

**Certification Summary Information Report**

<b>Manufacturer</b>	BMW	<b>Manufacturer Code</b>	BMX
<b>Test Group</b>	VBMXV04.4H9X	<b>Evaporative/Refueling Family</b>	VBMXR0170H09
<b>Certificate Number</b>	VBMXV04.4H9X-015	<b>CARB Executive Order #</b>	--
<b>Certificate Issue Date</b>	02/20/2026	<b>Certificate Revision Date</b>	--
<b>Certificate Effective Date</b>	02/20/2026	<b>Conditional Certificate</b>	No
<b>CSI Revision #</b>	--	<b>CSI Submission/Revision Date</b>	02/12/2026 09:57:52 AM
<b>Model Year</b>	2027		

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
<b>Test Group Information</b>			
CSI Type	Update for Correction	Running Change Reference Number	--
GHG Exempt Status	Not Exempt		
<b>Drive Sources and Fuel(s)</b>			
Drive Source #1:	Electric Motor		
	<b>Fuel</b>	<b>Basic Fuel Metering System</b>	<b>Lean Burn Strategy Indicator</b>
	Electricity	--	--
Drive Source #2:	Combustion Engine		
	<b>Fuel</b>	<b>Basic Fuel Metering System</b>	<b>Lean Burn Strategy Indicator</b>
	Gasoline	Spark Ignition Direct fuel injection	No
Hybrid Indicator	Yes		
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	Yes
Multiple Fuel Combustion	--	Off-board Charge Capable Indicator	Yes
Fuel Cell Indicator	No	EPA Vehicle Class	LDV
Federal Clean Fuel Vehicle	No	Federal Clean Fuel Vehicle Standard	--
Federal Clean Fuel Vehicle ILEV	No	California Partial Zero Emissions Vehicle Indicator	No
Durability Group Name	VBMXHHGVNV39	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	04/01/2026	CAP2000 Conditional Certificate?	No
Independent Commercial Importer?	No	Alternative Fuel Converter Certificate?	No
SFTP Federal Composite Compliance Identifier	Tier 3	SFTP Tier 2 Composite CO Option	No
SFTP LEV-III Composite Compliance Indicator	No		
OBD Compliance Type	CARB	OBD Demonstration Vehicle Test Group	VBMXV04.4H9X
Test Group OBD Compliance Level	Partial - with deficiencies and penalty	Number of Test Group OBD Deficiencies	4
OBD Deficiencies Comments	E-26-025		
Mfr Test Group Comments	--		
Mfr Exhaust / Evap Standards Comments	--		

## Certification Summary Information Report

<b>Test Group</b>	VBMXV04.4H9X		<b>Evaporative/Refueling Family</b>	VBMXR0170H09			
<b>Evaporative/Refueling Family Information</b>							
<b>Evaporative Summary Information Type</b>	New	<b>Submission/Correction Date</b>	11/20/2025 01:07:13 PM				
<b>Integrated ORVR?</b>	No	<b>Fuel(s)</b>	Gasoline				
<b>Multiple Fuel Storage</b>	--						
<b>Bladder Fuel Tank?</b>	No						
<b>Fuel Tank Material</b>	Metal	<b>Fuel Tank Material Description</b>	--				
<b>Fill Pipe Seal Type</b>	Liquid seal						
<b>Air Intake System Vapor Storage Device?</b>	No	<b>Air Intake System Vapor Storage Device Description</b>	--				
<b>Fuel System Vapor Storage Canister?</b>	Yes	<b>Other Vapor Storage</b>	--				
<b>Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)</b>	170	<b>Number of Primary Canisters</b>	1				
<b>Number of Bleed Canisters</b>	0	<b>Bleed Canister Total Working Capacity (grams)</b>	--				
<b>Mfr Evaporative/Refueling Family Comments</b>	non-integrated refueling system						
<b>Leak Family Details</b>							
<b>Leak Family Indicator</b>	No						
<b>Canister Bleed Test Indicator</b>	No	<b>Applicability of Evaporative Canister Bleed Test</b>	--				
<b>Evaporative Canister Bleed Test Comments</b>	--						
<b>CARB Fuel Only (Rig) Test Indicator</b>	No	<b>Applicability of CARB Fuel Only (Rig) Test</b>	--				
<b>CARB Fuel Only (Rig) Test Comments</b>	--						
<b>Models Covered by this Certificate</b>							
<b>Carline Manufacturer</b>	<b>Division</b>	<b>Carline</b>	<b>Certification Region Code(s)</b>	<b>Drive System</b>	<b>Trans - Type</b>	<b>- # of Gears</b>	<b>Trans - Lockup</b>
BMW	1 - BMW	442 - M5 Touring	Federal	All Wheel Drive	Semi-Automatic	8	No
BMW	1 - BMW	360 - M5 Sedan	Federal	All Wheel Drive	Semi-Automatic	8	No
<b>Engine Description</b>							
<b>Hybrid Type</b>	IC Engine/Electric Motor	<b>Hybrid Description</b>	--				
<b>Engine Type</b>	4-Stroke Spark Ignition	<b>Mfr Engine Description</b>	--				
<b>Engine Block Arrangement</b>	V-shaped engine	<b>Mfr Engine Block Arrangement Description</b>	--				
<b>Camless Valvetrain Indicator</b>	No	<b>Oil Viscosity/Classification</b>	0W30				
<b>Number of Cylinders/Rotors</b>	8	<b>Mechanically Variable Compression Ratio Indicator</b>	N				

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09	
<b>After Treatment Device(s) (ATD)</b>				
ATD Number	ATD Type	ATD Precious Metal	Substrate Material	Substrate Construction
1	Three-way catalyst	Palladium + Rhodium	Ceramic	Monolith
2	Three-way catalyst	Palladium + Rhodium	Ceramic	Monolith
3	Three-way catalyst	Palladium + Rhodium	Metal	Monolith
4	Three-way catalyst	Palladium + Rhodium	Metal	Monolith
<b>Mfr After Treatment Device (ATD) Comments</b>				--
<b>Direct Ozone Reduction (DOR) Device</b>				Not Equipped
<b>Mfr Emission Control Device Comments</b>				--
<b>Engine Configuration Number 1</b>				
<b>Engine Displacement (liters)</b>	4.4	<b>Engine Rated Horsepower</b>	577	
<b>Number of Inlet Valves Per Cylinder</b>	2	<b>Number of Exhaust Valves Per Cylinder</b>	2	
<b>Air Aspiration Method</b>	Turbocharged	<b>Number of Air Aspiration Devices</b>	2	
<b>Air Aspiration Device Configuration</b>	Parallel	<b>Charge Air Cooler Type</b>	Liquid	
<b>Air Aspiration Drive Method(s)</b>	Mechanical			
<b>Cylinder Deactivation</b>	No			
<b>Cylinder Deactivation Description</b>	--			
<b>Variable Valve Timing</b>	Yes			
<b>Variable Valve Timing System Description</b>	variable valve timing at inlet and outlet valves			
<b>Variable Valve Lift?</b>	Yes			
<b>Variable Valve Lift System Description</b>	variable valve lift at inlet valves			
<b>Number of Knock Sensors</b>	4	<b>Number of Air/Fuel Sensors</b>	4	
<b>Air/Fuel Sensor # 1 Type</b>	Heated oxygen	<b>Air/Fuel Sensor # 1 Description</b>	--	
<b>Air/Fuel Sensor # 2 Type</b>	Air fuel	<b>Air/Fuel Sensor # 2 Description</b>	--	
<b>Air/Fuel Sensor # 3 Type</b>	Heated oxygen	<b>Air/Fuel Sensor # 3 Description</b>	--	
<b>Air/Fuel Sensor # 4 Type</b>	Air fuel	<b>Air/Fuel Sensor # 4 Description</b>	--	
<b>Mfr Air/Fuel Sensor Comments</b>	--			
<b>Exhaust Gas Recirculation</b>	No	<b>Cooled Exhaust Gas Recirculation</b>	No	
<b>EGR Type</b>	--	<b>Exhaust Gas Recirculation Description if 'Other'</b>	--	
<b>Closed Loop Air Injection System</b>	No			
<b>Air Injection Type</b>	--	<b>Air Injection Type if 'Other'</b>	--	
<b>Mfr Engine Configuration Comments</b>	--			

## Certification Summary Information Report

Test Group		VBMXV04.4H9X			Evaporative/Refueling Family			VBMXR0170H09		
<b>Official Test Numbers</b>										
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	SBMX10087951	SBMX10087953	SBMX10087954	SBMX10087956	SBMX10087952	20.4	228.2	27.9	286.1	--
<b>SFTP LEV-III Official Test Numbers</b>										
Test Group Fuel		FTP		US06		SC03				
Gasoline		SBMX10087951		SBMX10087953		SBMX10087954				
<b>Official Charge Depleting Test Numbers</b>										
Test Group Fuel		UDDS			Highway					
Electricity		SBMX10087991			SBMX10087992					
<b>Hybrid Electric Vehicle And Fuel Cell Information</b>										
Rechargeable Energy Storage System	Battery(s)			Rechargeable Energy Storage System, if Other			--			
Battery Type	Lithium Ion			Number of Battery Packs			3			
Total Voltage of Battery Packs	348			Battery Energy Capacity			63.5			
Battery Specific Energy	108			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			Yes			
Mfr Regenerative Braking Description	--									
Drive Motor(s)/Generator(s)	1									
Motor/Generator Type 1	(PMSM)			Rated Motor/Generator Power			145			
Mfr Fuel Cell Description	--									
Fuel Cell On-Board H2 Storage Capacity (kg)	--			Usable H2 Fill Capacity (kg)			--			
Mfr Hybrid Electric/ Electric Vehicle Comments	permanent magnet synchronous machine (PMSM)									

