

Volkswagen PEMS-Bericht Kalenderjahr 2018

Volkswagen Group of America
3800 Hamlin Rd
Auburn Hills, MI 48326

9. October 2019

Hintergrund

Der Volkswagen-Konzern (VW) mit Hauptsitz im deutschen Wolfsburg ist ein großer Automobilhersteller mit 12 Marken in sieben europäischen Ländern: Volkswagen Pkw, Audi, SEAT, ŠKODA, Bentley, Bugatti, Lamborghini, Porsche, Ducati, Volkswagen Nutzfahrzeuge, Scania und MAN.

Die Volkswagen AG, AUDI AG und VWGoA sind nach dem geschlossenen Third Partial Consent Decree verpflichtet, einen unabhängigen Dritten mit der Durchführung von Prüfungen mit einem mobilen Emissionsmessgerät (PEMS) bei Fahrzeugen der Modelljahre (MJ) 2017, 2018 und 2019 zu beauftragen. Laut diesem Prüfprogramm müssen unter bestimmten, im Third Partial Consent Decree geregelten Bedingungen, PEMS-Messungen für gesetzlich geregelte Luftschadstoffe und CO₂ erfolgen. Der Bericht für das MJ 2017 wurde im vergangenen Jahr erstellt und ist online verfügbar. Im vorliegenden Bericht sind die Prüfergebnisse für MJ 2018 Fahrzeuge des US-Marktes enthalten.

Vorgehen

Der Prüfplan wurde von der US-Umweltschutzbehörde EPA genehmigt und von einem Dritten, der University of California, Riverside (UCR), umgesetzt. Der Plan sieht für 2018 Emissionstests auf PEMS-Basis an elf Fahrzeugen auf öffentlichen Straßen unter verschiedenen Bedingungen vor. Die gemessenen und im Bericht enthaltenen Emissionen enthalten Stickstoffoxide (NO_x), Kohlenmonoxid (CO), Kohlendioxid (CO₂) und Gesamtkohlenwasserstoffe (THC). Alle Fahrzeuge wurden von der UCR ohne ein Mitwirken seitens VW getestet, konfiguriert und betrieben. Kontrollprüfungen in Bezug auf die Messqualität wurden vor und nach der PEMS-Prüfung mit kalibrierten / zertifizierten Gasen durchgeführt, sodass die im vorliegenden Bericht aufgeführten Daten als korrekt und repräsentativ angesehen werden können. Die Tests für die drei folgenden Straßenfahrten (Stadt-, Autobahn- und Bergstrecke) wurden in der Umgebung von Los Angeles, Kalifornien, durchgeführt.

Ergebnisse¹

Die Fahrzeuge des MJ 2018 wurden zwischen dem 16. Juli und 19. August 2018 getestet. Die Ergebnisse werden in den nachstehenden Tabellen dargestellt. Bei den Tests waren alle Fahrzeuge mit handelsüblichem E10-Kraftstoff betankt. Tabelle 1 zeigt die getesteten Fahrzeuge, Tabelle 2 listet die Zusammenfassung der Praxis-Emissionsergebnisse auf und die Tabellen 3, 4 und 5 enthalten die zusammenfassenden Statistiken der Strecken.

¹ Die ursprüngliche Version dieses Berichts vom 27. November 2018 wurde am 9. Oktober 2019 aktualisiert, um die Fußnoten 3 und 5 in die jeweiligen Tabellen 3 und 5 aufzunehmen. Es wurden keine weiteren Änderungen an der Originalversion dieses Berichts vorgenommen.

Tabelle 1: Zusammenfassung der für das Modelljahr 2018 getesteten Fahrzeuge nach Prüfreihefolge (erster bis letzter)

Prüfgruppe	Fahrzeugmodell	Hersteller	Fahrgestellnummer	Emissionsklasse	Antriebsart	Nennleistung [HP]	Nenndrehmoment [Nm]	Getriebe	Abgasbehandlung	Kraftstoffart	Anfangskilometerstand[mi]
JVGAJ03.0AUE	A7 3.0 L	Audi		IntT3B125/ULEVII	AWD	335	440	Automatic	TWC	Gasoline	10085
JVGAV04.0NUA	A8 4.0 L	Audi		IntT3B125/ULEVII	AWD	450	600	Automatic	TWC	Gasoline	6615
JVGAT02.0AAA	Atlas 2.0 L	VW		T3B125/ULEV125	FWD	235	350	Automatic	TWC	Gasoline	3609
JVGAV03.6VUG	Passat 3.6 L	VW		IntT3B125/ULEVII	FWD	276	360	Automatic	TWC	Gasoline	7387
JVGAJ02.0A3A	Tiguan TSI 2.0 L	VW		T3B30/SULEV30	FWD	186	300	Automatic	TWC	Gasoline	2679
JVGAV01.4V3B	A3 E-Tron 1.4 L	Audi		IntT3B30/SULEV30	FWD	147	250	Automatic	TWC	Gasoline	5050
JVGAT02.0VUD	Tiguan LTD 2.0 L	VW		IntT3B125/ULEVII	AWD	197	207	Automatic	TWC	Gasoline	2679
JVGAV01.4VUP	Jetta 1.4 L	VW		IntT3B125/ULEVII	FWD	147	250	Manual	TWC	Gasoline	9546
JVGAV02.0V3R	Passat 2.0 L	VW		T3B30/SULEV30	FWD	174	250	Automatic	TWC	Gasoline	3891
JVGAV02.5NAG	RS3 2.5 L	Audi		T3B125/ULEV125	AWD	400	480	Automatic	TWC	Gasoline	4433
JVGAJ02.0AAC	Q5 2.0 L	Audi		IntT3B125/ULEV125	AWD	252	370	Automatic	TWC	Gasoline	2793

Tabelle 2: Zusammenfassung der Emissionsergebnisse für die Straßenstrecken²

Prüfgruppe	Fahrzeugmodell	Emissionsklasse	Stadtstrecke g/mi					Autobahnstrecke g/mi					Bergstrecke g/mi				
			CO ₂	THC	CO	NOx	NMOG	CO ₂	THC	CO	NOx	NMOG	CO ₂	THC	CO	NOx	NMOG
JVGAJ03.0AUE	A7 3.0 L	IntT3B125/ULEVII	558.4	0.0165	0.2306	0.0567	0.0168	353.7	0.0353	1.2081	0.0135	0.0359	395.9	0.0362	0.4750	0.0958	0.0369
JVGAV04.0NUA	A8 4.0 L	IntT3B125/ULEVII	588.8	0.0029	0.0715	0.0233	0.0029	376.2	-0.0001	0.2845	0.0080	-0.0001	482.7	0.0012	0.3533	0.0673	0.0012
JVGAT02.0AAA	Atlas 2.0 L	T3B125/ULEV125	335.9	0.0029	0.0197	0.0315	0.0029	366.0	0.0026	0.1546	0.0330	0.0027	352.0	0.0076	0.2996	0.0244	0.0077
JVGAV03.6VUG	Passat 3.6 L	IntT3B125/ULEVII	631.2	0.0041	0.1018	0.0352	0.0041	310.5	0.0114	0.1622	0.0150	0.0118	374.7	0.0388	0.9552	0.0289	0.0394
JVGAJ02.0A3A	Tiguan TSI 2.0 L	T3B30/SULEV30	407.1	0.0041	0.0619	0.0213	0.0041	334.8	-0.0001	0.3358	0.0148	-0.0001	356.6	0.0085	1.2595	0.0161	0.0087
JVGAV01.4V3B	A3 E-Tron 1.4 L	IntT3B30/SULEV30	261.8	0.0036	0.4638	0.0066	0.0037	275.0	0.0017	0.7649	0.0110	0.0017	270.9	0.0198	3.8875	0.0130	0.0201
JVGAT02.0VUD	Tiguan LTD 2.0 L	IntT3B125/ULEVII	548.3	0.0005	0.6679	0.0059	0.0005	360.6	0.0039	1.6695	0.0043	0.0040	449.2	0.0219	6.2224	0.0044	0.0223
JVGAV01.4VUP	Jetta 1.4 L	IntT3B125/ULEVII	349.9	0.0012	-0.0281	0.0396	0.0013	276.0	0.0033	0.6485	0.0120	0.0034	314.6	0.0160	2.1760	0.0229	0.0163
JVGAV02.0V3R	Passat 2.0 L	T3B30/SULEV30	389.3	0.0027	0.6011	0.0190	0.0028	278.4	-0.0010	0.7493	0.0091	-0.0010	348.1	0.0028	0.9358	0.0116	0.0028
JVGAV02.5NAG	RS3 2.5 L	T3B125/ULEV125	470.9	0.0050	0.0035	0.0613	0.0051	340.2	0.0102	1.4139	0.0360	0.0104	429.0	0.0263	5.3531	0.0720	0.0267
JVGAJ02.0AAC	Q5 2.0 L	IntT3B125/ULEV125	473.6	0.0096	0.2494	0.0253	0.0097	333.8	0.0094	0.1930	0.0194	0.0096	381.5	0.0121	0.2982	0.0213	0.0123

² NMOG wurde unter Verwendung der Formel $NMOG = 1,1 * NMHC$ (g/mi) berechnet. NMHC wurde berechnet gemäß 40 CFR Teil 1065.660 (b)(1) unter Verwendung der Formel $NMHC = 0,98 * THC$, wobei THC als Konzentration (ppm) vorliegt. Bei dem Fahrzeug A3 E-Tron 1.4L handelt es sich um ein Plug-in-Hybrid-Elektrofahrzeug, welches im Standard-EV-Modus (Elektrofahrt) betrieben wurde. In diesem Fahrmodus lief das Fahrzeug mit 0% Batterie bei allen durchgeführten Testzyklen. Siehe Anhang C für mehr Einzelheiten. Negativwerte stehen nicht für Emissionswerte kleiner Null, sondern können aus einer Nullpunktabweichung von Instrumenten während der Tests resultieren.

Tabelle 3: Zusammenfassung der Fahrstatistiken für die Stadtstrecke³

Prüfgruppe	Fahrzeugmodell	Fahrdauer [mm:ss:00]	Streckenlänge [mi]	Durchschnittsgeschwindigkeit [mph]	Höchstgeschwindigkeit [mph]	v ⁷⁵ a (95. percentil) [m ² /s ²]	RPA [m/s ²]	Anteil Stillstand [%]	Anteil konstante Geschwindigkeit [%]	Anteil Beschleunigung [%]	Anteil Verzögerung [%]	Steigung (95. percentil) [%]	Kumulative positive Höhe [m]	Höhenunterschied [m]	Durchschn. Umg. temperatur [F]
JVGAJ03.0AUE	A7 3.0 L	63:59:00	15.9	14.9	-	12.3	0.24	29.7	7.1	31.5	31.6	2.7	172	9	93.9
JVGAJ04.0NUA	A8 4.0 L	56:14:00	15.9	17.0	70.2	11.9	0.21	24.2	7.4	33.9	34.5	2.4	118	8	75.1
JVGAJ02.0AAA	Atlas TSI 2.0 L	49:32:00	16.5	20.0	69.0	11.1	0.19	21.5	8.5	34.7	35.3	2.7	122	-3	77.3
JVGAJ03.6VUG	Passat SEL 3.6 L	73:52:00	16.1	13.1	57.2	11.8	0.25	31.1	5.9	32.8	30.2	2.6	173	3	104.8
JVGAJ02.0A3A	Tiguan SEL TSI 2.0 L	57:32:00	16.2	16.9	69.0	11.7	0.22	23.2	6.8	34.9	35.1	2.5	129	6	75.3
JVGAJ01.4V3B	A3 E-Tron 1.4 L	57:05:00	16.3	17.1	65.9	14.3	0.24	27.5	7.0	32.0	33.5	2.8	138	1	76.8
JVGAJ02.0VUD	Tiguan LTD 2.0 L	54:26:00	16.1	17.7	60.3	12.4	0.22	21.1	8.4	33.8	36.7	2.5	137	4	77.3
JVGAJ01.4VUP	Jetta 1.4 L	54:07:00	16.5	18.3	62.1	13.2	0.23	22.4	7.3	33.3	37.0	3.0	153	6	76.7
JVGAJ02.0V3R	Passat 2.0 L	54:03:00	15.9	17.7	65.9	10.8	0.21	24.2	6.9	34.6	34.3	2.6	142	2	80.9
JVGAJ02.5NAG	RS3 2.5 L	54:07:00	16.1	17.8	68.4	14.0	0.23	26.2	7.0	34.2	32.7	2.9	156	-1	81.7
JVGAJ02.0AAC	Q5 2.0 L	53:12:00	16.2	18.3	78.3	15.7	0.25	26.1	6.5	33.3	34.1	2.5	121	10	75.0

Tabelle 4: Zusammenfassung der Fahrstatistiken für die Autobahnstrecke

Prüfgruppe	Fahrzeugmodell	Fahrdauer [mm:ss:00]	Streckenlänge [mi]	Durchschnittsgeschwindigkeit [mph]	Höchstgeschwindigkeit [mph]	v ⁷⁵ a (95. percentil) [m ² /s ²]	RPA [m/s ²]	Anteil Stillstand [%]	Anteil konstante Geschwindigkeit [%]	Anteil Beschleunigung [%]	Anteil Verzögerung [%]	Steigung (95. percentil) [%]	Kumulative positive Höhe [m]	Höhenunterschied [m]	Durchschn. Umg. temperatur [F]
JVGAJ03.0AUE	A7 3.0 L	41:37:00	37.8	54.6	79.5	15.7	0.11	5.6	18.5	38.4	37.4	2.8	177	-4	81.8
JVGAJ04.0NUA	A8 4.0 L	43:16:00	38.3	53.1	78.9	16.0	0.13	2.6	16.8	41.0	39.6	2.8	181	-5	88.5
JVGAJ02.0AAA	Atlas TSI 2.0 L	58:35:00	39.5	40.5	75.8	14.1	0.15	3.2	15.3	43.2	38.3	2.7	204	-10	85.6
JVGAJ03.6VUG	Passat SEL 3.6 L	42:54:00	38.7	54.2	85.1	18.5	0.14	3.8	15.2	41.9	39.1	2.8	178	-14	84.7
JVGAJ02.0A3A	Tiguan SEL TSI 2.0 L	57:02:00	39.0	41.0	82.0	15.9	0.15	2.1	14.1	44.8	39.0	2.6	181	-14	85.0
JVGAJ01.4V3B	A3 E-Tron 1.4 L	78:50:00	38.8	29.5	77.1	15.1	0.15	4.4	16.2	39.8	39.6	2.7	191	-29	87.1
JVGAJ02.0VUD	Tiguan LTD 2.0 L	44:28:00	38.5	52.0	77.1	16.4	0.12	4.5	18.5	39.9	37.1	2.8	177	-16	84.9
JVGAJ01.4VUP	Jetta 1.4 L	47:17:00	39.6	50.3	81.4	18.5	0.14	3.6	14.9	41.6	40.0	2.9	187	-10	85.8
JVGAJ02.0V3R	Passat 2.0 L	46:30:00	38.3	49.4	79.5	13.5	0.12	3.7	19.2	40.6	36.4	2.8	177	-15	89.4
JVGAJ02.5NAG	RS3 2.5 L	42:26:00	38.6	54.5	80.2	17.6	0.13	3.3	17.6	41.4	37.7	2.9	170	-15	87.7
JVGAJ02.0AAC	Q5 2.0 L	56:36:00	38.8	41.1	78.9	19.1	0.14	3.2	16.3	39.1	41.4	2.8	193	-2	88.6

Tabelle 5: Zusammenfassung der Fahrstatistiken für die Bergstrecke^{4,5}

Prüfgruppe	Fahrzeugmodell	Fahrdauer [mm:ss:00]	Streckenlänge [mi]	Durchschnittsgeschwindigkeit [mph]	Höchstgeschwindigkeit [mph]	v ⁷⁵ a (95. percentil) [m ² /s ²]	RPA [m/s ²]	Anteil Stillstand [%]	Anteil konstante Geschwindigkeit [%]	Anteil Beschleunigung [%]	Anteil Verzögerung [%]	Steigung (95. percentil) [%]	Kumulative positive Höhe [m]	Höhenunterschied [m]	Durchschn. Umg. temperatur [F]
JVGAJ03.0AUE	A7 3.0 L	51:35:00	28.5	33.2	-	15.2	0.18	7.2	13.5	41.8	37.4	11.3	758	0	85.7
JVGAJ04.0NUA	A8 4.0 L	53:10:00	28.7	32.4	71.5	14.8	0.16	10.8	13.4	37.8	38.0	10.4	765	3	87.3
JVGAJ02.0AAA	Atlas TSI 2.0 L	48:15:00	29.4	36.6	73.9	13.7	0.15	7.0	17.2	41.9	33.9	10.6	730	-2	88.8
JVGAJ03.6VUG	Passat SEL 3.6 L	46:31:00	28.8	37.1	78.3	19.5	0.20	9.3	11.4	41.9	37.4	10.9	724	-2	90.2
JVGAJ02.0A3A	Tiguan SEL TSI 2.0 L	49:25:00	29.0	35.2	73.3	16.0	0.16	10.6	15.0	39.4	35.0	10.7	735	2	86.1
JVGAJ01.4V3B	A3 E-Tron 1.4 L	46:08:00	29.0	37.7	75.8	18.8	0.19	9.0	12.0	41.4	37.7	-	731	1	86.0
JVGAJ02.0VUD	Tiguan LTD 2.0 L	53:12:00	28.6	32.3	71.5	18.3	0.21	13.0	10.0	41.1	35.8	10.6	729	-1	90.8
JVGAJ01.4VUP	Jetta 1.4 L	52:27:00	29.5	33.7	69.6	17.3	0.19	10.5	11.3	40.1	38.1	10.0	735	0	88.2
JVGAJ02.0V3R	Passat 2.0 L	54:21:00	28.5	31.4	68.4	15.8	0.20	11.6	10.2	41.8	36.4	10.6	719	-1	89.3
JVGAJ02.5NAG	RS3 2.5 L	53:55:00	28.6	31.9	78.9	21.3	0.23	13.6	9.4	40.7	36.3	10.4	724	-2	94.8
JVGAJ02.0AAC	Q5 2.0 L	44:48:00	28.9	38.7	75.8	19.3	0.20	6.9	10.3	43.0	39.8	10.4	724	1	88.2

³ Der Wert der maximalen Geschwindigkeit [mph] für den A7 3.0 L, dargestellt durch das Symbol "-", wurde mit 158.5 mph gemessen, was ein unplausibler Wert ist und wahrscheinlich als Ausfallsignal erzeugt wurde, als das CAN Signal vorübergehend abbriss.

⁴ Der Wert der Straßensteigung (95. Perzentil) [%] für den A3 E-Tron 1.4 L, dargestellt mit dem Symbol „-“, wurde mit Null gemessen, was keinen annehmbaren Wert darstellt und möglicherweise aus Problemen mit dem GPS-System resultiert.

⁵ Der Wert der maximalen Geschwindigkeit [mph] für den A7 3.0 L, dargestellt durch das Symbol "-", wurde mit 158.5 mph gemessen, was ein unplausibler Wert ist und wahrscheinlich als Ausfallsignal erzeugt wurde, als das CAN Signal vorübergehend abbriss.



Abbildung 1. Straßentest im öffentlichen kalifornischen Straßenverkehr

Zusammenfassung

Die Emissionen der Testfahrzeuge waren repräsentativ für typische Betriebsbedingungen für Stadt-, Autobahn- und Bergfahrten. Die Bedingungen reichten von 75°F bis 105°F (24-41°C), 0% bis 11,3% Anstieg und bis auf eine Höhe von 2.500 Fuß (762 m) über dem Meeresspiegel. Zusammenfassend lässt sich sagen, dass die dargestellten Emissionen repräsentativ sind für einen stichhaltigen Praxistest.

Mit freundlichen Grüßen

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Anhang A - Strecken

Die Strecken für Straßentests deckten verschiedene Geographien und Klimabedingungen ab, wie z. B. im stockenden Stadtverkehr, Fahrten auf der Autobahn und auf starken Steigungen/hohen Erhebungen. Die Strecken beinhalteten eine Strecke in der Innenstadt von Los Angeles, eine Autobahnstrecke zwischen Oxnard und Santa Barbara, Kalifornien, und eine Strecke in den Bergen von Santa Barbara. Tabelle 1 zeigt die Charakteristika der Teststrecken und die Strecken sind geografisch in Abbildung 1 dargestellt. Die EPA hat bestätigt, dass die Strecken ihre Anforderungen für die PEMS-Prüfung unter dem Consent Decree erfüllen. Die Strecken sind detaillierter folgend beschrieben.

Tabelle 1: Beschreibung der Teststrecken und wichtigste Statistiken jeder Fahrt

Strecke	Farbcode der Karte	Zugänglichkeit (Std.)	Länge der Strecke (Meilen)	Durchschnittsgeschwindigkeit (mph)	Kum. Höhe d. Stelle (Fuß)	95. Perzentil Rate in %
1. LA - Innenstadt	Blau	9-14 oder 20-24	16,2	17	465	2,7
2. Autobahnfahrt	Grün	24 Std.	39	47	600	2,8
3. Berge	Rot	24 Std.	29	34,6	2400	10,6

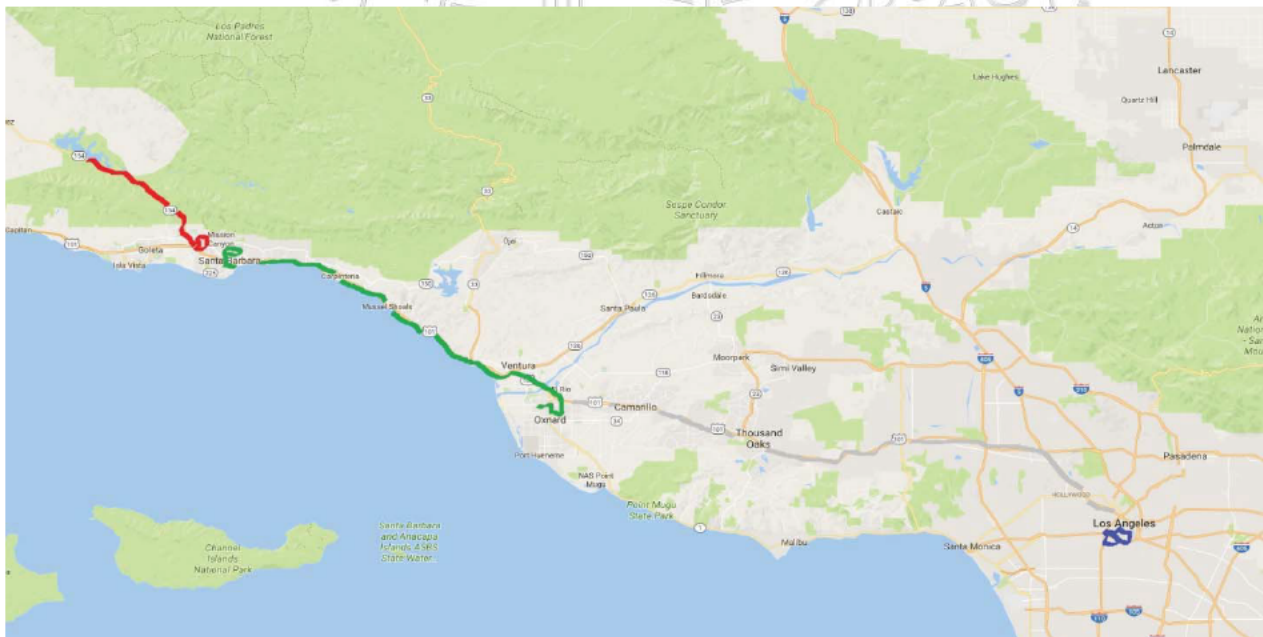


Abbildung 1: Überblick über die drei Teststrecken

In Abbildung 2 ist eine Karte der Innenstadtstrecke in LA abgebildet, als Strecke 1 bezeichnet, die für Stadtfahrten in der Innenstadt von Los Angeles repräsentativ ist. Diese Strecke entspricht grundsätzlich der „Los Angeles Route Four“ (d.h. LA4), die letztendlich für die Entwicklung des originalen FTP-Fahrzeug-Zertifizierungszyklus verwendet wurde, mit wenigen geringfügigen

Änderungen an Stellen, an denen sich das Verkehrsmuster oder die Straßen seit der Entwicklung des FTP verändert haben. Die normale Durchschnittsgeschwindigkeit für diese Strecke liegt bei ~27,4 km/h, und ein typisches Geschwindigkeits- und Höhenprofil dieser Strecke ist in Abbildung 3 dargestellt. Die Strecke ist ~26 Kilometer lang und hat ihren Start- und Endpunkt an der University of Southern California (USC).

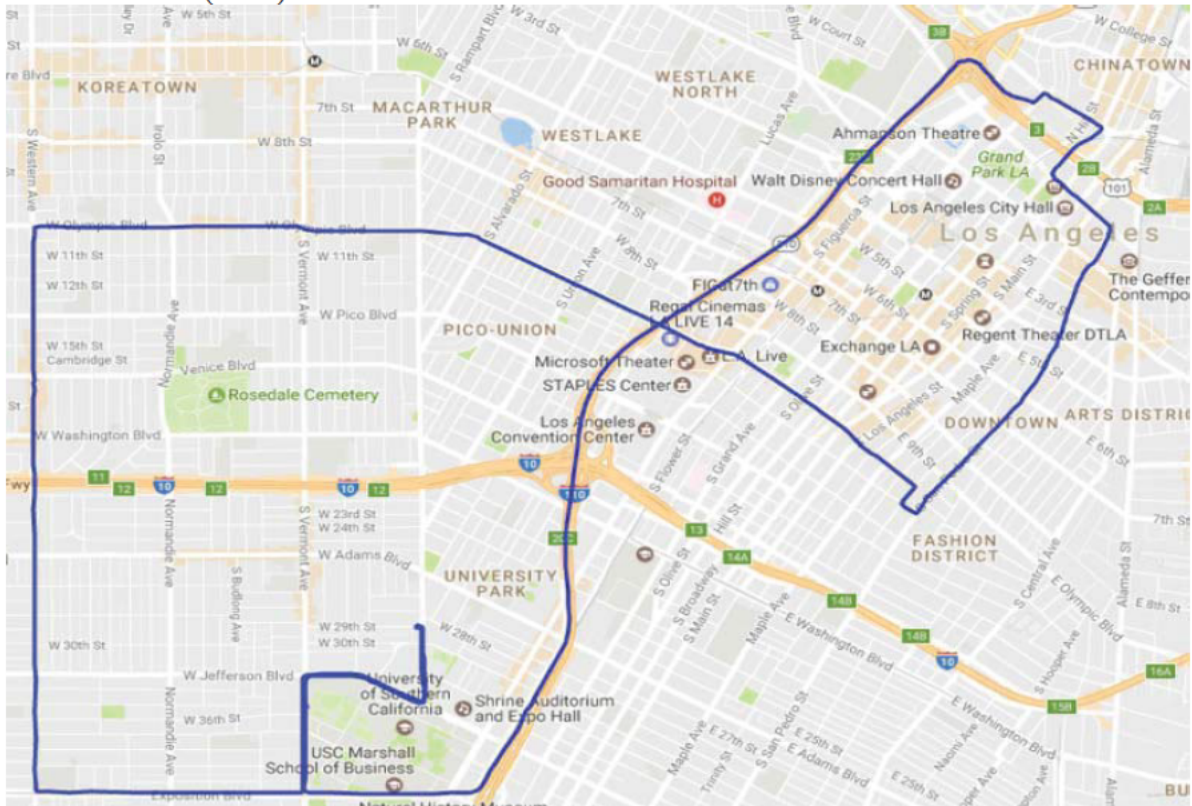


Abbildung 2: Straßenkarte von Strecke 1, Stadtfahrt in der Innenstadt von Los Angeles

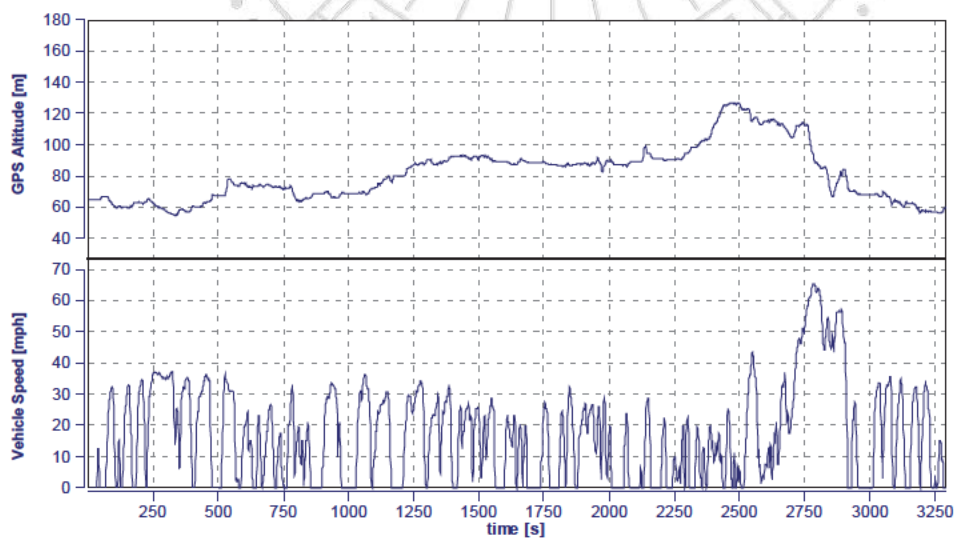


Abbildung 3: Geschwindigkeits- und Höhenprofile für Strecke 1, Stadtfahrt in der Innenstadt von Los Angeles

Eine Karte der Autobahnstrecke, als Strecke 2 bezeichnet, ist in Abbildung 4 abgebildet. Strecke 2 ist ~62,8 Kilometer lang zwischen Oxnard und Santa Barbara, Kalifornien. Die normale Durchschnittsgeschwindigkeit für diese Strecke liegt bei ~75,6 km/h, und ein typisches Geschwindigkeits- und Höhenprofil dieser Strecke ist in Abbildung 5 dargestellt.

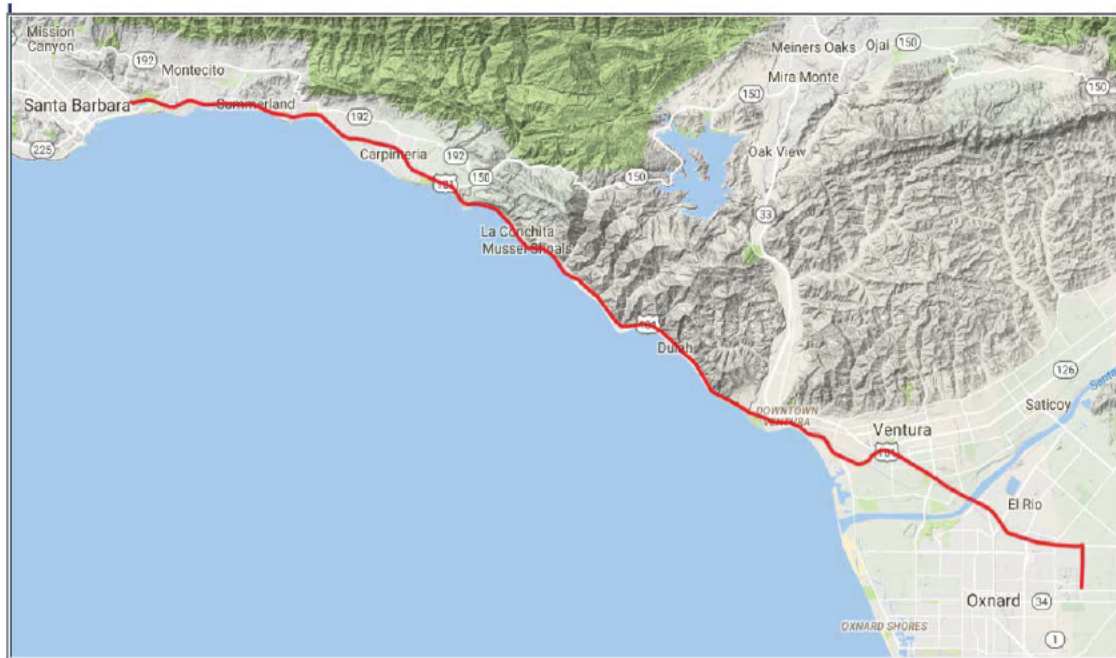


Abbildung 4: Topografische Karte von Strecke 2, Fahrt auf der Autobahn zwischen Oxnard und Santa Barbara

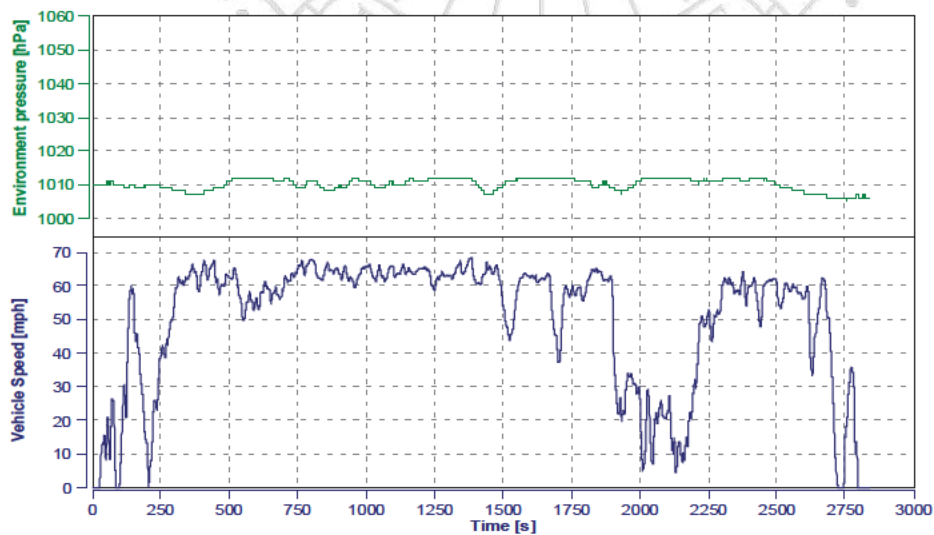


Abbildung 5: Geschwindigkeits- und Höhenprofile für Strecke 2, Fahrt auf der Autobahn zwischen Oxnard und Santa Barbara

Eine Karte der Bergauf-/Bergab-Strecke, als Strecke 3 bezeichnet, ist in Abbildung 6 abgebildet. Strecke 3 ist ~46,7 Kilometer lang, wovon der größte Teil in den Bergen von Santa Barbara liegt. Die normale Durchschnittsgeschwindigkeit für diese Strecke liegt bei ~55,7 mph, und ein typisches Geschwindigkeits- und Höhenprofil dieser Strecke ist in Abbildung 7 dargestellt. Die maximale Erhebung der Strecke ist 2.400 Fuß.

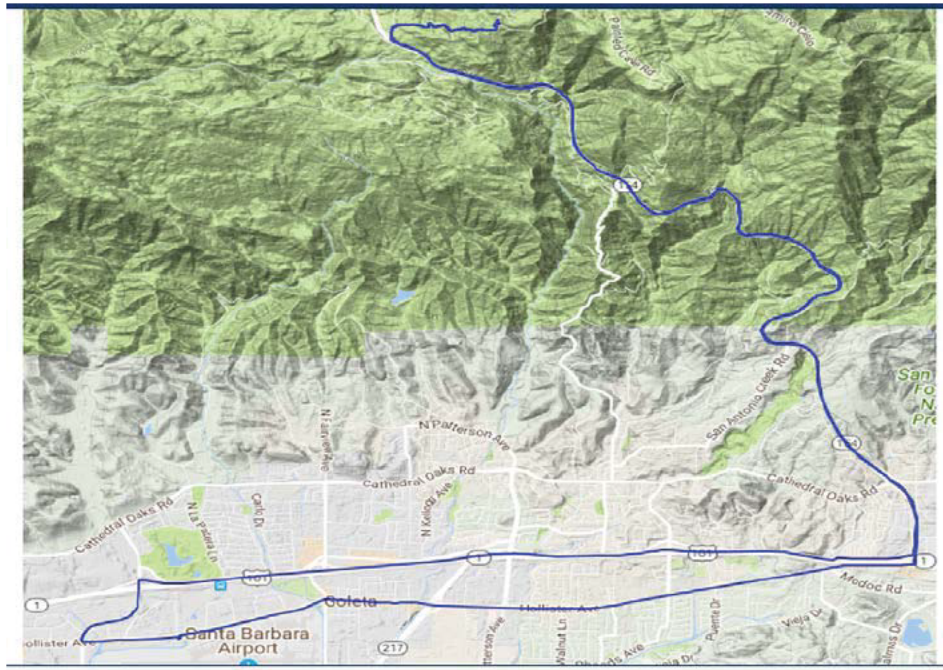


Abbildung 6: Topografische Karte von Strecke 3, Bergauf-/Bergabfahrt in den Bergen von Santa Barbara

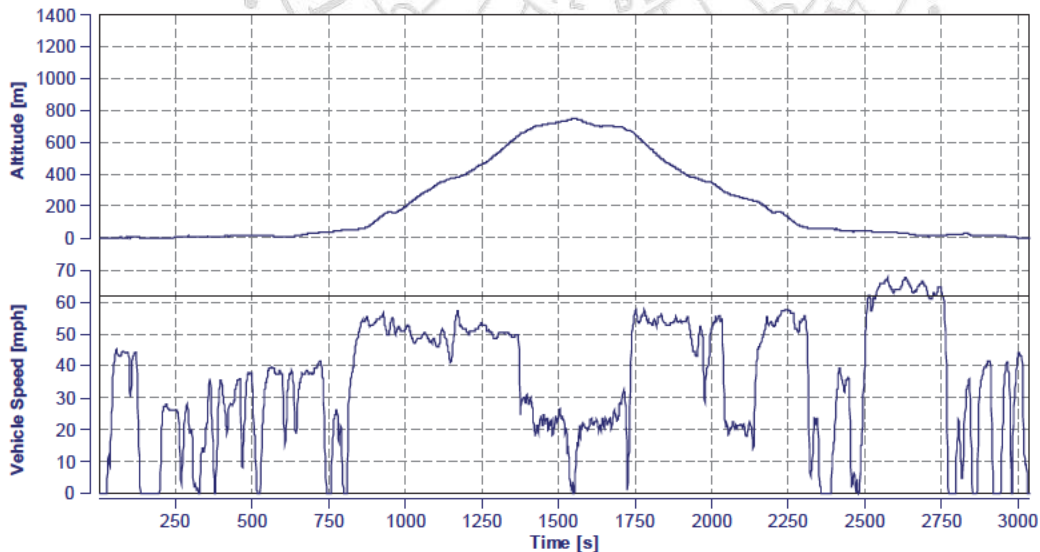


Abbildung 7: Geschwindigkeits- und Höhenprofile für Strecke 3, Bergauf-/Bergabfahrt in den Bergen von Santa Barbara

Appendix B - Detailed Test Data

Case: Highway
Page: Trip Summary

'Highway'
Start Date: 07/16/2018
Start Time: 11:04:12.0



Concerto M.O.V.E. 2018

Trip Duration	2498.00	s	ave THC	25.72771	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	2498.00	s	ave NMHC	25.21315	ppm	BS CO	n/a	g/hphr
Trip Distance	37.83	mi	ave CH4	0.51455	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	37.83	mi	ave CO	563.98618	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	12.56577	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	5.55458	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.48	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.42	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.58	gall	tot THC	1.34914	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.56	gall	tot NMHC	1.24797	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.02990	g	DS CO2	353.98452	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	45.72128	g	DS CO	1.20849	g/mi
Trip Fuel Economy EU (ac)	23.91	mpg_US	tot CO2	13392.43137	g	DS THC	0.03566	g/mi
Trip Fuel Economy US (ac)	24.21	mpg_US	tot NO (d)	0.67480	g	DS NMHC	0.03299	g/mi
Trip Av. Eng. Speed	1509.35	rpm	tot NO2	-0.16534	g	DS CH4	0.00079	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.50947	g	DS NO (d)	0.01784	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	-0.00437	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.01347	g/mi
Trip Exhaust Mass	69.25	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	78.83	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	56.19	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	54.52369	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	5.20416	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Audi A7 / 3.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Trip Summary Drift Corrected

'Highway'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E. 2018

Trip Duration	2498.00	s	ave THC DC	25.34191	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	2498.00	s	ave NMHC DC	24.83507	ppm	BS CO DC	n/a	g/hphr
Trip Distance	37.83	mi	ave CH4 DC	0.50684	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	37.83	mi	ave CO DC	563.82397	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	12.55745	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	5.57257	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.48	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.42	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.58	gall	tot THC DC	1.33433	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.56	gall	tot NMHC DC	1.23427	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.02957	g	DS CO2 DC	353.74994	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	45.70813	g	DS CO DC	1.20814	g/mi
Trip Fuel Economy EU (ac)	23.91	mpg_US	tot CO2 DC	13383.55633	g	DS THC DC	0.03527	g/mi
Trip Fuel Economy US (ac)	24.21	mpg_US	tot NO DC (d)	0.67736	g	DS NMHC DC	0.03262	g/mi
Trip Av. Eng. Speed	1509.35	rpm	tot NO2 DC	-0.16629	g	DS CH4 DC	0.00078	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.51107	g	DS NO DC (d)	0.01790	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	-0.00440	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.01351	g/mi
Trip Exhaust Mass	69.25	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	78.83	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	56.19	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	54.52369	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	5.20416	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment Check

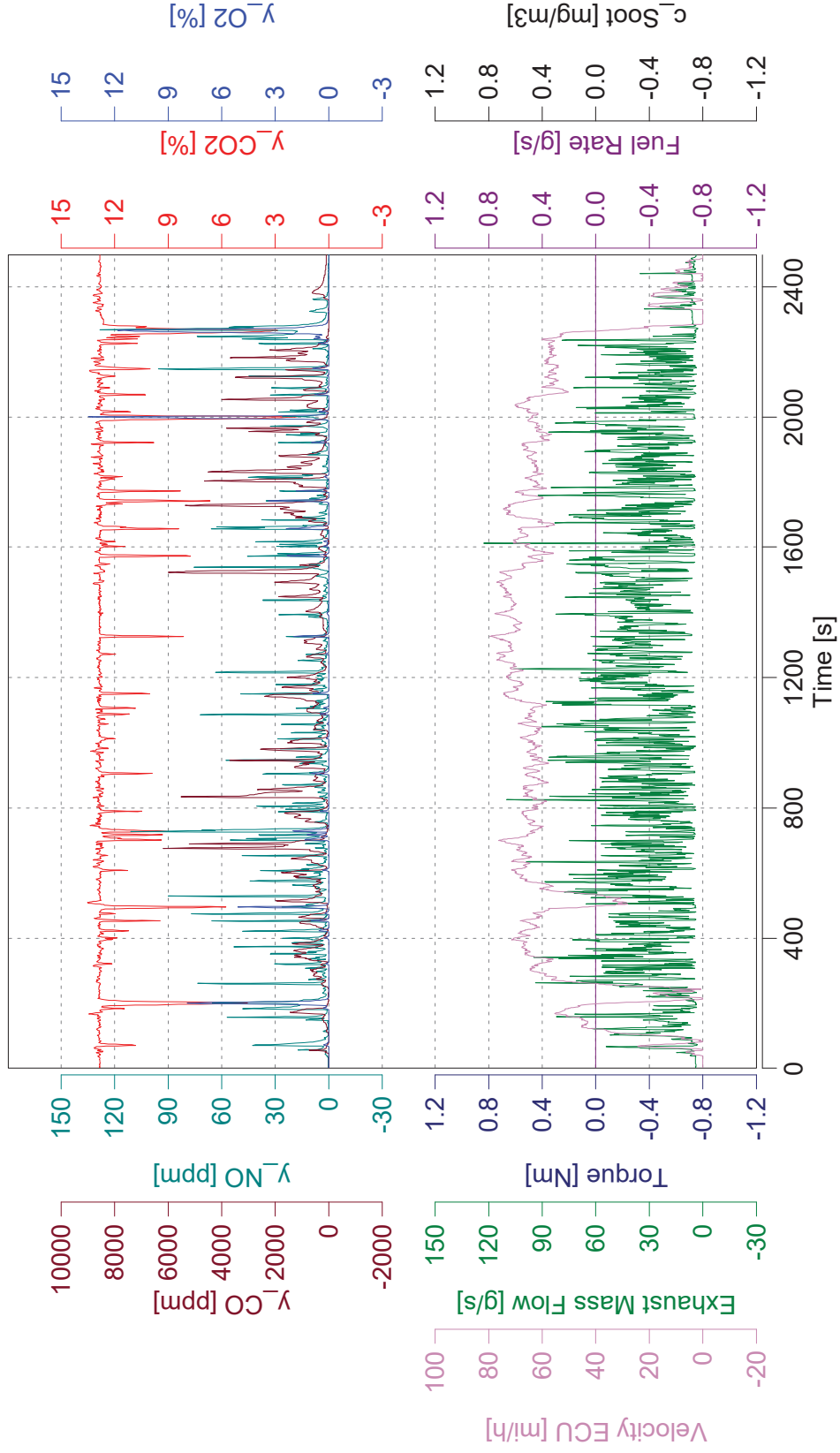
'Highway'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E. 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment of Gas Concentrations

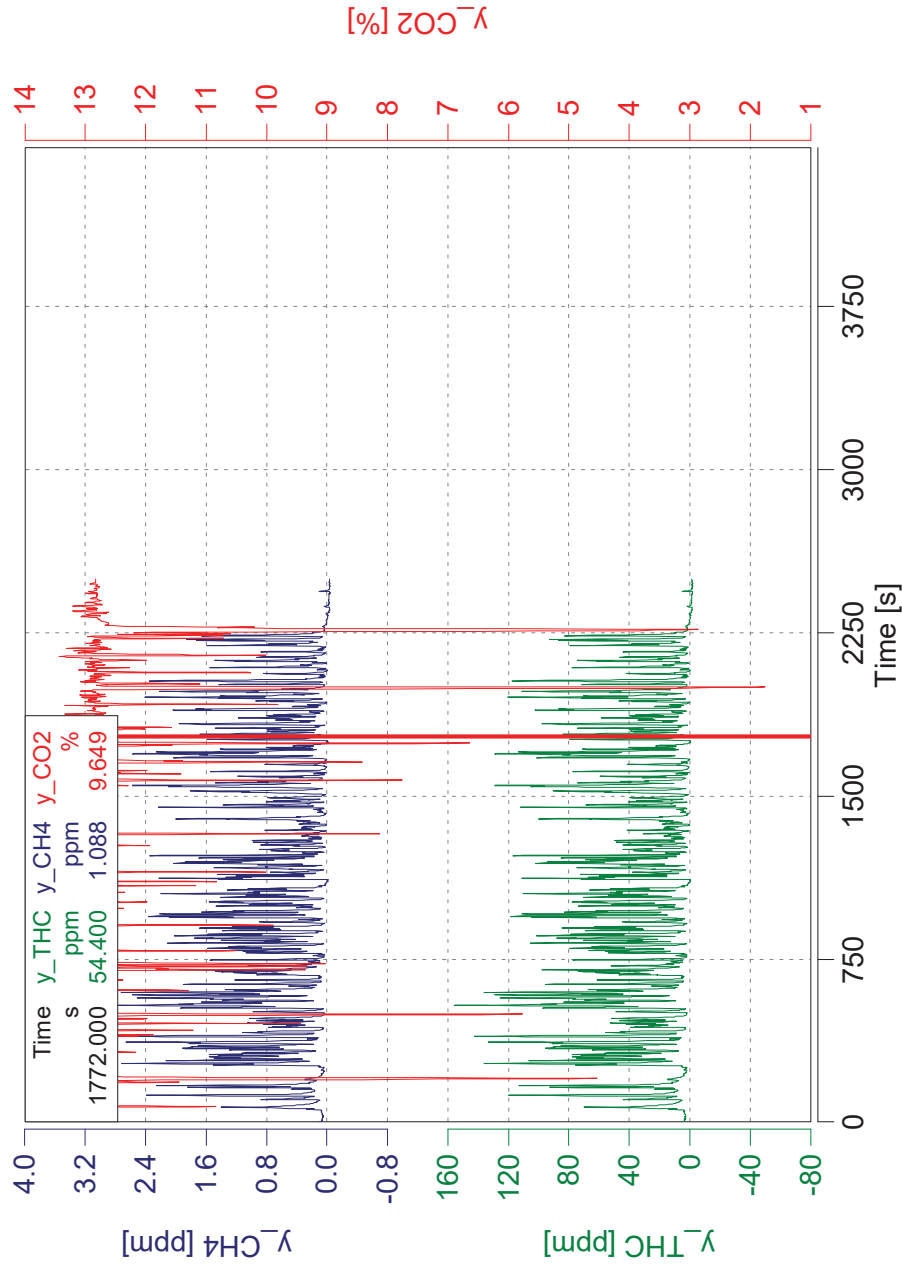
'Highway'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Ambient Conditions

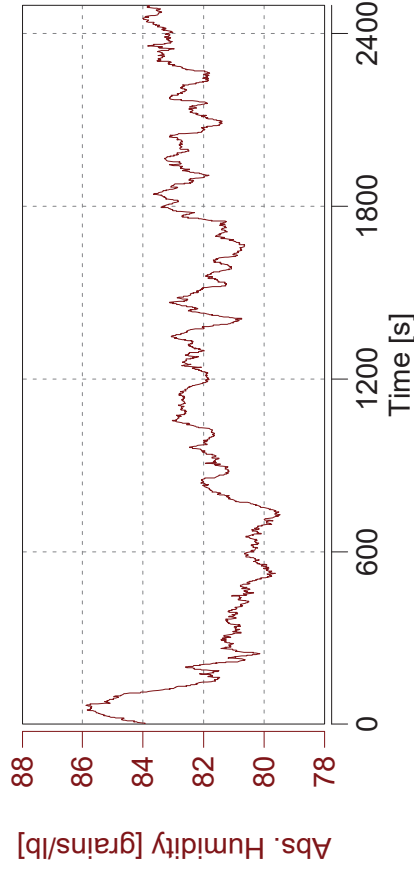
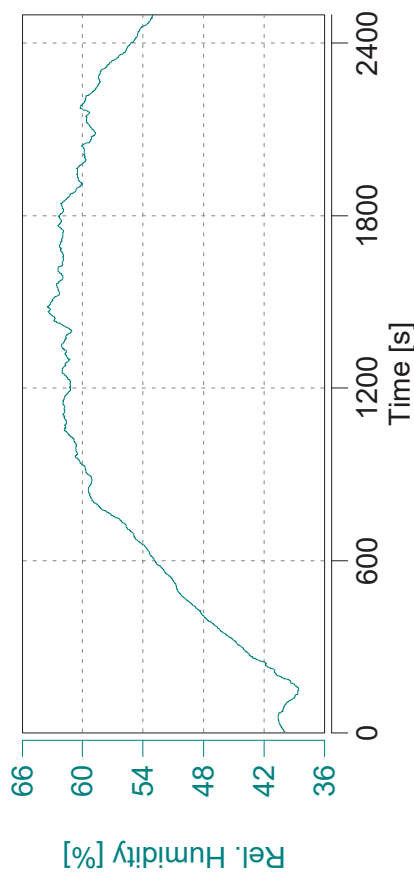
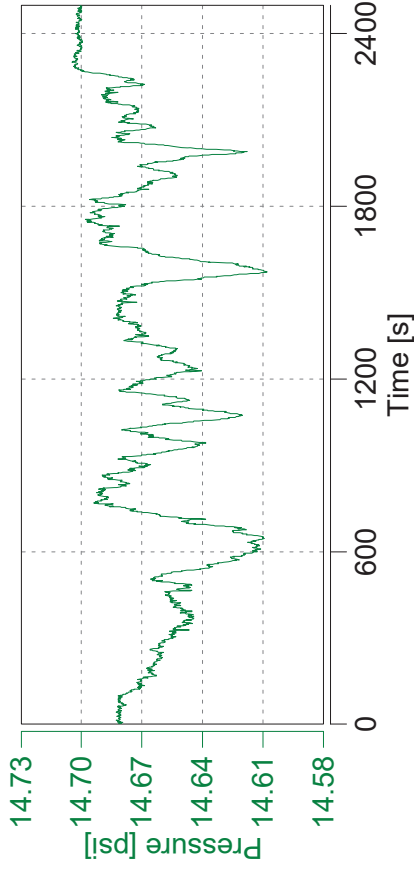
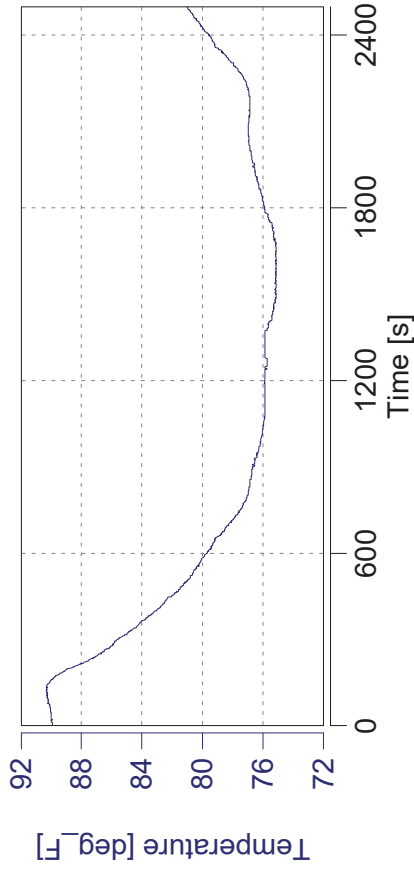
'Highway'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: GPS

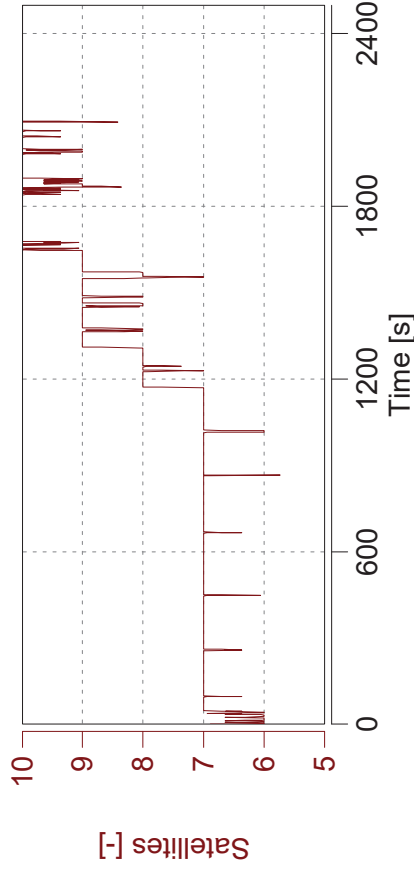
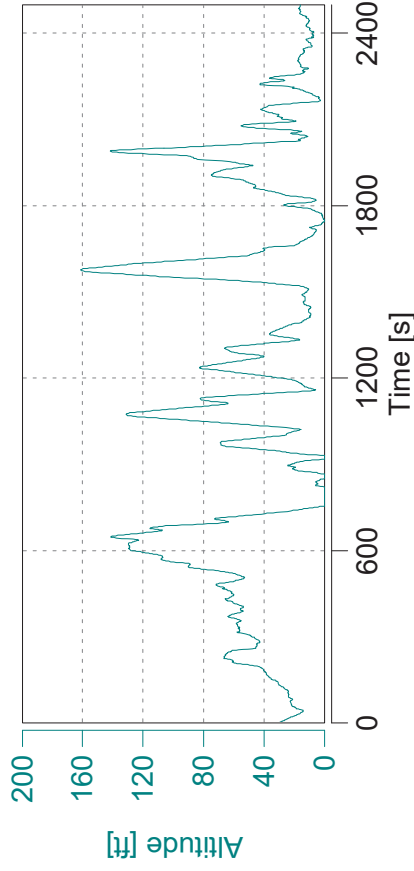
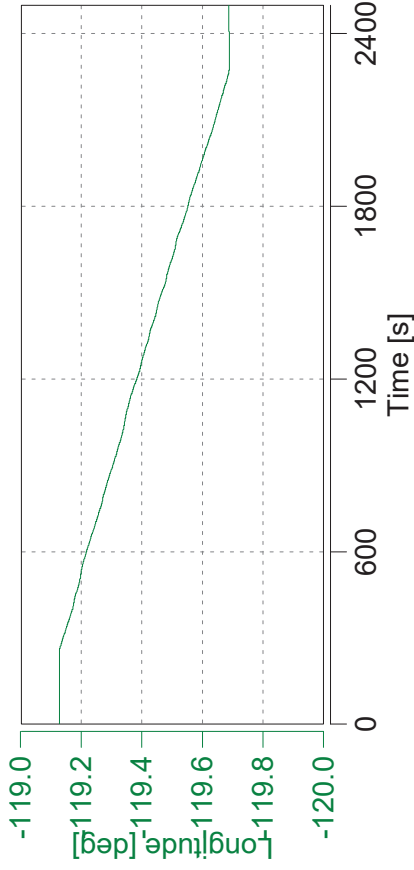
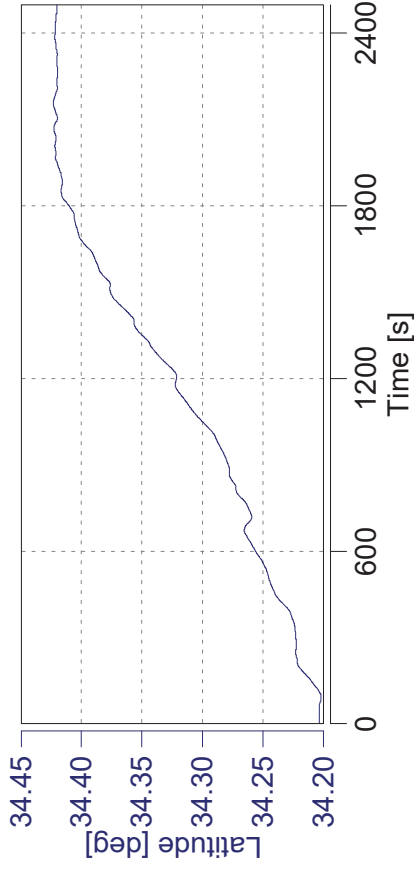
'Highway'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (1)

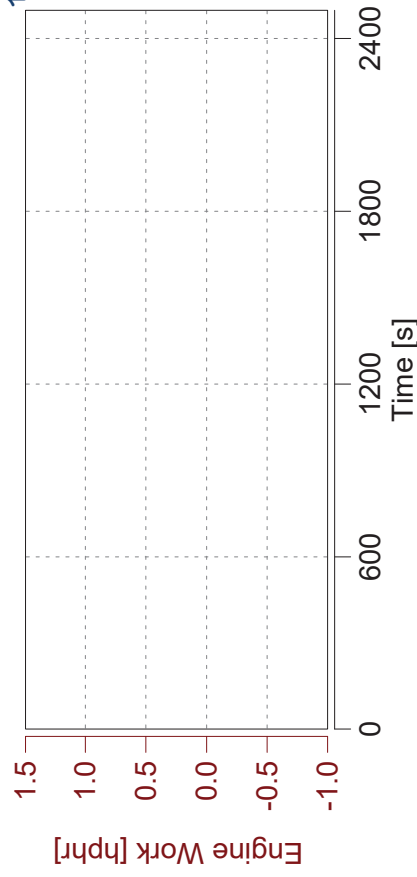
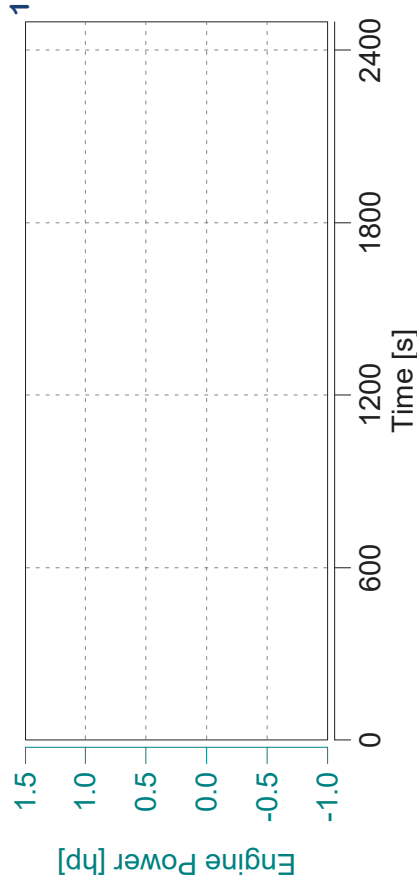
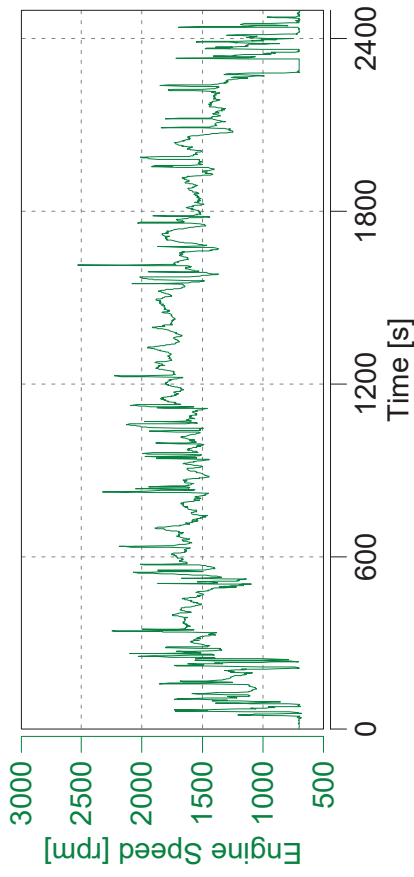
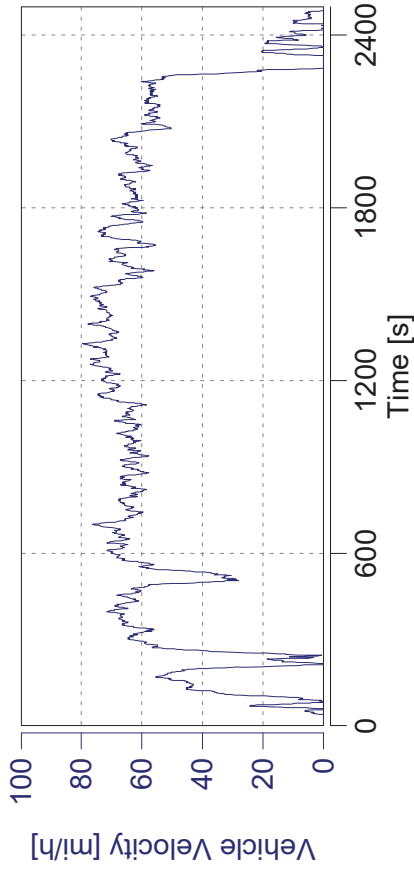
'Highway'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

1 ECM torque data was not available on the tested vehicle so some figures will show no results. This will be true for these figures on all vehicles.

Case: Highway

Page: Engine (2)

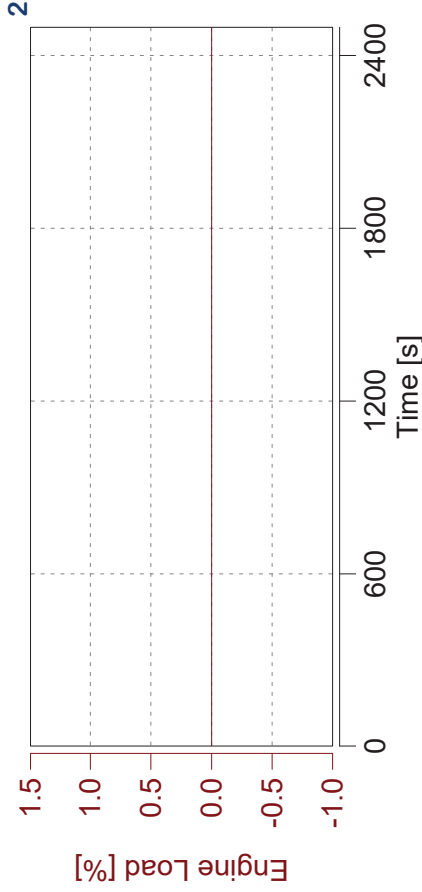
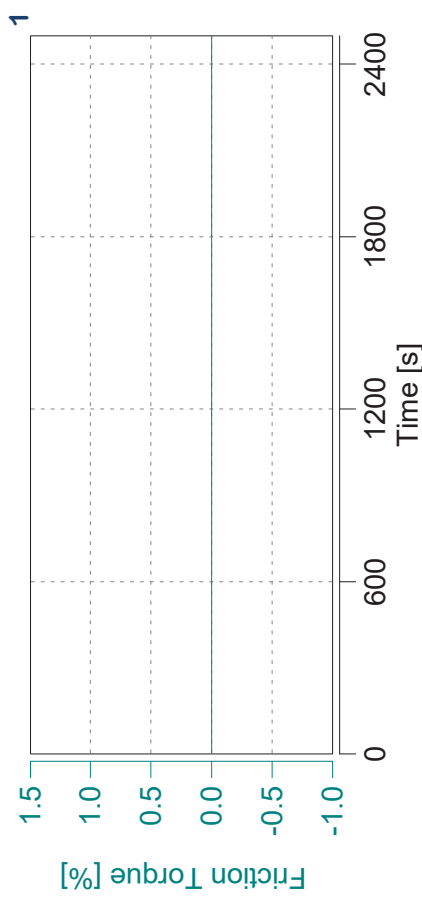
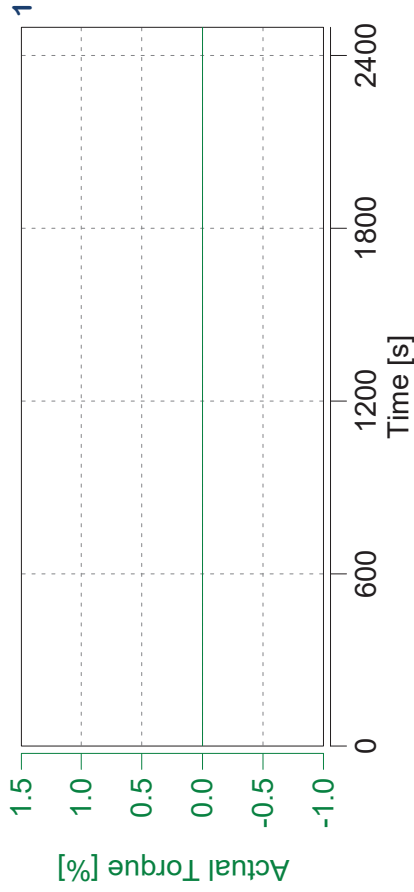
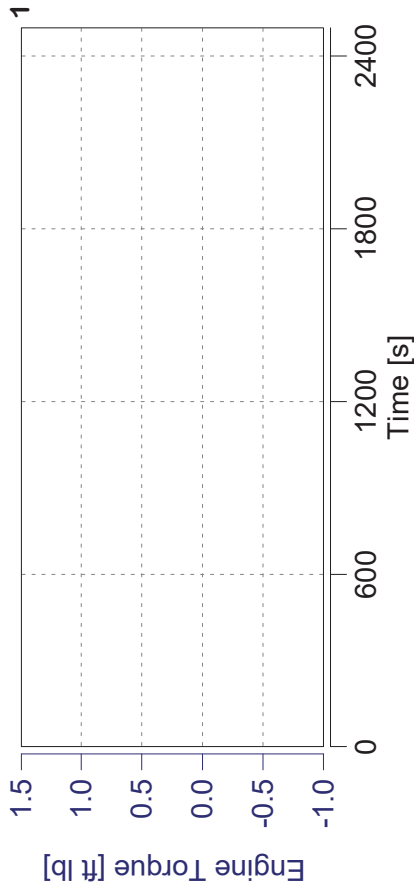
'Highway'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

1 ECM torque data was not available on the tested vehicle so some figures will show no results. This will be true for these figures on all vehicles.
2 ECM % Load data is available but the current AVL Concerto system is not plotting this data with this current release. This will be true for these figures on all vehicles.

Case: Highway

Page: Engine (3)

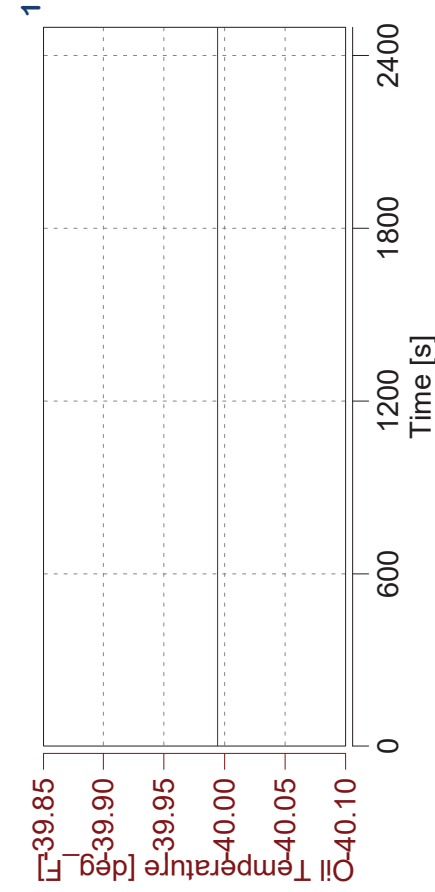
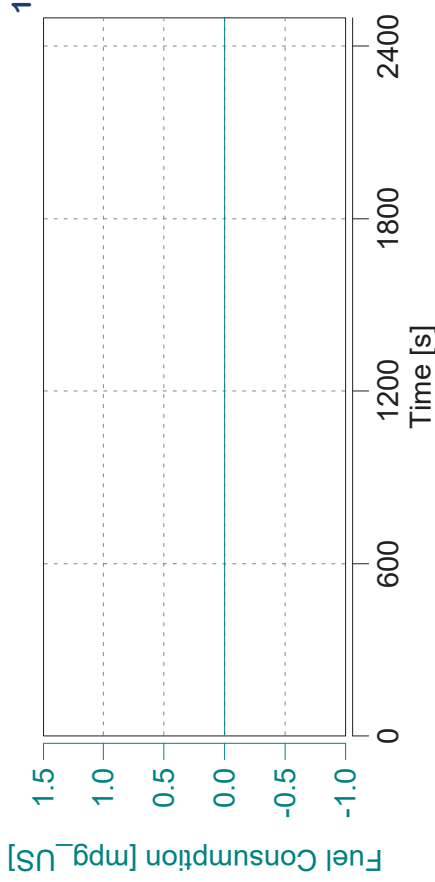
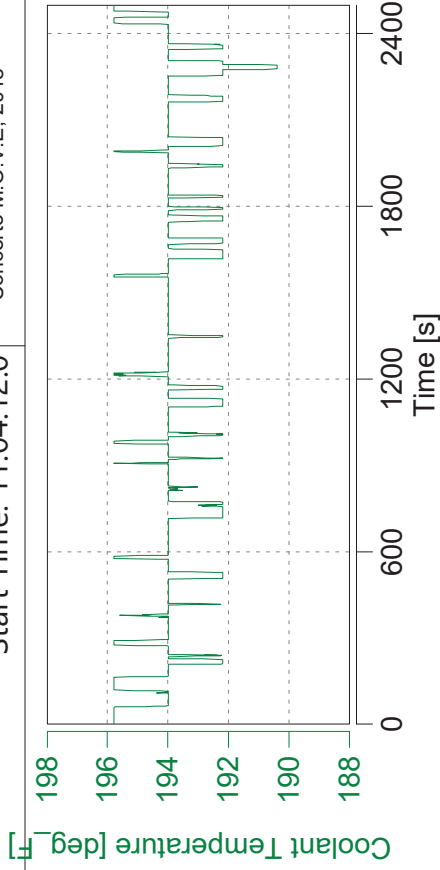
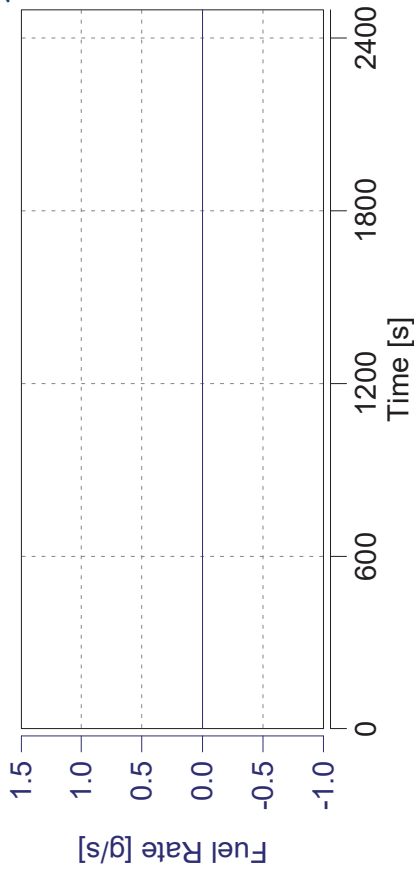
'Highway'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

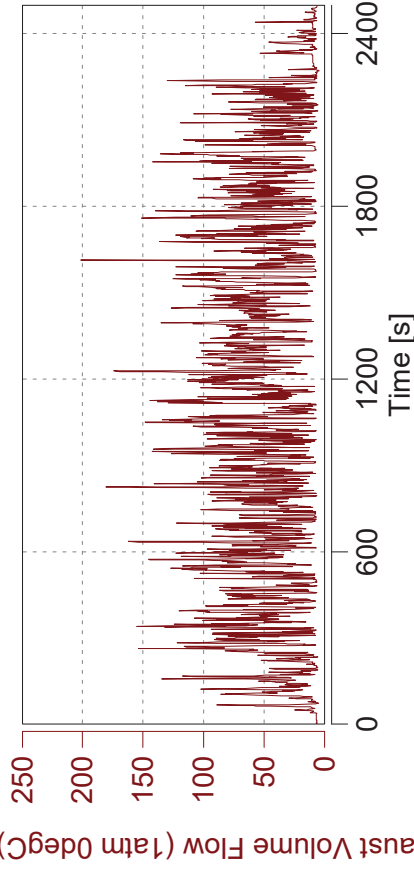
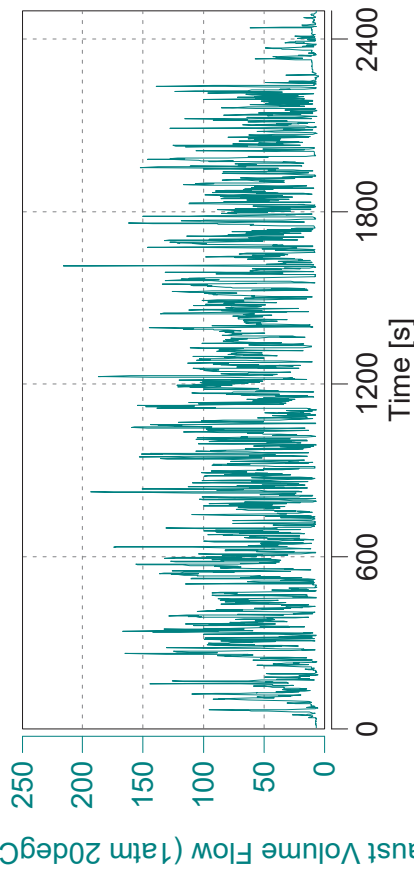
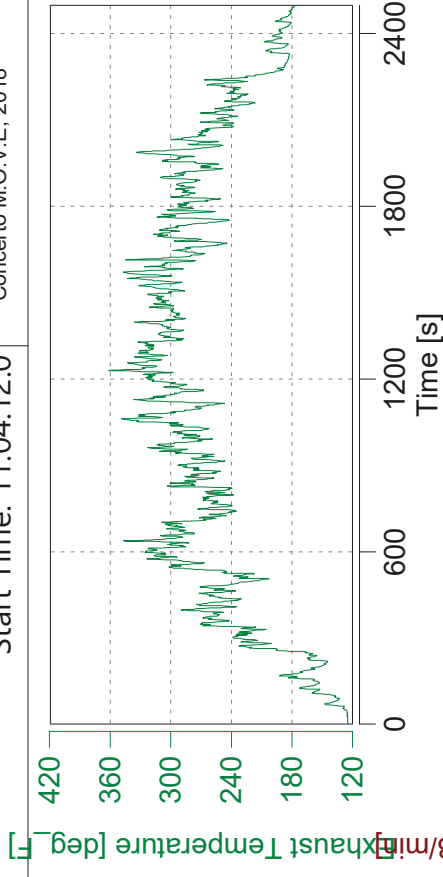
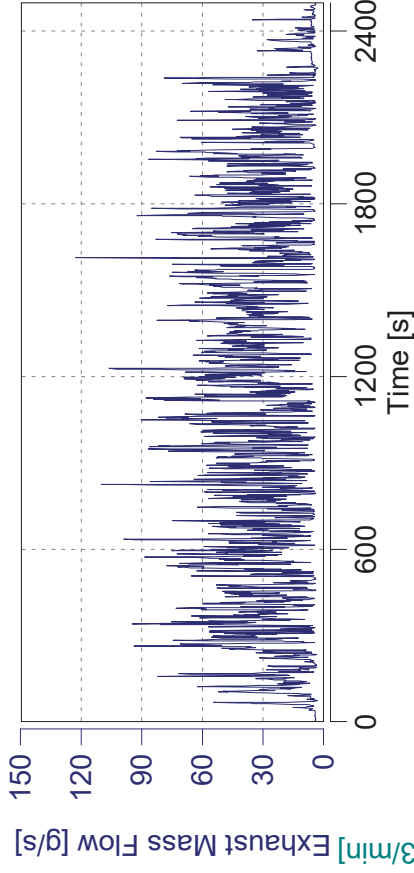
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

1 ECM fuel rate and oil temperature data was not available on the tested vehicle so some figures will show no results. This will be true for these figures on all vehicles.

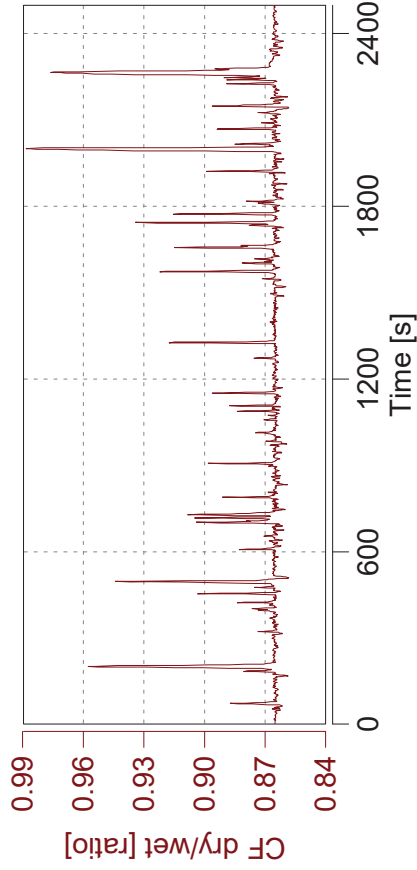
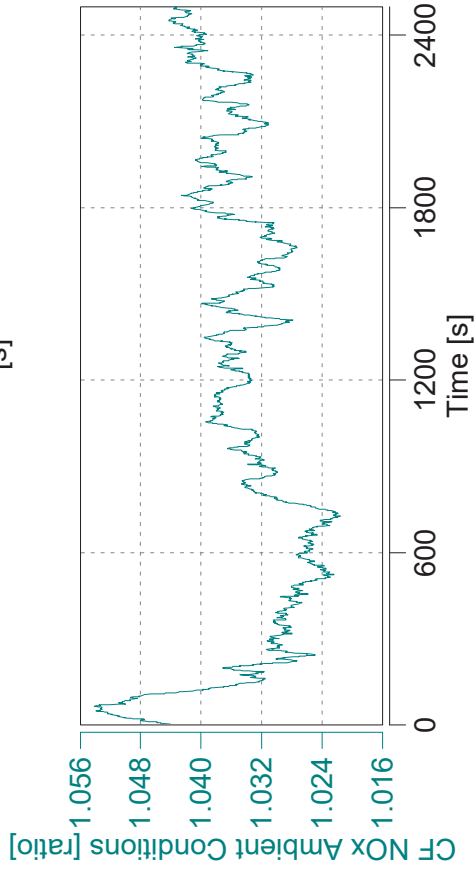
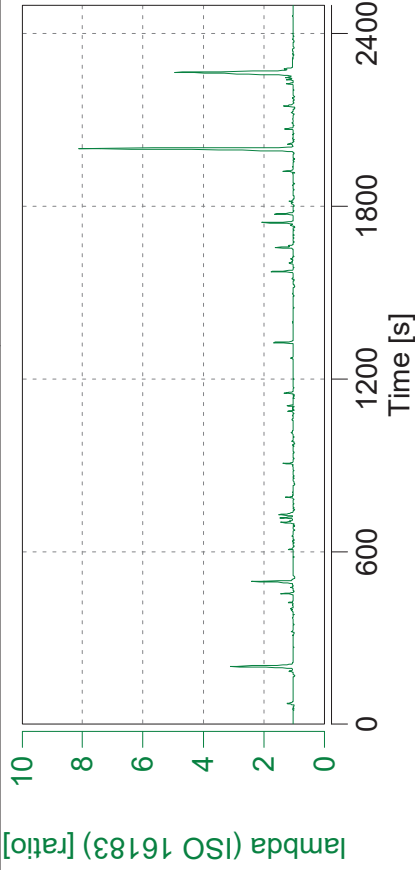
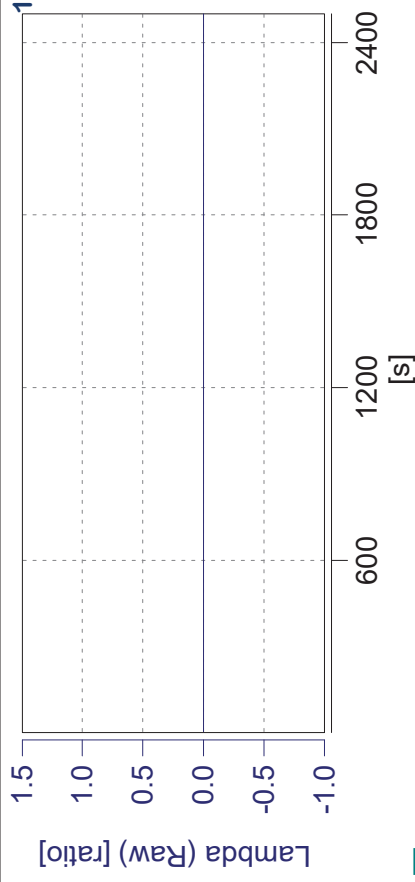


Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway
 Page: Exhaust Flow (2)

'Highway'
 Start Date: 07/16/2018
 Start Time: 11:04:12.0



Concerto Version: 480 Build 316, Serial Number: 1120
 M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L
 Engine: /
 NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
 Dry / Wet Corr.: 2 - CFR40 §86.1342-90

1 ECM Lambda (Raw) [ratio] was not used in this testing. This will be true for these figures on all vehicles.

Case: Highway

Page: Corrected Emissions (1)

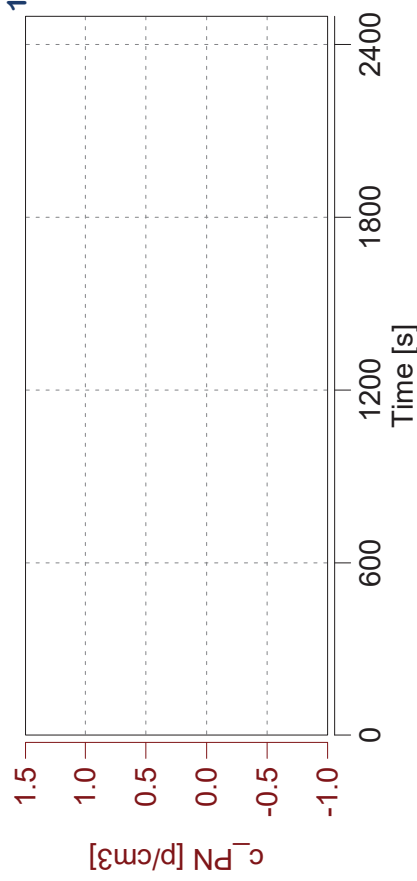
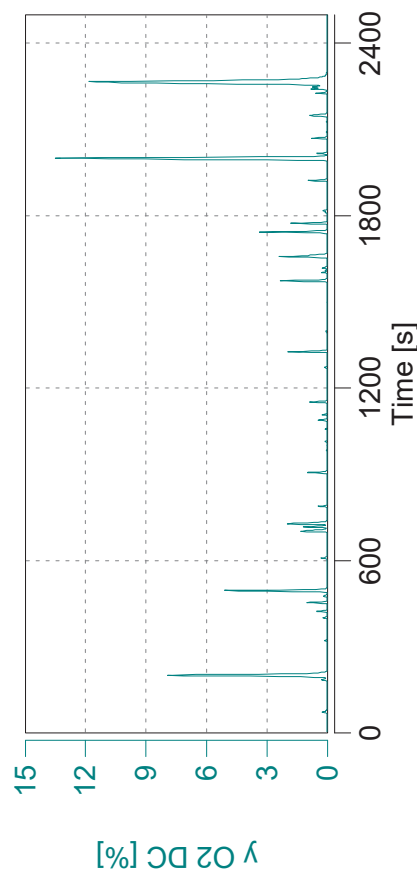
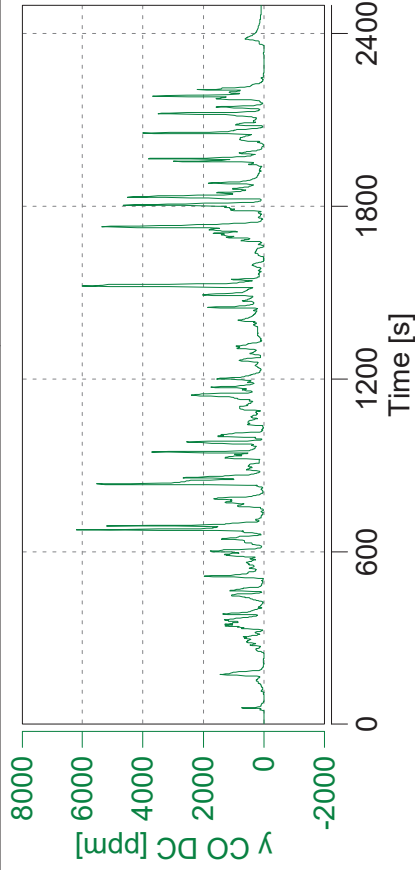
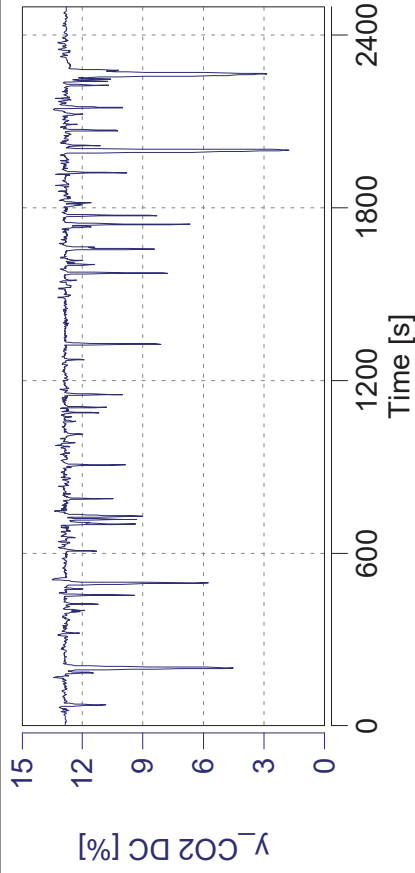
'Highway'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

1 c_PN [p/cm3] was not used in this testing. This will be true for these figures on all vehicles.

Case: Highway

Page: Corrected Emissions (2)

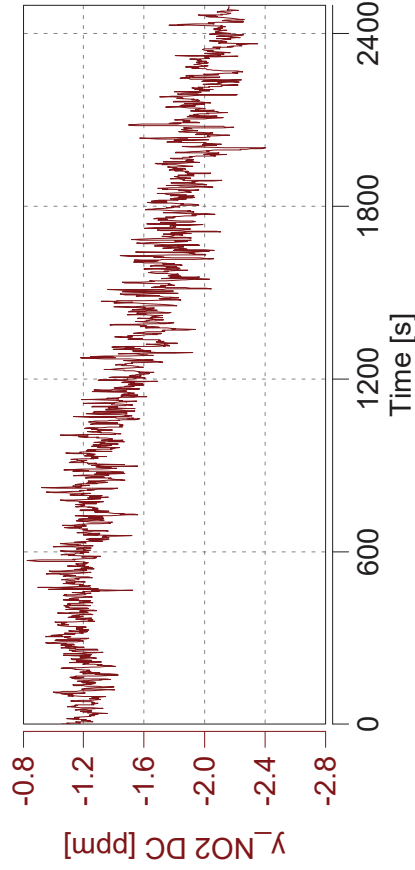
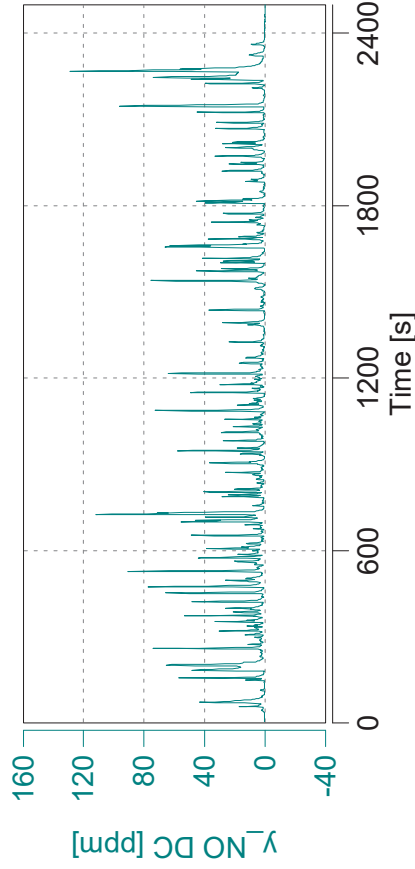
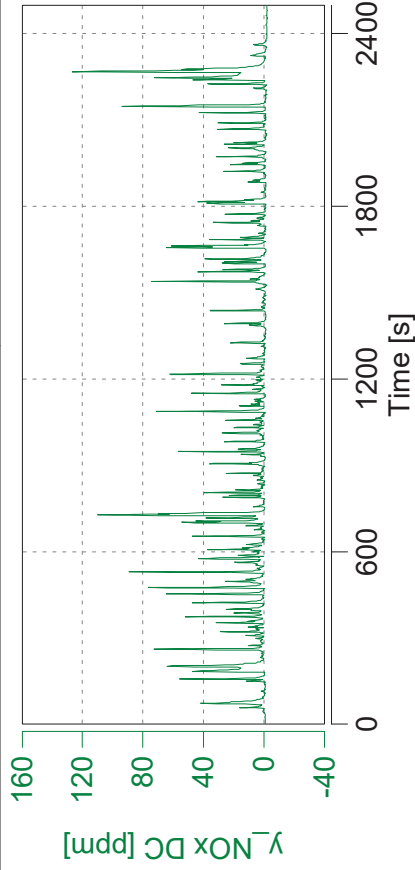
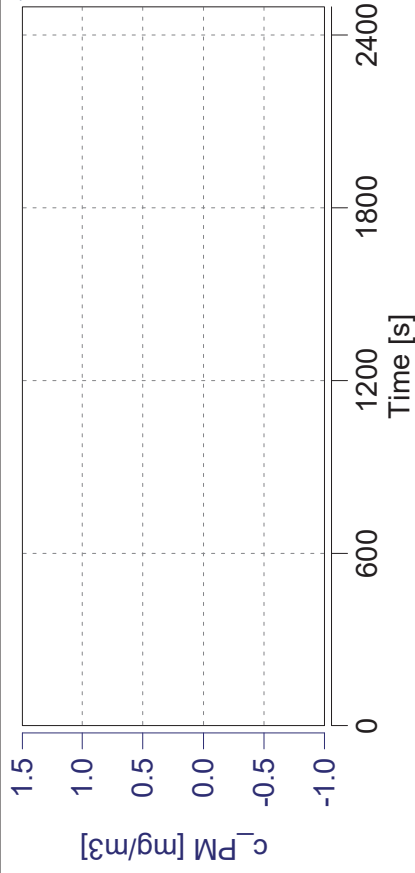
'Highway'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

1 c_PM [mg/m3] was not used in this testing. This will be true for these figures on all vehicles.

