

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7				
Evaporative/Refueling Family Information							
Evaporative Summary Information Type	New	Submission/Correction Date	03/23/2026 03:40:34 PM				
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)	190	Number of Primary Canisters	1				
Number of Bleed Canisters	0	Bleed Canister Total Working Capacity (grams)	--				
Mfr Evaporative/Refueling Family Comments	Evap system for all Panamera models (non-hybrids)						
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
Porsche AG	1 - Porsche	610 - Panamera GTS	Federal	All Wheel Drive	Automated Manual-Selectable (e.g. Automated Manual with paddles)	8	No
Porsche AG	1 - Porsche	610 - Panamera GTS	California + CAA Section 177 states	All Wheel Drive	Automated Manual-Selectable (e.g. Automated Manual with paddles)	8	No
Engine Description							
Hybrid Type	--	Hybrid Description	--				
Engine Type	4-Stroke Spark Ignition	Mfr Engine Description	--				
Engine Block Arrangement	V-shaped engine	Mfr Engine Block Arrangement Description	--				
Camless Valvetrain Indicator	No	Oil Viscosity/Classification	0W40				
Number of Cylinders/Rotors	8	Mechanically Variable Compression Ratio Indicator	N				

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Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7	
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	Three-way catalyst	Palladium + Rhodium	Ceramic	Monolith
Mfr After Treatment Device (ATD) Comments				
--				
Direct Ozone Reduction (DOR) Device				
Not Equipped				
Mfr Emission Control Device Comments				
2TWC/MAP/DFI/2WR-HO2S/2HO2S/2TC/2CAC				
Engine Configuration Number 1				
Engine Displacement (liters)	4.0	Engine Rated Horsepower	493	
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2	
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	2	
Air Aspiration Device Configuration	Parallel	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	VarioCam			
Variable Valve Lift?	Yes			
Variable Valve Lift System Description	VarioCam Plus			
Number of Knock Sensors	2	Number of Air/Fuel Sensors	4	
Air/Fuel Sensor # 1 Type	Heated oxygen	Air/Fuel Sensor # 1 Description	--	
Air/Fuel Sensor # 2 Type	Heated oxygen	Air/Fuel Sensor # 2 Description	--	
Air/Fuel Sensor # 3 Type	Heated oxygen	Air/Fuel Sensor # 3 Description	--	
Air/Fuel Sensor # 4 Type	Heated oxygen	Air/Fuel Sensor # 4 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	Cayenne GTS Models - 2TWC/DFI/2WR-HO2S/2HO2S/2TC/2CAC			

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Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Engine Configuration Number 2			
Engine Displacement (liters)	4.0	Engine Rated Horsepower	468
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	2
Air Aspiration Device Configuration	Parallel	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	VarioCam		
Variable Valve Lift?	Yes		
Variable Valve Lift System Description	VarioCam Plus		
Number of Knock Sensors	2	Number of Air/Fuel Sensors	4
Air/Fuel Sensor # 1 Type	Heated oxygen	Air/Fuel Sensor # 1 Description	--
Air/Fuel Sensor # 2 Type	Heated oxygen	Air/Fuel Sensor # 2 Description	--
Air/Fuel Sensor # 3 Type	Heated oxygen	Air/Fuel Sensor # 3 Description	--
Air/Fuel Sensor # 4 Type	Heated oxygen	Air/Fuel Sensor # 4 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	Cayenne S Models - 2TWC/DFI/2WR-HO2S/2HO2S/2TC/2CAC		

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Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Engine Configuration Number 3			
Engine Displacement (liters)	4.0	Engine Rated Horsepower	493
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	2
Air Aspiration Device Configuration	Parallel	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	VarioCam		
Variable Valve Lift?	Yes		
Variable Valve Lift System Description	VarioCam Plus		
Number of Knock Sensors	4	Number of Air/Fuel Sensors	4
Air/Fuel Sensor # 1 Type	Heated oxygen	Air/Fuel Sensor # 1 Description	--
Air/Fuel Sensor # 2 Type	Heated oxygen	Air/Fuel Sensor # 2 Description	--
Air/Fuel Sensor # 3 Type	Heated oxygen	Air/Fuel Sensor # 3 Description	--
Air/Fuel Sensor # 4 Type	Heated oxygen	Air/Fuel Sensor # 4 Description	--
Mfr Air/Fuel Sensor Comments	--		
Exhaust Gas Recirculation	No	Cooled Exhaust Gas Recirculation	--
EGR Type	--	Exhaust Gas Recirculation Description if 'Other'	--
Closed Loop Air Injection System	--		
Air Injection Type	--	Air Injection Type if 'Other'	--
Mfr Engine Configuration Comments	Panamera GTS Models - 2TWC(2)/DFI/2WR-HO2S/2HO2S/2TC/2CAC		

Official Test Numbers

Test Group	Fuel	FTP	US06	SC03	Cold CO	Highway	EPA City Litmus Value	EPA City Litmus Threshold	EPA Highway Litmus Value	EPA Highway Litmus Threshold	CREE Weighting Factor
Gasoline		SPRX91006032	SPRX91006001	SPRX10087046	SPRX10087048	SPRX91006002	--	228.2	--	286.1	--

