

## Kim, Seong Hun

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**From:** noreply@salesforce.com on behalf of California Air <mcertfees@arb.ca.gov>  
**Sent:** Friday, February 27, 2026 10:38 AM  
**To:** Kim, Seong Hun  
**Subject:** [From: External] MS Fee Payment Confirmation for Invoice MSF250788  
**Attachments:** MSF250788 - signed.pdf

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Dear Seong Hun Kim

Attached is documentation for your MS Fee payment for Invoice Name MSF250788. Please include a copy of this invoice and email with each application that is listed when submitting your application to the applicable MS Fee program.

1. Payment ID – 25RA0309
2. Date of Payment – 2/26/2026
3. Payment Status - Paid



**MOBILE SOURCE CERTIFICATION AND COMPLIANCE FEE PAYMENT FORM FOR ON-ROAD APPLICATIONS ONLY**

**CARB USE ONLY**

|                     |              |
|---------------------|--------------|
| <b>Invoice Name</b> | MSF250788    |
| <b>Invoice Date</b> | Feb 06, 2026 |

**COMPANY INFORMATION**

|                                 |                                   |
|---------------------------------|-----------------------------------|
| <b>Company Name</b>             | Volkswagen Group of America, Inc. |
| <b>Address</b>                  | 3800 Hamlin Road                  |
| <b>City</b>                     | Auburn Hills                      |
| <b>State</b>                    | MI                                |
| <b>Zip</b>                      | 48326                             |
| <b>Country</b>                  | United States                     |
| <b>Contact Name</b>             | Seong Hun Kim                     |
| <b>Contact Telephone Number</b> | 2489314347                        |
| <b>Contact Email</b>            | sunny.kim@vw.com                  |
| <b>CARB Customer Number</b>     | CCAM000085                        |

**APPLICATION INFORMATION**

| Payment Row Number | Product Description or File Name | Model Year/Calendar Year | Unique Application Identifier: Test Group, Engine Family, Trailer Family, Vehicle Family, ZEP Family, if applicable (ID listed in payment row must match the unique identifier given to the certification application) | Category Type                                                    | Fee Type           | Amount       |
|--------------------|----------------------------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|--------------------|--------------|
| 1                  | Audi_RSQ8,S8                     | Model Year 2027          | VVGAJ04.0NAT                                                                                                                                                                                                           | Light-duty vehicle test group and medium-duty vehicle test group | Base               | \$ 50,309.00 |
| 2                  | Audi_A8                          | Model Year 2027          | VVGAV03.0N7M                                                                                                                                                                                                           | Light-duty vehicle test group and medium-duty vehicle test group | Partial Carry-Over | \$ 25,155.00 |
| 3                  | Audi_SQ8                         | Model Year 2027          | VVGAT04.0NAV                                                                                                                                                                                                           | Light-duty vehicle test group and medium-duty vehicle test group | Partial Carry-Over | \$ 25,155.00 |
| 4                  | Audi_Q8                          | Model Year 2027          | VVGAT03.0N7N                                                                                                                                                                                                           | Light-duty vehicle test group and medium-duty vehicle test group | Partial Carry-Over | \$ 25,155.00 |
| 5                  | Audi_Q4 eton quattro             | Model Year 2027          | VVGAV00.0A4A                                                                                                                                                                                                           | Light-duty vehicle test group and medium-duty vehicle test group | Zero-Emission      | \$ 12,577.00 |
| 6                  | Audi_Q4 eton                     | Model Year 2027          | VVGAV00.0A4R                                                                                                                                                                                                           | Light-duty vehicle test group and medium-duty vehicle test group | Zero-Emission      | \$ 12,577.00 |
| 7                  | Audi_etron GT                    | Model Year 2027          | VVGAV00.0NZG                                                                                                                                                                                                           | Light-duty vehicle test group and medium-duty vehicle test group | Zero-Emission      | \$ 12,577.00 |

|                  |               |
|------------------|---------------|
| <b>Total Due</b> | \$ 163,505.00 |
|------------------|---------------|

I, Tony D'Ambrosi  
Tony D'Ambrosi (Feb 6, 2026 15:39:10 EST)

, attest that any information provided is true, accurate, and complete.

*(Responsible Party Signature Here)*



Audi AG, a member of the Volkswagen Group

## Application for Emissions Certification 2027 Model Year

**Durability Group:** VVGAHHGNNNAT  
**Evap. Family:** VVGAR0182NCM  
VVGAR0176NCT

### Test Group: VVGAJ04.0NAT

**Certificate Number:** VVGAJ04.0NAT-xxx, -xxx  
**Durability Group Description:** Four Stroke, Otto Cycle, Gasoline Fueled, Direct Fuel Injection, Catalyst Code: JM842 (PRE), JM842 (MAIN), 48V MHEV  
**Test Group Description:** 4.0I V8 TFSI Bi-Turbo, DFI/2TC/2CAC/2TWC/2WR-HO2S/2HO2S – LDV/LDT4

**Applicable Exhaust Standards:** 50 State Federal: Tier 4 Interim Bin 125  
California: LEV IV ULEV125

**Applicable Evaporative Standards:** 50 State

|             | <u>VVGAR0182NCM</u> | <u>VVGAR0176NCT</u> |
|-------------|---------------------|---------------------|
| Federal:    | Tier 4 FEL: 450 mg  | Tier 4 FEL: 400 mg  |
| California: | LEV IV FEL: 450 mg  | LEV IV FEL: 400 mg  |

**Carlines Covered:** RS Q8 Performance, S8

#### Vehicles Tested:

| VID           | Config. | Test Type / # |              | Test Type / # |              |
|---------------|---------|---------------|--------------|---------------|--------------|
| SNAT-RSQ8perf | 0       | 2xUDDS        | SVGA10086286 | HFET          | SVGA10085975 |
|               |         | US06          | SVGA10085976 | Cold CO       | SVGA10085969 |
|               |         | SC03          | SVGA10085977 | 50°F FTP      | SVGA10085978 |
|               |         | 2xUUDS        | SVGA10085970 | HFET          | SVGA10085971 |
| RA77-Q7-452   | 0       | 2-Day         | RVGA10080553 | ORVR          | RVGA10080552 |
|               |         | 3-Day         | RVGA10080554 | Running Loss  | RVGA10080555 |
| EC-9YA-19     | 0       | BETP          | KPRX10054425 |               |              |
| RNAT-S8       | 0       | 2-Day         | RVGA10080489 | ORVR          | RVGA10080488 |
|               |         | 3-Day         | RVGA10080486 | Running Loss  | RVGA10080487 |
| UC-412        | 0       | BETP          | KVGA10058954 |               |              |

Issue Date: 4/6/2026

**Questions, Contact:**  
EEO Office, Auburn Hills, Michigan

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## 1. **Correspondence and Communication**

Please refer to the Common Section

## 2. Durability Group Description

| <b>Durability Source Basics</b>        |                         |
|----------------------------------------|-------------------------|
| Durability Procedure                   | VW / Audi ADP           |
| Durability Group Name                  | VVGAHHGNNNAT            |
| Source of Durability Data              | PNAT-DDV                |
| Relation Factor<br>BAT VWADP / BAT SRC | 2.22                    |
| Engine Type                            | Piston                  |
| Combustion Method                      | Otto Cycle, four stroke |
| Fuel Used                              | Gasoline                |
| Basic Fuel Metering System             | Direct injection        |
| Displacement [l]                       | 4.0                     |

| <b>Catalyst / After treatment device specifics</b> |                                    |                                |
|----------------------------------------------------|------------------------------------|--------------------------------|
|                                                    | <b>Durability Group Statistics</b> | <b>Durability Data Vehicle</b> |
| Catalyst Construction                              |                                    | Monolith                       |
| Precious Metal Composition TWC                     |                                    | Palladium, Rhodium             |
| PTOX TWC                                           |                                    | n.a.                           |
| NAC:1 SCRC: 2                                      |                                    | n.a.                           |
| Total Catalyst Volume [l]                          |                                    | 5.92                           |
| Total Precious Metal Loading [g]                   |                                    | 20.93                          |
| Precious Metal Load Rate PM [g] / CV [l]           |                                    | 3.54                           |
| Cat. Grouping Statistic                            | 5.2                                | 5.2                            |
| Durability Group Limit (25% or 0.2 g/l)            | 3.9                                | 3.9                            |
| Test Group Covered                                 |                                    | VVGAJ04.0NAT<br>VVGAT04.0NAV   |

### 3. Evaporative / Refueling Family Description

|                                                |                                 | C/O - BETP                            |                                                              |
|------------------------------------------------|---------------------------------|---------------------------------------|--------------------------------------------------------------|
| Evaporative / Refueling Family Name            |                                 | BETP C/O<br>EC-9YA-19<br>KVGAR0150NCM | VVGAR0182NCM<br>(RS Q8<br>Performance)                       |
| Vapor storage device                           | Canister                        | Yes                                   | Yes                                                          |
|                                                | Other                           | -                                     | -                                                            |
| Basic canister design                          | Working Capacity (g)            | 150                                   | 176                                                          |
|                                                | Bed Volume (cm <sup>3</sup> )   | 2790                                  | 2660                                                         |
|                                                | Number, config.                 | 1                                     | 1                                                            |
|                                                | Geometry                        | Other                                 | Other                                                        |
|                                                | Construction                    | 5-Chamber                             | 5-Chamber                                                    |
|                                                | Bleeding trap                   | Yes                                   | Yes                                                          |
|                                                | Bleed trap Working Capacity (g) | 6-10                                  | 6-10                                                         |
|                                                | Material                        | Plastic                               | Plastic                                                      |
|                                                |                                 |                                       |                                                              |
| Fuel System                                    |                                 |                                       | DFI                                                          |
| Type of refueling system                       | Integrated                      | Yes                                   | Yes                                                          |
|                                                | Non-integrated                  | -                                     | -                                                            |
|                                                | Other                           | -                                     | -                                                            |
| Fill pipe seal mechanism                       | Liquid seal                     | Yes                                   | Yes                                                          |
|                                                | Mechanical Seal                 | -                                     | -                                                            |
|                                                | Other                           | -                                     | -                                                            |
| Method of controlling vapor flow to the engine | Vacuum                          | -                                     | -                                                            |
|                                                | Purge valve                     | Yes                                   | Yes                                                          |
|                                                | Other                           | -                                     | -                                                            |
| Purge control system                           | Valve type                      | Duty-Cycle                            | Duty-Cycle                                                   |
|                                                | Control                         | ECM                                   | ECM                                                          |
| Vapor hose material                            | 4 / multi-layer hose            | Yes                                   | Yes                                                          |
|                                                | Stainless Steel                 | -                                     | -                                                            |
|                                                | Alloy                           | -                                     | -                                                            |
| Fuel tank material                             | Metal                           | -                                     | -                                                            |
|                                                | Plastic                         | Yes                                   | Yes                                                          |
|                                                | Other                           | -                                     | -                                                            |
| Test groups combined with this Evap. family    |                                 |                                       | VVGAT02.0AA7<br>VVGAT03.0N7N<br>VVGAJ04.0NAT<br>VVGAT04.0NAV |

|                                                |                                 | C/O - BETP      |                   |
|------------------------------------------------|---------------------------------|-----------------|-------------------|
| Evaporative / Refueling Family Name            |                                 | BETP C/O UC-412 | VVGAR0176NCT (S8) |
| Vapor storage device                           | Canister                        | Yes             | Yes               |
|                                                | Other                           | -               | -                 |
| Basic canister design                          | Working Capacity (g)            | 150             | 176               |
|                                                | Bed Volume (cm <sup>3</sup> )   |                 | 2660              |
|                                                | Number, config.                 | 1               | 1                 |
|                                                | Geometry                        | Other           | Other             |
|                                                | Construction                    | 5-Chamber       | 5-Chamber         |
|                                                | Bleeding trap                   | Yes             | Yes               |
|                                                | Bleed trap Working Capacity (g) |                 | 6-10              |
|                                                | Material                        | Plastic         | Plastic           |
|                                                |                                 |                 |                   |
|                                                |                                 |                 |                   |
| Fuel System                                    |                                 | DFI             | DFI               |
| Type of refueling system                       | Integrated                      | Yes             | Yes               |
|                                                | Non-integrated                  | -               | -                 |
|                                                | Other                           | -               | -                 |
| Fill pipe seal mechanism                       | Liquid seal                     | Yes             | Yes               |
|                                                | Mechanical Seal                 | -               | -                 |
|                                                | Other                           | -               | -                 |
| Method of controlling vapor flow to the engine | Vacuum                          | -               | -                 |
|                                                | Purge valve                     | Yes             | Yes               |
|                                                | Other                           | -               | -                 |
| Purge control system                           | Valve type                      | Duty-Cycle      | Duty-Cycle        |
|                                                | Control                         | ECM             | ECM               |
| Vapor hose material                            | 4 / multi-layer hose            | Yes             | Yes               |
|                                                | Stainless Steel                 | -               | -                 |
|                                                | Alloy                           | -               | -                 |
| Fuel tank material                             | Metal                           | -               | -                 |
|                                                | Plastic                         | Yes             | Yes               |
|                                                | Other                           | -               | -                 |
| Test groups combined with this Evap. family    |                                 |                 | VVGAJ04.0NAT      |

#### **4. Durability Procedure Description**

Please refer to the Common Section

## 5.0 **Test Group Description**

|                                       |                              |
|---------------------------------------|------------------------------|
| Evap. Family:                         | VVGAR0182NCM<br>VVGAR0176NCT |
| Test Group Name:                      | VVGAJ04.0NAT                 |
| Certificate Number:                   | VVGAJ04.0NAT-xxx, -xxx       |
| Engine displacements covered:         | 4.0 liters                   |
| Arrangement and number of cylinders:  | V8                           |
| Vehicle class(es) covered:            | LDV/LDT4                     |
| Federal Emissions Standards Class:    | Tier 4 interim BIN 125       |
| California Emissions Standards Class: | LEVIV ULEV 125               |

## 5.1 **Test Group Emission Standards**

Please refer to Certification Summary Information Report included in Section 7 for applicable emission standards.

## 6. Test Vehicle Description

Certificate Number: VVGAJ04.0NAT-xxx  
Models: RS Q8 Performance  
Test Group: VVGAJ04.0NAT  
Evaporative/Refueling Family: VVGAR0182NCM

| VID           | Config. | Vehicle Type | Tests Performed                              |
|---------------|---------|--------------|----------------------------------------------|
| SNAT-RSQ8perf | 0       | EDV / GHG    | 2xUDDS, HFET, US06, SC03, 20°F FTP, 50°F FTP |
| SNAT-RSQ8perf | 1       | FEDV         | 2xUDDS, HFET, US06, SC03, 20°F FTP           |
| RA77-Q7-452   | 0       | EVAP         | 2-Day EVAP, 3-Day EVAP, R/L, ORVR            |
| EC-9YA-19     | 0       | EVAP         | BETP                                         |

Certificate Number: VVGAJ04.0NAT-xxx  
Models: S8  
Test Group: VVGAJ04.0NAT  
Evaporative/Refueling Family: VVGAR0176NCT

| VID     | Config. | Vehicle Type | Tests Performed                    |
|---------|---------|--------------|------------------------------------|
| RNAT-S8 | 0       | FEDV         | 2xUDDS, HFET, US06, SC03, 20°F FTP |
| RNAT-S8 | 0       | EVAP         | 2-Day EVAP, 3-Day EVAP, R/L, ORVR  |
| UC-412  | 0       | EVAP         | BETP                               |

## **7. Test Results**

Please refer to the Certification Summary Information Report.

**Certification Summary Information Report**

|                                   |                                   |                                     |                        |
|-----------------------------------|-----------------------------------|-------------------------------------|------------------------|
| <b>Manufacturer</b>               | Volkswagen Group of America, Inc. | <b>Manufacturer Code</b>            | VGA                    |
| <b>Test Group</b>                 | VVGAJ04.ONAT                      | <b>Evaporative/Refueling Family</b> | VVGAR0176NCT           |
| <b>Certificate Number</b>         | --                                | <b>CARB Executive Order #</b>       | --                     |
| <b>Certificate Issue Date</b>     | --                                | <b>Certificate Revision Date</b>    | --                     |
| <b>Certificate Effective Date</b> | --                                | <b>Conditional Certificate</b>      | --                     |
| <b>CSI Revision #</b>             | --                                | <b>CSI Submission/Revision Date</b> | 04/06/2026 05:09:17 PM |
| <b>Model Year</b>                 | 2027                              |                                     |                        |

## Certification Summary Information Report

|                                                     |                                                                                                                                                                                                                     |                                                            |                                     |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------|
| <b>Test Group</b>                                   | VVGAJ04.0NAT                                                                                                                                                                                                        | <b>Evaporative/Refueling Family</b>                        | VVGAR0176NCT                        |
| <b>Test Group Information</b>                       |                                                                                                                                                                                                                     |                                                            |                                     |
| <b>CSI Type</b>                                     | New                                                                                                                                                                                                                 | <b>Running Change Reference Number</b>                     | --                                  |
| <b>GHG Exempt Status</b>                            | Not Exempt                                                                                                                                                                                                          |                                                            |                                     |
| <b>Drive Sources and Fuel(s)</b>                    |                                                                                                                                                                                                                     |                                                            |                                     |
| <b>Drive Source #1:</b>                             | Electric Motor                                                                                                                                                                                                      |                                                            |                                     |
|                                                     | <b>Fuel</b>                                                                                                                                                                                                         | <b>Basic Fuel Metering System</b>                          | <b>Lean Burn Strategy Indicator</b> |
|                                                     | Electricity                                                                                                                                                                                                         | --                                                         | No                                  |
| <b>Drive Source #2:</b>                             | Combustion Engine                                                                                                                                                                                                   |                                                            |                                     |
|                                                     | <b>Fuel</b>                                                                                                                                                                                                         | <b>Basic Fuel Metering System</b>                          | <b>Lean Burn Strategy Indicator</b> |
|                                                     | Gasoline                                                                                                                                                                                                            | Spark Ignition Direct fuel injection                       | No                                  |
| <b>Hybrid Indicator</b>                             | Yes                                                                                                                                                                                                                 |                                                            |                                     |
| <b>Multiple Fuel Storage</b>                        | --                                                                                                                                                                                                                  | <b>Rechargeable Energy Storage System Indicator</b>        | Yes                                 |
| <b>Multiple Fuel Combustion</b>                     | --                                                                                                                                                                                                                  | <b>Off-board Charge Capable Indicator</b>                  | No                                  |
| <b>Fuel Cell Indicator</b>                          | No                                                                                                                                                                                                                  | <b>EPA Vehicle Class</b>                                   | LDV                                 |
| <b>Federal Clean Fuel Vehicle</b>                   | No                                                                                                                                                                                                                  | <b>Federal Clean Fuel Vehicle Standard</b>                 | --                                  |
| <b>Federal Clean Fuel Vehicle ILEV</b>              | No                                                                                                                                                                                                                  | <b>California Partial Zero Emissions Vehicle Indicator</b> | No                                  |
| <b>Durability Group Name</b>                        | VVGAHHGNNAT                                                                                                                                                                                                         | <b>Durability Group Equivalency Factor</b>                 | 2.2                                 |
| <b>Reduced Fee Test Group</b>                       | No                                                                                                                                                                                                                  | <b>Certification Region Code(s)</b>                        | FA, CA                              |
| <b>Complies with HD GHG 2b/3 regulations?</b>       | No                                                                                                                                                                                                                  |                                                            |                                     |
| <b>Introduction into Commerce Date</b>              | --                                                                                                                                                                                                                  | <b>CAP2000 Conditional Certificate?</b>                    | N/A                                 |
| <b>Independent Commercial Importer?</b>             | --                                                                                                                                                                                                                  | <b>Alternative Fuel Converter Certificate?</b>             | --                                  |
| <b>SFTP Federal Composite Compliance Identifier</b> | Tier 3                                                                                                                                                                                                              | <b>SFTP Tier 2 Composite CO Option</b>                     | No                                  |
| <b>SFTP LEV-III Composite Compliance Indicator</b>  | Yes                                                                                                                                                                                                                 |                                                            |                                     |
| <b>OBD Compliance Type</b>                          | CARB                                                                                                                                                                                                                | <b>OBD Demonstration Vehicle Test Group</b>                | VVGAJ03.0N7N                        |
| <b>Test Group OBD Compliance Level</b>              | Partial - with deficiencies                                                                                                                                                                                         | <b>Number of Test Group OBD Deficiencies</b>               | 1                                   |
| <b>OBD Deficiencies Comments</b>                    | Deficiency for non-compliance with OBDOnUDS requirements. All test groups were found to be noncompliant with the OBDOnUDS requirements, with the sole exception of the Bentley Supersports test group VVGAV04.0EAA. |                                                            |                                     |
| <b>Mfr Test Group Comments</b>                      | --                                                                                                                                                                                                                  |                                                            |                                     |
| <b>Mfr Exhaust / Evap Standards Comments</b>        | --                                                                                                                                                                                                                  |                                                            |                                     |

## Certification Summary Information Report

|                                                                             |                                                  |                                                           |                                     |                     |                     |                     |                       |
|-----------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------|-------------------------------------|---------------------|---------------------|---------------------|-----------------------|
| <b>Test Group</b>                                                           | VVGAJ04.0NAT                                     | <b>Evaporative/Refueling Family</b>                       | VVGAR0176NCT                        |                     |                     |                     |                       |
| <b>Evaporative/Refueling Family Information</b>                             |                                                  |                                                           |                                     |                     |                     |                     |                       |
| <b>Evaporative Summary Information Type</b>                                 | New                                              | <b>Submission/Correction Date</b>                         | 04/06/2026 10:55:34 AM              |                     |                     |                     |                       |
| <b>Integrated ORVR?</b>                                                     | Yes                                              | <b>Fuel(s)</b>                                            | Gasoline                            |                     |                     |                     |                       |
| <b>Multiple Fuel Storage</b>                                                | --                                               |                                                           |                                     |                     |                     |                     |                       |
| <b>Bladder Fuel Tank?</b>                                                   | No                                               |                                                           |                                     |                     |                     |                     |                       |
| <b>Fuel Tank Material</b>                                                   | Plastic                                          | <b>Fuel Tank Material Description</b>                     | Plastic                             |                     |                     |                     |                       |
| <b>Fill Pipe Seal Type</b>                                                  | Liquid seal                                      |                                                           |                                     |                     |                     |                     |                       |
| <b>Air Intake System Vapor Storage Device?</b>                              | No                                               | <b>Air Intake System Vapor Storage Device Description</b> | --                                  |                     |                     |                     |                       |
| <b>Fuel System Vapor Storage Canister?</b>                                  | Yes                                              | <b>Other Vapor Storage</b>                                | --                                  |                     |                     |                     |                       |
| <b>Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)</b> | 176                                              | <b>Number of Primary Canisters</b>                        | 1                                   |                     |                     |                     |                       |
| <b>Number of Bleed Canisters</b>                                            | 1                                                | <b>Bleed Canister Total Working Capacity (grams)</b>      | 10                                  |                     |                     |                     |                       |
| <b>Mfr Evaporative/Refueling Family Comments</b>                            | Integrated Bleed Canister FEL 400mg (S8)         |                                                           |                                     |                     |                     |                     |                       |
| <b>Leak Family Details</b>                                                  |                                                  |                                                           |                                     |                     |                     |                     |                       |
| <b>Leak Family Indicator</b>                                                | Yes                                              |                                                           |                                     |                     |                     |                     |                       |
| <b>Canister Bleed Test Indicator</b>                                        | Yes                                              | <b>Applicability of Evaporative Canister Bleed Test</b>   | 50 State                            |                     |                     |                     |                       |
| <b>Evaporative Canister Bleed Test Comments</b>                             | --                                               |                                                           |                                     |                     |                     |                     |                       |
| <b>CARB Fuel Only (Rig) Test Indicator</b>                                  | No                                               | <b>Applicability of CARB Fuel Only (Rig) Test</b>         | --                                  |                     |                     |                     |                       |
| <b>CARB Fuel Only (Rig) Test Comments</b>                                   | --                                               |                                                           |                                     |                     |                     |                     |                       |
| <b>Leak Family Name</b>                                                     | <b>Applicability of Leak Family Requirements</b> | <b>Leak Family Standard (inches)</b>                      | <b>Leak Family Description</b>      |                     |                     |                     |                       |
| VVGAR0176NCT-001                                                            | 50 State                                         | 0.02                                                      | --                                  |                     |                     |                     |                       |
| <b>Models Covered by this Certificate</b>                                   |                                                  |                                                           |                                     |                     |                     |                     |                       |
| <b>Carline Manufacturer</b>                                                 | <b>Division</b>                                  | <b>Carline</b>                                            | <b>Certification Region Code(s)</b> | <b>Drive System</b> | <b>Trans - Type</b> | <b>- # of Gears</b> | <b>Trans - Lockup</b> |
| Volkswagen Group of America, Inc.                                           | 2 - Audi                                         | 97 - S8                                                   | Federal                             | All Wheel Drive     | Semi-Automatic      | 8                   | Yes                   |
| Volkswagen Group of America, Inc.                                           | 2 - Audi                                         | 97 - S8                                                   | California + CAA Section 177 states | All Wheel Drive     | Semi-Automatic      | 8                   | Yes                   |
| <b>Engine Description</b>                                                   |                                                  |                                                           |                                     |                     |                     |                     |                       |
| <b>Hybrid Type</b>                                                          | IC Engine/Electric Motor                         | <b>Hybrid Description</b>                                 | --                                  |                     |                     |                     |                       |
| <b>Engine Type</b>                                                          | 4-Stroke Spark Ignition                          | <b>Mfr Engine Description</b>                             | --                                  |                     |                     |                     |                       |
| <b>Engine Block Arrangement</b>                                             | V-shaped engine                                  | <b>Mfr Engine Block Arrangement Description</b>           | --                                  |                     |                     |                     |                       |
| <b>Camless Valvetrain Indicator</b>                                         | No                                               | <b>Oil Viscosity/Classification</b>                       | 0W40 VW50200 / VW50500              |                     |                     |                     |                       |
| <b>Number of Cylinders/Rotors</b>                                           | 8                                                | <b>Mechanically Variable Compression Ratio Indicator</b>  | N                                   |                     |                     |                     |                       |

## Certification Summary Information Report

| Test Group                                       | VVGAJ04.0NAT                                                                                                                                                                                                                                                                                 | Evaporative/Refueling Family                            | VVGAR0176NCT       |                        |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------|------------------------|
| <b>After Treatment Device(s) (ATD)</b>           |                                                                                                                                                                                                                                                                                              |                                                         |                    |                        |
| ATD Number                                       | ATD Type                                                                                                                                                                                                                                                                                     | ATD Precious Metal                                      | Substrate Material | Substrate Construction |
| 1                                                | Three-way catalyst                                                                                                                                                                                                                                                                           | Palladium + Rhodium                                     | Ceramic            | Monolith               |
| <b>Mfr After Treatment Device (ATD) Comments</b> |                                                                                                                                                                                                                                                                                              |                                                         |                    | --                     |
| <b>Direct Ozone Reduction (DOR) Device</b>       |                                                                                                                                                                                                                                                                                              |                                                         |                    | Not Equipped           |
| <b>Mfr Emission Control Device Comments</b>      |                                                                                                                                                                                                                                                                                              |                                                         |                    | --                     |
| <b>Engine Configuration Number 1</b>             |                                                                                                                                                                                                                                                                                              |                                                         |                    |                        |
| <b>Engine Displacement (liters)</b>              | 4.0                                                                                                                                                                                                                                                                                          | <b>Engine Rated Horsepower</b>                          | 631                |                        |
| <b>Number of Inlet Valves Per Cylinder</b>       | 2                                                                                                                                                                                                                                                                                            | <b>Number of Exhaust Valves Per Cylinder</b>            | 2                  |                        |
| <b>Air Aspiration Method</b>                     | Turbocharged                                                                                                                                                                                                                                                                                 | <b>Number of Air Aspiration Devices</b>                 | 2                  |                        |
| <b>Air Aspiration Device Configuration</b>       | Parallel                                                                                                                                                                                                                                                                                     | <b>Charge Air Cooler Type</b>                           | Air                |                        |
| <b>Air Aspiration Drive Method(s)</b>            | Mechanical                                                                                                                                                                                                                                                                                   |                                                         |                    |                        |
| <b>Cylinder Deactivation</b>                     | Yes                                                                                                                                                                                                                                                                                          |                                                         |                    |                        |
| <b>Cylinder Deactivation Description</b>         | Fuel saving by reduction of active cylinders. Mechanical deactivation of 4 inlet and outlet valves with injection cut-off on these 4 cylinders.                                                                                                                                              |                                                         |                    |                        |
| <b>Variable Valve Timing</b>                     | Yes                                                                                                                                                                                                                                                                                          |                                                         |                    |                        |
| <b>Variable Valve Timing System Description</b>  | The variable valve timing is a substantial engine feature for: - Reducing engine out emissions - Optimizing full load performance - Optimizing fuel consumption - Reducing engine roughness Adjust the inlet and outlet camshaft position continuously between retard and advanced position. |                                                         |                    |                        |
| <b>Variable Valve Lift?</b>                      | No                                                                                                                                                                                                                                                                                           |                                                         |                    |                        |
| <b>Variable Valve Lift System Description</b>    | --                                                                                                                                                                                                                                                                                           |                                                         |                    |                        |
| <b>Number of Knock Sensors</b>                   | 4                                                                                                                                                                                                                                                                                            | <b>Number of Air/Fuel Sensors</b>                       | 4                  |                        |
| <b>Air/Fuel Sensor # 1 Type</b>                  | Heated oxygen                                                                                                                                                                                                                                                                                | <b>Air/Fuel Sensor # 1 Description</b>                  | --                 |                        |
| <b>Air/Fuel Sensor # 2 Type</b>                  | Heated oxygen                                                                                                                                                                                                                                                                                | <b>Air/Fuel Sensor # 2 Description</b>                  | --                 |                        |
| <b>Air/Fuel Sensor # 3 Type</b>                  | Heated oxygen                                                                                                                                                                                                                                                                                | <b>Air/Fuel Sensor # 3 Description</b>                  | --                 |                        |
| <b>Air/Fuel Sensor # 4 Type</b>                  | Heated oxygen                                                                                                                                                                                                                                                                                | <b>Air/Fuel Sensor # 4 Description</b>                  | --                 |                        |
| <b>Mfr Air/Fuel Sensor Comments</b>              | --                                                                                                                                                                                                                                                                                           |                                                         |                    |                        |
| <b>Exhaust Gas Recirculation</b>                 | No                                                                                                                                                                                                                                                                                           | <b>Cooled Exhaust Gas Recirculation</b>                 | No                 |                        |
| <b>EGR Type</b>                                  | --                                                                                                                                                                                                                                                                                           | <b>Exhaust Gas Recirculation Description if 'Other'</b> | --                 |                        |
| <b>Closed Loop Air Injection System</b>          | No                                                                                                                                                                                                                                                                                           |                                                         |                    |                        |
| <b>Air Injection Type</b>                        | Not Applicable                                                                                                                                                                                                                                                                               | <b>Air Injection Type if 'Other'</b>                    | --                 |                        |
| <b>Mfr Engine Configuration Comments</b>         | Applies to DWNA var: 0                                                                                                                                                                                                                                                                       |                                                         |                    |                        |

### Certification Summary Information Report

|                                                 |                                                                                                                                                                                                                                                                                              |                                                         |              |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------|
| <b>Test Group</b>                               | VVGAJ04.0NAT                                                                                                                                                                                                                                                                                 | <b>Evaporative/Refueling Family</b>                     | VVGAR0176NCT |
| <b>Engine Configuration Number 2</b>            |                                                                                                                                                                                                                                                                                              |                                                         |              |
| <b>Engine Displacement (liters)</b>             | 4.0                                                                                                                                                                                                                                                                                          | <b>Engine Rated Horsepower</b>                          | 563          |
| <b>Number of Inlet Valves Per Cylinder</b>      | 2                                                                                                                                                                                                                                                                                            | <b>Number of Exhaust Valves Per Cylinder</b>            | 2            |
| <b>Air Aspiration Method</b>                    | Turbocharged                                                                                                                                                                                                                                                                                 | <b>Number of Air Aspiration Devices</b>                 | 2            |
| <b>Air Aspiration Device Configuration</b>      | Parallel                                                                                                                                                                                                                                                                                     | <b>Charge Air Cooler Type</b>                           | Air          |
| <b>Air Aspiration Drive Method(s)</b>           | Mechanical                                                                                                                                                                                                                                                                                   |                                                         |              |
| <b>Cylinder Deactivation</b>                    | Yes                                                                                                                                                                                                                                                                                          |                                                         |              |
| <b>Cylinder Deactivation Description</b>        | Fuel saving by reduction of active cylinders. Mechanical deactivation of 4 inlet and outlet vales with injection cut-off on these 4 cylinders.                                                                                                                                               |                                                         |              |
| <b>Variable Valve Timing</b>                    | Yes                                                                                                                                                                                                                                                                                          |                                                         |              |
| <b>Variable Valve Timing System Description</b> | The variable valve timing is a substantial engine feature for: - Reducing engine out emissions - Optimizing full load performance - Optimizing fuel consumption - Reducing engine roughness Adjust the inlet and outlet camshaft position continuously between retard and advanced position. |                                                         |              |
| <b>Variable Valve Lift?</b>                     | No                                                                                                                                                                                                                                                                                           |                                                         |              |
| <b>Variable Valve Lift System Description</b>   | --                                                                                                                                                                                                                                                                                           |                                                         |              |
| <b>Number of Knock Sensors</b>                  | 4                                                                                                                                                                                                                                                                                            | <b>Number of Air/Fuel Sensors</b>                       | 4            |
| <b>Air/Fuel Sensor # 1 Type</b>                 | Heated oxygen                                                                                                                                                                                                                                                                                | <b>Air/Fuel Sensor # 1 Description</b>                  | --           |
| <b>Air/Fuel Sensor # 2 Type</b>                 | Heated oxygen                                                                                                                                                                                                                                                                                | <b>Air/Fuel Sensor # 2 Description</b>                  | --           |
| <b>Air/Fuel Sensor # 3 Type</b>                 | Heated oxygen                                                                                                                                                                                                                                                                                | <b>Air/Fuel Sensor # 3 Description</b>                  | --           |
| <b>Air/Fuel Sensor # 4 Type</b>                 | Heated oxygen                                                                                                                                                                                                                                                                                | <b>Air/Fuel Sensor # 4 Description</b>                  | --           |
| <b>Mfr Air/Fuel Sensor Comments</b>             | --                                                                                                                                                                                                                                                                                           |                                                         |              |
| <b>Exhaust Gas Recirculation</b>                | No                                                                                                                                                                                                                                                                                           | <b>Cooled Exhaust Gas Recirculation</b>                 | No           |
| <b>EGR Type</b>                                 | --                                                                                                                                                                                                                                                                                           | <b>Exhaust Gas Recirculation Description if 'Other'</b> | --           |
| <b>Closed Loop Air Injection System</b>         | No                                                                                                                                                                                                                                                                                           |                                                         |              |
| <b>Air Injection Type</b>                       | Not Applicable                                                                                                                                                                                                                                                                               | <b>Air Injection Type if 'Other'</b>                    | --           |
| <b>Mfr Engine Configuration Comments</b>        | Applies to DWKA var: 0                                                                                                                                                                                                                                                                       |                                                         |              |

| <b>Official Test Numbers</b> |              |              |              |              |              |          |              |                  |                      |      |
|------------------------------|--------------|--------------|--------------|--------------|--------------|----------|--------------|------------------|----------------------|------|
| Test Group                   |              |              |              |              |              | EPA City | EPA City     | EPA              | EPA                  | CREE |
|                              | Fuel         | FTP          | US06         | SC03         | Cold CO      | Highway  | Litmus Value | Litmus Threshold | Highway Litmus Value |      |
| Gasoline                     | SVGA10086286 | SVGA10085976 | SVGA10085977 | SVGA10085969 | SVGA10085975 | 11.8     | 228.2        | 22.6             | 286.1                | --   |
| Electricity                  | SVGA10086286 | SVGA10085976 | SVGA10085977 | SVGA10085969 | SVGA10085975 | --       | --           | --               | --                   | --   |

| <b>SFTP LEV-III Official Test Numbers</b> |              |              |              |
|-------------------------------------------|--------------|--------------|--------------|
| Test Group Fuel                           | FTP          | US06         | SC03         |
| Electricity                               | SVGA10086286 | SVGA10085976 | SVGA10085977 |
| Gasoline                                  | SVGA10086286 | SVGA10085976 | SVGA10085977 |