### Certification Summary Information Report

<b>Test Group</b>	VBMXV04.4H9X	<b>Evaporative/Refueling Family</b>	VBMXR0170H09
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**Emission Data Vehicle Information**

Vehicle ID / Configuration	9N82497 / 6	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	SBMXT04.4H09	Original Evaporative/Refueling Family	SBMXR0170H09
Original Test Vehicle Model Year	2025		

**Vehicle Model**

Represented Test Vehicle Make	BMW	Represented Test Vehicle Model	XM Label
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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	Electric Motor	Electricity
2	Combustion Engine	Gasoline

Hybrid Indicator	Yes	Multiple Fuel Combustion	--
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	Yes
Fuel Cell Indicator	No	Rechargeable Energy Storage System, if 'Other'	--
Rechargeable Energy Storage System	Battery(s)		
Off-board charge Capable Indicator	Yes	Odometer Correction Factor	1
Odometer Correction -- Initial	0		
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles		
Odometer Correction Units	Miles		
Engine Code	XB1161T0G09X1	Rated Horsepower	577
Displacement (liters)	4.4	Air Aspiration Method, if 'Other'	
Air Aspiration Method	Turbocharged	Air Aspiration Device Configuration	Parallel
Number of Air Aspiration Devices	2	Drive Mode While Testing	All Wheel Drive
Charge Air Cooler Type	Liquid	Aged Emission Components	4,000 (mi)
Shift Indicator Light Usage	Not equipped	Equivalent Test Weight (pounds)	6500
Curb Weight (lbs)	6091	N/V Ratio	26.1
GVWR (lbs)	7209		
Axle Ratio	3.63	# of Transmission Gears	8
Transmission Type	Semi-Automatic	Creeper Gear	No
Transmission Lockup	No		

**Dynamometer Coefficients:**

Coefficient Category	Target Coefficients			Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	
<b>City/Highway/Evap</b>	83.7	-0.331	0.03912	17	-0.101	0.03348	22

### Certification Summary Information Report

<b>Test Group</b>	VBMXV04.4H9X	<b>Evaporative/Refueling Family</b>	VBMXR0170H09
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**Emission Control Device Comments** --  
**Manufacturer Test Vehicle Comments** vi\_9N82497\_06\_EVAP EDV\_XM Label\_A\_ETW-6500\_RG10\_E10

<b>Test #</b>	<b>SBMX10084685</b>	<b>Test Procedure</b>	<b>23 - 2-day evap</b>
<b>Exhaust Test # for this Evap Test</b>	SBMX10084683	<b>Test Fuel Type</b>	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
<b>Test Date</b>	12/14/2023	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	T10/87	<b>Fuel Calibration Number</b>	39
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	Mfr. Determined
<b>Verify Test Lab ID</b>	EETZ Emissions Lab		
<b>E10 Evaporative Test Measurement Method</b>	Calculated (1.08 x FID Total Hydrocarbons)		
<b>Test Start Odometer Reading</b>	7747	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	No		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	<b>Road Speed Fan Usage</b>	Yes

**Test Results**

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
<b>HC-TOTAL (Total Hydrocarbon)</b>	0.15543	--
<b>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</b>	0.16787	--

**Manufacturer Test Comments** EVAP EDV - 2Day, XM Label

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	0.1679	0.015	0.183	0.5	Pass

### Certification Summary Information Report

<b>Test Group</b>	VBMXV04.4H9X	<b>Evaporative/Refueling Family</b>	VBMXR0170H09
<b>Test #</b>	<b>SBMX10084686</b>	<b>Test Procedure</b>	<b>34 - Federal fuel 3-day evap</b>
<b>Exhaust Test # for this Evap Test</b>	SBMX10084684	<b>Test Fuel Type</b>	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
<b>Test Date</b>	01/25/2024	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	T10/87	<b>Fuel Calibration Number</b>	39
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	Mfr. Determined
<b>Verify Test Lab ID</b>	EETZ Emissions Lab		
<b>E10 Evaporative Test Measurement Method</b>	Calculated (1.08 x FID Total Hydrocarbons)		
<b>Test Start Odometer Reading</b>	7871	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	No	<b>Road Speed Fan Usage</b>	Yes
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)		

**Test Results**

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
<b>HC-TOTAL (Total Hydrocarbon)</b>	0.13265	--
<b>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</b>	0.14326	--

**Manufacturer Test Comments**                      EVAP EDV - 3Day, XM Label

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	0.1433	0.015	0.158	0.5	Pass

### Certification Summary Information Report

<b>Test Group</b>	VBMXV04.4H9X	<b>Evaporative/Refueling Family</b>	VBMXR0170H09
<b>Test #</b>	<b>SBMX10084687</b>	<b>Test Procedure</b>	<b>32 - Federal Fuel Running Loss</b>
<b>Exhaust Test # for this Evap Test</b>	SBMX10084684	<b>Test Fuel Type</b>	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
<b>Test Date</b>	01/25/2024	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	T10/87	<b>Fuel Calibration Number</b>	39
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	Mfr. Determined
<b>Verify Test Lab ID</b>	EETZ Emissions Lab		
<b>E10 Evaporative Test Measurement Method</b>	Calculated (1.08 x FID Total Hydrocarbons)		
<b>Test Start Odometer Reading</b>	7844	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	No		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	<b>Road Speed Fan Usage</b>	Yes

**Test Results**

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

**Manufacturer Test Comments**                      EVAP EDV - RL, XM Label

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0	0	0	0.05	Pass

### Certification Summary Information Report

<b>Test Group</b>	VBMXV04.4H9X	<b>Evaporative/Refueling Family</b>	VBMXR0170H09
<b>Test #</b>	<b>SBMX10084688</b>	<b>Test Procedure</b>	<b>24 - Federal fuel refueling test (ORVR)</b>
<b>Exhaust Test # for this Evap Test</b>	SBMX10084683	<b>Test Fuel Type</b>	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
<b>Test Date</b>	01/10/2024	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	T10/87	<b>Fuel Calibration Number</b>	39
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	Mfr. Determined
<b>Verify Test Lab ID</b>	EETZ Emissions Lab		
<b>E10 Evaporative Test Measurement Method</b>	Calculated (1.08 x FID Total Hydrocarbons)		
<b>Test Start Odometer Reading</b>	7776	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	No		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	<b>Road Speed Fan Usage</b>	Yes

**Test Results**

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC (Hydrocarbon for Running Loss and ORVR)	0.00714	--

**Manufacturer Test Comments**                      EVAP EDV, ORVR, XM Label

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	0.007	0.028	0.04	0.2	Pass

### Certification Summary Information Report

<b>Test Group</b>	VBMXV04.4H9X	<b>Evaporative/Refueling Family</b>	VBMXR0170H09
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<b>Test #</b>	<b>SBMX10084689</b>	<b>Test Procedure</b>	<b>67 - Leak Test - Port Near Canister</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
<b>Test Date</b>	02/05/2024	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	T10/87	<b>Fuel Calibration Number</b>	39
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	Mfr. Determined
<b>Verify Test Lab ID</b>	EETZ Emissions Lab		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	7926	<b>Odometer Units</b>	K
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	<b>Road Speed Fan Usage</b>	Yes

**Test Results**

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value
LEAK-DIA (Effective Leak Diameter (inches))	0	--

**Manufacturer Test Comments**                      EVAP EDV - Leak Test, XM Label

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	0	0	0.02	Pass

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09									
<b>Emission Data Vehicle Information</b>												
Vehicle ID / Configuration	CR43501 / 0	Manufacturer Vehicle Configuration Number	0									
Original Test Group Name	SBMXV04.4H9X	Original Evaporative/Refueling Family	SBMXR0180H0F									
Original Test Vehicle Model Year	2025											
<b>Vehicle Model</b>												
Represented Test Vehicle Make	BMW	Represented Test Vehicle Model	M5 Touring									
<b>Leak Family Details</b>												
Leak Family Identifier	--	Leak Family Name	--									
<b>Drive Sources and Fuel System Details</b>												
<table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>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	Yes											
Odometer Correction -- Initial	0	Odometer Correction Factor	1									
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles											
Odometer Correction Units	Miles											
Engine Code	XB1161T0G99X	Rated Horsepower	577									
Displacement (liters)	4.4	Air Aspiration Method, if 'Other'										
Air Aspiration Method	Turbocharged	Air Aspiration Device Configuration	Parallel									
Number of Air Aspiration Devices	2	Drive Mode While Testing	All Wheel Drive									
Charge Air Cooler Type	Liquid	Aged Emission Components	4,000 (mi)									
Shift Indicator Light Usage	Not equipped	Equivalent Test Weight (pounds)	6000									
Curb Weight (lbs)	5523	N/V Ratio	25.2									
GVWR (lbs)	6724											
Axle Ratio	3.3	# of Transmission Gears	8									
Transmission Type	Semi-Automatic	Creeper Gear	No									
Transmission Lockup	No											