Case: Highway

Page: Corrected Emissions (3)

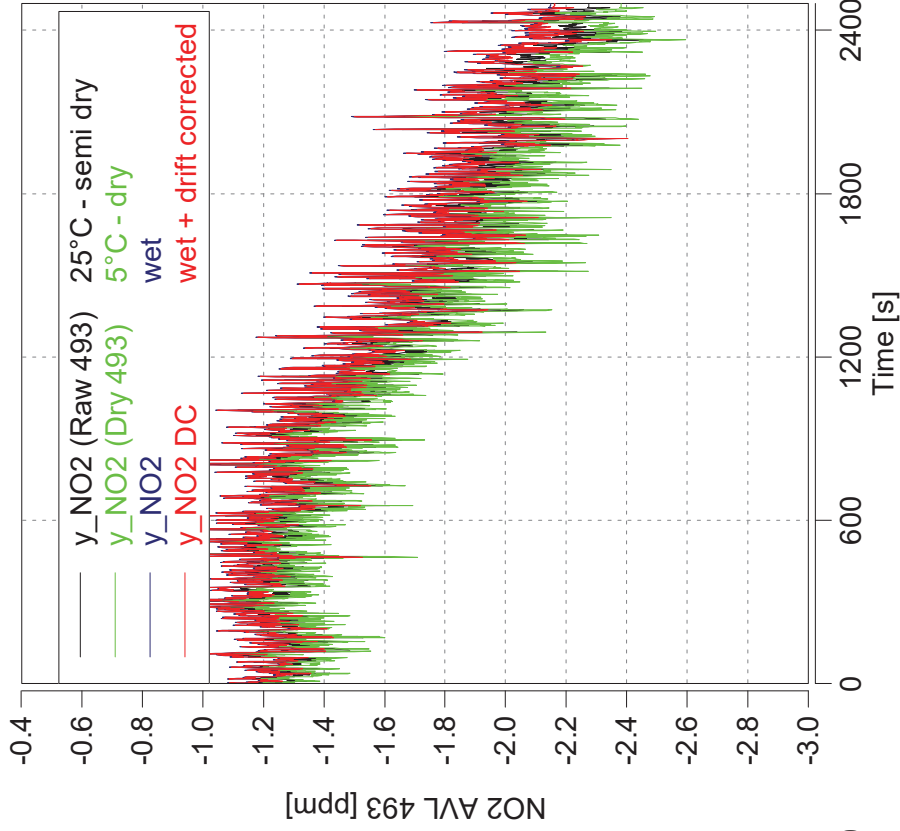
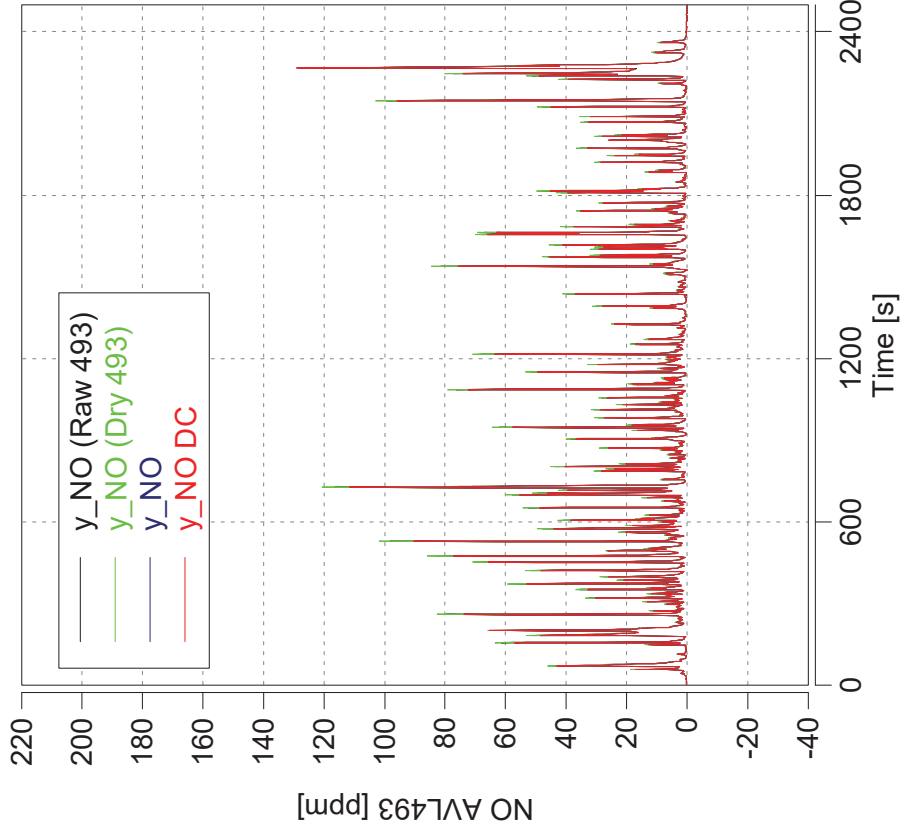
'Highway'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (4) NOx Corrections

'Highway'

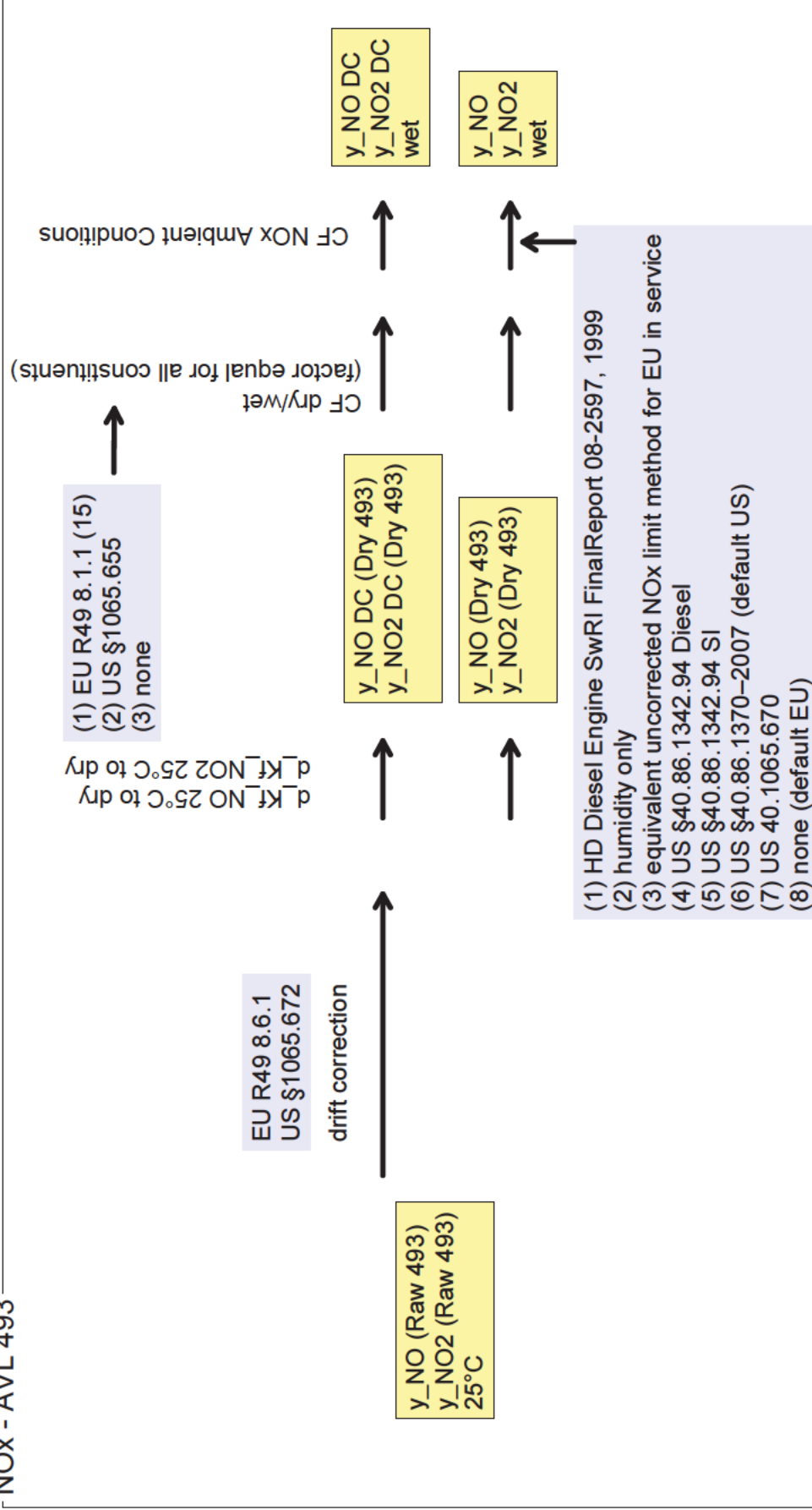
Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Audi A7 / 3.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (5)

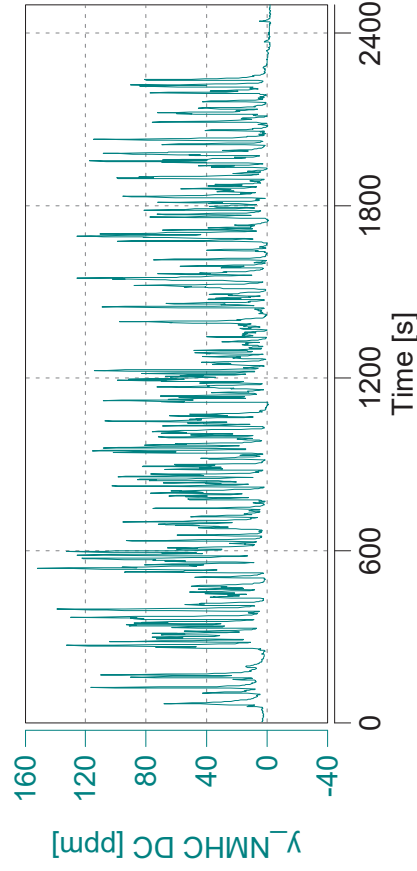
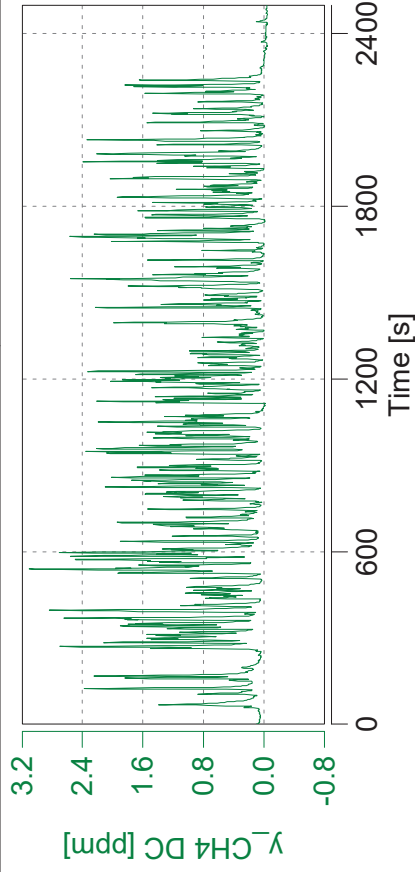
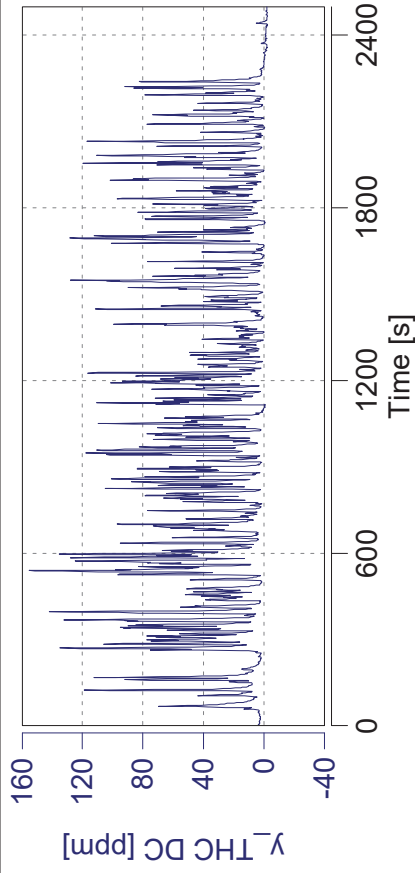
'Highway'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: NO/NO2/NOx Zero - Span

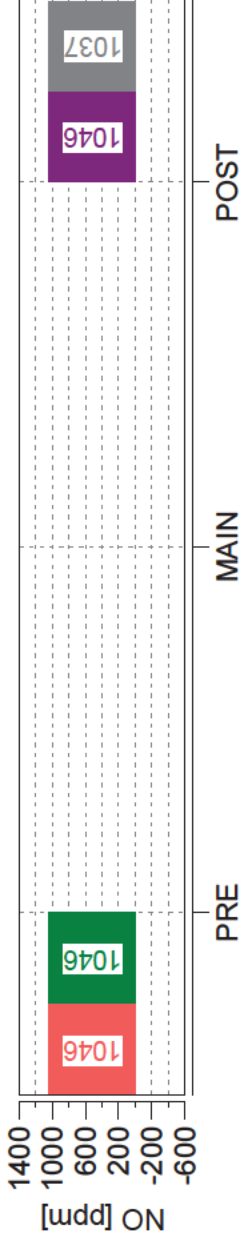
'Highway'

Start Date: 07/16/2018

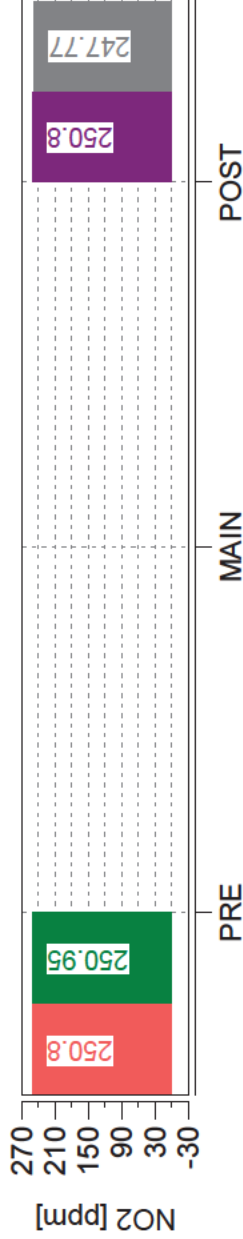
Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



GP_NO_Cal_gas_value
 GP_NO_Adjust_Actual
 GP_NO_Reference
 GP_NO_Audit_Actual



GP_NO2_Cal_gas_value
 GP_NO2_Adjust_Actual
 GP_NO2_Reference
 GP_NO2_Audit_Actual

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: CO/CO2 Zero - Span

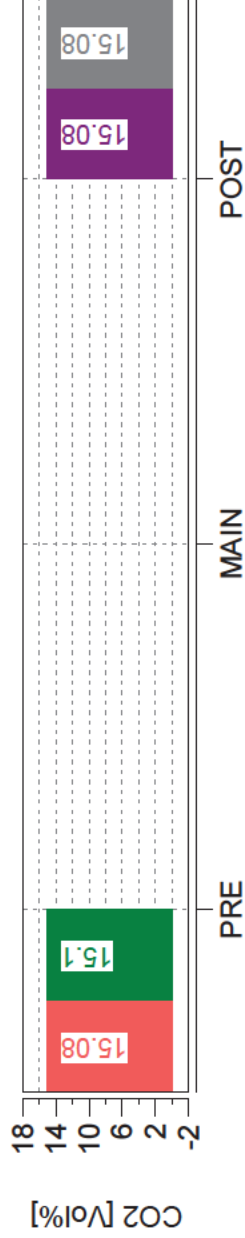
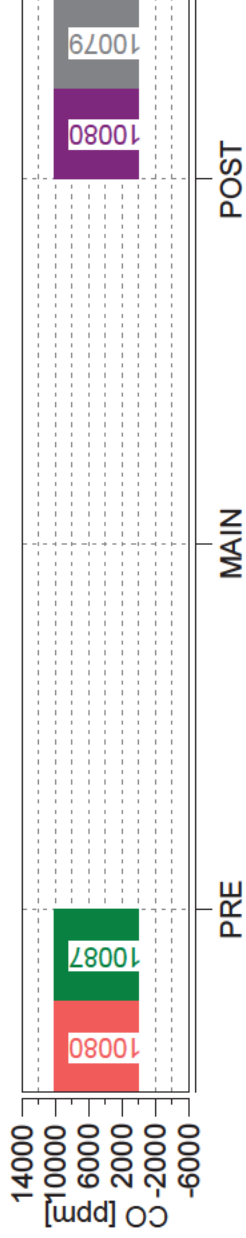
'Highway'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: THC/CH4 Zero - Span

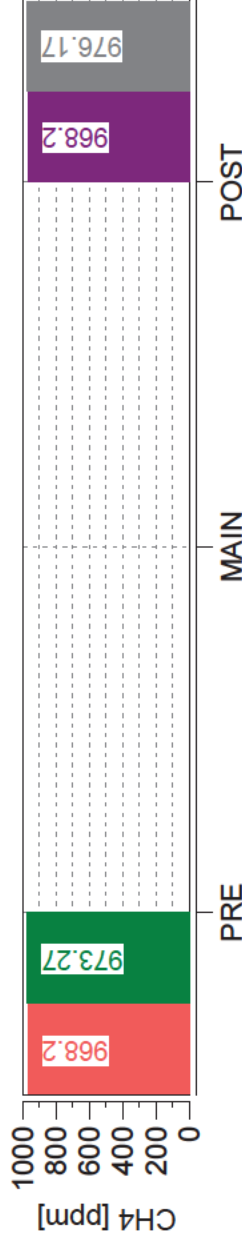
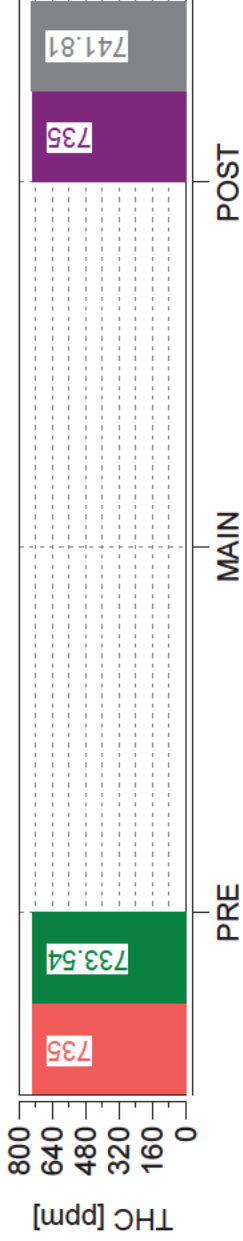
'Highway'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Audi A7 / 3.0L

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary

'Mountain'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E. 2018

Trip Duration	3096.00	s	ave THC	20.76924	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3096.00	s	ave NMHC	20.35386	ppm	BS CO	n/a	g/hphr
Trip Distance	28.53	mi	ave CH4	0.41538	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	28.53	mi	ave CO	153.60104	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	10.49360	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	20.05566	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.76	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.72	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.33	gall	tot THC	1.04684	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.31	gall	tot NMHC	0.96834	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.02320	g	DS CO2	396.15430	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	13.55297	g	DS CO	0.47511	g/mi
Trip Fuel Economy EU (ac)	21.46	mpg_US	tot CO2	11300.60313	g	DS THC	0.03670	g/mi
Trip Fuel Economy US (ac)	21.70	mpg_US	tot NO (d)	2.92178	g	DS NMHC	0.03395	g/mi
Trip Av. Eng. Speed	1591.71	rpm	tot NO2	-0.19923	g	DS CH4	0.00081	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	2.72254	g	DS NO (d)	0.10243	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	-0.00698	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.09544	g/mi
Trip Exhaust Mass	66.11	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	82.67	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	46.70	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	33.16949	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	6.75065	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
 (d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary Drift Corrected

'Mountain'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018

Trip Duration	3096.00	s	ave THC DC	20.39937	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3096.00	s	ave NMHC DC	19.99139	ppm	BS CO DC	n/a	g/hphr
Trip Distance	28.53	mi	ave CH4 DC	0.40799	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	28.53	mi	ave CO DC	153.55687	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	10.48664	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	20.12799	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.76	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.72	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.33	gall	tot THC DC	1.03348	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.31	gall	tot NMHC DC	0.95598	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.02291	g	DS CO2 DC	395.89177	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	13.54907	g	DS CO DC	0.47498	g/mi
Trip Fuel Economy EU (ac)	21.46	mpg_US	tot CO2 DC	11293.11433	g	DS THC DC	0.03623	g/mi
Trip Fuel Economy US (ac)	21.70	mpg_US	tot NO DC (d)	2.93285	g	DS NMHC DC	0.03351	g/mi
Trip Av. Eng. Speed	1591.71	rpm	tot NO2 DC	-0.20038	g	DS CH4 DC	0.00080	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	2.73247	g	DS NO DC (d)	0.10281	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	-0.00702	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.09579	g/mi
Trip Exhaust Mass	66.11	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	82.67	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	46.70	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	33.16949	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	6.75065	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment Check

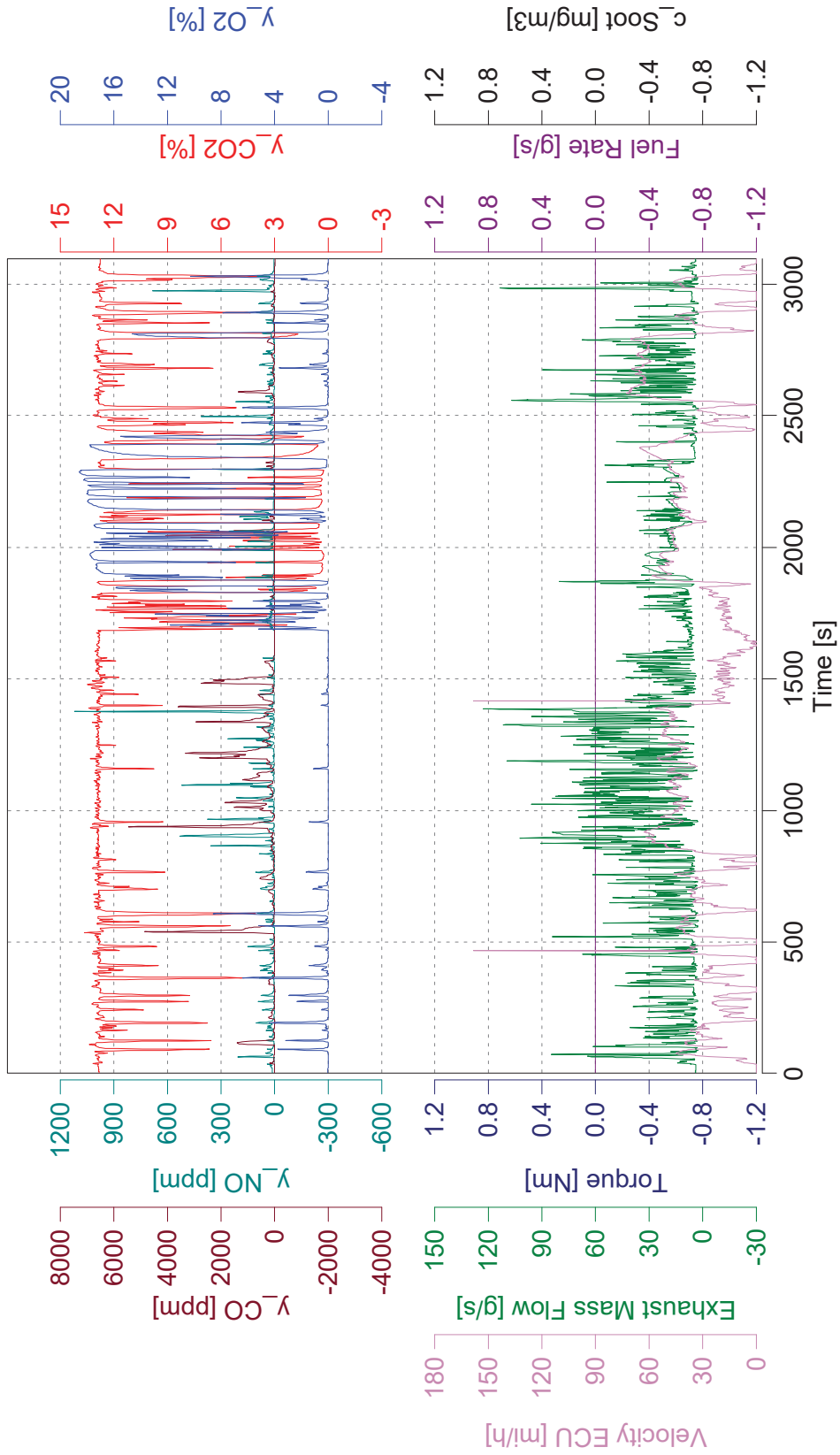
'Mountain'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment of Gas Concentrations

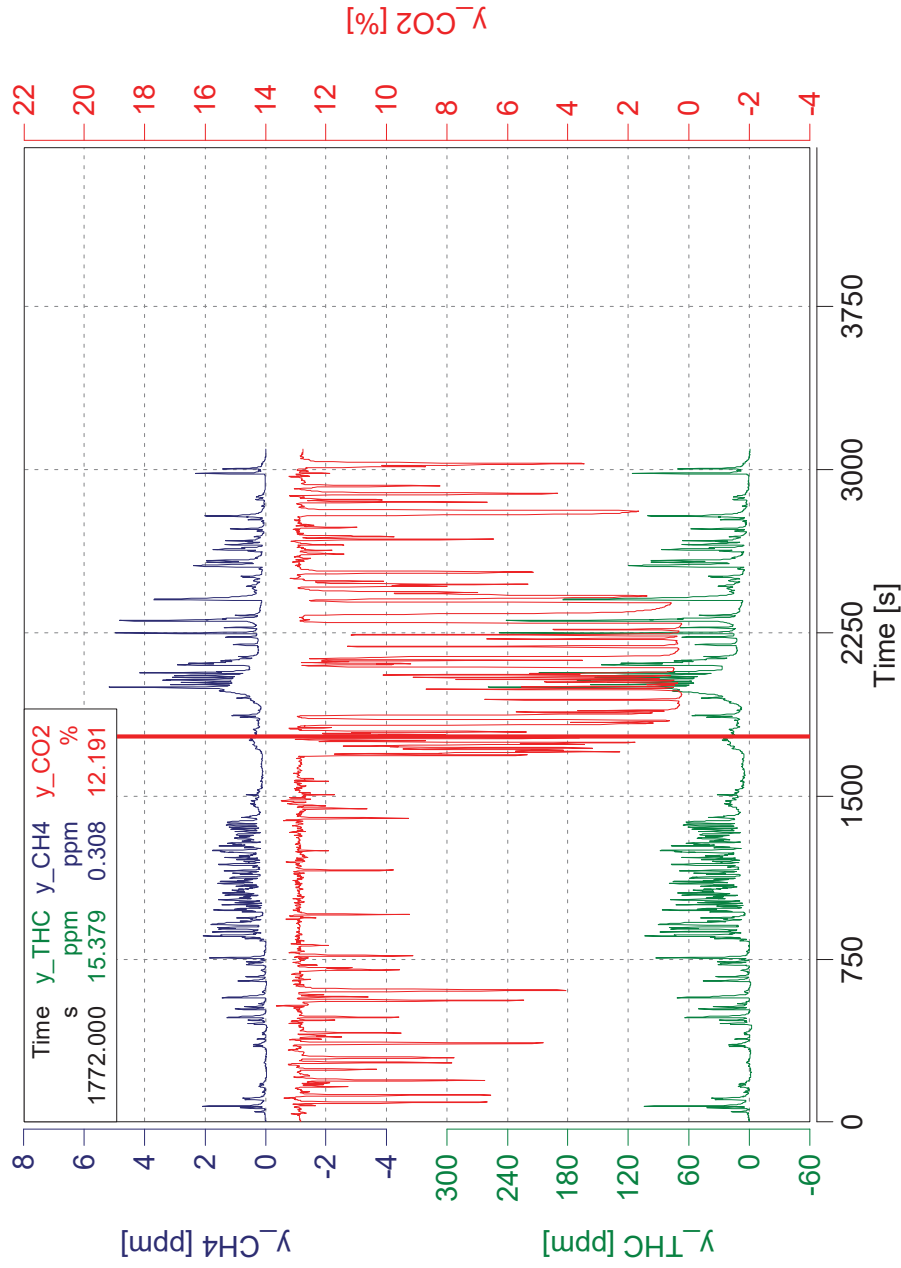
'Mountain'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Ambient Conditions

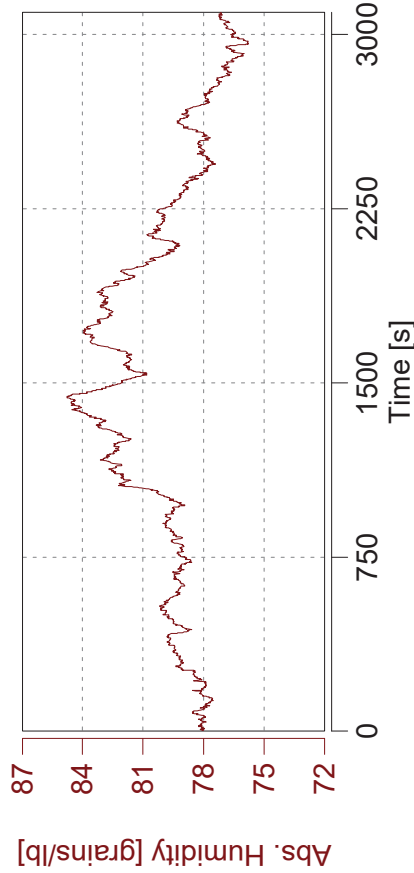
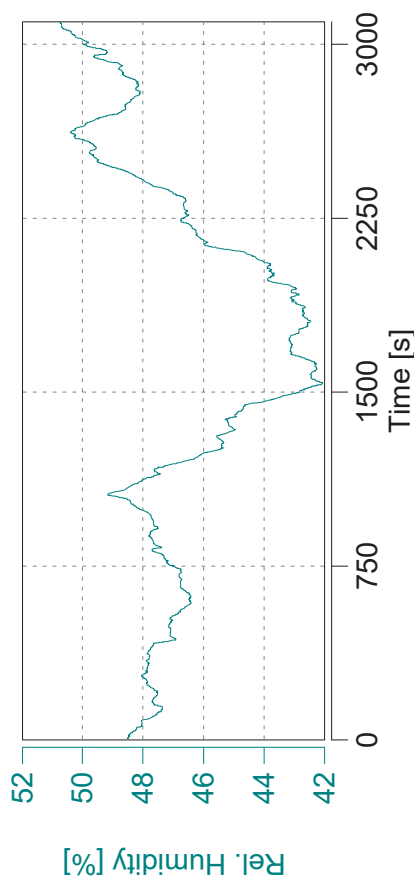
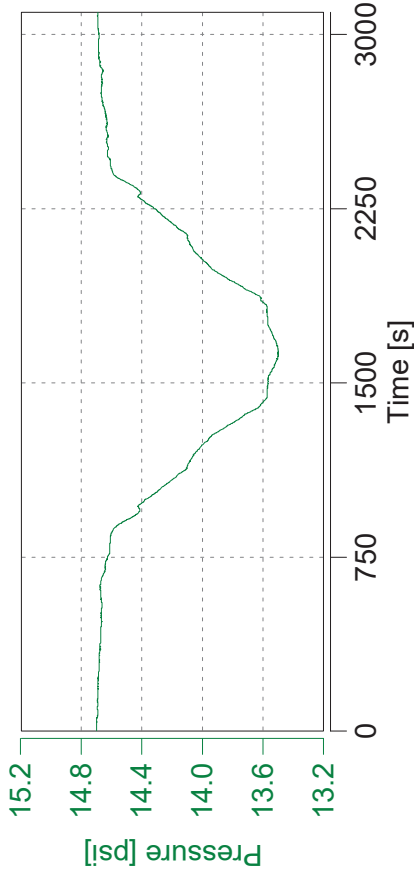
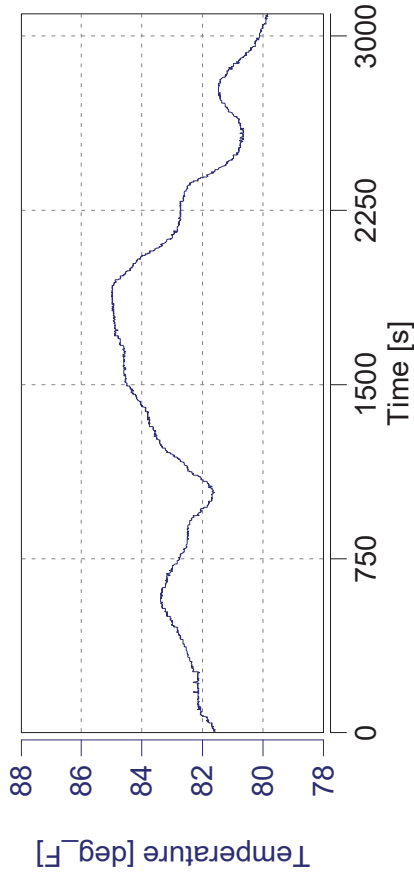
'Mountain'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: GPS

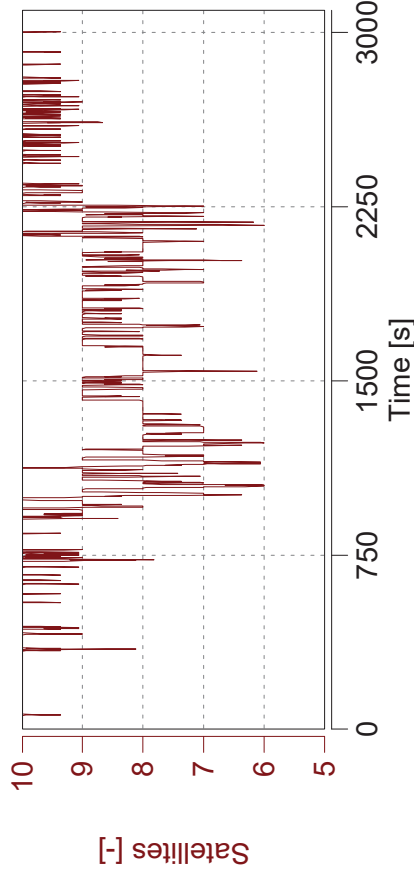
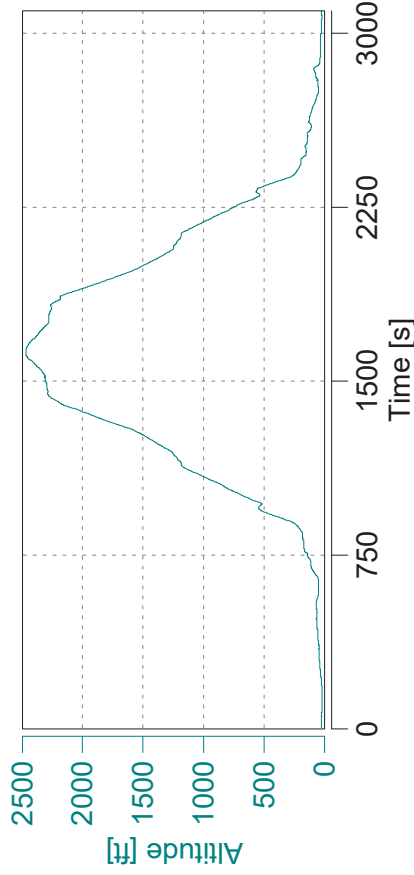
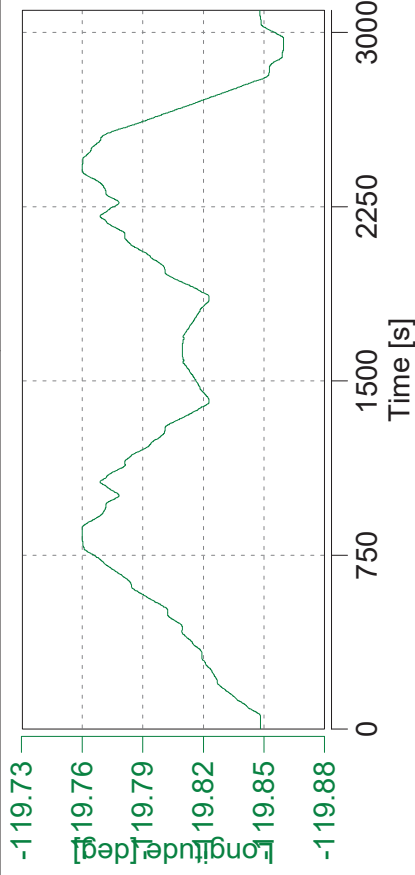
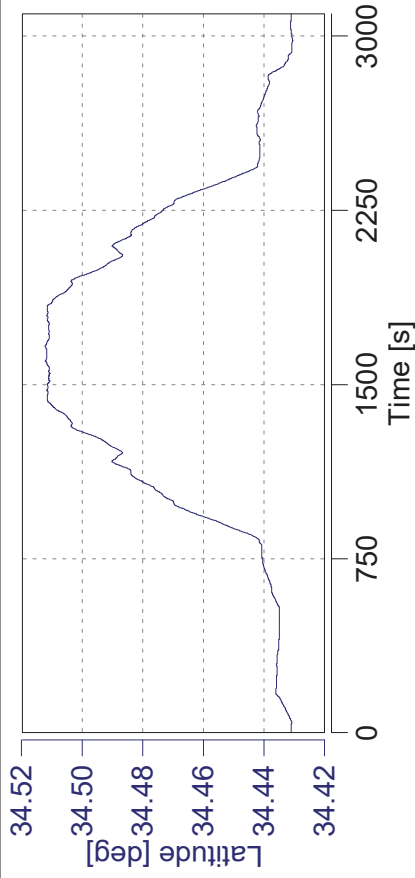
'Mountain'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (1)

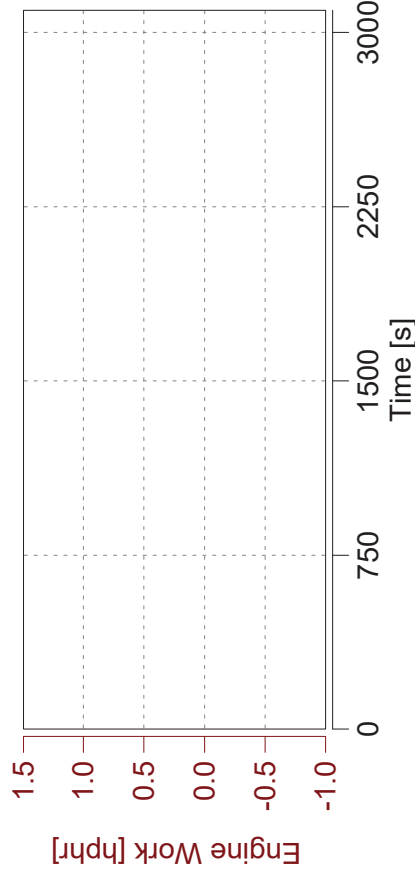
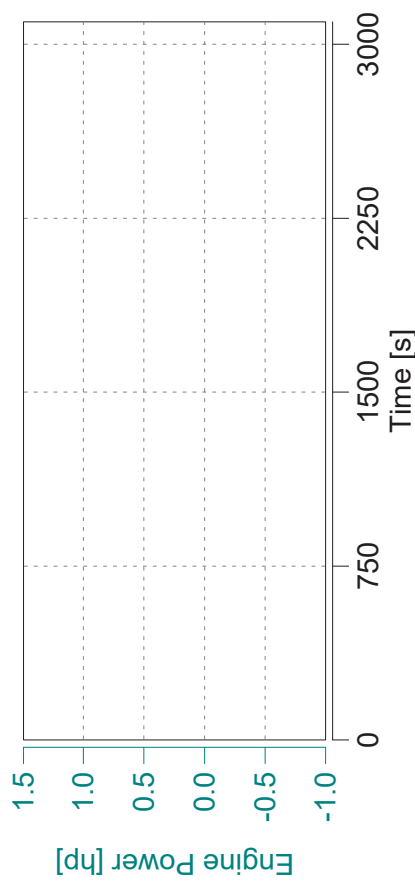
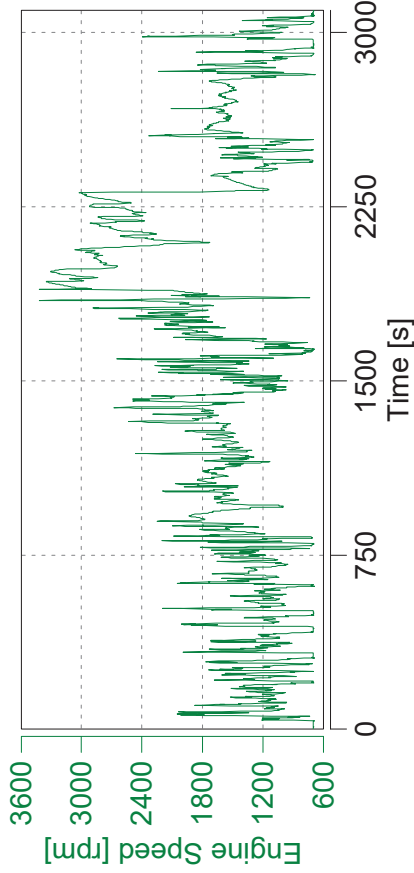
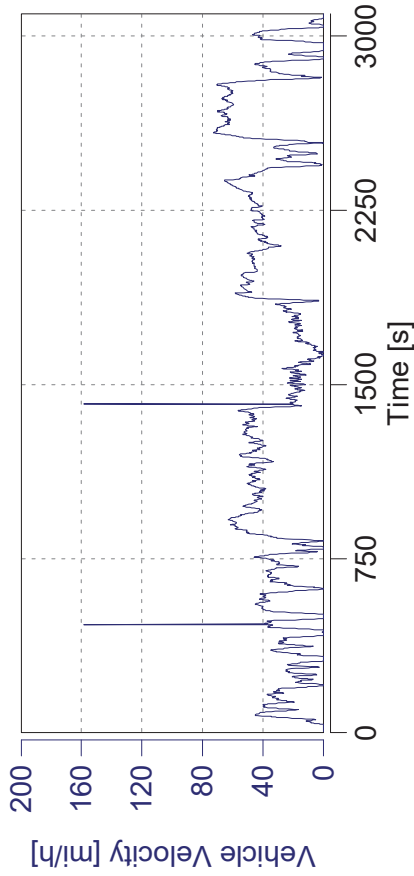
'Mountain'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: Audi A7 / 3.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (2)

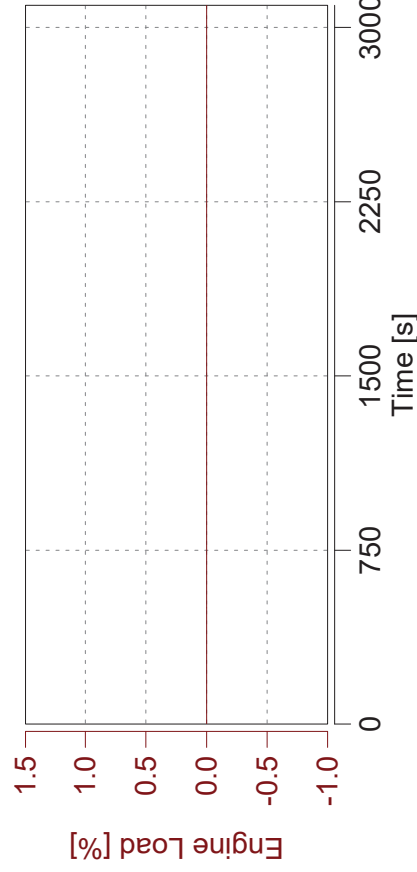
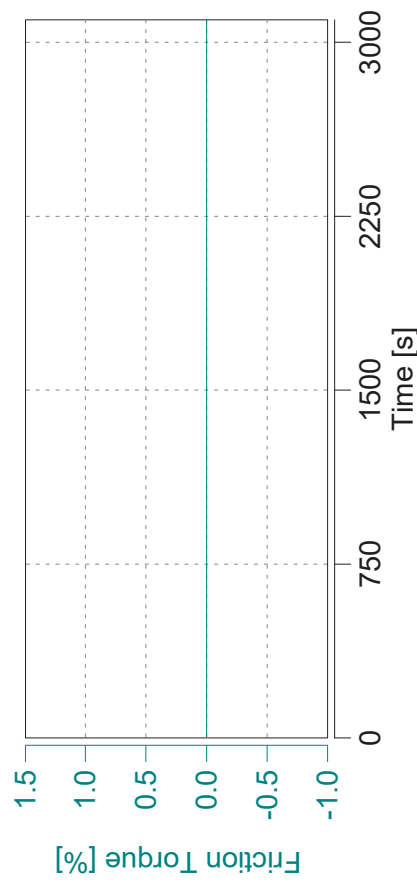
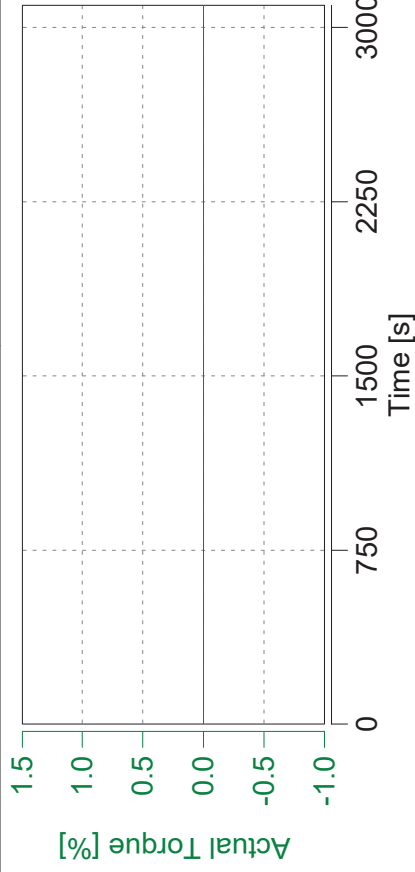
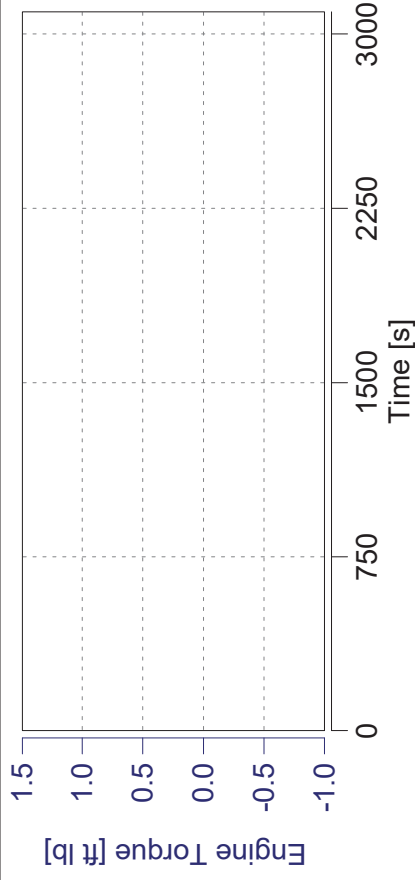
'Mountain'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (3)

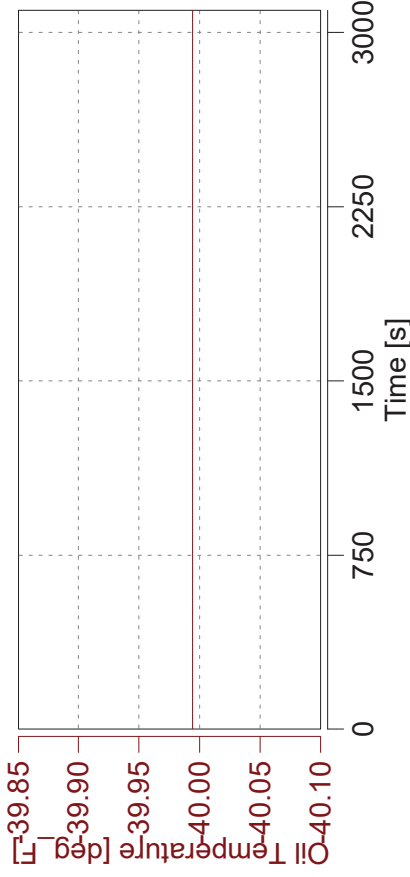
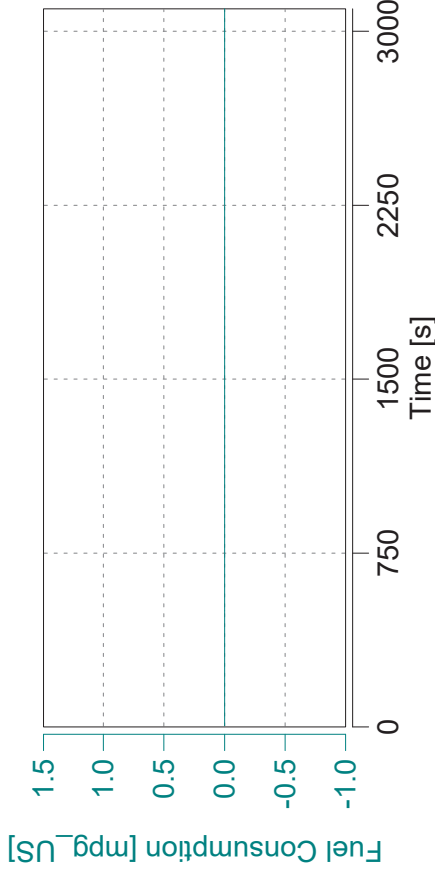
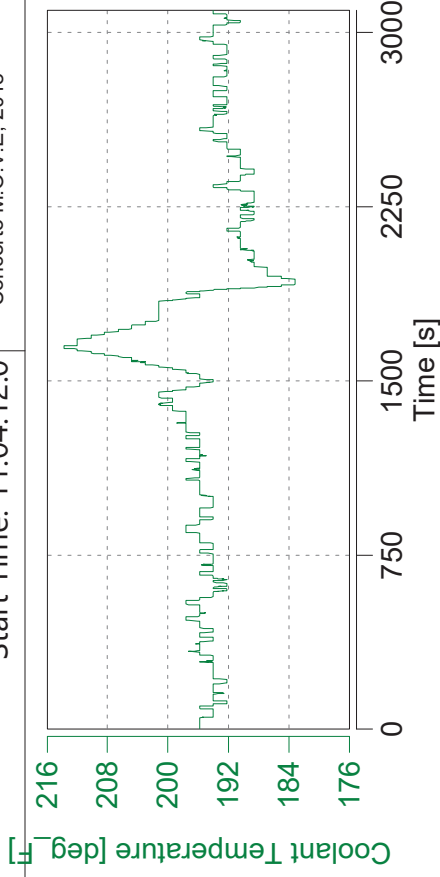
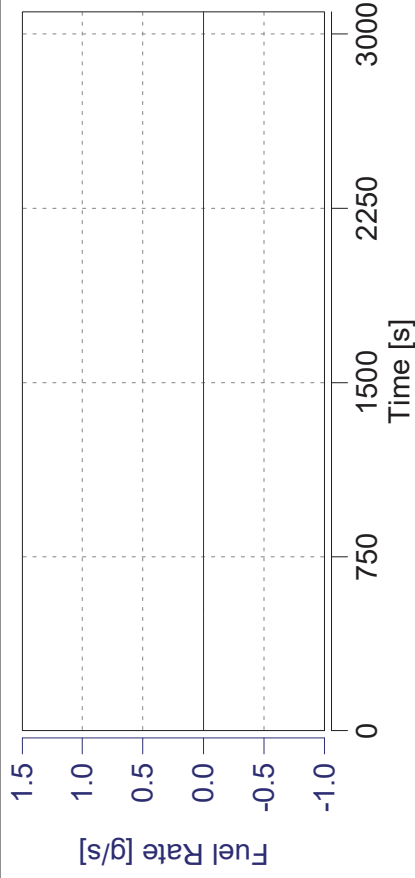
'Mountain'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

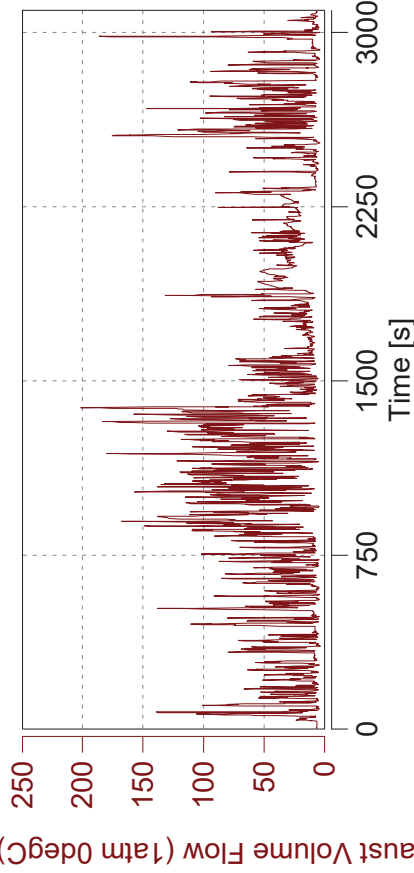
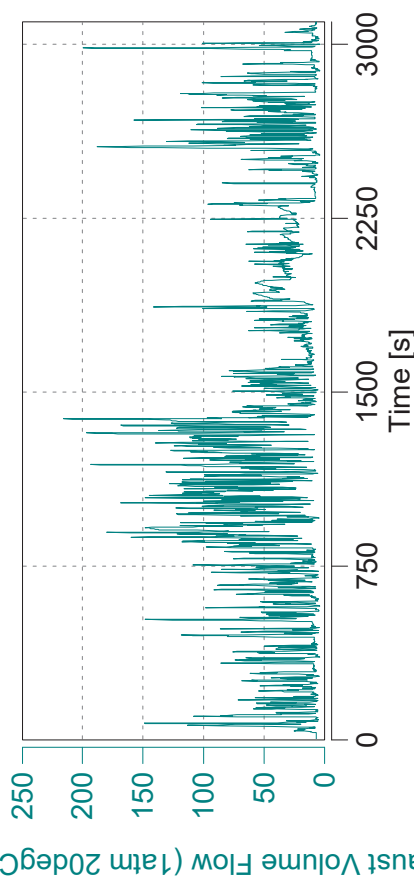
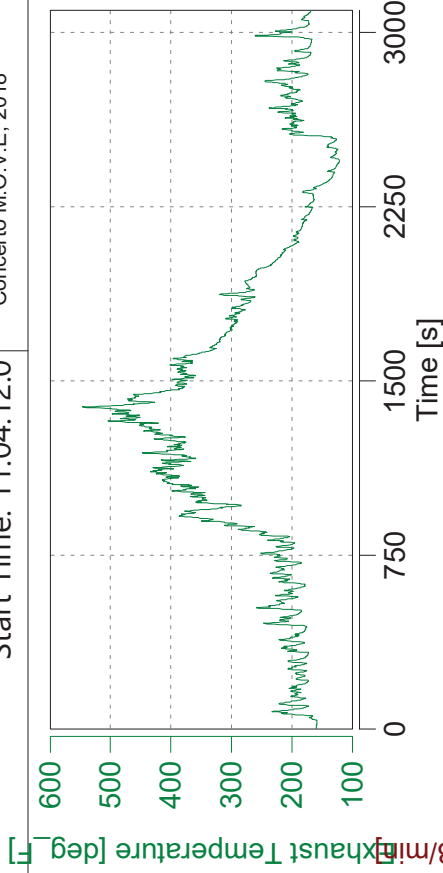
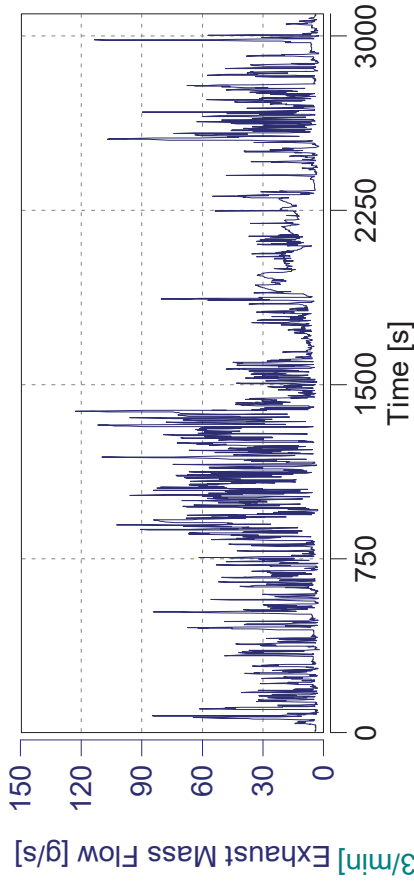
Page: Exhaust Flow (1)

'Mountain'

Start Date: 07/16/2018

Start Time: 11:04:12.0

Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Exhaust Flow (2)

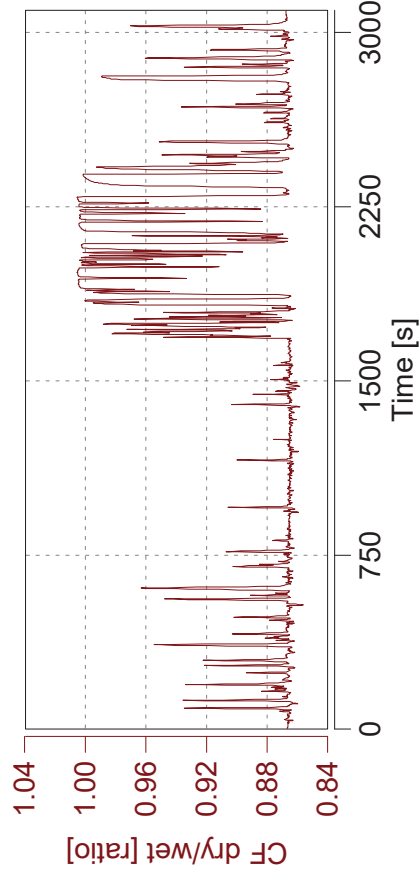
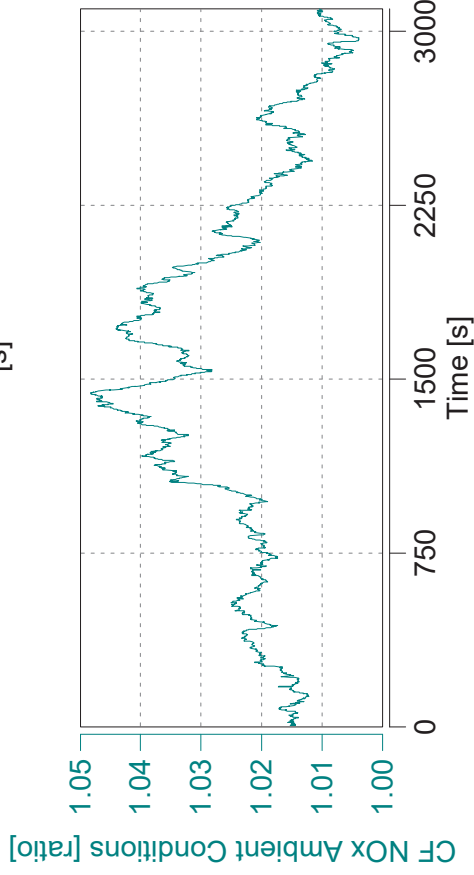
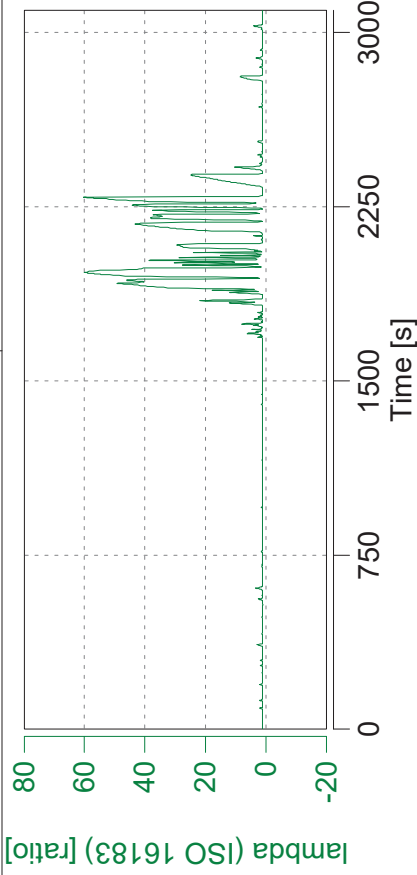
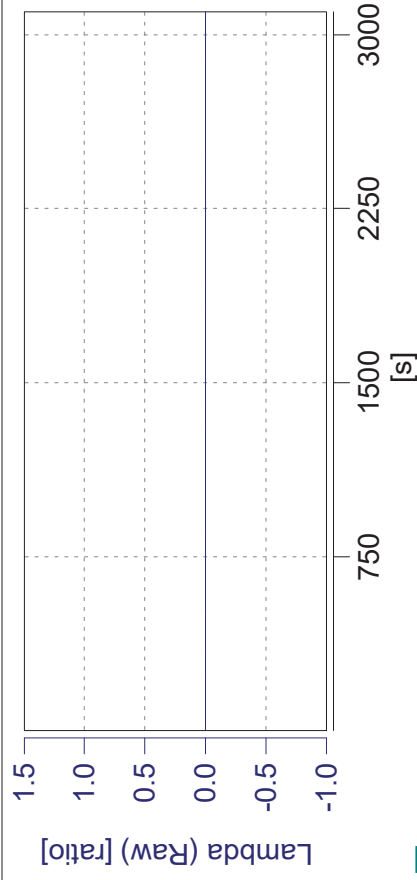
'Mountain'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316(CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (1)

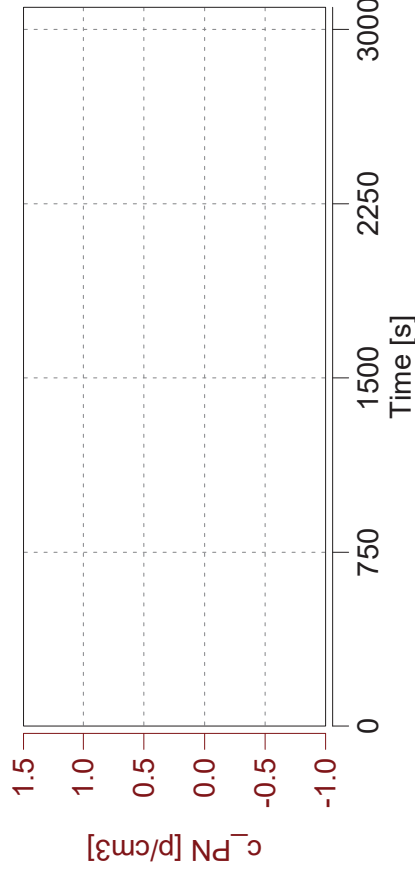
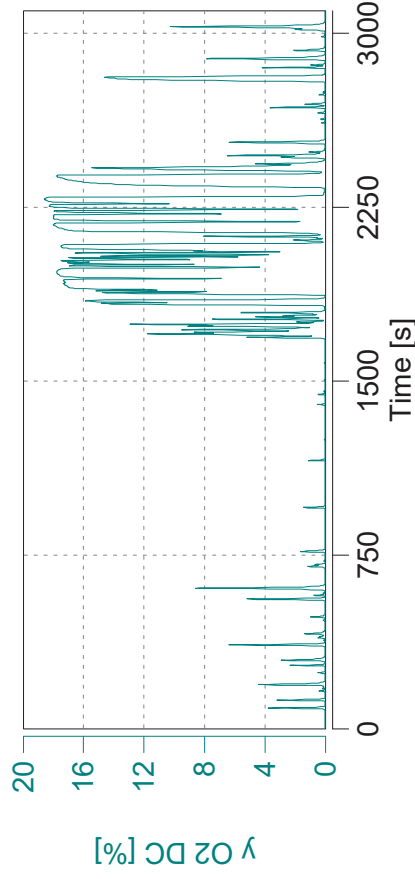
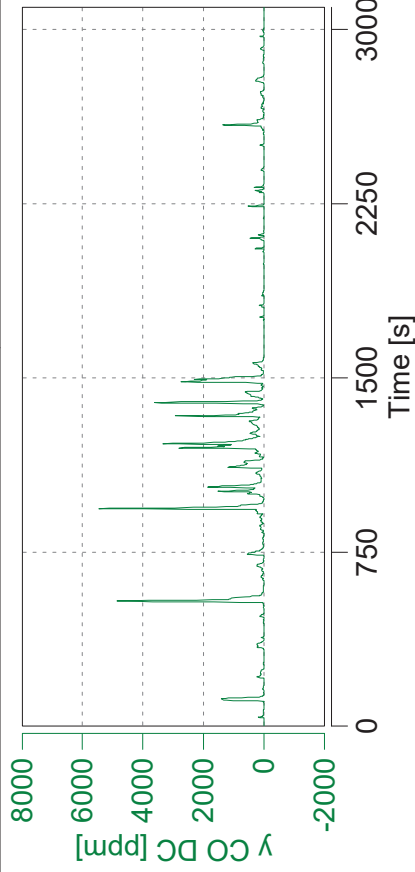
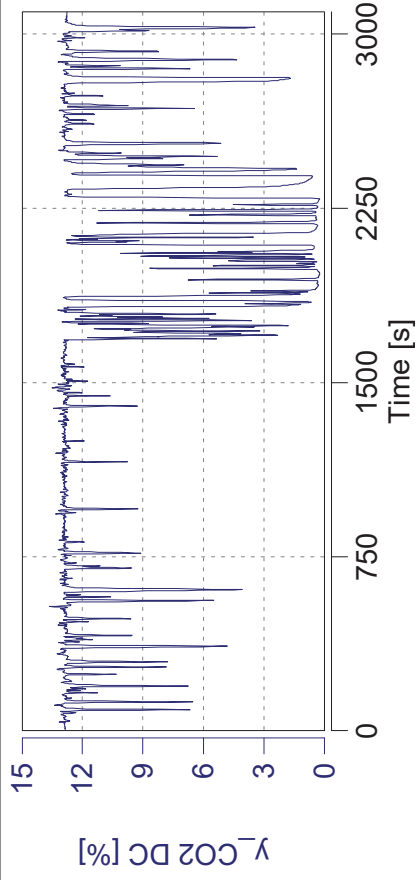
'Mountain'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Engine: /

Case: Mountain

Page: Corrected Emissions (2)

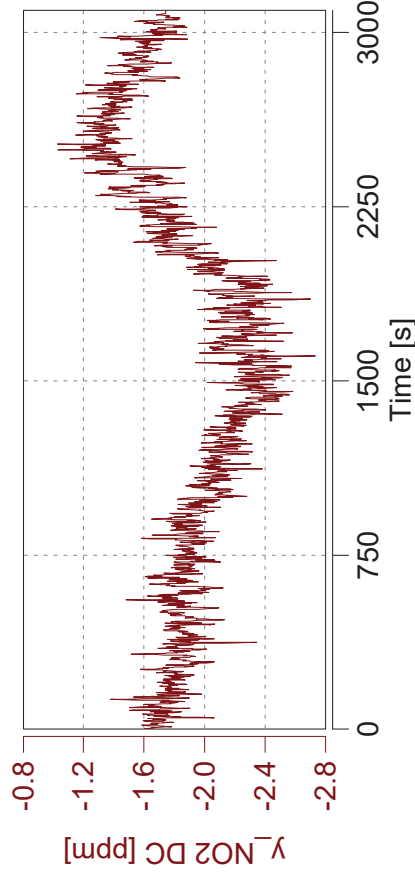
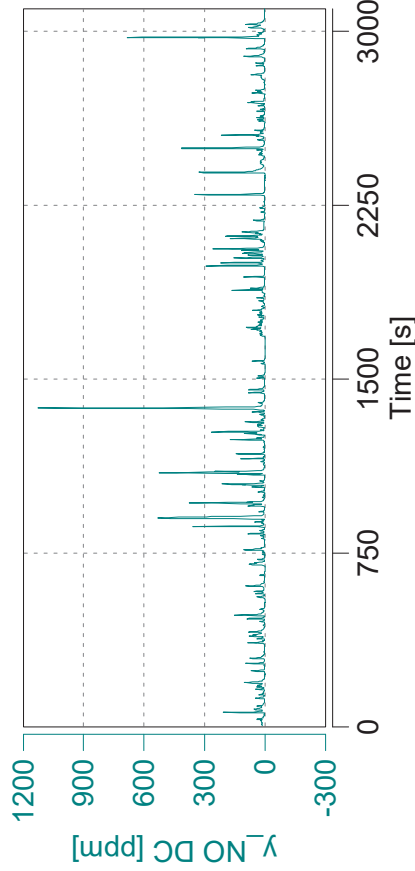
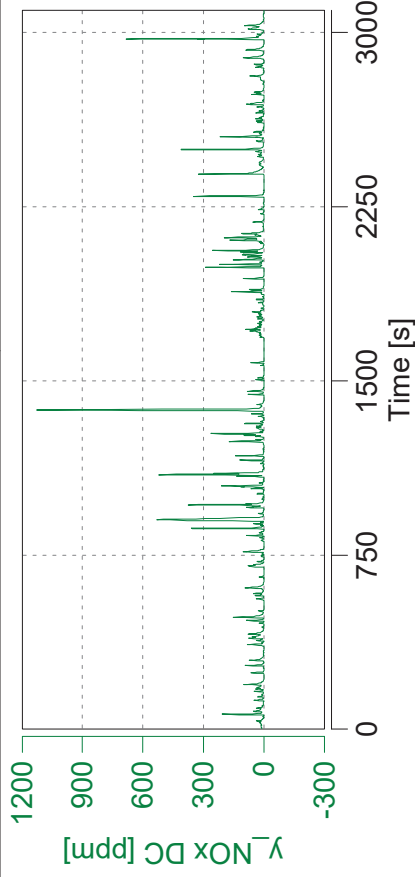
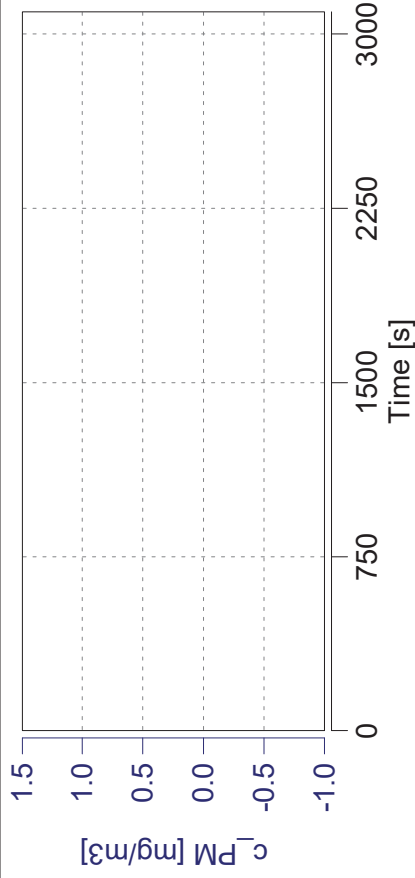
'Mountain'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (3)

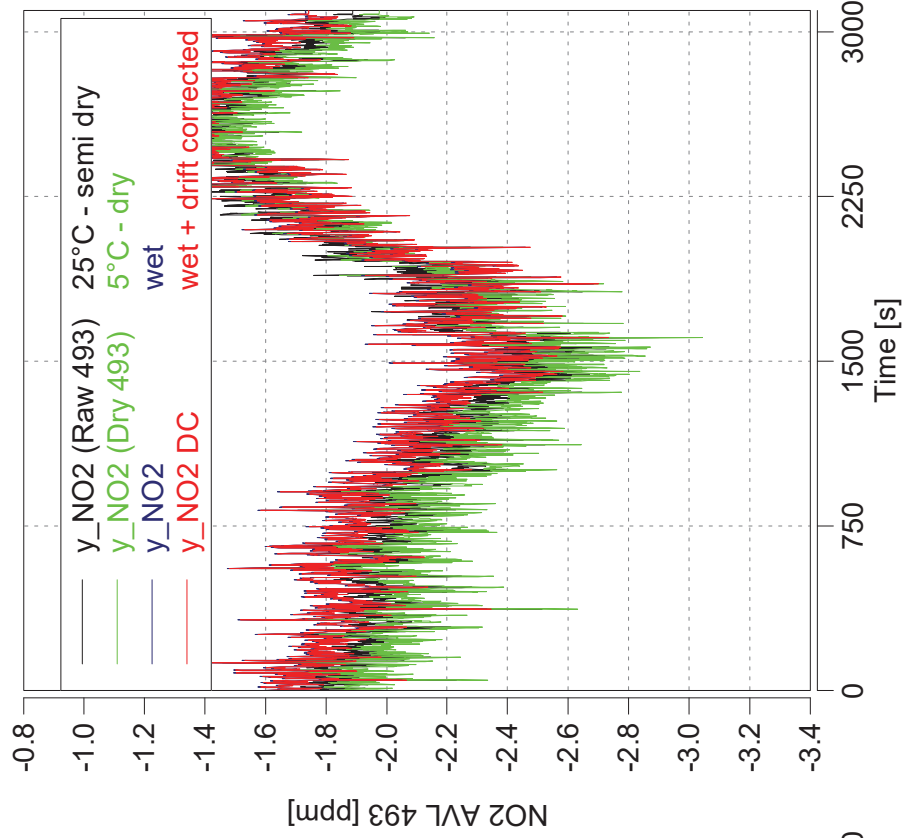
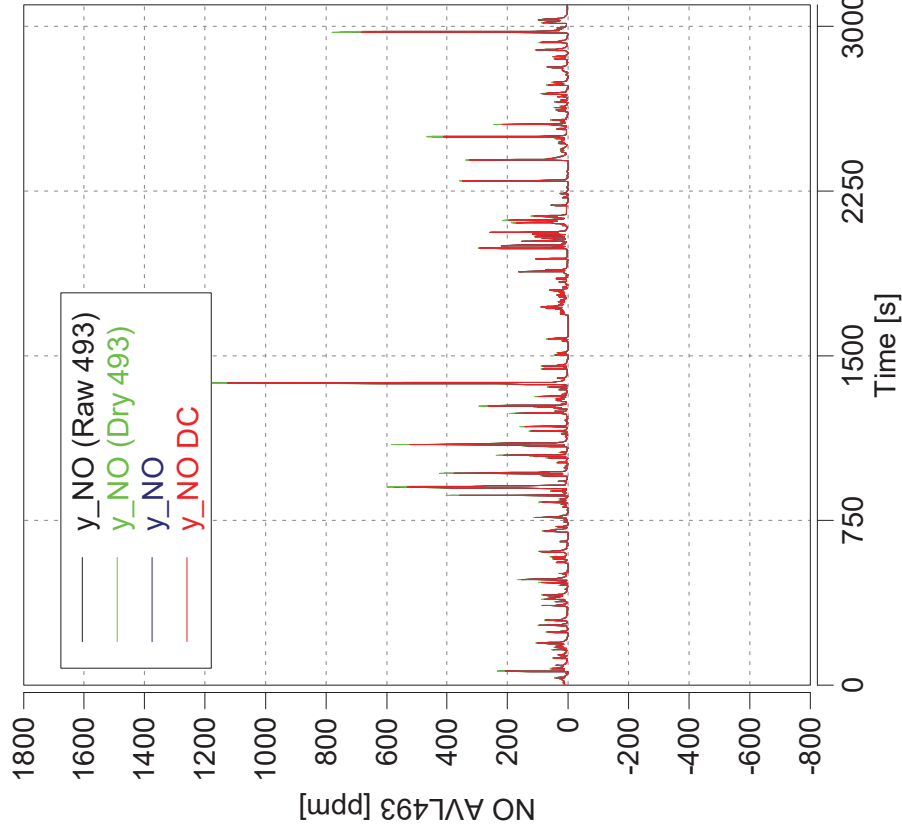
'Mountain'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (4) NOx Corrections

'Mountain'

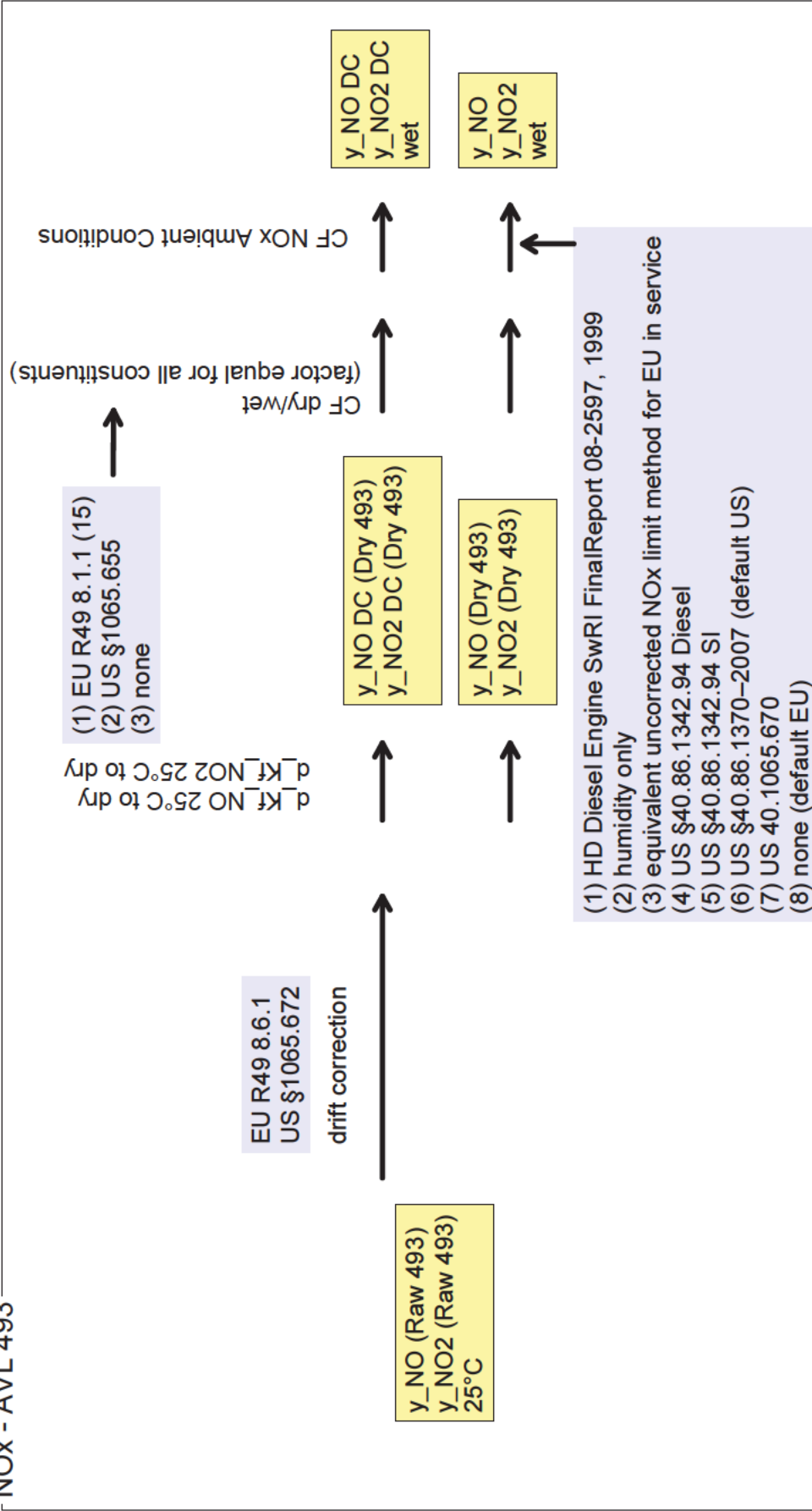
Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Audi A7 / 3.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (5)

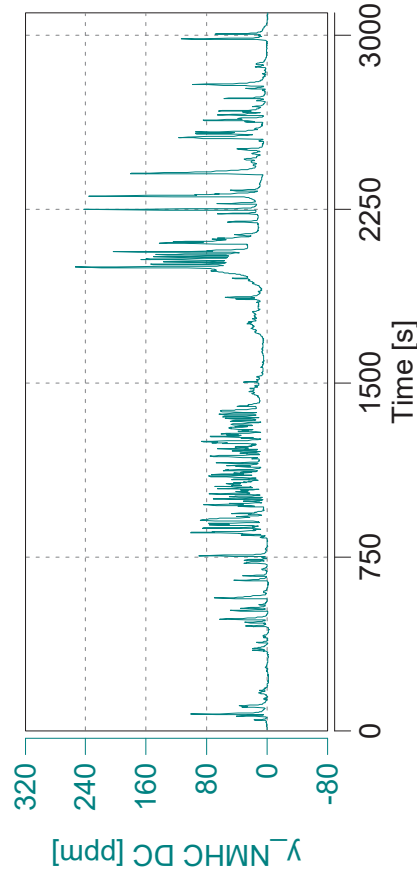
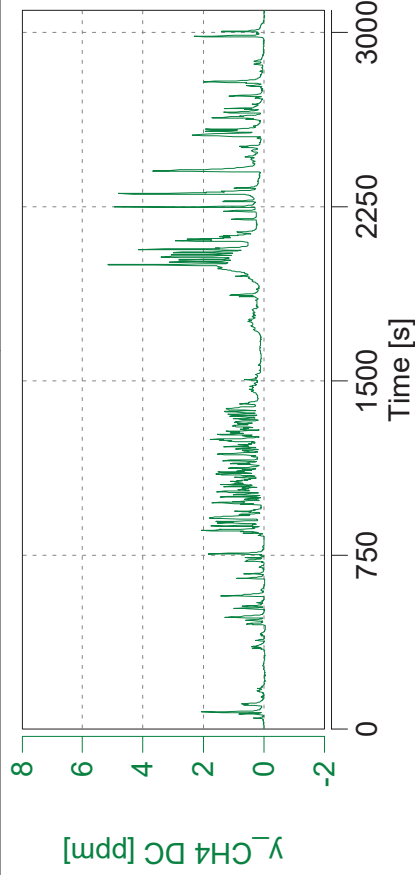
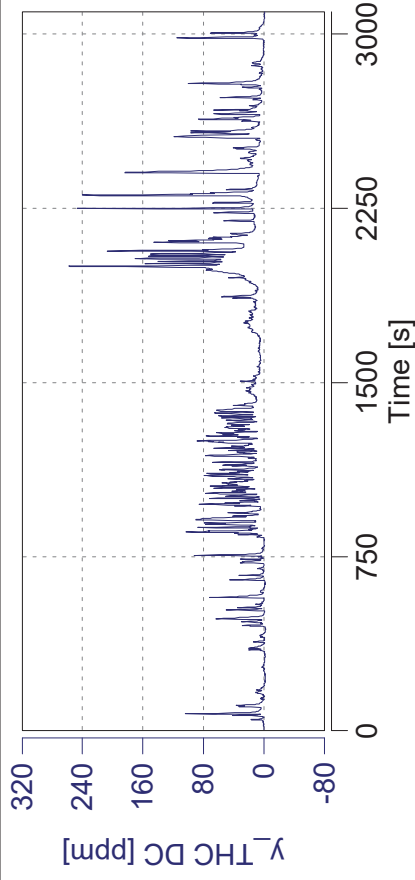
'Mountain'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: NO/NO2/NOx Zero - Span

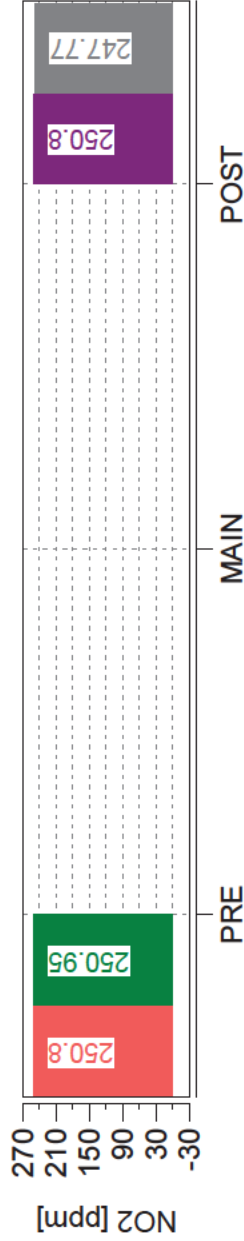
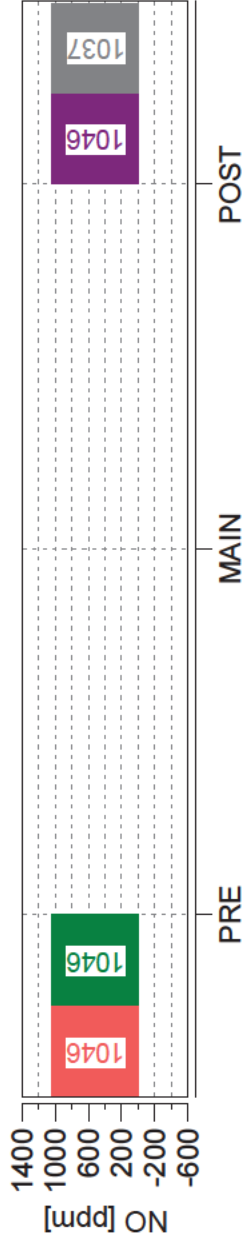
'Mountain'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: CO/CO2 Zero - Span

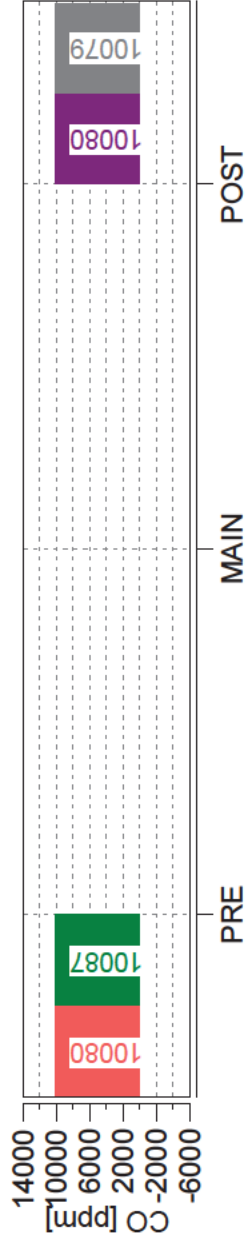
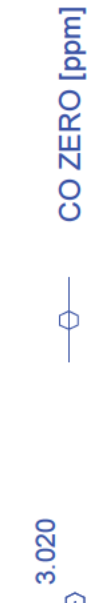
'Mountain'

Start Date: 07/16/2018

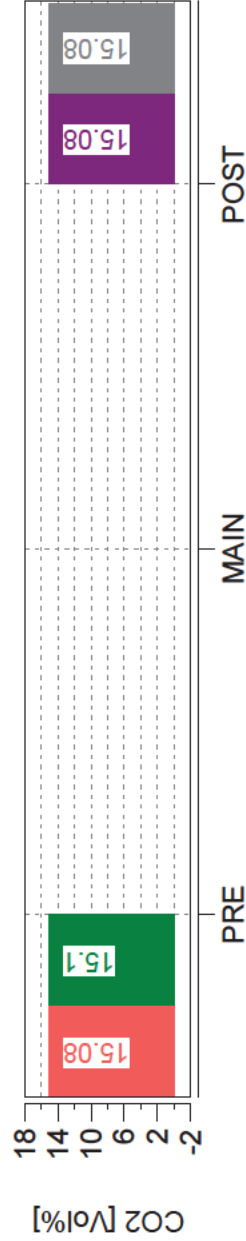
Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



GP_CO_Cal_gas_value
 GP_CO_Adjust_Actual
 GP_CO_Reference
 GP_CO_Audit_Actual



GP_CO2_Cal_gas_value
 GP_CO2_Adjust_Actual
 GP_CO2_Reference
 GP_CO2_Audit_Actual

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: THC/CH4 Zero - Span

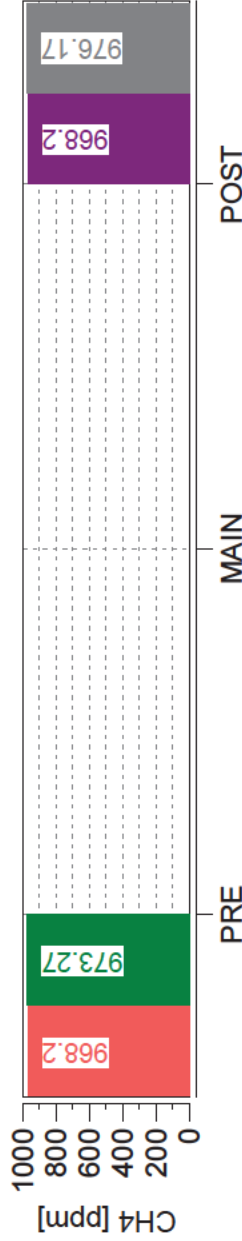
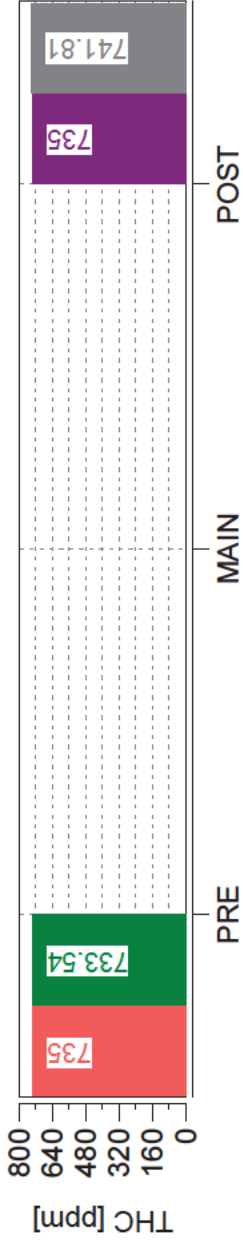
'Mountain'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary

'City'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018

Trip Duration	3840.00	s	ave THC	6.15600	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3840.00	s	ave NMHC	6.03288	ppm	BS CO	n/a	g/hphr
Trip Distance	15.93	mi	ave CH4	0.12312	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	15.93	mi	ave CO	61.88273	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	12.46785	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	13.51601	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	2.97	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	2.92	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.05	gall	tot THC	0.25810	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.03	gall	tot NMHC	0.23875	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00572	g	DS CO2	558.76719	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	3.69197	g	DS CO	0.23180	g/mi
Trip Fuel Economy EU (ac)	15.20	mpg_US	tot CO2	8899.64823	g	DS THC	0.01621	g/mi
Trip Fuel Economy US (ac)	15.41	mpg_US	tot NO (d)	0.84171	g	DS NMHC	0.01499	g/mi
Trip Av. Eng. Speed	1054.03	rpm	tot NO2	0.03484	g	DS CH4	0.00036	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.87655	g	DS NO (d)	0.05285	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00219	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.05503	g/mi
Trip Exhaust Mass	46.23	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	90.92	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	42.33	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	14.93184	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	27.36979	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary Drift Corrected

'City'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E. 2018

Trip Duration	3840.00	s	ave THC DC	6.35222	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3840.00	s	ave NMHC DC	6.22517	ppm	BS CO DC	n/a	g/hphr
Trip Distance	15.93	mi	ave CH4 DC	0.12704	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	15.93	mi	ave CO DC	61.47915	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	12.45959	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	13.85895	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	2.97	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	2.92	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.05	gall	tot THC DC	0.26306	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.03	gall	tot NMHC DC	0.24334	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00583	g	DS CO2 DC	558.39690	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	3.67239	g	DS CO DC	0.23057	g/mi
Trip Fuel Economy EU (ac)	15.20	mpg_US	tot CO2 DC	8893.75052	g	DS THC DC	0.01652	g/mi
Trip Fuel Economy US (ac)	15.41	mpg_US	tot NO DC (d)	0.84336	g	DS NMHC DC	0.01528	g/mi
Trip Av. Eng. Speed	1054.03	rpm	tot NO2 DC	0.05959	g	DS CH4 DC	0.00037	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.90295	g	DS NO DC (d)	0.05295	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00374	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.05669	g/mi
Trip Exhaust Mass	46.23	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	90.92	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	42.33	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	14.93184	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	27.36979	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment Check