## Certification Summary Information Report

| Test Group                                               | VVGAJ04.0NAT                  | Evaporative/Refueling Family                 | VVGAR0176NCT |
|----------------------------------------------------------|-------------------------------|----------------------------------------------|--------------|
| <b>Hybrid Electric Vehicle And Fuel Cell Information</b> |                               |                                              |              |
| Rechargeable Energy Storage System                       | Battery(s)                    | Rechargeable Energy Storage System, if Other | --           |
| Battery Type                                             | Lithium Ion                   | Number of Battery Packs                      | 1            |
| Total Voltage of Battery Packs                           | 48                            | Battery Energy Capacity                      | 9.50         |
| Battery Specific Energy                                  | 50.1                          | Battery Charger Type                         | On-Board     |
| Number of Capacitors                                     | --                            | Capacitor Rating (In Farads)                 | --           |
| Mfr Capacitor Comments                                   | --                            |                                              |              |
| Hydraulic System Description                             | --                            |                                              |              |
| Regenerative Braking Type                                | Electrical Regen Brake        |                                              |              |
| Regenerative Braking Source                              | Both                          | Driver Controlled Regenerative Braking       | No           |
| Mfr Regenerative Braking Description                     | --                            |                                              |              |
| Drive Motor(s)/Generator(s)                              | 1                             |                                              |              |
| Motor/Generator Type 1                                   | Belt-Driven-Starter-Generator | Rated Motor/Generator Power                  | 8            |
| Mfr Fuel Cell Description                                | --                            |                                              |              |
| Fuel Cell On-Board H2 Storage Capacity (kg)              | --                            | Usable H2 Fill Capacity (kg)                 | --           |
| Mfr Hybrid Electric/ Electric Vehicle Comments           | --                            |                                              |              |

### Certification Summary Information Report

|                   |              |                                     |              |
|-------------------|--------------|-------------------------------------|--------------|
| <b>Test Group</b> | VVGAJ04.0NAT | <b>Evaporative/Refueling Family</b> | VVGAR0176NCT |
|-------------------|--------------|-------------------------------------|--------------|

**Emission Data Vehicle Information**

|                                  |              |                                           |              |
|----------------------------------|--------------|-------------------------------------------|--------------|
| Vehicle ID / Configuration       | RNAT-S8 / 0  | Manufacturer Vehicle Configuration Number | 0            |
| Original Test Group Name         | RVGAJ04.0NAT | Original Evaporative/Refueling Family     | RVGAR0176NCT |
| Original Test Vehicle Model Year | 2024         |                                           |              |
| <b>Vehicle Model</b>             |              |                                           |              |
| Represented Test Vehicle Make    | Audi         | Represented Test Vehicle Model            | S8           |

**Leak Family Details**

|                        |     |                  |                  |
|------------------------|-----|------------------|------------------|
| Leak Family Identifier | 001 | Leak Family Name | RVGAR0176NCT-001 |
|------------------------|-----|------------------|------------------|

**Drive Sources and Fuel System Details**

| Drive Source and Fuel# | Drive Source      | Fuel        |
|------------------------|-------------------|-------------|
| 1                      | Electric Motor    | Electricity |
| 2                      | Combustion Engine | Gasoline    |

|                                    |                                                                                                 |                                                |                 |
|------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------|
| Hybrid Indicator                   | Yes                                                                                             |                                                |                 |
| Multiple Fuel Storage              | --                                                                                              | Multiple Fuel Combustion                       | --              |
| Fuel Cell Indicator                | No                                                                                              | Rechargeable Energy Storage System Indicator   | Yes             |
| Rechargeable Energy Storage System | Battery(s)                                                                                      | Rechargeable Energy Storage System, if 'Other' | --              |
| Off-board charge Capable Indicator | No                                                                                              |                                                |                 |
| Odometer Correction -- Initial     | 0                                                                                               | Odometer Correction Factor                     | 0.9813          |
| Odometer Correction Sign           | - = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor |                                                |                 |
| Odometer Correction Units          | Kilometers                                                                                      |                                                |                 |
| Engine Code                        | DWKA                                                                                            | Rated Horsepower                               | 563             |
| Displacement (liters)              | 4                                                                                               | Air Aspiration Method, if 'Other'              |                 |
| Air Aspiration Method              | Turbocharged                                                                                    | Air Aspiration Device Configuration            | Parallel        |
| Number of Air Aspiration Devices   | 2                                                                                               | Drive Mode While Testing                       | All Wheel Drive |
| Charge Air Cooler Type             | Air                                                                                             | Aged Emission Components                       | 4,000 (mi)      |
| Shift Indicator Light Usage        | Not equipped                                                                                    | Equivalent Test Weight (pounds)                | 6000            |
| Curb Weight (lbs)                  | 5324                                                                                            | N/V Ratio                                      | 25.6            |
| GVWR (lbs)                         | 6393                                                                                            |                                                |                 |
| Axle Ratio                         | 3.02                                                                                            | # of Transmission Gears                        | 8               |
| Transmission Type                  | Semi-Automatic                                                                                  | Creeper Gear                                   | No              |
| Transmission Lockup                | Yes                                                                                             |                                                |                 |

### Certification Summary Information Report

|                   |              |                                     |              |
|-------------------|--------------|-------------------------------------|--------------|
| <b>Test Group</b> | VVGAJ04.0NAT | <b>Evaporative/Refueling Family</b> | VVGAR0176NCT |
|-------------------|--------------|-------------------------------------|--------------|

**Dynamometer Coefficients:**

| Coefficient Category | Target Coefficients |             |                | Set Coefficients |             |                | EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients |
|----------------------|---------------------|-------------|----------------|------------------|-------------|----------------|-------------------------------------------------------------------------------|
|                      | A (lbf)             | B (lbf/mph) | C (lbf/mph**2) | A (lbf)          | B (lbf/mph) | C (lbf/mph**2) |                                                                               |
| City/Highway/Evap    | 60.62               | 0.2856      | 0.02023        | 5.74             | 0.1815      | 0.01682        | 16.7                                                                          |
| Cold CO              | 66.69               | 0.3141      | 0.02225        | 0                | 0           | 0              | N/A                                                                           |
| US06                 | 60.62               | 0.2856      | 0.02023        | 5.74             | 0.1815      | 0.01682        | N/A                                                                           |

**Emission Control Device Comments**      --  
**Manufacturer Test Vehicle Comments**      Evap EDV

|                                                |                                            |                                       |                                                    |
|------------------------------------------------|--------------------------------------------|---------------------------------------|----------------------------------------------------|
| <b>Test #</b>                                  | <b>RVGA10080486</b>                        | <b>Test Procedure</b>                 | <b>34 - Federal fuel 3-day evap</b>                |
| <b>Exhaust Test # for this Evap Test</b>       | RVGA10080446                               | <b>Test Fuel Type</b>                 | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) |
| <b>Test Date</b>                               | 03/17/2023                                 | <b>Fuel</b>                           | Gasoline                                           |
| <b>Fuel Batch ID</b>                           | NK0013                                     | <b>Fuel Calibration Number</b>        | 1                                                  |
| <b>Vehicle Class</b>                           | N/A                                        | <b>DF Type</b>                        | Mfr. Determined                                    |
| <b>Verify Test Lab ID</b>                      | AUDI AG Neckarsulm                         |                                       |                                                    |
| <b>E10 Evaporative Test Measurement Method</b> | Calculated (1.08 x FID Total Hydrocarbons) |                                       |                                                    |
| <b>Test Start Odometer Reading</b>             | 5425                                       | <b>Odometer Units</b>                 | K                                                  |
| <b>4WD Test Dyno</b>                           | Yes                                        | <b>Diesel Adjustment Factor Usage</b> | --                                                 |
| <b>State of Charge Delta</b>                   | Yes                                        |                                       |                                                    |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)  | <b>Road Speed Fan Usage</b>           | 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) | 0.321                 | --                                                       |

**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 | 0.3210         | 0.0250 | 0.346               | 0.400    | Pass      |
| CA                   | 150,000 miles | California LEV-IV Zero Evap (Option 2) | HC-TOTAL-EQUIV | 0.3210         | 0.0250 | 0.346               | 0.400    | Pass      |







## Certification Summary Information Report

| Test Group                                                                                                                                                                                                                                                                         | VVGAJ04.0NAT                                                                                    | Evaporative/Refueling Family                   | VVGAR0176NCT      |                        |              |      |   |                   |          |   |                |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------|-------------------|------------------------|--------------|------|---|-------------------|----------|---|----------------|-------------|
| <b>Emission Data Vehicle Information</b>                                                                                                                                                                                                                                           |                                                                                                 |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| Vehicle ID / Configuration                                                                                                                                                                                                                                                         | SNAT-RSQ8perf / 0                                                                               | Manufacturer Vehicle Configuration Number      | 0                 |                        |              |      |   |                   |          |   |                |             |
| Original Test Group Name                                                                                                                                                                                                                                                           | SVGAJ04.0NAT                                                                                    | Original Evaporative/Refueling Family          | SVGAR0182NCM      |                        |              |      |   |                   |          |   |                |             |
| Original Test Vehicle Model Year                                                                                                                                                                                                                                                   | 2025                                                                                            |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| <b>Vehicle Model</b>                                                                                                                                                                                                                                                               |                                                                                                 |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| Represented Test Vehicle Make                                                                                                                                                                                                                                                      | Audi                                                                                            | Represented Test Vehicle Model                 | RS Q8 Performance |                        |              |      |   |                   |          |   |                |             |
| <b>Leak Family Details</b>                                                                                                                                                                                                                                                         |                                                                                                 |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| Leak Family Identifier                                                                                                                                                                                                                                                             | --                                                                                              | Leak Family Name                               | --                |                        |              |      |   |                   |          |   |                |             |
| <b>Drive Sources and Fuel System Details</b>                                                                                                                                                                                                                                       |                                                                                                 |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| <table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Combustion Engine</td> <td>Gasoline</td> </tr> <tr> <td>2</td> <td>Electric Motor</td> <td>Electricity</td> </tr> </tbody> </table> |                                                                                                 |                                                |                   | Drive Source and Fuel# | Drive Source | Fuel | 1 | Combustion Engine | Gasoline | 2 | Electric Motor | Electricity |
| Drive Source and Fuel#                                                                                                                                                                                                                                                             | Drive Source                                                                                    | Fuel                                           |                   |                        |              |      |   |                   |          |   |                |             |
| 1                                                                                                                                                                                                                                                                                  | Combustion Engine                                                                               | Gasoline                                       |                   |                        |              |      |   |                   |          |   |                |             |
| 2                                                                                                                                                                                                                                                                                  | Electric Motor                                                                                  | Electricity                                    |                   |                        |              |      |   |                   |          |   |                |             |
| Hybrid Indicator                                                                                                                                                                                                                                                                   | Yes                                                                                             |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| Multiple Fuel Storage                                                                                                                                                                                                                                                              | --                                                                                              | Multiple Fuel Combustion                       | --                |                        |              |      |   |                   |          |   |                |             |
| Fuel Cell Indicator                                                                                                                                                                                                                                                                | No                                                                                              | Rechargeable Energy Storage System Indicator   | Yes               |                        |              |      |   |                   |          |   |                |             |
| Rechargeable Energy Storage System                                                                                                                                                                                                                                                 | Battery(s)                                                                                      | Rechargeable Energy Storage System, if 'Other' | --                |                        |              |      |   |                   |          |   |                |             |
| Off-board charge Capable Indicator                                                                                                                                                                                                                                                 | No                                                                                              |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| Odometer Correction -- Initial                                                                                                                                                                                                                                                     | 0                                                                                               | Odometer Correction Factor                     | 1.0152            |                        |              |      |   |                   |          |   |                |             |
| Odometer Correction Sign                                                                                                                                                                                                                                                           | - = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| Odometer Correction Units                                                                                                                                                                                                                                                          | Kilometers                                                                                      |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| Engine Code                                                                                                                                                                                                                                                                        | DWNA                                                                                            | Rated Horsepower                               | 631               |                        |              |      |   |                   |          |   |                |             |
| Displacement (liters)                                                                                                                                                                                                                                                              | 4                                                                                               | Air Aspiration Method, if 'Other'              |                   |                        |              |      |   |                   |          |   |                |             |
| Air Aspiration Method                                                                                                                                                                                                                                                              | Turbocharged                                                                                    | Air Aspiration Device Configuration            | Parallel          |                        |              |      |   |                   |          |   |                |             |
| Number of Air Aspiration Devices                                                                                                                                                                                                                                                   | 2                                                                                               | Drive Mode While Testing                       | All Wheel Drive   |                        |              |      |   |                   |          |   |                |             |
| Charge Air Cooler Type                                                                                                                                                                                                                                                             | Air                                                                                             | Aged Emission Components                       | 4,000 (mi)        |                        |              |      |   |                   |          |   |                |             |
| Shift Indicator Light Usage                                                                                                                                                                                                                                                        | Not equipped                                                                                    | Equivalent Test Weight (pounds)                | 6000              |                        |              |      |   |                   |          |   |                |             |
| Curb Weight (lbs)                                                                                                                                                                                                                                                                  | 5523                                                                                            | N/V Ratio                                      | 23.1              |                        |              |      |   |                   |          |   |                |             |
| GVWR (lbs)                                                                                                                                                                                                                                                                         | 6647                                                                                            |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| Axle Ratio                                                                                                                                                                                                                                                                         | 3.2                                                                                             | # of Transmission Gears                        | 8                 |                        |              |      |   |                   |          |   |                |             |
| Transmission Type                                                                                                                                                                                                                                                                  | Semi-Automatic                                                                                  | Creeper Gear                                   | No                |                        |              |      |   |                   |          |   |                |             |
| Transmission Lockup                                                                                                                                                                                                                                                                | Yes                                                                                             |                                                |                   |                        |              |      |   |                   |          |   |                |             |

## Certification Summary Information Report

| Test Group                         | VVGAJ04.0NAT        |             |                | Evaporative/Refueling Family |             |                | VVGAR0176NCT                                                                     |
|------------------------------------|---------------------|-------------|----------------|------------------------------|-------------|----------------|----------------------------------------------------------------------------------|
| <b>Dynamometer Coefficients:</b>   |                     |             |                |                              |             |                |                                                                                  |
|                                    | Target Coefficients |             |                | Set Coefficients             |             |                | EPA Calculated Total Road Load Horse Power for<br>City/Highway/Evap Coefficients |
| Coefficient<br>Category            | A (lbf)             | B (lbf/mph) | C (lbf/mph**2) | A (lbf)                      | B (lbf/mph) | C (lbf/mph**2) |                                                                                  |
| City/Highway/Evap                  | 66.89               | 0.1946      | 0.03092        | 7.55                         | -0.151      | 0.03059        | 20.5                                                                             |
| Cold CO                            | 73.58               | 0.2141      | 0.03401        | -6.48                        | -0.3587     | 0.03417        | N/A                                                                              |
| US06                               | 66.89               | 0.1946      | 0.03092        | 7.55                         | -0.151      | 0.03059        | N/A                                                                              |
| Emission Control Device Comments   | --                  |             |                |                              |             |                |                                                                                  |
| Manufacturer Test Vehicle Comments | driven in S-Mode    |             |                |                              |             |                |                                                                                  |

### Certification Summary Information Report

|                                                |                                           |                                       |                                                    |
|------------------------------------------------|-------------------------------------------|---------------------------------------|----------------------------------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                              | <b>Evaporative/Refueling Family</b>   | VVGAR0176NCT                                       |
| <b>Test #</b>                                  | <b>SVGA10085969</b>                       | <b>Test Procedure</b>                 | <b>11 - Cold CO</b>                                |
| <b>Exhaust Test # for this Evap Test</b>       | --                                        | <b>Test Fuel Type</b>                 | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) |
| <b>Test Date</b>                               | 02/22/2024                                | <b>Fuel</b>                           | Gasoline                                           |
| <b>Fuel Batch ID</b>                           | NK0018                                    | <b>Fuel Calibration Number</b>        | 1                                                  |
| <b>Vehicle Class</b>                           | LDV/Passenger Car                         | <b>DF Type</b>                        | Mfr. Determined                                    |
| <b>Verify Test Lab ID</b>                      | AUDI AG Neckarsulm                        |                                       |                                                    |
| <b>E10 Evaporative Test Measurement Method</b> | --                                        |                                       |                                                    |
| <b>Test Start Odometer Reading</b>             | 5056                                      | <b>Odometer Units</b>                 | K                                                  |
| <b>4WD Test Dyno</b>                           | Yes                                       | <b>Diesel Adjustment Factor Usage</b> | --                                                 |
| <b>State of Charge Delta</b>                   | Yes                                       |                                       |                                                    |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | <b>Road Speed Fan Usage</b>           | Yes                                                |

**Test Results**

| Test Result Name                                          | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|-----------------------------------------------------------|-----------------------|----------------------------------------------------------|
| <b>CO2 BAG 1 (Bag 1 Carbon Dioxide)</b>                   | 840.7066606           | --                                                       |
| <b>FE BAG 1 (Bag 1 Fuel Economy)</b>                      | 10.2279531            | 10.2279531                                               |
| <b>CO2 BAG 2 (Bag 2 Carbon Dioxide)</b>                   | 859.7276582           | --                                                       |
| <b>FE BAG 2 (Bag 2 Fuel Economy)</b>                      | 10.0896991            | 10.0896991                                               |
| <b>CO2 BAG 3 (Bag 3 Carbon Dioxide)</b>                   | 670.1055749           | --                                                       |
| <b>FE BAG 3 (Bag 3 Fuel Economy)</b>                      | 12.9355075            | 12.9355075                                               |
| <b>METHANE (CH4 - Methane)</b>                            | 0.0185479             | --                                                       |
| <b>CO (Carbon Monoxide)</b>                               | 0.9078371             | --                                                       |
| <b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b> | 0.8034361             | --                                                       |
| <b>DT-EER (Drive Trace Energy Economy Rating)</b>         | 0.2377052             | --                                                       |
| <b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>    | 1.290831              | --                                                       |
| <b>MFR FE (Manufacturer Fuel Economy)</b>                 | 10.8                  | 10.8                                                     |
| <b>NOX (Nitrogen Oxide)</b>                               | 0.0347052             | --                                                       |
| <b>N2O (Nitrous Oxide)</b>                                | 0.001327              | --                                                       |
| <b>HC-NM (Non-methane Hydrocarbon)</b>                    | 0.159364              | --                                                       |
| <b>NMOG (Non-methane organic gases)</b>                   | 0.1752                | --                                                       |
| <b>HC-TOTAL (Total Hydrocarbon)</b>                       | 0.1769081             | --                                                       |

| Test Result Name      | Unrounded Test Result | Verify Calculated CO2 |
|-----------------------|-----------------------|-----------------------|
| <b>Carbon dioxide</b> | 804                   | --                    |

**Manufacturer Test Comments**                      test performed in S-Mode 4k Cold-CO - Tested as AUDI dr. - ETW: 6000

## Certification Summary Information Report

| Test Group           |               | VVGAJ04.0NAT              |               |                |     | Evaporative/Refueling Family |                          |        |         | VVGAR0176NCT        |          |           |
|----------------------|---------------|---------------------------|---------------|----------------|-----|------------------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| 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 3 Bin 125    | CO            | 0.91           | --  | --                           | --                       | 0.1100 | --      | 1.0                 | 10.0     | Pass      |
| Fed                  | 120,000 miles | Federal Tier 3 Bin 125    | HC-NM         | 0.16           | --  | --                           | --                       | 0.0063 | --      | 0.2                 | 0.5      | Pass      |
| CA                   | 50,000 miles  | California LEV-IV ULEV125 | CO            | 0.91           | --  | --                           | --                       | 0.1100 | --      | 1.0                 | 10.0     | Pass      |

## Certification Summary Information Report

|                                                |                                           |                                       |                                                     |
|------------------------------------------------|-------------------------------------------|---------------------------------------|-----------------------------------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                              | <b>Evaporative/Refueling Family</b>   | VVGAR0176NCT                                        |
| <b>Test #</b>                                  | <b>SVGA10085970</b>                       | <b>Test Procedure</b>                 | <b>21 - Federal fuel 2-day exhaust (w/can load)</b> |
| <b>Exhaust Test # for this Evap Test</b>       | --                                        | <b>Test Fuel Type</b>                 | 61 - Tier 2 Cert Gasoline                           |
| <b>Test Date</b>                               | 03/13/2024                                | <b>Fuel</b>                           | Gasoline                                            |
| <b>Fuel Batch ID</b>                           | NK0020                                    | <b>Fuel Calibration Number</b>        | 1                                                   |
| <b>Vehicle Class</b>                           | LDV/Passenger Car                         | <b>DF Type</b>                        | Mfr. Determined                                     |
| <b>Verify Test Lab ID</b>                      | AUDI AG Neckarsulm                        |                                       |                                                     |
| <b>E10 Evaporative Test Measurement Method</b> | --                                        |                                       |                                                     |
| <b>Test Start Odometer Reading</b>             | 5357                                      | <b>Odometer Units</b>                 | K                                                   |
| <b>4WD Test Dyno</b>                           | Yes                                       | <b>Diesel Adjustment Factor Usage</b> | --                                                  |
| <b>State of Charge Delta</b>                   | Yes                                       |                                       |                                                     |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | <b>Road Speed Fan Usage</b>           | Yes                                                 |

## Test Results

| Test Result Name                                          | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|-----------------------------------------------------------|-----------------------|----------------------------------------------------------|
| <b>CO2 BAG 1 (Bag 1 Carbon Dioxide)</b>                   | 731.7774073           | --                                                       |
| <b>FE BAG 1 (Bag 1 Fuel Economy)</b>                      | 12.1556757            | 12.1556757                                               |
| <b>CO2 BAG 2 (Bag 2 Carbon Dioxide)</b>                   | 842.5929727           | --                                                       |
| <b>FE BAG 2 (Bag 2 Fuel Economy)</b>                      | 10.5984641            | 10.5984641                                               |
| <b>CO2 BAG 3 (Bag 3 Carbon Dioxide)</b>                   | 661.6949822           | --                                                       |
| <b>FE BAG 3 (Bag 3 Fuel Economy)</b>                      | 13.4815638            | 13.4815638                                               |
| <b>CO2 BAG 4 (Bag 4 Carbon Dioxide)</b>                   | 825.8963505           | --                                                       |
| <b>FE BAG 4 (Bag 4 Fuel Economy)</b>                      | 10.8121513            | 10.8121513                                               |
| <b>METHANE (CH4 - Methane)</b>                            | 0                     | --                                                       |
| <b>CO (Carbon Monoxide)</b>                               | 0.5530689             | --                                                       |
| <b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b> | 0.6696104             | --                                                       |
| <b>DT-EER (Drive Trace Energy Economy Rating)</b>         | 0.5911713             | --                                                       |
| <b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>    | 0.8926838             | --                                                       |
| <b>MFR FE (Manufacturer Fuel Economy)</b>                 | 11.7                  | 11.7                                                     |
| <b>NOX (Nitrogen Oxide)</b>                               | 0.0262008             | --                                                       |
| <b>N2O (Nitrous Oxide)</b>                                | 0.0004765             | --                                                       |
| <b>HC-NM (Non-methane Hydrocarbon)</b>                    | 0.0301708             | --                                                       |
| <b>NMOG (Non-methane organic gases)</b>                   | 0.0311                | --                                                       |
| <b>PM (Particulate Matter)</b>                            | 0.0009239             | --                                                       |
| <b>HC-TOTAL (Total Hydrocarbon)</b>                       | 0.0276489             | --                                                       |

### Certification Summary Information Report

|                   |              |                                     |              |
|-------------------|--------------|-------------------------------------|--------------|
| <b>Test Group</b> | VVGAJ04.0NAT | <b>Evaporative/Refueling Family</b> | VVGAR0176NCT |
|-------------------|--------------|-------------------------------------|--------------|

|                                         |                              |                                        |
|-----------------------------------------|------------------------------|----------------------------------------|
| <b>Test Result Name</b>                 | <b>Unrounded Test Result</b> | <b>Verify Calculated CREE/OPT-CREE</b> |
| <b>Carbon-Related Exhaust Emissions</b> | 766                          | 766                                    |

|                         |                              |                              |
|-------------------------|------------------------------|------------------------------|
| <b>Test Result Name</b> | <b>Unrounded Test Result</b> | <b>Verify Calculated CO2</b> |
| <b>Carbon dioxide</b>   | 765                          | --                           |

**Manufacturer Test Comments**                      GHG Test 4k FED. FUEL FTP - Tested as AUDI dr. - ETW: 6000

| 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                  | 120,000 miles | Federal Tier 3 Bin 125    | CREE          | 766            | --  | --               | --                       | 0.4300 | --      | 766                 | --       | --        |
| Fed                  | 120,000 miles | Federal Tier 3 Bin 125    | METHANE       | 0.0000         | --  | --               | --                       | 0.0018 | --      | 0.002               | 0.030    | Pass      |
| Fed                  | 120,000 miles | Federal Tier 3 Bin 125    | N2O           | 0.0005         | --  | --               | --                       | 0.0005 | --      | 0.001               | 0.010    | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | CO            | 0.55           | --  | --               | --                       | 0.3300 | --      | 0.9                 | 2.1      | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG          | 0.0311         | --  | 1.0991           | --                       | 0.0088 | --      | 0.040               | 99.000   | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG+NOX      | 0.0573         | --  | --               | --                       | --     | --      | 0.067               | 0.125    | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NOX           | 0.0262         | --  | --               | --                       | 0.0012 | --      | 0.027               | 99.000   | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | PM            | 0.0009         | --  | --               | --                       | 0.0006 | --      | 0.002               | 0.003    | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | CO            | 0.55           | --  | --               | --                       | 0.330  | --      | 0.9                 | 2.1      | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG          | 0.0311         | --  | 1.0991           | --                       | 0.0088 | --      | 0.040               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG+NOX      | 0.0573         | --  | --               | --                       | --     | --      | 0.067               | 0.125    | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NOX           | 0.0262         | --  | --               | --                       | 0.0012 | --      | 0.027               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | PM            | 0.0009         | --  | --               | --                       | 0.0006 | --      | 0.002               | 0.003    | Pass      |

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

### Certification Summary Information Report

|                                                |                                           |                                       |                                                    |
|------------------------------------------------|-------------------------------------------|---------------------------------------|----------------------------------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                              | <b>Evaporative/Refueling Family</b>   | VVGAR0176NCT                                       |
| <b>Test #</b>                                  | <b>SVGA10085978</b>                       | <b>Test Procedure</b>                 | <b>52 - Fed. fuel 50 F exh.</b>                    |
| <b>Exhaust Test # for this Evap Test</b>       | --                                        | <b>Test Fuel Type</b>                 | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) |
| <b>Test Date</b>                               | 04/23/2024                                | <b>Fuel</b>                           | Gasoline                                           |
| <b>Fuel Batch ID</b>                           | NK0018                                    | <b>Fuel Calibration Number</b>        | 1                                                  |
| <b>Vehicle Class</b>                           | LDV/Passenger Car                         | <b>DF Type</b>                        | Mfr. Determined                                    |
| <b>Verify Test Lab ID</b>                      | AUDI AG Neckarsulm                        |                                       |                                                    |
| <b>E10 Evaporative Test Measurement Method</b> | --                                        |                                       |                                                    |
| <b>Test Start Odometer Reading</b>             | 6210                                      | <b>Odometer Units</b>                 | K                                                  |
| <b>4WD Test Dyno</b>                           | Yes                                       | <b>Diesel Adjustment Factor Usage</b> | --                                                 |
| <b>State of Charge Delta</b>                   | Yes                                       |                                       |                                                    |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | <b>Road Speed Fan Usage</b>           | Yes                                                |

**Test Results**

| Test Result Name                                          | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|-----------------------------------------------------------|-----------------------|----------------------------------------------------------|
| <b>CO2 BAG 1 (Bag 1 Carbon Dioxide)</b>                   | 769.2165423           | --                                                       |
| <b>FE BAG 1 (Bag 1 Fuel Economy)</b>                      | 11.2318425            | 11.2318425                                               |
| <b>CO2 BAG 2 (Bag 2 Carbon Dioxide)</b>                   | 829.5281571           | --                                                       |
| <b>FE BAG 2 (Bag 2 Fuel Economy)</b>                      | 10.4596901            | 10.4596901                                               |
| <b>CO2 BAG 3 (Bag 3 Carbon Dioxide)</b>                   | 651.882329            | --                                                       |
| <b>FE BAG 3 (Bag 3 Fuel Economy)</b>                      | 13.3012172            | 13.3012172                                               |
| <b>METHANE (CH4 - Methane)</b>                            | 0.0078874             | --                                                       |
| <b>CO (Carbon Monoxide)</b>                               | 0.476894              | --                                                       |
| <b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b> | -0.1578344            | --                                                       |
| <b>DT-EER (Drive Trace Energy Economy Rating)</b>         | -0.1517574            | --                                                       |
| <b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>    | -0.1915479            | --                                                       |
| <b>MFR FE (Manufacturer Fuel Economy)</b>                 | 11.3                  | 11.3                                                     |
| <b>NOX (Nitrogen Oxide)</b>                               | 0.0327882             | --                                                       |
| <b>HC-NM (Non-methane Hydrocarbon)</b>                    | 0.0386495             | --                                                       |
| <b>NMOG (Non-methane organic gases)</b>                   | 0.0425                | --                                                       |
| <b>HC-TOTAL (Total Hydrocarbon)</b>                       | 0.0452191             | --                                                       |

| Test Result Name      | Unrounded Test Result | Verify Calculated CO2 |
|-----------------------|-----------------------|-----------------------|
| <b>Carbon dioxide</b> | 768                   | --                    |

**Manufacturer Test Comments**                      4k FED. FUEL 50' FTP - Tested as AUDI   dr. - ETW: 6000

## Certification Summary Information Report

| Test Group           |             | VVGAJ04.0NAT              |               |                |     | Evaporative/Refueling Family |                          |        |         | VVGAR0176NCT        |          |           |
|----------------------|-------------|---------------------------|---------------|----------------|-----|------------------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| 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 |
| CA                   | 4,000 miles | California LEV-IV ULEV125 | CO            | 0.48           | --  | --                           | --                       | --     | --      | 0.5                 | 2.1      | Pass      |
| CA                   | 4,000 miles | California LEV-IV ULEV125 | NMOG          | 0.0425         | --  | 1.0991                       | --                       | --     | --      | 0.042               | 99.000   | Pass      |
| CA                   | 4,000 miles | California LEV-IV ULEV125 | NMOG+NOX      | 0.0753         | --  | --                           | --                       | --     | --      | 0.075               | 0.250    | Pass      |
| CA                   | 4,000 miles | California LEV-IV ULEV125 | NOX           | 0.0328         | --  | --                           | --                       | --     | --      | 0.033               | 99.000   | Pass      |

## Certification Summary Information Report

|                                                |                                           |                                       |                                                     |
|------------------------------------------------|-------------------------------------------|---------------------------------------|-----------------------------------------------------|
| <b>Test Group</b>                              | VVGAI04.0NAT                              | <b>Evaporative/Refueling Family</b>   | VVGAR0176NCT                                        |
| <b>Test #</b>                                  | <b>SVGA10086286</b>                       | <b>Test Procedure</b>                 | <b>21 - Federal fuel 2-day exhaust (w/can load)</b> |
| <b>Exhaust Test # for this Evap Test</b>       | --                                        | <b>Test Fuel Type</b>                 | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)  |
| <b>Test Date</b>                               | 05/08/2024                                | <b>Fuel</b>                           | Gasoline                                            |
| <b>Fuel Batch ID</b>                           | NK0018                                    | <b>Fuel Calibration Number</b>        | 1                                                   |
| <b>Vehicle Class</b>                           | LDV/Passenger Car                         | <b>DF Type</b>                        | Mfr. Determined                                     |
| <b>Verify Test Lab ID</b>                      | AUDI AG Neckarsulm                        |                                       |                                                     |
| <b>E10 Evaporative Test Measurement Method</b> | --                                        |                                       |                                                     |
| <b>Test Start Odometer Reading</b>             | 6240                                      | <b>Odometer Units</b>                 | K                                                   |
| <b>4WD Test Dyno</b>                           | Yes                                       | <b>Diesel Adjustment Factor Usage</b> | --                                                  |
| <b>State of Charge Delta</b>                   | Yes                                       |                                       |                                                     |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | <b>Road Speed Fan Usage</b>           | Yes                                                 |

## Test Results

| Test Result Name                                   | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|----------------------------------------------------|-----------------------|----------------------------------------------------------|
| CO2 BAG 1 (Bag 1 Carbon Dioxide)                   | 676.8770507           | --                                                       |
| FE BAG 1 (Bag 1 Fuel Economy)                      | 12.7961784            | 12.7961784                                               |
| CO2 BAG 2 (Bag 2 Carbon Dioxide)                   | 795.57293             | --                                                       |
| FE BAG 2 (Bag 2 Fuel Economy)                      | 10.9067311            | 10.9067311                                               |
| CO2 BAG 3 (Bag 3 Carbon Dioxide)                   | 618.0782193           | --                                                       |
| FE BAG 3 (Bag 3 Fuel Economy)                      | 14.0268091            | 14.0268091                                               |
| CO2 BAG 4 (Bag 4 Carbon Dioxide)                   | 777.5963965           | --                                                       |
| FE BAG 4 (Bag 4 Fuel Economy)                      | 11.1589162            | 11.1589162                                               |
| METHANE (CH4 - Methane)                            | 0.0035178             | --                                                       |
| CO (Carbon Monoxide)                               | 0.2459062             | --                                                       |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | -4.7952               | --                                                       |
| DT-EER (Drive Trace Energy Economy Rating)         | -4.019928             | --                                                       |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating)    | -7.028098             | --                                                       |
| MFR FE (Manufacturer Fuel Economy)                 | 12.1                  | 12.1                                                     |
| NOX (Nitrogen Oxide)                               | 0.0331081             | --                                                       |
| N2O (Nitrous Oxide)                                | 0.0020892             | --                                                       |
| HC-NM (Non-methane Hydrocarbon)                    | 0.0140642             | --                                                       |
| NMOG (Non-methane organic gases)                   | 0.0155                | --                                                       |
| PM (Particulate Matter)                            | 0.0018053             | --                                                       |
| HC-TOTAL (Total Hydrocarbon)                       | 0.0172096             | --                                                       |

## Certification Summary Information Report

|                   |              |                              |              |
|-------------------|--------------|------------------------------|--------------|
| <b>Test Group</b> | VVGAJ04.0NAT | Evaporative/Refueling Family | VVGAR0176NCT |
|-------------------|--------------|------------------------------|--------------|

|                                  |                              |                                        |
|----------------------------------|------------------------------|----------------------------------------|
| <b>Test Result Name</b>          | <b>Unrounded Test Result</b> | <b>Verify Calculated CREE/OPT-CREE</b> |
| Carbon-Related Exhaust Emissions | 717                          | 999                                    |

|                         |                              |                              |
|-------------------------|------------------------------|------------------------------|
| <b>Test Result Name</b> | <b>Unrounded Test Result</b> | <b>Verify Calculated CO2</b> |
| Carbon dioxide          | 717                          | --                           |