## Certification Summary Information Report

Test Group	VBMXV04.4H9X			Evaporative/Refueling Family			VBMXR0170H09
<b>Dynamometer Coefficients:</b>							
	Target Coefficients			Set Coefficients			
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
City/Highway/Evap	80.8	-0.367	0.03006	18.8	-0.131	0.0237	18.3
Cold CO	88.9	-0.403	0.03307	-6.7	-0.094	0.0237	N/A
US06	80.8	-0.367	0.03006	18.8	-0.131	0.0237	N/A
Emission Control Device Comments	--						
Manufacturer Test Vehicle Comments	vi_CR43501_00_EDV_M5 Touring_A_ETW-6000_RG10_E10_charge sustaining and charge depleting						

## Certification Summary Information Report

<b>Test Group</b>	VBMXV04.4H9X	<b>Evaporative/Refueling Family</b>	VBMXR0170H09
<b>Test #</b>	<b>SBMX10087951</b>	<b>Test Procedure</b>	<b>31 - Federal fuel 3-day exhaust</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
<b>Test Date</b>	08/13/2024	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	T10/87	<b>Fuel Calibration Number</b>	43
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	Mfr. Determined
<b>Verify Test Lab ID</b>	EETZ Emissions Lab		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2465	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	482.6404	--
FE BAG 1 (Bag 1 Fuel Economy)	17.8	17.8
CO2 BAG 2 (Bag 2 Carbon Dioxide)	343.5741	--
FE BAG 2 (Bag 2 Fuel Economy)	25.2	25.2
CO2 BAG 3 (Bag 3 Carbon Dioxide)	334.9811	--
FE BAG 3 (Bag 3 Fuel Economy)	25.8	25.8
CO2 BAG 4 (Bag 4 Carbon Dioxide)	299.1467	--
FE BAG 4 (Bag 4 Fuel Economy)	28.9	28.9
METHANE (CH4 - Methane)	0.00355	--
CO (Carbon Monoxide)	0.396	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.899	--
DT-EER (Drive Trace Energy Economy Rating)	-0.483	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-1.192	--
MFR FE (Manufacturer Fuel Economy)	24.2	24.2
NOX (Nitrogen Oxide)	0.00464	--
N2O (Nitrous Oxide)	0.00061	--
HC-NM (Non-methane Hydrocarbon)	0.00752	--
NMOG (Non-methane organic gases)	0.00827	--
PM (Particulate Matter)	0.000638	--
HC-TOTAL (Total Hydrocarbon)	0.0109	--

### Certification Summary Information Report

<b>Test Group</b>	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
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<b>Test Result Name</b>	<b>Unrounded Test Result</b>	<b>Verify Calculated CREE/OPT-CREE</b>
Carbon-Related Exhaust Emissions	358	999

<b>Test Result Name</b>	<b>Unrounded Test Result</b>	<b>Verify Calculated CO2</b>
Carbon dioxide	356.8835	--

**Manufacturer Test Comments**                      01\_FTP\_CR43501\_00\_EDV\_M5 Touring\_A\_ETW-6000\_RG10\_Comfort\_Comfort\_Hybrid\_sustaining

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Other	CREE	999	--	--	--	0.3	--	999	--	--
Fed	120,000 miles	Other	METHANE	0.0036	--	--	--	0.0025	--	0.006	0.030	Pass
Fed	120,000 miles	Other	N2O	0.0006	--	--	--	0.0002	--	0.001	0.010	Pass
Fed	150,000 miles	Other	CO	0.4	--	--	--	0.19	--	0.6	1.7	Pass
Fed	150,000 miles	Other	CO-COMP	0.52	--	--	--	--	--	0.5	4.2	Pass
Fed	150,000 miles	Other	NMOG	0.0083	--	1.1	--	0.0057	--	0.014	99.999	Pass
Fed	150,000 miles	Other	NMOG+NOX	0.0129	--	--	--	--	--	0.02	0.070	Pass
Fed	150,000 miles	Other	NMOG+NOX-COMP	0.0243	--	--	--	--	--	0.024	0.070	Pass
Fed	150,000 miles	Other	NOX	0.0046	--	--	--	0.0014	--	0.006	99.999	Pass
Fed	150,000 miles	Other	PM	0.0006	--	--	--	0.0004	--	0.001	0.003	Pass

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

## Certification Summary Information Report

<b>Test Group</b>	VBMXV04.4H9X	<b>Evaporative/Refueling Family</b>	VBMXR0170H09
<b>Test #</b>	<b>SBMX10087956</b>	<b>Test Procedure</b>	<b>11 - Cold CO</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	28 - Cold CO E10 Regular Gasoline (Tier 3)
<b>Test Date</b>	08/29/2024	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	COE10	<b>Fuel Calibration Number</b>	56
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	Mfr. Determined
<b>Verify Test Lab ID</b>	EETZ Emissions Lab		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2945	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	722.3991	--
FE BAG 1 (Bag 1 Fuel Economy)	11.9	11.9
CO2 BAG 2 (Bag 2 Carbon Dioxide)	411.5901	--
FE BAG 2 (Bag 2 Fuel Economy)	20.9	20.9
CO2 BAG 3 (Bag 3 Carbon Dioxide)	576.8827	--
FE BAG 3 (Bag 3 Fuel Economy)	14.9	14.9
METHANE (CH4 - Methane)	0.00455	--
CO (Carbon Monoxide)	0.4012	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.548	--
DT-EER (Drive Trace Energy Economy Rating)	-0.409	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.87	--
MFR FE (Manufacturer Fuel Economy)	16.5	16.5
HC-NM (Non-methane Hydrocarbon)	0.01537	--
HC-TOTAL (Total Hydrocarbon)	0.01976	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	521.4995	--

## Manufacturer Test Comments

06\_FTPCOLD\_CR43501\_00\_EDV\_M5 Touring\_A\_ETW-6000\_RG10\_Comfort\_Comfort\_Hybrid\_sustaining

### Certification Summary Information Report

Test Group		VBMXV04.4H9X				Evaporative/Refueling Family				VBMXR0170H09		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	50,000 miles	Other	CO	0.4	--	--	--	0.06	--	0.5	10.0	Pass
Fed	120,000 miles	Other	HC-NM	0.02	--	--	--	0	--	0	0.3	Pass

## Certification Summary Information Report

<b>Test Group</b>	VBMXV04.4H9X	<b>Evaporative/Refueling Family</b>	VBMXR0170H09
<b>Test #</b>	<b>SBMX10087952</b>	<b>Test Procedure</b>	<b>3 - HWFE</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
<b>Test Date</b>	08/13/2024	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	T10/87	<b>Fuel Calibration Number</b>	43
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	Mfr. Determined
<b>Verify Test Lab ID</b>	EETZ Emissions Lab		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2479	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0	--
CO (Carbon Monoxide)	0.0502	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.491	--
DT-EER (Drive Trace Energy Economy Rating)	0.19	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.105	--
MFR FE (Manufacturer Fuel Economy)	30.2	30.2
NOX (Nitrogen Oxide)	0.00362	--
HC-NM (Non-methane Hydrocarbon)	0	--
NMOG (Non-methane organic gases)	0	--
HC-TOTAL (Total Hydrocarbon)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	286	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	286.2604	--

## Manufacturer Test Comments

02\_HWFET\_CR43501\_00\_EDV\_M5 Touring\_A\_ETW-6000\_RG10\_Comfort\_Comfort\_Hybrid\_sustaining

### Certification Summary Information Report

Test Group		VBMXV04.4H9X				Evaporative/Refueling Family				VBMXR0170H09		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Other	CREE	999	--	--	--	0.3	--	999	--	--
Fed	150,000 miles	Other	NMOG	0	--	1.03	--	0.0057	--	0.006	99.999	Pass
Fed	150,000 miles	Other	NMOG+NOX	0.0036	--	--	--	--	--	0.011	0.070	Pass
Fed	150,000 miles	Other	NOX	0.0036	--	--	--	0.0014	--	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

<b>Test Group</b>	VBMXV04.4H9X	<b>Evaporative/Refueling Family</b>	VBMXR0170H09
<b>Test #</b>	<b>SBMX10087953</b>	<b>Test Procedure</b>	<b>90 - US06</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
<b>Test Date</b>	08/13/2024	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	T10/87	<b>Fuel Calibration Number</b>	43
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	Mfr. Determined
<b>Verify Test Lab ID</b>	EETZ Emissions Lab		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2500	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	616.4179	--
FE BAG 1 (Bag 1 Fuel Economy)	14	14
CO2 BAG 2 (Bag 2 Carbon Dioxide)	367.2412	--
FE BAG 2 (Bag 2 Fuel Economy)	23.5	23.5
METHANE (CH4 - Methane)	0.00158	--
CO (Carbon Monoxide)	0.3793	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.551	--
DT-EER (Drive Trace Energy Economy Rating)	-0.412	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-3.351	--
MFR FE (Manufacturer Fuel Economy)	20.4	20.4
NOX (Nitrogen Oxide)	0.00926	--
HC-NM (Non-methane Hydrocarbon)	0.00382	--
NMOG (Non-methane organic gases)	0.00393	--
PM (Particulate Matter)	0.001628	--
HC-TOTAL (Total Hydrocarbon)	0.00534	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	422.5572	--

