TOYOTA

Application For Certification - Part 1
2016 Model Year

Durability Group : GTYXHHGNNF27

Evap/refueling Families : GTYXR0130J72

Test Group : GTYXV01.8PC4

Durability Group Description : Four Stroke, Otto Cycle, Gasoline Fueled,

: Ported FI, Catalyst code : 3-IIZ40+3-IIS38

Test Group Description : 1.8Liter I4 LDV

Applicable Standards : Federal State: Tier2-Bin3 -LDV

: California : LEVIII-SULEV30 (AT PZEV) -PC

Carlines Covered : PRIUS (Li)

Vehicles Tested :

Vehicle I.D.	Config.	Test	Test Number
16-ZV1H	00	FTP	GTYX10037850
16-ZV1H	00	HWY	GTYX10037849
16-ZV1H	00	SFTP (US06)	GTYX10037848
16-ZV2H	04	SFTP (SC03)	GTYX10038697
16-ZV1H	00	EVAP	GTYX10037860, GTYX10037861
16-ZV1H	00	Running Loss	GTYX10037899
16-ZV1H	00	Refueling	GTYX10037863
16-ZV2H	04	C.CO,C.HC	GTYX10038688

EPA Response Requested By : October 26, 2015

For Questions, Contact : Andrea Frederick 734-995-2586

Note :

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Please refer to the FOI common file.

2. Durability Group Description

Durability Group Name : GTYXHHGNNF27

Please refer to the common file for details.

3. Evaporative/Refueling Family Description

Evaporative/Refueling Family Name : GTYXR0130J72

Please refer to the FOI common file for details.

4. Durability Procedure Description

4.1 Exhaust Durability Test Procedure

4.2 Durability Showing

4.3 Evap/refueling Durability Test Procedure

Please refer to the CBI common file.

4.4 Exhaust Emission Deterioration Factors

4.5 Evap/refueling Emission Deterioration Factors

4.6 Equivalency Factor

Please refer to the Certification Summary Information Report in Section 7 or FOI common file.

5. Test Group Description

5.1	Test group name	:	GTYXV01.8PC4
5.2	Engine displacements covered	:	1,798 cm^3 (109.7 CID)
5.3	Arrangement and number of cylinders	:	I4
5.4	Vehicle class (es) covered	:	LDV
5.5	Federal emission standards class	:	Tier2-Bin3 -LDV
5.6	California emission standards class	:	LEVIII-SULEV30 (AT PZEV) -PC
5.7	Applicable emission standards		

Please refer to the Certification Summary Information Report in Section 7.

6. Test Vehicle Description

Please refer to section 7 for the following vehicles:

Vehicle ID	Config.	Vehicle Type	Tests Performed
16-ZV1H	00	Cert. Emission	FTP, HwFET, SFTP(US06), 2-Day Evap., 3-Day Evap., Refueling
16-ZV2H	04	Cert. Emission	SFTP(SC03), Cold CO, Cold HC

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Certification Summary Information Report

Manufacturer	Toyota Motor Corporation	**Manufacturer Code**	TYX
Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72
Certificate Number	N/A	**CARB Executive Order #**	N/A
Certificate Issue Date	N/A	**Certificate Revision Date**	N/A
Certificate Effective Date	N/A	**Conditional Certificate**	--
CSI Revision #	N/A	**CSI Submission/Revision Date**	09/30/2015
Model Year	2016		

Test Group Information

CSI Type	Update for Correction	**Running Change Reference Number**	N/A
GHG Exempt Status	Not Exempt		

Drive Sources and Fuel(s)

Drive Source #1: Combustion Engine

Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
Gasoline	Multipoint/sequential fuel injection	N

Drive Source #2: Electric Motor

Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
Electricity	--	N

Hybrid Indicator	Yes		
Multiple Fuel Storage	--	**Rechargeable Energy Storage System Indicator**	Yes
Multiple Fuel Combustion	--	**Off-board Charge Capable Indicator**	No
Fuel Cell Indicator	No	**EPA Vehicle Class**	LDV
Federal Clean Fuel Vehicle	No	**Federal Clean Fuel Vehicle Standard**	--
Federal Clean Fuel Vehicle ILEV	No	**California Partial Zero Emissions Vehicle Indicator**	Yes
Durability Group Name	GTYXHHGNNF27	**Durability Group Equivalency Factor**	1.2
Reduced Fee Test Group	No	**Certification Region Code(s)**	FA, CA
Complies with HD GHG 2b/3 regulations?	No		
Introduction into Commerce Date	--	**CAP2000 Conditional Certificate?**	N/A
Independent Commercial Importer?	--	**Alternative Fuel Converter Certificate?**	--
SFTP Federal Composite Compliance Identifier	Tier 2	**SFTP Tier 2 Composite CO Option**	Yes
SFTP LEV-III Composite Compliance Indicator	Yes		
OBD Compliance Type	CARB	**OBD Demonstration Vehicle Test Group**	GTYXV02.0KEA
Mfr Test Group Comments	--		
Mfr Exhaust / Evap Standards Comments	--		

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72

Evaporative/Refueling Family Information

Evaporative Summary Information Type	New	**Submission/Correction Date**	09/24/2015
Integrated ORVR?	No	**Fuel(s)**	Gasoline,Electricity
Multiple Fuel Storage	Fuels Stored Together		
Bladder Fuel Tank?	No		
Fuel Tank Material	Plastic	**Fuel Tank Material Description**	EVOH
Fill Pipe Seal Type	Liquid seal		
Air Intake System Vapor Storage Device?	Yes	**Air Intake System Vapor Storage Device Description**	Carbon filter in the air cleaner box
Fuel System Vapor Storage Canister?	Yes	**Other Vapor Storage**	N/A
Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)	130	**Number of Primary Canisters**	1
Number of Bleed Canisters	0	**Bleed Canister Total Working Capacity (grams)**	N/A
Mfr Evaporative/Refueling Family Comments	--		

Leak Family Details

Leak Family Indicator	No		
Canister Bleed Test Indicator	No	**Applicability of Evaporative Canister Bleed Test**	--
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
Toyota Motor Corporation	1 - TOYOTA	61 - PRIUS Eco	Federal	2-Wheel Drive, Front	Continuously Variable	1	No
Toyota Motor Corporation	1 - TOYOTA	61 - PRIUS Eco	California + CAA Section 177 states	2-Wheel Drive, Front	Continuously Variable	1	No
Toyota Motor Corporation	1 - TOYOTA	60 - PRIUS	California + CAA Section 177 states	2-Wheel Drive, Front	Continuously Variable	1	No
Toyota Motor Corporation	1 - TOYOTA	60 - PRIUS	Federal	2-Wheel Drive, Front	Continuously Variable	1	No

Engine Description

Hybrid Type	IC Engine/Electric Motor	**Hybrid Description**	--
Engine Type	4-Stroke Spark Ignition	**Mfr Engine Description**	--
Engine Block Arrangement	Inline	**Mfr Engine Block Arrangement Description**	--
Camless Valvetrain Indicator	No	**Oil Viscosity/Classification**	0W-20
Number of Cylinders/Rotors	4		