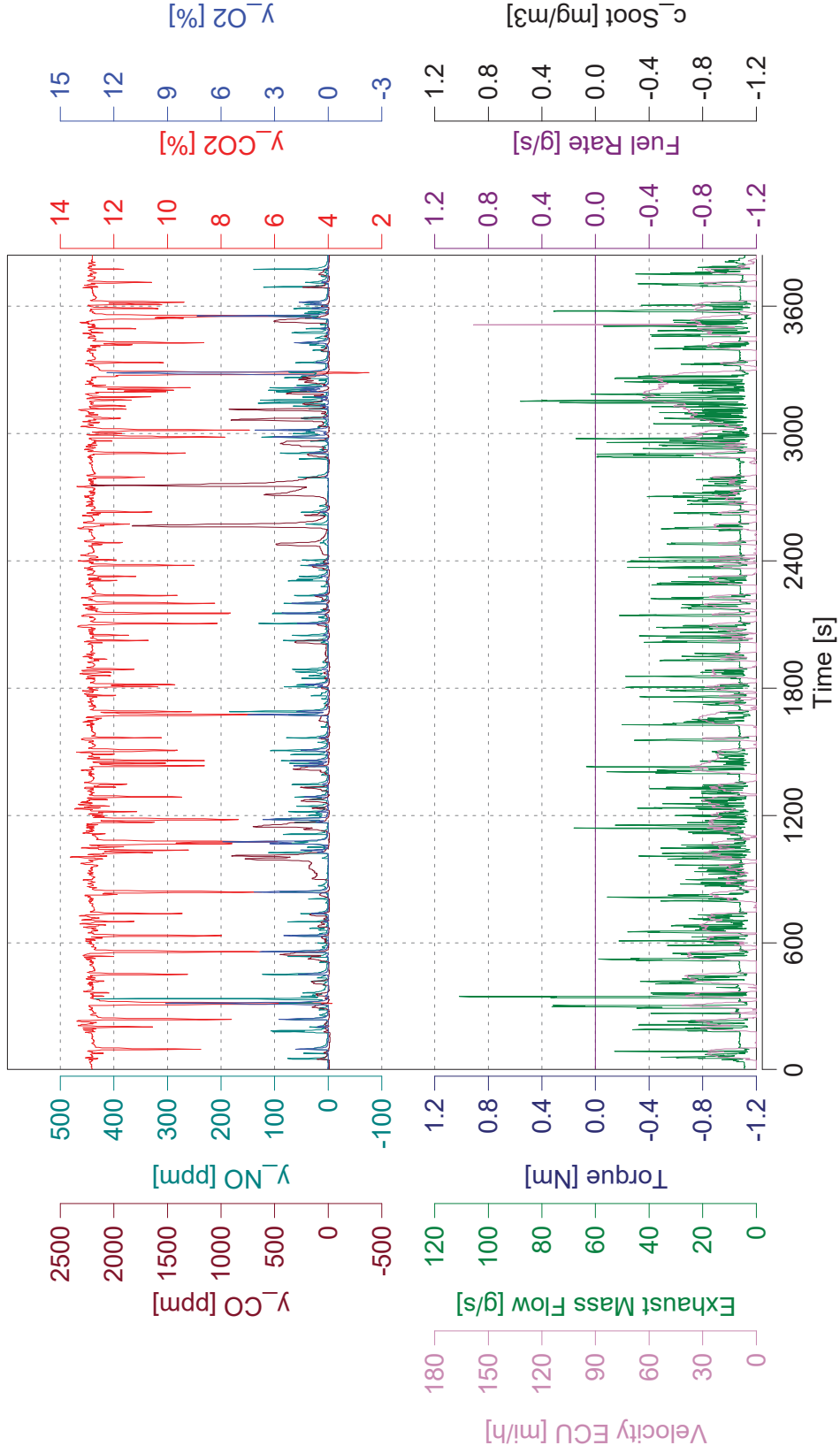
'City'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment of Gas Concentrations

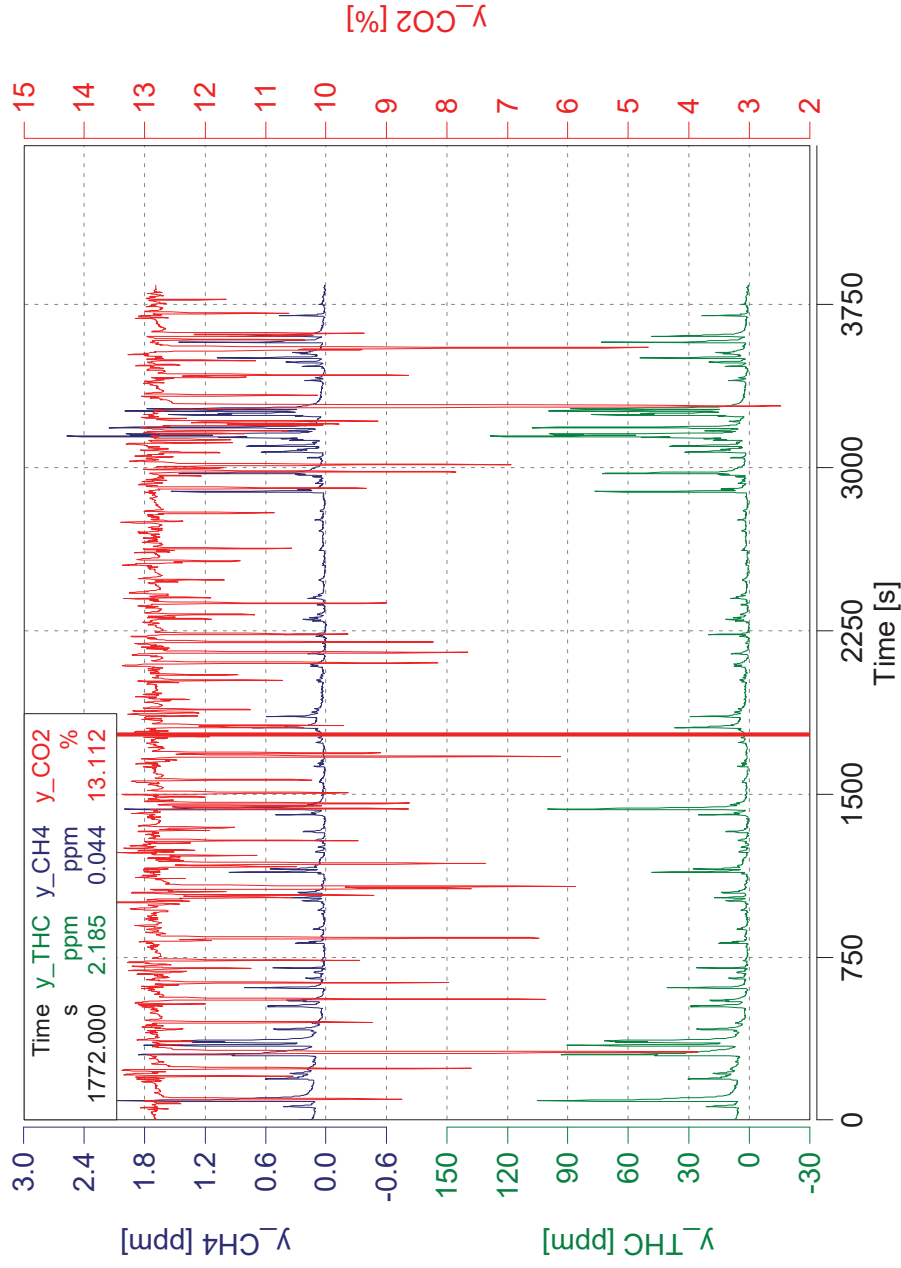
'City'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Ambient Conditions

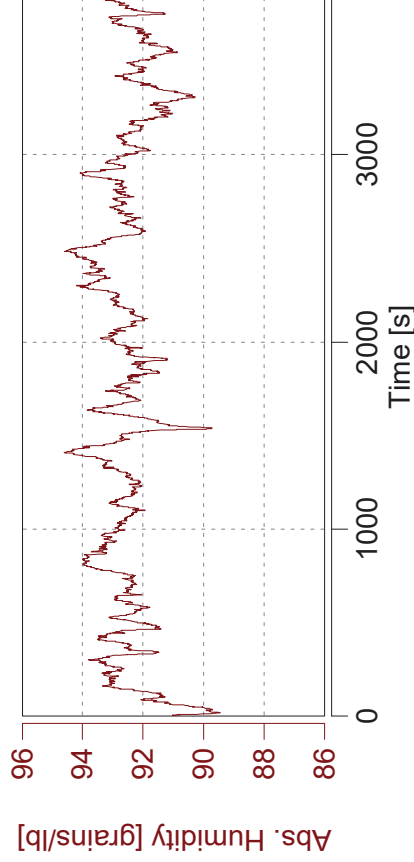
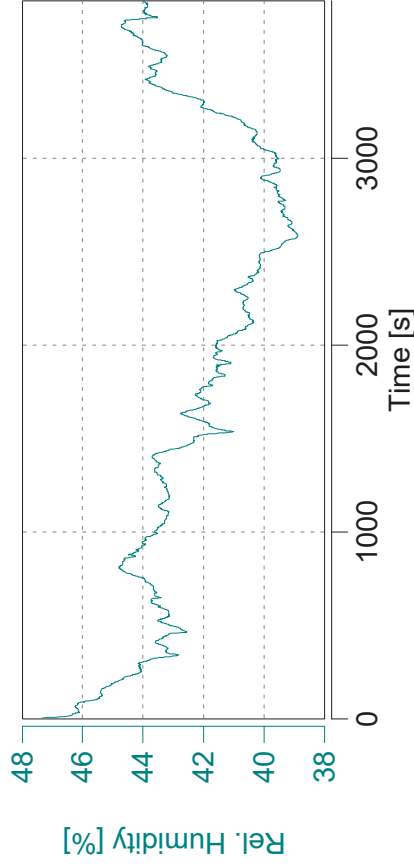
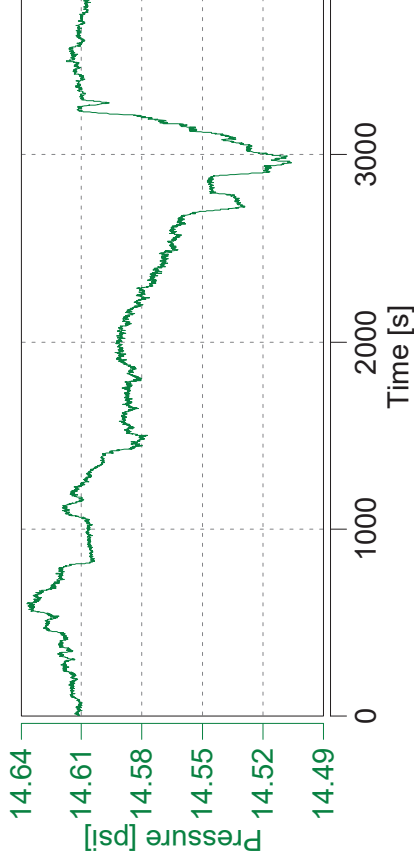
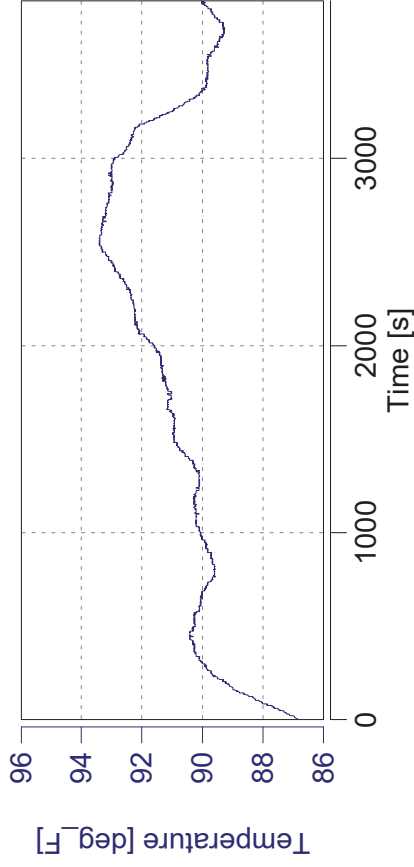
'City'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

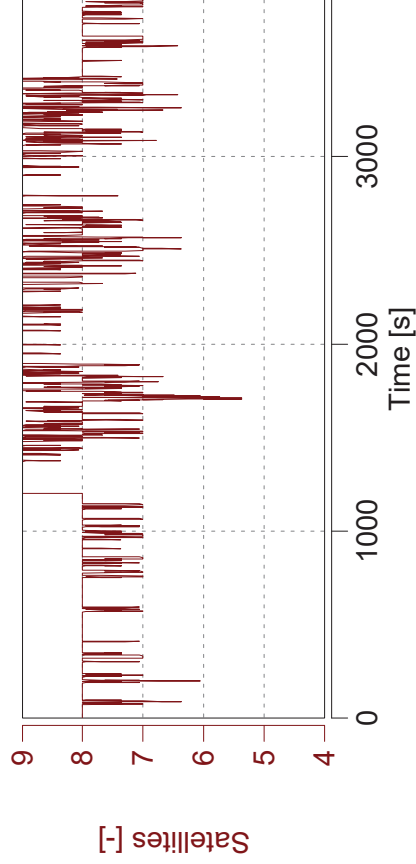
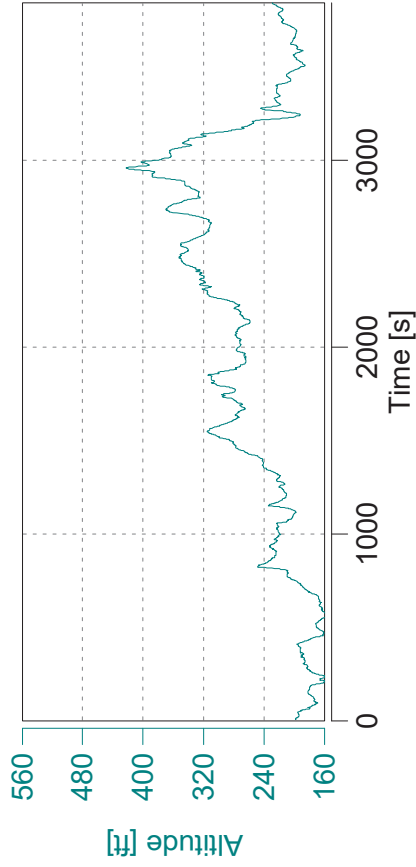
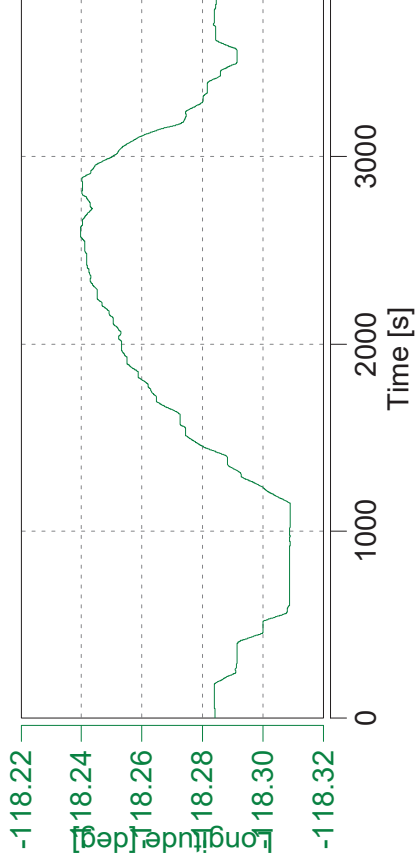
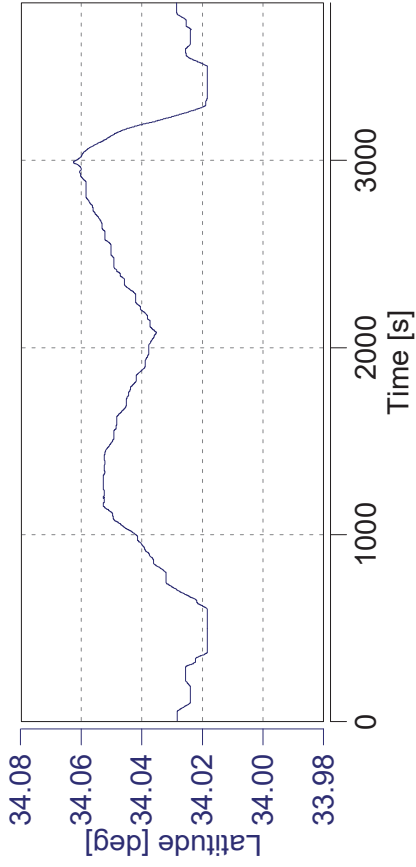
Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City
Page: GPS

'City'
Start Date: 07/16/2018
Start Time: 11:04:12.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (1)

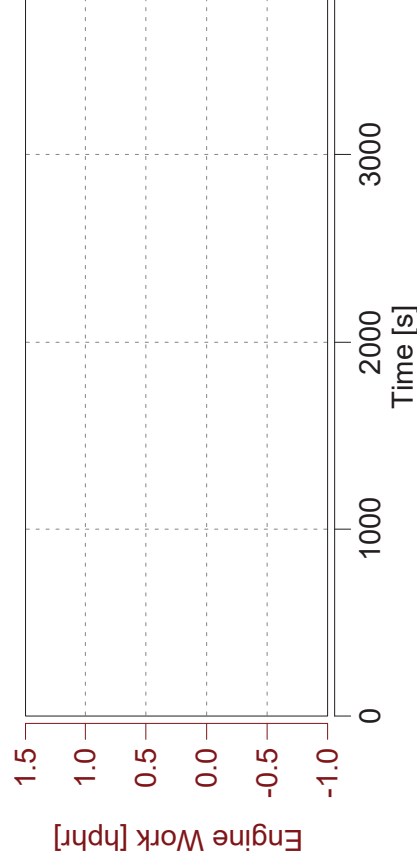
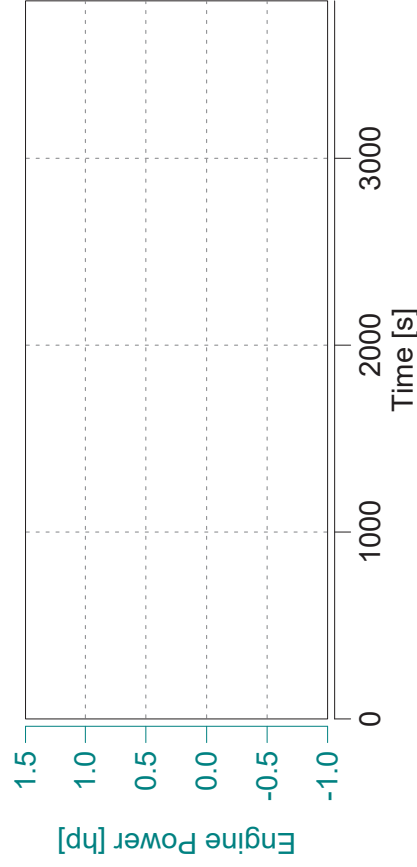
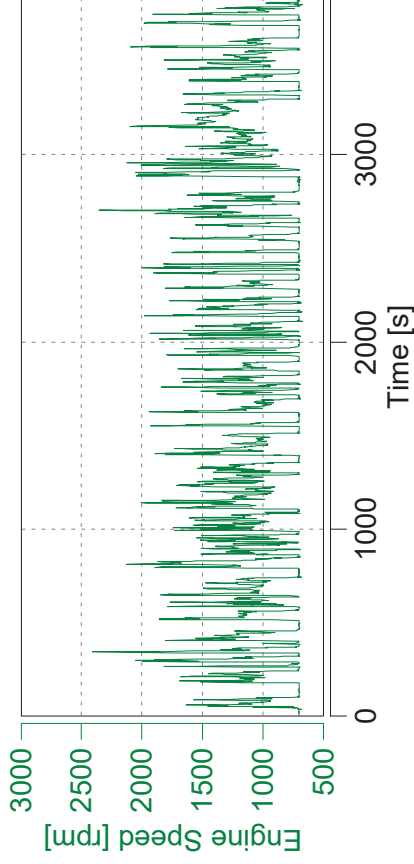
'City'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (2)

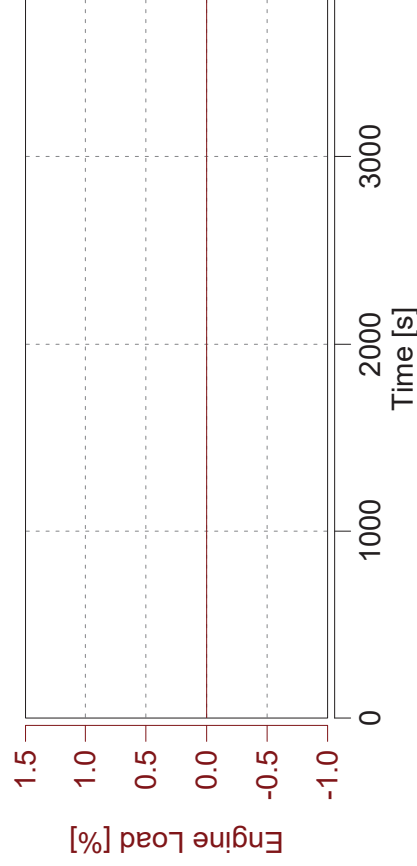
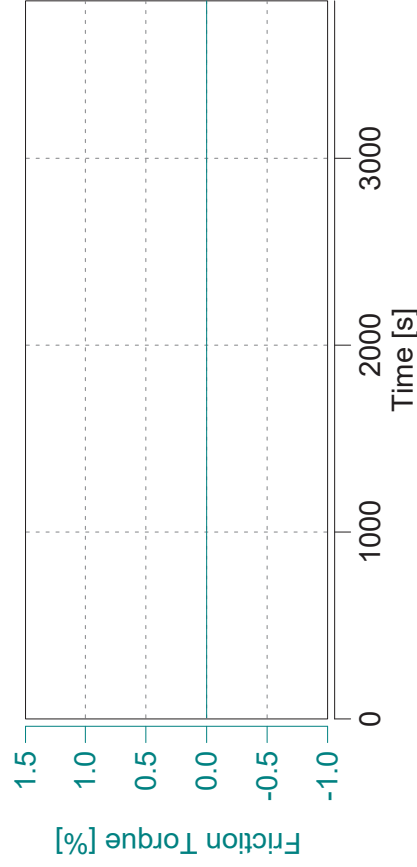
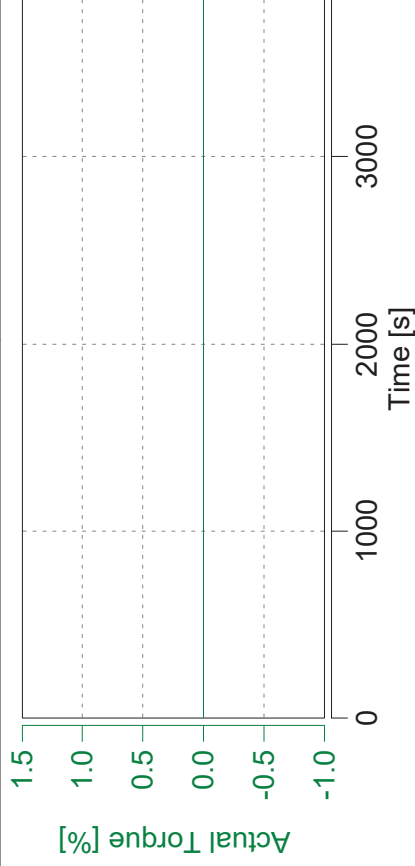
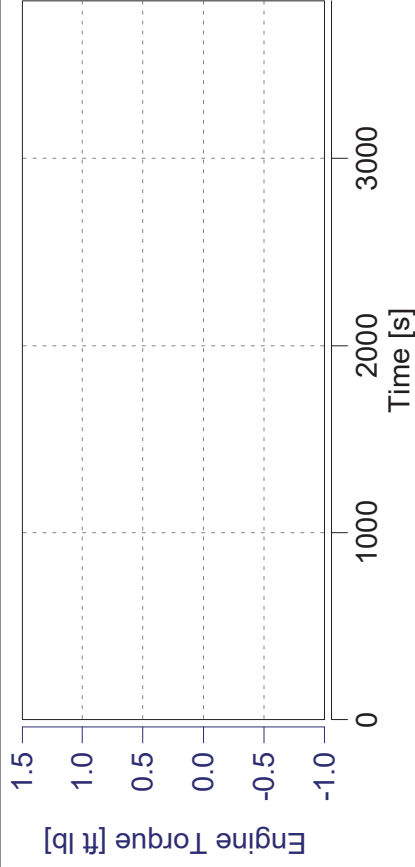
'City'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (3)

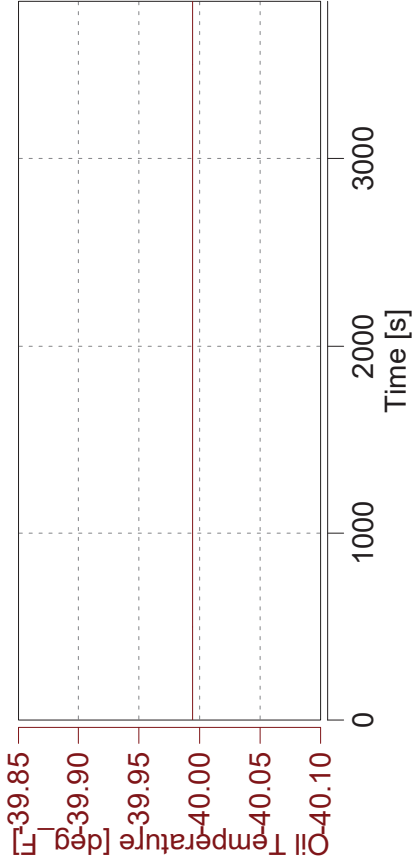
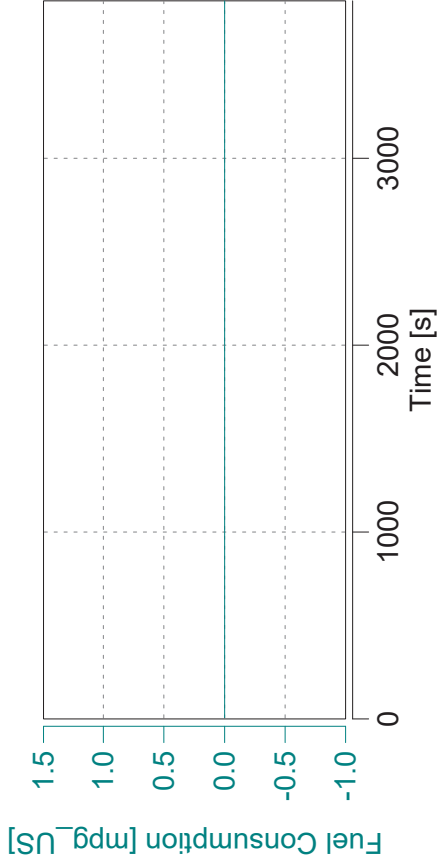
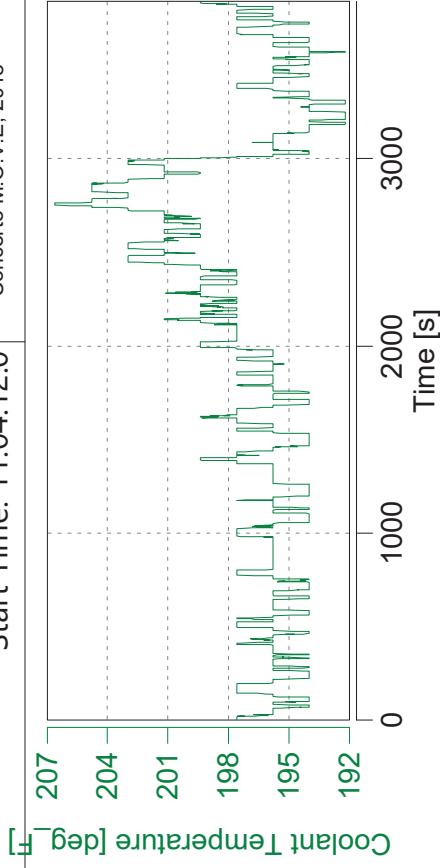
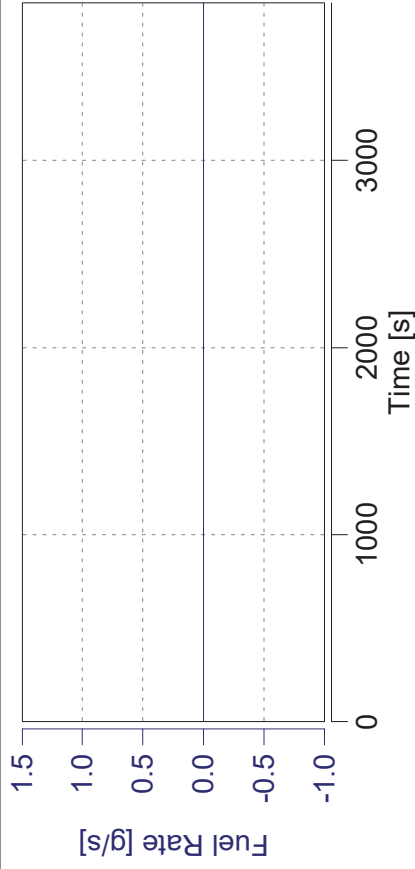
'City'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

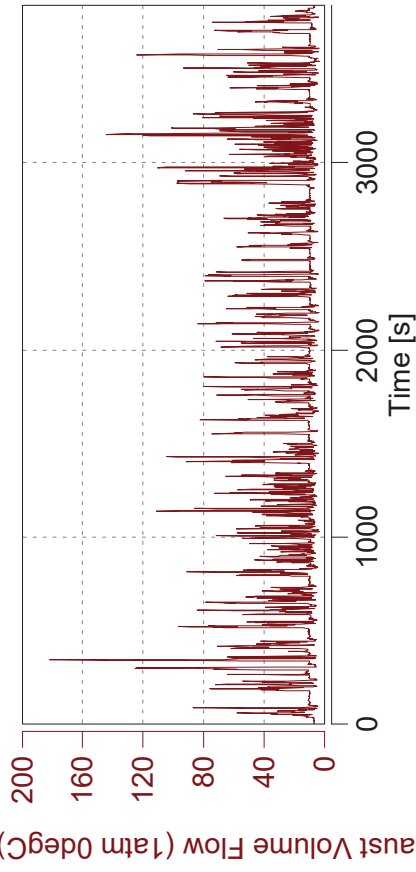
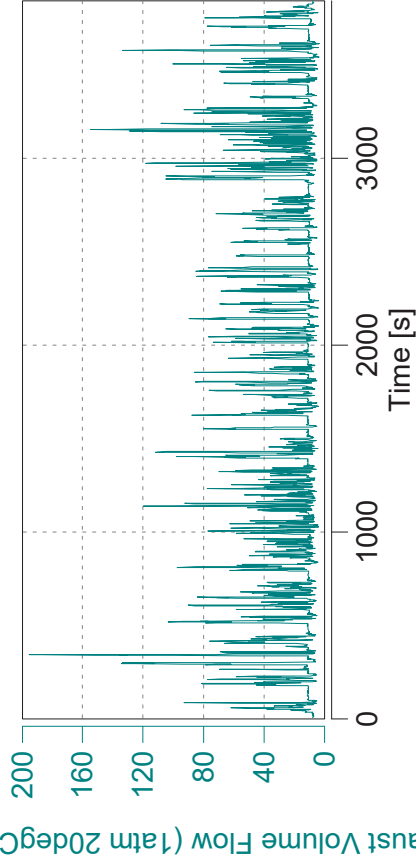
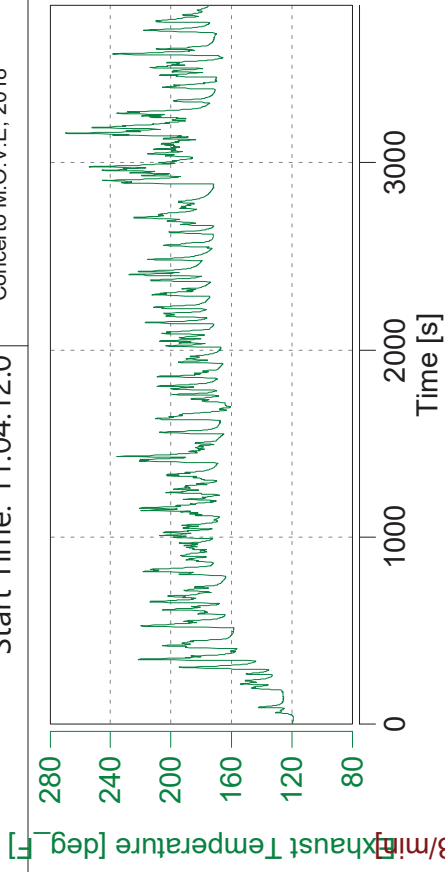
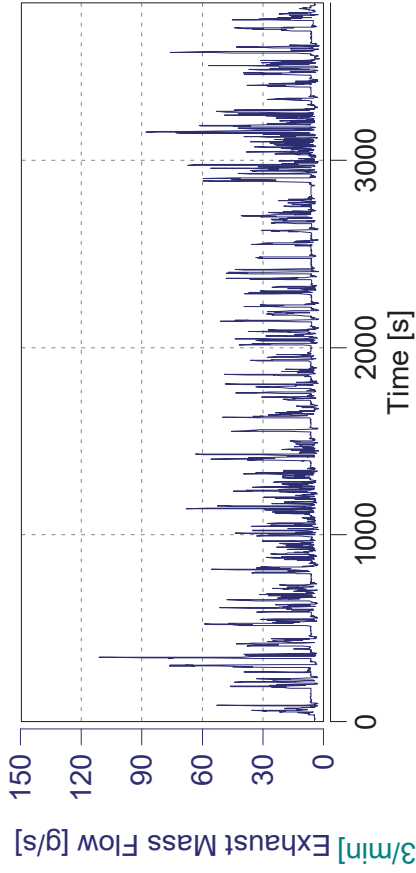
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (1)

'City'
Start Date: 07/16/2018
Start Time: 11:04:12.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (2)

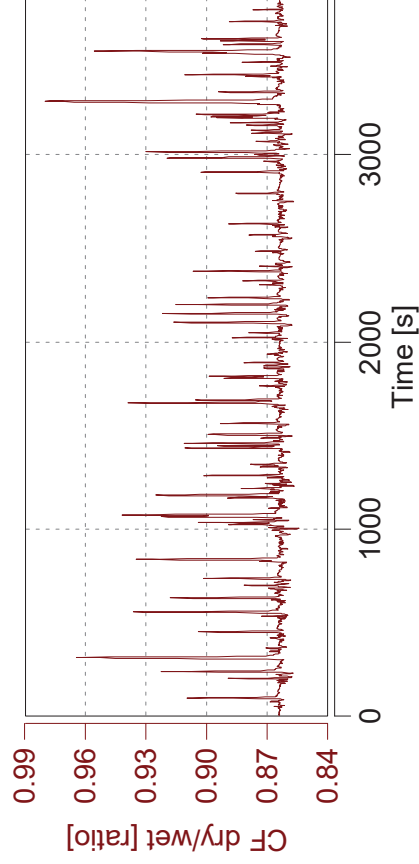
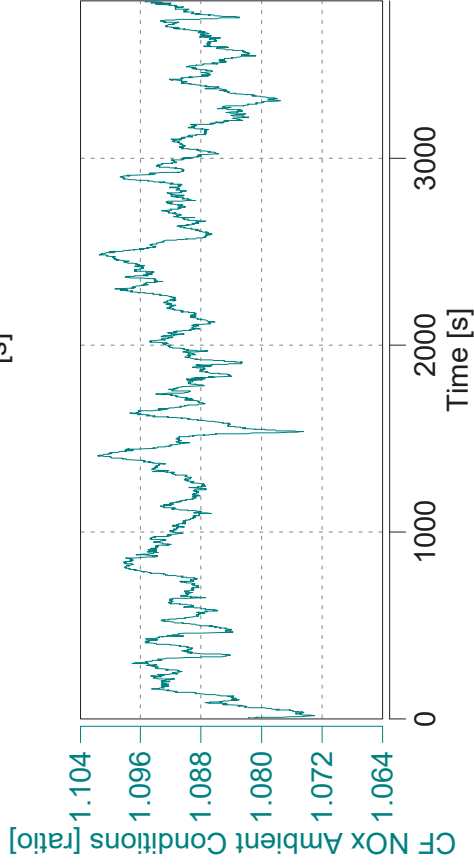
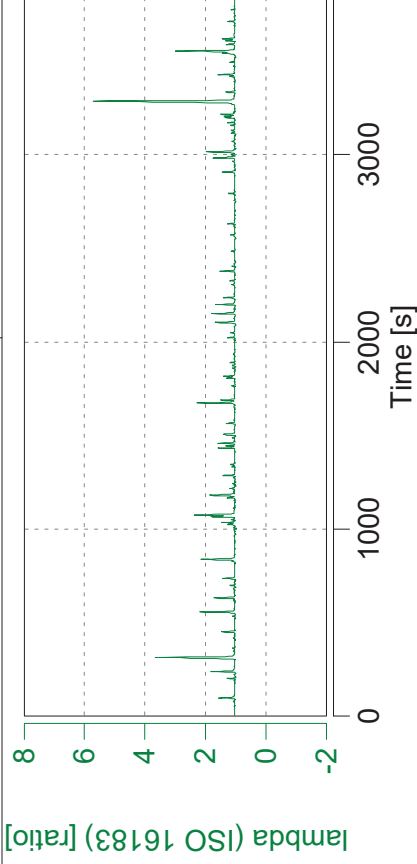
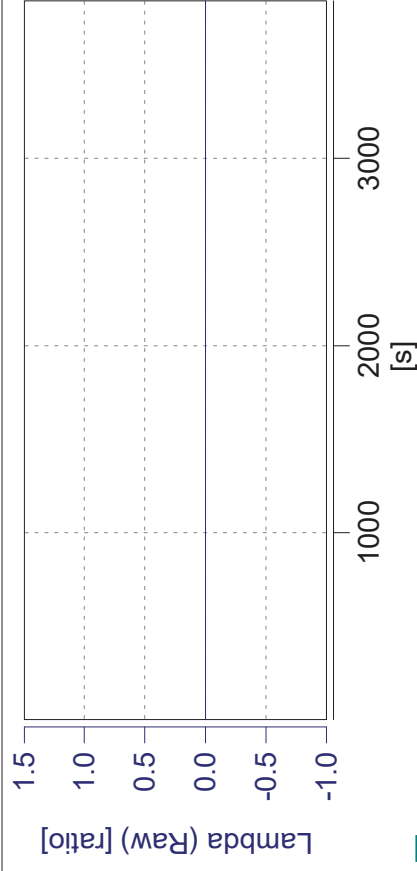
'City'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (1)

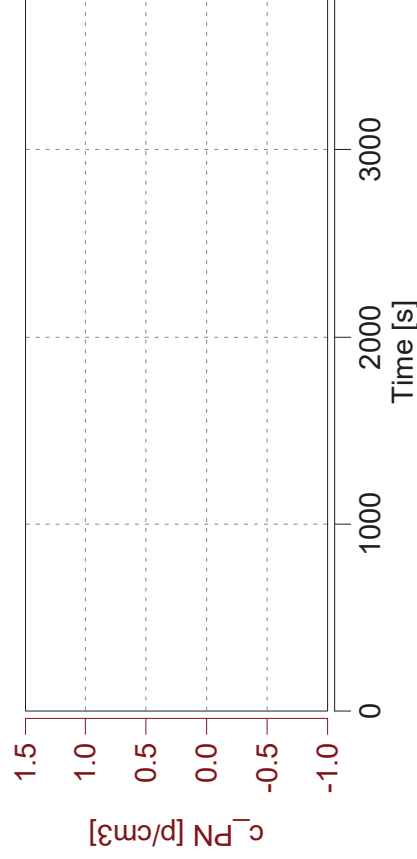
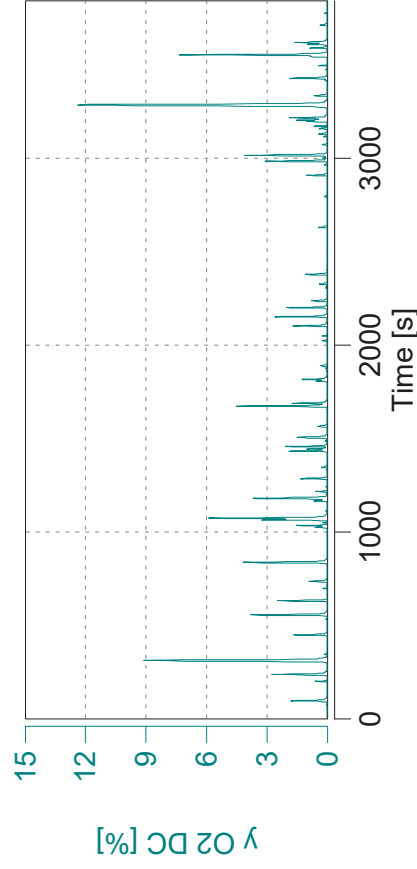
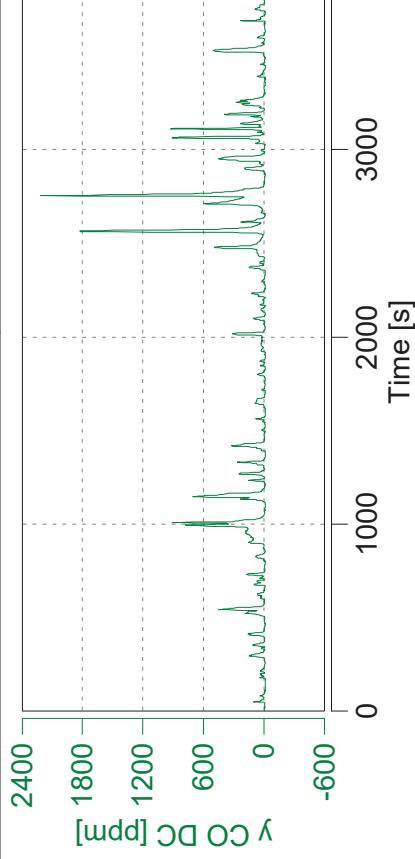
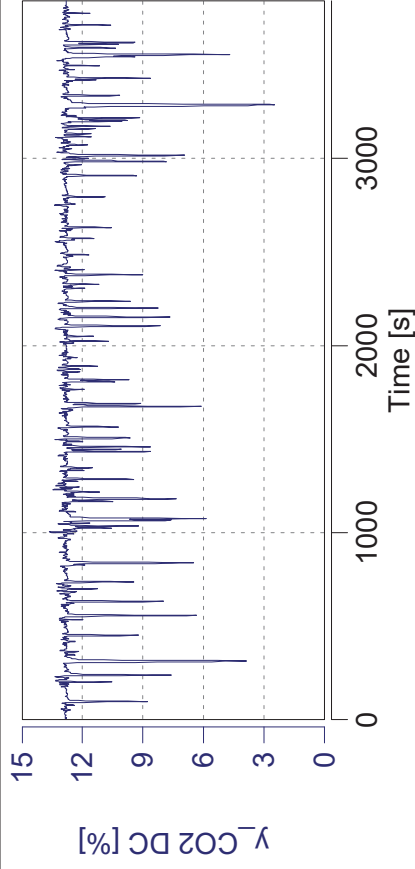
'City'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (2)

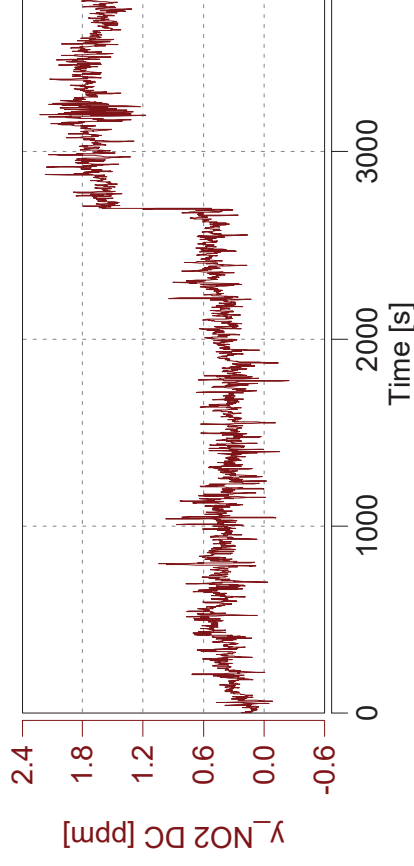
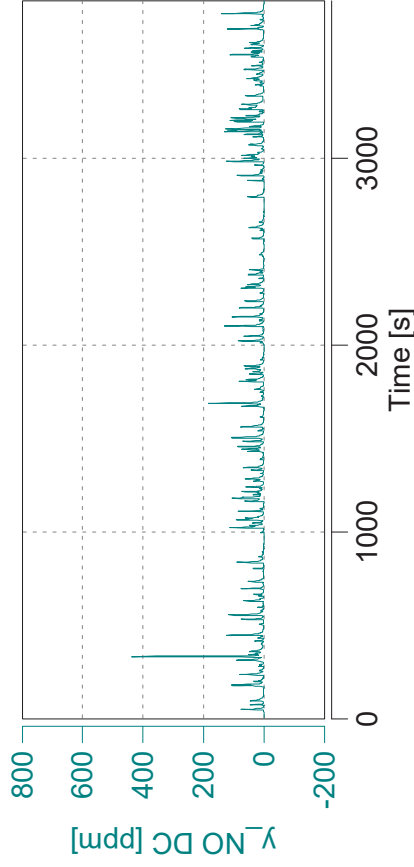
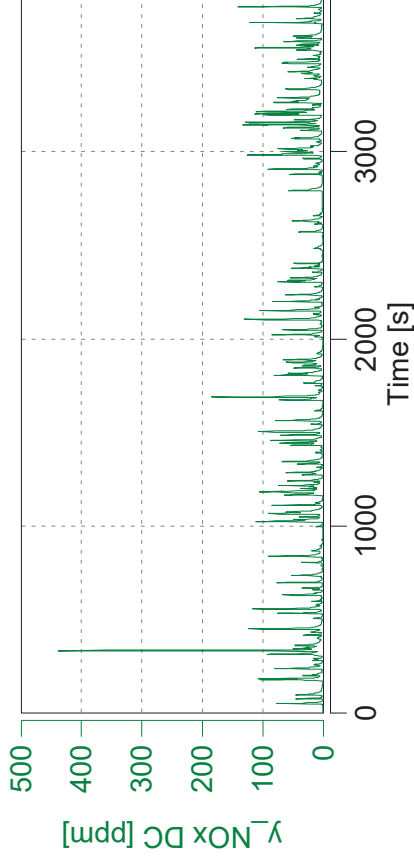
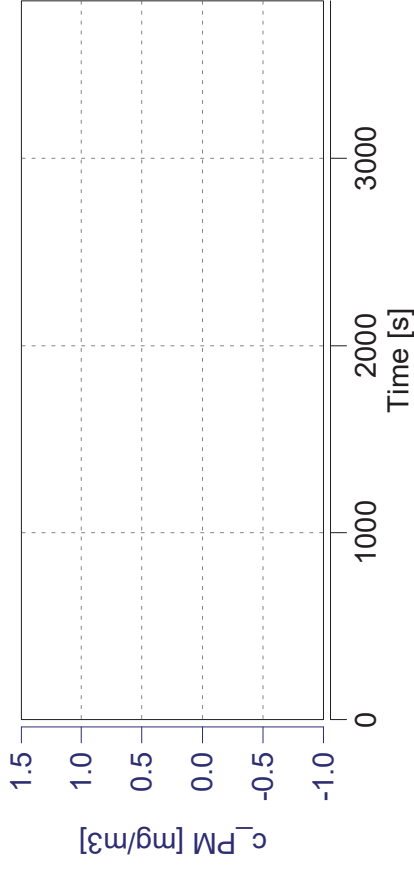
'City'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: Audi A7 / 3.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (3)

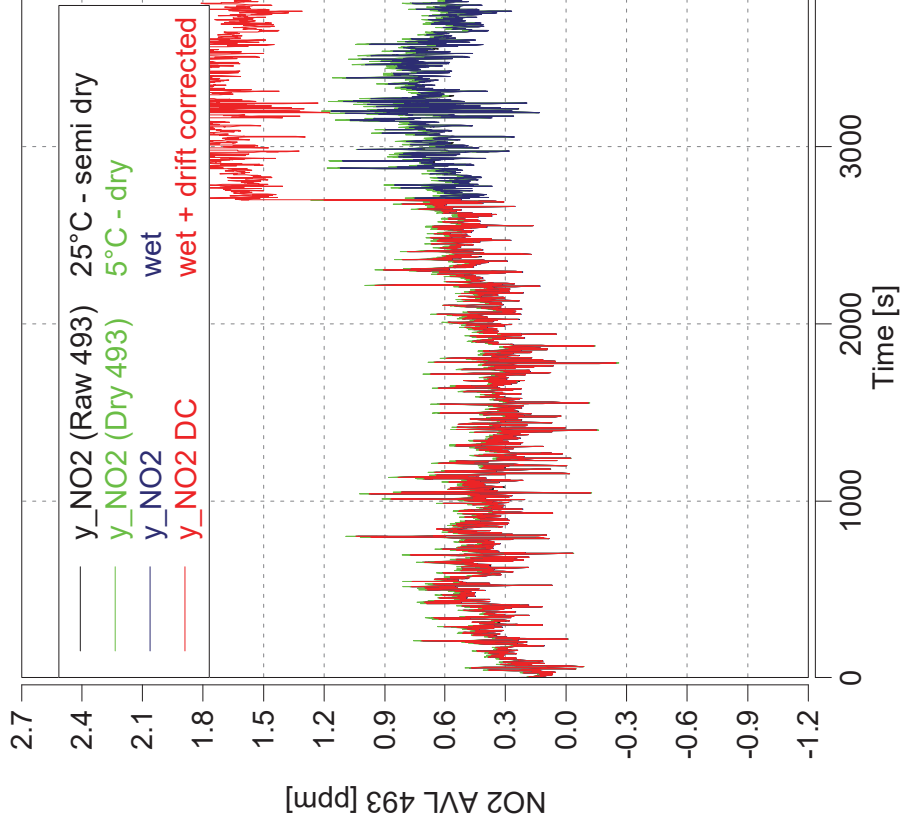
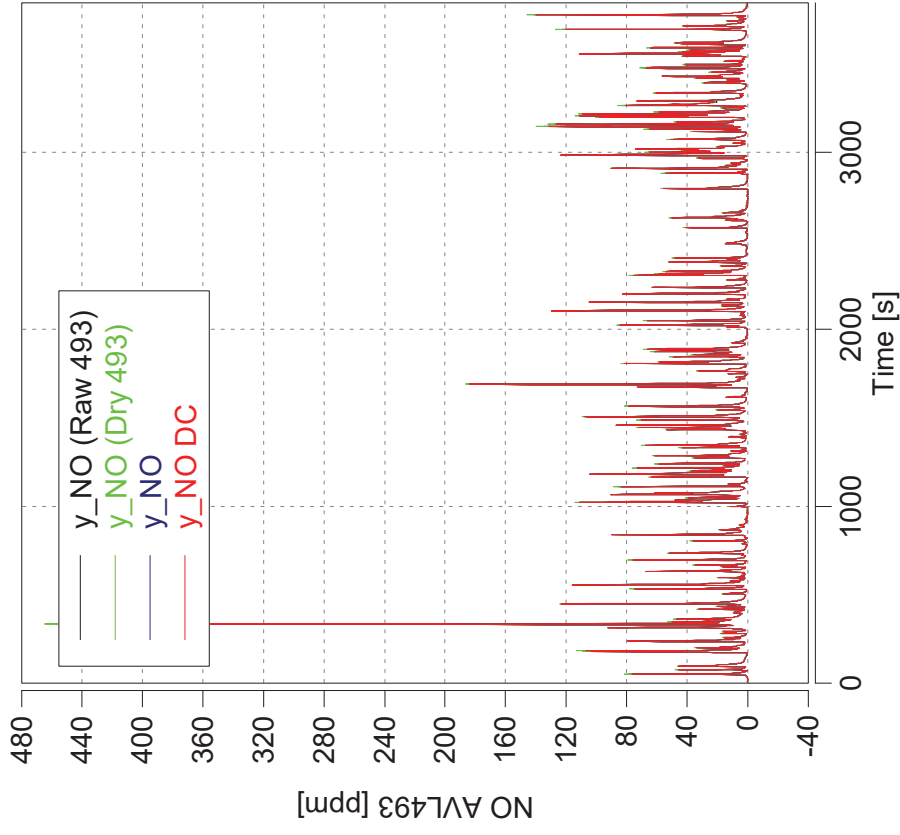
'City'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A7 / 3.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (4) NOx Corrections

NOx - AVL 493

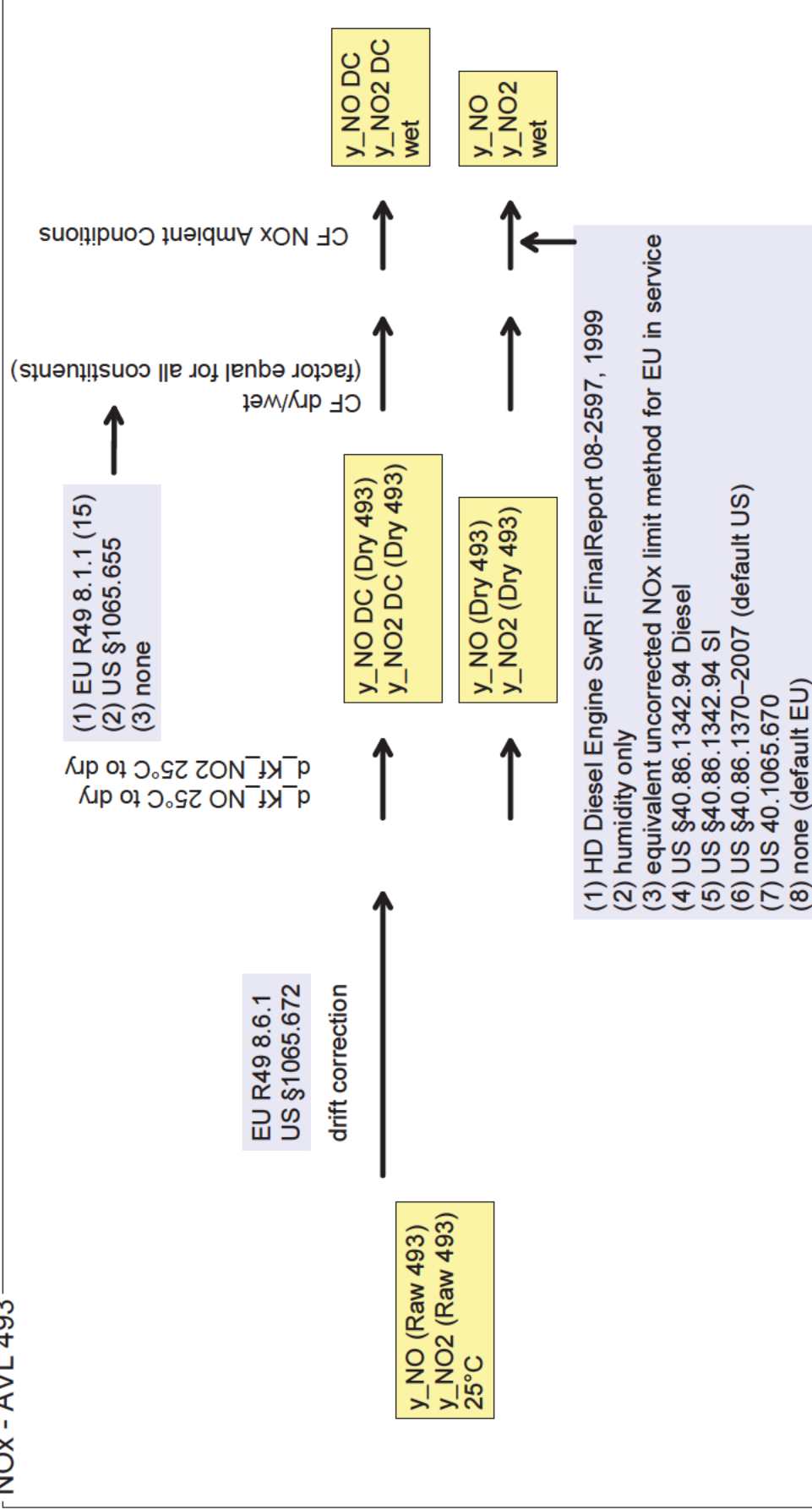
'City'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (5)

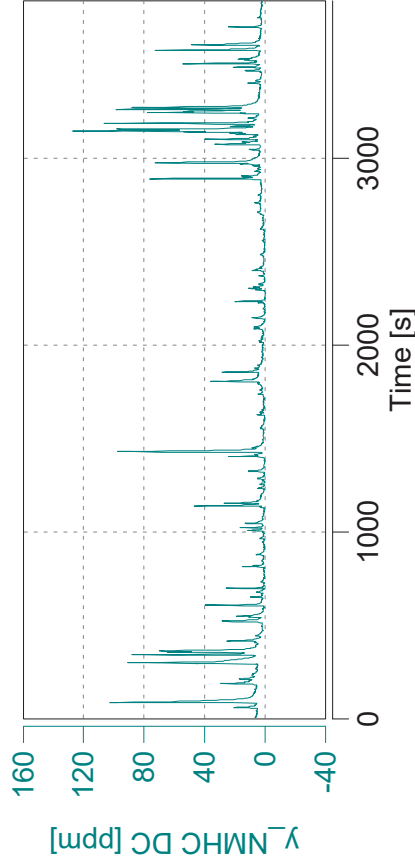
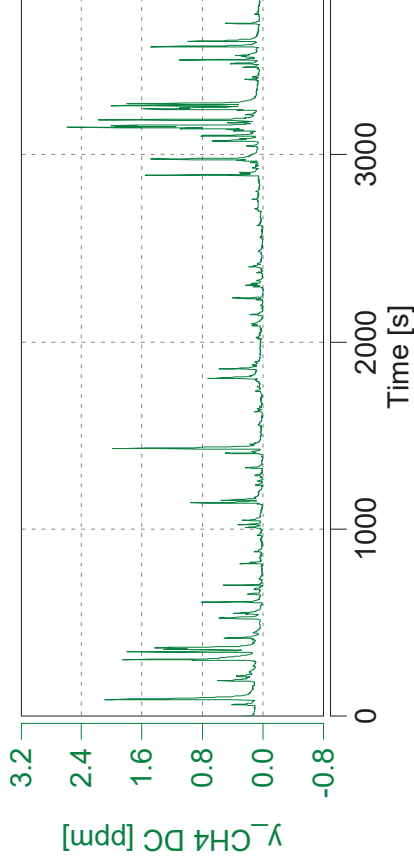
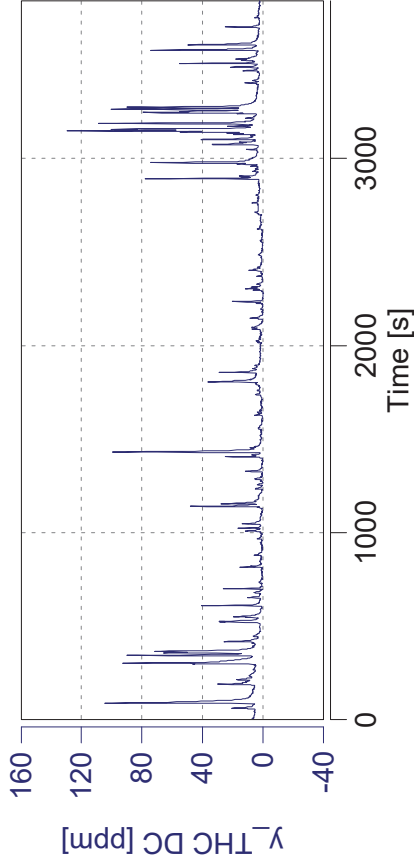
'City'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_0

Vehicle: Audi A7 / 3.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: NO/NO2/NOx Zero - Span

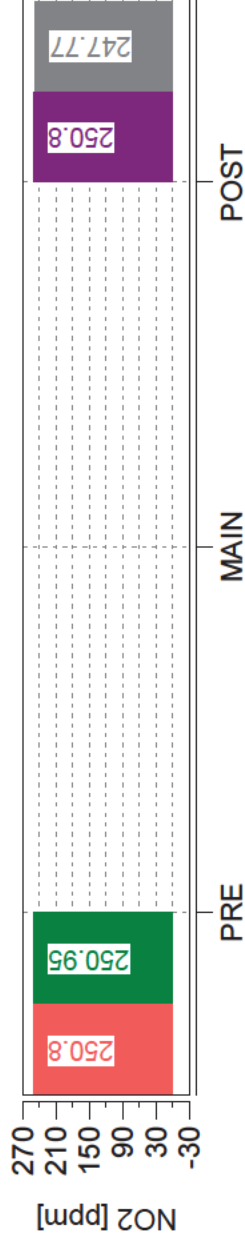
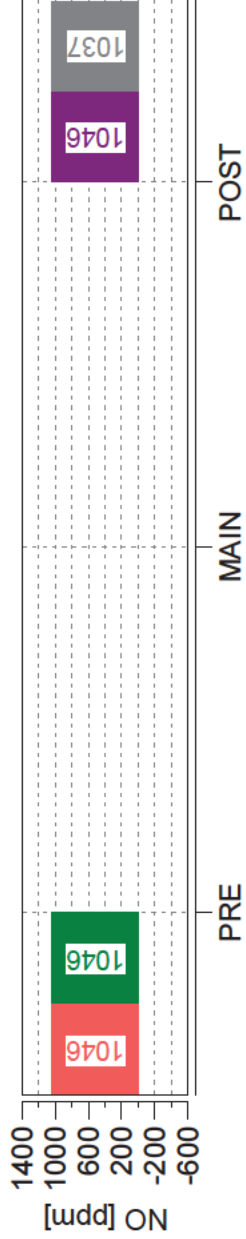
'City'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: CO/CO2 Zero - Span

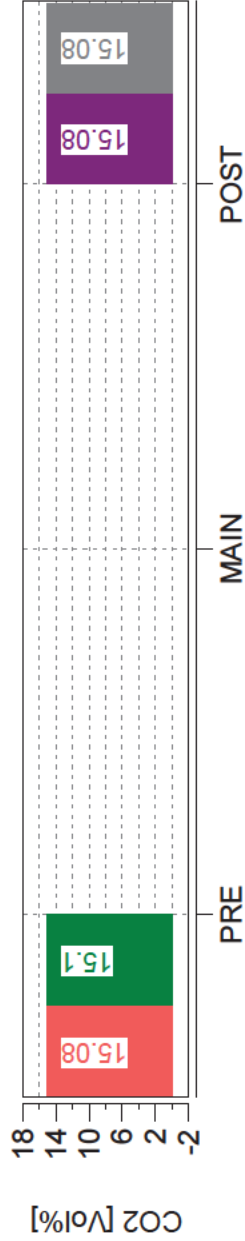
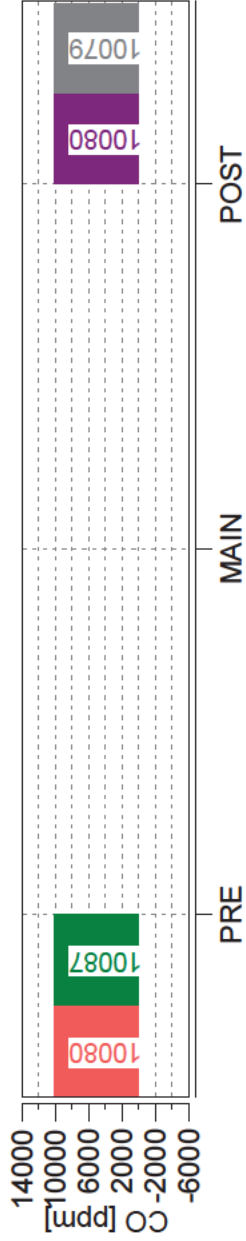
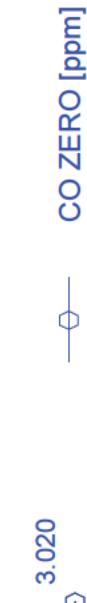
'City'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: THC/CH4 Zero - Span

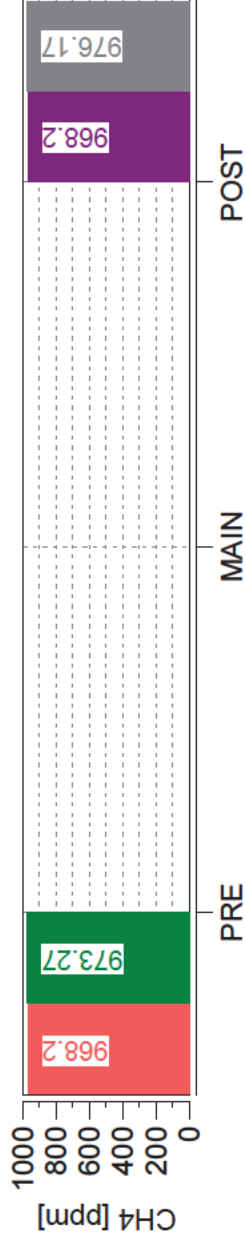
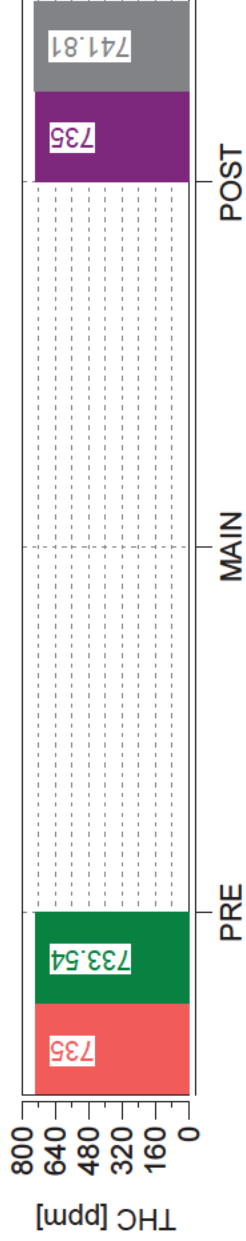
'City'

Start Date: 07/16/2018

Start Time: 11:04:12.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Audi A7 / 3.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: Highway

Page: Trip Summary

'Highway'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E. 2018

Trip Duration	2597.00	s	ave THC	-1.18566	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	2597.00	s	ave NMHC	-1.16195	ppm	BS CO	n/a	g/hphr
Trip Distance	38.25	mi	ave CH4	-0.02371	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	38.25	mi	ave CO	123.08730	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	11.89465	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	4.84016	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.80	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.73	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.70	gall	tot THC	-0.01477	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.67	gall	tot NMHC	-0.01366	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	-0.00033	g	DS CO2	376.54551	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	10.87672	g	DS CO	0.28435	g/mi
Trip Fuel Economy EU (ac)	22.56	mpg_US	tot CO2	14403.53276	g	DS THC	-0.00039	g/mi
Trip Fuel Economy US (ac)	22.87	mpg_US	tot NO (d)	0.30313	g	DS NMHC	-0.00036	g/mi
Trip Av. Eng. Speed	1598.12	rpm	tot NO2	-0.00560	g	DS CH4	-0.00001	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.29754	g	DS NO (d)	0.00792	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	-0.00015	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.00778	g/mi
Trip Exhaust Mass	75.96	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	85.55	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	49.44	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	53.02517	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	2.38737	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Trip Summary Drift Corrected

'Highway'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018

Trip Duration	2597.00	s	ave THC DC	-0.82949	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	2597.00	s	ave NMHC DC	-0.81290	ppm	BS CO DC	n/a	g/hphr
Trip Distance	38.25	mi	ave CH4 DC	-0.01659	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	38.25	mi	ave CO DC	123.11968	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	11.88283	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	4.98711	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.80	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.73	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.70	gall	tot THC DC	-0.00527	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.67	gall	tot NMHC DC	-0.00487	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	-0.00012	g	DS CO2 DC	376.17133	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	10.88253	g	DS CO DC	0.28450	g/mi
Trip Fuel Economy EU (ac)	22.56	mpg_US	tot CO2 DC	14389.21988	g	DS THC DC	-0.00014	g/mi
Trip Fuel Economy US (ac)	22.87	mpg_US	tot NO DC (d)	0.30890	g	DS NMHC DC	-0.00013	g/mi
Trip Av. Eng. Speed	1598.12	rpm	tot NO2 DC	-0.00200	g	DS CH4 DC	-0.00000	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.30690	g	DS NO DC (d)	0.00808	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	-0.00005	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.00802	g/mi
Trip Exhaust Mass	75.96	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	85.55	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	49.44	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	53.02517	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	2.38737	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment Check

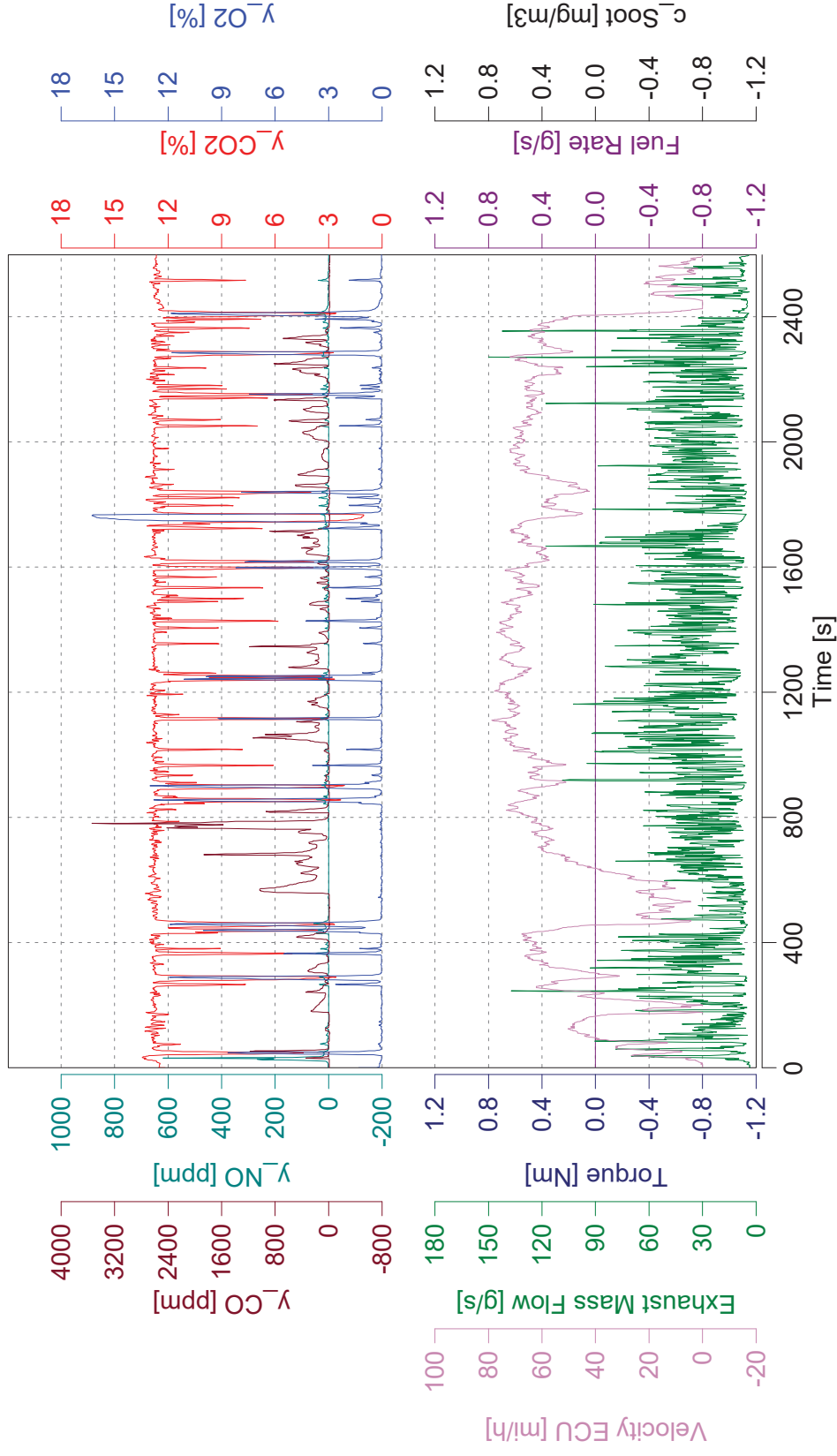
'Highway'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment of Gas Concentrations

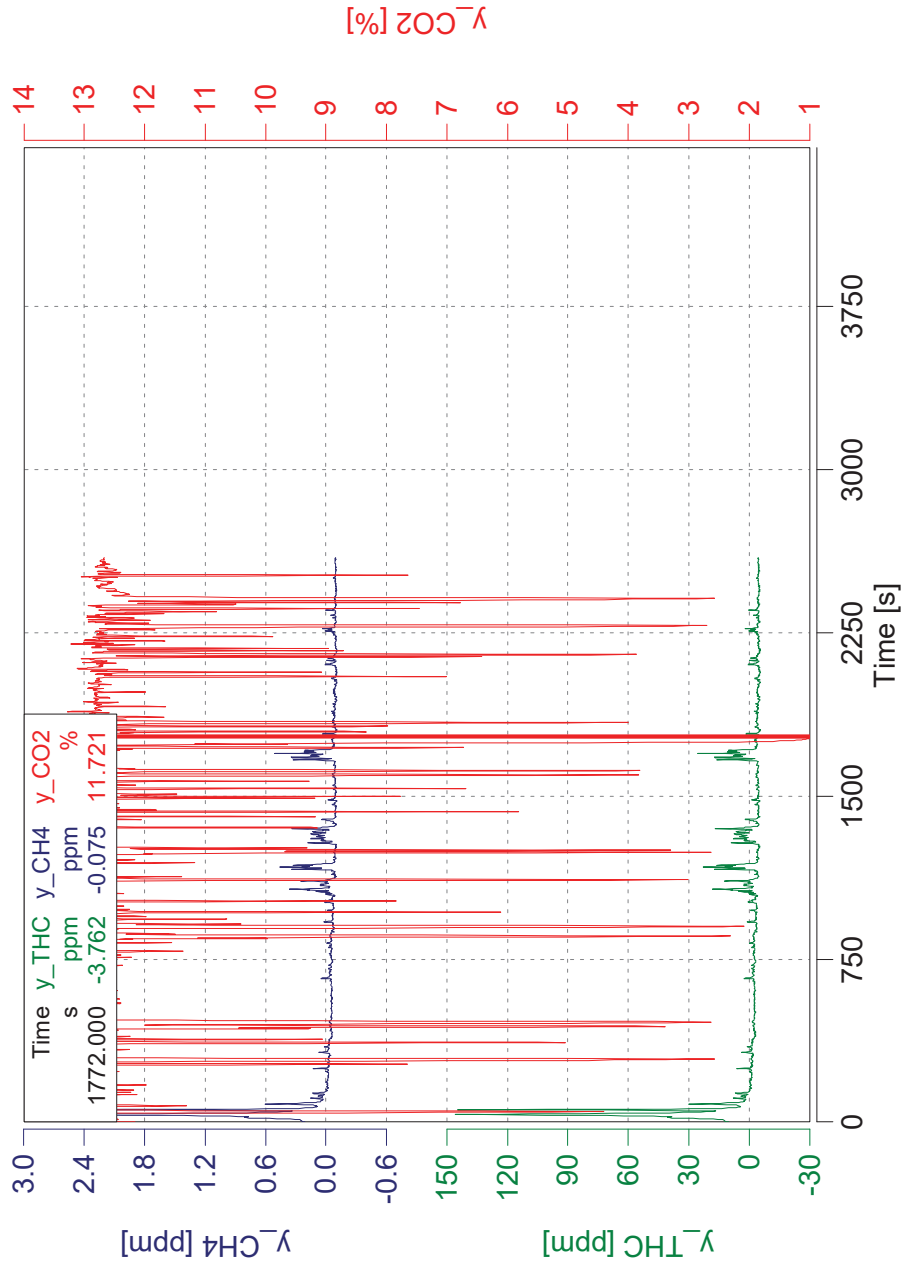
'Highway'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Ambient Conditions

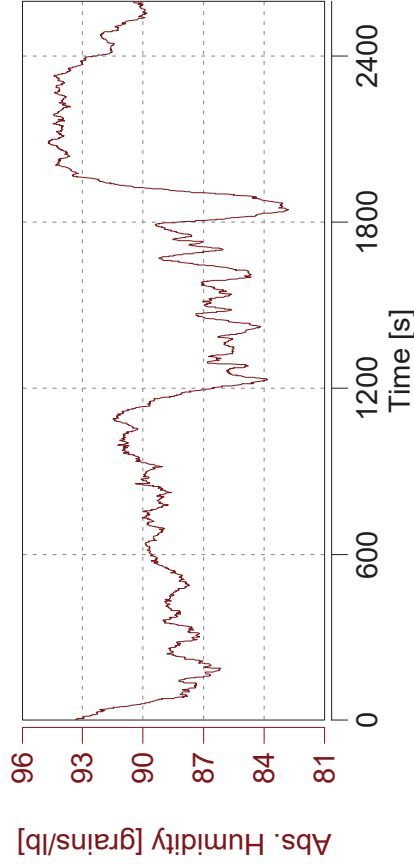
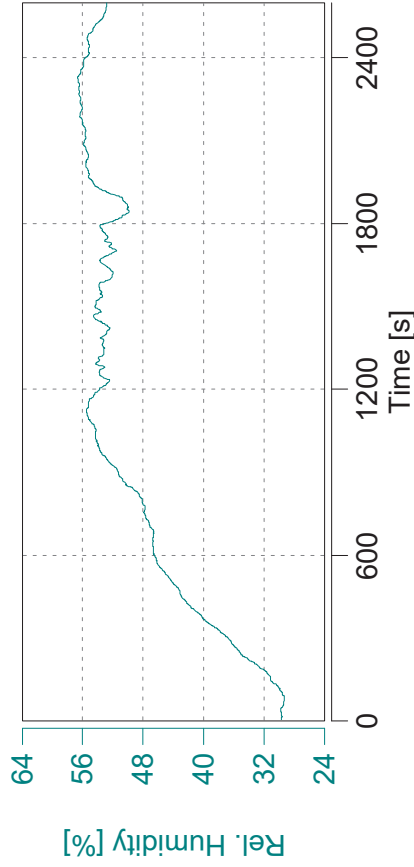
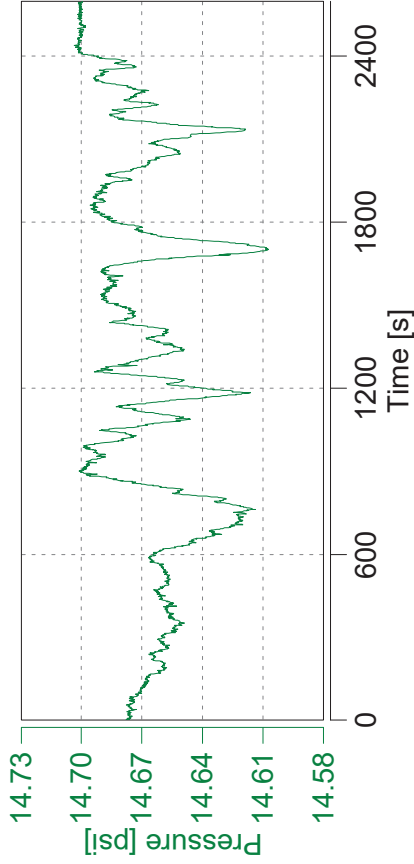
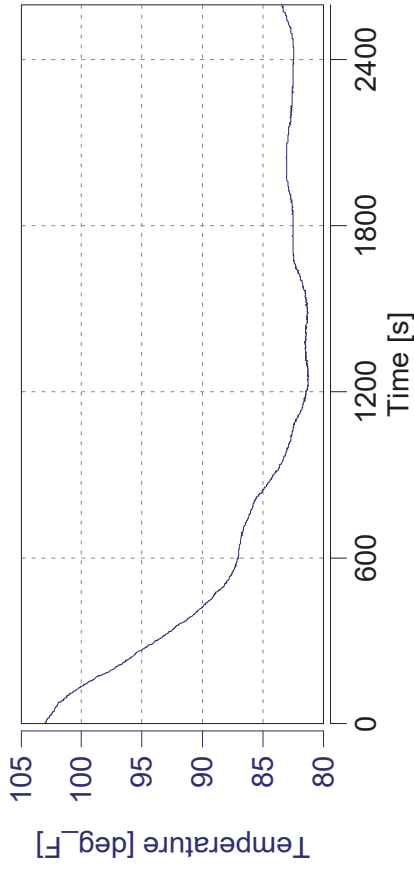
'Highway'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: GPS

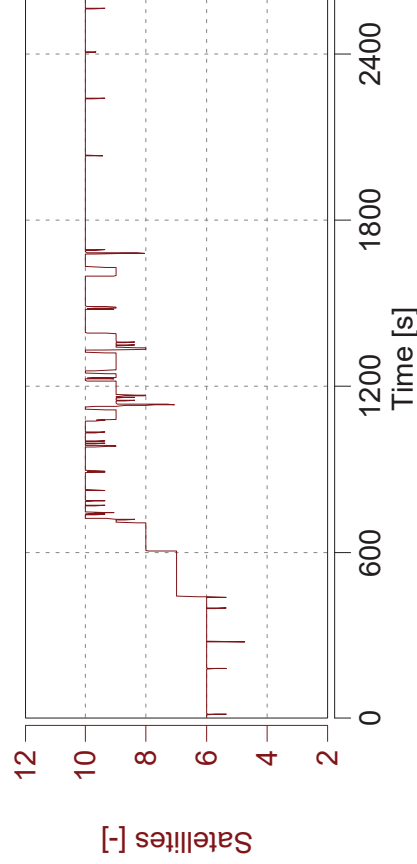
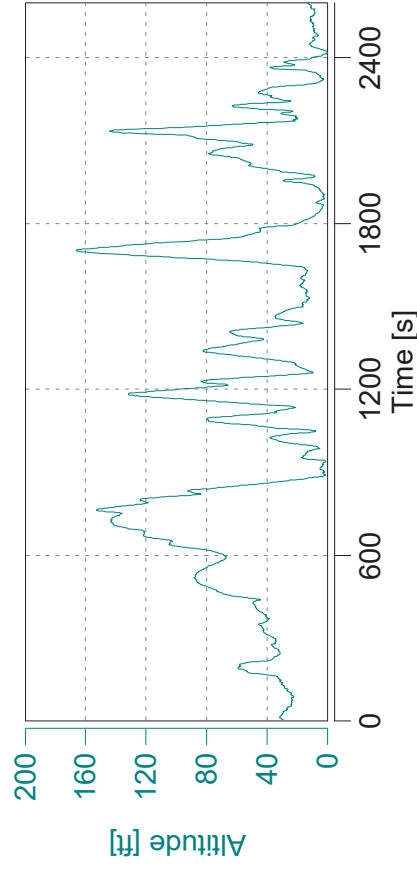
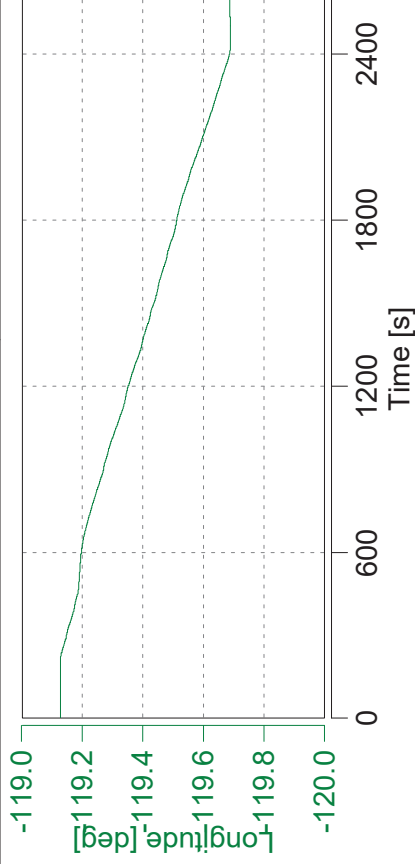
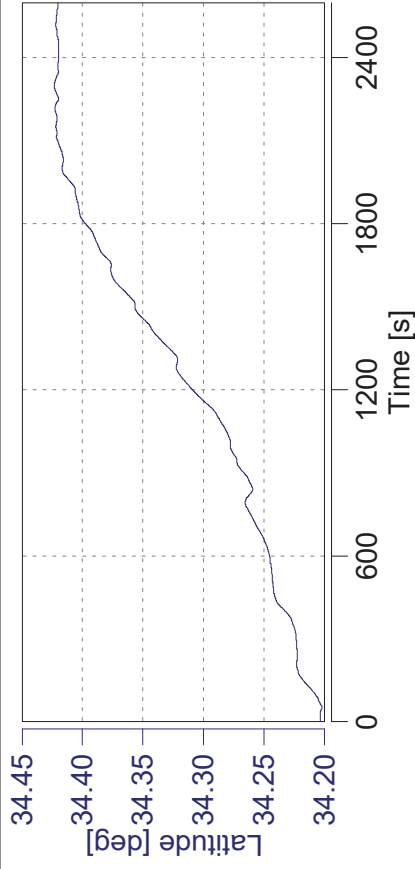
'Highway'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (1)

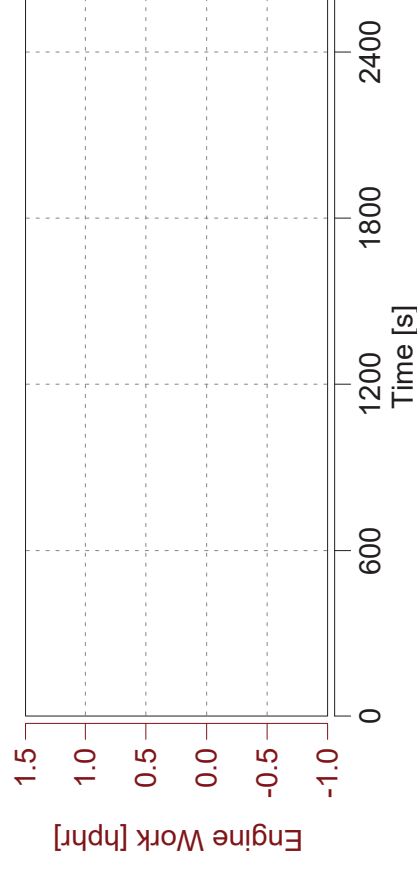
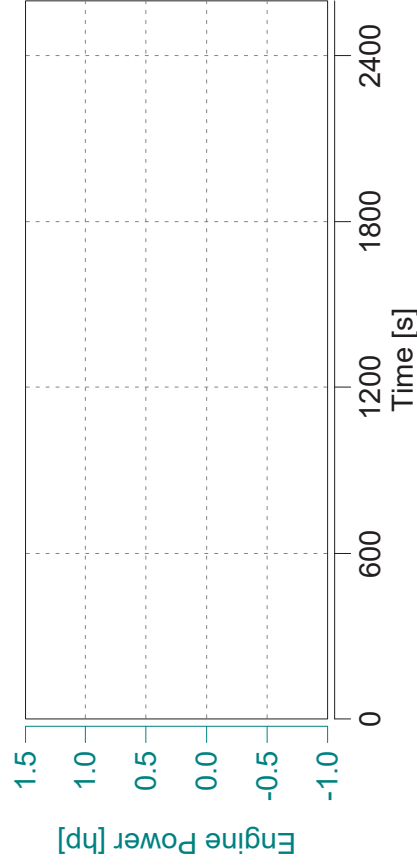
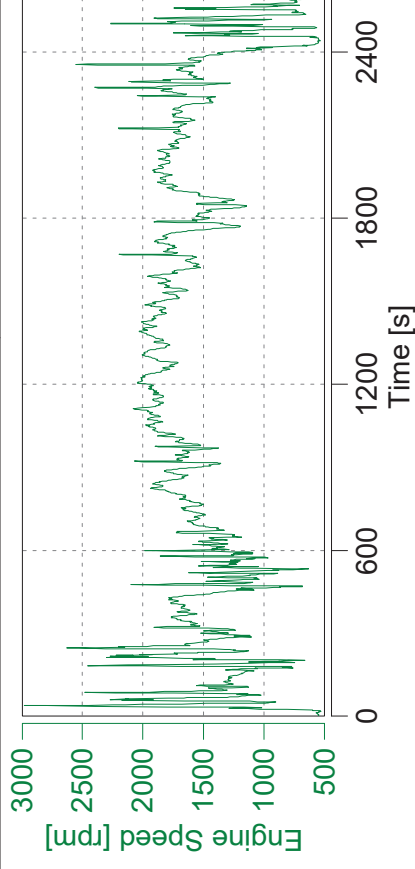
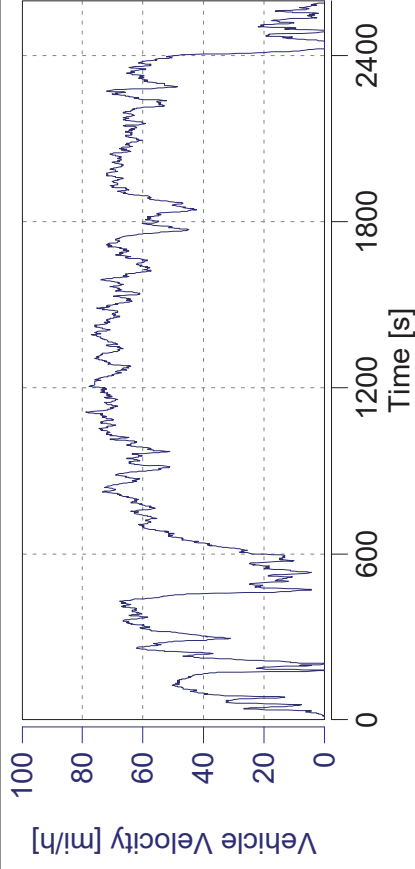
'Highway'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (2)

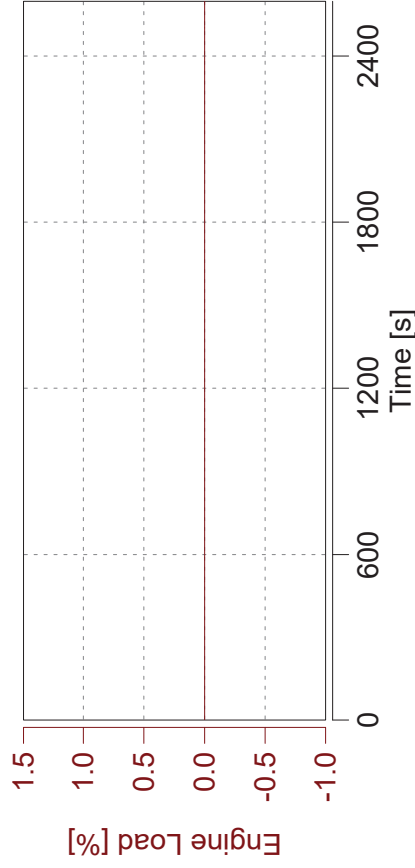
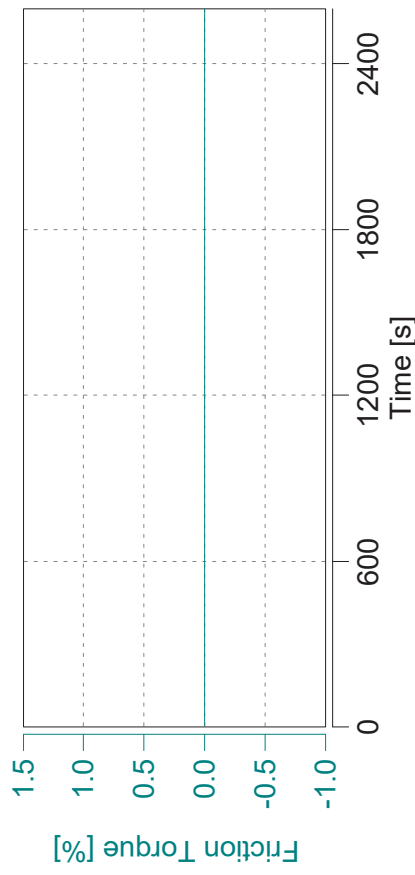
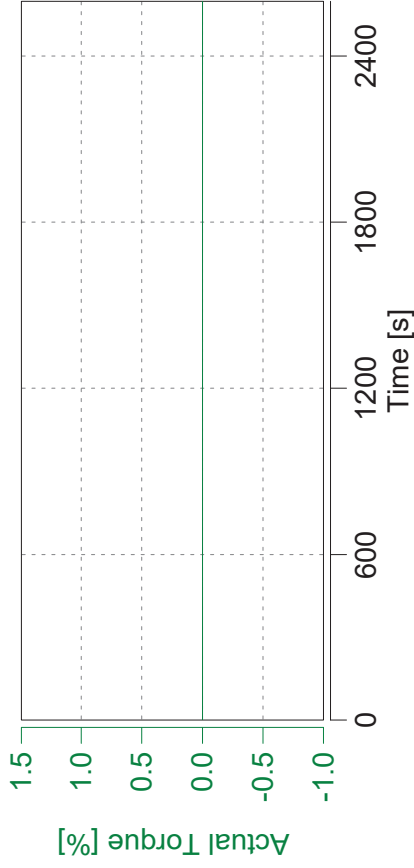
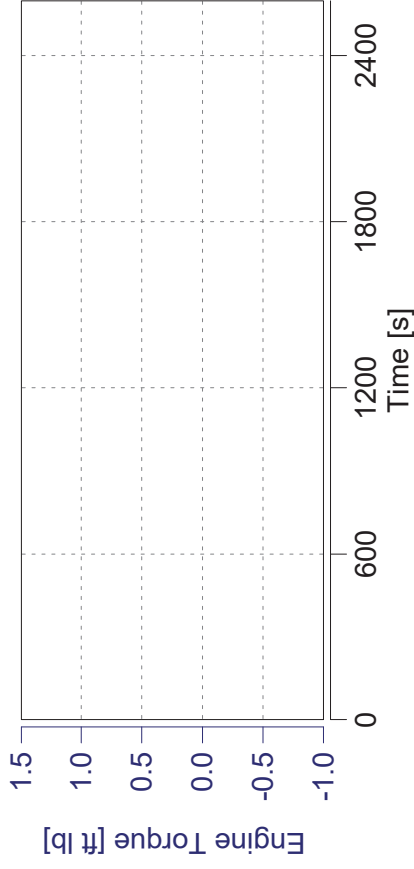
'Highway'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (3)