## Manufacturer Test Comments

03\_US06\_CR43501\_00\_EDV\_M5 Touring\_A\_ETW-6000\_RG10\_Comfort\_Comfort\_Hybrid\_sustaining

### Certification Summary Information Report

<b>Test Group</b>	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
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Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Other	CO	0.38	--	--	--	0.19	--	0.6	999.9	Pass
Fed	150,000 miles	Other	NMOG	0.0039	--	1.03	--	0.0057	--	0.01	99.999	Pass
Fed	150,000 miles	Other	NOX	0.0093	--	--	--	0.0014	--	0.011	99.999	Pass
Fed	150,000 miles	Other	PM	0.0016	--	--	--	0.0004	--	0.002	0.006	Pass

### Certification Summary Information Report

<b>Test Group</b>	VBMXV04.4H9X	<b>Evaporative/Refueling Family</b>	VBMXR0170H09
<b>Test #</b>	<b>SBMX10087954</b>	<b>Test Procedure</b>	<b>95 - SC03</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
<b>Test Date</b>	09/23/2024	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	T10/87	<b>Fuel Calibration Number</b>	43
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	Mfr. Determined
<b>Verify Test Lab ID</b>	EETZ Emissions Lab		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	3517	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	<b>Road Speed Fan Usage</b>	Yes

**Test Results**

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
<b>METHANE (CH4 - Methane)</b>	0.0009	--
<b>CO (Carbon Monoxide)</b>	0.2162	--
<b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b>	-2.441	--
<b>DT-EER (Drive Trace Energy Economy Rating)</b>	-0.323	--
<b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>	-2.018	--
<b>MFR FE (Manufacturer Fuel Economy)</b>	14.9	14.9
<b>NOX (Nitrogen Oxide)</b>	0.02361	--
<b>HC-NM (Non-methane Hydrocarbon)</b>	0.00078	--
<b>NMOG (Non-methane organic gases)</b>	0.0008	--
<b>HC-TOTAL (Total Hydrocarbon)</b>	0.00166	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
<b>Carbon dioxide</b>	579.8468	--

**Manufacturer Test Comments**      04\_SC03\_CR43501\_00\_EDV\_M5 Touring\_A\_ETW-6000\_RG10\_Comfort\_Comfort\_Hybrid\_sustaining

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification		
										Level	Standard	Pass/Fail
Fed	150,000 miles	Other	CO	0.22	--	--	--	0.19	--	0.4	999.9	Pass
Fed	150,000 miles	Other	NMOG	0.0008	--	1.03	--	0.0057	--	0.006	999.999	Pass
Fed	150,000 miles	Other	NOX	0.0236	--	--	--	0.0014	--	0.025	999.999	Pass

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09									
<b>Emission Data Vehicle Information</b>												
Vehicle ID / Configuration	CR43501 / 3	Manufacturer Vehicle Configuration Number	0									
Original Test Group Name	SBMXV04.4H9X	Original Evaporative/Refueling Family	SBMXR0180H0F									
Original Test Vehicle Model Year	2025											
<b>Vehicle Model</b>												
Represented Test Vehicle Make	BMW	Represented Test Vehicle Model	M5 Touring									
<b>Leak Family Details</b>												
Leak Family Identifier	--	Leak Family Name	--									
<b>Drive Sources and Fuel System Details</b>												
<table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>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	Yes											
Odometer Correction -- Initial	0	Odometer Correction Factor	1									
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles											
Odometer Correction Units	Miles											
Engine Code	XB1161T0G99X	Rated Horsepower	577									
Displacement (liters)	4.4											
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'										
Number of Air Aspiration Devices	2	Air Aspiration Device Configuration	Parallel									
Charge Air Cooler Type	Liquid	Drive Mode While Testing	All Wheel Drive									
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)									
Curb Weight (lbs)	5523	Equivalent Test Weight (pounds)	6000									
GVWR (lbs)	6724	N/V Ratio	25.2									
Axle Ratio	3.3											
Transmission Type	Semi-Automatic	# of Transmission Gears	8									
Transmission Lockup	No	Creeper Gear	No									

## Certification Summary Information Report

Test Group	VBMXV04.4H9X			Evaporative/Refueling Family			VBMXR0170H09
<b>Dynamometer Coefficients:</b>							
	Target Coefficients			Set Coefficients			
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
City/Highway/Evap	80.8	-0.367	0.03006	18.8	-0.131	0.0237	18.3
Cold CO	88.9	-0.403	0.03307	-6.7	-0.094	0.0237	N/A
US06	80.8	-0.367	0.03006	18.8	-0.131	0.0237	N/A
Emission Control Device Comments	--						
Manufacturer Test Vehicle Comments	vi_CR43501_03_FEDV_M5 Touring_A_ETW-6000_RG11_E0_worst case_charge sustaining and charge depleting						

## Certification Summary Information Report

<b>Test Group</b>	VBMXV04.4H9X	<b>Evaporative/Refueling Family</b>	VBMXR0170H09
<b>Test #</b>	<b>SBMX10088003</b>	<b>Test Procedure</b>	<b>31 - Federal fuel 3-day exhaust</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	61 - Tier 2 Cert Gasoline
<b>Test Date</b>	09/19/2024	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	T2/E0	<b>Fuel Calibration Number</b>	54
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	Mfr. Determined
<b>Verify Test Lab ID</b>	EETZ Emissions Lab		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	3413	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	1039.9293	--
FE BAG 1 (Bag 1 Fuel Economy)	8.4	8.4
CO2 BAG 2 (Bag 2 Carbon Dioxide)	829.5395	--
FE BAG 2 (Bag 2 Fuel Economy)	10.5	10.5
CO2 BAG 3 (Bag 3 Carbon Dioxide)	639.5899	--
FE BAG 3 (Bag 3 Fuel Economy)	13.6	13.6
CO2 BAG 4 (Bag 4 Carbon Dioxide)	748.5303	--
FE BAG 4 (Bag 4 Fuel Economy)	11.7	11.7
METHANE (CH4 - Methane)	0.00359	--
CO (Carbon Monoxide)	0.5988	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.256	--
DT-EER (Drive Trace Energy Economy Rating)	-0.037	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.46	--
MFR FE (Manufacturer Fuel Economy)	10.9	10.9
NOX (Nitrogen Oxide)	0.00826	--
N2O (Nitrous Oxide)	0.00144	--
HC-NM (Non-methane Hydrocarbon)	0.00695	--
NMOG (Non-methane organic gases)	0.00723	--
HC-TOTAL (Total Hydrocarbon)	0.00983	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	798	798

### Certification Summary Information Report

<b>Test Group</b>	VBMXV04.4H9X	<b>Evaporative/Refueling Family</b>	VBMXR0170H09
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<b>Test Result Name</b>	<b>Unrounded Test Result</b>	<b>Verify Calculated CO2</b>
Carbon dioxide	796.9418	--

**Manufacturer Test Comments**                      01\_FTP\_CR43501\_03\_FEDV\_M5 Touring\_A\_ETW-6000\_RG11\_Sport+\_Sport+\_Hybrid\_sustaining

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Other	CREE	798	--	--	--	0.3	--	798	--	--
Fed	120,000 miles	Other	METHANE	0.0036	--	--	--	0.0025	--	0.006	0.030	Pass
Fed	120,000 miles	Other	N2O	0.0014	--	--	--	0.0002	--	0.002	0.010	Pass
Fed	150,000 miles	Other	CO	0.6	--	--	--	0.19	--	0.8	1.7	Pass
Fed	150,000 miles	Other	NMOG	0.0072	--	1.1	--	0.0057	--	0.013	99.999	Pass
Fed	150,000 miles	Other	NMOG+NOX	0.0155	--	--	--	--	--	0.023	0.070	Pass
Fed	150,000 miles	Other	NOX	0.0083	--	--	--	0.0014	--	0.01	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

<b>Test Group</b>	VBMXV04.4H9X	<b>Evaporative/Refueling Family</b>	VBMXR0170H09
<b>Test #</b>	<b>SBMX10088005</b>	<b>Test Procedure</b>	<b>3 - HWFE</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	61 - Tier 2 Cert Gasoline
<b>Test Date</b>	08/27/2024	<b>Fuel</b>	Gasoline
<b>Fuel Batch ID</b>	T2/E0	<b>Fuel Calibration Number</b>	54
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	Mfr. Determined
<b>Verify Test Lab ID</b>	EETZ Emissions Lab		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2872	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.00587	--
CO (Carbon Monoxide)	0.3271	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.733	--
DT-EER (Drive Trace Energy Economy Rating)	-0.335	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-2.125	--
MFR FE (Manufacturer Fuel Economy)	19.3	19.3
NOX (Nitrogen Oxide)	0.00387	--
HC-NM (Non-methane Hydrocarbon)	0.00514	--
NMOG (Non-methane organic gases)	0.00529	--
HC-TOTAL (Total Hydrocarbon)	0.01077	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	454	454

