

Application for Certification

Model Year: 2027
Manufacturer Name: BMW

Test Group: VBMXJ03.0B5T
Test Group Description: in-line 6-cylinder, 4-stroke, 3.0 Liter, gasoline

Durability Group: VBMXHHGVNV2T
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: VBMXR0200G6X

Applicable Standards: EPA
FTP Standard: Tier 4 - Bin 30
SFTP Standard: Tier 4 - Bin 30
EVAP FEL: Tier 3 - 500

Vehicle Classes Covered: EPA
LDV
LDT 4

Carlines Covered: 740 Sedan, 740 xDrive Sedan, X5 40 xDrive

Test EDV:

VID	CFG	Fuel	FTP	HWY	US06	SC03	Cold CO
9177373	00	T3E10	VBMX10094104	VBMX10094105	VBMX10094106	VBMX10094107	VBMX10094108
9177373	02	T2E0	VBMX10094117	VBMX10094115	---	---	---

VID	CFG	Fuel	FTP Early Drive Away	FTP Intermediate Soak 10-minute	FTP Intermediate Soak 40-minute	FTP Intermediate Soak 3-hour
9177373	00	T3E10	VBMX10094109	VBMX10094110	VBMX10094111	VBMX10094112

Test EDV EVAP:

Family	VID	CFG	Fuel	3-day	RL	2-day	ORVR	BTP	Leak
R0200G6X	9177374	00	T3E10	VBMX10094143	VBMX10094144	VBMX10094142	VBMX10094148	VBMX10094150	VBMX10094152

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

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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	VBMXHHGVNV2T
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	6.3 - 8.4

3. Evaporative / Refueling Family Description

- 3.1. Evaporative / Refueling Family Name VBMXR0200G6X
- 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: 200 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 VBMXR0200G6X

1. ORVR safety application is carried over from previously certified evaporative/ORVR family CBMXR0130AHY
2. There have been no substantial changes from CBMXR0130AHY
3. The differences between the VBMXR0200G6X and CBMXR0130AHY are that the VBMXR0200G6X has a higher fuel tank volume and higher canister working capacity.
4. There have been 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 com No safety-related defect campaigns have been conducted related to the ORVR system.

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] =	854.97	---
calculated tref [h] =	114.351	---
effective tref [h] =	114.281	---

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	VBMXJ03.0B5T
5.2.	Engine information	
5.2.1.	Engine displacement	2998 cm ³
5.2.2.	Arrangement of cylinders	in line
5.2.3.	Number of cylinders	6
5.3.	Hybrid Electric Vehicle System Description	
5.3.1.	Electric Motor	Refer to Section 12
5.3.2.	Battery	Refer to Section 12
5.4.	Vehicle class	EPA LDV LDT 4
5.5.	Emission standards class	Tier 4 - Bin 30
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
9177373	00	--	X5 40 xDrive	SA-8	EDV	T3E10	---	20	refer to section 12	refer to section 12	refer to section 12	5500
9177373	01	488	X5 40 xDrive	SA-8	FEDV	T2E0	---	21	D	default mode	---	5500
9177373	02	488	X5 40 xDrive	SA-8	FEDV	T2E0	---	22	D	default mode	---	5500
CW53338	00	491	740 xDrive Sedan	SA-8	FEDV	T2E0	---	11	D	default mode	---	5250
9177372	---	---	X5 40 xDrive	---	DDV	T3E10	---	---	---	---	---	5500

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
11	Road Load for FEDV configuration
20	Road Load for EDV (worst case)
21	Road Load for first FEDV configuration
22	Road Load for second FEDV configuration

6.2. Test Vehicle Description EVAP EDV

VID	CFG	Model	Type	Fuel	Family
9177374	00	X5 40 xDrive	EDV EVAP	T3E10	R0200G6X

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-VBMXJ03.0B5T-VBMXR0200G6X

7.2. Litmus Check

see attachment:
CSI-VBMXJ03.0B5T-VBMXR0200G6X

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

All applicable vehicles will conform with the emission standards for which emission data is not being submitted, as described in 40 CFR §86.1806-27, §86.1811-27, §86.1829-15 and §86.1865-12. The sections below identify the standards for which BMW uses statements instead of completing emission testing and submitting test data.

Evaporative Leak-Detection

According to §86.1806-17(b)(1)(vi), BMW as the manufacturer states that, consistent with good engineering judgement, for test groups not selected for OBD demonstration testing, all vehicles included in this application comply with the applicable leak monitoring requirement.

HCHO emission compliance

Based on an engineering evaluation of appropriate HCHO emissions, BMW states that all light-duty vehicles included in this application comply with the applicable HCHO emission standards. According to 40 CFR §86.1829-15 (d) (4), BMW uses this statement instead of submitting test data.

High-altitude exhaust and evaporative emissions compliance

Based on an engineering evaluation of appropriate high-altitude emission tests, BMW states 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), BMW uses this statement instead of submitting test data. According to 40 CFR §86.1865-12 (h) (3), BMW states that all vehicles included in this application are using their low altitude hardware and software emission control strategies similarly across all altitudes for in-use operation. According to 40 CFR §86.1811-27(c)(4) for Tier 4 vehicles, BMW states 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.

Spitback Testing

BMW states that all vehicles included in this application do not exceed the fuel dispensing spitback standard of 1.0g THCE, as required per §86.1813-17 (c). According to 40 CFR §86.1829-15 (e) (5), BMW uses this statement instead of submitting test data.

8.2 Compliance Statements**"Lean-on-cruise" calibration strategies**

There are no "Lean-on-cruise" calibration strategies, as specified in 40 CFR §86.1811-17 (d)(4), incorporated into the design of vehicles included in this application.

91RON-Statement

According to VPCD 97-01, BMW states that differences in city and highway fuel economy test results comparing 91 RON operation and 96 RON operation are not exceeding $\pm 3\%$. Emission standards are met in both 91 RON and 96 RON operation, as demonstrated via certification testing. EDV testing is performed using Tier 3 E10 fuel with 91 RON, FEDV testing is performed using Tier 2 E0 fuel with 96 RON.

A/C-on specific calibrations-Statement

According to 40 CFR §86.1811-27(d), BMW as the manufacturer states that vehicles included in

this application do not use A/ C-on specific calibrations that differ from A/C-off calibrations for a given set of engine operating conditions, which would unnecessarily reduce emission control system 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

According to 40 CFR §86.1809-12 (c) and based on engineering evaluations of emission test results between 25°F and 68°F, BMW states that for all vehicles included in this application, the guideline for CO, NMHC or NMOG+N0x (as applicable) emission congruity in the intermediate temperature range is fulfilled.

Corporate Average Fuel Economy Calculation

Since the 2007 model year and in accordance with Dear Manufacturer letter CISC-09-19, BMW uses customer data to analyze whether predominance criteria are met regarding a certain operation mode of 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 test results between 20°F and 86°F, BMW states that for all vehicles included in this application, discontinuity of emissions of NMOG, PM, CO, CO₂, N₂O, NO_x, CH₄, HCHO emissions on the FTP and Highway tests does not occur when tested at temperatures ranging from 20°F to 86°F.

Emission Warranty Statement

BMW as the manufacturer states that it will meet the emission performance and defect warranty requirements as described in 40 CFR §85.2103.

Engine Oil used for Certification Testing

Based on guidance letters CISC-2008-11, CISC-10-11 and CD-2020-03 BMW confirms that vehicles included in this application fulfill the "representativeness" requirements as specified in 40 CFR 600.007(b)(6) with regards to engine oils used in the respective test vehicles. BMW uses the factory-fill oil for mileage accumulation, durability, emission and fuel economy testing. The specific oil's SAE viscosity grade used is included in the CSI information of each application. BMW uses non-API-registered, fully synthetic oils. For factory fill, 5W-30, 0W-12, 0W-20, and 0W-30 oils are used (viscosity grades vary depending on engine variants). For maintenance, BMW recommends a 0W-12, 0W-20 or 0W-30 oil which is 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 not more fuel efficient than the oil used for factory fill, or the oil recommended to the vehicle owner.

Intermediate Soak Statement

According to 40 CFR §86.1829-15 (d)(7) and based on engineering evaluations, BMW states that all vehicles included in this application comply with the mid-temperature intermediate soak standards for soak times not covered by testing.

Leak free exhaust system

Based on an engineering analysis of the complete exhaust system, BMW as the manufacturer states that the exhaust systems installed on any vehicles included in this application comply with the requirements set forth in § 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), BMW states that the emission control diagnostic system installed on any vehicle 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
740 Sedan	490	SA	LDV	4733	5000	6173	19.5	190	3060	No
740 xDrive Sedan	491	SA	LDV	4852	5250	6283	19.5	190	3060	No
X5 40 xDrive	--	SA	LDT 4	5216	5500	6614	21.9	200	3135	--
X5 40 xDrive	488	SA	LDT 4	5216	5500	6614	21.9	200	3135	No

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			
740 Sedan	490	SA (R)	8	not applicable	3.07	B58B30M3G70S	394 / 5500	398 / 1980 - 5000
740 xDrive Sedan	491	SA (A)	8	3.07	3.07	B58B30M3G70X	394 / 5500	398 / 1980 - 5000
X5 40 xDrive	488	SA (A)	8	3.38	3.38	B58B30M3G65X	394 / 5500	398 / 1980 - 5000
X5 40 xDrive	--	SA (A)	8	3.38	3.38	B58B30M3G65X	394 / 5500	398 / 1980 - 5000

12.1.3. Tire Information

Modell	Carline	Trans	Road Load CFG	Tire Front		Tire Rear
740 Sedan	490	SA	11	255/40 R21 102Y STD		285/35 R21 105Y STD
				255/45 R20 105H M+S STD		285/40 R20 108H M+S STD
				255/40 R21 102H M+S STD		285/35 R21 108H M+S STD
				255/45 R20 105Y STD		285/40 R20 108Y STD
740 xDrive Sedan	491	SA	11	255/45 R20 105Y STD		285/40 R20 108Y STD
				255/45 R20 105H M+S STD		285/40 R20 108H M+S STD
				255/40 R21 102H M+S STD		285/35 R21 108H M+S STD
				255/40 R21 102Y STD		285/35 R21 105Y STD
X5 40 xDrive	--	SA	20	worst case represented		worst case represented
				275/35 R23 104Y STD		315/30 R23 111Y STD
	488	SA	21	275/40 R22 107H M+S STD		315/35 R22 115H M+S STD
				255/50 R21 109Y STD		285/45 R21 113Y STD
				275/40 R22 107Y STD		315/35 R22 115Y STD
				255/50 R21 109H M+S STD		285/45 R21 113H M+S STD
				275/40 R22 107Y STD (HP)		315/35 R22 115Y STD (HP)
			22			

M+S indicates an All-Season tire and not a dedicated Winter tire

(Winter) indicates a dedicated Winter tire

AT indicates an All-Terrain tire

HP indicates a High-Performance 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. Catalyst

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 by waste gate
- 12.1.4.7. Other Charged Air Cooler
- 12.1.5. Number of valves per cylinder 4
- 12.1.6. Engine displacement 2998 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 Shutter
740 Sedan	490	SA	11	23.5	48.4	-0.051	0.02235	13.6	not applicable	not applicable	not applicable	Yes
740 xDrive Sedan	491	SA	11	23.5	51.6	-0.048	0.02226	14.0	7.8	0.140	0.01770	Yes
X5 40 xDrive	--	SA	20	24.1	50.5	0.128	0.02740	16.7	8.2	0.160	0.02432	Yes
X5 40 xDrive	488	SA	21	24.1	44.3	0.111	0.02742	15.8	2.5	0.245	0.02328	Yes
X5 40 xDrive	488	SA	22	24.1	50.5	0.128	0.02717	16.6	8.9	0.242	0.02327	Yes

Road Load Configuration Description

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

12.3. Hybrid Electric Vehicle System Description

12.3.1. Description of electric motor

Model Name	Type	Power (peak) [kW]	Max. torque [Nm]
740 Sedan	PMSM (permanent magnet synchronous motor)	13 @ 2000	200
740 xDrive Sedan	PMSM (permanent magnet synchronous motor)	13 @ 2000	200
X5 40 xDrive	PMSM (permanent magnet synchronous motor)	13 @ 2000	200

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
740 Sedan	Li-Ion	19.2	0.85	43.92	35.0	1	1	12
740 xDrive Sedan	Li-Ion	19.2	0.85	43.92	35.0	1	1	12
X5 40 xDrive	Li-Ion	19.2	0.85	43.92	35.0	1	1	12

Model Name	Cell format	Min. Voltage Cell [V]	Weight [kg]	Specific Energy Density [Wh/kg]	Chemistry Identifier
740 Sedan	prismatic	3.00	13.0	65	Li MM (NRMCM)-C.F
740 xDrive Sedan	prismatic	3.00	13.0	65	Li MM (NRMCM)-C.F
X5 40 xDrive	prismatic	3.00	13.0	65	Li MM (NRMCM)-C.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
9177373	00	T3E10	VBMX10094104	VBMX10094105	VBMX10094106	VBMX10094107	VBMX10094108
9177373	02	T2E0	VBMX10094117	VBMX10094115	---	---	---

VID	CFG	Fuel	FTP Early Drive Away	FTP Intermediate Soak 10-minute	FTP Intermediate Soak 40-minute	FTP Intermediate Soak 3-hour
9177373	00	T3E10	VBMX10094109	VBMX10094110	VBMX10094111	VBMX10094112

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 VBMXJ03.0B5T.

