

Application for Certification

Model Year: 2027
 Manufacturer Name: BMW

Test Group: VBMXV02.0B4P
 Test Group Description: in-line 4-cylinder, 4-stroke, 2.0 Liter, gasoline

Durability Group: VBMXHHGVNV1P
 Durability Group Description: 4-Stroke Otto Cycle
 gasoline
 direct fuel injection and multiport fuel injection
 ceramic, monolith
 Palladium, Rhodium
 Gasoline Particulate Filter, Three-Way Catalyst

Evaporative Group: VBMXR0150G60

Applicable Standards: EPA
 FTP Standard: Interim Tier 4 - Bin 20
 SFTP Standard: Interim Tier 4 composite - 0.040
 EVAP FEL: Tier 3 - 300

Vehicle Classes Covered: EPA
 LDV

Carlines Covered: 430i Convertible, 430i Coupe , 430i xDrive Convertible, 430i xDrive Coupe

Test EDV:

VID	CFG	Fuel	FTP	HWY	US06	SC03	Cold CO
9T75002	00	T3E10	SBMX10086056	SBMX10086055	SBMX10086057	SBMX10086058	SBMX10086060
9T75002	03	T2E0	SBMX10086054	SBMX10086053	---	---	---

VID	CFG	Fuel	FTP Early Drive Away	FTP Intermediate Soak 10-minute	FTP Intermediate Soak 40-minute	FTP Intermediate Soak 3-hour
9T75002	00	T3E10	SBMX10086061	SBMX10086062	SBMX10086063	SBMX10086064

Confirmatory Test EDV:

VID	CFG	Fuel	FTP	HWY	US06	SC03	Cold CO
9T75002	00	T3E10	SBMX91005970	SBMX91005972	SBMX91005971	---	---
9T75002	03	T2E0	---	---	---	---	---

Test EDV EVAP:

Family	VID	CFG	Fuel	3-day	RL	2-day	ORVR	BTP	Leak
R0150G60	9T75018	00	T3E10	SBMX10085519	SBMX10085522	SBMX10085517	SBMX10085523	SBMX10085524	SBMX10085525

For questions, Contact: Carlheinz Bayer, 201 / 571 - 5193

Table of Contents

Section Contents

1 Correspondence and Communications

2 Durability Group Description

3 Evaporative/Refueling Family Description

4 Durability Procedure Description

5 Test Group Description

6 Test Vehicle Description

7 Test Results

8 Statements

9 OBD System Description

10 Description of Alternate-fueled Vehicles

11 AECD descriptions

12 Descriptions of vehicles covered by certificate and test parameters

13 Projected Sales

14 Request for Certification

15 Other Information

16 Confidential information / Catalyst Loading Information

17 Attachment

1. Correspondence and Communications

- 1.1. Authorized Persons Refer to Common Section
- 1.2. Certificate Information Refer to Common Section
- 1.3. Primary certification contact:

Name: Carlheinz Bayer
Phone Number: 201 / 571 - 5193
Fax Number: 201 / 571 - 5479
E-Mail-Address: Carlheinz.Bayer@bmwna.com

2. Durability Group Description

2.1.	Durability Group Name	VBMXHHGVNV1P
2.2.	Combustion Cycle	4-Stroke Otto Cycle
2.3.	Engine type	piston, water cooled
2.4.	Fuel used	gasoline
2.5.	Basic fuel metering system	direct fuel injection and multiport fuel injection
2.6.	Catalyst construction	ceramic monolith
2.7.	Precious Metals in Catalyst	Palladium Rhodium
2.8.	Particulate Filter Construction	ceramic monolith
2.9.	Precious Metals in Particulate Filter	Palladium Rhodium
2.10.	Precious Metal Loading	Refer to Section 16, Confidential Information
2.11.	Range of Catalyst Grouping Statistics	10.9 - 8.2

3. Evaporative / Refueling Family Description

- 3.1. Evaporative / Refueling Family Name VBMXR0150G60
- 3.2. Evaporative / Refueling Family Parameters specified in 40 CFR § 86.1821-01:
 - 3.2.1. Type of vapor storage device canister
 - 3.2.2. Basic canister design
 - Working capacity: 150 g
 - System configuration: 1 canister
 - Canister Construction: active charcoal granulate
closed bottom
 - Canister Materials: plastic
 - 3.2.3. Fuel system
 - time-contr. DI
 - time-contr. MPI
 - 3.2.4. Type of refueling emission control system integrated system
 - 3.2.5. Fillpipe seal mechanism liquid seal
 - 3.2.6. Vapor control system passive mechanical system with liquid seal
 - 3.2.7. Purge control system electric purge valve
 - 3.2.8. Vapor hose material multilayer plastic
 - 3.2.9. Fuel tank material hdpe
- 3.3. Leak Family Description same Leak-Standard in between the evaporative family

3.4. ORVR Statement

Evaporative Family VBMXR0150G60

ORVR safety application is carried over from previous model year.

This evaporative / refueling family was first certified for model year 2025.

During this time period we had no in-use problems or defects related to the ORVR system that required action by BMW.

There have been no service notifications, campaigns, instructions or bulletins to dealers or field personal or changes in production procedures or components.

No safety-related defect campaigns have been conducted related to the ORVR system.

Therefore no EPA/NHTSA review of this evaporative / refueling family was required.

4. Durability Procedure Description

4.1. Description of used durability process

4.1.1. Alternative Durability Program for Exhaust Emissions: The durability data vehicle was aged according to the bench aging process described in §86.1823-08. Following parameters were used to age the catalyst of the durability data vehicle:

	Exhaust branch 1. line	Exhaust branch 2. line
Tref [°C] =	856.4	---
calculated tref [h] =	171.2	---
effective tref [h] =	171.1	---

Statement: Based on BMW`s good engineering judgment, all the vehicles described in this Application for Certification comply with all applicable intermediate and full useful life standards.

4.1.2. Durability Program for Evaporative/Refueling Emissions: Confidential Information:
Refer to Common Section

4.2. Determination of certification Levels

4.2.1. Exhaust Emissions: additive deterioration factor:

For Deterioration Factors refer to Summary Sheet enclosed in Chapter 7 of this application.

4.2.2. Evaporative/Refueling Emissions: additive deterioration factor:

For Deterioration Factors refer to Summary Sheet enclosed in Chapter 7 of this application.

5. Test Group Description

5.1.	Test Group Name	VBMXV02.0B4P
5.2.	Engine information	
5.2.1.	Engine displacement	1998 cm ³
5.2.2.	Arrangement of cylinders	in line
5.2.3.	Number of cylinders	4
5.4.	Vehicle class	EPA LDV
5.5.	Emission standards class	Interim Tier 4 - Bin 20
5.6.	Applicable emission standards	Refer to Summary Sheet enclosed in Section 7 of this application.

6. Test Vehicle Description

6.1. Test Vehicle Description EDV, FEDV, DDV

VID	CFG	Carline	Model	Trans Type	Type	Fuel	ESS	Road Load CFG	Gear	Mode	eDrive	ETW
9T75002	00	--	X3 xDrive30i	SA-8	EDV	T3E10	---	30	refer to section 12	refer to section 12	refer to section 12	4500
CN42010	01	325	430i xDrive Convertible	SA-8	FEDV	T2E0	---	21	D	default mode	---	4500
CN42010	02	325	430i xDrive Convertible	SA-8	FEDV	T2E0	---	22	D	default mode	---	4500
CN42046	00	324	430i Convertible	SA-8	FEDV	T2E0	---	21	D	default mode	---	4250
CN42046	01	324	430i Convertible	SA-8	FEDV	T2E0	---	22	D	default mode	---	4250
CN42046	02	317	430i Coupe	SA-8	FEDV	T2E0	---	21	D	default mode	---	4000
CN42046	03	317	430i Coupe	SA-8	FEDV	T2E0	---	22	D	default mode	---	4000
CN42049	00	318	430i xDrive Coupe	SA-8	FEDV	T2E0	---	21	D	default mode	---	4000
CN42049	01	318	430i xDrive Coupe	SA-8	FEDV	T2E0	---	22	D	default mode	---	4000
9T75014	---	---	X3 xDrive30i	---	DDV	T3E10	---	---	---	---	---	4500

Test parameters are described in the EV-CIS vehicle information

Road Load Configuration Description

- X_ means number of FEDV tire groups used for this model
- 21 Road Load for first FEDV configuration
- 22 Road Load for second FEDV configuration
- 30 Road Load for EDV (worst case)

6.2. Test Vehicle Description EVAP EDV

VID	CFG	Model	Type	Fuel	Family
9T75018	00	X3 xDrive30i	EDV EVAP	T3E10	R0150G60

For complete vehicle description, refer to Certification Summary Information Report Sheet, enclosed in Section 7 of this application.
Selection of vehicles carried out according to 40 CFR §86.1828-01(a).

7. Test results (Cover page)

7.1. Certification Summary Information Report submitted to EV-CIS

see attachment:
CSI-VBMXV02.0B4P-VBMXR0150G60

7.2. Litmus Check

see attachment: 03LC-0B4P-02

8. Statements**8.1 Emission Testing Waiver Statements**

All applicable vehicles will conform with the emission standards for which emission data is not being provided, as allowed under 40 CFR §86.1806-27, §86.1811-27, §86.1829-15 and §86.1865-12. The statements below identify the standards for which emission testing was not performed.

Data submittal waiver for HCHO emission compliance

Based on our engineering evaluation of appropriate HCHO emissions we state, that all light-duty vehicles included in the respective applications comply with the applicable HCHO emission standards. According to 40 CFR §86.1829-15 (d) (4), we waive the data submittal on the basis of this statement.

Data submittal waiver for high-altitude exhaust and evaporative emissions compliance

Based on an engineering evaluation of appropriate high-altitude emission testing we state that all vehicles included in this application comply with the applicable exhaust and evaporative emissions standards at high altitude. According to 40 CFR §86.1829-15 (c), we waive the data submittal on the basis of this statement. According to 40 CFR §86.1865-12 (h) (3), we state for all vehicles included in this application that the hardware and software emission control strategies used during low altitude condition testing are used similarly across all altitudes for in-use operation. According to 40 CFR §86.1811-27(c)(4) for Tier 4 vehicles we state based on an engineering evaluation for all vehicles included in this application that common calibration approaches are used at high altitudes, there is no deviation from low altitude emission control practices.

Evaporative Leak-Detection

For test groups not selected for OBD demonstration testing we state as the manufacturer, consistent with good engineering judgment, that all vehicles included in this application comply with the applicable leak monitoring requirement.

Spitback Testing Waiver

According to 40 CFR §86.1829-15 (e) (5), BMW certifies, that all vehicles included in this application do not exceed the fuel dispensing spitback standard of 1.0g THCE as given in §86.1813-17 (c).

8.2 Compliance Statements

"Lean-on-cruise" calibration strategies

There are no "Lean-on-cruise" calibration strategies according to 40 CFR §86.1811-17 (d)(4) incorporated into the vehicle design of this Test Group.

91RON-Statement

According to VPCD 97-01 we confirm that city and highway fuel economy test result differences between comparing 91 RON operation and 96 RON operation is within 3%. Emission standards are met at 91 RON operation and 96 RON operation as demonstrated by certification testing. Hereby EDV testing is done using Tier 3 E10 fuel with 91 RON, FEDV testing is using Tier 2 E0 fuel with 96 RON.