**Manufacturer Test Comments**

EDV MCT MFR CONFIRMATORY RETEST - 4k FED. FUEL FTP - Tested as AUDI dr. - ETW: 6000

| 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                  | 120,000 miles | Federal Tier 3 Bin 125    | CREE          | 999            | --  | --               | --                       | 0.4300 | --      | 999                 | --       | --        |
| Fed                  | 120,000 miles | Federal Tier 3 Bin 125    | METHANE       | 0.0035         | --  | --               | --                       | 0.0018 | --      | 0.005               | 0.030    | Pass      |
| Fed                  | 120,000 miles | Federal Tier 3 Bin 125    | N2O           | 0.0021         | --  | --               | --                       | 0.0005 | --      | 0.003               | 0.010    | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | CO            | 0.25           | --  | --               | --                       | 0.3300 | --      | 0.6                 | 2.1      | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | CO-COMP       | 0.65           | --  | --               | --                       | --     | --      | 0.6                 | 4.2      | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG          | 0.0155         | --  | 1.0991           | --                       | 0.0088 | --      | 0.024               | 99.000   | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG+NOX      | 0.0486         | --  | --               | --                       | --     | --      | 0.059               | 0.125    | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG+NOX-COMP | 0.0424         | --  | --               | --                       | --     | --      | 0.042               | 0.110    | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NOX           | 0.0331         | --  | --               | --                       | 0.0012 | --      | 0.034               | 99.000   | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | PM            | 0.0018         | --  | --               | --                       | 0.0006 | --      | 0.002               | 0.003    | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | CO            | 0.25           | --  | --               | --                       | 0.330  | --      | 0.6                 | 2.1      | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG          | 0.0155         | --  | 1.0991           | --                       | 0.0088 | --      | 0.024               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG+NOX      | 0.0486         | --  | --               | --                       | --     | --      | 0.059               | 0.125    | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NOX           | 0.0331         | --  | --               | --                       | 0.0012 | --      | 0.034               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | PM            | 0.0018         | --  | --               | --                       | 0.0006 | --      | 0.002               | 0.003    | Pass      |

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

## Certification Summary Information Report

|                                                |                                           |                                       |                           |
|------------------------------------------------|-------------------------------------------|---------------------------------------|---------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                              | <b>Evaporative/Refueling Family</b>   | VVGAR0176NCT              |
| <b>Test #</b>                                  | <b>SVGA10085971</b>                       | <b>Test Procedure</b>                 | <b>3 - HWFE</b>           |
| <b>Exhaust Test # for this Evap Test</b>       | --                                        | <b>Test Fuel Type</b>                 | 61 - Tier 2 Cert Gasoline |
| <b>Test Date</b>                               | 03/13/2024                                | <b>Fuel</b>                           | Gasoline                  |
| <b>Fuel Batch ID</b>                           | NK0020                                    | <b>Fuel Calibration Number</b>        | 1                         |
| <b>Vehicle Class</b>                           | LDV/Passenger Car                         | <b>DF Type</b>                        | Mfr. Determined           |
| <b>Verify Test Lab ID</b>                      | AUDI AG Neckarsulm                        |                                       |                           |
| <b>E10 Evaporative Test Measurement Method</b> | --                                        |                                       |                           |
| <b>Test Start Odometer Reading</b>             | 5381                                      | <b>Odometer Units</b>                 | K                         |
| <b>4WD Test Dyno</b>                           | Yes                                       | <b>Diesel Adjustment Factor Usage</b> | --                        |
| <b>State of Charge Delta</b>                   | Yes                                       |                                       |                           |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | <b>Road Speed Fan Usage</b>           | Yes                       |

## Test Results

| Test Result Name                                   | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|----------------------------------------------------|-----------------------|----------------------------------------------------------|
| METHANE (CH4 - Methane)                            | 0.0008672             | --                                                       |
| CO (Carbon Monoxide)                               | 0.1584026             | --                                                       |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | 0.7110043             | --                                                       |
| DT-EER (Drive Trace Energy Economy Rating)         | 0.2006295             | --                                                       |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating)    | 1.139046              | --                                                       |
| MFR FE (Manufacturer Fuel Economy)                 | 21.3                  | 21.3                                                     |
| NOX (Nitrogen Oxide)                               | 0.0054795             | --                                                       |
| N2O (Nitrous Oxide)                                | 0                     | --                                                       |
| HC-NM (Non-methane Hydrocarbon)                    | 0.0011419             | --                                                       |
| NMOG (Non-methane organic gases)                   | 0.0012                | --                                                       |
| PM (Particulate Matter)                            | 0.0001579             | --                                                       |
| HC-TOTAL (Total Hydrocarbon)                       | 0.0019969             | --                                                       |

| Test Result Name                 | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|----------------------------------|-----------------------|---------------------------------|
| Carbon-Related Exhaust Emissions | 419                   | 419                             |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|------------------|-----------------------|-----------------------|
| Carbon dioxide   | 419                   | --                    |

## Manufacturer Test Comments

GHG Test 4k HWFET - Tested as AUDI dr. - ETW: 6000

## Certification Summary Information Report

| Test Group           |               | VVGAJ04.0NAT              |               |                |     | Evaporative/Refueling Family |                          |        |         | VVGAR0176NCT        |          |           |
|----------------------|---------------|---------------------------|---------------|----------------|-----|------------------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| 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                  | 150,000 miles | Federal Tier 3 Bin 125    | CREE          | 419            | --  | --                           | --                       | 0.430  | --      | 419                 | --       | --        |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG          | 0.0012         | --  | 1.0300                       | --                       | 0.0088 | --      | 0.010               | 99.000   | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG+NOX      | 0.0067         | --  | --                           | --                       | --     | --      | 0.017               | 0.125    | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NOX           | 0.0055         | --  | --                           | --                       | 0.0012 | --      | 0.007               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG          | 0.0012         | --  | 1.0300                       | --                       | 0.0088 | --      | 0.010               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG+NOX      | 0.0067         | --  | --                           | --                       | --     | --      | 0.017               | 0.125    | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NOX           | 0.0055         | --  | --                           | --                       | 0.0012 | --      | 0.007               | 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

|                                                |                                           |                                       |                                                    |
|------------------------------------------------|-------------------------------------------|---------------------------------------|----------------------------------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                              | <b>Evaporative/Refueling Family</b>   | VVGAR0176NCT                                       |
| <b>Test #</b>                                  | <b>SVGA10085975</b>                       | <b>Test Procedure</b>                 | <b>3 - HWFE</b>                                    |
| <b>Exhaust Test # for this Evap Test</b>       | --                                        | <b>Test Fuel Type</b>                 | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) |
| <b>Test Date</b>                               | 04/05/2024                                | <b>Fuel</b>                           | Gasoline                                           |
| <b>Fuel Batch ID</b>                           | NK0018                                    | <b>Fuel Calibration Number</b>        | 1                                                  |
| <b>Vehicle Class</b>                           | LDV/Passenger Car                         | <b>DF Type</b>                        | Mfr. Determined                                    |
| <b>Verify Test Lab ID</b>                      | AUDI AG Neckarsulm                        |                                       |                                                    |
| <b>E10 Evaporative Test Measurement Method</b> | --                                        |                                       |                                                    |
| <b>Test Start Odometer Reading</b>             | 5901                                      | <b>Odometer Units</b>                 | K                                                  |
| <b>4WD Test Dyno</b>                           | Yes                                       | <b>Diesel Adjustment Factor Usage</b> | --                                                 |
| <b>State of Charge Delta</b>                   | Yes                                       |                                       |                                                    |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | <b>Road Speed Fan Usage</b>           | Yes                                                |

**Test Results**

| Test Result Name                                          | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|-----------------------------------------------------------|-----------------------|----------------------------------------------------------|
| <b>METHANE (CH4 - Methane)</b>                            | 0.0069252             | --                                                       |
| <b>CO (Carbon Monoxide)</b>                               | 0.1449495             | --                                                       |
| <b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b> | 0.8528733             | --                                                       |
| <b>DT-EER (Drive Trace Energy Economy Rating)</b>         | 0.0750254             | --                                                       |
| <b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>    | 1.136677              | --                                                       |
| <b>MFR FE (Manufacturer Fuel Economy)</b>                 | 21.2                  | 21.2                                                     |
| <b>NOX (Nitrogen Oxide)</b>                               | 0.0052432             | --                                                       |
| <b>N2O (Nitrous Oxide)</b>                                | 0                     | --                                                       |
| <b>HC-NM (Non-methane Hydrocarbon)</b>                    | 0.0083968             | --                                                       |
| <b>NMOG (Non-methane organic gases)</b>                   | 0.0086                | --                                                       |
| <b>PM (Particulate Matter)</b>                            | 0.0004374             | --                                                       |
| <b>HC-TOTAL (Total Hydrocarbon)</b>                       | 0.015225              | --                                                       |

| Test Result Name                        | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|-----------------------------------------|-----------------------|---------------------------------|
| <b>Carbon-Related Exhaust Emissions</b> | 409                   | 999                             |

| Test Result Name      | Unrounded Test Result | Verify Calculated CO2 |
|-----------------------|-----------------------|-----------------------|
| <b>Carbon dioxide</b> | 409                   | --                    |

**Manufacturer Test Comments**                      test performed in S-Mode 4k HWFET - Tested as AUDI dr. - ETW: 6000

## Certification Summary Information Report

| Test Group           |               | VVGAJ04.0NAT              |               |                |     | Evaporative/Refueling Family |                          |        |         | VVGAR0176NCT        |          |           |
|----------------------|---------------|---------------------------|---------------|----------------|-----|------------------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| 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                  | 150,000 miles | Federal Tier 3 Bin 125    | CREE          | 999            | --  | --                           | --                       | 0.430  | --      | 999                 | --       | --        |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG          | 0.0086         | --  | 1.0300                       | --                       | 0.0088 | --      | 0.017               | 99.000   | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG+NOX      | 0.0138         | --  | --                           | --                       | --     | --      | 0.024               | 0.125    | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NOX           | 0.0052         | --  | --                           | --                       | 0.0012 | --      | 0.006               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG          | 0.0086         | --  | 1.0300                       | --                       | 0.0088 | --      | 0.017               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG+NOX      | 0.0138         | --  | --                           | --                       | --     | --      | 0.024               | 0.125    | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NOX           | 0.0052         | --  | --                           | --                       | 0.0012 | --      | 0.006               | 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

|                                                |                                           |                                       |                                                    |
|------------------------------------------------|-------------------------------------------|---------------------------------------|----------------------------------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                              | <b>Evaporative/Refueling Family</b>   | VVGAR0176NCT                                       |
| <b>Test #</b>                                  | <b>SVGA10085976</b>                       | <b>Test Procedure</b>                 | <b>90 - US06</b>                                   |
| <b>Exhaust Test # for this Evap Test</b>       | --                                        | <b>Test Fuel Type</b>                 | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) |
| <b>Test Date</b>                               | 04/05/2024                                | <b>Fuel</b>                           | Gasoline                                           |
| <b>Fuel Batch ID</b>                           | NK0018                                    | <b>Fuel Calibration Number</b>        | 1                                                  |
| <b>Vehicle Class</b>                           | LDV/Passenger Car                         | <b>DF Type</b>                        | Mfr. Determined                                    |
| <b>Verify Test Lab ID</b>                      | AUDI AG Neckarsulm                        |                                       |                                                    |
| <b>E10 Evaporative Test Measurement Method</b> | --                                        |                                       |                                                    |
| <b>Test Start Odometer Reading</b>             | 5933                                      | <b>Odometer Units</b>                 | K                                                  |
| <b>4WD Test Dyno</b>                           | Yes                                       | <b>Diesel Adjustment Factor Usage</b> | --                                                 |
| <b>State of Charge Delta</b>                   | Yes                                       |                                       |                                                    |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | <b>Road Speed Fan Usage</b>           | Yes                                                |

## Test Results

| Test Result Name                                                            | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|-----------------------------------------------------------------------------|-----------------------|----------------------------------------------------------|
| CO2 BAG 1 (Bag 1 Carbon Dioxide)                                            | 880.3689434           | --                                                       |
| FE BAG 1 (Bag 1 Fuel Economy)                                               | 9.8491361             | 9.8491361                                                |
| CO2 BAG 2 (Bag 2 Carbon Dioxide)                                            | 475.8833427           | --                                                       |
| FE BAG 2 (Bag 2 Fuel Economy)                                               | 18.2224908            | 18.2224908                                               |
| METHANE (CH4 - Methane)                                                     | 0.0027647             | --                                                       |
| CO (Carbon Monoxide)                                                        | 0.2353978             | --                                                       |
| DT-ASCR (Drive Trace Absolute Speed Change Rating)                          | -1.098413             | --                                                       |
| DT-EER (Drive Trace Energy Economy Rating)                                  | -0.4999258            | --                                                       |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating)                             | -1.439742             | --                                                       |
| MFR FE (Manufacturer Fuel Economy)                                          | 15.3                  | 15.3                                                     |
| NOX (Nitrogen Oxide)                                                        | 0.016413              | --                                                       |
| N2O (Nitrous Oxide)                                                         | 0                     | --                                                       |
| HC-NM (Non-methane Hydrocarbon)                                             | 0.0071525             | --                                                       |
| NMOG (Non-methane organic gases)                                            | 0.0074                | --                                                       |
| PM (Particulate Matter)                                                     | 0.0023592             | --                                                       |
| HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03) | 0.0236                | --                                                       |
| HC-TOTAL (Total Hydrocarbon)                                                | 0.0098786             | --                                                       |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|------------------|-----------------------|-----------------------|
| Carbon dioxide   | 566                   | --                    |

### Certification Summary Information Report

|                   |              |                                     |              |
|-------------------|--------------|-------------------------------------|--------------|
| <b>Test Group</b> | VVGAJ04.0NAT | <b>Evaporative/Refueling Family</b> | VVGAR0176NCT |
|-------------------|--------------|-------------------------------------|--------------|

**Manufacturer Test Comments**                      test performed in S-Mode 4k US06 - Tested as AUDI dr. - ETW: 6000

| 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                  | 150,000 miles | Federal Tier 3 Bin 125    | CO            | 0.24           | --  | --               | --                       | 0.3300 | --      | 0.6                 | 99.0     | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG          | 0.0074         | --  | 1.0300           | --                       | 0.0088 | --      | 0.016               | 99.000   | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NOX           | 0.0164         | --  | --               | --                       | 0.0012 | --      | 0.018               | 99.000   | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | PM            | 0.0024         | --  | --               | --                       | 0.0006 | --      | 0.003               | 0.006    | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | CO            | 0.24           | --  | --               | --                       | 0.3300 | --      | 0.6                 | 9.6      | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG          | 0.0074         | --  | 1.0300           | --                       | 0.0088 | --      | 0.016               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG+NOX      | 0.0238         | --  | --               | --                       | --     | --      | 0.034               | 0.150    | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NOX           | 0.0164         | --  | --               | --                       | 0.0012 | --      | 0.018               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | PM            | 0.0024         | --  | --               | --                       | 0.0006 | --      | 0.003               | 0.006    | Pass      |

## Certification Summary Information Report

|                                                |                                           |                                       |                                                    |
|------------------------------------------------|-------------------------------------------|---------------------------------------|----------------------------------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                              | <b>Evaporative/Refueling Family</b>   | VVGAR0176NCT                                       |
| <b>Test #</b>                                  | <b>SVGA10085977</b>                       | <b>Test Procedure</b>                 | <b>95 - SC03</b>                                   |
| <b>Exhaust Test # for this Evap Test</b>       | --                                        | <b>Test Fuel Type</b>                 | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) |
| <b>Test Date</b>                               | 04/05/2024                                | <b>Fuel</b>                           | Gasoline                                           |
| <b>Fuel Batch ID</b>                           | NK0018                                    | <b>Fuel Calibration Number</b>        | 1                                                  |
| <b>Vehicle Class</b>                           | LDV/Passenger Car                         | <b>DF Type</b>                        | Mfr. Determined                                    |
| <b>Verify Test Lab ID</b>                      | AUDI AG Neckarsulm                        |                                       |                                                    |
| <b>E10 Evaporative Test Measurement Method</b> | --                                        |                                       |                                                    |
| <b>Test Start Odometer Reading</b>             | 5959                                      | <b>Odometer Units</b>                 | K                                                  |
| <b>4WD Test Dyno</b>                           | Yes                                       | <b>Diesel Adjustment Factor Usage</b> | --                                                 |
| <b>State of Charge Delta</b>                   | Yes                                       |                                       |                                                    |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | <b>Road Speed Fan Usage</b>           | Yes                                                |

## Test Results

| Test Result Name                                                            | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|-----------------------------------------------------------------------------|-----------------------|----------------------------------------------------------|
| METHANE (CH4 - Methane)                                                     | 0                     | --                                                       |
| CO (Carbon Monoxide)                                                        | 0.4645761             | --                                                       |
| DT-ASCR (Drive Trace Absolute Speed Change Rating)                          | -0.9371491            | --                                                       |
| DT-EER (Drive Trace Energy Economy Rating)                                  | -0.1446717            | --                                                       |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating)                             | -1.176522             | --                                                       |
| MFR FE (Manufacturer Fuel Economy)                                          | 10.9                  | 10.9                                                     |
| NOX (Nitrogen Oxide)                                                        | 0.0227137             | --                                                       |
| N2O (Nitrous Oxide)                                                         | 0                     | --                                                       |
| HC-NM (Non-methane Hydrocarbon)                                             | 0.000853              | --                                                       |
| NMOG (Non-methane organic gases)                                            | 0.0009                | --                                                       |
| PM (Particulate Matter)                                                     | 0.0013045             | --                                                       |
| HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03) | 0.0236                | --                                                       |
| HC-TOTAL (Total Hydrocarbon)                                                | 0.000088              | --                                                       |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|------------------|-----------------------|-----------------------|
| Carbon dioxide   | 792                   | --                    |

## Manufacturer Test Comments

test performed in S-Mode 4k SC03 - Tested as AUDI dr. - ETW: 6000

## Certification Summary Information Report

| Test Group           |               | VVGAJ04.0NAT              |               |                |     | Evaporative/Refueling Family |                          |        |         | VVGAR0176NCT        |          |           |
|----------------------|---------------|---------------------------|---------------|----------------|-----|------------------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| 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                  | 150,000 miles | Federal Tier 3 Bin 125    | CO            | 0.46           | --  | --                           | --                       | 0.3300 | --      | 0.8                 | 99.0     | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG          | 0.0009         | --  | 1.0300                       | --                       | 0.0088 | --      | 0.010               | 99.000   | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NOX           | 0.0227         | --  | --                           | --                       | 0.0012 | --      | 0.024               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | CO            | 0.46           | --  | --                           | --                       | 0.3300 | --      | 0.8                 | 2.1      | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG          | 0.0009         | --  | 1.0300                       | --                       | 0.0088 | --      | 0.010               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG+NOX      | 0.0236         | --  | --                           | --                       | --     | --      | 0.034               | 0.125    | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NOX           | 0.0227         | --  | --                           | --                       | 0.0012 | --      | 0.024               | 99.000   | Pass      |

## Certification Summary Information Report

| Test Group                                   | VVGAJ04.0NAT                                                                                                                                                                                                                                                                       | Evaporative/Refueling Family                   | VVGAR0176NCT    |                        |              |      |   |                   |          |   |                |             |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------|------------------------|--------------|------|---|-------------------|----------|---|----------------|-------------|
| <b>Emission Data Vehicle Information</b>     |                                                                                                                                                                                                                                                                                    |                                                |                 |                        |              |      |   |                   |          |   |                |             |
| Vehicle ID / Configuration                   | UC-412 / 0                                                                                                                                                                                                                                                                         | Manufacturer Vehicle Configuration Number      | 0               |                        |              |      |   |                   |          |   |                |             |
| Original Test Group Name                     | KVGAV02.0A7M                                                                                                                                                                                                                                                                       | Original Evaporative/Refueling Family          | KVGAR0150ACS    |                        |              |      |   |                   |          |   |                |             |
| Original Test Vehicle Model Year             | 2019                                                                                                                                                                                                                                                                               |                                                |                 |                        |              |      |   |                   |          |   |                |             |
| <b>Vehicle Model</b>                         |                                                                                                                                                                                                                                                                                    |                                                |                 |                        |              |      |   |                   |          |   |                |             |
| Represented Test Vehicle Make                | AUDI                                                                                                                                                                                                                                                                               | Represented Test Vehicle Model                 | A6 Quattro (C8) |                        |              |      |   |                   |          |   |                |             |
| <b>Leak Family Details</b>                   |                                                                                                                                                                                                                                                                                    |                                                |                 |                        |              |      |   |                   |          |   |                |             |
| Leak Family Identifier                       | --                                                                                                                                                                                                                                                                                 | Leak Family Name                               | --              |                        |              |      |   |                   |          |   |                |             |
| <b>Drive Sources and Fuel System Details</b> |                                                                                                                                                                                                                                                                                    |                                                |                 |                        |              |      |   |                   |          |   |                |             |
|                                              | <table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Combustion Engine</td> <td>Gasoline</td> </tr> <tr> <td>2</td> <td>Electric Motor</td> <td>Electricity</td> </tr> </tbody> </table> |                                                |                 | Drive Source and Fuel# | Drive Source | Fuel | 1 | Combustion Engine | Gasoline | 2 | Electric Motor | Electricity |
| Drive Source and Fuel#                       | Drive Source                                                                                                                                                                                                                                                                       | Fuel                                           |                 |                        |              |      |   |                   |          |   |                |             |
| 1                                            | Combustion Engine                                                                                                                                                                                                                                                                  | Gasoline                                       |                 |                        |              |      |   |                   |          |   |                |             |
| 2                                            | Electric Motor                                                                                                                                                                                                                                                                     | Electricity                                    |                 |                        |              |      |   |                   |          |   |                |             |
| Hybrid Indicator                             | Yes                                                                                                                                                                                                                                                                                |                                                |                 |                        |              |      |   |                   |          |   |                |             |
| Multiple Fuel Storage                        | --                                                                                                                                                                                                                                                                                 | Multiple Fuel Combustion                       | --              |                        |              |      |   |                   |          |   |                |             |
| Fuel Cell Indicator                          | No                                                                                                                                                                                                                                                                                 | Rechargeable Energy Storage System Indicator   | Yes             |                        |              |      |   |                   |          |   |                |             |
| Rechargeable Energy Storage System           | Battery(s)                                                                                                                                                                                                                                                                         | Rechargeable Energy Storage System, if 'Other' | --              |                        |              |      |   |                   |          |   |                |             |
| Off-board charge Capable Indicator           | No                                                                                                                                                                                                                                                                                 |                                                |                 |                        |              |      |   |                   |          |   |                |             |
| Odometer Correction -- Initial               | 0                                                                                                                                                                                                                                                                                  | Odometer Correction Factor                     | 1.0586          |                        |              |      |   |                   |          |   |                |             |
| Odometer Correction Sign                     | - = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor                                                                                                                                                                                    |                                                |                 |                        |              |      |   |                   |          |   |                |             |
| Odometer Correction Units                    | Kilometers                                                                                                                                                                                                                                                                         |                                                |                 |                        |              |      |   |                   |          |   |                |             |
| Engine Code                                  | DLHB                                                                                                                                                                                                                                                                               | Rated Horsepower                               | 248             |                        |              |      |   |                   |          |   |                |             |
| 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                       | Air                                                                                                                                                                                                                                                                                | Drive Mode While Testing                       | All Wheel Drive |                        |              |      |   |                   |          |   |                |             |
| Shift Indicator Light Usage                  | Not equipped                                                                                                                                                                                                                                                                       | Aged Emission Components                       | 4,000 (mi)      |                        |              |      |   |                   |          |   |                |             |
| Curb Weight (lbs)                            | 4156                                                                                                                                                                                                                                                                               | Equivalent Test Weight (pounds)                | 4500            |                        |              |      |   |                   |          |   |                |             |
| GVWR (lbs)                                   | --                                                                                                                                                                                                                                                                                 | N/V Ratio                                      | 21.4            |                        |              |      |   |                   |          |   |                |             |
| Axle Ratio                                   | 4.41                                                                                                                                                                                                                                                                               |                                                |                 |                        |              |      |   |                   |          |   |                |             |
| Transmission Type                            | Automated Manual- Selectable (e.g. Automated Manual with paddles)                                                                                                                                                                                                                  | # of Transmission Gears                        | 7               |                        |              |      |   |                   |          |   |                |             |
| Transmission Lockup                          | No                                                                                                                                                                                                                                                                                 | Creeper Gear                                   | No              |                        |              |      |   |                   |          |   |                |             |

### Certification Summary Information Report

|                                                |                                                                                                          |                                       |                                                    |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------|----------------------------------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                                                                                             | <b>Evaporative/Refueling Family</b>   | VVGAR0176NCT                                       |
| <b>Dynamometer Coefficients:</b>               |                                                                                                          |                                       |                                                    |
|                                                | <b>Target Coefficients</b>                                                                               |                                       | <b>Set Coefficients</b>                            |
| <b>Coefficient Category</b>                    | <b>A (lbf)</b>                                                                                           | <b>B (lbf/mph)</b>                    | <b>C (lbf/mph**2)</b>                              |
| <b>City/Highway/Evap</b>                       | 39.521                                                                                                   | 0.2532                                | 0.017868                                           |
| <b>Cold CO</b>                                 | 43.474                                                                                                   | 0.27852                               | 0.019654                                           |
| <b>US06</b>                                    | 39.521                                                                                                   | 0.2532                                | 0.017868                                           |
|                                                | -4.833                                                                                                   | -5.317                                | -4.833                                             |
|                                                | 0.15554                                                                                                  | 0.17109                               | 0.15554                                            |
|                                                | 0.016296                                                                                                 | 0.017926                              | 0.016296                                           |
|                                                | <b>EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients</b>                     |                                       |                                                    |
|                                                | 12.9                                                                                                     |                                       |                                                    |
|                                                | N/A                                                                                                      |                                       |                                                    |
|                                                | N/A                                                                                                      |                                       |                                                    |
| <b>Emission Control Device Comments</b>        | DFI/TC/CAC/TWC/WR-HO2S/HO2S                                                                              |                                       |                                                    |
| <b>Manufacturer Test Vehicle Comments</b>      | MY 2019 AUDI A6 Quattro (C8) tested as A6 Limousine with Automated Manual Selectable 7 speed - ETW: 4500 |                                       |                                                    |
| <b>Test #</b>                                  | <b>KVGA10058954</b>                                                                                      | <b>Test Procedure</b>                 | <b>65 - Evap Canister Bleed Test</b>               |
| <b>Exhaust Test # for this Evap Test</b>       | --                                                                                                       | <b>Test Fuel Type</b>                 | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| <b>Test Date</b>                               | 03/03/2019                                                                                               | <b>Fuel</b>                           | N/A                                                |
| <b>Fuel Batch ID</b>                           | --                                                                                                       | <b>Fuel Calibration Number</b>        | --                                                 |
| <b>Vehicle Class</b>                           | N/A                                                                                                      | <b>DF Type</b>                        | Mfr. Determined                                    |
| <b>Verify Test Lab ID</b>                      | Volkswagen AG WOB2                                                                                       |                                       |                                                    |
| <b>E10 Evaporative Test Measurement Method</b> | Calculated (1.08 x FID Total Hydrocarbons)                                                               |                                       |                                                    |
| <b>Test Start Odometer Reading</b>             | 5069                                                                                                     | <b>Odometer Units</b>                 | M                                                  |
| <b>4WD Test Dyno</b>                           | No                                                                                                       | <b>Diesel Adjustment Factor Usage</b> | --                                                 |
| <b>State of Charge Delta</b>                   | --                                                                                                       | <b>Road Speed Fan Usage</b>           | --                                                 |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | --                                                                                                       |                                       |                                                    |
| <b>Test Results</b>                            |                                                                                                          |                                       |                                                    |
|                                                | <b>Test Result Name</b>                                                                                  | <b>Unrounded Test Result</b>          | <b>Verify Calculated FE Equivalent Value</b>       |
|                                                | <b>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</b>                                         | 0.0164                                | --                                                 |
| <b>Manufacturer Test Comments</b>              | --                                                                                                       |                                       |                                                    |

## Certification Summary Information Report

| Test Group                                                                | VVGAJ04.0NAT                                       | Evaporative/Refueling Family                                              | VVGAR0176NCT |
|---------------------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------|--------------|
| <b>Fuel Properties</b>                                                    |                                                    |                                                                           |              |
| <b>Fuel Batch ID</b>                                                      | <b>NK0020</b>                                      | <b>Fuel Calibration Number</b>                                            | <b>1</b>     |
| <b>Test Fuel Type</b>                                                     | 61 - Tier 2 Cert Gasoline                          | <b>Fuel Batch Calibration Date</b>                                        | 06/08/2023   |
| <b>Fuel Batch Calibration Effective Date</b>                              | 07/24/2023                                         | <b>Fuel Batch Calibration Ineffective Date</b>                            | 07/23/2024   |
| <b>Carbon Weight Fraction NMHC</b>                                        | --                                                 | <b>Carbon Weight Fraction HC</b>                                          | --           |
| <b>Exhaust Carbon Weight Fraction</b>                                     | --                                                 | <b>Fuel Methanol Volume Fraction</b>                                      | --           |
| <b>Fuel Density (grams/cubic ft)</b>                                      | --                                                 | <b>Fuel Specific Gravity</b>                                              | 0.743        |
| <b>Fuel Ethanol Volume Percent (%)</b>                                    | --                                                 | <b>Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)</b> | 18413        |
| <b>Fuel Net Heat of Combustion (E10) (MJ/kg)</b>                          | --                                                 | <b>Fuel Carbon Mass Fraction (E10)</b>                                    | --           |
| <b>Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)</b> | 0.868                                              | <b>Weight Fraction CO2</b>                                                | --           |
| <b>Fuel Batch ID</b>                                                      | <b>NK0018</b>                                      | <b>Fuel Calibration Number</b>                                            | <b>1</b>     |
| <b>Test Fuel Type</b>                                                     | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) | <b>Fuel Batch Calibration Date</b>                                        | 07/27/2023   |
| <b>Fuel Batch Calibration Effective Date</b>                              | 09/01/2023                                         | <b>Fuel Batch Calibration Ineffective Date</b>                            | --           |
| <b>Carbon Weight Fraction NMHC</b>                                        | --                                                 | <b>Carbon Weight Fraction HC</b>                                          | --           |
| <b>Exhaust Carbon Weight Fraction</b>                                     | --                                                 | <b>Fuel Methanol Volume Fraction</b>                                      | --           |
| <b>Fuel Density (grams/cubic ft)</b>                                      | --                                                 | <b>Fuel Specific Gravity</b>                                              | 0.754        |
| <b>Fuel Ethanol Volume Percent (%)</b>                                    | 9.7                                                | <b>Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)</b> | 17936        |
| <b>Fuel Net Heat of Combustion (E10) (MJ/kg)</b>                          | --                                                 | <b>Fuel Carbon Mass Fraction (E10)</b>                                    | --           |
| <b>Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)</b> | 0.825                                              | <b>Weight Fraction CO2</b>                                                | --           |
| <b>Fuel Batch ID</b>                                                      | <b>NK0013</b>                                      | <b>Fuel Calibration Number</b>                                            | <b>1</b>     |
| <b>Test Fuel Type</b>                                                     | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) | <b>Fuel Batch Calibration Date</b>                                        | 06/24/2022   |
| <b>Fuel Batch Calibration Effective Date</b>                              | 12/13/2022                                         | <b>Fuel Batch Calibration Ineffective Date</b>                            | --           |
| <b>Carbon Weight Fraction NMHC</b>                                        | --                                                 | <b>Carbon Weight Fraction HC</b>                                          | --           |
| <b>Exhaust Carbon Weight Fraction</b>                                     | --                                                 | <b>Fuel Methanol Volume Fraction</b>                                      | --           |
| <b>Fuel Density (grams/cubic ft)</b>                                      | --                                                 | <b>Fuel Specific Gravity</b>                                              | 0.753        |
| <b>Fuel Ethanol Volume Percent (%)</b>                                    | 9.8                                                | <b>Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)</b> | 17949        |
| <b>Fuel Net Heat of Combustion (E10) (MJ/kg)</b>                          | --                                                 | <b>Fuel Carbon Mass Fraction (E10)</b>                                    | --           |
| <b>Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)</b> | 0.828                                              | <b>Weight Fraction CO2</b>                                                | --           |

### Certification Summary Information Report

|                                       |                      |                                     |                                         |                    |                                        |                                          |                        |               |            |
|---------------------------------------|----------------------|-------------------------------------|-----------------------------------------|--------------------|----------------------------------------|------------------------------------------|------------------------|---------------|------------|
| <b>Test Group</b>                     | VVGAJ04.0NAT         | <b>Evaporative/Refueling Family</b> | VVGAR0176NCT                            |                    |                                        |                                          |                        |               |            |
| <b>Consolidated List of Standards</b> |                      |                                     |                                         |                    |                                        |                                          |                        |               |            |
| <b>Exhaust Standards</b>              |                      |                                     |                                         |                    |                                        |                                          |                        |               |            |
| <b>Cert Region</b>                    | Federal              | <b>Cert/In-Use Code</b>             | Both                                    |                    |                                        |                                          |                        |               |            |
| <b>Vehicle Class</b>                  | LDV/Passenger Car    | <b>Standard Level</b>               | Federal Tier 3 Bin 125                  |                    |                                        |                                          |                        |               |            |
| <b>Fuel</b>                           | Gasoline             | <b>Test Procedure</b>               | Federal fuel 2-day exhaust (w/can load) |                    |                                        |                                          |                        |               |            |
| <b>Useful Life</b>                    | <b>Emission Name</b> | <b>Rounded Result</b>               | <b>RAF</b>                              | <b>NMOG / NMHC</b> | <b>Upward Diesel Adjustment Factor</b> | <b>Downward Diesel Adjustment Factor</b> | <b>Mult DF</b>         | <b>Add DF</b> | <b>Std</b> |
| 120,000 miles                         | CREE                 | --                                  | --                                      | --                 | --                                     | --                                       | --                     | 0.4300        | 999        |
| 120,000 miles                         | METHANE              | --                                  | --                                      | --                 | --                                     | --                                       | --                     | 0.0018        | 0.030      |
| 120,000 miles                         | N2O                  | --                                  | --                                      | --                 | --                                     | --                                       | --                     | 0.0005        | 0.010      |
| 150,000 miles                         | CO                   | --                                  | --                                      | --                 | --                                     | --                                       | --                     | 0.3300        | 2.1        |
| 150,000 miles                         | CO-COMP              | --                                  | --                                      | --                 | --                                     | --                                       | --                     | --            | 4.2        |
| 150,000 miles                         | NMOG                 | --                                  | --                                      | 1.0991             | --                                     | --                                       | --                     | 0.0088        | 99.000     |
| 150,000 miles                         | NMOG+NOX             | --                                  | --                                      | --                 | --                                     | --                                       | 1                      | --            | 0.125      |
| 150,000 miles                         | NMOG+NOX-COMP        | --                                  | --                                      | --                 | --                                     | --                                       | --                     | --            | 0.110      |
| 150,000 miles                         | NOX                  | --                                  | --                                      | --                 | --                                     | --                                       | --                     | 0.0012        | 99.000     |
| 150,000 miles                         | PM                   | --                                  | --                                      | --                 | --                                     | --                                       | --                     | 0.0006        | 0.003      |
| <b>Cert Region</b>                    |                      |                                     |                                         | Federal            | <b>Cert/In-Use Code</b>                |                                          | Both                   |               |            |
| <b>Vehicle Class</b>                  |                      |                                     |                                         | LDV/Passenger Car  | <b>Standard Level</b>                  |                                          | Federal Tier 3 Bin 125 |               |            |
| <b>Fuel</b>                           |                      |                                     |                                         | Gasoline           | <b>Test Procedure</b>                  |                                          | US06                   |               |            |
| <b>Useful Life</b>                    | <b>Emission Name</b> | <b>Rounded Result</b>               | <b>RAF</b>                              | <b>NMOG / NMHC</b> | <b>Upward Diesel Adjustment Factor</b> | <b>Downward Diesel Adjustment Factor</b> | <b>Mult DF</b>         | <b>Add DF</b> | <b>Std</b> |
| 150,000 miles                         | CO                   | --                                  | --                                      | --                 | --                                     | --                                       | --                     | 0.3300        | 99.0       |
| 150,000 miles                         | NMOG                 | --                                  | --                                      | 1.0300             | --                                     | --                                       | --                     | 0.0088        | 99.000     |
| 150,000 miles                         | NOX                  | --                                  | --                                      | --                 | --                                     | --                                       | --                     | 0.0012        | 99.000     |
| 150,000 miles                         | PM                   | --                                  | --                                      | --                 | --                                     | --                                       | --                     | 0.0006        | 0.006      |

