

Kansas City PM Characterization Study

Final Report

Appendix Q

Round 1 Conditioning Run

Quality Control

Assessment and Standards Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency

Sponsors:

National Renewable Energy Laboratory, U.S. Department of Energy
Federal Highway Administration, U.S. Department of Transportation
STAPPA-ALAPCO Emission Inventory Improvement Program
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CTR_TST_ID	Disp	Disp Bin	Make	Model	Model Year	Test Date	Missing data	Flow Flag	Dilution Flag	Exh Temp Flag	Ambient Temp Flag	Suspect Data	Data Review Comments
C_KS1_002_1	2.3	2.1 to 2.5	FORD	F150	1979	8/9/2004	x					x	Test record has missing or invalid data
C_KS1_003_1	5.2	5.1 to 6.0	DODGE	RAM250	1994	7/13/2004							
C_KS1_004_1	3.5	3.1 to 3.5	ISUZU	TROOPER	1999	7/13/2004	x					x	Test record has missing or invalid data
C_KS1_004_2	3.5	3.1 to 3.5	ISUZU	TROOPER	1999	7/13/2004							
C_KS1_005_1	5.3	5.1 to 6.0	GMC	YUKON XL	2001	7/13/2004							
C_KS1_006_1	1.9	1.6 to 2.0	FORD	ESCORT LX	1995	7/14/2004							
C_KS1_007_1	5.7	5.1 to 6.0	FORD	F-250	1979	7/14/2004				x			Average exhaust temp (440C) is 30 % higher than similar displacement vehicles
C_KS1_009_1	2.2	2.1 to 2.5	TOYOTA	RAV4	2000	7/14/2004							
C_KS1_010_1	2.5	2.1 to 2.5	DODGE	SPIRIT	1990	7/15/2004							
C_KS1_011_1	5.4	5.1 to 6.0	FORD	F-150 XLT	2001	7/15/2004							
C_KS1_013_1	1.6	0 to 1.6	HONDA	CIVIC	1996	7/16/2004							
C_KS1_017_1	2.5	2.1 to 2.5	MAZDA	626	2001	7/17/2004							Avg exhaust temp (210C) is 30% lower than similar displacement vehicles
C_KS1_018_1	3	2.6 to 3.0	DODGE	CARAVAN SE	1989	7/17/2004							
C_KS1_020_1	2.2	2.1 to 2.5	CHEVROLET	CORSICA	1996	7/19/2004							
C_KS1_021_1	2	1.6 to 2.0	HONDA	CIVIC SI	2002	7/19/2004				x			Average exhaust temp (340C) is 30% higher than similar displacement vehicles
C_KS1_022_1	4.2	4.1 to 5.0	GMC	JIMMY	1995	7/19/2004							
C_KS1_023_1	3.8	3.5 to 4.0	OLDSMOBILE	CUTLASS CIER/	1988	7/19/2004							
C_KS1_024_1	4	3.5 to 4.0	JEEP	CHEROKEE SP	1998	7/19/2004	x					x	Test record has missing or invalid data
C_KS1_024_2	4	3.5 to 4.0	JEEP	CHEROKEE SP	1998	7/19/2004							
C_KS1_025_1	2.2	2.1 to 2.5	CHEVROLET	CAVALIER	1990	7/20/2004							
C_KS1_026_1	3.5	3.1 to 3.5	CHRYSLER	300	1999	7/20/2004							Avg exhaust temp (210C) is 40% lower than similar displacement vehicles
C_KS1_027_1	1.9	1.6 to 2.0	GMC	SATURN	2001	7/20/2004							
C_KS1_028_1	3.8	3.5 to 4.0	BUICK	LESABRE	1998	7/21/2004							
C_KS1_028_2	3.8	3.5 to 4.0	BUICK	LESABRE	1998	7/20/2004							
C_KS1_028_3	3.8	3.5 to 4.0	BUICK	LESABRE	1998	7/20/2004	x					x	Test record has missing or invalid data
C_KS1_030_1	3.3	3.1 to 3.5	NISSAN	FRONTIER	2002	7/20/2004							
C_KS1_032_1	1.9	1.6 to 2.0	SATURN	SATURN	1996	7/21/2004				x			Average exhaust temp (380C) is 45% higher than similar displacement vehicles
C_KS1_033_1	3.3	3.1 to 3.5	DODGE	CARAVAN	1995	7/21/2004							
C_KS1_035_1	2.5	2.1 to 2.5	MERCURY	VILLAGER LS	1994	7/21/2004				x			Average exhaust temp (360C) is 25 % higher than similar displacement vehicles
C_KS1_036_1	2.5	2.1 to 2.5	JEEP	WRANGLER	1995	7/21/2004				x			Average exhaust temp (490C) is 70 % higher than similar displacement vehicles
C_KS1_037_1	2.3	2.1 to 2.5	GMC	PONTIAC GRAN	1989	7/22/2004							
C_KS1_040_1	3	2.6 to 3.0	TOYOTA	SOLARA SLE	2001	7/22/2004							
C_KS1_041_1	3.3	3.1 to 3.5	DODGE	GRAND CARAV,	1997	7/22/2004							
C_KS1_043_1	4.3	4.1 to 5.0	CHEVROLET	BLAZER	1995	7/23/2004							
C_KS1_044_1	4.3	4.1 to 5.0	CHEVROLET	S-10	2003	7/23/2004							
C_KS1_049_1	5	4.1 to 5.0	LINCOLN	TOWNCAR	1990	7/26/2004			x	x		x	Suspect diltion: Avg CO + CO2 = 9.15%, & avg exhaust temp (530C) is 70 % higher than similar displacement vehicles
C_KS1_050_1	1.6	0 to 1.6	HONDA	CIVIC EX	1999	7/24/2004	x					x	Test record has missing or invalid data
C_KS1_051_1	2.2	2.1 to 2.5	HONDA	ACCORD	1997	7/24/2004							
C_KS1_052_1	2	1.6 to 2.0	HONDA	ACCORD LX	1989	7/24/2004		x		x		x	Average exhaust flow is approx 50% higher than average for all other similar displacement vehicles, Average exhaust temp (420C) is 60% higher than similar displacement vehicles
C_KS1_056_1	2.2	2.1 to 2.5	HONDA	ACCORD EX	2000	7/26/2004							
C_KS1_056_2	2.2	2.1 to 2.5	HONDA	ACCORD EX	2000	7/26/2004	x					x	Test record has missing or invalid data
C_KS1_057_1	3	2.6 to 3.0	FORD	TAURUS SES	2003	7/26/2004							
C_KS1_057_2	3	2.6 to 3.0	FORD	TAURUS SES	2003	7/26/2004	x					x	Test record has missing or invalid data
C_KS1_058_1	3.1	3.1 to 3.5	CHEVROLET	MALIBU LS	1998	7/26/2004							