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	452.9676	--

## Manufacturer Test Comments

02\_HWFET\_CR43501\_03\_FEDV\_M5 Touring\_A\_ETW-6000\_RG11\_Sport+\_Sport+\_Hybrid\_sustaining

## Certification Summary Information Report

Test Group		VBMXV04.4H9X				Evaporative/Refueling Family				VBMXR0170H09		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Other	CREE	454	--	--	--	0.3	--	454	--	--
Fed	150,000 miles	Other	NMOG	0.0053	--	1.03	--	0.0057	--	0.011	99.999	Pass
Fed	150,000 miles	Other	NMOG+NOX	0.0092	--	--	--	--	--	0.016	0.070	Pass
Fed	150,000 miles	Other	NOX	0.0039	--	--	--	0.0014	--	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	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
<b>Test #</b>	<b>SBMX10087991</b>	<b>Test Procedure</b>	<b>81 - Charge Depleting UDDS</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	61 - Tier 2 Cert Gasoline
<b>Test Date</b>	09/04/2024	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	T2/E0	<b>Fuel Calibration Number</b>	54
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	Mfr. Determined
<b>Verify Test Lab ID</b>	EETZ Emissions Lab		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	3120	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	<b>Road Speed Fan Usage</b>	Yes
<b>PHEV/EV Charge Depleting Test Information</b>			
<b>Recharge Event Voltage</b>	230	<b>Recharge Event Energy (kiloWatt-hours)</b>	16.766
<b>Charge Depleting Range (Calculated miles)</b>	32.952	<b>Charge Depleting Range (Actual miles)</b>	36.451
<b>Charge Depleting Range Highway (Calculated miles)</b>	--	<b>Derived 5-Cycle Coefficient Model Year</b>	2017
<b>All Electric Range Unadjusted (miles)</b>	32.952	<b>Equivalent All Electric Range (miles)</b>	36.451
<b>Number of Charge Depleting Bags/Phases Conducted</b>	8	<b>Transition Bag/Phase Number</b>	5
<b>Charge Depleting Bag/Phase #1</b>			

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
	<b>Test Result/Emission Name</b>		<b>Unrounded Test Result</b>
	Actual Distance Driven (miles)		7.432
	Average System Voltage		394.5
	CH4 - Methane		0.00016
	Carbon Monoxide		0.0008
	Carbon dioxide		0.192
	Carbon-Related Exhaust Emissions		0
	Drive Trace Absolute Speed Change Rating		-0.859
	Drive Trace Energy Economy Rating		-0.503
	Drive Trace Inertia Work Ratio Rating		-1.507
	Integrated Amp-hours		7.97
	Manufacturer Fuel Economy		0
	Nitrogen Oxide		0
	Nitrous Oxide		0.0002
	Non-methane Hydrocarbon		0.00007
	Non-methane organic gases		0.0001
	Non-methane organic gases plus Nitrogen Oxides		999.999
	Optional Carbon-Related Exhaust Emissions		0
	System End State of Charge Watt-hours		7.97
	System Start State of Charge Watt-hours		0
	Total Hydrocarbon		0.00022

**Charge Depleting Bag/Phase #2**

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
	<b>Test Result/Emission Name</b>		<b>Unrounded Test Result</b>
	Actual Distance Driven (miles)		7.442
	Average System Voltage		384.38
	CH4 - Methane		0.00056
	Carbon Monoxide		0
	Carbon dioxide		0.1877
	Carbon-Related Exhaust Emissions		0
	Drive Trace Absolute Speed Change Rating		-0.616
	Drive Trace Energy Economy Rating		-0.292
	Drive Trace Inertia Work Ratio Rating		-1.272
	Integrated Amp-hours		15.773
	Manufacturer Fuel Economy		0
	Nitrogen Oxide		0
	Nitrous Oxide		0.00015
	Non-methane Hydrocarbon		0
	Non-methane organic gases		0
	Non-methane organic gases plus Nitrogen Oxides		999.999
	Optional Carbon-Related Exhaust Emissions		0
	System End State of Charge Watt-hours		15.773
	System Start State of Charge Watt-hours		7.97
	Total Hydrocarbon		0

**Charge Depleting Bag/Phase #3**

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
	<b>Test Result/Emission Name</b>		<b>Unrounded Test Result</b>
	Actual Distance Driven (miles)		7.448
	Average System Voltage		373
	CH4 - Methane		0.00046
	Carbon Monoxide		0.0013
	Carbon dioxide		0.2203
	Carbon-Related Exhaust Emissions		0
	Drive Trace Absolute Speed Change Rating		-0.404
	Drive Trace Energy Economy Rating		-0.381
	Drive Trace Inertia Work Ratio Rating		-0.742
	Integrated Amp-hours		23.7
	Manufacturer Fuel Economy		0
	Nitrogen Oxide		0
	Nitrous Oxide		0
	Non-methane Hydrocarbon		0
	Non-methane organic gases		0
	Non-methane organic gases plus Nitrogen Oxides		999.999
	Optional Carbon-Related Exhaust Emissions		0
	System End State of Charge Watt-hours		23.7
	System Start State of Charge Watt-hours		15.773
	Total Hydrocarbon		0

**Charge Depleting Bag/Phase #4**

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
	<b>Test Result/Emission Name</b>		<b>Unrounded Test Result</b>
	Actual Distance Driven (miles)		7.436
	Average System Voltage		361.63
	CH4 - Methane		0.00044
	Carbon Monoxide		0
	Carbon dioxide		0.1352
	Carbon-Related Exhaust Emissions		0
	Drive Trace Absolute Speed Change Rating		-0.825
	Drive Trace Energy Economy Rating		-0.369
	Drive Trace Inertia Work Ratio Rating		-1.313
	Integrated Amp-hours		31.82
	Manufacturer Fuel Economy		0
	Nitrogen Oxide		0
	Nitrous Oxide		0
	Non-methane Hydrocarbon		0
	Non-methane organic gases		0
	Non-methane organic gases plus Nitrogen Oxides		999.999
	Optional Carbon-Related Exhaust Emissions		0
	System End State of Charge Watt-hours		31.82
	System Start State of Charge Watt-hours		23.7
	Total Hydrocarbon		0

**Charge Depleting Bag/Phase #5**

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
	<b>Test Result/Emission Name</b>		<b>Unrounded Test Result</b>
	Actual Distance Driven (miles)		7.437
	Average System Voltage		351.25
	CH4 - Methane		0.00648
	Carbon Monoxide		0.3038
	Carbon dioxide		88.5368
	Carbon-Related Exhaust Emissions		90
	Drive Trace Absolute Speed Change Rating		-1.394
	Drive Trace Energy Economy Rating		-0.583
	Drive Trace Inertia Work Ratio Rating		-2.1
	Integrated Amp-hours		39.126
	Manufacturer Fuel Economy		98.1
	Nitrogen Oxide		0.00162
	Nitrous Oxide		0.00059
	Non-methane Hydrocarbon		0.02255
	Non-methane organic gases		0.0234
	Non-methane organic gases plus Nitrogen Oxides		999.999
	Optional Carbon-Related Exhaust Emissions		90
	System End State of Charge Watt-hours		39.126
	System Start State of Charge Watt-hours		31.82
	Total Hydrocarbon		0.02886

**Charge Depleting Bag/Phase #6**

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
	<b>Test Result/Emission Name</b>	<b>Unrounded Test Result</b>	
	Actual Distance Driven (miles)	7.443	
	Average System Voltage	348.38	
	CH4 - Methane	0.00208	
	Carbon Monoxide	0.1993	
	Carbon dioxide	378.0899	
	Carbon-Related Exhaust Emissions	378	
	Drive Trace Absolute Speed Change Rating	-0.609	
	Drive Trace Energy Economy Rating	-0.178	
	Drive Trace Inertia Work Ratio Rating	-1.222	
	Integrated Amp-hours	38.595	
	Manufacturer Fuel Economy	23.1	
	Nitrogen Oxide	0.00604	
	Nitrous Oxide	0.00014	
	Non-methane Hydrocarbon	0.00249	
	Non-methane organic gases	0.0026	
	Non-methane organic gases plus Nitrogen Oxides	999.999	
	Optional Carbon-Related Exhaust Emissions	378	
	System End State of Charge Watt-hours	38.595	
	System Start State of Charge Watt-hours	39.126	
	Total Hydrocarbon	0.00452	