### Certification Summary Information Report

|                      |                      |                                     |            |                    |                                        |                                          |                |                           |            |  |
|----------------------|----------------------|-------------------------------------|------------|--------------------|----------------------------------------|------------------------------------------|----------------|---------------------------|------------|--|
| <b>Test Group</b>    |                      | VVGAJ04.0NAT                        |            |                    | <b>Evaporative/Refueling Family</b>    |                                          |                | VVGAR0176NCT              |            |  |
| <b>Cert Region</b>   |                      | California + CAA Section 177 states |            |                    | <b>Cert/In-Use Code</b>                |                                          |                | Both                      |            |  |
| <b>Vehicle Class</b> |                      | LDV/Passenger Car                   |            |                    | <b>Standard Level</b>                  |                                          |                | California LEV-IV ULEV125 |            |  |
| <b>Fuel</b>          |                      | Gasoline                            |            |                    | <b>Test Procedure</b>                  |                                          |                | SC03                      |            |  |
| <b>Useful Life</b>   | <b>Emission Name</b> | <b>Rounded Result</b>               | <b>RAF</b> | <b>NMOG / NMHC</b> | <b>Upward Diesel Adjustment Factor</b> | <b>Downward Diesel Adjustment Factor</b> | <b>Mult DF</b> | <b>Add DF</b>             | <b>Std</b> |  |
| 150,000 miles        | CO                   | --                                  | --         | --                 | --                                     | --                                       | --             | 0.3300                    | 2.1        |  |
| 150,000 miles        | NMOG                 | --                                  | --         | 1.0300             | --                                     | --                                       | --             | 0.0088                    | 99.000     |  |
| 150,000 miles        | NMOG+NOX             | --                                  | --         | --                 | --                                     | --                                       | 1              | --                        | 0.125      |  |
| 150,000 miles        | NOX                  | --                                  | --         | --                 | --                                     | --                                       | --             | 0.0012                    | 99.000     |  |

|                      |                      |                                     |            |                    |                                        |                                          |                |                                         |            |  |
|----------------------|----------------------|-------------------------------------|------------|--------------------|----------------------------------------|------------------------------------------|----------------|-----------------------------------------|------------|--|
| <b>Cert Region</b>   |                      | California + CAA Section 177 states |            |                    | <b>Cert/In-Use Code</b>                |                                          |                | Both                                    |            |  |
| <b>Vehicle Class</b> |                      | LDV/Passenger Car                   |            |                    | <b>Standard Level</b>                  |                                          |                | California LEV-IV ULEV125               |            |  |
| <b>Fuel</b>          |                      | Gasoline                            |            |                    | <b>Test Procedure</b>                  |                                          |                | Federal fuel 2-day exhaust (w/can load) |            |  |
| <b>Useful Life</b>   | <b>Emission Name</b> | <b>Rounded Result</b>               | <b>RAF</b> | <b>NMOG / NMHC</b> | <b>Upward Diesel Adjustment Factor</b> | <b>Downward Diesel Adjustment Factor</b> | <b>Mult DF</b> | <b>Add DF</b>                           | <b>Std</b> |  |
| 150,000 miles        | CO                   | --                                  | --         | --                 | --                                     | --                                       | --             | 0.330                                   | 2.1        |  |
| 150,000 miles        | NMOG                 | --                                  | --         | 1.0991             | --                                     | --                                       | --             | 0.0088                                  | 99.000     |  |
| 150,000 miles        | NMOG+NOX             | --                                  | --         | --                 | --                                     | --                                       | 1              | --                                      | 0.125      |  |
| 150,000 miles        | NOX                  | --                                  | --         | --                 | --                                     | --                                       | --             | 0.0012                                  | 99.000     |  |
| 150,000 miles        | PM                   | --                                  | --         | --                 | --                                     | --                                       | --             | 0.0006                                  | 0.003      |  |

|                      |                      |                                     |            |                    |                                        |                                          |                |                           |            |  |
|----------------------|----------------------|-------------------------------------|------------|--------------------|----------------------------------------|------------------------------------------|----------------|---------------------------|------------|--|
| <b>Cert Region</b>   |                      | California + CAA Section 177 states |            |                    | <b>Cert/In-Use Code</b>                |                                          |                | Both                      |            |  |
| <b>Vehicle Class</b> |                      | LDV/Passenger Car                   |            |                    | <b>Standard Level</b>                  |                                          |                | California LEV-IV ULEV125 |            |  |
| <b>Fuel</b>          |                      | Gasoline                            |            |                    | <b>Test Procedure</b>                  |                                          |                | Fed. fuel 50 F exh.       |            |  |
| <b>Useful Life</b>   | <b>Emission Name</b> | <b>Rounded Result</b>               | <b>RAF</b> | <b>NMOG / NMHC</b> | <b>Upward Diesel Adjustment Factor</b> | <b>Downward Diesel Adjustment Factor</b> | <b>Mult DF</b> | <b>Add DF</b>             | <b>Std</b> |  |
| 4,000 miles          | CO                   | --                                  | --         | --                 | --                                     | --                                       | --             | --                        | 2.1        |  |
| 4,000 miles          | NMOG                 | --                                  | --         | 1.0991             | --                                     | --                                       | --             | --                        | 99.000     |  |
| 4,000 miles          | NMOG+NOX             | --                                  | --         | --                 | --                                     | --                                       | 1              | --                        | 0.250      |  |
| 4,000 miles          | NOX                  | --                                  | --         | --                 | --                                     | --                                       | --             | --                        | 99.000     |  |

### Certification Summary Information Report

|                      |                                     |                                     |                           |
|----------------------|-------------------------------------|-------------------------------------|---------------------------|
| <b>Test Group</b>    | VVGAJ04.0NAT                        | <b>Evaporative/Refueling Family</b> | VVGAR0176NCT              |
| <b>Cert Region</b>   | California + CAA Section 177 states | <b>Cert/In-Use Code</b>             | Both                      |
| <b>Vehicle Class</b> | LDV/Passenger Car                   | <b>Standard Level</b>               | California LEV-IV ULEV125 |
| <b>Fuel</b>          | Gasoline                            | <b>Test Procedure</b>               | 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            | --             | --  | --          | --                              | --                                | --      | 0.3300 | 9.6    |
| 150,000 miles | NMOG          | --             | --  | 1.0300      | --                              | --                                | --      | 0.0088 | 99.000 |
| 150,000 miles | NMOG+NOX      | --             | --  | --          | --                              | --                                | 1       | --     | 0.150  |
| 150,000 miles | NOX           | --             | --  | --          | --                              | --                                | --      | 0.0012 | 99.000 |
| 150,000 miles | PM            | --             | --  | --          | --                              | --                                | --      | 0.0006 | 0.006  |

|                      |                   |                         |                        |
|----------------------|-------------------|-------------------------|------------------------|
| <b>Cert Region</b>   | Federal           | <b>Cert/In-Use Code</b> | Both                   |
| <b>Vehicle Class</b> | LDV/Passenger Car | <b>Standard Level</b>   | Federal Tier 3 Bin 125 |
| <b>Fuel</b>          | Gasoline          | <b>Test Procedure</b>   | 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 | CREE          | --             | --  | --          | --                              | --                                | --      | 0.430  | 999    |
| 150,000 miles | NMOG          | --             | --  | 1.0300      | --                              | --                                | --      | 0.0088 | 99.000 |
| 150,000 miles | NMOG+NOX      | --             | --  | --          | --                              | --                                | 1       | --     | 0.125  |
| 150,000 miles | NOX           | --             | --  | --          | --                              | --                                | --      | 0.0012 | 99.000 |

|                      |                   |                         |                        |
|----------------------|-------------------|-------------------------|------------------------|
| <b>Cert Region</b>   | Federal           | <b>Cert/In-Use Code</b> | Both                   |
| <b>Vehicle Class</b> | LDV/Passenger Car | <b>Standard Level</b>   | Federal Tier 3 Bin 125 |
| <b>Fuel</b>          | Gasoline          | <b>Test Procedure</b>   | 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            | --             | --  | --          | --                              | --                                | --      | 0.1100 | 10.0 |
| 120,000 miles | HC-NM         | --             | --  | --          | --                              | --                                | --      | 0.0063 | 0.5  |

### Certification Summary Information Report

|                      |                      |                       |            |                    |                                        |                                          |                |                        |            |  |
|----------------------|----------------------|-----------------------|------------|--------------------|----------------------------------------|------------------------------------------|----------------|------------------------|------------|--|
| <b>Test Group</b>    |                      | VVGAJ04.0NAT          |            |                    | <b>Evaporative/Refueling Family</b>    |                                          |                | VVGAR0176NCT           |            |  |
| <b>Cert Region</b>   |                      | Federal               |            |                    | <b>Cert/In-Use Code</b>                |                                          |                | Both                   |            |  |
| <b>Vehicle Class</b> |                      | LDV/Passenger Car     |            |                    | <b>Standard Level</b>                  |                                          |                | Federal Tier 3 Bin 125 |            |  |
| <b>Fuel</b>          |                      | Gasoline              |            |                    | <b>Test Procedure</b>                  |                                          |                | SC03                   |            |  |
| <b>Useful Life</b>   | <b>Emission Name</b> | <b>Rounded Result</b> | <b>RAF</b> | <b>NMOG / NMHC</b> | <b>Upward Diesel Adjustment Factor</b> | <b>Downward Diesel Adjustment Factor</b> | <b>Mult DF</b> | <b>Add DF</b>          | <b>Std</b> |  |
| 150,000 miles        | CO                   | --                    | --         | --                 | --                                     | --                                       | --             | 0.3300                 | 99.0       |  |
| 150,000 miles        | NMOG                 | --                    | --         | 1.0300             | --                                     | --                                       | --             | 0.0088                 | 99.000     |  |
| 150,000 miles        | NOX                  | --                    | --         | --                 | --                                     | --                                       | --             | 0.0012                 | 99.000     |  |

|                      |                      |                                     |            |                    |                                        |                                          |                |                           |            |  |
|----------------------|----------------------|-------------------------------------|------------|--------------------|----------------------------------------|------------------------------------------|----------------|---------------------------|------------|--|
| <b>Cert Region</b>   |                      | California + CAA Section 177 states |            |                    | <b>Cert/In-Use Code</b>                |                                          |                | Both                      |            |  |
| <b>Vehicle Class</b> |                      | LDV/Passenger Car                   |            |                    | <b>Standard Level</b>                  |                                          |                | California LEV-IV ULEV125 |            |  |
| <b>Fuel</b>          |                      | Gasoline                            |            |                    | <b>Test Procedure</b>                  |                                          |                | Cold CO                   |            |  |
| <b>Useful Life</b>   | <b>Emission Name</b> | <b>Rounded Result</b>               | <b>RAF</b> | <b>NMOG / NMHC</b> | <b>Upward Diesel Adjustment Factor</b> | <b>Downward Diesel Adjustment Factor</b> | <b>Mult DF</b> | <b>Add DF</b>             | <b>Std</b> |  |
| 50,000 miles         | CO                   | --                                  | --         | --                 | --                                     | --                                       | --             | 0.1100                    | 10.0       |  |

|                      |                      |                                     |            |                    |                                        |                                          |                |                           |            |  |
|----------------------|----------------------|-------------------------------------|------------|--------------------|----------------------------------------|------------------------------------------|----------------|---------------------------|------------|--|
| <b>Cert Region</b>   |                      | California + CAA Section 177 states |            |                    | <b>Cert/In-Use Code</b>                |                                          |                | Both                      |            |  |
| <b>Vehicle Class</b> |                      | LDV/Passenger Car                   |            |                    | <b>Standard Level</b>                  |                                          |                | California LEV-IV ULEV125 |            |  |
| <b>Fuel</b>          |                      | Gasoline                            |            |                    | <b>Test Procedure</b>                  |                                          |                | HWFE                      |            |  |
| <b>Useful Life</b>   | <b>Emission Name</b> | <b>Rounded Result</b>               | <b>RAF</b> | <b>NMOG / NMHC</b> | <b>Upward Diesel Adjustment Factor</b> | <b>Downward Diesel Adjustment Factor</b> | <b>Mult DF</b> | <b>Add DF</b>             | <b>Std</b> |  |
| 150,000 miles        | NMOG                 | --                                  | --         | 1.0300             | --                                     | --                                       | --             | 0.0088                    | 99.000     |  |
| 150,000 miles        | NMOG+NOX             | --                                  | --         | --                 | --                                     | --                                       | 1              | --                        | 0.125      |  |
| 150,000 miles        | NOX                  | --                                  | --         | --                 | --                                     | --                                       | --             | 0.0012                    | 99.000     |  |

**Evaporative/Refueling Standards**

|                                     |                    |                           |                       |            |                       |  |  |                     |  |  |
|-------------------------------------|--------------------|---------------------------|-----------------------|------------|-----------------------|--|--|---------------------|--|--|
| <b>Evaporative/Refueling Family</b> |                    | VVGAR0176NCT              |                       |            | <b>Cert Region</b>    |  |  | Federal             |  |  |
| <b>Cert/In-Use Code</b>             |                    | Both                      |                       |            | <b>Standard Level</b> |  |  | Federal Tier 3 Evap |  |  |
| <b>Test Procedure</b>               |                    | Federal Fuel Running Loss |                       |            |                       |  |  |                     |  |  |
| <b>Fuel</b>                         | <b>Useful Life</b> | <b>Emission Name</b>      | <b>Rounded Result</b> | <b>Std</b> | <b>Add DF</b>         |  |  |                     |  |  |
| Gasoline                            | 150,000 miles      | HC-TOTAL-EQUIV            | --                    | 0.05       | 0.000                 |  |  |                     |  |  |

### Certification Summary Information Report

|                                     |                                    |                                     |                                                                               |            |               |
|-------------------------------------|------------------------------------|-------------------------------------|-------------------------------------------------------------------------------|------------|---------------|
| <b>Test Group</b>                   | VVGAJ04.0NAT                       | <b>Evaporative/Refueling Family</b> | VVGAR0176NCT                                                                  |            |               |
| <b>Evaporative/Refueling Family</b> | VVGAR0176NCT                       | <b>Cert Region</b>                  | California + CAA Section 177 states<br>California LEV-IV Zero Evap (Option 2) |            |               |
| <b>Cert/In-Use Code</b>             | Both                               | <b>Standard Level</b>               |                                                                               |            |               |
| <b>Test Procedure</b>               | Federal fuel 3-day evap            |                                     |                                                                               |            |               |
| <b>Fuel</b>                         | <b>Useful Life</b>                 | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         | <b>Std</b> | <b>Add DF</b> |
| Gasoline                            | 150,000 miles                      | HC-TOTAL-EQUIV                      | --                                                                            | 0.400      | 0.0250        |
|                                     |                                    |                                     |                                                                               |            |               |
| <b>Evaporative/Refueling Family</b> | VVGAR0176NCT                       | <b>Cert Region</b>                  | Federal                                                                       |            |               |
| <b>Cert/In-Use Code</b>             | Both                               | <b>Standard Level</b>               | Federal Tier 3 Evap                                                           |            |               |
| <b>Test Procedure</b>               | Evap Canister Bleed Test           |                                     |                                                                               |            |               |
| <b>Fuel</b>                         | <b>Useful Life</b>                 | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         | <b>Std</b> | <b>Add DF</b> |
| Gasoline                            | 150,000 miles                      | HC-TOTAL-EQUIV                      | --                                                                            | 0.020      | --            |
|                                     |                                    |                                     |                                                                               |            |               |
| <b>Evaporative/Refueling Family</b> | VVGAR0176NCT                       | <b>Cert Region</b>                  | Federal                                                                       |            |               |
| <b>Cert/In-Use Code</b>             | Both                               | <b>Standard Level</b>               | Federal Tier 3 Evap                                                           |            |               |
| <b>Test Procedure</b>               | Federal fuel refueling test (ORVR) |                                     |                                                                               |            |               |
| <b>Fuel</b>                         | <b>Useful Life</b>                 | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         | <b>Std</b> | <b>Add DF</b> |
| Gasoline                            | 150,000 miles                      | HC                                  | --                                                                            | 0.20       | 0.025         |
|                                     |                                    |                                     |                                                                               |            |               |
| <b>Evaporative/Refueling Family</b> | VVGAR0176NCT                       | <b>Cert Region</b>                  | Federal                                                                       |            |               |
| <b>Cert/In-Use Code</b>             | Both                               | <b>Standard Level</b>               | Federal Tier 3 Evap                                                           |            |               |
| <b>Test Procedure</b>               | 2-day evap                         |                                     |                                                                               |            |               |
| <b>Fuel</b>                         | <b>Useful Life</b>                 | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         | <b>Std</b> | <b>Add DF</b> |
| Gasoline                            | 150,000 miles                      | HC-TOTAL-EQUIV                      | --                                                                            | 0.400      | 0.0120        |
|                                     |                                    |                                     |                                                                               |            |               |
| <b>Evaporative/Refueling Family</b> | VVGAR0176NCT                       | <b>Cert Region</b>                  | California + CAA Section 177 states<br>California LEV-IV Zero Evap (Option 2) |            |               |
| <b>Cert/In-Use Code</b>             | Both                               | <b>Standard Level</b>               |                                                                               |            |               |
| <b>Test Procedure</b>               | Federal Fuel Running Loss          |                                     |                                                                               |            |               |
| <b>Fuel</b>                         | <b>Useful Life</b>                 | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         | <b>Std</b> | <b>Add DF</b> |
| Gasoline                            | 150,000 miles                      | HC-TOTAL-EQUIV                      | --                                                                            | 0.05       | 0.000         |

### Certification Summary Information Report

|                                     |                                    |                                     |                                                                               |
|-------------------------------------|------------------------------------|-------------------------------------|-------------------------------------------------------------------------------|
| <b>Test Group</b>                   | VVGAJ04.0NAT                       | <b>Evaporative/Refueling Family</b> | VVGAR0176NCT                                                                  |
| <b>Evaporative/Refueling Family</b> | VVGAR0176NCT                       | <b>Cert Region</b>                  | Federal                                                                       |
| <b>Cert/In-Use Code</b>             | Both                               | <b>Standard Level</b>               | Federal Tier 3 Evap                                                           |
| <b>Test Procedure</b>               | Federal fuel 3-day evap            |                                     |                                                                               |
| <b>Fuel</b>                         | <b>Useful Life</b>                 | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         |
| Gasoline                            | 150,000 miles                      | HC-TOTAL-EQUIV                      | --                                                                            |
|                                     |                                    | <b>Std</b>                          | <b>Add DF</b>                                                                 |
|                                     |                                    | 0.400                               | 0.0250                                                                        |
| <b>Evaporative/Refueling Family</b> | VVGAR0176NCT                       | <b>Cert Region</b>                  | California + CAA Section 177 states<br>California LEV-IV Zero Evap (Option 2) |
| <b>Cert/In-Use Code</b>             | Both                               | <b>Standard Level</b>               |                                                                               |
| <b>Test Procedure</b>               | Federal fuel refueling test (ORVR) |                                     |                                                                               |
| <b>Fuel</b>                         | <b>Useful Life</b>                 | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         |
| Gasoline                            | 150,000 miles                      | HC                                  | --                                                                            |
|                                     |                                    | <b>Std</b>                          | <b>Add DF</b>                                                                 |
|                                     |                                    | 0.20                                | 0.025                                                                         |
| <b>Evaporative/Refueling Family</b> | VVGAR0176NCT                       | <b>Cert Region</b>                  | California + CAA Section 177 states<br>California LEV-IV Zero Evap (Option 2) |
| <b>Cert/In-Use Code</b>             | Both                               | <b>Standard Level</b>               |                                                                               |
| <b>Test Procedure</b>               | 2-day evap                         |                                     |                                                                               |
| <b>Fuel</b>                         | <b>Useful Life</b>                 | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         |
| Gasoline                            | 150,000 miles                      | HC-TOTAL-EQUIV                      | --                                                                            |
|                                     |                                    | <b>Std</b>                          | <b>Add DF</b>                                                                 |
|                                     |                                    | 0.400                               | 0.0120                                                                        |
| <b>Evaporative/Refueling Family</b> | VVGAR0176NCT                       | <b>Cert Region</b>                  | California + CAA Section 177 states<br>California LEV-IV Zero Evap (Option 2) |
| <b>Cert/In-Use Code</b>             | Both                               | <b>Standard Level</b>               |                                                                               |
| <b>Test Procedure</b>               | Evap Canister Bleed Test           |                                     |                                                                               |
| <b>Fuel</b>                         | <b>Useful Life</b>                 | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         |
| Gasoline                            | 150,000 miles                      | HC-TOTAL-EQUIV                      | --                                                                            |
|                                     |                                    | <b>Std</b>                          | <b>Add DF</b>                                                                 |
|                                     |                                    | 0.020                               | --                                                                            |

## Certification Summary Information Report

| Test Group           | VVGAJ04.0NAT                                                    | Evaporative/Refueling Family | VVGAR0176NCT                                       |
|----------------------|-----------------------------------------------------------------|------------------------------|----------------------------------------------------|
| <b>Glossary</b>      |                                                                 |                              |                                                    |
| <b>Useful Life</b>   |                                                                 |                              |                                                    |
| 4                    | 4,000 miles                                                     | 120                          | 120,000 miles                                      |
| 50                   | 50,000 miles                                                    | 150                          | 150,000 miles                                      |
| 100                  | 100,000 miles                                                   |                              |                                                    |
| <b>Emission Name</b> |                                                                 |                              |                                                    |
| 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                             |                                                            | VVGAJ04.0NAT | Evaporative/Refueling Family |                                                 | VVGAR0176NCT |
|----------------------------------------|------------------------------------------------------------|--------------|------------------------------|-------------------------------------------------|--------------|
| 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                             |              |
| <b>Certification Region</b>            |                                                            |              |                              |                                                 |              |
| CA                                     | California + CAA Section 177 states                        |              | FA                           | Federal                                         |              |
| <b>Exhaust Emission Standard Level</b> |                                                            |              |                              |                                                 |              |
| 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                       |              |

## Certification Summary Information Report

| Test Group                    | VVGAJ04.0NAT                                                      | Evaporative/Refueling Family | VVGAR0176NCT                                             |
|-------------------------------|-------------------------------------------------------------------|------------------------------|----------------------------------------------------------|
| 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                   |                              |                                                          |
| <b>Transmission Type Code</b> |                                                                   |                              |                                                          |
| 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) |
| <b>Drive System Code</b>      |                                                                   |                              |                                                          |
| 4                             | 4-Wheel Drive                                                     | P                            | Part-time 4-Wheel Drive                                  |

**Certification Summary Information Report**

| <b>Test Group</b>                    | VVGAJ04.0NAT                    | <b>Evaporative/Refueling Family</b> | VVGAR0176NCT                     |
|--------------------------------------|---------------------------------|-------------------------------------|----------------------------------|
| F                                    | 2-Wheel Drive, Front            | A                                   | All Wheel Drive                  |
| R                                    | 2-Wheel Drive, Rear             |                                     |                                  |
| <b>Additional Terms and Acronyms</b> |                                 |                                     |                                  |
| 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                     |

**Certification Summary Information Report**

|                                   |                                   |                                     |                        |
|-----------------------------------|-----------------------------------|-------------------------------------|------------------------|
| <b>Manufacturer</b>               | Volkswagen Group of America, Inc. | <b>Manufacturer Code</b>            | VGA                    |
| <b>Test Group</b>                 | VVGAJ04.ONAT                      | <b>Evaporative/Refueling Family</b> | VVGAR0182NCM           |
| <b>Certificate Number</b>         | --                                | <b>CARB Executive Order #</b>       | --                     |
| <b>Certificate Issue Date</b>     | --                                | <b>Certificate Revision Date</b>    | --                     |
| <b>Certificate Effective Date</b> | --                                | <b>Conditional Certificate</b>      | --                     |
| <b>CSI Revision #</b>             | --                                | <b>CSI Submission/Revision Date</b> | 04/06/2026 05:09:17 PM |
| <b>Model Year</b>                 | 2027                              |                                     |                        |

## Certification Summary Information Report

|                                                     |                                                                                                                                                                                                                     |                                                            |                                     |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------|
| <b>Test Group</b>                                   | VVGAJ04.0NAT                                                                                                                                                                                                        | <b>Evaporative/Refueling Family</b>                        | VVGAR0182NCM                        |
| <b>Test Group Information</b>                       |                                                                                                                                                                                                                     |                                                            |                                     |
| <b>CSI Type</b>                                     | New                                                                                                                                                                                                                 | <b>Running Change Reference Number</b>                     | --                                  |
| <b>GHG Exempt Status</b>                            | Not Exempt                                                                                                                                                                                                          |                                                            |                                     |
| <b>Drive Sources and Fuel(s)</b>                    |                                                                                                                                                                                                                     |                                                            |                                     |
| <b>Drive Source #1:</b>                             | Electric Motor                                                                                                                                                                                                      |                                                            |                                     |
|                                                     | <b>Fuel</b>                                                                                                                                                                                                         | <b>Basic Fuel Metering System</b>                          | <b>Lean Burn Strategy Indicator</b> |
|                                                     | Electricity                                                                                                                                                                                                         | --                                                         | No                                  |
| <b>Drive Source #2:</b>                             | Combustion Engine                                                                                                                                                                                                   |                                                            |                                     |
|                                                     | <b>Fuel</b>                                                                                                                                                                                                         | <b>Basic Fuel Metering System</b>                          | <b>Lean Burn Strategy Indicator</b> |
|                                                     | Gasoline                                                                                                                                                                                                            | Spark Ignition Direct fuel injection                       | No                                  |
| <b>Hybrid Indicator</b>                             | Yes                                                                                                                                                                                                                 |                                                            |                                     |
| <b>Multiple Fuel Storage</b>                        | --                                                                                                                                                                                                                  | <b>Rechargeable Energy Storage System Indicator</b>        | Yes                                 |
| <b>Multiple Fuel Combustion</b>                     | --                                                                                                                                                                                                                  | <b>Off-board Charge Capable Indicator</b>                  | No                                  |
| <b>Fuel Cell Indicator</b>                          | No                                                                                                                                                                                                                  | <b>EPA Vehicle Class</b>                                   | LDV                                 |
| <b>Federal Clean Fuel Vehicle</b>                   | No                                                                                                                                                                                                                  | <b>Federal Clean Fuel Vehicle Standard</b>                 | --                                  |
| <b>Federal Clean Fuel Vehicle ILEV</b>              | No                                                                                                                                                                                                                  | <b>California Partial Zero Emissions Vehicle Indicator</b> | No                                  |
| <b>Durability Group Name</b>                        | VVGAHHGNNNAT                                                                                                                                                                                                        | <b>Durability Group Equivalency Factor</b>                 | 2.2                                 |
| <b>Reduced Fee Test Group</b>                       | No                                                                                                                                                                                                                  | <b>Certification Region Code(s)</b>                        | FA, CA                              |
| <b>Complies with HD GHG 2b/3 regulations?</b>       | No                                                                                                                                                                                                                  |                                                            |                                     |
| <b>Introduction into Commerce Date</b>              | --                                                                                                                                                                                                                  | <b>CAP2000 Conditional Certificate?</b>                    | N/A                                 |
| <b>Independent Commercial Importer?</b>             | --                                                                                                                                                                                                                  | <b>Alternative Fuel Converter Certificate?</b>             | --                                  |
| <b>SFTP Federal Composite Compliance Identifier</b> | Tier 3                                                                                                                                                                                                              | <b>SFTP Tier 2 Composite CO Option</b>                     | No                                  |
| <b>SFTP LEV-III Composite Compliance Indicator</b>  | Yes                                                                                                                                                                                                                 |                                                            |                                     |
| <b>OBD Compliance Type</b>                          | CARB                                                                                                                                                                                                                | <b>OBD Demonstration Vehicle Test Group</b>                | VVGAJ03.0N7N                        |
| <b>Test Group OBD Compliance Level</b>              | Partial - with deficiencies                                                                                                                                                                                         | <b>Number of Test Group OBD Deficiencies</b>               | 1                                   |
| <b>OBD Deficiencies Comments</b>                    | Deficiency for non-compliance with OBDOnUDS requirements. All test groups were found to be noncompliant with the OBDOnUDS requirements, with the sole exception of the Bentley Supersports test group VVGAV04.0EAA. |                                                            |                                     |
| <b>Mfr Test Group Comments</b>                      | --                                                                                                                                                                                                                  |                                                            |                                     |
| <b>Mfr Exhaust / Evap Standards Comments</b>        | --                                                                                                                                                                                                                  |                                                            |                                     |

## Certification Summary Information Report

|                                                                             |                                                  |                                                           |                                     |                     |                     |                     |                       |
|-----------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------|-------------------------------------|---------------------|---------------------|---------------------|-----------------------|
| <b>Test Group</b>                                                           | VVGAJ04.0NAT                                     | <b>Evaporative/Refueling Family</b>                       | VVGAR0182NCM                        |                     |                     |                     |                       |
| <b>Evaporative/Refueling Family Information</b>                             |                                                  |                                                           |                                     |                     |                     |                     |                       |
| <b>Evaporative Summary Information Type</b>                                 | New                                              | <b>Submission/Correction Date</b>                         | 04/06/2026 11:03:50 AM              |                     |                     |                     |                       |
| <b>Integrated ORVR?</b>                                                     | Yes                                              | <b>Fuel(s)</b>                                            | Gasoline                            |                     |                     |                     |                       |
| <b>Multiple Fuel Storage</b>                                                | --                                               |                                                           |                                     |                     |                     |                     |                       |
| <b>Bladder Fuel Tank?</b>                                                   | No                                               |                                                           |                                     |                     |                     |                     |                       |
| <b>Fuel Tank Material</b>                                                   | Plastic                                          | <b>Fuel Tank Material Description</b>                     | Plastic                             |                     |                     |                     |                       |
| <b>Fill Pipe Seal Type</b>                                                  | Liquid seal                                      |                                                           |                                     |                     |                     |                     |                       |
| <b>Air Intake System Vapor Storage Device?</b>                              | No                                               | <b>Air Intake System Vapor Storage Device Description</b> | --                                  |                     |                     |                     |                       |
| <b>Fuel System Vapor Storage Canister?</b>                                  | Yes                                              | <b>Other Vapor Storage</b>                                | --                                  |                     |                     |                     |                       |
| <b>Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)</b> | 182                                              | <b>Number of Primary Canisters</b>                        | 1                                   |                     |                     |                     |                       |
| <b>Number of Bleed Canisters</b>                                            | 1                                                | <b>Bleed Canister Total Working Capacity (grams)</b>      | 10                                  |                     |                     |                     |                       |
| <b>Mfr Evaporative/Refueling Family Comments</b>                            | Integrated Bleed Canister FEL 450mg              |                                                           |                                     |                     |                     |                     |                       |
| <b>Leak Family Details</b>                                                  |                                                  |                                                           |                                     |                     |                     |                     |                       |
| <b>Leak Family Indicator</b>                                                | Yes                                              |                                                           |                                     |                     |                     |                     |                       |
| <b>Canister Bleed Test Indicator</b>                                        | Yes                                              | <b>Applicability of Evaporative Canister Bleed Test</b>   | 50 State                            |                     |                     |                     |                       |
| <b>Evaporative Canister Bleed Test Comments</b>                             | --                                               |                                                           |                                     |                     |                     |                     |                       |
| <b>CARB Fuel Only (Rig) Test Indicator</b>                                  | No                                               | <b>Applicability of CARB Fuel Only (Rig) Test</b>         | --                                  |                     |                     |                     |                       |
| <b>CARB Fuel Only (Rig) Test Comments</b>                                   | --                                               |                                                           |                                     |                     |                     |                     |                       |
| <b>Leak Family Name</b>                                                     | <b>Applicability of Leak Family Requirements</b> | <b>Leak Family Standard (inches)</b>                      | <b>Leak Family Description</b>      |                     |                     |                     |                       |
| VVGAR0182NCM-001                                                            | 50 State                                         | 0.02                                                      | --                                  |                     |                     |                     |                       |
| <b>Models Covered by this Certificate</b>                                   |                                                  |                                                           |                                     |                     |                     |                     |                       |
| <b>Carline Manufacturer</b>                                                 | <b>Division</b>                                  | <b>Carline</b>                                            | <b>Certification Region Code(s)</b> | <b>Drive System</b> | <b>Trans - Type</b> | <b>- # of Gears</b> | <b>Trans - Lockup</b> |
| Volkswagen Group of America, Inc.                                           | 2 - Audi                                         | 383 - RS Q8 Performance                                   | California + CAA Section 177 states | All Wheel Drive     | Semi-Automatic      | 8                   | Yes                   |
| Volkswagen Group of America, Inc.                                           | 2 - Audi                                         | 383 - RS Q8 Performance                                   | Federal                             | All Wheel Drive     | Semi-Automatic      | 8                   | Yes                   |
| <b>Engine Description</b>                                                   |                                                  |                                                           |                                     |                     |                     |                     |                       |
| <b>Hybrid Type</b>                                                          | IC Engine/Electric Motor                         | <b>Hybrid Description</b>                                 | --                                  |                     |                     |                     |                       |
| <b>Engine Type</b>                                                          | 4-Stroke Spark Ignition                          | <b>Mfr Engine Description</b>                             | --                                  |                     |                     |                     |                       |
| <b>Engine Block Arrangement</b>                                             | V-shaped engine                                  | <b>Mfr Engine Block Arrangement Description</b>           | --                                  |                     |                     |                     |                       |
| <b>Camless Valvetrain Indicator</b>                                         | No                                               | <b>Oil Viscosity/Classification</b>                       | 0W40 VW50200 / VW50500              |                     |                     |                     |                       |
| <b>Number of Cylinders/Rotors</b>                                           | 8                                                | <b>Mechanically Variable Compression Ratio Indicator</b>  | N                                   |                     |                     |                     |                       |