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 VECI label is attached to the engine hood.

Refer to Section 17, Attachment

Carline	Model Name	VECI Label
488	X5 40 xDrive	see attachment: 03VE-VB5T-02
490	740 Sedan	see attachment: 03VE-VB5T-01
491	740 xDrive Sedan	see attachment: 03VE-VB5T-01

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
488	X5 40 xDrive	VBMXR0200G6X	see attachment: FTTP-0G6X-01
490	740 Sedan		
491	740 xDrive Sedan		

17. Attachment

- | | | |
|------|--|--|
| 17.1 | Fuel Tank Temperature Profile | see attachment: FTTP-0G6X-01 |
| 17.2 | VECI Label | see attachment: 03VE-VB5T-01
see attachment: 03VE-VB5T-02 |
| 17.3 | Certification Summary Information Report | see attachment:
CSI-VBMXJ03.0B5T-VBMXR0200G6X |

BMW**Designation**

Attachment

**VECI Label LDV, VBMXJ03.0B5T,
VBMXR0200G6X**

Date: 11.03.2026

03VE-VB5T-01

DRAFT - Inverted Representation

		Bayerische Motoren Werke AG	
		VEHICLE EMISSION CONTROL INFORMATION	
Conforms to regulations:		MY 2027	
U.S. EPA:	Tier 4 - Bin 30 LDV	CA OBD II	
EVAP:	Tier 3 - 500 LDV	Fuel: gasoline	
California:	Conforms to U.S. EPA regulations and is certified for sale in California	CA OBD II Fuel: gasoline	
No adjustments needed.	TWC+GPF, WR-HO2S, HO2S, DFI, MFI, TC, CAC		
Group: VBMXJ03.0B5T			8 900 830
Evap: VBMXR0200G6X			

Original representation

Base: Black
Characters: Silver

BMW

Designation

Attachment

**VECI Label LDT, VBMXJ03.0B5T,
VBMXR0200G6X**

Date: 11.03.2026

03VE-VB5T-02

DRAFT - Inverted Representation

		Bayerische Motoren Werke AG	
		VEHICLE EMISSION CONTROL INFORMATION	
Conforms to regulations:		MY 2027	
U.S. EPA:	Tier 4 - Bin 30 LDT	CA OBD II	
EVAP:	Tier 3 - 500 LDT	Fuel: gasoline	
California:	Conforms to U.S. EPA regulations and is certified for sale in California	CA OBD II Fuel: gasoline	
No adjustments needed.		TWC+GPF, WR-HO2S, HO2S, DFI, MFI, TC, CAC	
Group: VBMXJ03.0B5T			8 900 543
Evap: VBMXR0200G6X			

Original representation

Base: Black
Characters: Silver

Test Vehicle Data

Vehicle Type: X5 40 xDrive
Mileage: 5901 mi
Fuel tank volume: 83 L
Fuel volume: 33.2 L

Ambient Conditions

Weather: sunny
clouds: 0 %
Wind speed: 7.24 mph
Ambient temp:
Start: 103.1 °F
delta: 4.5 °F

Surface temperature: 100 %

Test Data

Date of test: 09/19/2025
Engine start: 11:26
Measure start: 11:38
Measure stop: 12:49
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	89.8	89.7	89.8	95.0	91.6	0.0
30	89.9	89.9	89.9	95.1	91.7	0.1
60	89.9	90.0	90.0	95.2	91.8	-1.2
90	90.0	90.1	90.0	95.3	92.0	-1.1
120	90.1	90.1	90.1	95.4	92.3	0.0
150	90.2	90.2	90.2	95.4	92.5	-0.1
180	90.2	90.2	90.2	95.5	92.6	-0.3
210	90.3	90.3	90.3	95.6	92.7	-0.6
240	90.4	90.4	90.4	95.6	92.7	-0.1
270	90.5	90.5	90.5	95.7	92.7	-0.2
300	90.6	90.6	90.6	95.8	92.7	-0.1
330	90.6	90.7	90.7	95.9	92.8	0.0
360	90.8	90.8	90.8	96.0	92.8	0.0
390	90.9	90.9	90.9	96.1	92.9	-0.1
420	91.0	91.0	91.0	96.2	92.9	-0.1
450	91.1	91.1	91.1	96.4	93.0	-0.1
480	91.2	91.2	91.2	96.5	93.1	-0.4
510	91.3	91.4	91.4	96.6	93.1	-0.9
540	91.4	91.5	91.5	96.7	93.2	-0.1
570	91.5	91.6	91.6	96.8	93.2	-0.1
600	91.7	91.7	91.7	96.9	93.2	-0.2
630	91.8	91.8	91.8	97.0	93.3	-0.1
660	91.9	91.9	91.9	97.1	93.3	-0.5
690	92.0	92.0	92.0	97.3	93.3	-0.2
720	92.1	92.1	92.1	97.4	93.3	0.0
750	92.2	92.3	92.2	97.5	93.4	0.0
780	92.3	92.4	92.4	97.6	93.5	-0.1
810	92.5	92.5	92.5	97.7	93.6	0.0
840	92.6	92.6	92.6	97.8	93.7	-0.1
870	92.7	92.7	92.7	98.0	93.8	-0.8
900	92.8	92.8	92.8	98.1	93.8	-0.1
930	92.9	93.0	93.0	98.2	93.9	-0.9
960	93.1	93.1	93.1	98.3	94.1	-0.2
990	93.2	93.3	93.2	98.5	94.2	0.0
1020	93.3	93.4	93.3	98.6	94.3	0.0
1050	93.4	93.5	93.5	98.7	94.4	-0.2

1080	93.6	93.6	93.6	98.8	94.5	0.0
1110	93.7	93.8	93.7	99.0	94.5	0.0
1140	93.8	93.9	93.9	99.1	94.7	0.0
1170	94.0	94.1	94.0	99.3	94.8	0.0
1200	94.1	94.2	94.2	99.4	94.9	-0.8
1230	94.3	94.4	94.3	99.6	94.9	0.0
1260	94.4	94.5	94.4	99.7	94.9	-0.7
1290	94.5	94.6	94.5	99.8	94.9	0.0
1320	94.6	94.7	94.7	99.9	95.0	-0.2
1350	94.8	94.8	94.8	100.1	95.2	0.0
1380	94.9	95.0	94.9	100.2	95.4	-0.2
1410	95.0	95.1	95.1	100.3	95.5	0.0
1440	95.1	95.3	95.2	100.4	95.5	0.0
1470	95.3	95.4	95.3	100.6	95.4	-0.2
1500	95.4	95.5	95.5	100.7	95.3	0.0
1530	95.5	95.6	95.6	100.8	95.4	-0.2
1560	95.7	95.7	95.7	101.0	95.6	0.0
1590	95.8	95.9	95.9	101.1	95.9	0.0
1620	96.0	96.1	96.1	101.3	96.0	-0.3
1650	96.2	96.3	96.2	101.5	96.2	0.0
1680	96.4	96.4	96.4	101.7	96.4	-0.2
1710	96.5	96.6	96.6	101.8	96.7	0.0
1740	96.7	96.8	96.8	102.0	96.9	-0.2
1770	96.9	97.0	97.0	102.2	97.0	0.0
1800	97.1	97.2	97.1	102.4	97.1	-0.1
1830	97.2	97.3	97.3	102.5	97.2	0.0
1860	97.3	97.4	97.4	102.6	97.3	-0.1
1890	97.5	97.6	97.5	102.8	97.4	0.0
1920	97.6	97.7	97.6	102.9	97.5	-0.1
1950	97.7	97.8	97.8	103.0	97.6	-0.2
1980	97.9	98.0	97.9	103.2	97.8	-0.1
2010	98.1	98.2	98.1	103.4	98.0	-0.1
2040	98.3	98.4	98.3	103.6	98.3	0.0
2070	98.4	98.5	98.5	103.7	98.5	-0.2
2100	98.6	98.7	98.6	103.9	98.5	-0.2
2130	98.7	98.9	98.8	104.1	98.5	0.0
2160	98.9	99.0	99.0	104.2	98.7	0.0
2190	99.1	99.2	99.2	104.4	99.0	0.0
2220	99.3	99.3	99.3	104.6	99.2	-0.1
2250	99.4	99.5	99.4	104.7	99.4	-0.4
2280	99.5	99.6	99.6	104.8	99.5	-0.1
2310	99.7	99.8	99.7	105.0	99.7	0.0
2340	99.9	100.0	99.9	105.2	99.9	0.0
2370	100.0	100.1	100.1	105.3	100.1	0.0
2400	100.2	100.3	100.2	105.5	100.3	0.0
2430	100.3	100.4	100.3	105.6	100.4	0.0
2460	100.4	100.5	100.5	105.7	100.4	-0.1
2490	100.5	100.6	100.6	105.8	100.4	-0.1
2520	100.7	100.8	100.7	106.0	100.5	-0.1
2550	100.8	100.9	100.9	106.1	100.6	0.0
2580	101.0	101.0	101.0	106.3	100.7	-0.1
2610	101.1	101.2	101.2	106.4	101.0	-0.1
2640	101.3	101.3	101.3	106.6	101.4	-0.1
2670	101.4	101.5	101.4	106.7	101.5	-0.2
2700	101.5	101.6	101.6	106.8	101.6	0.0
2730	101.7	101.8	101.7	107.0	101.6	-0.1

2760	101.8	101.9	101.8	107.1	101.6	0.0
2790	101.9	102.0	102.0	107.2	101.8	-0.1
2820	102.1	102.2	102.1	107.4	102.0	0.0
2850	102.2	102.3	102.3	107.5	102.3	0.0
2880	102.4	102.4	102.4	107.7	102.6	0.0
2910	102.5	102.6	102.5	107.8	102.9	-0.1
2940	102.7	102.7	102.7	107.9	103.3	0.0
2970	102.8	102.8	102.8	108.1	103.5	0.0
3000	102.9	103.0	103.0	108.2	103.6	0.0
3030	103.1	103.1	103.1	108.4	103.6	0.0
3060	103.3	103.3	103.3	108.5	103.7	0.0
3090	103.4	103.5	103.4	108.7	103.8	-0.1
3120	103.6	103.6	103.6	108.8	104.0	0.0
3150	103.7	103.8	103.7	109.0	104.2	0.0
3180	103.8	103.9	103.9	109.1	104.4	0.0
3210	104.0	104.1	104.0	109.3	104.6	0.1
3240	104.1	104.2	104.1	109.4	104.8	0.0
3270	104.2	104.3	104.3	109.5	104.9	-0.1
3300	104.4	104.4	104.4	109.6	105.0	0.0
3330	104.5	104.5	104.5	109.8	105.2	0.0
3360	104.7	104.7	104.7	109.9	105.4	0.1
3390	104.8	104.8	104.8	110.1	105.6	0.0
3420	104.9	105.0	105.0	110.2	105.9	0.0
3450	105.1	105.2	105.1	110.4	106.1	0.0
3480	105.3	105.3	105.3	110.5	106.3	0.1
3510	105.4	105.4	105.4	110.7	106.6	0.0
3540	105.5	105.6	105.5	110.8	106.8	-0.1
3570	105.7	105.7	105.7	110.9	106.8	0.0
3600	105.8	105.9	105.8	111.1	106.9	0.0
3630	105.9	106.0	106.0	111.2	107.0	0.0
3660	106.1	106.1	106.1	111.3	107.0	-0.4
3690	106.2	106.3	106.2	111.5	106.9	0.0
3720	106.3	106.4	106.4	111.6	106.9	0.0
3750	106.5	106.5	106.5	111.8	107.0	0.0
3780	106.6	106.7	106.6	111.9	107.1	-0.3
3810	106.7	106.8	106.8	112.0	107.2	0.0
3840	106.8	106.9	106.9	112.1	107.4	0.0
3870	107.0	107.0	107.0	112.2	107.5	0.0
3900	107.1	107.2	107.1	112.4	107.6	0.0
3930	107.2	107.3	107.3	112.5	107.6	-0.3
3960	107.4	107.4	107.4	112.6	107.7	0.1
3990	107.5	107.5	107.5	112.8	107.8	0.1
4020	107.6	107.6	107.6	112.9	107.9	0.0
4050	107.7	107.8	107.7	113.0	107.9	0.1
4080	107.8	107.9	107.9	113.1	107.9	0.0
4110	107.9	108.0	108.0	113.2	108.0	0.0
4140	108.1	108.2	108.1	113.4	108.0	0.0
4170	108.2	108.3	108.3	113.5	108.1	0.1
4200	108.3	108.4	108.4	113.6	108.2	0.0
4230	108.4	108.5	108.5	113.7	108.3	0.0
4260	108.5	108.6	108.6	113.8	108.2	0.0
4290	108.7	108.8	108.7	114.0	108.2	0.0
4320	108.8	108.9	108.8	114.1	108.2	0.0