CTR_TST_ID	Disp	Disp Bin	Make	Model	Model Year	Test Date	Missing data	Flow Flag	Dilution Flag	Exh Temp Flag	Ambient Temp Flag	Suspect Data	Data Review Comments
C_KS1_061_1	3.5	3.1 to 3.5	HONDA	ODYSSEY	2004	7/27/2004				x			Average exhaust temp (420C) is 30 % higher than similar displacement vehicles
C_KS1_062_1	3.5	3.1 to 3.5	NISSAN	PATHFINDER LE	2003	7/27/2004	x					x	Test record has missing or invalid data
C_KS1_063_1	3.1	3.1 to 3.5	CHEVROLET	LUMINA	1998	7/27/2004							
C_KS1_064_1	4.6	4.1 to 5.0	FORD	MUSTANG	1999	7/27/2004							Avg exhaust temp (210C) is 30% lower than similar displacement vehicles
C_KS1_065_1	2	1.6 to 2.0	HYUNDAI	TIBURON	2000	7/27/2004							
C_KS1_066_1	4.9	4.1 to 5.0	CADILLAC	SEVILLE	1991	7/27/2004							
C_KS1_067_1	1.9	1.6 to 2.0	SATURN	SL1	1999	7/28/2004							
C_KS1_067_2	1.9	1.6 to 2.0	SATURN	SL1	1999	7/28/2004	x					x	Test record has missing or invalid data
C_KS1_068_1	4	3.5 to 4.0	FORD	EXPLORER	1993	7/28/2004				x			Average exhaust temp (410C) is 30 % higher than similar displacement vehicles
C_KS1_069_1	3.2	3.1 to 3.5	ISUZU	RODEO SL	1999	7/28/2004							
C_KS1_071_1	2	1.6 to 2.0	TOYOTA	RAV4	2000	7/28/2004							
C_KS1_072_1	1.6	1.6 to 2.0	NISSAN	SENTRA GXE	1997	7/28/2004				x			Average exhaust temp (340C) is 30 % higher than similar displacement vehicles
C_KS1_073_1	3	2.6 to 3.0	FORD	RANGER	1999	7/29/2004				x			Average exhaust temp (360C) is 30 % higher than similar displacement vehicles,
C_KS1_074_1	3	2.6 to 3.0	MERCURY	SABLE LS	2002	7/29/2004							
C_KS1_075_1	2.2	2.1 to 2.5	TOYOTA	CAMRY	1994	7/29/2004							
C_KS1_076_1	1.5	0 to 1.6	HONDA	CIVIC	1984	8/3/2004							
C_KS1_076_2	1.5	0 to 1.6	HONDA	CIVIC	1984		x					x	Test record has missing or invalid data
C_KS1_077_1	3	2.6 to 3.0	TOYOTA	AVALON	1999	7/29/2004							
C_KS1_078_1	1.5	0 to 1.6	HONDA	CIVIC DX	1991	7/30/2004							
C_KS1_078_2	1.5	0 to 1.6	HONDA	CIVIC DX	1991	7/30/2004	x					x	Test record has missing or invalid data
C_KS1_080_1	4	3.5 to 4.0	JEEP	GRAND CHERO	1995	8/2/2004		x		x		x	Average exhaust flow is > 50% lower than average for all other similar displacement vehicles, & avg exhaust temp (450C) is 40 % higher than similar displacement vehicles
C_KS1_081_1	5.2	5.1 to 6.0	DODGE	RAM LE	1991	8/2/2004			x				Suspect diltion: Avg CO + CO2 = 10.60%
C_KS1_082_1	1.6	0 to 1.6	TOYOTA	COROLLA	1997	7/30/2004							
C_KS1_083_1	3	2.6 to 3.0	NISSAN	MAXIMA	2000	7/30/2004							
C_KS1_085_1	5	4.1 to 5.0	FORD	F-150	1995	7/31/2004							Suspect diltion: Avg CO + CO2 = 10.35%
C_KS1_086_1	2	1.6 to 2.0	FORD	CONTOUR	1995	7/31/2004							
C_KS1_088_1	4.3	4.1 to 5.0	CHEVROLET	S-10	1996	7/31/2004							
C_KS1_090_1	3.1	3.1 to 3.5	PONTIAC	GRAND PRIX	1993	7/31/2004							
C_KS1_092_1	4	3.5 to 4.0	FORD	EXPLORER	2000	8/2/2004				x			Average exhaust temp (410C) is 30 % higher than similar displacement vehicles
C_KS1_093_1	5.3	5.1 to 6.0	CHEVROLET	SILVERADO	2002	8/2/2004							
C_KS1_094_1	3.3	3.1 to 3.5	PLYMOUTH	VOYAGER	1998	8/3/2004	x					x	Test record has missing or invalid data
C_KS1_094_2	3.3	3.1 to 3.5	PLYMOUTH	VOYAGER	1998	7/30/2004							
C_KS1_095_1	3.8	3.5 to 4.0	BUICK	LESABRE	1989	7/30/2004							
C_KS1_096_1	2.2	2.1 to 2.5	SUBARU	OUTBACK LEGA	1996	7/29/2004							
C_KS1_097_1	3.8	3.5 to 4.0	FORD	THUNDERBIRD	1988	8/3/2004			x			x	Suspect diltion: Avg CO + CO2 = 5.75%
C_KS1_098_1	4	3.5 to 4.0	FORD	EXPLORER XLT	1995	8/3/2004				x			Average exhaust temp (450C) is 40 % higher than similar displacement vehicles
C_KS1_099_1	2.9	2.6 to 3.0	VOLVO	S80	2001	8/3/2004				x			Average exhaust temp (380C) is 40 % higher than similar displacement vehicles,
C_KS1_100_1	1.8	1.6 to 2.0	MAZDA	PROTÉGÉ	1991	8/11/2004						x	Avg exhaust temp (180C) is 30% lower than similar displacement vehicles
C_KS1_1012_1	3	2.6 to 3.0	NISSAN	MAXIMA	1992	8/24/2004		x				x	No exhaust flow recorded.
C_KS1_102_1	3.3	3.1 to 3.5	DODGE	GRAND CARAV	1999	8/3/2004							
C_KS1_103_1	3.3	3.1 to 3.5	CHRYSLER	TOWN & COUNT	2000	8/4/2004							
C_KS1_104_1	2.2	2.1 to 2.5	TOYOTA	CELICA	1999	8/4/2004		x	x		x	x	Both min and max exhaust flows are way out of range, average is in range, average ambient temp value is erroneous (228C)

