbon Monoxide) | 0.0063 | -- |
| FE BAG 2 (Bag 2 Fuel Economy) | 20.8387782 | 20.8387782 |
| CH4 BAG 2 (Bag 2 Methane) | 0 | -- |
| NMOG BAG 2 (Bag 2 Non-methane organic gases) | 0.0009 | -- |
| CO2 BAG 3 (Bag 3 Carbon Dioxide) | 349.151687 | -- |
| CO BAG 3 (Bag 3 Carbon Monoxide) | 0.0559 | -- |
| FE BAG 3 (Bag 3 Fuel Economy) | 24.8220278 | 24.8220278 |
| CH4 BAG 3 (Bag 3 Methane) | 0.0015 | -- |
| NMOG BAG 3 (Bag 3 Non-methane organic gases) | 0.0013 | -- |
| METHANE (CH4 - Methane) | 0.0012894 | -- |
| CO (Carbon Monoxide) | 0.0542405 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | 0.3246349 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | 0.1586961 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | 0.5908016 | -- |
| MFR FE (Manufacturer Fuel Economy) | 22.5 | 22.5 |
| NOX (Nitrogen Oxide) | 0.0034 | -- |
| N2O (Nitrous Oxide) | 0.0020744 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0.002193 | -- |
| NMOG (Non-methane organic gases) | 0.0058 | -- |
| PM (Particulate Matter) | 0.0000162 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0.0034551 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|---|---|---|
| Carbon-Related Exhaust Emissions | 385 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|---|---|---|
| Carbon dioxide | 384.7083724 | -- |

# Certification Summary Information Report

| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |
|---|---|---|---|

**Manufacturer Test Comments** VW MY27 Atlas 4Motion EDV_40min Partial Soak Tested as Atlas 4Motion EDV ETW: 5000 RLHP: 15.3, The NMOG+NOx value was calculated using PS bag1 and FTP bag2,3

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NMHC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | NMOG | 0.0058 | -- | 1.0991 | -- | 0.0076 | -- | 0.013 | 99.000 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | NMOG+NOX | 0.0092 | -- | -- | -- | -- | -- | 0.017 | 0.023 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | NOX | 0.0034 | -- | -- | -- | 0 | -- | 0.003 | 99.000 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NMOG | 0.0058 | -- | 1.0991 | -- | 0.0076 | -- | 0.013 | 99.000 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NMOG+NOX | 0.0092 | -- | -- | -- | -- | -- | 0.017 | 0.023 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NOX | 0.0034 | -- | -- | -- | 0 | -- | 0.003 | 99.000 | Pass |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Test #** | **VVGA10093544** | **Test Procedure** | **49 - Quick-Driveway (QD)** |
| **Exhaust Test # for this Evap Test** | -- | **Test Fuel Type** | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| **Test Date** | 02/26/2026 | **Fuel** | Gasoline |
| **Fuel Batch ID** | WB0036 | **Fuel Calibration Number** | 1 |
| **Vehicle Class** | LDT2 (LVW 3751-5750, GVW 0-6000), LDV/Passenger Car | **DF Type** | Mfr. Determined |
| **Verify Test Lab ID** | Volkswagen AG WOB2 | | |
| **E10 Evaporative Test Measurement Method** | -- | | |
| **Test Start Odometer Reading** | 4608 | **Odometer Units** | M |
| **4WD Test Dyno** | Yes | **Diesel Adjustment Factor Usage** | -- |
| **State of Charge Delta** | -- | | |
| **Drive Cycle Speed Tolerance Criteria** | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | **Road Speed Fan Usage** | Yes |

## Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|---|---|---|
| CO2 BAG 1 (Bag 1 Carbon Dioxide) | 394.4695265 | -- |
| CO BAG 1 (Bag 1 Carbon Monoxide) | 1.0593 | -- |
| CH4 BAG 1 (Bag 1 Methane) | 0.0094 | -- |
| NMOG BAG 1 (Bag 1 Non-methane organic gases) | 0.0325 | -- |
| METHANE (CH4 - Methane) | 0.0093758 | -- |
| CO (Carbon Monoxide) | 1.0592498 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | 0.3608156 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | 0.1259803 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | -0.2923542 | -- |
| MFR FE (Manufacturer Fuel Economy) | 21.9 | 21.9 |
| NOX (Nitrogen Oxide) | 0.0041 | -- |
| N2O (Nitrous Oxide) | 0.0042955 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0.0315585 | -- |
| NMOG (Non-methane organic gases) | 0.0117 | -- |
| PM (Particulate Matter) | 0.0000839 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0.0407731 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|---|---|---|
| Carbon-Related Exhaust Emissions | 396 | -- |

# Certification Summary Information Report

| Test Group | VVGAJ02.0V3T | Evaporative/Refueling Family | VVGAR0157VCS |
|---|---|---|---|

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|---|---|---|
| Carbon dioxide | 394.4695265 | -- |

**Manufacturer Test Comments** VW MY27 Atlas 4Motion EDV_Quick Drive away Tested as Atlas 4Motion EDV ETW: 5000 RLHP: 15.3, The NMOG+NOx value was calculated using QDA bag1 and FTP bag2,3.

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NMHC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | NMOG | 0.0117 | -- | 1.0991 | -- | 0.0076 | -- | 0.019 | 99.000 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | NMOG+NOX | 0.0158 | -- | -- | -- | -- | -- | 0.023 | 0.042 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | NOX | 0.0041 | -- | -- | -- | 0 | -- | 0.004 | 99.000 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NMOG | 0.0117 | -- | 1.0991 | -- | 0.0076 | -- | 0.019 | 99.000 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NMOG+NOX | 0.0158 | -- | -- | -- | -- | -- | 0.023 | 0.042 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NOX | 0.0041 | -- | -- | -- | 0 | -- | 0.004 | 99.000 | Pass |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Test #** | **VVGA10093536** | **Test Procedure** | **3 - HWFE** |
| **Exhaust Test # for this Evap Test** | -- | **Test Fuel Type** | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| **Test Date** | 02/24/2026 | **Fuel** | Gasoline |
| **Fuel Batch ID** | WB0036 | **Fuel Calibration Number** | 1 |
| **Vehicle Class** | LDT2 (LVW 3751-5750, GVW 0-6000), LDV/Passenger Car | **DF Type** | Mfr. Determined |
| **Verify Test Lab ID** | Volkswagen AG WOB2 | | |
| **E10 Evaporative Test Measurement Method** | -- | | |
| **Test Start Odometer Reading** | 4565 | **Odometer Units** | M |
| **4WD Test Dyno** | Yes | **Diesel Adjustment Factor Usage** | -- |
| **State of Charge Delta** | -- | | |
| **Drive Cycle Speed Tolerance Criteria** | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | **Road Speed Fan Usage** | Yes |

## Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|---|---|---|
| METHANE (CH4 - Methane) | 0 | -- |
| CO (Carbon Monoxide) | 0.0311928 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | -0.2493692 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | -0.4442864 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | -0.4904835 | -- |
| MFR FE (Manufacturer Fuel Economy) | 36.1 | 36.1 |
| NOX (Nitrogen Oxide) | 0.0017874 | -- |
| N2O (Nitrous Oxide) | 0 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0 | -- |
| NMOG (Non-methane organic gases) | 0 | -- |
| PM (Particulate Matter) | 0.0000579 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|---|---|---|
| Carbon-Related Exhaust Emissions | 240 | 240 |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|---|---|---|
| Carbon dioxide | 239.7050296 | -- |

