

Memorandum

TO: Docket for rulemaking: “Corporate Average Fuel Economy Standards for Model Years 2024-2026 Passenger Cars and Light Trucks” (NHTSA-2021-0053)

DATE: July 23, 2021

SUBJECT: Evaluation of Rolling Resistance and Wet Grip Performance of OEM Stock Tires Obtained from NCAP Crash Tested Vehicles Phase One and Two

From: Greg Powell, Acting Chief, Division of Fuel Economy

This memorandum provides results of a project performed by Smithers SME, under contract with the National Highway Traffic Safety Administration (NHTSA), and detailed in the draft report “Evaluation of Rolling Resistance and Wet Grip Performance of OEM Stock Tires Obtained from NCAP Crash Tested Vehicles Phase One and Two.” NHTSA relied on the tire rolling resistance coefficient (RRC) values from this project to assign tire rolling resistance technology in the model year 2020 analysis fleet for the Corporate Average Fuel Economy Standards for Model Years 2024-2026 Passenger Cars and Light Trucks proposed rulemaking. NHTSA is therefore providing these draft appendices for public review and comment in conjunction with the proposed rule.

The project evaluated the possible relationship between tire rolling resistance values and tire performance features specified in NHTSA’s Uniform Tire Quality Grading (UTQG) Standards.¹ Tire rolling resistance values were measured pursuant to two indoor rolling resistance tests, ISO28580 and SAEJ2452.²

Phase one of the project (testing completed in 2019) measured RRC values from 94 OEM stock tires from New Car Assessment Program (NCAP) crash tested vehicles. Phase one OEM ISO28580 RRC values ranged from 6.78 to 10.91, with an average of 8.12. See Appendix 2 for individual tire RRC values. In addition, Transport Canada’s ecoTechnology for Vehicles program provided ISO28580 rolling resistance test data from a replacement-tire test sample group. Replacement market tire group ISO28580 RRC values ranged from 7.34 to 12.21, with an average of 9.73. See Appendix 3 for individual tire RRC values for the replacement tire sample group.

Phase two of the project (testing completed in 2020) measured RRC values from 66 OEM stock tires from NCAP crash tested vehicles. Phase two ISO28580 RRC values ranged from 6.22 to 9.06 with an average of 7.63. See Appendix 5 for additional details.

¹ See 49 CFR 575.104. Motor vehicle and tire manufacturers and tire brand name owners are required to provide information indicating the relative performance of passenger car tires in the areas of treadwear, traction, and temperature resistance.

² See ISO28580:2018, Passenger car, truck and bus tyre rolling resistance measurement method — Single point test and correlation of measurement results; SAEJ2452, Stepwise Coastdown Methodology for Measuring Tire Rolling Resistance.

Appendix 1: Phase One - details of the ninety-four OEM stock tires received from NCAP crash test vehicles.

Details - ninety-four OEM stock tires received from ACAP crash test vehicles									
Smithers Tracking Number	Client Tire ID	Tire Position	Model VIN	Sent from	Vehicle Test Mode	Milage (M)	Tire Size and Recommended Pressure from Vehicle Tire Placard	Brand/Type	DOT Code
1808856	M20185201	RF	2018 Nissan Armada JN8AY2ND7J9053784	Calspan	Side Impact Pole	16	265/70R18, 240 kPa	Dunlop Grandtrek AT23	V4D63DDR2817
1808858	M20185201	RR	2018 Nissan Armada JN8AY2ND7J9053784	Calspan	Side Impact Pole	16	265/70R18, 240 kPa	Dunlop Grandtrek AT23	V4D63DDR2817
1808859	M20180108	RR	2018 Chevrolet Traverse 1GNERFKW6J115530	Calspan	Side Impact Pole	188	255/65R18, 240 kPa	Bridgestone Dueler H/L Alenza	7XAXDH13317
1808860	M20180108	RF	2018 Chevrolet Traverse 1GNERFKW6J115530	Calspan	Side Impact Pole	188	255/65R18, 240 kPa	Bridgestone Dueler H/L Alenza	7XAXDH13317
1808861	M20180215	RF	2018 Ford Mustang 1FA6P8TH9J5106320	Calspan	Side Impact Pole	108	235/55R17, 220 kPa	Hankook Ventu S1 Noble2	T73F1AH1617
1808862	M20180215	RF	2018 Ford Mustang 1FA6P8TH9J5106320	Calspan	Side Impact Pole	108	235/55R17, 220 kPa	Hankook Ventu S1 Noble2	T73F1AH1617
1808863	M20180201	RF	2018 Ford Ecosport MAJ3P1RE7JC184114	Calspan	Side Impact Pole	135	205/60R16, 240 kPa	Bridgestone Ecopia EP422 Plus	1V20JNL4417
1808864	M20180201	RR	2018 Ford Ecosport MAJ3P1RE7JC184114	Calspan	Side Impact Pole	135	205/60R16, 240 kPa	Bridgestone Ecopia EP422 Plus	1V20JNL4517
1808865	M20180212	RR	2018 Ford Fiesta 3FADP4AJ0J109073	Calspan	Side Impact Pole	97	185/60R15, 220 kPa	Hankook Optimo H426	5MBTPDLH4817
1808866	M20180212	RF	2018 Ford Fiesta 3FADP4AJ0J109073	Calspan	Side Impact Pole	97	185/60R15, 220 kPa	Hankook Optimo H426	5MBTPDLH4817
1808867	M20185106	RF	2018 Toyota Prius C JTDKDTB39J1601764	Calspan	Side Impact Pole	5	P175/65R15, 260 kPa	Goodyear Assurance	EUJY3UMNR2917
1808868	M20185106	RR	2018 Toyota Prius C JTDKDTB39J1601764	Calspan	Side Impact Pole	5	P175/65R15, 260 kPa	Goodyear Assurance	EUJY3UMNR2917
1808869	M20180107	LR	2018 Chevrolet Traverse 1GNEVFKW0J113431	Calspan	Frontal Barrier Impact	234	255/65R18, 240 kPa	Bridgestone Dueler H/L Alenza	7XAXDH12517
1808870	M20180107	RR	2018 Chevrolet Traverse 1GNEVFKW0J113431	Calspan	Frontal Barrier Impact	234	255/65R18, 240 kPa	Bridgestone Dueler H/L Alenza	7XAXDH12517
1808871	M20180204	RR	2018 Ford Expedition 1FMJ1HT2JEA27021	Calspan	Side Impact Pole	6.7	275/65R18, 240 kPa	Hankook Dynapro HT	T7DUJUH4817
1808872	M20180204	RF	2018 Ford Expedition 1FMJ1HT2JEA27021	Calspan	Side Impact Pole	6.7	275/65R18, 240 kPa	Hankook Dynapro HT	T7DUJUH4817
1808874	M20180302	RF	2018 Dodge Grand Caravan 2C4RDGBG1JR134618	Calspan	Side Impact Pole	8	P225/65R17, 250 kPa	Kumho Solus KH16	27E6YPM2417
1808875	M20180302	RR	2018 Dodge Grand Caravan 2C4RDGBG1JR134618	Calspan	Side Impact Pole	8	P225/65R17, 250 kPa	Kumho Solus KH16	27E6YPM2417
1808876	M20185502	RR	2018 Subaru Crosstrek JF2GTAAC3JH212058	Calspan	Frontal Barrier Impact	26	P225/60R17, 230 kPa	Yokohama Geolandar G91	FDFCFE22717
1808877	M20185502	LR	2018 Subaru Crosstrek JF2GTAAC3JH212058	Calspan	Frontal Barrier Impact	26	P225/60R17, 230 kPa	Yokohama Geolandar G91	FDFCFE22717
1808878	M20185205	RR	2018 Nissan Rogue Sport JN1BU1CP1JW104907	Calspan	Side Impact Pole	21	215/65R16, 230 kPa	Yokohama Geolandar G055	FDHBFMC4417
1808879	M20185205	RF	2018 Nissan Rogue Sport JN1BU1CP1JW104907	Calspan	Side Impact Pole	21	215/65R16, 230 kPa	Yokohama Geolandar G055	FDHBFMC4417
1808672	M20184301	RR	2018 Mercedes	KARCO	SPNCAP	31	P235/60/R18, 240 kPa	Pirelli Scorpion Verde All Season	93K3T8992617
1808673	M20184301	RF	2018 Mercedes	KARCO	SPNCAP	31	P235/60/R18, 240 kPa	Pirelli Scorpion Verde All Season	93K3T8992617
1808674	M20184300	RR	2018 Mercedes	KARCO	NCAP	143	P235/60/R18, 240 kPa	Pirelli Scorpion Verde All Season	93K3T8992317
1808675	M20184300	LR	2018 Mercedes	KARCO	NCAP	143	P235/60/R18, 240 kPa	Pirelli Scorpion Verde All Season	93K3T8992417
1808676	M20185800	RR	2018 Audi Q5 WA1ANAFY6J2033013	KARCO	NCAP	114	P235/60/R18, 260 kPa	Michelin Premier LTX	M3XF0BFX1017
1808677	M20185800	LR	2018 Audi Q5 WA1ANAFY6J2033013	KARCO	NCAP	114	P235/60/R18, 260 kPa	Michelin Premier LTX	M3XF0BFX1017
1808678	M20180309	LR	2018 Jeep Grand Cherokee 1C4RJFAG8JC108479	KARCO	NCAP	115	P245/70R17, 230 kPa	Goodyear Fortera HL	4B83JD1R2717
1808679	M20180309	RR	2018 Jeep Grand Cherokee 1C4RJFAG8JC108479	KARCO	NCAP	115	P245/70R17, 230 kPa	Goodyear Fortera HL	4B83JD1R2717
1808680	M20180200	RR	2018 Ford EcoSport MAJ6P1SL6J168606	KARCO	NCAP	90	P205/60R16, 240 kPa	Bridgestone Ecopia EP422 Plus	1V20JNL3817
1808681	M20180200	LR	2018 Ford EcoSport MAJ6P1SL6J168606	KARCO	NCAP	90	P205/60R16, 240 kPa	Bridgestone Ecopia EP422 Plus	1V20JNL3817
1808682	M20180103	LR	2018 Chevrolet Camaro SS 1G1FF1R78J0106768	KARCO	NCAP	54	P275/35ZR20, 240 kPa	Goodyear Eagle F1 Asymmetric	M65YJMI2417
1808683	M20180103	RR	2018 Chevrolet Camaro SS 1G1FF1R78J0106768	KARCO	NCAP	54	P275/35ZR20, 240 kPa	Goodyear Eagle F1 Asymmetric	M65YJMI2417
1808684	M20180203	LR	2018 Ford Expedition 1FMJK1JTSJEA10374	KARCO	NCAP	306	275/65R18, 240 kPa	Michelin Primacy XC	AFB9015X4317
1808685	M20180203	RR	2018 Ford Expedition 1FMJK1JTSJEA10374	KARCO	NCAP	306	275/65R18, 240 kPa	Michelin Primacy XC	AFB9015X4317
1808687	M20185200	LR	2018 Nissan Armada JN8AY2NC0J9555172	KARCO	NCAP	25	P265/70R18, 240 kPa	Dunlop Grandtrek AT23	V4D63DDR3917
1808688	M20185200	RR	2018 Nissan Armada JN8AY2NC0J9555172	KARCO	NCAP	25	P265/70R18, 240 kPa	Dunlop Grandtrek AT23	V4D63DDR3917
1808690	M20185801	RR	2018 Audi Q5 WA1ANAFY3J2050951	KARCO	NCAP	34	235/60/R18, 260 kPa	Michelin Premier LTX	M3XF0BFX2117
1808691	M20185801	RF	2018 Audi Q5 WA1ANAFY3J2050951	KARCO	NCAP	34	235/60/R18, 260 kPa	Michelin Premier LTX	M3XF0BFX2117
1808692	M20180214	LR	2018 Ford Mustang 1FA6P8TH3J5103140	KARCO	NCAP	98	P235/55R17, 220 kPa	Hankook Ventus S1 Noble	T73F1AH0117
1808693	M20180214	RR	2018 Ford Mustang 1FA6P8TH3J5103140	KARCO	NCAP	98	P235/55R17, 220 kPa	Hankook Ventus S1 Noble	T73F1AH0117
1808694	M20185203	RR	2018 Nissan Maxima 1N4AA6AF6JC382394	KARCO	NCAP	168	245/45R18, 230 kPa	Continental ProContact TX	6G8UJBVA2317
1808695	M20185203	LR	2018 Nissan Maxima 1N4AA6AF6JC382394	KARCO	NCAP	168	245/45R18, 230 kPa	Continental ProContact TX	6G8UJBVA2317
1808696	M20185504	LR	2018 Subaru Legacy 4S3BNA64J3007745	KARCO	NCAP	12	P225/55R17, 220 kPa	Goodyear Assurance	M600M1R1517
1808697	M20185504	RR	2018 Subaru Legacy 4S3BNA64J3007745	KARCO	NCAP	12	P225/55R17, 220 kPa	Goodyear Assurance	M600M1R1517
1808698	M20185204	LR	2018 Nissan Rogue Sport JN1BU1CP5JW208026	KARCO	NCAP	33	P215/60R17, 230 kPa	Falken Sincera SN250A	V4ER3MHR4617
1808699	M20185204	RR	2018 Nissan Rogue Sport JN1BU1CP5JW208026	KARCO	NCAP	33	P215/60R17, 230 kPa	Falken Sincera SN250A	V4ER3MHR4617