A/C-on specific calibrations-Statement

According to 40 CFR §86.1811-27(d) we state as the manufacturer that there are no A/C-on specific calibrations that differ from A/C-off calibrations for a given set of engine operating conditions which unnecessarily reduce emission control effectiveness during A/C-on operation when the vehicle is operated under conditions that may reasonably be expected during normal operation and use.

Cold Temperature Emission Control-Statement

According to 40 CFR §86.1809-12 (c) and based on engineering evaluations of emission testing between 25°F and 68°F, we confirm for all vehicles covered by this test group, that the guideline for CO and NMHC emission congruity in the intermediate temperature range is fulfilled by this test group.

Corporate Average Fuel Economy Calculation-Statement

Since the 2007 model year and in accordance with Dear Manufacturer letter CISD-09-19, BMW uses customer data to analyze whether predominance criteria are met regarding a certain operation mode of the multimode transmissions. Usage rates are determined by collecting data from the onboard powertrain and/or transmission control module. Using good engineering judgment, BMW has concluded that it is appropriate to carry-forward and carry-across the results of the earlier surveys where predominant use of one mode has been demonstrated.

Emission Control System Continuity-Statement

According to 40 CFR §86.1809-12 (e) and based on engineering evaluations of emission testing between 20°F and 86°F, we confirm for all vehicles covered by this test group, that there is no discontinuity in emissions of NMOG, PM, CO, CO₂, N₂O, NO_x, CH₄, HCHO, and in case of diesel vehicles also particulate emissions as measured on the FTP and Highway tests in the temperature range of 20°F to 86°F..

Engine Oil used for Certification Testing

Based on the guidance letters CISD-2008-11, CISD-10-11 and CD-2020-03 BMW confirms that it fulfills the "representativeness" requirements of 40 CFR 600.007(b)(6) with regard to the engine oils used in its test vehicles. BMW uses the factory fill oil for test vehicle run in, certification testing and fuel economy testing. The specific SAE viscosity grade used is included in the CSI information of each application. BMW uses non-API-registered fully synthetic oils. For factory fill, 0W-12, 0W-20, and 0W-30 oils are used (viscosity grades vary by engine model). For maintenance BMW recommends a 0W-12, 0W-20 or 0W-30 oil equivalent to or superior to the oil used for certification testing. BMW dealers are required to use this oil as part of the maintenance package included with each new vehicle. This approach is used to ensure that the oil used in certification test vehicles is no more fuel efficient than the oil that is used as the factory fill, or the oil recommended to the vehicle owner.

Leak free exhaust system

Based on our engineering analysis of the complete exhaust system we state as the manufacturer, that the exhaust system installed on any vehicles covered by this application comply with the requirements of § 86.1844-01(d)(16). The analysis covers the exhaust system and all related attached components from the engine block manifold gasket surface to a point sufficiently past the last catalyst and oxygen sensor in the system to assure that air will not reach the oxygen sensors under normal operating conditions.

OBD system

According to 40 CFR 86.1844-01 (d)(9)(iv) we confirm that the emission control diagnostic system installed on any vehicles included in this application is adequate for the performance warranty test described in 40 CFR Part 85 subpart W.

9. OBD System Description

The OBD System Description of this Test Group, MY 2027 has been uploaded separately to EV-CIS.

10. Description of Alternate-fueled Vehicles

not applicable

11. Auxiliary Emission Control Devices (AECD) descriptions

Confidential Information: Please refer to uploaded AECD document in EV-CIS

12. Description of vehicles and test parameters covered by certificate

12.1. Vehicle Parameters

12.1.1. Vehicle Information

Model Name	Carline	Trans	Vehicle Class	VCW [lbs]	ETW [lbs]	GVW [lbs]	Tank [gal]	Canister Working Capacity [g]	Canister Bed Volume [ccm]	Hydrocarb on Trap - Fleece
430i Convertible	324	SA	LDV	4026	4250	4971	15.6	150	2600	No
430i Coupe	317	SA	LDV	3677	4000	4575	15.6	150	2600	No
430i xDrive Convertible	325	SA	LDV	4145	4500	5104	15.6	150	2600	No
430i xDrive Coupe	318	SA	LDV	3805	4000	4707	15.6	150	2600	No
X3 xDrive30	--	SA	LDT 2	4176	4500	5512	17.2	150	2600	--

12.1.2. Drive Train Information

Model Name	Carline	Trans-Type (-drive Sys.)	# Gears	Axle ratio		Engine Code	Combustion engine power [hp / rpm]	Combustion engine torque ft-lb / rpm
				front	rear			
430i Convertible	324	SA (R)	8	not applicable	2.81	B48B20O2G23S	255 / 4700	295 / 1600 - 4500
430i Coupe	317	SA (R)	8	not applicable	2.81	B48B20O2G22S	255 / 4700	295 / 1600 - 4500
430i xDrive Convertible	325	SA (A)	8	2.81	2.81	B48B20O2G23X	255 / 4700	295 / 1600 - 4500
430i xDrive Coupe	318	SA (A)	8	2.81	2.81	B48B20O2G22X	255 / 4700	295 / 1600 - 4500
X3 xDrive30	--	SA (A)	8	3.38	3.38	B48B20O2G45X	255 / 4700	295 / 1600 - 4500

12.1.3. Tire Information

Modell	Carline	Trans	Road Load CFG	Tire Front	Tire Rear
430i Convertible	324	SA	21	225/40 R19 93Y RSC	255/35 R19 96Y RSC
				225/45 R18 95Y RSC	225/45 R18 95Y RSC
				225/40 R19 93H M+S RSC	225/40 R19 93H M+S RSC
			22	225/45 R18 95H M+S RSC STD	225/45 R18 95H M+S RSC STD
				225/45 R18 95Y RSC	255/40 R18 99Y RSC
				225/40 R19 93Y RSC STD (HP)	255/35 R19 96Y RSC STD (HP)
430i Coupe	317	SA	21	225/40 R19 93H M+S RSC	225/40 R19 93H M+S RSC
				225/45 R18 95Y RSC	225/45 R18 95Y RSC
				225/40 R19 93Y RSC	255/35 R19 96Y RSC
			22	225/45 R18 95H M+S RSC STD	225/45 R18 95H M+S RSC STD
				225/45 R18 95Y RSC	255/40 R18 99Y RSC
				225/40 R19 93Y RSC STD (HP)	255/35 R19 96Y RSC STD (HP)
430i xDrive Convertible	325	SA	21	225/45 R18 95Y RSC	225/45 R18 95Y RSC
				225/40 R19 93Y RSC	255/35 R19 96Y RSC
				225/45 R18 95H M+S RSC STD	225/45 R18 95H M+S RSC STD
			22	225/40 R19 93H M+S RSC	225/40 R19 93H M+S RSC
				225/40 R19 93Y RSC STD (HP)	255/35 R19 96Y RSC STD (HP)
				225/45 R18 95Y RSC	255/40 R18 99Y RSC
430i xDrive Coupe	318	SA	21	225/45 R18 95Y RSC	225/45 R18 95Y RSC
				225/40 R19 93H M+S RSC	225/40 R19 93H M+S RSC
				225/45 R18 95H M+S RSC STD	225/45 R18 95H M+S RSC STD
			22	225/40 R19 93Y RSC	255/35 R19 96Y RSC
				225/40 R19 93Y RSC STD (HP)	255/35 R19 96Y RSC STD (HP)
				225/35 R20 90Y RSC	255/30 R20 92Y RSC
				225/45 R18 95Y RSC	255/40 R18 99Y RSC

X3 xDrive30	--	SA	30	worst case represented	worst case represented
-------------	----	----	----	------------------------	------------------------

M+S indicates an all season tire and not a dedicated winter tire
RSC indicates a tire with run flat capability
STD indicates a tire without run flat capability

12.1.4. Emission control system description:

- 12.1.4.1. Catalystr TWC
- 12.1.4.2. Particulate Filter yes
- 12.1.4.3. EGR / EGRC EGR: no
EGRC: not applicable
- 12.1.4.4. Air pump type not applicable
- 12.1.4.5. Fuel system type direct- and intake manifold injection
- 12.1.4.6. Intake air aspiration method Exhaust gas turbo charger with charge pressure control via wastegate
- 12.1.4.7. Other Charged Air Cooler
- 12.1.5. Number of valves per cylinder 4
- 12.1.6. Engine displacement 1998 cm³
- 12.1.7. Certification Region FA
- 12.1.8. Shift Indicator Light not applicable

12.2. Test Parameters

- 12.2.1. Engine Starting Procedures Refer to Common Section
- 12.2.2. Shift Schedules not applicable
- 12.2.3. Dynamometer loading information
 - 12.2.3.1. Sort of dynamometer all wheel roll
 - 12.2.3.2. Electric Dynamometer Coefficients

Modell	Carline	Trans	Road Load CFG	N/V	A [lbf]	B [lbf/mph]	C [lbf/mph ²]	TRLHP	a [lbf]	b [lbf/mph]	c [lbf/mph ²]	Grill Shuter
430i Convertible	324	SA	21	24	43.7	-0.091	0.01968	11.8	20.8	0.183	0.01517	Yes
430i Convertible	324	SA	22	24	52.2	-0.069	0.02030	13.3	26.9	0.287	0.01511	Yes
430i Coupe	317	SA	21	24	42.9	-0.093	0.01887	11.4	20.5	0.160	0.01465	Yes
430i Coupe	317	SA	22	24	50.9	-0.073	0.01955	12.8	28.8	0.159	0.01544	Yes
430i xDrive Convertible	325	SA	21	24	46.3	-0.050	0.01987	12.5	8.6	0.092	0.01553	Yes
430i xDrive Convertible	325	SA	22	24	55.1	-0.027	0.02049	14.0	17.1	0.150	0.01587	Yes
430i xDrive Coupe	318	SA	21	24	44.2	-0.056	0.01917	11.9	5.4	0.039	0.01608	Yes
430i xDrive Coupe	318	SA	22	24	52.1	-0.035	0.01985	13.3	13.6	0.198	0.01480	Yes
X3 xDrive30	--	SA	30	26.2	44.2	0.118	0.02266	14.2	12.3	0.085	0.02003	Yes

Road Load Configuration Description

X_ means number of FEDV tire groups used for this model
 21 Road Load for first FEDV configuration
 22 Road Load for second FEDV configuration
 30 Road Load for EDV (worst case)

12.3. Hybrid Electric Vehicle System Description

12.3.1. Description of electric motor

Model Name	Type	Power (peak) [kW]	Max. torque [Nm]
430i Convertible	48V-Belt-Driven Starter Generator (SGR)	8 @ 6000	25
430i Coupe	48V-Belt-Driven Starter Generator (SGR)	8 @ 6000	25
430i xDrive Convertible	48V-Belt-Driven Starter Generator (SGR)	8 @ 6000	25
430i xDrive Coupe	48V-Belt-Driven Starter Generator (SGR)	8 @ 6000	25

12.3.2. Description of batteries

Model Name	System Chemistry	Capacity (C) [Ah]	Energy Capacity (E) [kWh]	Nominal Voltage [V]	Min. Voltage Pack [V]	Number of Packs	Number of Modules	Number of Battery Cells
430i Convertible	LI-ION	10.0	0.44	44.0	38.0	1	1	20
430i Coupe	LI-ION	10.0	0.44	44.0	38.0	1	1	20
430i xDrive Convertible	LI-ION	10.0	0.44	44.0	38.0	1	1	20
430i xDrive Coupe	LI-ION	10.0	0.44	44.0	38.0	1	1	20