SFTP LEV-III Official Test Numbers

Test Group Fuel	FTP	US06	SC03
Gasoline	SPRX91006032	SPRX91006001	SPRX10087046

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7						
Emission Data Vehicle Information									
Vehicle ID / Configuration	ECFE-9YAGTS-25 / 0	Manufacturer Vehicle Configuration Number	0						
Original Test Group Name	SPRXT04.0CE8	Original Evaporative/Refueling Family	SPRXR0176RED						
Original Test Vehicle Model Year	2025								
Vehicle Model									
Represented Test Vehicle Make	Porsche	Represented Test Vehicle Model	Cayenne GTS Coupe						
Leak Family Details									
Leak Family Identifier	--	Leak Family Name	--						
Drive Sources and Fuel System Details									
	<table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Combustion Engine</td> <td>Gasoline</td> </tr> </tbody> </table>			Drive Source and Fuel#	Drive Source	Fuel	1	Combustion Engine	Gasoline
Drive Source and Fuel#	Drive Source	Fuel							
1	Combustion Engine	Gasoline							
Hybrid Indicator	No								
Multiple Fuel Storage	--	Multiple Fuel Combustion	--						
Fuel Cell Indicator	--	Rechargeable Energy Storage System Indicator	--						
Rechargeable Energy Storage System	--	Rechargeable Energy Storage System, if 'Other'	--						
Off-board charge Capable Indicator	--								
Odometer Correction -- Initial	0	Odometer Correction Factor	0.985						
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles								
Odometer Correction Units	Miles								
Engine Code	DWH	Rated Horsepower	493						
Displacement (liters)	4								
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'							
Number of Air Aspiration Devices	2	Air Aspiration Device Configuration	Parallel						
Charge Air Cooler Type	Air	Drive Mode While Testing	All Wheel Drive						
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)						
Curb Weight (lbs)	5108	Equivalent Test Weight (pounds)	5500						
GVWR (lbs)	6371	N/V Ratio	23						
Axle Ratio	3.21								
Transmission Type	Semi-Automatic	# of Transmission Gears	8						
Transmission Lockup	Yes	Creeper Gear	No						

Certification Summary Information Report

Test Group		VPRXJ04.0CE8			Evaporative/Refueling Family			VPRXR0190RP7
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	42.2	0.4877	0.02479	-6.97	0.4608	0.02181	17.1	
Cold CO	46.42	0.5365	0.02727	-20.72	0.4145	0.02465	N/A	
US06	42.2	0.4877	0.02479	-6.97	0.4608	0.02181	N/A	
Emission Control Device Comments	2TWC/MAP/DFI/2WR-HO2S/2HO2S/2TC/2CAC							
Manufacturer Test Vehicle Comments	EXHAUST EMISSIONS VEHICLE, CAYENNE GTS COUPE; Internal vehicle ID: SE0743; CITY/HWY/US06 TARGET A COEFFICIENT: 42.20							

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Test #	SPRX10087047	Test Procedure	52 - Fed. fuel 50 F exh.
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	05/21/2024	Fuel	Gasoline
Fuel Batch ID	HF2042	Fuel Calibration Number	437
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	VW Test Center California		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4330	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	527.4971	--
FE BAG 1 (Bag 1 Fuel Economy)	16.4086	16.4086
CO2 BAG 2 (Bag 2 Carbon Dioxide)	481.6911	--
FE BAG 2 (Bag 2 Fuel Economy)	17.9968	17.9968
CO2 BAG 3 (Bag 3 Carbon Dioxide)	411.3918	--
FE BAG 3 (Bag 3 Fuel Economy)	21.0669	21.0669
METHANE (CH4 - Methane)	0.0037	--
CO (Carbon Monoxide)	0.1063	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.532	--
DT-EER (Drive Trace Energy Economy Rating)	-0.0616	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-1.3942	--
MFR FE (Manufacturer Fuel Economy)	18.3652	18.3652
NOX (Nitrogen Oxide)	0.0125	--
N2O (Nitrous Oxide)	0.0006	--
HC-NM (Non-methane Hydrocarbon)	0.0105	--
NMOG (Non-methane organic gases)	0.0115	--
PM (Particulate Matter)	0.0017	--
HC-TOTAL (Total Hydrocarbon)	0.0141	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	472	--

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
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Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	471.8305	--

Manufacturer Test Comments 50F EXHAUST EC Test No. 20240521TC101

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
CA	150,000 miles	California LEV-IV ULEV70	CO	0.11	--	--	--	0.04	--	0.2	1.7	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG	0.0115	--	--	--	0.0054	--	0.017	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG+NOX	0.024	--	--	--	--	--	0.039	0.140	Pass
CA	150,000 miles	California LEV-IV ULEV70	NOX	0.0125	--	--	--	0.0096	--	0.022	999.999	Pass

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Test #	SPRX10087048	Test Procedure	11 - Cold CO
Exhaust Test # for this Evap Test	--	Test Fuel Type	29 - Cold CO E10 Premium Gasoline (Tier 3)
Test Date	05/22/2024	Fuel	Gasoline
Fuel Batch ID	TCC10	Fuel Calibration Number	20
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	VW Test Center California		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4401	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.0072	--
CO (Carbon Monoxide)	0.2183	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.2751	--
DT-EER (Drive Trace Energy Economy Rating)	-0.5662	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.9686	--
MFR FE (Manufacturer Fuel Economy)	15.9043	15.9043
NOX (Nitrogen Oxide)	0.0491	--
N2O (Nitrous Oxide)	0.0008	--
HC-NM (Non-methane Hydrocarbon)	0.0336	--
NMOG (Non-methane organic gases)	0.0369	--
HC-TOTAL (Total Hydrocarbon)	0.0406	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	542	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	542.1189	--