Certification Summary Information Report

Manufacturer	BMW	Manufacturer Code	BMX
Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Certificate Number	--	CARB Executive Order #	--
Certificate Issue Date	--	Certificate Revision Date	--
Certificate Effective Date	--	Conditional Certificate	--
CSI Revision #	--	CSI Submission/Revision Date	05/12/2026 10:14:58 AM
Model Year	2027		

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
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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	LDT4, 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	VBMXHHGVNV2T	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	Not Applicable	SFTP Tier 2 Composite CO Option	--
SFTP LEV-III Composite Compliance Indicator	No		
OBD Compliance Type	CARB	OBD Demonstration Vehicle Test Group	VBMXJ03.0B5T
Test Group OBD Compliance Level	Full - no deficiencies	Number of Test Group OBD Deficiencies	0
OBD Deficiencies Comments	E-26-115		
Mfr Test Group Comments	--		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X				
Evaporative/Refueling Family Information							
Evaporative Summary Information Type	New	Submission/Correction Date	04/10/2026 08:23:35 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)	200	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	491 - 740 xDrive Sedan	Federal	All Wheel Drive	Semi-Automatic	8	Yes
BMW	1 - BMW	490 - 740 Sedan	Federal	2-Wheel Drive, Rear	Semi-Automatic	8	Yes
BMW	1 - BMW	488 - X5 40 xDrive	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	6	Mechanically Variable Compression Ratio Indicator	N				

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X								
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)	3.0	Engine Rated Horsepower	394								
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
Electricity	--	--	--	--	--	--	--	--	--	--	--
Gasoline	VBMX10094104	VBMX10094106	VBMX10094107	VBMX10094108	VBMX10094105	19.2	18.6	26.3	24.1	--	

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
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	19.2
Battery Specific Energy	65	Battery Charger Type	On-Board
Number of Capacitors	--	Capacitor Rating (In Farads)	--
Mfr Capacitor Comments	--		
Hydraulic System Description	--		
Regenerative Braking Type	Electrical Regen Brake		
Regenerative Braking Source	Both	Driver Controlled Regenerative Braking	No
Mfr Regenerative Braking Description	--		
Drive Motor(s)/Generator(s)	1		
Motor/Generator Type 1	PMSM	Rated Motor/Generator Power	13
Mfr Fuel Cell Description	--		
Fuel Cell On-Board H2 Storage Capacity (kg)	--	Usable H2 Fill Capacity (kg)	--
Mfr Hybrid Electric/ Electric Vehicle Comments	Motor/Generator Type: permanent magnet synchronous machine (PMSM)		

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
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Emission Data Vehicle Information

Vehicle ID / Configuration	9177373 / 0	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	VBMXJ03.0B5T	Original Evaporative/Refueling Family	VBMXR0200G6X
Original Test Vehicle Model Year	2027		

Vehicle Model

Represented Test Vehicle Make	BMW	Represented Test Vehicle Model	X5 40 xDrive
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Leak Family Details

Leak Family Identifier	--	Leak Family Name	--
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Drive Sources and Fuel System Details

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

Hybrid Indicator	Yes		
Multiple Fuel Storage	--	Multiple Fuel Combustion	--
Fuel Cell Indicator	No	Rechargeable Energy Storage System Indicator	Yes
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if 'Other'	--
Off-board charge Capable Indicator	No		
Odometer Correction -- Initial	0	Odometer Correction Factor	1
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor		
Odometer Correction Units	Miles		
Engine Code	B58B30M3G65X	Rated Horsepower	394
Displacement (liters)	3		
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'	
Number of Air Aspiration Devices	1	Air Aspiration Device Configuration	Single
Charge Air Cooler Type	Air	Drive Mode While Testing	All Wheel Drive
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)
Curb Weight (lbs)	5216	Equivalent Test Weight (pounds)	5500
GVWR (lbs)	6614	N/V Ratio	24.1
Axle Ratio	3.38		
Transmission Type	Semi-Automatic	# of Transmission Gears	8
Transmission Lockup	Yes	Creeper Gear	No

Certification Summary Information Report

Test Group		VBMXJ03.0B5T			Evaporative/Refueling Family		VBMXR0200G6X	
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	50.5	0.128	0.0274	8.2	0.16	0.02432	16.7	
Cold CO	55.5	0.141	0.03015	-0.8	0.118	0.0257	N/A	
US06	50.5	0.128	0.0274	8.2	0.16	0.02432	N/A	
Emission Control Device Comments		--						
Manufacturer Test Vehicle Comments		vi_9177373_00_EDV_X5 40 xDrive_A_ETW-5500_RG20_S-Sport_S_off						

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test #	VBMX10094104	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	04/14/2026	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	62
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	2652	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			

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
ACT-DISTANCE (Actual Distance Driven (miles))	14.908	--	
ACT-DISTANCE BAG 1 (Bag 1 Actual Distance)	3.59	--	
CO2 BAG 1 (Bag 1 Carbon Dioxide)	397.6934509	--	
CO BAG 1 (Bag 1 Carbon Monoxide)	0.352454	--	
FE BAG 1 (Bag 1 Fuel Economy)	21.8	21.8	
CH4 BAG 1 (Bag 1 Methane)	0.0054878	--	
NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.0252758	--	
WATT-HRS BAG 1 (Bag 1 Watt Hours)	-53.582	--	
ACT-DISTANCE BAG 2 (Bag 2 Actual Distance)	3.867	--	
CO2 BAG 2 (Bag 2 Carbon Dioxide)	365.0608521	--	
CO BAG 2 (Bag 2 Carbon Monoxide)	0.344265	--	
FE BAG 2 (Bag 2 Fuel Economy)	23.8	23.8	
CH4 BAG 2 (Bag 2 Methane)	0.0004614	--	
NMOG BAG 2 (Bag 2 Non-methane organic gases)	0.0002181	--	
WATT-HRS BAG 2 (Bag 2 Watt Hours)	12.649	--	
ACT-DISTANCE BAG 3 (Bag 3 Actual Distance)	3.595	--	
CO2 BAG 3 (Bag 3 Carbon Dioxide)	328.2609863	--	
CO BAG 3 (Bag 3 Carbon Monoxide)	0.2229412	--	
FE BAG 3 (Bag 3 Fuel Economy)	26.5	26.5	
CH4 BAG 3 (Bag 3 Methane)	0.00217	--	
NMOG BAG 3 (Bag 3 Non-methane organic gases)	0	--	
WATT-HRS BAG 3 (Bag 3 Watt Hours)	-52.397	--	
ACT-DISTANCE BAG 4 (Bag 4 Actual Distance)	3.856	--	
CO2 BAG 4 (Bag 4 Carbon Dioxide)	350.0731812	--	
CO BAG 4 (Bag 4 Carbon Monoxide)	0.3582455	--	
FE BAG 4 (Bag 4 Fuel Economy)	24.8	24.8	
CH4 BAG 4 (Bag 4 Methane)	0.0005263	--	
NMOG BAG 4 (Bag 4 Non-methane organic gases)	0.0001391	--	
WATT-HRS BAG 4 (Bag 4 Watt Hours)	25.913	--	
METHANE (CH4 - Methane)	0.001991	--	
CO (Carbon Monoxide)	0.3167172	--	

Certification Summary Information Report

Test Group		VBMXJ03.0B5T		Evaporative/Refueling Family		VBMXR0200G6X						
		DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.0856607			--						
		DT-EER (Drive Trace Energy Economy Rating)	-0.7355768			--						
		DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.1563533			--						
		MFR FE (Manufacturer Fuel Economy)	24.4			24.4						
		NOX (Nitrogen Oxide)	0.0016551			--						
		N2O (Nitrous Oxide)	0.0011498			--						
		HC-NM (Non-methane Hydrocarbon)	0.0048333			--						
		NMOG (Non-methane organic gases)	0.0053101			--						
		PM (Particulate Matter)	0.000034			--						
		HC-TOTAL (Total Hydrocarbon)	0.0066336			--						
		WATT-HRS (Watt Hours)	-67.417			--						
		Test Result Name	Unrounded Test Result			Verify Calculated CREE/OPT-CREE						
		Carbon-Related Exhaust Emissions	358			358						
		Test Result Name	Unrounded Test Result			Verify Calculated CO2						
		Carbon dioxide	357.2743835			--						
Manufacturer Test Comments		01_FTP_9177373_00_EDV_X5 40 xDrive_A_ETW-5500_RG20_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	Federal Tier 4 Bin 30	CREE	358	--	--	--	0.1	--	358	--	--
Fed	150,000 miles	Federal Tier 4 Bin 30	CO	0.32	--	--	--	0.10	--	0.4	1.7	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG	0.0053	--	1.10	--	0.0022	--	0.008	99.999	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG+NOX	0.0070	--	--	--	--	--	0.013	0.030	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NOX	0.0017	--	--	--	0.0041	--	0.006	99.999	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	PM	0.00003	--	--	--	0.00000	--	0.0000	0.0005	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	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test #	VBMX10094108	Test Procedure	11 - Cold CO
Exhaust Test # for this Evap Test	--	Test Fuel Type	28 - Cold CO E10 Regular Gasoline (Tier 3)
Test Date	04/28/2026	Fuel	Gasoline
Fuel Batch ID	COE10	Fuel Calibration Number	63
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	2856	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			

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
ACT-DISTANCE (Actual Distance Driven (miles))	11.052	--	
ACT-DISTANCE BAG 1 (Bag 1 Actual Distance)	3.594	--	
CO2 BAG 1 (Bag 1 Carbon Dioxide)	518.5629272	--	
CO BAG 1 (Bag 1 Carbon Monoxide)	1.0805265	--	
FE BAG 1 (Bag 1 Fuel Economy)	16.7	16.7	
CH4 BAG 1 (Bag 1 Methane)	0.0133446	--	
NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.0675556	--	
WATT-HRS BAG 1 (Bag 1 Watt Hours)	-208.444	--	
ACT-DISTANCE BAG 2 (Bag 2 Actual Distance)	3.863	--	
CO2 BAG 2 (Bag 2 Carbon Dioxide)	411.1345215	--	
CO BAG 2 (Bag 2 Carbon Monoxide)	0.6752724	--	
FE BAG 2 (Bag 2 Fuel Economy)	21.1	21.1	
CH4 BAG 2 (Bag 2 Methane)	0.0005578	--	
NMOG BAG 2 (Bag 2 Non-methane organic gases)	0	--	
WATT-HRS BAG 2 (Bag 2 Watt Hours)	20.555	--	
ACT-DISTANCE BAG 3 (Bag 3 Actual Distance)	3.595	--	
CO2 BAG 3 (Bag 3 Carbon Dioxide)	365.7324219	--	
CO BAG 3 (Bag 3 Carbon Monoxide)	0.3942716	--	
FE BAG 3 (Bag 3 Fuel Economy)	23.7	23.7	
CH4 BAG 3 (Bag 3 Methane)	0.0024497	--	
NMOG BAG 3 (Bag 3 Non-methane organic gases)	0.0003964	--	
WATT-HRS BAG 3 (Bag 3 Watt Hours)	-98.249	--	
METHANE (CH4 - Methane)	0.0037276	--	
CO (Carbon Monoxide)	0.682046	--	
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.2749683	--	
DT-EER (Drive Trace Energy Economy Rating)	-0.3474156	--	
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.2893253	--	
MFR FE (Manufacturer Fuel Economy)	20.6	20.6	
NOX (Nitrogen Oxide)	0.0019686	--	
HC-NM (Non-methane Hydrocarbon)	0.0128318	--	
NMOG (Non-methane organic gases)	0.0140885	--	