Model Name	Cell format	Min. Voltage Cell [V]	Weight [kg]	Specific Energy Density [Wh/kg]	Chemistry Identifier
430i Convertible	pouch	1.90	11.0	40	Li MM(NMC) - Ti.F
430i Coupe	pouch	1.90	11.0	40	Li MM(NMC) - Ti.F
430i xDrive Convertible	pouch	1.90	11.0	40	Li MM(NMC) - Ti.F
430i xDrive Coupe	pouch	1.90	11.0	40	Li MM(NMC) - Ti.F

12.4. Information on driver selectable modes

Drive Mode	Default Mode	Function
comfortable	yes	comfortable setting for defined systems (e.g. climatic control, gas pedal progression)
efficiently	no	efficient setting for defined systems (e.g. climatic control, gas pedal progression)
sporty	no	sporty setting for defined systems (e.g. steering, gas pedal progression, shift points, less pure electric drive, e-boost)

Transmission Mode	Default Mode	Function
comfortable	no	standard comfortable vehicle gear operation
sporty	no	sporty setting for shift points

12.5. Modes used for EDV Testing

Test EDV:

VID	CFG	Fuel	FTP	HWY	US06	SC03	Cold CO
9T75002	00	T3E10	SBMX10086056	SBMX10086055	SBMX10086057	SBMX10086058	SBMX10086060
9T75002	03	T2E0	SBMX10086054	SBMX10086053	---	---	---

VID	CFG	Fuel	FTP Early Drive Away	FTP Intermediate Soak 10-minute	FTP Intermediate Soak 40-minute	FTP Intermediate Soak 3-hour
9T75002	00	T3E10	SBMX10086061	SBMX10086062	SBMX10086063	SBMX10086064

Drive Mode	
T3E10 EDV testing is done in drive mode "Sport" (sporty) and transmission mode "S" (sporty). This is the worst case combination with highest engine revolutions.	
T2E0 EDV testing is done in drive mode "Comfort" (comfortable) and transmission mode "D" (comfortable). This represents the default mode.	

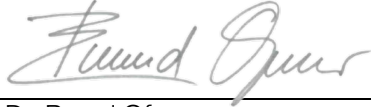
13. Projected Sales

Refer to Common Section for Model Year 2027

14. Request for certification

We herewith apply for the Federal Certificate of conformity for the Test Group VBMXV02.0B4P.

The mentioned Test Group complies with all applicable regulations contained in 40 Code of Federal Regulations Part 85 and Part 86.



Dr. Bernd Ofner

15. Other Information

15.1. Vehicle Emission Control Information Label

Label according to certification requirements in 40 CFR § 86.1807-01.

The VEI label is attached to the engine hood.

Refer to Section 17, Attachment

Carline	Model Name	VECI Label
317	430i Coupe	see attachment: 03VE-VB4P-01
318	430i xDrive Coupe	
324	430i Convertible	
325	430i xDrive Convertible	

15.2. Fuel Tank Temperature Profile

Fuel Tank Temperature Profile according to certification requirements in 40 CFR § 86.129-94(d).

Refer to Section 17, Attachment

Carline	Model Name	Evaporative Group	FTTP
317	430i Coupe	VBMXR0150G60	see attachment: FTTP-0G60-02
318	430i xDrive Coupe		
324	430i Convertible		
325	430i xDrive Convertible		

17. Attachment

- | | | |
|------|--|--|
| 17.1 | Fuel Tank Temperature Profile | see attachment: FTTP-0G60-02 |
| 17.2 | VECI Label | see attachment: 03VE-VB4P-01 |
| 17.3 | Litmus Check | see attachment: 03LC-0B4P-02 |
| 17.4 | Certification Summary Information Report | see attachment:
CSI-VBMXV02.0B4P-VBMXR0150G60 |

Test Vehicle Data

Vehicle Type: X3 xDrive30i
Mileage: 6946 mi
Fuel tank volume: 65 L
Fuel volume: 26 L

Ambient Conditions

Weather: sunny
clouds: 1 %
Wind speed: 0 mph
Ambient temp:
Start: 107 °F
delta: 2 °F

Surface temperature: 100 %

Test Data

Date of test: 10/09/2023
Engine start: 11:43
Measure start: 11:49
Measure stop: 13:01
Test track: Dubai Bab Al Shams

Time [s]	Fuel Temp 1 [°F]	Fuel Temp 2 [°F]	Fuel Temp Average [°F]	Fuel Temp Average Correctet (to95°F) [°F]	Vapor Temp [°F]	Tank pressure [in H ₂ O]
0	91,8	91,7	91,7	95,0	92,9	-0,5
30	91,8	91,8	91,8	95,1	93,1	-0,9
60	92,0	92,0	92,0	95,2	93,2	-2,2
90	92,1	92,1	92,1	95,3	93,3	-2,4
120	92,2	92,2	92,2	95,4	93,4	-0,6
150	92,3	92,3	92,3	95,5	93,5	-2,0
180	92,4	92,4	92,4	95,6	93,6	-1,3
210	92,5	92,5	92,5	95,7	93,8	-1,3
240	92,6	92,5	92,6	95,9	93,9	-0,6
270	92,8	92,7	92,7	96,0	94,0	-2,3
300	92,9	92,9	92,9	96,2	94,2	-0,7
330	93,1	93,1	93,1	96,3	94,3	-1,7
360	93,2	93,2	93,2	96,5	94,5	-0,8
390	93,3	93,4	93,4	96,6	94,6	-0,4
420	93,5	93,5	93,5	96,8	94,8	-0,8
450	93,7	93,7	93,7	96,9	95,0	-2,5
480	93,8	93,8	93,8	97,1	95,1	-0,9
510	93,9	93,9	93,9	97,2	95,2	-2,1
540	94,1	94,1	94,1	97,3	95,3	-1,0
570	94,2	94,2	94,2	97,4	95,4	-1,3
600	94,4	94,3	94,3	97,6	95,5	-2,1
630	94,5	94,4	94,4	97,7	95,6	-0,5
660	94,6	94,5	94,6	97,8	95,8	-2,8
690	94,7	94,7	94,7	98,0	95,9	-3,4
720	94,9	94,8	94,9	98,1	96,0	-0,5
750	95,1	95,0	95,0	98,3	96,2	-0,6
780	95,2	95,1	95,2	98,4	96,3	-2,4
810	95,3	95,2	95,3	98,5	96,4	-2,1
840	95,4	95,4	95,4	98,7	96,5	-1,9
870	95,6	95,5	95,6	98,8	96,6	-1,3
900	95,7	95,7	95,7	99,0	96,8	-2,6
930	95,9	95,8	95,8	99,1	97,0	-1,8
960	96,0	95,9	96,0	99,2	97,1	-1,5
990	96,2	96,1	96,1	99,4	97,2	-1,7
1020	96,3	96,2	96,2	99,5	97,3	-0,6
1050	96,4	96,4	96,4	99,6	97,5	-1,1

1080	96,5	96,5	96,5	99,7	97,6	-0,4
1110	96,6	96,6	96,6	99,9	97,7	-3,7
1140	96,8	96,8	96,8	100,0	97,8	-0,6
1170	96,9	96,9	96,9	100,2	97,9	-1,3
1200	97,0	97,1	97,1	100,3	98,0	-1,2
1230	97,2	97,2	97,2	100,4	98,1	-1,1
1260	97,3	97,3	97,3	100,5	98,2	-2,1
1290	97,3	97,4	97,4	100,7	98,4	-2,2
1320	97,5	97,5	97,5	100,8	98,5	-0,5
1350	97,6	97,7	97,7	100,9	98,6	-1,0
1380	97,8	97,8	97,8	101,1	98,7	-0,4
1410	98,0	97,9	98,0	101,2	98,8	-0,4
1440	98,2	98,1	98,1	101,4	98,9	-2,8
1470	98,3	98,2	98,2	101,5	99,1	-2,8
1500	98,4	98,3	98,4	101,6	99,2	-2,0
1530	98,5	98,4	98,5	101,7	99,4	-3,1
1560	98,6	98,5	98,6	101,8	99,5	-0,7
1590	98,8	98,7	98,7	102,0	99,6	-1,4
1620	98,9	98,8	98,9	102,1	99,6	-0,6
1650	99,0	98,9	99,0	102,2	99,8	-2,7
1680	99,1	99,0	99,1	102,4	99,9	-1,6
1710	99,3	99,2	99,2	102,5	100,0	-0,5
1740	99,4	99,4	99,4	102,6	100,1	-3,2
1770	99,5	99,5	99,5	102,8	100,2	-1,0
1800	99,6	99,6	99,6	102,9	100,3	-0,9
1830	99,8	99,7	99,7	103,0	100,3	-0,7
1860	99,9	99,9	99,9	103,1	100,4	-2,5
1890	100,0	100,0	100,0	103,3	100,5	-2,6
1920	100,1	100,1	100,1	103,4	100,5	-1,6
1950	100,2	100,2	100,2	103,5	100,6	-1,5
1980	100,4	100,3	100,3	103,6	100,6	-3,0
2010	100,5	100,4	100,4	103,7	100,7	-1,8
2040	100,6	100,5	100,5	103,8	100,9	-1,3
2070	100,7	100,7	100,7	104,0	101,0	-0,5
2100	100,9	100,8	100,8	104,1	101,1	-2,9
2130	101,0	101,0	101,0	104,3	101,2	-2,9
2160	101,2	101,1	101,1	104,4	101,3	-0,8
2190	101,3	101,2	101,3	104,5	101,4	-1,6
2220	101,4	101,3	101,4	104,6	101,5	-1,1
2250	101,5	101,4	101,5	104,7	101,6	-1,0
2280	101,6	101,5	101,6	104,8	101,7	-1,0
2310	101,8	101,7	101,7	105,0	101,8	-0,7
2340	101,9	101,8	101,9	105,1	101,9	-0,6
2370	102,0	102,0	102,0	105,2	102,0	-1,4
2400	102,1	102,1	102,1	105,4	102,1	-0,7
2430	102,2	102,2	102,2	105,5	102,2	-1,5
2460	102,4	102,3	102,4	105,6	102,3	-2,7
2490	102,5	102,4	102,5	105,7	102,4	-1,3
2520	102,6	102,6	102,6	105,8	102,5	-1,3
2550	102,7	102,7	102,7	105,9	102,5	-1,6
2580	102,8	102,8	102,8	106,0	102,6	-4,0
2610	102,9	102,9	102,9	106,2	102,7	-1,6
2640	103,0	103,0	103,0	106,3	102,8	-1,1
2670	103,2	103,1	103,2	106,4	102,9	-0,9
2700	103,3	103,3	103,3	106,5	103,0	-2,9
2730	103,4	103,4	103,4	106,7	103,1	-3,5