CTR_TST_ID	Disp	Disp Bin	Make	Model	Model Year	Test Date	Missing data	Flow Flag	Dilution Flag	Exh Temp Flag	Ambient Temp Flag	Suspect Data	Data Review Comments
C_KS1_105_1	4	3.5 to 4.0	JEEP	CHEROKEE SP	1993	8/6/2004							
C_KS1_105_2	4	3.5 to 4.0	JEEP	CHEROKEE SP	1993	8/4/2004							
C_KS1_107_1	2.2	2.1 to 2.5	TOYOTA	CAMRY LE	2000	8/4/2004							
C_KS1_108_1	2.2	2.1 to 2.5	CHEVROLET	CAVALIER	1997	8/4/2004							
C_KS1_109_1	4.6	4.1 to 5.0	MERCURY	GRAND MARQU	1997	8/5/2004							Avg exhaust temp (220C) is 30% lower than similar displacement vehicles
C_KS1_110_1	3.1	3.1 to 3.5	BUICK	CENTURY LIMIT	1998	8/5/2004							
C_KS1_110_2	3.1	3.1 to 3.5	BUICK	CENTURY LIMIT	1998	8/5/2004	x					x	Test record has missing or invalid data
C_KS1_112_1	2.5	2.1 to 2.5	FORD	PROBE	1993	8/5/2004							
C_KS1_113_1	5.8	5.1 to 6.0	FORD	BRONCO	1995	8/5/2004			x				Suspect diltion: Avg CO + CO2 = 10.63%
C_KS1_114_1	2.7	2.6 to 3.0	CHRYSLER	CONCORD	2000	8/5/2004							Avg exhaust temp (200C) is 30% lower than similar displacement vehicles
C_KS1_116_1	2	1.6 to 2.0	FORD	ESCORT ZX2	1999	8/6/2004							
C_KS1_117_1	4.3	4.1 to 5.0	CHEVROLET	BLAZER LS	2002	8/6/2004							
C_KS1_118_1	4.3	4.1 to 5.0	LINCOLN	TOWNCAR	1987	8/6/2004							
C_KS1_120_1	2.2	2.1 to 2.5	HONDA	ACCORD	1990	8/6/2004							
C_KS1_121_1	3.3	3.1 to 3.5	DODGE	DYNASTY	1988	8/7/2004							
C_KS1_123_1	4	3.5 to 4.0	JEEP	CHEROKEE	1990	8/7/2004			x			x	Suspect diltion: Avg CO + CO2 = 10.62%
C_KS1_124_1	2	1.6 to 2.0	FORD	ESCORT	2002	8/9/2004							
C_KS1_126_1	3	2.6 to 3.0	PLYMOUTH	VOYAGER	1993	8/7/2004	x					x	Test record has missing or invalid data
C_KS1_127_1	3.5	3.1 to 3.5	HONDA	ODYSSEY	2000	8/9/2004							
C_KS1_128_1	2.3	2.1 to 2.5	HONDA	ACCORD	2000	8/9/2004							
C_KS1_129_1	4.2	4.1 to 5.0	FORD	F150	2000	8/9/2004							
C_KS1_132_1	2.3	2.1 to 2.5	FORD	RANGER XLT	1988	8/7/2004							
C_KS1_133_1	2.3	2.1 to 2.5	HONDA	ACCORD LX	2001	8/10/2004							
C_KS1_134_1	2.3	2.1 to 2.5	NISSAN	SENTRA	1994	8/10/2004		x	x			x	No exhaust flow recorded. & suspect dilution (avg CO+CO2 = 10.9%), & avg exhaust temp (190C) is 30% lower than similar displacement vehicles
C_KS1_134_2	1.6	1.6 to 2.0	NISSAN	SENTRA	1994	8/11/2004							
C_KS1_138_1	2.6	2.6 to 3.0	CHRYSLER	LEBARON	1983	8/10/2004		x		x		x	Average exhaust flow is > 50% higher than average for all other similar displacement vehicles, & avg exhaust temp (610C) is 120 % higher than similar displacement vehicles
C_KS1_139_1	2.4	2.1 to 2.5	VOLVO	850	1997	8/11/2004				x			Average exhaust temp (360C) is 30 % higher than similar displacement vehicles
C_KS1_140_1	2.3	2.1 to 2.5	MERCURY	TOPAZ GS	1994	8/13/2004							
C_KS1_140_2	2.3	2.1 to 2.5	MERCURY	TOPAZ GS	1994	8/11/2004							
C_KS1_141_1	2	1.6 to 2.0	FORD	FOCUS SE	2001	8/11/2004							
C_KS1_142_1	3.3	3.1 to 3.5	PLYMOUTH	VOYAGER	1999	8/11/2004							
C_KS1_147_1	1.5	0 to 1.6	HONDA	CIVIC DX	1988	8/12/2004							
C_KS1_148_1	3.8	3.5 to 4.0	BUICK	REGAL	1996	8/12/2004							
C_KS1_149_1	2.8	2.6 to 3.0	CADILLAC	CIMMARON	1986	8/12/2004							
C_KS1_150_1	3	2.6 to 3.0	FORD	RANGER	1999	8/12/2004							
C_KS1_151_1	3.8	3.5 to 4.0	PONTIAC	BONNEVILLE	1988	8/14/2004	x					x	Test record has missing or invalid data
C_KS1_152_1	2.3	2.1 to 2.5	MERCURY	TOPAZ	1994	8/13/2004							
C_KS1_153_1	3	2.6 to 3.0	MERCURY	SABLE	1996	8/13/2004		x				x	Average exhaust flow is > 50% lower than average for all other similar displacement vehicles, & avg exhaust temp (140C) is 50% lower than similar displacement vehicles
C_KS1_154_1	4	3.5 to 4.0	JEEP	CHEROKEE	1998	8/14/2004							
C_KS1_159_1	4.6	4.1 to 5.0	FORD	THUNDERBIRD	1995	8/14/2004		x				x	Average exhaust flow is > 50% lower than average for all other similar displacement vehicles, & avg exhaust temp (170C) is 40% lower than similar displacement vehicles
C_KS1_160_1	2.2	2.1 to 2.5	TOYOTA	CAMRY	1997	8/14/2004							Avg exhaust temp (210C) is 30% lower than similar displacement vehicles
C_KS1_164_1	1.8	1.6 to 2.0	TOYOTA	COROLLA	1996	8/16/2004					x	x	Average ambient temp erroneous (-32C)