Certification Summary Information Report

Test Group	VBMXJ03.0B5T				Evaporative/Refueling Family				VBMXR0200G6X			
	PM (Particulate Matter)		0.0000096		--							
	HC-TOTAL (Total Hydrocarbon)		0.0163985		--							
	WATT-HRS (Watt Hours)		-286.139		--							
	Test Result Name		Unrounded Test Result		Verify Calculated CREE/OPT-CREE							
	Carbon-Related Exhaust Emissions		422		--							
	Test Result Name		Unrounded Test Result		Verify Calculated CO2							
	Carbon dioxide		420.922821		--							
	Manufacturer Test Comments						05_FTPCOLD_9177373_00_EDV_X5 40 xDrive_A_ETW-5500_RG20_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
Fed	150,000 miles	Federal Tier 4 Bin 30	CO	0.68	--	--	--	0.10	--	0.8	10.0	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG	0.0141	--	1.10	--	0.0022	--	0.016	99.999	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG+NOX	0.0161	--	--	--	--	--	0.022	0.300	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NOX	0.0020	--	--	--	0.0041	--	0.006	99.999	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	PM	0.00001	--	--	--	0.00000	--	0.0000	0.0005	Pass

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test #	VBMX10094109	Test Procedure	49 - Quick-Driveway (QD)
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	04/21/2026	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	62
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	2758	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			

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
ACT-DISTANCE (Actual Distance Driven (miles))	14.916	--	
ACT-DISTANCE BAG 1 (Bag 1 Actual Distance)	3.598	--	
CO2 BAG 1 (Bag 1 Carbon Dioxide)	398.6672058	--	
CO BAG 1 (Bag 1 Carbon Monoxide)	0.4670474	--	
FE BAG 1 (Bag 1 Fuel Economy)	21.8	21.8	
CH4 BAG 1 (Bag 1 Methane)	0.0062934	--	
NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.0340489	--	
WATT-HRS BAG 1 (Bag 1 Watt Hours)	-81.252	--	
ACT-DISTANCE BAG 2 (Bag 2 Actual Distance)	3.863	--	
CO2 BAG 2 (Bag 2 Carbon Dioxide)	358.2250366	--	
CO BAG 2 (Bag 2 Carbon Monoxide)	0.3541285	--	
FE BAG 2 (Bag 2 Fuel Economy)	24.3	24.3	
CH4 BAG 2 (Bag 2 Methane)	0.0007696	--	
NMOG BAG 2 (Bag 2 Non-methane organic gases)	0.0003842	--	
WATT-HRS BAG 2 (Bag 2 Watt Hours)	10.102	--	
ACT-DISTANCE BAG 3 (Bag 3 Actual Distance)	3.591	--	
CO2 BAG 3 (Bag 3 Carbon Dioxide)	327.1416321	--	
CO BAG 3 (Bag 3 Carbon Monoxide)	0.250794	--	
FE BAG 3 (Bag 3 Fuel Economy)	26.6	26.6	
CH4 BAG 3 (Bag 3 Methane)	0.0024079	--	
NMOG BAG 3 (Bag 3 Non-methane organic gases)	0	--	
WATT-HRS BAG 3 (Bag 3 Watt Hours)	-59.819	--	
ACT-DISTANCE BAG 4 (Bag 4 Actual Distance)	3.864	--	
CO2 BAG 4 (Bag 4 Carbon Dioxide)	346.521698	--	
CO BAG 4 (Bag 4 Carbon Monoxide)	0.3507039	--	
FE BAG 4 (Bag 4 Fuel Economy)	25.1	25.1	
CH4 BAG 4 (Bag 4 Methane)	0.0007922	--	
NMOG BAG 4 (Bag 4 Non-methane organic gases)	0.0012852	--	
WATT-HRS BAG 4 (Bag 4 Watt Hours)	28.504	--	
METHANE (CH4 - Methane)	0.0023716	--	
CO (Carbon Monoxide)	0.348161	--	

Certification Summary Information Report

Test Group		VBMXJ03.0B5T		Evaporative/Refueling Family		VBMXR0200G6X						
	DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.1166302		--								
	DT-EER (Drive Trace Energy Economy Rating)	-0.257039		--								
	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.1215394		--								
	MFR FE (Manufacturer Fuel Economy)	24.5		24.5								
	NOX (Nitrogen Oxide)	0.0024668		--								
	HC-NM (Non-methane Hydrocarbon)	0.0068286		--								
	NMOG (Non-methane organic gases)	0.0075022		--								
	HC-TOTAL (Total Hydrocarbon)	0.0091299		--								
	WATT-HRS (Watt Hours)	-102.465		--								
Test Result Name		Unrounded Test Result		Verify Calculated CREE/OPT-CREE								
Carbon-Related Exhaust Emissions		356		--								
Test Result Name		Unrounded Test Result		Verify Calculated CO2								
Carbon dioxide		354.6195679		--								
Manufacturer Test Comments		06_FTP_QD_9177373_00_EDV_X5 40 xDrive_A_ETW-5500_RG20_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	150,000 miles	Federal Tier 4 Bin 30	NMOG	0.0075	--	1.10	--	0.0022	--	0.010	99.999	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG+NOX	0.0100	--	--	--	--	--	0.016	0.042	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NOX	0.0025	--	--	--	0.0041	--	0.007	99.999	Pass

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test #	VBMX10094110	Test Procedure	57 - Partial Soak (PS) - 10 minute
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	04/13/2026	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	62
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	2600	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			

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
ACT-DISTANCE (Actual Distance Driven (miles))	14.894	--	
ACT-DISTANCE BAG 1 (Bag 1 Actual Distance)	3.591	--	
CO2 BAG 1 (Bag 1 Carbon Dioxide)	326.9625244	--	
CO BAG 1 (Bag 1 Carbon Monoxide)	0.2501889	--	
FE BAG 1 (Bag 1 Fuel Economy)	26.6	26.6	
CH4 BAG 1 (Bag 1 Methane)	0.0022289	--	
NMOG BAG 1 (Bag 1 Non-methane organic gases)	0	--	
WATT-HRS BAG 1 (Bag 1 Watt Hours)	-61.093	--	
ACT-DISTANCE BAG 2 (Bag 2 Actual Distance)	3.853	--	
CO2 BAG 2 (Bag 2 Carbon Dioxide)	349.5109558	--	
CO BAG 2 (Bag 2 Carbon Monoxide)	0.3604087	--	
FE BAG 2 (Bag 2 Fuel Economy)	24.8	24.8	
CH4 BAG 2 (Bag 2 Methane)	0.000671	--	
NMOG BAG 2 (Bag 2 Non-methane organic gases)	0	--	
WATT-HRS BAG 2 (Bag 2 Watt Hours)	26.879	--	
ACT-DISTANCE BAG 3 (Bag 3 Actual Distance)	3.589	--	
CO2 BAG 3 (Bag 3 Carbon Dioxide)	324.2388	--	
CO BAG 3 (Bag 3 Carbon Monoxide)	0.257373	--	
FE BAG 3 (Bag 3 Fuel Economy)	26.8	26.8	
CH4 BAG 3 (Bag 3 Methane)	0.0023372	--	
NMOG BAG 3 (Bag 3 Non-methane organic gases)	0	--	
WATT-HRS BAG 3 (Bag 3 Watt Hours)	-50.201	--	
ACT-DISTANCE BAG 4 (Bag 4 Actual Distance)	3.861	--	
CO2 BAG 4 (Bag 4 Carbon Dioxide)	346.0657654	--	
CO BAG 4 (Bag 4 Carbon Monoxide)	0.3365819	--	
FE BAG 4 (Bag 4 Fuel Economy)	25.1	25.1	
CH4 BAG 4 (Bag 4 Methane)	0.0006855	--	
NMOG BAG 4 (Bag 4 Non-methane organic gases)	0.0002098	--	
WATT-HRS BAG 4 (Bag 4 Watt Hours)	21.213	--	
METHANE (CH4 - Methane)	0.001456	--	
CO (Carbon Monoxide)	0.3022134	--	

Certification Summary Information Report

Test Group	VBMXJ03.0B5T			Evaporative/Refueling Family			VBMXR0200G6X					
	DT-ASCR (Drive Trace Absolute Speed Change Rating)		0.7937052		--							
	DT-EER (Drive Trace Energy Economy Rating)		0.2017355		--							
	DT-IWRR (Drive Trace Inertia Work Ratio Rating)		1.0947752		--							
	MFR FE (Manufacturer Fuel Economy)		25.8		25.8							
	NOX (Nitrogen Oxide)		0.0016922		--							
	N2O (Nitrous Oxide)		0.0000142		--							
	HC-NM (Non-methane Hydrocarbon)		0.0000552		--							
	NMOG (Non-methane organic gases)		0.0000606		--							
	HC-TOTAL (Total Hydrocarbon)		0.001284		--							
	WATT-HRS (Watt Hours)		-63.201		--							
Test Result Name		Unrounded Test Result		Verify Calculated CREE/OPT-CREE								
Carbon-Related Exhaust Emissions		337		--								
Test Result Name		Unrounded Test Result		Verify Calculated CO2								
Carbon dioxide		336.8761597		--								
Manufacturer Test Comments												
07_FTP_PS_10min_9177373_00_EDV_X5 40 xDrive_A_ETW-5500_RG20_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	150,000 miles	Federal Tier 4 Bin 30	NMOG	0.0001	--	1.10	--	0.0000	--	0.000	99.999	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG+NOX	0.0018	--	--	--	--	--	0.002	0.015	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NOX	0.0017	--	--	--	0.0000	--	0.002	99.999	Pass

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test #	VBMX10094111	Test Procedure	58 - Partial Soak (PS) - 40 minute
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	04/20/2026	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	62
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	2743	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			

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
ACT-DISTANCE (Actual Distance Driven (miles))	14.907	--	
ACT-DISTANCE BAG 1 (Bag 1 Actual Distance)	3.594	--	
CO2 BAG 1 (Bag 1 Carbon Dioxide)	368.347229	--	
CO BAG 1 (Bag 1 Carbon Monoxide)	0.2516833	--	
FE BAG 1 (Bag 1 Fuel Economy)	23.6	23.6	
CH4 BAG 1 (Bag 1 Methane)	0.0035419	--	
NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.0002143	--	
WATT-HRS BAG 1 (Bag 1 Watt Hours)	-166.808	--	
ACT-DISTANCE BAG 2 (Bag 2 Actual Distance)	3.858	--	
CO2 BAG 2 (Bag 2 Carbon Dioxide)	350.9689331	--	
CO BAG 2 (Bag 2 Carbon Monoxide)	0.3817683	--	
FE BAG 2 (Bag 2 Fuel Economy)	24.8	24.8	
CH4 BAG 2 (Bag 2 Methane)	0.0008004	--	
NMOG BAG 2 (Bag 2 Non-methane organic gases)	0	--	
WATT-HRS BAG 2 (Bag 2 Watt Hours)	26.001	--	
ACT-DISTANCE BAG 3 (Bag 3 Actual Distance)	3.596	--	
CO2 BAG 3 (Bag 3 Carbon Dioxide)	319.1504517	--	
CO BAG 3 (Bag 3 Carbon Monoxide)	0.2606864	--	
FE BAG 3 (Bag 3 Fuel Economy)	27.3	27.3	
CH4 BAG 3 (Bag 3 Methane)	0.0022356	--	
NMOG BAG 3 (Bag 3 Non-methane organic gases)	0	--	
WATT-HRS BAG 3 (Bag 3 Watt Hours)	-34.872	--	
ACT-DISTANCE BAG 4 (Bag 4 Actual Distance)	3.859	--	
CO2 BAG 4 (Bag 4 Carbon Dioxide)	347.4442749	--	
CO BAG 4 (Bag 4 Carbon Monoxide)	0.391892	--	
FE BAG 4 (Bag 4 Fuel Economy)	25.1	25.1	
CH4 BAG 4 (Bag 4 Methane)	0.0007698	--	
NMOG BAG 4 (Bag 4 Non-methane organic gases)	0.0003324	--	
WATT-HRS BAG 4 (Bag 4 Watt Hours)	9.179	--	
METHANE (CH4 - Methane)	0.0017545	--	
CO (Carbon Monoxide)	0.3244872	--	