2760	103,5	103,5	103,5	106,8	103,3	-3,4
2790	103,7	103,6	103,6	106,9	103,4	-3,4
2820	103,8	103,7	103,8	107,0	103,6	-0,5
2850	103,9	103,8	103,9	107,1	103,6	-0,8
2880	104,0	104,0	104,0	107,2	103,7	-1,7
2910	104,1	104,1	104,1	107,4	103,8	-2,0
2940	104,2	104,2	104,2	107,5	103,9	-1,6
2970	104,4	104,3	104,3	107,6	104,0	-3,1
3000	104,5	104,4	104,4	107,7	104,1	-1,1
3030	104,6	104,4	104,5	107,8	104,2	-1,1
3060	104,7	104,6	104,6	107,9	104,3	-0,8
3090	104,8	104,7	104,8	108,0	104,4	-1,0
3120	104,9	104,8	104,9	108,1	104,5	-0,5
3150	105,0	105,0	105,0	108,3	104,7	-0,7
3180	105,1	105,1	105,1	108,4	104,8	-1,3
3210	105,3	105,2	105,2	108,5	104,9	-1,2
3240	105,4	105,4	105,4	108,6	105,0	-0,8
3270	105,5	105,5	105,5	108,7	105,2	-1,4
3300	105,6	105,6	105,6	108,9	105,3	-1,4
3330	105,7	105,7	105,7	109,0	105,4	-3,5
3360	105,9	105,8	105,8	109,1	105,5	-0,6
3390	106,0	105,9	106,0	109,2	105,6	-1,6
3420	106,1	106,0	106,1	109,3	105,7	-1,3
3450	106,2	106,1	106,2	109,4	105,8	-1,6
3480	106,3	106,3	106,3	109,5	105,9	-0,7
3510	106,4	106,4	106,4	109,6	106,0	-2,4
3540	106,5	106,5	106,5	109,8	106,1	-1,1
3570	106,6	106,6	106,6	109,9	106,2	-0,6
3600	106,8	106,8	106,8	110,0	106,3	-1,7
3630	106,9	106,9	106,9	110,2	106,4	-0,8
3660	107,0	107,0	107,0	110,3	106,5	-1,2
3690	107,1	107,1	107,1	110,4	106,5	-1,1
3720	107,3	107,2	107,2	110,5	106,6	-0,6
3750	107,4	107,3	107,4	110,6	106,8	-2,0
3780	107,5	107,4	107,4	110,7	106,9	-1,0
3810	107,5	107,5	107,5	110,8	107,0	-1,1
3840	107,6	107,6	107,6	110,9	107,1	-0,6
3870	107,7	107,7	107,7	111,0	107,2	-1,9
3900	107,8	107,8	107,8	111,1	107,3	-0,6
3930	107,9	107,9	107,9	111,2	107,4	-2,7
3960	108,0	108,0	108,0	111,3	107,5	-0,5
3990	108,2	108,1	108,1	111,4	107,6	-0,6
4020	108,3	108,2	108,3	111,5	107,7	-1,4
4050	108,4	108,4	108,4	111,6	107,8	-0,7
4080	108,5	108,5	108,5	111,8	107,9	-1,6
4110	108,6	108,6	108,6	111,9	108,0	-2,3
4140	108,8	108,7	108,7	112,0	108,1	-0,8
4170	108,9	108,8	108,8	112,1	108,2	-0,5
4200	109,0	108,9	108,9	112,2	108,3	-2,3
4230	109,1	109,0	109,0	112,3	108,4	-0,6
4260	109,2	109,1	109,1	112,4	108,5	-2,8
4290	109,3	109,2	109,2	112,5	108,6	-2,9
4320	109,3	109,3	109,3	112,6	108,7	-3,0

BMW

Designation

Attachment

**VECI Label LDV, VBMXV02.0B4P,
VBMXR0150G60**

Date: 03.12.2025

03VE-VB4P-01

DRAFT - Inverted Representation



Bayerische Motoren Werke AG

VEHICLE EMISSION CONTROL INFORMATION

Conforms to regulations: MY 2027

U.S. EPA: Interim Tier 4 - Bin 20 LDV CA OBD II
EVAP: Tier 3 - 300 LDV Fuel: gasoline

California: Conforms to U.S. EPA regulations CA OBD II
and is certified for sale in California Fuel: gasoline

No adjustments needed. TWC+GPF, WR-HO2S, HO2S,
DFI, MFI, TC, CAC

Group: VBMXV02.0B4P
Evap: VBMXR0150G60



8 898 363

Original representation

Base: Black
Characters: Silver

Enclosure to Certification Summary Information Report

Test	Test Number	Test Procedure	Man FE	FE Bag1	FE Bag2	FE Bag3	FE Bag4
FTP75	SBMX10086056	31	24.8	23.9	23.8	26.9	24.6
HWFET	SBMX10086055	3	35.6				
US06	SBMX10086057	90		16.7	29.0		
SC03	SBMX10086058	95		17.4			
Cold CO	SBMX10086060	11		17.6	21.6	23.8	

Model Specific Calculation (5 Cycle)

City	[mi/gallon]
Start FC	0.0024
Start Fuel 75	0.0221
Start Fuel 20	0.0533
Running FC	0.0446
Label City (5 Cycle)	19.3

Highway	[mi/gallon]
Start FC	0.0002
Start Fuel 75	0.0221
Start Fuel 20	0.0533
Running FC	0.0343
Label Highway (5 Cycle)	26.2

Derived Calculation (2 Cycle)

Label City (2 Cycle)	19.7
Threshold (96% Derived MPG - 2 Cycle)	18.9

Label Highway (2 Cycle)	25.3
Threshold (95% Derived MPG - 2 Cycle)	24.0

Model Specific Calculation Label City (5 Cycle)	Threshold City (96% Derived MPG 2 Cycle)	Model Specific Calculation Label Highway (5 Cycle)	Threshold HWY (95% Derived MPG - 2 Cycle)
19.3	18.9	26.2	24.0

Certification Summary Information Report

Manufacturer	BMW	Manufacturer Code	BMX
Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Certificate Number	--	CARB Executive Order #	--
Certificate Issue Date	--	Certificate Revision Date	--
Certificate Effective Date	--	Conditional Certificate	--
CSI Revision #	--	CSI Submission/Revision Date	01/19/2026 09:04:22 AM
Model Year	2027		

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Test Group Information			
CSI Type	Update for Correction	Running Change Reference Number	--
GHG Exempt Status	Not Exempt		
Drive Sources and Fuel(s)			
Drive Source #1:	Combustion Engine		
	Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
	Gasoline	Spark Ignition direct & ported injection	No
Drive Source #2:	Electric Motor		
	Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
	Electricity	--	--
Hybrid Indicator	Yes		
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	Yes
Multiple Fuel Combustion	--	Off-board Charge Capable Indicator	No
Fuel Cell Indicator	No	EPA Vehicle Class	LDV
Federal Clean Fuel Vehicle	No	Federal Clean Fuel Vehicle Standard	--
Federal Clean Fuel Vehicle ILEV	No	California Partial Zero Emissions Vehicle Indicator	--
Durability Group Name	VBMXHHGVNV1P	Durability Group Equivalency Factor	1
Reduced Fee Test Group	No	Certification Region Code(s)	FA
Complies with HD GHG 2b/3 regulations?	No		
Introduction into Commerce Date	--	CAP2000 Conditional Certificate?	N/A
Independent Commercial Importer?	--	Alternative Fuel Converter Certificate?	--
SFTP Federal Composite Compliance Identifier	Tier 3	SFTP Tier 2 Composite CO Option	--
SFTP LEV-III Composite Compliance Indicator	No		
OBD Compliance Type	CARB	OBD Demonstration Vehicle Test Group	VBMXV02.0B4P
Test Group OBD Compliance Level	Partial - with deficiencies	Number of Test Group OBD Deficiencies	1
OBD Deficiencies Comments	E-25-316		
Mfr Test Group Comments	--		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	VBMXV02.0B4P		Evaporative/Refueling Family	VBMXR0150G60			
Evaporative/Refueling Family Information							
Evaporative Summary Information Type	New	Submission/Correction Date	10/07/2025 07:55:49 AM				
Integrated ORVR?	Yes	Fuel(s)	Gasoline				
Multiple Fuel Storage	--						
Bladder Fuel Tank?	No						
Fuel Tank Material	Plastic	Fuel Tank Material Description	HDPE				
Fill Pipe Seal Type	Liquid seal						
Air Intake System Vapor Storage Device?	No	Air Intake System Vapor Storage Device Description	--				
Fuel System Vapor Storage Canister?	Yes	Other Vapor Storage	--				
Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)	150	Number of Primary Canisters	1				
Number of Bleed Canisters	0	Bleed Canister Total Working Capacity (grams)	--				
Mfr Evaporative/Refueling Family Comments	--						
Leak Family Details							
Leak Family Indicator	No						
Canister Bleed Test Indicator	Yes	Applicability of Evaporative Canister Bleed Test	50 State				
Evaporative Canister Bleed Test Comments	--						
CARB Fuel Only (Rig) Test Indicator	No	Applicability of CARB Fuel Only (Rig) Test	--				
CARB Fuel Only (Rig) Test Comments	--						
Models Covered by this Certificate							
Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
BMW	1 - BMW	324 - 430i Convertible	Federal	2-Wheel Drive, Rear	Semi-Automatic	8	Yes
BMW	1 - BMW	318 - 430i xDrive Coupe	Federal	All Wheel Drive	Semi-Automatic	8	Yes
BMW	1 - BMW	317 - 430i Coupe	Federal	2-Wheel Drive, Rear	Semi-Automatic	8	Yes
BMW	1 - BMW	325 - 430i xDrive Convertible	Federal	All Wheel Drive	Semi-Automatic	8	Yes
Engine Description							
Hybrid Type	IC Engine/Electric Motor	Hybrid Description	Fuel Economy Guide Category MHEV (Mild Hybrid Electric Vehicle)				
Engine Type	4-Stroke Spark Ignition	Mfr Engine Description	--				
Engine Block Arrangement	Inline	Mfr Engine Block Arrangement Description	--				
Camless Valvetrain Indicator	No	Oil Viscosity/Classification	0W-12				
Number of Cylinders/Rotors	4	Mechanically Variable Compression Ratio Indicator	N				

Certification Summary Information Report

Test Group	VBMXV02.0B4P				Evaporative/Refueling Family	VBMXR0150G60					
After Treatment Device(s) (ATD)											
ATD Number	ATD Type	ATD Precious Metal	Substrate Material	Substrate Construction							
1	Three-way catalyst	Palladium + Rhodium	Ceramic	Monolith							
2	Other	Palladium + Rhodium	Ceramic	Monolith							
Mfr After Treatment Device (ATD) Comments											
After Treatment Device #2: Gasoline particulate filter (GPF)											
Direct Ozone Reduction (DOR) Device											
Not Equipped											
Mfr Emission Control Device Comments											
--											
Engine Configuration Number 1											
Engine Displacement (liters)											
2.0											
Engine Rated Horsepower											
255											
Number of Inlet Valves Per Cylinder											
2											
Number of Exhaust Valves Per Cylinder											
2											
Air Aspiration Method											
Turbocharged											
Number of Air Aspiration Devices											
1											
Air Aspiration Device Configuration											
Single											
Charge Air Cooler Type											
Air											
Air Aspiration Drive Method(s)											
Mechanical											
Cylinder Deactivation											
No											
Cylinder Deactivation Description											
--											
Variable Valve Timing											
Yes											
Variable Valve Timing System Description											
Variable Valve Timing at inlet and outlet valves											
Variable Valve Lift?											
Yes											
Variable Valve Lift System Description											
Variable Valve Lift at inlet valves and two settings at outlet valves											
Number of Knock Sensors											
2											
Number of Air/Fuel Sensors											
2											
Air/Fuel Sensor # 1 Type											
Air fuel											
Air/Fuel Sensor # 1 Description											
--											
Air/Fuel Sensor # 2 Type											
Heated oxygen											
Air/Fuel Sensor # 2 Description											
--											
Mfr Air/Fuel Sensor Comments											
--											
Exhaust Gas Recirculation											
No											
Cooled Exhaust Gas Recirculation											
No											
EGR Type											
--											
Exhaust Gas Recirculation Description if 'Other'											
--											
Closed Loop Air Injection System											
No											
Air Injection Type											
--											
Air Injection Type if 'Other'											
--											
Mfr Engine Configuration Comments											
--											
Official Test Numbers											
Test Group	Fuel	FTP	US06	SC03	Cold CO	Highway	EPA City Litmus Value	EPA City Litmus Threshold	EPA Highway Litmus Value	EPA Highway Litmus Threshold	CREE Weighting Factor
Gasoline		SBMX10086056	SBMX10086057	SBMX10086058	SBMX10086060	SBMX10086055	23.4	228.2	35.2	286.1	--
Electricity		--	--	--	--	--	--	--	--	--	--