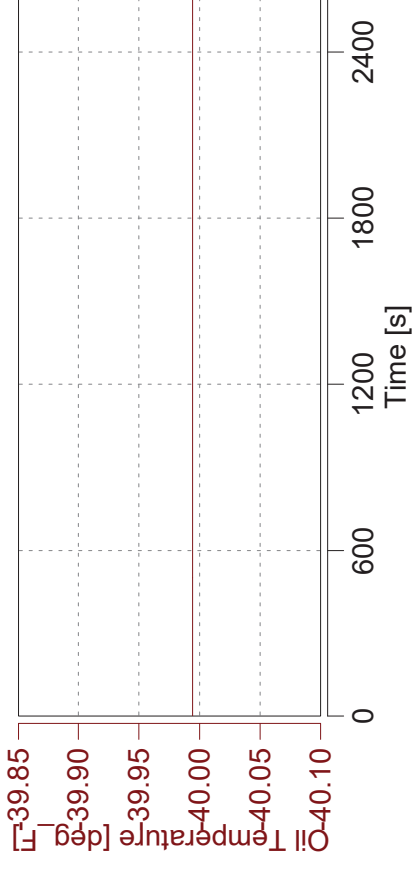
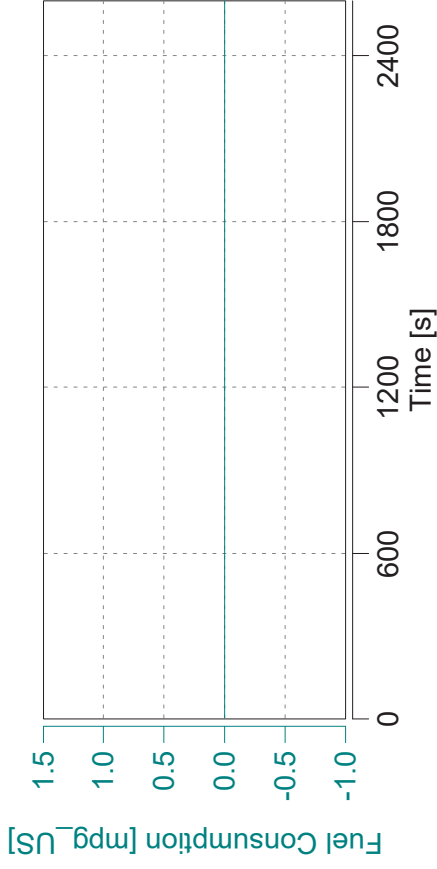
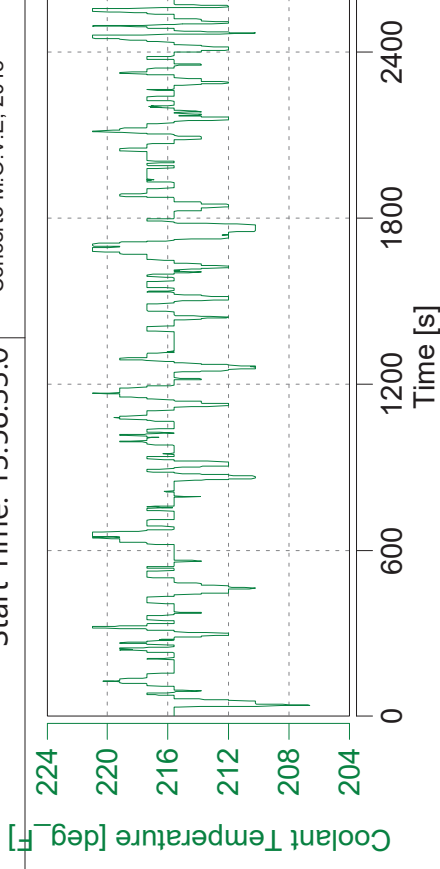
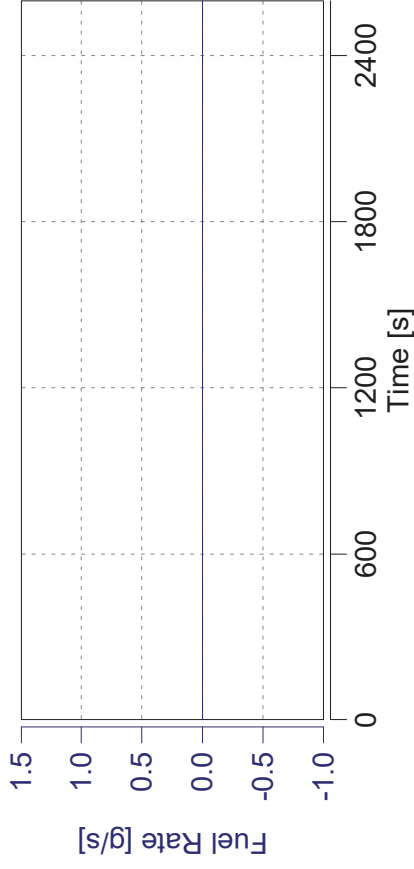
'Highway'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



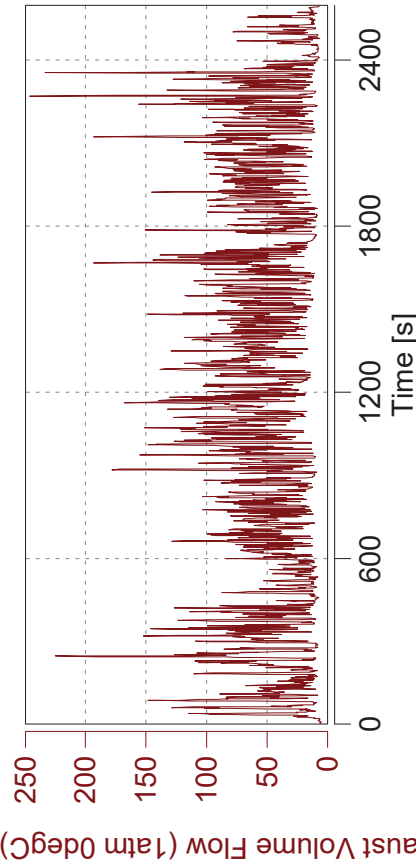
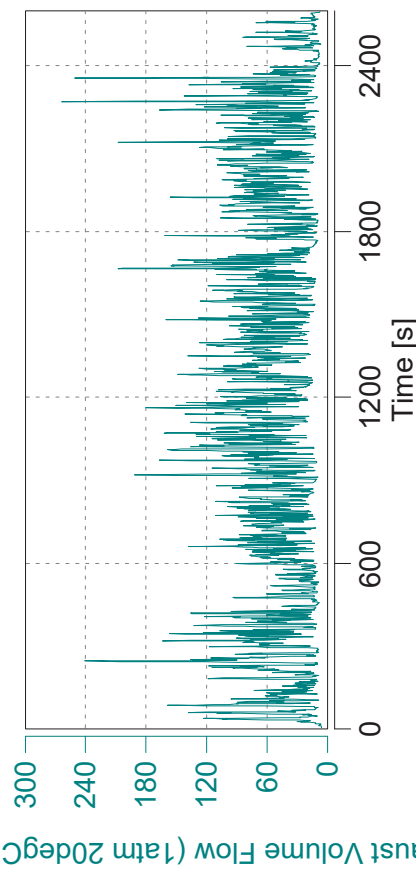
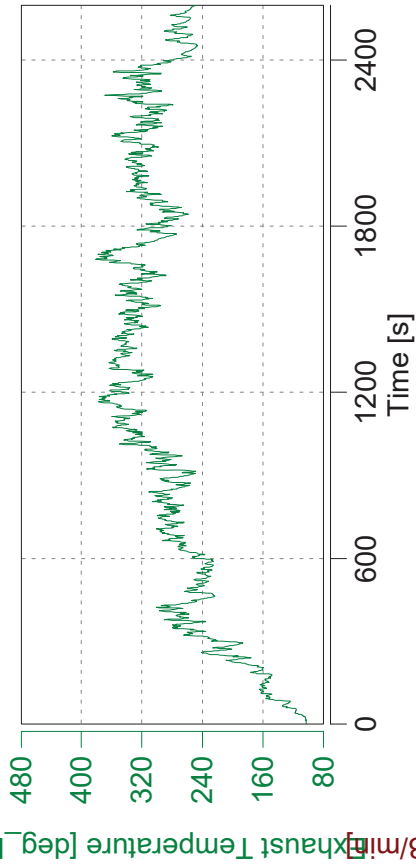
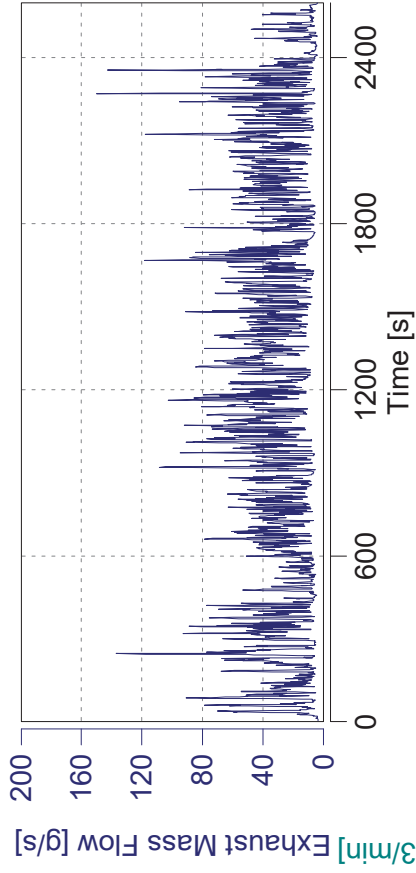
Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

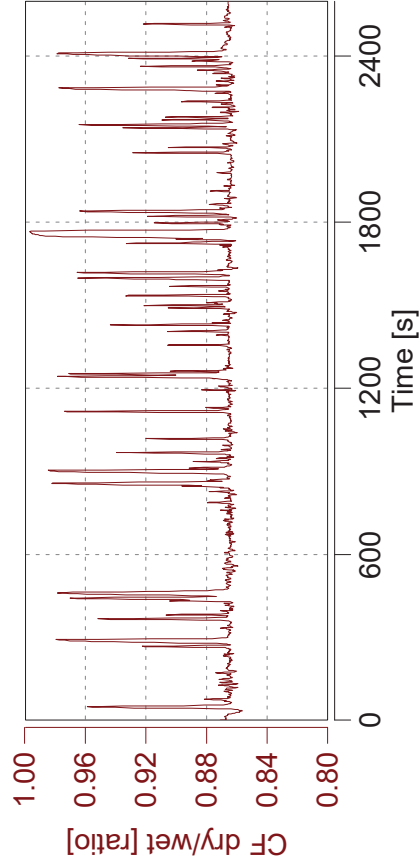
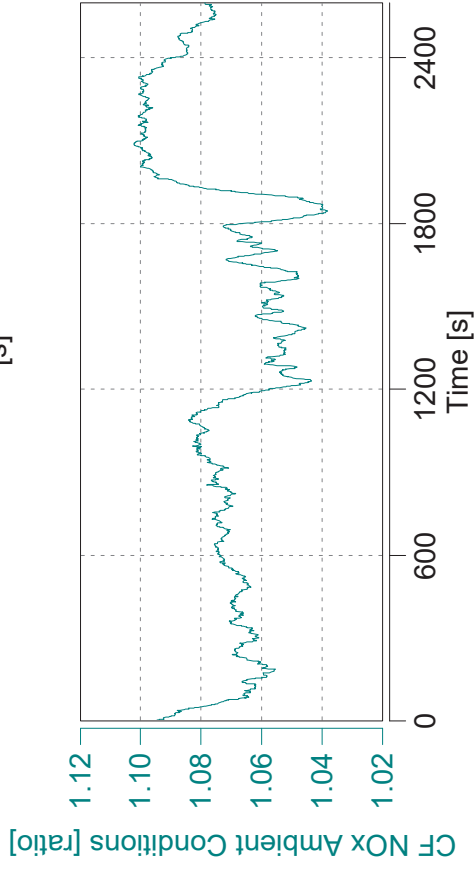
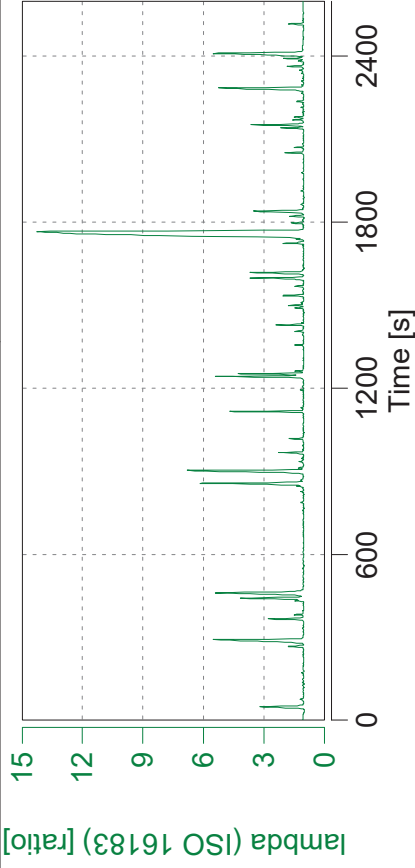
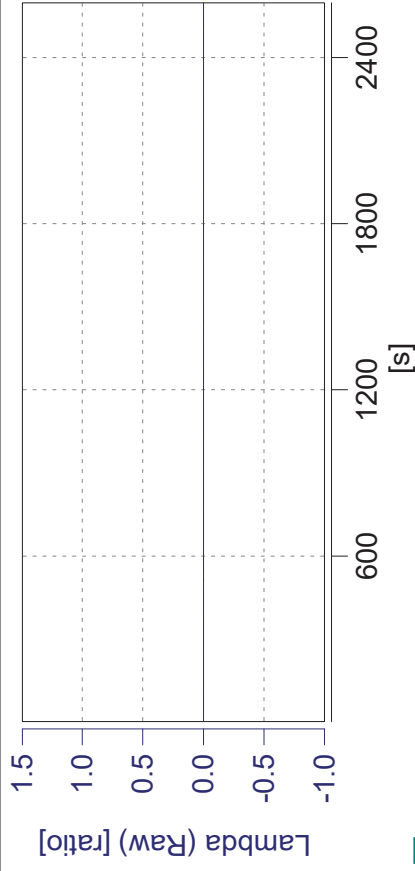
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90



Concerto Version: 480 Build 316, Serial Number: 1120
 M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L
 Engine: /
 NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
 Dry / Wet Corr.: 2 - CFR40 §86.1342-90



Case: Highway

Page: Corrected Emissions (1)

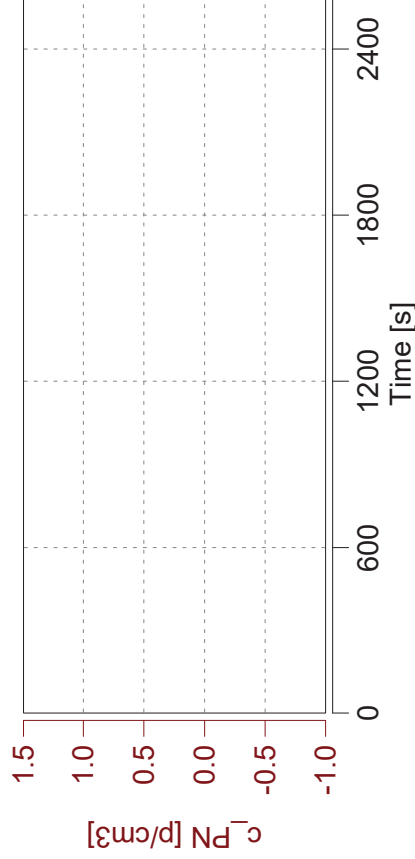
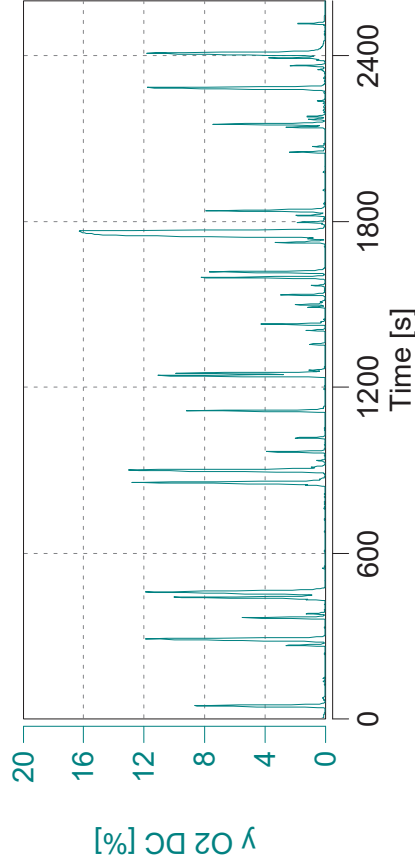
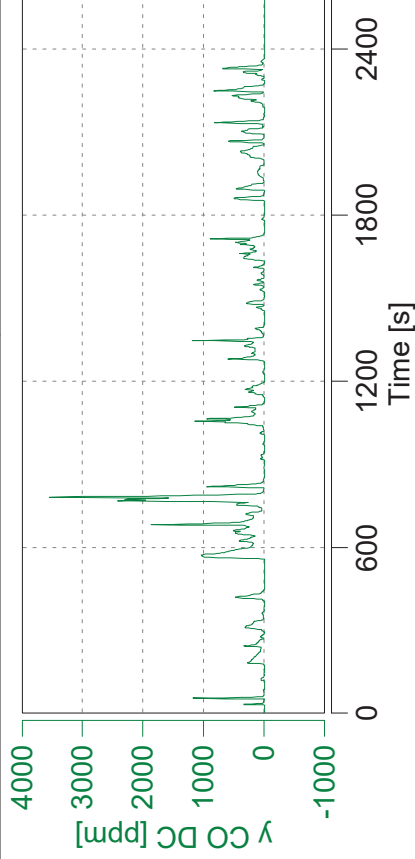
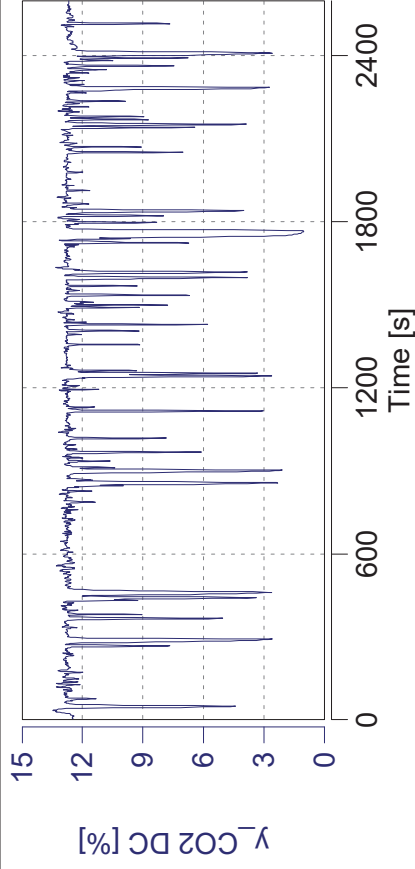
'Highway'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (2)

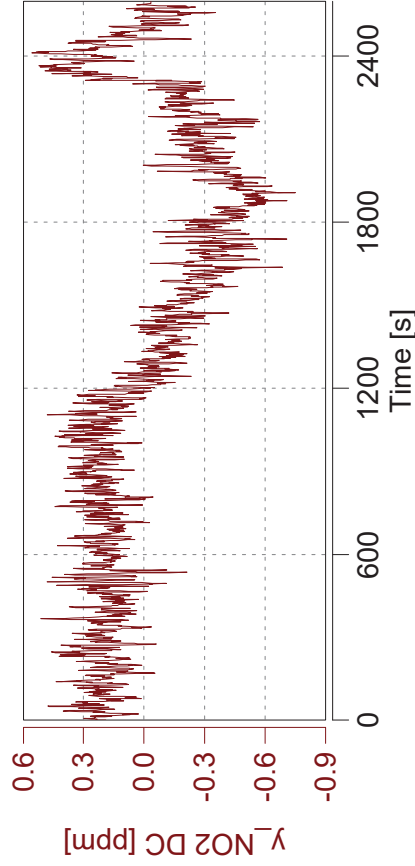
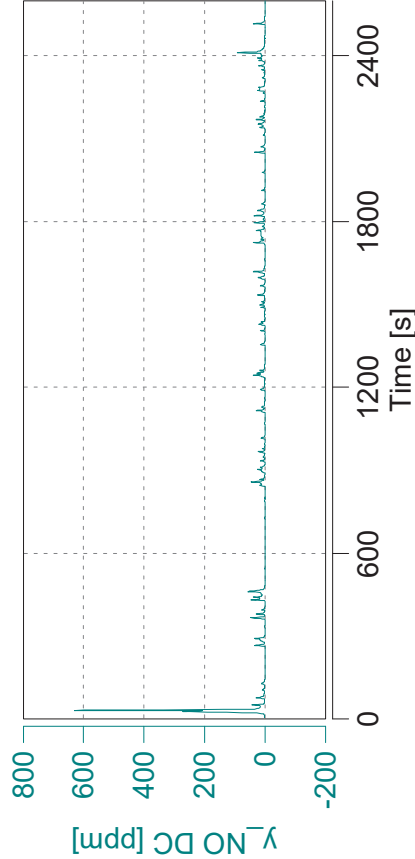
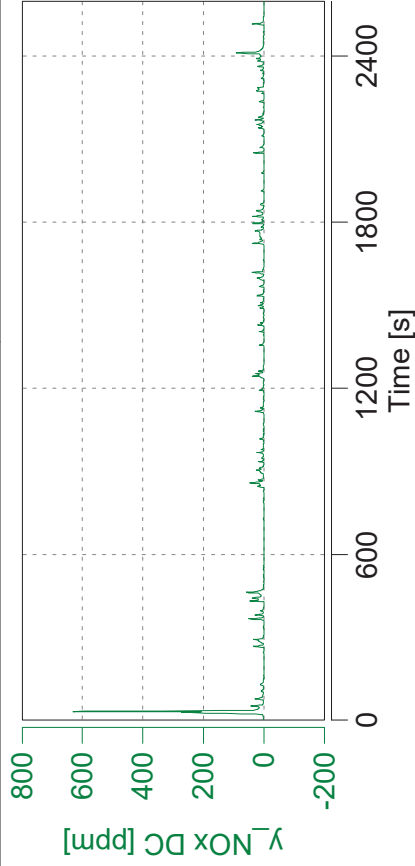
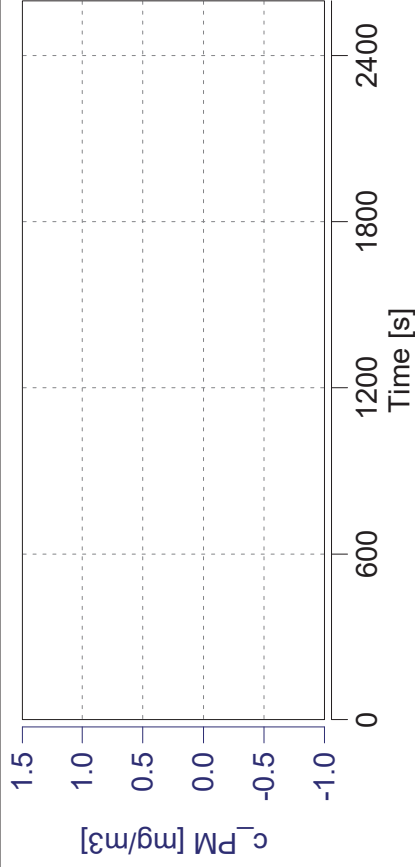
'Highway'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (3)

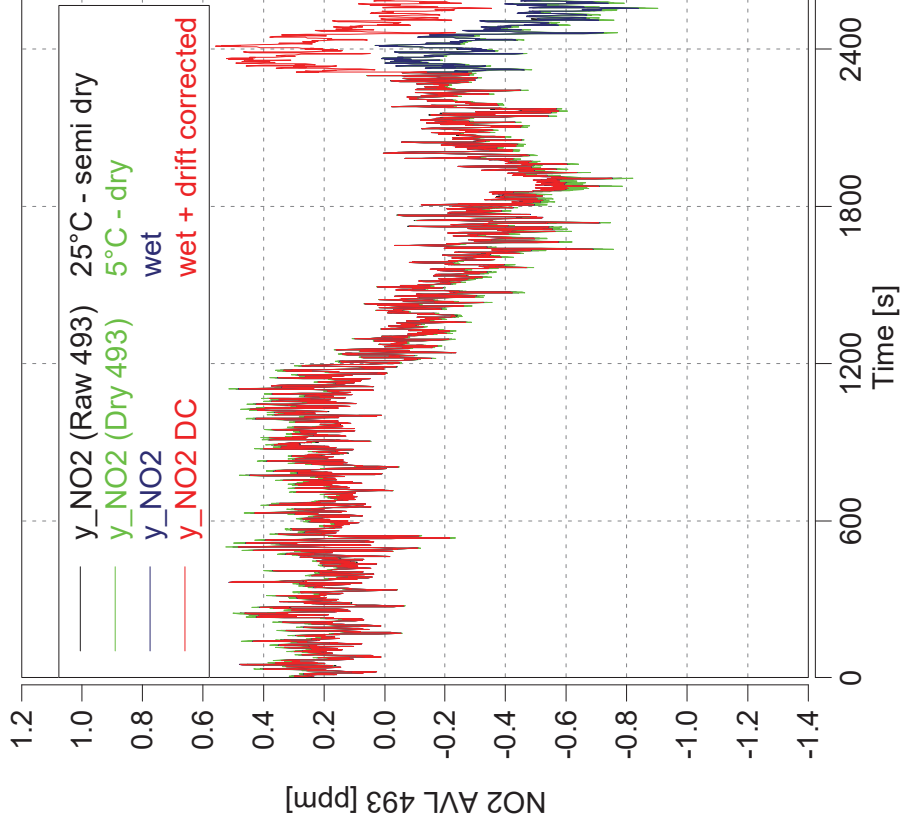
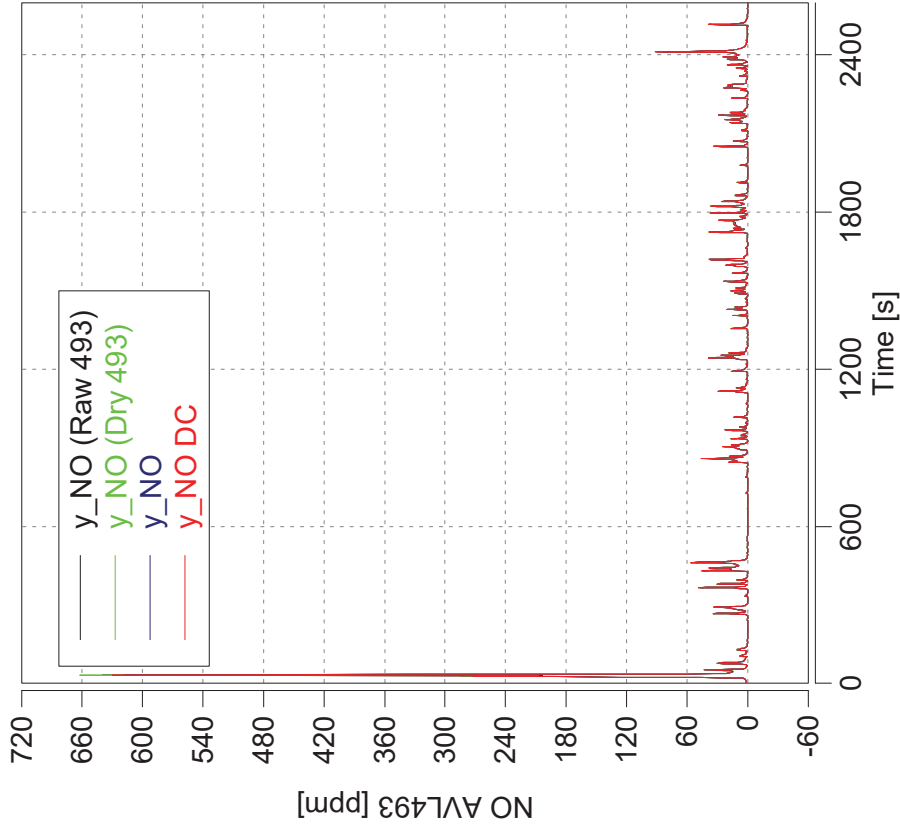
'Highway'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (4) NOx Corrections

'Highway'

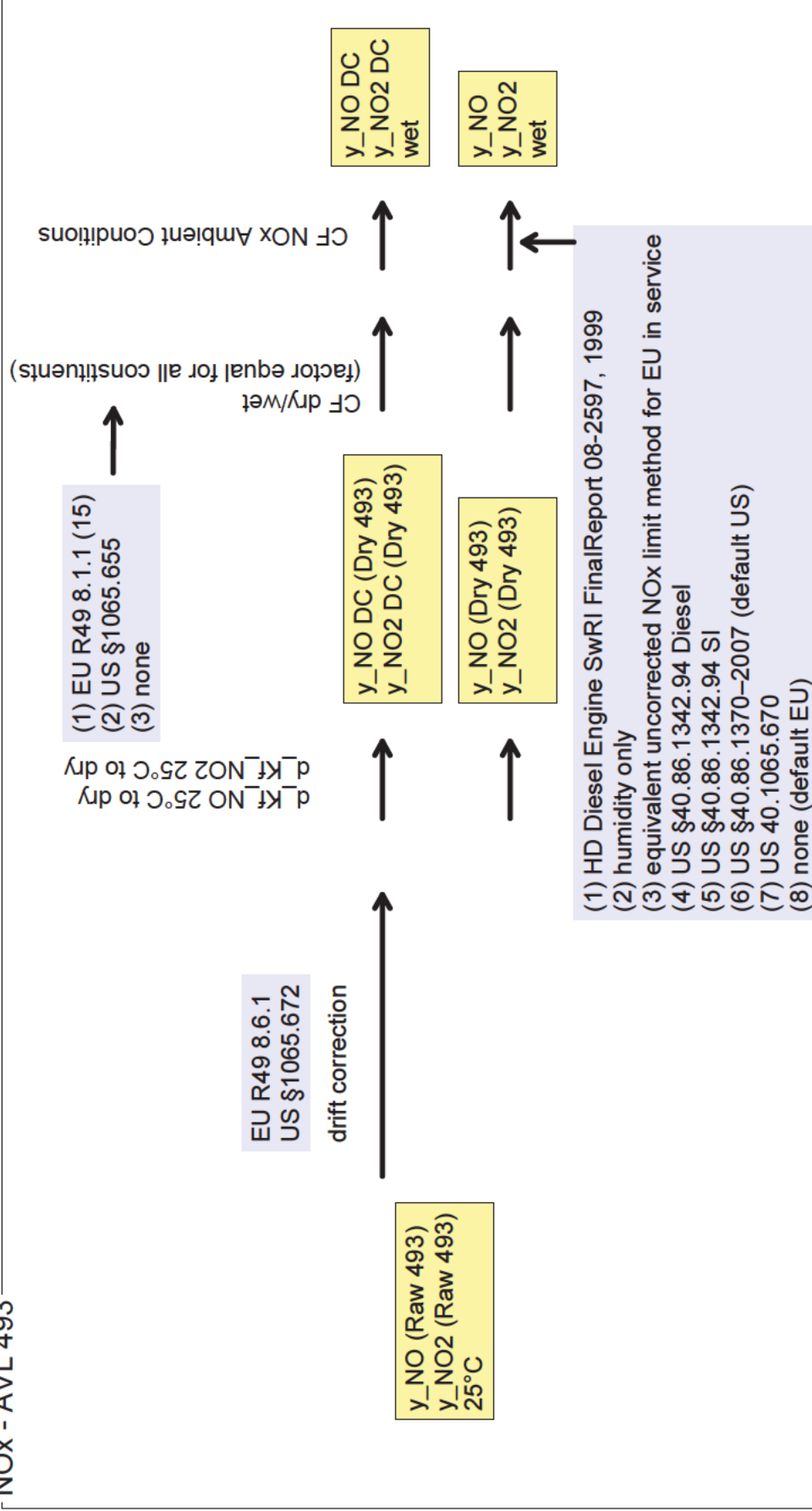
Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Audi A8 / 4.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (5)

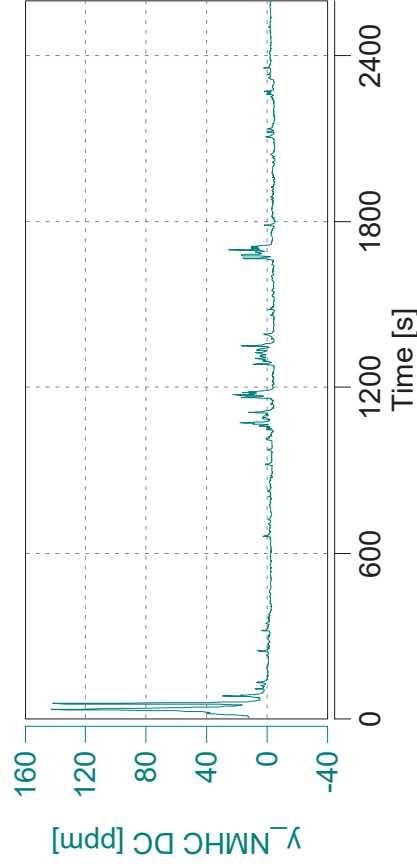
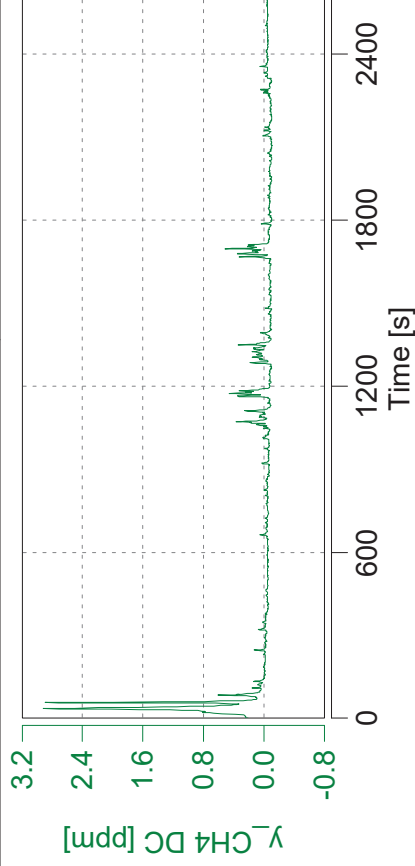
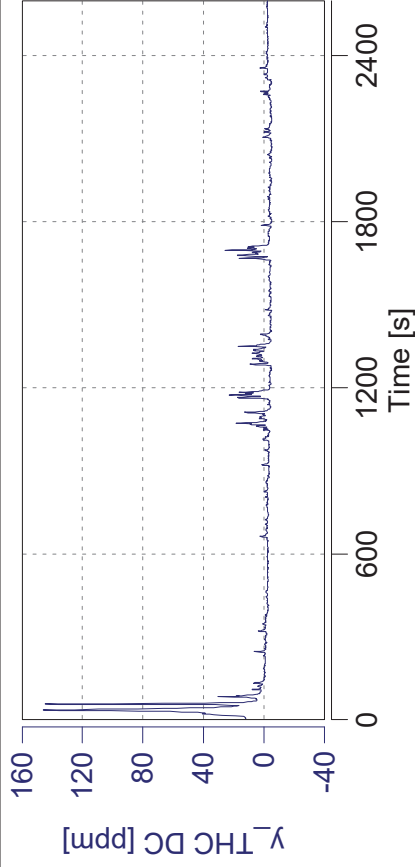
'Highway'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: NO/NO2/NOx Zero - Span

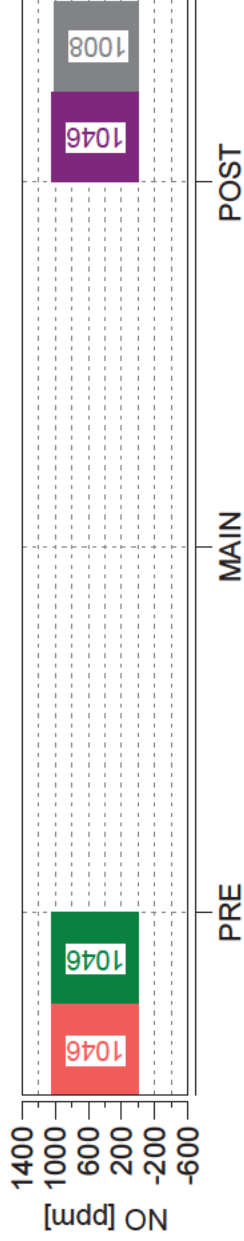
'Highway'

Start Date: 07/19/2018

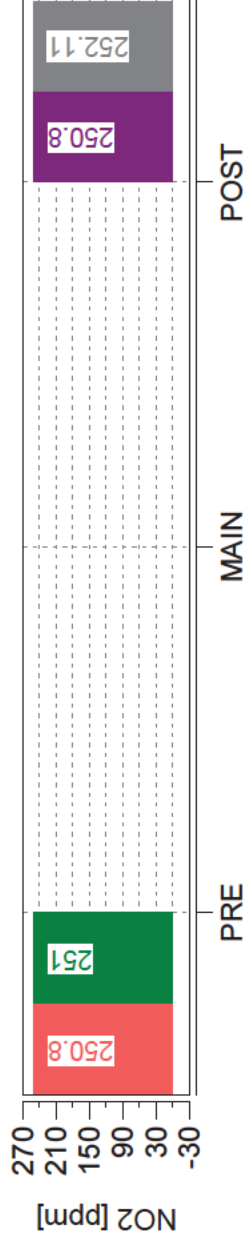
Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



GP_NO_Cal_gas_value
 GP_NO_Adjust_Actual
 GP_NO_Reference
 GP_NO_Audit_Actual



GP_NO2_Cal_gas_value
 GP_NO2_Adjust_Actual
 GP_NO2_Reference
 GP_NO2_Audit_Actual

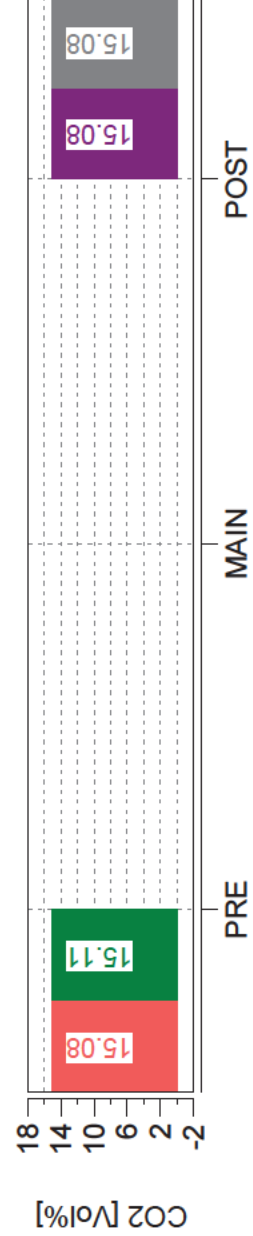
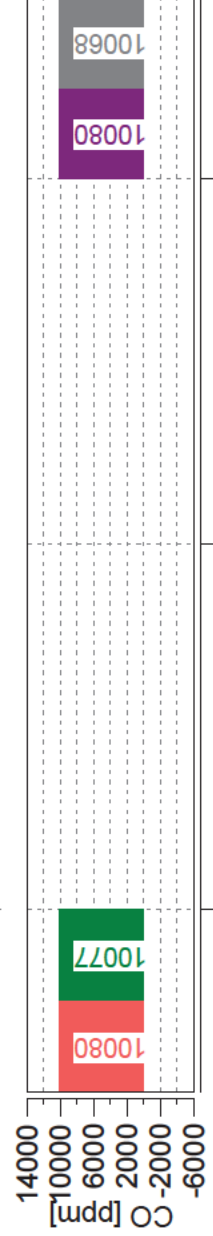
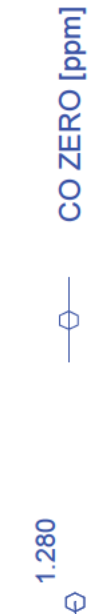
Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90



Case: Highway

Page: THC/CH4 Zero - Span

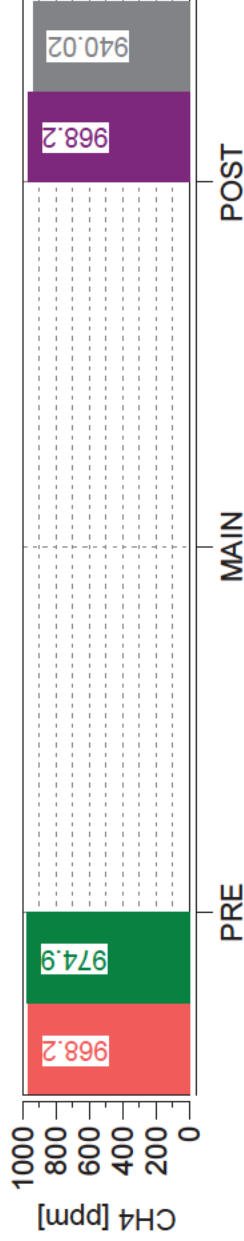
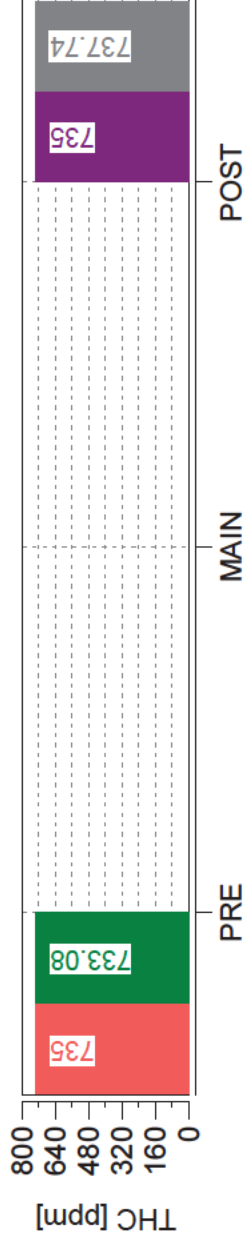
'Highway'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary

'Mountain'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E. 2018

Trip Duration	3191.00	s	ave THC	-1.31993	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3191.00	s	ave NMHC	-1.29353	ppm	BS CO	n/a	g/hphr
Trip Distance	28.67	mi	ave CH4	-0.02640	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	28.67	mi	ave CO	82.11470	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	10.68035	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	14.20508	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.61	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.55	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.63	gall	tot THC	0.02834	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.61	gall	tot NMHC	0.02621	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00063	g	DS CO2	483.15735	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	10.12213	g	DS CO	0.35302	g/mi
Trip Fuel Economy EU (ac)	17.59	mpg_US	tot CO2	13853.48351	g	DS THC	0.00099	g/mi
Trip Fuel Economy US (ac)	17.82	mpg_US	tot NO (d)	1.88234	g	DS NMHC	0.00091	g/mi
Trip Av. Eng. Speed	1691.55	rpm	tot NO2	0.01317	g	DS CH4	0.00002	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	1.89551	g	DS NO (d)	0.06565	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00046	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.06611	g/mi
Trip Exhaust Mass	82.05	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	84.26	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	49.70	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	32.34790	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	10.02820	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary Drift Corrected

'Mountain'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018

Trip Duration	3191.00	s	ave THC DC	-1.19863	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3191.00	s	ave NMHC DC	-1.17466	ppm	BS CO DC	n/a	g/hphr
Trip Distance	28.67	mi	ave CH4 DC	-0.02397	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	28.67	mi	ave CO DC	82.17707	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	10.66974	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	14.46439	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.61	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.55	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.63	gall	tot THC DC	0.03324	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.61	gall	tot NMHC DC	0.03075	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00074	g	DS CO2 DC	482.67723	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	10.12981	g	DS CO DC	0.35329	g/mi
Trip Fuel Economy EU (ac)	17.59	mpg_US	tot CO2 DC	13839.71721	g	DS THC DC	0.00116	g/mi
Trip Fuel Economy US (ac)	17.82	mpg_US	tot NO DC (d)	1.91686	g	DS NMHC DC	0.00107	g/mi
Trip Av. Eng. Speed	1691.55	rpm	tot NO2 DC	0.01313	g	DS CH4 DC	0.00003	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	1.92999	g	DS NO DC (d)	0.06685	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00046	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.06731	g/mi
Trip Exhaust Mass	82.05	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	84.26	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	49.70	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	32.34790	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	10.02820	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment Check

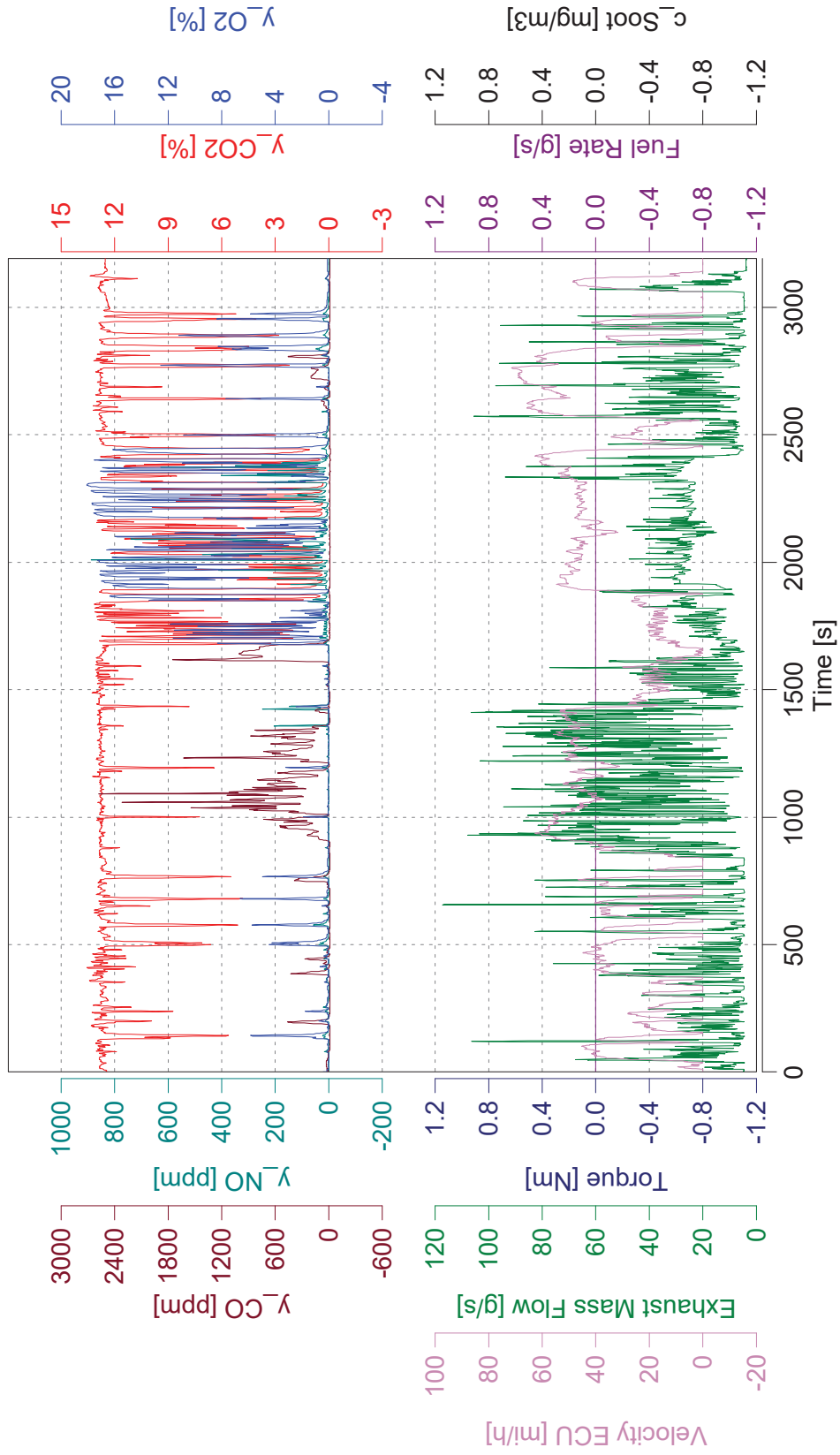
'Mountain'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316(CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment of Gas Concentrations

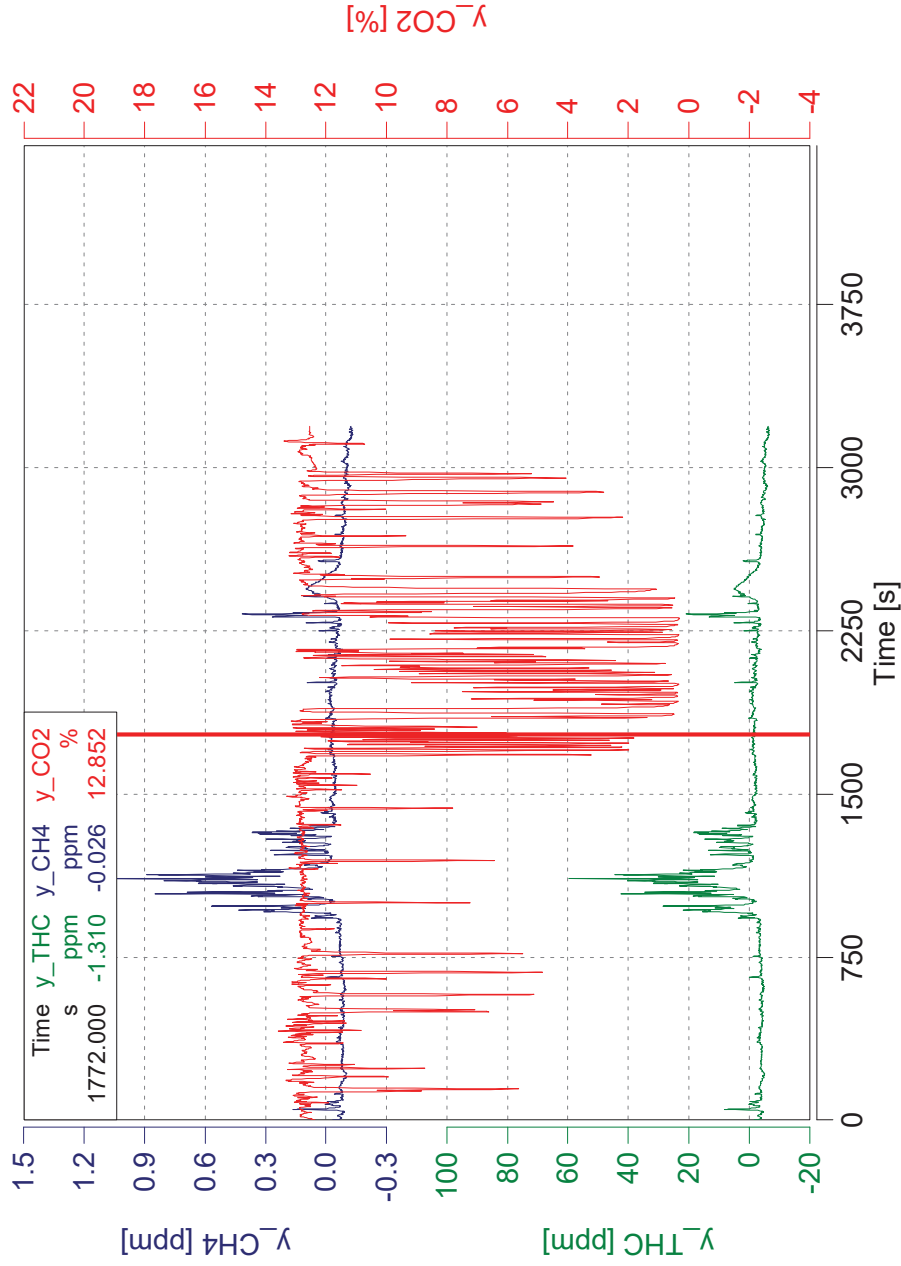
'Mountain'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Ambient Conditions

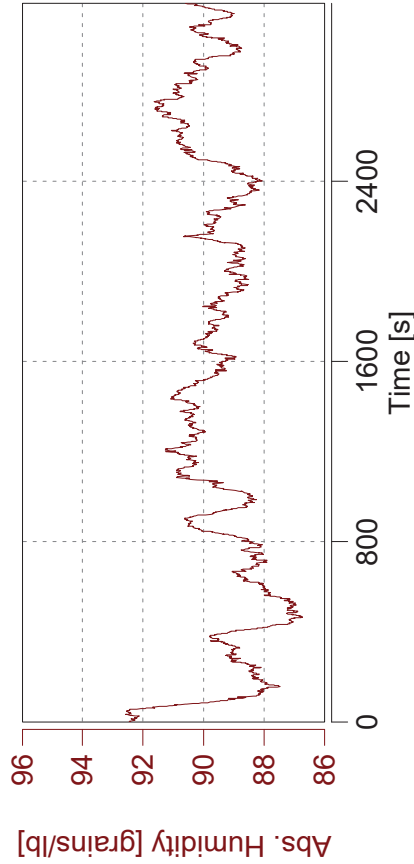
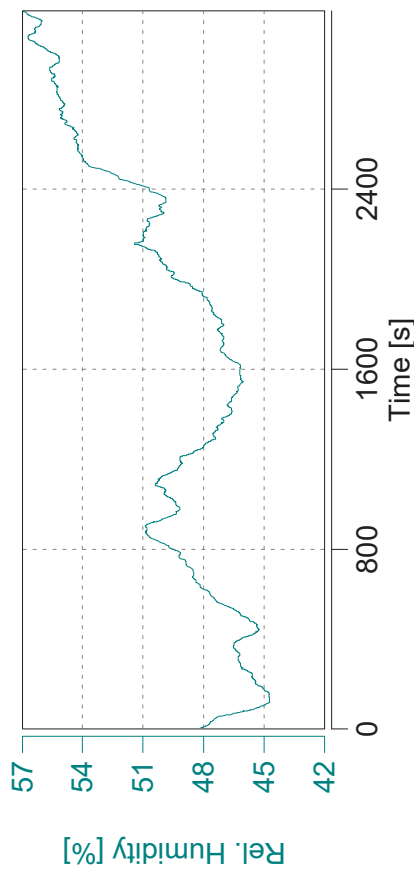
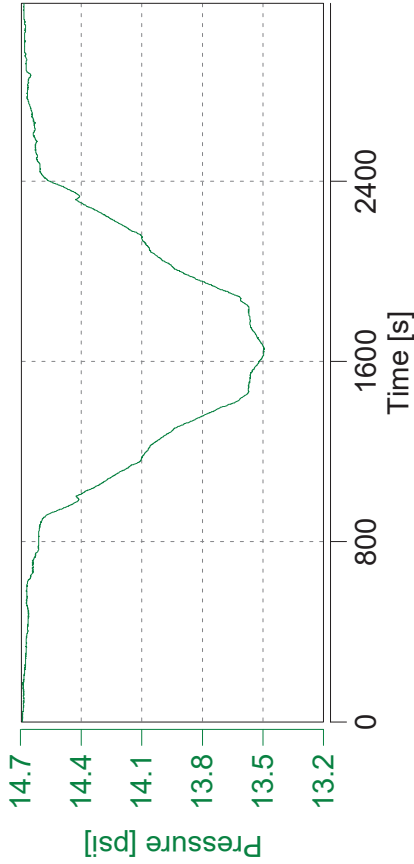
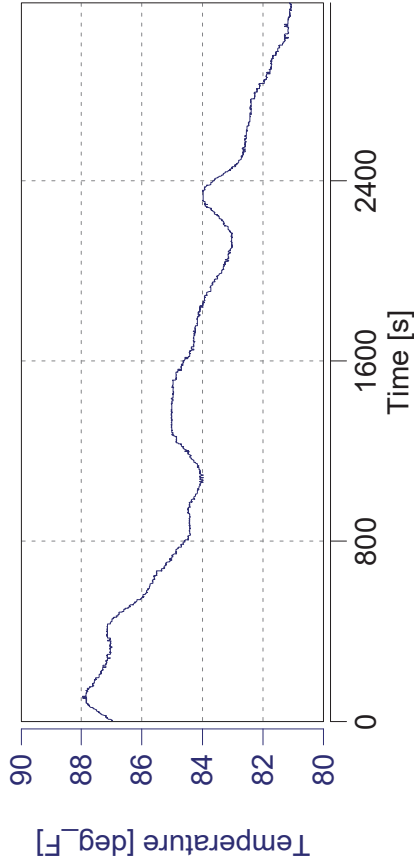
'Mountain'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: GPS

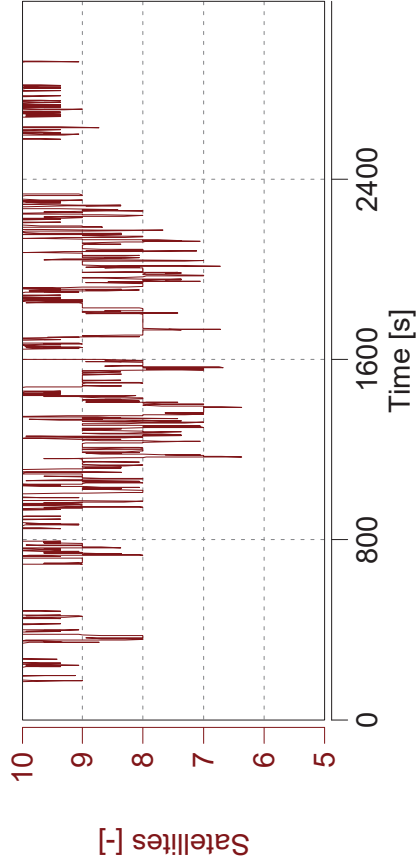
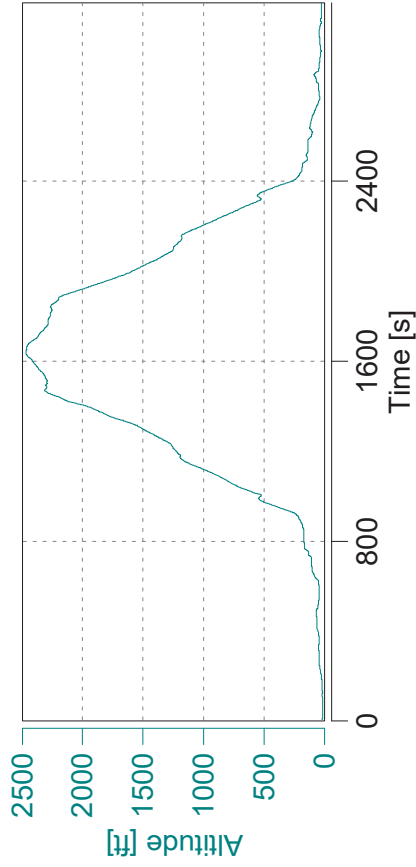
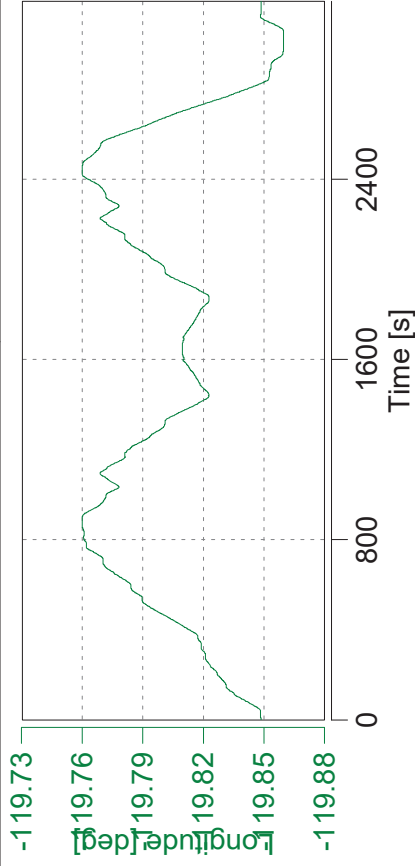
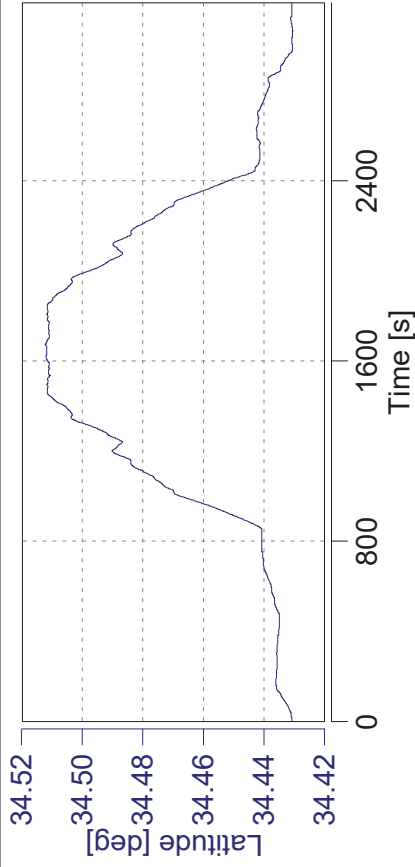
'Mountain'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (1)

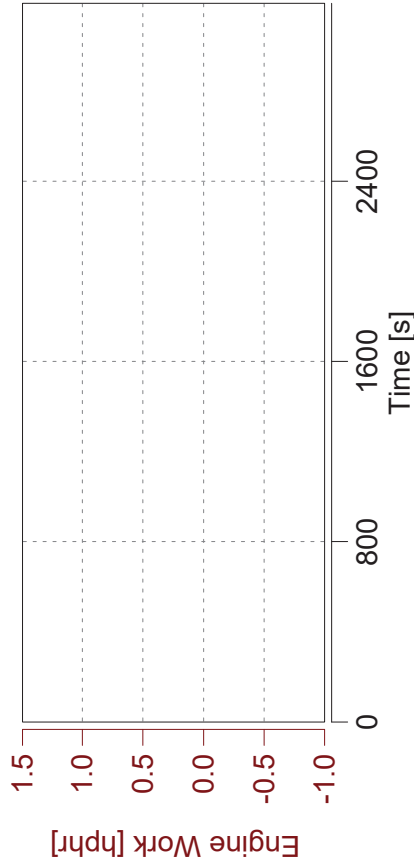
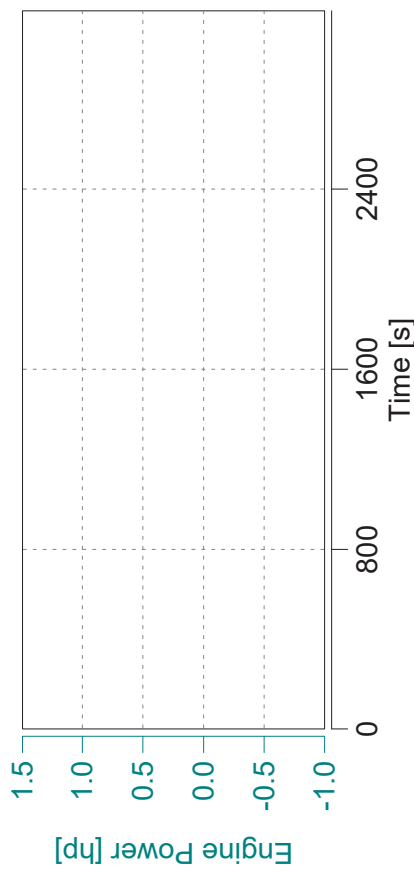
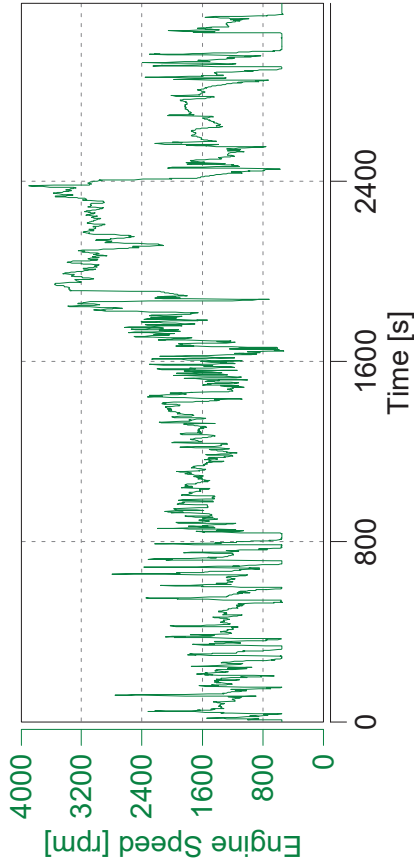
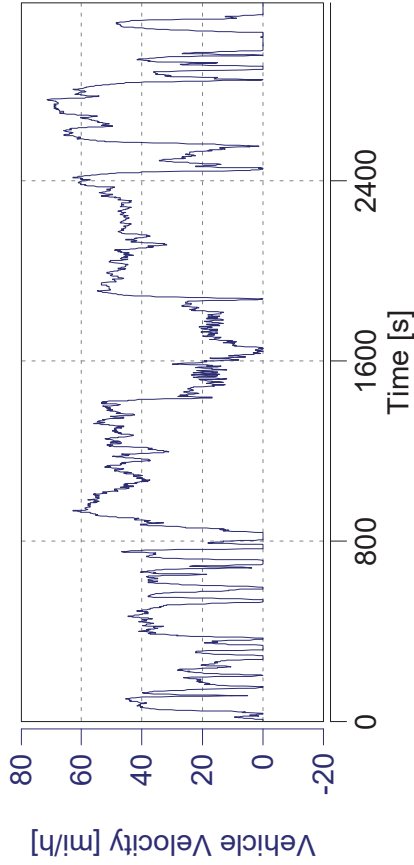
'Mountain'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (2)

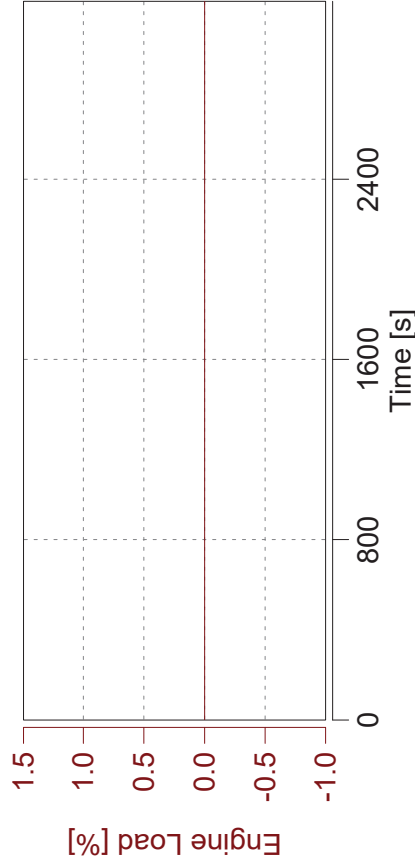
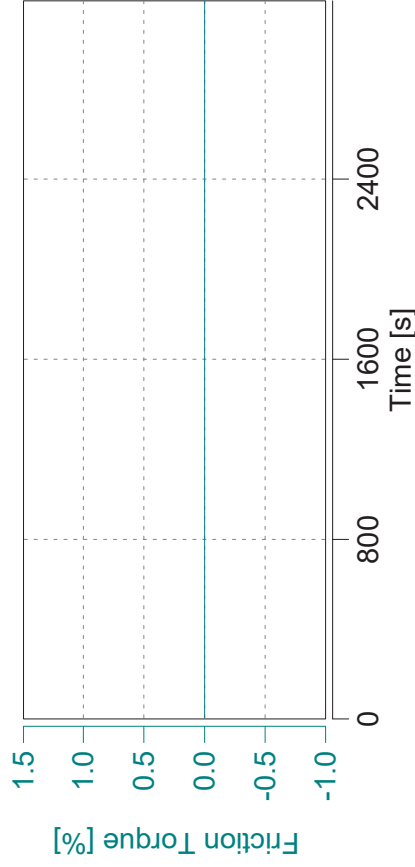
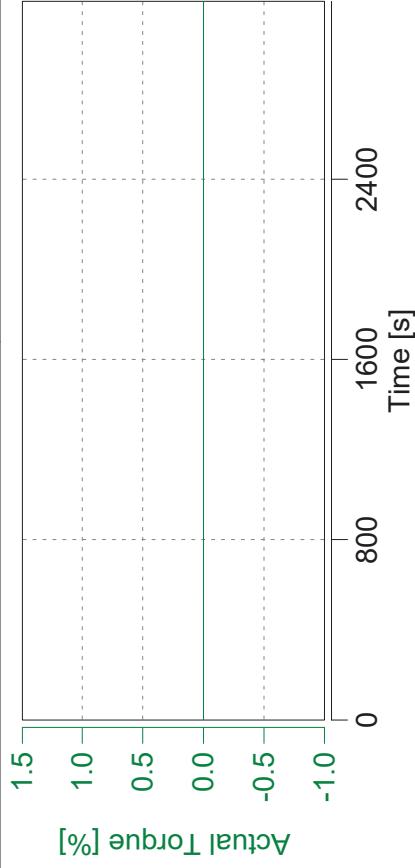
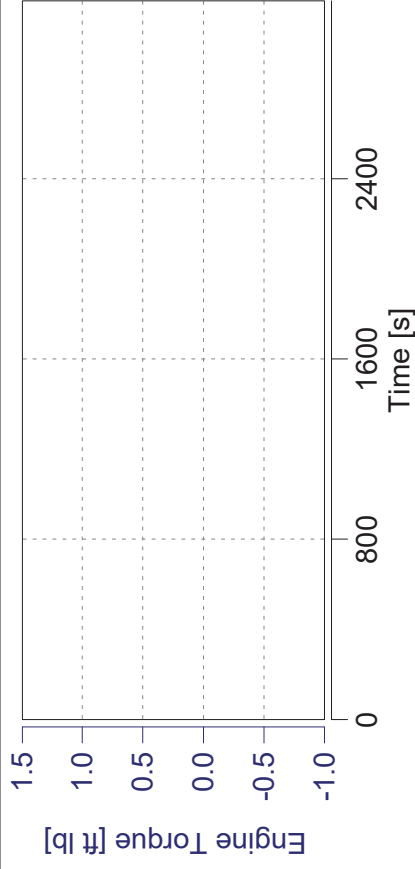
'Mountain'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

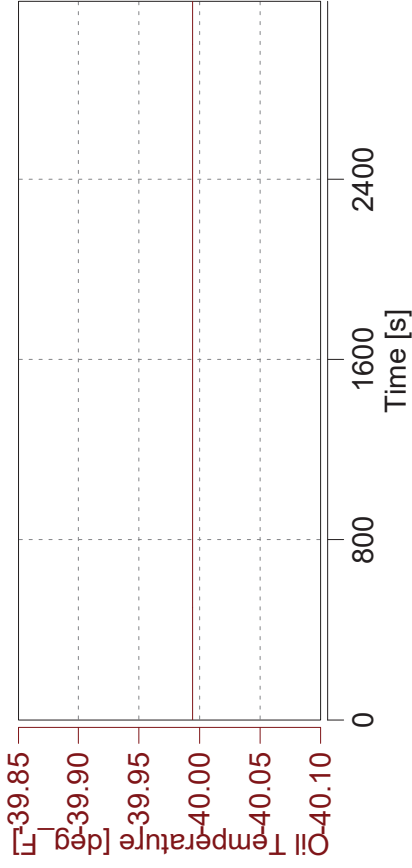
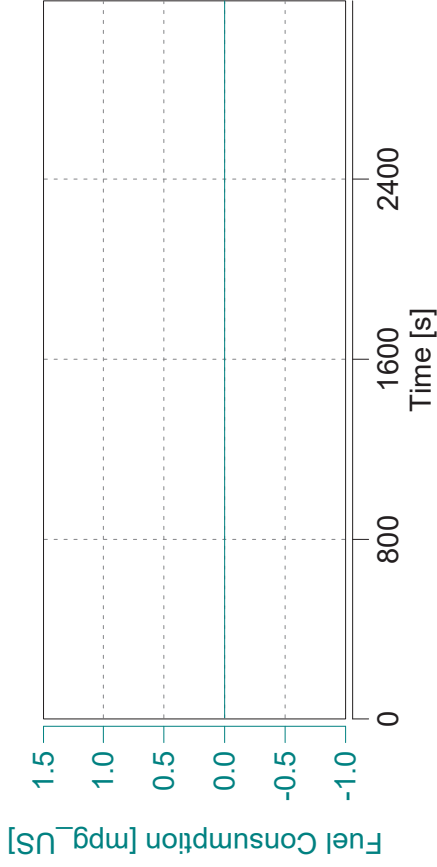
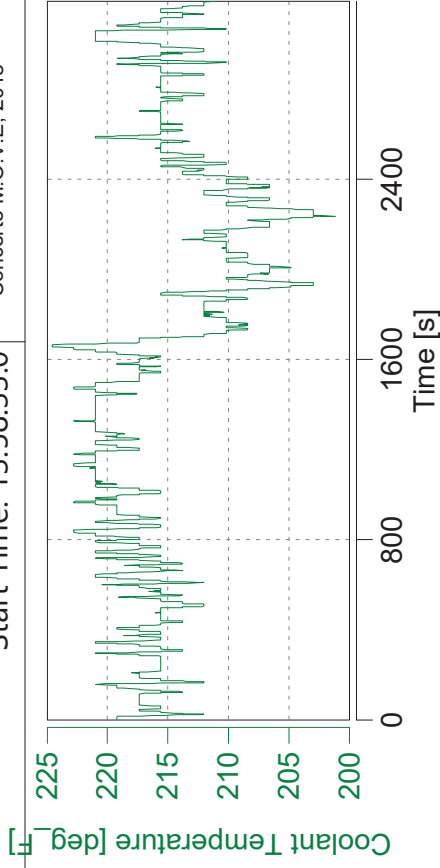
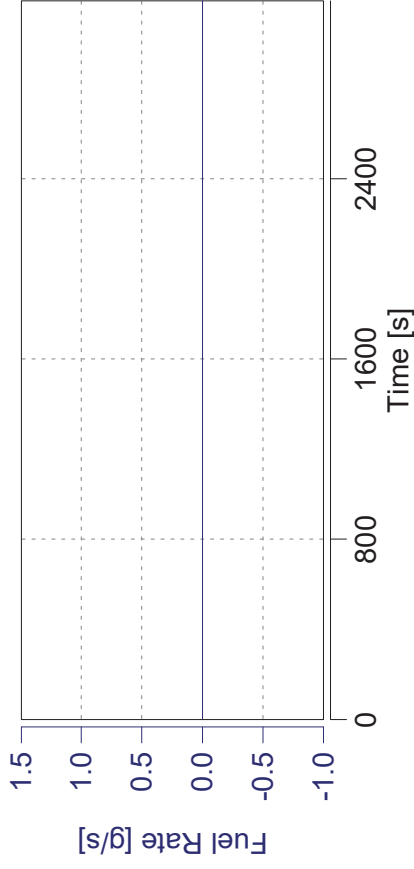
Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain
Page: Engine (3)

'Mountain'
Start Date: 07/19/2018
Start Time: 13:58:33.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Exhaust Flow (1)

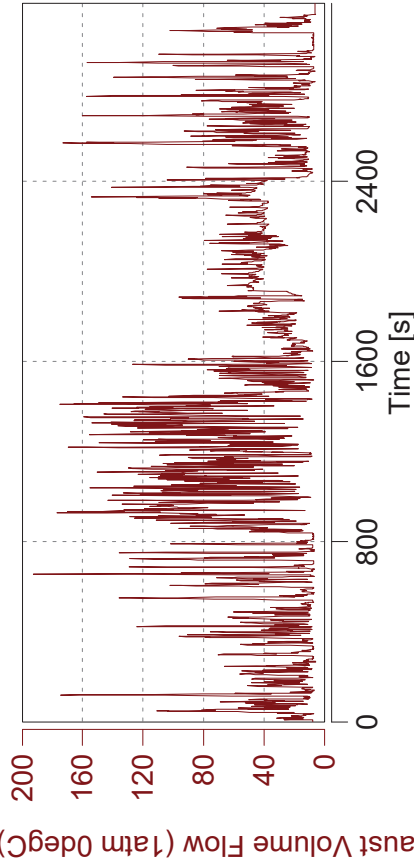
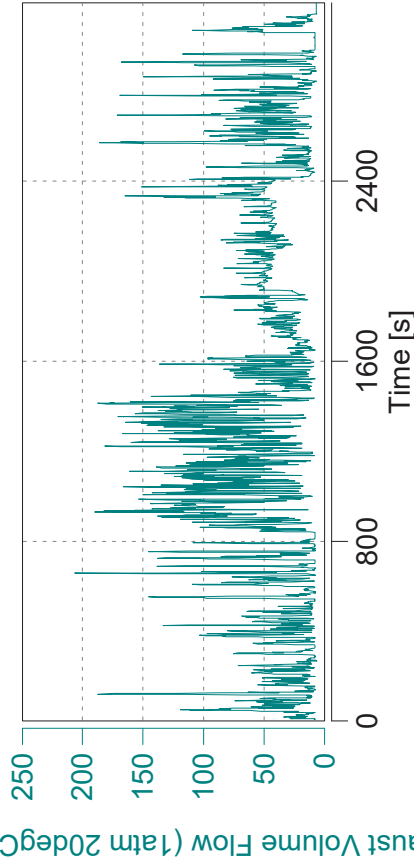
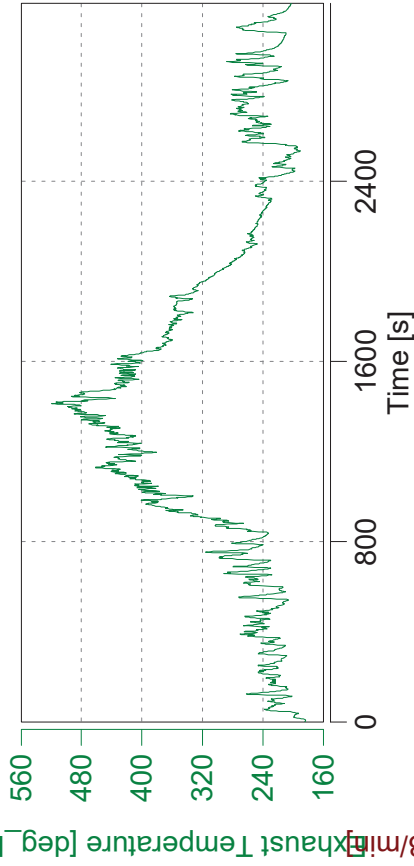
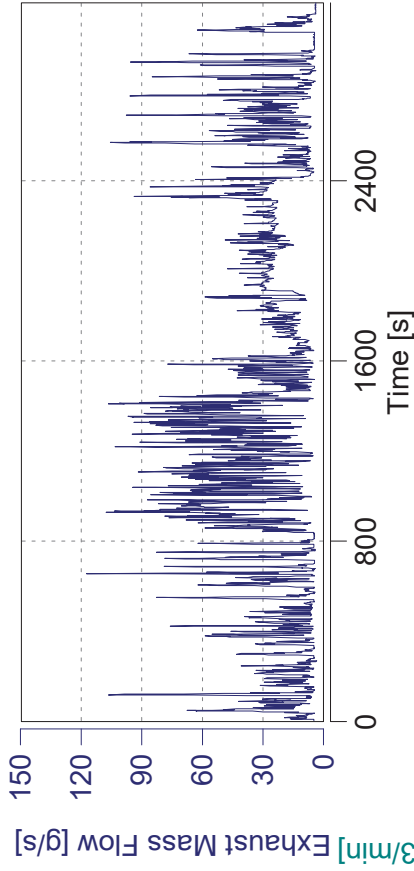
'Mountain'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Exhaust Flow (2)

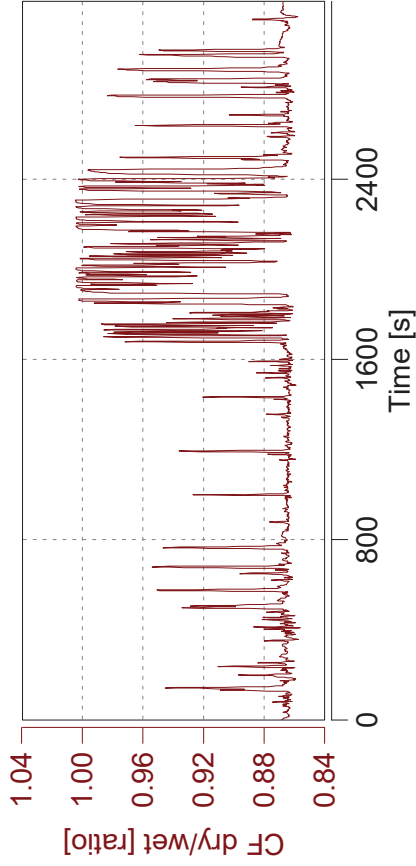
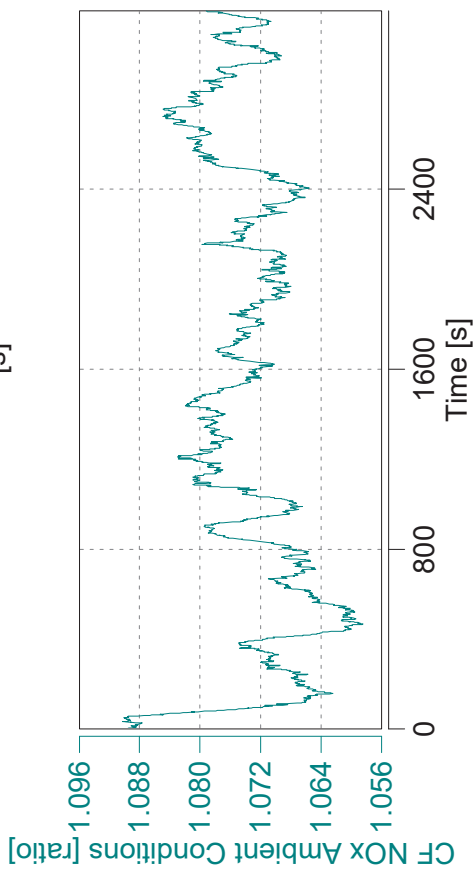
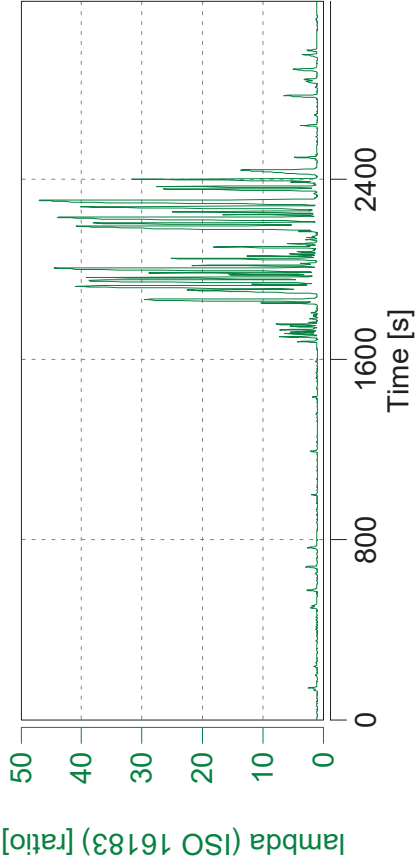
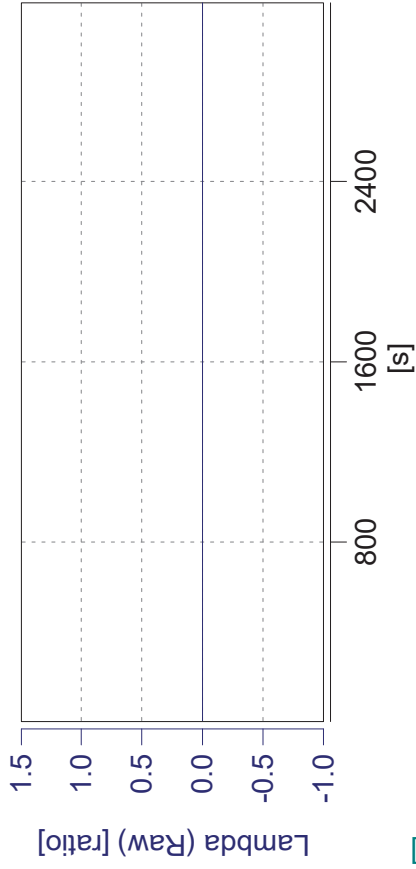
'Mountain'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (1)

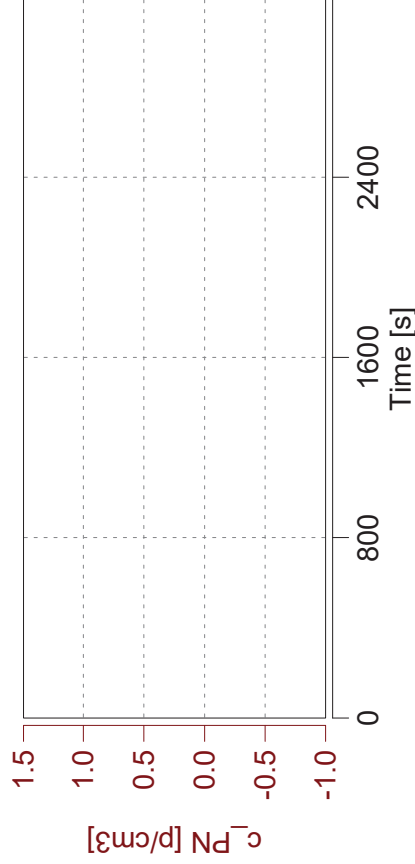
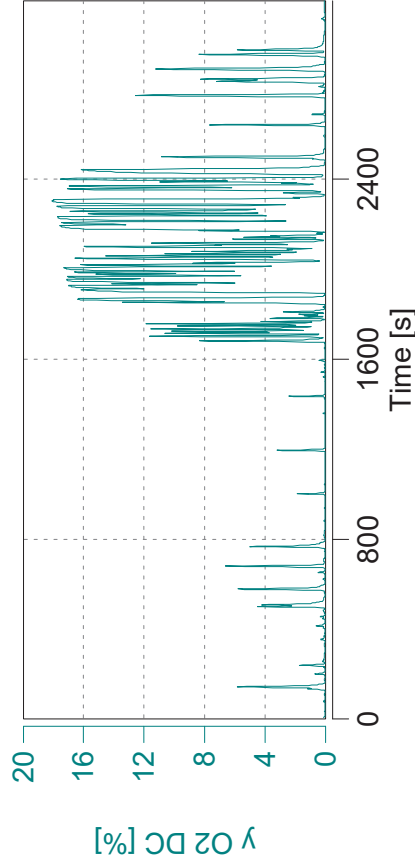
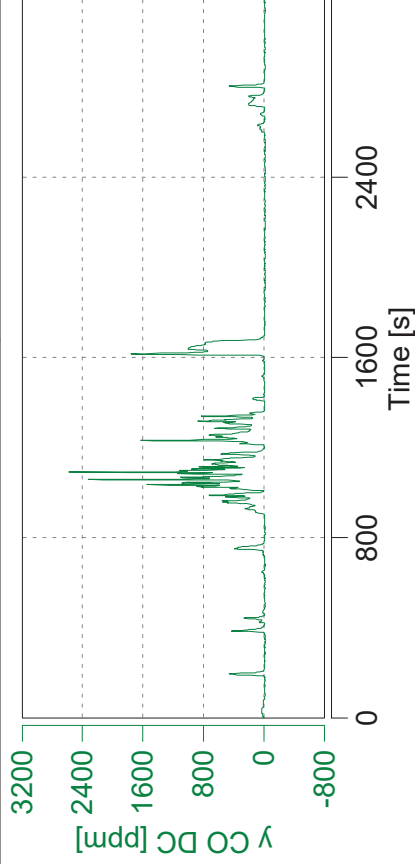
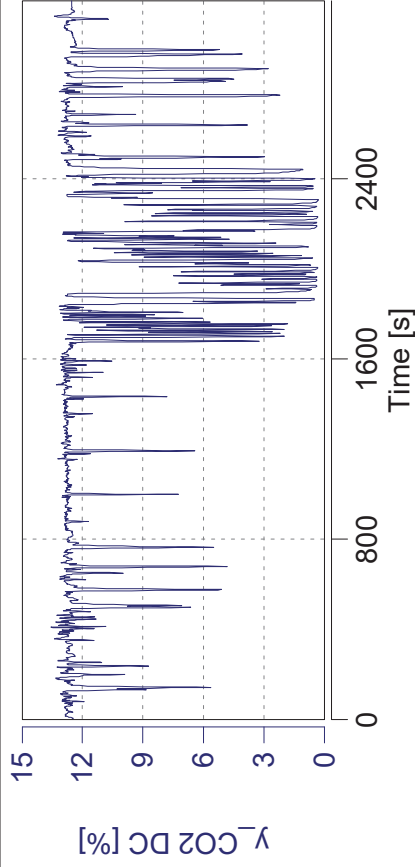
'Mountain'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (2)

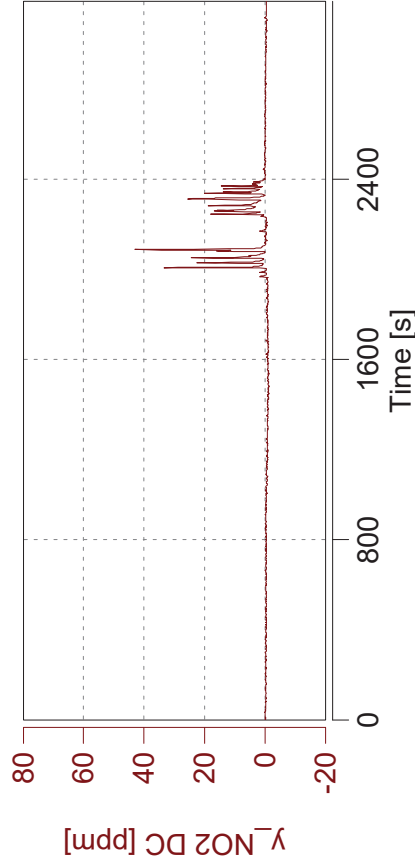
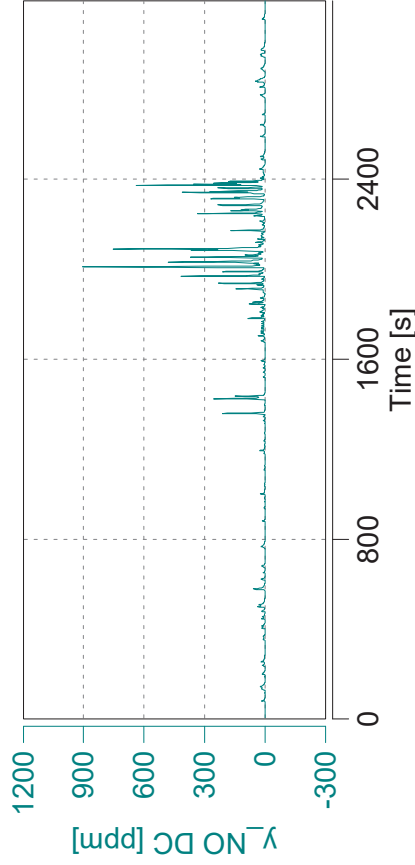
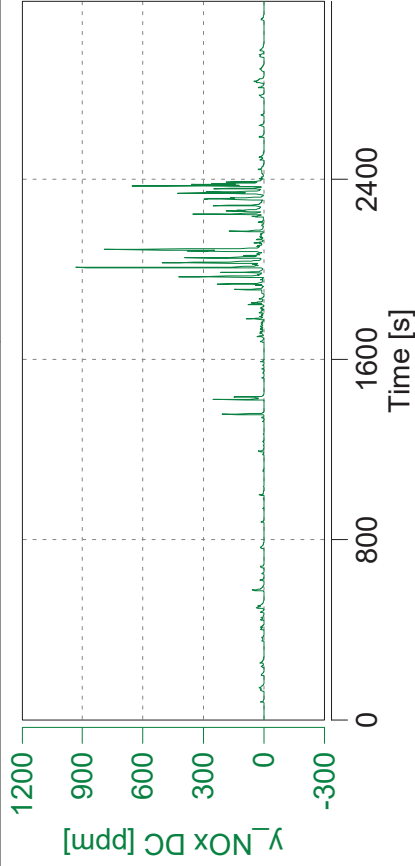
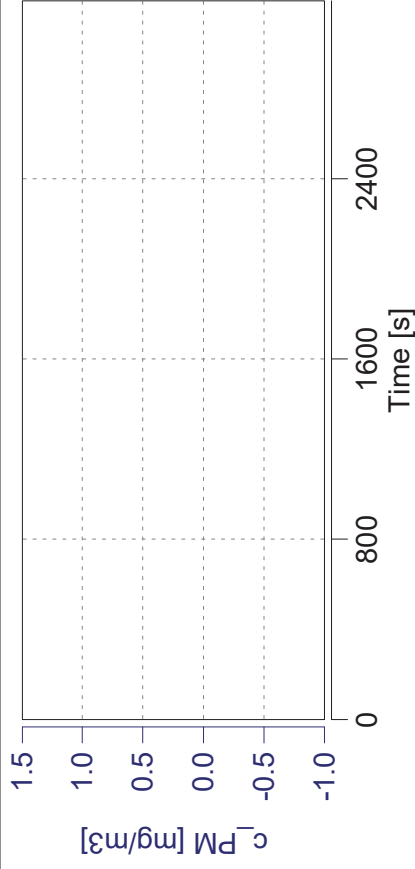
'Mountain'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Engine: /