Appendix 1: Phase one - details of the ninety-four OEM stock tires received from NCAP crash test vehicles.

Details - ninety-four OEM stock tires received from ACAP crash test vehicles									
Smithers Tracking Number	Client Tire ID	Tire Position	Model VIN	Sent from	Vehicle Test Mode	Milage (MI)	Tire Size and Recommended Pressure from Vehicle Tire Placard	Brand/Type	DOT Code
1808700	M20180306	RR	2018 Jeep Compass 3C4NJDAB8JT126783	KARCO	NCAP	78	P215/65/R16, 220 kPa	Continental Cross Contact LX Sport	HW6VWD361817
1808701	M20180306	LR	2018 Jeep Compass 3C4NJDAB8JT126783	KARCO	NCAP	78	P215/65/R16, 220 kPa	Continental Cross Contact LX Sport	HW6VWD361817
1808702	M20180307	RR	2018 Jeep Compass 3C4NJCA89JT136961	KARCO	SPNCAP	26	P215/65/R16, 220 kPa	Continental Cross Contact LX Sport	HW6VWD362017
1808703	M20180307	RF	2018 Jeep Compass 3C4NJCA89JT136961	KARCO	SPNCAP	26	P215/65/R16, 240 kPa	Continental Cross Contact LX Sport	HW6VWD362017
1808455	M20184201	RF	2018 Hyundai Santa Fe KM8SM4HFJXJ266564	MGA	Side	125	235/60R18, 33psi/230kpa	Kumho Crugen Premium	27CMYANH2117
1808473	M20184201	RR	2018 Hyundai Santa Fe KM8SM4HFJXJ266564	MGA	Side	125	235/60R18, 33psi/230kpa	Kumho Crugen Premium	27CMYANH2117
1808457	M20184101	RF	2018 BMW X1 WBXHT3C3J5F91601	MGA	Side	51	225/50R18, 32 psi/220kpa	Pirelli Cinturato P7 All Season	93Y7T6103417
1808478	M20184101	RR	2018 BMW X1 WBXHT3C3J5F91601	MGA	Side	51	225/50R18, 32 psi/220kpa	Pirelli Cinturato P7 All Season	93Y7T6103417
1808459	M20185100	LR	2018 Toyota Camry JTNB11HK8J3028996	MGA	Frontal	61	215/55R17, 35psi/240kpa	Bridgestone Ecopia EP422 Plus	ELLJMJF2917
1808475	M20185100	RR	2018 Toyota Camry JTNB11HK8J3028996	MGA	Frontal	61	215/55R17, 35psi/240kpa	Bridgestone Ecopia EP422 Plus	ELLJMJF2917
1808461	M20185103	RR	2018 Toyota CHR NMTKHMBX1JR012755	MGA	Frontal	66	225/50R18, 33psi/230kpa	Dunlop SP Sport 5000	R81NFMDR4016
1808456	M20185103	LR	2018 Toyota CHR NMTKHMBX1JR012755	MGA	Frontal	66	225/50R18, 33psi/230kpa	Dunlop SP Sport 5000	R81NFMDR4016
1808463	M20185104	RF	2018 Toyota CHR NMTKHMBX5JR023189	MGA	Side	53	225/50R18, 33psi/230kpa	Dunlop SP Sport 5000	R81NFMDR5116
1808477	M20185104	RR	2018 Toyota CHR NMTKHMBX5JR023189	MGA	Side	53	225/50R18, 33psi/230kpa	Dunlop SP Sport 5000	R81NFMDR5116
1808476	M20185300	RR	2018 Honda Accord 1HGCV1F12JA010000	MGA	Frontal	102	225/50R17, 32psi/220kpa	Hankook Kinergy GT	17TAB1BH02717
1808474	M20185300	LR	2018 Honda Accord 1HGCV1F12JA010000	MGA	Frontal	102	225/50R17, 32psi/220kpa	Hankook Kinergy GT	17TAB1BH02817
1808468	M20185301	RF	2018 Honda Accord 1HGCV1F1XJA009998	MGA	Side	159	225/50R17, 32psi/220kpa	Hankook Kinergy GT	17TAB1BH02717
1808464	M20185301	RR	2018 Honda Accord 1HGCV1F1XJA009998	MGA	Side	159	225/50R17, 32psi/220kpa	Hankook Kinergy GT	17TAB1BH02717
1808465	M20184200	RR	2018 Hyundai Santa Fe KM8SNDHF2JU267031	MGA	Frontal	44	235/60R18, 33psi/230kpa	Kumho Crugen Premium	27CMYANH2117
1808466	M20184200	LR	2018 Hyundai Santa Fe KM8SNDHF2JU267031	MGA	Frontal	44	235/60R18, 33psi/230kpa	Kumho Crugen Premium	27CMYANH2117
1808469	M20180101	RF	2018 Chevrolet Bolt EV 1G1FW6SOXJ4112428	MGA	Side	115	215/50R17, 38 psi/260kpa	Michelin Energy Saver A/S	M63803RX3617
1808470	M20180101	RR	2018 Chevrolet Bolt EV 1G1FW6SOXJ4112428	MGA	Side	115	215/50R17, 38 psi/260kpa	Michelin Energy Saver A/S	M63803RX3517
1808471	M20180100	LR	2018 Chevrolet Bolt EV 1G1FW6S03F4119415	MGA	Frontal	38	215/50R17, 38 psi/260kpa	Michelin Energy Saver A/S	M63803RX2817
1808472	M20180100	RR	2018 Chevrolet Bolt EV 1G1FW6S03F4119415	MGA	Frontal	38	215/50R17, 38 psi/260kpa	Michelin Energy Saver A/S	M63803RX2617
1808533	M20180300	RR	2018 Dodge Durango 1C4RDHA89JC114701	TRC	Pole	5	265/60R18, 250 kPa/36 PSI	Michelin Premier LTX	AP5E0TEX3917
1808534	M20180300	RF	2018 Dodge Durango 1C4RDHA89JC114701	TRC	Pole	5	265/60R18, 250 kPa/36 PSI	Michelin Premier LTX	AP5E0TEX3917
1808535	M20180105	RR	2018 Chevrolet Equinox 3GNA3HEV1J5S13746	TRC	Frontal	14	225/65R17, 240 kPa/35 PSI	Michelin Premier LTX	M33T02VX2617
1808536	M20180105	LR	2018 Chevrolet Equinox 3GNA3HEV1J5S13746	TRC	Frontal	14	225/65R17, 240 kPa/35 PSI	Michelin Premier LTX	M33T02VX2617
1808537	M20185804	RR	2018 Volkswagen Tiguan 3VW1B7AX2JM016042	TRC	Pole	102	215/65R17, 260 kPa/38 PSI	Bridgestone Ecopia EP422 Plus	V6E3EC12617
1808538	M20185804	RF	2018 Volkswagen Tiguan 3VW1B7AX2JM016042	TRC	Pole	102	215/65R17, 260 kPa/38 PSI	Bridgestone Ecopia EP422 Plus	V6E3EC12517
1808539	M20180210	RF	2018 Ford F150 SuperCab 1FTEX1CB3JFA48191	TRC	Pole	11	245/70R17, 250 kPa/36 PSI	Michelin LTX MS 2	M3X600AX3017
1808541	M20180210	RR	2018 Ford F150 SuperCab 1FTEX1CB3JFA48191	TRC	Pole	11	245/70R17, 250 kPa/36 PSI	Michelin LTX MS 2	M3X600AX3017
1808540	M20180210	SPARE	2018 Ford F150 SuperCab 1FTEX1CB3JFA48191	TRC		0	245/70R17, 250 kPa/36 PSI	Michelin LTX MS 2	M3X600AX2817
1808652	M20180207	SPARE	2018 Ford F150 SuperCrew 1FTEW1CP8JFA14486	TRC		0	245/70R17, 250 kPa/36 PSI	Michelin LTX MS 2	M3X600AX2417
1808647	M20180104	RR	2018 Chevrolet Equinox 2GNA3REV1J6188973	TRC	Frontal	13	255/65R17, 240 kPa/35 PSI	Bridgestone Ecopia HL 422 Plus	7X2YEC12117
1808648	M20180104	LR	2018 Chevrolet Equinox 2GNA3REV1J6188973	TRC	Frontal	13	255/65R17, 240 kPa/35 PSI	Bridgestone Ecopia HL 422 Plus	7X2YEC12117
1808649	M20185108	RR	2018 Toyota Sienna 5TDKZ3DCAJ5913976	TRC	Pole	1	P235/60R17, 240 kPa/35 PSI	Firestone FR710	W20U7124917
1808650	M20185108	RF	2018 Toyota Sienna 5TDKZ3DCAJ5913976	TRC	Pole	1	P235/60R17, 240 kPa/35 PSI	Firestone FR710	W20U7124917
1808651	M20180207	RR	2018 Ford F150 SuperCrew 1FTEW1CP8JFA14486	TRC	Pole	195.8	275/55R20, 230 kPa/33 PSI	Michelin LTX MS 2	B39Y002X2417
1808653	M20180207	RF	2018 Ford F150 SuperCrew 1FTEW1CP8JFA14486	TRC	Pole	195.8	275/55R20, 230 kPa/33 PSI	Michelin LTX MS 2	B39Y002X2417
1808655	M20180206	LR	2018 Ford F150 SuperCrew 1FTFW1E5XJFA42757	TRC	Frontal	163.7	275/55R20, 240 kPa/35 PSI	Hankook Dynapro AT M	5M8DRFH2617
1808654	M20180206	RR	2018 Ford F150 SuperCrew 1FTFW1E5XJFA42757	TRC	Frontal	163.7	275/55R20, 240 kPa/35 PSI	Hankook Dynapro AT M	5M8DRFH2617
1808467	M20184100	RR	2018 BMW X1 WBXHT3C3J5F91601	MGA	Frontal	72	225/50R18, 32 psi/220kpa	Goodyear Eagle Sport All Season	K578JN1R3317
1808460	M20185101	RR	2018 Toyota Camry 4T1B31HK7JU500724	MGA	Side	159	205/65R16, 35psi/240kpa	Firestone FT140	W23PFT02817
1808686	M20180203	SPARE	2018 Ford Expedition 1FMJK1JTSJEA10374	KARCO		0	265/70R17, 240 kPa	Goodyear Wrangler Fortitude HT	4B1YJER1R4717
1808656	M20180206	SPARE	2018 Ford F150 SuperCrew 1FTFW1E5XJFA42757	TRC		0	275/65R18, 240 kPa/35 PSI	Goodyear Wrangler Fortitude HT	4B1YJER1R3217