**Manufacturer Test Comments** VW MY27 Atlas 4Motion EDV_HWY Tested as Atlas 4Motion EDV ETW: 5000 RLHP: 15.3

# Certification Summary Information Report

| Test Group | VVGAJ02.0V3T | Evaporative/Refueling Family | VVGAR0157VCS |
|---|---|---|---|

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NMHC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fed | 120,000 miles | Federal Tier 4 Bin 30 | CREE | 240 | -- | -- | -- | 0.387 | -- | 240 | -- | -- |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | NMOG | 0 | -- | 1.03 | -- | 0.0076 | -- | 0.008 | 99.000 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | NMOG+NOX | 0.0018 | -- | -- | -- | -- | -- | 0.009 | 0.030 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | NOX | 0.0018 | -- | -- | -- | 0 | -- | 0.002 | 99.000 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NMOG | 0 | -- | 1.03 | -- | 0.0076 | -- | 0.008 | 99.000 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NMOG+NOX | 0.0018 | -- | -- | -- | -- | -- | 0.009 | 0.030 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NOX | 0.0018 | -- | -- | -- | 0 | -- | 0.002 | 99.000 | Pass |

**NOTE: For Non-charge depleting tests, the Rounded Result for CREE/OPT-CREE Emission names are Verify-calculated values.**

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Test #** | **VVGA10093538** | **Test Procedure** | **90 - US06** |
| **Exhaust Test # for this Evap Test** | -- | **Test Fuel Type** | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| **Test Date** | 02/24/2026 | **Fuel** | Gasoline |
| **Fuel Batch ID** | WB0036 | **Fuel Calibration Number** | 1 |
| **Vehicle Class** | LDT2 (LVW 3751-5750, GVW 0-6000), LDV/Passenger Car | **DF Type** | Mfr. Determined |
| **Verify Test Lab ID** | Volkswagen AG WOB2 | | |
| **E10 Evaporative Test Measurement Method** | -- | | |
| **Test Start Odometer Reading** | 4585 | **Odometer Units** | M |
| **4WD Test Dyno** | Yes | **Diesel Adjustment Factor Usage** | -- |
| **State of Charge Delta** | -- | | |
| **Drive Cycle Speed Tolerance Criteria** | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | **Road Speed Fan Usage** | Yes |

## Test Results

| Test Group | VVGAJ02.0V3T | Evaporative/Refueling Family | VVGAR0157VCS |
|---|---|---|---|

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|---|---|---|
| CO2 BAG 1 (Bag 1 Carbon Dioxide) | 603.2638859 | -- |
| CO BAG 1 (Bag 1 Carbon Monoxide) | 0.5430414 | -- |
| FE BAG 1 (Bag 1 Fuel Economy) | 14.3490188 | 14.3490188 |
| CH4 BAG 1 (Bag 1 Methane) | 0.0051 | -- |
| NMOG BAG 1 (Bag 1 Non-methane organic gases) | 0.0077 | -- |
| CO2 BAG 2 (Bag 2 Carbon Dioxide) | 292.5254699 | -- |
| CO BAG 2 (Bag 2 Carbon Monoxide) | 0.1692822 | -- |
| FE BAG 2 (Bag 2 Fuel Economy) | 29.6069624 | 29.6069624 |
| CH4 BAG 2 (Bag 2 Methane) | 0.0015 | -- |
| NMOG BAG 2 (Bag 2 Non-methane organic gases) | 0.0027 | -- |
| METHANE (CH4 - Methane) | 0.0023352 | -- |
| CO (Carbon Monoxide) | 0.2520672 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | -3.385743 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | -1.715679 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | -6.280527 | -- |
| MFR FE (Manufacturer Fuel Economy) | 24 | 24 |
| NOX (Nitrogen Oxide) | 0.0048965 | -- |
| N2O (Nitrous Oxide) | 0.0001801 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0.0036843 | -- |
| NMOG (Non-methane organic gases) | 0.0037 | -- |
| PM (Particulate Matter) | 0.0001667 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0.0059965 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|---|---|---|
| Carbon-Related Exhaust Emissions | 361 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|---|---|---|
| Carbon dioxide | 361.351802 | -- |

**Manufacturer Test Comments** VW MY27 Atlas 4Motion EDV_US06; VeCeD: US06 Tested as Atlas 4Motion EDV ETW: 5000 RLHP: 15.3

# Certification Summary Information Report

**Test Group** VVGAJ02.0V3T **Evaporative/Refueling Family** VVGAR0157VCS

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NMHC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | CO | 0.25 | -- | -- | -- | 0.29 | -- | 0.5 | 99.0 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | NMOG | 0.0037 | -- | 1.03 | -- | 0.0076 | -- | 0.011 | 99.000 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | NOX | 0.0049 | -- | -- | -- | 0 | -- | 0.005 | 99.000 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | PM | 0.0002 | -- | -- | -- | 0 | -- | 0 | 0.006 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | CO | 0.25 | -- | -- | -- | 0.29 | -- | 0.5 | 9.6 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NMOG | 0.0037 | -- | 1.03 | -- | 0.0076 | -- | 0.011 | 99.000 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NMOG+NOX | 0.0086 | -- | -- | -- | -- | -- | 0.016 | 0.030 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NOX | 0.0049 | -- | -- | -- | 0 | -- | 0.005 | 99.000 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | PM | 0.0002 | -- | -- | -- | 0 | -- | 0 | 0.003 | Pass |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Test #** | **VVGA10093541** | **Test Procedure** | **95 - SC03** |
| **Exhaust Test # for this Evap Test** | -- | **Test Fuel Type** | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| **Test Date** | 01/30/2026 | **Fuel** | Gasoline |
| **Fuel Batch ID** | TC0042 | **Fuel Calibration Number** | 1 |
| **Vehicle Class** | LDT2 (LVW 3751-5750, GVW 0-6000), LDV/Passenger Car | **DF Type** | Mfr. Determined |
| **Verify Test Lab ID** | Volkswagen Test Center Oxnard | | |
| **E10 Evaporative Test Measurement Method** | -- | | |
| **Test Start Odometer Reading** | 4363 | **Odometer Units** | M |
| **4WD Test Dyno** | Yes | **Diesel Adjustment Factor Usage** | -- |
| **State of Charge Delta** | -- | | |
| **Drive Cycle Speed Tolerance Criteria** | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | **Road Speed Fan Usage** | Yes |

## Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|---|---|---|
| METHANE (CH4 - Methane) | 0.0018758 | -- |
| CO (Carbon Monoxide) | 0.1726585 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | 2.7393577 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | 1.3594626 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | 3.1148669 | -- |
| MFR FE (Manufacturer Fuel Economy) | 17.2 | 17.2 |
| NOX (Nitrogen Oxide) | 0.0107966 | -- |
| N2O (Nitrous Oxide) | 0.0001396 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0.0050108 | -- |
| NMOG (Non-methane organic gases) | 0.005 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0.0068279 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|---|---|---|
| Carbon-Related Exhaust Emissions | 504 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|---|---|---|
| Carbon dioxide | 504.4714076 | -- |