Certification Summary Information Report

Test Group	VBMXV02.0B4P		Evaporative/Refueling Family	VBMXR0150G60
SFTP LEV-III Official Test Numbers				
Test Group Fuel	FTP	US06	SC03	
Gasoline	SBMX10086056	SBMX10086057	SBMX10086058	
Gasoline	SBMX91005970	SBMX91005971	SBMX10086058	
Hybrid Electric Vehicle And Fuel Cell Information				
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	44	Battery Energy Capacity	10.0	
Battery Specific Energy	40.0	Battery Charger Type	On-Board	
Number of Capacitors	--	Capacitor Rating (In Farads)	--	
Mfr Capacitor Comments	--			
Hydraulic System Description	--			
Regenerative Braking Type	Electrical Regen Brake	Driver Controlled Regenerative Braking	No	
Regenerative Braking Source	Both			
Mfr Regenerative Braking Description	--			
Drive Motor(s)/Generator(s)	1	Rated Motor/Generator Power	8	
Motor/Generator Type 1	EESM			
Mfr Fuel Cell Description	--	Usable H2 Fill Capacity (kg)	--	
Fuel Cell On-Board H2 Storage Capacity (kg)	--			
Mfr Hybrid Electric/ Electric Vehicle Comments	430i Convertible, 430i Coupe, 430i xDrive Convertible 430i xDrive Coupe: Battery Energy Capacity 10.0 Ah, Total Voltage of Battery Pack(s) 44 V, Battery Specific Energy 40.0 Wh/kg, Motor/Generator Type: EESM 8 kW Starter Generator Engine with 48V Technology; Motor/Generator Type: externally excited synchronous machine (EESM)			

Certification Summary Information Report

Test Group		VBMXV02.0B4P			Evaporative/Refueling Family			VBMXR0150G60
Dynamometer Coefficients:								
		Target Coefficients			Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)		
City/Highway/Evap	44.2	0.118	0.02266	12.3	0.085	0.02003	14.2	
Cold CO	48.7	0.13	0.02493	2.7	0.036	0.02122	N/A	
US06	44.2	0.118	0.02266	12.3	0.085	0.02003	N/A	
Emission Control Device Comments	--							
Manufacturer Test Vehicle Comments	vi_9T75002_00_EDV_X3 xDrive30i_A_ETW-4500_RG30_S-Sport_S_off							

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Test #	SBMX10086056	Test Procedure	31 - Federal fuel 3-day exhaust
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	03/12/2024	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	43
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4356	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	361.3274	--
FE BAG 1 (Bag 1 Fuel Economy)	23.9	23.9
CO2 BAG 2 (Bag 2 Carbon Dioxide)	363.2202	--
FE BAG 2 (Bag 2 Fuel Economy)	23.8	23.8
CO2 BAG 3 (Bag 3 Carbon Dioxide)	321.0182	--
FE BAG 3 (Bag 3 Fuel Economy)	26.9	26.9
CO2 BAG 4 (Bag 4 Carbon Dioxide)	351.2582	--
FE BAG 4 (Bag 4 Fuel Economy)	24.6	24.6
METHANE (CH4 - Methane)	0.00091	--
CO (Carbon Monoxide)	0.146	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-3.807	--
DT-EER (Drive Trace Energy Economy Rating)	-2.567	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-5.369	--
MFR FE (Manufacturer Fuel Economy)	24.8	24.8
NOX (Nitrogen Oxide)	0.00362	--
N2O (Nitrous Oxide)	0.00026	--
HC-NM (Non-methane Hydrocarbon)	0.00333	--
NMOG (Non-methane organic gases)	0.00366	--
PM (Particulate Matter)	0.000178	--
HC-TOTAL (Total Hydrocarbon)	0.00421	--

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
-------------------	--------------	------------------------------	--------------

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	348	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	347.6991	--

Manufacturer Test Comments 01_FTP_9T75002_00_EDV_X3 xDrive30i_A_ETW-4500_RG30_S-Sport_S_off

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	Other	CREE	999	--	--	--	0.4	--	999	--	--
Fed	120,000 miles	Other	METHANE	0.0009	--	--	--	0.0006	--	0.002	0.030	Pass
Fed	120,000 miles	Other	N2O	0.0003	--	--	--	0.0004	--	0.001	0.010	Pass
Fed	150,000 miles	Other	CO	0.15	--	--	--	0.29	--	0.4	1.0	Pass
Fed	150,000 miles	Other	CO-COMP	0.57	--	--	--	--	--	0.6	4.2	Pass
Fed	150,000 miles	Other	NMOG	0.0037	--	1.10	--	0.0025	--	0.006	999.999	Pass
Fed	150,000 miles	Other	NMOG+NOX	0.0073	--	--	--	--	--	0.012	0.020	Pass
Fed	150,000 miles	Other	NMOG+NOX-COMP	0.0119	--	--	--	--	--	0.012	0.040	Pass
Fed	150,000 miles	Other	NOX	0.0036	--	--	--	0.0020	--	0.006	999.999	Pass
Fed	150,000 miles	Other	PM	0.0002	--	--	--	0.0001	--	0.000	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

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Test #	SBMX10086059	Test Procedure	52 - Fed. fuel 50 F exh.
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	03/14/2024	Fuel	N/A
Fuel Batch ID	T10/87	Fuel Calibration Number	43
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4452	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	423.8371	--
FE BAG 1 (Bag 1 Fuel Economy)	20.4	20.4
CO2 BAG 2 (Bag 2 Carbon Dioxide)	388.1857	--
FE BAG 2 (Bag 2 Fuel Economy)	22.3	22.3
CO2 BAG 3 (Bag 3 Carbon Dioxide)	344.5156	--
FE BAG 3 (Bag 3 Fuel Economy)	25.1	25.1
METHANE (CH4 - Methane)	0.00077	--
CO (Carbon Monoxide)	0.1875	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.41	--
DT-EER (Drive Trace Energy Economy Rating)	0.168	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.21	--
MFR FE (Manufacturer Fuel Economy)	22.5	22.5
NOX (Nitrogen Oxide)	0.00389	--
HC-NM (Non-methane Hydrocarbon)	0.0042	--
NMOG (Non-methane organic gases)	0.00462	--
HC-TOTAL (Total Hydrocarbon)	0.00494	--

Manufacturer Test Comments

05_FTP50°_9T75002_00_EDV_X3 xDrive30i_A_ETW-4500_RG30_S-Sport_S_off

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Test #	SBMX10086060	Test Procedure	11 - Cold CO
Exhaust Test # for this Evap Test	--	Test Fuel Type	28 - Cold CO E10 Regular Gasoline (Tier 3)
Test Date	03/08/2024	Fuel	Gasoline
Fuel Batch ID	COE10	Fuel Calibration Number	41
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	2677	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	489.707	--
FE BAG 1 (Bag 1 Fuel Economy)	17.6	17.6
CO2 BAG 2 (Bag 2 Carbon Dioxide)	399.8303	--
FE BAG 2 (Bag 2 Fuel Economy)	21.6	21.6
CO2 BAG 3 (Bag 3 Carbon Dioxide)	361.9475	--
FE BAG 3 (Bag 3 Fuel Economy)	23.8	23.8
METHANE (CH4 - Methane)	0.00193	--
CO (Carbon Monoxide)	0.4199	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-3.669	--
DT-EER (Drive Trace Energy Economy Rating)	-2.609	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-4.351	--
MFR FE (Manufacturer Fuel Economy)	21.1	21.1
HC-NM (Non-methane Hydrocarbon)	0.00822	--
HC-TOTAL (Total Hydrocarbon)	0.0101	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	408.0065	--

Manufacturer Test Comments

06_FTPCOLD_9T75002_00_EDV_X3 xDrive30i_A_ETW-4500_RG30_S-Sport_S_off

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
-------------------	--------------	-------------------------------------	--------------

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	Other	CO	0.42	--	--	--	0.09	--	0.5	10.0	Pass
Fed	120,000 miles	Other	HC-NM	0.01	--	--	--	0.00	--	0.0	0.3	Pass

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Test #	SBMX91005970	Test Procedure	21 - Federal fuel 2-day exhaust (w/can load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	07/09/2024	Fuel	Gasoline
Fuel Batch ID	28637	Fuel Calibration Number	1
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3298	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	376.8093872	--
FE BAG 1 (Bag 1 Fuel Economy)	999	--
CO2 BAG 2 (Bag 2 Carbon Dioxide)	368.5942383	--
FE BAG 2 (Bag 2 Fuel Economy)	999	--
CO2 BAG 3 (Bag 3 Carbon Dioxide)	333.3748779	--
FE BAG 3 (Bag 3 Fuel Economy)	999	--
CO2 BAG 4 (Bag 4 Carbon Dioxide)	359.3591003	--
FE BAG 4 (Bag 4 Fuel Economy)	999	--
METHANE (CH4 - Methane)	0.0018964	--
CO (Carbon Monoxide)	0.1963917	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.9937706	--
DT-EER (Drive Trace Energy Economy Rating)	0.7954024	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	2.2782574	--
MFR FE (Manufacturer Fuel Economy)	999	--
NOX (Nitrogen Oxide)	0.0025219	--
N2O (Nitrous Oxide)	0.000137	--
HC-NM (Non-methane Hydrocarbon)	0.0044521	--
NMOG (Non-methane organic gases)	0.00489	--
PM (Particulate Matter)	0.0000398	--
HC-TOTAL (Total Hydrocarbon)	0.0062489	--

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
-------------------	--------------	------------------------------	--------------

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	9999.9999999	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	357.8973083	--

Manufacturer Test Comments None Unrounded Result for the following test results were modified by Verify: FE BAG 3, FE BAG 2, FE BAG 4, FE BAG 1, MFR FE

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	Other	CREE	999	--	--	--	0.4	--	999	--	--
Fed	120,000 miles	Other	METHANE	0.0019	--	--	--	0.0006	--	0.002	0.030	Pass
Fed	120,000 miles	Other	N2O	0.0001	--	--	--	0.0004	--	0.000	0.010	Pass
Fed	150,000 miles	Other	CO	0.20	--	--	--	0.29	--	0.5	1.0	Pass
Fed	150,000 miles	Other	NMOG	0.0049	--	1.10	--	0.0025	--	0.007	999.999	Pass
Fed	150,000 miles	Other	NMOG+NOX	0.0074	--	--	--	--	--	0.012	0.020	Pass
Fed	150,000 miles	Other	NOX	0.0025	--	--	--	0.0020	--	0.004	999.999	Pass
Fed	150,000 miles	Other	PM	0.0000	--	--	--	0.0001	--	0.000	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

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Test #	SBMX10086055	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	03/12/2024	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	43
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4381	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.00133	--
CO (Carbon Monoxide)	0.0203	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-4.593	--
DT-EER (Drive Trace Energy Economy Rating)	-1.005	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-5.071	--
MFR FE (Manufacturer Fuel Economy)	35.6	35.6
NOX (Nitrogen Oxide)	0.00133	--
HC-NM (Non-methane Hydrocarbon)	0.00119	--
NMOG (Non-methane organic gases)	0.00123	--
HC-TOTAL (Total Hydrocarbon)	0.00247	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	243	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	243.0778	--