## Certification Summary Information Report

| Test Group                                       | VVGAJ04.0NAT                                                                                                                                                                                                                                                                                 | Evaporative/Refueling Family                            | VVGAR0182NCM       |                        |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------|------------------------|
| <b>After Treatment Device(s) (ATD)</b>           |                                                                                                                                                                                                                                                                                              |                                                         |                    |                        |
| ATD Number                                       | ATD Type                                                                                                                                                                                                                                                                                     | ATD Precious Metal                                      | Substrate Material | Substrate Construction |
| 1                                                | Three-way catalyst                                                                                                                                                                                                                                                                           | Palladium + Rhodium                                     | Ceramic            | Monolith               |
| <b>Mfr After Treatment Device (ATD) Comments</b> |                                                                                                                                                                                                                                                                                              |                                                         |                    |                        |
| --                                               |                                                                                                                                                                                                                                                                                              |                                                         |                    |                        |
| <b>Direct Ozone Reduction (DOR) Device</b>       |                                                                                                                                                                                                                                                                                              |                                                         |                    |                        |
| Not Equipped                                     |                                                                                                                                                                                                                                                                                              |                                                         |                    |                        |
| <b>Mfr Emission Control Device Comments</b>      |                                                                                                                                                                                                                                                                                              |                                                         |                    |                        |
| --                                               |                                                                                                                                                                                                                                                                                              |                                                         |                    |                        |
| <b>Engine Configuration Number 1</b>             |                                                                                                                                                                                                                                                                                              |                                                         |                    |                        |
| <b>Engine Displacement (liters)</b>              | 4.0                                                                                                                                                                                                                                                                                          | <b>Engine Rated Horsepower</b>                          | 631                |                        |
| <b>Number of Inlet Valves Per Cylinder</b>       | 2                                                                                                                                                                                                                                                                                            | <b>Number of Exhaust Valves Per Cylinder</b>            | 2                  |                        |
| <b>Air Aspiration Method</b>                     | Turbocharged                                                                                                                                                                                                                                                                                 | <b>Number of Air Aspiration Devices</b>                 | 2                  |                        |
| <b>Air Aspiration Device Configuration</b>       | Parallel                                                                                                                                                                                                                                                                                     | <b>Charge Air Cooler Type</b>                           | Air                |                        |
| <b>Air Aspiration Drive Method(s)</b>            | Mechanical                                                                                                                                                                                                                                                                                   |                                                         |                    |                        |
| <b>Cylinder Deactivation</b>                     | Yes                                                                                                                                                                                                                                                                                          |                                                         |                    |                        |
| <b>Cylinder Deactivation Description</b>         | Fuel saving by reduction of active cylinders. Mechanical deactivation of 4 inlet and outlet valves with injection cut-off on these 4 cylinders.                                                                                                                                              |                                                         |                    |                        |
| <b>Variable Valve Timing</b>                     | Yes                                                                                                                                                                                                                                                                                          |                                                         |                    |                        |
| <b>Variable Valve Timing System Description</b>  | The variable valve timing is a substantial engine feature for: - Reducing engine out emissions - Optimizing full load performance - Optimizing fuel consumption - Reducing engine roughness Adjust the inlet and outlet camshaft position continuously between retard and advanced position. |                                                         |                    |                        |
| <b>Variable Valve Lift?</b>                      | No                                                                                                                                                                                                                                                                                           |                                                         |                    |                        |
| <b>Variable Valve Lift System Description</b>    | --                                                                                                                                                                                                                                                                                           |                                                         |                    |                        |
| <b>Number of Knock Sensors</b>                   | 4                                                                                                                                                                                                                                                                                            | <b>Number of Air/Fuel Sensors</b>                       | 4                  |                        |
| <b>Air/Fuel Sensor # 1 Type</b>                  | Heated oxygen                                                                                                                                                                                                                                                                                | <b>Air/Fuel Sensor # 1 Description</b>                  | --                 |                        |
| <b>Air/Fuel Sensor # 2 Type</b>                  | Heated oxygen                                                                                                                                                                                                                                                                                | <b>Air/Fuel Sensor # 2 Description</b>                  | --                 |                        |
| <b>Air/Fuel Sensor # 3 Type</b>                  | Heated oxygen                                                                                                                                                                                                                                                                                | <b>Air/Fuel Sensor # 3 Description</b>                  | --                 |                        |
| <b>Air/Fuel Sensor # 4 Type</b>                  | Heated oxygen                                                                                                                                                                                                                                                                                | <b>Air/Fuel Sensor # 4 Description</b>                  | --                 |                        |
| <b>Mfr Air/Fuel Sensor Comments</b>              | --                                                                                                                                                                                                                                                                                           |                                                         |                    |                        |
| <b>Exhaust Gas Recirculation</b>                 | No                                                                                                                                                                                                                                                                                           | <b>Cooled Exhaust Gas Recirculation</b>                 | No                 |                        |
| <b>EGR Type</b>                                  | --                                                                                                                                                                                                                                                                                           | <b>Exhaust Gas Recirculation Description if 'Other'</b> | --                 |                        |
| <b>Closed Loop Air Injection System</b>          | No                                                                                                                                                                                                                                                                                           |                                                         |                    |                        |
| <b>Air Injection Type</b>                        | Not Applicable                                                                                                                                                                                                                                                                               | <b>Air Injection Type if 'Other'</b>                    | --                 |                        |
| <b>Mfr Engine Configuration Comments</b>         | Applies to DWNA var: 0                                                                                                                                                                                                                                                                       |                                                         |                    |                        |

### Certification Summary Information Report

|                                                 |                                                                                                                                                                                                                                                                                              |                                                         |              |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------|
| <b>Test Group</b>                               | VVGAJ04.0NAT                                                                                                                                                                                                                                                                                 | <b>Evaporative/Refueling Family</b>                     | VVGAR0182NCM |
| <b>Engine Configuration Number 2</b>            |                                                                                                                                                                                                                                                                                              |                                                         |              |
| <b>Engine Displacement (liters)</b>             | 4.0                                                                                                                                                                                                                                                                                          | <b>Engine Rated Horsepower</b>                          | 563          |
| <b>Number of Inlet Valves Per Cylinder</b>      | 2                                                                                                                                                                                                                                                                                            | <b>Number of Exhaust Valves Per Cylinder</b>            | 2            |
| <b>Air Aspiration Method</b>                    | Turbocharged                                                                                                                                                                                                                                                                                 | <b>Number of Air Aspiration Devices</b>                 | 2            |
| <b>Air Aspiration Device Configuration</b>      | Parallel                                                                                                                                                                                                                                                                                     | <b>Charge Air Cooler Type</b>                           | Air          |
| <b>Air Aspiration Drive Method(s)</b>           | Mechanical                                                                                                                                                                                                                                                                                   |                                                         |              |
| <b>Cylinder Deactivation</b>                    | Yes                                                                                                                                                                                                                                                                                          |                                                         |              |
| <b>Cylinder Deactivation Description</b>        | Fuel saving by reduction of active cylinders. Mechanical deactivation of 4 inlet and outlet vales with injection cut-off on these 4 cylinders.                                                                                                                                               |                                                         |              |
| <b>Variable Valve Timing</b>                    | Yes                                                                                                                                                                                                                                                                                          |                                                         |              |
| <b>Variable Valve Timing System Description</b> | The variable valve timing is a substantial engine feature for: - Reducing engine out emissions - Optimizing full load performance - Optimizing fuel consumption - Reducing engine roughness Adjust the inlet and outlet camshaft position continuously between retard and advanced position. |                                                         |              |
| <b>Variable Valve Lift?</b>                     | No                                                                                                                                                                                                                                                                                           |                                                         |              |
| <b>Variable Valve Lift System Description</b>   | --                                                                                                                                                                                                                                                                                           |                                                         |              |
| <b>Number of Knock Sensors</b>                  | 4                                                                                                                                                                                                                                                                                            | <b>Number of Air/Fuel Sensors</b>                       | 4            |
| <b>Air/Fuel Sensor # 1 Type</b>                 | Heated oxygen                                                                                                                                                                                                                                                                                | <b>Air/Fuel Sensor # 1 Description</b>                  | --           |
| <b>Air/Fuel Sensor # 2 Type</b>                 | Heated oxygen                                                                                                                                                                                                                                                                                | <b>Air/Fuel Sensor # 2 Description</b>                  | --           |
| <b>Air/Fuel Sensor # 3 Type</b>                 | Heated oxygen                                                                                                                                                                                                                                                                                | <b>Air/Fuel Sensor # 3 Description</b>                  | --           |
| <b>Air/Fuel Sensor # 4 Type</b>                 | Heated oxygen                                                                                                                                                                                                                                                                                | <b>Air/Fuel Sensor # 4 Description</b>                  | --           |
| <b>Mfr Air/Fuel Sensor Comments</b>             | --                                                                                                                                                                                                                                                                                           |                                                         |              |
| <b>Exhaust Gas Recirculation</b>                | No                                                                                                                                                                                                                                                                                           | <b>Cooled Exhaust Gas Recirculation</b>                 | No           |
| <b>EGR Type</b>                                 | --                                                                                                                                                                                                                                                                                           | <b>Exhaust Gas Recirculation Description if 'Other'</b> | --           |
| <b>Closed Loop Air Injection System</b>         | No                                                                                                                                                                                                                                                                                           |                                                         |              |
| <b>Air Injection Type</b>                       | Not Applicable                                                                                                                                                                                                                                                                               | <b>Air Injection Type if 'Other'</b>                    | --           |
| <b>Mfr Engine Configuration Comments</b>        | Applies to DWKA var: 0                                                                                                                                                                                                                                                                       |                                                         |              |

| <b>Official Test Numbers</b> |      |              |              |              |              |              |              |                  |                      |                          |      |
|------------------------------|------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|----------------------|--------------------------|------|
| Test Group                   | Fuel | FTP          | US06         | SC03         | Cold CO      | Highway      | EPA City     | EPA City         | EPA                  | EPA                      | CREE |
|                              |      |              |              |              |              |              | Litmus Value | Litmus Threshold | Highway Litmus Value | Highway Litmus Threshold |      |
| Gasoline                     |      | SVGA10086286 | SVGA10085976 | SVGA10085977 | SVGA10085969 | SVGA10085975 | 11.8         | 228.2            | 22.6                 | 286.1                    | --   |
| Electricity                  |      | SVGA10086286 | SVGA10085976 | SVGA10085977 | SVGA10085969 | SVGA10085975 | --           | --               | --                   | --                       | --   |

| <b>SFTP LEV-III Official Test Numbers</b> |              |              |              |
|-------------------------------------------|--------------|--------------|--------------|
| Test Group Fuel                           | FTP          | US06         | SC03         |
| Electricity                               | SVGA10086286 | SVGA10085976 | SVGA10085977 |
| Gasoline                                  | SVGA10086286 | SVGA10085976 | SVGA10085977 |

## Certification Summary Information Report

| Test Group                                               | VVGAJ04.0NAT                  | Evaporative/Refueling Family                 | VVGAR0182NCM |
|----------------------------------------------------------|-------------------------------|----------------------------------------------|--------------|
| <b>Hybrid Electric Vehicle And Fuel Cell Information</b> |                               |                                              |              |
| Rechargeable Energy Storage System                       | Battery(s)                    | Rechargeable Energy Storage System, if Other | --           |
| Battery Type                                             | Lithium Ion                   | Number of Battery Packs                      | 1            |
| Total Voltage of Battery Packs                           | 48                            | Battery Energy Capacity                      | 9.50         |
| Battery Specific Energy                                  | 50.1                          | Battery Charger Type                         | On-Board     |
| Number of Capacitors                                     | --                            | Capacitor Rating (In Farads)                 | --           |
| Mfr Capacitor Comments                                   | --                            |                                              |              |
| Hydraulic System Description                             | --                            |                                              |              |
| Regenerative Braking Type                                | Electrical Regen Brake        |                                              |              |
| Regenerative Braking Source                              | Both                          | Driver Controlled Regenerative Braking       | No           |
| Mfr Regenerative Braking Description                     | --                            |                                              |              |
| Drive Motor(s)/Generator(s)                              | 1                             |                                              |              |
| Motor/Generator Type 1                                   | Belt-Driven-Starter-Generator | Rated Motor/Generator Power                  | 8            |
| Mfr Fuel Cell Description                                | --                            |                                              |              |
| Fuel Cell On-Board H2 Storage Capacity (kg)              | --                            | Usable H2 Fill Capacity (kg)                 | --           |
| Mfr Hybrid Electric/ Electric Vehicle Comments           | --                            |                                              |              |

## Certification Summary Information Report

| Test Group                                   | VVGAJ04.0NAT                                                                                                                                                                                                    | Evaporative/Refueling Family                   | VVGAR0182NCM        |                        |              |      |   |                   |          |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------------------|------------------------|--------------|------|---|-------------------|----------|
| <b>Emission Data Vehicle Information</b>     |                                                                                                                                                                                                                 |                                                |                     |                        |              |      |   |                   |          |
| Vehicle ID / Configuration                   | EC-9YA-19 / 0                                                                                                                                                                                                   | Manufacturer Vehicle Configuration Number      | 0                   |                        |              |      |   |                   |          |
| Original Test Group Name                     | KPRXT03.0CV6                                                                                                                                                                                                    | Original Evaporative/Refueling Family          | KPRXR0150RED        |                        |              |      |   |                   |          |
| Original Test Vehicle Model Year             | 2019                                                                                                                                                                                                            |                                                |                     |                        |              |      |   |                   |          |
| <b>Vehicle Model</b>                         |                                                                                                                                                                                                                 |                                                |                     |                        |              |      |   |                   |          |
| Represented Test Vehicle Make                | Porsche                                                                                                                                                                                                         | Represented Test Vehicle Model                 | Cayenne             |                        |              |      |   |                   |          |
| <b>Leak Family Details</b>                   |                                                                                                                                                                                                                 |                                                |                     |                        |              |      |   |                   |          |
| Leak Family Identifier                       | --                                                                                                                                                                                                              | Leak Family Name                               | --                  |                        |              |      |   |                   |          |
| <b>Drive Sources and Fuel System Details</b> |                                                                                                                                                                                                                 |                                                |                     |                        |              |      |   |                   |          |
|                                              | <table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Combustion Engine</td> <td>Gasoline</td> </tr> </tbody> </table> |                                                |                     | Drive Source and Fuel# | Drive Source | Fuel | 1 | Combustion Engine | Gasoline |
| 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                     | 0.9982              |                        |              |      |   |                   |          |
| Odometer Correction Sign                     | + = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles                                                                                                                 |                                                |                     |                        |              |      |   |                   |          |
| Odometer Correction Units                    | Miles                                                                                                                                                                                                           |                                                |                     |                        |              |      |   |                   |          |
| Engine Code                                  | DCB                                                                                                                                                                                                             | Rated Horsepower                               | 332                 |                        |              |      |   |                   |          |
| Displacement (liters)                        | 3                                                                                                                                                                                                               |                                                |                     |                        |              |      |   |                   |          |
| 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                       | 2-Wheel Drive, Rear |                        |              |      |   |                   |          |
| Shift Indicator Light Usage                  | Not equipped                                                                                                                                                                                                    | Aged Emission Components                       | 4,000 (mi)          |                        |              |      |   |                   |          |
| Curb Weight (lbs)                            | 4696                                                                                                                                                                                                            | Equivalent Test Weight (pounds)                | 5000                |                        |              |      |   |                   |          |
| GVWR (lbs)                                   | 6239                                                                                                                                                                                                            | N/V Ratio                                      | 48.8                |                        |              |      |   |                   |          |
| Axle Ratio                                   | 3.21                                                                                                                                                                                                            |                                                |                     |                        |              |      |   |                   |          |
| Transmission Type                            | Semi-Automatic                                                                                                                                                                                                  | # of Transmission Gears                        | 8                   |                        |              |      |   |                   |          |
| Transmission Lockup                          | Yes                                                                                                                                                                                                             | Creeper Gear                                   | No                  |                        |              |      |   |                   |          |

## Certification Summary Information Report

| Test Group                                     | VVGAJ04.0NAT                                                                                      | Evaporative/Refueling Family          | VVGAR0182NCM                                       |
|------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------|----------------------------------------------------|
| <b>Dynamometer Coefficients:</b>               |                                                                                                   |                                       |                                                    |
|                                                | <b>Target Coefficients</b>                                                                        |                                       | <b>Set Coefficients</b>                            |
| <b>Coefficient Category</b>                    | <b>A (lbf)</b>                                                                                    | <b>B (lbf/mph)</b>                    | <b>C (lbf/mph**2)</b>                              |
| <b>City/Highway/Evap</b>                       | 49.458                                                                                            | 0.71636                               | 0.01991                                            |
| <b>Cold CO</b>                                 | 49.458                                                                                            | 0.71636                               | 0.01991                                            |
| <b>US06</b>                                    | 49.458                                                                                            | 0.71636                               | 0.01991                                            |
|                                                | <b>A (lbf)</b>                                                                                    | <b>B (lbf/mph)</b>                    | <b>C (lbf/mph**2)</b>                              |
|                                                | 49.458                                                                                            | 0.71636                               | 0.01991                                            |
|                                                | 49.458                                                                                            | 0.71636                               | 0.01991                                            |
|                                                | 49.458                                                                                            | 0.71636                               | 0.01991                                            |
|                                                | <b>EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients</b>              |                                       |                                                    |
|                                                | 18                                                                                                |                                       |                                                    |
|                                                | N/A                                                                                               |                                       |                                                    |
|                                                | N/A                                                                                               |                                       |                                                    |
| <b>Emission Control Device Comments</b>        | --                                                                                                |                                       |                                                    |
| <b>Manufacturer Test Vehicle Comments</b>      | Evap test vehicle for base Cayenne, Cayenne S, and Cayenne Turbo                                  |                                       |                                                    |
| <b>Test #</b>                                  | <b>KPRX10054425</b>                                                                               | <b>Test Procedure</b>                 | <b>65 - Evap Canister Bleed Test</b>               |
| <b>Exhaust Test # for this Evap Test</b>       | --                                                                                                | <b>Test Fuel Type</b>                 | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| <b>Test Date</b>                               | 05/26/2018                                                                                        | <b>Fuel</b>                           | N/A                                                |
| <b>Fuel Batch ID</b>                           | CAFW17                                                                                            | <b>Fuel Calibration Number</b>        | 745                                                |
| <b>Vehicle Class</b>                           | N/A                                                                                               | <b>DF Type</b>                        | Mfr. Determined                                    |
| <b>Verify Test Lab ID</b>                      | VW: VGA/7                                                                                         |                                       |                                                    |
| <b>E10 Evaporative Test Measurement Method</b> | Calculated (1.08 x FID Total Hydrocarbons)                                                        |                                       |                                                    |
| <b>Test Start Odometer Reading</b>             | 4303                                                                                              | <b>Odometer Units</b>                 | M                                                  |
| <b>4WD Test Dyno</b>                           | No                                                                                                | <b>Diesel Adjustment Factor Usage</b> | --                                                 |
| <b>State of Charge Delta</b>                   | --                                                                                                |                                       |                                                    |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)                                                         | <b>Road Speed Fan Usage</b>           | Yes                                                |
| <b>Test Results</b>                            |                                                                                                   |                                       |                                                    |
|                                                | <b>Test Result Name</b>                                                                           | <b>Unrounded Test Result</b>          | <b>Verify Calculated FE Equivalent Value</b>       |
|                                                | <b>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</b>                                  | 0.009                                 | --                                                 |
| <b>Manufacturer Test Comments</b>              | new "E3" (all non-hybrid Cayenne models); E10 fuel; Porsche test number E48-255-18 (VW Wolfsburg) |                                       |                                                    |

### Certification Summary Information Report

|                   |              |                                     |              |
|-------------------|--------------|-------------------------------------|--------------|
| <b>Test Group</b> | VVGAJ04.0NAT | <b>Evaporative/Refueling Family</b> | VVGAR0182NCM |
|-------------------|--------------|-------------------------------------|--------------|

**Emission Data Vehicle Information**

|                                  |                 |                                           |              |
|----------------------------------|-----------------|-------------------------------------------|--------------|
| Vehicle ID / Configuration       | RA77-Q7-452 / 0 | Manufacturer Vehicle Configuration Number | 0            |
| Original Test Group Name         | RVGAT02.0A77    | Original Evaporative/Refueling Family     | RVGAR0182NCM |
| Original Test Vehicle Model Year | 2024            |                                           |              |

**Vehicle Model**

|                               |      |                                |    |
|-------------------------------|------|--------------------------------|----|
| Represented Test Vehicle Make | Audi | Represented Test Vehicle Model | Q7 |
|-------------------------------|------|--------------------------------|----|

**Leak Family Details**

|                        |     |                  |                  |
|------------------------|-----|------------------|------------------|
| Leak Family Identifier | 001 | Leak Family Name | RVGAR0182NCM-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                     | 1.194           |
| Odometer Correction Sign           | - = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor |                                                |                 |
| Odometer Correction Units          | Kilometers                                                                                      |                                                |                 |
| Engine Code                        | DUVA                                                                                            | Rated Horsepower                               | 261             |
| 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 equipped                                                                                    | Aged Emission Components                       | 4,000 (mi)      |
| Curb Weight (lbs)                  | 5049                                                                                            | Equivalent Test Weight (pounds)                | 5250            |
| GVWR (lbs)                         | 6393                                                                                            | N/V Ratio                                      | 25              |
| Axle Ratio                         | 3.5                                                                                             |                                                |                 |
| Transmission Type                  | Semi-Automatic                                                                                  | # of Transmission Gears                        | 8               |
| Transmission Lockup                | Yes                                                                                             | Creeper Gear                                   | No              |

### Certification Summary Information Report

|                   |              |                                     |              |
|-------------------|--------------|-------------------------------------|--------------|
| <b>Test Group</b> | VVGAJ04.0NAT | <b>Evaporative/Refueling Family</b> | VVGAR0182NCM |
|-------------------|--------------|-------------------------------------|--------------|

**Dynamometer Coefficients:**

| Coefficient Category     | Target Coefficients |             |                | Set Coefficients |             |                | EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients |
|--------------------------|---------------------|-------------|----------------|------------------|-------------|----------------|-------------------------------------------------------------------------------|
|                          | A (lbf)             | B (lbf/mph) | C (lbf/mph**2) | A (lbf)          | B (lbf/mph) | C (lbf/mph**2) |                                                                               |
| <b>City/Highway/Evap</b> | 61.37               | 0.1473      | 0.02847        | 3.42             | -0.0376     | 0.02777        | 18.7                                                                          |
| <b>Cold CO</b>           | 67.51               | 0.162       | 0.03132        | -7.72            | -0.1046     | 0.03054        | N/A                                                                           |
| <b>US06</b>              | 61.37               | 0.1473      | 0.02847        | 3.42             | -0.0376     | 0.02777        | N/A                                                                           |

**Emission Control Device Comments**      --

**Manufacturer Test Vehicle Comments**      MY2024 Audi Q7 2.0L tested with E10 fuel for Exhaust EDV (and Evap) and also E0 fuel for FEDV.

|                                                |                                            |                                       |                                                    |
|------------------------------------------------|--------------------------------------------|---------------------------------------|----------------------------------------------------|
| <b>Test #</b>                                  | <b>RVGA10080553</b>                        | <b>Test Procedure</b>                 | <b>23 - 2-day evap</b>                             |
| <b>Exhaust Test # for this Evap Test</b>       | RVGA10080546                               | <b>Test Fuel Type</b>                 | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) |
| <b>Test Date</b>                               | 02/14/2023                                 | <b>Fuel</b>                           | Gasoline                                           |
| <b>Fuel Batch ID</b>                           | IG0025                                     | <b>Fuel Calibration Number</b>        | 3                                                  |
| <b>Vehicle Class</b>                           | N/A                                        | <b>DF Type</b>                        | Mfr. Determined                                    |
| <b>Verify Test Lab ID</b>                      | AUDI AG Ingolstadt                         |                                       |                                                    |
| <b>E10 Evaporative Test Measurement Method</b> | Calculated (1.08 x FID Total Hydrocarbons) |                                       |                                                    |
| <b>Test Start Odometer Reading</b>             | 5446                                       | <b>Odometer Units</b>                 | K                                                  |
| <b>4WD Test Dyno</b>                           | Yes                                        | <b>Diesel Adjustment Factor Usage</b> | --                                                 |
| <b>State of Charge Delta</b>                   | --                                         |                                       |                                                    |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)  | <b>Road Speed Fan Usage</b>           | Yes                                                |

**Test Results**

| Test Result Name                                                 | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|------------------------------------------------------------------|-----------------------|---------------------------------------|
| <b>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</b> | 0.311                 | --                                    |

**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 | 0.3110         | 0.0110 | 0.322               | 0.450    | Pass      |
| CA                   | 150,000 miles | California LEV-IV Zero Evap (Option 2) | HC-TOTAL-EQUIV | 0.3110         | 0.011  | 0.322               | 0.450    | Pass      |

### Certification Summary Information Report

|                                                |                                            |                                       |                                                    |
|------------------------------------------------|--------------------------------------------|---------------------------------------|----------------------------------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                               | <b>Evaporative/Refueling Family</b>   | VVGAR0182NCM                                       |
| <b>Test #</b>                                  | <b>RVGA10080554</b>                        | <b>Test Procedure</b>                 | <b>34 - Federal fuel 3-day evap</b>                |
| <b>Exhaust Test # for this Evap Test</b>       | RVGA10080549                               | <b>Test Fuel Type</b>                 | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) |
| <b>Test Date</b>                               | 03/31/2023                                 | <b>Fuel</b>                           | Gasoline                                           |
| <b>Fuel Batch ID</b>                           | IG0025                                     | <b>Fuel Calibration Number</b>        | 5                                                  |
| <b>Vehicle Class</b>                           | N/A                                        | <b>DF Type</b>                        | Mfr. Determined                                    |
| <b>Verify Test Lab ID</b>                      | AUDI AG Ingolstadt                         |                                       |                                                    |
| <b>E10 Evaporative Test Measurement Method</b> | Calculated (1.08 x FID Total Hydrocarbons) |                                       |                                                    |
| <b>Test Start Odometer Reading</b>             | 6048                                       | <b>Odometer Units</b>                 | K                                                  |
| <b>4WD Test Dyno</b>                           | Yes                                        | <b>Diesel Adjustment Factor Usage</b> | --                                                 |
| <b>State of Charge Delta</b>                   | --                                         | <b>Road Speed Fan Usage</b>           | Yes                                                |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)  |                                       |                                                    |

**Test Results**

| Test Result Name                                                 | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|------------------------------------------------------------------|-----------------------|---------------------------------------|
| <b>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</b> | 0.207                 | --                                    |

**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 | 0.2070         | 0.0140 | 0.221               | 0.450    | Pass      |
| CA                   | 150,000 miles | California LEV-IV Zero Evap (Option 2) | HC-TOTAL-EQUIV | 0.2070         | 0.014  | 0.221               | 0.450    | Pass      |

### Certification Summary Information Report

|                                                |                                            |                                       |                                                    |
|------------------------------------------------|--------------------------------------------|---------------------------------------|----------------------------------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                               | <b>Evaporative/Refueling Family</b>   | VVGAR0182NCM                                       |
| <b>Test #</b>                                  | <b>RVGA10080552</b>                        | <b>Test Procedure</b>                 | <b>24 - Federal fuel refueling test (ORVR)</b>     |
| <b>Exhaust Test # for this Evap Test</b>       | RVGA10080538                               | <b>Test Fuel Type</b>                 | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) |
| <b>Test Date</b>                               | 01/24/2023                                 | <b>Fuel</b>                           | Gasoline                                           |
| <b>Fuel Batch ID</b>                           | IG0025                                     | <b>Fuel Calibration Number</b>        | 2                                                  |
| <b>Vehicle Class</b>                           | N/A                                        | <b>DF Type</b>                        | Mfr. Determined                                    |
| <b>Verify Test Lab ID</b>                      | AUDI AG Ingolstadt                         |                                       |                                                    |
| <b>E10 Evaporative Test Measurement Method</b> | Calculated (1.08 x FID Total Hydrocarbons) |                                       |                                                    |
| <b>Test Start Odometer Reading</b>             | 5131                                       | <b>Odometer Units</b>                 | K                                                  |
| <b>4WD Test Dyno</b>                           | Yes                                        | <b>Diesel Adjustment Factor Usage</b> | --                                                 |
| <b>State of Charge Delta</b>                   | --                                         |                                       |                                                    |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)  | <b>Road Speed Fan Usage</b>           | Yes                                                |

**Test Results**

| Test Result Name                                  | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|---------------------------------------------------|-----------------------|---------------------------------------|
| <b>HC (Hydrocarbon for Running Loss and ORVR)</b> | 0.009                 | --                                    |

**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            | 0.009          | 0.007  | 0.02                | 0.20     | Pass      |
| CA                   | 150,000 miles | California LEV-IV Zero Evap (Option 2) | HC            | 0.009          | 0.007  | 0.02                | 0.20     | Pass      |

### Certification Summary Information Report

|                                                |                                            |                                       |                                                    |
|------------------------------------------------|--------------------------------------------|---------------------------------------|----------------------------------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                               | <b>Evaporative/Refueling Family</b>   | VVGAR0182NCM                                       |
| <b>Test #</b>                                  | <b>RVGA10080555</b>                        | <b>Test Procedure</b>                 | <b>32 - Federal Fuel Running Loss</b>              |
| <b>Exhaust Test # for this Evap Test</b>       | RVGA10080549                               | <b>Test Fuel Type</b>                 | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) |
| <b>Test Date</b>                               | 03/31/2023                                 | <b>Fuel</b>                           | Gasoline                                           |
| <b>Fuel Batch ID</b>                           | IG0025                                     | <b>Fuel Calibration Number</b>        | 5                                                  |
| <b>Vehicle Class</b>                           | N/A                                        | <b>DF Type</b>                        | Mfr. Determined                                    |
| <b>Verify Test Lab ID</b>                      | AUDI AG Ingolstadt                         |                                       |                                                    |
| <b>E10 Evaporative Test Measurement Method</b> | Calculated (1.08 x FID Total Hydrocarbons) |                                       |                                                    |
| <b>Test Start Odometer Reading</b>             | 6020                                       | <b>Odometer Units</b>                 | K                                                  |
| <b>4WD Test Dyno</b>                           | Yes                                        | <b>Diesel Adjustment Factor Usage</b> | --                                                 |
| <b>State of Charge Delta</b>                   | --                                         |                                       |                                                    |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)  | <b>Road Speed Fan Usage</b>           | Yes                                                |

**Test Results**

| Test Result Name                                          | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|-----------------------------------------------------------|-----------------------|---------------------------------------|
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0                     | --                                    |

**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 | 0.000          | 0.000  | 0.00                | 0.05     | Pass      |
| CA                   | 150,000 miles | California LEV-IV Zero Evap (Option 2) | HC-TOTAL-EQUIV | 0.0000         | 0.000  | 0.000               | 0.050    | Pass      |

## Certification Summary Information Report

| Test Group                                                                                                                                                                                                                                                                         | VVGAJ04.0NAT                                                                                    | Evaporative/Refueling Family                   | VVGAR0182NCM      |                        |              |      |   |                   |          |   |                |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------|-------------------|------------------------|--------------|------|---|-------------------|----------|---|----------------|-------------|
| <b>Emission Data Vehicle Information</b>                                                                                                                                                                                                                                           |                                                                                                 |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| Vehicle ID / Configuration                                                                                                                                                                                                                                                         | SNAT-RSQ8perf / 0                                                                               | Manufacturer Vehicle Configuration Number      | 0                 |                        |              |      |   |                   |          |   |                |             |
| Original Test Group Name                                                                                                                                                                                                                                                           | SVGAJ04.0NAT                                                                                    | Original Evaporative/Refueling Family          | SVGAR0182NCM      |                        |              |      |   |                   |          |   |                |             |
| Original Test Vehicle Model Year                                                                                                                                                                                                                                                   | 2025                                                                                            |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| <b>Vehicle Model</b>                                                                                                                                                                                                                                                               |                                                                                                 |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| Represented Test Vehicle Make                                                                                                                                                                                                                                                      | Audi                                                                                            | Represented Test Vehicle Model                 | RS Q8 Performance |                        |              |      |   |                   |          |   |                |             |
| <b>Leak Family Details</b>                                                                                                                                                                                                                                                         |                                                                                                 |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| Leak Family Identifier                                                                                                                                                                                                                                                             | --                                                                                              | Leak Family Name                               | --                |                        |              |      |   |                   |          |   |                |             |
| <b>Drive Sources and Fuel System Details</b>                                                                                                                                                                                                                                       |                                                                                                 |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| <table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Combustion Engine</td> <td>Gasoline</td> </tr> <tr> <td>2</td> <td>Electric Motor</td> <td>Electricity</td> </tr> </tbody> </table> |                                                                                                 |                                                |                   | Drive Source and Fuel# | Drive Source | Fuel | 1 | Combustion Engine | Gasoline | 2 | Electric Motor | Electricity |
| Drive Source and Fuel#                                                                                                                                                                                                                                                             | Drive Source                                                                                    | Fuel                                           |                   |                        |              |      |   |                   |          |   |                |             |
| 1                                                                                                                                                                                                                                                                                  | Combustion Engine                                                                               | Gasoline                                       |                   |                        |              |      |   |                   |          |   |                |             |
| 2                                                                                                                                                                                                                                                                                  | Electric Motor                                                                                  | Electricity                                    |                   |                        |              |      |   |                   |          |   |                |             |
| Hybrid Indicator                                                                                                                                                                                                                                                                   | Yes                                                                                             |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| Multiple Fuel Storage                                                                                                                                                                                                                                                              | --                                                                                              | Multiple Fuel Combustion                       | --                |                        |              |      |   |                   |          |   |                |             |
| Fuel Cell Indicator                                                                                                                                                                                                                                                                | No                                                                                              | Rechargeable Energy Storage System Indicator   | Yes               |                        |              |      |   |                   |          |   |                |             |
| Rechargeable Energy Storage System                                                                                                                                                                                                                                                 | Battery(s)                                                                                      | Rechargeable Energy Storage System, if 'Other' | --                |                        |              |      |   |                   |          |   |                |             |
| Off-board charge Capable Indicator                                                                                                                                                                                                                                                 | No                                                                                              |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| Odometer Correction -- Initial                                                                                                                                                                                                                                                     | 0                                                                                               | Odometer Correction Factor                     | 1.0152            |                        |              |      |   |                   |          |   |                |             |
| Odometer Correction Sign                                                                                                                                                                                                                                                           | - = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| Odometer Correction Units                                                                                                                                                                                                                                                          | Kilometers                                                                                      |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| Engine Code                                                                                                                                                                                                                                                                        | DWNA                                                                                            | Rated Horsepower                               | 631               |                        |              |      |   |                   |          |   |                |             |
| Displacement (liters)                                                                                                                                                                                                                                                              | 4                                                                                               |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| Air Aspiration Method                                                                                                                                                                                                                                                              | Turbocharged                                                                                    | Air Aspiration Method, if 'Other'              |                   |                        |              |      |   |                   |          |   |                |             |
| Number of Air Aspiration Devices                                                                                                                                                                                                                                                   | 2                                                                                               | Air Aspiration Device Configuration            | Parallel          |                        |              |      |   |                   |          |   |                |             |
| Charge Air Cooler Type                                                                                                                                                                                                                                                             | Air                                                                                             | Drive Mode While Testing                       | All Wheel Drive   |                        |              |      |   |                   |          |   |                |             |
| Shift Indicator Light Usage                                                                                                                                                                                                                                                        | Not equipped                                                                                    | Aged Emission Components                       | 4,000 (mi)        |                        |              |      |   |                   |          |   |                |             |
| Curb Weight (lbs)                                                                                                                                                                                                                                                                  | 5523                                                                                            | Equivalent Test Weight (pounds)                | 6000              |                        |              |      |   |                   |          |   |                |             |
| GVWR (lbs)                                                                                                                                                                                                                                                                         | 6647                                                                                            | N/V Ratio                                      | 23.1              |                        |              |      |   |                   |          |   |                |             |
| Axle Ratio                                                                                                                                                                                                                                                                         | 3.2                                                                                             |                                                |                   |                        |              |      |   |                   |          |   |                |             |
| Transmission Type                                                                                                                                                                                                                                                                  | Semi-Automatic                                                                                  | # of Transmission Gears                        | 8                 |                        |              |      |   |                   |          |   |                |             |
| Transmission Lockup                                                                                                                                                                                                                                                                | Yes                                                                                             | Creeper Gear                                   | No                |                        |              |      |   |                   |          |   |                |             |

### Certification Summary Information Report

|                   |              |                                     |              |
|-------------------|--------------|-------------------------------------|--------------|
| <b>Test Group</b> | VVGAJ04.0NAT | <b>Evaporative/Refueling Family</b> | VVGAR0182NCM |
|-------------------|--------------|-------------------------------------|--------------|

**Dynamometer Coefficients:**

| Coefficient Category     | Target Coefficients |             |                | Set Coefficients |             |                | EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients |
|--------------------------|---------------------|-------------|----------------|------------------|-------------|----------------|-------------------------------------------------------------------------------|
|                          | A (lbf)             | B (lbf/mph) | C (lbf/mph**2) | A (lbf)          | B (lbf/mph) | C (lbf/mph**2) |                                                                               |
| <b>City/Highway/Evap</b> | 66.89               | 0.1946      | 0.03092        | 7.55             | -0.151      | 0.03059        | 20.5                                                                          |
| <b>Cold CO</b>           | 73.58               | 0.2141      | 0.03401        | -6.48            | -0.3587     | 0.03417        | N/A                                                                           |
| <b>US06</b>              | 66.89               | 0.1946      | 0.03092        | 7.55             | -0.151      | 0.03059        | N/A                                                                           |