Manufacturer Test Comments

COLD CO EXHAUST EC Test No. 20240522TC101

Certification Summary Information Report

Test Group		VPRXJ04.0CE8				Evaporative/Refueling Family				VPRXR0190RP7		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	50,000 miles	Federal Tier 3 Bin 70	CO	0.22	--	--	--	0.04	--	0.3	12.5	Pass
Fed	120,000 miles	Federal Tier 3 Bin 70	HC-NM	0.03	--	--	--	0.0049	--	0	0.3	Pass
CA	50,000 miles	California LEV-IV ULEV70	CO	0.22	--	--	--	0.04	--	0.3	12.5	Pass
CA	120,000 miles	California LEV-IV ULEV70	HC-NM	0.03	--	--	--	0.0049	--	0	0.3	Pass

Certification Summary Information Report

Test Group	VPRXJ04.OCE8	Evaporative/Refueling Family	VPRXR0190RP7
Test #	SPRX91006032	Test Procedure	21 - Federal fuel 2-day exhaust (w/can load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/30/2024	Fuel	Gasoline
Fuel Batch ID	29858	Fuel Calibration Number	1
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4946	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	510.3653564	--
FE BAG 1 (Bag 1 Fuel Economy)	999	--
CO2 BAG 2 (Bag 2 Carbon Dioxide)	480.0942993	--
FE BAG 2 (Bag 2 Fuel Economy)	999	--
CO2 BAG 3 (Bag 3 Carbon Dioxide)	412.1411133	--
FE BAG 3 (Bag 3 Fuel Economy)	999	--
METHANE (CH4 - Methane)	0.0036403	--
CO (Carbon Monoxide)	0.1013116	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.4584469	--
DT-EER (Drive Trace Energy Economy Rating)	0.3233213	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.4813809	--
MFR FE (Manufacturer Fuel Economy)	999	--
NOX (Nitrogen Oxide)	0.0157359	--
N2O (Nitrous Oxide)	0.0003388	--
HC-NM (Non-methane Hydrocarbon)	0.0084616	--
NMOG (Non-methane organic gases)	0.0092999	--
PM (Particulate Matter)	0.0015342	--
HC-TOTAL (Total Hydrocarbon)	0.0115707	--

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Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
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Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	9999.9999999	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	467.6956482	--

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

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Federal Tier 3 Bin 70	METHANE	0.0036	--	--	--	0.0028	--	0.006	0.030	Pass
Fed	120,000 miles	Federal Tier 3 Bin 70	N2O	0.0003	--	--	--	0.0001	--	0	0.010	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	CO	0.1	--	--	--	0.04	--	0.1	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	CO-COMP	0.25	--	--	--	0.04	--	0.2	4.2	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	CREE	999	--	--	--	0	--	999	--	--
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG	0.0093	--	1.1	--	0.0054	--	0.015	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX	0.025	--	1.1	--	--	--	0.04	0.070	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX-COMP	0.0368	--	1.1	--	0.015	--	0.037	0.080	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NOX	0.0157	--	--	--	0.0096	--	0.025	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	PM	0.0015	--	--	--	0	--	0.002	0.003	Pass
CA	120,000 miles	California LEV-IV ULEV70	METHANE	0.0036	--	--	--	0.0028	--	0.006	0.030	Pass
CA	120,000 miles	California LEV-IV ULEV70	N2O	0.0003	--	--	--	0.0001	--	0	0.010	Pass
CA	150,000 miles	California LEV-IV ULEV70	CO	0.1	--	--	--	0.04	--	0.1	1.7	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG	0.0093	--	1.1	--	0.0054	--	0.015	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG+NOX	0.025	--	1.1	--	--	--	0.04	0.070	Pass
CA	150,000 miles	California LEV-IV ULEV70	NOX	0.0157	--	--	--	0.0096	--	0.025	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	PM	0.0015	--	--	--	0	--	0.002	0.003	Pass

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

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Test #	SPRX91006002	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/27/2024	Fuel	Gasoline
Fuel Batch ID	29858	Fuel Calibration Number	1
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4901	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.0004175	--
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	2.9626114	--
DT-EER (Drive Trace Energy Economy Rating)	-0.1433483	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	3.7998407	--
MFR FE (Manufacturer Fuel Economy)	30.0692215	--
NOX (Nitrogen Oxide)	0.0045164	--
N2O (Nitrous Oxide)	0	--
HC-NM (Non-methane Hydrocarbon)	0.0001209	--
NMOG (Non-methane organic gases)	0.0001245	--
HC-TOTAL (Total Hydrocarbon)	0.000529	--

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

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	289.3394775	--

Manufacturer Test Comments None

Certification Summary Information Report

Test Group		VPRXJ04.0CE8			Evaporative/Refueling Family					VPRXR0190RP7		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 70	CREE	999	--	--	--	0	--	999	--	--
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG	0.0001	--	1	--	0.0054	--	0.006	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX	0.0046	--	1	--	--	--	0.02	0.070	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NOX	0.0045	--	--	--	0.0096	--	0.014	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG	0.0001	--	1	--	0.0054	--	0.006	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG+NOX	0.0046	--	1	--	--	--	0.02	0.070	Pass
CA	150,000 miles	California LEV-IV ULEV70	NOX	0.0045	--	--	--	0.0096	--	0.014	999.999	Pass