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72

After Treatment Device(s) (ATD)

ATD Number	ATD Type	ATD Precious Metal	Substrate Material	Substrate Construction
1	Three-way catalyst	Paladium + Rhodium	Ceramic	Monolith
2	Three-way catalyst	Platinum + Rhodium	Ceramic	Monolith

Mfr After Treatment Device (ATD) Comments	--
Direct Ozone Reduction (DOR) Device	Not Equipped
Mfr Emission Control Device Comments	--

Engine Configuration Number 1

Engine Displacement (liters)	1.8	**Engine Rated Horsepower**	96
Number of Inlet Valves Per Cylinder	2	**Number of Exhaust Valves Per Cylinder**	2
Air Aspiration Method	Naturally Aspirated	**Number of Air Aspiration Devices**	N/A
Air Aspiration Device Configuration	--	**Charge Air Cooler Type**	N/A
Cylinder Deactivation Description	N/A		
Variable Valve Timing System Description	Intake	**Variable Valve Lift System**	N/A
Number of Knock Sensors	1		
Air/Fuel Sensor # 1 Type	Heated oxygen	**Air/Fuel Sensor # 1 Description**	N/A
Air/Fuel Sensor # 2 Type	Heated air fuel	**Air/Fuel Sensor # 2 Description**	N/A
Mfr Air/Fuel Sensor Comments	--		
Exhaust Gas Recirculation	Yes	**EGR Type**	Electronic/Electric
Cooled Exhaust Gas Recirculation	Yes		
Closed Loop Air Injection System	No	**Air Injection Type**	--
Mfr Engine Configuration Comments	--		

Official Test Numbers

Test Group Fuel	FTP	US06	SC03	Cold CO	Highway	EPA City Litmus Value	EPA City Litmus Threshold	EPA Highway Litmus Value	EPA Highway Litmus Threshold	CREE Weighting Factor
Electricity	GTYX10037850	GTYX10037848	GTYX10038697	GTYX10038688	GTYX10037849	N/A	N/A	--	N/A	N/A
Gasoline	GTYX10037850	GTYX10037848	GTYX10038697	GTYX10038688	GTYX10037849	189.1	284.3	999.9	628.9	N/A

SFTP LEV-III Official Test Numbers

Test Group Fuel	FTP	US06	SC03
Electricity	GTYX10037850	GTYX10037848	GTYX10038697
Gasoline	GTYX10037850	GTYX10037848	GTYX10038697

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72
Hybrid Electric Vehicle And Fuel Cell Information			
Rechargable Energy Storage System	Battery(s)	**Rechargable Energy Storage System, if Other**	--
Battery Type	Lithium Ion	**Number of Battery Packs**	1
Total Voltage of Battery Packs	207	**Battery Energy Capacity**	3.6
Battery Specific Energy	65.3	**Battery Charger Type**	On-Board
Number of Capacitors	N/A		
Capacitor Rating (In Farads)	--	**Mfr Capacitor Comments**	--
Hydraulic System Description			
Regenerative Braking Type	Electrical Regen Brake		
Regenerative Braking Source	Front Wheels	**Driver Controlled Regenerative Braking**	No
Mfr Regenerative Braking Description	--		
Drive Motor(s)/Generator(s)	1		
Motor/Generator Type 1	AC Induction	**Rated Motor/Generator Power**	37
Mfr Fuel Cell Description			
Fuel Cell On-Board H2 Storage Capacity (kg)	--	**Usable H2 Fill Capacity (kg)**	--
Mfr Hybrid Electric/ Electric Vehicle Comments			

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72

Emission Data Vehicle Information

Vehicle ID / Configuration 16-ZV1H / 0

Vehicle Model

Represented Test Vehicle Make	TOYOTA	**Represented Test Vehicle Model**	PRIUS

Leak Family Details

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

Drive Sources and Fuel System Details

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

Hybrid Indicator	Y		
Multiple Fuel Storage	--	**Multiple Fuel Combustion**	--
Fuel Cell Indicator	N	**Rechargeable Energy Storage System Indicator**	Y
Rechargeable Energy Storage System	Battery(s)	**Rechargeable Energy Storage System, if 'Other'**	--
Off-board charge Capable Indicator	N		
Transmission Type	Continuously Variable	**# of Transmission Gears**	1
Engine Code	01	**Axle Ratio**	2.83
Displacement (liters)	1.798	**Rated Horsepower**	96
Equivalent Test Weight (pounds)	3375	**Air Aspiration Method**	Naturally Aspirated
Drive Mode While Testing	2-Wheel Drive, Front	**SIL Usage**	Not eqipped
Aged Emission Components	4,000 (mi)		

Dynamometer Coefficients:

Coefficient Category	Target Coefficients A (lbf)	Target Coefficients B (lbf/mph)	Target Coefficients C (lbf/mph**2)	Set Coefficients A (lbf)	Set Coefficients B (lbf/mph)	Set Coefficients C (lbf/mph**2)	EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
City/Highway/Evap	24.153	0.33502	0.014096	10.116	0.1598	0.015033	10.2
US06	24.153	0.33502	0.014096	10.116	0.1598	0.015033	N/A

Manufacturer Test Vehicle Comments POWER SHIFT PATTERN

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72
Test #	**GTYX10037850**	**Test Procedure**	**35 - California fuel 3-day exhaust**
Exhaust Test # for this Evap Test	N/A	**Test Fuel Type**	46 - CARB LEV3 E10 Regular Gasoline
Test Date	09/04/2015	**Fuel**	Gasoline
Vehicle Class	LDV/Passenger Car	**DF Type**	Mfr. Determined
Verify Test Lab ID	Higashifuji Technical Center		
E10 Evaporative Test Measurement Method	--		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Bag 1 Carbon Dioxide	0	--
Bag 1 Fuel Economy	999	999
Bag 2 Carbon Dioxide	0	--
Bag 2 Fuel Economy	999	999
Bag 3 Carbon Dioxide	0	--
Bag 3 Fuel Economy	999	999
Bag 4 Carbon Dioxide	0	--
Bag 4 Fuel Economy	999	999
CH4 - Methane	0.002146	--
Carbon Monoxide	0.0745335	--
Drive Trace Absolute Speed Change Rating	0.59	--
Drive Trace Energy Economy Rating	-0.05	--
Drive Trace Inertia Work Ratio Rating	0.83	--
Manufacturer Fuel Economy	999	999
Nitrogen Oxide	0.0011416	--
Nitrous Oxide	0.000327	--
Non-methane Hydrocarbon	0.0102723	--
Non-methane organic gas (California)	0.0112996	--
Particulate Matter	0.0002468	--
Total Hydrocarbon	0.0123289	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	120.1908714	--

Manufacturer Test Comments NMOG = HC-NM x 1.10

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Certification Summary Information Report