CTR_TST_ID	Disp	Disp Bin	Make	Model	Model Year	Test Date	Missing data	Flow Flag	Dilution Flag	Exh Temp Flag	Ambient Temp Flag	Suspect Data	Data Review Comments
C_KS1_165_1	1.6	1.6 to 2.0	HONDA	CIVIC	2000	8/16/2004							
C_KS1_166_1	2.2	2.1 to 2.5	TOYOTA	CAMRY	2000	8/18/2004							
C_KS1_167_1	1.8	1.6 to 2.0	TOYOTA	COROLLA	2000	8/16/2004							
C_KS1_167_2	1.8	1.6 to 2.0	TOYOTA	COROLLA	2000	8/16/2004	x					x	Test record has missing or invalid data
C_KS1_171_1	2.5	2.1 to 2.5	SUBARU	OUTBACK	2000	8/17/2004		x	x	x		x	Average exhaust flow is > 50% higher than average for all other similar displacement vehicles & suspect dilution (avg CO+CO2 = 10.6%), & avg exhaust temp (450C) is 60 % higher than similar displacement vehicles
C_KS1_171_2	2.5	2.1 to 2.5	SUBARU	OUTBACK	2000	8/17/2004	x					x	Test record has missing or invalid data
C_KS1_173_1	5	4.1 to 5.0	CHEVROLET	MONTE CARLO	1977	8/17/2004							
C_KS1_175_1	2.4	2.1 to 2.5	HYUNDAI	SANTA FE	2001	8/18/2004							
C_KS1_178_1	2.2	2.1 to 2.5	CHEVROLET	LUMINA	1999	8/18/2004				x		x	Average exhaust temp (360C) is 25 % higher than similar displacement vehicles, average ambient temp erroneous (-16C)
C_KS1_179_1	4.3	4.1 to 5.0	GMC	SAFARI	1993	8/18/2004							
C_KS1_180_1	4.3	4.1 to 5.0	GMC	SONOMA SLS	2001	8/18/2004	x					x	Test record has missing or invalid data
C_KS1_180_2	4.3	4.1 to 5.0	GMC	SONOMA SLS	2001	8/18/2004				x			Average exhaust temp (390C) is 30 % higher than similar displacement vehicles
C_KS1_181_1	3.1	3.1 to 3.5	SATURN	SL1	1994	8/20/2004							
C_KS1_182_1	3.1	3.1 to 3.5	BUICK	REGAL	1990		x					x	Test record has missing or invalid data
C_KS1_187_1	4.3	4.1 to 5.0	CHEVROLET	ASTRO VAN	1991	8/20/2004					x		average ambient temp erroneous (-29C)
C_KS1_188_1	5	4.1 to 5.0					x					x	Test record has missing or invalid data
C_KS1_189_1	2.8	2.6 to 3.0	CHEVROLET	S-10 TRUCK	1985	8/20/2004							
C_KS1_193_1	5.8	5.1 to 6.0	FORD	ECONOLINE	1983	8/21/2004		x	x			x	Average exhaust flow is > 50% lower than average for all other similar displacement vehicles & suspect dilution (avg CO+CO2 = 4.15%)
C_KS1_194_1	5	4.1 to 5.0	LINCOLN	TOWNCAR	1989	8/21/2004						x	Avg exhaust temp (140C) is 50% lower than similar displacement vehicles
C_KS1_195_1	4.2	4.1 to 5.0	FORD	F150 TRUCK	1998	8/21/2004							
C_KS1_196_1	4.2	4.1 to 5.0	FORD	WINDSTAR	1999	8/21/2004							
C_KS1_197_1	5.7	5.1 to 6.0	CHEVROLET	C 1500	1994	8/21/2004							
C_KS1_199_1	2.4	2.1 to 2.5	DODGE	STRATUS ES	1996	8/23/2004							
C_KS1_201_1	2.2	2.1 to 2.5	MAZDA	MX-6	1988	8/23/2004							
C_KS1_203_1	3.8	3.5 to 4.0	OLDSMOBILE	NINETY EIGHT	1985	8/23/2004							
C_KS1_204_1	5	4.1 to 5.0	LINCOLN	TOWNCAR	1987	8/23/2004			x			x	Suspect diltion: Avg CO + CO2 = 8.78%
C_KS1_207_1	3.8	3.5 to 4.0	PONTIAC	BONNEVILLE	1994	8/25/2004							
C_KS1_208_1	4.9	4.1 to 5.0	FORD	F150	1990	8/25/2004		x	x			x	No exhaust flow recorded & suspect dilution (avg CO+CO2 = 8.91%)
C_KS1_210_1	3	2.6 to 3.0	FORD	TAURUS	2002	8/26/2004							
C_KS1_212_1	3.5	3.1 to 3.5	CHRYSLER	CONCORD	1994	8/25/2004						x	Avg exhaust temp (190C) is 40% lower than similar displacement vehicles
C_KS1_212_2	3.5	3.1 to 3.5	CHRYSLER	CONCORD	1994	8/25/2004						x	Avg exhaust temp (190C) is 40% lower than similar displacement vehicles
C_KS1_213_1	3.8	3.5 to 4.0	OLDSMOBILE	EIGHTY-EIGHT	1994	8/27/2004							
C_KS1_215_1	5	4.1 to 5.0	FORD	CROWN VICTOR	1985	8/26/2004							
C_KS1_219_1	1.6	1.6 to 2.0	HONDA	CIVIC	2000	8/26/2004							
C_KS1_221_1	3.1	3.1 to 3.5	BUICK	CENTURY	1997	8/26/2004		x				x	No exhaust flow recorded.
C_KS1_222_1	2.3	2.1 to 2.5	PONTIAC	GRAND AM	1992	8/26/2004							
C_KS1_223_1	3.8	3.5 to 4.0	DODGE	GRAND CARAVAN	2005	8/26/2004							
C_KS1_225_1	1.6	0 to 1.6	TOYOTA	COROLLA	1989	8/27/2004							
C_KS1_226_1	1.3	0 to 1.6	NISSAN	SENTRA	1993	8/27/2004							
C_KS1_226_2	1.3	0 to 1.6	NISSAN	SENTRA	1993	8/27/2004	x					x	Test record has missing or invalid data
C_KS1_228_1	3.4	3.1 to 3.5	OLDSMOBILE	SILHOUETTE	2000	8/27/2004							