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

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Test #	SPRX91006001	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/27/2024	Fuel	Gasoline
Fuel Batch ID	29858	Fuel Calibration Number	1
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4922	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	709.156189	--
FE BAG 1 (Bag 1 Fuel Economy)	999	--
CO2 BAG 2 (Bag 2 Carbon Dioxide)	369.4986877	--
FE BAG 2 (Bag 2 Fuel Economy)	999	--
METHANE (CH4 - Methane)	0.004278	--
CO (Carbon Monoxide)	0.3571749	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.4216474	--
DT-EER (Drive Trace Energy Economy Rating)	-2.2741566	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-2.9886243	--
MFR FE (Manufacturer Fuel Economy)	999	--
NOX (Nitrogen Oxide)	0.0226176	--
N2O (Nitrous Oxide)	0	--
HC-NM (Non-methane Hydrocarbon)	0.0052563	--
NMOG (Non-methane organic gases)	0.0054139	--
PM (Particulate Matter)	0.0034485	--
HC-TOTAL (Total Hydrocarbon)	0.0094374	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	445.0044861	--

Manufacturer Test Comments

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

Certification Summary Information Report

Test Group		VPRXJ04.0CE8				Evaporative/Refueling Family				VPRXR0190RP7		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 70	CO	0.36	--	--	--	0.04	--	0.4	999.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG	0.0054	--	1.03	--	0.0054	--	0.011	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NOX	0.0226	--	--	--	0.0096	--	0.032	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	PM	0.0034	--	--	--	0	--	0.003	0.006	Pass
CA	150,000 miles	California LEV-IV ULEV70	CO	0.36	--	--	--	0.04	--	0.4	999.9	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG	0.0054	--	1.03	--	0.0054	--	0.011	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG+NOX	0.028	--	--	--	--	--	0.043	0.070	Pass
CA	150,000 miles	California LEV-IV ULEV70	NOX	0.0226	--	--	--	0.0096	--	0.032	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	PM	0.0034	--	--	--	0	--	0.003	0.006	Pass

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Test #	SPRX10087046	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	05/17/2024	Fuel	Gasoline
Fuel Batch ID	HF2042	Fuel Calibration Number	437
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	VW Test Center California		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4315	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.0013	--
CO (Carbon Monoxide)	0.2008	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.2736	--
DT-EER (Drive Trace Energy Economy Rating)	0.7012	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.0183	--
MFR FE (Manufacturer Fuel Economy)	15.5516	15.5516
NOX (Nitrogen Oxide)	0.0129	--
N2O (Nitrous Oxide)	0	--
HC-NM (Non-methane Hydrocarbon)	0.0013	--
NMOG (Non-methane organic gases)	0.0013	--
PM (Particulate Matter)	0.0003	--
HC-TOTAL (Total Hydrocarbon)	0.0025	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	557	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	557.1203	--

Manufacturer Test Comments

SC03 EXHAUST EC Test No. 20240517TC107

Certification Summary Information Report

Test Group		VPRXJ04.0CE8				Evaporative/Refueling Family				VPRXR0190RP7		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 70	CO	0.2	--	--	--	0.04	--	0.2	999.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG	0.0013	--	1	--	0.0054	--	0.007	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NOX	0.0129	--	--	--	0.0096	--	0.022	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	CO	0.2	--	--	--	0.04	--	0.2	999.9	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG	0.0013	--	1	--	0.0054	--	0.007	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	NOX	0.0129	--	--	--	0.0096	--	0.022	999.999	Pass

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Manufacturer Test Vehicle Comments	FEDV2 VEHICLE, CAYENNE GTS; Internal vehicle ID: SE0743		

Certification Summary Information Report

Test Group	VPRXJ04.OCE8	Evaporative/Refueling Family	VPRXR0190RP7
Test #	SPRX10087056	Test Procedure	21 - Federal fuel 2-day exhaust (w/can load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	06/07/2024	Fuel	Gasoline
Fuel Batch ID	HF0437	Fuel Calibration Number	513
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	VW Test Center California		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4589	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	480.9108	--
FE BAG 1 (Bag 1 Fuel Economy)	18.4941	18.4941
CO2 BAG 2 (Bag 2 Carbon Dioxide)	479.072	--
FE BAG 2 (Bag 2 Fuel Economy)	18.6184	18.6184
CO2 BAG 3 (Bag 3 Carbon Dioxide)	407.9189	--
FE BAG 3 (Bag 3 Fuel Economy)	21.863	21.863
METHANE (CH4 - Methane)	0.0047	--
CO (Carbon Monoxide)	0.1709	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.2564	--
DT-EER (Drive Trace Energy Economy Rating)	-0.6078	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-1.9311	--
HCHO (Formaldehyde)	0.0001	--
MFR FE (Manufacturer Fuel Economy)	19.381	19.381
NOX (Nitrogen Oxide)	0.0168	--
HC-NM (Non-methane Hydrocarbon)	0.0091	--
NMOG (Non-methane organic gases)	0.0093	--
HC-TOTAL (Total Hydrocarbon)	0.0137	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	460	460