Test Group GTYXV01.8PC4 **Evaporative/Refueling Family** GTYXR0130J72

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NMHC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 2 Bin 3	CO	0.07	--	--	--	0.07	--	0.1	2.1	Pass
Fed	150,000 miles	Federal Tier 2 Bin 3	CO-COMP	0.14	--	--	--	--	--	0.1	3.5	Pass
Fed	150,000 miles	Federal Tier 2 Bin 3	CREE	999	--	--	--	0.075	--	999	--	--
Fed	150,000 miles	Federal Tier 2 Bin 3	HC-NM+NOX-COMP	0.014	--	--	--	--	--	0.01	0.62	Pass
Fed	150,000 miles	Federal Tier 2 Bin 3	METHANE	0.0021	--	--	--	0.0010	--	0.003	0.030	Pass
Fed	150,000 miles	Federal Tier 2 Bin 3	NMOG	0.0113	1	1.04	--	0.0047	--	0.016	0.055	Pass
Fed	150,000 miles	Federal Tier 2 Bin 3	NOX	0.001	--	--	--	0.0006	--	0.00	0.03	Pass
Fed	150,000 miles	Federal Tier 2 Bin 3	PM	0.000	--	--	--	0.0002	--	0.00	0.01	Pass
CA	150,000 miles	California LEV-III SULEV30	CO	0.07	--	--	--	0.07	--	0.1	1.0	Pass
CA	150,000 miles	California LEV-III SULEV30	CO-COMP	0.14	--	--	--	0.07	--	0.1	4.2	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG	0.0113	1	1.10	--	0.0047	--	0.016	999.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG+NOX	0.0124	1	1.10	--	--	--	0.018	0.030	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG+NOX-COMP	0.0147	1	1.03	--	0.0053	--	0.015	0.030	Pass
CA	150,000 miles	California LEV-III SULEV30	NOX	0.0011	--	--	--	0.0006	--	0.002	999.999	Pass
CA	150,000 miles	California LEV-III SULEV30	PM	0.0002	--	--	--	0.0002	--	0.000	0.003	Pass

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

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72
Test #	**GTYX10037849**	**Test Procedure**	**3 - HWFE**
Exhaust Test # for this Evap Test	N/A	**Test Fuel Type**	46 - CARB LEV3 E10 Regular Gasoline
Test Date	09/04/2015	**Fuel**	Gasoline
Vehicle Class	LDV/Passenger Car	**DF Type**	Mfr. Determined
Verify Test Lab ID	Higashifuji Technical Center		
E10 Evaporative Test Measurement Method	--		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
CH4 - Methane	0.001399	--
Carbon Monoxide	0.0314332	--
Drive Trace Absolute Speed Change Rating	1.45	--
Drive Trace Energy Economy Rating	0.05	--
Drive Trace Inertia Work Ratio Rating	1.76	--
Manufacturer Fuel Economy	999	999
Nitrogen Oxide	0.0000692	--
Nitrous Oxide	0	--
Non-methane Hydrocarbon	0.0029513	--
Non-methane organic gas (California)	0.0030398	--
Total Hydrocarbon	0.004292	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	127.5819459	--

Manufacturer Test Comments NMOG = HC-NM x 1.03

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Certification Summary Information Report

Test Group GTYXV01.8PC4 **Evaporative/Refueling Family** GTYXR0130J72

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 2 Bin 3	CREE	999	--	--	--	0.075	--	999	--	--
Fed	150,000 miles	Federal Tier 2 Bin 3	NOX	0.000	--	--	--	0.0006	--	0.00	0.04	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG	0.0030	1	1.03	--	0.0047	--	0.008	999.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG+NOX	0.0031	1	1.03	--	--	--	0.008	0.030	Pass
CA	150,000 miles	California LEV-III SULEV30	NOX	0.0001	--	--	--	0.0006	--	0.001	999.999	Pass

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

Test # **GTYX10037860**
Exhaust Test # for this Evap Test GTYX10037853
Test Date 09/08/2015
Vehicle Class N/A
Verify Test Lab ID Higashifuji Technical Center
E10 Evaporative Test Measurement Method Actual Total Hydrocarbon Equivalent Measurement (with speciation)

Test Procedure **27 - California fuel 2-day evap**
Test Fuel Type 46 - CARB LEV3 E10 Regular Gasoline
Fuel Gasoline
DF Type Mfr. Determined

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Total Hydrocarbon equivalent - Evap only	0.1176	--

Manufacturer Test Comments HSL=0.0089, 1ST DBL=0.1088, 2ND DBL=0.0964, 1ST DBL IS ADD KEY OFF MONITOR LOSS(0.0017GRAM)

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Federal LEV-II Evap	HC-TOTAL-EQUIV	0.118	0.000	0.12	0.65	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.1176	0.000	0.118	0.300	Pass

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72
Test #	**GTYX10037861**	**Test Procedure**	**38 - CA fuel 3-day evap.**
Exhaust Test # for this Evap Test	GTYX10037852	**Test Fuel Type**	46 - CARB LEV3 E10 Regular Gasoline
Test Date	09/15/2015	**Fuel**	Gasoline
Vehicle Class	N/A	**DF Type**	Mfr. Determined
Verify Test Lab ID	Higashifuji Technical Center		
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Total Hydrocarbon equivalent - Evap only	0.1316	--

Manufacturer Test Comments HSL=0.0226, 1ST DBL=0.1090, 2ND DBL=0.0885, 3RD DBL=0.0851, 1ST DBL IS ADDED KEY OFF MONITOR LOSS(0.0017GRAM)

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Federal LEV-II Evap	HC-TOTAL-EQUIV	0.132	0.000	0.13	0.50	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.1316	0.000	0.132	0.300	Pass

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72
Test #	**GTYX10037863**	**Test Procedure**	**24 - Federal fuel refueling test (ORVR)**
Exhaust Test # for this Evap Test	GTYX10037853	**Test Fuel Type**	61 - Tier 2 Cert Gasoline
Test Date	06/09/2015	**Fuel**	Gasoline
Vehicle Class	N/A	**DF Type**	Mfr. Determined
Verify Test Lab ID	Higashifuji Technical Center		
E10 Evaporative Test Measurement Method	--		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Hydrocarbon for Running Loss and ORVR	0.0085961	--

Manufacturer Test Comments WITH 1200BV BENCH PURGE

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Federal LEV-II Evap	HC	0.009	0.000	0.01	0.20	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC	0.009	0.000	0.01	0.20	Pass

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72
Test #	**GTYX10037899**	**Test Procedure**	**37 - California Fuel Running Loss**
Exhaust Test # for this Evap Test	GTYX10037852	**Test Fuel Type**	46 - CARB LEV3 E10 Regular Gasoline
Test Date	09/15/2015	**Fuel**	Gasoline
Vehicle Class	N/A	**DF Type**	Mfr. Determined
Verify Test Lab ID	Higashifuji Technical Center		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Total Hydrocarbon equivalent - Evap only	0	--

Manufacturer Test Comments --

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Federal LEV-II Evap	HC-TOTAL-EQUIV	0.000	0.000	0.00	0.05	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.000	0.000	0.00	0.05	Pass