Appendix 2: Phase one - ISO28580 (RRC), SAEJ2452 (RRC) and Wet Grip Index data-ninety-four OEM stock tires obtained from NCAP crash test vehicles

Smithers Tracking Number	Client Tire ID	Tire Size and Recommended Pressure from Vehicle Tire Placard	Brand/Type	DOT Code	Test Wheel Size	ISO2850 RRC 2 m drum (N/kN)	SAE J2452 RRC 1.7 m drum (N/kN)	Wet Grip Index
1808856	M20185201-RF	265/70R18, 240 kPa	Dunlop Grandtrek AT23	V4D63DDR2817	18x8.0	8.47	8.48	1.21
1808858	M20185201-RR	265/70R18, 240 kPa	Dunlop Grandtrek AT23	V4D63DDR2817	18x8.0	8.57	8.70	1.26
1808859	M20180108-RR	255/65R18, 240 kPa	Bridgestone Dueler H/L Alenza	7XAXDH13317	18x7.5	7.28	7.13	1.23
1808860	M20180108-RF	255/65R18, 240 kPa	Bridgestone Dueler H/L Alenza	7XAXDH13317	18x7.5	7.57	7.45	1.24
1808861	M20180215-RF	235/55R17, 220 kPa	Hankook Ventu S1 Noble2	T73F1AH1617	17x7.5	8.76	8.72	1.28
1808862	M20180215-RR	235/55R17, 220 kPa	Hankook Ventu S1 Noble2	T73F1AH1617	17x7.5	8.70	8.59	1.32
1808863	M20180201-RF	205/60R16, 240 kPa	Bridgestone Ecopia EP422 Plus	1V20JNL4417	16X6.0	7.46	7.40	1.23
1808864	M20180201-RR	205/60R16, 240 kPa	Bridgestone Ecopia EP422 Plus	1V20JNL4517	16x6.0	7.69	7.61	1.24
1808865	M20180212-RR	185/60R15, 220 kPa	Hankook Optimo H426	5MBTPDLH4817	15X5.5	9.65	9.55	1.24
1808866	M20180212-RF	185/60R15, 220 kPa	Hankook Optimo H426	5MBTPDLH4817	15X5.5	9.43	9.40	1.20
1808867	M20185106-RF	P175/65R15, 260 kPa	Goodyear Assurance	EJYU3MNR2817	15x5.0	9.36	9.28	1.16
1808868	M20185106-RR	P175/65R15, 260 kPa	Goodyear Assurance	EJYU3MNR2917	15X5.0	9.37	9.26	1.14
1808869	M20180107-LR	255/65R18, 240 kPa	Bridgestone Dueler H/L Alenza	7XAXDH12517	18X7.5	7.42	7.26	1.23
1808870	M20180107-RR	255/65R18, 240 kPa	Bridgestone Dueler H/L Alenza	7XAXDH12517	18x7.5	7.56	7.45	1.25
1808871	M20180204-RR	275/65R18, 240 kPa	Hankook Dynapro HT	T7DUHUH4817	18X8.0	7.27	7.25	1.16
1808872	M20180204-RF	275/65R18, 240 kPa	Hankook Dynapro HT	T7DUHUH4817	18x8.0	7.11	7.06	1.12
1808874	M20180302-RF	P225/65R17, 250 kPa	Kumho Solus KH16	27E6YP5M2417	17X6.5	8.79	8.67	1.29
1808875	M20180302-RR	P225/65R17, 250 kPa	Kumho Solus KH16	27E6YP5M2417	17X6.5	8.81	8.69	1.23
1808876	M20185502-RR	P225/60R17, 230 kPa	Yokohama Geolandar G91	FDPCPE22717	17x6.5	7.58	7.43	1.14
1808877	M20185502-LR	P225/60R17, 230 kPa	Yokohama Geolandar G91	FDPCPE22717	17x6.5	7.40	7.35	1.15
1808878	M20185205-RR	215/65R16, 230 kPa	Yokohama Geolandar G055	FDHBPWC4417	16X6.5	8.21	8.04	1.10
1808879	M20185205-RF	215/65R16, 230 kPa	Yokohama Geolandar G055	FDHBPWC4417	16x6.5	8.28	8.16	1.12
1808672	M20184301-RR	P235/60R18, 240 kPa	Pirelli Scorpion Verde All Season	93K3T8992617	18x7.0	9.32	9.00	1.41
1808673	M20184301-RF	P235/60R18, 240 kPa	Pirelli Scorpion Verde All Season	93K3T8992617	18x7.0	9.24	9.02	1.42
1808674	M20184300-RR	P235/60R18, 240 Kpa	Pirelli Scorpion Verde All Season	93K3T8992317	18X7.0	9.48	9.24	1.43
1808675	M20184300-LR	P235/60R18, 240 Kpa	Pirelli Scorpion Verde All Season	93K3T8992417	18x7.0	9.30	9.05	1.44
1808676	M20185800-RR	P235/60R18, 260 kPa	Michelin Premier LTX	M3XF0BFX1017	18x7.0	7.81	7.93	1.38
1808677	M20185800-LR	P235/60R18, 260 kPa	Michelin Premier LTX	M3XF0BFX1017	18x7.0	7.83	7.87	1.38
1808678	M20180309-LR	P245/70R17, 230 kPa	Goodyear Fortera HL	4B83JD1R2717	17x7.0	8.50	8.38	1.14
1808679	M20180309-RR	P245/70R17, 230 kPa	Goodyear Fortera HL	4B83JD1R2717	17x7.0	8.39	8.27	1.15
1808680	M20180200-RR	P205/60R16, 240 kPa	Bridgestone Ecopia EP422 Plus	1V20JNL3817	16x6.0	7.55	7.58	1.37
1808681	M20180200-LR	P205/60R16, 240 kPa	Bridgestone Ecopia EP422 Plus	1V20JNL3817	16x6.0	7.33	7.32	1.33
1808682	M20180103-LR	P275/35ZR20, 240 kPa	Goodyear Eagle F1 Asymmetric	M65YJM1R2417	20X9.5	10.91	10.52	1.42
1808683	M20180103-RR	P275/35ZR20, 240 kPa	Goodyear Eagle F1 Asymmetric	M65YJM1R2417	20x9.5	10.57	10.16	1.27
1808684	M20180203-LR	275/65R18, 240 kPa	Michelin Primacy XC	APB9015X4317	18x8.0	6.78	6.69	1.22
1808685	M20180203-RR	275/65R18, 240 kPa	Michelin Primacy XC	APB9015X4317	18x8.0	6.78	6.80	1.25
1808687	M20185200-LR	P265/70R18, 240 kPa	Dunlop Grandtrek AT23	V4D63DDR3917	18X8.0	7.97	8.01	1.22
1808688	M20185200-RR	P265/70R18, 240 kPa	Dunlop Grandtrek AT23	V4D63DDR3917	18x8.0	8.10	8.11	1.25
1808690	M20185801-RR	235/60R18, 260 kPa	Michelin Premier LTX	M3XF0BFX2117	18x7.0	7.90	8.06	1.36
1808691	M20185801-RF	235/60R18, 260 kPa	Michelin Premier LTX	M3XF0BFX2117	18x7.0	7.90	8.01	1.41
1808692	M20180214-LR	P235/55R17, 220 kPa	Hankook Ventus S1 Noble	T73F1AH0117	17x7.5	8.97	8.86	1.31
1808693	M20180214-RR	P235/55R17, 220 kPa	Hankook Ventus S1 Noble	T73F1AH0117	17x7.5	8.84	8.75	1.31
1808694	M20185203-RR	245/45R18, 230 kPa	Continental ProContact TX	6G8UWBVA2317	18X8.0	8.52	8.44	1.40
1808695	M20185203-LR	245/45R18, 230 kPa	Continental ProContact TX	6G8UWBVA2317	18X8.0	9.12	9.11	1.37
1808696	M20185504-LR	P225/55R17, 220 kPa	Goodyear Assurance	M600ML1R1517	17x7.0	8.19	8.15	1.38
1808697	M20185504-RR	P225/55R17, 220 kPa	Goodyear Assurance	M600ML1R1517	17x7.0	8.22	8.22	1.31
1808698	M20185204-LR	P215/60R17, 230 kPa	Falken Sincera SN250A	V4ER3MHR4617	17X6.5	9.23	9.18	1.21
1808699	M20185204-RR	P215/60R17, 230 kPa	Falken Sincera SN250A	V4ER3MHR4617	17x6.5	9.15	9.10	1.24