Certification Summary Information Report

Test Group		VPRXJ04.0CE8		Evaporative/Refueling Family				VPRXR0190RP7				
		Test Result Name		Unrounded Test Result		Verify Calculated CO2						
		Carbon dioxide		459.9186		--						
Manufacturer Test Comments		FTP75 FE FEDV2 SUV Test No. 20240607TC203										
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Federal Tier 3 Bin 70	METHANE	0.0047	--	--	--	0.0028	--	0.008	0.030	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	CO	0.17	--	--	--	0.04	--	0.2	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	CREE	460	--	--	--	0	--	460	--	--
Fed	150,000 miles	Federal Tier 3 Bin 70	HCHO	0.0001	--	--	--	0.0002	--	0	0.004	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG	0.0093	--	1.1	--	0.0054	--	0.015	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX	0.0261	--	1.1	--	--	--	0.041	0.070	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NOX	0.0168	--	--	--	0.0096	--	0.026	999.999	Pass
CA	120,000 miles	California LEV-IV ULEV70	METHANE	0.0047	--	--	--	0.0028	--	0.008	0.030	Pass
CA	150,000 miles	California LEV-IV ULEV70	CO	0.17	--	--	--	0.04	--	0.2	1.7	Pass
CA	150,000 miles	California LEV-IV ULEV70	HCHO	0.0001	--	--	--	0.0002	--	0	0.004	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG	0.0093	--	1.1	--	0.0054	--	0.015	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG+NOX	0.0261	--	1.1	--	--	--	0.041	0.070	Pass
CA	150,000 miles	California LEV-IV ULEV70	NOX	0.0168	--	--	--	0.0096	--	0.026	999.999	Pass

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

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Test #	SPRX10087057	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	06/07/2024	Fuel	Gasoline
Fuel Batch ID	HF0437	Fuel Calibration Number	513
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	VW Test Center California		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4600	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.0003	--
CO (Carbon Monoxide)	0.0017	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.3112	--
DT-EER (Drive Trace Energy Economy Rating)	-0.4422	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.2354	--
HCHO (Formaldehyde)	0	--
MFR FE (Manufacturer Fuel Economy)	30.2378	30.2378
NOX (Nitrogen Oxide)	0.0082	--
HC-NM (Non-methane Hydrocarbon)	0.0006	--
NMOG (Non-methane organic gases)	0.0006	--
HC-TOTAL (Total Hydrocarbon)	0.0008	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	295	295

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	294.9814	--

Manufacturer Test Comments

HWY FE FEDV2 SUV Test No. 20240607TC205

Certification Summary Information Report

Test Group		VPRXJ04.0CE8			Evaporative/Refueling Family					VPRXR0190RP7		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 70	CREE	295	--	--	--	0	--	295	--	--
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG	0.0006	--	1	--	0.0054	--	0.006	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX	0.0088	--	1	--	--	--	0.024	0.070	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NOX	0.0082	--	--	--	0.0096	--	0.018	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG	0.0006	--	1	--	0.0054	--	0.006	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG+NOX	0.0088	--	1	--	--	--	0.024	0.070	Pass
CA	150,000 miles	California LEV-IV ULEV70	NOX	0.0082	--	--	--	0.0096	--	0.018	999.999	Pass

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

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
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Emission Data Vehicle Information

Vehicle ID / Configuration	FE-972-AT-24 / 0	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	RPRXV02.9PV6	Original Evaporative/Refueling Family	RPRXR0190RP7
Original Test Vehicle Model Year	2024		
Vehicle Model			
Represented Test Vehicle Make	Porsche	Represented Test Vehicle Model	Panamera

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

Hybrid Indicator	No	Multiple Fuel Combustion	--
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	--
Fuel Cell Indicator	--	Rechargeable Energy Storage System, if 'Other'	--
Rechargeable Energy Storage System	--		
Off-board charge Capable Indicator	--		
Odometer Correction -- Initial	0	Odometer Correction Factor	0.974
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles		
Odometer Correction Units	Miles		
Engine Code	CSZ	Rated Horsepower	348
Displacement (liters)	2.9		
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'	
Number of Air Aspiration Devices	2	Air Aspiration Device Configuration	Parallel
Charge Air Cooler Type	Air	Drive Mode While Testing	2-Wheel Drive, Rear
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)
Curb Weight (lbs)	4389	Equivalent Test Weight (pounds)	4750
GVWR (lbs)	5523	N/V Ratio	21.9
Axle Ratio	3.36		
Transmission Type	Automated Manual- Selectable (e.g. Automated Manual with paddles)	# of Transmission Gears	8
Transmission Lockup	No	Creep Gear	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)	
City/Highway/Evap	37.453	0.53329	0.018999	22.609	0.28745	0.019546	14.9

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Emission Control Device Comments	--		
Manufacturer Test Vehicle Comments	EVAP for Panamera; Internal vehicle ID: SE0112		
Test #	RPRX10082417	Test Procedure	23 - 2-day evap
Exhaust Test # for this Evap Test	RPRX10082411	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/04/2023	Fuel	Gasoline
Fuel Batch ID	W22	Fuel Calibration Number	24
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	Porsche AG, Labs and Engineering		
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)		
Test Start Odometer Reading	6990	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.2384	--

Manufacturer Test Comments PANAMERA 2DD EVAP Test No. 23050183

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	0.2384	0	0.238	0.3	Pass
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.2384	0	0.238	0.3	Pass

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Test #	RPRX10082438	Test Procedure	34 - Federal fuel 3-day evap
Exhaust Test # for this Evap Test	RPRX10082437	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/18/2023	Fuel	Gasoline
Fuel Batch ID	W22	Fuel Calibration Number	24
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	Porsche AG, Labs and Engineering		
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)		
Test Start Odometer Reading	7080	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.2326	--