Case: Mountain

Page: Corrected Emissions (3)

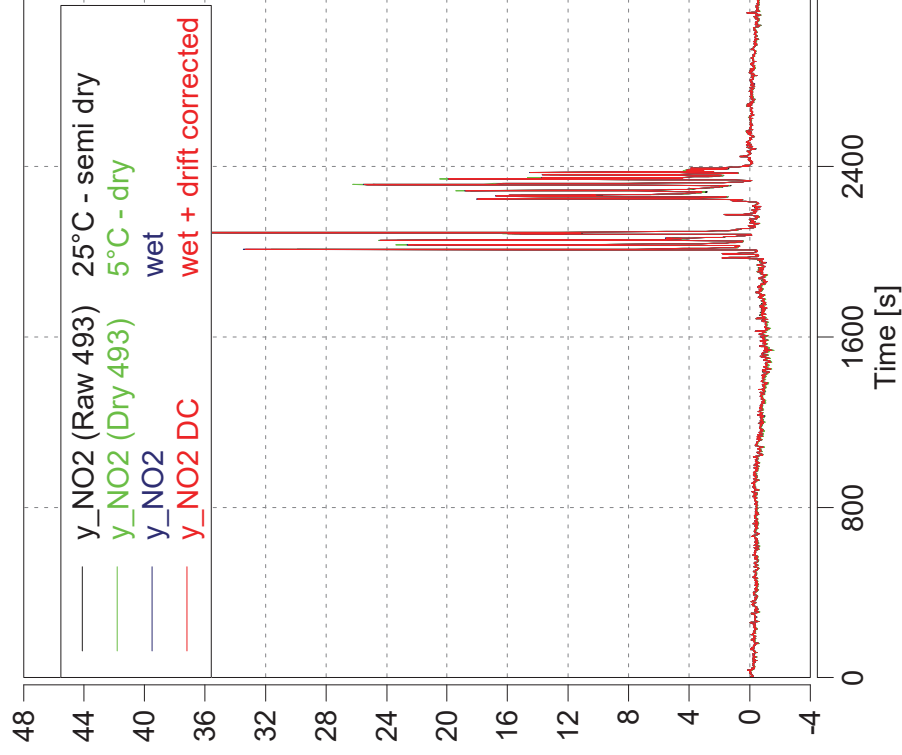
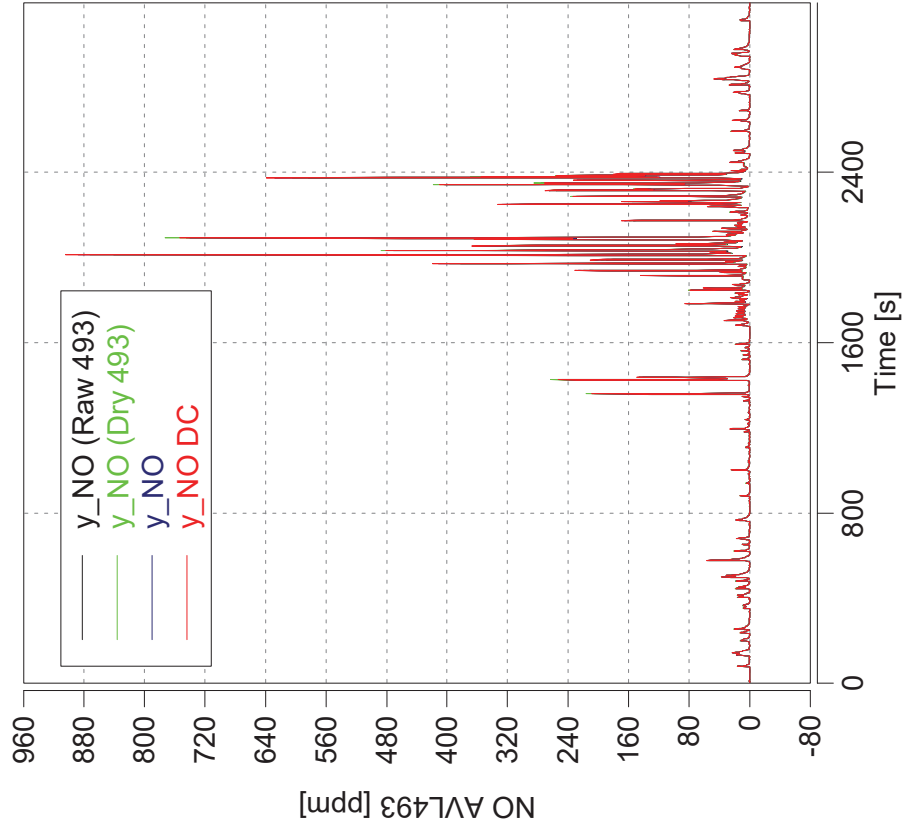
'Mountain'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Audi A8 / 4.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (4) NOx Corrections

'Mountain'

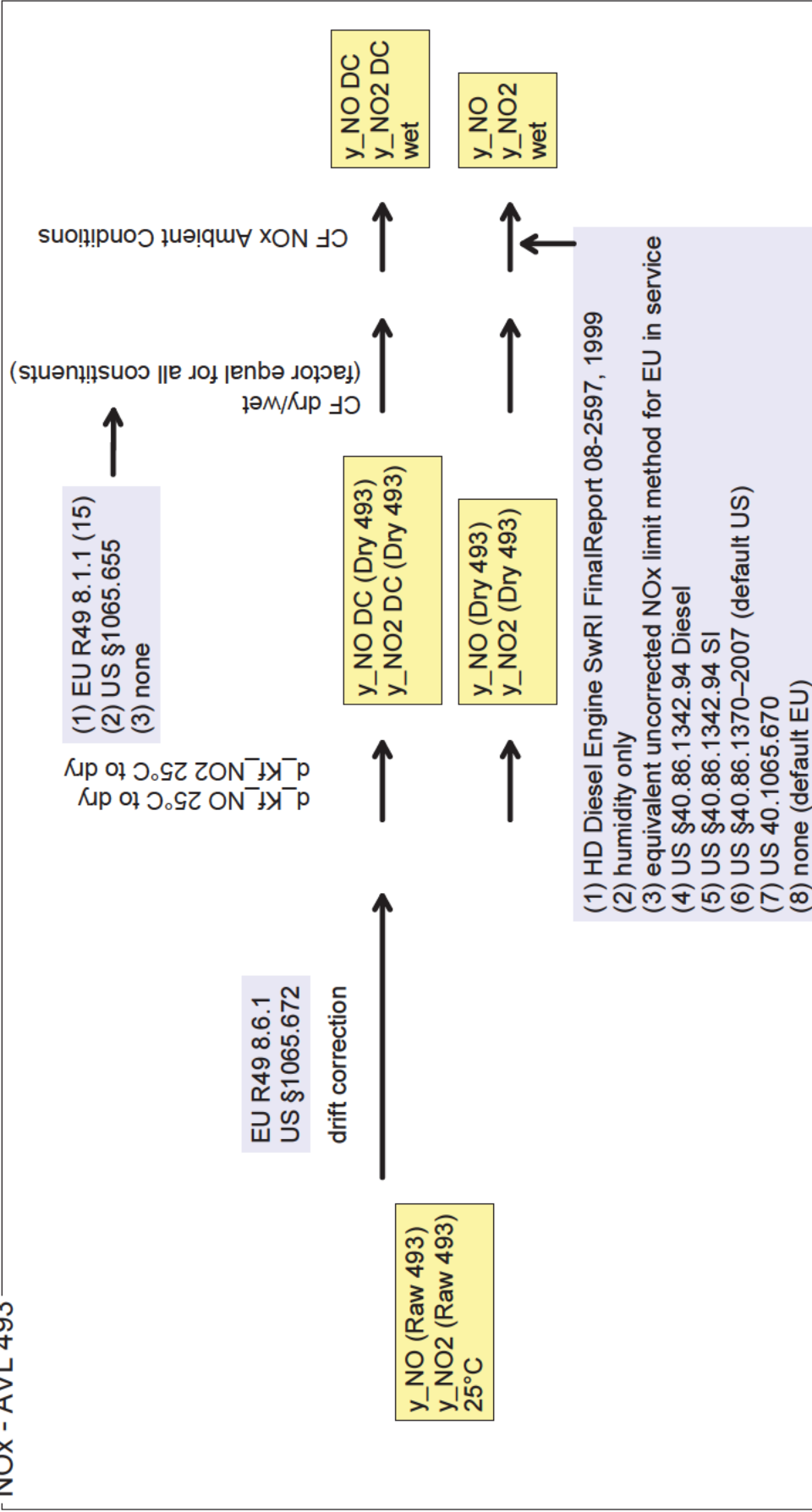
Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (5)

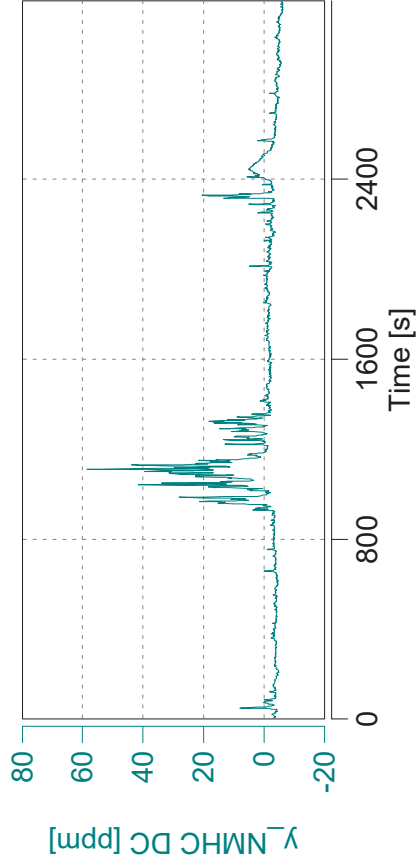
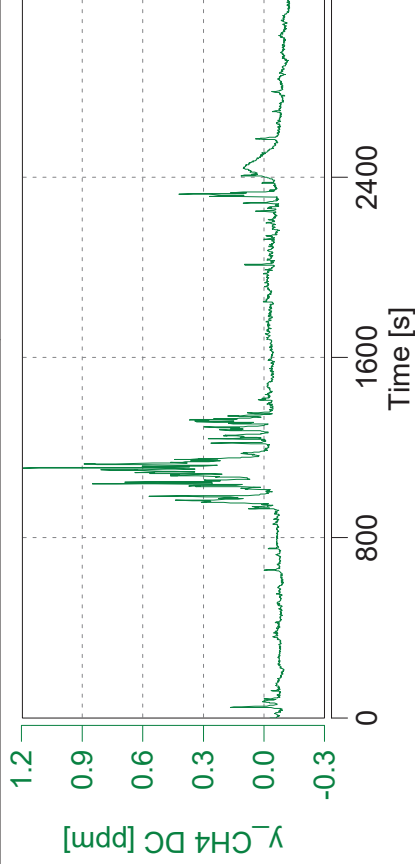
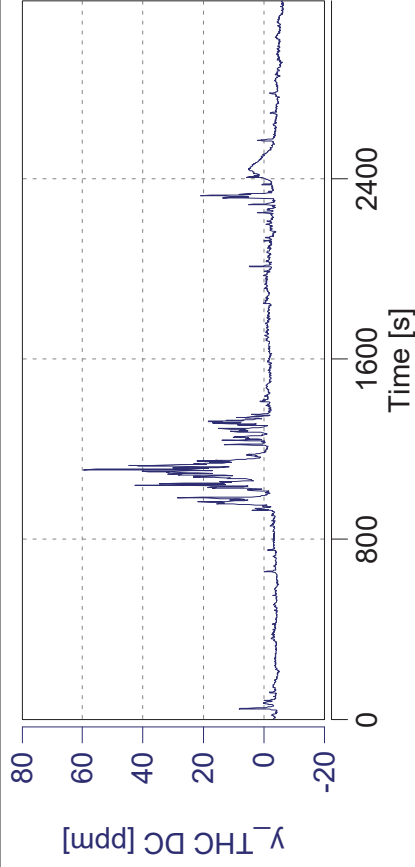
'Mountain'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: NO/NO2/NOx Zero - Span

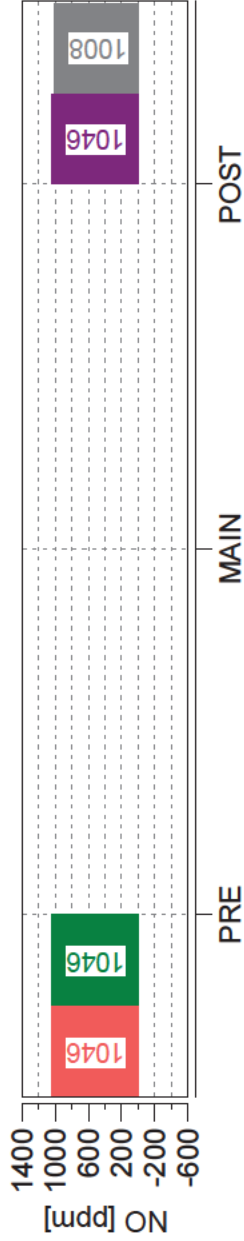
'Mountain'

Start Date: 07/19/2018

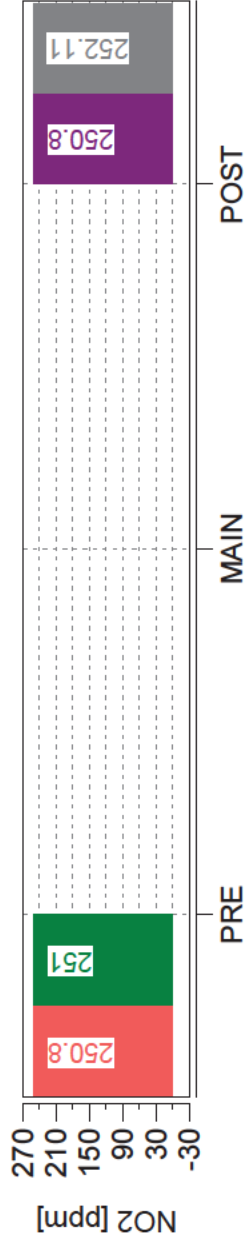
Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



GP_NO_Cal_gas_value
 GP_NO_Adjust_Actual
 GP_NO_Reference
 GP_NO_Audit_Actual



GP_NO2_Cal_gas_value
 GP_NO2_Adjust_Actual
 GP_NO2_Reference
 GP_NO2_Audit_Actual

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: CO/CO2 Zero - Span

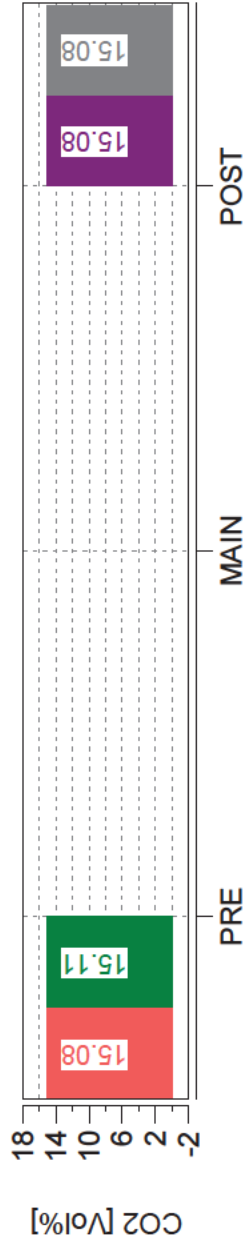
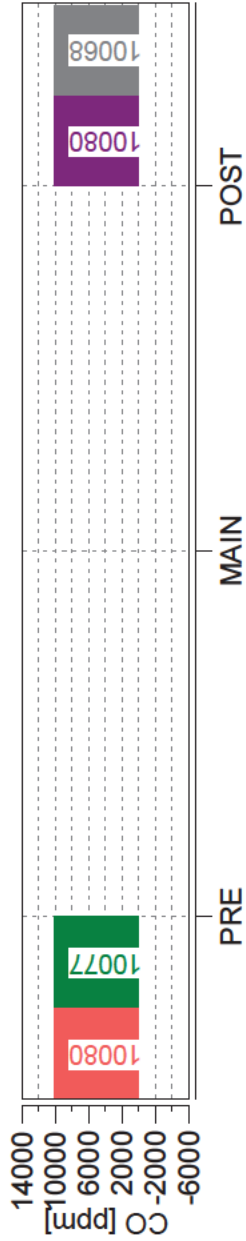
'Mountain'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: THC/CH4 Zero - Span

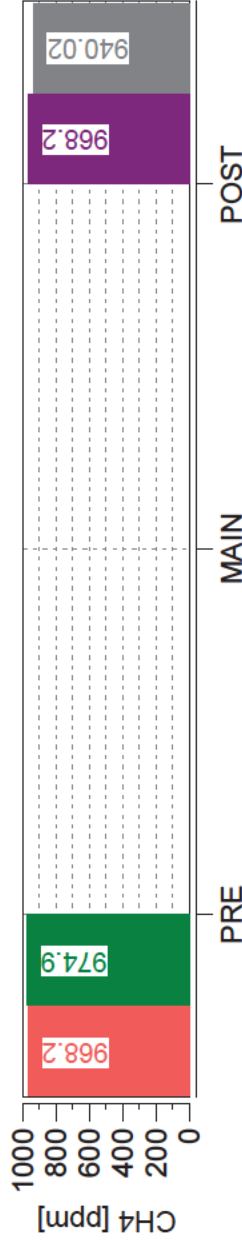
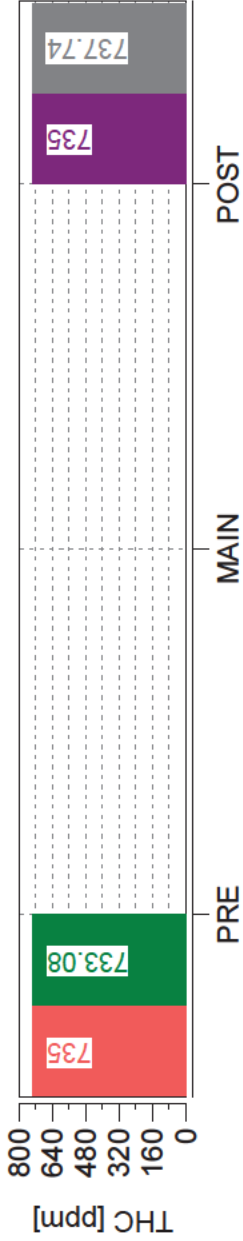
'Mountain'

Start Date: 07/19/2018

Start Time: 13:58:33.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary

'City'

Start Date: 07/19/2018

Start Time: 21:06:14.0



Concerto M.O.V.E., 2018

Trip Duration	3375.00	s	ave THC	1.92947	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3375.00	s	ave NMHC	1.89088	ppm	BS CO	n/a	g/hphr
Trip Distance	15.92	mi	ave CH4	0.03859	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	15.92	mi	ave CO	13.95555	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	12.38195	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	6.83466	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.12	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.08	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.10	gall	tot THC	0.03698	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.09	gall	tot NMHC	0.03421	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00082	g	DS CO2	588.36122	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	1.15062	g	DS CO	0.07228	g/mi
Trip Fuel Economy EU (ac)	14.45	mpg_US	tot CO2	9366.22808	g	DS THC	0.00232	g/mi
Trip Fuel Economy US (ac)	14.62	mpg_US	tot NO (d)	0.36444	g	DS NMHC	0.00215	g/mi
Trip Av. Eng. Speed	1128.00	rpm	tot NO2	-0.00002	g	DS CH4	0.00005	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.36442	g	DS NO (d)	0.02289	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	-0.00000	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.02289	g/mi
Trip Exhaust Mass	49.06	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	72.08	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	70.94	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	16.98046	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	22.87407	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary Drift Corrected

'City'

Start Date: 07/19/2018

Start Time: 21:06:14.0



Concerto M.O.V.E., 2018

Trip Duration	3375.00	s	ave THC DC	2.23539	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3375.00	s	ave NMHC DC	2.19068	ppm	BS CO DC	n/a	g/hphr
Trip Distance	15.92	mi	ave CH4 DC	0.04471	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	15.92	mi	ave CO DC	13.70974	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	12.39017	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	6.91675	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.12	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.08	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.10	gall	tot THC DC	0.04602	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.09	gall	tot NMHC DC	0.04257	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00102	g	DS CO2 DC	588.75164	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	1.13792	g	DS CO DC	0.07148	g/mi
Trip Fuel Economy EU (ac)	14.45	mpg_US	tot CO2 DC	9372.44323	g	DS THC DC	0.00289	g/mi
Trip Fuel Economy US (ac)	14.62	mpg_US	tot NO DC (d)	0.36542	g	DS NMHC DC	0.00267	g/mi
Trip Av. Eng. Speed	1128.00	rpm	tot NO2 DC	0.00494	g	DS CH4 DC	0.00006	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.37036	g	DS NO DC (d)	0.02295	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00031	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.02327	g/mi
Trip Exhaust Mass	49.06	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	72.08	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	70.94	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	16.98046	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	22.87407	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment Check

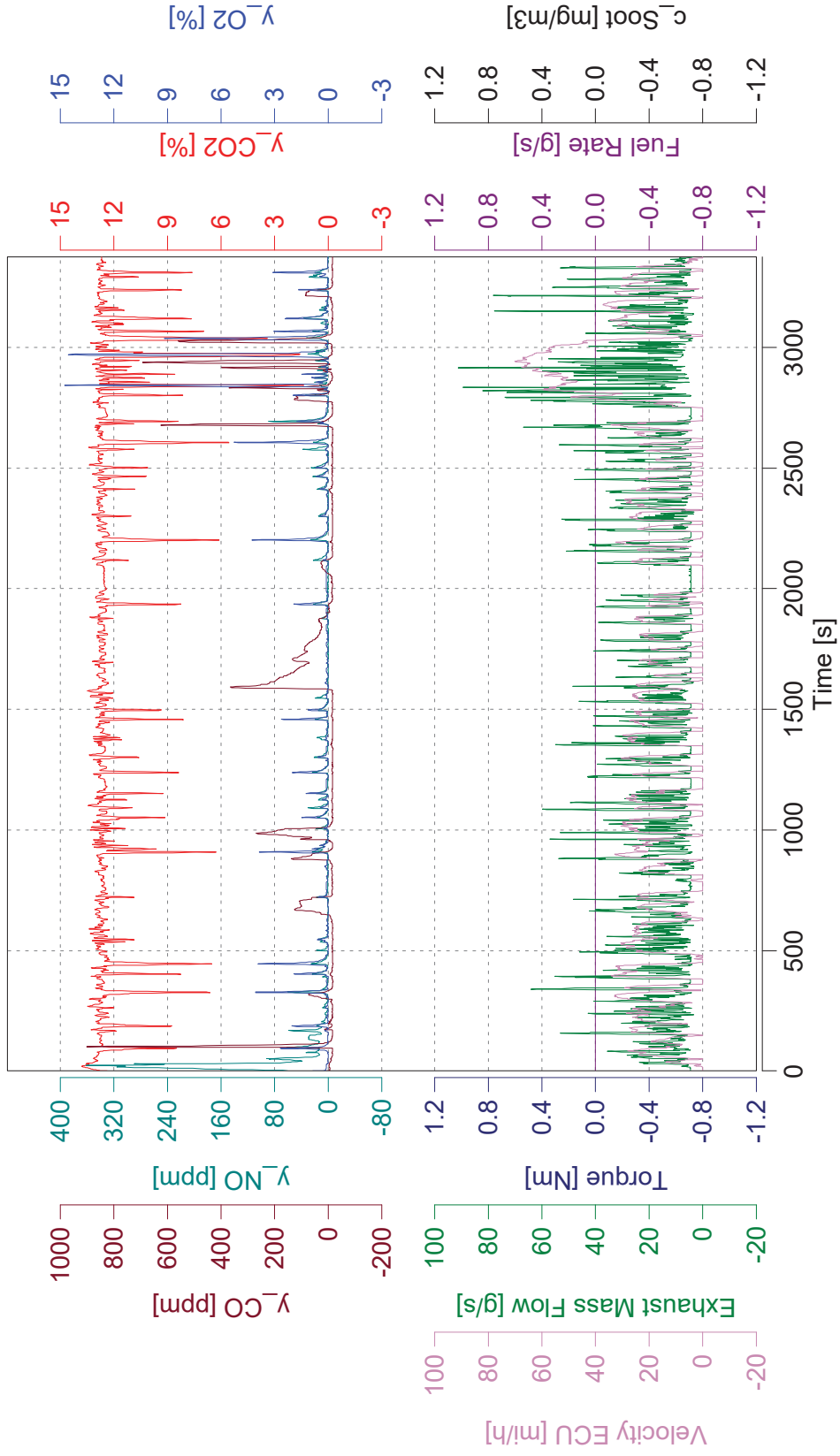
'City'

Start Date: 07/19/2018

Start Time: 21:06:14.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment of Gas Concentrations

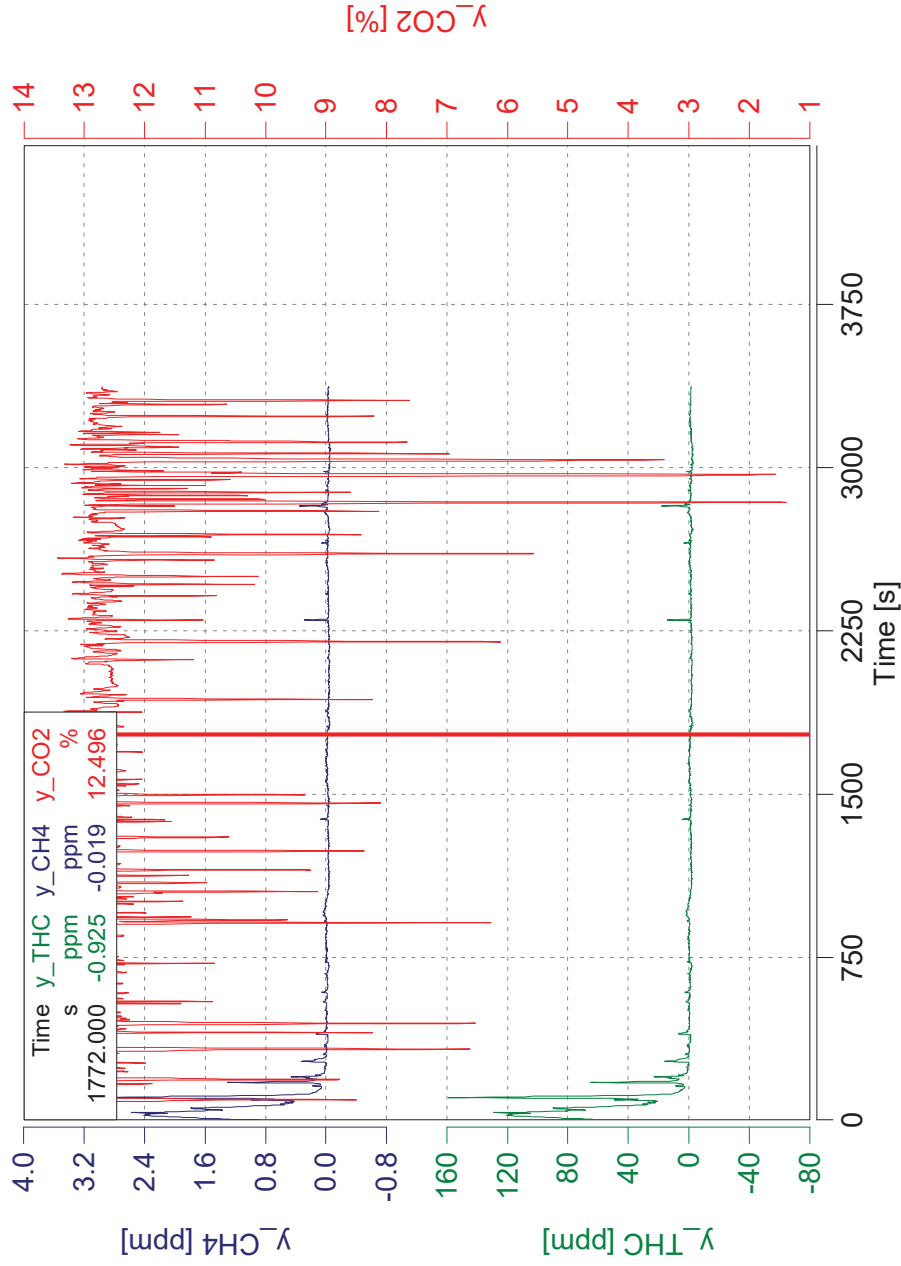
'City'

Start Date: 07/19/2018

Start Time: 21:06:14.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Ambient Conditions

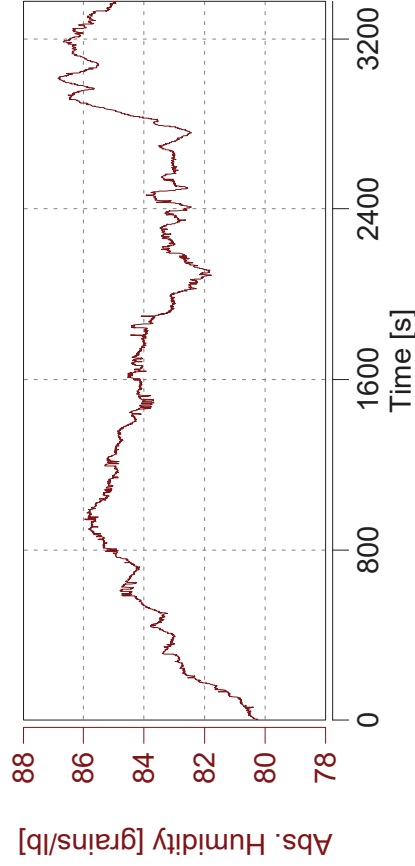
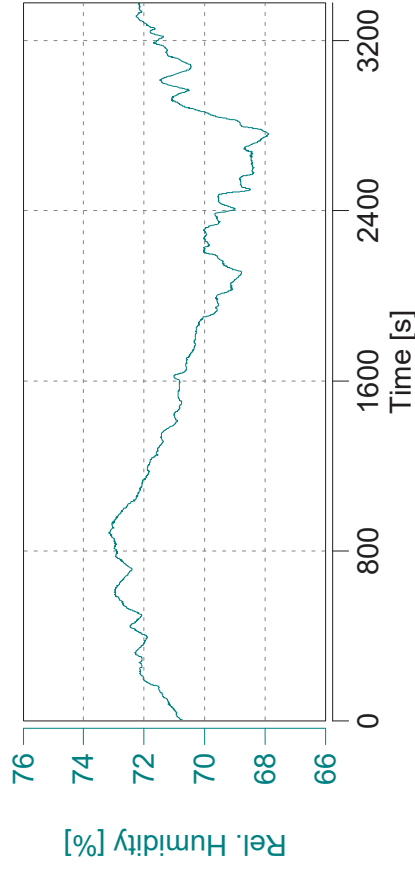
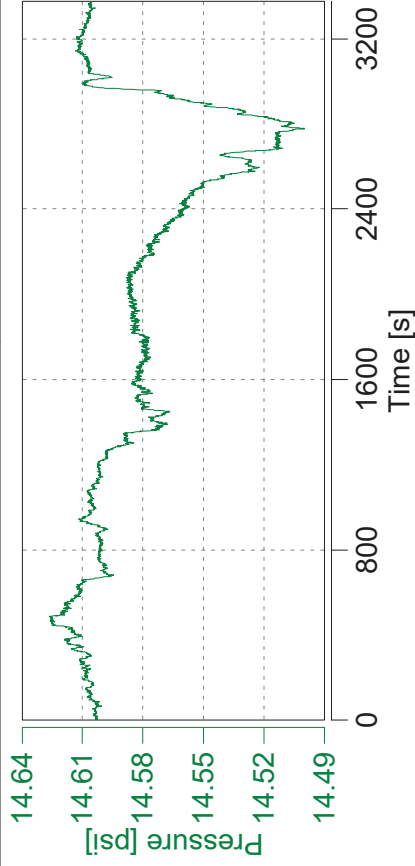
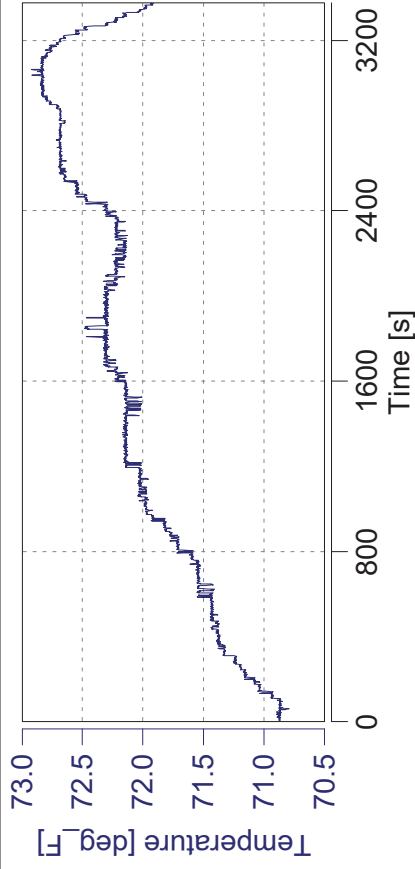
'City'

Start Date: 07/19/2018

Start Time: 21:06:14.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L

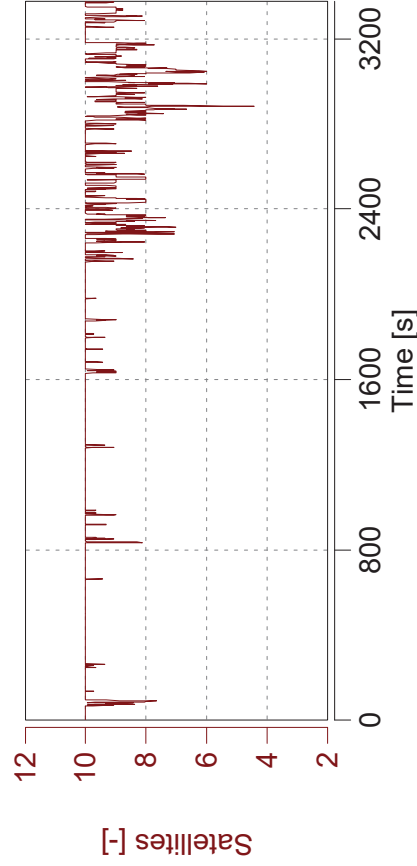
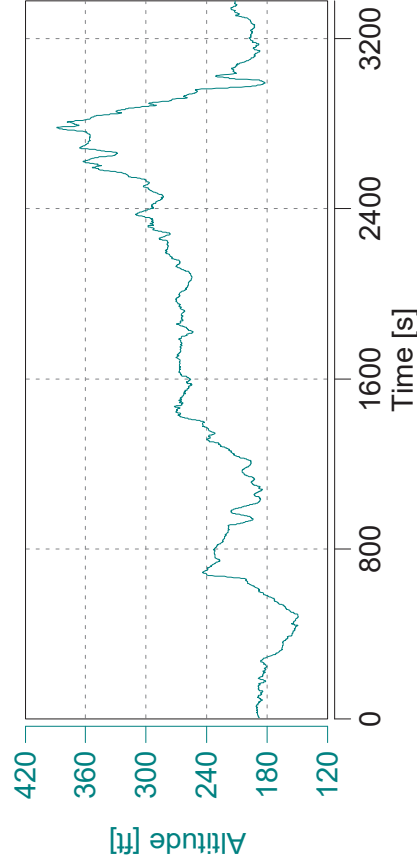
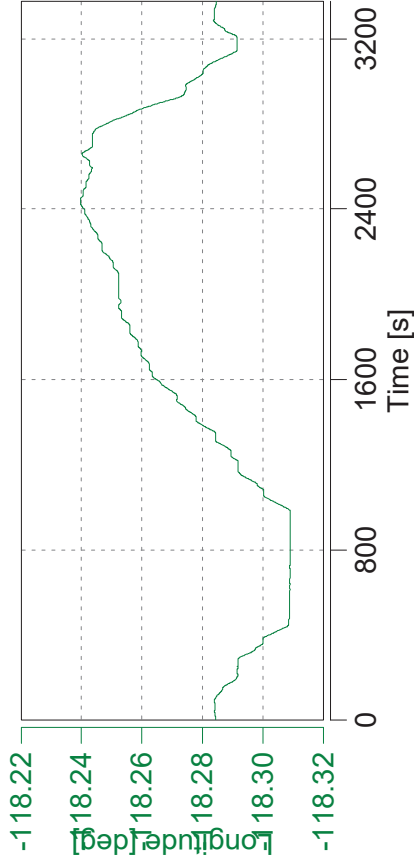
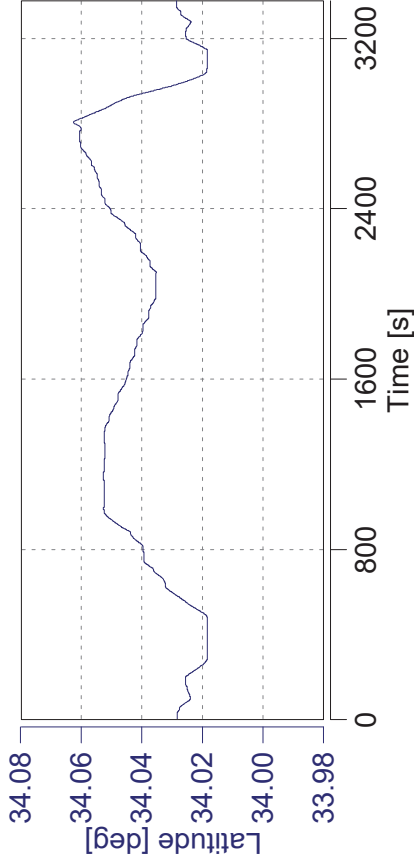
Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City
Page: GPS

'City'
Start Date: 07/19/2018
Start Time: 21:06:14.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (1)

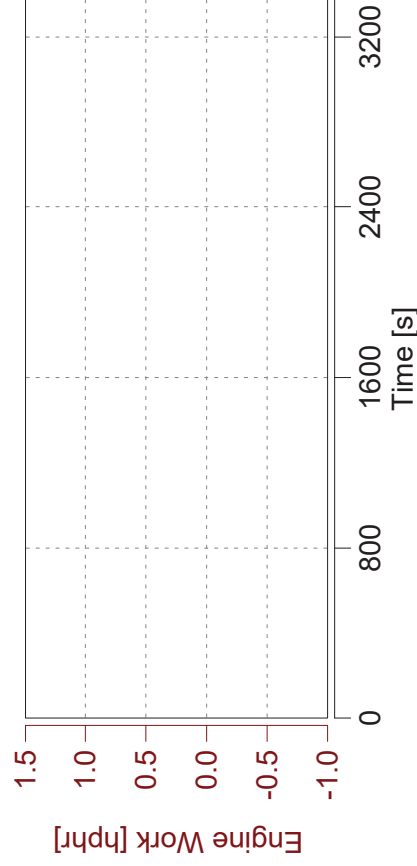
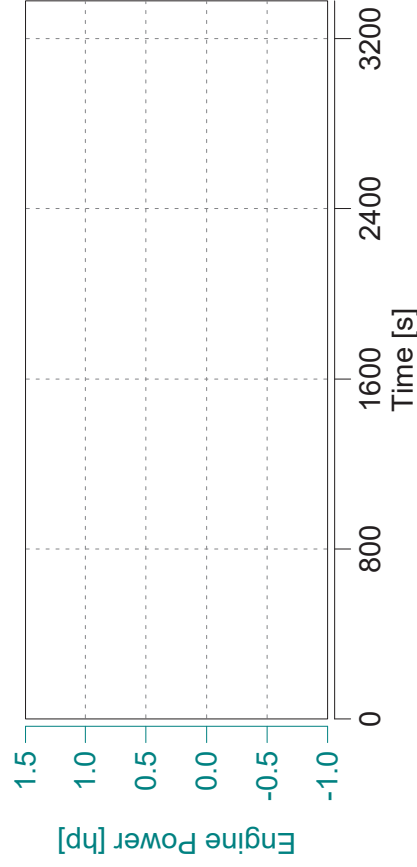
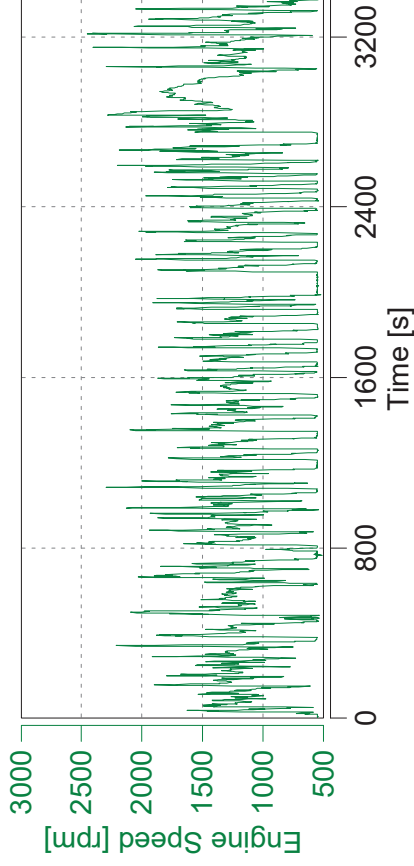
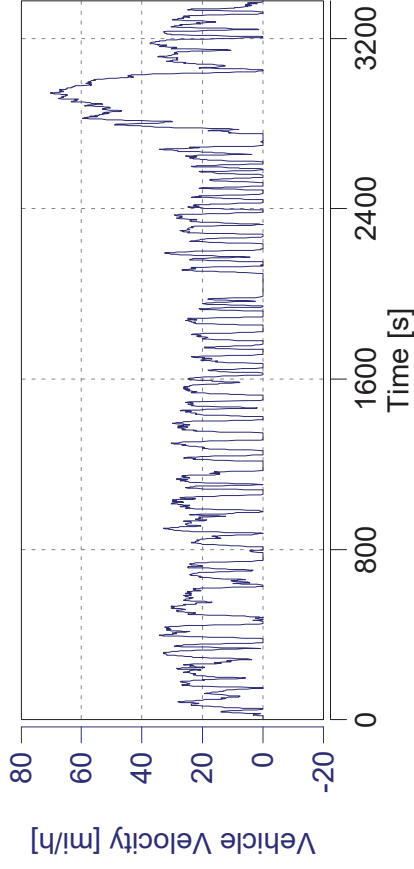
'City'

Start Date: 07/19/2018

Start Time: 21:06:14.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (2)

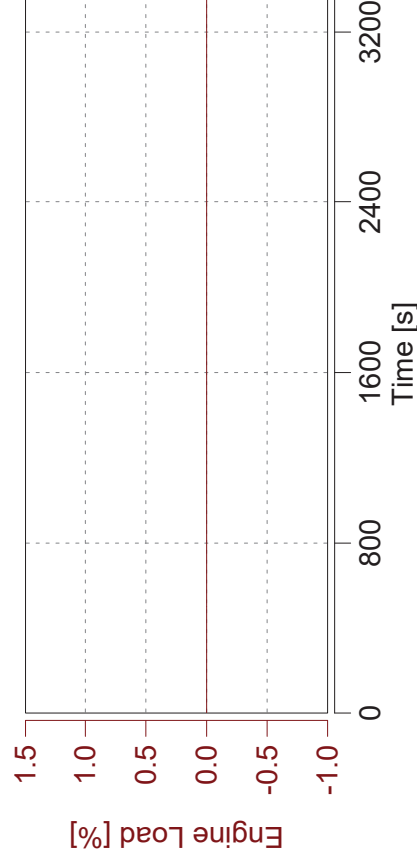
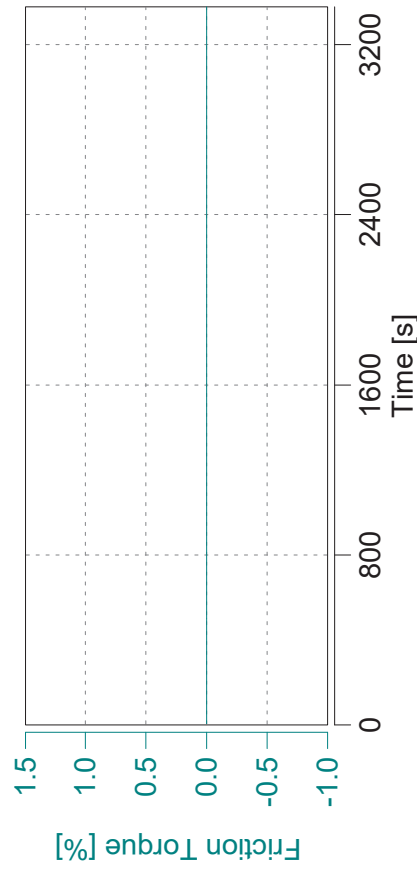
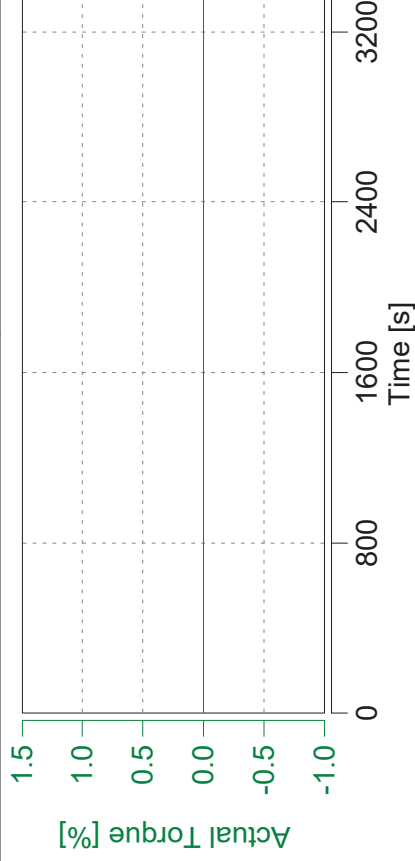
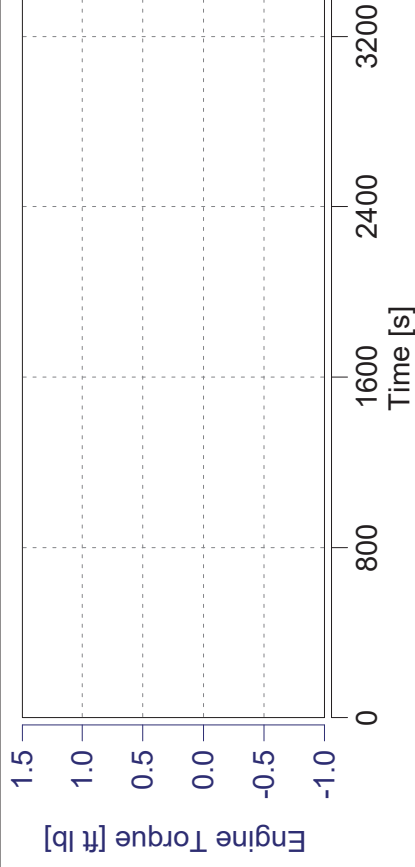
'City'

Start Date: 07/19/2018

Start Time: 21:06:14.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (3)

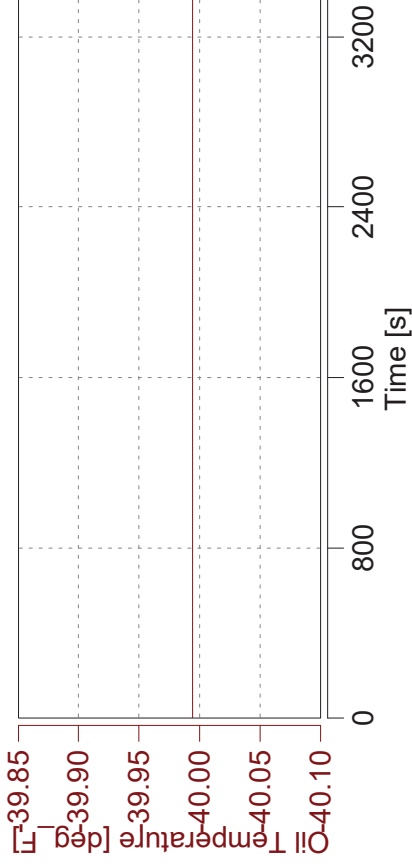
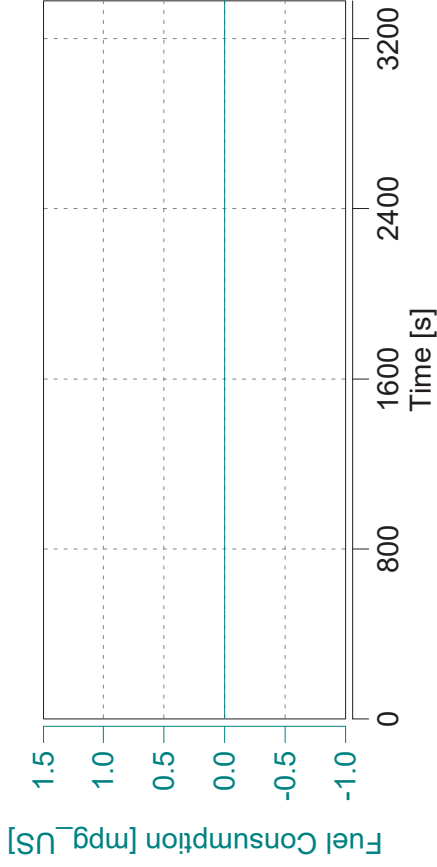
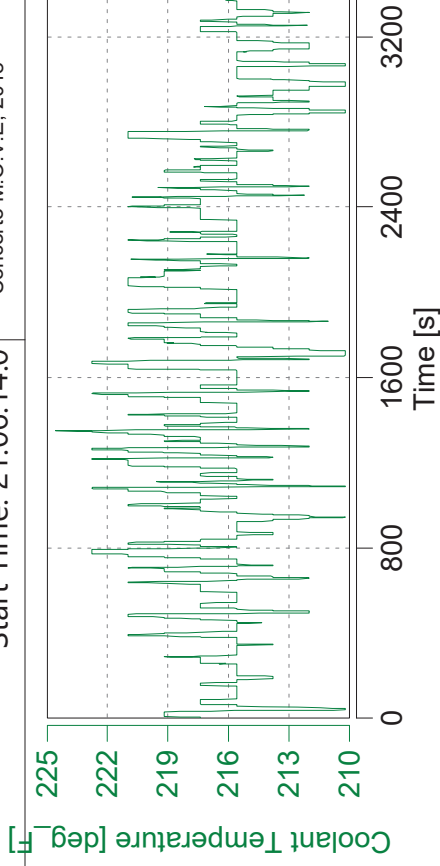
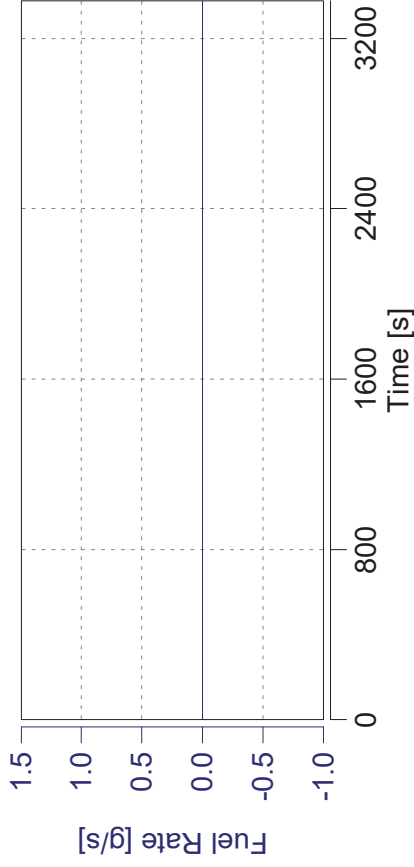
'City'

Start Date: 07/19/2018

Start Time: 21:06:14.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (1)

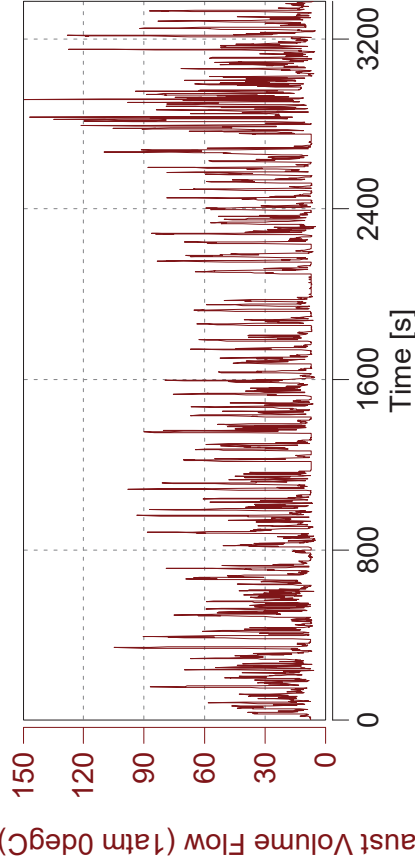
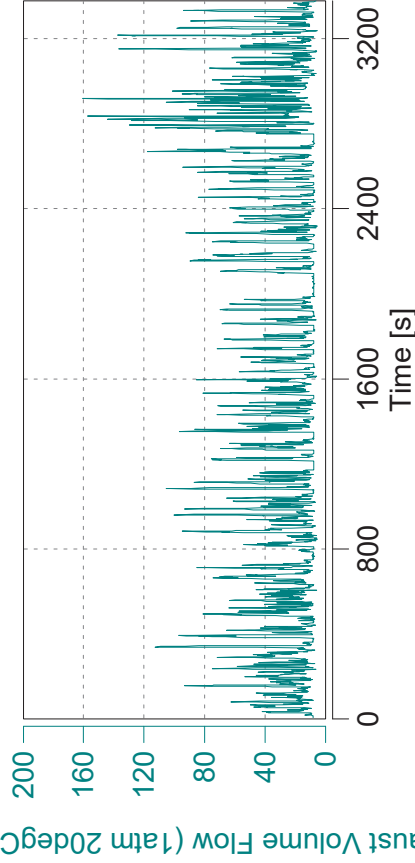
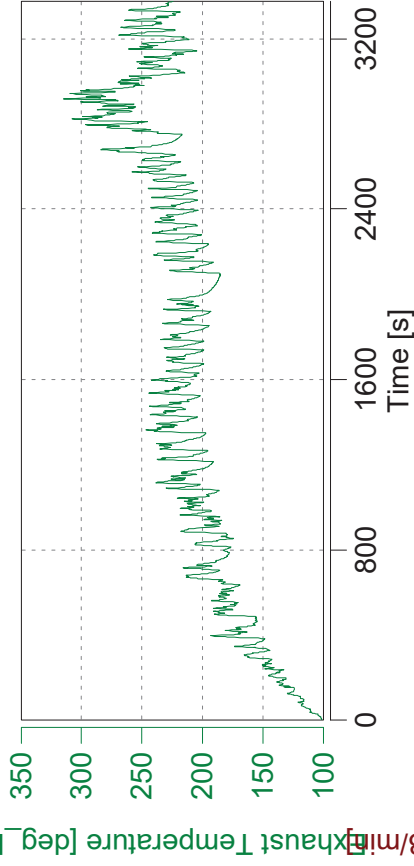
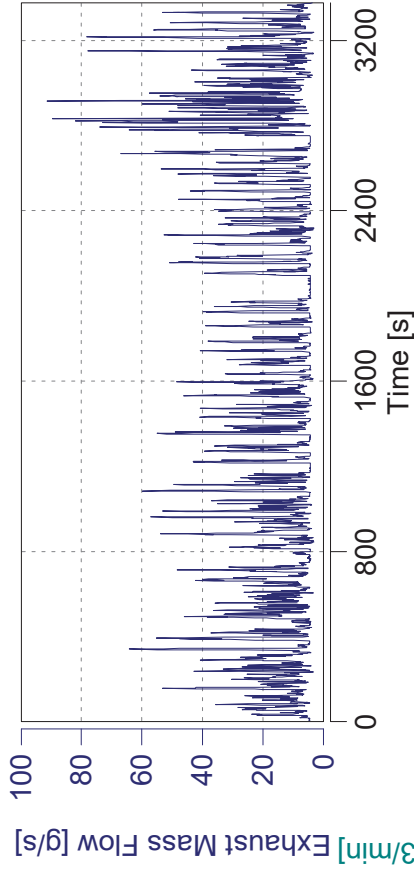
'City'

Start Date: 07/19/2018

Start Time: 21:06:14.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (2)

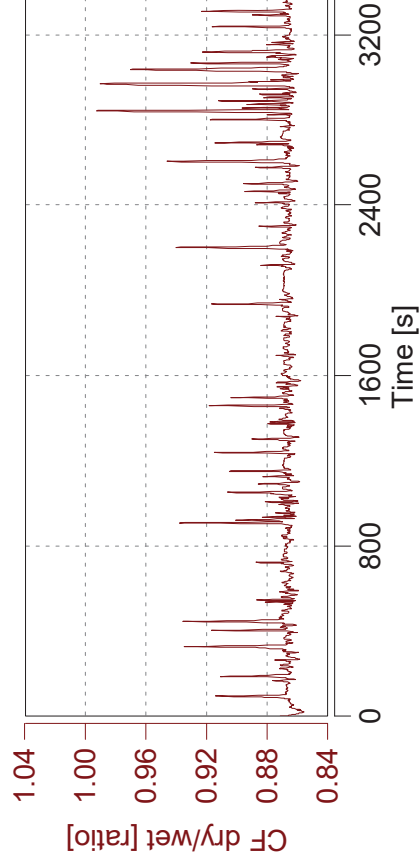
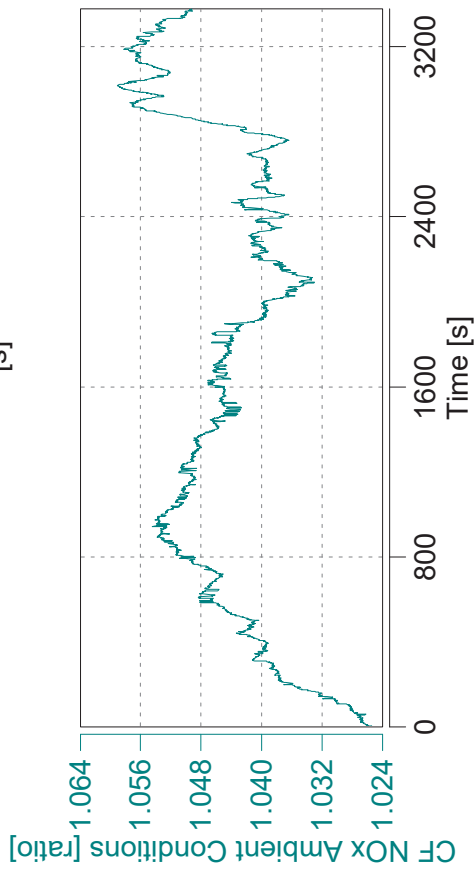
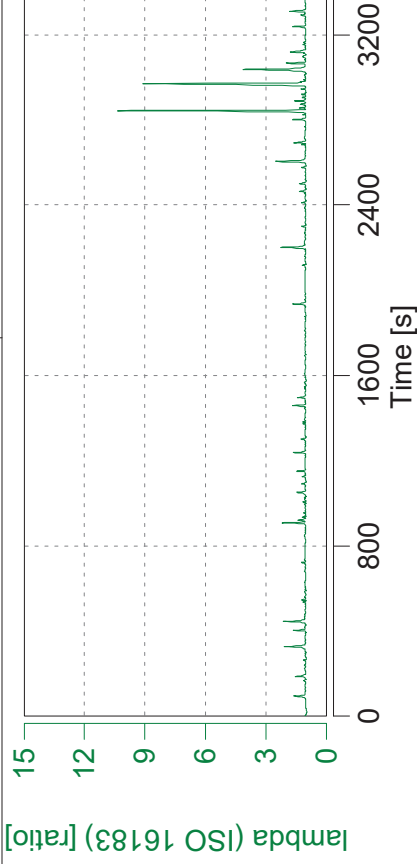
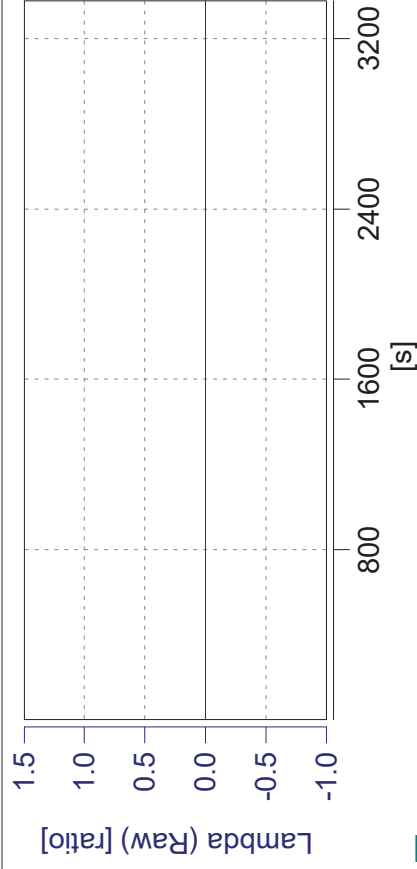
'City'

Start Date: 07/19/2018

Start Time: 21:06:14.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (1)

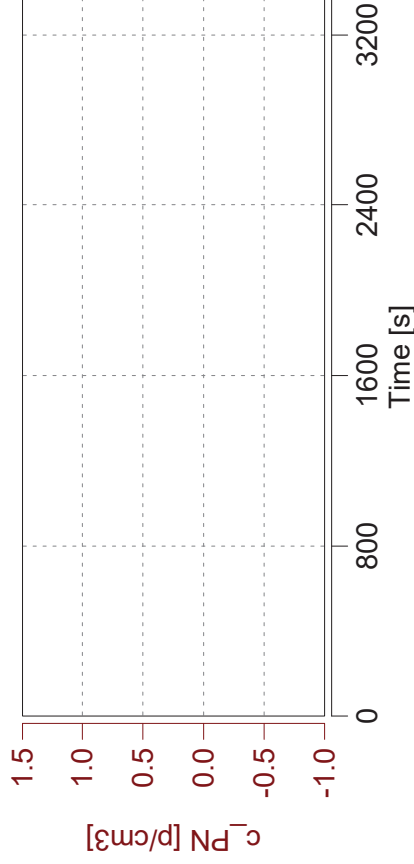
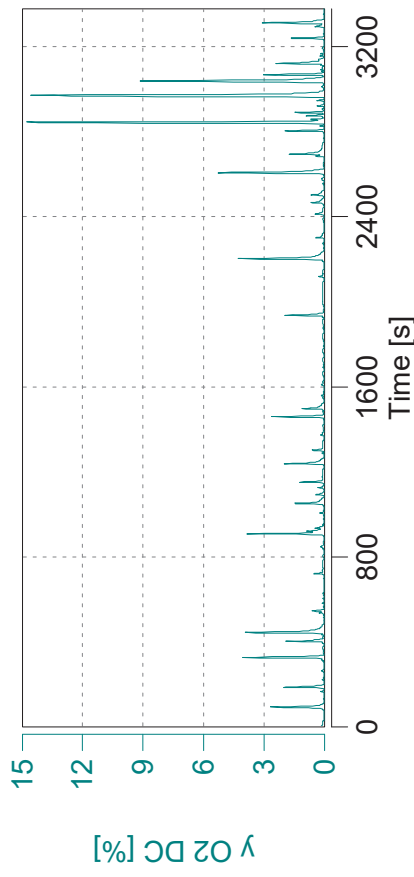
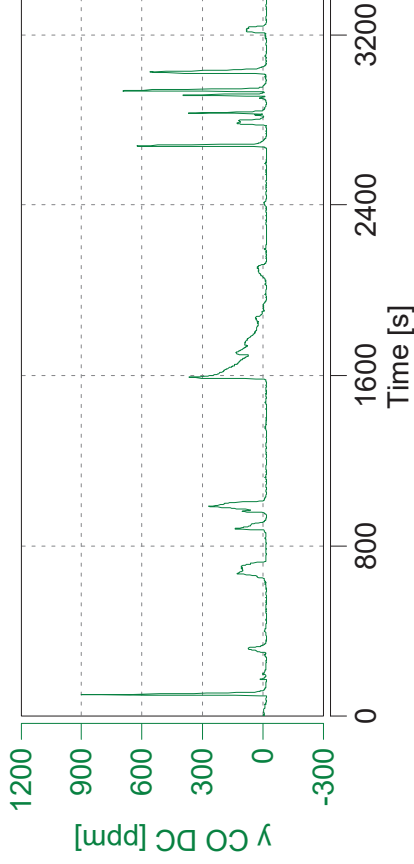
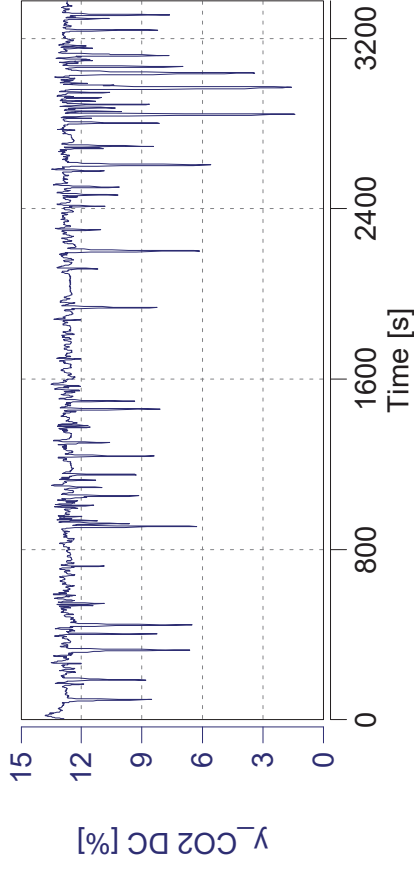
'City'

Start Date: 07/19/2018

Start Time: 21:06:14.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (2)

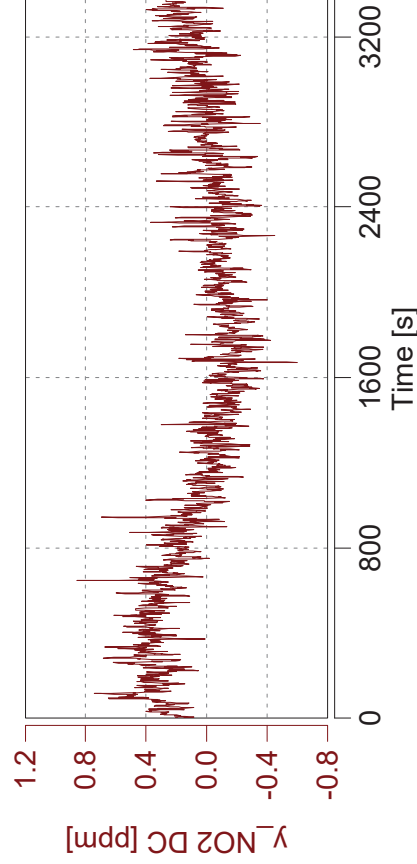
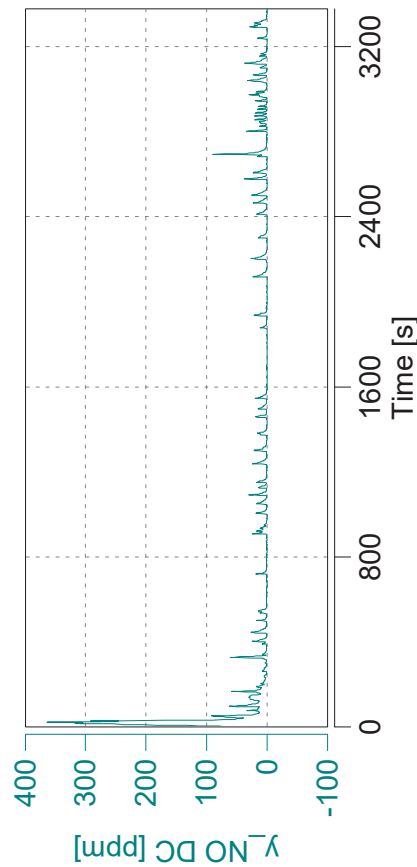
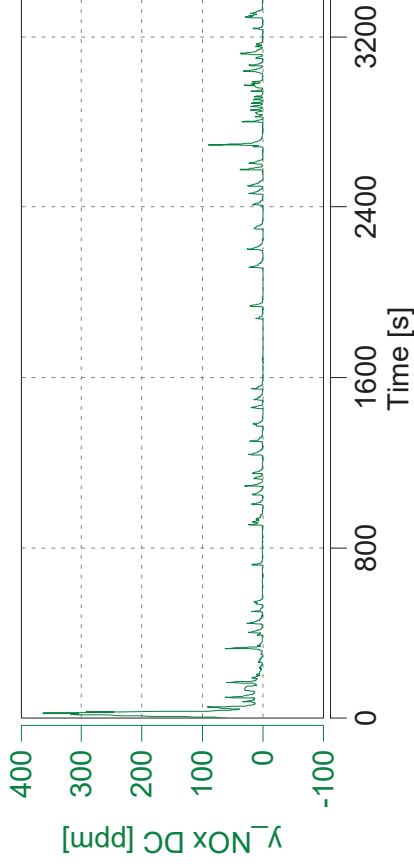
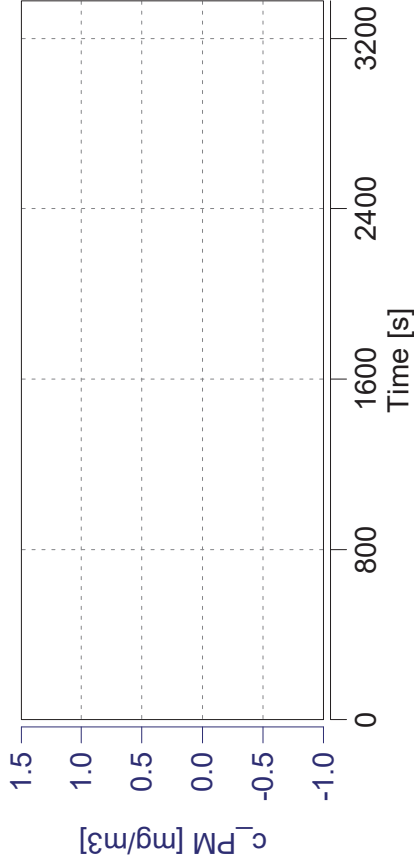
'City'

Start Date: 07/19/2018

Start Time: 21:06:14.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (3)

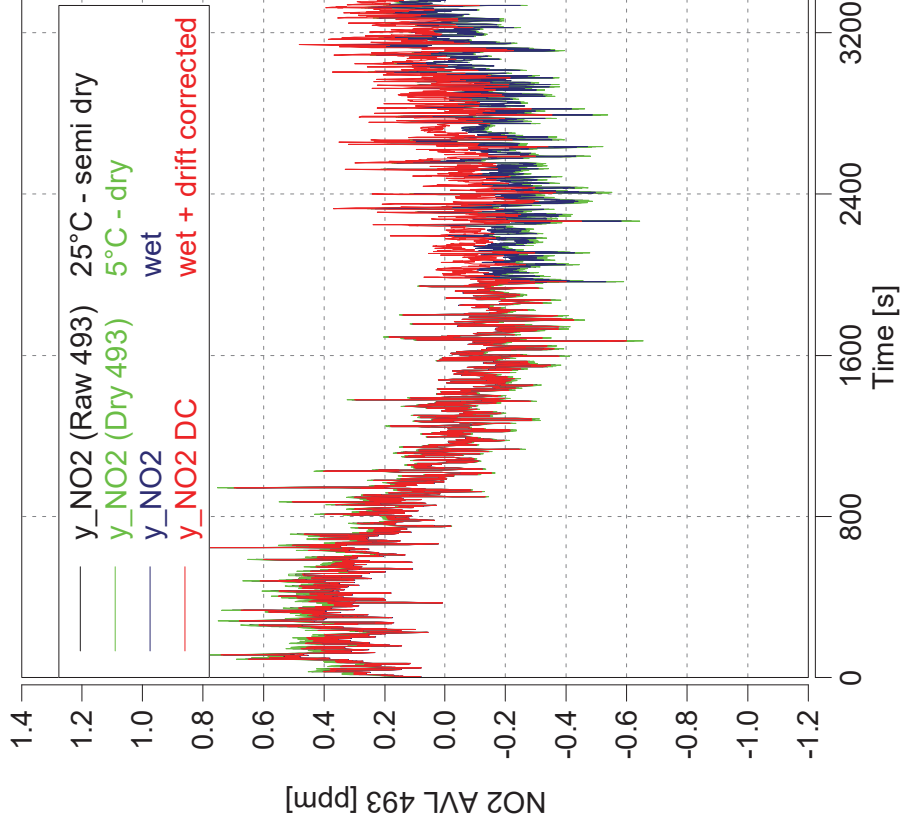
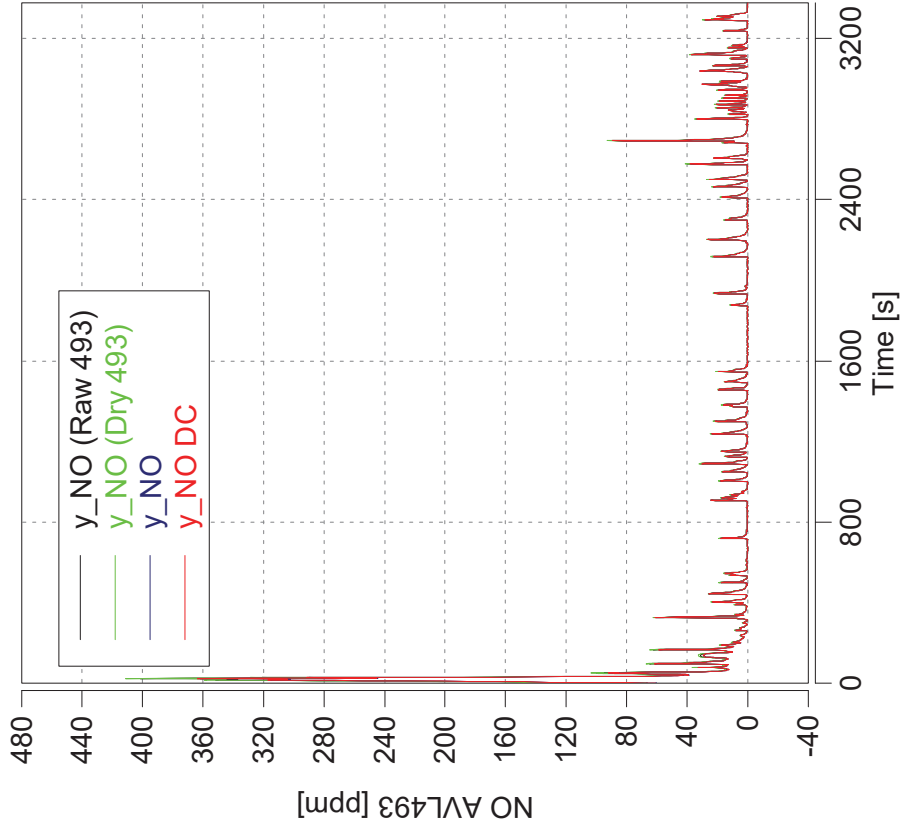
'City'

Start Date: 07/19/2018

Start Time: 21:06:14.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Audi A8 / 4.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (4) NOx Corrections

NOx - AVL 493

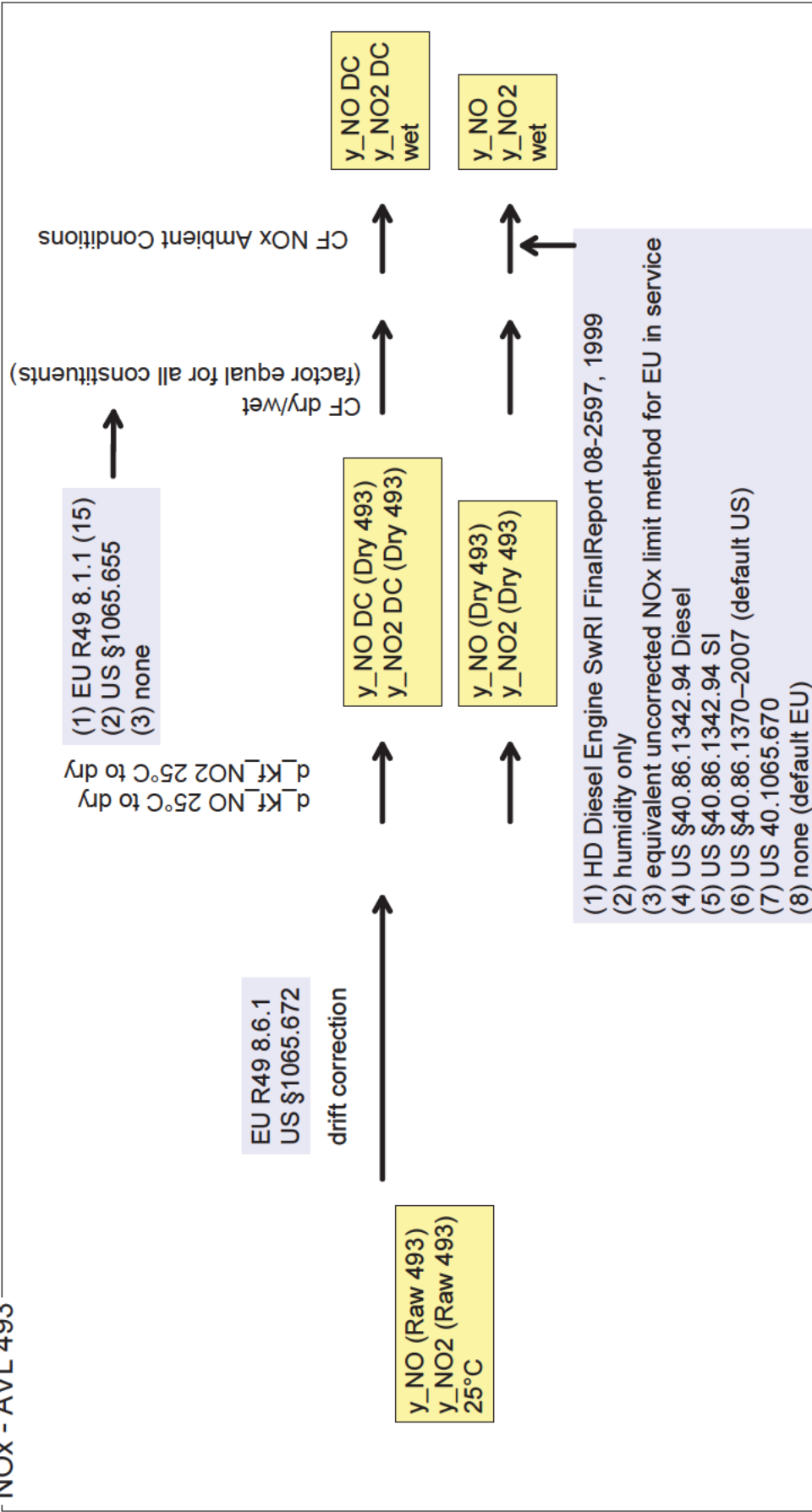
'City'

Start Date: 07/19/2018

Start Time: 21:06:14.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: / Vehicle: Audi A8 / 4.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (5)

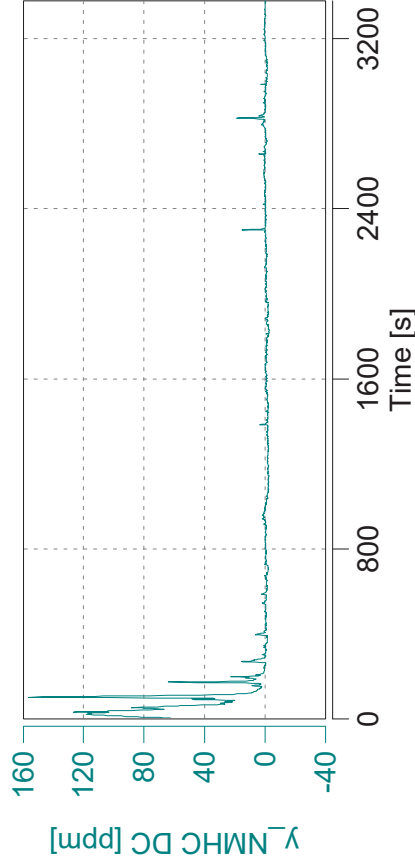
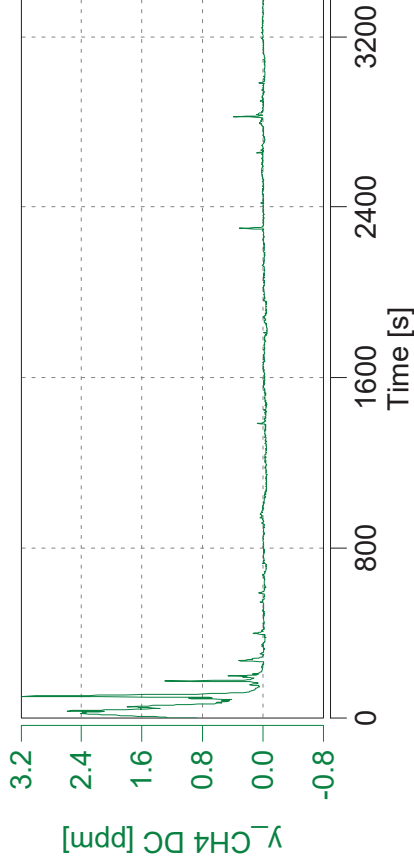
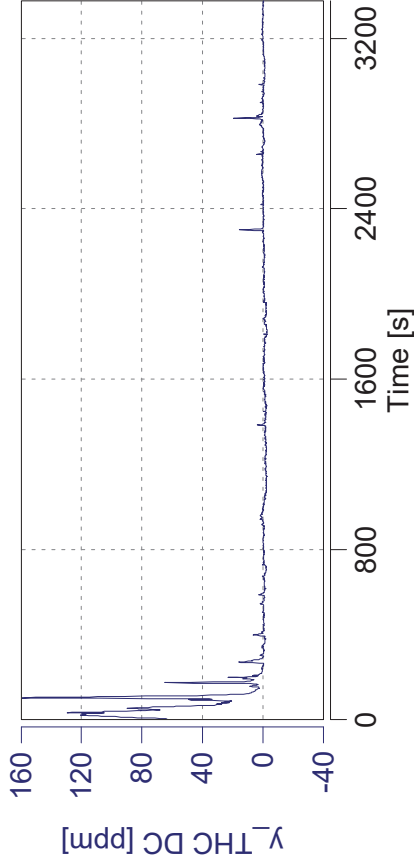
'City'

Start Date: 07/19/2018

Start Time: 21:06:14.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Audi A8 / 4.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: NO/NO2/NOx Zero - Span

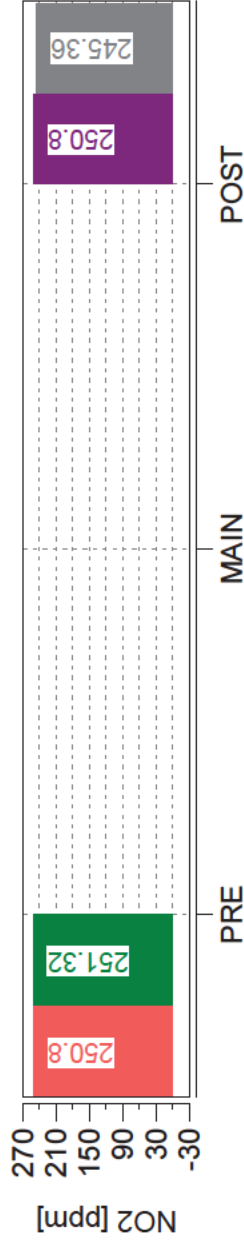
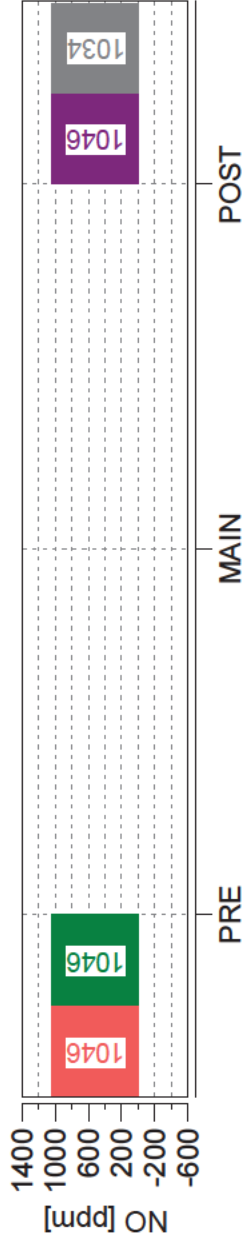
'City'

Start Date: 07/19/2018

Start Time: 21:06:14.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /



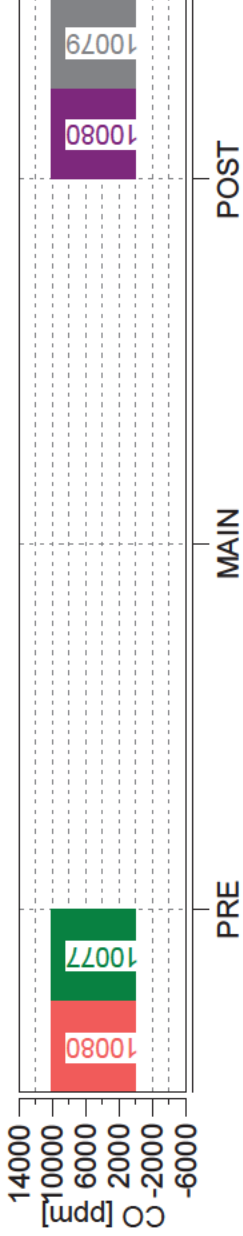
Concerto M.O.V.E., 2018

'City'

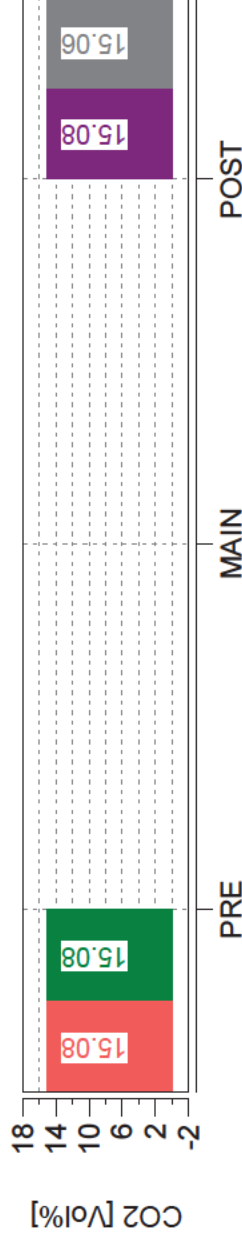
Start Date: 07/19/2018

Start Time: 21:06:14.0

Case: City
Page: CO/CO2 Zero - Span



GP_CO_Cal_gas_value
GP_CO_Adjust_Actual
GP_CO_Reference
GP_CO_Audit_Actual



GP_CO2_Cal_gas_value
GP_CO2_Adjust_Actual
GP_CO2_Reference
GP_CO2_Audit_Actual

Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Audi A8 / 4.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: THC/CH4 Zero - Span

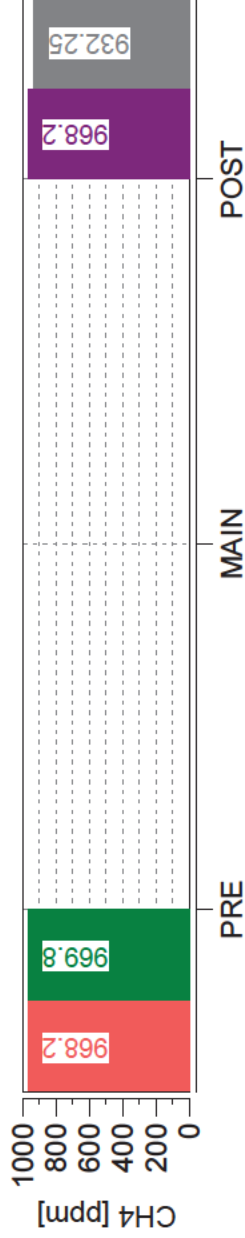
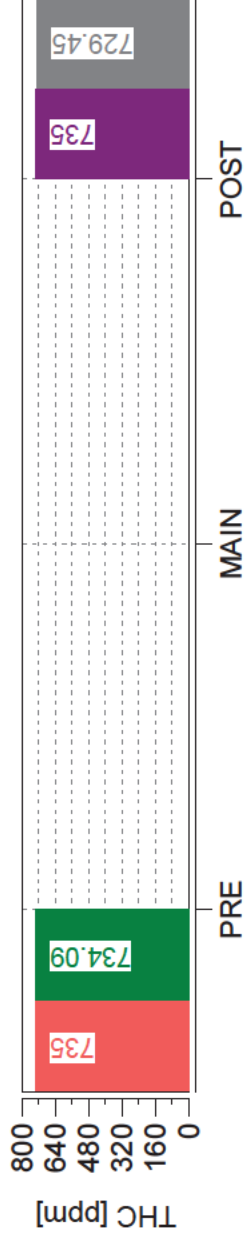
'City'

Start Date: 07/19/2018

Start Time: 21:06:14.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Audi A8 / 4.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: Highway
Page: Trip Summary

'Highway'
Start Date: 07/22/2018
Start Time: 14:05:43.0



Concerto M.O.V.E. 2018

Trip Duration	3516.00	s	ave THC	0.64359	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3516.00	s	ave NMHC	0.63071	ppm	BS CO	n/a	g/hphr
Trip Distance	39.54	mi	ave CH4	0.01287	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	39.54	mi	ave CO	41.69274	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	12.09575	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx	12.00396	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.82	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.76	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.70	gall	tot THC	0.08630	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.68	gall	tot NMHC	0.07982	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00191	g	DS CO2	366.04805	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	6.12562	g	DS CO	0.15493	g/mi
Trip Fuel Economy EU (ac)	23.21	mpg_US	tot CO2	14472.36902	g	DS THC	0.00218	g/mi
Trip Fuel Economy US (ac)	23.51	mpg_US	tot NO (d)	1.12993	g	DS NMHC	0.00202	g/mi
Trip Av. Eng. Speed	1591.95	rpm	tot NO2	0.17686	g	DS CH4	0.00005	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	1.30678	g	DS NO (d)	0.02858	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00447	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.03305	g/mi
Trip Exhaust Mass	76.39	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	82.64	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	52.53	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	40.48137	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	2.87258	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Atlas / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Trip Summary Drift Corrected

'Highway'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018

Trip Duration	3516.00	s	ave THC DC	1.1111	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3516.00	s	ave NMHC DC	1.0889	ppm	BS CO DC	n/a	g/hphr
Trip Distance	39.54	mi	ave CH4 DC	0.0222	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	39.54	mi	ave CO DC	41.5222	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	12.0957	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	11.9858	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.82	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.76	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.70	gall	tot THC DC	0.1036	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.68	gall	tot NMHC DC	0.0958	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.0023	g	DS CO2 DC	366.0480	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	6.1143	g	DS CO DC	0.1546	g/mi
Trip Fuel Economy EU (ac)	23.21	mpg_US	tot CO2 DC	14472.3690	g	DS THC DC	0.0026	g/mi
Trip Fuel Economy US (ac)	23.51	mpg_US	tot NO DC (d)	1.1407	g	DS NMHC DC	0.0024	g/mi
Trip Av. Eng. Speed	1591.95	rpm	tot NO2 DC	0.1651	g	DS CH4 DC	0.0000	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	1.3058	g	DS NO DC (d)	0.0288	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.0041	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.0330	g/mi
Trip Exhaust Mass	76.39	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.0000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	82.64	deg_F	PM correction type	1.0000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	52.53	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.0000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.0000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	40.4813	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	2.8725	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.0000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.0000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.0000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment Check