Appendix 2: Phase one - ISO28580 (RRC), SAEJ2452 (RRC) and Wet Grip Index data-ninety-four OEM stock tires obtained from NCAP crash test vehicles

Smithers Tracking Number	Client Tire ID	Tire Size and Recommended Pressure from Vehicle Tire Placard	Brand/Type	DOT Code	Test Wheel Size	ISO2850 RRC 2 m drum (N/kN)	SAE J2452 RRC 1.7 m drum (N/kN)	Wet Grip Index
1808700	M20180306-RR	P215/65/R16, 220 kPa	Continental Cross Contact LX Sport	HW6VWD361817	16x6.5	8.51	8.41	1.34
1808701	M20180306-LR	P215/65/R16, 220 kPa	Continental Cross Contact LX Sport	HW6VWD361817	16x6.5	8.47	8.38	1.36
1808702	M20180307-RR	P215/65/R16, 220 kPa	Continental Cross Contact LX Sport	HW6VWD362017	16X6.5	8.26	8.13	1.32
1808703	M20180307-RF	P215/65/R16, 240 kPa	Continental Cross Contact LX Sport	HW6VWD362017	16x6.5	8.26	8.14	1.34
1808455	M20184201-RF	235/60R18, 33psi/230kpa	Kumho Crugen Premium	27CMYANH2117	18x7.0	7.83	7.87	1.27
1808473	M20184201-RR	235/60R18, 33psi/230kpa	Kumho Crugen Premium	27CMYANH2117	18x7.0	7.82	7.86	1.24
1808457	M20184101-RF	225/50R18, 32 psi/220kpa	Pirelli Cinturato P7 All Season	93Y7T6103417	18x7.0	8.90	8.77	1.36
1808478	M20184101-RR	225/50R18, 32 psi/220kpa	Pirelli Cinturato P7 All Season	93Y7T6103417	18X7.0	8.68	8.63	1.32
1808459	M20185100-LR	215/55R17, 35psi/240kpa	Bridgestone Ecopia EP422 Plus	ELLMJMF2917	17X7.0	8.57	8.42	1.22
1808475	M20185100-RR	215/55R17, 35psi/240kpa	Bridgestone Ecopia EP422 Plus	ELLMJMF2917	17x7.0	8.17	8.34	1.15
1808461	M20185103-RR	225/50R18, 33psi/230kpa	Dunlop SP Sport 5000	R81NFMDR4016	18x7.0	8.09	7.97	1.25
1808456	M20185103-LR	225/50R18, 33psi/230kpa	Dunlop SP Sport 5000	R81NFMDR4016	18X7.0	8.13	8.01	1.30
1808463	M20185104-RF	225/50R18, 33psi/230kpa	Dunlop SP Sport 5000	R81NFMDR5116	18X7.0	7.87	8.10	1.29
1808477	M20185104-RR	225/50R18, 33psi/230kpa	Dunlop SP Sport 5000	R81NFMDR5116	18x7.0	7.92	8.17	1.23
1808476	M20185300-RR	225/50R17, 32psi/220kpa	Hankook Kinergy GT	1T7AB1BH02717	17x7.0	7.64	7.51	1.36
1808464	M20185301-RR	225/50R17, 32psi/220kpa	Hankook Kinergy GT	1T7AB1BH02717	17x7.0	7.89	7.83	1.33
1808468	M20185301-RF	225/50R17, 32psi/220kpa	Hankook Kinergy GT	1T7AB1BH02717	17x7.0	7.74	7.62	1.30
1808474	M20185300-LR	225/50R17, 32psi/220kpa	Hankook Kinergy GT	1T7AB1BH02817	17x7.0	7.45	7.41	1.28
1808465	M20184200-RR	235/60R18, 33psi/230kpa	Kumho Crugen Premium	27CMYANH2117	18x7.0	7.90	7.86	1.21
1808466	M20184200-LR	235/60R18, 33psi/230kpa	Kumho Crugen Premium	27CMYANH2117	18x7.0	7.88	7.95	1.21
1808469	M20180101-RF	215/50R17, 38 psi/260kpa	Michelin Energy Saver A/S	M33803RX3617	17x7.0	7.18	7.37	1.18
1808470	M20180101-RR	215/50R17, 38 psi/260kpa	Michelin Energy Saver A/S	M33803RX3517	17x7.0	7.13	7.28	1.17
1808471	M20180100-LR	215/50R17, 38 psi/260kpa	Michelin Energy Saver A/S	M33803RX2817	17X7.0	7.06	7.33	1.12
1808472	M20180100-RR	215/50R17, 38 psi/260kpa	Michelin Energy Saver A/S	M33803RX2617	17x7.0	7.03	7.32	1.09
1808533	M20180300-RR	265/60R18, 250 kPa/36 PSI	Michelin Premier LTX	AP5E0TEX3917	18x8.0	7.62	7.49	1.36
1808534	M20180300-RF	265/60R18, 250 kPa/36 PSI	Michelin Premier LTX	AP5E0TEX3917	18X8.0	7.75	7.73	1.37
1808535	M20180105-RR	225/65R17, 240 kPa/35 PSI	Michelin Premier LTX	M33T02VX2617	17x6.5	7.15	7.37	1.42
1808536	M20180105-LR	225/65R17, 240 kPa/35 PSI	Michelin Premier LTX	M33T02VX2617	17X6.5	7.56	7.55	1.33
1808537	M20185804-RR	215/65R17, 260 kPa/38 PSI	Bridgestone Ecopia EP422 Plus	V6E3EC12617	17X6.5	7.74	7.68	1.35
1808538	M20185804-RF	215/65R17, 260 kPa/38 PSI	Bridgestone Ecopia EP422 Plus	V6E3EC12517	17x6.5	7.56	7.41	1.26
1808539	M20180210-RF	245/70R17, 250 kPa/36 PSI	Michelin LTX M/S 2	M3X600AX3017	17X7.0	7.26	7.18	1.19
1808541	M20180210-RR	245/70R17, 250 kPa/36 PSI	Michelin LTX M/S 2	M3X600AX3017	17x7.0	7.27	7.22	1.23
1808540	M20180210-SPARE	245/70R17, 250 kPa/36 PSI	Michelin LTX M/S 2	M3X600AX2817	17x7.0	7.21	7.22	1.18
1808652	M20180207-SPARE	245/70R17, 250 kPa/36 PSI	Michelin LTX M/S 2	M3X600AX2417	17x7.0	7.29	7.28	1.22
1808647	M20180104-RR	255/65R17, 240 kPa/35 PSI	Bridgestone Ecopia H/L 422 Plus	7X2YEC12117	17x6.5	7.69	7.46	1.20
1808648	M20180104-LR	255/65R17, 240 kPa/35 PSI	Bridgestone Ecopia H/L 422 Plus	7X2YEC12117	17x6.5	7.64	7.51	1.20
1808649	M20185108-RR	P235/60R17, 240 kPa/35 PSI	Firestone FR710	W20U7124917	17X7.0	8.57	8.41	1.08
1808650	M20185108-RF	P235/60R17, 240 kPa/35 PSI	Firestone FR710	W20U7124917	17X7.0	8.45	8.32	1.09
1808651	M20180207-RR	275/55R20, 230 kPa/33 PSI	Michelin LTX M/S 2	B39Y002X2417	20X8.5	7.26	7.29	1.16
1808653	M20180207-RF	275/55R20, 230 kPa/33 PSI	Michelin LTX M/S 2	B39Y002X2417	20x8.5	7.12	7.15	1.15
1808655	M20180206-LR	275/55R20, 240 kPa/35 PSI	Hankook Dynapro AT M	5M8DRFH2617	20x8.5	8.37	8.43	1.15
1808654	M20180206-RR	275/55R20, 240 kPa/35 PSI	Hankook Dynapro AT M	5M8DRFH2617	20X8.5	8.96	8.76	1.31
1808467	M20184100-RR	225/50R18, 32 psi/220kpa	Goodyear Eagle Sport All Season	K578JN1R3317	18x7.0	8.37	8.26	1.35
1808460	M20185101-RR	205/65R16, 35psi/240kpa	Firestone FT140	W23PFT02817	16x6.0	7.16	7.18	1.24
1808686	M20180203-SPARE	265/70R17, 240 kPa	Goodyear Wrangler Fortitude HT	4B1YJE1R4717	17x8.0	7.92	7.94	1.18
1808656	M20180206-SPARE	275/65R18, 240 kPa/35 PSI	Goodyear Wrangler Fortitude HT	4BYJJE1R3217	18x8.0	8.46	8.04	1.19

Appendix 3: ISO28580 (RRC) Replacement Market- data from (Transport Canada's ecoTechnology for Vehicles program).