Certification Summary Information Report

Test Group	VBMXJ03.0B5T			Evaporative/Refueling Family			VBMXR0200G6X					
	DT-ASCR (Drive Trace Absolute Speed Change Rating)		-0.0384362		--							
	DT-EER (Drive Trace Energy Economy Rating)		-0.5735365		--							
	DT-IWRR (Drive Trace Inertia Work Ratio Rating)		0.1256747		--							
	MFR FE (Manufacturer Fuel Economy)		25.2		25.2							
	NOX (Nitrogen Oxide)		0.0018033		--							
	N2O (Nitrous Oxide)		0.0001963		--							
	HC-NM (Non-methane Hydrocarbon)		0.0001277		--							
	NMOG (Non-methane organic gases)		0.0001403		--							
	HC-TOTAL (Total Hydrocarbon)		0.001714		--							
	WATT-HRS (Watt Hours)		-166.501		--							
Test Result Name		Unrounded Test Result		Verify Calculated CREE/OPT-CREE								
Carbon-Related Exhaust Emissions		346		--								
Test Result Name		Unrounded Test Result		Verify Calculated CO2								
Carbon dioxide		344.7849121		--								
Manufacturer Test Comments		08_FTP_PS_40min_9177373_00_EDV_X5 40 xDrive_A_ETW-5500_RG20_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	150,000 miles	Federal Tier 4 Bin 30	NMOG	0.0001	--	1.10	--	0.0022	--	0.002	99.999	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG+NOX	0.0019	--	--	--	--	--	0.008	0.023	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NOX	0.0018	--	--	--	0.0041	--	0.006	99.999	Pass

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test #	VBMX10094112	Test Procedure	59 - Partial Soak (PS) - 3 to 12 hour
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	04/13/2026	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	62
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	2637	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			

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
ACT-DISTANCE (Actual Distance Driven (miles))	14.913	--	
ACT-DISTANCE BAG 1 (Bag 1 Actual Distance)	3.591	--	
CO2 BAG 1 (Bag 1 Carbon Dioxide)	388.0202942	--	
CO BAG 1 (Bag 1 Carbon Monoxide)	0.4351064	--	
FE BAG 1 (Bag 1 Fuel Economy)	22.4	22.4	
CH4 BAG 1 (Bag 1 Methane)	0.0055915	--	
NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.0284375	--	
WATT-HRS BAG 1 (Bag 1 Watt Hours)	-101.455	--	
ACT-DISTANCE BAG 2 (Bag 2 Actual Distance)	3.87	--	
CO2 BAG 2 (Bag 2 Carbon Dioxide)	352.9602356	--	
CO BAG 2 (Bag 2 Carbon Monoxide)	0.275161	--	
FE BAG 2 (Bag 2 Fuel Economy)	24.6	24.6	
CH4 BAG 2 (Bag 2 Methane)	0.0006963	--	
NMOG BAG 2 (Bag 2 Non-methane organic gases)	0	--	
WATT-HRS BAG 2 (Bag 2 Watt Hours)	15.24	--	
ACT-DISTANCE BAG 3 (Bag 3 Actual Distance)	3.589	--	
CO2 BAG 3 (Bag 3 Carbon Dioxide)	322.0449219	--	
CO BAG 3 (Bag 3 Carbon Monoxide)	0.2258969	--	
FE BAG 3 (Bag 3 Fuel Economy)	27	27	
CH4 BAG 3 (Bag 3 Methane)	0.0021449	--	
NMOG BAG 3 (Bag 3 Non-methane organic gases)	0	--	
WATT-HRS BAG 3 (Bag 3 Watt Hours)	-45.633	--	
ACT-DISTANCE BAG 4 (Bag 4 Actual Distance)	3.863	--	
CO2 BAG 4 (Bag 4 Carbon Dioxide)	343.6199646	--	
CO BAG 4 (Bag 4 Carbon Monoxide)	0.3527522	--	
FE BAG 4 (Bag 4 Fuel Economy)	25.3	25.3	
CH4 BAG 4 (Bag 4 Methane)	0.0007559	--	
NMOG BAG 4 (Bag 4 Non-methane organic gases)	0	--	
WATT-HRS BAG 4 (Bag 4 Watt Hours)	20.95	--	
METHANE (CH4 - Methane)	0.0021246	--	
CO (Carbon Monoxide)	0.3176638	--	

Certification Summary Information Report

Test Group	VBMXJ03.0B5T			Evaporative/Refueling Family			VBMXR0200G6X					
	DT-ASCR (Drive Trace Absolute Speed Change Rating)		-0.2902369		--							
	DT-EER (Drive Trace Energy Economy Rating)		-0.4566256		--							
	DT-IWRR (Drive Trace Inertia Work Ratio Rating)		-0.2686359		--							
	MFR FE (Manufacturer Fuel Economy)		24.9		24.9							
	NOX (Nitrogen Oxide)		0.0020421		--							
	N2O (Nitrous Oxide)		0.0002831		--							
	HC-NM (Non-methane Hydrocarbon)		0.0053462		--							
	NMOG (Non-methane organic gases)		0.0058736		--							
	HC-TOTAL (Total Hydrocarbon)		0.0070823		--							
	WATT-HRS (Watt Hours)		-110.898		--							
Test Result Name		Unrounded Test Result		Verify Calculated CREE/OPT-CREE								
Carbon-Related Exhaust Emissions		350		--								
Test Result Name		Unrounded Test Result		Verify Calculated CO2								
Carbon dioxide		348.9690247		--								
Manufacturer Test Comments												
09_FTP_PS_3h_9177373_00_EDV_X5 40 xDrive_A_ETW-5500_RG20_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	150,000 miles	Federal Tier 4 Bin 30	NMOG	0.0059	--	1.10	--	0.0022	--	0.008	99.999	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG+NOX	0.0079	--	--	--	--	--	0.014	0.030	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NOX	0.0020	--	--	--	0.0041	--	0.006	99.999	Pass

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test #	VBMX10094105	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	04/14/2026	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	62
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	2666	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)
ACT-DISTANCE (Actual Distance Driven (miles))	10.255	--
METHANE (CH4 - Methane)	0.0003145	--
CO (Carbon Monoxide)	0.1726799	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.2374091	--
DT-EER (Drive Trace Energy Economy Rating)	-0.4485398	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.4330741	--
MFR FE (Manufacturer Fuel Economy)	35.8	35.8
NOX (Nitrogen Oxide)	0.0016411	--
HC-NM (Non-methane Hydrocarbon)	0.0000689	--
NMOG (Non-methane organic gases)	0.000071	--
HC-TOTAL (Total Hydrocarbon)	0.0003752	--
WATT-HRS (Watt Hours)	6.895	--

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

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	243.2532501	--

Manufacturer Test Comments

02_HWFET_9177373_00_EDV_X5 40 xDrive_A_ETW-5500_RG20_S-Sport_S_off

Certification Summary Information Report

Test Group		VBMXJ03.0B5T			Evaporative/Refueling Family					VBMXR0200G6X		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Federal Tier 4 Bin 30	CREE	243	--	--	--	0.1	--	243	--	--
Fed	150,000 miles	Federal Tier 4 Bin 30	CO	0.17	--	--	--	0.10	--	0.3	1.7	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG	0.0001	--	1.03	--	0.0022	--	0.002	99.999	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG+NOX	0.0017	--	--	--	--	--	0.008	0.030	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NOX	0.0016	--	--	--	0.0041	--	0.006	99.999	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	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test #	VBMX10094106	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	04/14/2026	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	62
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	2687	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			

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
ACT-DISTANCE (Actual Distance Driven (miles))	8.013	--	
ACT-DISTANCE BAG 1 (Bag 1 Actual Distance)	1.776	--	
CO2 BAG 1 (Bag 1 Carbon Dioxide)	522.47052	--	
CO BAG 1 (Bag 1 Carbon Monoxide)	0.3710192	--	
FE BAG 1 (Bag 1 Fuel Economy)	16.7	16.7	
CH4 BAG 1 (Bag 1 Methane)	0.0034973	--	
NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.0015872	--	
WATT-HRS BAG 1 (Bag 1 Watt Hours)	-40.231	--	
ACT-DISTANCE BAG 2 (Bag 2 Actual Distance)	6.237	--	
CO2 BAG 2 (Bag 2 Carbon Dioxide)	303.4972534	--	
CO BAG 2 (Bag 2 Carbon Monoxide)	0.4005077	--	
FE BAG 2 (Bag 2 Fuel Economy)	28.7	28.7	
CH4 BAG 2 (Bag 2 Methane)	0.0021941	--	
NMOG BAG 2 (Bag 2 Non-methane organic gases)	0.0004243	--	
WATT-HRS BAG 2 (Bag 2 Watt Hours)	46.467	--	
METHANE (CH4 - Methane)	0.0024829	--	
CO (Carbon Monoxide)	0.3939727	--	
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.3812503	--	
DT-EER (Drive Trace Energy Economy Rating)	-0.5288049	--	
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-2.8503788	--	
MFR FE (Manufacturer Fuel Economy)	24.7	24.7	
NOX (Nitrogen Oxide)	0.003679	--	
HC-NM (Non-methane Hydrocarbon)	0.0006622	--	
NMOG (Non-methane organic gases)	0.000682	--	
PM (Particulate Matter)	0.0000996	--	
HC-TOTAL (Total Hydrocarbon)	0.0030809	--	
WATT-HRS (Watt Hours)	6.237	--	
Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE	
Carbon-Related Exhaust Emissions	353	--	

Certification Summary Information Report

Test Group		VBMXJ03.0B5T				Evaporative/Refueling Family				VBMXR0200G6X		
		Test Result Name		Unrounded Test Result			Verify Calculated CO2					
		Carbon dioxide		352.0240479			--					
Manufacturer Test Comments		03_US06_9177373_00_EDV_X5 40 xDrive_A_ETW-5500_RG20_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	150,000 miles	Federal Tier 4 Bin 30	CO	0.39	--	--	--	0.10	--	0.5	9.6	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG	0.0007	--	1.03	--	0.0022	--	0.003	99.999	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG+NOX	0.0044	--	--	--	--	--	0.011	0.030	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NOX	0.0037	--	--	--	0.0041	--	0.008	999.999	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	PM	0.00010	--	--	--	0.00000	--	0.0001	0.0005	Pass

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test #	VBMX10094107	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	04/23/2026	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	62
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	2795	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)
ACT-DISTANCE (Actual Distance Driven (miles))	3.572	--
METHANE (CH4 - Methane)	0.0018446	--
CO (Carbon Monoxide)	0.317879	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.2755101	--
DT-EER (Drive Trace Energy Economy Rating)	-0.3905326	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.0471565	--
MFR FE (Manufacturer Fuel Economy)	19.7	19.7
NOX (Nitrogen Oxide)	0.0022004	--
HC-NM (Non-methane Hydrocarbon)	0.0021203	--
NMOG (Non-methane organic gases)	0.0021839	--
HC-TOTAL (Total Hydrocarbon)	0.0039172	--
WATT-HRS (Watt Hours)	-35.443	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	441	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	441.163208	--