**Manufacturer Test Comments** VW MY27 Atlas 4Motion EDV_SC03 Tested as Atlas 4Motion EDV ETW: 5000 RLHP: 15.3

# Certification Summary Information Report

**Test Group** VVGAJ02.0V3T **Evaporative/Refueling Family** VVGAR0157VCS

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NMHC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | CO | 0.17 | -- | -- | -- | 0.29 | -- | 0.5 | 99.0 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | NMOG | 0.005 | -- | 1.03 | -- | 0.0076 | -- | 0.013 | 99.000 | Pass |
| Fed | 150,000 miles | Federal Tier 4 Bin 30 | NOX | 0.0108 | -- | -- | -- | 0 | -- | 0.011 | 99.000 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | CO | 0.17 | -- | -- | -- | 0.29 | -- | 0.5 | 1.0 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NMOG | 0.005 | -- | 1.03 | -- | 0.0076 | -- | 0.013 | 99.000 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NMOG+NOX | 0.0158 | -- | -- | -- | -- | -- | 0.023 | 0.030 | Pass |
| CA | 150,000 miles | California LEV-IV SULEV30 | NOX | 0.0108 | -- | -- | -- | 0 | -- | 0.011 | 99.000 | Pass |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

## Emission Data Vehicle Information

| | | | |
|---|---|---|---|
| **Vehicle ID / Configuration** | VW426070060 / 0 | **Manufacturer Vehicle Configuration Number** | 0 |
| **Original Test Group Name** | VVGAJ02.0V3T | **Original Evaporative/Refueling Family** | VVGAR0157VCS |
| **Original Test Vehicle Model Year** | 2027 | | |

## Vehicle Model

| | | | |
|---|---|---|---|
| **Represented Test Vehicle Make** | Volkswagen | **Represented Test Vehicle Model** | Atlas |

## Leak Family Details

| | | | |
|---|---|---|---|
| **Leak Family Identifier** | 001 | **Leak Family Name** | VVGAR0157VCS-001 |

## Drive Sources and Fuel System Details

| Drive Source and Fuel# | Drive Source | Fuel |
|---|---|---|
| 1 | Combustion Engine | Gasoline |

| | | | |
|---|---|---|---|
| **Hybrid Indicator** | No | | |
| **Multiple Fuel Storage** | -- | **Multiple Fuel Combustion** | -- |
| **Fuel Cell Indicator** | -- | **Rechargeable Energy Storage System Indicator** | -- |
| **Rechargeable Energy Storage System** | -- | **Rechargeable Energy Storage System, if 'Other'** | -- |
| **Off-board charge Capable Indicator** | -- | | |
| **Odometer Correction -- Initial** | 0 | **Odometer Correction Factor** | 1.0073 |
| **Odometer Correction Sign** | - = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor | | |
| **Odometer Correction Units** | Miles | | |
| **Engine Code** | FAZA | **Rated Horsepower** | 282 |
| **Displacement (liters)** | 1.984 | | |
| **Air Aspiration Method** | Turbocharged | **Air Aspiration Method, if 'Other'** | |
| **Number of Air Aspiration Devices** | 1 | **Air Aspiration Device Configuration** | Single |
| **Charge Air Cooler Type** | Liquid | **Drive Mode While Testing** | 2-Wheel Drive, Front |
| **Shift Indicator Light Usage** | Not eqipped | **Aged Emission Components** | 4,000 (mi) |
| **Curb Weight (lbs)** | 4575 | **Equivalent Test Weight (pounds)** | 5000 |
| **GVWR (lbs)** | 5842 | **N/V Ratio** | 26.3 |
| **Axle Ratio** | 3.51 | | |
| **Transmission Type** | Semi-Automatic | **# of Transmission Gears** | 8 |
| **Transmission Lockup** | Yes | **Creeper Gear** | No |

| Test Group | VVGAJ02.0V3T | Evaporative/Refueling Family | VVGAR0157VCS |
|---|---|---|---|

## Dynamometer Coefficients:

| Coefficient Category | Target Coefficients A (lbf) | Target Coefficients B (lbf/mph) | Target Coefficients C (lbf/mph**2) | Set Coefficients A (lbf) | Set Coefficients B (lbf/mph) | Set Coefficients C (lbf/mph**2) | EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients |
|---|---|---|---|---|---|---|---|
| City/Highway/Evap | 36.83 | 0.2912 | 0.02385 | 5.56 | 0.3682 | 0.02304 | 14.8 |
| Cold CO | 40.52 | 0.3203 | 0.02624 | 0 | 0 | 0 | N/A |
| US06 | 36.83 | 0.2912 | 0.02385 | 5.56 | 0.3682 | 0.02304 | N/A |

**Emission Control Device Comments** --

**Manufacturer Test Vehicle Comments** MY2027 Atlas FWD tested for Evaporative Emissions

| | | | |
|---|---|---|---|
| **Test #** | **VVGA10093356** | **Test Procedure** | **34 - Federal fuel 3-day evap** |
| **Exhaust Test # for this Evap Test** | VVGA10093346 | **Test Fuel Type** | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| **Test Date** | 02/06/2026 | **Fuel** | Gasoline |
| **Fuel Batch ID** | WB0036 | **Fuel Calibration Number** | 1 |
| **Vehicle Class** | N/A | **DF Type** | Mfr. Determined |
| **Verify Test Lab ID** | Volkswagen AG WOB2 | | |
| **E10 Evaporative Test Measurement Method** | Calculated (1.08 x FID Total Hydrocarbons) | | |
| **Test Start Odometer Reading** | 4348 | **Odometer Units** | M |
| **4WD Test Dyno** | Yes | **Diesel Adjustment Factor Usage** | -- |
| **State of Charge Delta** | -- | | |
| **Drive Cycle Speed Tolerance Criteria** | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | **Road Speed Fan Usage** | Yes |

## Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|---|---|---|
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.309 | -- |

**Manufacturer Test Comments** --

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|---|---|---|---|---|---|---|---|---|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.309 | 0 | 0.309 | 0.35 | Pass |
| CA | 150,000 miles | California LEV-IV Zero Evap (Option 2) | HC-TOTAL-EQUIV | 0.309 | 0 | 0.309 | 0.35 | Pass |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Test #** | **VVGA91006753** | **Test Procedure** | **23 - 2-day evap** |
| **Exhaust Test # for this Evap Test** | VVGA91006751 | **Test Fuel Type** | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| **Test Date** | 03/26/2026 | **Fuel** | Gasoline |
| **Fuel Batch ID** | 43732 | **Fuel Calibration Number** | 1 |
| **Vehicle Class** | N/A | **DF Type** | Mfr. Determined |
| **Verify Test Lab ID** | -- | | |
| **E10 Evaporative Test Measurement Method** | Calculated (1.08 x FID Total Hydrocarbons) | | |
| **Test Start Odometer Reading** | 4464.1 | **Odometer Units** | M |
| **4WD Test Dyno** | No | **Diesel Adjustment Factor Usage** | -- |
| **State of Charge Delta** | -- | | |
| **Drive Cycle Speed Tolerance Criteria** | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | **Road Speed Fan Usage** | No |

## Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|---|---|---|
| **HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)** | 0.332785 | -- |

**Manufacturer Test Comments** Hot_Soak_HC_(g) = 0.057857, Diurnal (gHC) = 0.274928

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|---|---|---|---|---|---|---|---|---|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.3328 | 0.012 | 0.345 | 0.35 | Pass |
| CA | 150,000 miles | California LEV-IV Zero Evap (Option 2) | HC-TOTAL-EQUIV | 0.3328 | 0.012 | 0.345 | 0.35 | Pass |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Test #** | **VVGA10093354** | **Test Procedure** | **24 - Federal fuel refueling test (ORVR)** |
| **Exhaust Test # for this Evap Test** | VVGA10093345 | **Test Fuel Type** | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| **Test Date** | 01/27/2026 | **Fuel** | Gasoline |
| **Fuel Batch ID** | WB0036 | **Fuel Calibration Number** | 1 |
| **Vehicle Class** | N/A | **DF Type** | Mfr. Determined |
| **Verify Test Lab ID** | Volkswagen AG WOB2 | | |
| **E10 Evaporative Test Measurement Method** | Actual Total Hydrocarbon Equivalent Measurement (with speciation) | | |
| **Test Start Odometer Reading** | 4209 | **Odometer Units** | M |
| **4WD Test Dyno** | Yes | **Diesel Adjustment Factor Usage** | -- |
| **State of Charge Delta** | -- | | |
| **Drive Cycle Speed Tolerance Criteria** | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | **Road Speed Fan Usage** | Yes |

## Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|---|---|---|
| **HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)** | 0.013 | -- |

**Manufacturer Test Comments** --

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|---|---|---|---|---|---|---|---|---|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.013 | 0.009 | 0.02 | 0.2 | Pass |
| CA | 150,000 miles | California LEV-IV Zero Evap (Option 2) | HC-TOTAL-EQUIV | 0.013 | 0.009 | 0.02 | 0.2 | Pass |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Test #** | **VVGA10093358** | **Test Procedure** | **32 - Federal Fuel Running Loss** |
| **Exhaust Test # for this Evap Test** | VVGA10093346 | **Test Fuel Type** | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| **Test Date** | 02/06/2026 | **Fuel** | Gasoline |
| **Fuel Batch ID** | WB0036 | **Fuel Calibration Number** | 1 |
| **Vehicle Class** | N/A | **DF Type** | Mfr. Determined |
| **Verify Test Lab ID** | Volkswagen AG WOB2 | | |
| **E10 Evaporative Test Measurement Method** | Calculated (1.08 x FID Total Hydrocarbons) | | |
| **Test Start Odometer Reading** | 4348 | **Odometer Units** | M |
| **4WD Test Dyno** | Yes | **Diesel Adjustment Factor Usage** | -- |
| **State of Charge Delta** | -- | | |
| **Drive Cycle Speed Tolerance Criteria** | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | **Road Speed Fan Usage** | Yes |

## Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|---|---|---|
| **HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)** | 0.0004 | -- |

**Manufacturer Test Comments** --

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|---|---|---|---|---|---|---|---|---|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0 | 0 | 0 | 0.05 | Pass |
| CA | 150,000 miles | California LEV-IV Zero Evap (Option 2) | HC-TOTAL-EQUIV | 0 | 0 | 0 | 0.05 | Pass |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Test #** | **VVGA10093352** | **Test Procedure** | **65 - Evap Canister Bleed Test** |
| **Exhaust Test # for this Evap Test** | -- | **Test Fuel Type** | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| **Test Date** | 01/28/2026 | **Fuel** | Gasoline |
| **Fuel Batch ID** | WB0036 | **Fuel Calibration Number** | 1 |
| **Vehicle Class** | N/A | **DF Type** | Mfr. Determined |
| **Verify Test Lab ID** | Volkswagen AG WOB2 | | |
| **E10 Evaporative Test Measurement Method** | Calculated (1.08 x FID Total Hydrocarbons) | | |
| **Test Start Odometer Reading** | 4191 | **Odometer Units** | M |
| **4WD Test Dyno** | Yes | **Diesel Adjustment Factor Usage** | -- |
| **State of Charge Delta** | -- | | |
| **Drive Cycle Speed Tolerance Criteria** | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | **Road Speed Fan Usage** | Yes |

## Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|---|---|---|
| **HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)** | 0.0093 | -- |

**Manufacturer Test Comments** --

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|---|---|---|---|---|---|---|---|---|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.0093 | 0 | 0.009 | 0.02 | Pass |
| CA | 150,000 miles | California LEV-IV Zero Evap (Option 2) | HC-TOTAL-EQUIV | 0.0093 | 0 | 0.009 | 0.02 | Pass |

| Test Group | VVGAJ02.0V3T | Evaporative/Refueling Family | VVGAR0157VCS |
|---|---|---|---|

## Fuel Properties

| Fuel Batch ID | WB0036 | Fuel Calibration Number | 1 |
|---|---|---|---|
| Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) | Fuel Batch Calibration Date | 09/08/2025 |
| Fuel Batch Calibration Effective Date | 11/05/2025 | Fuel Batch Calibration Ineffective Date | -- |
| Carbon Weight Fraction NMHC | -- | Carbon Weight Fraction HC | -- |
| Exhaust Carbon Weight Fraction | -- | Fuel Methanol Volume Fraction | -- |
| Fuel Density (grams/cubic ft) | -- | Fuel Specific Gravity | 0.752 |
| Fuel Ethanol Volume Percent (%) | 9.7 | Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb) | -- |
| Fuel Net Heat of Combustion (E10) (MJ/kg) | 41.91 | Fuel Carbon Mass Fraction (E10) | 0.827 |
| Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0) | -- | Weight Fraction CO2 | -- |

| Fuel Batch ID | 43732 | Fuel Calibration Number | 1 |
|---|---|---|---|
| Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) | Fuel Batch Calibration Date | 05/08/2025 |
| Fuel Batch Calibration Effective Date | 05/08/2025 | Fuel Batch Calibration Ineffective Date | -- |
| Carbon Weight Fraction NMHC | -- | Carbon Weight Fraction HC | -- |
| Exhaust Carbon Weight Fraction | -- | Fuel Methanol Volume Fraction | -- |
| Fuel Density (grams/cubic ft) | -- | Fuel Specific Gravity | 0.749 |
| Fuel Ethanol Volume Percent (%) | 9.6 | Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb) | 17885 |
| Fuel Net Heat of Combustion (E10) (MJ/kg) | -- | Fuel Carbon Mass Fraction (E10) | -- |
| Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0) | 0.828 | Weight Fraction CO2 | -- |

| Fuel Batch ID | TC0042 | Fuel Calibration Number | 1 |
|---|---|---|---|
| Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) | Fuel Batch Calibration Date | 06/05/2025 |
| Fuel Batch Calibration Effective Date | 10/08/2025 | Fuel Batch Calibration Ineffective Date | -- |
| Carbon Weight Fraction NMHC | -- | Carbon Weight Fraction HC | -- |
| Exhaust Carbon Weight Fraction | -- | Fuel Methanol Volume Fraction | -- |
| Fuel Density (grams/cubic ft) | -- | Fuel Specific Gravity | 0.745 |
| Fuel Ethanol Volume Percent (%) | 10 | Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb) | -- |
| Fuel Net Heat of Combustion (E10) (MJ/kg) | 41.51 | Fuel Carbon Mass Fraction (E10) | 0.827 |
| Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0) | -- | Weight Fraction CO2 | -- |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