**Charge Depleting Bag/Phase #7**

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
	<b>Test Result/Emission Name</b>		<b>Unrounded Test Result</b>
	Actual Distance Driven (miles)		7.442
	Average System Voltage		349.63
	CH4 - Methane		0.00094
	Carbon Monoxide		0.2544
	Carbon dioxide		395.3207
	Carbon-Related Exhaust Emissions		395
	Drive Trace Absolute Speed Change Rating		-0.894
	Drive Trace Energy Economy Rating		-0.703
	Drive Trace Inertia Work Ratio Rating		-1.441
	Integrated Amp-hours		37.595
	Manufacturer Fuel Economy		22.1
	Nitrogen Oxide		0.00824
	Nitrous Oxide		0
	Non-methane Hydrocarbon		0
	Non-methane organic gases		0
	Non-methane organic gases plus Nitrogen Oxides		999.999
	Optional Carbon-Related Exhaust Emissions		395
	System End State of Charge Watt-hours		37.595
	System Start State of Charge Watt-hours		38.595
	Total Hydrocarbon		0

**Charge Depleting Bag/Phase #8**

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
<b>Test Result/Emission Name</b>	<b>Unrounded Test Result</b>		
Actual Distance Driven (miles)	7.452		
Average System Voltage	348.75		
CH4 - Methane	0.00064		
Carbon Monoxide	0.1		
Carbon dioxide	295.66		
Carbon-Related Exhaust Emissions	296		
Drive Trace Absolute Speed Change Rating	-0.149		
Drive Trace Energy Economy Rating	-0.091		
Drive Trace Inertia Work Ratio Rating	-0.439		
Integrated Amp-hours	39.356		
Manufacturer Fuel Economy	29.6		
Nitrogen Oxide	0.01204		
Nitrous Oxide	0.00162		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
Optional Carbon-Related Exhaust Emissions	296		
System End State of Charge Watt-hours	39.356		
System Start State of Charge Watt-hours	37.595		
Total Hydrocarbon	0		
<b>Manufacturer Test Comments</b>	01_FTP_CR43501_03_FEDV_M5 Touring_A_ETW-6000_RG11_D1_Comfort_Hybrid_depleting, Cycle 1-4 in CD mode, cycle 5 in transition mode, cycle 6-8 in CS mode based on 1% NEC tolerance		

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
<b>Test #</b>	<b>SBMX10087992</b>	<b>Test Procedure</b>	<b>84 - Charge Depleting Highway</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	61 - Tier 2 Cert Gasoline
<b>Test Date</b>	09/06/2024	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	T2/E0	<b>Fuel Calibration Number</b>	54
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	Mfr. Determined
<b>Verify Test Lab ID</b>	EETZ Emissions Lab		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	3179	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	<b>Road Speed Fan Usage</b>	Yes
<b>PHEV/EV Charge Depleting Test Information</b>			
<b>Recharge Event Voltage</b>	230	<b>Recharge Event Energy (kiloWatt-hours)</b>	14.849
<b>Charge Depleting Range (Calculated miles)</b>	36.163	<b>Charge Depleting Range (Actual miles)</b>	35.858
<b>Charge Depleting Range Highway (Calculated miles)</b>	--	<b>Derived 5-Cycle Coefficient Model Year</b>	2017
<b>All Electric Range Unadjusted (miles)</b>	36.163	<b>Equivalent All Electric Range (miles)</b>	35.858
<b>Number of Charge Depleting Bags/Phases Conducted</b>	5	<b>Transition Bag/Phase Number</b>	4
<b>Charge Depleting Bag/Phase #1</b>			

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
<b>Test Result/Emission Name</b>	<b>Unrounded Test Result</b>		
Actual Distance Driven (miles)	10.258		
Average System Voltage	392.38		
CH4 - Methane	0.00011		
Carbon Monoxide	0		
Carbon dioxide	0.0328		
Carbon-Related Exhaust Emissions	0		
Drive Trace Absolute Speed Change Rating	-10.171		
Drive Trace Energy Economy Rating	-1.396		
Drive Trace Inertia Work Ratio Rating	-12.31		
Integrated Amp-hours	10.127		
Manufacturer Fuel Economy	0		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0.00007		
Non-methane organic gases	0.0001		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	10.127		
System Start State of Charge Watt-hours	0		
Total Hydrocarbon	0.00018		

**Charge Depleting Bag/Phase #2**

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
<b>Test Result/Emission Name</b>	<b>Unrounded Test Result</b>		
Actual Distance Driven (miles)	10.275		
Average System Voltage	378.63		
CH4 - Methane	0.0002		
Carbon Monoxide	0.0007		
Carbon dioxide	0.0451		
Carbon-Related Exhaust Emissions	0		
Drive Trace Absolute Speed Change Rating	-7.081		
Drive Trace Energy Economy Rating	-1.075		
Drive Trace Inertia Work Ratio Rating	-8.409		
Integrated Amp-hours	19.914		
Manufacturer Fuel Economy	0		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	19.914		
System Start State of Charge Watt-hours	10.127		
Total Hydrocarbon	0		

**Charge Depleting Bag/Phase #3**

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
<b>Test Result/Emission Name</b>	<b>Unrounded Test Result</b>		
Actual Distance Driven (miles)	10.249		
Average System Voltage	364.25		
CH4 - Methane	0.00007		
Carbon Monoxide	0.0003		
Carbon dioxide	0.0507		
Carbon-Related Exhaust Emissions	0		
Drive Trace Absolute Speed Change Rating	-6.542		
Drive Trace Energy Economy Rating	-1.266		
Drive Trace Inertia Work Ratio Rating	-7.758		
Integrated Amp-hours	29.862		
Manufacturer Fuel Economy	0		
Nitrogen Oxide	0		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	29.862		
System Start State of Charge Watt-hours	19.914		
Total Hydrocarbon	0		

**Charge Depleting Bag/Phase #4**

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
<b>Test Result/Emission Name</b>	<b>Unrounded Test Result</b>		
Actual Distance Driven (miles)	10.254		
Average System Voltage	355.5		
CH4 - Methane	0.00254		
Carbon Monoxide	0.1825		
Carbon dioxide	172.8386		
Carbon-Related Exhaust Emissions	173		
Drive Trace Absolute Speed Change Rating	-1.608		
Drive Trace Energy Economy Rating	-0.523		
Drive Trace Inertia Work Ratio Rating	-1.862		
Integrated Amp-hours	34.786		
Manufacturer Fuel Economy	50.5		
Nitrogen Oxide	0.00198		
Non-methane Hydrocarbon	0.00987		
Non-methane organic gases	0.0102		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	34.786		
System Start State of Charge Watt-hours	29.862		
Total Hydrocarbon	0.01234		

**Charge Depleting Bag/Phase #5**

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
<b>Test Result/Emission Name</b>	<b>Unrounded Test Result</b>		
Actual Distance Driven (miles)	10.25		
Average System Voltage	353.38		
CH4 - Methane	0		
Carbon Monoxide	0.0368		
Carbon dioxide	286.2821		
Carbon-Related Exhaust Emissions	286		
Drive Trace Absolute Speed Change Rating	-3.069		
Drive Trace Energy Economy Rating	-0.249		
Drive Trace Inertia Work Ratio Rating	-3.861		
Integrated Amp-hours	34.651		
Manufacturer Fuel Economy	30.5		
Nitrogen Oxide	0.00461		
Non-methane Hydrocarbon	0		
Non-methane organic gases	0		
Non-methane organic gases plus Nitrogen Oxides	999.999		
System End State of Charge Watt-hours	34.651		
System Start State of Charge Watt-hours	34.786		
Total Hydrocarbon	0		
<b>Manufacturer Test Comments</b>	02_HWFET_CR43501_03_FEDV_M5 Touring_A_ETW-6000_RG11_Comfort_Comfort_Hybrid_depleting, Cycle 1-3 in CD mode, Cycle 4 in transition mode, Cycle 5 in CS mode based on 1% NEC tolerance		