**Emission Control Device Comments**            --

**Manufacturer Test Vehicle Comments**        driven in S-Mode

### Certification Summary Information Report

|                                                |                                           |                                       |                                                    |
|------------------------------------------------|-------------------------------------------|---------------------------------------|----------------------------------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                              | <b>Evaporative/Refueling Family</b>   | VVGAR0182NCM                                       |
| <b>Test #</b>                                  | <b>SVGA10085969</b>                       | <b>Test Procedure</b>                 | <b>11 - Cold CO</b>                                |
| <b>Exhaust Test # for this Evap Test</b>       | --                                        | <b>Test Fuel Type</b>                 | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) |
| <b>Test Date</b>                               | 02/22/2024                                | <b>Fuel</b>                           | Gasoline                                           |
| <b>Fuel Batch ID</b>                           | NK0018                                    | <b>Fuel Calibration Number</b>        | 1                                                  |
| <b>Vehicle Class</b>                           | LDV/Passenger Car                         | <b>DF Type</b>                        | Mfr. Determined                                    |
| <b>Verify Test Lab ID</b>                      | AUDI AG Neckarsulm                        |                                       |                                                    |
| <b>E10 Evaporative Test Measurement Method</b> | --                                        |                                       |                                                    |
| <b>Test Start Odometer Reading</b>             | 5056                                      | <b>Odometer Units</b>                 | K                                                  |
| <b>4WD Test Dyno</b>                           | Yes                                       | <b>Diesel Adjustment Factor Usage</b> | --                                                 |
| <b>State of Charge Delta</b>                   | Yes                                       |                                       |                                                    |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | <b>Road Speed Fan Usage</b>           | Yes                                                |

**Test Results**

| Test Result Name                                          | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|-----------------------------------------------------------|-----------------------|----------------------------------------------------------|
| <b>CO2 BAG 1 (Bag 1 Carbon Dioxide)</b>                   | 840.7066606           | --                                                       |
| <b>FE BAG 1 (Bag 1 Fuel Economy)</b>                      | 10.2279531            | 10.2279531                                               |
| <b>CO2 BAG 2 (Bag 2 Carbon Dioxide)</b>                   | 859.7276582           | --                                                       |
| <b>FE BAG 2 (Bag 2 Fuel Economy)</b>                      | 10.0896991            | 10.0896991                                               |
| <b>CO2 BAG 3 (Bag 3 Carbon Dioxide)</b>                   | 670.1055749           | --                                                       |
| <b>FE BAG 3 (Bag 3 Fuel Economy)</b>                      | 12.9355075            | 12.9355075                                               |
| <b>METHANE (CH4 - Methane)</b>                            | 0.0185479             | --                                                       |
| <b>CO (Carbon Monoxide)</b>                               | 0.9078371             | --                                                       |
| <b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b> | 0.8034361             | --                                                       |
| <b>DT-EER (Drive Trace Energy Economy Rating)</b>         | 0.2377052             | --                                                       |
| <b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>    | 1.290831              | --                                                       |
| <b>MFR FE (Manufacturer Fuel Economy)</b>                 | 10.8                  | 10.8                                                     |
| <b>NOX (Nitrogen Oxide)</b>                               | 0.0347052             | --                                                       |
| <b>N2O (Nitrous Oxide)</b>                                | 0.001327              | --                                                       |
| <b>HC-NM (Non-methane Hydrocarbon)</b>                    | 0.159364              | --                                                       |
| <b>NMOG (Non-methane organic gases)</b>                   | 0.1752                | --                                                       |
| <b>HC-TOTAL (Total Hydrocarbon)</b>                       | 0.1769081             | --                                                       |

| Test Result Name      | Unrounded Test Result | Verify Calculated CO2 |
|-----------------------|-----------------------|-----------------------|
| <b>Carbon dioxide</b> | 804                   | --                    |

**Manufacturer Test Comments**                      test performed in S-Mode 4k Cold-CO - Tested as AUDI dr. - ETW: 6000

### Certification Summary Information Report

|                   |              |                              |              |
|-------------------|--------------|------------------------------|--------------|
| <b>Test Group</b> | VVGAJ04.0NAT | Evaporative/Refueling Family | VVGAR0182NCM |
|-------------------|--------------|------------------------------|--------------|

| 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 3 Bin 125    | CO            | 0.91           | --  | --               | --                       | 0.1100 | --      | 1.0                 | 10.0     | Pass      |
| Fed                  | 120,000 miles | Federal Tier 3 Bin 125    | HC-NM         | 0.16           | --  | --               | --                       | 0.0063 | --      | 0.2                 | 0.5      | Pass      |
| CA                   | 50,000 miles  | California LEV-IV ULEV125 | CO            | 0.91           | --  | --               | --                       | 0.1100 | --      | 1.0                 | 10.0     | Pass      |

## Certification Summary Information Report

|                                                |                                           |                                       |                                                     |
|------------------------------------------------|-------------------------------------------|---------------------------------------|-----------------------------------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                              | <b>Evaporative/Refueling Family</b>   | VVGAR0182NCM                                        |
| <b>Test #</b>                                  | <b>SVGA10085970</b>                       | <b>Test Procedure</b>                 | <b>21 - Federal fuel 2-day exhaust (w/can load)</b> |
| <b>Exhaust Test # for this Evap Test</b>       | --                                        | <b>Test Fuel Type</b>                 | 61 - Tier 2 Cert Gasoline                           |
| <b>Test Date</b>                               | 03/13/2024                                | <b>Fuel</b>                           | Gasoline                                            |
| <b>Fuel Batch ID</b>                           | NK0020                                    | <b>Fuel Calibration Number</b>        | 1                                                   |
| <b>Vehicle Class</b>                           | LDV/Passenger Car                         | <b>DF Type</b>                        | Mfr. Determined                                     |
| <b>Verify Test Lab ID</b>                      | AUDI AG Neckarsulm                        |                                       |                                                     |
| <b>E10 Evaporative Test Measurement Method</b> | --                                        |                                       |                                                     |
| <b>Test Start Odometer Reading</b>             | 5357                                      | <b>Odometer Units</b>                 | K                                                   |
| <b>4WD Test Dyno</b>                           | Yes                                       | <b>Diesel Adjustment Factor Usage</b> | --                                                  |
| <b>State of Charge Delta</b>                   | Yes                                       |                                       |                                                     |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | <b>Road Speed Fan Usage</b>           | Yes                                                 |

## Test Results

| Test Result Name                                   | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|----------------------------------------------------|-----------------------|----------------------------------------------------------|
| CO2 BAG 1 (Bag 1 Carbon Dioxide)                   | 731.7774073           | --                                                       |
| FE BAG 1 (Bag 1 Fuel Economy)                      | 12.1556757            | 12.1556757                                               |
| CO2 BAG 2 (Bag 2 Carbon Dioxide)                   | 842.5929727           | --                                                       |
| FE BAG 2 (Bag 2 Fuel Economy)                      | 10.5984641            | 10.5984641                                               |
| CO2 BAG 3 (Bag 3 Carbon Dioxide)                   | 661.6949822           | --                                                       |
| FE BAG 3 (Bag 3 Fuel Economy)                      | 13.4815638            | 13.4815638                                               |
| CO2 BAG 4 (Bag 4 Carbon Dioxide)                   | 825.8963505           | --                                                       |
| FE BAG 4 (Bag 4 Fuel Economy)                      | 10.8121513            | 10.8121513                                               |
| METHANE (CH4 - Methane)                            | 0                     | --                                                       |
| CO (Carbon Monoxide)                               | 0.5530689             | --                                                       |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | 0.6696104             | --                                                       |
| DT-EER (Drive Trace Energy Economy Rating)         | 0.5911713             | --                                                       |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating)    | 0.8926838             | --                                                       |
| MFR FE (Manufacturer Fuel Economy)                 | 11.7                  | 11.7                                                     |
| NOX (Nitrogen Oxide)                               | 0.0262008             | --                                                       |
| N2O (Nitrous Oxide)                                | 0.0004765             | --                                                       |
| HC-NM (Non-methane Hydrocarbon)                    | 0.0301708             | --                                                       |
| NMOG (Non-methane organic gases)                   | 0.0311                | --                                                       |
| PM (Particulate Matter)                            | 0.0009239             | --                                                       |
| HC-TOTAL (Total Hydrocarbon)                       | 0.0276489             | --                                                       |

### Certification Summary Information Report

|                   |              |                              |              |
|-------------------|--------------|------------------------------|--------------|
| <b>Test Group</b> | VVGAJ04.0NAT | Evaporative/Refueling Family | VVGAR0182NCM |
|-------------------|--------------|------------------------------|--------------|

|                                  |                              |                                        |
|----------------------------------|------------------------------|----------------------------------------|
| <b>Test Result Name</b>          | <b>Unrounded Test Result</b> | <b>Verify Calculated CREE/OPT-CREE</b> |
| Carbon-Related Exhaust Emissions | 766                          | 766                                    |

|                         |                              |                              |
|-------------------------|------------------------------|------------------------------|
| <b>Test Result Name</b> | <b>Unrounded Test Result</b> | <b>Verify Calculated CO2</b> |
| Carbon dioxide          | 765                          | --                           |

**Manufacturer Test Comments**                      GHG Test 4k FED. FUEL FTP - Tested as AUDI dr. - ETW: 6000

| 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                  | 120,000 miles | Federal Tier 3 Bin 125    | CREE          | 766            | --  | --               | --                       | 0.4300 | --      | 766                 | --       | --        |
| Fed                  | 120,000 miles | Federal Tier 3 Bin 125    | METHANE       | 0.0000         | --  | --               | --                       | 0.0018 | --      | 0.002               | 0.030    | Pass      |
| Fed                  | 120,000 miles | Federal Tier 3 Bin 125    | N2O           | 0.0005         | --  | --               | --                       | 0.0005 | --      | 0.001               | 0.010    | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | CO            | 0.55           | --  | --               | --                       | 0.3300 | --      | 0.9                 | 2.1      | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG          | 0.0311         | --  | 1.0991           | --                       | 0.0088 | --      | 0.040               | 99.000   | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG+NOX      | 0.0573         | --  | --               | --                       | --     | --      | 0.067               | 0.125    | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NOX           | 0.0262         | --  | --               | --                       | 0.0012 | --      | 0.027               | 99.000   | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | PM            | 0.0009         | --  | --               | --                       | 0.0006 | --      | 0.002               | 0.003    | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | CO            | 0.55           | --  | --               | --                       | 0.330  | --      | 0.9                 | 2.1      | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG          | 0.0311         | --  | 1.0991           | --                       | 0.0088 | --      | 0.040               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG+NOX      | 0.0573         | --  | --               | --                       | --     | --      | 0.067               | 0.125    | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NOX           | 0.0262         | --  | --               | --                       | 0.0012 | --      | 0.027               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | PM            | 0.0009         | --  | --               | --                       | 0.0006 | --      | 0.002               | 0.003    | Pass      |

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

### Certification Summary Information Report

|                                                |                                           |                                       |                                                    |
|------------------------------------------------|-------------------------------------------|---------------------------------------|----------------------------------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                              | <b>Evaporative/Refueling Family</b>   | VVGAR0182NCM                                       |
| <b>Test #</b>                                  | <b>SVGA10085978</b>                       | <b>Test Procedure</b>                 | <b>52 - Fed. fuel 50 F exh.</b>                    |
| <b>Exhaust Test # for this Evap Test</b>       | --                                        | <b>Test Fuel Type</b>                 | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) |
| <b>Test Date</b>                               | 04/23/2024                                | <b>Fuel</b>                           | Gasoline                                           |
| <b>Fuel Batch ID</b>                           | NK0018                                    | <b>Fuel Calibration Number</b>        | 1                                                  |
| <b>Vehicle Class</b>                           | LDV/Passenger Car                         | <b>DF Type</b>                        | Mfr. Determined                                    |
| <b>Verify Test Lab ID</b>                      | AUDI AG Neckarsulm                        |                                       |                                                    |
| <b>E10 Evaporative Test Measurement Method</b> | --                                        |                                       |                                                    |
| <b>Test Start Odometer Reading</b>             | 6210                                      | <b>Odometer Units</b>                 | K                                                  |
| <b>4WD Test Dyno</b>                           | Yes                                       | <b>Diesel Adjustment Factor Usage</b> | --                                                 |
| <b>State of Charge Delta</b>                   | Yes                                       |                                       |                                                    |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | <b>Road Speed Fan Usage</b>           | Yes                                                |

**Test Results**

| Test Result Name                                          | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|-----------------------------------------------------------|-----------------------|----------------------------------------------------------|
| <b>CO2 BAG 1 (Bag 1 Carbon Dioxide)</b>                   | 769.2165423           | --                                                       |
| <b>FE BAG 1 (Bag 1 Fuel Economy)</b>                      | 11.2318425            | 11.2318425                                               |
| <b>CO2 BAG 2 (Bag 2 Carbon Dioxide)</b>                   | 829.5281571           | --                                                       |
| <b>FE BAG 2 (Bag 2 Fuel Economy)</b>                      | 10.4596901            | 10.4596901                                               |
| <b>CO2 BAG 3 (Bag 3 Carbon Dioxide)</b>                   | 651.882329            | --                                                       |
| <b>FE BAG 3 (Bag 3 Fuel Economy)</b>                      | 13.3012172            | 13.3012172                                               |
| <b>METHANE (CH4 - Methane)</b>                            | 0.0078874             | --                                                       |
| <b>CO (Carbon Monoxide)</b>                               | 0.476894              | --                                                       |
| <b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b> | -0.1578344            | --                                                       |
| <b>DT-EER (Drive Trace Energy Economy Rating)</b>         | -0.1517574            | --                                                       |
| <b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>    | -0.1915479            | --                                                       |
| <b>MFR FE (Manufacturer Fuel Economy)</b>                 | 11.3                  | 11.3                                                     |
| <b>NOX (Nitrogen Oxide)</b>                               | 0.0327882             | --                                                       |
| <b>HC-NM (Non-methane Hydrocarbon)</b>                    | 0.0386495             | --                                                       |
| <b>NMOG (Non-methane organic gases)</b>                   | 0.0425                | --                                                       |
| <b>HC-TOTAL (Total Hydrocarbon)</b>                       | 0.0452191             | --                                                       |

| Test Result Name      | Unrounded Test Result | Verify Calculated CO2 |
|-----------------------|-----------------------|-----------------------|
| <b>Carbon dioxide</b> | 768                   | --                    |

**Manufacturer Test Comments**                      4k FED. FUEL 50'F FTP - Tested as AUDI   dr. - ETW: 6000

## Certification Summary Information Report

| Test Group           |             | VVGAJ04.0NAT              |               |                |     | Evaporative/Refueling Family |                          |        |         | VVGAR0182NCM        |          |           |
|----------------------|-------------|---------------------------|---------------|----------------|-----|------------------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| 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 |
| CA                   | 4,000 miles | California LEV-IV ULEV125 | CO            | 0.48           | --  | --                           | --                       | --     | --      | 0.5                 | 2.1      | Pass      |
| CA                   | 4,000 miles | California LEV-IV ULEV125 | NMOG          | 0.0425         | --  | 1.0991                       | --                       | --     | --      | 0.042               | 99.000   | Pass      |
| CA                   | 4,000 miles | California LEV-IV ULEV125 | NMOG+NOX      | 0.0753         | --  | --                           | --                       | --     | --      | 0.075               | 0.250    | Pass      |
| CA                   | 4,000 miles | California LEV-IV ULEV125 | NOX           | 0.0328         | --  | --                           | --                       | --     | --      | 0.033               | 99.000   | Pass      |

## Certification Summary Information Report

|                                                |                                           |                                       |                                                     |
|------------------------------------------------|-------------------------------------------|---------------------------------------|-----------------------------------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                              | <b>Evaporative/Refueling Family</b>   | VVGAR0182NCM                                        |
| <b>Test #</b>                                  | <b>SVGA10086286</b>                       | <b>Test Procedure</b>                 | <b>21 - Federal fuel 2-day exhaust (w/can load)</b> |
| <b>Exhaust Test # for this Evap Test</b>       | --                                        | <b>Test Fuel Type</b>                 | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)  |
| <b>Test Date</b>                               | 05/08/2024                                | <b>Fuel</b>                           | Gasoline                                            |
| <b>Fuel Batch ID</b>                           | NK0018                                    | <b>Fuel Calibration Number</b>        | 1                                                   |
| <b>Vehicle Class</b>                           | LDV/Passenger Car                         | <b>DF Type</b>                        | Mfr. Determined                                     |
| <b>Verify Test Lab ID</b>                      | AUDI AG Neckarsulm                        |                                       |                                                     |
| <b>E10 Evaporative Test Measurement Method</b> | --                                        |                                       |                                                     |
| <b>Test Start Odometer Reading</b>             | 6240                                      | <b>Odometer Units</b>                 | K                                                   |
| <b>4WD Test Dyno</b>                           | Yes                                       | <b>Diesel Adjustment Factor Usage</b> | --                                                  |
| <b>State of Charge Delta</b>                   | Yes                                       |                                       |                                                     |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | <b>Road Speed Fan Usage</b>           | Yes                                                 |

## Test Results

| Test Result Name                                   | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|----------------------------------------------------|-----------------------|----------------------------------------------------------|
| CO2 BAG 1 (Bag 1 Carbon Dioxide)                   | 676.8770507           | --                                                       |
| FE BAG 1 (Bag 1 Fuel Economy)                      | 12.7961784            | 12.7961784                                               |
| CO2 BAG 2 (Bag 2 Carbon Dioxide)                   | 795.57293             | --                                                       |
| FE BAG 2 (Bag 2 Fuel Economy)                      | 10.9067311            | 10.9067311                                               |
| CO2 BAG 3 (Bag 3 Carbon Dioxide)                   | 618.0782193           | --                                                       |
| FE BAG 3 (Bag 3 Fuel Economy)                      | 14.0268091            | 14.0268091                                               |
| CO2 BAG 4 (Bag 4 Carbon Dioxide)                   | 777.5963965           | --                                                       |
| FE BAG 4 (Bag 4 Fuel Economy)                      | 11.1589162            | 11.1589162                                               |
| METHANE (CH4 - Methane)                            | 0.0035178             | --                                                       |
| CO (Carbon Monoxide)                               | 0.2459062             | --                                                       |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | -4.7952               | --                                                       |
| DT-EER (Drive Trace Energy Economy Rating)         | -4.019928             | --                                                       |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating)    | -7.028098             | --                                                       |
| MFR FE (Manufacturer Fuel Economy)                 | 12.1                  | 12.1                                                     |
| NOX (Nitrogen Oxide)                               | 0.0331081             | --                                                       |
| N2O (Nitrous Oxide)                                | 0.0020892             | --                                                       |
| HC-NM (Non-methane Hydrocarbon)                    | 0.0140642             | --                                                       |
| NMOG (Non-methane organic gases)                   | 0.0155                | --                                                       |
| PM (Particulate Matter)                            | 0.0018053             | --                                                       |
| HC-TOTAL (Total Hydrocarbon)                       | 0.0172096             | --                                                       |

### Certification Summary Information Report

|                   |              |                              |              |
|-------------------|--------------|------------------------------|--------------|
| <b>Test Group</b> | VVGAJ04.0NAT | Evaporative/Refueling Family | VVGAR0182NCM |
|-------------------|--------------|------------------------------|--------------|

|                                  |                              |                                        |
|----------------------------------|------------------------------|----------------------------------------|
| <b>Test Result Name</b>          | <b>Unrounded Test Result</b> | <b>Verify Calculated CREE/OPT-CREE</b> |
| Carbon-Related Exhaust Emissions | 717                          | 999                                    |

|                         |                              |                              |
|-------------------------|------------------------------|------------------------------|
| <b>Test Result Name</b> | <b>Unrounded Test Result</b> | <b>Verify Calculated CO2</b> |
| Carbon dioxide          | 717                          | --                           |

**Manufacturer Test Comments**                      EDV MCT MFR CONFIRMATORY RETEST - 4k FED. FUEL FTP - Tested as AUDI dr. - ETW: 6000

| 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                  | 120,000 miles | Federal Tier 3 Bin 125    | CREE          | 999            | --  | --               | --                       | 0.4300 | --      | 999                 | --       | --        |
| Fed                  | 120,000 miles | Federal Tier 3 Bin 125    | METHANE       | 0.0035         | --  | --               | --                       | 0.0018 | --      | 0.005               | 0.030    | Pass      |
| Fed                  | 120,000 miles | Federal Tier 3 Bin 125    | N2O           | 0.0021         | --  | --               | --                       | 0.0005 | --      | 0.003               | 0.010    | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | CO            | 0.25           | --  | --               | --                       | 0.3300 | --      | 0.6                 | 2.1      | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | CO-COMP       | 0.65           | --  | --               | --                       | --     | --      | 0.6                 | 4.2      | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG          | 0.0155         | --  | 1.0991           | --                       | 0.0088 | --      | 0.024               | 99.000   | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG+NOX      | 0.0486         | --  | --               | --                       | --     | --      | 0.059               | 0.125    | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG+NOX-COMP | 0.0424         | --  | --               | --                       | --     | --      | 0.042               | 0.110    | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NOX           | 0.0331         | --  | --               | --                       | 0.0012 | --      | 0.034               | 99.000   | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | PM            | 0.0018         | --  | --               | --                       | 0.0006 | --      | 0.002               | 0.003    | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | CO            | 0.25           | --  | --               | --                       | 0.330  | --      | 0.6                 | 2.1      | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG          | 0.0155         | --  | 1.0991           | --                       | 0.0088 | --      | 0.024               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG+NOX      | 0.0486         | --  | --               | --                       | --     | --      | 0.059               | 0.125    | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NOX           | 0.0331         | --  | --               | --                       | 0.0012 | --      | 0.034               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | PM            | 0.0018         | --  | --               | --                       | 0.0006 | --      | 0.002               | 0.003    | Pass      |

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

## Certification Summary Information Report

|                                                |                                           |                                       |                           |
|------------------------------------------------|-------------------------------------------|---------------------------------------|---------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                              | <b>Evaporative/Refueling Family</b>   | VVGAR0182NCM              |
| <b>Test #</b>                                  | <b>SVGA10085971</b>                       | <b>Test Procedure</b>                 | <b>3 - HWFE</b>           |
| <b>Exhaust Test # for this Evap Test</b>       | --                                        | <b>Test Fuel Type</b>                 | 61 - Tier 2 Cert Gasoline |
| <b>Test Date</b>                               | 03/13/2024                                | <b>Fuel</b>                           | Gasoline                  |
| <b>Fuel Batch ID</b>                           | NK0020                                    | <b>Fuel Calibration Number</b>        | 1                         |
| <b>Vehicle Class</b>                           | LDV/Passenger Car                         | <b>DF Type</b>                        | Mfr. Determined           |
| <b>Verify Test Lab ID</b>                      | AUDI AG Neckarsulm                        |                                       |                           |
| <b>E10 Evaporative Test Measurement Method</b> | --                                        |                                       |                           |
| <b>Test Start Odometer Reading</b>             | 5381                                      | <b>Odometer Units</b>                 | K                         |
| <b>4WD Test Dyno</b>                           | Yes                                       | <b>Diesel Adjustment Factor Usage</b> | --                        |
| <b>State of Charge Delta</b>                   | Yes                                       |                                       |                           |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | <b>Road Speed Fan Usage</b>           | Yes                       |

## Test Results

| Test Result Name                                          | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|-----------------------------------------------------------|-----------------------|----------------------------------------------------------|
| <b>METHANE (CH4 - Methane)</b>                            | 0.0008672             | --                                                       |
| <b>CO (Carbon Monoxide)</b>                               | 0.1584026             | --                                                       |
| <b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b> | 0.7110043             | --                                                       |
| <b>DT-EER (Drive Trace Energy Economy Rating)</b>         | 0.2006295             | --                                                       |
| <b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>    | 1.139046              | --                                                       |
| <b>MFR FE (Manufacturer Fuel Economy)</b>                 | 21.3                  | 21.3                                                     |
| <b>NOX (Nitrogen Oxide)</b>                               | 0.0054795             | --                                                       |
| <b>N2O (Nitrous Oxide)</b>                                | 0                     | --                                                       |
| <b>HC-NM (Non-methane Hydrocarbon)</b>                    | 0.0011419             | --                                                       |
| <b>NMOG (Non-methane organic gases)</b>                   | 0.0012                | --                                                       |
| <b>PM (Particulate Matter)</b>                            | 0.0001579             | --                                                       |
| <b>HC-TOTAL (Total Hydrocarbon)</b>                       | 0.0019969             | --                                                       |

| Test Result Name                        | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|-----------------------------------------|-----------------------|---------------------------------|
| <b>Carbon-Related Exhaust Emissions</b> | 419                   | 419                             |

| Test Result Name      | Unrounded Test Result | Verify Calculated CO2 |
|-----------------------|-----------------------|-----------------------|
| <b>Carbon dioxide</b> | 419                   | --                    |

## Manufacturer Test Comments

GHG Test 4k HWFET - Tested as AUDI dr. - ETW: 6000

## Certification Summary Information Report

| Test Group           |               | VVGAJ04.0NAT              |               |                |     | Evaporative/Refueling Family |                          |        |         | VVGAR0182NCM        |          |           |
|----------------------|---------------|---------------------------|---------------|----------------|-----|------------------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| 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                  | 150,000 miles | Federal Tier 3 Bin 125    | CREE          | 419            | --  | --                           | --                       | 0.430  | --      | 419                 | --       | --        |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG          | 0.0012         | --  | 1.0300                       | --                       | 0.0088 | --      | 0.010               | 99.000   | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG+NOX      | 0.0067         | --  | --                           | --                       | --     | --      | 0.017               | 0.125    | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NOX           | 0.0055         | --  | --                           | --                       | 0.0012 | --      | 0.007               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG          | 0.0012         | --  | 1.0300                       | --                       | 0.0088 | --      | 0.010               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG+NOX      | 0.0067         | --  | --                           | --                       | --     | --      | 0.017               | 0.125    | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NOX           | 0.0055         | --  | --                           | --                       | 0.0012 | --      | 0.007               | 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

|                                                |                                           |                                       |                                                    |
|------------------------------------------------|-------------------------------------------|---------------------------------------|----------------------------------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                              | <b>Evaporative/Refueling Family</b>   | VVGAR0182NCM                                       |
| <b>Test #</b>                                  | <b>SVGA10085975</b>                       | <b>Test Procedure</b>                 | <b>3 - HWFE</b>                                    |
| <b>Exhaust Test # for this Evap Test</b>       | --                                        | <b>Test Fuel Type</b>                 | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) |
| <b>Test Date</b>                               | 04/05/2024                                | <b>Fuel</b>                           | Gasoline                                           |
| <b>Fuel Batch ID</b>                           | NK0018                                    | <b>Fuel Calibration Number</b>        | 1                                                  |
| <b>Vehicle Class</b>                           | LDV/Passenger Car                         | <b>DF Type</b>                        | Mfr. Determined                                    |
| <b>Verify Test Lab ID</b>                      | AUDI AG Neckarsulm                        |                                       |                                                    |
| <b>E10 Evaporative Test Measurement Method</b> | --                                        |                                       |                                                    |
| <b>Test Start Odometer Reading</b>             | 5901                                      | <b>Odometer Units</b>                 | K                                                  |
| <b>4WD Test Dyno</b>                           | Yes                                       | <b>Diesel Adjustment Factor Usage</b> | --                                                 |
| <b>State of Charge Delta</b>                   | Yes                                       |                                       |                                                    |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | <b>Road Speed Fan Usage</b>           | Yes                                                |

## Test Results

| Test Result Name                                   | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|----------------------------------------------------|-----------------------|----------------------------------------------------------|
| METHANE (CH4 - Methane)                            | 0.0069252             | --                                                       |
| CO (Carbon Monoxide)                               | 0.1449495             | --                                                       |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | 0.8528733             | --                                                       |
| DT-EER (Drive Trace Energy Economy Rating)         | 0.0750254             | --                                                       |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating)    | 1.136677              | --                                                       |
| MFR FE (Manufacturer Fuel Economy)                 | 21.2                  | 21.2                                                     |
| NOX (Nitrogen Oxide)                               | 0.0052432             | --                                                       |
| N2O (Nitrous Oxide)                                | 0                     | --                                                       |
| HC-NM (Non-methane Hydrocarbon)                    | 0.0083968             | --                                                       |
| NMOG (Non-methane organic gases)                   | 0.0086                | --                                                       |
| PM (Particulate Matter)                            | 0.0004374             | --                                                       |
| HC-TOTAL (Total Hydrocarbon)                       | 0.015225              | --                                                       |

| Test Result Name                 | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|----------------------------------|-----------------------|---------------------------------|
| Carbon-Related Exhaust Emissions | 409                   | 999                             |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|------------------|-----------------------|-----------------------|
| Carbon dioxide   | 409                   | --                    |

## Manufacturer Test Comments

test performed in S-Mode 4k HWFET - Tested as AUDI dr. - ETW: 6000

## Certification Summary Information Report

| Test Group           |               | VVGAJ04.0NAT              |               |                |     | Evaporative/Refueling Family |                          |        |         | VVGAR0182NCM        |          |           |
|----------------------|---------------|---------------------------|---------------|----------------|-----|------------------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| 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                  | 150,000 miles | Federal Tier 3 Bin 125    | CREE          | 999            | --  | --                           | --                       | 0.430  | --      | 999                 | --       | --        |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG          | 0.0086         | --  | 1.0300                       | --                       | 0.0088 | --      | 0.017               | 99.000   | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG+NOX      | 0.0138         | --  | --                           | --                       | --     | --      | 0.024               | 0.125    | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NOX           | 0.0052         | --  | --                           | --                       | 0.0012 | --      | 0.006               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG          | 0.0086         | --  | 1.0300                       | --                       | 0.0088 | --      | 0.017               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG+NOX      | 0.0138         | --  | --                           | --                       | --     | --      | 0.024               | 0.125    | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NOX           | 0.0052         | --  | --                           | --                       | 0.0012 | --      | 0.006               | 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

|                                                |                                           |                                       |                                                    |
|------------------------------------------------|-------------------------------------------|---------------------------------------|----------------------------------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                              | <b>Evaporative/Refueling Family</b>   | VVGAR0182NCM                                       |
| <b>Test #</b>                                  | <b>SVGA10085976</b>                       | <b>Test Procedure</b>                 | <b>90 - US06</b>                                   |
| <b>Exhaust Test # for this Evap Test</b>       | --                                        | <b>Test Fuel Type</b>                 | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) |
| <b>Test Date</b>                               | 04/05/2024                                | <b>Fuel</b>                           | Gasoline                                           |
| <b>Fuel Batch ID</b>                           | NK0018                                    | <b>Fuel Calibration Number</b>        | 1                                                  |
| <b>Vehicle Class</b>                           | LDV/Passenger Car                         | <b>DF Type</b>                        | Mfr. Determined                                    |
| <b>Verify Test Lab ID</b>                      | AUDI AG Neckarsulm                        |                                       |                                                    |
| <b>E10 Evaporative Test Measurement Method</b> | --                                        |                                       |                                                    |
| <b>Test Start Odometer Reading</b>             | 5933                                      | <b>Odometer Units</b>                 | K                                                  |
| <b>4WD Test Dyno</b>                           | Yes                                       | <b>Diesel Adjustment Factor Usage</b> | --                                                 |
| <b>State of Charge Delta</b>                   | Yes                                       |                                       |                                                    |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | <b>Road Speed Fan Usage</b>           | Yes                                                |

## Test Results

| Test Result Name                                                            | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|-----------------------------------------------------------------------------|-----------------------|----------------------------------------------------------|
| CO2 BAG 1 (Bag 1 Carbon Dioxide)                                            | 880.3689434           | --                                                       |
| FE BAG 1 (Bag 1 Fuel Economy)                                               | 9.8491361             | 9.8491361                                                |
| CO2 BAG 2 (Bag 2 Carbon Dioxide)                                            | 475.8833427           | --                                                       |
| FE BAG 2 (Bag 2 Fuel Economy)                                               | 18.2224908            | 18.2224908                                               |
| METHANE (CH4 - Methane)                                                     | 0.0027647             | --                                                       |
| CO (Carbon Monoxide)                                                        | 0.2353978             | --                                                       |
| DT-ASCR (Drive Trace Absolute Speed Change Rating)                          | -1.098413             | --                                                       |
| DT-EER (Drive Trace Energy Economy Rating)                                  | -0.4999258            | --                                                       |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating)                             | -1.439742             | --                                                       |
| MFR FE (Manufacturer Fuel Economy)                                          | 15.3                  | 15.3                                                     |
| NOX (Nitrogen Oxide)                                                        | 0.016413              | --                                                       |
| N2O (Nitrous Oxide)                                                         | 0                     | --                                                       |
| HC-NM (Non-methane Hydrocarbon)                                             | 0.0071525             | --                                                       |
| NMOG (Non-methane organic gases)                                            | 0.0074                | --                                                       |
| PM (Particulate Matter)                                                     | 0.0023592             | --                                                       |
| HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03) | 0.0236                | --                                                       |
| HC-TOTAL (Total Hydrocarbon)                                                | 0.0098786             | --                                                       |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|------------------|-----------------------|-----------------------|
| Carbon dioxide   | 566                   | --                    |

### Certification Summary Information Report

| Test Group                        |               | VVGAJ04.0NAT                                                      |               |                | Evaporative/Refueling Family |                  |                          |        |         | VVGAR0182NCM        |          |           |
|-----------------------------------|---------------|-------------------------------------------------------------------|---------------|----------------|------------------------------|------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| <b>Manufacturer Test Comments</b> |               | test performed in S-Mode 4k US06 - Tested as AUDI dr. - ETW: 6000 |               |                |                              |                  |                          |        |         |                     |          |           |
| 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                               | 150,000 miles | Federal Tier 3 Bin 125                                            | CO            | 0.24           | --                           | --               | --                       | 0.3300 | --      | 0.6                 | 99.0     | Pass      |
| Fed                               | 150,000 miles | Federal Tier 3 Bin 125                                            | NMOG          | 0.0074         | --                           | 1.0300           | --                       | 0.0088 | --      | 0.016               | 99.000   | Pass      |
| Fed                               | 150,000 miles | Federal Tier 3 Bin 125                                            | NOX           | 0.0164         | --                           | --               | --                       | 0.0012 | --      | 0.018               | 99.000   | Pass      |
| Fed                               | 150,000 miles | Federal Tier 3 Bin 125                                            | PM            | 0.0024         | --                           | --               | --                       | 0.0006 | --      | 0.003               | 0.006    | Pass      |
| CA                                | 150,000 miles | California LEV-IV ULEV125                                         | CO            | 0.24           | --                           | --               | --                       | 0.3300 | --      | 0.6                 | 9.6      | Pass      |
| CA                                | 150,000 miles | California LEV-IV ULEV125                                         | NMOG          | 0.0074         | --                           | 1.0300           | --                       | 0.0088 | --      | 0.016               | 99.000   | Pass      |
| CA                                | 150,000 miles | California LEV-IV ULEV125                                         | NMOG+NOX      | 0.0238         | --                           | --               | --                       | --     | --      | 0.034               | 0.150    | Pass      |
| CA                                | 150,000 miles | California LEV-IV ULEV125                                         | NOX           | 0.0164         | --                           | --               | --                       | 0.0012 | --      | 0.018               | 99.000   | Pass      |
| CA                                | 150,000 miles | California LEV-IV ULEV125                                         | PM            | 0.0024         | --                           | --               | --                       | 0.0006 | --      | 0.003               | 0.006    | Pass      |

### Certification Summary Information Report

|                                                |                                           |                                       |                                                    |
|------------------------------------------------|-------------------------------------------|---------------------------------------|----------------------------------------------------|
| <b>Test Group</b>                              | VVGAJ04.0NAT                              | <b>Evaporative/Refueling Family</b>   | VVGAR0182NCM                                       |
| <b>Test #</b>                                  | <b>SVGA10085977</b>                       | <b>Test Procedure</b>                 | <b>95 - SC03</b>                                   |
| <b>Exhaust Test # for this Evap Test</b>       | --                                        | <b>Test Fuel Type</b>                 | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) |
| <b>Test Date</b>                               | 04/05/2024                                | <b>Fuel</b>                           | Gasoline                                           |
| <b>Fuel Batch ID</b>                           | NK0018                                    | <b>Fuel Calibration Number</b>        | 1                                                  |
| <b>Vehicle Class</b>                           | LDV/Passenger Car                         | <b>DF Type</b>                        | Mfr. Determined                                    |
| <b>Verify Test Lab ID</b>                      | AUDI AG Neckarsulm                        |                                       |                                                    |
| <b>E10 Evaporative Test Measurement Method</b> | --                                        |                                       |                                                    |
| <b>Test Start Odometer Reading</b>             | 5959                                      | <b>Odometer Units</b>                 | K                                                  |
| <b>4WD Test Dyno</b>                           | Yes                                       | <b>Diesel Adjustment Factor Usage</b> | --                                                 |
| <b>State of Charge Delta</b>                   | Yes                                       |                                       |                                                    |
| <b>Drive Cycle Speed Tolerance Criteria</b>    | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | <b>Road Speed Fan Usage</b>           | Yes                                                |