ISO28580 (RRC) - Replacement Market - Transport Canada data				
Smithers Tracking Number	Brand/Type	Size	DOT Code	ISO28580 RRC 2 meter drum (N/kN)
1508417	TOYO VERSADO NOIR	205/55R16	CM8KP654614	9.15
1508415	BRIDGESTONE ECOPIA EP422 PLUS	205/55R16	7X0FEC02115	8.01
1508413	CONTINENTAL CONTIPROCONTACT	P205/55R16	P5T23XA1815	8.21
1508411	BRIDGESTONE ECOPIA EP422	P205/55R16	EL8KJBC0315	7.88
1508409	MICHELIN PREMIER A/S	205/55R16	HDWC00WX0615	9.43
1508407	YOKOHAMA AVID ASCEND	205/55R16	CC8K8525014	10.31
1508405	FIRESTONE FIREHAWK WIDE OVAL AS	205/55R16	V60FW064311	10.82
1508403	Cooper CS5 GRAND TOURING	205/55R16	U90F1CR1215	10.88
1508401	FUZION FUZION TOURING	205/55R16	80DFPT452115	10.51
1508399	YOKOHAMA AVID ENVIGOR	205/55R16	CC8K8644914	9.59
1508397	YOKOHAMA AVID ENVIGOR	205/55R16	CC8K82C1013	9.68
1508395	TOYO PROXES 4 PLUS	205/55R16	738KMHD0114	10.74
1508393	Goodyear EAGLE SPORT	205/55R16	PJ0FRR1R2315	10.04
1508391	BRIDGESTONE DRIVE GUARD	205/55RF16	EJ8KDKA4714	11.02
1508389	PIRELLI P4 FOUR SEASONS	205/55R16	XLBKV2111415	10.39
1508387	Dunlop SIGNATURE II	205/55R16	PJ0FNV1R3015	12.10
1508385	ACHILLES 2233	205/55R16	5KPQVA31515	12.10
1508383	SAILUN ATREZZO SH402	205/55R16	B3LHRB853314	11.15
1508381	TOYO EXTENSA A/S	205/55R16	N38KHGX4613	10.31
1508379	Goodride RADIAL SP06	205/55R16	JUJFEAJ1315	9.75
1508377	Westlake RADIAL RP18	205/55R16	JUJFEAJ2015	9.83
1508375	Hankook OPTIMO H725A (LRR Version)	205/55R16	1GRPDYH0315	10.06
1508373	Cooper CS3 TOURING	205/55R16	U90F1CB3615	11.00
1508371	Nexen CP662	P205/55R16	UA8KEACL0915	8.76
1508369	MICHELIN PILOT SPORT A/S3	205/55R16	4MWC05NX0715	11.61
1508367	MICHELIN PRIMACY MXM4	205/55R16	B3WCC06X2115	10.03
1508365	MICHELIN PREMIER A/S	205/55R16	HDWC0WRX4814	9.61
1508363	BFGoodrich ADVANTAGE T/A	205/55R16	AP0FAX112214	11.70
1508361	MOTOMASTER MOTOMASTER SE2	205/55R16	RM0FXM70815	11.57
1508359	MATRIX TOUR RS	205/55R16	53LHSH181015	10.51
1508357	TOYO VERSADO NOIR	205/55R16	CM8KP684314	9.30
1508355	KUMHO SOLUS TA31	205/55R16	Y0LMYAY10615	8.90
1508353	ANTARES INGENS A1	205/55R16	KBMD4614	10.81
1508351	Hankook OPTIMO H426	205/55R16	T7BCDLH4114	9.63
1508349	SAILUN ATREZZO TOURING LS	205/55R16	53LHSR161315	9.91
1508347	Nexen CP671	205/55R16	UA8KCAKR2614	9.46
1508345	UNIROYAL TIGER PAW TOURING	205/55R16	Y90FC9UU0715	10.27
1508343	BRIDGESTONE TURANZA SERENITY PLUS	205/55R16	2R8KDNF1915	9.95
1508341	PIRELLI CINTURATO P7 ALL SEASON PLUS	205/55R16	XLBKR6294514	11.23
1508339	STARFIRE RS-C 2.0	205/55R16	RM0FLMU3315	10.67
1508334	BRIDGESTONE POTENZA RE97AS	205/55R16	RB0FPR22915	10.65
1508332	CONTINENTAL PURE CONTACT	205/55R16	A30FWBF72315	10.68
1508330	Cooper CS5 ULTRA TOURING	205/55R16	U90F1CU0115	11.69
1508328	SAILUN ATREZZO SH402	205/55R16	53LHRB890115	10.91
1508314	FIRESTONE FIREHAWK WIDE OVAL AS	205/55R16	V60FW073115	10.39
1508312	NOKIAN ENTYRE 2.0	205/55R16	60CP1315	9.77
1508310	GT Radial CHAMPIRO UHP1	205/55R16	9UP4JDA4712	11.95
1508308	Goodyear ASSURANCE	P205/55R16	M7T2JE1R4114	8.77
1508306	BRIDGESTONE TURANZA EL400 02	P205/55R16	H48KJFA5014	9.13
1508304	KUMHO SOLUS KH16	P205/55R16	Y091YP5M0815	9.26

Appendix 3: ISO28580 (RRC) Replacement Market- data from (Transport Canada's ecoTechnology for Vehicles program).

ISO28580 (RRC) - Replacement Market - Transport Canada data				
Smithers Tracking Number	Brand/Type	Size	DOT Code	ISO28580 RRC 2 meter drum (N/kN)
1702172	Toyo Open Country A/T II	P265/70R17	737036E2816	10.00
1702796	Toyo Open Country A/T II	P265/70R17	CX701PP0416	10.77
1702171	Toyo Open Country A/T II	P285/70R17	73EY32K4715	9.94
1702795	Toyo Open Country A/T II	P285/70R17	73EY32K4815	9.80
1702773	General GMAX AS-03	225/50ZR17	6540PYL4313	10.21
1702774	General GMAX AS-03	225/50ZR17	6540PYL4313	9.29
1702771	Michelin Primacy MXM4	215/55R17	B93F6T9X2516	9.46
1702772	Michelin Primacy MXM4	215/55R17	B93F6T9X5215	9.59
1702766	GT Radial Max Tour Steel Belted	205/70R15	5WKV3216	9.38
1702765	GT Radial Max Tour Steel Belted	205/70R15	5WKV3216	9.41
1702769	Goodyear Eagle LS	P185/60R15	EUCA3KRR2514	9.45
1702770	Goodyear Eagle LS	P185/60R15	EUCA3KRR2514	9.54
1702777	Fuzion Fuzion Touring	205/70R15	80CCPT452816	10.44
1702778	Fuzion Fuzion Touring	205/70R15	80CCPT452516	10.33
1702763	Continental Extreme Contact DWS 06	225/45ZR18	AF4FWC5X1516	11.07
1702764	Continental Extreme Contact DWS 06	225/45ZR18	AF4FWC5X1516	11.09
1702767	Toyo Extensa HP	P215/55R17	N3LMHM75016	9.37
1702768	Toyo Extensa HP	P215/55R17	N3LMHM75016	9.22
1702790	Hercules RoadTour 655 MRE	205/70R15	U9YTH3A2116	9.90
1702789	Hercules RoadTour 655 MRE	205/70R15	U9YTH3A2116	9.91
1702782	Falken Ziex S/TZ05	275/55R20	V4KK3M5R3115	10.73
1702781	Falken Ziex S/TZ 05	275/55R20	V4KK3M5R3115	10.45
1702554	General Altimax RT	215/70R15	P5343T31210	9.60
1702553	General Altimax RT	215/70R15	P5343T32710	9.86
1702557	General GMAX AS-03	255/45ZR20	6G12NYLV0216	8.63
1702558	General GMAX AS-03	255/45ZR20	6G12NYLV0216	8.49
1702560	Hercules MRX Plus IV	P215/65R15	R7VFHNK3815	10.74
1702559	Hercules MRX Plus IV	P215/65R15	R7VFHNK3815	10.56
1702544	Toyo Versado Noir	195/60R15	CMCBP655114	10.25
1702543	Toyo Versado Noir	195/60R15	CMCBP654514	9.86
1702541	Goodyear Assurance All Season	215/55R17	M63RML1R3716	8.16
1702542	Goodyear Assurance All Season	215/55R17	M63RML1R3716	8.32
1702783	Continental Crosscontact LX20 EcoPlus	P275/55R20	A32AWBDE3516	7.58
1702784	Continental Crosscontact LX20 EcoPlus	P275/55R20	A32AWBDE3516	7.37
1702568	Goodyear Fortera HL	P245/65R17	M78TJA2R5216	8.88
1702567	Goodyear Fortera HL	P245/65R17	M78TJA2R5216	8.60
1702572	Cooper Trendsetter SE	P205/70R15	U9M0C2H4616	10.22
1702571	Cooper Trendsetter SE	P205/70R15	U9M0C2H4616	10.25
1702566	BFGoodrich Long Trail T/A Tour	255/55R18	AP2TL5111815	9.39
1702565	BFGoodrich Long Trail T/A Tour	255/55R18	AP2TL5110515	9.55
1702570	Fuzion Fuzion SUV	225/65R17	PPEABR512616	10.10
1702569	Fuzion Fuzion SUV	225/65R17	PPEABR511116	9.92
1702564	Nokian Entyre 2.0	205/55R16	60CP3616	9.25
1702563	Nokian Entyre 2.0	205/55R16	60CP3616	9.08
1702535	Falken Ziex ZE914 Ecorun	185/60R15	R8CA3MNR4812	9.43
1702536	Falken Ziex ZE914 Ecorun	185/60R15	R8CA3MNR4812	9.44
1702538	Michelin Defender	215/60R16	HD4902LX2616	8.94
1702537	Michelin Defender	215/60R16	HD4902LX4616	8.97
1702540	Aeolus Touring Ace A/S	P215/60R16	VJJUGCAE0416	9.13
1702539	Aeolus Touring Ace A/S	P215/60R16	VJJUGCAE3515	9.28

Appendix 3: ISO28580 (RRC) Replacement Market- data from (Transport Canada's ecoTechnology for Vehicles program).