## Consolidated List of Standards

### Exhaust Standards

| | | | |
|---|---|---|---|
| **Cert Region** | California + CAA Section 177 states | **Cert/In-Use Code** | Both |
| **Vehicle Class** | LDT2 (LVW 3751-5750, GVW 0-6000) | **Standard Level** | California LEV-IV SULEV30 |
| **Fuel** | Gasoline | **Test Procedure** | SC03 |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---|---|---|---|---|---|---|---|---|---|
| 150,000 miles | CO | -- | -- | -- | -- | -- | -- | 0.29 | 1.0 |
| 150,000 miles | NMOG | -- | -- | 1.03 | -- | -- | -- | 0.0076 | 99.000 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | -- | 0.0076 | 0.030 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | -- | 0 | 99.000 |

| | | | |
|---|---|---|---|
| **Cert Region** | California + CAA Section 177 states | **Cert/In-Use Code** | Cert |
| **Vehicle Class** | LDT2 (LVW 3751-5750, GVW 0-6000) | **Standard Level** | California LEV-IV SULEV30 |
| **Fuel** | Gasoline | **Test Procedure** | Quick-Driveway (QD) |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---|---|---|---|---|---|---|---|---|---|
| 150,000 miles | NMOG | -- | -- | 1.0991 | -- | -- | -- | 0.0076 | 99.000 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | -- | 0.0076 | 0.042 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | -- | 0 | 99.000 |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Cert Region** | Federal | **Cert/In-Use Code** | Both |
| **Vehicle Class** | LDV/Passenger Car | **Standard Level** | Federal Tier 4 Bin 30 |
| **Fuel** | Gasoline | **Test Procedure** | Federal fuel 2-day exhaust (w/can load) |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---|---|---|---|---|---|---|---|---|---|
| 120,000 miles | CREE | -- | -- | -- | -- | -- | -- | 0.387 | 999 |
| 120,000 miles | METHANE | -- | -- | -- | -- | -- | -- | 0.002 | 0.030 |
| 120,000 miles | N2O | -- | -- | -- | -- | -- | -- | 0.0006 | 0.010 |
| 150,000 miles | CO | -- | -- | -- | -- | -- | -- | 0.29 | 1.0 |
| 150,000 miles | CO-COMP | -- | -- | -- | -- | -- | -- | -- | 4.2 |
| 150,000 miles | NMOG | -- | -- | 1.0991 | -- | -- | -- | 0.0076 | 99.000 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | -- | 0.0076 | 0.030 |
| 150,000 miles | NMOG+NOX-COMP | -- | -- | -- | -- | -- | -- | -- | 0.040 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | -- | 0 | 99.000 |
| 150,000 miles | PM | -- | -- | -- | -- | -- | -- | 0 | 0.003 |

| | | | |
|---|---|---|---|
| **Cert Region** | California + CAA Section 177 states | **Cert/In-Use Code** | Cert |
| **Vehicle Class** | LDT2 (LVW 3751-5750, GVW 0-6000) | **Standard Level** | California LEV-IV SULEV30 |
| **Fuel** | Gasoline | **Test Procedure** | US06 |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---|---|---|---|---|---|---|---|---|---|
| 150,000 miles | CO | -- | -- | -- | -- | -- | -- | 0.29 | 9.6 |
| 150,000 miles | NMOG | -- | -- | 1.03 | -- | -- | -- | 0.0076 | 99.000 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | -- | 0.0076 | 0.030 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | -- | 0 | 99.000 |
| 150,000 miles | PM | -- | -- | -- | -- | -- | -- | 0 | 0.003 |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Cert Region** | California + CAA Section 177 states | **Cert/In-Use Code** | Cert |
| **Vehicle Class** | LDT2 (LVW 3751-5750, GVW 0-6000) | **Standard Level** | California LEV-IV SULEV30 |
| **Fuel** | Gasoline | **Test Procedure** | Federal fuel 2-day exhaust (w/can load) |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---|---|---|---|---|---|---|---|---|---|
| 150,000 miles | CO | -- | -- | -- | -- | -- | -- | 0.29 | 1.0 |
| 150,000 miles | NMOG | -- | -- | 1.0991 | -- | -- | -- | 0.0076 | 99.000 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | -- | 0.0076 | 0.030 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | -- | 0 | 99.000 |
| 150,000 miles | PM | -- | -- | -- | -- | -- | -- | 0 | 0.001 |

| | | | |
|---|---|---|---|
| **Cert Region** | Federal | **Cert/In-Use Code** | Both |
| **Vehicle Class** | LDV/Passenger Car | **Standard Level** | Federal Tier 4 Bin 30 |
| **Fuel** | Gasoline | **Test Procedure** | Cold CO |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---|---|---|---|---|---|---|---|---|---|
| 50,000 miles | CO | -- | -- | -- | -- | -- | -- | 0.1 | 10.0 |
| 120,000 miles | HC-NM | -- | -- | -- | -- | -- | -- | 0.0055 | 0.3 |

| | | | |
|---|---|---|---|
| **Cert Region** | Federal | **Cert/In-Use Code** | Both |
| **Vehicle Class** | LDV/Passenger Car | **Standard Level** | Federal Tier 4 Bin 30 |
| **Fuel** | Gasoline | **Test Procedure** | HWFE |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---|---|---|---|---|---|---|---|---|---|
| 120,000 miles | CREE | -- | -- | -- | -- | -- | -- | 0.387 | 999 |
| 150,000 miles | NMOG | -- | -- | 1.03 | -- | -- | -- | 0.0076 | 99.000 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | -- | 0.0076 | 0.030 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | -- | 0 | 99.000 |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Cert Region** | Federal | **Cert/In-Use Code** | Both |
| **Vehicle Class** | LDV/Passenger Car | **Standard Level** | Federal Tier 4 Bin 30 |
| **Fuel** | Gasoline | **Test Procedure** | Partial Soak (PS) - 40 minute |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---|---|---|---|---|---|---|---|---|---|
| 150,000 miles | NMOG | -- | -- | 1.0991 | -- | -- | -- | 0.0076 | 99.000 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | -- | 0.0076 | 0.023 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | -- | 0 | 99.000 |

| | | | |
|---|---|---|---|
| **Cert Region** | Federal | **Cert/In-Use Code** | Cert |
| **Vehicle Class** | LDV/Passenger Car | **Standard Level** | Federal Tier 4 Bin 30 |
| **Fuel** | Gasoline | **Test Procedure** | Quick-Driveway (QD) |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---|---|---|---|---|---|---|---|---|---|
| 150,000 miles | NMOG | -- | -- | 1.0991 | -- | -- | -- | 0.0076 | 99.000 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | -- | 0.0076 | 0.042 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | -- | 0 | 99.000 |