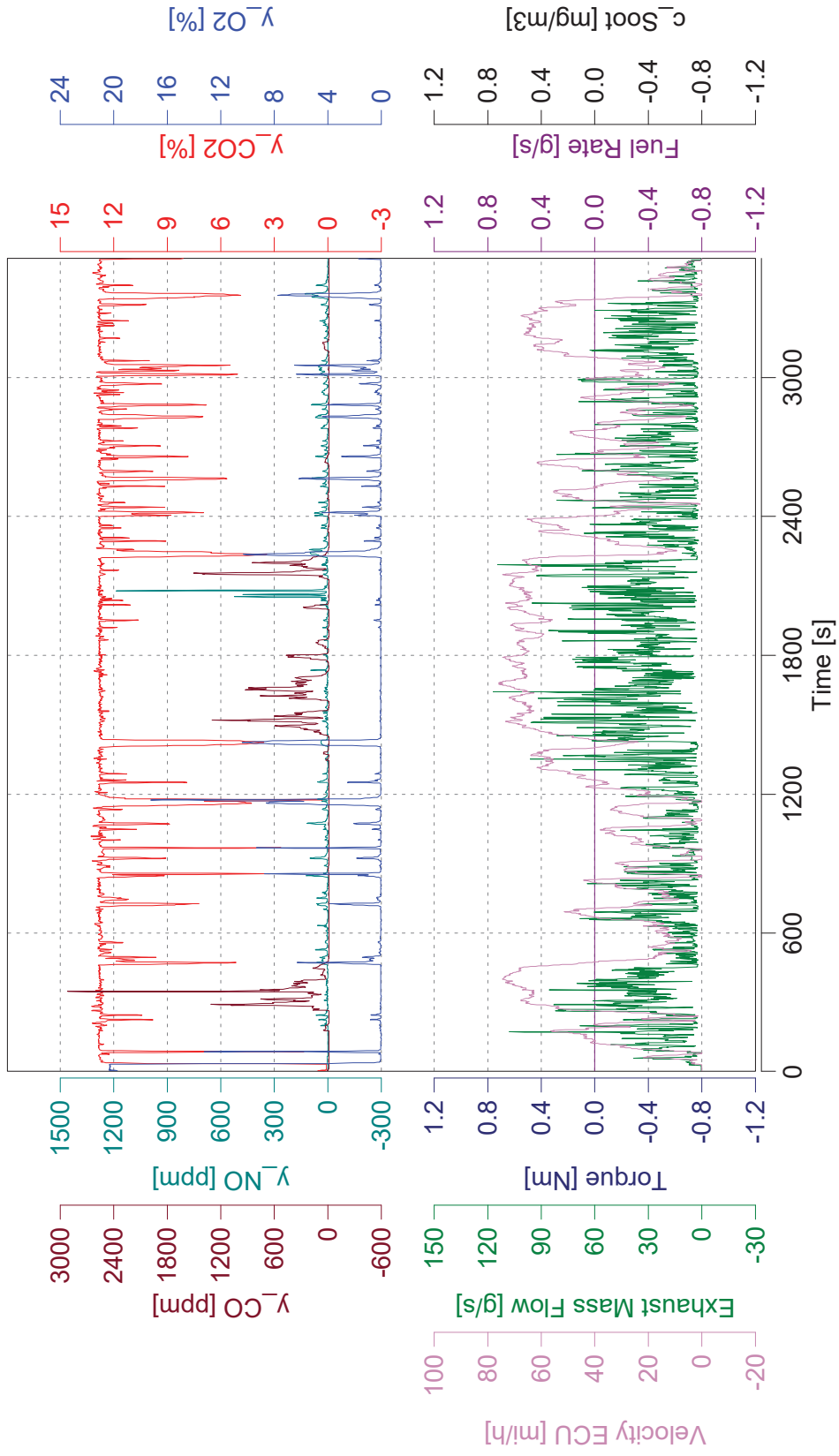
'Highway'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment of Gas Concentrations

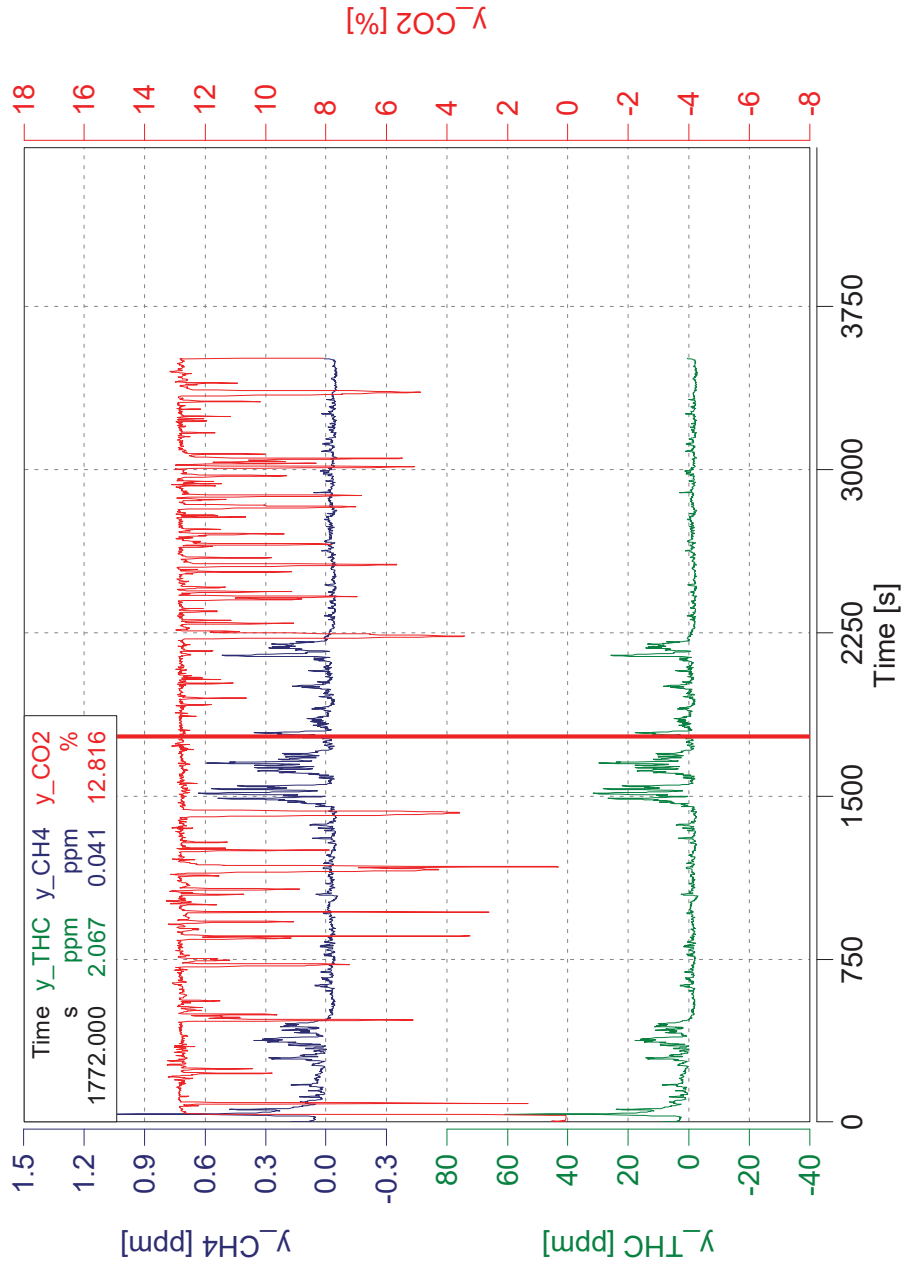
'Highway'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

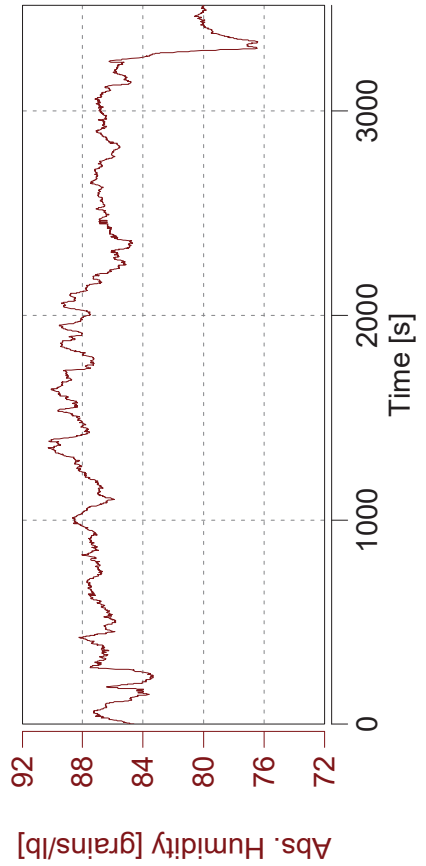
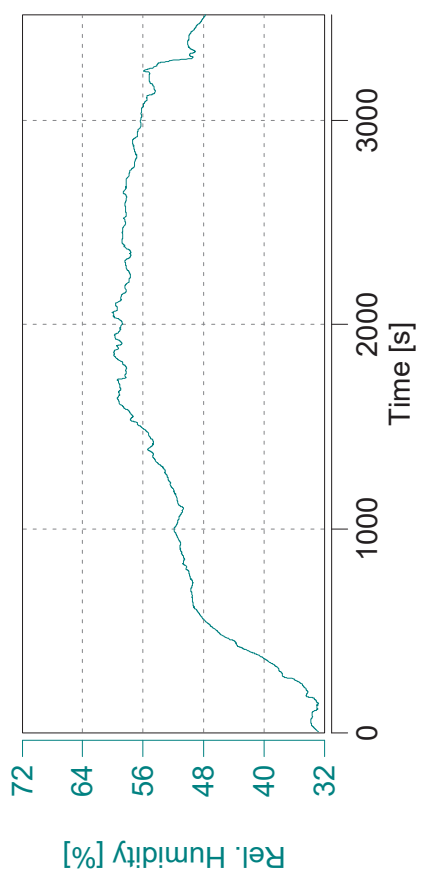
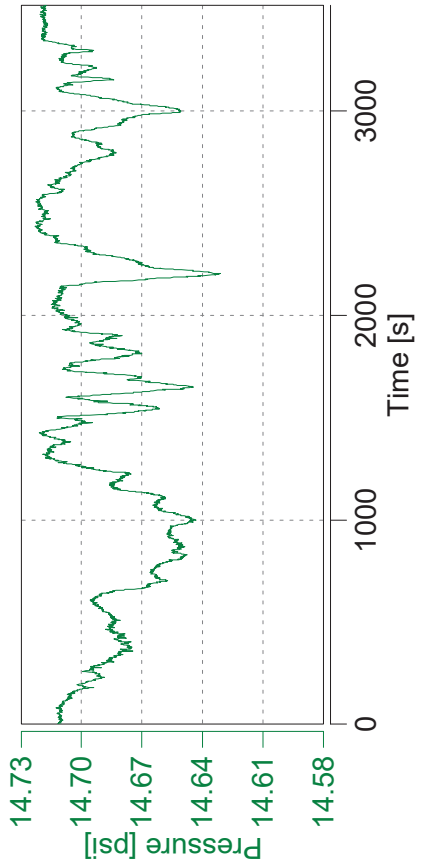
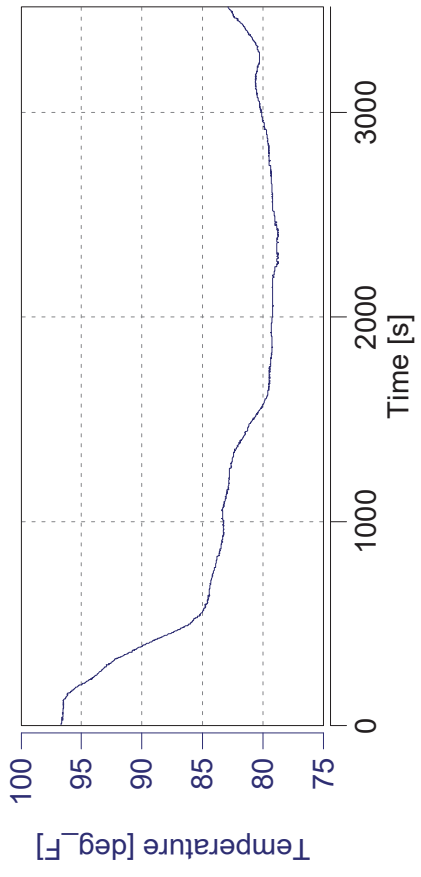
Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway
 Page: Ambient Conditions

'Highway'
 Start Date: 07/22/2018
 Start Time: 14:05:43.0



Concerto Version: 480 Build 316, Serial Number: 1120
 M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L
 Engine: /
 NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
 Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: GPS

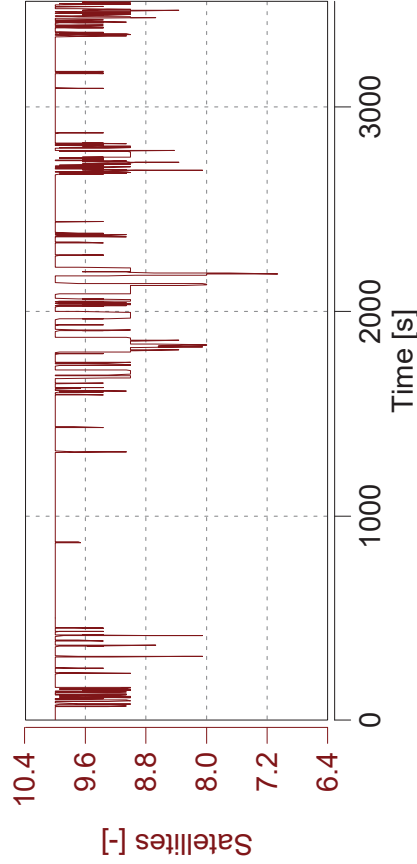
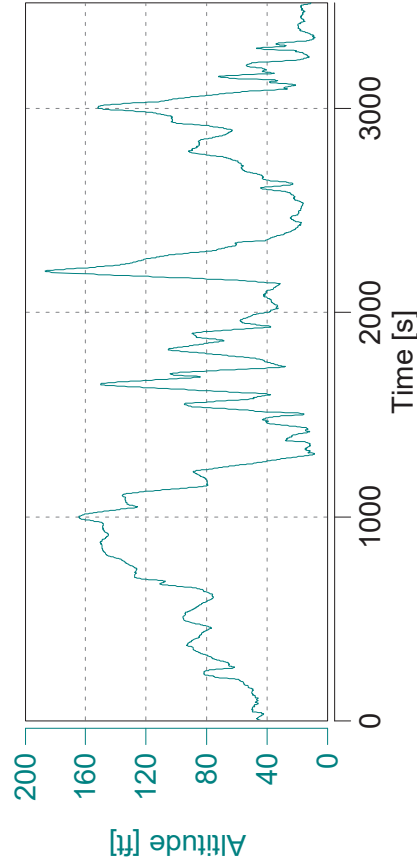
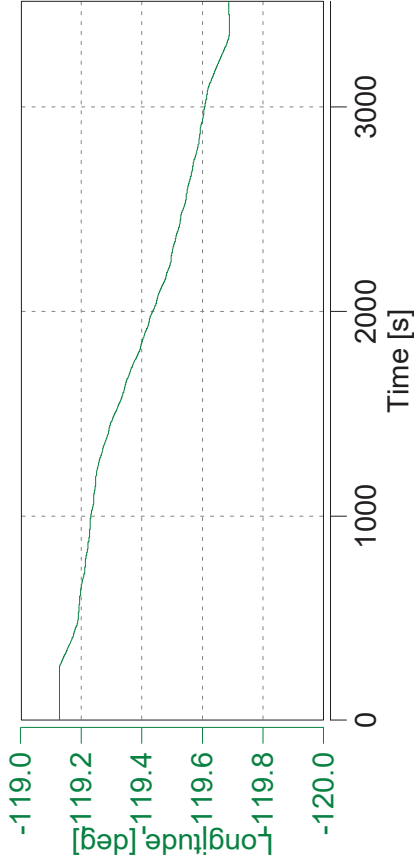
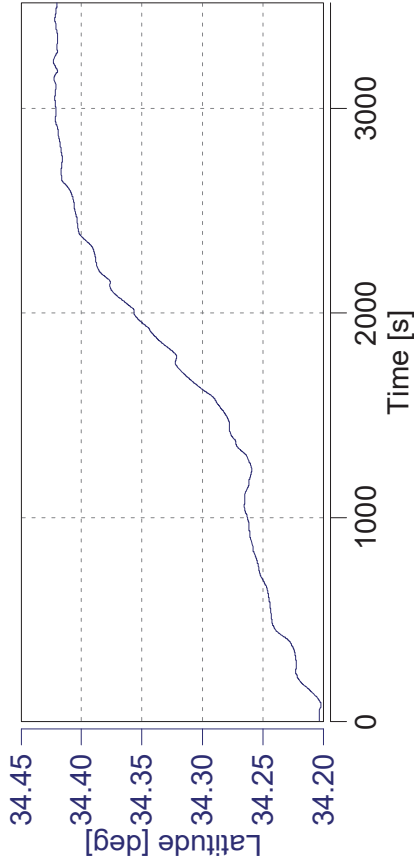
'Highway'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (1)

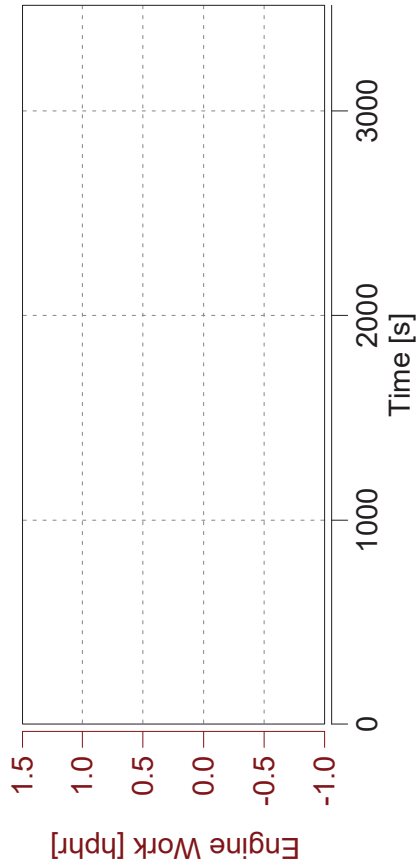
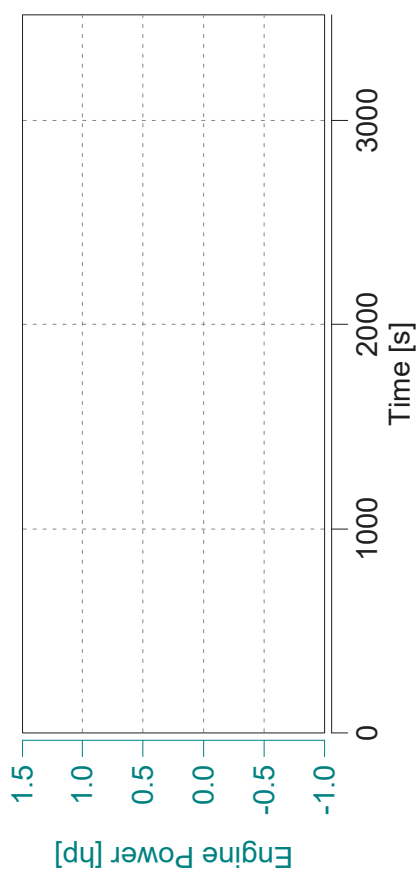
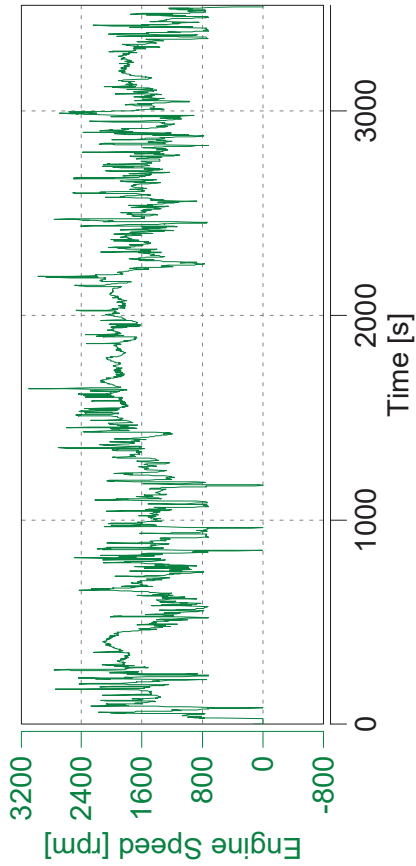
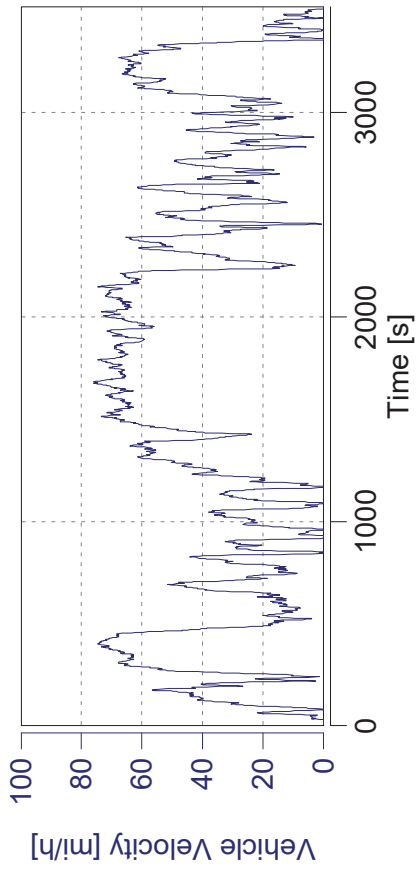
'Highway'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018

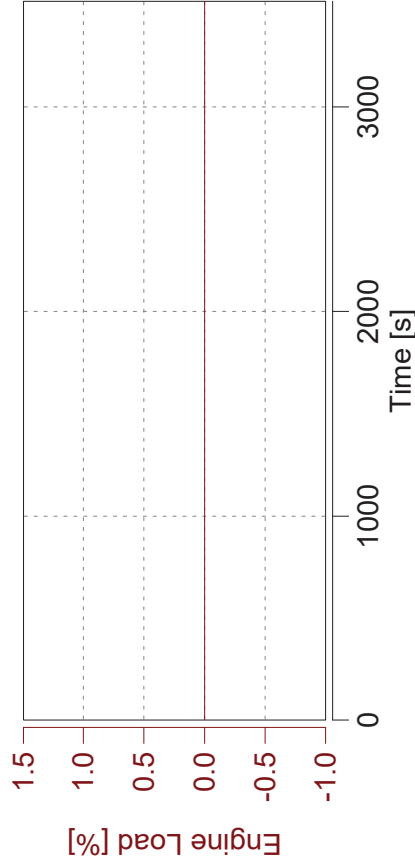
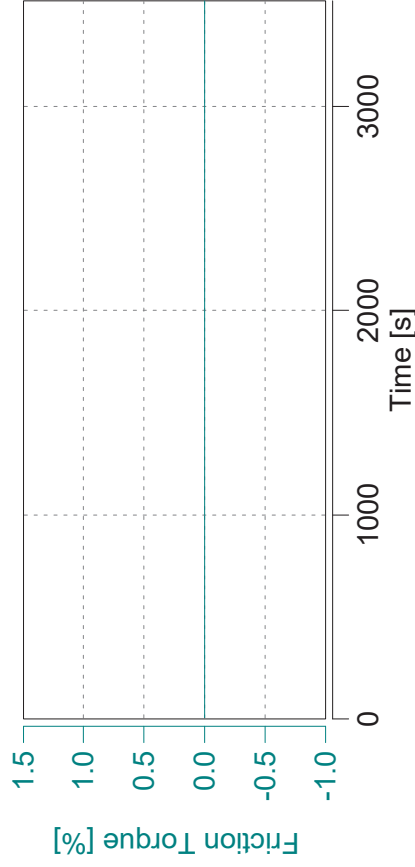
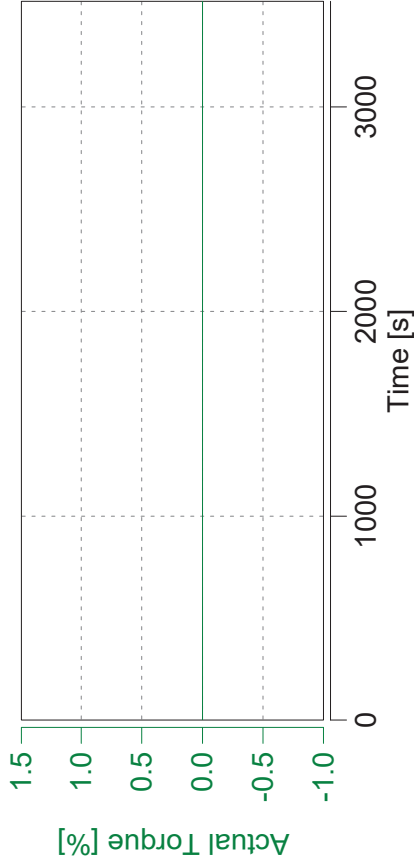
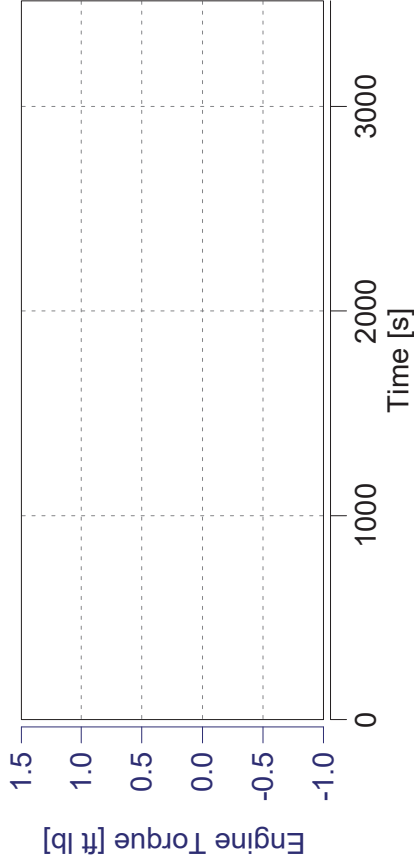


Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway
Page: Engine (2)

'Highway'
Start Date: 07/22/2018
Start Time: 14:05:43.0

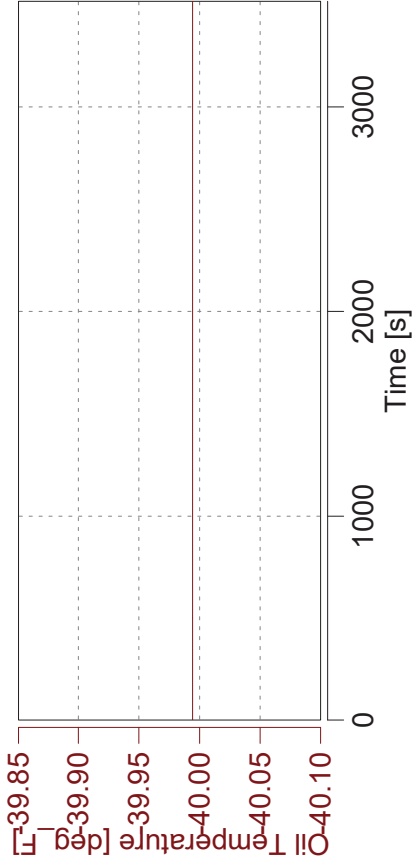
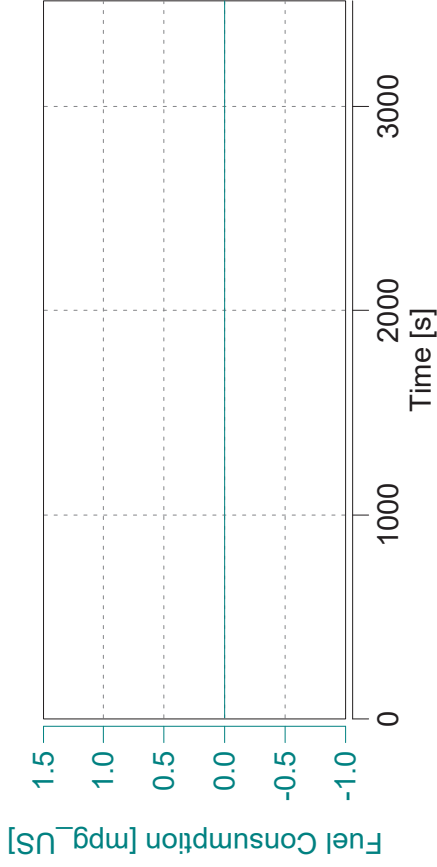
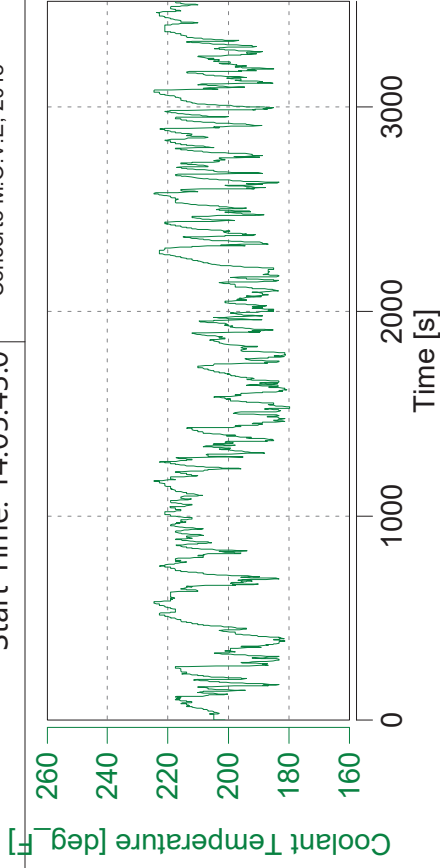
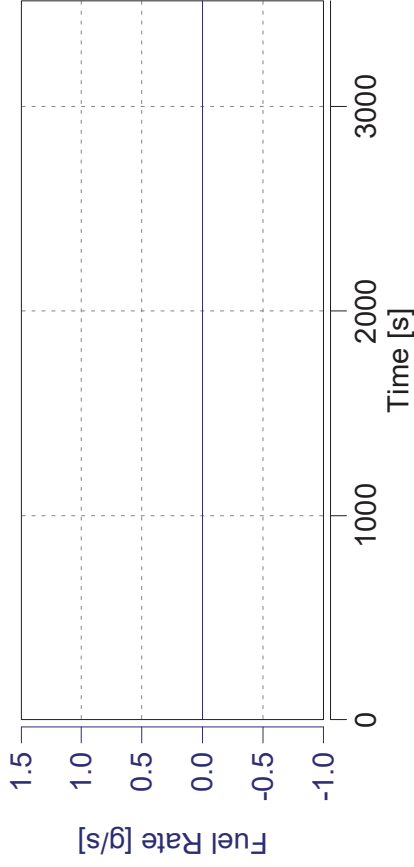


Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

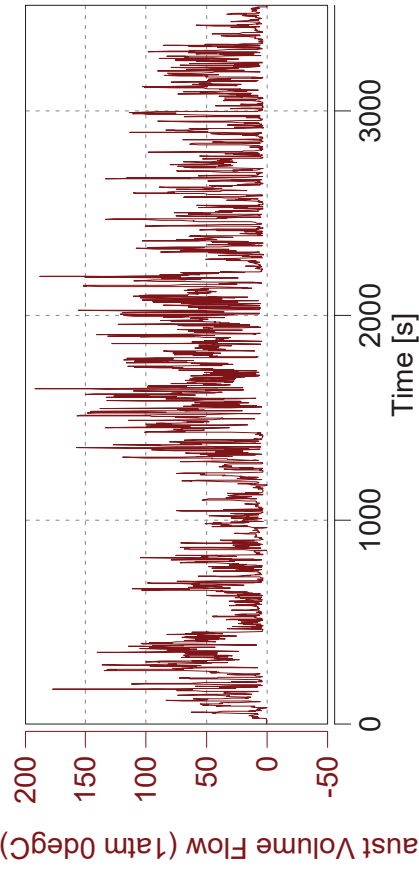
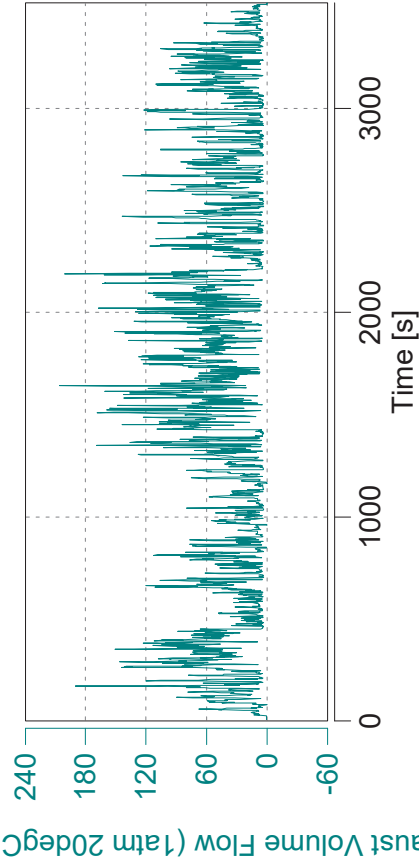
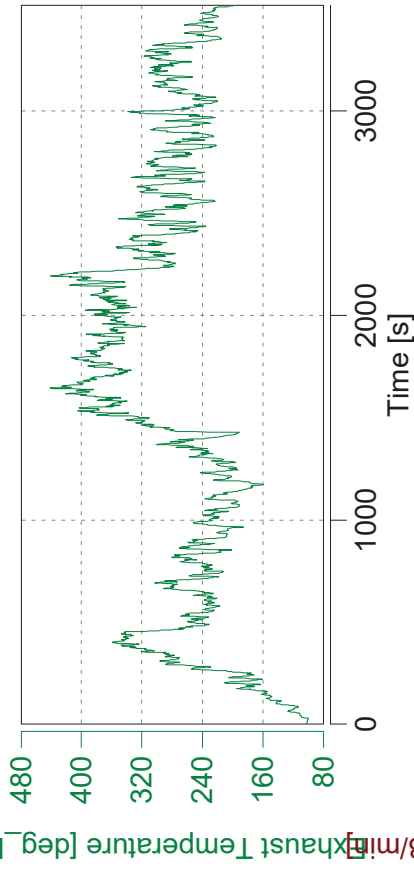
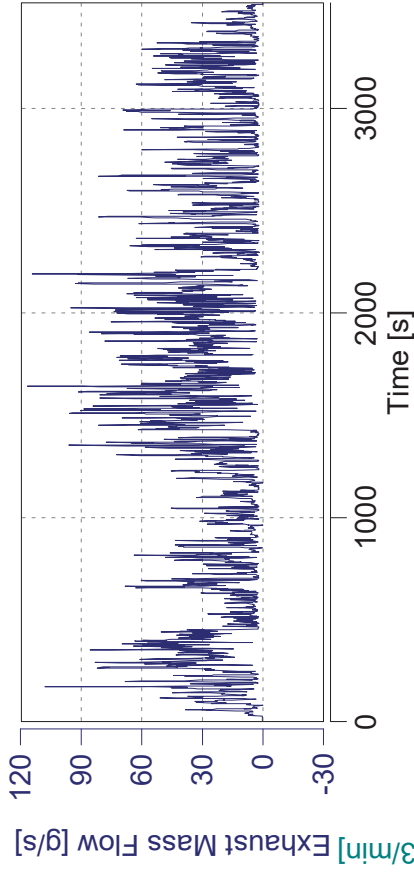
Case: Highway
Page: Engine (3)

'Highway'
Start Date: 07/22/2018
Start Time: 14:05:43.0



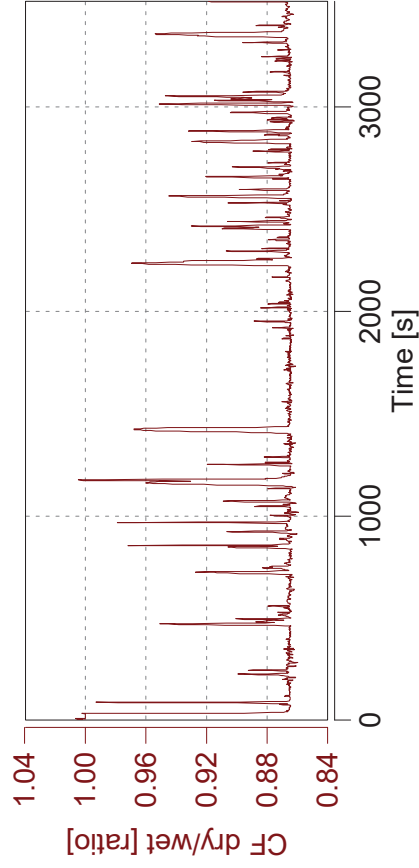
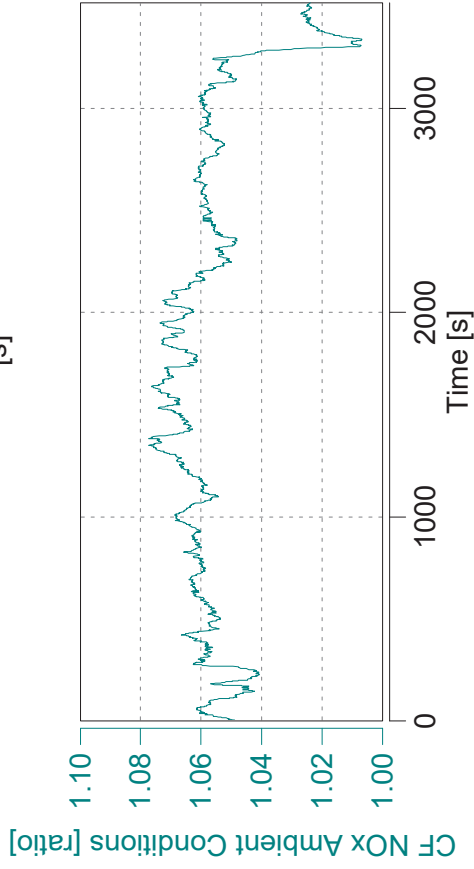
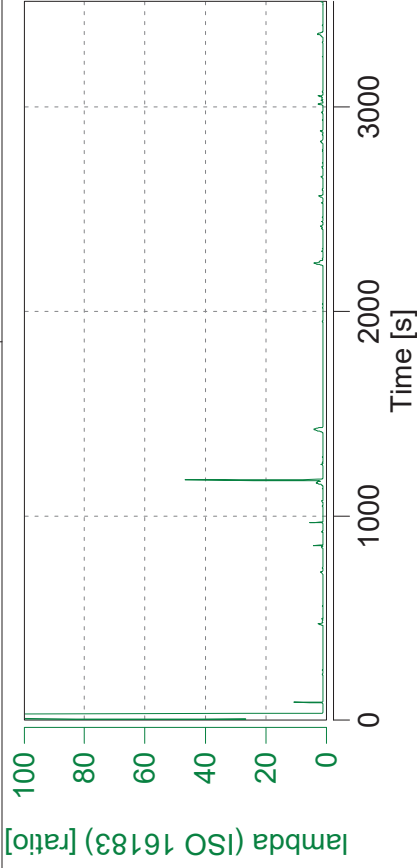
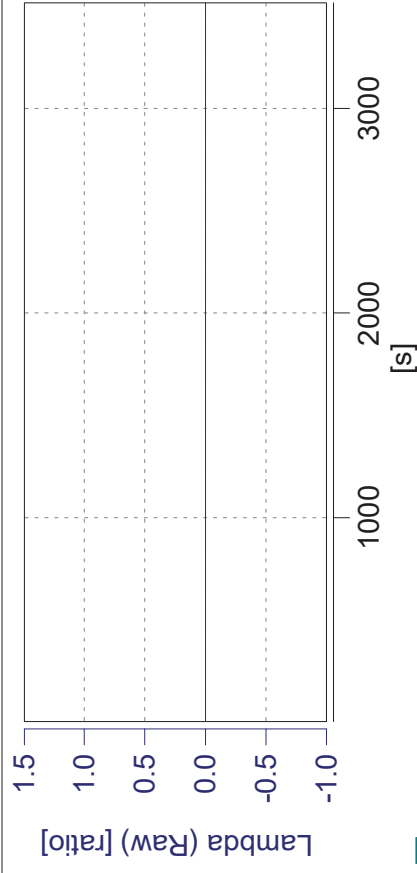
Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90



Case: Highway
 Page: Exhaust Flow (2)

'Highway'
 Start Date: 07/22/2018
 Start Time: 14:05:43.0



Concerto Version: 480 Build 316, Serial Number: 1120
 M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L
 Engine: /
 NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
 Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (1)

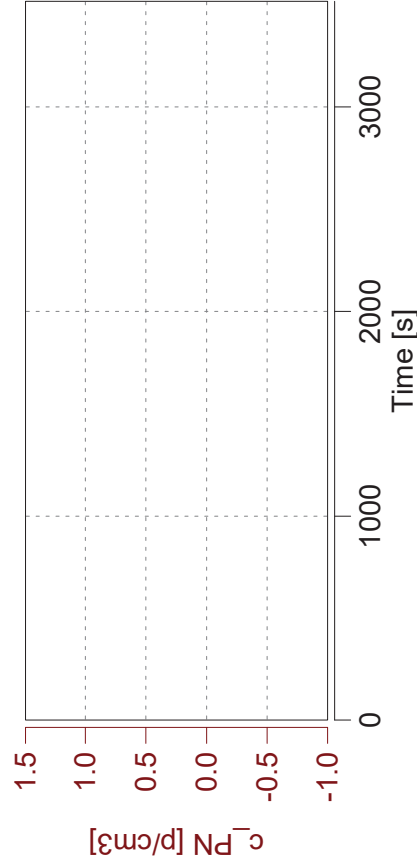
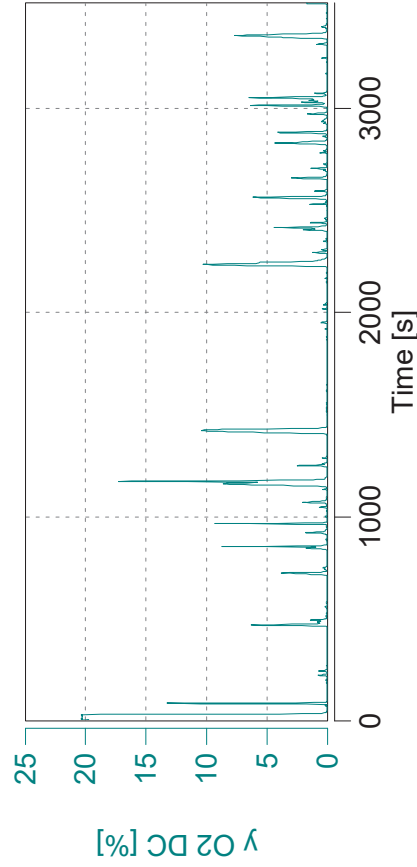
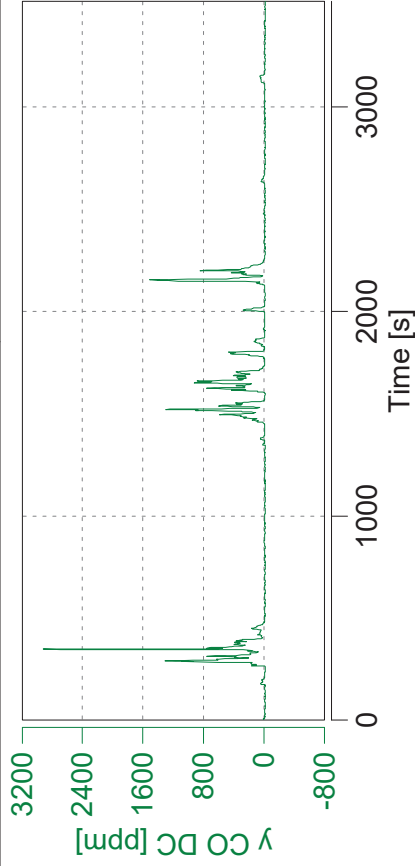
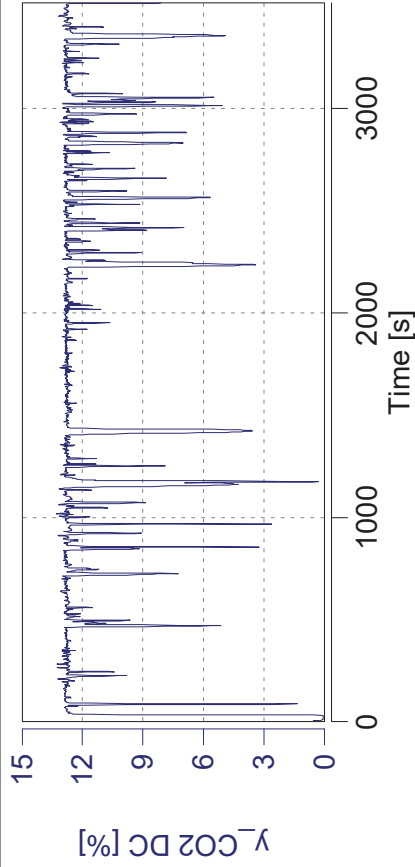
'Highway'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (2)

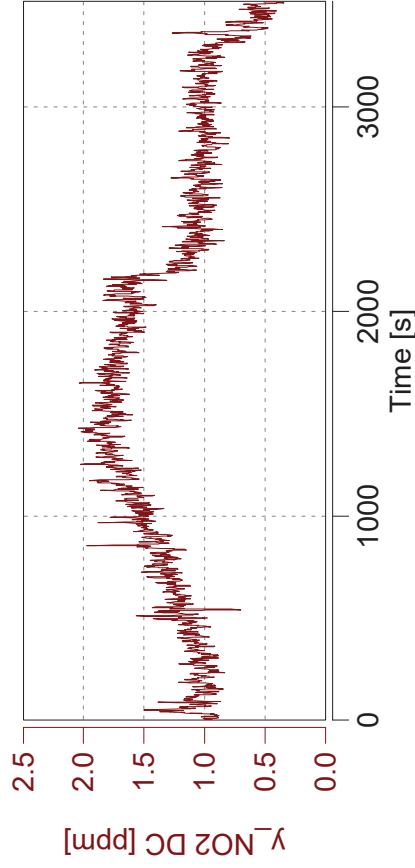
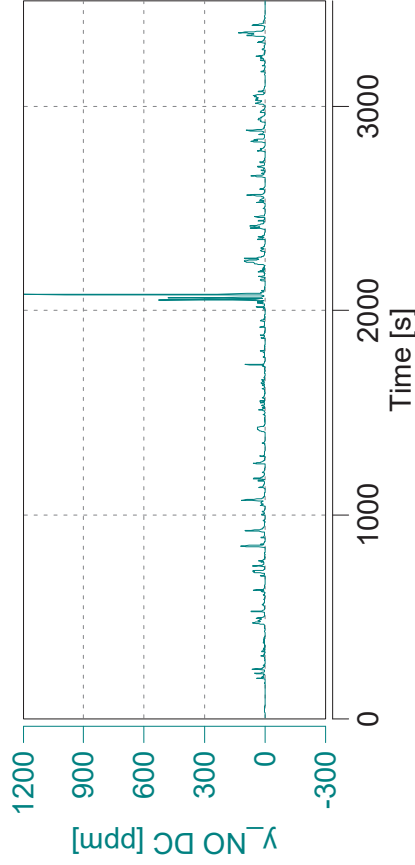
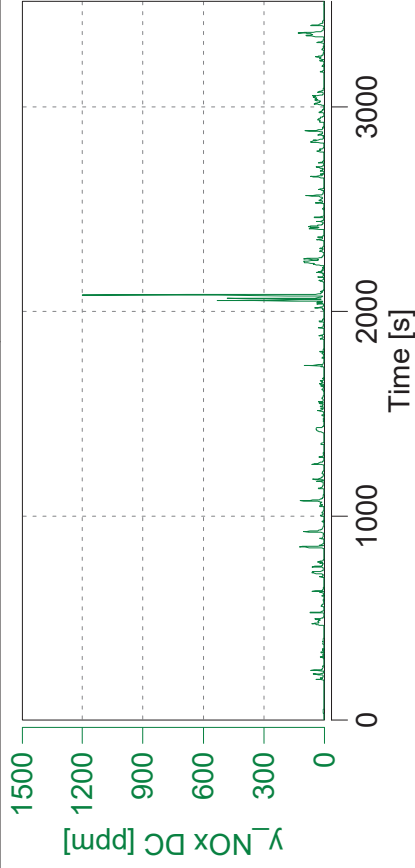
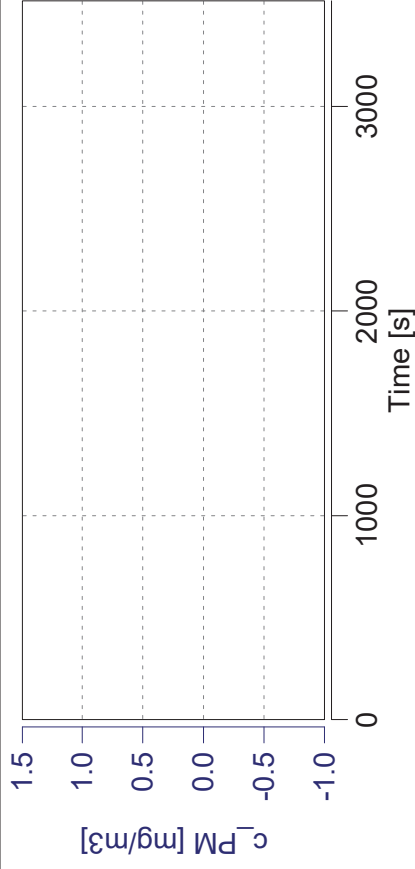
'Highway'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L
Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (3)

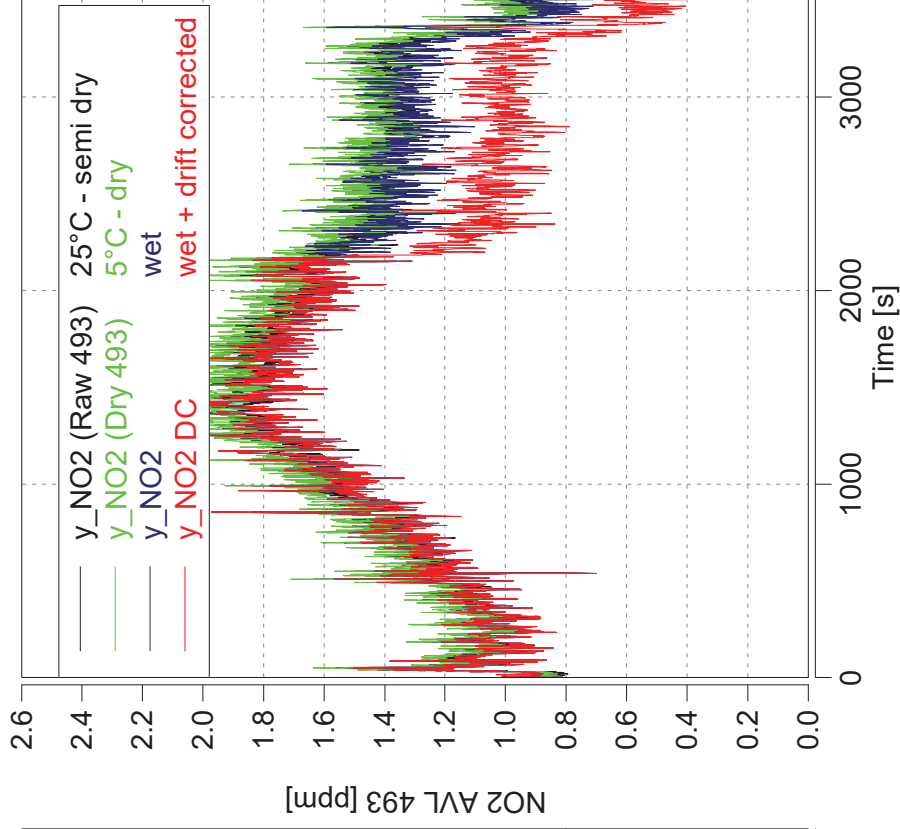
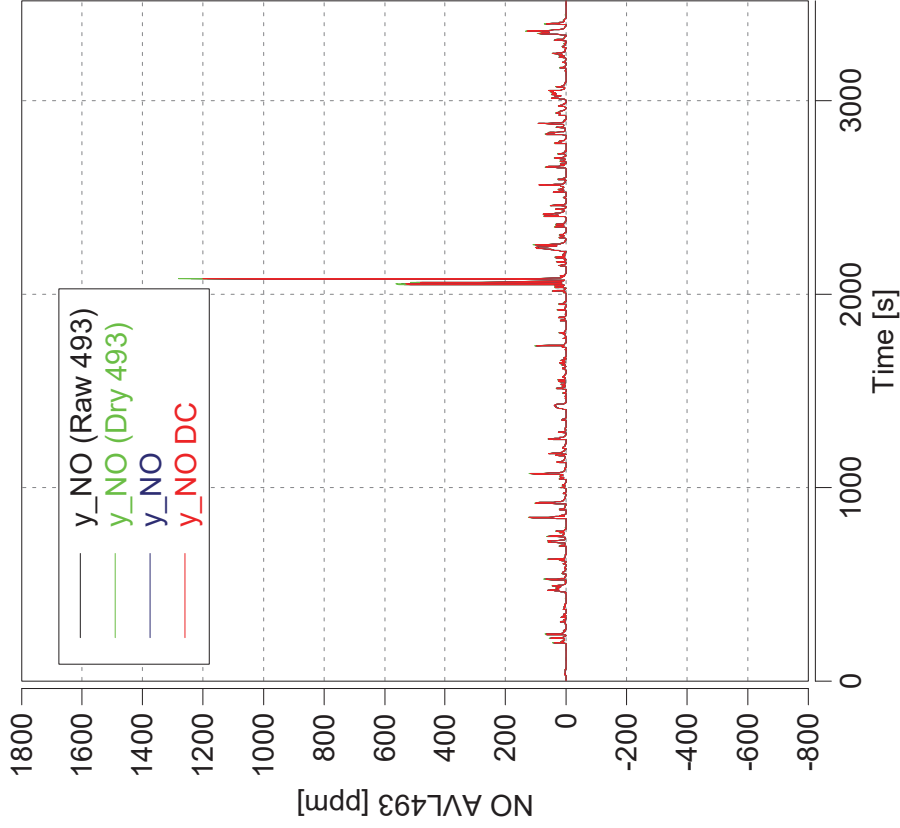
'Highway'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Atlas / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (4) NOx Corrections

'Highway'

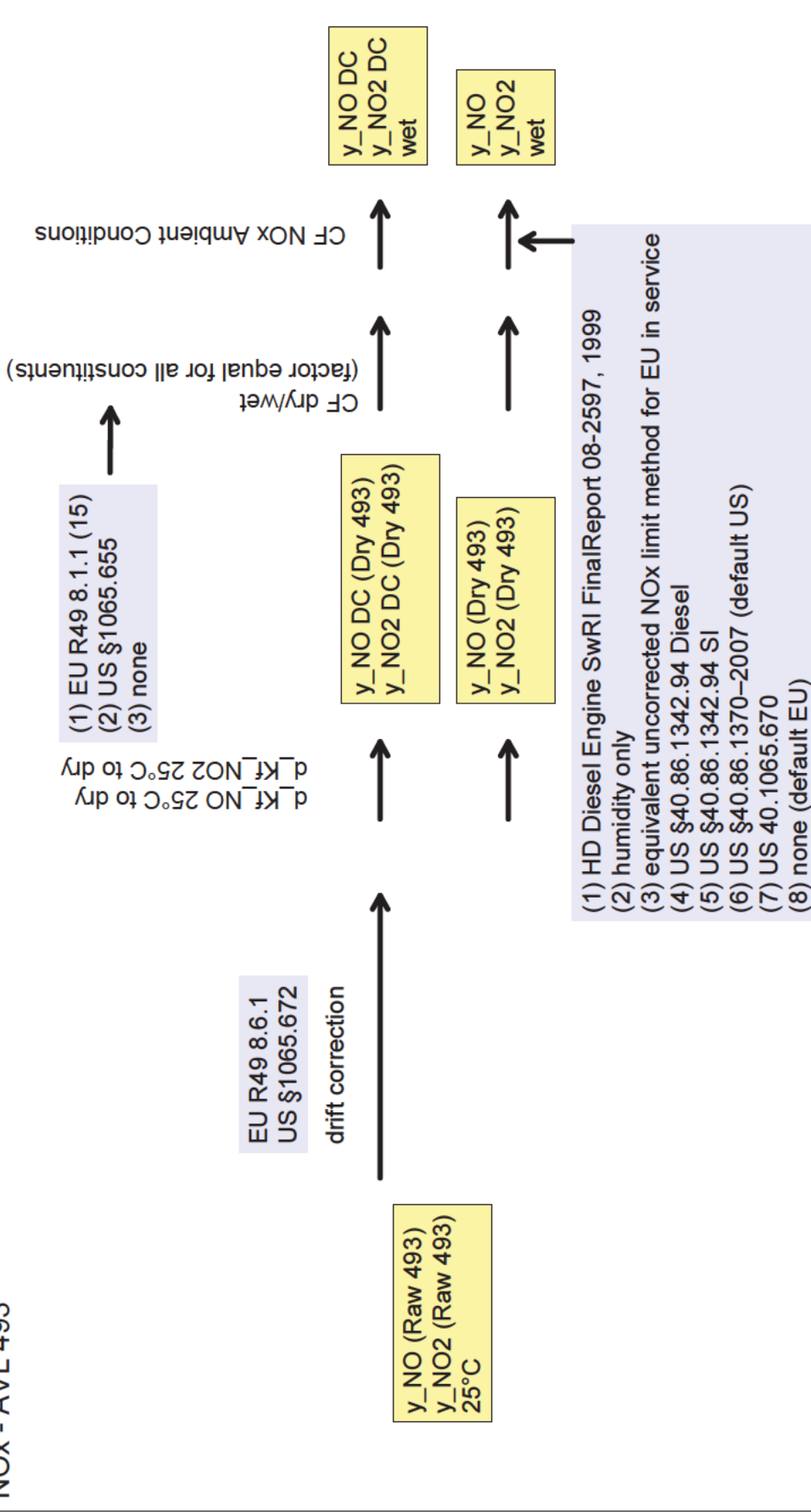
Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Atlas / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (5)

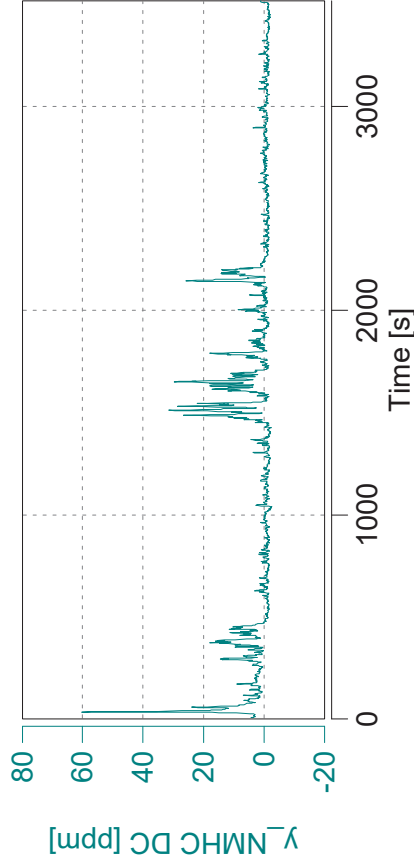
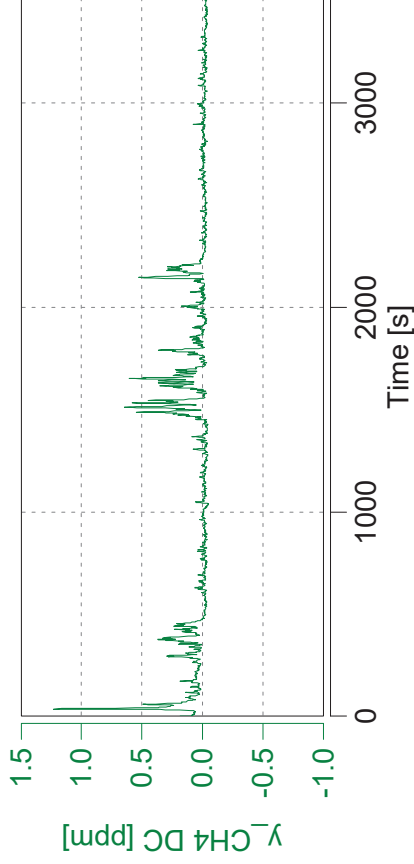
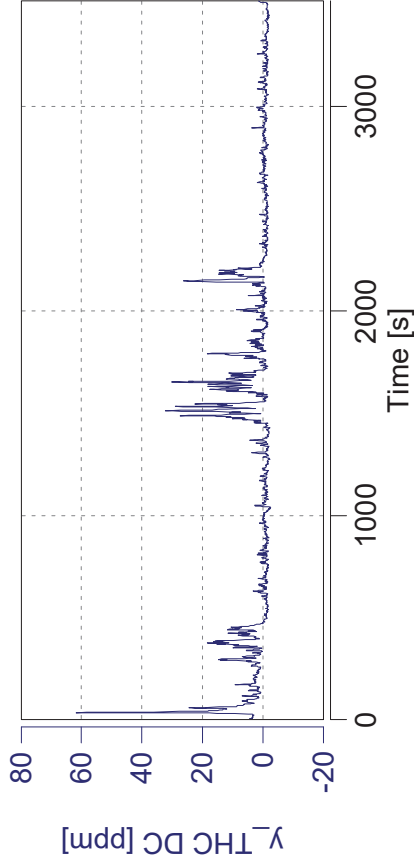
'Highway'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Vehicle: Atlas / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI Engine: /
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: NO/NO2/NOx Zero - Span

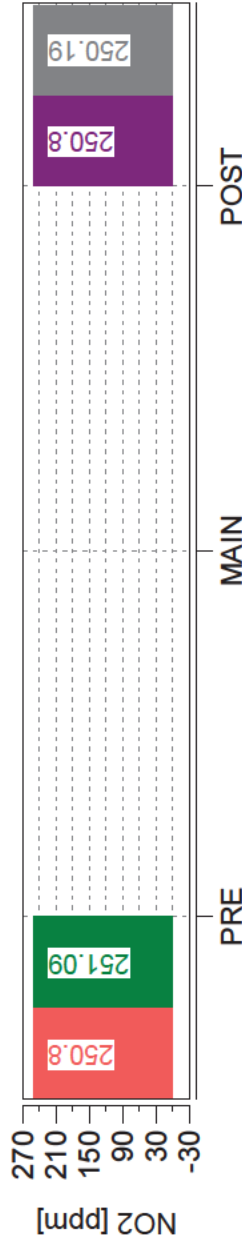
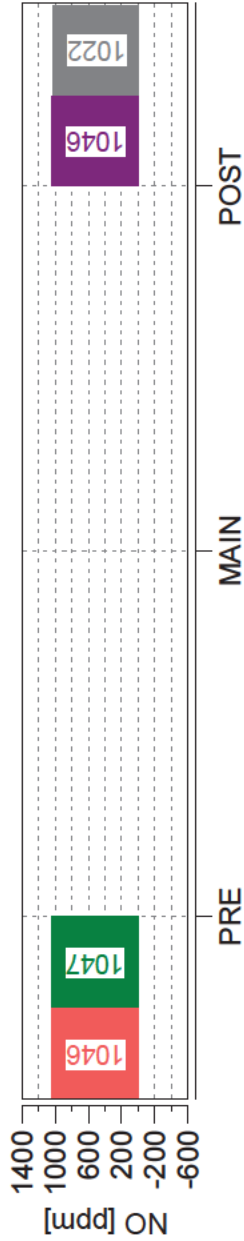
'Highway'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: CO/CO2 Zero - Span

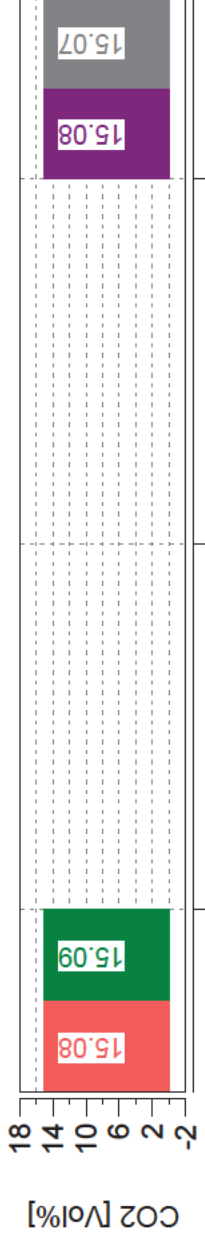
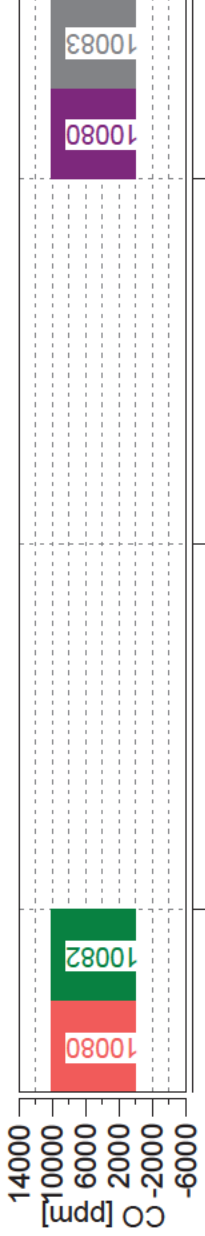
'Highway'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: THC/CH4 Zero - Span

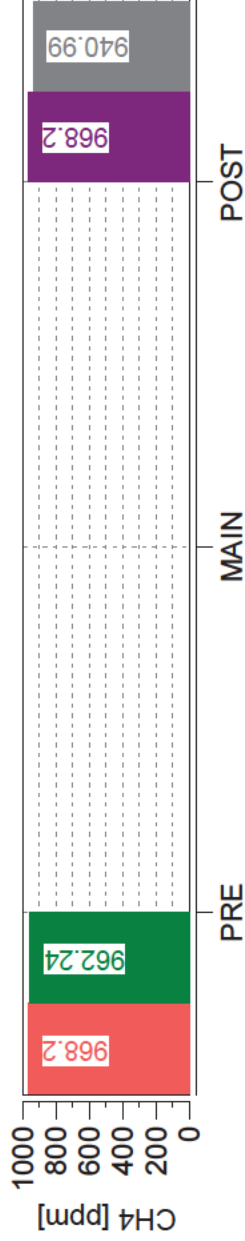
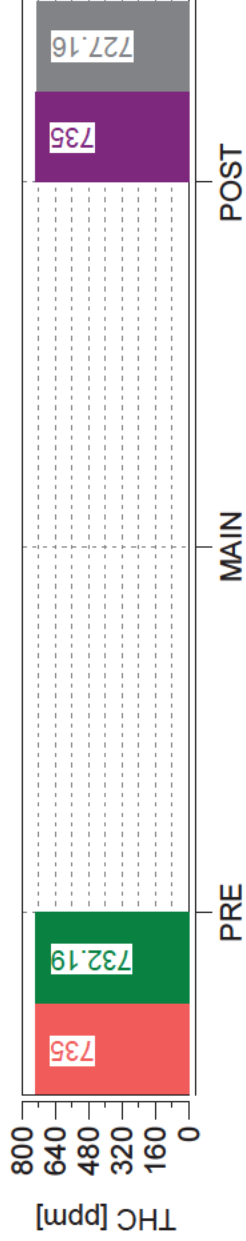
'Highway'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: Mountain

Page: Trip Summary

'Mountain'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E. 2018

Trip Duration	2896.00	s	ave THC	4.02943	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	2896.00	s	ave NMHC	3.94884	ppm	BS CO	n/a	g/hphr
Trip Distance	29.42	mi	ave CH4	0.08059	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	29.42	mi	ave CO	73.66033	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	10.44805	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	10.15130	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.45	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.41	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.22	gall	tot THC	0.21236	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.20	gall	tot NMHC	0.19643	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00471	g	DS CO2	352.03288	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	8.81663	g	DS CO	0.29971	g/mi
Trip Fuel Economy EU (ac)	24.16	mpg_US	tot CO2	10355.84142	g	DS THC	0.00722	g/mi
Trip Fuel Economy US (ac)	24.43	mpg_US	tot NO (d)	0.60841	g	DS NMHC	0.00668	g/mi
Trip Av. Eng. Speed	1904.71	rpm	tot NO2	0.10331	g	DS CH4	0.00016	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.71172	g	DS NO (d)	0.02068	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00351	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.02419	g/mi
Trip Exhaust Mass	58.35	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	85.75	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	42.45	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	36.56841	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	6.73343	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
 (d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary Drift Corrected

'Mountain'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018

Trip Duration	2896.00	s	ave THC DC	4.38871	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	2896.00	s	ave NMHC DC	4.30094	ppm	BS CO DC	n/a	g/hphr
Trip Distance	29.42	mi	ave CH4 DC	0.08777	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	29.42	mi	ave CO DC	73.63951	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	10.44805	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	10.24731	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.45	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.41	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.22	gall	tot THC DC	0.22347	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.20	gall	tot NMHC DC	0.20671	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00495	g	DS CO2 DC	352.03288	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	8.81413	g	DS CO DC	0.29962	g/mi
Trip Fuel Economy EU (ac)	24.16	mpg_US	tot CO2 DC	10355.84142	g	DS THC DC	0.00760	g/mi
Trip Fuel Economy US (ac)	24.43	mpg_US	tot NO DC (d)	0.61496	g	DS NMHC DC	0.00703	g/mi
Trip Av. Eng. Speed	1904.71	rpm	tot NO2 DC	0.10338	g	DS CH4 DC	0.00017	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.71834	g	DS NO DC (d)	0.02090	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00351	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.02442	g/mi
Trip Exhaust Mass	58.35	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	85.75	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	42.45	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	36.56841	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	6.73343	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment Check

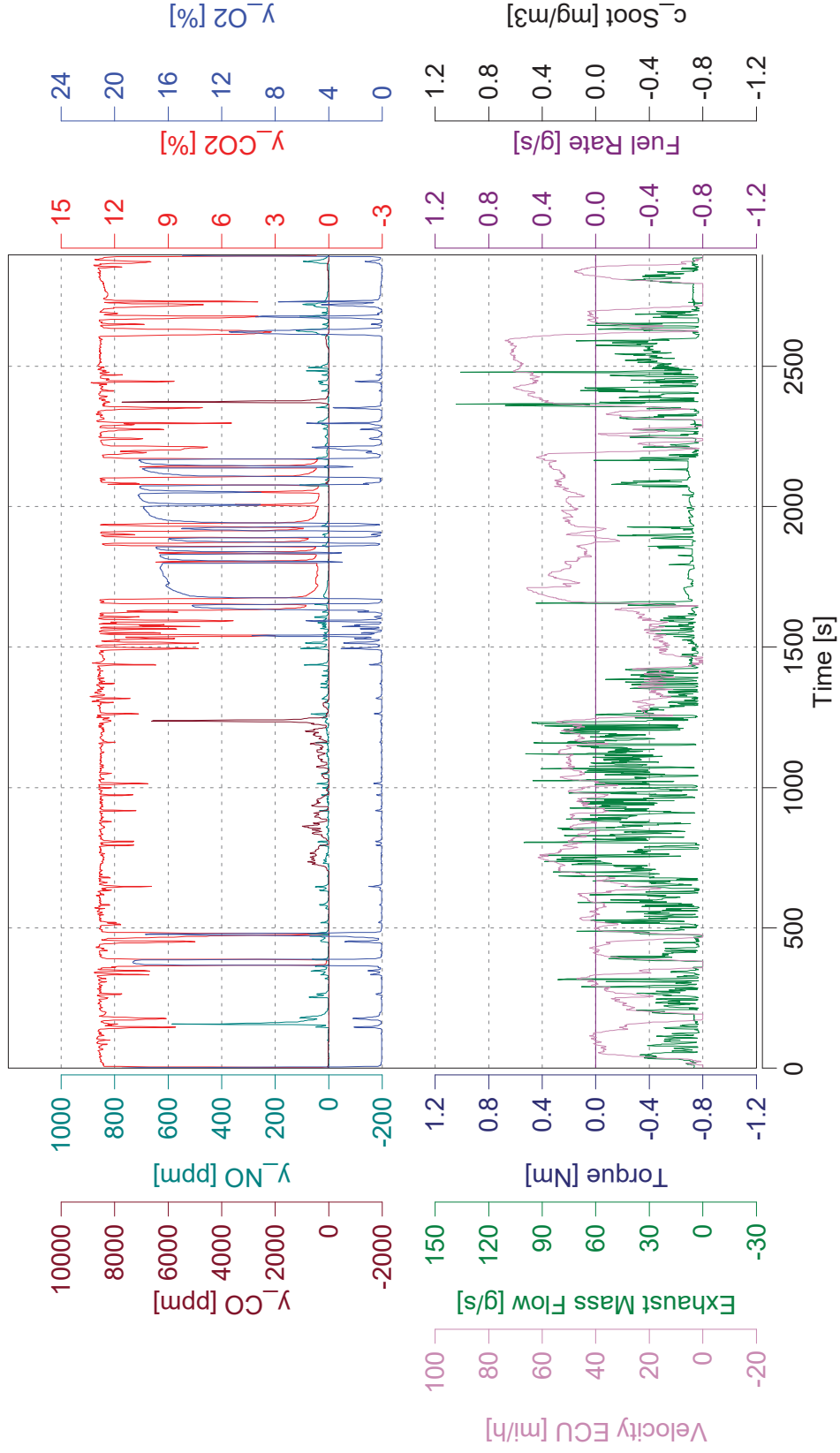
'Mountain'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment of Gas Concentrations

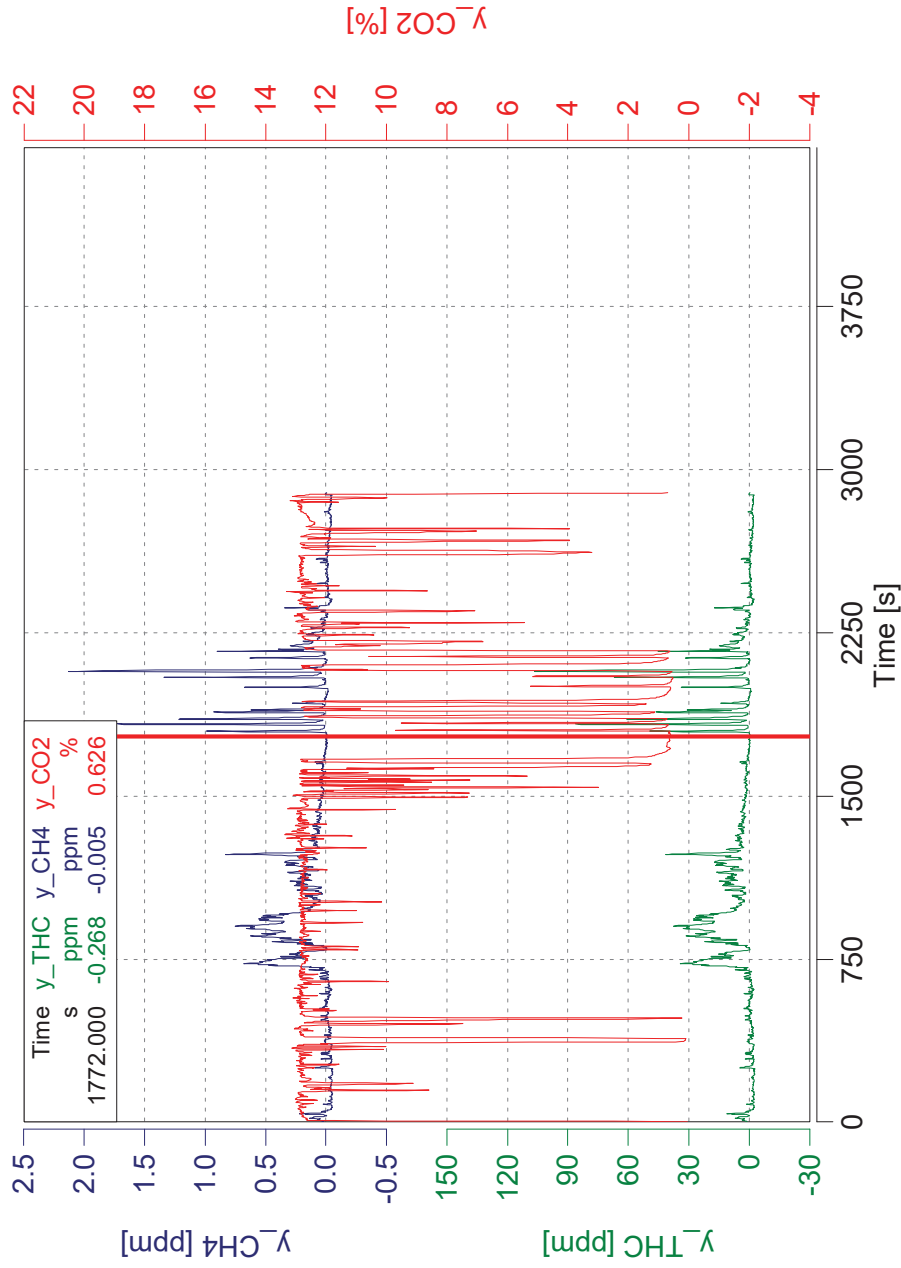
'Mountain'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Ambient Conditions

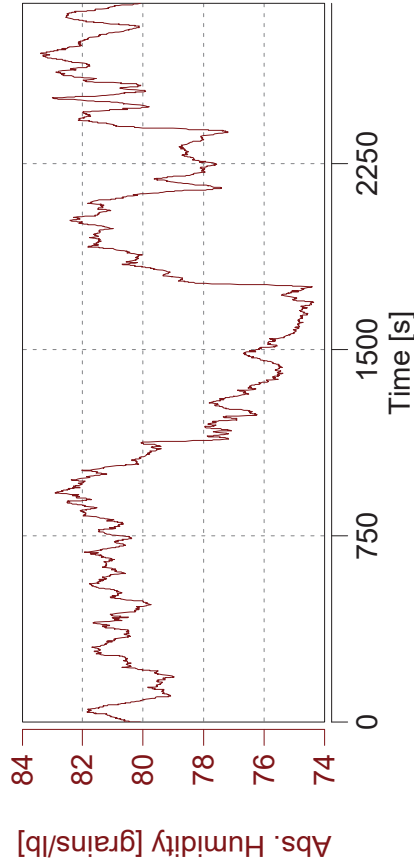
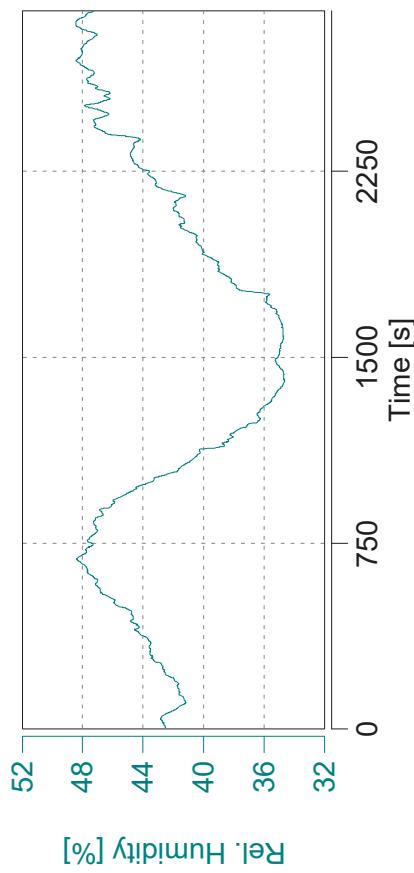
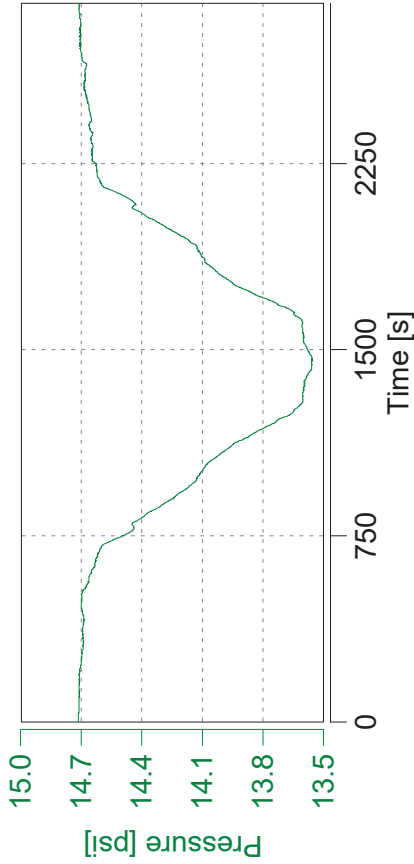
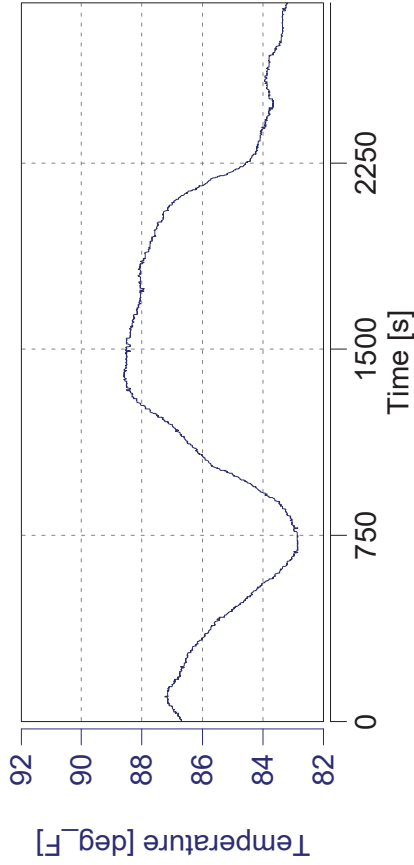
'Mountain'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: GPS

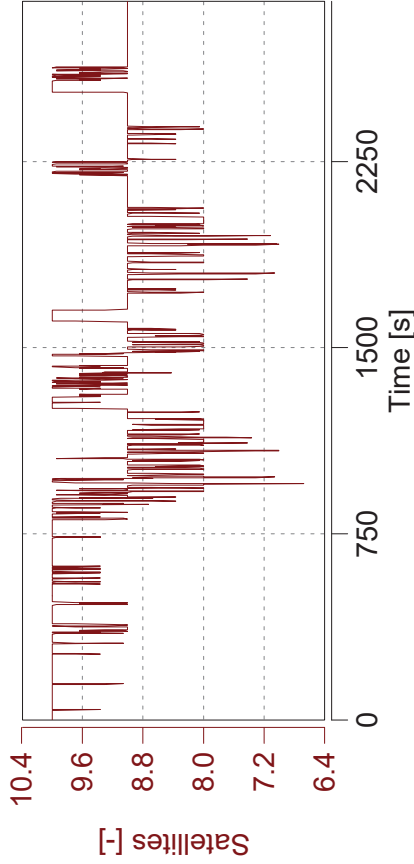
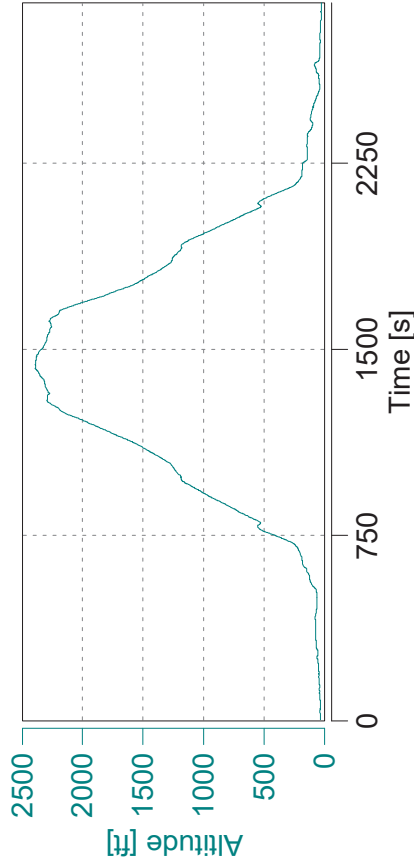
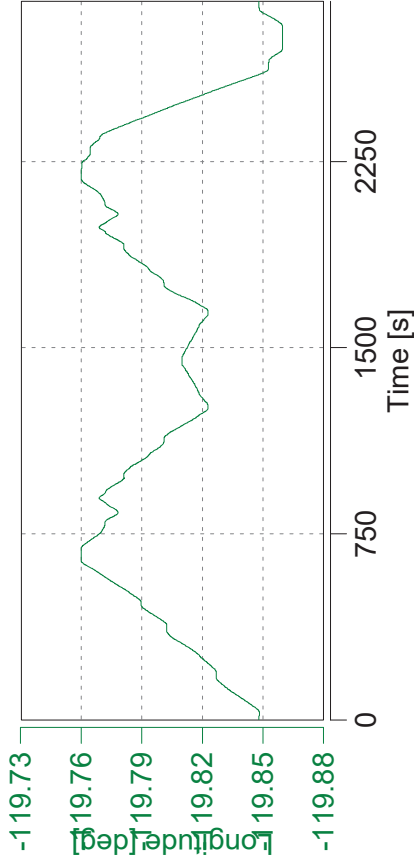
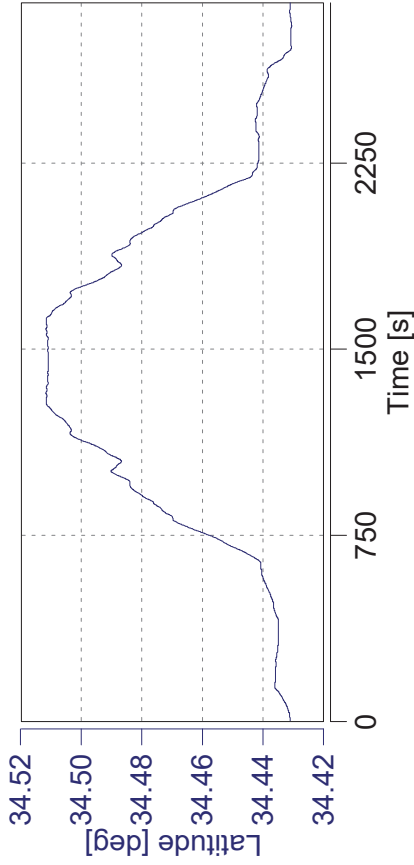
'Mountain'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

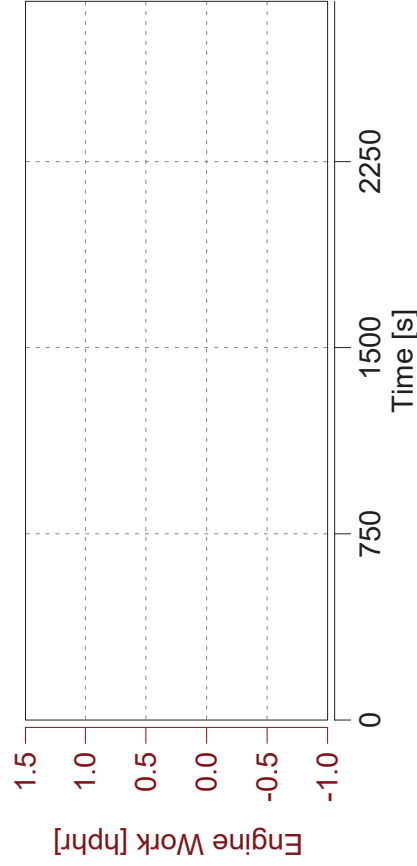
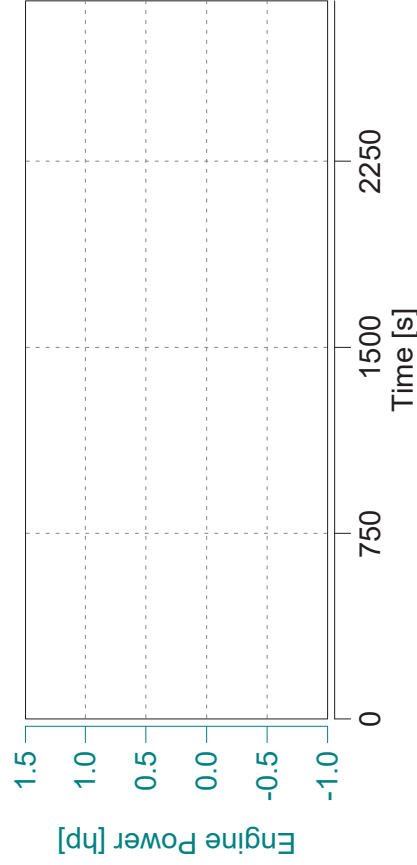
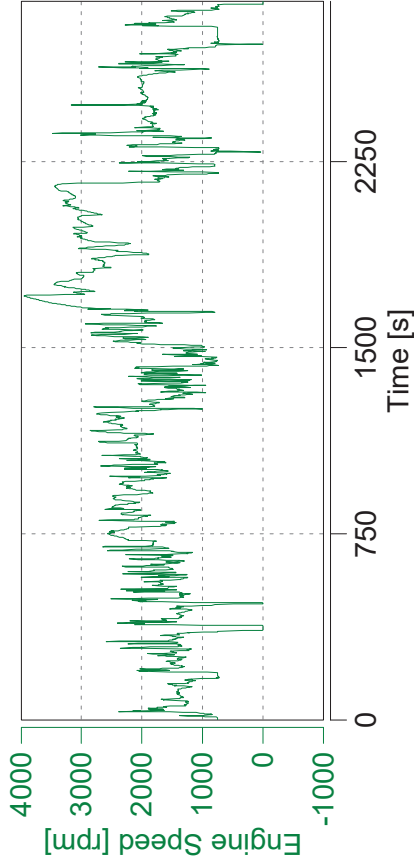
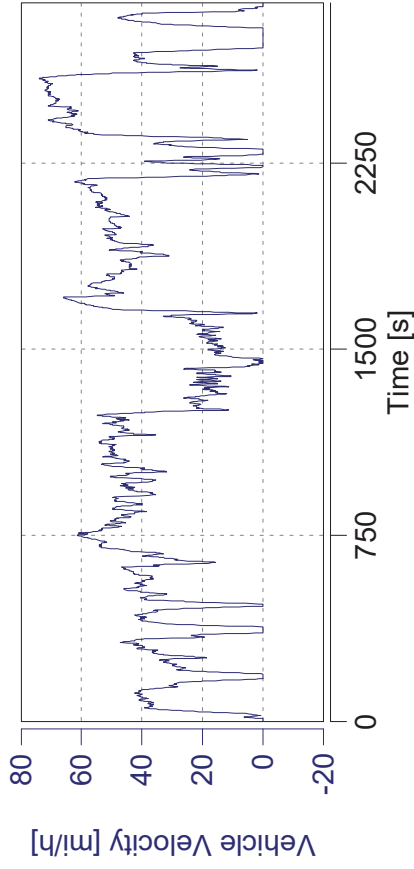
Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain
Page: Engine (1)

'Mountain'
Start Date: 07/22/2018
Start Time: 14:05:43.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (2)