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72
Test #	**GTYX10037848**	**Test Procedure**	**90 - US06**
Exhaust Test # for this Evap Test	N/A	**Test Fuel Type**	46 - CARB LEV3 E10 Regular Gasoline
Test Date	09/11/2015	**Fuel**	Gasoline
Vehicle Class	LDV/Passenger Car	**DF Type**	Mfr. Determined
Verify Test Lab ID	Higashifuji Technical Center		
E10 Evaporative Test Measurement Method	--		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Bag 1 Carbon Dioxide	0	--
Bag 1 Fuel Economy	999	999
Bag 2 Carbon Dioxide	0	--
Bag 2 Fuel Economy	999	999
Carbon Monoxide	0.1069287	--
Drive Trace Absolute Speed Change Rating	1.91	--
Drive Trace Energy Economy Rating	0.23	--
Drive Trace Inertia Work Ratio Rating	2.57	--
Manufacturer Fuel Economy	999	999
Nitrogen Oxide	0.0012565	--
Non-methane Hydrocarbon	0.009338	--
Non-methane organic gas (California)	0.0096181	--
Particulate Matter	0.0001976	--
Total Hydrocarbon	0.0109699	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	193.2406158	--

Manufacturer Test Comments NMOG = HC-NM x 1.03

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	4,000 miles	Federal Tier 2 Bin 3	CO	0.11	--	--	--	--	--	0.1	8.0	Pass
Fed	4,000 miles	Federal Tier 2 Bin 3	HC-NM+NOX	0.010	--	--	--	--	--	0.01	0.14	Pass
CA	150,000 miles	California LEV-III SULEV30	PM	0.0002	--	--	--	0.0002	--	0.000	0.010	Pass

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72

Emission Data Vehicle Information

Vehicle ID / Configuration 16-ZV2H / 4

Vehicle Model

Represented Test Vehicle Make	TOYOTA	**Represented Test Vehicle Model**	PRIUS

Leak Family Details

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

Drive Sources and Fuel System Details

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

Hybrid Indicator	Y		
Multiple Fuel Storage	--	**Multiple Fuel Combustion**	--
Fuel Cell Indicator	N	**Rechargeable Energy Storage System Indicator**	Y
Rechargeable Energy Storage System	Battery(s)	**Rechargeable Energy Storage System, if 'Other'**	--
Off-board charge Capable Indicator	N		
Transmission Type	Continuously Variable	**# of Transmission Gears**	1
Engine Code	01	**Axle Ratio**	2.83
Displacement (liters)	1.798	**Rated Horsepower**	96
Equivalent Test Weight (pounds)	3375	**Air Aspiration Method**	Naturally Aspirated
Drive Mode While Testing	2-Wheel Drive, Front	**SIL Usage**	Not eqipped
Aged Emission Components	4,000 (mi)		

Dynamometer Coefficients:

Coefficient Category	Target Coefficients A (lbf)	Target Coefficients B (lbf/mph)	Target Coefficients C (lbf/mph**2)	Set Coefficients A (lbf)	Set Coefficients B (lbf/mph)	Set Coefficients C (lbf/mph**2)	EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
City/Highway/Evap	24.153	0.33502	0.014096	10.116	0.1598	0.015033	10.2
Cold CO	26.837	0.37224	0.015662	8.14	-0.00597	0.018305	N/A

Manufacturer Test Vehicle Comments POWER SHIFT PATTERN

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72
Test #	**GTYX10038688**	**Test Procedure**	**11 - Cold CO**
Exhaust Test # for this Evap Test	N/A	**Test Fuel Type**	26 - Cold CO Regular (Tier 2)
Test Date	09/04/2015	**Fuel**	Gasoline
Vehicle Class	LDV/Passenger Car	**DF Type**	Mfr. Determined
Verify Test Lab ID	Higashifuji Technical Center		
E10 Evaporative Test Measurement Method	--		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Bag 1 Carbon Dioxide	266.7326	--
Bag 1 Fuel Economy	31.895716	31.895716
Bag 2 Carbon Dioxide	146.1909	--
Bag 2 Fuel Economy	60.1230587	60.1230587
Bag 3 Carbon Dioxide	179.4995	--
Bag 3 Fuel Economy	49.0213796	49.0213796
Bag 4 Carbon Dioxide	112.4669	--
Bag 4 Fuel Economy	77.9832074	77.9832074
Carbon Monoxide	1.0251984	--
Drive Trace Absolute Speed Change Rating	1.48	--
Drive Trace Energy Economy Rating	0.57	--
Drive Trace Inertia Work Ratio Rating	2.1	--
Manufacturer Fuel Economy	51.0675206	51.0675206
Nitrogen Oxide	0.0173319	--
Non-methane Hydrocarbon	0.1675061	--
Total Hydrocarbon	0.1772504	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	170.3613598	--

Manufacturer Test Comments --

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 2 Bin 3	CO	1.03	--	--	--	0.02	--	1.0	10.0	Pass
Fed	150,000 miles	Federal Tier 2 Bin 3	HC-NM	0.17	--	--	--	0.00	--	0.2	0.3	Pass
CA	50,000 miles	California LEV-III SULEV30	CO	1.03	--	--	--	0.02	--	1.0	10.0	Pass

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72
Test #	**GTYX10038697**	**Test Procedure**	**95 - SC03**
Exhaust Test # for this Evap Test	N/A	**Test Fuel Type**	46 - CARB LEV3 E10 Regular Gasoline
Test Date	09/02/2015	**Fuel**	Gasoline
Vehicle Class	LDV/Passenger Car	**DF Type**	Mfr. Determined
Verify Test Lab ID	Higashifuji Technical Center		
E10 Evaporative Test Measurement Method	--		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Carbon Monoxide	0.041801	--
Drive Trace Absolute Speed Change Rating	0.88	--
Drive Trace Energy Economy Rating	0.12	--
Drive Trace Inertia Work Ratio Rating	1.27	--
Manufacturer Fuel Economy	51.0498305	51.0498305
Nitrogen Oxide	0.001992	--
Non-methane Hydrocarbon	0.00319	--
Total Hydrocarbon	0.005169	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	169.405675	--

Manufacturer Test Comments --

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	4,000 miles	Federal Tier 2 Bin 3	CO	0.04	--	--	--	--	--	0.0	2.7	Pass
Fed	4,000 miles	Federal Tier 2 Bin 3	HC-NM+NOX	0.005	--	--	--	--	--	0.00	0.20	Pass

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	Evaporative/Refueling Family	GTYXR0130J72

Consolidated List of Standards

Exhaust Standards

Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDV/Passenger Car	**Standard Level**	Federal Tier 2 Bin 3
Fuel	Gasoline	**Test Procedure**	California 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
150,000 miles	CO	--	--	--	--	--	--	0.07	2.1
150,000 miles	CO-COMP	--	--	--	--	--	--	--	3.5
150,000 miles	CREE	--	--	--	--	--	--	0.075	999.9999
150,000 miles	HC-NM+NOX-COMP	--	--	--	--	--	--	--	0.62
150,000 miles	HCHO	--	--	--	--	--	--	0.0000	0.011
150,000 miles	METHANE	--	--	--	--	--	--	0.0010	0.030
150,000 miles	N2O	--	--	--	--	--	--	--	0.010
150,000 miles	NMOG	--	1	1.04	--	--	--	0.0047	0.055
150,000 miles	NOX	--	--	--	--	--	--	0.0006	0.03
150,000 miles	PM	--	--	--	--	--	--	0.0002	0.01

Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDV/Passenger Car	**Standard Level**	Federal Tier 2 Bin 3
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	--	--	--	--	--	--	0.075	999.9999
150,000 miles	NOX	--	--	--	--	--	--	0.0006	0.04

Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDV/Passenger Car	**Standard Level**	Federal Tier 2 Bin 3
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
4,000 miles	CO	--	--	--	--	--	--	--	2.7
4,000 miles	HC-NM+NOX	--	--	--	--	--	--	--	0.20

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72
Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDV/Passenger Car	**Standard Level**	Federal Tier 2 Bin 3
Fuel	Gasoline	**Test Procedure**	CST two speed idle test

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	CO	--	--	--	--	--	--	--	0.5
120,000 miles	HC-TOTAL	--	--	--	--	--	--	--	100

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDV/Passenger Car	**Standard Level**	California LEV-III SULEV30
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	1.03	--	--	--	0.0047	999.999
150,000 miles	NMOG+NOX	--	1	1.03	--	--	--	0.0053	0.030
150,000 miles	NOX	--	--	--	--	--	--	0.0006	999.999

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDV/Passenger Car	**Standard Level**	California LEV-III SULEV30
Fuel	Gasoline	**Test Procedure**	California 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
150,000 miles	CO	--	--	--	--	--	--	0.07	1.0
150,000 miles	CO-COMP	--	--	--	--	--	--	0.07	4.2
150,000 miles	HCHO	--	--	--	--	--	--	0.0000	0.004
150,000 miles	NMOG	--	1	1.10	--	--	--	0.0047	999.999
150,000 miles	NMOG+NOX	--	1	1.10	--	--	--	0.0053	0.030
150,000 miles	NMOG+NOX-COMP	--	1	1.03	--	--	--	0.0053	0.030
150,000 miles	NOX	--	--	--	--	--	--	0.0006	999.999
150,000 miles	PM	--	--	--	--	--	--	0.0002	0.003

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72
Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDV/Passenger Car	**Standard Level**	California LEV-III SULEV30
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	--	--	--	--	--	--	0.02	10.0

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDV/Passenger Car	**Standard Level**	California LEV-III SULEV30
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	PM	--	--	--	--	--	--	0.0002	0.010

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDV/Passenger Car	**Standard Level**	California LEV-III SULEV30
Fuel	Gasoline	**Test Procedure**	CA fuel 50 Deg(F) exhaust test

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
4,000 miles	CO	--	--	--	--	--	--	0.00	1.0
4,000 miles	HCHO	--	--	--	--	--	--	0.0000	0.008
4,000 miles	NMOG	--	1	1.10	--	--	--	0.0000	999.999
4,000 miles	NMOG+NOX	--	1	1.10	--	--	--	0.0000	0.060
4,000 miles	NOX	--	--	--	--	--	--	0.0000	999.999

Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDV/Passenger Car	**Standard Level**	Federal Tier 2 Bin 3
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
4,000 miles	CO	--	--	--	--	--	--	--	8.0
4,000 miles	HC-NM+NOX	--	--	--	--	--	--	--	0.14

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72
Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDV/Passenger Car	**Standard Level**	Federal Tier 2 Bin 3
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	--	--	--	--	--	--	0.02	10.0
150,000 miles	HC-NM	--	--	--	--	--	--	0.00	0.3

Evaporative/Refueling Standards

Evaporative/Refueling Family	GTYXR0130J72	**Cert Region**	Federal
Cert/In-Use Code	Both	**Standard Level**	Federal LEV-II Evap
Test Procedure	California Fuel Running Loss		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	120,000 miles	HC-TOTAL-EQUIV	--	0.05	0.000

Evaporative/Refueling Family	GTYXR0130J72	**Cert Region**	Federal
Cert/In-Use Code	Both	**Standard Level**	Federal LEV-II Evap
Test Procedure	Spitback		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	120,000 miles	SPITBACK	--	1.0	0.000

Evaporative/Refueling Family	GTYXR0130J72	**Cert Region**	Federal
Cert/In-Use Code	Both	**Standard Level**	Federal LEV-II Evap
Test Procedure	CA fuel 3-day evap.		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	120,000 miles	HC-TOTAL-EQUIV	--	0.50	0.000

Evaporative/Refueling Family	GTYXR0130J72	**Cert Region**	Federal
Cert/In-Use Code	Both	**Standard Level**	Federal LEV-II Evap
Test Procedure	California fuel 2-day evap		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	120,000 miles	HC-TOTAL-EQUIV	--	0.65	0.000

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72
Evaporative/Refueling Family	GTYXR0130J72	**Cert Region**	Federal
Cert/In-Use Code	Both	**Standard Level**	Federal LEV-II Evap
Test Procedure	Federal fuel refueling test (ORVR)		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	120,000 miles	HC	--	0.20	0.000

Evaporative/Refueling Family	GTYXR0130J72	**Cert Region**	California + CAA Section 177 states
Cert/In-Use Code	Both	**Standard Level**	California LEV-III Zero Evap (Option 2)
Test Procedure	California fuel 2-day evap		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.300	0.000

Evaporative/Refueling Family	GTYXR0130J72	**Cert Region**	California + CAA Section 177 states
Cert/In-Use Code	Both	**Standard Level**	California LEV-III Zero Evap (Option 2)
Test Procedure	Federal fuel refueling test (ORVR)		

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

Evaporative/Refueling Family	GTYXR0130J72	**Cert Region**	California + CAA Section 177 states
Cert/In-Use Code	Both	**Standard Level**	California LEV-III Zero Evap (Option 2)
Test Procedure	California Fuel Running Loss		

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

Evaporative/Refueling Family	GTYXR0130J72	**Cert Region**	California + CAA Section 177 states
Cert/In-Use Code	Both	**Standard Level**	California LEV-III Zero Evap (Option 2)
Test Procedure	CA fuel 3-day evap.		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.300	0.000

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	Evaporative/Refueling Family	GTYXR0130J72

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

Certification Region

CA	California + CAA Section 177 states	FA	Federal

Exhaust Emission Standard Level

B1	Federal Tier 2 Bin 1	L3ULEV340	California LEV-III ULEV340
B2	Federal Tier 2 Bin 2	L3ULEV250	California LEV-III ULEV250
B3	Federal Tier 2 Bin 3	L3ULEV200	California LEV-III ULEV200
B4	Federal Tier 2 Bin 4	L3SULEV170	California LEV-III SULEV170
B5	Federal Tier 2 Bin 5	L3SULEV150	California LEV-III SULEV150