| | | | |
|---|---|---|---|
| **Cert Region** | Federal | **Cert/In-Use Code** | Both |
| **Vehicle Class** | LDV/Passenger Car | **Standard Level** | Federal Tier 4 Bin 30 |
| **Fuel** | Gasoline | **Test Procedure** | US06 |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---|---|---|---|---|---|---|---|---|---|
| 150,000 miles | CO | -- | -- | -- | -- | -- | -- | 0.29 | 99.0 |
| 150,000 miles | NMOG | -- | -- | 1.03 | -- | -- | -- | 0.0076 | 99.000 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | -- | 0 | 99.000 |
| 150,000 miles | PM | -- | -- | -- | -- | -- | -- | 0 | 0.006 |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Cert Region** | California + CAA Section 177 states | **Cert/In-Use Code** | Both |
| **Vehicle Class** | LDT2 (LVW 3751-5750, GVW 0-6000) | **Standard Level** | California LEV-IV SULEV30 |
| **Fuel** | Gasoline | **Test Procedure** | Partial Soak (PS) - 40 minute |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---|---|---|---|---|---|---|---|---|---|
| 150,000 miles | NMOG | -- | -- | 1.0991 | -- | -- | -- | 0.0076 | 99.000 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | -- | 0.0076 | 0.023 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | -- | 0 | 99.000 |

| | | | |
|---|---|---|---|
| **Cert Region** | California + CAA Section 177 states | **Cert/In-Use Code** | Both |
| **Vehicle Class** | LDT2 (LVW 3751-5750, GVW 0-6000) | **Standard Level** | California LEV-IV SULEV30 |
| **Fuel** | Gasoline | **Test Procedure** | HWFE |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---|---|---|---|---|---|---|---|---|---|
| 150,000 miles | NMOG | -- | -- | 1.03 | -- | -- | -- | 0.0076 | 99.000 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | -- | 0.0076 | 0.030 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | -- | 0 | 99.000 |

| | | | |
|---|---|---|---|
| **Cert Region** | Federal | **Cert/In-Use Code** | Both |
| **Vehicle Class** | LDV/Passenger Car | **Standard Level** | Federal Tier 4 Bin 30 |
| **Fuel** | Gasoline | **Test Procedure** | SC03 |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---|---|---|---|---|---|---|---|---|---|
| 150,000 miles | CO | -- | -- | -- | -- | -- | -- | 0.29 | 99.0 |
| 150,000 miles | NMOG | -- | -- | 1.03 | -- | -- | -- | 0.0076 | 99.000 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | -- | 0 | 99.000 |

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Cert Region** | California + CAA Section 177 states | **Cert/In-Use Code** | Both |
| **Vehicle Class** | LDT2 (LVW 3751-5750, GVW 0-6000) | **Standard Level** | California LEV-IV SULEV30 |
| **Fuel** | Gasoline | **Test Procedure** | Fed. fuel 50 F exh. |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---|---|---|---|---|---|---|---|---|---|
| 4,000 miles | CO | -- | -- | -- | -- | -- | -- | -- | 1.0 |
| 4,000 miles | NMOG | -- | -- | 1.0991 | -- | -- | -- | -- | 99.999 |
| 4,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | 1 | -- | 0.060 |
| 4,000 miles | NOX | -- | -- | -- | -- | -- | -- | -- | 99.999 |

| | | | |
|---|---|---|---|
| **Cert Region** | California + CAA Section 177 states | **Cert/In-Use Code** | Both |
| **Vehicle Class** | LDT2 (LVW 3751-5750, GVW 0-6000) | **Standard Level** | California LEV-IV SULEV30 |
| **Fuel** | Gasoline | **Test Procedure** | Cold CO |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---|---|---|---|---|---|---|---|---|---|
| 50,000 miles | CO | -- | -- | -- | -- | -- | -- | 0.1 | 12.5 |

## Evaporative/Refueling Standards

| | | | |
|---|---|---|---|
| **Evaporative/Refueling Family** | VVGAR0157VCS | **Cert Region** | Federal |
| **Cert/In-Use Code** | Both | **Standard Level** | Federal Tier 3 Evap |
| **Test Procedure** | Federal Fuel Running Loss | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|---|---|---|---|---|---|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.05 | 0 |

| | | | |
|---|---|---|---|
| **Evaporative/Refueling Family** | VVGAR0157VCS | **Cert Region** | California + CAA Section 177 states |
| **Cert/In-Use Code** | Both | **Standard Level** | California LEV-IV Zero Evap (Option 2) |
| **Test Procedure** | Federal fuel 3-day evap | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|---|---|---|---|---|---|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.350 | 0 |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Evaporative/Refueling Family** | VVGAR0157VCS | **Cert Region** | Federal |
| **Cert/In-Use Code** | Both | **Standard Level** | Federal Tier 3 Evap |
| **Test Procedure** | Federal fuel 3-day evap | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|---|---|---|---|---|---|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.350 | 0 |

| | | | |
|---|---|---|---|
| **Evaporative/Refueling Family** | VVGAR0157VCS | **Cert Region** | California + CAA Section 177 states |
| **Cert/In-Use Code** | Both | **Standard Level** | California LEV-IV Zero Evap (Option 2) |
| **Test Procedure** | Evap Canister Bleed Test | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|---|---|---|---|---|---|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.020 | 0 |

| | | | |
|---|---|---|---|
| **Evaporative/Refueling Family** | VVGAR0157VCS | **Cert Region** | Federal |
| **Cert/In-Use Code** | Both | **Standard Level** | Federal Tier 3 Evap |
| **Test Procedure** | Evap Canister Bleed Test | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|---|---|---|---|---|---|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.020 | 0 |

| | | | |
|---|---|---|---|
| **Evaporative/Refueling Family** | VVGAR0157VCS | **Cert Region** | Federal |
| **Cert/In-Use Code** | Both | **Standard Level** | Federal Tier 3 Evap |
| **Test Procedure** | Federal fuel refueling test (ORVR) | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|---|---|---|---|---|---|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.20 | 0.009 |

| | | | |
|---|---|---|---|
| **Evaporative/Refueling Family** | VVGAR0157VCS | **Cert Region** | California + CAA Section 177 states |
| **Cert/In-Use Code** | Both | **Standard Level** | California LEV-IV Zero Evap (Option 2) |
| **Test Procedure** | Federal Fuel Running Loss | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|---|---|---|---|---|---|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.05 | 0 |

# Certification Summary Information Report

| | | | |
|---|---|---|---|
| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |

| | | | |
|---|---|---|---|
| **Evaporative/Refueling Family** | VVGAR0157VCS | **Cert Region** | California + CAA Section 177 states |
| **Cert/In-Use Code** | Both | **Standard Level** | California LEV-IV Zero Evap (Option 2) |
| **Test Procedure** | Federal fuel refueling test (ORVR) | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|---|---|---|---|---|---|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.20 | 0.009 |

| | | | |
|---|---|---|---|
| **Evaporative/Refueling Family** | VVGAR0157VCS | **Cert Region** | California + CAA Section 177 states |
| **Cert/In-Use Code** | Both | **Standard Level** | California LEV-IV Zero Evap (Option 2) |
| **Test Procedure** | 2-day evap | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|---|---|---|---|---|---|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.350 | 0.012 |

| | | | |
|---|---|---|---|
| **Evaporative/Refueling Family** | VVGAR0157VCS | **Cert Region** | Federal |
| **Cert/In-Use Code** | Both | **Standard Level** | Federal Tier 3 Evap |
| **Test Procedure** | 2-day evap | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|---|---|---|---|---|---|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.350 | 0.012 |