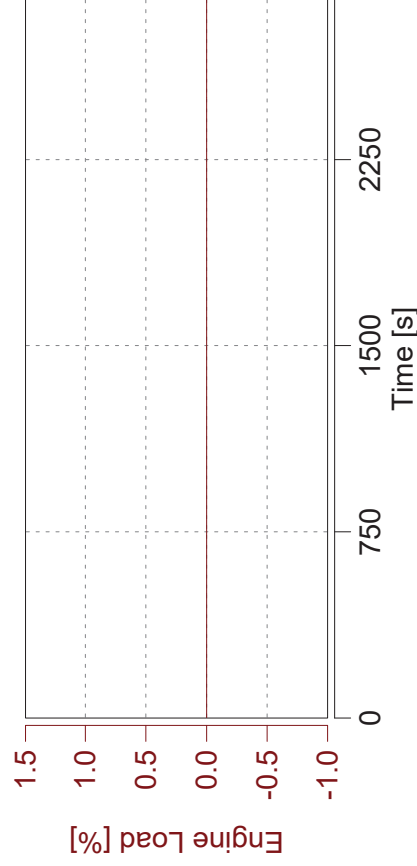
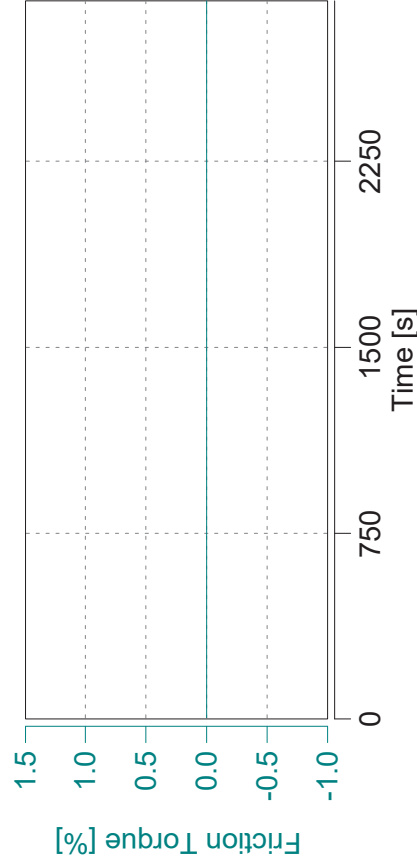
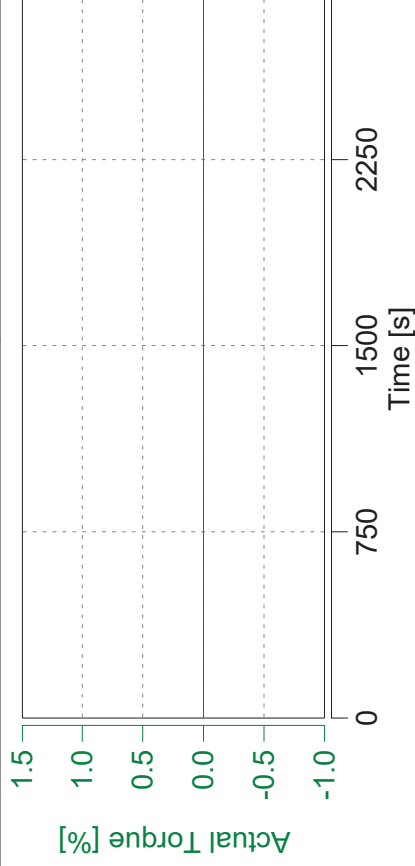
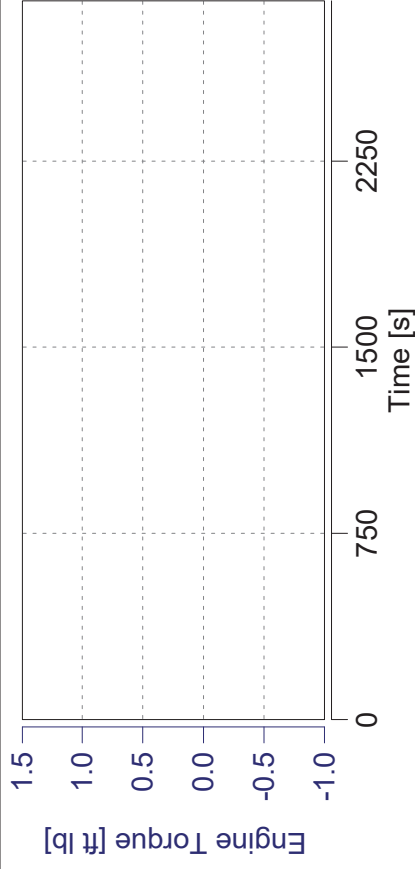
'Mountain'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (3)

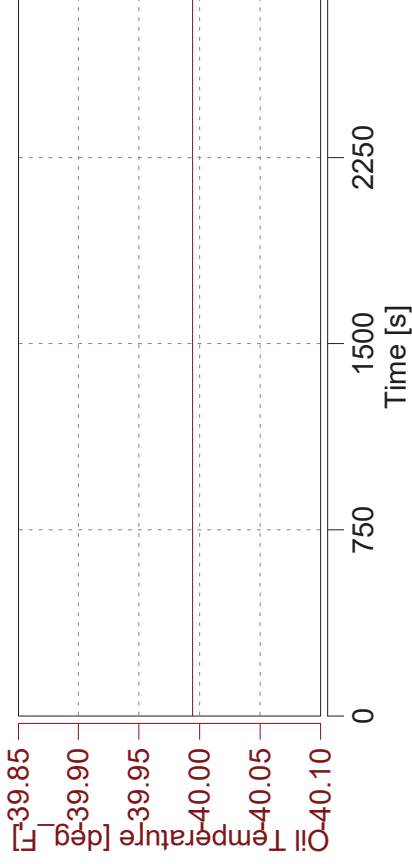
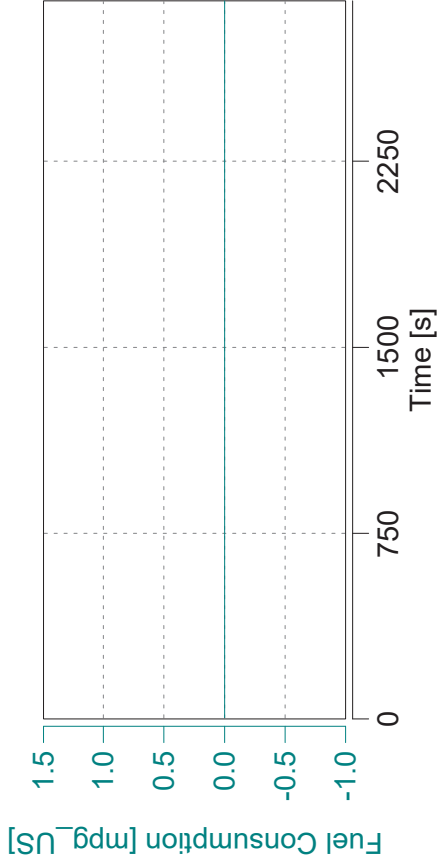
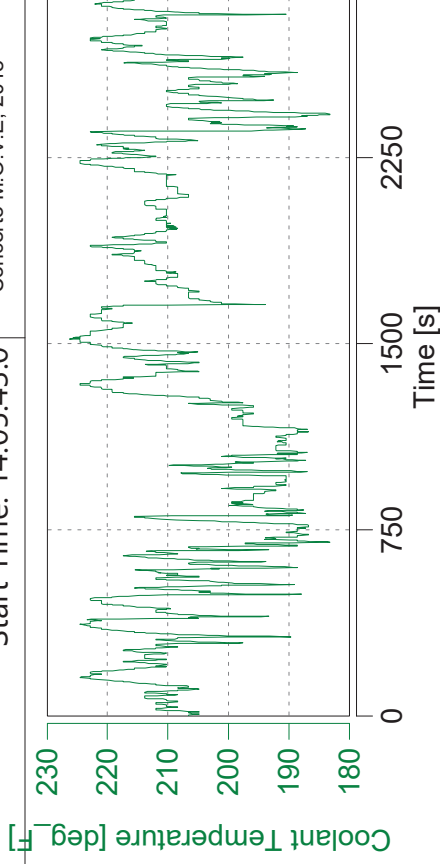
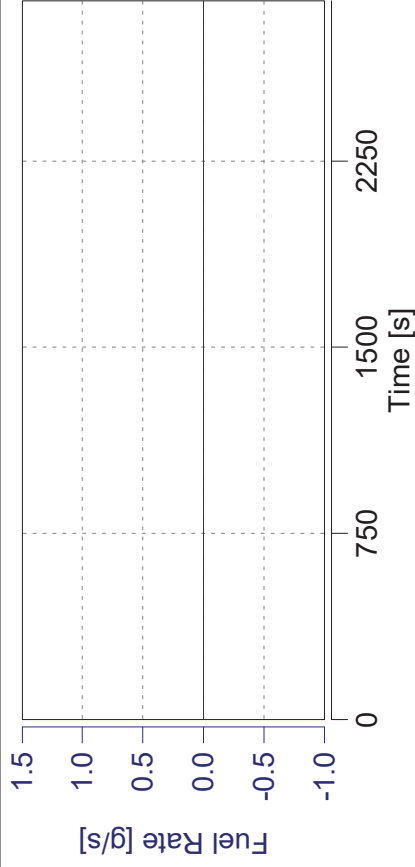
'Mountain'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Exhaust Flow (1)

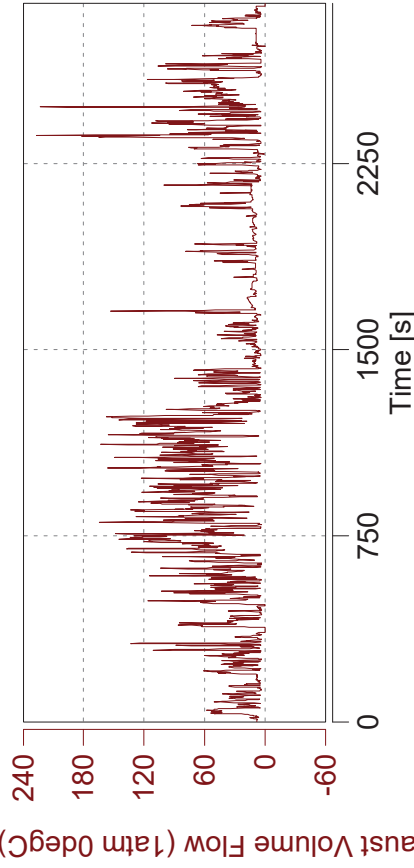
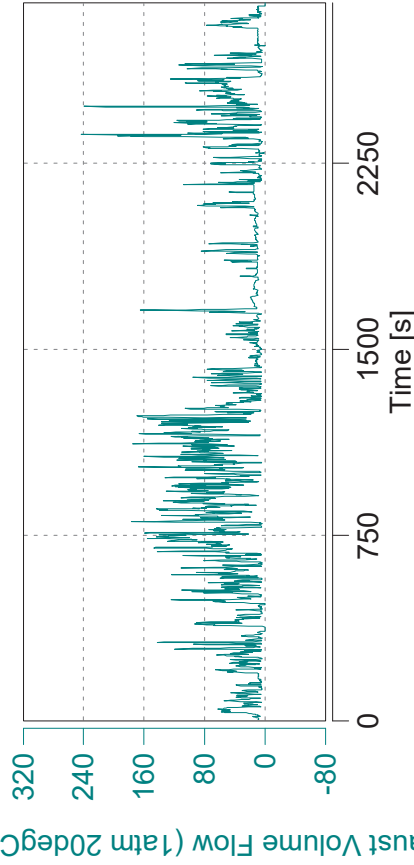
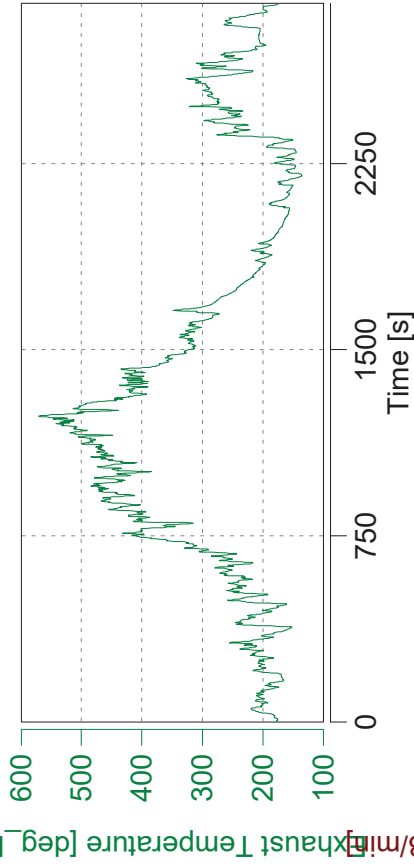
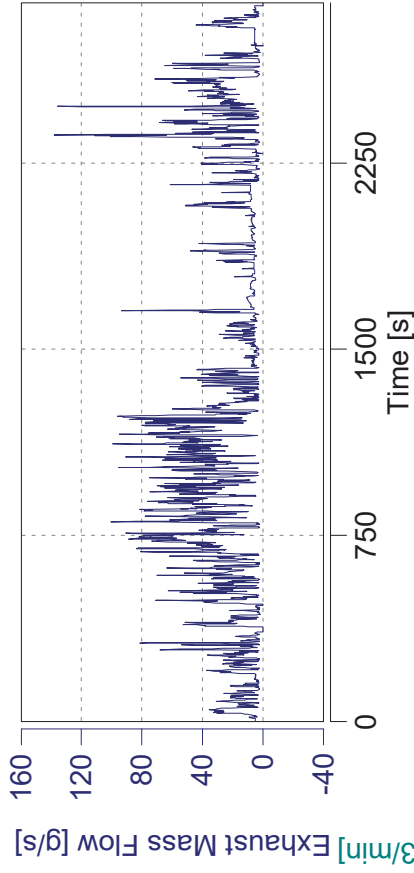
'Mountain'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Exhaust Flow (2)

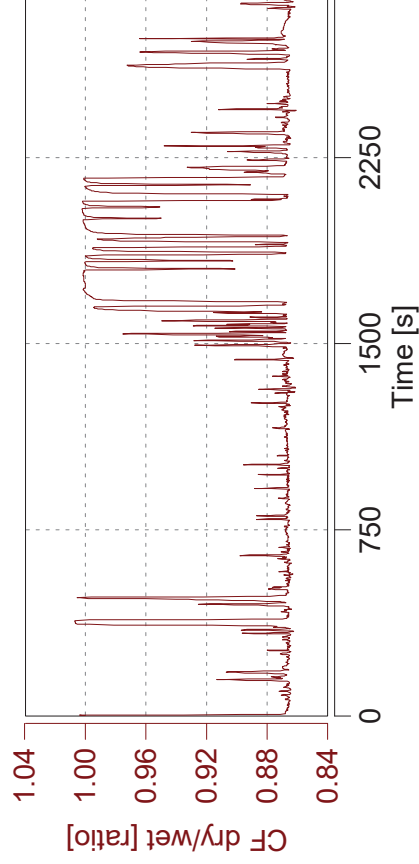
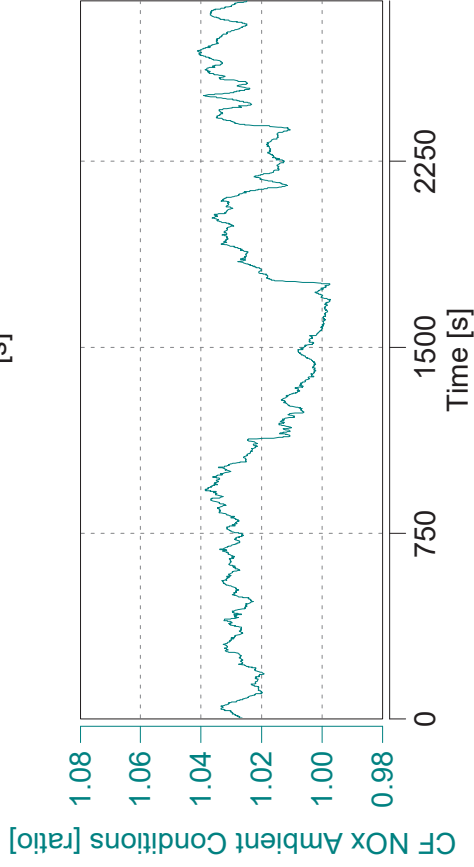
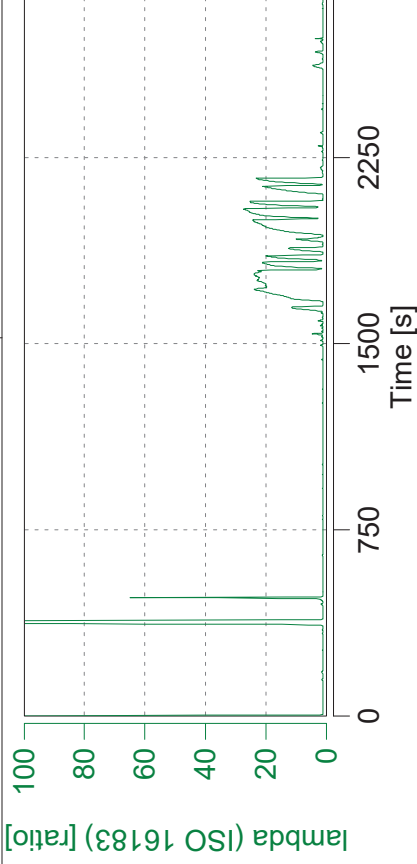
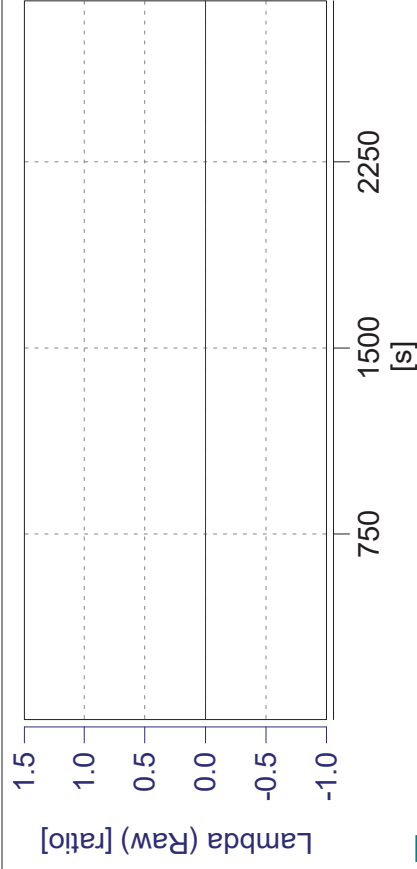
'Mountain'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (1)

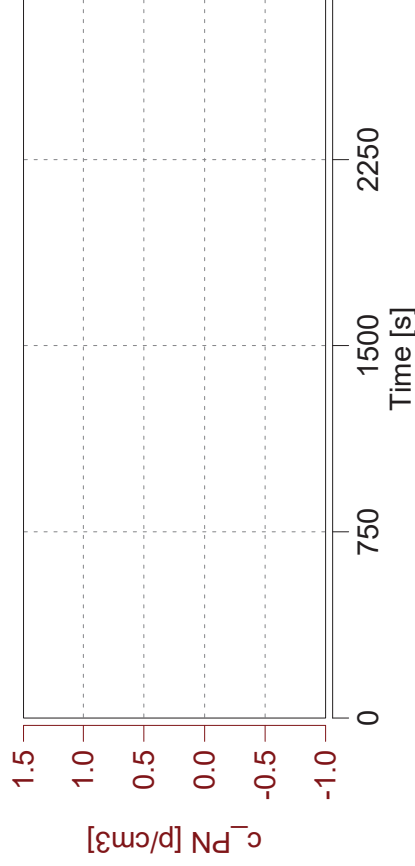
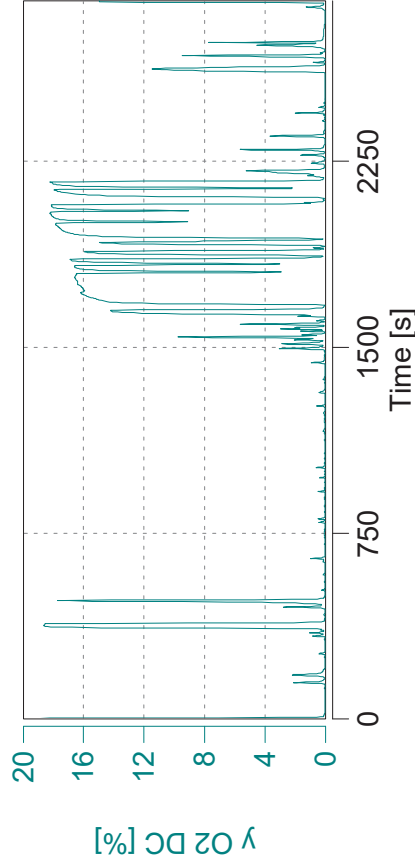
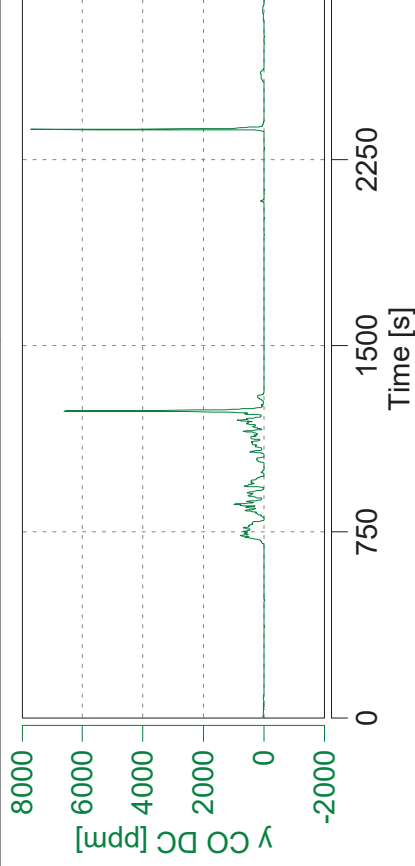
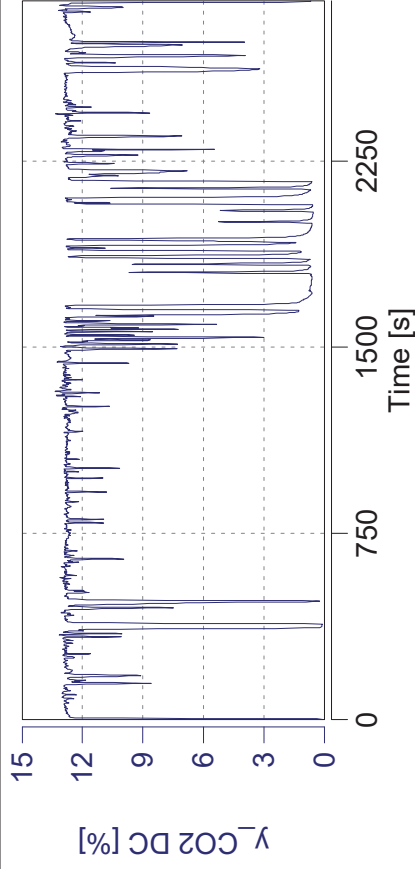
'Mountain'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (2)

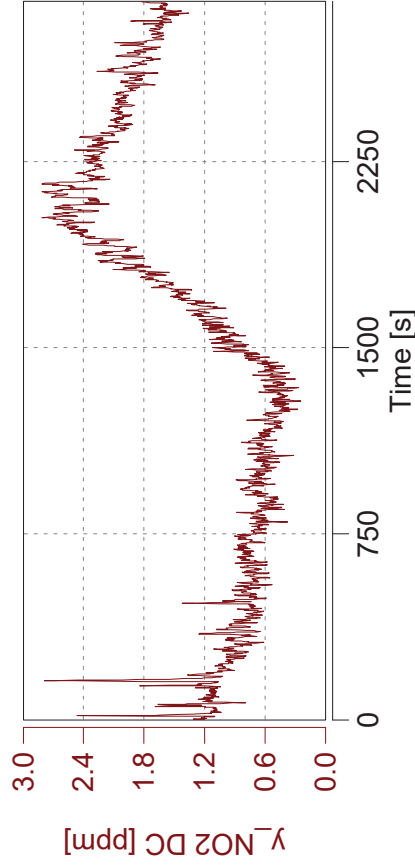
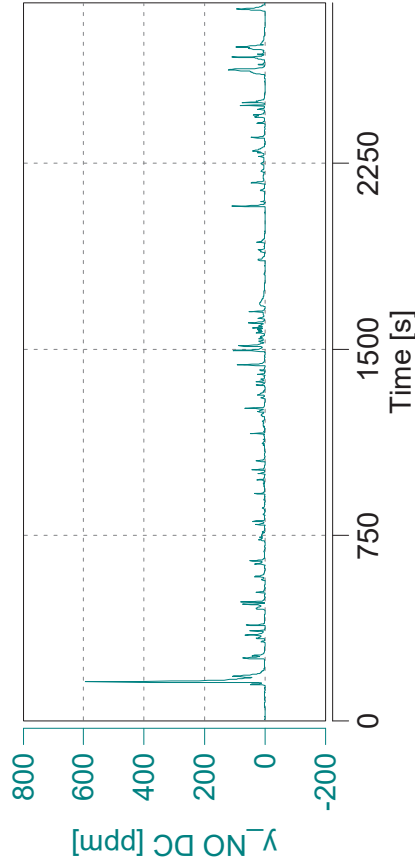
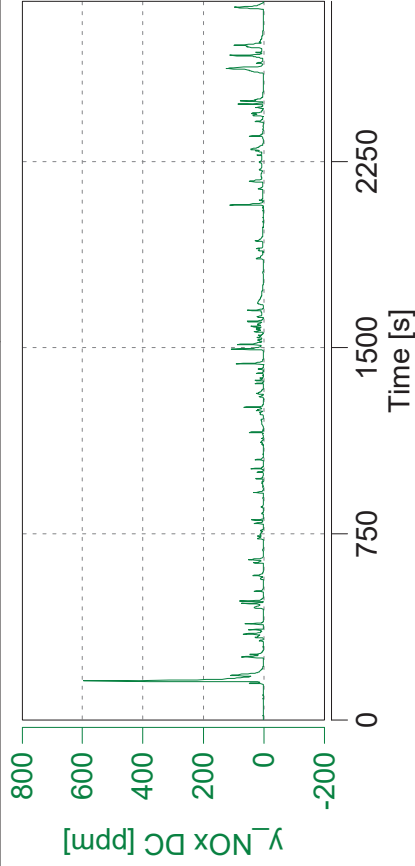
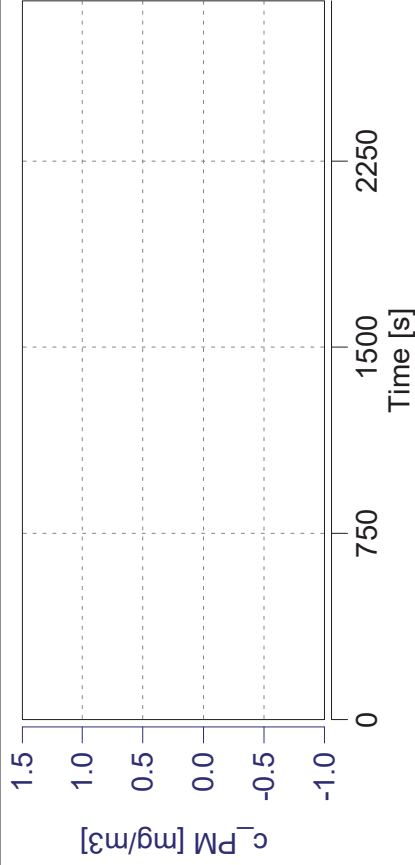
'Mountain'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (3)

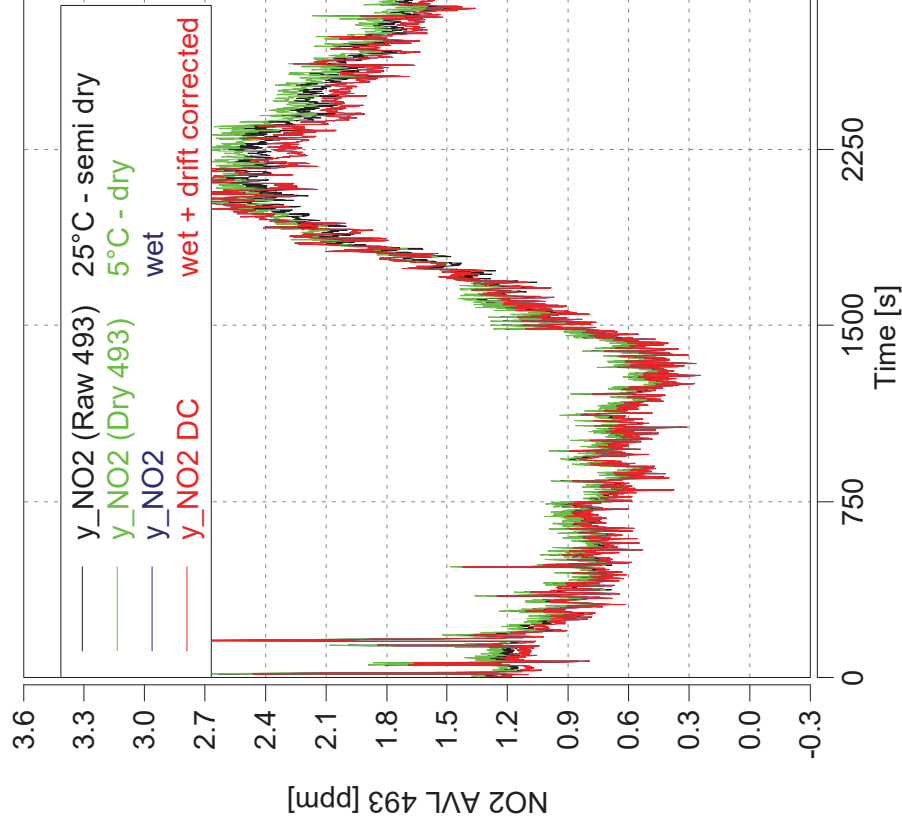
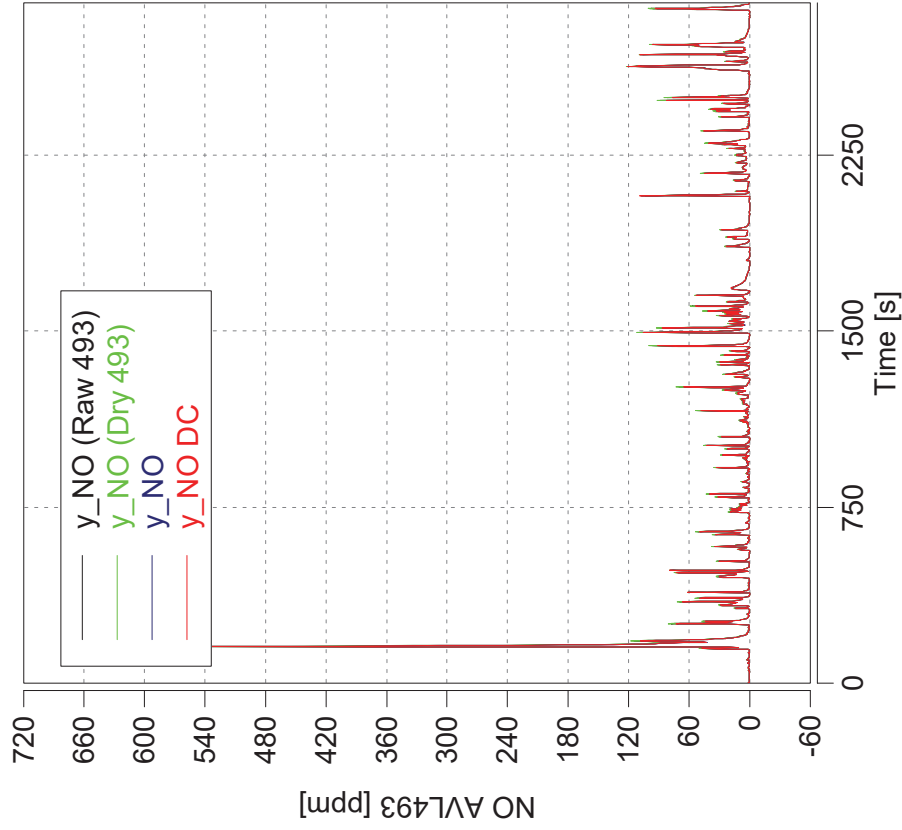
'Mountain'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (4) NOx Corrections

'Mountain'

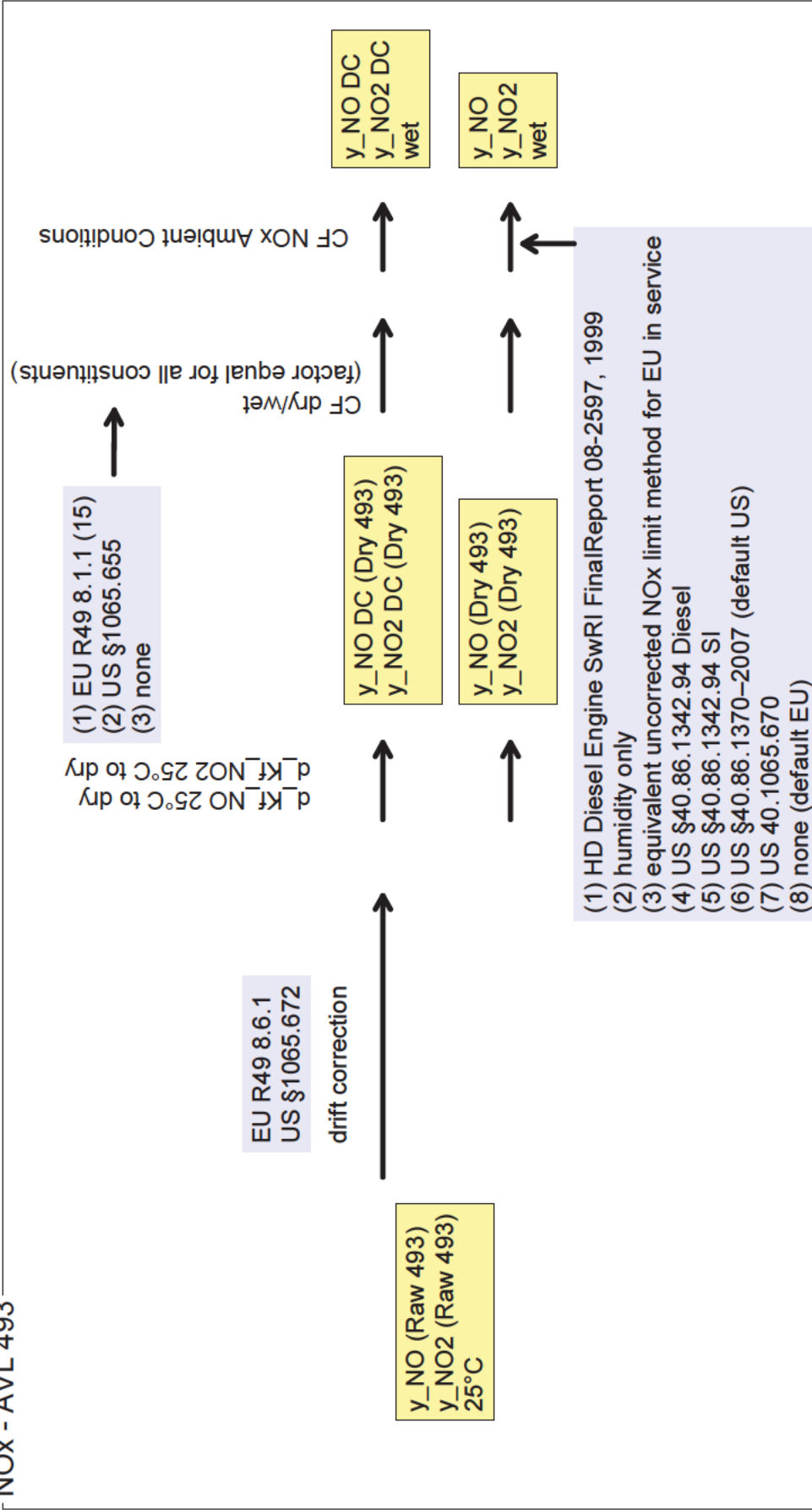
Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Atlas / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (5)

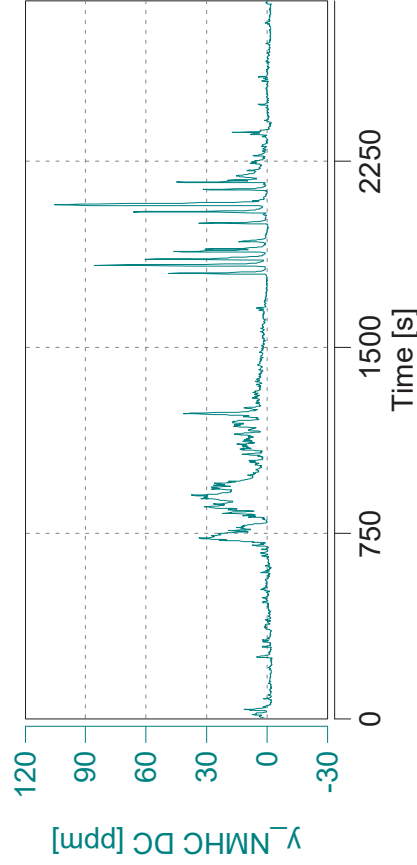
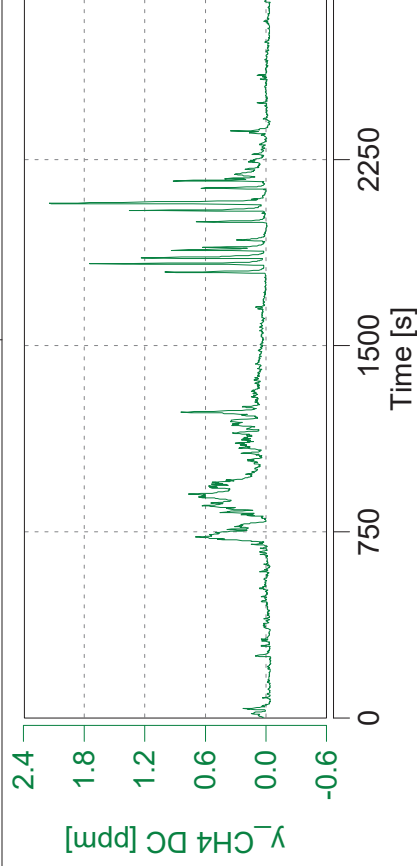
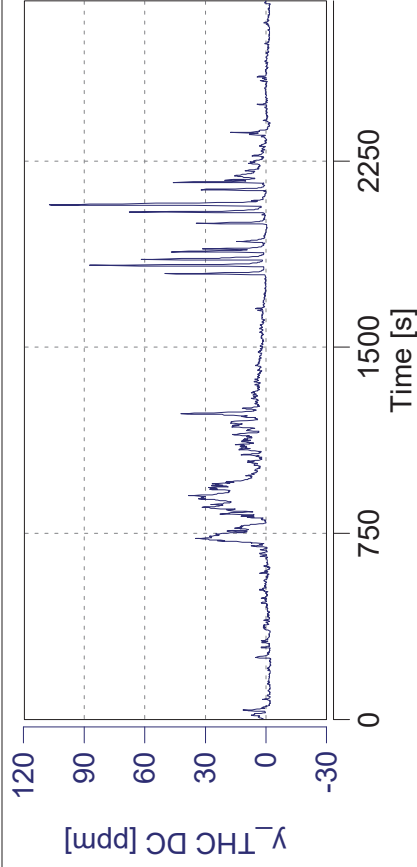
'Mountain'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_0
Vehicle: Atlas / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: NO/NO2/NOx Zero - Span

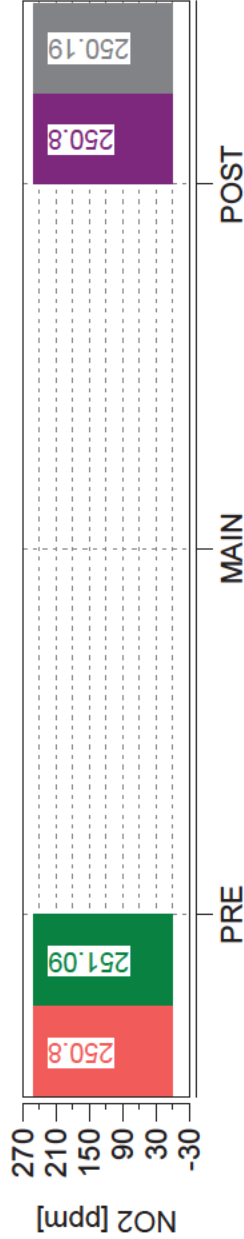
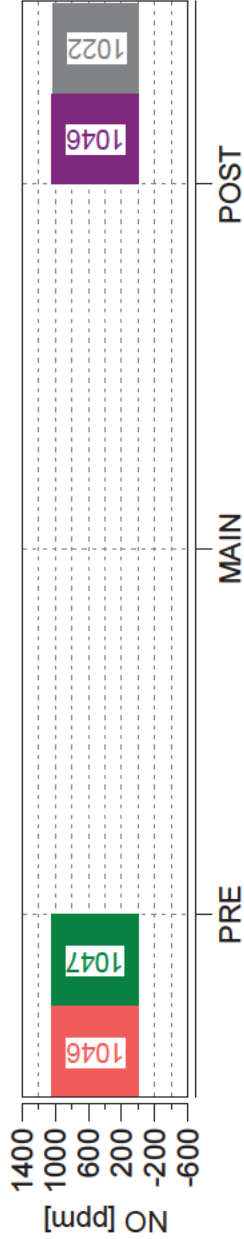
'Mountain'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: Mountain

Page: CO/CO2 Zero - Span

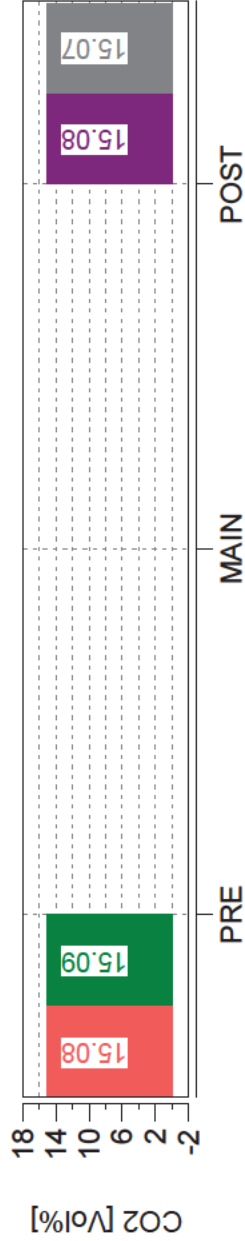
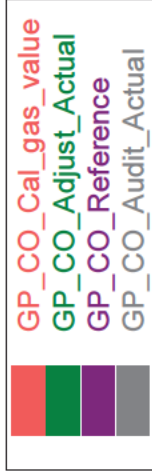
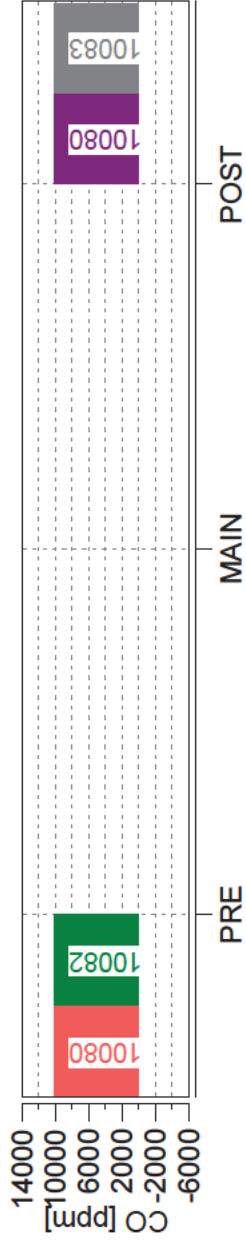
'Mountain'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: THC/CH4 Zero - Span

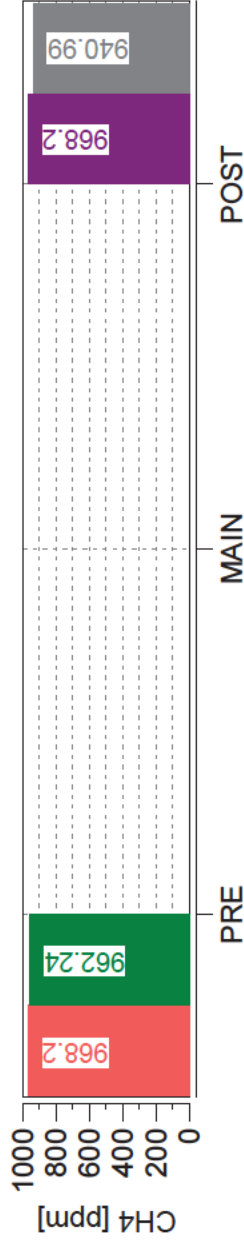
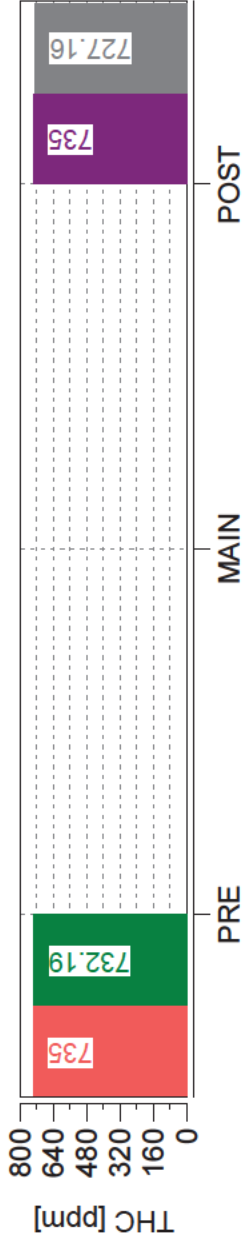
'Mountain'

Start Date: 07/22/2018

Start Time: 14:05:43.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary

'City'

Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E., 2018

Trip Duration	2973.00	s	ave THC	2.43036	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	2973.00	s	ave NMHC	2.38176	ppm	BS CO	n/a	g/hphr
Trip Distance	16.54	mi	ave CH4	0.04861	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	16.54	mi	ave CO	5.56667	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	10.74253	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	9.01567	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	1.85	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	1.83	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	0.65	gall	tot THC	0.04896	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	0.65	gall	tot NMHC	0.04528	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00109	g	DS CO2	336.04814	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	0.32526	g	DS CO	0.01967	g/mi
Trip Fuel Economy EU (ac)	25.34	mpg_US	tot CO2	5556.56521	g	DS THC	0.00296	g/mi
Trip Fuel Economy US (ac)	25.63	mpg_US	tot NO (d)	0.51065	g	DS NMHC	0.00274	g/mi
Trip Av. Eng. Speed	1214.24	rpm	tot NO2	0.00449	g	DS CH4	0.00007	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.51515	g	DS NO (d)	0.03088	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00027	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.03115	g/mi
Trip Exhaust Mass	31.85	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	74.26	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	65.71	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	20.02223	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	20.55163	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary Drift Corrected

'City'

Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E., 2018

Trip Duration	2973.00	s	ave THC DC	2.35796	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	2973.00	s	ave NMHC DC	2.31080	ppm	BS CO DC	n/a	g/hphr
Trip Distance	16.54	mi	ave CH4 DC	0.04716	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	16.54	mi	ave CO DC	5.57311	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	10.73897	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	9.12183	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	1.85	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	1.83	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	0.65	gall	tot THC DC	0.04788	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	0.65	gall	tot NMHC DC	0.04429	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00106	g	DS CO2 DC	335.93675	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	0.32563	g	DS CO DC	0.01969	g/mi
Trip Fuel Economy EU (ac)	25.34	mpg_US	tot CO2 DC	5554.72345	g	DS THC DC	0.00290	g/mi
Trip Fuel Economy US (ac)	25.63	mpg_US	tot NO DC (d)	0.51668	g	DS NMHC DC	0.00268	g/mi
Trip Av. Eng. Speed	1214.24	rpm	tot NO2 DC	0.00452	g	DS CH4 DC	0.00006	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.52120	g	DS NO DC (d)	0.03125	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00027	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.03152	g/mi
Trip Exhaust Mass	31.85	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	74.26	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	65.71	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	20.02223	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	20.55163	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment Check

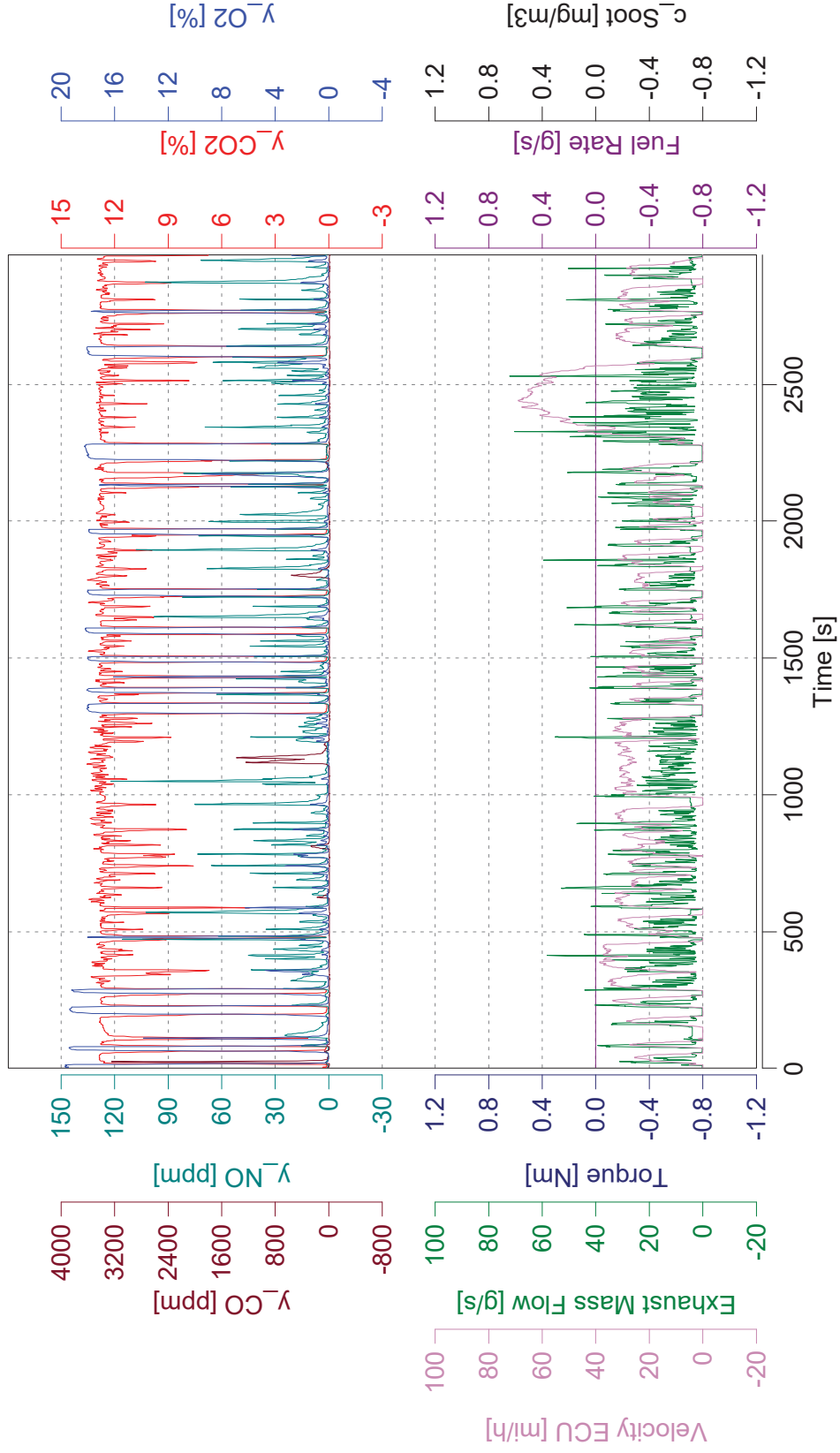
'City'

Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E. 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment of Gas Concentrations

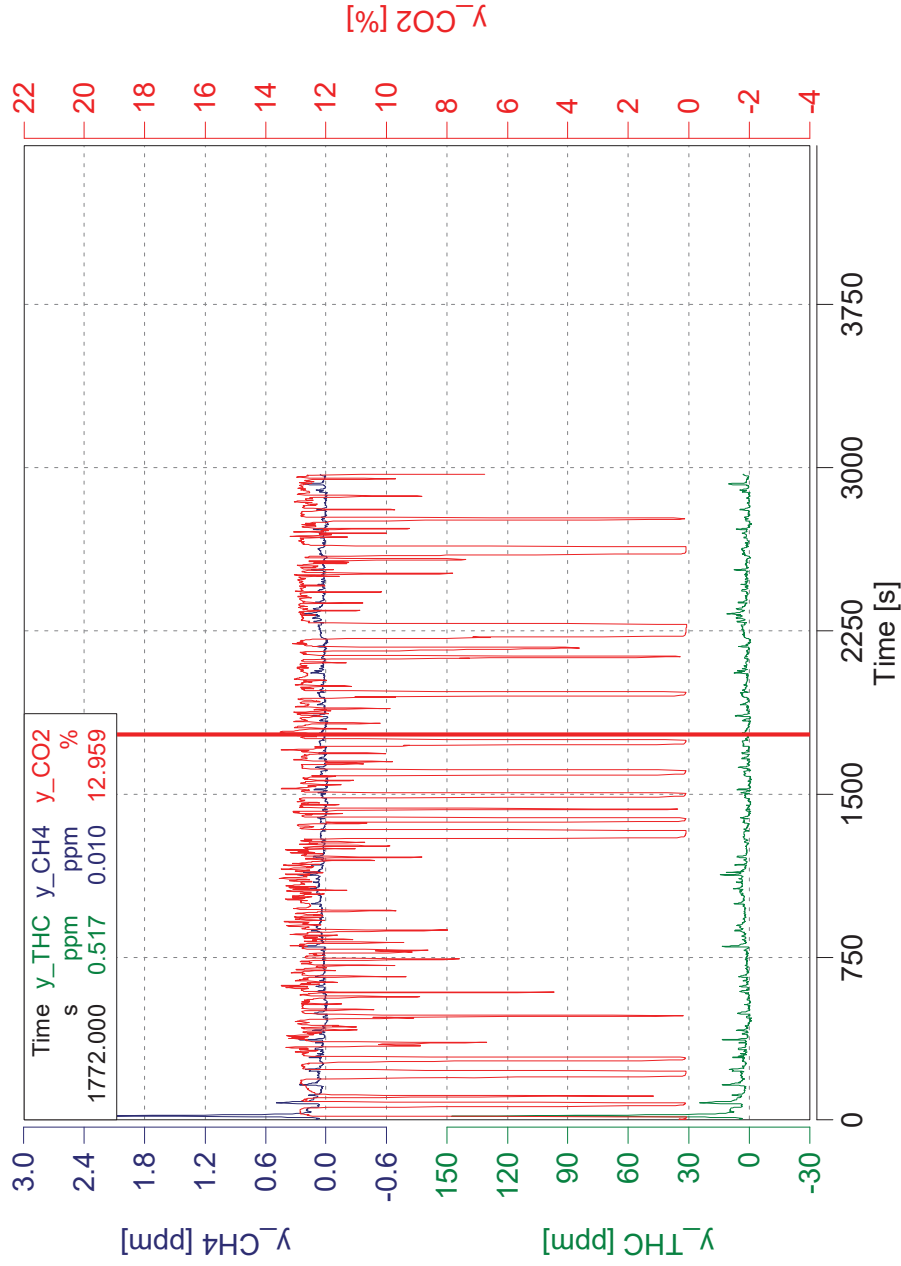
'City'

Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Ambient Conditions

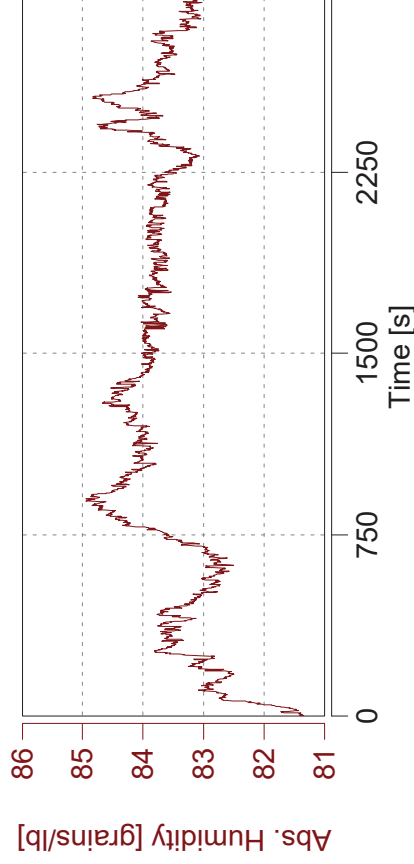
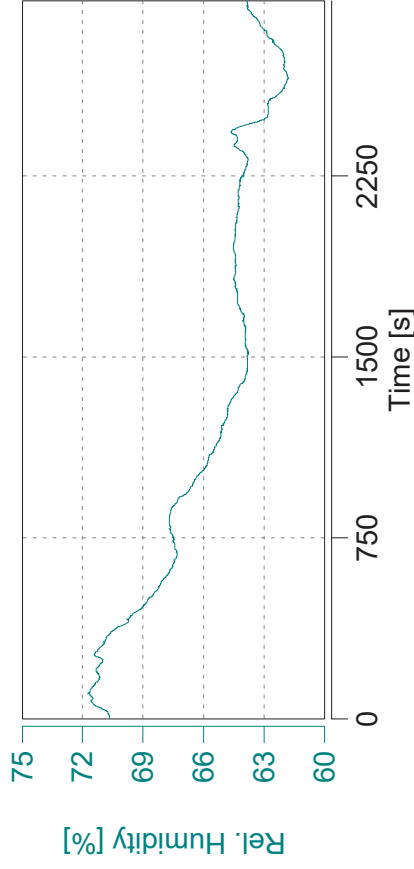
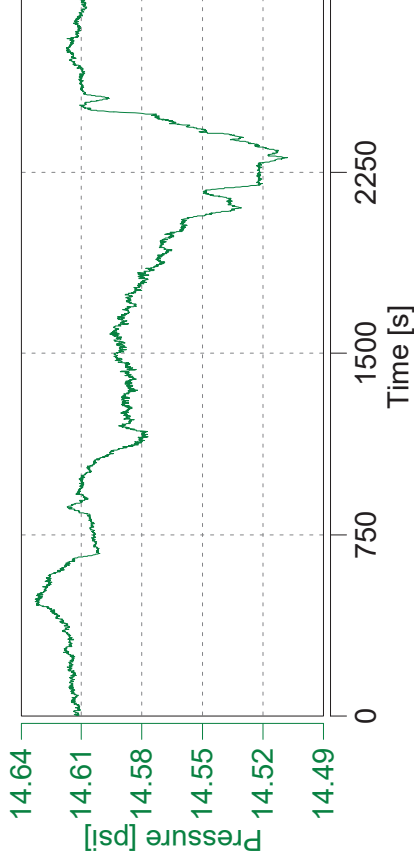
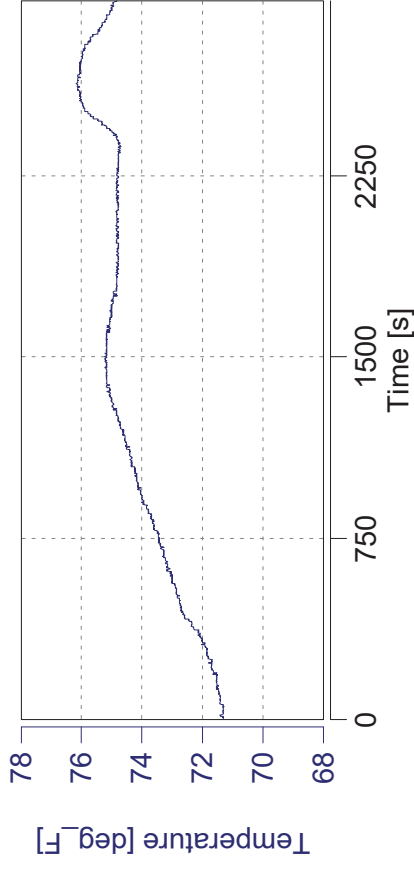
'City'

Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

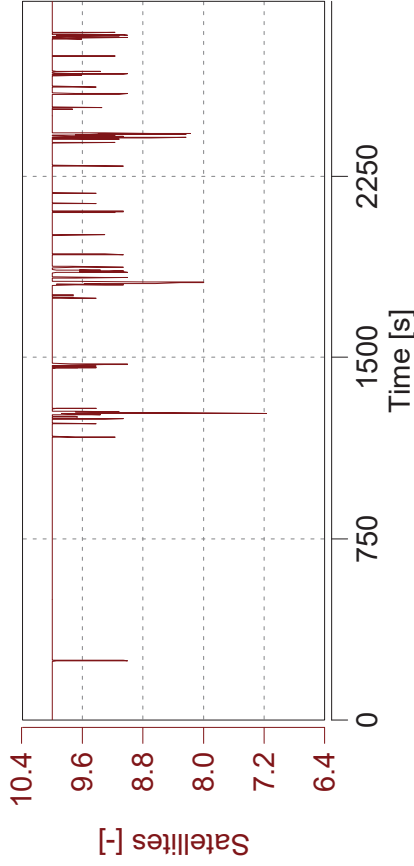
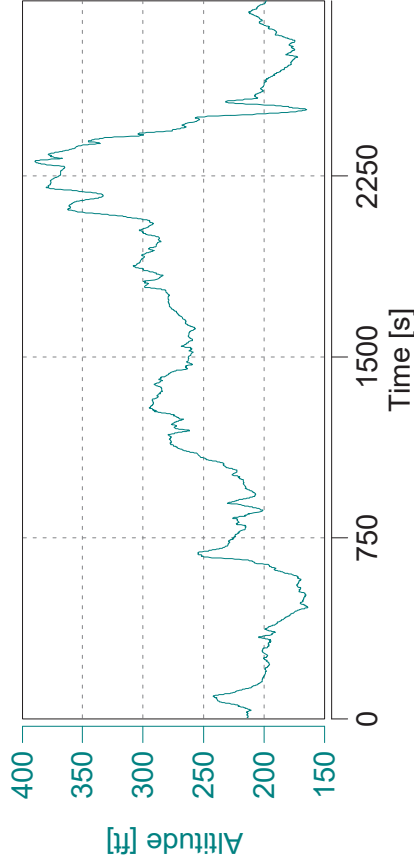
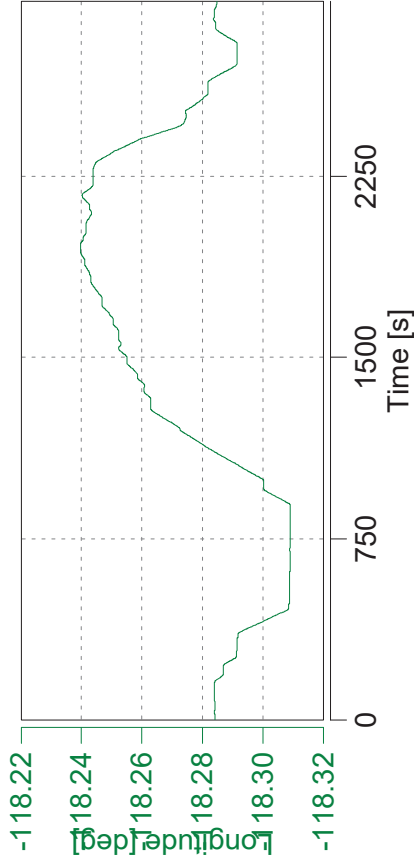
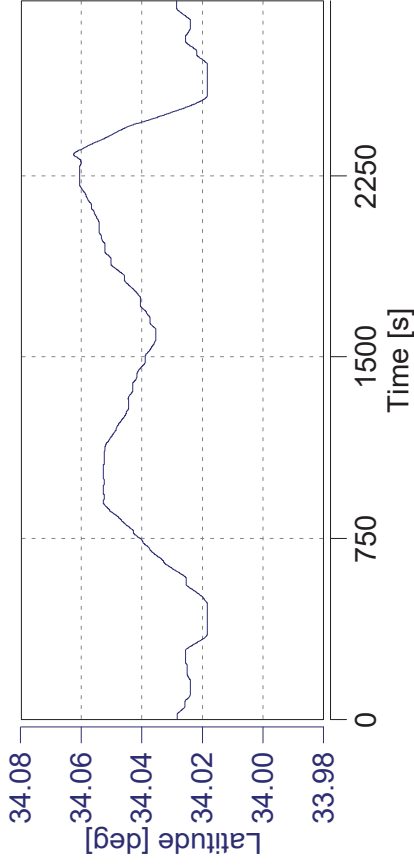
Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City
Page: GPS

'City'
Start Date: 07/22/2018
Start Time: 21:12:50.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (1)

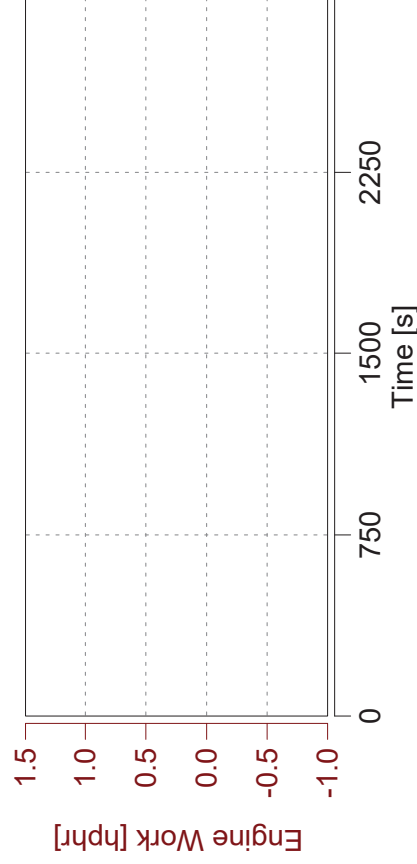
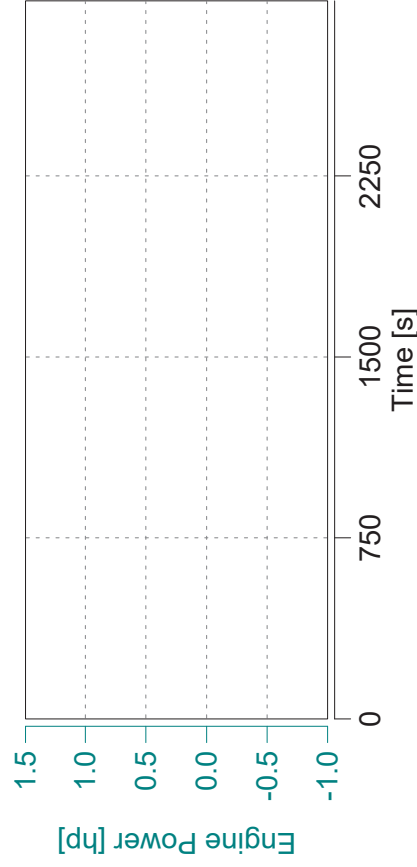
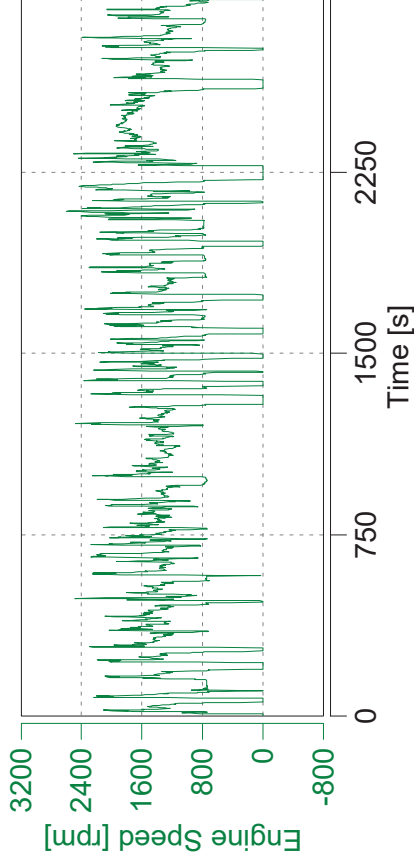
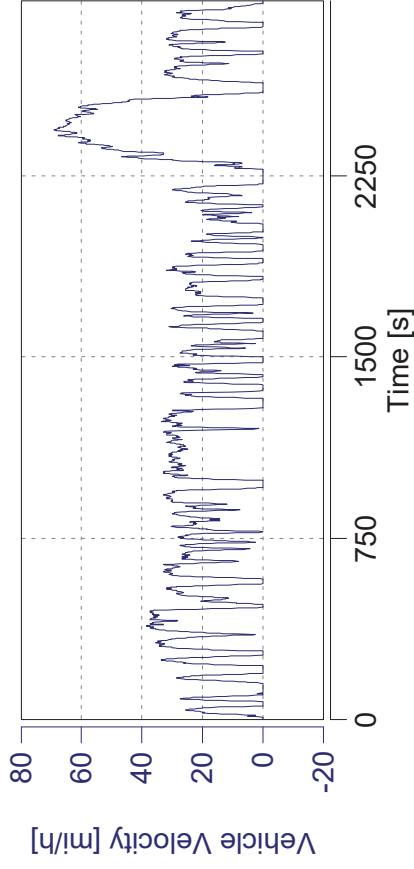
'City'

Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (2)

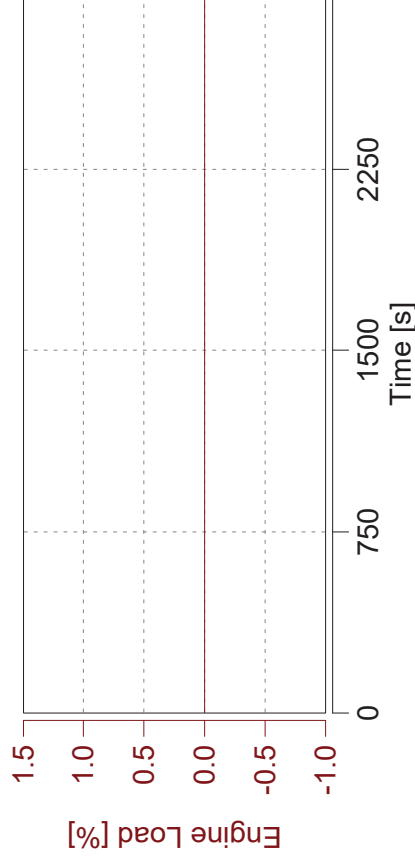
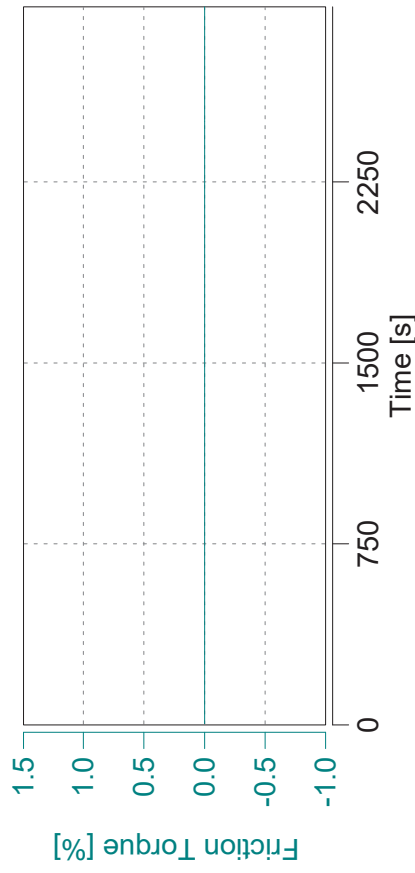
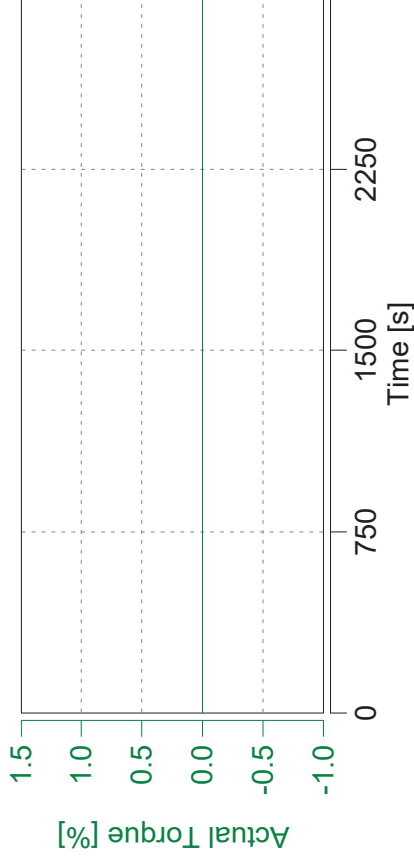
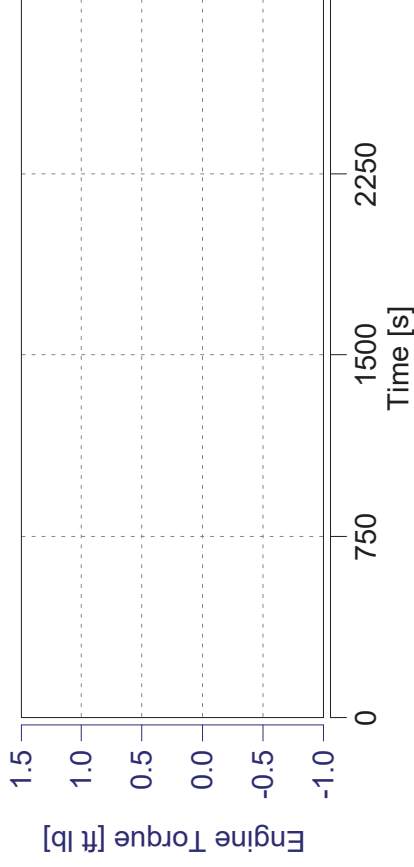
'City'

Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (3)

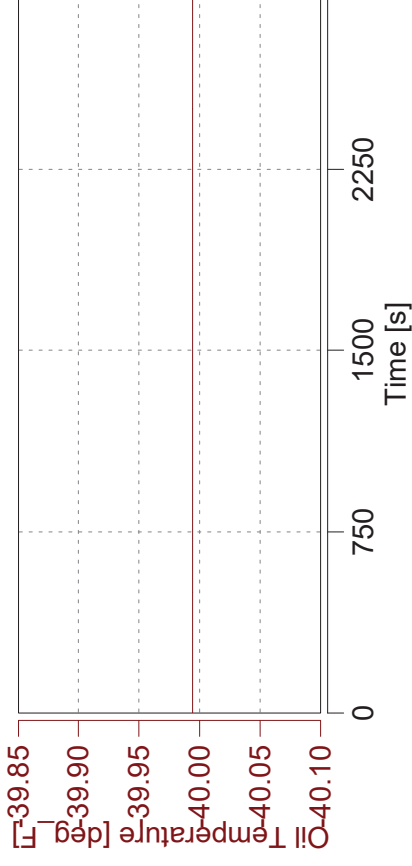
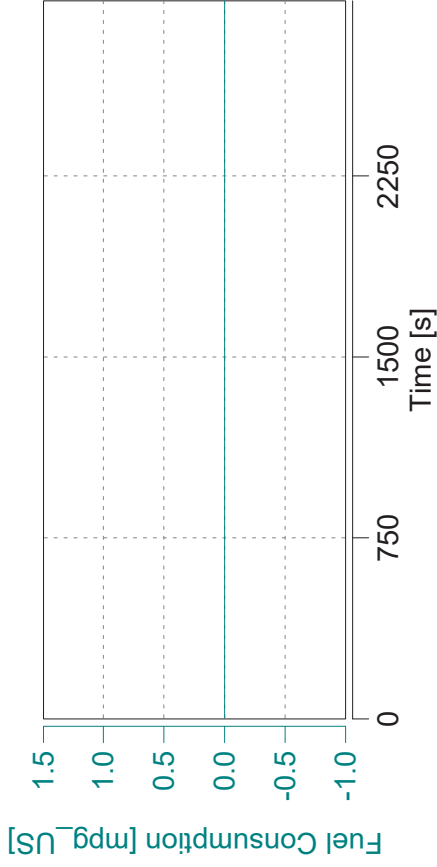
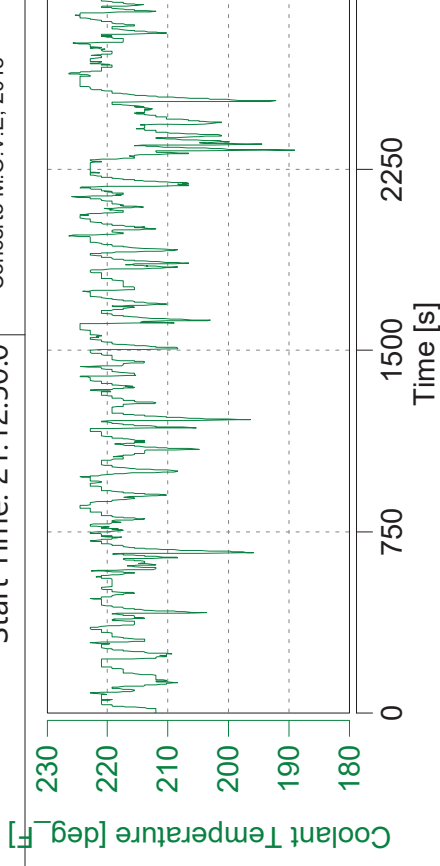
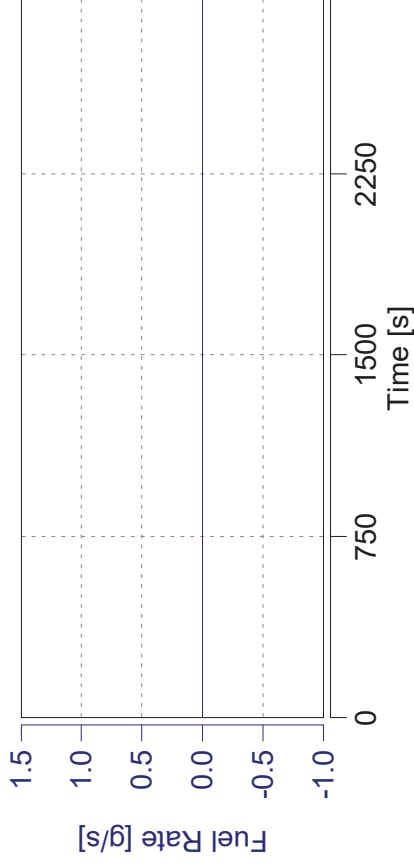
'City'

Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (1)

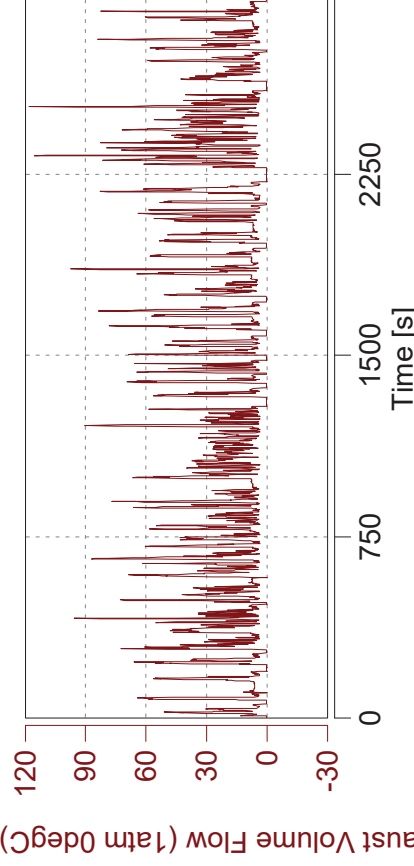
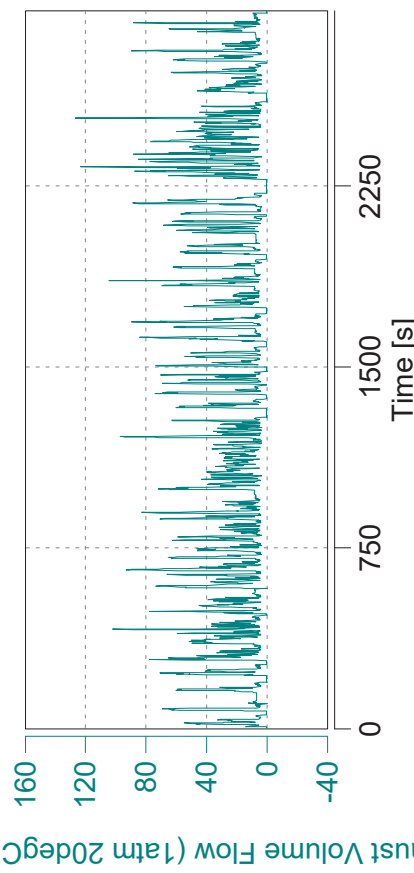
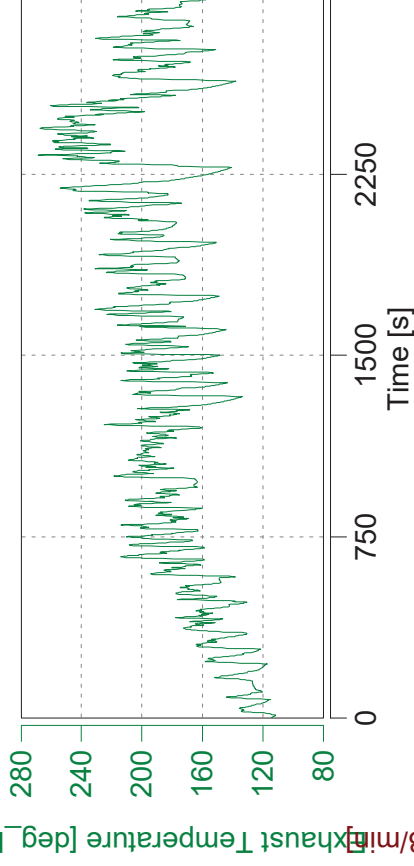
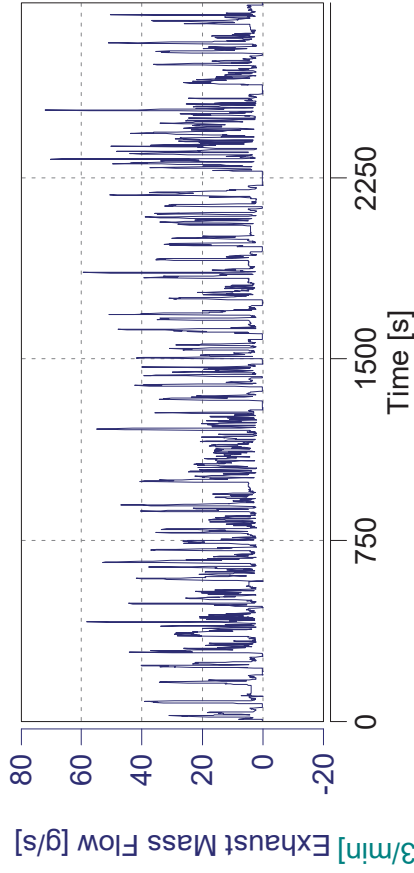
'City'

Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (2)

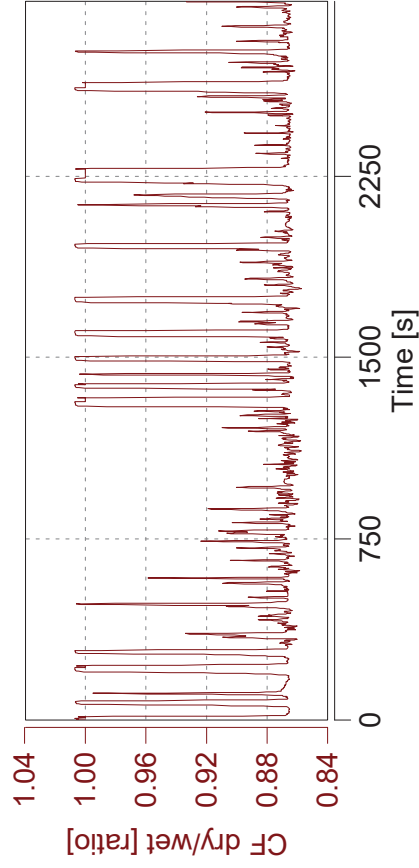
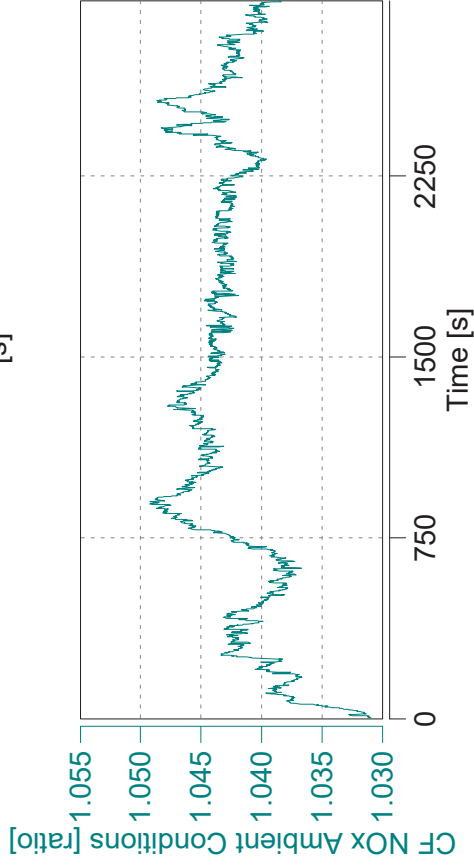
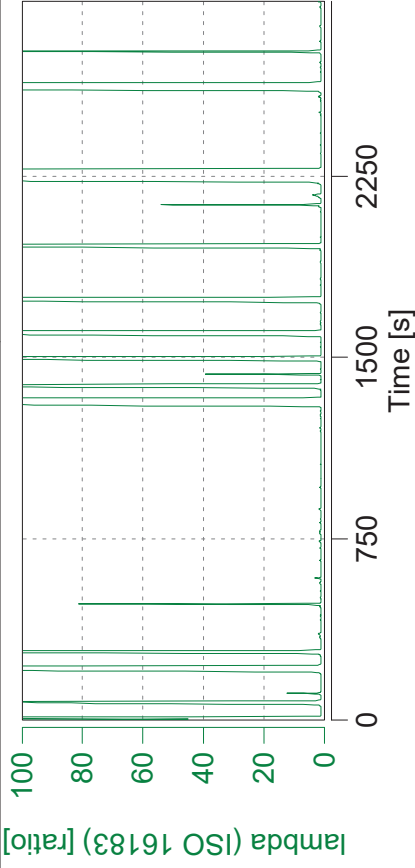
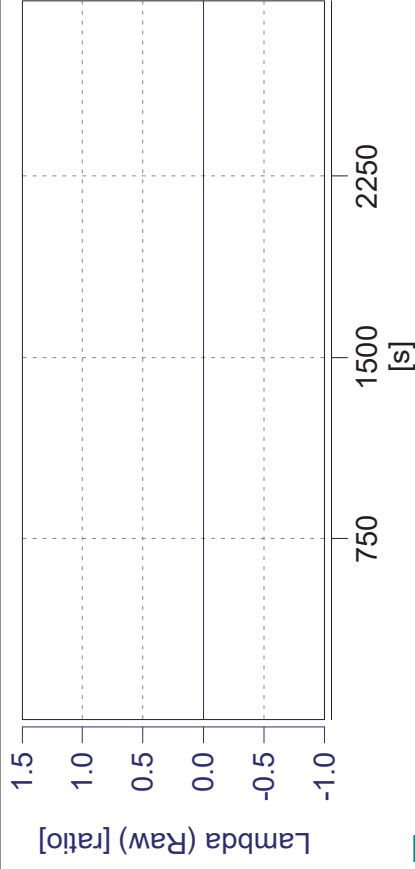
'City'

Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (1)

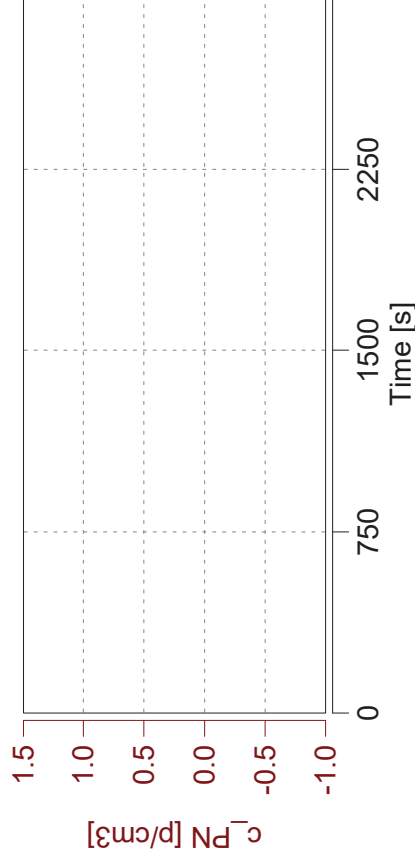
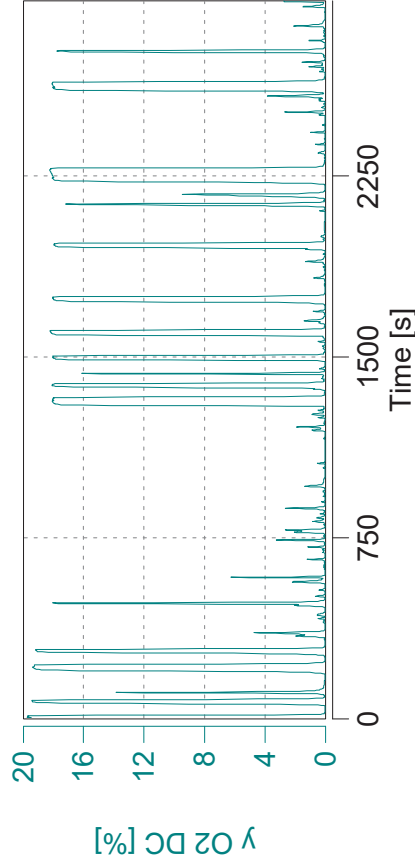
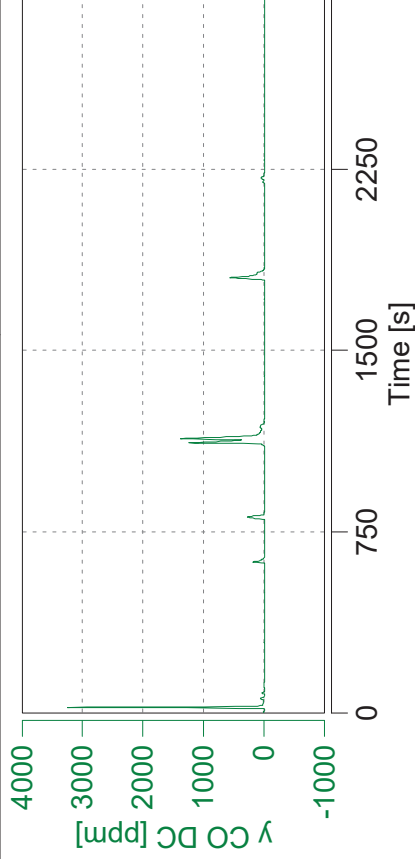
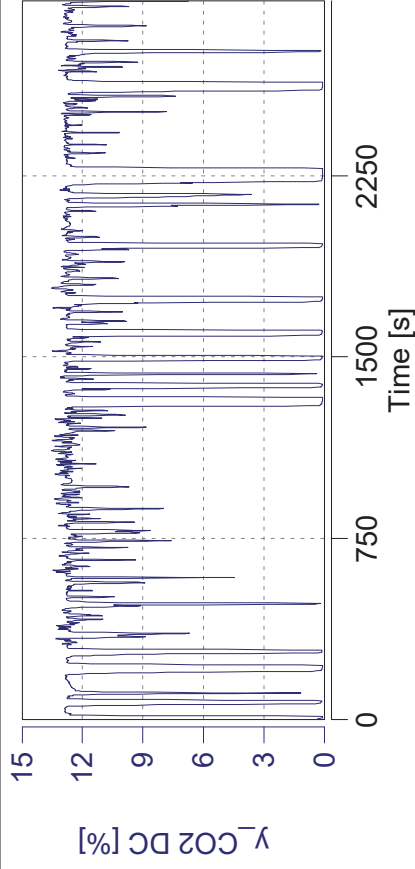
'City'

Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (2)