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
<b>Fuel Properties</b>			
<b>Fuel Batch ID</b>	<b>T10/87</b>	<b>Fuel Calibration Number</b>	<b>39</b>
<b>Test Fuel Type</b>	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	<b>Fuel Batch Calibration Date</b>	08/25/2023
<b>Fuel Batch Calibration Effective Date</b>	11/09/2023	<b>Fuel Batch Calibration Ineffective Date</b>	--
<b>Carbon Weight Fraction NMHC</b>	--	<b>Carbon Weight Fraction HC</b>	--
<b>Exhaust Carbon Weight Fraction</b>	0.826	<b>Fuel Methanol Volume Fraction</b>	--
<b>Fuel Density (grams/cubic ft)</b>	--	<b>Fuel Specific Gravity</b>	0.742
<b>Fuel Ethanol Volume Percent (%)</b>	9.6	<b>Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)</b>	18000
<b>Fuel Net Heat of Combustion (E10) (MJ/kg)</b>	--	<b>Fuel Carbon Mass Fraction (E10)</b>	--
<b>Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)</b>	0.826	<b>Weight Fraction CO2</b>	--
<b>Fuel Batch ID</b>	<b>T10/87</b>	<b>Fuel Calibration Number</b>	<b>43</b>
<b>Test Fuel Type</b>	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	<b>Fuel Batch Calibration Date</b>	11/27/2023
<b>Fuel Batch Calibration Effective Date</b>	02/27/2024	<b>Fuel Batch Calibration Ineffective Date</b>	--
<b>Carbon Weight Fraction NMHC</b>	--	<b>Carbon Weight Fraction HC</b>	--
<b>Exhaust Carbon Weight Fraction</b>	0.827	<b>Fuel Methanol Volume Fraction</b>	--
<b>Fuel Density (grams/cubic ft)</b>	--	<b>Fuel Specific Gravity</b>	0.746
<b>Fuel Ethanol Volume Percent (%)</b>	9.8	<b>Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)</b>	17962
<b>Fuel Net Heat of Combustion (E10) (MJ/kg)</b>	--	<b>Fuel Carbon Mass Fraction (E10)</b>	--
<b>Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)</b>	0.827	<b>Weight Fraction CO2</b>	--
<b>Fuel Batch ID</b>	<b>COE10</b>	<b>Fuel Calibration Number</b>	<b>56</b>
<b>Test Fuel Type</b>	28 - Cold CO E10 Regular Gasoline (Tier 3)	<b>Fuel Batch Calibration Date</b>	05/17/2024
<b>Fuel Batch Calibration Effective Date</b>	07/30/2024	<b>Fuel Batch Calibration Ineffective Date</b>	--
<b>Carbon Weight Fraction NMHC</b>	--	<b>Carbon Weight Fraction HC</b>	--
<b>Exhaust Carbon Weight Fraction</b>	0.826	<b>Fuel Methanol Volume Fraction</b>	--
<b>Fuel Density (grams/cubic ft)</b>	--	<b>Fuel Specific Gravity</b>	0.744
<b>Fuel Ethanol Volume Percent (%)</b>	9.8	<b>Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)</b>	18001
<b>Fuel Net Heat of Combustion (E10) (MJ/kg)</b>	--	<b>Fuel Carbon Mass Fraction (E10)</b>	--
<b>Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)</b>	0.826	<b>Weight Fraction CO2</b>	--
<b>Fuel Batch ID</b>	<b>T2/E0</b>	<b>Fuel Calibration Number</b>	<b>54</b>
<b>Test Fuel Type</b>	61 - Tier 2 Cert Gasoline	<b>Fuel Batch Calibration Date</b>	05/14/2024
<b>Fuel Batch Calibration Effective Date</b>	05/06/2024	<b>Fuel Batch Calibration Ineffective Date</b>	--
<b>Carbon Weight Fraction NMHC</b>	--	<b>Carbon Weight Fraction HC</b>	--

## Certification Summary Information Report

<b>Test Group</b>	<b>VBMXV04.4H9X</b>	<b>Evaporative/Refueling Family</b>	<b>VBMXR0170H09</b>
<b>Exhaust Carbon Weight Fraction</b>	0.861	<b>Fuel Methanol Volume Fraction</b>	--
<b>Fuel Density (grams/cubic ft)</b>	--	<b>Fuel Specific Gravity</b>	0.736
<b>Fuel Ethanol Volume Percent (%)</b>	--	<b>Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)</b>	18736
<b>Fuel Net Heat of Combustion (E10) (MJ/kg)</b>	--	<b>Fuel Carbon Mass Fraction (E10)</b>	--
<b>Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)</b>	0.861	<b>Weight Fraction CO2</b>	--

**Certification Summary Information Report**

<b>Test Group</b>	VBMXV04.4H9X	<b>Evaporative/Refueling Family</b>	VBMXR0170H09
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**Consolidated List of Standards**

**Exhaust Standards**

<b>Cert Region</b>	Federal	<b>Cert/In-Use Code</b>	Cert
<b>Vehicle Class</b>	LDV/Passenger Car	<b>Standard Level</b>	Other
<b>Fuel</b>	Gasoline	<b>Test Procedure</b>	Federal fuel 2-day exhaust (w/can load)

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
120,000 miles	CREE	--	--	--	--	--	--	0.3	999
120,000 miles	METHANE	--	--	--	--	--	--	0.0025	0.030
120,000 miles	N2O	--	--	--	--	--	--	0.0002	0.010
150,000 miles	CO	--	--	--	--	--	--	0.19	1.7
150,000 miles	CO-COMP	--	--	--	--	--	--	--	4.2
150,000 miles	HCHO	--	--	--	--	--	--	--	0.004
150,000 miles	NMOG	--	--	1.1	--	--	--	0.0057	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.070
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	--	0.070
150,000 miles	NOX	--	--	--	--	--	--	0.0014	99.999
150,000 miles	PM	--	--	--	--	--	--	0.0004	0.003

<b>Cert Region</b>	Federal	<b>Cert/In-Use Code</b>	Cert
<b>Vehicle Class</b>	LDV/Passenger Car	<b>Standard Level</b>	Other
<b>Fuel</b>	Gasoline	<b>Test Procedure</b>	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	--	--	--	--	--	--	0.19	999.9
150,000 miles	NMOG	--	--	1.03	--	--	--	0.0057	999.999
150,000 miles	NOX	--	--	--	--	--	--	0.0014	999.999

### Certification Summary Information Report

<b>Test Group</b>	VBMXV04.4H9X	<b>Evaporative/Refueling Family</b>	VBMXR0170H09
<b>Cert Region</b>	Federal	<b>Cert/In-Use Code</b>	Cert
<b>Vehicle Class</b>	LDV/Passenger Car	<b>Standard Level</b>	Other
<b>Fuel</b>	Gasoline	<b>Test Procedure</b>	HWFE

  

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
120,000 miles	CREE	--	--	--	--	--	--	0.3	99.999
150,000 miles	NMOG	--	--	1.03	--	--	--	0.0057	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.070
150,000 miles	NOX	--	--	--	--	--	--	0.0014	99.999

<b>Cert Region</b>	Federal	<b>Cert/In-Use Code</b>	Cert
<b>Vehicle Class</b>	LDV/Passenger Car	<b>Standard Level</b>	Other
<b>Fuel</b>	Gasoline	<b>Test Procedure</b>	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	--	--	--	--	--	--	0.3	999
120,000 miles	METHANE	--	--	--	--	--	--	0.0025	0.030
120,000 miles	N2O	--	--	--	--	--	--	0.0002	0.010
150,000 miles	CO	--	--	--	--	--	--	0.19	1.7
150,000 miles	CO-COMP	--	--	--	--	--	--	--	4.2
150,000 miles	HCHO	--	--	--	--	--	--	--	0.004
150,000 miles	NMOG	--	--	1.1	--	--	--	0.0057	99.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.070
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	--	0.070
150,000 miles	NOX	--	--	--	--	--	--	0.0014	99.999
150,000 miles	PM	--	--	--	--	--	--	0.0004	0.003

### Certification Summary Information Report

<b>Test Group</b>		VBMXV04.4H9X			<b>Evaporative/Refueling Family</b>			VBMXR0170H09		
<b>Cert Region</b>		Federal			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			Other		
<b>Fuel</b>		Gasoline			<b>Test Procedure</b>			US06		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0.19	999.9	
150,000 miles	NMOG	--	--	1.03	--	--	--	0.0057	99.999	
150,000 miles	NOX	--	--	--	--	--	--	0.0014	99.999	
150,000 miles	PM	--	--	--	--	--	--	0.0004	0.006	

<b>Cert Region</b>		Federal			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			Other		
<b>Fuel</b>		Gasoline			<b>Test Procedure</b>			Cold CO		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
50,000 miles	CO	--	--	--	--	--	--	0.06	10.0	
120,000 miles	HC-NM	--	--	--	--	--	--	0	0.3	

**Evaporative/Refueling Standards**

<b>Evaporative/Refueling Family</b>		VBMXR0170H09			<b>Cert Region</b>			Federal		
<b>Cert/In-Use Code</b>		Cert			<b>Standard Level</b>			Federal Tier 3 Evap		
<b>Test Procedure</b>		Leak Test - Port Near Canister								
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>					
Gasoline	150,000 miles	LEAK-DIA	--	0.02	0					

<b>Evaporative/Refueling Family</b>		VBMXR0170H09			<b>Cert Region</b>			Federal		
<b>Cert/In-Use Code</b>		Cert			<b>Standard Level</b>			Federal Tier 3 Evap		
<b>Test Procedure</b>		2-day evap								
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>					
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.500	0.015					

### Certification Summary Information Report

<b>Test Group</b>		VBMXV04.4H9X		<b>Evaporative/Refueling Family</b>		VBMXR0170H09	
<b>Evaporative/Refueling Family</b>		VBMXR0170H09		<b>Cert Region</b>		Federal	
<b>Cert/In-Use Code</b>		Cert		<b>Standard Level</b>		Federal Tier 3 Evap	
<b>Test Procedure</b>		Federal fuel 3-day evap					
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.500	0.015		
<b>Evaporative/Refueling Family</b>		VBMXR0170H09		<b>Cert Region</b>		Federal	
<b>Cert/In-Use Code</b>		Cert		<b>Standard Level</b>		Federal Tier 3 Evap	
<b>Test Procedure</b>		Federal Fuel Running Loss					
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.05	0		
<b>Evaporative/Refueling Family</b>		VBMXR0170H09		<b>Cert Region</b>		Federal	
<b>Cert/In-Use Code</b>		Cert		<b>Standard Level</b>		Federal Tier 3 Evap	
<b>Test Procedure</b>		Federal fuel refueling test (ORVR)					
<b>Fuel</b>	<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>Std</b>	<b>Add DF</b>		
Gasoline	150,000 miles	HC	--	0.20	0.028		