CTR_TST_ID	Disp	Disp Bin	Make	Model	Model Year	Test Date	Missing data	Flow Flag	Dilution Flag	Exh Temp Flag	Ambient Temp Flag	Suspect Data	Data Review Comments
C_KS1_233_1	3	2.6 to 3.0	FORD	TAURUS	1987	8/28/2004		x	x			x	Average exhaust flow is > 50% lower than average for all other similar displacement vehicles & suspect dilution (avg CO+CO2 =0.8%), & avg exhaust temp (90 C) is 70% lower than similar displacement vehicles
C_KS1_233_2	3	2.6 to 3.0	FORD	TAURUS	1987	8/28/2004							
C_KS1_234_1	4.9	4.1 to 5.0	FORD	F150 4X2	1987	8/28/2004							
C_KS1_235_1	2.8	2.6 to 3.0	PONTIAC	6000	1988	8/28/2004							
C_KS1_236_1	2.3	2.1 to 2.5	OLDSMOBILE	ACHIEVA	1992	8/28/2004							
C_KS1_236_2	1.9	1.6 to 2.0	OLDSMOBILE	ACHIEVA	1992		x					x	Test record has missing or invalid data
C_KS1_237_1	1.6	0 to 1.6	GEO	PRISM	1990	8/28/2004							
C_KS1_239_1	1.8	1.6 to 2.0	FORD	ESCORT	1993	8/30/2004		x				x	Average exhaust flow is > 50% lower than average for all other similar displacement vehicles, & avg exhaust temp (160C) is 40% lower than similar displacement vehicles
C_KS1_240_1	2.5	2.1 to 2.5	FORD	CONTOUR	1998	8/30/2004						x	Avg exhaust temp (190C) is 30% lower than similar displacement vehicles
C_KS1_241_1	4.9	4.1 to 5.0	CADILLAC	SEDAN DE VILL	1993	8/30/2004							
C_KS1_243_1	2	1.6 to 2.0	HONDA	ACCORD	1987	8/30/2004			x				Suspect diltion: Avg CO + CO2 = 10.96%
C_KS1_244_1	3	2.6 to 3.0	INFINITI	I30	1998	8/30/2004		x				x	Average exhaust flow is > 50% lower than average for all other similar displacement vehicles
C_KS1_245_1	3.3	3.1 to 3.5	PLYMOUTH	VOYAGER	1997	8/30/2004							
C_KS1_246_1	1.8	1.6 to 2.0	EAGLE	TALON	1994	8/31/2004				x			Average exhaust temp (330C) is 30 % higher than similar displacement vehicles
C_KS1_247_1	2.9	2.6 to 3.0	FORD	RANGER	1987	8/31/2004							
C_KS1_248_1	2.3	2.1 to 2.5	VOLVO	240 GL	1983	8/31/2004							
C_KS1_249_1	4.3	4.1 to 5.0	CHEVROLET	S-10	1989	8/31/2004							
C_KS1_250_1	1.9	1.6 to 2.0	FORD	ESCORT	1987	8/31/2004						x	Avg exhaust temp (160C) is 40% lower than similar displacement vehicles
C_KS1_253_1	3.8	3.5 to 4.0	BUICK	REGAL	1992	9/1/2004							
C_KS1_254_1	3	2.6 to 3.0	MERCURY	SABLE	1997	9/1/2004		x				x	Average exhaust flow is > 50% lower than average for all other similar displacement vehicles
C_KS1_255_1	3	2.6 to 3.0	FORD	TAURUS	2001	9/1/2004							
C_KS1_259_1	2.5	2.1 to 2.5	PLYMOUTH	ACCLAIM	1990	9/1/2004		x				x	Average exhaust flow is > 50% lower than average for all other similar displacement vehicles
C_KS1_282_1	3.8	3.5 to 4.0	OLDSMOBILE	DELTA 88	1991	9/8/2004							Avg exhaust temp (230C) is 30% lower than similar displacement vehicles
C_KS1_290_1	2.3	2.1 to 2.5	DODGE	RAM 50	1989	9/8/2004							
C_KS1_294_1	3	2.6 to 3.0	BUICK	CENTURY	1984	9/8/2004		x		x		x	Average exhaust flow is > 50% higher than average for all other similar displacement vehicles, & avg exhaust temp (530C) is 95 % higher than similar displacement vehicles
C_KS1_297_1	1.8	1.6 to 2.0	KIA	SEPHIA	2000	9/9/2004							
C_KS1_298_1	2	1.6 to 2.0	CHEVROLET	CAVALIER	1989	9/9/2004			x				Suspect diltion: Avg CO + CO2 = 10.71%
C_KS1_299_1	4.9	4.1 to 5.0	BUICK	LESABRE	1979	9/9/2004							Avg exhaust temp (220C) is 30% lower than similar displacement vehicles
C_KS1_300_1	5	4.1 to 5.0	FORD	F150	1994	9/9/2004		x	x			x	Average exhaust flow is > 50% higher than average for all other similar displacement vehicles & suspect dilution (avg CO+CO2 = 9.98%)
C_KS1_301_1	5	4.1 to 5.0	MERCURY	GRAND MARQU	1986	9/9/2004			x				Suspect diltion: Avg CO + CO2 = 10.02%
C_KS1_302_1	3.8	3.5 to 4.0	BUICK	ELECTRA PARK	1989	9/10/2004							
C_KS1_304_1	1.3	0 to 1.6	FORD	ASPIRE	1995	9/10/2004							
C_KS1_305_1	3.8	3.5 to 4.0	HONDA	ACCORD	2001	9/10/2004							
C_KS1_306_1	4	3.5 to 4.0	JEEP	GRAND CHERO	1995	9/11/2004		x		x		x	Average exhaust flow is > 50% higher than average for all other similar displacement vehicles, & avg exhaust temp (530C) is 70 % higher than similar displacement vehicles
C_KS1_307_1	4.3	4.1 to 5.0	GMC	JIMMY	1990	9/10/2004							