Manufacturer Test Comments

PANAMERA 3DD EVAP Test No. 23049159

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	0.2326	0	0.233	0.3	Pass
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.2326	0	0.233	0.3	Pass

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Test #	RPRX10082434	Test Procedure	24 - Federal fuel refueling test (ORVR)
Exhaust Test # for this Evap Test	RPRX10082418	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/02/2023	Fuel	Gasoline
Fuel Batch ID	W22	Fuel Calibration Number	24
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	Porsche AG, Labs and Engineering		
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)		
Test Start Odometer Reading	6929	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--	Road Speed Fan Usage	Yes
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC (Hydrocarbon for Running Loss and ORVR)	0.0144	--

Manufacturer Test Comments

PANAMERA ORVR EVAP Test No. 23047326

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	0.014	0.001	0.02	0.2	Pass
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC	0.014	0.001	0.02	0.2	Pass

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Test #	RPRX10082462	Test Procedure	32 - Federal Fuel Running Loss
Exhaust Test # for this Evap Test	RPRX10082437	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/18/2023	Fuel	Gasoline
Fuel Batch ID	W22	Fuel Calibration Number	24
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	Porsche AG, Labs and Engineering		
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)		
Test Start Odometer Reading	7051	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--	Road Speed Fan Usage	--
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)		

Test Results

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

Manufacturer Test Comments

PANAMERA RUNNING LOSS EVAP Test No. 23051648

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

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Test #	RPRX10082495	Test Procedure	65 - Evap Canister Bleed Test
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/24/2023	Fuel	Gasoline
Fuel Batch ID	W22	Fuel Calibration Number	24
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	Porsche AG, Labs and Engineering		
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)		
Test Start Odometer Reading	7093	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--	Road Speed Fan Usage	--
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.013638	--

Manufacturer Test Comments PANAMERA BETP EVAP Test No. 23049405

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	0.0136	0	0.014	0.02	Pass
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.0136	0	0.014	0.02	Pass

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Fuel Properties			
Fuel Batch ID	HF0437	Fuel Calibration Number	513
Test Fuel Type	61 - Tier 2 Cert Gasoline	Fuel Batch Calibration Date	07/13/2023
Fuel Batch Calibration Effective Date	07/13/2023	Fuel Batch Calibration Ineffective Date	07/31/2026
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.743
Fuel Ethanol Volume Percent (%)	--	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	18429
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.867	Weight Fraction CO2	--
Fuel Batch ID	W22	Fuel Calibration Number	24
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	01/19/2023
Fuel Batch Calibration Effective Date	01/19/2023	Fuel Batch Calibration Ineffective Date	01/31/2028
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.741
Fuel Ethanol Volume Percent (%)	10.1	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17962
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.834	Weight Fraction CO2	--
Fuel Batch ID	HF2042	Fuel Calibration Number	437
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	10/16/2023
Fuel Batch Calibration Effective Date	10/16/2023	Fuel Batch Calibration Ineffective Date	10/30/2026
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.744
Fuel Ethanol Volume Percent (%)	9.9	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17725
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.823	Weight Fraction CO2	--
Fuel Batch ID	29858	Fuel Calibration Number	1
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	10/27/2023
Fuel Batch Calibration Effective Date	10/27/2023	Fuel Batch Calibration Ineffective Date	--

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.748
Fuel Ethanol Volume Percent (%)	9.7	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17835
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.827	Weight Fraction CO2	--
Fuel Batch ID	TCC10	Fuel Calibration Number	20
Test Fuel Type	29 - Cold CO E10 Premium Gasoline (Tier 3)	Fuel Batch Calibration Date	08/31/2022
Fuel Batch Calibration Effective Date	08/31/2022	Fuel Batch Calibration Ineffective Date	08/31/2025
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.742
Fuel Ethanol Volume Percent (%)	9.9	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17943
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.826	Weight Fraction CO2	--

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
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Consolidated List of Standards

Exhaust Standards

Cert Region	California + CAA Section 177 states	Cert/In-Use Code	Cert
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	Standard Level	California LEV-IV ULEV70
Fuel	Gasoline	Test Procedure	Federal fuel 2-day exhaust (w/can load)

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
120,000 miles	METHANE	--	--	--	--	--	--	0.0028	0.030
120,000 miles	N2O	--	--	--	--	--	--	0.0001	0.010
150,000 miles	CO	--	--	--	--	--	--	0.04	1.7
150,000 miles	HCHO	--	--	--	--	--	--	0.0002	0.004
150,000 miles	NMOG	--	--	1.1	--	--	--	0.0054	999.999
150,000 miles	NMOG+NOX	--	--	1.1	--	--	--	0.015	0.070
150,000 miles	NOX	--	--	--	--	--	--	0.0096	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.003

Cert Region	California + CAA Section 177 states	Cert/In-Use Code	Cert
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	Standard Level	California LEV-IV ULEV70
Fuel	Gasoline	Test Procedure	Fed. fuel 50 F exh.