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72
B6	Federal Tier 2 Bin 6	L3LEV630	California LEV-III LEV630
B7	Federal Tier 2 Bin 7	L3ULEV570	California LEV-III ULEV570
B8	Federal Tier 2 Bin 8	L3ULEV400	California LEV-III ULEV400
B9	Federal Tier 2 Bin 9	L3ULEV270	California LEV-III ULEV270
B10	Federal Tier 2 Bin 10	L3SULEV230	California LEV-III SULEV230
B11	Federal Tier 2 Bin 11	L3SULEV200	California LEV-III SULEV200
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)	T3B160	Federal Tier 3 Bin 160
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	T3B125	Federal Tier 3 Bin 125
L2	California LEV-II LEV	T3B110	Federal Tier 3 Transitional Bin 110
L2OP	California LEV-II LEV Optional	T3B85	Federal Tier 3 Transitional Bin 85
U2	California LEV-II ULEV	T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover
S2	California LEV-II SULEV	T3B70	Federal Tier 3 Bin 70
ZEV	California ZEV	T3B50	Federal Tier 3 Bin 50
OT	Other	T3B30	Federal Tier 3 Bin 30
T1	Federal Tier 1	T3B20	Federal Tier 3 Bin 20
PZEV	California PZEV	T3B0	Federal Tier 3 Bin 0
L2LEV160	California LEV-II LEV160	HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395
L2ULEV125	California LEV-II ULEV125	HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340
L2SULEV30	California LEV-II SULEV30	HDV2B250	Federal Tier 3 HD Class 2b Bin 250
L2LEV395	California LEV-II LEV395	HDV2B200	Federal Tier 3 HD Class 2b Bin 200
L2ULEV340	California LEV-II ULEV340	HDV2B170	Federal Tier 3 HD Class 2b Bin 170
L2LEV630	California LEV-II LEV630	HDV2B150	Federal Tier 3 HD Class 2b Bin 150
L2ULEV570	California LEV-II ULEV570	HDV2B0	Federal Tier 3 HD Class 2b Bin 0
L3LEV160	California LEV-III LEV160	HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630
L3ULEV125	California LEV-III ULEV125	HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570
L3ULEV70	California LEV-III ULEV70	HDV3B400	Federal Tier 3 HD Class 3 Bin 400
L3ULEV50	California LEV-III ULEV50	HDV3B270	Federal Tier 3 HD Class 3 Bin 270
L3SULEV30	California LEV-III SULEV30	HDV3B230	Federal Tier 3 HD Class 3 Bin 230
L3SULEV20	California LEV-III SULEV20	HDV3B200	Federal Tier 3 HD Class 3 Bin 200
L3LEV395	California LEV-III LEV395	HDV3B0	Federal Tier 3 HD Class 3 Bin 0

Transmission Type Code			
AMS	Automated Manual- Selectable (e.g. Automated Manual with paddles)	M	Manual
A	Automatic	OT	Other
AM	Automated Manual	SA	Semi-Automatic
CVT	Continuously Variable	SCV	Selectable Continuously Variable (e.g. CVT with paddles)

Drive System Code			
4	4-Wheel Drive	P	Part-time 4-Wheel Drive
F	2-Wheel Drive, Front	A	All Wheel Drive
R	2-Wheel Drive, Rear		

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Certification Summary Information Report

Test Group	GTYXV01.8PC4	**Evaporative/Refueling Family**	GTYXR0130J72
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

8 Emission testing waiver statements

Please refer to the FOI common file for the following test waiver statements:

- High Altitude Exhaust Emissions
- High Altitude Evap/Refueling Emissions
- 91 RON fuel testing
- Certification Short Test
- Idle CO for LDTs
- Formaldehyde (HCHO)
- Nitrous Oxide (N2O)
- Spitback
- Total Hydrocarbon (THC)

9. OBD System Description

Please refer to the CBI common file for the common information.

The representative test group OBD application is uploaded into Verify system.

Please refer to the file named below.

File name: OBD_GTYXV02.5PC4_A-L.pdf

Toyota states that the OBD application meets the requirements of 40 CFR 86.1806-05 and 86.1844-01(d)(9) and is considered part of the Part 1 certification application.

10. Description of Alternate-fueled Vehicles

Please refer to the FOI common file.

11. Auxiliary Emission Control Devices (AECD) Descriptions

Please refer to the CBI common file.

12. Description of Vehicles Covered by Certificate

12.1 Vehicle parameters

Durability Group : GTYXHHGNNF27
Test Group : GTYXV01.8PC4
Evap./Refueling Family : GTYXR0130J72
Emission Control System : SFI,EGR,EGRC,WR-HO2S,TWC(2),HO2S

Carline	Model name	Model code	Engine Code	Valves/ cyl	Engine Disp. (L)	Sales Area	Trans-mission*2/ Overdrive	SIL	Tire*1	N/V	ETW (lb.)	Fuel tank vol. (L)
PRIUS	TOYOTA PRIUS THREE/FOUR	ZVW51L-AHXGBA	01	4	1.798	50	P610 (AV-3) / N/A	N/A	P195/65R15 AS	20.0	3375	43
			01	4	1.798	50	P610 (AV-3) / N/A	N/A	P215/45R17 AS	20.1	3375	43
	TOYOTA PRIUS THREE TOURING/FOUR TOURING	ZVW51L-AHXHBA	01	4	1.798	50	P610 (AV-3) / N/A	N/A	P215/45R17 AS	20.1	3375	43
PRIUS Eco	TOYOTA PRIUS TWO ECO	ZVW51L-AHXBBA	01	4	1.798	50	P610 (AV-3) / N/A	N/A	P195/65R15 AS	20.0	3250	43

Note*1: AS : All-season tire
*2: The number after "-" indicates the number of transmission mode.

12.2 Test Parameters

Please refer to the FOI common file.

13. Projected Sales and Compliance Plans

Please refer to the CBI common file.

14. Request for Certificate

Test group : GTYXV01.8PC4
Evap/refueling family : GTYXR0130J72

TOYOTA MOTOR CORPORATION requests that EPA issue a 2016 model year certificate of conformity for the above specified test group/evaporative family combination more fully described in this application. This combination complies with the following emission standards:

		low-altitude	high altitude	Bin No
Federal:	Tier1			
	InterimNon-Tier2			
	Tier2	X	X	3

California:	LEVI : LEV		ULEV	
	LEVII : LEV		ULEV	
	SULEV		PZEV	
	LEVIII : LEV160		ULEV125	
	ULEV70		ULEV50	
	SULEV30(AT PZEV)	X	SULEV20	

This combination meet all applicable regulations contained within 40 CFR Part 85, 86, and 600, the application is current as of this date.

Kevin Webber
General Manager
Toyota Technical Center U.S.A. Inc.

15. Other Information

15.1 Fee filing form

U.S. Environmental Protection Agency
Motor Vehicle and Engine Compliance Program
On-Highway Fee Filing Form
For Certification Applications Received In Calendar Year 2015

(4)

Manufacturer Name: Toyota Motor Engineering & Mfg. NA, Inc. (TEMA) - TTC

Address: 1555 Woodridge Ave.