CTR_TST_ID	Disp	Disp Bin	Make	Model	Model Year	Test Date	Missing data	Flow Flag	Dilution Flag	Exh Temp Flag	Ambient Temp Flag	Suspect Data	Data Review Comments
C_KS1_308_1	1.8	1.6 to 2.0	MG	MG	1978	9/10/2004	x	x		x		x	Average exhaust flow is > 50% higher than average for all other similar displacement vehicles, & avg exhaust temp (330C) is 30 % higher than similar displacement vehicles
C_KS1_309_1	3.4	3.1 to 3.5	OLDSMOBILE	SILHOUETTE	1997							x	Test record has missing or invalid data
C_KS1_312_1	1.6	1.6 to 2.0	HONDA	CIVIC	2000	9/14/2004							
C_KS1_314_1	4.3	4.1 to 5.0	GMC	SIERRA	1995	9/13/2004				x		x	Average exhaust temp (510C) is 70 % higher than similar displacement vehicles
C_KS1_316_1	1.6	1.6 to 2.0	HONDA	CIVIC	1997	9/14/2004							
C_KS1_317_1	5	4.1 to 5.0	OLDSMOBILE	CUSTOM CRUIS	1984	9/13/2004							
C_KS1_318_1	2.3	2.1 to 2.5	VOLVO	GL	1984	9/14/2004							
C_KS1_319_1	5	4.1 to 5.0	CHEVROLET	CAPRICE	1987	9/14/2004							
C_KS1_321_1	5.9	5.1 to 6.0	DODGE	RAM	1997	9/14/2004		x		x		x	Average exhaust flow is > 50% higher than average for all other similar displacement vehicles, & avg exhaust temp (460C) is 40 % higher than similar displacement vehicles
C_KS1_322_1	4.9	4.1 to 5.0	FORD	F150	1993	9/15/2004			x				Suspect diltion: Avg CO + CO2 = 9.87%
C_KS1_323_1	3.1	3.1 to 3.5	PONTIAC	GRAND PRIX	1989	9/15/2004		x				x	Average exhaust flow is approx 50% higher than average for all other similar displacement vehicles
C_KS1_324_1	3.8	3.5 to 4.0	BUICK	LESABRE	1990	9/15/2004							
C_KS1_325_1	2.4	2.1 to 2.5	DODGE	STRATUS	1996	9/15/2004							
C_KS1_326_1	2.5	2.1 to 2.5	TOYOTA	CAMRY	1997	9/14/2004							
C_KS1_327_1	5.9	5.1 to 6.0	DODGE	DURANGO	1999	9/15/2004				x			Average exhaust temp (490C) is 40 % higher than similar displacement vehicles
C_KS1_328_1	1.6	1.6 to 2.0	HONDA	CIVIC	1998	9/15/2004							
C_KS1_329_1	1.7	1.6 to 2.0	HONDA	CIVIC	2001	9/15/2004				x			Average exhaust temp (390C) is 50 % higher than similar displacement vehicles
C_KS1_329_2	1.7	1.6 to 2.0	HONDA	CIVIC	2001	9/15/2004				x			Average exhaust temp (390C) is 50 % higher than similar displacement vehicles
C_KS1_330_1	2.2	2.1 to 2.5	HONDA	ACCORD	1992	9/16/2004							
C_KS1_331_1	2.3	2.1 to 2.5	PONTIAC	GRAND AM	1994	9/16/2004							
C_KS1_332_1	3.1	3.1 to 3.5	CHEVROLET	MALIBU	1999	9/16/2004							
C_KS1_333_1	3.4	3.1 to 3.5	OLDSMOBILE	SILHOUETTE	2002	9/16/2004				x			Average exhaust temp (440C) is 40 % higher than similar displacement vehicles
C_KS1_335_1	4.5	4.1 to 5.0	M.BENZ	280 SE	1973	9/16/2004							
C_KS1_336_1	5.7	5.1 to 6.0	CHEVROLET	G-20	1993	9/16/2004			x			x	Suspect diltion: Avg CO + CO2 = 8.19%, & avg exhaust temp (250C) is 30% lower than similar displacement vehicles
C_KS1_337_1	4.6	4.1 to 5.0	FORD	F150	1997	9/20/2004		x		x		x	Average exhaust flow is approx 50% higher than average for all other similar displacement vehicles, & avg exhaust temp (440C) is 50 % higher than similar displacement vehicles
C_KS1_338_1	3.4	3.1 to 3.5	CHEVROLET	VENTURE	2003	9/17/2004							
C_KS1_339_1	3	2.6 to 3.0	PLYMOUTH	VOYAGER	1991	9/17/2004							
C_KS1_341_1	2	1.6 to 2.0	DODGE	AVENGER	1996	9/17/2004							
C_KS1_343_1	1.6	1.6 to 2.0	TOYOTA	COROLLA	1989	9/17/2004							
C_KS1_344_1	3	2.6 to 3.0	NISSAN	SENTRA	1997	9/18/2004							
C_KS1_346_1	2	1.6 to 2.0	TOYOTA	CAMRY	1990	9/18/2004							
C_KS1_347_1	2.4	2.1 to 2.5	NISSAN	ALTIMA	2000	9/18/2004							
C_KS1_348_1	2.3	2.1 to 2.5	PLYMOUTH	SUNDANCE	1989	9/17/2004							
C_KS1_349_1	3.8	3.5 to 4.0	FORD	WINDSTAR	2001	9/29/2004							
C_KS1_350_1	3	2.6 to 3.0	TOYOTA	AVALON	1996	9/18/2004							
C_KS1_350_2	3	2.6 to 3.0	TOYOTA	AVALON	1996	9/20/2004							
C_KS1_351_1	3	2.6 to 3.0	NISSAN	MAXIMA	1997	9/20/2004							
C_KS1_352_1	2.2	2.1 to 2.5	TOYOTA	CAMRY	1999	9/20/2004							
C_KS1_354_1	3	2.6 to 3.0	FORD	TAURUS	1998	9/20/2004							
C_KS1_355_1	4	3.5 to 4.0	JEEP	WRANGLER	1997	9/20/2004							
C_KS1_356_1	1.6	1.6 to 2.0	KIA	RIO	2004	9/20/2004							