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0.04	1.7
150,000 miles	HCHO	--	--	--	--	--	--	0.0001	0.016
150,000 miles	NMOG	--	--	--	--	--	--	0.0054	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0.015	0.140
150,000 miles	NOX	--	--	--	--	--	--	0.0096	999.999

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Cert Region	Federal	Cert/In-Use Code	Cert
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	Standard Level	Federal Tier 3 Bin 70
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	--	--	--	--	--	--	0.04	999.9
150,000 miles	NMOG	--	--	1	--	--	--	0.0054	999.999
150,000 miles	NOX	--	--	--	--	--	--	0.0096	999.999

Cert Region	Federal	Cert/In-Use Code	Cert
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	Standard Level	Federal Tier 3 Bin 70
Fuel	Gasoline	Test Procedure	HWFE

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CREE	--	--	--	--	--	--	0	999.9
150,000 miles	NMOG	--	--	1	--	--	--	0.0054	999.999
150,000 miles	NMOG+NOX	--	--	1	--	--	--	0.015	0.070
150,000 miles	NOX	--	--	--	--	--	--	0.0096	999.999

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Cert Region	Federal	Cert/In-Use Code	Cert
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	Standard Level	Federal Tier 3 Bin 70
Fuel	Gasoline	Test Procedure	Federal fuel 2-day exhaust (w/can load)

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
120,000 miles	METHANE	--	--	--	--	--	--	0.0028	0.030
120,000 miles	N2O	--	--	--	--	--	--	0.0001	0.010
150,000 miles	CO	--	--	--	--	--	--	0.04	1.7
150,000 miles	CO-COMP	--	--	--	--	--	--	0.04	4.2
150,000 miles	CREE	--	--	--	--	--	--	0	999.9
150,000 miles	HCHO	--	--	--	--	--	--	0.0002	0.004
150,000 miles	NMOG	--	--	1.1	--	--	--	0.0054	999.999
150,000 miles	NMOG+NOX	--	--	1.1	--	--	--	0.015	0.070
150,000 miles	NMOG+NOX-COMP	--	--	1.1	--	--	--	0.015	0.080
150,000 miles	NOX	--	--	--	--	--	--	0.0096	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.003

Cert Region	California + CAA Section 177 states	Cert/In-Use Code	Cert
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	Standard Level	California LEV-IV ULEV70
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	--	--	--	--	--	--	0.04	999.9
150,000 miles	NMOG	--	--	1	--	--	--	0.0054	999.999
150,000 miles	NOX	--	--	--	--	--	--	0.0096	999.999

Certification Summary Information Report

Test Group		VPRXJ04.0CE8			Evaporative/Refueling Family			VPRXR0190RP7		
Cert Region		Federal			Cert/In-Use Code			Cert		
Vehicle Class		LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 70		
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	--	--	--	--	--	--	0.04	999.9	
150,000 miles	NMOG	--	--	1.03	--	--	--	0.0054	999.999	
150,000 miles	NOX	--	--	--	--	--	--	0.0096	999.999	
150,000 miles	PM	--	--	--	--	--	--	0	0.006	

Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert		
Vehicle Class		LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-IV ULEV70		
Fuel		Gasoline			Test Procedure			HWFE		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std	
150,000 miles	NMOG	--	--	1	--	--	--	0.0054	999.999	
150,000 miles	NMOG+NOX	--	--	1	--	--	--	0.015	0.070	
150,000 miles	NOX	--	--	--	--	--	--	0.0096	999.999	

Cert Region		Federal			Cert/In-Use Code			Cert		
Vehicle Class		LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 70		
Fuel		Gasoline			Test Procedure			Cold CO		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std	
50,000 miles	CO	--	--	--	--	--	--	0.04	12.5	
120,000 miles	HC-NM	--	--	--	--	--	--	0.0049	0.3	

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
Cert Region	California + CAA Section 177 states	Cert/In-Use Code	Cert
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	Standard Level	California LEV-IV ULEV70
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	--	--	--	--	--	--	0.04	999.9
150,000 miles	NMOG	--	--	1.03	--	--	--	0.0054	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.070
150,000 miles	NOX	--	--	--	--	--	--	0.0096	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.006

Cert Region	California + CAA Section 177 states	Cert/In-Use Code	Cert
Vehicle Class	LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000)	Standard Level	California LEV-IV ULEV70
Fuel	Gasoline	Test Procedure	Cold CO

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
50,000 miles	CO	--	--	--	--	--	--	0.04	12.5
120,000 miles	HC-NM	--	--	--	--	--	--	0.0049	0.3

Evaporative/Refueling Standards

Evaporative/Refueling Family	VPRXR0190RP7	Cert Region	California + CAA Section 177 states
Cert/In-Use Code	Both	Standard Level	California LEV-IV Zero Evap (Option 2)
Test Procedure	Federal fuel 3-day evap		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.300	0

Evaporative/Refueling Family	VPRXR0190RP7	Cert Region	California + CAA Section 177 states
Cert/In-Use Code	Both	Standard Level	California LEV-IV Zero Evap (Option 2)
Test Procedure	Evap Canister Bleed Test		

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

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7		
Evaporative/Refueling Family	VPRXR0190RP7	Cert Region	Federal		
Cert/In-Use Code	Both	Standard Level	Federal Tier 3 Evap		
Test Procedure	Federal fuel refueling test (ORVR)				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC	--	0.20	0.001
Evaporative/Refueling Family	VPRXR0190RP7	Cert Region	Federal		
Cert/In-Use Code	Both	Standard Level	Federal Tier 3 Evap		
Test Procedure	Federal Fuel Running Loss				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.05	0
Evaporative/Refueling Family	VPRXR0190RP7	Cert Region	Federal		
Cert/In-Use Code	Both	Standard Level	Federal Tier 3 Evap		
Test Procedure	Federal fuel 3-day evap				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.300	0
Evaporative/Refueling Family	VPRXR0190RP7	Cert Region	California + CAA Section 177 states California LEV-IV Zero Evap (Option 2)		
Cert/In-Use Code	Both	Standard Level			
Test Procedure	2-day evap				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.300	0
Evaporative/Refueling Family	VPRXR0190RP7	Cert Region	California + CAA Section 177 states California LEV-IV Zero Evap (Option 2)		
Cert/In-Use Code	Both	Standard Level			
Test Procedure	Federal fuel refueling test (ORVR)				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC	--	0.20	0.001