Manufacturer Test Comments

02_HWFET_9T75002_00_EDV_X3 xDrive30i_A_ETW-4500_RG30_S-Sport_S_off

Certification Summary Information Report

Test Group		VBMXV02.0B4P				Evaporative/Refueling Family				VBMXR0150G60		
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	Other	CREE	999	--	--	--	0.4	--	999	--	--
Fed	150,000 miles	Other	NMOG	0.0012	--	1.03	--	0.0025	--	0.004	999.999	Pass
Fed	150,000 miles	Other	NMOG+NOX	0.0025	--	--	--	--	--	0.007	0.020	Pass
Fed	150,000 miles	Other	NOX	0.0013	--	--	--	0.0020	--	0.003	999.999	Pass

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

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Test #	SBMX91005972	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	07/09/2024	Fuel	Gasoline
Fuel Batch ID	28637	Fuel Calibration Number	1
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3314	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.0020712	--
CO (Carbon Monoxide)	0.0128928	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	4.5150371	--
DT-EER (Drive Trace Energy Economy Rating)	0.2275137	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	6.1843071	--
MFR FE (Manufacturer Fuel Economy)	34.1077385	--
NOX (Nitrogen Oxide)	0.0018506	--
N2O (Nitrous Oxide)	0	--
HC-NM (Non-methane Hydrocarbon)	0.0009595	--
NMOG (Non-methane organic gases)	0.0009883	--
HC-TOTAL (Total Hydrocarbon)	0.0030017	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	9999.9999999	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	254.2111816	--

Manufacturer Test Comments None

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
-------------------	--------------	------------------------------	--------------

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	Other	CREE	999	--	--	--	0.4	--	999	--	--
Fed	150,000 miles	Other	NMOG	0.0010	--	1.03	--	0.0025	--	0.004	999.999	Pass
Fed	150,000 miles	Other	NMOG+NOX	0.0029	--	--	--	--	--	0.007	0.020	Pass
Fed	150,000 miles	Other	NOX	0.0019	--	--	--	0.0020	--	0.004	999.999	Pass

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

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Test #	SBMX10086057	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	03/19/2024	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	43
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4507	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	519.2709	--
FE BAG 1 (Bag 1 Fuel Economy)	16.7	16.7
CO2 BAG 2 (Bag 2 Carbon Dioxide)	298.444	--
FE BAG 2 (Bag 2 Fuel Economy)	29	29
METHANE (CH4 - Methane)	0.00115	--
CO (Carbon Monoxide)	0.058	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.607	--
DT-EER (Drive Trace Energy Economy Rating)	0.542	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.568	--
MFR FE (Manufacturer Fuel Economy)	24.9	24.9
NOX (Nitrogen Oxide)	0.00917	--
HC-NM (Non-methane Hydrocarbon)	0.00103	--
NMOG (Non-methane organic gases)	0.00106	--
PM (Particulate Matter)	0.000738	--
HC-TOTAL (Total Hydrocarbon)	0.00212	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	347.4451	--

Manufacturer Test Comments

03_US06_9T75002_00_EDV_X3 xDrive30i_A_ETW-4500_RG30_S-Sport_S_off

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
-------------------	--------------	------------------------------	--------------

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	Other	CO	0.0580	--	--	--	0.29	--	0.348	999.999	Pass
Fed	150,000 miles	Other	NMOG	0.0011	--	1.03	--	0.0025	--	0.004	999.999	Pass
Fed	150,000 miles	Other	NOX	0.0092	--	--	--	0.0020	--	0.011	999.999	Pass
Fed	150,000 miles	Other	PM	0.0007	--	--	--	0.0001	--	0.001	0.006	Pass

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Test #	SBMX91005971	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	07/09/2024	Fuel	Gasoline
Fuel Batch ID	28637	Fuel Calibration Number	1
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3334	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	526.244873	--
FE BAG 1 (Bag 1 Fuel Economy)	999	--
CO2 BAG 2 (Bag 2 Carbon Dioxide)	290.753418	--
FE BAG 2 (Bag 2 Fuel Economy)	999	--
METHANE (CH4 - Methane)	0.002886	--
CO (Carbon Monoxide)	0.0377727	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-3.1924205	--
DT-EER (Drive Trace Energy Economy Rating)	-1.0883708	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-6.0652189	--
MFR FE (Manufacturer Fuel Economy)	999	--
NOX (Nitrogen Oxide)	0.0085737	--
N2O (Nitrous Oxide)	0.00004	--
HC-NM (Non-methane Hydrocarbon)	0.002129	--
NMOG (Non-methane organic gases)	0.0021929	--
PM (Particulate Matter)	0.0001806	--
HC-TOTAL (Total Hydrocarbon)	0.0049746	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	343.1314087	--

Manufacturer Test Comments

None Unrounded Result for the following test results were modified by Verify: FE BAG 1, FE BAG 2, MFR FE

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
-------------------	--------------	------------------------------	--------------

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	Other	CO	0.0378	--	--	--	0.29	--	0.328	999.999	Pass
Fed	150,000 miles	Other	NMOG	0.0022	--	1.03	--	0.0025	--	0.005	999.999	Pass
Fed	150,000 miles	Other	NOX	0.0086	--	--	--	0.0020	--	0.011	999.999	Pass
Fed	150,000 miles	Other	PM	0.0002	--	--	--	0.0001	--	0.000	0.006	Pass

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Test #	SBMX10086058	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	03/11/2024	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	43
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4326	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.00343	--
CO (Carbon Monoxide)	0.5602	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.026	--
DT-EER (Drive Trace Energy Economy Rating)	0.098	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-1.331	--
MFR FE (Manufacturer Fuel Economy)	17.4	17.4
NOX (Nitrogen Oxide)	0.00457	--
HC-NM (Non-methane Hydrocarbon)	0.00076	--
NMOG (Non-methane organic gases)	0.00079	--
HC-TOTAL (Total Hydrocarbon)	0.00411	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	496.2927	--

Manufacturer Test Comments 04_SC03_9T75002_00_EDV_X3 xDrive30i_A_ETW-4500_RG30_S-Sport_S_off

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification		Pass/Fail
										Level	Standard	
Fed	150,000 miles	Other	CO	0.5602	--	--	--	0.29	--	0.850	999.999	Pass
Fed	150,000 miles	Other	NMOG	0.0008	--	1.03	--	0.0025	--	0.003	999.999	Pass
Fed	150,000 miles	Other	NOX	0.0046	--	--	--	0.0020	--	0.007	999.999	Pass

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
-------------------	--------------	-------------------------------------	--------------

Emission Data Vehicle Information

Vehicle ID / Configuration	9T75002 / 3	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	SBMXJ02.0B4P	Original Evaporative/Refueling Family	SBMXR0150G60
Original Test Vehicle Model Year	2025		

Vehicle Model

Represented Test Vehicle Make	BMW	Represented Test Vehicle Model	X3 xDrive30i
-------------------------------	-----	--------------------------------	--------------

Leak Family Details

Leak Family Identifier	--	Leak Family Name	--
------------------------	----	------------------	----

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	1	Odometer Correction Factor	1
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor		
Odometer Correction Units	Miles		
Engine Code	B48B2002G45X	Rated Horsepower	255
Displacement (liters)	2	Air Aspiration Method, if 'Other'	
Air Aspiration Method	Turbocharged	Air Aspiration Device Configuration	Single
Number of Air Aspiration Devices	1	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)	4500
Curb Weight (lbs)	4176	N/V Ratio	26.2
GVWR (lbs)	5512		
Axle Ratio	3.38	# of Transmission Gears	8
Transmission Type	Semi-Automatic	Creeper Gear	No
Transmission Lockup	Yes		

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	44.2	0.118	0.02238	13	0.115	0.01961	14.1

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Emission Control Device Comments	--		
Manufacturer Test Vehicle Comments	vi_9T75002_03_FEDV_X3 xDrive30i_A_ETW-4500_RG33_default mode_D_on		

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Test #	SBMX10086054	Test Procedure	31 - Federal fuel 3-day exhaust
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	03/21/2024	Fuel	Gasoline
Fuel Batch ID	T2/E0	Fuel Calibration Number	53
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4594	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	309.7929	--
FE BAG 1 (Bag 1 Fuel Economy)	28.1	28.1
CO2 BAG 2 (Bag 2 Carbon Dioxide)	244.2831	--
FE BAG 2 (Bag 2 Fuel Economy)	35.7	35.7
CO2 BAG 3 (Bag 3 Carbon Dioxide)	283.5689	--
FE BAG 3 (Bag 3 Fuel Economy)	30.7	30.7
CO2 BAG 4 (Bag 4 Carbon Dioxide)	242.123	--
FE BAG 4 (Bag 4 Fuel Economy)	36.1	36.1
METHANE (CH4 - Methane)	0.00172	--
CO (Carbon Monoxide)	0.3537	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.351	--
DT-EER (Drive Trace Energy Economy Rating)	-0.378	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.389	--
MFR FE (Manufacturer Fuel Economy)	32.5	32.5
NOX (Nitrogen Oxide)	0.00124	--
N2O (Nitrous Oxide)	0.00003	--
HC-NM (Non-methane Hydrocarbon)	0.00542	--
NMOG (Non-methane organic gases)	0.00563	--
HC-TOTAL (Total Hydrocarbon)	0.00706	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	269	269

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
-------------------	--------------	-------------------------------------	--------------

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	268.0167	--

Manufacturer Test Comments 01_FTP_9T75002_03_FEDV_X3 xDrive30i_A_ETW-4500_RG33_default mode_D_on

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	Other	CREE	269	--	--	--	0.4	--	269	--	--
Fed	120,000 miles	Other	METHANE	0.0017	--	--	--	0.0006	--	0.002	0.030	Pass
Fed	120,000 miles	Other	N2O	0.0000	--	--	--	0.0004	--	0.000	0.010	Pass
Fed	150,000 miles	Other	CO	0.35	--	--	--	0.29	--	0.6	1.0	Pass
Fed	150,000 miles	Other	NMOG	0.0056	--	1.10	--	0.0025	--	0.008	999.999	Pass
Fed	150,000 miles	Other	NMOG+NOX	0.0068	--	--	--	--	--	0.011	0.020	Pass
Fed	150,000 miles	Other	NOX	0.0012	--	--	--	0.0020	--	0.003	999.999	Pass

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

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Test #	SBMX10086053	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	03/21/2024	Fuel	Gasoline
Fuel Batch ID	T2/E0	Fuel Calibration Number	53
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4618	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.0002	--
CO (Carbon Monoxide)	0.1596	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.181	--
DT-EER (Drive Trace Energy Economy Rating)	-0.392	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.3	--
MFR FE (Manufacturer Fuel Economy)	44.1	44.1
NOX (Nitrogen Oxide)	0.00092	--
HC-NM (Non-methane Hydrocarbon)	0.0001	--
NMOG (Non-methane organic gases)	0.00011	--
HC-TOTAL (Total Hydrocarbon)	0.0003	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	198	198

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	198.1184	--

Manufacturer Test Comments

02_HWFET_9T75002_03_FEDV_X3 xDrive30i_A_ETW-4500_RG33_default mode_D_on

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
-------------------	--------------	-------------------------------------	--------------