**Test Results**

| Test Result Name                                                                   | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|------------------------------------------------------------------------------------|-----------------------|----------------------------------------------------------|
| <b>METHANE (CH4 - Methane)</b>                                                     | 0                     | --                                                       |
| <b>CO (Carbon Monoxide)</b>                                                        | 0.4645761             | --                                                       |
| <b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b>                          | -0.9371491            | --                                                       |
| <b>DT-EER (Drive Trace Energy Economy Rating)</b>                                  | -0.1446717            | --                                                       |
| <b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>                             | -1.176522             | --                                                       |
| <b>MFR FE (Manufacturer Fuel Economy)</b>                                          | 10.9                  | 10.9                                                     |
| <b>NOX (Nitrogen Oxide)</b>                                                        | 0.0227137             | --                                                       |
| <b>N2O (Nitrous Oxide)</b>                                                         | 0                     | --                                                       |
| <b>HC-NM (Non-methane Hydrocarbon)</b>                                             | 0.000853              | --                                                       |
| <b>NMOG (Non-methane organic gases)</b>                                            | 0.0009                | --                                                       |
| <b>PM (Particulate Matter)</b>                                                     | 0.0013045             | --                                                       |
| <b>HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)</b> | 0.0236                | --                                                       |
| <b>HC-TOTAL (Total Hydrocarbon)</b>                                                | 0.000088              | --                                                       |

| Test Result Name      | Unrounded Test Result | Verify Calculated CO2 |
|-----------------------|-----------------------|-----------------------|
| <b>Carbon dioxide</b> | 792                   | --                    |

**Manufacturer Test Comments**                      test performed in S-Mode 4k SC03 - Tested as AUDI dr. - ETW: 6000

## Certification Summary Information Report

| Test Group           |               | VVGAJ04.0NAT              |               |                |     | Evaporative/Refueling Family |                          |        |         | VVGAR0182NCM        |          |           |
|----------------------|---------------|---------------------------|---------------|----------------|-----|------------------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| 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                  | 150,000 miles | Federal Tier 3 Bin 125    | CO            | 0.46           | --  | --                           | --                       | 0.3300 | --      | 0.8                 | 99.0     | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NMOG          | 0.0009         | --  | 1.0300                       | --                       | 0.0088 | --      | 0.010               | 99.000   | Pass      |
| Fed                  | 150,000 miles | Federal Tier 3 Bin 125    | NOX           | 0.0227         | --  | --                           | --                       | 0.0012 | --      | 0.024               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | CO            | 0.46           | --  | --                           | --                       | 0.3300 | --      | 0.8                 | 2.1      | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG          | 0.0009         | --  | 1.0300                       | --                       | 0.0088 | --      | 0.010               | 99.000   | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NMOG+NOX      | 0.0236         | --  | --                           | --                       | --     | --      | 0.034               | 0.125    | Pass      |
| CA                   | 150,000 miles | California LEV-IV ULEV125 | NOX           | 0.0227         | --  | --                           | --                       | 0.0012 | --      | 0.024               | 99.000   | Pass      |

## Certification Summary Information Report

| Test Group                                                                | VVGAJ04.0NAT                                       | Evaporative/Refueling Family                                              | VVGAR0182NCM |
|---------------------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------|--------------|
| <b>Fuel Properties</b>                                                    |                                                    |                                                                           |              |
| <b>Fuel Batch ID</b>                                                      | <b>CAFW17</b>                                      | <b>Fuel Calibration Number</b>                                            | <b>745</b>   |
| <b>Test Fuel Type</b>                                                     | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) | <b>Fuel Batch Calibration Date</b>                                        | 12/14/2017   |
| <b>Fuel Batch Calibration Effective Date</b>                              | 12/14/2017                                         | <b>Fuel Batch Calibration Ineffective Date</b>                            | 12/31/2022   |
| <b>Carbon Weight Fraction NMHC</b>                                        | --                                                 | <b>Carbon Weight Fraction HC</b>                                          | --           |
| <b>Exhaust Carbon Weight Fraction</b>                                     | --                                                 | <b>Fuel Methanol Volume Fraction</b>                                      | --           |
| <b>Fuel Density (grams/cubic ft)</b>                                      | --                                                 | <b>Fuel Specific Gravity</b>                                              | 0.751        |
| <b>Fuel Ethanol Volume Percent (%)</b>                                    | 10                                                 | <b>Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)</b> | 17789        |
| <b>Fuel Net Heat of Combustion (E10) (MJ/kg)</b>                          | --                                                 | <b>Fuel Carbon Mass Fraction (E10)</b>                                    | --           |
| <b>Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)</b> | 0.828                                              | <b>Weight Fraction CO2</b>                                                | --           |
| <b>Fuel Batch ID</b>                                                      | <b>IG0025</b>                                      | <b>Fuel Calibration Number</b>                                            | <b>5</b>     |
| <b>Test Fuel Type</b>                                                     | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) | <b>Fuel Batch Calibration Date</b>                                        | 06/24/2022   |
| <b>Fuel Batch Calibration Effective Date</b>                              | 03/10/2023                                         | <b>Fuel Batch Calibration Ineffective Date</b>                            | --           |
| <b>Carbon Weight Fraction NMHC</b>                                        | --                                                 | <b>Carbon Weight Fraction HC</b>                                          | --           |
| <b>Exhaust Carbon Weight Fraction</b>                                     | --                                                 | <b>Fuel Methanol Volume Fraction</b>                                      | --           |
| <b>Fuel Density (grams/cubic ft)</b>                                      | --                                                 | <b>Fuel Specific Gravity</b>                                              | 0.753        |
| <b>Fuel Ethanol Volume Percent (%)</b>                                    | 9.8                                                | <b>Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)</b> | 17949        |
| <b>Fuel Net Heat of Combustion (E10) (MJ/kg)</b>                          | --                                                 | <b>Fuel Carbon Mass Fraction (E10)</b>                                    | --           |
| <b>Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)</b> | 0.828                                              | <b>Weight Fraction CO2</b>                                                | --           |
| <b>Fuel Batch ID</b>                                                      | <b>NK0020</b>                                      | <b>Fuel Calibration Number</b>                                            | <b>1</b>     |
| <b>Test Fuel Type</b>                                                     | 61 - Tier 2 Cert Gasoline                          | <b>Fuel Batch Calibration Date</b>                                        | 06/08/2023   |
| <b>Fuel Batch Calibration Effective Date</b>                              | 07/24/2023                                         | <b>Fuel Batch Calibration Ineffective Date</b>                            | 07/23/2024   |
| <b>Carbon Weight Fraction NMHC</b>                                        | --                                                 | <b>Carbon Weight Fraction HC</b>                                          | --           |
| <b>Exhaust Carbon Weight Fraction</b>                                     | --                                                 | <b>Fuel Methanol Volume Fraction</b>                                      | --           |
| <b>Fuel Density (grams/cubic ft)</b>                                      | --                                                 | <b>Fuel Specific Gravity</b>                                              | 0.743        |
| <b>Fuel Ethanol Volume Percent (%)</b>                                    | --                                                 | <b>Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)</b> | 18413        |
| <b>Fuel Net Heat of Combustion (E10) (MJ/kg)</b>                          | --                                                 | <b>Fuel Carbon Mass Fraction (E10)</b>                                    | --           |
| <b>Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)</b> | 0.868                                              | <b>Weight Fraction CO2</b>                                                | --           |
| <b>Fuel Batch ID</b>                                                      | <b>NK0018</b>                                      | <b>Fuel Calibration Number</b>                                            | <b>1</b>     |
| <b>Test Fuel Type</b>                                                     | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) | <b>Fuel Batch Calibration Date</b>                                        | 07/27/2023   |
| <b>Fuel Batch Calibration Effective Date</b>                              | 09/01/2023                                         | <b>Fuel Batch Calibration Ineffective Date</b>                            | --           |

## Certification Summary Information Report

| Test Group                                                         | VVGAJ04.0NAT                                       | Evaporative/Refueling Family                                       | VVGAR0182NCM |
|--------------------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------|--------------|
| Carbon Weight Fraction NMHC                                        | --                                                 | Carbon Weight Fraction HC                                          | --           |
| Exhaust Carbon Weight Fraction                                     | --                                                 | Fuel Methanol Volume Fraction                                      | --           |
| Fuel Density (grams/cubic ft)                                      | --                                                 | Fuel Specific Gravity                                              | 0.754        |
| Fuel Ethanol Volume Percent (%)                                    | 9.7                                                | Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb) | 17936        |
| Fuel Net Heat of Combustion (E10) (MJ/kg)                          | --                                                 | Fuel Carbon Mass Fraction (E10)                                    | --           |
| Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0) | 0.825                                              | Weight Fraction CO2                                                | --           |
| <b>Fuel Batch ID</b>                                               | <b>IG0025</b>                                      | <b>Fuel Calibration Number</b>                                     | <b>2</b>     |
| Test Fuel Type                                                     | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) | Fuel Batch Calibration Date                                        | 06/24/2022   |
| Fuel Batch Calibration Effective Date                              | 11/28/2022                                         | Fuel Batch Calibration Ineffective Date                            | 11/28/2023   |
| Carbon Weight Fraction NMHC                                        | --                                                 | Carbon Weight Fraction HC                                          | --           |
| Exhaust Carbon Weight Fraction                                     | --                                                 | Fuel Methanol Volume Fraction                                      | --           |
| Fuel Density (grams/cubic ft)                                      | --                                                 | Fuel Specific Gravity                                              | 0.753        |
| Fuel Ethanol Volume Percent (%)                                    | 9.8                                                | Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb) | 17949        |
| 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                                                | --           |
| <b>Fuel Batch ID</b>                                               | <b>IG0025</b>                                      | <b>Fuel Calibration Number</b>                                     | <b>3</b>     |
| Test Fuel Type                                                     | 49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.) | Fuel Batch Calibration Date                                        | 06/24/2022   |
| Fuel Batch Calibration Effective Date                              | 01/19/2023                                         | Fuel Batch Calibration Ineffective Date                            | 01/19/2024   |
| Carbon Weight Fraction NMHC                                        | --                                                 | Carbon Weight Fraction HC                                          | --           |
| Exhaust Carbon Weight Fraction                                     | --                                                 | Fuel Methanol Volume Fraction                                      | --           |
| Fuel Density (grams/cubic ft)                                      | --                                                 | Fuel Specific Gravity                                              | 0.753        |
| Fuel Ethanol Volume Percent (%)                                    | 9.8                                                | Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb) | 17949        |
| 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                                                | --           |

### Certification Summary Information Report

|                   |              |                                     |              |
|-------------------|--------------|-------------------------------------|--------------|
| <b>Test Group</b> | VVGAJ04.0NAT | <b>Evaporative/Refueling Family</b> | VVGAR0182NCM |
|-------------------|--------------|-------------------------------------|--------------|

#### Consolidated List of Standards

**Exhaust Standards**

|                      |                   |                         |                                         |
|----------------------|-------------------|-------------------------|-----------------------------------------|
| <b>Cert Region</b>   | Federal           | <b>Cert/In-Use Code</b> | Both                                    |
| <b>Vehicle Class</b> | LDV/Passenger Car | <b>Standard Level</b>   | Federal Tier 3 Bin 125                  |
| <b>Fuel</b>          | Gasoline          | <b>Test Procedure</b>   | 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          | --             | --  | --          | --                              | --                                | --      | 0.4300 | 999    |
| 120,000 miles | METHANE       | --             | --  | --          | --                              | --                                | --      | 0.0018 | 0.030  |
| 120,000 miles | N2O           | --             | --  | --          | --                              | --                                | --      | 0.0005 | 0.010  |
| 150,000 miles | CO            | --             | --  | --          | --                              | --                                | --      | 0.3300 | 2.1    |
| 150,000 miles | CO-COMP       | --             | --  | --          | --                              | --                                | --      | --     | 4.2    |
| 150,000 miles | NMOG          | --             | --  | 1.0991      | --                              | --                                | --      | 0.0088 | 99.000 |
| 150,000 miles | NMOG+NOX      | --             | --  | --          | --                              | --                                | 1       | --     | 0.125  |
| 150,000 miles | NMOG+NOX-COMP | --             | --  | --          | --                              | --                                | --      | --     | 0.110  |
| 150,000 miles | NOX           | --             | --  | --          | --                              | --                                | --      | 0.0012 | 99.000 |
| 150,000 miles | PM            | --             | --  | --          | --                              | --                                | --      | 0.0006 | 0.003  |

|                      |                   |                         |                        |
|----------------------|-------------------|-------------------------|------------------------|
| <b>Cert Region</b>   | Federal           | <b>Cert/In-Use Code</b> | Both                   |
| <b>Vehicle Class</b> | LDV/Passenger Car | <b>Standard Level</b>   | Federal Tier 3 Bin 125 |
| <b>Fuel</b>          | Gasoline          | <b>Test Procedure</b>   | 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            | --             | --  | --          | --                              | --                                | --      | 0.3300 | 99.0   |
| 150,000 miles | NMOG          | --             | --  | 1.0300      | --                              | --                                | --      | 0.0088 | 99.000 |
| 150,000 miles | NOX           | --             | --  | --          | --                              | --                                | --      | 0.0012 | 99.000 |
| 150,000 miles | PM            | --             | --  | --          | --                              | --                                | --      | 0.0006 | 0.006  |

### Certification Summary Information Report

|                      |                      |                                     |            |                    |                                        |                                          |                |                           |            |  |
|----------------------|----------------------|-------------------------------------|------------|--------------------|----------------------------------------|------------------------------------------|----------------|---------------------------|------------|--|
| <b>Test Group</b>    |                      | VVGAJ04.0NAT                        |            |                    | <b>Evaporative/Refueling Family</b>    |                                          |                | VVGAR0182NCM              |            |  |
| <b>Cert Region</b>   |                      | California + CAA Section 177 states |            |                    | <b>Cert/In-Use Code</b>                |                                          |                | Both                      |            |  |
| <b>Vehicle Class</b> |                      | LDV/Passenger Car                   |            |                    | <b>Standard Level</b>                  |                                          |                | California LEV-IV ULEV125 |            |  |
| <b>Fuel</b>          |                      | Gasoline                            |            |                    | <b>Test Procedure</b>                  |                                          |                | SC03                      |            |  |
| <b>Useful Life</b>   | <b>Emission Name</b> | <b>Rounded Result</b>               | <b>RAF</b> | <b>NMOG / NMHC</b> | <b>Upward Diesel Adjustment Factor</b> | <b>Downward Diesel Adjustment Factor</b> | <b>Mult DF</b> | <b>Add DF</b>             | <b>Std</b> |  |
| 150,000 miles        | CO                   | --                                  | --         | --                 | --                                     | --                                       | --             | 0.3300                    | 2.1        |  |
| 150,000 miles        | NMOG                 | --                                  | --         | 1.0300             | --                                     | --                                       | --             | 0.0088                    | 99.000     |  |
| 150,000 miles        | NMOG+NOX             | --                                  | --         | --                 | --                                     | --                                       | 1              | --                        | 0.125      |  |
| 150,000 miles        | NOX                  | --                                  | --         | --                 | --                                     | --                                       | --             | 0.0012                    | 99.000     |  |

|                      |                      |                                     |            |                    |                                        |                                          |                |                                         |            |  |
|----------------------|----------------------|-------------------------------------|------------|--------------------|----------------------------------------|------------------------------------------|----------------|-----------------------------------------|------------|--|
| <b>Cert Region</b>   |                      | California + CAA Section 177 states |            |                    | <b>Cert/In-Use Code</b>                |                                          |                | Both                                    |            |  |
| <b>Vehicle Class</b> |                      | LDV/Passenger Car                   |            |                    | <b>Standard Level</b>                  |                                          |                | California LEV-IV ULEV125               |            |  |
| <b>Fuel</b>          |                      | Gasoline                            |            |                    | <b>Test Procedure</b>                  |                                          |                | Federal fuel 2-day exhaust (w/can load) |            |  |
| <b>Useful Life</b>   | <b>Emission Name</b> | <b>Rounded Result</b>               | <b>RAF</b> | <b>NMOG / NMHC</b> | <b>Upward Diesel Adjustment Factor</b> | <b>Downward Diesel Adjustment Factor</b> | <b>Mult DF</b> | <b>Add DF</b>                           | <b>Std</b> |  |
| 150,000 miles        | CO                   | --                                  | --         | --                 | --                                     | --                                       | --             | 0.330                                   | 2.1        |  |
| 150,000 miles        | NMOG                 | --                                  | --         | 1.0991             | --                                     | --                                       | --             | 0.0088                                  | 99.000     |  |
| 150,000 miles        | NMOG+NOX             | --                                  | --         | --                 | --                                     | --                                       | 1              | --                                      | 0.125      |  |
| 150,000 miles        | NOX                  | --                                  | --         | --                 | --                                     | --                                       | --             | 0.0012                                  | 99.000     |  |
| 150,000 miles        | PM                   | --                                  | --         | --                 | --                                     | --                                       | --             | 0.0006                                  | 0.003      |  |

|                      |                      |                                     |            |                    |                                        |                                          |                |                           |            |  |
|----------------------|----------------------|-------------------------------------|------------|--------------------|----------------------------------------|------------------------------------------|----------------|---------------------------|------------|--|
| <b>Cert Region</b>   |                      | California + CAA Section 177 states |            |                    | <b>Cert/In-Use Code</b>                |                                          |                | Both                      |            |  |
| <b>Vehicle Class</b> |                      | LDV/Passenger Car                   |            |                    | <b>Standard Level</b>                  |                                          |                | California LEV-IV ULEV125 |            |  |
| <b>Fuel</b>          |                      | Gasoline                            |            |                    | <b>Test Procedure</b>                  |                                          |                | Fed. fuel 50 F exh.       |            |  |
| <b>Useful Life</b>   | <b>Emission Name</b> | <b>Rounded Result</b>               | <b>RAF</b> | <b>NMOG / NMHC</b> | <b>Upward Diesel Adjustment Factor</b> | <b>Downward Diesel Adjustment Factor</b> | <b>Mult DF</b> | <b>Add DF</b>             | <b>Std</b> |  |
| 4,000 miles          | CO                   | --                                  | --         | --                 | --                                     | --                                       | --             | --                        | 2.1        |  |
| 4,000 miles          | NMOG                 | --                                  | --         | 1.0991             | --                                     | --                                       | --             | --                        | 99.000     |  |
| 4,000 miles          | NMOG+NOX             | --                                  | --         | --                 | --                                     | --                                       | 1              | --                        | 0.250      |  |
| 4,000 miles          | NOX                  | --                                  | --         | --                 | --                                     | --                                       | --             | --                        | 99.000     |  |

### Certification Summary Information Report

|                      |                      |                                     |            |                    |                                        |                                          |                |                           |            |  |
|----------------------|----------------------|-------------------------------------|------------|--------------------|----------------------------------------|------------------------------------------|----------------|---------------------------|------------|--|
| <b>Test Group</b>    |                      | VVGAJ04.0NAT                        |            |                    | <b>Evaporative/Refueling Family</b>    |                                          |                | VVGAR0182NCM              |            |  |
| <b>Cert Region</b>   |                      | California + CAA Section 177 states |            |                    | <b>Cert/In-Use Code</b>                |                                          |                | Both                      |            |  |
| <b>Vehicle Class</b> |                      | LDV/Passenger Car                   |            |                    | <b>Standard Level</b>                  |                                          |                | California LEV-IV ULEV125 |            |  |
| <b>Fuel</b>          |                      | Gasoline                            |            |                    | <b>Test Procedure</b>                  |                                          |                | US06                      |            |  |
| <b>Useful Life</b>   | <b>Emission Name</b> | <b>Rounded Result</b>               | <b>RAF</b> | <b>NMOG / NMHC</b> | <b>Upward Diesel Adjustment Factor</b> | <b>Downward Diesel Adjustment Factor</b> | <b>Mult DF</b> | <b>Add DF</b>             | <b>Std</b> |  |
| 150,000 miles        | CO                   | --                                  | --         | --                 | --                                     | --                                       | --             | 0.3300                    | 9.6        |  |
| 150,000 miles        | NMOG                 | --                                  | --         | 1.0300             | --                                     | --                                       | --             | 0.0088                    | 99.000     |  |
| 150,000 miles        | NMOG+NOX             | --                                  | --         | --                 | --                                     | --                                       | 1              | --                        | 0.150      |  |
| 150,000 miles        | NOX                  | --                                  | --         | --                 | --                                     | --                                       | --             | 0.0012                    | 99.000     |  |
| 150,000 miles        | PM                   | --                                  | --         | --                 | --                                     | --                                       | --             | 0.0006                    | 0.006      |  |

|                      |                      |                       |            |                    |                                        |                                          |                |                        |            |  |
|----------------------|----------------------|-----------------------|------------|--------------------|----------------------------------------|------------------------------------------|----------------|------------------------|------------|--|
| <b>Cert Region</b>   |                      | Federal               |            |                    | <b>Cert/In-Use Code</b>                |                                          |                | Both                   |            |  |
| <b>Vehicle Class</b> |                      | LDV/Passenger Car     |            |                    | <b>Standard Level</b>                  |                                          |                | Federal Tier 3 Bin 125 |            |  |
| <b>Fuel</b>          |                      | Gasoline              |            |                    | <b>Test Procedure</b>                  |                                          |                | HWFE                   |            |  |
| <b>Useful Life</b>   | <b>Emission Name</b> | <b>Rounded Result</b> | <b>RAF</b> | <b>NMOG / NMHC</b> | <b>Upward Diesel Adjustment Factor</b> | <b>Downward Diesel Adjustment Factor</b> | <b>Mult DF</b> | <b>Add DF</b>          | <b>Std</b> |  |
| 150,000 miles        | CREE                 | --                    | --         | --                 | --                                     | --                                       | --             | 0.430                  | 999        |  |
| 150,000 miles        | NMOG                 | --                    | --         | 1.0300             | --                                     | --                                       | --             | 0.0088                 | 99.000     |  |
| 150,000 miles        | NMOG+NOX             | --                    | --         | --                 | --                                     | --                                       | 1              | --                     | 0.125      |  |
| 150,000 miles        | NOX                  | --                    | --         | --                 | --                                     | --                                       | --             | 0.0012                 | 99.000     |  |

|                      |                      |                       |            |                    |                                        |                                          |                |                        |            |  |
|----------------------|----------------------|-----------------------|------------|--------------------|----------------------------------------|------------------------------------------|----------------|------------------------|------------|--|
| <b>Cert Region</b>   |                      | Federal               |            |                    | <b>Cert/In-Use Code</b>                |                                          |                | Both                   |            |  |
| <b>Vehicle Class</b> |                      | LDV/Passenger Car     |            |                    | <b>Standard Level</b>                  |                                          |                | Federal Tier 3 Bin 125 |            |  |
| <b>Fuel</b>          |                      | Gasoline              |            |                    | <b>Test Procedure</b>                  |                                          |                | Cold CO                |            |  |
| <b>Useful Life</b>   | <b>Emission Name</b> | <b>Rounded Result</b> | <b>RAF</b> | <b>NMOG / NMHC</b> | <b>Upward Diesel Adjustment Factor</b> | <b>Downward Diesel Adjustment Factor</b> | <b>Mult DF</b> | <b>Add DF</b>          | <b>Std</b> |  |
| 50,000 miles         | CO                   | --                    | --         | --                 | --                                     | --                                       | --             | 0.1100                 | 10.0       |  |
| 120,000 miles        | HC-NM                | --                    | --         | --                 | --                                     | --                                       | --             | 0.0063                 | 0.5        |  |

### Certification Summary Information Report

|                      |                      |                       |            |                    |                                        |                                          |                |                        |            |  |
|----------------------|----------------------|-----------------------|------------|--------------------|----------------------------------------|------------------------------------------|----------------|------------------------|------------|--|
| <b>Test Group</b>    |                      | VVGAJ04.0NAT          |            |                    | <b>Evaporative/Refueling Family</b>    |                                          |                | VVGAR0182NCM           |            |  |
| <b>Cert Region</b>   |                      | Federal               |            |                    | <b>Cert/In-Use Code</b>                |                                          |                | Both                   |            |  |
| <b>Vehicle Class</b> |                      | LDV/Passenger Car     |            |                    | <b>Standard Level</b>                  |                                          |                | Federal Tier 3 Bin 125 |            |  |
| <b>Fuel</b>          |                      | Gasoline              |            |                    | <b>Test Procedure</b>                  |                                          |                | SC03                   |            |  |
| <b>Useful Life</b>   | <b>Emission Name</b> | <b>Rounded Result</b> | <b>RAF</b> | <b>NMOG / NMHC</b> | <b>Upward Diesel Adjustment Factor</b> | <b>Downward Diesel Adjustment Factor</b> | <b>Mult DF</b> | <b>Add DF</b>          | <b>Std</b> |  |
| 150,000 miles        | CO                   | --                    | --         | --                 | --                                     | --                                       | --             | 0.3300                 | 99.0       |  |
| 150,000 miles        | NMOG                 | --                    | --         | 1.0300             | --                                     | --                                       | --             | 0.0088                 | 99.000     |  |
| 150,000 miles        | NOX                  | --                    | --         | --                 | --                                     | --                                       | --             | 0.0012                 | 99.000     |  |

|                      |                      |                                     |            |                    |                                        |                                          |                |                           |            |  |
|----------------------|----------------------|-------------------------------------|------------|--------------------|----------------------------------------|------------------------------------------|----------------|---------------------------|------------|--|
| <b>Cert Region</b>   |                      | California + CAA Section 177 states |            |                    | <b>Cert/In-Use Code</b>                |                                          |                | Both                      |            |  |
| <b>Vehicle Class</b> |                      | LDV/Passenger Car                   |            |                    | <b>Standard Level</b>                  |                                          |                | California LEV-IV ULEV125 |            |  |
| <b>Fuel</b>          |                      | Gasoline                            |            |                    | <b>Test Procedure</b>                  |                                          |                | Cold CO                   |            |  |
| <b>Useful Life</b>   | <b>Emission Name</b> | <b>Rounded Result</b>               | <b>RAF</b> | <b>NMOG / NMHC</b> | <b>Upward Diesel Adjustment Factor</b> | <b>Downward Diesel Adjustment Factor</b> | <b>Mult DF</b> | <b>Add DF</b>             | <b>Std</b> |  |
| 50,000 miles         | CO                   | --                                  | --         | --                 | --                                     | --                                       | --             | 0.1100                    | 10.0       |  |

|                      |                      |                                     |            |                    |                                        |                                          |                |                           |            |  |
|----------------------|----------------------|-------------------------------------|------------|--------------------|----------------------------------------|------------------------------------------|----------------|---------------------------|------------|--|
| <b>Cert Region</b>   |                      | California + CAA Section 177 states |            |                    | <b>Cert/In-Use Code</b>                |                                          |                | Both                      |            |  |
| <b>Vehicle Class</b> |                      | LDV/Passenger Car                   |            |                    | <b>Standard Level</b>                  |                                          |                | California LEV-IV ULEV125 |            |  |
| <b>Fuel</b>          |                      | Gasoline                            |            |                    | <b>Test Procedure</b>                  |                                          |                | HWFE                      |            |  |
| <b>Useful Life</b>   | <b>Emission Name</b> | <b>Rounded Result</b>               | <b>RAF</b> | <b>NMOG / NMHC</b> | <b>Upward Diesel Adjustment Factor</b> | <b>Downward Diesel Adjustment Factor</b> | <b>Mult DF</b> | <b>Add DF</b>             | <b>Std</b> |  |
| 150,000 miles        | NMOG                 | --                                  | --         | 1.0300             | --                                     | --                                       | --             | 0.0088                    | 99.000     |  |
| 150,000 miles        | NMOG+NOX             | --                                  | --         | --                 | --                                     | --                                       | 1              | --                        | 0.125      |  |
| 150,000 miles        | NOX                  | --                                  | --         | --                 | --                                     | --                                       | --             | 0.0012                    | 99.000     |  |

**Evaporative/Refueling Standards**

|                                     |                    |                                    |                       |            |                       |  |  |                     |  |  |
|-------------------------------------|--------------------|------------------------------------|-----------------------|------------|-----------------------|--|--|---------------------|--|--|
| <b>Evaporative/Refueling Family</b> |                    | VVGAR0182NCM                       |                       |            | <b>Cert Region</b>    |  |  | Federal             |  |  |
| <b>Cert/In-Use Code</b>             |                    | Both                               |                       |            | <b>Standard Level</b> |  |  | Federal Tier 3 Evap |  |  |
| <b>Test Procedure</b>               |                    | Federal fuel refueling test (ORVR) |                       |            |                       |  |  |                     |  |  |
| <b>Fuel</b>                         | <b>Useful Life</b> | <b>Emission Name</b>               | <b>Rounded Result</b> | <b>Std</b> | <b>Add DF</b>         |  |  |                     |  |  |
| Gasoline                            | 150,000 miles      | HC                                 | --                    | 0.20       | 0.007                 |  |  |                     |  |  |

### Certification Summary Information Report

|                                     |                          |                                     |                                                                               |            |               |
|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------------------------------------------------|------------|---------------|
| <b>Test Group</b>                   | VVGAJ04.0NAT             | <b>Evaporative/Refueling Family</b> | VVGAR0182NCM                                                                  |            |               |
| <b>Evaporative/Refueling Family</b> | VVGAR0182NCM             | <b>Cert Region</b>                  | California + CAA Section 177 states<br>California LEV-IV Zero Evap (Option 2) |            |               |
| <b>Cert/In-Use Code</b>             | Both                     | <b>Standard Level</b>               |                                                                               |            |               |
| <b>Test Procedure</b>               | 2-day evap               |                                     |                                                                               |            |               |
| <b>Fuel</b>                         | <b>Useful Life</b>       | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         | <b>Std</b> | <b>Add DF</b> |
| Gasoline                            | 150,000 miles            | HC-TOTAL-EQUIV                      | --                                                                            | 0.450      | 0.011         |
| <b>Evaporative/Refueling Family</b> | VVGAR0182NCM             | <b>Cert Region</b>                  | California + CAA Section 177 states<br>California LEV-IV Zero Evap (Option 2) |            |               |
| <b>Cert/In-Use Code</b>             | Both                     | <b>Standard Level</b>               |                                                                               |            |               |
| <b>Test Procedure</b>               | Federal fuel 3-day evap  |                                     |                                                                               |            |               |
| <b>Fuel</b>                         | <b>Useful Life</b>       | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         | <b>Std</b> | <b>Add DF</b> |
| Gasoline                            | 150,000 miles            | HC-TOTAL-EQUIV                      | --                                                                            | 0.450      | 0.014         |
| <b>Evaporative/Refueling Family</b> | VVGAR0182NCM             | <b>Cert Region</b>                  | Federal<br>Federal Tier 3 Evap                                                |            |               |
| <b>Cert/In-Use Code</b>             | Both                     | <b>Standard Level</b>               |                                                                               |            |               |
| <b>Test Procedure</b>               | 2-day evap               |                                     |                                                                               |            |               |
| <b>Fuel</b>                         | <b>Useful Life</b>       | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         | <b>Std</b> | <b>Add DF</b> |
| Gasoline                            | 150,000 miles            | HC-TOTAL-EQUIV                      | --                                                                            | 0.450      | 0.0110        |
| <b>Evaporative/Refueling Family</b> | VVGAR0182NCM             | <b>Cert Region</b>                  | Federal<br>Federal Tier 3 Evap                                                |            |               |
| <b>Cert/In-Use Code</b>             | Both                     | <b>Standard Level</b>               |                                                                               |            |               |
| <b>Test Procedure</b>               | Federal fuel 3-day evap  |                                     |                                                                               |            |               |
| <b>Fuel</b>                         | <b>Useful Life</b>       | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         | <b>Std</b> | <b>Add DF</b> |
| Gasoline                            | 150,000 miles            | HC-TOTAL-EQUIV                      | --                                                                            | 0.450      | 0.0140        |
| <b>Evaporative/Refueling Family</b> | VVGAR0182NCM             | <b>Cert Region</b>                  | California + CAA Section 177 states<br>California LEV-IV Zero Evap (Option 2) |            |               |
| <b>Cert/In-Use Code</b>             | Both                     | <b>Standard Level</b>               |                                                                               |            |               |
| <b>Test Procedure</b>               | Evap Canister Bleed Test |                                     |                                                                               |            |               |
| <b>Fuel</b>                         | <b>Useful Life</b>       | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         | <b>Std</b> | <b>Add DF</b> |
| Gasoline                            | 150,000 miles            | HC-TOTAL-EQUIV                      | --                                                                            | 0.020      | --            |

### Certification Summary Information Report

|                                     |                                    |                                     |                                                                               |            |               |
|-------------------------------------|------------------------------------|-------------------------------------|-------------------------------------------------------------------------------|------------|---------------|
| <b>Test Group</b>                   | VVGAJ04.0NAT                       | <b>Evaporative/Refueling Family</b> | VVGAR0182NCM                                                                  |            |               |
| <b>Evaporative/Refueling Family</b> | VVGAR0182NCM                       | <b>Cert Region</b>                  | California + CAA Section 177 states<br>California LEV-IV Zero Evap (Option 2) |            |               |
| <b>Cert/In-Use Code</b>             | Both                               | <b>Standard Level</b>               |                                                                               |            |               |
| <b>Test Procedure</b>               | Federal fuel refueling test (ORVR) |                                     |                                                                               |            |               |
| <b>Fuel</b>                         | <b>Useful Life</b>                 | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         | <b>Std</b> | <b>Add DF</b> |
| Gasoline                            | 150,000 miles                      | HC                                  | --                                                                            | 0.20       | 0.007         |
|                                     |                                    |                                     |                                                                               |            |               |
| <b>Evaporative/Refueling Family</b> | VVGAR0182NCM                       | <b>Cert Region</b>                  | California + CAA Section 177 states<br>California LEV-IV Zero Evap (Option 2) |            |               |
| <b>Cert/In-Use Code</b>             | Both                               | <b>Standard Level</b>               |                                                                               |            |               |
| <b>Test Procedure</b>               | Federal Fuel Running Loss          |                                     |                                                                               |            |               |
| <b>Fuel</b>                         | <b>Useful Life</b>                 | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         | <b>Std</b> | <b>Add DF</b> |
| Gasoline                            | 150,000 miles                      | HC-TOTAL-EQUIV                      | --                                                                            | 0.050      | 0.000         |
|                                     |                                    |                                     |                                                                               |            |               |
| <b>Evaporative/Refueling Family</b> | VVGAR0182NCM                       | <b>Cert Region</b>                  | Federal<br>Federal Tier 3 Evap                                                |            |               |
| <b>Cert/In-Use Code</b>             | Both                               | <b>Standard Level</b>               |                                                                               |            |               |
| <b>Test Procedure</b>               | Federal Fuel Running Loss          |                                     |                                                                               |            |               |
| <b>Fuel</b>                         | <b>Useful Life</b>                 | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         | <b>Std</b> | <b>Add DF</b> |
| Gasoline                            | 150,000 miles                      | HC-TOTAL-EQUIV                      | --                                                                            | 0.05       | 0.000         |
|                                     |                                    |                                     |                                                                               |            |               |
| <b>Evaporative/Refueling Family</b> | VVGAR0182NCM                       | <b>Cert Region</b>                  | Federal<br>Federal Tier 3 Evap                                                |            |               |
| <b>Cert/In-Use Code</b>             | Both                               | <b>Standard Level</b>               |                                                                               |            |               |
| <b>Test Procedure</b>               | Evap Canister Bleed Test           |                                     |                                                                               |            |               |
| <b>Fuel</b>                         | <b>Useful Life</b>                 | <b>Emission Name</b>                | <b>Rounded Result</b>                                                         | <b>Std</b> | <b>Add DF</b> |
| Gasoline                            | 150,000 miles                      | HC-TOTAL-EQUIV                      | --                                                                            | 0.020      | --            |

## Certification Summary Information Report

| Test Group           | VVGAJ04.0NAT                                                    | Evaporative/Refueling Family | VVGAR0182NCM                                       |
|----------------------|-----------------------------------------------------------------|------------------------------|----------------------------------------------------|
| <b>Glossary</b>      |                                                                 |                              |                                                    |
| <b>Useful Life</b>   |                                                                 |                              |                                                    |
| 4                    | 4,000 miles                                                     | 120                          | 120,000 miles                                      |
| 50                   | 50,000 miles                                                    | 150                          | 150,000 miles                                      |
| 100                  | 100,000 miles                                                   |                              |                                                    |
| <b>Emission Name</b> |                                                                 |                              |                                                    |
| 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                             |                                                            | VVGAJ04.0NAT | Evaporative/Refueling Family |                                                 | VVGAR0182NCM |
|----------------------------------------|------------------------------------------------------------|--------------|------------------------------|-------------------------------------------------|--------------|
| 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                             |              |
| <b>Certification Region</b>            |                                                            |              |                              |                                                 |              |
| CA                                     | California + CAA Section 177 states                        |              | FA                           | Federal                                         |              |
| <b>Exhaust Emission Standard Level</b> |                                                            |              |                              |                                                 |              |
| 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                       |              |

## Certification Summary Information Report

| Test Group                    | VVGAJ04.0NAT                                                      | Evaporative/Refueling Family | VVGAR0182NCM                                             |
|-------------------------------|-------------------------------------------------------------------|------------------------------|----------------------------------------------------------|
| 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                   |                              |                                                          |
| <b>Transmission Type Code</b> |                                                                   |                              |                                                          |
| 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) |
| <b>Drive System Code</b>      |                                                                   |                              |                                                          |
| 4                             | 4-Wheel Drive                                                     | P                            | Part-time 4-Wheel Drive                                  |

**Certification Summary Information Report**

| <b>Test Group</b>                    | VVGAJ04.0NAT                    | <b>Evaporative/Refueling Family</b> | VVGAR0182NCM                     |
|--------------------------------------|---------------------------------|-------------------------------------|----------------------------------|
| F                                    | 2-Wheel Drive, Front            | A                                   | All Wheel Drive                  |
| R                                    | 2-Wheel Drive, Rear             |                                     |                                  |
| <b>Additional Terms and Acronyms</b> |                                 |                                     |                                  |
| 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                     |

## 8. Emission Testing Waiver Statements

### *Emissions Continuity Compliance Statement NMOG, CO, CO<sub>2</sub>, NO<sub>x</sub>, N<sub>2</sub>O, CH<sub>4</sub>, and HCHO*

In accordance with EPA Guidance Letter CD-14-19 and 40 CFR 86.1809-12 (e) the Volkswagen Group hereby certifies that based on engineering evaluations of emission testing there is no discontinuity in emission performance of NMOG, CO, CO<sub>2</sub>, NO<sub>x</sub>, N<sub>2</sub>O, CH<sub>4</sub> and HCHO as measured and averaged over the Federal Test Procedure and the Highway Test Procedure in the temperature range of 20°F to 86°F for vehicles in this test group.