CTR_TST_ID	Disp	Disp Bin	Make	Model	Model Year	Test Date	Missing data	Flow Flag	Dilution Flag	Exh Temp Flag	Ambient Temp Flag	Suspect Data	Data Review Comments
C_KS1_358_1	5	4.1 to 5.0	CHEVROLET	CAPRICE-ESTA	1990	9/21/2004			x				Suspect diltion: Avg CO + CO2 = 10.60%
C_KS1_359_1	5	4.1 to 5.0	MERCURY	GRAND MARQU	1988	9/21/2004		x	x			x	Average exhaust flow is > 50% lower than average for all other similar displacement vehicles & suspect dilution (avg CO+CO2 = 9.71%), & avg exhaust temp (230C) is 30% lower than similar displacement vehicles Suspect diltion: Avg CO + CO2 =10.3 %, & avg exhaust temp (430C) is 25 % higher than similar displacement vehicles
C_KS1_360_1	2.4	2.1 to 2.5	TOYOTA	PICKUP	1987	9/20/2004			x	x			
C_KS1_361_1	2.2	2.1 to 2.5	CHEVROLET	CAVALIER	2004	9/21/2004							
C_KS1_363_1	2.4	2.1 to 2.5	PONTIAC	GRAND AM SE	1997	9/22/2004							
C_KS1_363_2	2.4	2.1 to 2.5	PONTIAC	GRAND AM SE	1997	9/21/2004							
C_KS1_364_1	2.4	2.1 to 2.5	SATURN	SEDAN	2001	9/21/2004							
C_KS1_364_2	2.4	2.1 to 2.5	SATURN	SEDAN	2001	9/21/2004							Avg exhaust temp (200C) is 30% lower than similar displacement vehicles
C_KS1_367_1	3.8	3.5 to 4.0	PLYMOUTH	VOYAGER	1999	9/22/2004							
C_KS1_368_1	3	2.6 to 3.0	TOYOTA	CAMRY	1994	9/22/2004						x	Avg exhaust temp (190C) is 30% lower than similar displacement vehicles
C_KS1_369_1	4	3.5 to 4.0	FORD	RANGER	2003	9/22/2004							
C_KS1_369_2	4	3.5 to 4.0	FORD	RANGER	2003	9/22/2004							
C_KS1_372_1	3.5	3.1 to 3.5	KIA	SEDONA	2004	9/23/2004							
C_KS1_373_1	1.6	1.6 to 2.0	TOYOTA	COROLLA	1995	9/23/2004							
C_KS1_373_2	1.6	1.6 to 2.0	TOYOTA	COROLLA	1995	9/23/2004							
C_KS1_374_1	3	2.6 to 3.0	TOYOTA	SIENNA	2000	9/23/2004							
C_KS1_377_1	2.5	2.1 to 2.5	OLDSMOBILE	CUTLASS	1987	9/23/2004							
C_KS1_379_1	3.1	3.1 to 3.5	CHEVROLET	LUMINA	1997	9/24/2004							
C_KS1_381_1	2	1.6 to 2.0	FORD	CONTOUR	1996	9/24/2004						x	Avg exhaust temp (190C) is 30% lower than similar displacement vehicles
C_KS1_381_2	2	1.6 to 2.0	FORD	CONTOUR	1996	9/24/2004						x	Avg exhaust temp (190C) is 30% lower than similar displacement vehicles
C_KS1_383_1	4.9	4.1 to 5.0	FORD	F150	1989	9/24/2004			x				Suspect diltion: Avg CO + CO2 = 9.59%
C_KS1_383_2	4.9	4.1 to 5.0	FORD	F150	1989	9/24/2004			x				Suspect diltion: Avg CO + CO2 = 9.27%
C_KS1_384_1	1.9	1.6 to 2.0	SATURN	WAGON	1993	9/24/2004							
C_KS1_385_1	2.5	2.1 to 2.5	CHEVROLET	TRACKER	2003	9/24/2004							
C_KS1_386_1	5	4.1 to 5.0	CHEVROLET	CAPRICE CLAS	1987	9/11/2004							
C_KS1_386_2	5	4.1 to 5.0	CHEVROLET	CAPRICE CLAS	1987	9/11/2004							
C_KS1_387_1	2	1.6 to 2.0	FORD	ESCORT	1999	9/11/2004							
C_KS1_388_1	3	2.6 to 3.0	TOYOTA	CAMRY	2001	9/11/2004							
C_KS1_389_1	3.7	3.5 to 4.0	DODGE	RAM	1986	9/11/2004			x				Suspect diltion: Avg CO + CO2 = 10.71%
C_KS1_390_1	5.7	5.1 to 6.0	CHEVROLET	SUBURBAN	1995	9/11/2004							
C_KS1_394_1	1.6	1.6 to 2.0	TOYOTA	COROLLA	1992	9/25/2004							
C_KS1_394_2	1.6	1.6 to 2.0	TOYOTA	COROLLA	1992	9/25/2004							
C_KS1_395_1	2.4	2.1 to 2.5	PONTIAC	GRAND AM	1997	9/25/2004							
C_KS1_398_1	1.9	1.6 to 2.0	MERCURY	TRACER	1995	9/25/2004							
C_KS1_399_1	3.1	3.1 to 3.5	CHEVROLET	LUMINA	2001	9/25/2004							Avg exhaust temp (200C) is 40% lower than similar displacement vehicles
C_KS1_416_1	3	2.6 to 3.0	FORD	TAURUS SE	1998	9/27/2004							
C_KS1_417_1	1.8	1.6 to 2.0	TOYOTA	COROLLA	1996	9/27/2004							
C_KS1_419_1	3.5	3.1 to 3.5	NISSAN	MAXIMA	2002	9/27/2004							Avg exhaust temp (210C) is 30% lower than similar displacement vehicles
C_KS1_420_1	4.5	4.1 to 5.0	M.BENZ	SEL	1980	9/27/2004							
C_KS1_420_2	4.5	4.1 to 5.0	M.BENZ	SEL	1980	9/27/2004							
C_KS1_421_1	3.8	3.5 to 4.0	FORD	TAURUS	1993	9/27/2004							
C_KS1_424_1	4.3	4.1 to 5.0	CHEVROLET	ASTRO	1990	9/28/2004							Avg exhaust temp (220C) is 30% lower than similar displacement vehicles
C_KS1_424_2	4.3	4.1 to 5.0	CHEVROLET	ASTRO	1990	9/28/2004							