City/State/Zip Code/Country: Ann Arbor, MI 48105 (USA)

On-Highway Certification Request Type (check one)

- [x] LDV/LDT/MDPV/HDV (Chassis cert) FEDERAL ($26,741)
- [ ] LDV/LDT/MDPV/HDV (Chassis cert) CAL-ONLY ($14,193)
- [ ] HDE (Engine Dyno cert) FEDERAL ($47,664)
- [ ] HDV EVAP-ONLY ($563)
- [ ] HDE CALIF-ONLY ($563)
- [ ] MOTORCYCLE ($1,852)
- [ ] LD/MDPV/HDV ICI ($76,399)

EPA standard family or test group: GTYXV01.8PC4

Amount paid (U.S. Funds Only): $ 26,741.00

Enter the check number, or the statement "WIRE" or "ACH": "WIRE"

Reduced Fee Section (40 CFR §1027.120)
Reduced fee calculation (minimum initial payment $750): Total number of vehicles/units covered: ___
Aggregate retail sales price of the vehicles/units: $ _____ **x 1% = $** _____
Check box if an Independent Commercial Importer: ☐ **List the VIN of imported vehicles/engines below:**

Company Representative: Kevin D. Webber Signature: Kevin D. Webber

Title: General Mgr. - VRCE Dept. Phone/Fax: 734/995-7132 /734/995-9049 Date: 02/12/2015

E-mail Address: certifications@tema.toyota.com

Submission of payments and forms:
(1) Online: **Forms** may be found and submitted with or without **payments** online at www.Pay.gov.
(2) By mail: For check payments only, send **checks** and this **form** to:

Environmental Protection Agency
Motor Vehicle and Engine Compliance Program
P.O. Box 979032
St. Louis, MO 63197-9000

(3) Transmit offline Wire **payments** to the New York Federal Reserve Bank. (See Instructions, p.2)
(4) Transmit offline ACH **payments** to the Federal Reserve Bank of Cleveland. (Instructions, p.2)
(5) **Forms** not submitted under (1) and (2) above can be sent as email attachments to Fees@epa.gov.
Forms and payments sent in ways other than the above may be delayed or ineffective. See the Instructions for sending checks and forms by private mail service (e.g., Federal Express).

The public reporting and recordkeeping burden for this collection of information is estimated to average 18 minutes per response. Send comments on EPA's need for this information, the accuracy of the provided burden estimate, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques, to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed Form 3520-29 to this address.

This form approved under OMB control number 2060-0545 until October 31, 2016. EPA Form 3520-29 (revised 10-2013).

15.2 SFTP / Lean Best Torque (LBT) Air fuel Ratio Information

Please refer to the CBI common file.

16. Confidential Information

Please refer to the CBI common file.

17. California ARB Information

17.1 Statement of Compliance

17.2 High-Altitude Test Requirements

17.3 Compliance with fuel fill pipe specifications

17.4 Compliance with the location requirement of the vent tube opening in the fill pipe

17.5 Supplemental information and data for compliance with the enhanced evaporative requirements for California

17.6 New unique or changed emission control technology

17.7 Service literature

17.8 Emission Control Information Labels

17.9 Service Information Availability

17.10 Identification of AB71-Qualified Vehicles (Mail-Out #MSO-2000-04)

Please refer to the FOI common file.

2016 MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: TOYOTA Exh Test Group: GTYXV01.8PC4 Evap Fam: GTYXR0130J72
All Eng Codes in Eng Fam: CA __ 49S __ 50S x AB965 __ , ORVR: YES x NO __
Exh Std: CA LEVII: LEV __ ULEV __ SULEV __ US EPA Interim Non-Tier2 __
LEVIII: LEV160 __ ULEV125 __ ULEV70 __ Tier2 x
ULEV50 __ SULEV30 __ SULEV20 __ SULEV30 (AT PZEV) x
Evap Std: LEVII __ LEVII Zero-Evap __ LEVIII (Option 1) __ LEVIII (Option 2) x
Veh Class(es): PC x LDT1 __ LDT2 __ MDV1 __ MDV2 __ MDV3 __ MDV4 __ MDV5 __
Single Cert Std for Multi-Class Eng Fam: N/A (specify: N/A, LDT1, MDV1, MDV2, MDV3, MDV4)
Fuel Type(s): Dedicated x Flex-Fuel __ Dual-Fuel __ Bi-Fuel __ Gasoline x Diesel __
CNG __ LNG __ LPG __ M85 __ Other (specify) _____
Exh Emiss Test Fuel(s): Indo __ CBG x CNG __ LPG __ M85 __ Other (specify) _____
Diesel: 13 CCR 2282 __ 40 CFR 86.113-90 __ 40 CFR 86.113-94 __
Evaporative Emission Test Procedure: California x Federal __
Service Accum: Std AMA __ Mod AMA __ Mfr ADP x Other (specify) _____
NMOG Test Procedure: N/A __ Std __ Equiv x R/L Test Proc: SHED __ Pt Source x
Engine Configuration: I-4 Displacement: 1.8 Liters 109.7 Cubic Inches
Valves per Cylinder: 4 Rated HP1: 96@5,200 RPM
Engine: Front x Mid __ Rear __ Drive: FWD x RWD __ 4WD-FT __ 4WD-PT __
Exhaust ECS (e.g., MFI, EGR, TC, CAC): SFI,EGR,EGRC,WR-HO2S,TWC(2),HO2S
(use abbreviations per SAE J1930 JUN93)

Engine Code (also list CA/49S/ 50ST	Vehicle Models (if coded see attachment)	Trans. (M5, A4, etc.)*1	ETW or Test Wt	DPA or RLHP
01	ZVW51L-AHXBBA	AV-3	3250	8.8
	ZVW51L-AHXGBA		3375	9.0/10.2
	ZVW51L-AHXHBA			10.2

Comment : Please refer to manufacturer's HP list for correct dyno HP setting based on model and equipment.

Note *1: The number after "-" indicates the number of transmission mode.