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family	VBMXR0170H09
<b>Glossary</b>			
<b>Useful Life</b>			
4	4,000 miles	120	120,000 miles
50	50,000 miles	150	150,000 miles
100	100,000 miles		
<b>Emission Name</b>			
HC-TOTAL	Total Hydrocarbon	AS-VOLT	Average System Voltage
CO	Carbon Monoxide	CO2 BAG 1	Bag 1 Carbon Dioxide
CO2	Carbon dioxide	CO2 BAG 2	Bag 2 Carbon Dioxide
CREE	Carbon-Related Exhaust Emissions	CO2 BAG 3	Bag 3 Carbon Dioxide
OPT-CREE	Optional Carbon-Related Exhaust Emissions	CO2 BAG 4	Bag 4 Carbon Dioxide
NOX	Nitrogen Oxide	NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides
PM	Particulate Matter	NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides
PM-COMP	SFTP Composite Particulate Matter	DT-IWRR	Drive Trace Inertia Work Ratio Rating
HC-NM	Non-methane Hydrocarbon	DT-ASCR	Drive Trace Absolute Speed Change Rating
OMHCE	Organic material Hydrocarbon Equivalent	DT-EER	Drive Trace Energy Economy Rating
OMNMHCE	Organic material non-methane HC equivalent	COMB-CREE	Combined Carbon-Related Exhaust Emissions
NMOG	Non-methane organic gases	COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions
HCHO	Formaldehyde	HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only
H3C2HO	Acetaldehyde	METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03	N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides	LEAK-DIA	Effective Leak Diameter (inches)
CO-COMP	SFTP Composite Carbon Monoxide	LEAK-GAS CAP	Gas Cap Leakage (cc/min)
ETHANOL	C2H5OH - Ethanol	CO2-COMB	Combined Carbon Dioxide for HD 2b/3 Vehicles Only
FE BAG 1	Bag 1 Fuel Economy	KW-HRS	Integrated DC KW-HRS
FE BAG 2	Bag 2 Fuel Economy	CH4 BAG 1	Bag 1 Methane
FE BAG 3	Bag 3 Fuel Economy	CH4 BAG 2	Bag 2 Methane
FE BAG 4	Bag 4 Fuel Economy	CH4 BAG 3	Bag 3 Methane
MFR FE	Manufacturer Fuel Economy	CH4 BAG 4	Bag 4 Methane
HC	Hydrocarbon for Running Loss and ORVR	CO BAG 1	Bag 1 Carbon Monoxide
METHANE	CH4 - Methane	CO BAG 2	Bag 2 Carbon Monoxide
METHANOL	CH3OH - Methanol	CO BAG 3	Bag 3 Carbon Monoxide
N2O	Nitrous Oxide	CO BAG 4	Bag 4 Carbon Monoxide
SPITBACK	Spitback Hydrocarbon in grams	NMOG BAG 1	Bag 1 Non-methane organic gases
AMP-HRS	Integrated Amp-hours	NMOG BAG 2	Bag 2 Non-methane organic gases
START-SOC	System Start State of Charge Watt-hours	NMOG BAG 3	Bag 3 Non-methane organic gases
END-SOC	System End State of Charge Watt-hours	NMOG BAG 4	Bag 4 Non-methane organic gases
ACT-DISTANCE	Actual Distance Driven (miles)		
<b>Certification Region</b>			

## Certification Summary Information Report

Test Group	VBMXV04.4H9X	Evaporative/Refueling Family		VBMXR0170H09
CA	California + CAA Section 177 states	FA	Federal	
<b>Exhaust Emission Standard Level</b>				
B1	Federal Tier 2 Bin 1	T3B160	Federal Tier 3 Bin 160	
B2	Federal Tier 2 Bin 2	T3B125	Federal Tier 3 Bin 125	
B3	Federal Tier 2 Bin 3	T3B110	Federal Tier 3 Transitional Bin 110	
B4	Federal Tier 2 Bin 4	T3B85	Federal Tier 3 Transitional Bin 85	
B5	Federal Tier 2 Bin 5	T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover	
B6	Federal Tier 2 Bin 6	T3B70	Federal Tier 3 Bin 70	
B7	Federal Tier 2 Bin 7	T3B50	Federal Tier 3 Bin 50	
B8	Federal Tier 2 Bin 8	T3B30	Federal Tier 3 Bin 30	
B9	Federal Tier 2 Bin 9	T3B20	Federal Tier 3 Bin 20	
B10	Federal Tier 2 Bin 10	T3B0	Federal Tier 3 Bin 0	
B11	Federal Tier 2 Bin 11	HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395	
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)	HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340	
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	HDV2B250	Federal Tier 3 HD Class 2b Bin 250	
L2	California LEV-II LEV	HDV2B200	Federal Tier 3 HD Class 2b Bin 200	
L2OP	California LEV-II LEV Optional	HDV2B170	Federal Tier 3 HD Class 2b Bin 170	
U2	California LEV-II ULEV	HDV2B150	Federal Tier 3 HD Class 2b Bin 150	
S2	California LEV-II SULEV	HDV2B0	Federal Tier 3 HD Class 2b Bin 0	
ZEV	California ZEV	HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630	
OT	Other	HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570	
T1	Federal Tier 1	HDV3B400	Federal Tier 3 HD Class 3 Bin 400	
PZEV	California PZEV	HDV3B270	Federal Tier 3 HD Class 3 Bin 270	
L2LEV160	California LEV-II LEV160	HDV3B230	Federal Tier 3 HD Class 3 Bin 230	
L2ULEV125	California LEV-II ULEV125	HDV3B200	Federal Tier 3 HD Class 3 Bin 200	
L2SULEV30	California LEV-II SULEV30	HDV3B0	Federal Tier 3 HD Class 3 Bin 0	
L2LEV395	California LEV-II LEV395	L4SULEV100	California LEV-IV SULEV100	
L2ULEV340	California LEV-II ULEV340	L4SULEV125	California LEV-IV SULEV125	
L2LEV630	California LEV-II LEV630	L4SULEV15	California LEV-IV SULEV15	
L2ULEV570	California LEV-II ULEV570	L4SULEV150	California LEV-IV SULEV150	
L3LEV160	California LEV-III LEV160	L4SULEV170	California LEV-IV SULEV170	
L3ULEV125	California LEV-III ULEV125	L4SULEV175	California LEV-IV SULEV175	
L3ULEV70	California LEV-III ULEV70	L4SULEV20	California LEV-IV SULEV20	
L3ULEV50	California LEV-III ULEV50	L4SULEV200	California LEV-IV SULEV200	
L3SULEV30	California LEV-III SULEV30	L4SULEV230	California LEV-IV SULEV230	
L3SULEV20	California LEV-III SULEV20	L4SULEV25	California LEV-IV SULEV25	
L3LEV395	California LEV-III LEV395	L4SULEV30	California LEV-IV SULEV30	
L3ULEV340	California LEV-III ULEV340	L4SULEV75	California LEV-IV SULEV75	
L3ULEV250	California LEV-III ULEV250	L4SULEV85	California LEV-IV SULEV85	
L3ULEV200	California LEV-III ULEV200	L4ULEV125	California LEV-IV ULEV125	

## Certification Summary Information Report

Test Group		VBMXV04.4H9X	Evaporative/Refueling Family		VBMXR0170H09
L3SULEV170	California LEV-III SULEV170		L4ULEV200	California LEV-IV ULEV200	
L3SULEV150	California LEV-III SULEV150		L4ULEV250	California LEV-IV ULEV250	
L3LEV630	California LEV-III LEV630		L4ULEV270	California LEV-IV ULEV270	
L3ULEV570	California LEV-III ULEV570		L4ULEV40	California LEV-IV ULEV40	
L3ULEV400	California LEV-III ULEV400		L4ULEV400	California LEV-IV ULEV400	
L3ULEV270	California LEV-III ULEV270		L4ULEV50	California LEV-IV ULEV50	
L3SULEV230	California LEV-III SULEV230		L4ULEV60	California LEV-IV ULEV60	
L3SULEV200	California LEV-III SULEV200		L4ULEV70	California LEV-IV ULEV70	
<b>Transmission Type Code</b>					
AMS	Automated Manual- Selectable (e.g. Automated Manual with paddles)		M	Manual	
A	Automatic		OT	Other	
AM	Automated Manual		SA	Semi-Automatic	
CVT	Continuously Variable		SCV	Selectable Continuously Variable (e.g. CVT with paddles)	
<b>Drive System Code</b>					
4	4-Wheel Drive		P	Part-time 4-Wheel Drive	
F	2-Wheel Drive, Front		A	All Wheel Drive	
R	2-Wheel Drive, Rear				
<b>Additional Terms and Acronyms</b>					
AFC	Alternative Fuel Converter		ICI	Independent Commercial Importer	
CSI	Certificate Summary Information		ORVR	Onboard Refueling Vapor Recovery	
DF	Deterioration Factor		SIL	Shift Indicator Light	
Evap	Evaporation, Evaporative		Trans	Transmission	