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	Other	CREE	198	--	--	--	0.4	--	198	--	--
Fed	150,000 miles	Other	NMOG	0.0001	--	1.03	--	0.0025	--	0.003	999.999	Pass
Fed	150,000 miles	Other	NMOG+NOX	0.0010	--	--	--	--	--	0.006	0.020	Pass
Fed	150,000 miles	Other	NOX	0.0009	--	--	--	0.0020	--	0.003	999.999	Pass

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

Certification Summary Information Report

Test Group	VBMXV02.0B4P		Evaporative/Refueling Family	VBMXR0150G60											
Emission Data Vehicle Information															
Vehicle ID / Configuration	9T75018 / 0		Manufacturer Vehicle Configuration Number	0											
Original Test Group Name	SBMXJ02.0B4P		Original Evaporative/Refueling Family	SBMXR0150G60											
Original Test Vehicle Model Year	2025														
Vehicle Model															
Represented Test Vehicle Make	BMW		Represented Test Vehicle Model	X3 xDrive30i											
Leak Family Details															
Leak Family Identifier	--		Leak Family Name	--											
Drive Sources and Fuel System Details															
<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 Combustion	--											
Multiple Fuel Storage	--		Rechargeable Energy Storage System Indicator	Yes											
Fuel Cell Indicator	No		Rechargeable Energy Storage System, if 'Other'	--											
Rechargeable Energy Storage System	Battery(s)		Odometer Correction Factor	1											
Off-board charge Capable Indicator	No		Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor											
Odometer Correction -- Initial	1		Odometer Correction Units	Miles											
Engine Code	B48B2002G45X		Rated Horsepower	255											
Displacement (liters)	2		Air Aspiration Method, if 'Other'												
Air Aspiration Method	Turbocharged		Air Aspiration Device Configuration	Single											
Number of Air Aspiration Devices	1		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)	4500											
Curb Weight (lbs)	4176		N/V Ratio	26.2											
GVWR (lbs)	5512		# of Transmission Gears	8											
Axle Ratio	3.38		Creeper Gear	No											
Transmission Type	Semi-Automatic														
Transmission Lockup	Yes														
Dynamometer Coefficients:															
Target Coefficients			Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients									
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)		C (lbf/mph**2)								
City/Highway/Evap	44.2	0.118	0.02266	12.8	0.122	0.02015	14.2								

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
-------------------	--------------	-------------------------------------	--------------

Emission Control Device Comments --
Manufacturer Test Vehicle Comments vi_9T75018_00_EVAP EDV_X3 xDrive30i_A_ETW-4500_RG30_E10

Test #	SBMX10085517	Test Procedure	23 - 2-day evap
Exhaust Test # for this Evap Test	SBMX10085514	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	02/13/2024	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	39
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	3552	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	No		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL (Total Hydrocarbon)	0.16206	--
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.17502	--

Manufacturer Test Comments EVAP EDV - 2Day, X3 xDrive30i

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	0.1750	0.0000	0.175	0.300	Pass

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Test #	SBMX10085519	Test Procedure	34 - Federal fuel 3-day evap
Exhaust Test # for this Evap Test	SBMX10085515	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	02/29/2024	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	43
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	3669	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	No		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL (Total Hydrocarbon)	0.21303	--
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.23007	--

Manufacturer Test Comments EVAP EDV - 3Day, X3 xDrive30i

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	0.2301	0.0000	0.230	0.300	Pass

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Test #	SBMX10085522	Test Procedure	32 - Federal Fuel Running Loss
Exhaust Test # for this Evap Test	SBMX10085515	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	02/29/2024	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	43
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	3641	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	No		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC (Hydrocarbon for Running Loss and ORVR)	0.0002	--
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.0002	--

Manufacturer Test Comments EVAP EDV - Running Loss, X3 xDrive30i

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

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
-------------------	--------------	-------------------------------------	--------------

Test #	SBMX10085523	Test Procedure	24 - Federal fuel refueling test (ORVR)
Exhaust Test # for this Evap Test	SBMX10085516	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	02/22/2024	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	39
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	3611	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	No		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC (Hydrocarbon for Running Loss and ORVR)	0.03314	--

Manufacturer Test Comments EVAP EDV - ORVR, X3 xDrive30i

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	0.033	0.000	0.03	0.20	Pass

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Test #	SBMX10085524	Test Procedure	65 - Evap Canister Bleed Test
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	03/13/2024	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	43
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	3712	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	No	Road Speed Fan Usage	Yes
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL (Total Hydrocarbon)	0.0088	--
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.0095	--

Manufacturer Test Comments EVAP EDV - Bleed Test, X3 xDrive30i

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	0.0095	0.0000	0.010	0.020	Pass

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60																		
Test #	SBMX10085525	Test Procedure	67 - Leak Test - Port Near Canister																		
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)																		
Test Date	03/12/2024	Fuel	Gasoline																		
Fuel Batch ID	T10/87	Fuel Calibration Number	43																		
Vehicle Class	N/A	DF Type	Mfr. Determined																		
Verify Test Lab ID	EETZ Emissions Lab																				
E10 Evaporative Test Measurement Method	--																				
Test Start Odometer Reading	3687	Odometer Units	K																		
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--																		
State of Charge Delta	No																				
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes																		
Test Results																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%;">Test Result Name</th> <th style="width: 30%;">Unrounded Test Result</th> <th style="width: 35%;">Verify Calculated FE Equivalent Value</th> </tr> </thead> <tbody> <tr> <td>LEAK-DIA (Effective Leak Diameter (inches))</td> <td style="text-align: center;">0</td> <td style="text-align: center;">--</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value	LEAK-DIA (Effective Leak Diameter (inches))	0	--												
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value																			
LEAK-DIA (Effective Leak Diameter (inches))	0	--																			
Manufacturer Test Comments	EVAP EDV - Leak Test, X3 xDrive30i																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Certification Region</th> <th style="width: 10%;">Useful Life</th> <th style="width: 10%;">Standard Level</th> <th style="width: 10%;">Emission Name</th> <th style="width: 10%;">Rounded Result</th> <th style="width: 10%;">Add DF</th> <th style="width: 10%;">Certification Level</th> <th style="width: 10%;">Standard</th> <th style="width: 10%;">Pass/Fail</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Fed</td> <td style="text-align: center;">150,000 miles</td> <td style="text-align: center;">Federal Tier 3 Evap</td> <td style="text-align: center;">LEAK-DIA</td> <td style="text-align: center;">0.000</td> <td style="text-align: center;">0.000</td> <td style="text-align: center;">0.00</td> <td style="text-align: center;">0.02</td> <td style="text-align: center;">Pass</td> </tr> </tbody> </table>				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	LEAK-DIA	0.000	0.000	0.00	0.02	Pass
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	LEAK-DIA	0.000	0.000	0.00	0.02	Pass													

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Fuel Properties			
Fuel Batch ID	T10/87	Fuel Calibration Number	39
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	08/25/2023
Fuel Batch Calibration Effective Date	11/09/2023	Fuel Batch Calibration Ineffective Date	--
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.826	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.742
Fuel Ethanol Volume Percent (%)	9.6	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	18000
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.826	Weight Fraction CO2	--
Fuel Batch ID	T2/E0	Fuel Calibration Number	53
Test Fuel Type	61 - Tier 2 Cert Gasoline	Fuel Batch Calibration Date	02/21/2024
Fuel Batch Calibration Effective Date	02/27/2024	Fuel Batch Calibration Ineffective Date	--
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.861	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.736
Fuel Ethanol Volume Percent (%)	--	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	18732
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.861	Weight Fraction CO2	--
Fuel Batch ID	T10/87	Fuel Calibration Number	43
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	11/27/2023
Fuel Batch Calibration Effective Date	02/27/2024	Fuel Batch Calibration Ineffective Date	--
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.827	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.746
Fuel Ethanol Volume Percent (%)	9.8	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17962
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.827	Weight Fraction CO2	--
Fuel Batch ID	28637	Fuel Calibration Number	1
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	08/26/2021
Fuel Batch Calibration Effective Date	08/26/2021	Fuel Batch Calibration Ineffective Date	--

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.75
Fuel Ethanol Volume Percent (%)	9.6	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17894
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	--
Fuel Batch ID	COE10	Fuel Calibration Number	41
Test Fuel Type	28 - Cold CO E10 Regular Gasoline (Tier 3)	Fuel Batch Calibration Date	11/14/2023
Fuel Batch Calibration Effective Date	11/14/2023	Fuel Batch Calibration Ineffective Date	--
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.826	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.743
Fuel Ethanol Volume Percent (%)	10	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)	0.826	Weight Fraction CO2	--

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60						
Consolidated List of Standards									
Exhaust Standards									
Cert Region	Federal	Cert/In-Use Code	Cert						
Vehicle Class	LDV/Passenger Car	Standard Level	Other						
Fuel	Gasoline	Test Procedure	Federal fuel 3-day exhaust						
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	--	--	--	--	--	--	0.4	999
120,000 miles	METHANE	--	--	--	--	--	--	0.0006	0.030
120,000 miles	N2O	--	--	--	--	--	--	0.0004	0.010
150,000 miles	CO	--	--	--	0.0000	--	--	0.29	1.0
150,000 miles	CO-COMP	--	--	--	--	--	--	--	4.2
150,000 miles	HCHO	--	--	--	--	--	--	--	0.004
150,000 miles	NMOG	--	--	1.10	0.0000	--	--	0.0025	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.020
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	--	0.040
150,000 miles	NOX	--	--	--	0.0000	--	--	0.0020	999.999
150,000 miles	PM	--	--	--	0.0000	--	--	0.0001	0.003
Cert Region				Federal	Cert/In-Use Code		Cert		
Vehicle Class				LDV/Passenger Car	Standard Level		Other		
Fuel				Gasoline	Test Procedure		Federal fuel 2-day exhaust (w/can load)		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
120,000 miles	CREE	--	--	--	--	--	--	0.4	999
120,000 miles	METHANE	--	--	--	--	--	--	0.0006	0.030
120,000 miles	N2O	--	--	--	--	--	--	0.0004	0.010
150,000 miles	CO	--	--	--	0.0000	--	--	0.29	1.0
150,000 miles	CO-COMP	--	--	--	--	--	--	--	4.2
150,000 miles	HCHO	--	--	--	--	--	--	--	0.004
150,000 miles	NMOG	--	--	1.10	0.0000	--	--	0.0025	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.020
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	--	0.040
150,000 miles	NOX	--	--	--	0.0000	--	--	0.0020	999.999
150,000 miles	PM	--	--	--	0.0000	--	--	0.0001	0.003

Certification Summary Information Report

Test Group		VBMXV02.0B4P			Evaporative/Refueling Family			VBMXR0150G60		
Cert Region		Federal			Cert/In-Use Code			Cert		
Vehicle Class		LDV/Passenger Car			Standard Level			Other		
Fuel		Gasoline			Test Procedure			US06		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std	
150,000 miles	CO	--	--	--	0.0000	--	--	0.29	999.999	
150,000 miles	NMOG	--	--	1.03	0.0000	--	--	0.0025	999.999	
150,000 miles	NOX	--	--	--	0.0000	--	--	0.0020	999.999	
150,000 miles	PM	--	--	--	0.0000	--	--	0.0001	0.006	

Cert Region		Federal			Cert/In-Use Code			Cert		
Vehicle Class		LDV/Passenger Car			Standard Level			Other		
Fuel		Gasoline			Test Procedure			Cold CO		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std	
50,000 miles	CO	--	--	--	0.0000	--	--	0.09	10.0	
120,000 miles	HC-NM	--	--	--	--	--	--	0.00	0.3	