# Certification Summary Information Report

| Test Group | VVGAJ02.0V3T | Evaporative/Refueling Family | VVGAR0157VCS |
|---|---|---|---|

## Glossary

**Useful Life**

| | | | |
|---|---|---|---|
| 4 | 4,000 miles | 120 | 120,000 miles |
| 50 | 50,000 miles | 150 | 150,000 miles |
| 100 | 100,000 miles | | |

**Emission Name**

| | | | |
|---|---|---|---|
| HC-TOTAL | Total Hydrocarbon | COMB-CREE | Combined Carbon-Related Exhaust Emissions |
| CO | Carbon Monoxide | COMB-OPT-CREE | Combined Optional Carbon-Related Exhaust Emissions |
| CO2 | Carbon dioxide | HC-TOTAL-EQUIV | Total Hydrocarbon equivalent - Evap only |
| CREE | Carbon-Related Exhaust Emissions | METHANE-COMB | Combined CH4 for HD 2b/3 vehicles only |
| OPT-CREE | Optional Carbon-Related Exhaust Emissions | N2O-COMB | Combined Nitrous Oxide for HD 2b/3 vehicles only |
| NOX | Nitrogen Oxide | LEAK-DIA | Effective Leak Diameter (inches) |
| PM | Particulate Matter | LEAK-GAS CAP | Gas Cap Leakage (cc/min) |
| PM-COMP | SFTP Composite Particulate Matter | CO2-COMB | Combined Carbon Dioxide for HD 2b/3 Vehicles Only |
| HC-NM | Non-methane Hydrocarbon | KW-HRS | Integrated DC KW-HRS |
| OMHCE | Organic material Hydrocarbon Equivalent | CH4 BAG 1 | Bag 1 Methane |
| OMNMHCE | Organic material non-methane HC equivalent | CH4 BAG 2 | Bag 2 Methane |
| NMOG | Non-methane organic gases | CH4 BAG 3 | Bag 3 Methane |
| HCHO | Formaldehyde | CH4 BAG 4 | Bag 4 Methane |
| H3C2HO | Acetaldehyde | CO BAG 1 | Bag 1 Carbon Monoxide |
| HC-NM+NOX | SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03 | CO BAG 2 | Bag 2 Carbon Monoxide |
| HC-NM+NOX-COMP | SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides | CO BAG 3 | Bag 3 Carbon Monoxide |
| CO-COMP | SFTP Composite Carbon Monoxide | CO BAG 4 | Bag 4 Carbon Monoxide |
| ETHANOL | C2H5OH - Ethanol | NMOG BAG 1 | Bag 1 Non-methane organic gases |
| FE BAG 1 | Bag 1 Fuel Economy | NMOG BAG 2 | Bag 2 Non-methane organic gases |
| FE BAG 2 | Bag 2 Fuel Economy | NMOG BAG 3 | Bag 3 Non-methane organic gases |
| FE BAG 3 | Bag 3 Fuel Economy | NMOG BAG 4 | Bag 4 Non-methane organic gases |
| FE BAG 4 | Bag 4 Fuel Economy | ACT-DISTANCE BAG 1 | Bag 1 Actual Distance |
| MFR FE | Manufacturer Fuel Economy | ACT-DISTANCE BAG 2 | Bag 2 Actual Distance |
| HC | Hydrocarbon for Running Loss and ORVR | ACT-DISTANCE BAG 3 | Bag 3 Actual Distance |
| METHANE | CH4 - Methane | ACT-DISTANCE BAG 4 | Bag 4 Actual Distance |
| METHANOL | CH3OH - Methanol | HC-TOTAL BAG 1 | Bag 1 Total Hydrocarbon |
| N2O | Nitrous Oxide | HC-TOTAL BAG 2 | Bag 2 Total Hydrocarbon |
| SPITBACK | Spitback Hydrocarbon in grams | HC-TOTAL BAG 3 | Bag 3 Total Hydrocarbon |
| AMP-HRS | Integrated Amp-hours | HC-TOTAL BAG 4 | Bag 4 Total Hydrocarbon |
| START-SOC | System Start State of Charge Watt-hours | WATT-HRS BAG 1 | Bag 1 Watt Hours |
| END-SOC | System End State of Charge Watt-hours | WATT-HRS BAG 2 | Bag 2 Watt Hours |

# Certification Summary Information Report

| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |
|---|---|---|---|
| ACT-DISTANCE | Actual Distance Driven (miles) | WATT-HRS BAG 3 | Bag 3 Watt Hours |
| AS-VOLT | Average System Voltage | WATT-HRS BAG 4 | Bag 4 Watt Hours |
| CO2 BAG 1 | Bag 1 Carbon Dioxide | WATT-HRS | Watt Hours |
| CO2 BAG 2 | Bag 2 Carbon Dioxide | HC-NM BAG 1 | Bag 1 Non-methane Hydrocarbon |
| CO2 BAG 3 | Bag 3 Carbon Dioxide | HC-NM BAG 2 | Bag 2 Non-methane Hydrocarbon |
| CO2 BAG 4 | Bag 4 Carbon Dioxide | HC-NM BAG 3 | Bag 3 Non-methane Hydrocarbon |
| NMOG+NOX | Non-methane organic gases plus Nitrogen Oxides | HC-NM BAG 4 | Bag 4 Non-methane Hydrocarbon |
| NMOG+NOX-COMP | SFTP Composite Non-methane Organic Gases + Nitrogen Oxides | N2O BAG 1 | Bag 1 Nitrous Oxide |
| DT-IWRR | Drive Trace Inertia Work Ratio Rating | N2O BAG 2 | Bag 2 Nitrous Oxide |
| DT-ASCR | Drive Trace Absolute Speed Change Rating | N2O BAG 3 | Bag 3 Nitrous Oxide |
| DT-EER | Drive Trace Energy Economy Rating | N2O BAG 4 | Bag 4 Nitrous Oxide |
| **Certification Region** | | | |
| CA | California + CAA Section 177 states | FA | Federal |
| **Exhaust Emission Standard Level** | | | |
| B1 | Federal Tier 2 Bin 1 | HDV2B340 | Federal Tier 3 HD Class 2b Transitional Bin 340 |
| B2 | Federal Tier 2 Bin 2 | HDV2B250 | Federal Tier 3 HD Class 2b Bin 250 |
| B3 | Federal Tier 2 Bin 3 | HDV2B200 | Federal Tier 3 HD Class 2b Bin 200 |
| B4 | Federal Tier 2 Bin 4 | HDV2B170 | Federal Tier 3 HD Class 2b Bin 170 |
| B5 | Federal Tier 2 Bin 5 | HDV2B150 | Federal Tier 3 HD Class 2b Bin 150 |
| B6 | Federal Tier 2 Bin 6 | HDV2B0 | Federal Tier 3 HD Class 2b Bin 0 |
| B7 | Federal Tier 2 Bin 7 | HDV3B630 | Federal Tier 3 HD Class 3 Transitional Bin 630 |
| B8 | Federal Tier 2 Bin 8 | HDV3B570 | Federal Tier 3 HD Class 3 Transitional Bin 570 |
| B9 | Federal Tier 2 Bin 9 | HDV3B400 | Federal Tier 3 HD Class 3 Bin 400 |
| B10 | Federal Tier 2 Bin 10 | HDV3B270 | Federal Tier 3 HD Class 3 Bin 270 |
| B11 | Federal Tier 2 Bin 11 | HDV3B230 | Federal Tier 3 HD Class 3 Bin 230 |
| HDV1 | HDV1 (Federal HD chassis Class 2b GVW 8501-10000) | HDV3B200 | Federal Tier 3 HD Class 3 Bin 200 |
| HDV2 | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | HDV3B0 | Federal Tier 3 HD Class 3 Bin 0 |
| L2 | California LEV-II LEV | L4SULEV100 | California LEV-IV SULEV100 |
| L2OP | California LEV-II LEV Optional | L4SULEV125 | California LEV-IV SULEV125 |
| U2 | California LEV-II ULEV | L4SULEV15 | California LEV-IV SULEV15 |
| S2 | California LEV-II SULEV | L4SULEV150 | California LEV-IV SULEV150 |
| ZEV | California ZEV | L4SULEV170 | California LEV-IV SULEV170 |
| OT | Other | L4SULEV175 | California LEV-IV SULEV175 |
| T1 | Federal Tier 1 | L4SULEV20 | California LEV-IV SULEV20 |
| PZEV | California PZEV | L4SULEV200 | California LEV-IV SULEV200 |
| L2LEV160 | California LEV-II LEV160 | L4SULEV230 | California LEV-IV SULEV230 |
| L2ULEV125 | California LEV-II ULEV125 | L4SULEV25 | California LEV-IV SULEV25 |
| L2SULEV30 | California LEV-II SULEV30 | L4SULEV30 | California LEV-IV SULEV30 |
| L2LEV395 | California LEV-II LEV395 | L4SULEV75 | California LEV-IV SULEV75 |

| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |
|---|---|---|---|
| L2ULEV340 | California LEV-II ULEV340 | L4SULEV85 | California LEV-IV SULEV85 |
| L2LEV630 | California LEV-II LEV630 | L4ULEV125 | California LEV-IV ULEV125 |
| L2ULEV570 | California LEV-II ULEV570 | L4ULEV200 | California LEV-IV ULEV200 |
| L3LEV160 | California LEV-III LEV160 | L4ULEV250 | California LEV-IV ULEV250 |
| L3ULEV125 | California LEV-III ULEV125 | L4ULEV270 | California LEV-IV ULEV270 |
| L3ULEV70 | California LEV-III ULEV70 | L4ULEV40 | California LEV-IV ULEV40 |
| L3ULEV50 | California LEV-III ULEV50 | L4ULEV400 | California LEV-IV ULEV400 |
| L3SULEV30 | California LEV-III SULEV30 | L4ULEV50 | California LEV-IV ULEV50 |
| L3SULEV20 | California LEV-III SULEV20 | L4ULEV60 | California LEV-IV ULEV60 |
| L3LEV395 | California LEV-III LEV395 | L4ULEV70 | California LEV-IV ULEV70 |
| L3ULEV340 | California LEV-III ULEV340 | T4B170 | Federal Tier 4 MDV Bin 170 |
| L3ULEV250 | California LEV-III ULEV250 | T4B150 | Federal Tier 4 MDV Bin 150 |
| L3ULEV200 | California LEV-III ULEV200 | T4B125 | Federal Tier 4 MDV Bin 125 |
| L3SULEV170 | California LEV-III SULEV170 | T4B100 | Federal Tier 4 MDV Bin 100 |
| L3SULEV150 | California LEV-III SULEV150 | T4B85 | Federal Tier 4 MDV Bin 85 |
| L3LEV630 | California LEV-III LEV630 | T4B75 | Federal Tier 4 MDV Bin 75 |
| L3ULEV570 | California LEV-III ULEV570 | T4B70 | Federal Tier 4 Bin 70 |
| L3ULEV400 | California LEV-III ULEV400 | T4B65 | Federal Tier 4 Bin 65 |
| L3ULEV270 | California LEV-III ULEV270 | T4B60 | Federal Tier 4 Bin 60 |
| L3SULEV230 | California LEV-III SULEV230 | T4B55 | Federal Tier 4 Bin 55 |
| L3SULEV200 | California LEV-III SULEV200 | T4B50 | Federal Tier 4 Bin 50 |
| T3B160 | Federal Tier 3 Bin 160 | T4B45 | Federal Tier 4 Bin 45 |
| T3B125 | Federal Tier 3 Bin 125 | T4B40 | Federal Tier 4 Bin 40 |
| T3B110 | Federal Tier 3 Transitional Bin 110 | T4B35 | Federal Tier 4 Bin 35 |
| T3B85 | Federal Tier 3 Transitional Bin 85 | T4B30 | Federal Tier 4 Bin 30 |
| T3SULEV30 | Federal Tier 3 Transitional LEV-II SULEV30 Carryover | T4B25 | Federal Tier 4 Bin 25 |
| T3B70 | Federal Tier 3 Bin 70 | T4B20 | Federal Tier 4 Bin 20 |
| T3B50 | Federal Tier 3 Bin 50 | T4B15 | Federal Tier 4 Bin 15 |
| T3B30 | Federal Tier 3 Bin 30 | T4B10 | Federal Tier 4 Bin 10 |
| T3B20 | Federal Tier 3 Bin 20 | T4B5 | Federal Tier 4 Bin 5 |
| T3B0 | Federal Tier 3 Bin 0 | T4B0 | Federal Tier 4 Bin 0 |
| HDV2B395 | Federal Tier 3 HD Class 2b Transitional Bin 395 | | |

| **Transmission Type Code** | | | |
|---|---|---|---|
| AMS | Automated Manual- Selectable (e.g. Automated Manual with paddles) | M | Manual |
| A | Automatic | OT | Other |
| AM | Automated Manual | SA | Semi-Automatic |
| CVT | Continuously Variable | SCV | Selectable Continuously Variable (e.g. CVT with paddles) |

| **Drive System Code** | | | |
|---|---|---|---|
| 4 | 4-Wheel Drive | P | Part-time 4-Wheel Drive |

# Certification Summary Information Report

| **Test Group** | VVGAJ02.0V3T | **Evaporative/Refueling Family** | VVGAR0157VCS |
|---|---|---|---|
| F | 2-Wheel Drive, Front | A | All Wheel Drive |
| R | 2-Wheel Drive, Rear | | |

**Additional Terms and Acronyms**

| | | | |
|---|---|---|---|
| AFC | Alternative Fuel Converter | ICI | Independent Commercial Importer |
| CSI | Certificate Summary Information | ORVR | Onboard Refueling Vapor Recovery |
| DF | Deterioration Factor | SIL | Shift Indicator Light |
| Evap | Evaporation, Evaporative | Trans | Transmission |