VEHICLE MODELS:

PRIUS	PRIUS Eco
ZVW51L-AHXGBA ZVW51L-AHXHBA	ZVW51L-AHXBBA

2016 MODEL-YEAR AIR RESOURCES BOARD CERTIFICATION REVIEW SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: TOYOTA Exh Test Group: GTYXV01.8PC4 Evap Fam: GTYXR0130J72
All Eng Codes in Eng Fam: CA __ 49S __ 50S x AB965 __ , ORVR: YES x NO __
Exh Std: CA LEVII: LEV __ ULEV __ SULEV __ US EPA Interim Non-Tier2 __
LEVIII: LEV160 __ ULEV125 __ ULEV70 __ Tier2 x
ULEV50 __ SULEV30 __ SULEV20 __ SULEV30 (AT PZEV) x
Evap Std: LEVII __ LEVII Zero-Evap __ LEVIII (Option 1) __ LEVIII (Option 2) x
Veh Class(es): PC x LDT1 __ LDT2 __ MDV1 __ MDV2 __ MDV3 __ MDV4 __ MDV5 __
Single Cert Std for Multi-Class Eng Fam: N/A (specify: N/A, LDT1, MDV1, MDV2, MDV3, MDV4)
Fuel Type(s): Dedicated x Flex-Fuel __ Dual-Fuel __ Bi-Fuel __ Gasoline x Diesel __
CNG __ LNG __ LPG __ M85 __ Other (specify) _____
Exh Emiss Test Fuel(s): Indo __ CBG x CNG __ LPG __ M85 __ Other (specify) _____
Diesel: 13 CCR 2282 __ 40 CFR 86.113-90 __ 40 CFR 86.113-94 __
Evaporative Emission Test Procedure: California x Federal __
Service Accum: Std AMA __ Mod AMA __ Mfr ADP x Other (specify) _____
NMOG Test Procedure: N/A __ Std __ Equiv x R/L Test Proc: SHED __ Pt Source x
Engine Configuration: I-4 Displacement: 1.8 Liters 109.7 Cubic Inches
Valves per Cylinder: 4 Rated HP1: 96@5,200 RPM
Engine: Front x Mid __ Rear __ Drive: FWD x RWD __ 4WD-FT __ 4WD-PT __
Exhaust ECS (e.g., MFI, EGR, TC, CAC): SFI,EGR,EGRC,WR-HO2S,TWC(2),HO2S
(use abbreviations per SAE J1930 JUN93)

Section #			Section #		
1	Authorized Representative	FOI-1.2	22	Gen std, increase in Emiss, Safety, Meets all Reqm	FOI-8
2	Fuel Specifications	-			
3	Test Equipment	-	23	Driveability Statement	FOI-17.1
4	Test Procedure	-	24	Adjustable Parameters	-
5	Mileage Accumulation Route	CBI-4	25	Tamper Resistance Method(s)	-
6	Emission Warranty Statement	Part2 FOI-6.00.01	26	Fill Pipe Specifications	FOI-17.3
7	Maint: Cert/Req'd/Recm'd	-	27	High Altitude Compliance	FOI-17.2
8	Emiss Label/Vac Hose Diag	-	28	OBD Sys incl Marked Revisions	CBI-9.1
9	Evap Control System	FOI-3	29	I & M Test Procedure & Data	-
10	Engine Parameters	5	30	50 Degree F Compliance	-
11	Fuel System	-	31	Manufacturer's RAF	-
12	Ignition System	-	32	Phase-In Plans	CBI-17
13	Exhaust Control System	FOI-5	33	NMOG+NOx Fleet Average Calculation	CBI-17.13
14	Proj Sales(LDT/MDV Split)	CBI-17.1			
15	Vehicle Description	12.1	34	AB965 Credits/Withdrawals	-
16	Evap Bench Test Procedure	-	35	EPA Certificate	to follow
17	R/L Temp & Press Profiles	FOI-4.3	36	Equiv NMOG Proc-ARB Approval	NMOG/NMHC= FTP=1.10, SFTP&HWY=1.03
18	EDV Selection	-			
19	Prod Veh same as Test Veh	FOI-17.1			
20	Emission Label Durability	-			

21 Test Vehicle Information	Durability Data	Durability Vehicle	Emission Data	Emission Vehicle	Emission Data	Emission Vehicle	Emission Data	Emission Vehicle
C/O or C/A MY ID		16B-ZV1H		16-ZV1H		16-ZV2H		
Vehicle Log Page(s)	-		6		6			
Zero Mile Book Page(s)	-		7		7			
Maint Logs & Engr Eval	-		-		-			

Continued on next page

2016 MODEL-YEAR AIR RESOURCES BOARD CERTIFICATION REVIEW SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: TOYOTA Exhaust Test Group: GTYXV01.8PC4 Evaporative Family: GTYXR0130J72

PROJECTED EMISSIONS
(grams/mile, except, grams/test for D+HS, and grams/gallon for ORVR) (1)

Emission Data Vehicle ID	E/G Code	Test Loc	Trans	ETW	RLHP	MPG City/ Hwy	Mile	NMOG +NOx	CO	PM	20°F CO	Hwy NMOG +NOx	City CO2	Hwy CO2	EVAPORATIVE Whole Vehicle 3-day D+HS*1	R/L	Whole Vehicle 2-day D+HS*1	ORVR	Canister Bleed*4
16-ZV1H	01	MFR	AV	3375	10.2	-/	50k	N/A	N/A	N/A	1.05	N/A	-	-	N/A	N/A	N/A	N/A	N/A
(00)*3						-	120k	N/A	N/A	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A
							150k	0.0177	0.14	0.0004	N/A	0.0084			0.1316	0.000	0.1176	0.009	N/A
(1) The EDV(s) above comply with standards of (@50k):								N/A	N/A	N/A	10.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(@120k):								N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(@150k):								0.030	1.0	0.003	N/A	0.030	N/A	N/A	0.300	0.05	0.300	0.20	N/A
Deterioration Factors(DFs) of (@50k) :								N/A	N/A	N/A	0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(@120k):								N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(@150k):								0.0053	0.07	0.0002	N/A	0.0053	N/A	N/A	N/A*2	N/A*2	N/A*2	N/A*2	N/A
50°F emissions (w/o DFs):								-	-										
50°F standards:								0.060	1.0										

SFTP Test results:

Emission Data Vehicle ID	E/G Code	Test Loc	Trans	ETW	RLHP	Mile	US06 CO2	PM	SC03 CO2	NMOG +NOx-Comp	CO-Comp
16-ZV1H (00)*3	01	MFR	AV	3375	10.2	150k	-	0.0004	-	0.0147	0.14
16-ZV2H (04)*3	01	MFR	AV	3375	10.2	150k	-	-	-		
(1) The EDV(s) above comply with standards of (@150k):							N/A	0.010	N/A	0.030	4.2
Deterioration Factors(DFs) of (@150k) :							N/A	0.0002	N/A	0.0053	0.07

Remarks *1: 1st DBL is added key off monitor loss (0.0017gram).
*2: DFs are not applicable because aged components were adopted to EDV.
*3: Power shift pattern.
*4: Vehicles with a non-integrated refueling canister-only system are exempt from the canister bleed emission standard. According to CALIFORNIA EVAPORATIVE EMISSION STANDARDS AND TEST PROCEDURES FOR 2001 AND SUBSEQUENT MODEL MOTOR VEHICLES PART I.E.1.(e)(i)(B)(4)

Application Processed by Data Issued: _____ Date: _____ Reviewed by: _____ Date: _____

Attestation of compliance with California Inspection and Maintenance emission standards

Toyota states that the models in this test group comply with the California Inspection and Maintenance emission requirements base on our good engineering evaluation.

17.12 Test group and Evaporative family sales for California

17.13 Compliance with fleet average FTP NMOG+NOx standard

17.14 Compliance with OBD-II Phase-in Requirements

17.15 Hybrid Electric Vehicle information (if applicable)

Please refer to the CBI common file.

18. Information on Service of Process

Please refer to Section 1 of the FOI common file.