ISO28580 (RRC) - Replacement Market - Transport Canada data				
Smithers Tracking Number	Brand/Type	Size	DOT Code	ISO28580 RRC 2 meter drum (N/kN)
1702545	Uniroyal Tiger Paw	215/60R16	Y95MFPUU0116	10.70
1702546	Uniroyal Tiger Paw	215/60R16	Y95MFPUU0116	10.50
1702547	Nitto NT555 G2	235/50ZR18	735VMX2116	9.94
1702548	Nitto NT555 G2	235/50ZR18	735VMX2116	9.84
1702549	Ironman Radial AP	245/70R17	53ELV023716	9.77
1702550	Ironman Radial AP	245/70R17	53ELV023716	10.03
1702551	Goodyear Assurance Tripletred All-Season	P215/60R16	M7X8JN1R2416	10.12
1702552	Goodyear Assurance Tripletred All-Season	P215/60R16	M7X8JN1R2416	10.38
1702573	GT Radial Champiro UHP1	225/50ZR17	9U54AAA1713	10.33
1702574	GT Radial Champiro UHP1	225/50ZR17	9U54AAA1713	10.60
1702575	Goodyear Assurance Comforted Touring	215/70R15	M734JM1R3815	8.66
1702576	Goodyear Assurance Comforted Touring	215/70R15	M734JM1R3815	8.83
1702579	Goodyear Wrangler SR-A	P245/70R17	M783EXDR4915	10.25
1702580	Goodyear Wrangler SR-A	P245/70R17	M783EXDR5115	9.85
1702166	Bridgestone Dueler H/P Sport	255/45R20	EJA9CKK2816	10.02
1702165	Bridgestone Dueler H/P Sport	255/45R20	EJA9CKK2816	9.85
1702167	General Grabber HTS60	265/70R17	VY1YHMF0616	8.86
1702168	General Grabber HTS60	265/70R17	VY1YHMF0616	8.57
1702578	Michelin Latitude Sport	255/45R20	F3AA005X0616	9.52
1702577	Michelin Latitude Sport	255/45R20	F3AA005X3615	9.83
1702561	Cooper CS3 Touring	225/65R17	U92Y1CA4316	9.57
1702562	Cooper CS3 Touring	225/65R17	U92Y1CA4316	9.54
1702161	GT Radial Champiro VP1	205/55R16	9UKD00A3516	10.84
1702162	GT Radial Champiro VP1	205/55R16	9UKD00A3516	10.75
1702163	Michelin Defender	205/55R16	APWC113X5015	10.81
1702164	Michelin Defender	205/55R16	APWC113X0416	10.69
1702174	Nitto Terra Grappler G2 A/T	285/70R17	CXEYPH52516	10.05
1702173	Nitto Terra Grappler G2 A/T	285/70R17	CXEYPH52516	10.11
1702175	Bridgestone Dueler H/L Alenza	P255/55R20	7X7EDH44116	9.57
1702176	Bridgestone Dueler H/L Alenza	P255/55R20	7X7EDH44116	9.30
1702169	Continental Extreme Contact DWS 06	255/45ZR20	6G12WC7B1716	8.55
1702170	Continental Extreme Contact DWS 06	255/45ZR20	6G12WC7B1716	8.55
1702307	Cooper Discoverer A/T 3	265/75R16	UTV61A65016	10.11
1702308	Cooper Discoverer A/T 3	265/75R16	UTV61A65016	10.05
1702309	Toyo Versado CUV	P255/55R20	73L16171115	8.52
1702310	Toyo Versado CUV	P255/55R20	73L16171114	8.41
1702178	Dunlop Sport 5000M	P275/55R20	M62A14ER2616	8.61
1702177	Dunlop Sport 5000M	P275/55R20	M62A14ER2616	8.84
1702305	Goodyear Wrangler SR-A	P275/55R20	PJ2AJH1R4516	8.97
1702306	Goodyear Wrangler SR-A	P275/55R20	PJ2AJH1R4516	8.90
1702672	Michelin Pilot Super Sport	235/50ZR18	4MNP00BX4915	10.44
1702671	Michelin Pilot Super Sport	235/50ZR18	4MNP00BX1216	10.26
1702760	Toyo Extensa HP	235/50R18	735VLF94416	9.14
1702759	Toyo Extensa HP	235/50R18	735VLF92316	8.76
1702756	Fuzion Fuzion Touring	225/60R16	80DEPT453416	10.56
1702755	Fuzion Fuzion Touring	225/60R16	80DEPT453416	10.44
1702758	Bridgestone Potenza S-04 Pole Position	225/45R18	ELJ7BJH2816	12.21
1702757	Bridgestone Potenza S-04 Pole Position	225/45R18	ELJ7BJH2816	11.99
1702674	GT Radial Champiro HPY	245/40ZR18	Y9FBC8YF4813	9.75
1702673	GT Radial Champiro HPY	245/40ZR18	Y9FBC8YF4813	10.04

Appendix 3: ISO28580 (RRC) Replacement Market- data from (Transport Canada's ecoTechnology for Vehicles program).

ISO28580 (RRC) - Replacement Market - Transport Canada data				
Smithers Tracking Number	Brand/Type	Size	DOT Code	ISO28580 RRC 2 meter drum (N/kN)
1702670	Goodyear Assurance Comforded Touring	225/60R16	M7X3JL1R2716	9.16
1702669	Goodyear Assurance Comforded Touring	225/60R16	M7X3JL1R2716	9.54
1702762	Uniroyal Tiger Paw GTZ	225/50ZR17	U804KOUU3616	10.07
1702761	Uniroyal Tiger Paw GTZ	225/50ZR17	U840KOUU3616	9.86
1702786	Uniroyal Tiger Paw GTZ All Season	235/50ZR18	U81PK0UU4016	9.64
1702785	Uniroyal Tiger Paw GTZ All Season	235/50ZR18	U81PK0UU4016	9.86
1702780	Pirelli Scorpion ATR	P275/55R20	XL4BK5201216	10.01
1702779	Pirelli Scorpion ATR	P275/55R20	N94BK5204415	10.50
1702797	Hercules Terra Trac ATII	265/75R16	UTV6H143216	9.95
1702798	Hercules Terra Trac ATII	265/75R16	UTV6H143216	9.90
1702794	Hankook Dynapro HT	275/55R20	5M8DHUH3514	8.07
1702793	Hankook Dynapro HT	275/55R20	5M8DHUH2814	7.91
1702791	GT Radial Champiro HPY	225/45ZR18	Y9FEC8YU2116	11.14
1702792	GT Radial Champiro HPY	225/45ZR18	Y9FEC8YU2116	11.13
1702787	Michelin Pilot Sport 3+ A/S	225/45ZR18	B9MT025X1616	10.04
1702788	Michelin Pilot Sport 3+ A/S	225/45ZR18	B9MT025X3115	10.33
1902420	Michelin LTX MS 2	245/70R17	M3X600AX0418	7.34
1902417	Goodyear Wrangler SR-A	P265/70R17	4BT6EXWR4418	8.43
1902438	Firestone FT140	215/55R16	W2B3FT00319	8.24
1902424	Bridgestone Dueler H/T 684 II	P255/70R17	V6ND6503418	7.79
1902433	Continental CrossContact LX	225/65R17	A32YH00B3118	8.72
1902426	Bridgestone Ecopia H/L 422 Plus	235/60R18	7X45EC20119	8.25
1902430	Continental CrossContact LX E	235/55R17	A37A47JB4217	9.54
1902406	Hankook Kinergy GT	195/65R15	5MDH1BH1316	8.41
1902451	Bridgestone Ecopia EP422 Plus	205/55R16	7X0FEC00319	8.79
1902401	Hankook Optimo H426	P205/55R16	T7BCDLH2917	8.98
1902413	Continental ContiProContact	P205/55R16	P5T23VN5017	9.05
1902409	Hankook Kinergy GT	205/55R16	5RP1BH4218	9.58
1902415	Goodyear Wrangler SR-A	P265/70R17	4BT6DYWR2718	8.76
1902435	Continental CrossContact LX E	225/65R17	A32YWBE33818	8.58
1902425	Bridgestone Ecopia H/L 422 Plus	235/60R18	0B45EC30319	7.76
1902432	Continental ContiProContact	235/55R17	LMT4PXH62518	9.08
1902449	Bridgestone Turanza EL400 02	P205/55R16	V6T2TE00518	8.70
1902448	Bridgestone Turanza EL400 02	P205/55R16	V6T2PM71518	8.37
1902446	Bridgestone Turanza EL400 02	P205/55R16	V6T2PM83918	8.80
1902447	Bridgestone Turanza EL400 02	P205/55R16	0BT2PM33917	9.37
1902411	Continental ContiProContact	205/55R16	P50F3Y30417	10.01
1902410	Continental ContiProContact	205/55R16	CNT4PXH60118	10.28
1902414	Continental ContiProContact	P205/55R16	P5T23VN5017	9.09
1902439	Uniroyal Tiger Paw AWP 3	205/55R16	U80FKHUU2918	10.64
1902440	Uniroyal Tiger Paw AWP 3	205/55R16	U80FKTUU4718	10.63
1902441	Uniroyal Tiger Paw AWP 3	205/55R16	U80FKVUU1017	10.45
1902445	Michelin Primacy MXM4	P215/45R17	B9N000BX4617	10.43
1902444	Michelin Primacy MXM4	P225/40R18	B9CR01VX0918	10.18
1902443	Michelin Primacy MXM4	235/40R18	F389001X0117	9.30
1902442	Michelin Primacy MXM4	245/40R19	B91C010X1918	10.10
1902422	Michelin Primacy MXM4	255/45R19	B9NL00KX0219	8.68
1902421	Michelin Primacy MXM4 ZP	265/50R19	B9RU009X0218	7.69
1902402	Hankook Optimo H426	P205/55R16	T7BCDLH2917	8.78
1902403	Hankook Optimo H426	P205/55R16	T7BCDLH2917	9.60
1902404	Hankook Optimo H426	P205/55R16	T7BCDLH2917	9.42
1902405	Hankook Optimo H426	P205/55R16	T7BCDLH2917	9.01

Appendix 4: Phase Two - details of the sixty-six OEM stock tires received from NCAP crash test vehicles.