Cert Region		Federal			Cert/In-Use Code			Cert		
Vehicle Class		LDV/Passenger Car			Standard Level			Other		
Fuel		Gasoline			Test Procedure			SC03		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std	
150,000 miles	CO	--	--	--	0.0000	--	--	0.29	999.999	
150,000 miles	NMOG	--	--	1.03	0.0000	--	--	0.0025	999.999	
150,000 miles	NOX	--	--	--	0.0000	--	--	0.0020	999.999	

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Cert Region	Federal	Cert/In-Use Code	Cert
Vehicle Class	LDV/Passenger Car	Standard Level	Other
Fuel	Gasoline	Test Procedure	HWFE

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
120,000 miles	CREE	--	--	--	--	--	--	0.4	999
150,000 miles	NMOG	--	--	1.03	0.0000	--	--	0.0025	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.020
150,000 miles	NOX	--	--	--	0.0000	--	--	0.0020	999.999

Evaporative/Refueling Standards

Evaporative/Refueling Family	VBMXR0150G60	Cert Region	Federal
Cert/In-Use Code	Cert	Standard Level	Federal Tier 3 Evap
Test Procedure	Federal fuel refueling test (ORVR)		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC	--	0.20	0.000

Evaporative/Refueling Family	VBMXR0150G60	Cert Region	Federal
Cert/In-Use Code	Cert	Standard Level	Federal Tier 3 Evap
Test Procedure	Leak Test - Port Near Canister		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	LEAK-DIA	--	0.02	0.000

Evaporative/Refueling Family	VBMXR0150G60	Cert Region	Federal
Cert/In-Use Code	Cert	Standard Level	Federal Tier 3 Evap
Test Procedure	Federal Fuel Running Loss		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.05	0.000

Evaporative/Refueling Family	VBMXR0150G60	Cert Region	Federal
Cert/In-Use Code	Cert	Standard Level	Federal Tier 3 Evap
Test Procedure	Federal fuel 3-day evap		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.300	0.0000

Certification Summary Information Report

Test Group	VBMXV02.0B4P		Evaporative/Refueling Family	VBMXR0150G60	
Evaporative/Refueling Family	VBMXR0150G60		Cert Region	Federal	
Cert/In-Use Code	Cert		Standard Level	Federal Tier 3 Evap	
Test Procedure	2-day evap				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.300	0.0000
Evaporative/Refueling Family	VBMXR0150G60		Cert Region	Federal	
Cert/In-Use Code	Cert		Standard Level	Federal Tier 3 Evap	
Test Procedure	Evap Canister Bleed Test				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.020	0.0000

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family	VBMXR0150G60
Glossary			
Useful Life			
4	4,000 miles	120	120,000 miles
50	50,000 miles	150	150,000 miles
100	100,000 miles		
Emission Name			
HC-TOTAL	Total Hydrocarbon	AS-VOLT	Average System Voltage
CO	Carbon Monoxide	CO2 BAG 1	Bag 1 Carbon Dioxide
CO2	Carbon dioxide	CO2 BAG 2	Bag 2 Carbon Dioxide
CREE	Carbon-Related Exhaust Emissions	CO2 BAG 3	Bag 3 Carbon Dioxide
OPT-CREE	Optional Carbon-Related Exhaust Emissions	CO2 BAG 4	Bag 4 Carbon Dioxide
NOX	Nitrogen Oxide	NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides
PM	Particulate Matter	NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides
PM-COMP	SFTP Composite Particulate Matter	DT-IWRR	Drive Trace Inertia Work Ratio Rating
HC-NM	Non-methane Hydrocarbon	DT-ASCR	Drive Trace Absolute Speed Change Rating
OMHCE	Organic material Hydrocarbon Equivalent	DT-EER	Drive Trace Energy Economy Rating
OMNMHCE	Organic material non-methane HC equivalent	COMB-CREE	Combined Carbon-Related Exhaust Emissions
NMOG	Non-methane organic gases	COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions
HCHO	Formaldehyde	HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only
H3C2HO	Acetaldehyde	METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03	N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides	LEAK-DIA	Effective Leak Diameter (inches)
CO-COMP	SFTP Composite Carbon Monoxide	LEAK-GAS CAP	Gas Cap Leakage (cc/min)
ETHANOL	C2H5OH - Ethanol	CO2-COMB	Combined Carbon Dioxide for HD 2b/3 Vehicles Only
FE BAG 1	Bag 1 Fuel Economy	KW-HRS	Integrated DC KW-HRS
FE BAG 2	Bag 2 Fuel Economy	CH4 BAG 1	Bag 1 Methane
FE BAG 3	Bag 3 Fuel Economy	CH4 BAG 2	Bag 2 Methane
FE BAG 4	Bag 4 Fuel Economy	CH4 BAG 3	Bag 3 Methane
MFR FE	Manufacturer Fuel Economy	CH4 BAG 4	Bag 4 Methane
HC	Hydrocarbon for Running Loss and ORVR	CO BAG 1	Bag 1 Carbon Monoxide
METHANE	CH4 - Methane	CO BAG 2	Bag 2 Carbon Monoxide
METHANOL	CH3OH - Methanol	CO BAG 3	Bag 3 Carbon Monoxide
N2O	Nitrous Oxide	CO BAG 4	Bag 4 Carbon Monoxide
SPITBACK	Spitback Hydrocarbon in grams	NMOG BAG 1	Bag 1 Non-methane organic gases
AMP-HRS	Integrated Amp-hours	NMOG BAG 2	Bag 2 Non-methane organic gases
START-SOC	System Start State of Charge Watt-hours	NMOG BAG 3	Bag 3 Non-methane organic gases
END-SOC	System End State of Charge Watt-hours	NMOG BAG 4	Bag 4 Non-methane organic gases
ACT-DISTANCE	Actual Distance Driven (miles)		
Certification Region			

Certification Summary Information Report

Test Group	VBMXV02.0B4P	Evaporative/Refueling Family		VBMXR0150G60
CA	California + CAA Section 177 states	FA	Federal	
Exhaust Emission Standard Level				
B1	Federal Tier 2 Bin 1	T3B160	Federal Tier 3 Bin 160	
B2	Federal Tier 2 Bin 2	T3B125	Federal Tier 3 Bin 125	
B3	Federal Tier 2 Bin 3	T3B110	Federal Tier 3 Transitional Bin 110	
B4	Federal Tier 2 Bin 4	T3B85	Federal Tier 3 Transitional Bin 85	
B5	Federal Tier 2 Bin 5	T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover	
B6	Federal Tier 2 Bin 6	T3B70	Federal Tier 3 Bin 70	
B7	Federal Tier 2 Bin 7	T3B50	Federal Tier 3 Bin 50	
B8	Federal Tier 2 Bin 8	T3B30	Federal Tier 3 Bin 30	
B9	Federal Tier 2 Bin 9	T3B20	Federal Tier 3 Bin 20	
B10	Federal Tier 2 Bin 10	T3B0	Federal Tier 3 Bin 0	
B11	Federal Tier 2 Bin 11	HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395	
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)	HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340	
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	HDV2B250	Federal Tier 3 HD Class 2b Bin 250	
L2	California LEV-II LEV	HDV2B200	Federal Tier 3 HD Class 2b Bin 200	
L2OP	California LEV-II LEV Optional	HDV2B170	Federal Tier 3 HD Class 2b Bin 170	
U2	California LEV-II ULEV	HDV2B150	Federal Tier 3 HD Class 2b Bin 150	
S2	California LEV-II SULEV	HDV2B0	Federal Tier 3 HD Class 2b Bin 0	
ZEV	California ZEV	HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630	
OT	Other	HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570	
T1	Federal Tier 1	HDV3B400	Federal Tier 3 HD Class 3 Bin 400	
PZEV	California PZEV	HDV3B270	Federal Tier 3 HD Class 3 Bin 270	
L2LEV160	California LEV-II LEV160	HDV3B230	Federal Tier 3 HD Class 3 Bin 230	
L2ULEV125	California LEV-II ULEV125	HDV3B200	Federal Tier 3 HD Class 3 Bin 200	
L2SULEV30	California LEV-II SULEV30	HDV3B0	Federal Tier 3 HD Class 3 Bin 0	
L2LEV395	California LEV-II LEV395	L4SULEV100	California LEV-IV SULEV100	
L2ULEV340	California LEV-II ULEV340	L4SULEV125	California LEV-IV SULEV125	
L2LEV630	California LEV-II LEV630	L4SULEV15	California LEV-IV SULEV15	
L2ULEV570	California LEV-II ULEV570	L4SULEV150	California LEV-IV SULEV150	
L3LEV160	California LEV-III LEV160	L4SULEV170	California LEV-IV SULEV170	
L3ULEV125	California LEV-III ULEV125	L4SULEV175	California LEV-IV SULEV175	
L3ULEV70	California LEV-III ULEV70	L4SULEV20	California LEV-IV SULEV20	
L3ULEV50	California LEV-III ULEV50	L4SULEV200	California LEV-IV SULEV200	
L3SULEV30	California LEV-III SULEV30	L4SULEV230	California LEV-IV SULEV230	
L3SULEV20	California LEV-III SULEV20	L4SULEV25	California LEV-IV SULEV25	
L3LEV395	California LEV-III LEV395	L4SULEV30	California LEV-IV SULEV30	
L3ULEV340	California LEV-III ULEV340	L4SULEV75	California LEV-IV SULEV75	
L3ULEV250	California LEV-III ULEV250	L4SULEV85	California LEV-IV SULEV85	
L3ULEV200	California LEV-III ULEV200	L4ULEV125	California LEV-IV ULEV125	

Certification Summary Information Report

Test Group		VBMXV02.0B4P	Evaporative/Refueling Family		VBMXR0150G60
L3SULEV170	California LEV-III SULEV170		L4ULEV200	California LEV-IV ULEV200	
L3SULEV150	California LEV-III SULEV150		L4ULEV250	California LEV-IV ULEV250	
L3LEV630	California LEV-III LEV630		L4ULEV270	California LEV-IV ULEV270	
L3ULEV570	California LEV-III ULEV570		L4ULEV40	California LEV-IV ULEV40	
L3ULEV400	California LEV-III ULEV400		L4ULEV400	California LEV-IV ULEV400	
L3ULEV270	California LEV-III ULEV270		L4ULEV50	California LEV-IV ULEV50	
L3SULEV230	California LEV-III SULEV230		L4ULEV60	California LEV-IV ULEV60	
L3SULEV200	California LEV-III SULEV200		L4ULEV70	California LEV-IV ULEV70	
Transmission Type Code					
AMS	Automated Manual- Selectable (e.g. Automated Manual with paddles)		M	Manual	
A	Automatic		OT	Other	
AM	Automated Manual		SA	Semi-Automatic	
CVT	Continuously Variable		SCV	Selectable Continuously Variable (e.g. CVT with paddles)	
Drive System Code					
4	4-Wheel Drive		P	Part-time 4-Wheel Drive	
F	2-Wheel Drive, Front		A	All Wheel Drive	
R	2-Wheel Drive, Rear				
Additional Terms and Acronyms					
AFC	Alternative Fuel Converter		ICI	Independent Commercial Importer	
CSI	Certificate Summary Information		ORVR	Onboard Refueling Vapor Recovery	
DF	Deterioration Factor		SIL	Shift Indicator Light	
Evap	Evaporation, Evaporative		Trans	Transmission	