Manufacturer Test Comments

04_SC03_9177373_00_EDV_X5 40 xDrive_A_ETW-5500_RG20_S-Sport_S_off

Certification Summary Information Report

Test Group		VBMXJ03.0B5T				Evaporative/Refueling Family				VBMXR0200G6X		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 4 Bin 30	CO	0.32	--	--	--	0.10	--	0.4	1.7	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG	0.0022	--	1.03	--	0.0022	--	0.004	99.999	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG+NOX	0.0044	--	--	--	--	--	0.011	0.030	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NOX	0.0022	--	--	--	0.0041	--	0.006	99.999	Pass

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
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Emission Data Vehicle Information

Vehicle ID / Configuration	9177373 / 2	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	VBMXJ03.0B5T	Original Evaporative/Refueling Family	VBMXR0200G6X
Original Test Vehicle Model Year	2027		

Vehicle Model

Represented Test Vehicle Make	BMW	Represented Test Vehicle Model	X5 40 xDrive
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Leak Family Details

Leak Family Identifier	--	Leak Family Name	--
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Drive Sources and Fuel System Details

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

Hybrid Indicator	Yes		
Multiple Fuel Storage	--	Multiple Fuel Combustion	--
Fuel Cell Indicator	No	Rechargeable Energy Storage System Indicator	Yes
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if 'Other'	--
Off-board charge Capable Indicator	No		
Odometer Correction -- Initial	0	Odometer Correction Factor	1
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor		
Odometer Correction Units	Miles		
Engine Code	B58B30M3G65X	Rated Horsepower	394
Displacement (liters)	3		
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'	
Number of Air Aspiration Devices	1	Air Aspiration Device Configuration	Single
Charge Air Cooler Type	Air	Drive Mode While Testing	All Wheel Drive
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)
Curb Weight (lbs)	5216	Equivalent Test Weight (pounds)	5500
GVWR (lbs)	6614	N/V Ratio	24.1
Axle Ratio	3.38		
Transmission Type	Semi-Automatic	# of Transmission Gears	8
Transmission Lockup	Yes	Creeper Gear	No

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Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test #	VBMX10094117	Test Procedure	31 - Federal fuel 3-day exhaust
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	04/30/2026	Fuel	Gasoline
Fuel Batch ID	T2/E0	Fuel Calibration Number	78
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	2902	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			

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
ACT-DISTANCE (Actual Distance Driven (miles))	14.911	--	
ACT-DISTANCE BAG 1 (Bag 1 Actual Distance)	3.594	--	
CO2 BAG 1 (Bag 1 Carbon Dioxide)	386.9610291	--	
CO BAG 1 (Bag 1 Carbon Monoxide)	0.5125346	--	
FE BAG 1 (Bag 1 Fuel Economy)	22.6	22.6	
CH4 BAG 1 (Bag 1 Methane)	0.0065014	--	
NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.0308241	--	
HC-TOTAL BAG 1 (Bag 1 Total Hydrocarbon)	0.0364	--	
WATT-HRS BAG 1 (Bag 1 Watt Hours)	-259.611	--	
ACT-DISTANCE BAG 2 (Bag 2 Actual Distance)	3.859	--	
CO2 BAG 2 (Bag 2 Carbon Dioxide)	270.1529846	--	
CO BAG 2 (Bag 2 Carbon Monoxide)	0.0889126	--	
FE BAG 2 (Bag 2 Fuel Economy)	32.4	32.4	
CH4 BAG 2 (Bag 2 Methane)	0.0006529	--	
NMOG BAG 2 (Bag 2 Non-methane organic gases)	0	--	
HC-TOTAL BAG 2 (Bag 2 Total Hydrocarbon)	0.0001	--	
WATT-HRS BAG 2 (Bag 2 Watt Hours)	94.955	--	
ACT-DISTANCE BAG 3 (Bag 3 Actual Distance)	3.597	--	
CO2 BAG 3 (Bag 3 Carbon Dioxide)	304.7445068	--	
CO BAG 3 (Bag 3 Carbon Monoxide)	0.1416991	--	
FE BAG 3 (Bag 3 Fuel Economy)	28.7	28.7	
CH4 BAG 3 (Bag 3 Methane)	0.0009859	--	
NMOG BAG 3 (Bag 3 Non-methane organic gases)	0	--	
HC-TOTAL BAG 3 (Bag 3 Total Hydrocarbon)	0.0008	--	
WATT-HRS BAG 3 (Bag 3 Watt Hours)	-154.906	--	
ACT-DISTANCE BAG 4 (Bag 4 Actual Distance)	3.861	--	
CO2 BAG 4 (Bag 4 Carbon Dioxide)	254.9705811	--	
CO BAG 4 (Bag 4 Carbon Monoxide)	0.1519395	--	
FE BAG 4 (Bag 4 Fuel Economy)	34.3	34.3	
CH4 BAG 4 (Bag 4 Methane)	0.0004414	--	
NMOG BAG 4 (Bag 4 Non-methane organic gases)	0.0003486	--	

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X																																									
	<table><tr><td>HC-TOTAL BAG 4 (Bag 4 Total Hydrocarbon)</td><td>0.0007</td><td>--</td></tr><tr><td>WATT-HRS BAG 4 (Bag 4 Watt Hours)</td><td>99.391</td><td>--</td></tr><tr><td>METHANE (CH4 - Methane)</td><td>0.0018947</td><td>--</td></tr><tr><td>CO (Carbon Monoxide)</td><td>0.2098591</td><td>--</td></tr><tr><td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td><td>0.333342</td><td>--</td></tr><tr><td>DT-EER (Drive Trace Energy Economy Rating)</td><td>-0.1827122</td><td>--</td></tr><tr><td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td><td>0.2167863</td><td>--</td></tr><tr><td>MFR FE (Manufacturer Fuel Economy)</td><td>29.2</td><td>29.2</td></tr><tr><td>NOX (Nitrogen Oxide)</td><td>0.0046626</td><td>--</td></tr><tr><td>N2O (Nitrous Oxide)</td><td>0.001532</td><td>--</td></tr><tr><td>HC-NM (Non-methane Hydrocarbon)</td><td>0.0063302</td><td>--</td></tr><tr><td>NMOG (Non-methane organic gases)</td><td>0.0065214</td><td>--</td></tr><tr><td>HC-TOTAL (Total Hydrocarbon)</td><td>0.0080225</td><td>--</td></tr><tr><td>WATT-HRS (Watt Hours)</td><td>-220.171</td><td>--</td></tr></table>	HC-TOTAL BAG 4 (Bag 4 Total Hydrocarbon)	0.0007	--	WATT-HRS BAG 4 (Bag 4 Watt Hours)	99.391	--	METHANE (CH4 - Methane)	0.0018947	--	CO (Carbon Monoxide)	0.2098591	--	DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.333342	--	DT-EER (Drive Trace Energy Economy Rating)	-0.1827122	--	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.2167863	--	MFR FE (Manufacturer Fuel Economy)	29.2	29.2	NOX (Nitrogen Oxide)	0.0046626	--	N2O (Nitrous Oxide)	0.001532	--	HC-NM (Non-methane Hydrocarbon)	0.0063302	--	NMOG (Non-methane organic gases)	0.0065214	--	HC-TOTAL (Total Hydrocarbon)	0.0080225	--	WATT-HRS (Watt Hours)	-220.171	--	
HC-TOTAL BAG 4 (Bag 4 Total Hydrocarbon)	0.0007	--																																										
WATT-HRS BAG 4 (Bag 4 Watt Hours)	99.391	--																																										
METHANE (CH4 - Methane)	0.0018947	--																																										
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HC-TOTAL (Total Hydrocarbon)	0.0080225	--																																										
WATT-HRS (Watt Hours)	-220.171	--																																										
	<table><tr><td>Test Result Name</td><td>Unrounded Test Result</td><td>Verify Calculated CREE/OPT-CREE</td></tr><tr><td>Carbon-Related Exhaust Emissions</td><td>299</td><td>289</td></tr></table>	Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE	Carbon-Related Exhaust Emissions	299	289																																					
Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE																																										
Carbon-Related Exhaust Emissions	299	289																																										
	<table><tr><td>Test Result Name</td><td>Unrounded Test Result</td><td>Verify Calculated CO2</td></tr><tr><td>Carbon dioxide</td><td>299.4021606</td><td>--</td></tr></table>	Test Result Name	Unrounded Test Result	Verify Calculated CO2	Carbon dioxide	299.4021606	--																																					
Test Result Name	Unrounded Test Result	Verify Calculated CO2																																										
Carbon dioxide	299.4021606	--																																										
Manufacturer Test Comments	01_FTP_9177373_02_FEDV_X5 40 xDrive_A_ETW-5500_RG22_default mode_D_on; Official test results are determined using S-factor correction according to SAE J1772, FEB 2023.; The following S-factors were applied: S-UDDS1 = 3.1 ; S-UDDS2, HWFE = 2.7																																											
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail																																
Fed	120,000 miles	Federal Tier 4 Bin 30	CREE	289	--	--	--	0.1	--	289	--	--																																
Fed	150,000 miles	Federal Tier 4 Bin 30	CO	0.21	--	--	--	0.10	--	0.3	1.7	Pass																																
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG	0.0065	--	1.10	--	0.0022	--	0.009	99.999	Pass																																
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG+NOX	0.0112	--	--	--	--	--	0.018	0.030	Pass																																
Fed	150,000 miles	Federal Tier 4 Bin 30	NOX	0.0047	--	--	--	0.0041	--	0.009	99.999	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	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test #	VBMX10094115	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	05/06/2026	Fuel	Gasoline
Fuel Batch ID	T2/E0	Fuel Calibration Number	78
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	3046	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)
ACT-DISTANCE (Actual Distance Driven (miles))	10.257	--
METHANE (CH4 - Methane)	0.0018406	--
CO (Carbon Monoxide)	0.0906797	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.846957	--
DT-EER (Drive Trace Energy Economy Rating)	0.0236434	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	2.3377569	--
MFR FE (Manufacturer Fuel Economy)	38.7	38.7
NOX (Nitrogen Oxide)	0.0007713	--
HC-NM (Non-methane Hydrocarbon)	0.0068462	--
NMOG (Non-methane organic gases)	0.0070516	--
HC-TOTAL (Total Hydrocarbon)	0.0086392	--
WATT-HRS (Watt Hours)	7.159	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	226	227

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	226.3811798	--

Manufacturer Test Comments

02_HWFET_9177373_02_FEDV_X5 40 xDrive_A_ETW-5500_RG22_default mode_D_on; Official test results are determined using S-factor correction according to SAE J1772, FEB 2023.; The following S-factors were applied: S-UDDS1 = 3.1 ; S-UDDS2, HWFE = 2.7