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7		
Evaporative/Refueling Family	VPRXR0190RP7	Cert Region	California + CAA Section 177 states California LEV-IV Zero Evap (Option 2)		
Cert/In-Use Code	Both	Standard Level			
Test Procedure	Federal Fuel Running Loss				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.05	0
Evaporative/Refueling Family	VPRXR0190RP7	Cert Region	Federal		
Cert/In-Use Code	Both	Standard Level	Federal Tier 3 Evap		
Test Procedure	2-day evap				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.300	0
Evaporative/Refueling Family	VPRXR0190RP7	Cert Region	Federal		
Cert/In-Use Code	Both	Standard Level	Federal Tier 3 Evap		
Test Procedure	Evap Canister Bleed Test				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.020	0

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
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		VPRXJ04.0CE8	Evaporative/Refueling Family		VPRXR0190RP7
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	

Certification Summary Information Report

Test Group		VPRXJ04.0CE8	Evaporative/Refueling Family		VPRXR0190RP7
L2ULEV340	California LEV-II ULEV340		L4SULEV85	California LEV-IV SULEV85	
L2LEV630	California LEV-II LEV630		L4ULEV125	California LEV-IV ULEV125	
L2ULEV570	California LEV-II ULEV570		L4ULEV200	California LEV-IV ULEV200	
L3LEV160	California LEV-III LEV160		L4ULEV250	California LEV-IV ULEV250	
L3ULEV125	California LEV-III ULEV125		L4ULEV270	California LEV-IV ULEV270	
L3ULEV70	California LEV-III ULEV70		L4ULEV40	California LEV-IV ULEV40	
L3ULEV50	California LEV-III ULEV50		L4ULEV400	California LEV-IV ULEV400	
L3SULEV30	California LEV-III SULEV30		L4ULEV50	California LEV-IV ULEV50	
L3SULEV20	California LEV-III SULEV20		L4ULEV60	California LEV-IV ULEV60	
L3LEV395	California LEV-III LEV395		L4ULEV70	California LEV-IV ULEV70	
L3ULEV340	California LEV-III ULEV340		T4B170	Federal Tier 4 MDV Bin 170	
L3ULEV250	California LEV-III ULEV250		T4B150	Federal Tier 4 MDV Bin 150	
L3ULEV200	California LEV-III ULEV200		T4B125	Federal Tier 4 MDV Bin 125	
L3SULEV170	California LEV-III SULEV170		T4B100	Federal Tier 4 MDV Bin 100	
L3SULEV150	California LEV-III SULEV150		T4B85	Federal Tier 4 MDV Bin 85	
L3LEV630	California LEV-III LEV630		T4B75	Federal Tier 4 MDV Bin 75	
L3ULEV570	California LEV-III ULEV570		T4B70	Federal Tier 4 Bin 70	
L3ULEV400	California LEV-III ULEV400		T4B65	Federal Tier 4 Bin 65	
L3ULEV270	California LEV-III ULEV270		T4B60	Federal Tier 4 Bin 60	
L3SULEV230	California LEV-III SULEV230		T4B55	Federal Tier 4 Bin 55	
L3SULEV200	California LEV-III SULEV200		T4B50	Federal Tier 4 Bin 50	
T3B160	Federal Tier 3 Bin 160		T4B45	Federal Tier 4 Bin 45	
T3B125	Federal Tier 3 Bin 125		T4B40	Federal Tier 4 Bin 40	
T3B110	Federal Tier 3 Transitional Bin 110		T4B35	Federal Tier 4 Bin 35	
T3B85	Federal Tier 3 Transitional Bin 85		T4B30	Federal Tier 4 Bin 30	
T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover		T4B25	Federal Tier 4 Bin 25	
T3B70	Federal Tier 3 Bin 70		T4B20	Federal Tier 4 Bin 20	
T3B50	Federal Tier 3 Bin 50		T4B15	Federal Tier 4 Bin 15	
T3B30	Federal Tier 3 Bin 30		T4B10	Federal Tier 4 Bin 10	
T3B20	Federal Tier 3 Bin 20		T4B5	Federal Tier 4 Bin 5	
T3B0	Federal Tier 3 Bin 0		T4B0	Federal Tier 4 Bin 0	
HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395				
Transmission Type Code					
AMS	Automated Manual- Selectable (e.g. Automated Manual with paddles)	M	Manual		
A	Automatic	OT	Other		
AM	Automated Manual	SA	Semi-Automatic		
CVT	Continuously Variable	SCV	Selectable Continuously Variable (e.g. CVT with paddles)		
Drive System Code					
4	4-Wheel Drive	P	Part-time 4-Wheel Drive		

Certification Summary Information Report

Test Group	VPRXJ04.0CE8	Evaporative/Refueling Family	VPRXR0190RP7
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