Smithers Tracking Number	Client Tire ID	Model /VIN	Sent From	Vehicle Test Mode	Mileage	Tire Size and Recommended Pressure from Vehicle Tire Placard	Brand/Type	DOT Code
1908282	M20195203 RR	2019 NISSAN ARMADA. JN8AY2NCK9580081	TRC	Frontal	14	P275/60R20 240 kPa	Bridgestone Dueler H/T 684 II	EJNUJHB2518
1908284	M20195203 LR	2019 NISSAN ARMADA. JN8AY2NCK9580081	TRC	Frontal	14	P275/60R20 240 kPa	Bridgestone Dueler H/T 684 II	EJNUJHB2518
1908285	M20195213 RR	2019 INFINITI QX50. 3PCAJ5M33KF105784	TRC	Frontal	80	235/55R19 230 kPa	Bridgestone Ecopia H/L 422 PLUS	EJFOCMH4617
1908286	M20195213 LR	2019 INFINITI QX50. 3PCAJ5M33KF105784	TRC	Frontal	80	235/55R19 230 kPa	Bridgestone Ecopia H/L 422 PLUS	EJFOCMH4617
1908287	M20195100 RR	2019 TOYOTA C-HR JTNKHMBX7K1018975	TRC	Frontal	5	215/60R17 230kPa	Continental ProContact TX	6YKTWCOE1818
1908288	M20195100 LR	2019 TOYOTA C-HR JTNKHMBX7K1018975	TRC	Frontal	5	215/60R17 230kPa	Continental ProContact TX	6YKTWCOE1818
1908289	M20190117 RF	2019 CHEVROLET MALIBU 1G1ZB5S73KF202085	TRC	Side Pole	14	205/65R16 240 kPa	Firestone FT140	8X84FT01219
1908290	M20190117 RR	2019 CHEVROLET MALIBU 1G1ZB5S73KF202085	TRC	Side Pole	14	205/65R16 240 kPa	Firestone FT140	8X84FT01219
1908291	M20190310 RR	2019 RAM CREW CAB 1C6SRFNT6KN804871	TRC	Frontal	16	275/65R18 250kPa	Bridgestone Dueler H/T 685	9BYJDHT0219
1908292	M20190310 LR	2019 RAM CREW CAB 1C6SRFNT6KN804871	TRC	Frontal	16	275/65R18 250kPa	Bridgestone Dueler H/T 685	9BYJDHT0219
1908293	M20190104 RR	2019 CHEVROLET BLAZER 3GNKBRA1KS568786	TRC	Side Pole	106	235/65R18 240kPa	Continental CrossContact LX Sport	A3LMWD304518
1908294	M20190104 RF	2019 CHEVROLET BLAZER 3GNKBRA1KS568786	TRC	Side Pole	106	235/65R18 240 kPa	Continental CrossContact LX Sport	A3LMWD304418
1908295	M20190100 LR	2019 CADILLAC XT4 1GYFZ8R44KF120993	TRC	Frontal	83	235/60R18H 240 kPa	Continental ProContact TX	A345WD774118
1908296	M20190100 RR	2019 CADILLAC XT4 1GYFZ8R44KF120993	TRC	Frontal	83	235/60R18H 240 kPa	Continental ProContact TX	A345WD774118
1908297	M20194103 RR	2019 BMW X5 5UXCR6C52KL87127	TRC	Frontal	29	265/50R19XL 230kPa	Pirelli Scorpion Zero All Season	UNPEX1183818
1908298	M20194103 LR	2019 BMW X5 5UXCR6C52KL87127	TRC	Frontal	29	265/50R19XL 230kPa	Pirelli Scorpion Zero All Season	UNPEX1183818
1908990	M20190309 LR	2019 JEEP WRANGLER 1C4HJXDG7KW505887	Calspan	Frontal	101	245/75R17, 250 kPa	Bridgestone Dueler H/T 685	9BMD1HT3918
1908991	M20190309 RR	2019 JEEP WRANGLER 1C4HJXDG7KW505887	Calspan	Frontal	101	245/75R17, 250 kPa	Bridgestone Dueler H/T 685	9BMD1HT3918
1908992	M20190200 RR	2019 FORD EDGE 2FMPK4G92KBB14065	Calspan	Frontal	62	245/60R18, 240 kPa	Michelin Latitude Tour HP	M34A015X3718
1908993	M20190200 LR	2019 FORD EDGE 2FMPK4G92KBB14065	Calspan	Frontal	62	245/60R18, 240 kPa	Michelin Latitude Tour HP	M34A015X3718
1908994	M20195101 RR	2019 TOYOTA RAV4 JTMG1RFVOKD007450	Calspan	Frontal	139	225/65R17, 240 kPa	Firestone Destination LE2	ELF5DHH4418
1908995	M20195101 LR	2019 TOYOTA RAV4 JTMG1RFVOKD007450	Calspan	Frontal	139	225/65R17, 240 kPa	Firestone Destination LE2	ELF5DHH4418
1908996	M20190305 LR	2019 JEEP CHEROKEE 1C4PJMCB4KD103322	Calspan	Frontal	51	225/65R17, 250 kPa	Firestone Destination LE2	W22YDE75117
1908997	M20190305 RR	2019 JEEP CHEROKEE 1C4PJMCB4KD103322	Calspan	Frontal	51	225/65R17, 250 kPa	Firestone Destination LE2	W22YDE75117
1908998	M20195102 RF	2019 TOYOTA RAV4 JTMK1RFV7KJ002368	Calspan	Side Pole	160	225/65R17, 240 kPa	Dunlop GrandTrek PT20	R8F5DMR3718
1908999	M20195102 RR	2019 TOYOTA RAV4 JTMK1RFV7KJ002368	Calspan	Side Pole	160	225/65R17, 240 kPa	Dunlop GrandTrek PT20	R8F5DMR3718
1909000	M20190115 RF	2019 CHEVROLET CRUZE 1G1B8C5SM9K7148731	Calspan	Side Pole	49	205/55R16, 240 kPa	Hankook Kinergy GT	T7RP1BH4118
1909001	M20190115 RR	2019 CHEVROLET CRUZE 1G1B8C5SM9K7148731	Calspan	Side Pole	49	205/55R16, 240 kPa	Hankook Kinergy GT	T7RP1BH4118
1909002	M20194207 RF	2019 KIA FORTE 3KPF24AD4KE061942	Calspan	Side Pole	164	205/55R16, 230 kPa	Kumho Solus TA31	000LMYAY14319
1909003	M20194207 RR	2019 KIA FORTE 3KPF24AD4KE061942	Calspan	Side Pole	164	205/55R16, 230 kPa	Kumho Solus TA31	000LMYAY14318
1909004	M20195800 RR	2019 VOLKSWAGON JETTA 3VWC57BU8KM061598	Calspan	Frontal	161	205/60R16, 250 kPa	Falken Sincera SN250A A/S	R8203DHR1318
1909005	M20195800 LR	2019 VOLKSWAGON JETTA 3VWC57BU8KM061598	Calspan	Frontal	161	205/60R16, 250 kPa	Falken Sincera SN250A A/S	R8203DHR1318
1909142	M20190313 RF	2019 Ram 1500 Classic Quad Cab 1C6RR6FG1KS00526	ApplusIldiada KARCO	Side Pole	19	P265/70R17	Goodyear Wrangler SR-A	4B76EXWR2918
1909143	M20190313 RR	2019 Ram 1500 Classic Quad Cab 1C6RR6FG1KS00526	ApplusIldiada KARCO	Side Pole	19	P265/70R17	Goodyear Wrangler SR-A	4B76EXWR2918

Appendix 4: Phase Two - details of the sixty-six OEM stock tires received from NCAP crash test vehicles.

Smithers Tracking Number	Client Tire ID	Model /VIN	Sent From	Vehicle Test Mode	Mileage	Tire Size and Recommended Pressure from Vehicle Tire Placard	Brand/Type	DOT Code
1909151	M20195204 RF	2019 NISSAN FRONTIER 1N6ADOER2KN704235	AppluIldiada KARCO	Side Pole	30	P265/70R16	Hankook Dynapro HT	T79MHUH1818
1909152	M20195204 RR	2019 NISSAN FRONTIER 1N6ADOER2KN704235	AppluIldiada KARCO	Side Pole	30	P265/70R16	Hankook Dynapro HT	T79MHUH1818
1909153	M20190303 RR	2019 DODGE GRAND CARAVAN 2C4RDGBG4KR547036	AppluIldiada KARCO	Side Pole	95	P225/65R17 250 kPa	Michelin Energy Saver A/S	M33T 00KX 3218
1909154	M20190303 RF	2019 DODGE GRAND CARAVAN 2C4RDGBG4KR547036	AppluIldiada KARCO	Side Pole	95	P225/65R17 250 kPa	Michelin Energy Saver A/S	M33T 00KX 3218
1909155	M20195301 RR	2019 HONDA CRV 2HKRW5H38KH409855	AppluIldiada KARCO	Side Pole	36	235/65R17 104H 220 kPa	Bridgestone Ecopia EP422 Plus	7X81 EC2 0619
1909156	M20195301 RF	2019 HONDA CRV 2HKRW5H38KH409855	AppluIldiada KARCO	Side Pole	56	235/65R17 104H 220 kPa	Bridgestone Ecopia EP422 Plus	7X81 EC2 0619
1909157	M20194201 RR	2019 HYUNDAI KONA KM8K12AA8KU223810	AppluIldiada KARCO	Side Pole	97	205/60R16	Hankook Kinergy GT	1T79X1BH03618
1909158	M20194201 RF	2019 HYUNDAI KONA KM8K12AA8KU223810	AppluIldiada KARCO	Side Pole	97	205/60R16	Hankook Kinergy GT	1T79X1BH03618
1909159	M20195207 RR	2019 NISSAN KICKS 3N1CP5CJ0KL481686	AppluIldiada KARCO	Side Pole	38	205/60R16	Firestone FT140	V6XWFT03418
1909160	M20195207 RF	2019 NISSAN KICKS 3N1CP5CJ0KL481686	AppluIldiada KARCO	Side Pole	38	205/60R16	Firestone FT140	V6XWFT03318
1909161	M20194101 RF	2019 BMW X3 5UXTR7C57KLF34067	AppluIldiada KARCO	Side Pole	18	245/50R19	Pirelli Cinturato P7 All Season	UNOFV1773718
1909162	M20194101 RR	2019 BMW X3 5UXTR7C57KLF34067	AppluIldiada KARCO	Side Pole	18	245/50R19	Pirelli Cinturato P7 All Season	UNOFV1773618
2000315	M20195212 LR	2019 Nissan Versa S 3N1CN7AP8KL807670	MGA	Frontal Barrier	7	P185/65R15	Continental ContiProContact E	P5FP3YP2818
2000316	M20195212 RR	2019 Nissan Versa S 3N1CN7AP8KL807670	MGA	Frontal Barrier	7	P185/65R15	Continental ContiProContact E	P5FP3YP2818
2000488	M20190107 RR	2019 Chevrolet Silverado1500 Series 1GCPWCED4KZ130811	MGA	Side MDB	9	265/65R18	Michelin PrimacyLTX	M3KA00FX2818
2000489	M20190107 RF	2019 Chevrolet Silverado1500 Series 1GCPWCED4KZ130811	MGA	Side MDB	9	265/65R18	Michelin PrimacyLTX	M3KA00FX2818
2000490	M20190308 RR	2019 Jeep Grand Cherokee Laredo 1CARJFAG5KC551576	MGA	Frontal Barrier	102	P245/70R17, 33psi/230kpa	Goodyear Fortera HL	4883 JD1R 3218
2000491	M20190308 LR	2019 Jeep Grand Cherokee Laredo 1CARJFAG5KC551576	MGA	Frontal Barrier	102	P245/70R17, 33psi/230kpa	Goodyear Fortera HL	4883 JD1R 3218
2000492	M20194203 LR	2019 Hyundai Santa Fe 5NMS2CAD0KH031810	MGA	Frontal Barrier	50	235/65R17	Hankook Dynapro HP2	15M8RRT01918
2000493	M20194203 RR	2019 Hyundai Santa Fe 5NMS2CAD0KH031810	MGA	Frontal Barrier	50	235/65R17	Hankook Dynapro HP2	15M8RRT02218
2000494	M20190110 RR	2019 Chevrolet Silverado1500 Series 1GCRWAEF1KZ186140	MGA	Side Pole	173	255/70R17	General Grabber HTS	A3E8HN004418
2000495	M20190110 RF	2019 Chevrolet Silverado1500 Series 1GCRWAEF1KZ186140	MGA	Side Pole	173	255/70R17	General Grabber HTS	A3E8HN004318
2000496	M20195209 LF	2019 NISSAN MURANO S 5N1AJZ2MS2KN106548	MGA	Frontal Barrier	11	235/65R18	Continental CrossContact LX Sport	VYLMD3V43818
2000497	M20195209 RR	2019 NISSAN MURANO S 5N1AJZ2MS2KN106548	MGA	Frontal Barrier	11	235/65R18	Continental CrossContact LX Sport	VYLMD3V43918
2001436	M20194209-LR	NA	NA	NA	NA	205/60R16	Michelin Energy Saver AS	B37R 04MX 5117
2001437	M20194209-RR	NA	NA	NA	NA	205/60R16	Michelin Energy Saver AS	B37R 04MX 5317
2001438	M20194100-LR	NA	NA	NA	NA	225/60R18	Bridgestone Dueler HP Sport AS RFT	0BE4 LRO 3118
2001439	M20194100-RR	NA	NA	NA	NA	225/60R18	Bridgestone Dueler HP Sport AS RFT	0BE4 LRO 3118
1908988	M20190205 LR	2019 FORD F250 1FT7W2B6XKED34181	Calspan	Frontal	65	LT275/70R18	Goodyear Wrangler All Terrain Adventure	P115 A53V 4318
1908989	M20190205 RR	2019 FORD F250 1FT7W2B6XKED34181	Calspan	Frontal	65	LT275/70R18	Goodyear Wrangler All Terrain Adventure	P115 A53V 4318
2000499	M20190112 LR	2019 CHEVROLET SILVERADO 2500 DC 2GC2KREG1K1115257	MGA	Frontal Barrier	16	LT265/70R17	Firestone Transforce AT	8XAH TR8 2518
2000500	M20190112 RR	2019 CHEVROLET SILVERADO 2500 DC 2GC2KREG1K1115257	MGA	Frontal Barrier	16	LT265/70R17	Firestone Transforce AT	8XAH TR8 2718