CTR_TST_ID	Disp	Disp Bin	Make	Model	Model Year	Test Date	Missing data	Flow Flag	Dilution Flag	Exh Temp Flag	Ambient Temp Flag	Suspect Data	Data Review Comments
C_KS1_425_1	2.3	2.1 to 2.5	VOLVO	850 TURBO	1996	9/28/2004		x				x	Average exhaust flow is > 50% lower than average for all other similar displacement vehicles
C_KS1_425_2	2.3	2.1 to 2.5	VOLVO	850 TURBO	1996	9/28/2004		x				x	Average exhaust flow is approx 50% lower than average for all other similar displacement vehicles
C_KS1_426_1	3	2.6 to 3.0	TOYOTA	CAMRY	1994	9/28/2004						x	Avg exhaust temp (190C) is 30% lower than similar displacement vehicles
C_KS1_427_1	1.9	1.6 to 2.0	SATURN	SL1	1997	9/28/2004							
C_KS1_428_1	3	2.6 to 3.0	FORD	TAURUS	1995	9/28/2004							
C_KS1_429_1	3.3	3.1 to 3.5	OLDSMOBILE	CUTLASS WAG	1989	9/27/2004							
C_KS1_429_2	3.3	3.1 to 3.5	OLDSMOBILE	CUTLASS WAG	1989	9/27/2004							
C_KS1_430_1	3.5	3.1 to 3.5	HONDA	ODYSSEY	2000	9/29/2004							
C_KS1_432_1	4.6	4.1 to 5.0	LINCOLN	CONTINENTAL	1995	9/29/2004						x	Avg exhaust temp (150C) is 50% lower than similar displacement vehicles
C_KS1_433_1	4.9	4.1 to 5.0	FORD	F-150	1989	9/29/2004		x	x			x	Average exhaust flow is > 50% higher than average for all other similar displacement vehicles & suspect dilution (avg CO+CO2 = 10.03%)
C_KS1_434_1	4.6	4.1 to 5.0	MERCURY	MARQUIS	1994	9/29/2004							Avg exhaust temp (210C) is 30% lower than similar displacement vehicles
C_KS1_436_1	2.4	2.1 to 2.5	PONTIAC	GRAND AM GT	1998	9/29/2004						x	Avg exhaust temp (160C) is 40% lower than similar displacement vehicles
C_KS1_437_1	2.2	2.1 to 2.5	TOYOTA	CAMRY	1996	9/30/2004							Avg exhaust temp (200C) is 30% lower than similar displacement vehicles
C_KS1_437_2	2.2	2.1 to 2.5	TOYOTA	CAMRY	1996	9/30/2004	x					x	Test record has missing or invalid data
C_KS1_438_1	2.2	2.1 to 2.5	CHEVROLET	AVALANCHE	2002	9/30/2004		x		x		x	Average exhaust flow is > 2x higher than average for all other similar displacement vehicles, & avg exhaust temp (400C) is 40 % higher than similar displacement vehicles
C_KS1_439_1	1.6	0 to 1.6	GEO	PRISM	1996	9/30/2004							
C_KS1_440_1	5	4.1 to 5.0	FORD	BRONCO	1990	9/30/2004				x		x	Average exhaust temp (520C) is 70 % higher than similar displacement vehicles
C_KS1_441_1	2.1	2.1 to 2.5	HONDA	ACCORD	1997	9/29/2004							
C_KS1_442_1	3	2.6 to 3.0	NISSAN	MAXIMA	1990	9/30/2004							
C_KS1_443_1	2	1.6 to 2.0	VW	CABRIO	1999	9/30/2004							
C_KS1_982_1	2.2	2.1 to 2.5	TOYOTA	CAMRY	1998	9/18/2004							