Certification Summary Information Report

Test Group		VBMXJ03.0B5T			Evaporative/Refueling Family					VBMXR0200G6X		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Federal Tier 4 Bin 30	CREE	227	--	--	--	0.1	--	227	--	--
Fed	150,000 miles	Federal Tier 4 Bin 30	CO	0.09	--	--	--	0.10	--	0.2	1.7	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG	0.0071	--	1.03	--	0.0022	--	0.009	99.999	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NMOG+NOX	0.0079	--	--	--	--	--	0.014	0.030	Pass
Fed	150,000 miles	Federal Tier 4 Bin 30	NOX	0.0008	--	--	--	0.0041	--	0.005	99.999	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	VBMXJ03.0B5T		Evaporative/Refueling Family	VBMXR0200G6X																							
Emission Data Vehicle Information																											
Vehicle ID / Configuration	9177374 / 0		Manufacturer Vehicle Configuration Number	0																							
Original Test Group Name	VBMXJ03.0B5T		Original Evaporative/Refueling Family	VBMXR0200G6X																							
Original Test Vehicle Model Year	2027																										
Vehicle Model																											
Represented Test Vehicle Make	BMW		Represented Test Vehicle Model	X5 40 xDrive																							
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>Electric Motor</td> <td>Electricity</td> </tr> <tr> <td>2</td> <td>Combustion Engine</td> <td>Gasoline</td> </tr> </tbody> </table>						Drive Source and Fuel#	Drive Source	Fuel	1	Electric Motor	Electricity	2	Combustion Engine	Gasoline													
Drive Source and Fuel#	Drive Source	Fuel																									
1	Electric Motor	Electricity																									
2	Combustion Engine	Gasoline																									
Hybrid Indicator	Yes																										
Multiple Fuel Storage	--		Multiple Fuel Combustion	--																							
Fuel Cell Indicator	No		Rechargeable Energy Storage System Indicator	Yes																							
Rechargeable Energy Storage System	Battery(s)		Rechargeable Energy Storage System, if 'Other'	--																							
Off-board charge Capable Indicator	No																										
Odometer Correction -- Initial	0		Odometer Correction Factor	1																							
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor																										
Odometer Correction Units	Miles																										
Engine Code	B58B30M3G65X		Rated Horsepower	394																							
Displacement (liters)	3																										
Air Aspiration Method	Turbocharged		Air Aspiration Method, if 'Other'																								
Number of Air Aspiration Devices	1		Air Aspiration Device Configuration	Single																							
Charge Air Cooler Type	Air		Drive Mode While Testing	All Wheel Drive																							
Shift Indicator Light Usage	Not equipped		Aged Emission Components	4,000 (mi)																							
Curb Weight (lbs)	5216		Equivalent Test Weight (pounds)	5500																							
GVWR (lbs)	6614		N/V Ratio	24.1																							
Axle Ratio	3.38																										
Transmission Type	Semi-Automatic		# of Transmission Gears	8																							
Transmission Lockup	Yes		Creeper Gear	No																							
Dynamometer Coefficients:																											
<table border="1"> <thead> <tr> <th colspan="3">Target Coefficients</th> <th colspan="3">Set Coefficients</th> <th rowspan="2">EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients</th> </tr> <tr> <th>Coefficient Category</th> <th>A (lbf)</th> <th>B (lbf/mph)</th> <th>C (lbf/mph**2)</th> <th>A (lbf)</th> <th>B (lbf/mph)</th> <th>C (lbf/mph**2)</th> </tr> </thead> <tbody> <tr> <td>City/Highway/Evap</td> <td>50.5</td> <td>0.128</td> <td>0.0274</td> <td>-3.7</td> <td>0.127</td> <td>0.0274</td> <td>16.7</td> </tr> </tbody> </table>						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	50.5	0.128	0.0274	-3.7	0.127	0.0274	16.7
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	50.5	0.128	0.0274	-3.7	0.127	0.0274	16.7																				

Certification Summary Information Report

Test Group	VBMXJ03.0B5T		Evaporative/Refueling Family		VBMXR0200G6X																				
Emission Control Device Comments	--																								
Manufacturer Test Vehicle Comments	vi_9177374_00_EVAP EDV_X5 40 xDrive_A_ETW-5500_RG20_E10																								
Test #	VBMX10094142		Test Procedure		23 - 2-day evap																				
Exhaust Test # for this Evap Test	VBMX10094139		Test Fuel Type		48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)																				
Test Date	02/18/2026		Fuel		Gasoline																				
Fuel Batch ID	T10/87		Fuel Calibration Number		62																				
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	2071		Odometer Units		M																				
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"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> </thead> <tbody> <tr> <td>HC-TOTAL (Total Hydrocarbon)</td> <td>0.26405</td> <td>--</td> </tr> <tr> <td>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</td> <td>0.28517</td> <td>--</td> </tr> </tbody> </table>								Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	HC-TOTAL (Total Hydrocarbon)	0.26405	--	HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.28517	--									
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)																							
HC-TOTAL (Total Hydrocarbon)	0.26405	--																							
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.28517	--																							
Manufacturer Test Comments																									
EVAP EDV - 2Day, X5 40 xDrive																									
<table border="1"> <thead> <tr> <th>Certification Region</th> <th>Useful Life</th> <th>Standard Level</th> <th>Emission Name</th> <th>Rounded Result</th> <th>Add DF</th> <th>Certification Level</th> <th>Standard</th> <th>Pass/Fail</th> </tr> </thead> <tbody> <tr> <td>Fed</td> <td>150,000 miles</td> <td>Federal Tier 3 Evap</td> <td>HC-TOTAL-EQUIV</td> <td>0.2852</td> <td>0.0132</td> <td>0.298</td> <td>0.500</td> <td>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	HC-TOTAL-EQUIV	0.2852	0.0132	0.298	0.500	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	HC-TOTAL-EQUIV	0.2852	0.0132	0.298	0.500	Pass																	

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X									
Test #	VBMX10094143	Test Procedure	34 - Federal fuel 3-day evap									
Exhaust Test # for this Evap Test	VBMX10094140	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)									
Test Date	03/17/2026	Fuel	Gasoline									
Fuel Batch ID	T10/87	Fuel Calibration Number	62									
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	2183	Odometer Units	M									
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"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> </thead> <tbody> <tr> <td>HC-TOTAL (Total Hydrocarbon)</td> <td>0.25392</td> <td>--</td> </tr> <tr> <td>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</td> <td>0.27423</td> <td>--</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	HC-TOTAL (Total Hydrocarbon)	0.25392	--	HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.27423	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)										
HC-TOTAL (Total Hydrocarbon)	0.25392	--										
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.27423	--										
Manufacturer Test Comments EVAP EDV - 3Day, X5 40 xDrive												
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	0.2742	0.0132	0.287	0.500	Pass				

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Test #	VBMX10094144	Test Procedure	32 - Federal Fuel Running Loss
Exhaust Test # for this Evap Test	VBMX10094140	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	03/17/2026	Fuel	Gasoline
Fuel Batch ID	T10/87	Fuel Calibration Number	62
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	2166	Odometer Units	M
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)	0.0003	--
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.0003	--

Manufacturer Test Comments EVAP EDV - RL, X5 40 xDrive

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

Test Group		VBMXJ03.0B5T		Evaporative/Refueling Family		VBMXR0200G6X		
Test #		VBMX10094148		Test Procedure		24 - Federal fuel refueling test (ORVR)		
Exhaust Test # for this Evap Test		VBMX10094147		Test Fuel Type		48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)		
Test Date		03/12/2026		Fuel		Gasoline		
Fuel Batch ID		T10/87		Fuel Calibration Number		62		
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		2147		Odometer Units		M		
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)		0.01957		--		
Manufacturer Test Comments								
		EVAP EDV, ORVR, X5 40 xDrive						
Certification								
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	0.020	0.000	0.02	0.20	Pass

Certification Summary Information Report

Test Group	VBMXJ03.0B5T		Evaporative/Refueling Family		VBMXR0200G6X			
Test #	VBMX10094150		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	02/13/2026		Fuel		Gasoline			
Fuel Batch ID	T10/87		Fuel Calibration Number		62			
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	2045		Odometer Units		M			
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)			0.01309		--			
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)			0.01414		--			
Manufacturer Test Comments								
			EVAP EDV - BLEED, X5 40 xDrive					
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	0.0141	0.0000	0.014	0.020	Pass

Certification Summary Information Report

Test Group	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X						
Test #	VBMX10094152	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	02/03/2026	Fuel	Gasoline						
Fuel Batch ID	T10/87	Fuel Calibration Number	62						
Vehicle Class	N/A	DF Type	Mfr. Determined						
Verify Test Lab ID	EETZ Emissions Lab								
E10 Evaporative Test Measurement Method	--								
Test Start Odometer Reading	2004	Odometer Units	M						
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--						
State of Charge Delta	--								
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes						
Test Results									
<table border="1"> <tr> <td>Test Result Name</td> <td>Unrounded Test Result</td> <td>Verify Calculated FE Equivalent Value</td> </tr> <tr> <td>LEAK-DIA (Effective Leak Diameter (inches))</td> <td>0</td> <td>--</td> </tr> </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, X5 40 xDrive									
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	VBMXJ03.0B5T	Evaporative/Refueling Family	VBMXR0200G6X
Fuel Properties			
Fuel Batch ID	T10/87	Fuel Calibration Number	62
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	01/26/2026
Fuel Batch Calibration Effective Date	10/15/2025	Fuel Batch Calibration Ineffective Date	--
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.828	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.748
Fuel Ethanol Volume Percent (%)	9.6	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	--
Fuel Net Heat of Combustion (E10) (MJ/kg)	41.78	Fuel Carbon Mass Fraction (E10)	0.828
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	--	Weight Fraction CO2	--
Fuel Batch ID	T2/E0	Fuel Calibration Number	78
Test Fuel Type	61 - Tier 2 Cert Gasoline	Fuel Batch Calibration Date	11/12/2025
Fuel Batch Calibration Effective Date	11/17/2025	Fuel Batch Calibration Ineffective Date	--
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.862	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)	18727
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.862	Weight Fraction CO2	--
Fuel Batch ID	COE10	Fuel Calibration Number	63
Test Fuel Type	28 - Cold CO E10 Regular Gasoline (Tier 3)	Fuel Batch Calibration Date	09/30/2025
Fuel Batch Calibration Effective Date	01/29/2026	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	0.743
Fuel Ethanol Volume Percent (%)	9.5	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	--
Fuel Net Heat of Combustion (E10) (MJ/kg)	41.85	Fuel Carbon Mass Fraction (E10)	0.827
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	--	Weight Fraction CO2	--

Certification Summary Information Report

Test Group		VBMXJ03.0B5T			Evaporative/Refueling Family		VBMXR0200G6X		
Consolidated List of Standards									
Exhaust Standards									
Cert Region		Federal			Cert/In-Use Code		Cert		
Vehicle Class		LDV/Passenger Car			Standard Level		Federal Tier 4 Bin 30		
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	--	--	--	--	--	--	0.1	999.999
150,000 miles	CO	--	--	--	0.00	--	--	0.10	1.7
150,000 miles	HCHO	--	--	--	--	--	--	--	0.004
150,000 miles	NMOG	--	--	1.10	0.0000	--	--	0.0022	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.030
150,000 miles	NOX	--	--	--	0.0000	--	--	0.0041	99.999
150,000 miles	PM	--	--	--	0.00000	--	--	0.00000	0.0005
Cert Region		Federal			Cert/In-Use Code		Cert		
Vehicle Class		LDV/Passenger Car			Standard Level		Federal Tier 4 Bin 30		
Fuel		Gasoline			Test Procedure		US06		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	0.00	--	--	0.10	9.6
150,000 miles	NMOG	--	--	1.03	0.0000	--	--	0.0022	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.030
150,000 miles	NOX	--	--	--	0.0000	--	--	0.0041	999.999
150,000 miles	PM	--	--	--	0.00000	--	--	0.00000	0.0005
Cert Region		Federal			Cert/In-Use Code		Cert		
Vehicle Class		LDV/Passenger Car			Standard Level		Federal Tier 4 Bin 30		
Fuel		Gasoline			Test Procedure		Partial Soak (PS) - 40 minute		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	NMOG	--	--	1.10	0.0000	--	--	0.0022	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.023
150,000 miles	NOX	--	--	--	0.0000	--	--	0.0041	99.999

Certification Summary Information Report

Test Group		VBMXJ03.0B5T			Evaporative/Refueling Family			VBMXR0200G6X	
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			Federal Tier 4 Bin 30	
Fuel		Gasoline			Test Procedure			Quick-Driveway (QD)	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	NMOG	--	--	1.10	0.0000	--	--	0.0022	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.042
150,000 miles	NOX	--	--	--	0.0000	--	--	0.0041	99.999

Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			Federal Tier 4 Bin 30	
Fuel		Gasoline			Test Procedure			Partial Soak (PS) - 10 minute	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	NMOG	--	--	1.10	0.0000	--	--	0.0000	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.015
150,000 miles	NOX	--	--	--	0.0000	--	--	0.0000	99.999

Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			Federal Tier 4 Bin 30	
Fuel		Gasoline			Test Procedure			HWFE	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
120,000 miles	CREE	--	--	--	--	--	--	0.1	999.999
150,000 miles	CO	--	--	--	0.00	--	--	0.10	1.7
150,000 miles	NMOG	--	--	1.03	0.0000	--	--	0.0022	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.030
150,000 miles	NOX	--	--	--	0.0000	--	--	0.0041	99.999

Certification Summary Information Report

Test Group		VBMXJ03.0B5T			Evaporative/Refueling Family			VBMXR0200G6X	
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			Federal Tier 4 Bin 30	
Fuel		Gasoline			Test Procedure			Partial Soak (PS) - 3 to 12 hour	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	NMOG	--	--	1.10	0.0000	--	--	0.0022	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.030
150,000 miles	NOX	--	--	--	0.0000	--	--	0.0041	99.999

Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			Federal Tier 4 Bin 30	
Fuel		Gasoline			Test Procedure			Cold CO	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	0.00	--	--	0.10	10.0
150,000 miles	NMOG	--	--	1.10	0.0000	--	--	0.0022	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.300
150,000 miles	NOX	--	--	--	0.0000	--	--	0.0041	99.999
150,000 miles	PM	--	--	--	0.00000	--	--	0.00000	0.0005

Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			Federal Tier 4 Bin 30	
Fuel		Gasoline			Test Procedure			SC03	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	0.00	--	--	0.10	1.7
150,000 miles	NMOG	--	--	1.03	0.0000	--	--	0.0022	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.030
150,000 miles	NOX	--	--	--	0.0000	--	--	0.0041	99.999

Evaporative/Refueling Standards

Certification Summary Information Report

Test Group		VBMXJ03.0B5T		Evaporative/Refueling Family		VBMXR0200G6X	
Evaporative/Refueling Family		VBMXR0200G6X		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	--	0.500	0.0132		
Evaporative/Refueling Family		VBMXR0200G6X		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	--	0.500	0.0132		
Evaporative/Refueling Family		VBMXR0200G6X		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		
Evaporative/Refueling Family		VBMXR0200G6X		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		VBMXR0200G6X		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		VBMXR0200G6X		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		

Certification Summary Information Report

Test Group		VBMXJ03.0B5T	Evaporative/Refueling Family		VBMXR0200G6X
Glossary					
Useful Life					
4	4,000 miles		120	120,000 miles	
50	50,000 miles		150	150,000 miles	
100	100,000 miles				
Emission Name					
HC-TOTAL	Total Hydrocarbon		COMB-CREE	Combined Carbon-Related Exhaust Emissions	
CO	Carbon Monoxide		COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions	
CO2	Carbon dioxide		HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only	
CREE	Carbon-Related Exhaust Emissions		METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only	
OPT-CREE	Optional Carbon-Related Exhaust Emissions		N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only	
NOX	Nitrogen Oxide		LEAK-DIA	Effective Leak Diameter (inches)	
PM	Particulate Matter		LEAK-GAS CAP	Gas Cap Leakage (cc/min)	
PM-COMP	SFTP Composite Particulate Matter		CO2-COMB	Combined Carbon Dioxide for HD 2b/3 Vehicles Only	
HC-NM	Non-methane Hydrocarbon		KW-HRS	Integrated DC KW-HRS	
OMHCE	Organic material Hydrocarbon Equivalent		CH4 BAG 1	Bag 1 Methane	
OMNMHCE	Organic material non-methane HC equivalent		CH4 BAG 2	Bag 2 Methane	
NMOG	Non-methane organic gases		CH4 BAG 3	Bag 3 Methane	
HCHO	Formaldehyde		CH4 BAG 4	Bag 4 Methane	
H3C2HO	Acetaldehyde		CO BAG 1	Bag 1 Carbon Monoxide	
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03		CO BAG 2	Bag 2 Carbon Monoxide	
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides		CO BAG 3	Bag 3 Carbon Monoxide	
CO-COMP	SFTP Composite Carbon Monoxide		CO BAG 4	Bag 4 Carbon Monoxide	
ETHANOL	C2H5OH - Ethanol		NMOG BAG 1	Bag 1 Non-methane organic gases	
FE BAG 1	Bag 1 Fuel Economy		NMOG BAG 2	Bag 2 Non-methane organic gases	
FE BAG 2	Bag 2 Fuel Economy		NMOG BAG 3	Bag 3 Non-methane organic gases	
FE BAG 3	Bag 3 Fuel Economy		NMOG BAG 4	Bag 4 Non-methane organic gases	
FE BAG 4	Bag 4 Fuel Economy		ACT-DISTANCE BAG 1	Bag 1 Actual Distance	
MFR FE	Manufacturer Fuel Economy		ACT-DISTANCE BAG 2	Bag 2 Actual Distance	
HC	Hydrocarbon for Running Loss and ORVR		ACT-DISTANCE BAG 3	Bag 3 Actual Distance	
METHANE	CH4 - Methane		ACT-DISTANCE BAG 4	Bag 4 Actual Distance	
METHANOL	CH3OH - Methanol		HC-TOTAL BAG 1	Bag 1 Total Hydrocarbon	
N2O	Nitrous Oxide		HC-TOTAL BAG 2	Bag 2 Total Hydrocarbon	
SPITBACK	Spitback Hydrocarbon in grams		HC-TOTAL BAG 3	Bag 3 Total Hydrocarbon	
AMP-HRS	Integrated Amp-hours		HC-TOTAL BAG 4	Bag 4 Total Hydrocarbon	
START-SOC	System Start State of Charge Watt-hours		WATT-HRS BAG 1	Bag 1 Watt Hours	
END-SOC	System End State of Charge Watt-hours		WATT-HRS BAG 2	Bag 2 Watt Hours	

Certification Summary Information Report

Test Group		VBMXJ03.0B5T	Evaporative/Refueling Family		VBMXR0200G6X
ACT-DISTANCE	Actual Distance Driven (miles)		WATT-HRS BAG 3	Bag 3 Watt Hours	
AS-VOLT	Average System Voltage		WATT-HRS BAG 4	Bag 4 Watt Hours	
CO2 BAG 1	Bag 1 Carbon Dioxide		WATT-HRS	Watt Hours	
CO2 BAG 2	Bag 2 Carbon Dioxide		HC-NM BAG 1	Bag 1 Non-methane Hydrocarbon	
CO2 BAG 3	Bag 3 Carbon Dioxide		HC-NM BAG 2	Bag 2 Non-methane Hydrocarbon	
CO2 BAG 4	Bag 4 Carbon Dioxide		HC-NM BAG 3	Bag 3 Non-methane Hydrocarbon	
NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides		HC-NM BAG 4	Bag 4 Non-methane Hydrocarbon	
NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides		N2O BAG 1	Bag 1 Nitrous Oxide	
DT-IWRR	Drive Trace Inertia Work Ratio Rating		N2O BAG 2	Bag 2 Nitrous Oxide	
DT-ASCR	Drive Trace Absolute Speed Change Rating		N2O BAG 3	Bag 3 Nitrous Oxide	
DT-EER	Drive Trace Energy Economy Rating		N2O BAG 4	Bag 4 Nitrous Oxide	
Certification Region					
CA	California + CAA Section 177 states		FA	Federal	
Exhaust Emission Standard Level					
B1	Federal Tier 2 Bin 1		HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340	
B2	Federal Tier 2 Bin 2		HDV2B250	Federal Tier 3 HD Class 2b Bin 250	
B3	Federal Tier 2 Bin 3		HDV2B200	Federal Tier 3 HD Class 2b Bin 200	
B4	Federal Tier 2 Bin 4		HDV2B170	Federal Tier 3 HD Class 2b Bin 170	
B5	Federal Tier 2 Bin 5		HDV2B150	Federal Tier 3 HD Class 2b Bin 150	
B6	Federal Tier 2 Bin 6		HDV2B0	Federal Tier 3 HD Class 2b Bin 0	
B7	Federal Tier 2 Bin 7		HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630	
B8	Federal Tier 2 Bin 8		HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570	
B9	Federal Tier 2 Bin 9		HDV3B400	Federal Tier 3 HD Class 3 Bin 400	
B10	Federal Tier 2 Bin 10		HDV3B270	Federal Tier 3 HD Class 3 Bin 270	
B11	Federal Tier 2 Bin 11		HDV3B230	Federal Tier 3 HD Class 3 Bin 230	
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)		HDV3B200	Federal Tier 3 HD Class 3 Bin 200	
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)		HDV3B0	Federal Tier 3 HD Class 3 Bin 0	
L2	California LEV-II LEV		L4SULEV100	California LEV-IV SULEV100	
L2OP	California LEV-II LEV Optional		L4SULEV125	California LEV-IV SULEV125	
U2	California LEV-II ULEV		L4SULEV15	California LEV-IV SULEV15	
S2	California LEV-II SULEV		L4SULEV150	California LEV-IV SULEV150	
ZEV	California ZEV		L4SULEV170	California LEV-IV SULEV170	
OT	Other		L4SULEV175	California LEV-IV SULEV175	
T1	Federal Tier 1		L4SULEV20	California LEV-IV SULEV20	
PZEV	California PZEV		L4SULEV200	California LEV-IV SULEV200	
L2LEV160	California LEV-II LEV160		L4SULEV230	California LEV-IV SULEV230	
L2ULEV125	California LEV-II ULEV125		L4SULEV25	California LEV-IV SULEV25	
L2SULEV30	California LEV-II SULEV30		L4SULEV30	California LEV-IV SULEV30	
L2LEV395	California LEV-II LEV395		L4SULEV75	California LEV-IV SULEV75	

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L2ULEV340	California LEV-II ULEV340		L4SULEV85	California LEV-IV SULEV85	
L2LEV630	California LEV-II LEV630		L4ULEV125	California LEV-IV ULEV125	
L2ULEV570	California LEV-II ULEV570		L4ULEV200	California LEV-IV ULEV200	
L3LEV160	California LEV-III LEV160		L4ULEV250	California LEV-IV ULEV250	
L3ULEV125	California LEV-III ULEV125		L4ULEV270	California LEV-IV ULEV270	
L3ULEV70	California LEV-III ULEV70		L4ULEV40	California LEV-IV ULEV40	
L3ULEV50	California LEV-III ULEV50		L4ULEV400	California LEV-IV ULEV400	
L3SULEV30	California LEV-III SULEV30		L4ULEV50	California LEV-IV ULEV50	
L3SULEV20	California LEV-III SULEV20		L4ULEV60	California LEV-IV ULEV60	
L3LEV395	California LEV-III LEV395		L4ULEV70	California LEV-IV ULEV70	
L3ULEV340	California LEV-III ULEV340		T4B170	Federal Tier 4 MDV Bin 170	
L3ULEV250	California LEV-III ULEV250		T4B150	Federal Tier 4 MDV Bin 150	
L3ULEV200	California LEV-III ULEV200		T4B125	Federal Tier 4 MDV Bin 125	
L3SULEV170	California LEV-III SULEV170		T4B100	Federal Tier 4 MDV Bin 100	
L3SULEV150	California LEV-III SULEV150		T4B85	Federal Tier 4 MDV Bin 85	
L3LEV630	California LEV-III LEV630		T4B75	Federal Tier 4 MDV Bin 75	
L3ULEV570	California LEV-III ULEV570		T4B70	Federal Tier 4 Bin 70	
L3ULEV400	California LEV-III ULEV400		T4B65	Federal Tier 4 Bin 65	
L3ULEV270	California LEV-III ULEV270		T4B60	Federal Tier 4 Bin 60	
L3SULEV230	California LEV-III SULEV230		T4B55	Federal Tier 4 Bin 55	
L3SULEV200	California LEV-III SULEV200		T4B50	Federal Tier 4 Bin 50	
T3B160	Federal Tier 3 Bin 160		T4B45	Federal Tier 4 Bin 45	
T3B125	Federal Tier 3 Bin 125		T4B40	Federal Tier 4 Bin 40	
T3B110	Federal Tier 3 Transitional Bin 110		T4B35	Federal Tier 4 Bin 35	
T3B85	Federal Tier 3 Transitional Bin 85		T4B30	Federal Tier 4 Bin 30	
T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover		T4B25	Federal Tier 4 Bin 25	
T3B70	Federal Tier 3 Bin 70		T4B20	Federal Tier 4 Bin 20	
T3B50	Federal Tier 3 Bin 50		T4B15	Federal Tier 4 Bin 15	
T3B30	Federal Tier 3 Bin 30		T4B10	Federal Tier 4 Bin 10	
T3B20	Federal Tier 3 Bin 20		T4B5	Federal Tier 4 Bin 5	
T3B0	Federal Tier 3 Bin 0		T4B0	Federal Tier 4 Bin 0	
HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395				
Transmission Type Code					
AMS	Automated Manual- Selectable (e.g. Automated Manual with paddles)	M	Manual		
A	Automatic	OT	Other		
AM	Automated Manual	SA	Semi-Automatic		
CVT	Continuously Variable	SCV	Selectable Continuously Variable (e.g. CVT with paddles)		
Drive System Code					
4	4-Wheel Drive	P	Part-time 4-Wheel Drive		

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Test Group		VBMXJ03.0B5T		Evaporative/Refueling Family		VBMXR0200G6X	
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		