Appendix 5: Phase two - ISO28580 (RRC), SAEJ2452 (RRC) and Wet Grip Index data-sixty-six OEM stock tires obtained from NCAP crash test vehicles.

Smithers Tracking Number	Tire Size	Brand/Type	DOT Code	Test Wheel Size	ISO28580 RRC 2.0 meter drum (N/kN)	SAE J2452 RRC 1.7 meter drum (N/kN)	Wet Grip Index
1908282	P275/60R20	Bridgestone Dueler H/T 684 II	EJNUJHB2518	20x8.0	8.06	7.94	1.36
1908284	P275/60R20	Bridgestone Dueler H/T 684 II	EJNUJHB2518	20x8.0	8.07	7.88	1.32
1908285	P235/55RF19	Bridgestone Ecopia H/L 422 PLUS	EJFOCMH4617	19x7.5	9.06	8.68	1.38
1908286	P235/55RF19	Bridgestone Ecopia H/L 422 PLUS	EJFOCMH4617	19x7.5	8.80	8.57	1.38
1908287	215/60R17	Continental ProContact TX	6YKTWCOE1818	17x6.5	7.60	7.56	1.38
1908288	215/60R17	Continental ProContact TX	6YKTWCOE1818	17x6.5	7.56	7.56	1.39
1908289	P205/65R16	Firestone FT140	8X84FT01219	16x6.0	7.48	7.25	1.27
1908290	P205/65R16	Firestone FT140	8X84FT01219	16x6.0	7.50	7.35	1.27
1908291	275/65R18	Bridgestone Dueler H/T 685	9BYJDHT0119	18x8.0	6.87	6.84	1.26
1908292	275/65R18	Bridgestone Dueler H/T 685	9BYJDHT0219	18x8.0	6.81	6.75	1.27
1908293	235/65R18	Continental CrossContact LX Sport	A3LMWD304518	18x7.0	7.12	7.11	1.32
1908294	235/65R18	Continental CrossContact LX Sport	A3LMWD304418	18x7.0	7.21	7.12	1.30
1908295	235/60R18	Continental ProContact TX	A345WD774118	18x7.0	8.21	8.20	1.31
1908296	235/60R18	Continental ProContact TX	A345WD774118	18x7.0	7.98	7.97	1.35
1908297	265/50R19	Pirelli Scorpion Zero All Season	UNPEX1183818	19x8.5	7.91	8.50	1.32
1908298	265/50R19	Pirelli Scorpion Zero All Season	UNPEX1183818	19x8.5	7.96	8.53	1.30
1908990	245/75R17	Bridgestone Dueler H/T 685	9BM1DHT3918	17x7.0	6.60	6.56	1.08
1908991	245/75R17	Bridgestone Dueler H/T 685	9BM1DHT3918	17x7.0	6.58	6.49	1.08
1908992	245/60R18	Michelin Latitude Tour HP	M34A015X3718	18x7.0	7.61	7.52	1.33
1908993	245/60R18	Michelin Latitude Tour HP	M34A015X3718	18x7.0	7.70	7.64	1.36
1908994	225/65R17	Firestone Destination LE2	ELF5DHH4418	17x6.5	7.05	6.97	1.31
1908995	225/65R17	Firestone Destination LE2	ELF5DHH4418	17x6.5	7.18	7.04	1.29
1908996	225/65R17	Firestone Destination LE2	W22YDE75117	17x6.5	8.14	7.99	1.27
1908997	225/65R17	Firestone Destination LE2	W22YDE75117	17x6.5	8.51	8.32	1.23
1908998	225/65R17	Dunlop GrandTrek PT20	R8F5DMR3718	17x6.5	7.07	6.92	1.24
1908999	225/65R17	Dunlop GrandTrek PT20	R8F5DMR3718	17x6.5	7.13	7.06	1.29
1909000	205/55R16	Hankook Kinergy GT	T7RP1BH4118	16x6.5	7.85	7.74	1.30
1909001	205/55R16	Hankook Kinergy GT	T7RP1BH4118	16x6.5	7.75	7.64	1.36
1909002	205/55R16	Kumho Solus TA31	000LMYAY14318	16x6.5	8.18	8.04	1.36
1909003	205/55R16	Kumho Solus TA31	000LMYAY14318	16x6.5	7.87	7.80	1.38
1909004	205/60R16	Falken Sincera SN250A A/S	R8203DHR1318	16x6.0	7.31	7.14	1.31
1909005	205/60R16	Falken Sincera SN250A A/S	R8203DHR1318	16x6.0	7.12	7.01	1.27
1909142	P265/70R17	Goodyear Wrangler SR-A	4BT6EXWR2918	17x8.0	7.99	7.90	1.09
1909143	P265/70R17	Goodyear Wrangler SR-A	4BT6EXWR2918	17x8.0	7.95	7.89	1.11

Appendix 5: Phase two - ISO28580 (RRC), SAEJ2452 (RRC) and Wet Grip Index data-sixty-six OEM stock tires obtained from NCAP crash test vehicles.

Smithers Tracking Number	Tire Size	Brand/Type	DOT Code	Test Wheel Size	ISO28580 RRC 2.0 meter drum (N/kN)	SAE J2452 RRC 1.7 meter drum (N/kN)	Wet Grip Index
1909151	P265/70R16	Hankook Dynapro HT	T79MHUH1818	16x8.0	7.72	7.68	1.14
1909152	P265/70R16	Hankook Dynapro HT	T79MHUH1818	16x8.0	7.73	7.70	1.12
1909153	P225/65R17	Michelin Energy Saver A/S	M33T00KX3218	17x6.5	8.57	8.47	1.25
1909154	P225/65R17	Michelin Energy Saver A/S	M33T00KX3218	17x6.5	8.50	8.48	1.27
1909155	235/65R17	Bridgestone Ecopia EP422 Plus	7X81EC20619	17x7.0	7.57	7.44	1.28
1909156	235/65R17	Bridgestone Ecopia EP422 Plus	7X81EC20619	17x7.0	7.51	7.41	1.26
1909157	205/60R16	Hankook Kinergy GT	1T79X1BH03618	16x6.0	7.72	7.63	1.30
1909158	205/60R16	Hankook Kinergy GT	1T79X1BH03618	16x6.0	7.77	7.70	1.38
1909159	205/60R16	Firestone FT140	V6XWFT03418	16x6.0	7.68	7.50	1.26
1909160	205/60R16	Firestone FT140	V6XWFT03318	16x6.0	7.64	7.40	1.26
1909161	245/50R19	Pirelli Cinturato P7 All Season	UN0FV1773718	19x7.5	8.28	8.89	1.32
1909162	245/50R19	Pirelli Cinturato P7 All Season	UN0FV1773618	19x7.5	8.17	8.75	1.33
2000315	P185/65R15	Continental ContiProContact E	P5FP3YP2818	15x5.5	7.81	7.80	1.21
2000316	P185/65R15	Continental ContiProContact E	P5FP3YP2818	15x5.5	8.07	8.15	1.26
2000488	265/65R18	Michelin Primacy LTX	M3KA00FX2818	18x8.0	6.82	6.82	1.27
2000489	265/65R18	Michelin Primacy LTX	M3KA00FX2818	18x8.0	6.83	6.75	1.29
2000490	P245/70R17	Goodyear Fortera HL	4B83 JD1R 3218	17x7.0	8.03	7.99	1.09
2000491	P245/70R17	Goodyear Fortera HL	4B83 JD1R 3218	17x7.0	8.09	8.03	1.10
2000492	235/65R17	Hankook Dynapro HP2	15M8RRTH01918	17x7.0	7.51	7.54	1.33
2000493	235/65R17	Hankook Dynapro HP2	15M8RRTH02218	17x7.0	7.25	7.20	1.30
2000494	255/70R17	General Grabber HTS	A3E8HN004418	17x7.5	7.02	7.07	1.23
2000495	255/70R17	General Grabber HTS	A3E8HN004318	17x7.5	7.06	7.13	1.23
2000496	235/65R18	Continental CrossContact LX Sport	VYLM3V43818	18x7.0	8.08	8.08	1.29
2000497	235/65R18	Continental CrossContact LX Sport	VYLM3V43918	18x7.0	8.21	8.26	1.33
2001436	205/60R16	Michelin Energy Saver AS	B37R04MX5117	16x6.0	7.72	7.59	1.27
2001437	205/60R16	Michelin Energy Saver AS	B37R04MX5317	16x6.0	7.58	7.51	1.21
2001438	225/60R18	Bridgestone Dueler HP Sport AS RFT	0BE4LR03118	18x6.5	7.68	8.36	1.31
2001439	225/60R18	Bridgestone Dueler HP Sport AS RFT	0BE4LR03118	18x6.5	7.70	8.32	1.31
1908988	LT275/70R18	Goodyear Wrangler All Terrain Adventure	PJ15A53V4318	18x8.0	7.41	9.27	1.16
1908989	LT275/70R18	Goodyear Wrangler All Terrain Adventure	PJ15A53V4318	18x8.0	7.42	9.44	1.13
2000499	LT265/70R17	Firestone Transforce AT	8XAHTR82518	17x8.0	6.44	7.80	1.08
2000500	LT265/70R17	Firestone Transforce AT	8XAHTR82718	17x8.0	6.22	7.63	1.10