The normal operation of the emission control system consists of:

(i) Cycling back and forth in a narrow window between rich and lean operation as a result of feedback controls targeted to maintain overall engine operation at stoichiometry.

(ii) Small changes in the target air-fuel ratio to optimize vehicle emissions or drivability. This may be called "closed loop biasing."

(iii) Temporary enrichment in response to rapid throttle motion.

(iv) Enrichment during cold-start and warm-up conditions.

(v) Temporary air/fuel mixture modulation for running OBD checks to comply with California OBD regulations contained in 13 CCR §1968.2.

(vi) Infrequent operation modes, e.g. PM trap regeneration, are certified under special provisions of the CFR".

The modulation of the emission control system can cause step changes in emissions and CO<sub>2</sub> depending on the driving condition (engine speed and load). This modulation is not forming a discontinuity in emissions because it is included in the Federal Test Procedures and is working under the same conditions during on-road operation.

### *A/C Calibrations – Compliance Statement*

In accordance with EPA Guidance Letter CD-14-19 and 40 CFR 86.1811-17 (d) (3) there are neither A/C-on specific calibrations nor A/C-on specific "open-loop" or "commanded" air fuel enrichment strategies incorporated into the vehicle design of this Test Group.

### ***Lean Best Torque Compliance Statement***

In accordance with EPA Guidance Letter CD-14-19 and 40 CFR 86.1811-17 (d) (1) the air fuel ratio is not richer at any time over the US06 cycle than the leanest air fuel ratio required to obtain maximum torque plus a tolerance of four percent. Other enrichments, if applicable e.g. for part protection, are described in the AECD description of the test group (section 16).

### ***Lean-On Cruise Compliance Statement***

In accordance with EPA Guidance Letter CD-14-19 and 40 CFR 86.1811-17 (d) (4) there are no "Lean-on-cruise" calibration strategies incorporated into the vehicle design of this test group.

### ***OBD Compliance Statement***

The OBD system meets the full intent of both the EPA Tier 3 Regulations contained in CFR Title 40 Part 86.1806-17 and the California OBD regulations contained in 13 CCR §1968.2.

### ***Leak Free Exhaust System Compliance Statement***

In accordance with 40 CFR 86.1844-01(d)(16(i), the Volkswagen Group hereby states that, for vehicles described in this application, as appropriate, it has conducted an engineering analysis of the complete exhaust system to ensure that the exhaust system has been designed:

- (A) To facilitate leak-free assembly, installation and operation for the full useful life of the vehicles, and
- (B) to facilitate that such repairs as might be necessary on a properly maintained and used vehicle can be performed in such a manner as to maintain leak-free operation, using tools commonly available in a motor vehicle dealership or independent repair shop for the full useful life of the vehicle.

A "leak-free" exhaust system is understood from the engine block to the point in the exhaust system behind the last component of exhaust aftertreatment system (e.g. catalyst).

Silencer/muffler and tailpipes are not part of the exhaust aftertreatment system when installed downstream the last component of exhaust aftertreatment.

For installation/mounting of the exhaust system clamps and/or flanges are used with a technical leakage specification ensuring compliance with exhaust emission standards in-use. Meaning: The exhaust system is designed to fulfill the lowest leakage according to state-of-the-art exhaust aftertreatment systems.

### ***High Altitude Exhaust Emissions Compliance Statement***

In accordance with 40 CFR 86.1829-15 (c), The Volkswagen Group hereby certifies that, based upon engineering evaluation and high altitude emission tests conducted on similar vehicles, all vehicles of this test group comply with the high altitude exhaust emissions requirements.

***Formaldehyde Emissions Compliance Statement***

In accordance with 86.1829-15 (d) (4), and based upon good engineering judgment, the Volkswagen Group hereby states that vehicles certified based upon NMHC emissions comply with the applicable formaldehyde emission standards.

***High Altitude Evaporative/Refueling Emissions Compliance Statement***

In accordance with 40 CFR 86.1829-01 (b) (2) (ii) (B), the Volkswagen Group hereby certifies that, based upon engineering evaluation and high altitude evaporative/refueling tests conducted on similar vehicles, all vehicles of this test group comply with the high altitude evaporative/refueling emissions requirements.

***Spitback Compliance Statement***

In accordance 40 CFR 86.1829-15 (e) (5) the Volkswagen Group hereby certifies that the vehicle inherently meets the Fuel Dispensing Spitback Standard as part of compliance with the refueling emission standard. This certification applies to the full useful life of the vehicle. Testing is therefore not required.

***Evaporative Leak Test Compliance Statement***

In accordance with 40 CFR 86.1829-15 (e) (4), the Volkswagen Group hereby certifies that, based upon engineering evaluation all vehicles in the evaporative/refueling emission family comply with the evaporative emission standard outlined in 40 CFR 86.1813-17 (a) (4).

***Driver-Selectable modes Compliance Statement***

In accordance with EPA Guidance Letter Cisd-09-19, all driver-selectable transmission drive modes are deemed to comply with emission standards.

## **9.0 OBD System Description**

### **9.1 Summary Table**

Refer to Section 16 (included in OBD II A – P application)

### **9.2 California Air Resources Board OBD System Approval Letter.**

Refer to Section 16

## **10. Description of Alternate Fueled Vehicles**

Not applicable

## **11. Auxiliary Emission Control Devices (AECD) Descriptions**

Refer to Section 16.2 of this Application

## 12.0 List of Certified Vehicles

|                                 |                                                       |
|---------------------------------|-------------------------------------------------------|
| <b>Durability Group</b>         | VVGAHHGNNNAT                                          |
| <b>Test Group</b>               | VVGAJ04.0NAT                                          |
| <b>Evap Family</b>              | VVGAR0182NCM (RS Q8 Performance)<br>VVGAR0176NCT (S8) |
| <b>Emission Control System:</b> | DFI/2TC/2CAC/2TWC/2WR-HO2S/2HO2S                      |
|                                 |                                                       |

|                             |           |
|-----------------------------|-----------|
| <b>Engine Displacement:</b> | 4.0 liter |
| <b>Valves per Cylinder:</b> | 4         |
| <b>Sales Area:</b>          | 50 states |
| <b>MMS:</b>                 | MG1       |
| <b>SIL:</b>                 | N/A       |

| Engine Code | Model             | Vehicle Class | Engine Code Characteristics |                      |            | HP @RPM    | Torque @RPM [lb-ft] | Trans. / OD | ETW  | Curb Weight [lbs] | GVWR [lbs] | Fuel Tank Capacity [Gal] | Canister working capacity [g] | Tire size  | N/V Ratio | Start/ Stop [Y/N] |
|-------------|-------------------|---------------|-----------------------------|----------------------|------------|------------|---------------------|-------------|------|-------------------|------------|--------------------------|-------------------------------|------------|-----------|-------------------|
|             |                   |               | Cat. Code                   | Com - pression ratio | Idle [rpm] |            |                     |             |      |                   |            |                          |                               |            |           |                   |
| DWNA        | RS Q8 Performance | LDT4          | JM842 (PRE),                | 9.7 ±0.3             | 770± 50    | 631 @ 6000 | 627 @ 2300 - 4500   | 8 / 7+8     | 5500 | 5523              | 6647       | 22.5                     | 176                           | 295/40 R22 | 23.0      | Y                 |
|             |                   |               | JM842 (MAIN)                |                      |            |            |                     |             |      |                   |            |                          |                               | 295/35 R23 | 23.1      |                   |
| DWKA        | S8                | LDV           | JM842 (PRE),                | 10.1 ±0.3            | 750± 50    | 563 @ 6000 | 590 @ 2050 - 4500   | 8 / 7+8     | 5500 | 5324              | 6393       | 22.2                     | 176                           | 265/40 R20 | 25.3      | Y                 |
|             |                   |               | JM842 (MAIN)                |                      |            |            |                     |             |      |                   |            |                          |                               | 265/35 R21 | 25.4      |                   |

**12.1 Transmissions**

| Transmission    | Transmission Characteristic |            |             |         |                |        |        |        |        |        |        |        |        |
|-----------------|-----------------------------|------------|-------------|---------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|
|                 | Drivetrain                  | Gear Count | Lock-Up rpm |         | Gearbox Ratios |        |        |        |        |        |        |        |        |
|                 |                             |            | Gear        | min/max | Axle           | Gear 1 | Gear 2 | Gear 3 | Gear 4 | Gear 5 | Gear 6 | Gear 7 | Gear 8 |
| <b>AL952-8Q</b> | AWD                         | 8          | 1-8         | n.a.    | 3.205          | 4.714  | 3.143  | 2.106  | 1.667  | 1.285  | 1.000  | 0.839  | 0.667  |

## 12.2 Test conditions

| Model                 | ETW   | Road Track Coefficients |            |                            |        |            |                          | TRL50 | TCDT | Fuel Tank Cap.   | Fan Pos. | Drive Mode for Testing | Shift Sched. I.D. | Test Fuel | DF Source |
|-----------------------|-------|-------------------------|------------|----------------------------|--------|------------|--------------------------|-------|------|------------------|----------|------------------------|-------------------|-----------|-----------|
|                       |       | F0                      | F1         | F2                         | F0     | F1         | F2                       |       |      |                  |          |                        |                   |           |           |
|                       | [lbs] | [lb*f]                  | [lb*f/mph] | [lb*f/(mph) <sup>2</sup> ] | [N]    | [N/(km/h)] | [N/(km/h) <sup>2</sup> ] | [hp]  | [s]  | 40% / 100% [Gal] |          |                        |                   |           |           |
| RS Q8 Performance     | 6000  | 66.89                   | 0.1946     | 0.03092                    | 297.56 | 0.5379     | 0.05310                  | 20.5  | 18.3 | 9.0 / 22.5       | 20       | S                      | automatic         | Tier 3    | PNAT-DDV  |
| RS Q8 Performance USA | 6000  | 59.86                   | 0.1970     | 0.03113                    | 266.25 | 0.5446     | 0.05346                  | 19.7  | 19.1 | 9.0 / 22.5       | 20       | D                      | automatic         | Tier2     | PNAT-DDV  |
| RS Q8 Performance CAN | 5500  | 55.70                   | 0.1970     | 0.03113                    | 247.78 | 0.5446     | 0.05346                  | 19.1  | 18.0 | 9.0 / 22.5       | 20       | D                      | automatic         | Tier2     | PNAT-DDV  |
| S8                    | 5500  | 53.69                   | 0.2609     | 0.02035                    | 238.81 | 0.7212     | 0.03495                  | 15.7  | 22.0 | 8.9 / 22.2       | 20       | D                      | automatic         | Tier 2    | PNAT-DDV  |

### Engine Starting procedure:

Press the brake pedal and move the selector lever into the P or N position.  
Start engine by turning key to "Start" position or by pushing the Engine "Stop/Start" button.

### ESP/ABS Deactivation procedure

Dyno Mode must be activated.  
Refer to Section 16 for Dyno Mode activation procedure.

### Fan Position during dyno testing:

FTP / HWY = Road Speed Fan (Modulated)  
US06 = Road Speed Fan (Modulated)

### Automatic Headlight System:

Automatic headlight system must be disabled prior to any emissions or fuel economy / range testing.  
Please contact VWGoA Engineering and Environmental Office if you need assistance with disabling the automatic headlights.

### Daytime Running Lights (DRL):

Daytime running lights must be disabled prior to fuel economy / range testing. DRLs can be turned off via the infotainment / MMI screen.  
Please contact VWGoA Engineering and Environmental Office if you need assistance with disabling the daytime running lights.

### **12.3 e-Motor Details**

|                                                                    |                                     |
|--------------------------------------------------------------------|-------------------------------------|
| Model Name                                                         | RS Q8 Performance, S8               |
| Engine Identification Number                                       | BSG-HP1-65                          |
| Nominal Voltage                                                    | 48V                                 |
| Direct Current (DC) / Alternating Current (AC)<br>number of phases | Alternating Current (AC) / 3 phases |
| Maximum Net Power                                                  | 8.4 kW @ 2700-2900 rpm              |
| Maximum Net Torque                                                 | 55.2 Nm @ 0-1270 rpm                |

## **12.4 Battery details**

|                                            |                              |
|--------------------------------------------|------------------------------|
| Battery Type                               | Lithium Ion Battery          |
| Number of Battery Cells                    | 13                           |
| Number of Battery Modules                  | 1                            |
| Total Weight of Battery System             | 8.9 kg                       |
| Nominal voltage                            | 48 Volt                      |
| Minimum Battery Voltage for Safe Operation | 26 Volt                      |
| Total System Energy Capacity (Ah)          | Gross: 9.5 Ah<br>Net: 5.7 Ah |
| Energy Density (Wh/Kg)                     | 50.1 Wh/kg                   |
| Battery Thermal Management                 | air                          |

## **12.4 Charging details**

Not Applicable

## **13.0 Test Group Projected Sales**

Refer to Section 16 of this Test Group Application

## **13.1 Compliance Plans**

Refer to Section 16 of the Common Section

## 14. Request for Certificate

### 14.1 Statement of Compliance

The Volkswagen Group states that any element of design, system, or emission control device installed on, or incorporated in the Volkswagen Group's new motor vehicles or new motor vehicle engines for the purpose of complying with standards prescribed under section 202 of the Clean Air Act, will not, to the best of the Volkswagen Group's information and belief, cause the emission into the ambient air of pollutants in the operation of its motor vehicles or motor vehicle engines which cause or contribute to an unreasonable risk to public health or welfare except as specifically permitted by the standards prescribed under section 202 of the Clean Air Act. The Volkswagen Group further states that any element of design, system, or emission control device installed or incorporated in the Volkswagen Group's new motor vehicles or new motor vehicle engines, for the purpose of complying with standards prescribed under section 202 of the Clean Air Act, will not, to the best of the Volkswagen Group's information and belief, cause or contribute to an unreasonable risk to public safety.

The term pollutant means:

- a. Diesel particulates
- b. Nickel
- c. MMT combustion products
- d. Ammonia
- e. Sulfates
- f. Hydrogen sulfide
- g. Hydrogen cyanide
- h. Ruthenium combustion products
- i. Nitrosamines

or any other pollutant which VW/AUDI has identified which can reasonably be expected to be emitted from these vehicles.

All vehicles have been tested in accordance with good engineering practice to ascertain that such test vehicles meet the requirement of this section for the useful life of the vehicle.

The test vehicles with respect to which data are submitted are in all material respects as described in the application for certification have been tested in accordance with the applicable test procedures utilizing the fuels and equipment described in the application for certification they meet the requirement of such tests and on the basis of such tests, they conform to the requirements of the regulations in 40 CFR. Part 86. Subpart S.

The vehicles for which certification is requested conform to the requirements in 86.1810-01 (a) and the description of tests performed to ascertain compliance with the general standards in 86.1810-01 (a) and the data derived from such tests are available.

The testing described under 86.1824-01 has been designed and conducted in accordance with good engineering practice to assure that the vehicles covered by a certificate issued under 86.1848-01 will meet the evaporative emission standards in 86.1811-01 for the useful life of the vehicle.

## 14.2. Durability Statement

Based on the Volkswagen Group's good engineering judgment, all the vehicles described in this Application for Certification comply with all applicable intermediate and full useful life standards





### **15.3 ORVR Safety Application for Carry-Over ORVR Systems**

Volkswagen Group Vehicles use standard technology in all 2026MY vehicles ORVR systems.

In accordance with EPA Guidance Letter CISC-06-06, ORVR applications will not be submitted.

# US EPA Fee Form

[Help and EPA Instructions](#)

\* Required Field

## General Information

Date: 02/23/2026

Process Code \*

Submit New Fee Filing Form

Manufacturer Code \*

VGA

Manufacturer Name \*

Volkswagen Group of America

Contact Name \*

Greg Allen

Contact Email Address \*

Gregory.Allen@vw.com

Contact Phone \*

248-754-4209

Calendar Year complete application submitted to EPA \*

2026

**PLEASE NOTE: These fees apply to complete certification applications received by EPA from January 1, 2026, through December 31, 2026. The applicable fee is determined by the**

**calendar year in which the complete certification application is received, not the model year.**

Engine Family / Evaporative Family / Test Group \*

VVGAJ04.0NAT

### Certificate Request Type (Industry Sector Code)

Certificate Request Type \*

- On-Highway LDV, LTD, MDVPV, HDV Chassis Cert (Federal) (A, B, D, J, T, V)
- On-Highway HDE Dyno Cert (Federal) (E, H)
- On-Highway LD ICI, MDPV ICI, HDV ICI (A, B, D, J, T, V)
- On-Highway Motorcycle (C)
- On-Highway HDV Evap (F)
- On-Highway LDV, LTD, MDVPV, HDV Chassis Cert (California-Only) (A, B, D, J, T, V)
- On-Highway HDE Dyno Cert (California-Only) (E, H)
- Nonroad CI (L)
- Nonroad SI (B, S)
- Locomotive (G, K)
- All Nonroad Recreational, excluding Marine engines (X, Y)
- All Marine (Including IMO) (M, N, W)
- Component Certification for Evaporative Emissions (P)

IMO Name (Required for dual US/IMO Marine Only)

ICI VIN Number (Required for ICIs Only)

Do you qualify for a Reduced Fee? \*

No

### Payment Information

Amount Owed

\$32,317.00

Payment Type \*

Offline ACH

Comments

MY2027 Certification Fee for VVGAJ04.0NAT  
Pay.gov Tracking ID: 27VRSFD5  
Agency Tracking ID: 77305107232

EPA Form Number 3520-29

OMB Control No. 2060-0545

Approval expires 7/31/2027

The public reporting and recordkeeping burden for this collection of information is estimated to average 12 minutes per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed forms to this address.

Mr. Joshua Kimball  
Compliance and Innovative Strategies Division  
Office of Mobile Sources  
U. S. Environmental Protection Agency  
2000 Traverwood Drive  
Ann Arbor, MI 48105

Anthony D'Ambrosi Name  
Dir, Homologation Title  
EEO - Certification Department  
(248) 754-4396 Phone  
Tony.DAmbrosi@vw.com E-Mail

April 2, 2026 Date

Subject: MY 2027 Volkswagen Group Light Duty Vehicle Initial Application for Emissions  
Certification for Test Group VVGAJ04.0NAT with Evaporative Families:  
VVGAR0182NCM and VVGAR0176NCT.

Dear Mr. Kimball,

We submit, with this letter, the model year 2027 Part 1 Application for Emissions  
Certification for the following Test Group:

| <u>Test Group</u> | <u>Standards</u>                  | <u>Sales Area</u>     |
|-------------------|-----------------------------------|-----------------------|
| VVGAJ04.0NAT      | Tier 3 Bin 125<br>LEVIII ULEV 125 | Federal<br>California |

Copies of the Certification Fee filing form and OBD approval letter are contained in  
sections 15 and 16 of the included electronic application.

All vehicles within this test group comply with all applicable regulations contained in  
40 CFR Part 86, Part 1066 and the compliance statements contained in sections 8  
and 14.

This submission constitutes our final application and the request for issuance of a  
Certificate of Conformity.

If you have any questions with regard to this information please contact our office in  
Auburn Hills at (248) 754-4396.

Sincerely,

D'Ambrosi Anthony  
VWPKI  
5406C07D40F4331C  
Digitally signed by D'Ambrosi  
Anthony VWPKI  
5406C07D40F4331C  
Date: 2026.04.02 09:50:31 -04'00'

Anthony D'Ambrosi  
Volkswagen Group of America, Inc.  
Engineering and Environmental Office

Enclosure(s)

Robin Lang, Chief  
Emissions Certification and Compliance Division  
California Air Resources Board  
4001 Iowa Avenue  
Riverside, California 92507

Anthony D'Ambrosi Name  
Dir, Homologation Title  
EEO – Certification Department  
(248) 754-4396 Phone  
Tony.DAmbrosi@vw.com E-Mail  
April 2, 2026 Date

Subject: MY 2027 Volkswagen Group Light Duty Vehicle Initial Application for Emissions  
Certification for Test Group VVGAJ04.0NAT with Evaporative Families:  
VVGAR0182NCM and VVGAR0176NCT.

Dear Ms. Lang,

We submit, with this letter, the model year 2027 Part 1 Application for Emissions  
Certification for the following Test Group:

| <u>Test Group</u> | <u>Standards</u>                        | <u>Sales Area</u>     |
|-------------------|-----------------------------------------|-----------------------|
| VVGAJ04.0NAT      | Tier 4 Interim Bin 125<br>LEV3 ULEV 125 | Federal<br>California |

This submission constitutes our final application and the request for issuance of the  
Executive Order.

If you have any questions with regard to this information please contact our office in  
Auburn Hills at (248) 754-4396.

Sincerely,

D'Ambrosi Anthony  
VWPKI  
5406C07D40F4331C  
Digitally signed by D'Ambrosi  
Anthony VWPKI  
5406C07D40F4331C  
Date: 2026.04.02 09:49:22 -04'00'

Anthony D'Ambrosi  
Volkswagen Group of America, Inc.  
Engineering and Environmental Office

Enclosure(s)

## **California ARB Information**

### **17.1 California Compliance Statements**

#### **Production Vehicle same as Test Vehicle Statement**

*The production vehicles represented by the particular engine families will be in all material respects of the same design as those for which vehicle approval is granted.*

#### **Smog Check Compliance Statement**

*Vehicles in this test group meet California's BAR Smog Check requirement in 16 CCR § 3340.42 by having a compliant OBD system (13 CCR § 1968.2) that will satisfy the California BAR-OIS OBD focused test method and the OBD pass-fail criteria in 16 CCR § 3340.42.2(c).*

#### **CARB Fill Pipe Bench Leak Rate Compliance Statement**

*In accordance with Section VI (Bench Leak Rate Specification) of the Air Resources Board document, "Specifications for fill pipes and openings of 2015 and subsequent model motor vehicle fuel tanks", amended on May 31, 2019, the VW Group hereby attests that, for the leak family(s) stated, the systems meet the specifications in Section VI when tested per the test procedure in section VIII.*

#### **Environmental Performance Label Information**

*VW Group applies new EPA label in lieu of the CA EP label.*

#### **California Emissions Warranty Statement**

*Please refer to California Emissions Warranty booklets located in Section 16 of the Common Section.*

#### **Adjustable Parameters/Tamper Resistance Statement**

*The emission control system contains no devices that contain parameters that are designed, and/or intended, to be physically capable of being adjusted*

#### **LEV IV SC03 Compliance**

*In accordance with California Code of Regulations Title 13 Section 1961.4 (d)(4), Volkswagen Group attests that vehicles tested using the SC03 test procedure meet the NMOG+NO<sub>x</sub> and CO exhaust emissions requirements.*

## **17.2 Fill Pipe Specifications**

Please refer to the Section 16

## **17.3 Evaporative Emission Deterioration Program**

Please refer to Common Section Application

## **17.4 Assembly line NMOG / NMHC Factor**

**F<sub>NMOG</sub>**: Calculated per EPA 40CFR part 1066

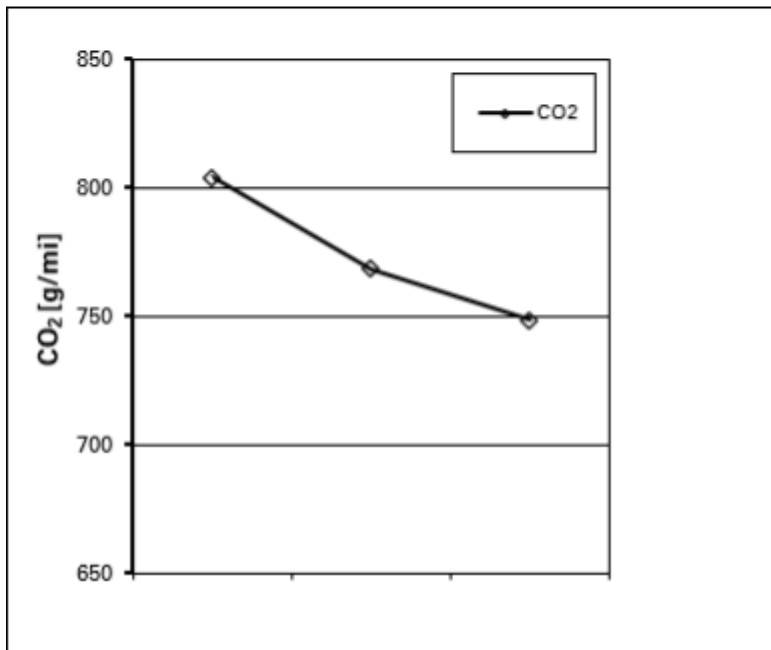
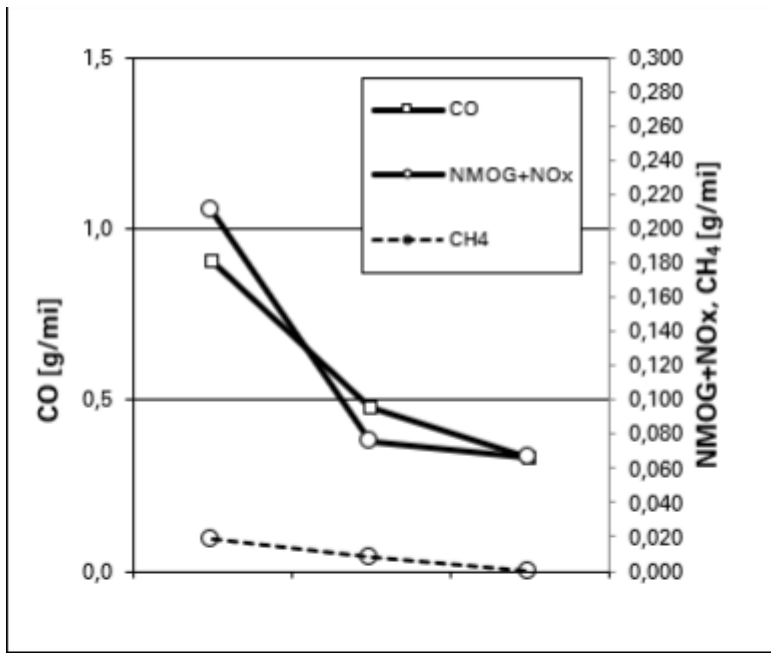
**F<sub>HCHO</sub>** (Indolene):

**F<sub>HCHO</sub>** (Phase II):

Compliance covered by statement according to regulations (see Section 8)

## 17.5 Continuity of Emission Control Information Label

RS Q8 / S8




## 17.6 Application Deterioration Factors


|      | THC<br>(g/mi) | NMHC<br>(g/mi) | NMOG<br>(g/mi) | NOx<br>(g/mi) | CO<br>(g/mi) | HCHO<br>(mg/mi) | PM<br>(g/mi) | NMOG+NOx<br>(g/mi) |
|------|---------------|----------------|----------------|---------------|--------------|-----------------|--------------|--------------------|
| 50k  |               | 0.0027         | 0.0029         | 0.0004        | 0.11         | -               | 0.0002       | 0.0033             |
| 150k | -             | 0.0080         | 0.0088         | 0.0012        | 0.33         | -               | 0.0006       | 0.0099             |

## 21. Vehicle Emission Control Information Label

RS Q8 Performance

|                                                                |                              |                                                                                    |
|----------------------------------------------------------------|------------------------------|------------------------------------------------------------------------------------|
| <b>AUDI AG</b>                                                 |                              |  |
| VEHICLE EMISSION<br>CONTROL INFORMATION                        |                              |                                                                                    |
| CONFORMS TO REGULATIONS: 2027 MY                               |                              |                                                                                    |
| U.S. EPA:                                                      | BIN125 LDT4 OBD: CA II FUEL: | GASOLINE                                                                           |
| CALIFORNIA:                                                    | ULEV125 LDT OBD: CA II FUEL: | GASOLINE                                                                           |
| NO ADJUSTMENTS NEEDED.<br>DFI/2TC/2CAC/2TWC/<br>2WR-HO2S/2HO2S |                              |                                                                                    |
| GROUP:                                                         | VVGAJ04.ONAT                 |                                                                                    |
| EVAP:                                                          | VVGAR0182NCM                 |                                                                                    |
|                                                                |                              | 22x22<br>Dots                                                                      |
|                                                                |                              | 4M0 010 504 AG                                                                     |

S8

|                                                                |                             |                                                                                      |
|----------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------|
| <b>AUDI AG</b>                                                 |                             |  |
| VEHICLE EMISSION<br>CONTROL INFORMATION                        |                             |                                                                                      |
| CONFORMS TO REGULATIONS: 2027 MY                               |                             |                                                                                      |
| U.S. EPA:                                                      | BIN125 LDV OBD: CA II FUEL: | GASOLINE                                                                             |
| CALIFORNIA:                                                    | ULEV125 PC OBD: CA II FUEL: | GASOLINE                                                                             |
| NO ADJUSTMENTS NEEDED.<br>DFI/2TC/2CAC/2TWC/<br>2WR-HO2S/2HO2S |                             |                                                                                      |
| GROUP:                                                         | VVGAJ04.ONAT                |                                                                                      |
| EVAP:                                                          | VVGAR0176NCT                |                                                                                      |
|                                                                |                             | 22x22<br>Dots                                                                        |
|                                                                |                             | 4N0 010 504 J                                                                        |

## 21.2 Engine Control Module (ECM) Information

| Model             | Engine Code | SW-Part number     | Cal ID           | CVN         | Comments |
|-------------------|-------------|--------------------|------------------|-------------|----------|
| RS Q8 Performance | DWNA        | 4M8.907.557.S 0005 | 4M8557S 0005BVAB | DB 6D B3 8D | SOP      |
| S8                | DWKA        | 4N0 907 557 P 0005 | 4N0557P 0005BVDB | AE A2 66 3E |          |

## 21.3 Transmission Control Module (TCM) Information

| Model             | Trans Code | SW-Part number      | Cal ID           | CVN         | Comments |
|-------------------|------------|---------------------|------------------|-------------|----------|
| RS Q8 Performance | AL952-8Q   | 4M8.927.158.BH 0001 | 4M8158BH00012000 | B7 57 71 1C | SOP      |
| S8                | AL952-8Q   | 4N0 927 158 CA 0001 | 4N0158CA00012000 | A5 A6 C9 27 |          |

## 21.4 Gateway Control Module (ECM2) Information

| Model                 | Trans Code | SW-Part number      | Cal ID           | CVN         | Comments |
|-----------------------|------------|---------------------|------------------|-------------|----------|
| S8, RS Q8 Performance | AL952-8Q   | 8W0.907.468.AA 0062 | GW8W0468AA0062-- | 9A 83 5E 5C | SOP      |
|                       |            | 80C.907.468.AA 0062 | GW80C468AA0062-- | FE 12 E37C  |          |
|                       |            | 4KE.907.468.AA 0062 | GW4KE468AA0062-- | 2B 05 0B 0D |          |
|                       |            | 4KL.907.468.AA 0062 | GW4KL468AA0062-- | D7 10 20 C7 |          |
|                       |            | 4KR.907.468.AA 0062 | GW4KR468AA0062-- | EE 77 91 9C |          |

## 21.5 Automatic Transmission Fluid Pump

| Model                 | Trans Code | SW-Part number     | Cal ID           | CVN         | Comments |
|-----------------------|------------|--------------------|------------------|-------------|----------|
| RS Q8 Performance, S8 | AL952-8Q   | 0D7.321.281.E 0703 | 0D7281E+0703IEP0 | ED FF 23 4E | SOP      |

## **21.6 Brake System Control Module (BSCM) Information**

| Model             | Trans Code | SW-Part number      | Cal ID           | CVN         | Comments |
|-------------------|------------|---------------------|------------------|-------------|----------|
| RS Q8 Performance | AL952-8Q   | 4K0.907.379.AF 0200 | 4K0379AF02000000 | F5 AA CD E6 | SOP      |
| RS Q8 Performance | AL952-8Q   | 4M8.907.379.H 0070  | 4M8379H-00700000 | 83 8E 3F 31 |          |
| S8                | AL952-8Q   | 4N0.907.379.BF 0915 | 4N0379BF0915D0Hp | 94 F2 55 34 |          |
| S8                | AL952-8Q   | 4N0.907.379.BF 0915 | 4N0379BF0915D0Hq | 94 F3 5E 25 |          |

## **21.7 Voltage Converter Information**

| Model                 | Trans Code | SW-Part number     | Cal ID           | CVN         | Comments |
|-----------------------|------------|--------------------|------------------|-------------|----------|
| RS Q8 Performance, S8 | AL952-8Q   | 4K0.959.663.B 0501 | 4K0663B+05012001 | 53 34 E2 4B | SOP      |

## **21.8 Start Generator Control Module Information (SGCM)**

| Model                 | Trans Code | SW-Part number   | Cal ID           | CVN         | Comments |
|-----------------------|------------|------------------|------------------|-------------|----------|
| RS Q8 Performance, S8 | AL952-8Q   | 4N1.903.028 0562 | 4N1028++05620000 | 45 E2 F7 76 | SOP      |

## **21.9 Battery Energy Control Module 2 (BECM2) Information**

| Model                 | Trans Code | SW-Part number     | Cal ID           | CVN         | Comments |
|-----------------------|------------|--------------------|------------------|-------------|----------|
| RS Q8 Performance, S8 | AL952-8Q   | 4N0.915.105.K 0213 | 4N0105K+02130000 | 21 47 3C 94 | SOP      |