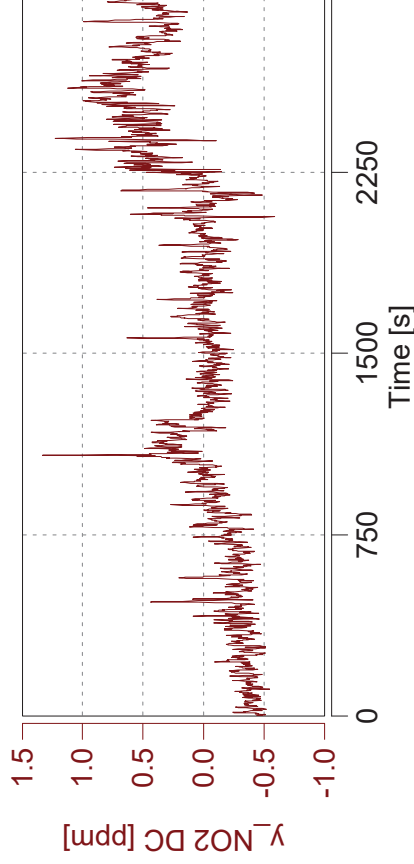
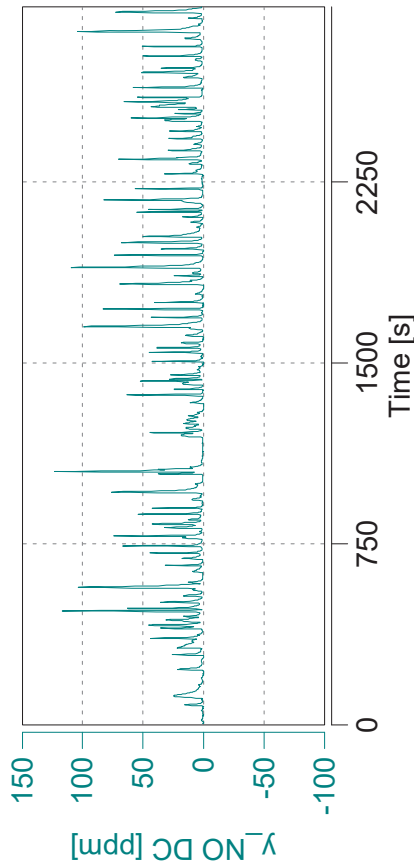
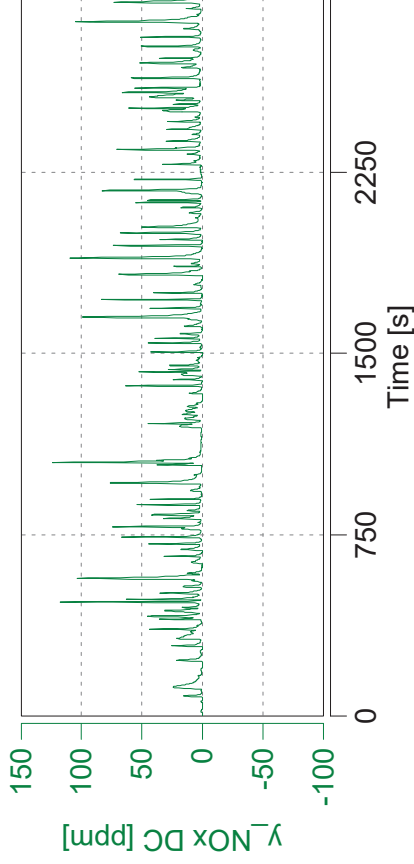
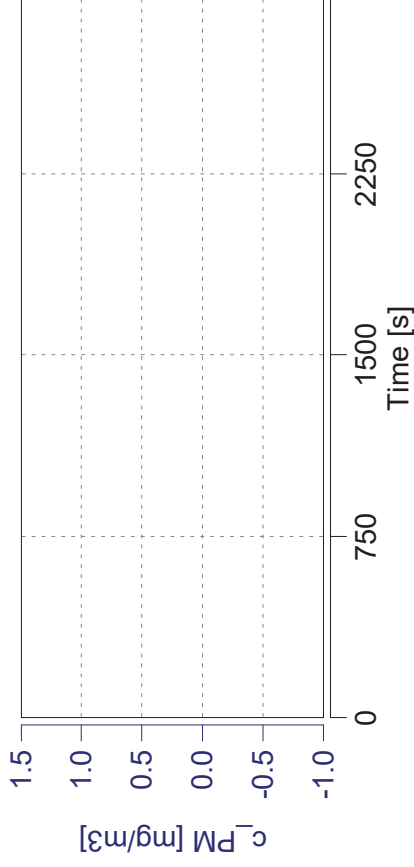
'City'

Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (3)

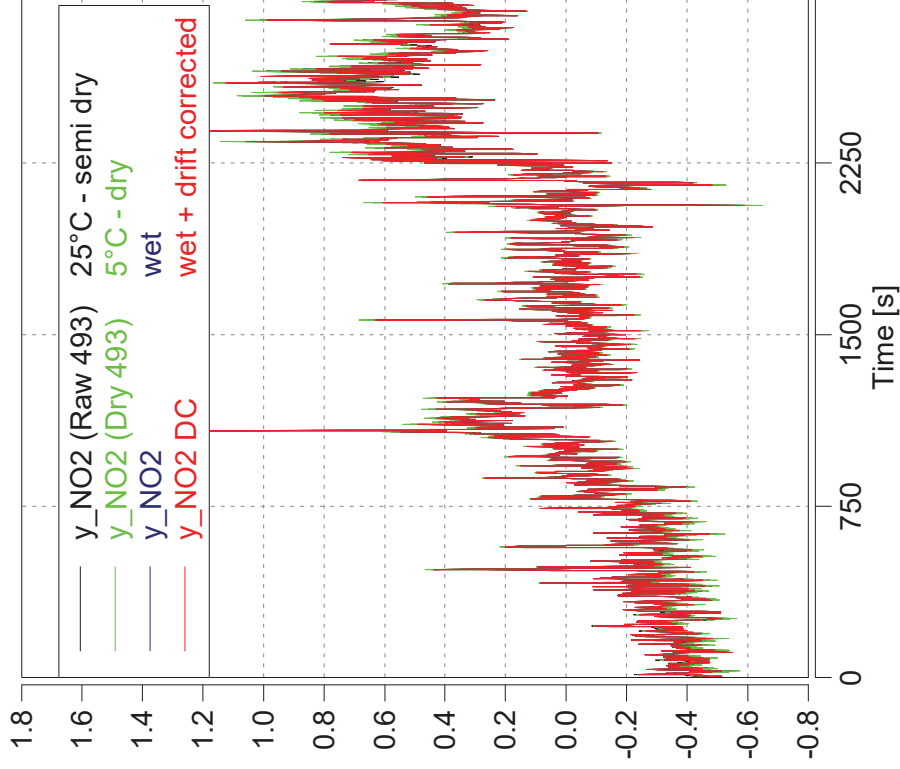
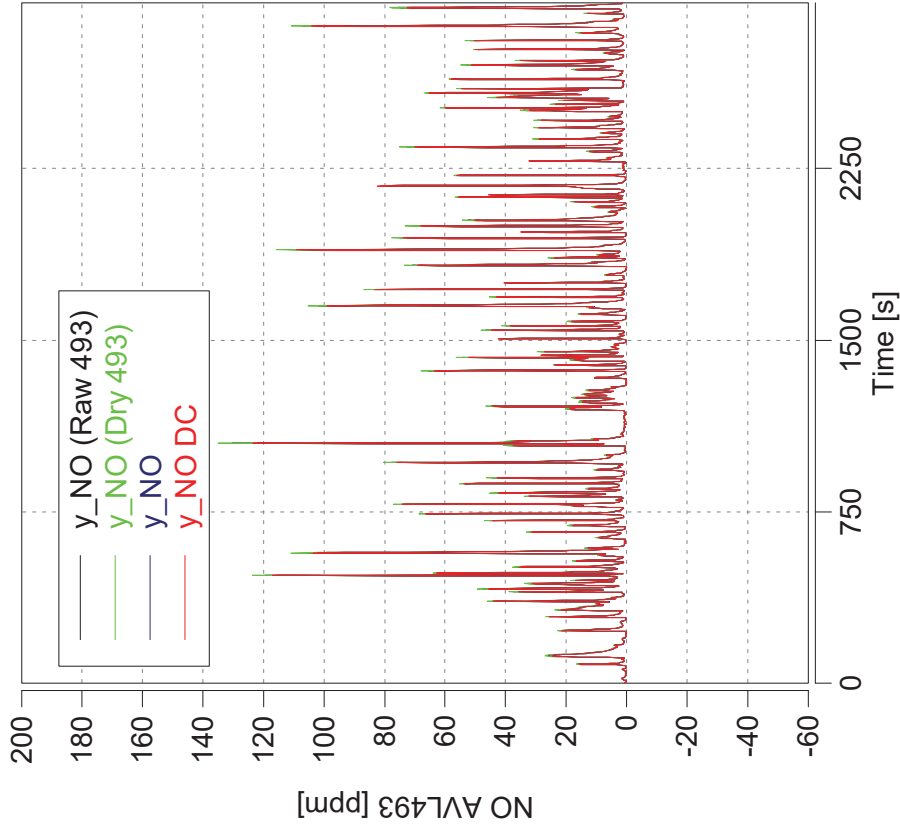
'City'

Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Atlas / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (4) NOx Corrections

'City'

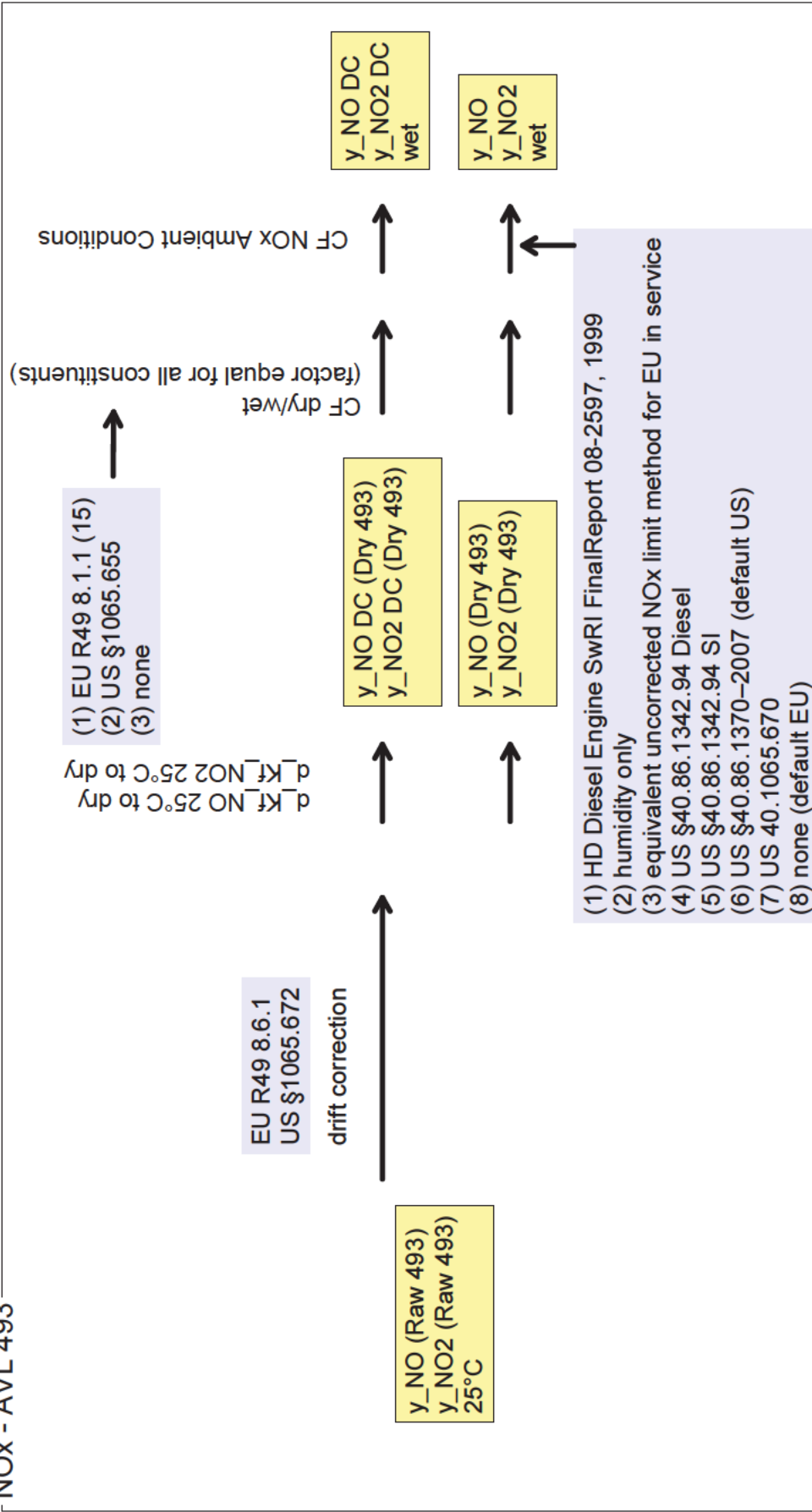
Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (5)

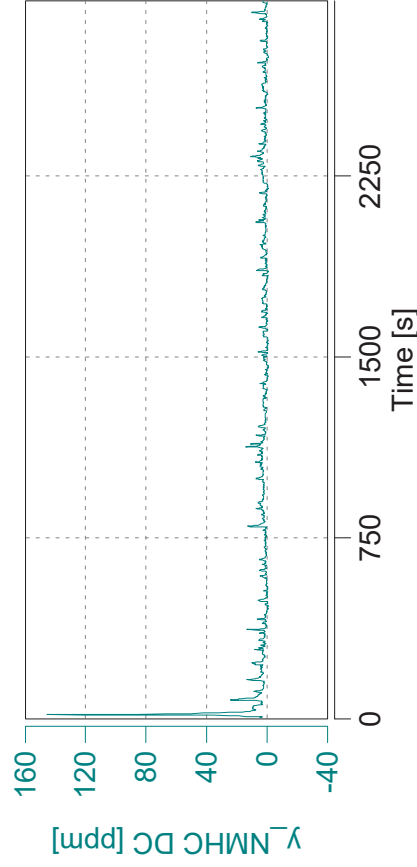
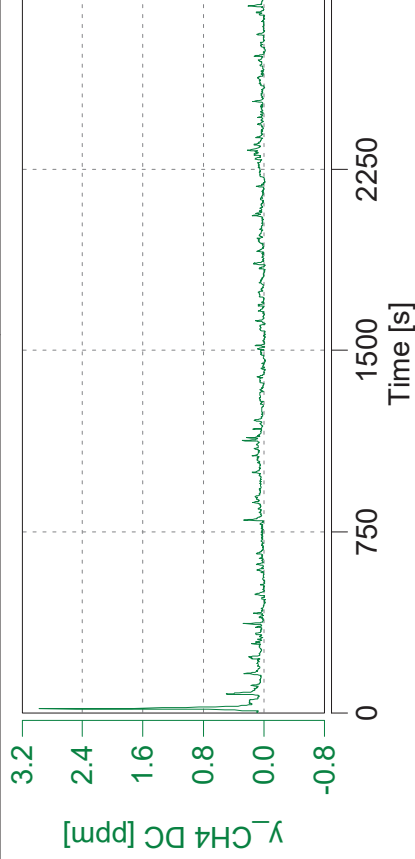
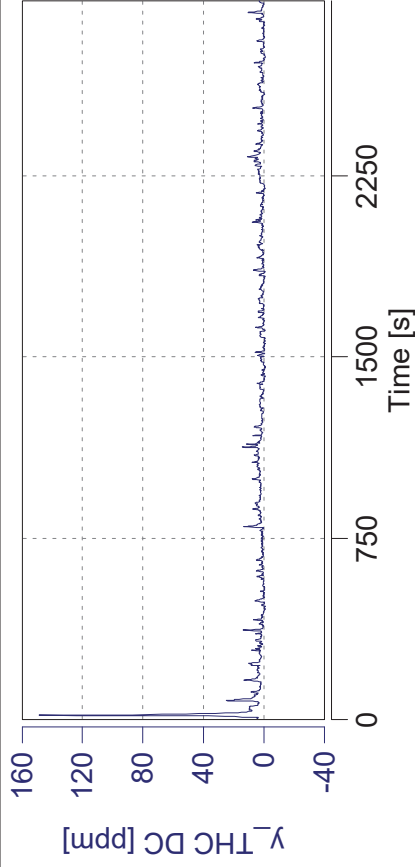
'City'

Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_0
Vehicle: Atlas / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: NO/NO2/NOx Zero - Span

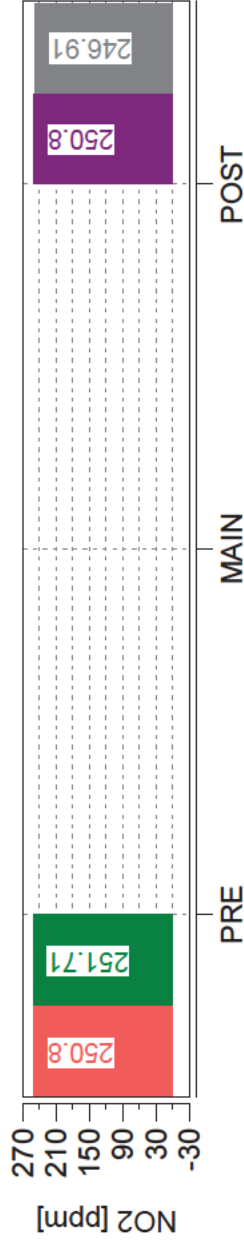
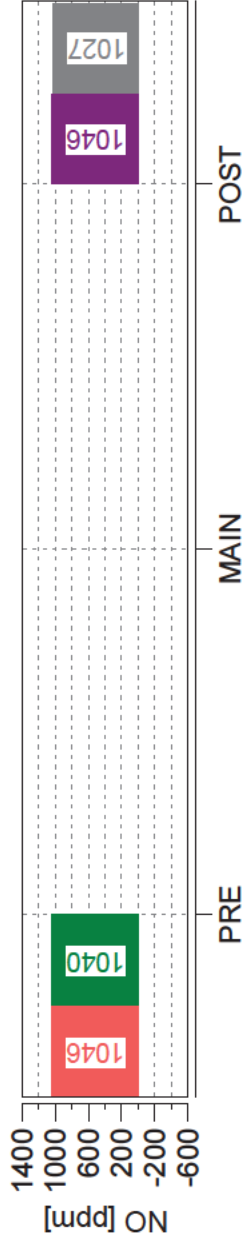
'City'

Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: City

Page: CO/CO2 Zero - Span

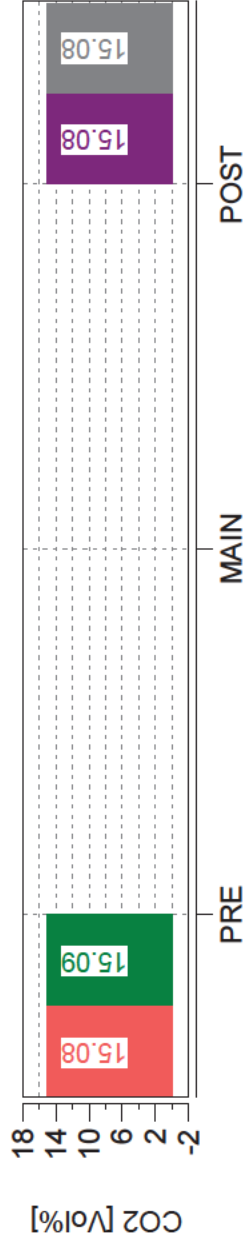
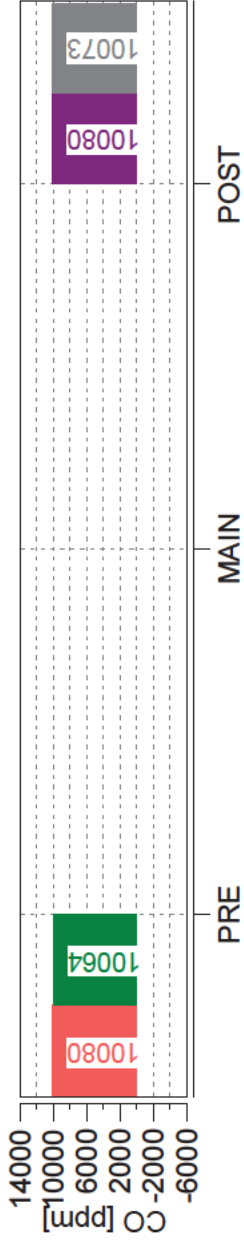
'City'

Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: City

Page: THC/CH4 Zero - Span

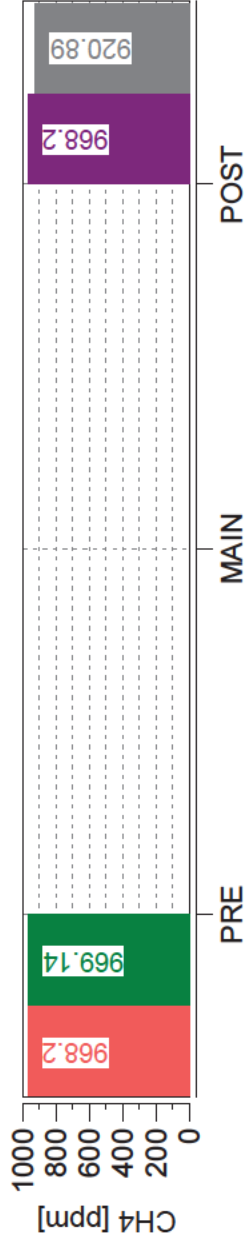
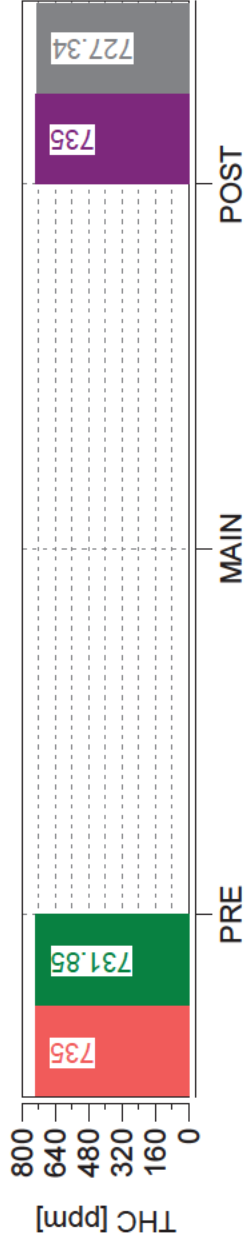
'City'

Start Date: 07/22/2018

Start Time: 21:12:50.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Atlas / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Trip Summary

'Highway'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018

Trip Duration	2575.00	s	ave THC	6.96557	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	2575.00	s	ave NMHC	6.82626	ppm	BS CO	n/a	g/hphr
Trip Distance	38.73	mi	ave CH4	0.13931	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	38.73	mi	ave CO	55.36077	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	11.61345	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	7.19378	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.01	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.96	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.42	gall	tot THC	0.44269	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.40	gall	tot NMHC	0.40949	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00981	g	DS CO2	311.14285	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	6.27936	g	DS CO	0.16212	g/mi
Trip Fuel Economy EU (ac)	27.36	mpg_US	tot CO2	12051.49233	g	DS THC	0.01143	g/mi
Trip Fuel Economy US (ac)	27.71	mpg_US	tot NO (d)	0.58823	g	DS NMHC	0.01057	g/mi
Trip Av. Eng. Speed	1858.22	rpm	tot NO2	-0.01378	g	DS CH4	0.00025	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.57445	g	DS NO (d)	0.01519	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	-0.00036	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.01483	g/mi
Trip Exhaust Mass	64.87	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	81.73	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	54.32	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	54.15097	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	3.53398	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
 (d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Trip Summary Drift Corrected

'Highway'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018

Trip Duration	2575.00	s	ave THC DC	7.18797	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	2575.00	s	ave NMHC DC	7.04421	ppm	BS CO DC	n/a	g/hphr
Trip Distance	38.73	mi	ave CH4 DC	0.14376	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	38.73	mi	ave CO DC	55.31315	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	11.59039	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	7.26690	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.01	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.96	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.42	gall	tot THC DC	0.44923	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.40	gall	tot NMHC DC	0.41554	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00996	g	DS CO2 DC	310.52509	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	6.28105	g	DS CO DC	0.16216	g/mi
Trip Fuel Economy EU (ac)	27.36	mpg_US	tot CO2 DC	12027.56482	g	DS THC DC	0.01160	g/mi
Trip Fuel Economy US (ac)	27.71	mpg_US	tot NO DC (d)	0.59155	g	DS NMHC DC	0.01073	g/mi
Trip Av. Eng. Speed	1858.22	rpm	tot NO2 DC	-0.01162	g	DS CH4 DC	0.00026	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.57993	g	DS NO DC (d)	0.01527	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	-0.00030	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.01497	g/mi
Trip Exhaust Mass	64.87	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	81.73	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	54.32	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	54.15097	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	3.53398	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment Check

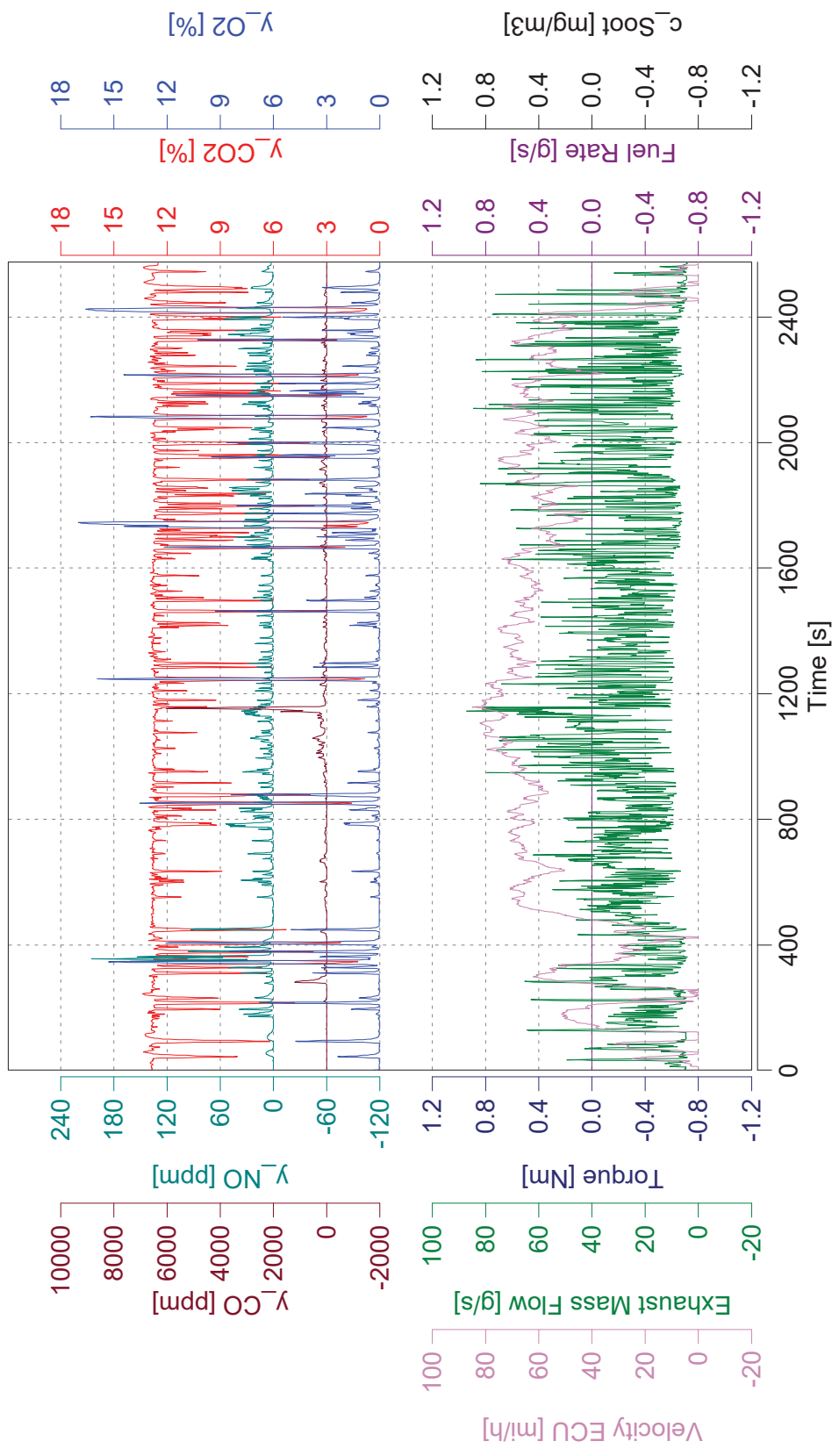
'Highway'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment of Gas Concentrations

'Highway'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Ambient Conditions

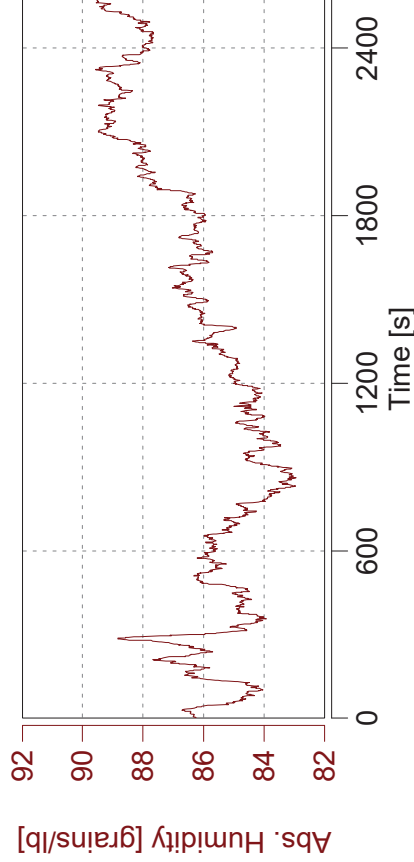
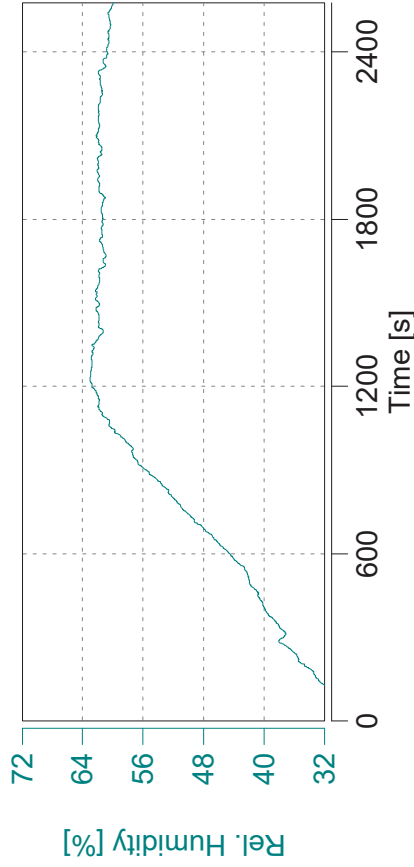
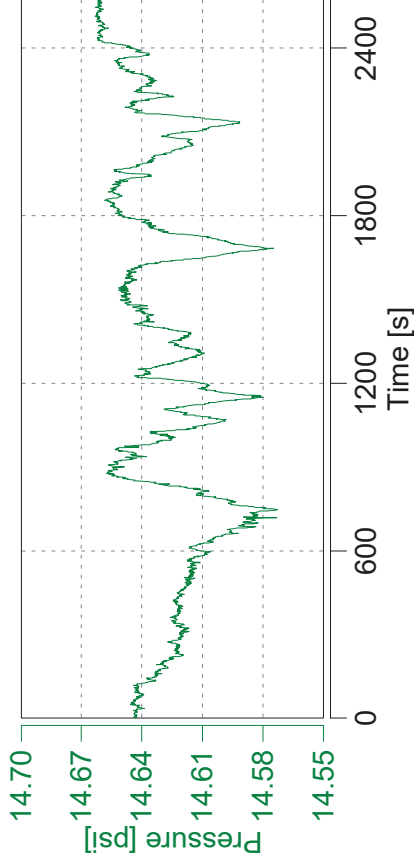
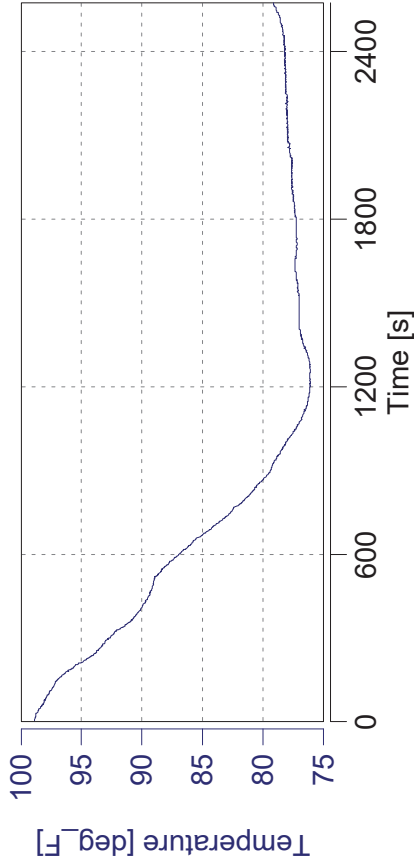
'Highway'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: GPS

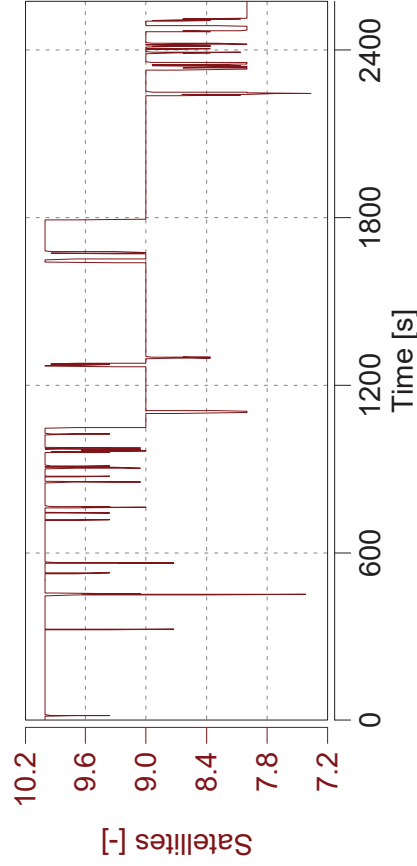
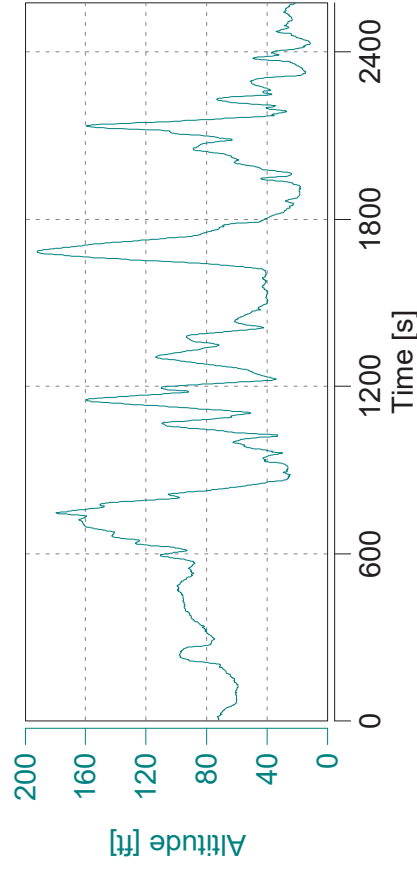
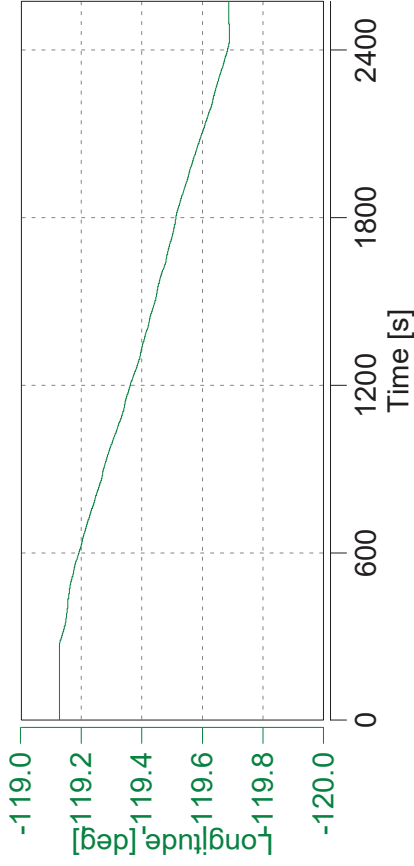
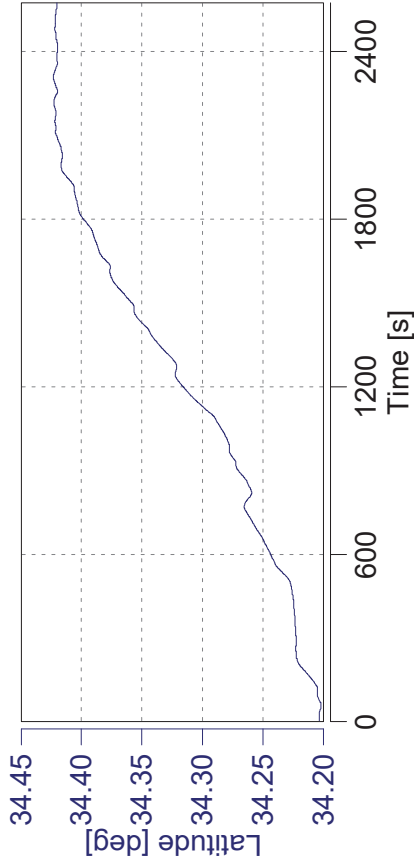
'Highway'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (1)

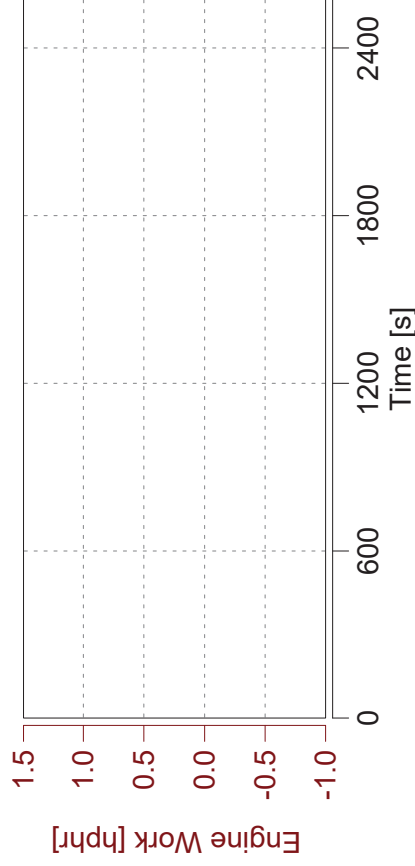
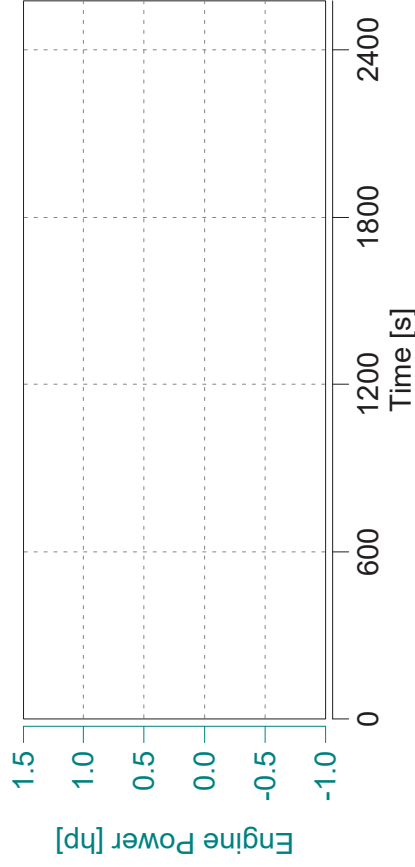
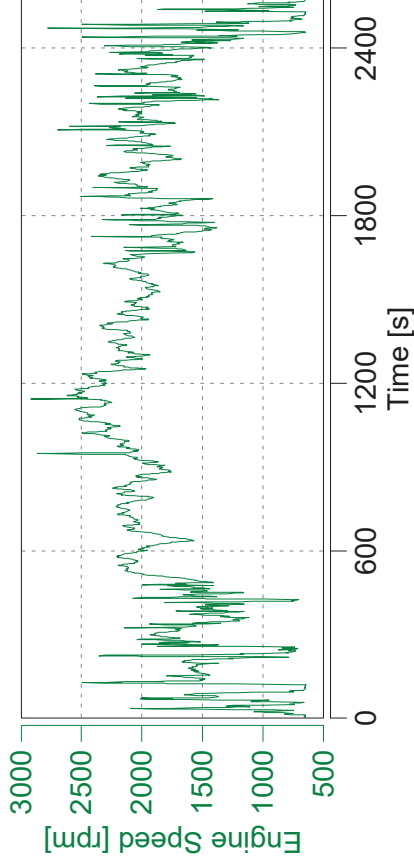
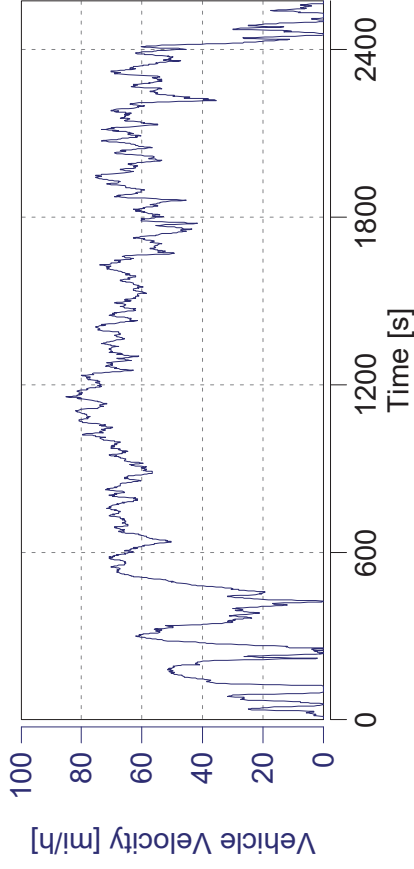
'Highway'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (2)

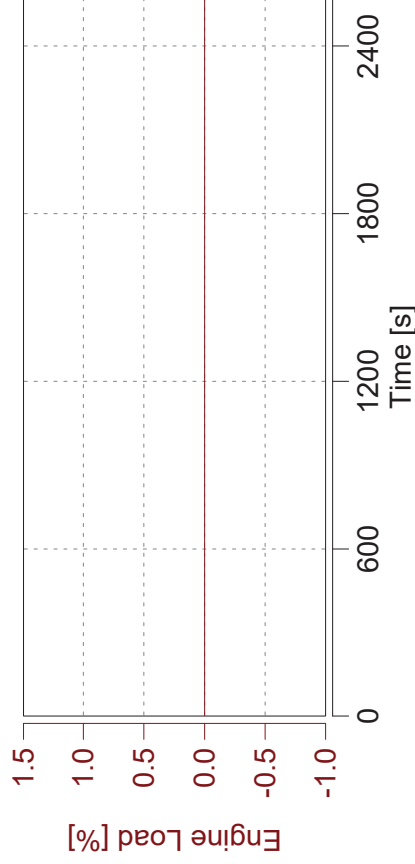
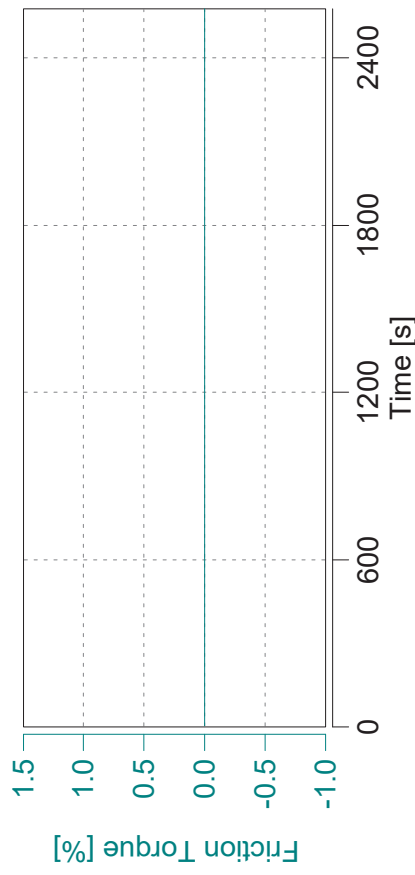
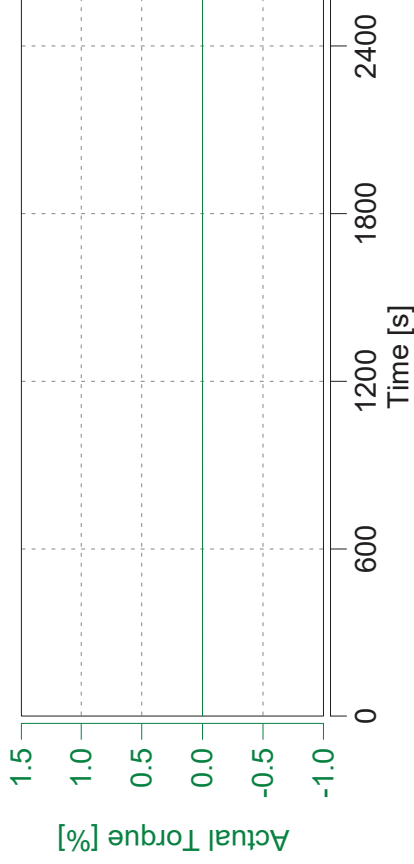
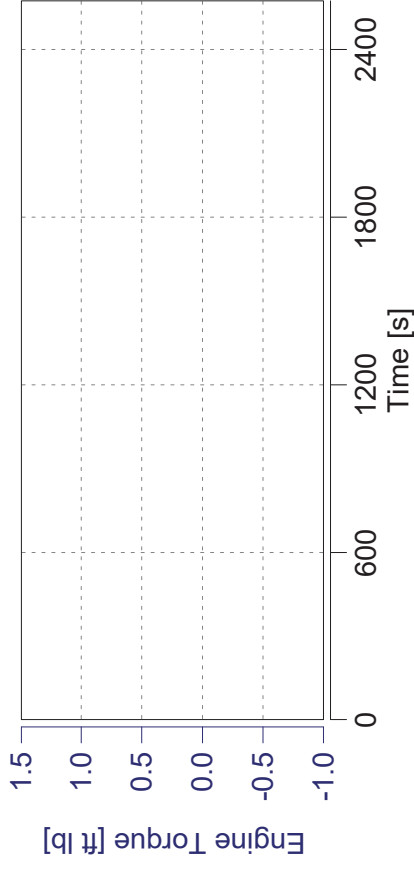
'Highway'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (3)

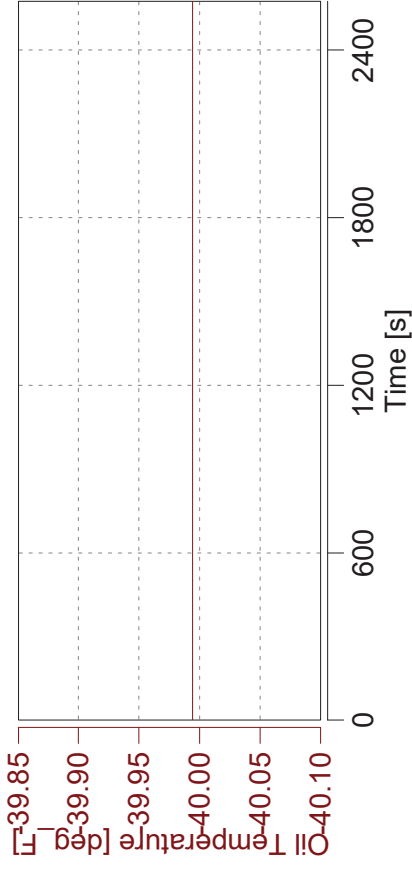
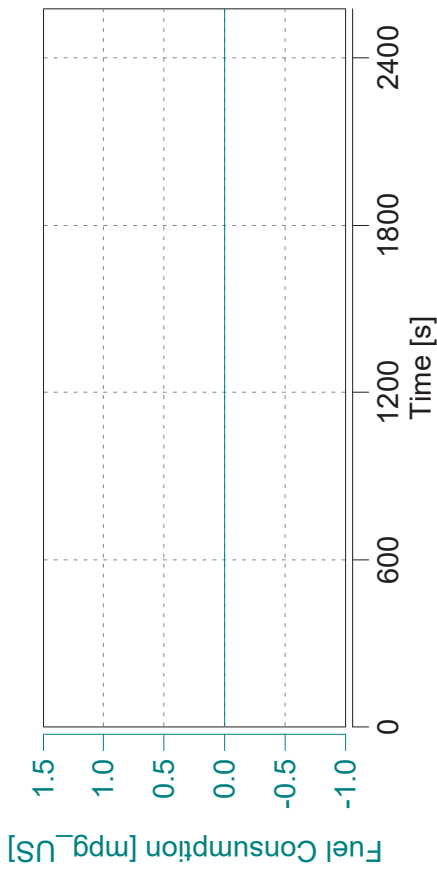
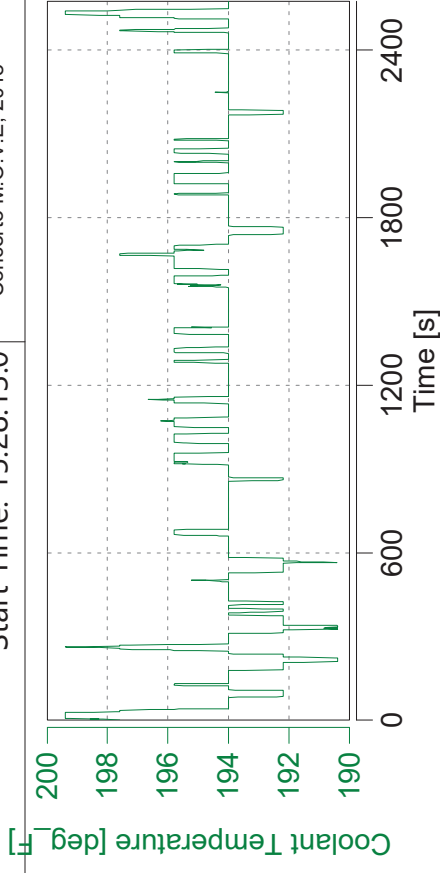
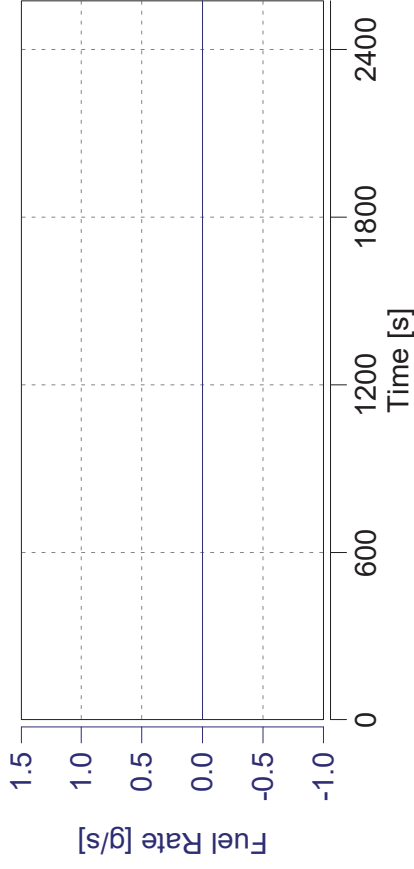
'Highway'

Start Date: 07/24/2018

Start Time: 15:28:13.0

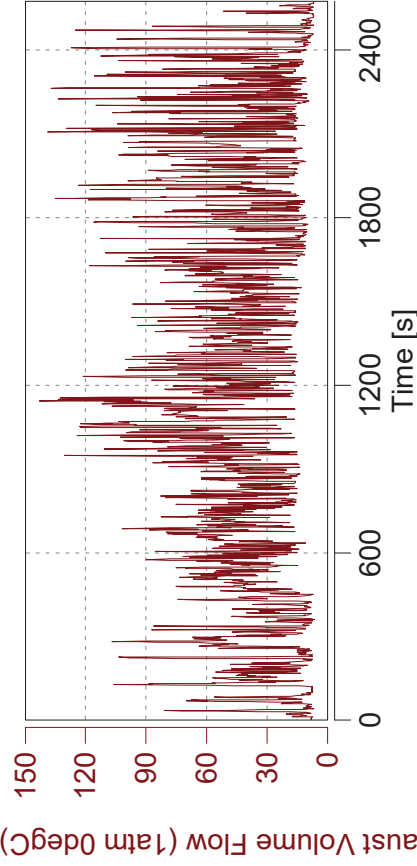
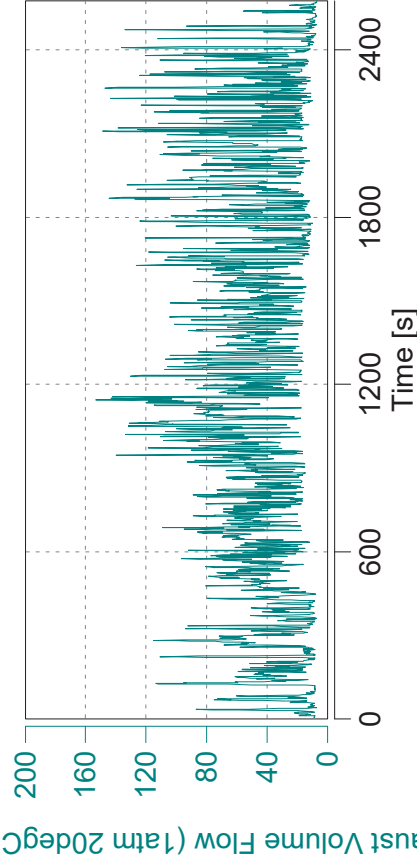
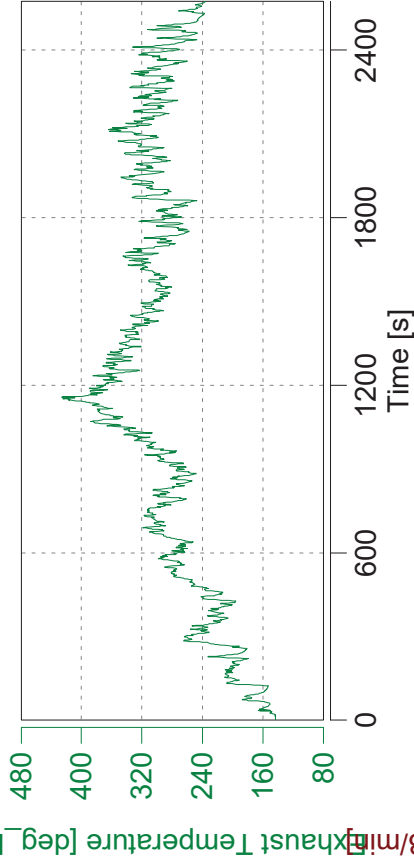
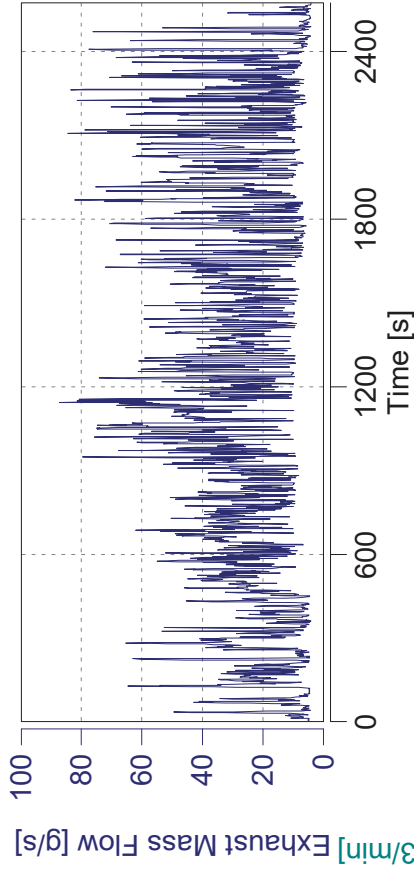


Concerto M.O.V.E., 2018



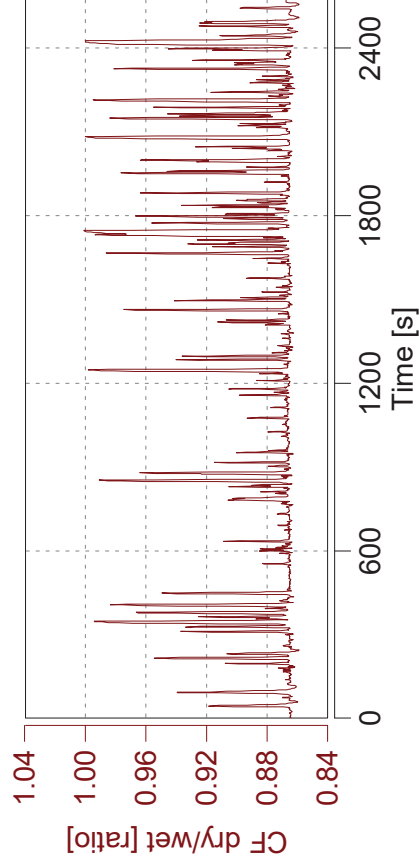
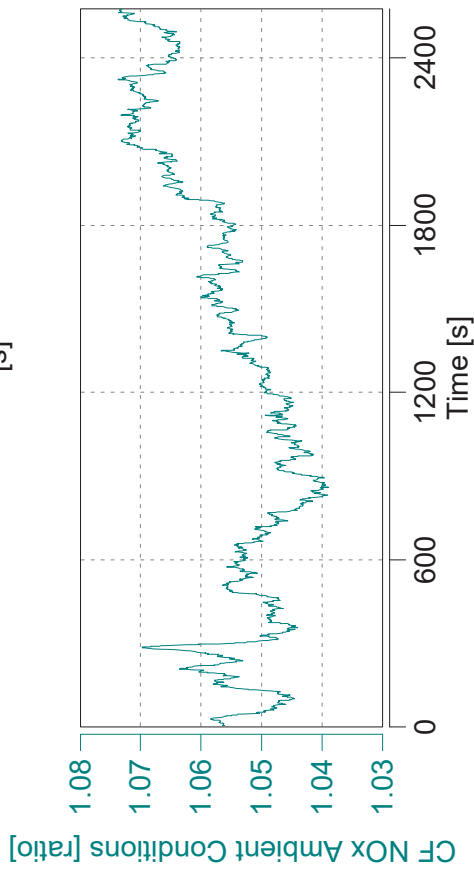
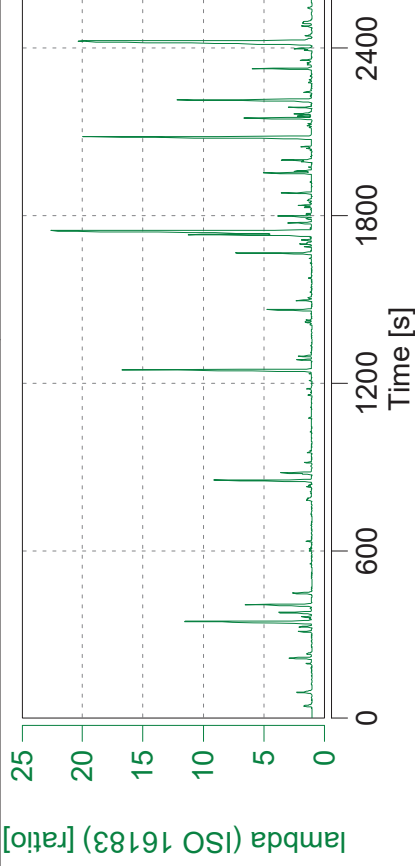
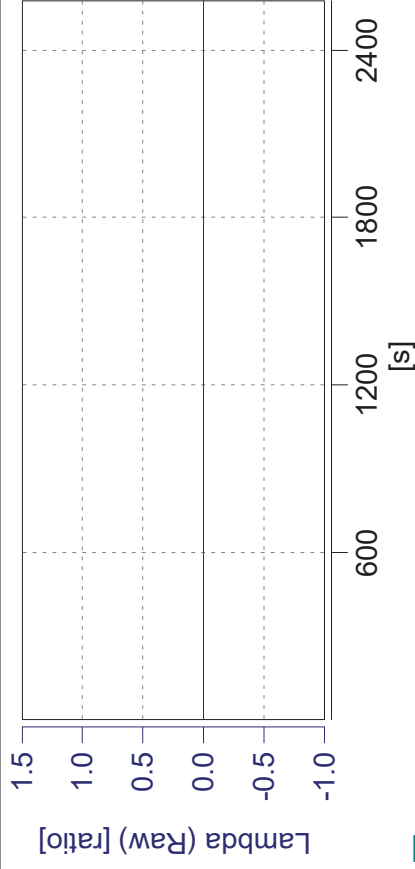
Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /
Vehicle: Passat SEL / 3.6L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90



Case: Highway
Page: Exhaust Flow (2)

'Highway'
Start Date: 07/24/2018
Start Time: 15:28:13.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (1)

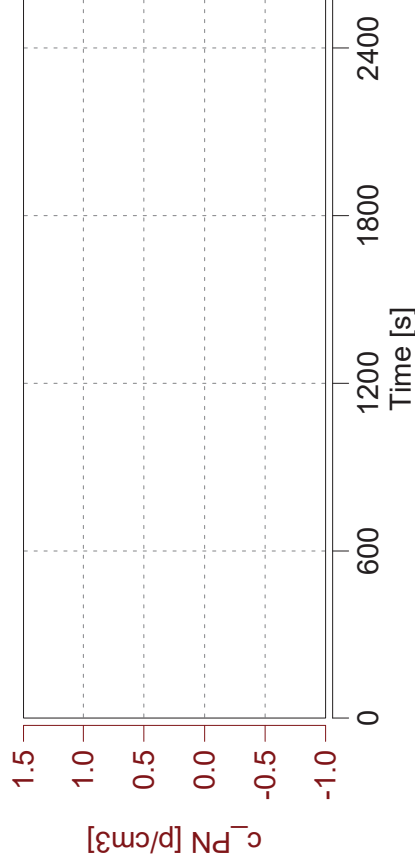
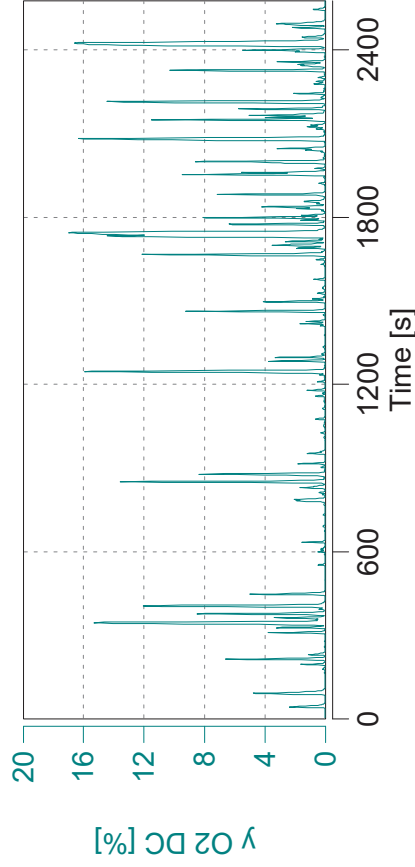
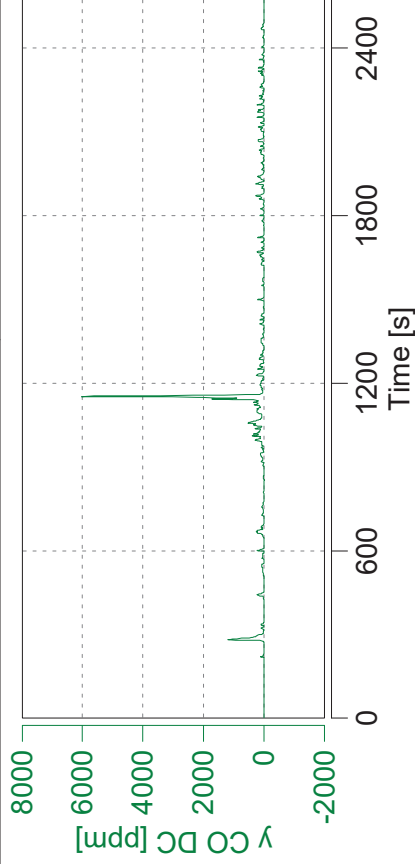
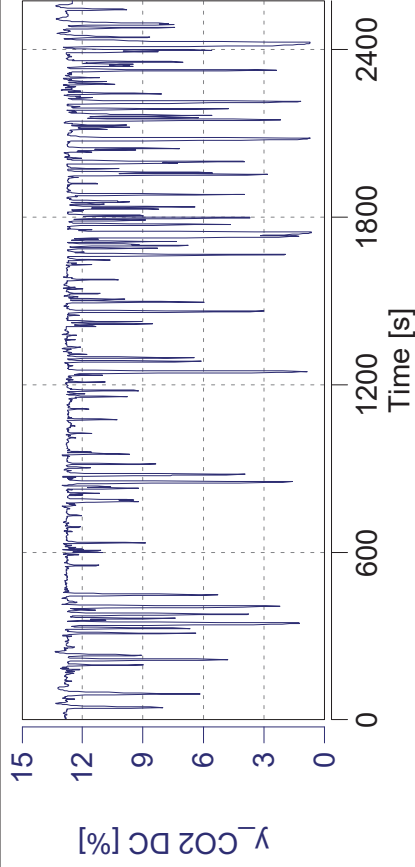
'Highway'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (2)

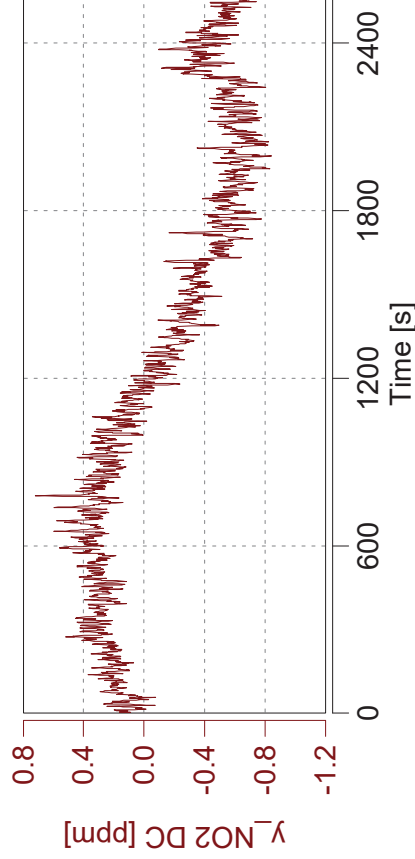
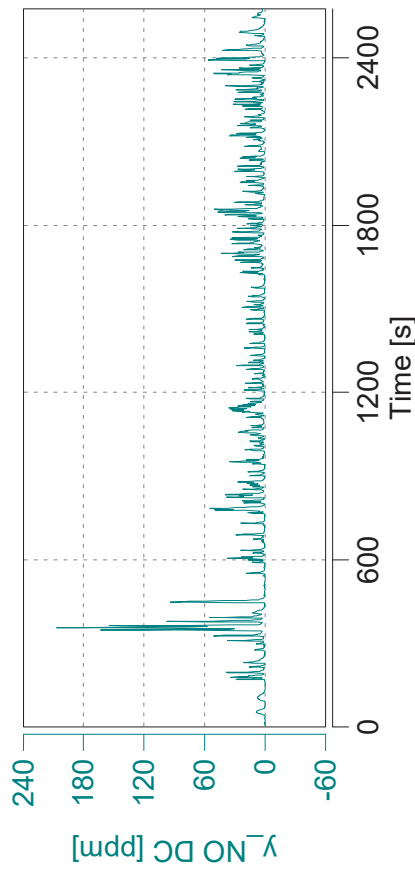
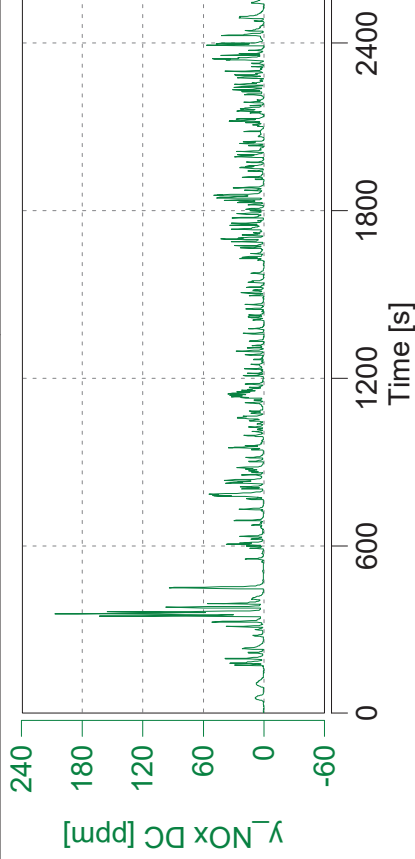
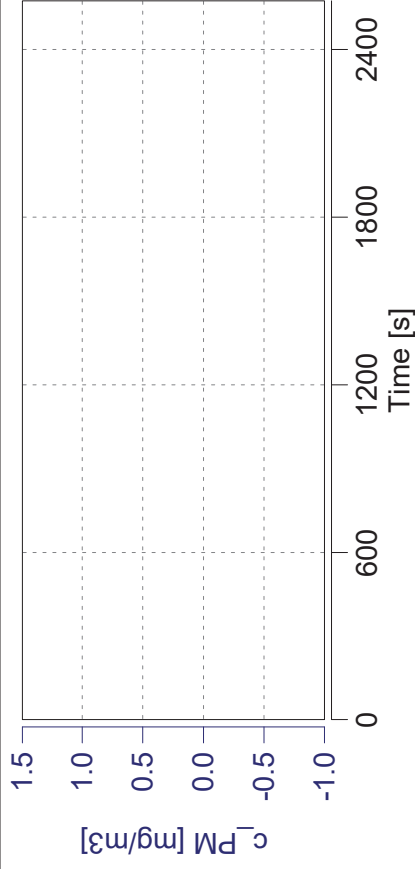
'Highway'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: Passat SEL / 3.6L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (3)

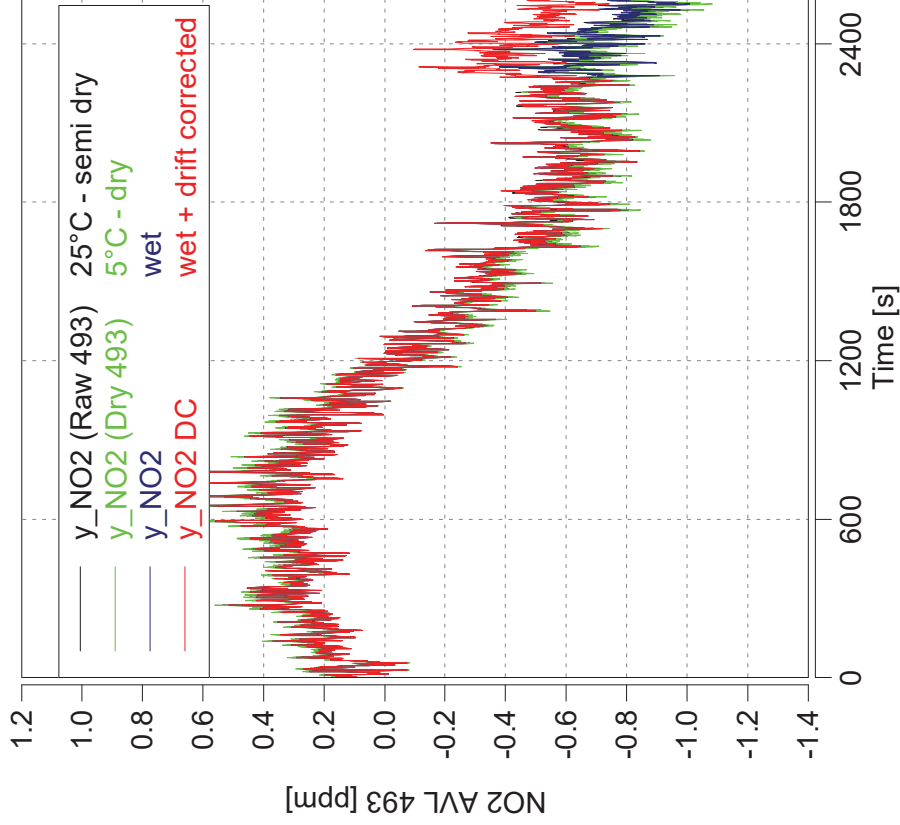
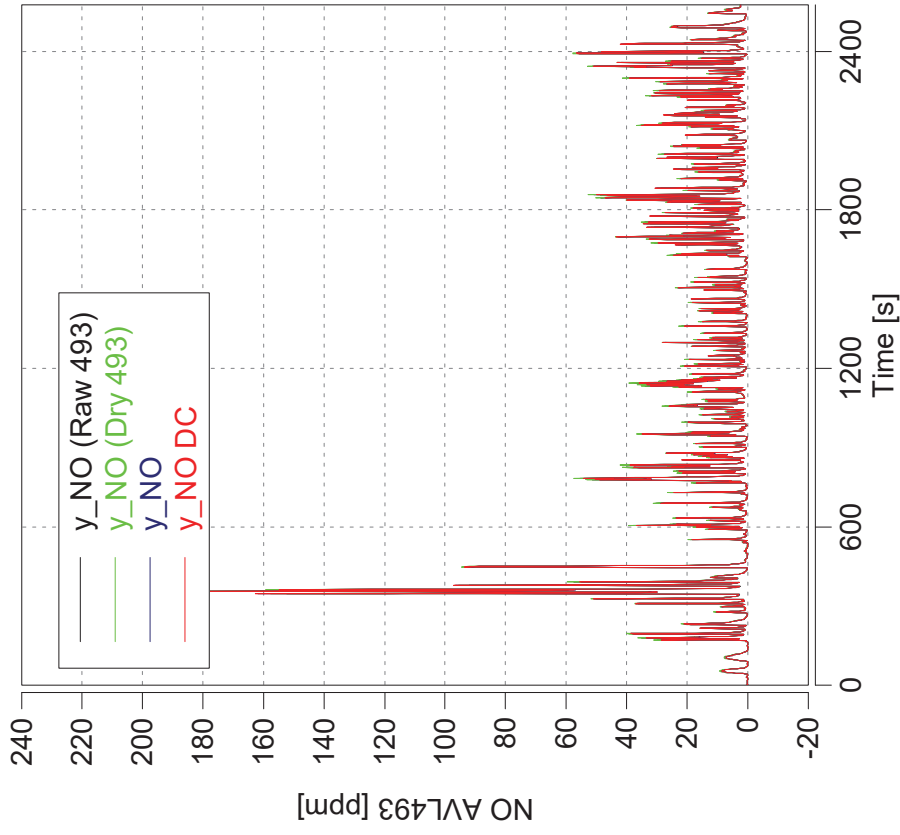
'Highway'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (4) NOx Corrections

'Highway'

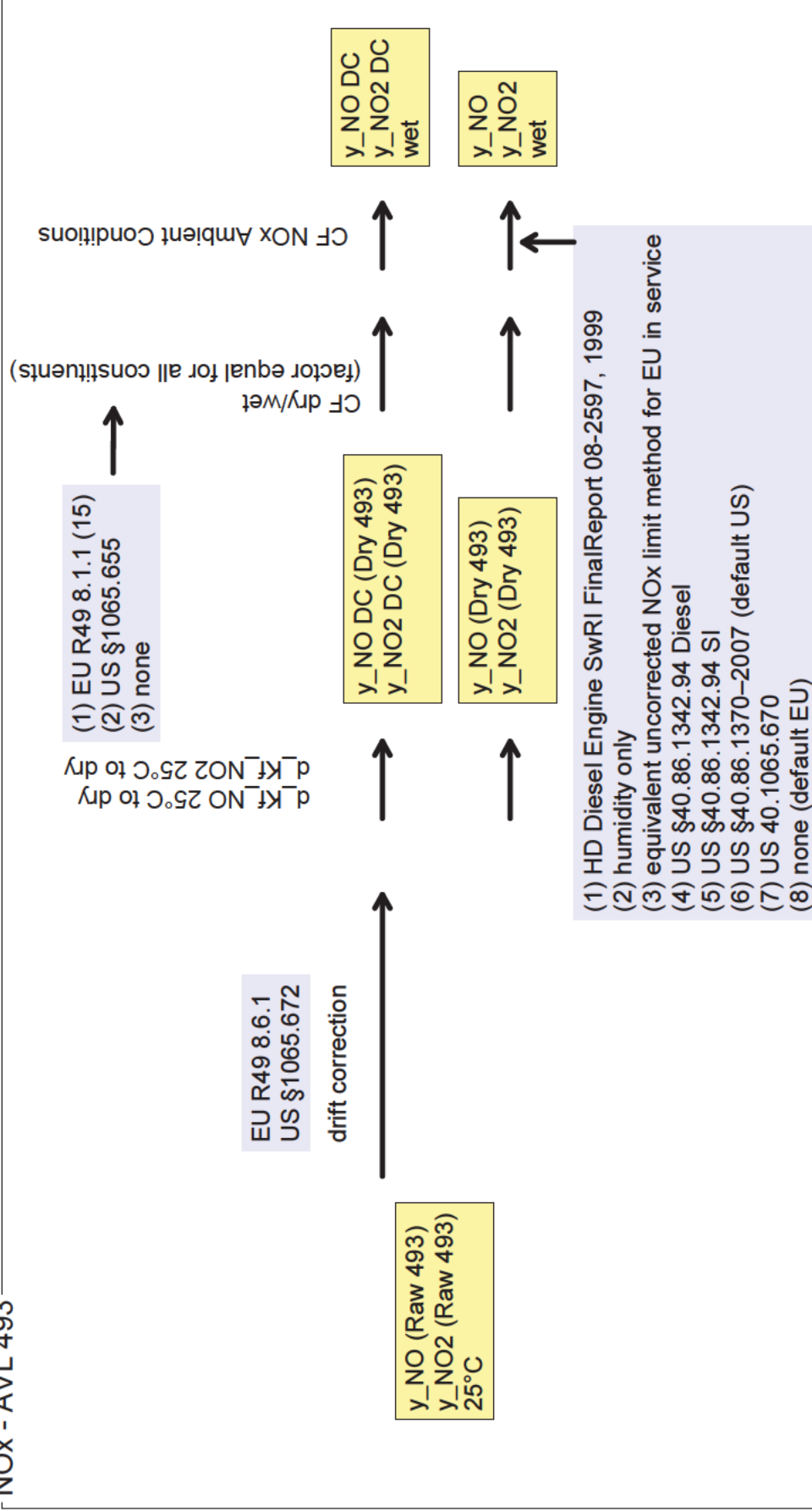
Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat SEL / 3.6L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (5)

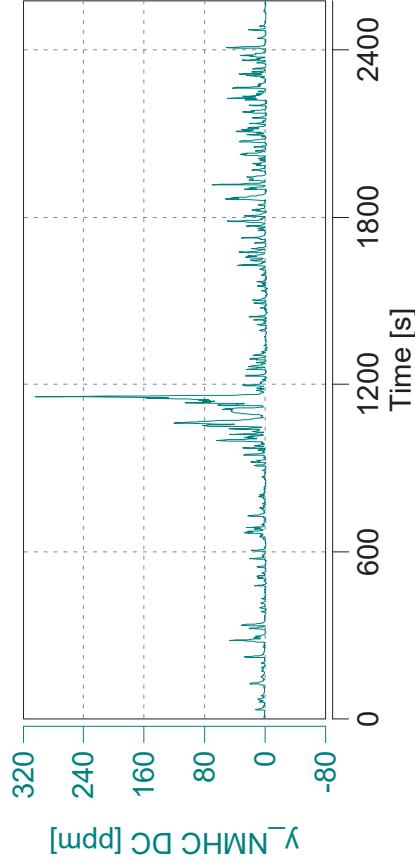
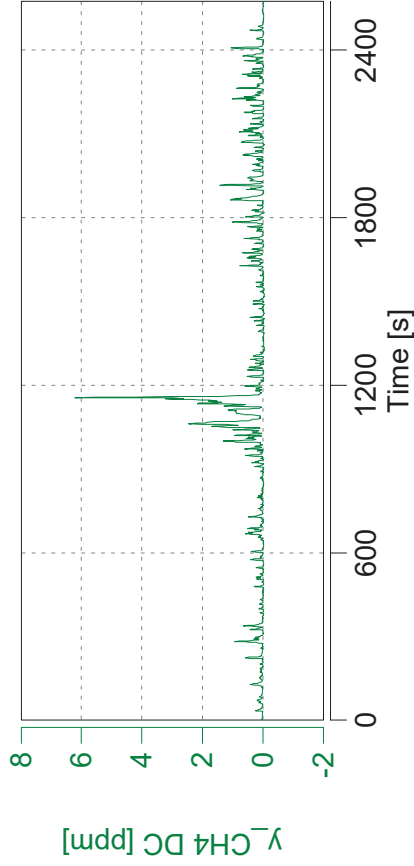
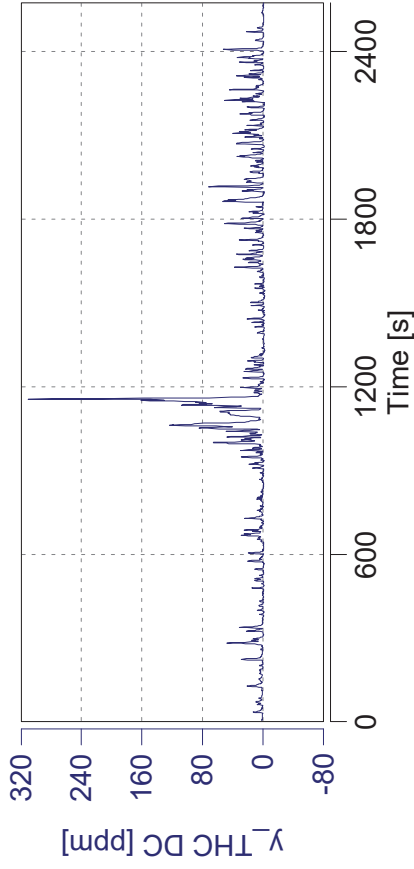
'Highway'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: NO/NO2/NOx Zero - Span

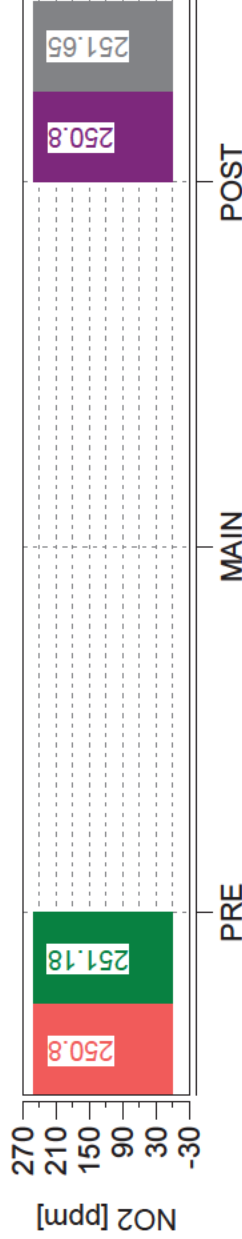
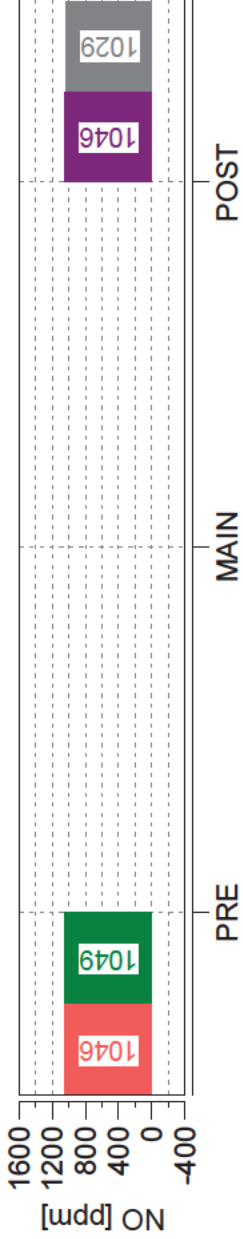
'Highway'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



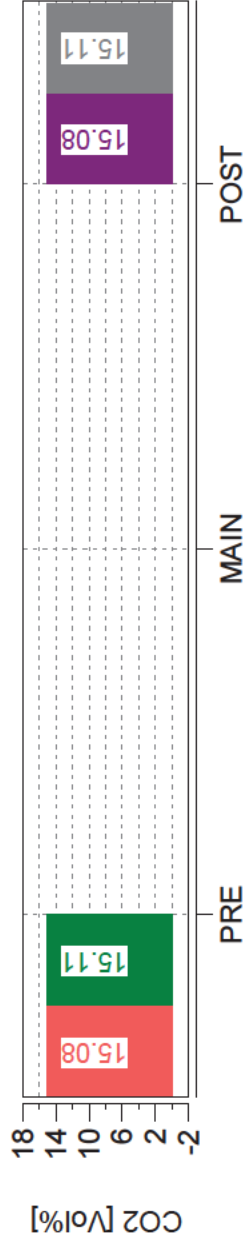
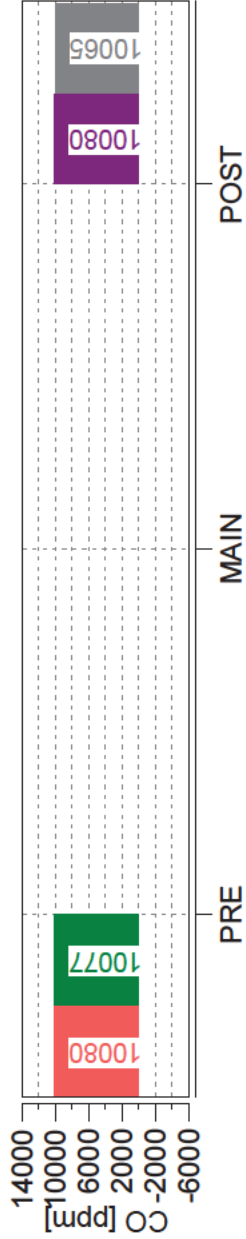
Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /



Case: Highway

Page: THC/CH4 Zero - Span

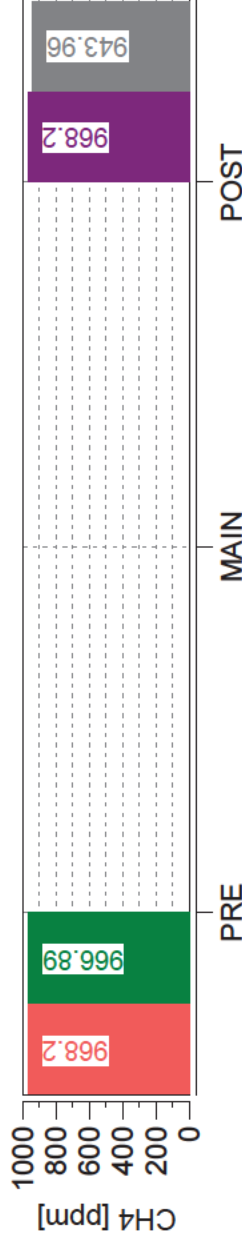
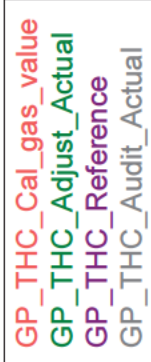
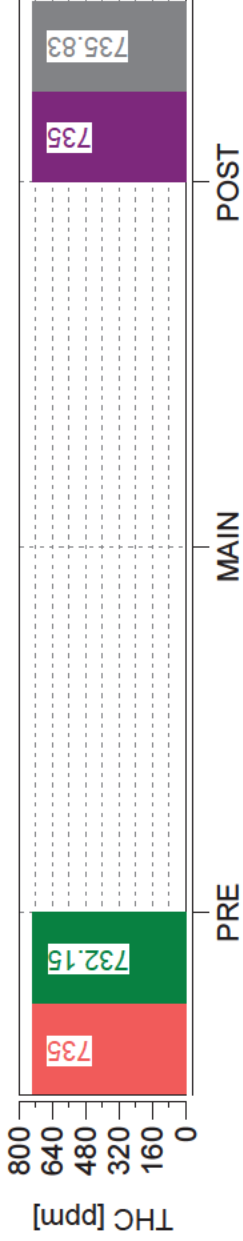
'Highway'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Passat SEL / 3.6L

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary

'Mountain'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E. 2018

Trip Duration	2792.00	s	ave THC	17.92801	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	2792.00	s	ave NMHC	17.56945	ppm	BS CO	n/a	g/hphr
Trip Distance	28.78	mi	ave CH4	0.35856	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	28.78	mi	ave CO	197.37925	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	10.33678	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	9.83834	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.60	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.56	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.27	gall	tot THC	1.10981	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.26	gall	tot NMHC	1.02658	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.02460	g	DS CO2	375.45486	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	27.46121	g	DS CO	0.95431	g/mi
Trip Fuel Economy EU (ac)	22.61	mpg_US	tot CO2	10804.03778	g	DS THC	0.03857	g/mi
Trip Fuel Economy US (ac)	22.88	mpg_US	tot NO (d)	0.85621	g	DS NMHC	0.03568	g/mi
Trip Av. Eng. Speed	1807.51	rpm	tot NO2	-0.03055	g	DS CH4	0.00085	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.82565	g	DS NO (d)	0.02975	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	-0.00106	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.02869	g/mi
Trip Exhaust Mass	61.90	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	87.16	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	42.84	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	37.10355	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	8.95415	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary Drift Corrected

'Mountain'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E. 2018

Trip Duration	2792.00	s	ave THC DC	18.08050	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	2792.00	s	ave NMHC DC	17.71889	ppm	BS CO DC	n/a	g/hphr
Trip Distance	28.78	mi	ave CH4 DC	0.36161	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	28.78	mi	ave CO DC	197.55858	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	10.31626	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	9.89874	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.60	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.56	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.27	gall	tot THC DC	1.11519	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.26	gall	tot NMHC DC	1.03156	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.02472	g	DS CO2 DC	374.70941	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	27.48616	g	DS CO DC	0.95518	g/mi
Trip Fuel Economy EU (ac)	22.61	mpg_US	tot CO2 DC	10782.58701	g	DS THC DC	0.03875	g/mi
Trip Fuel Economy US (ac)	22.88	mpg_US	tot NO DC (d)	0.86126	g	DS NMHC DC	0.03585	g/mi
Trip Av. Eng. Speed	1807.51	rpm	tot NO2 DC	-0.03048	g	DS CH4 DC	0.00086	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.83078	g	DS NO DC (d)	0.02993	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	-0.00106	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.02887	g/mi
Trip Exhaust Mass	61.90	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	87.16	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	42.84	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	37.10355	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	8.95415	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment Check

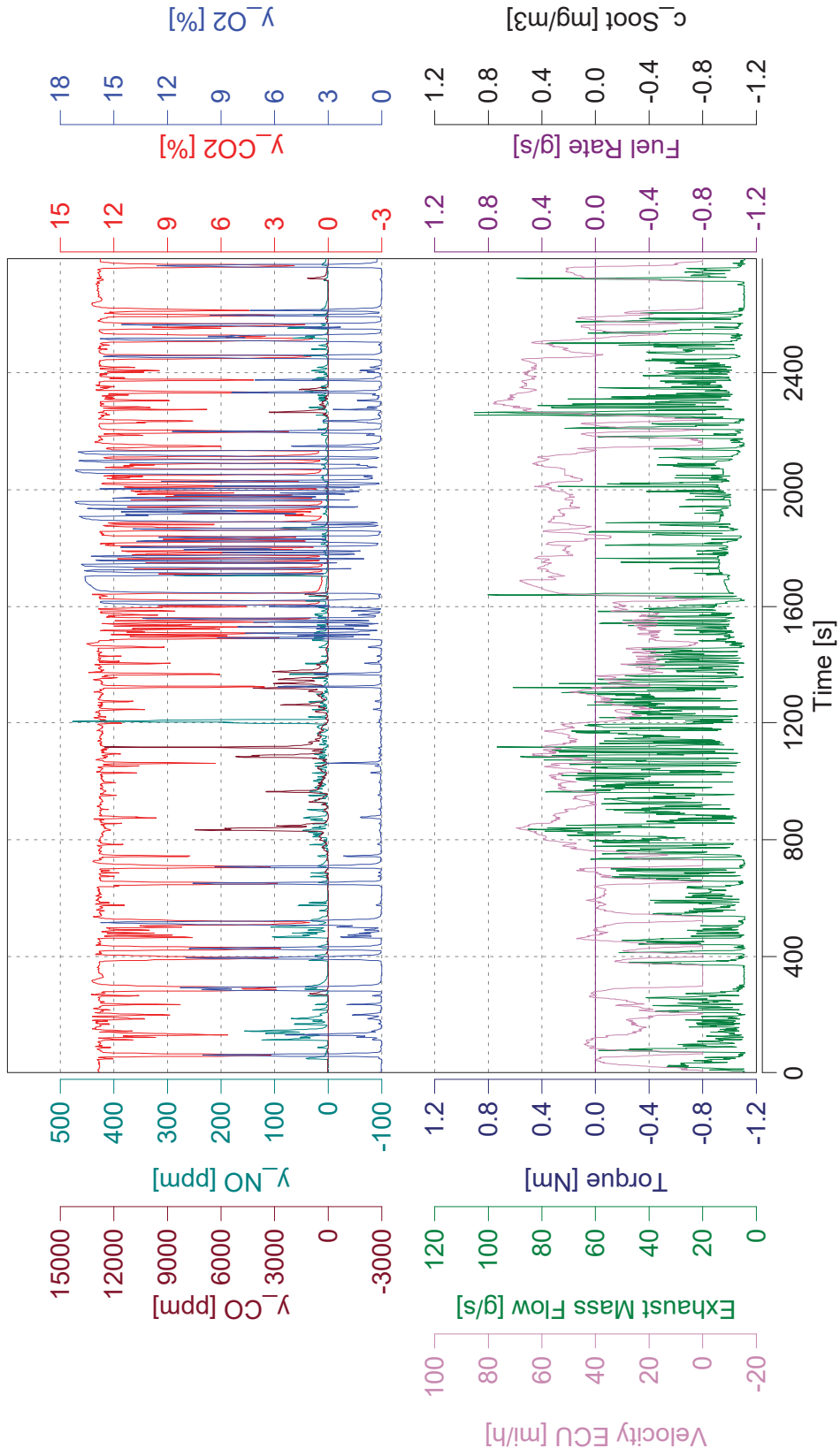
'Mountain'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316(CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment of Gas Concentrations

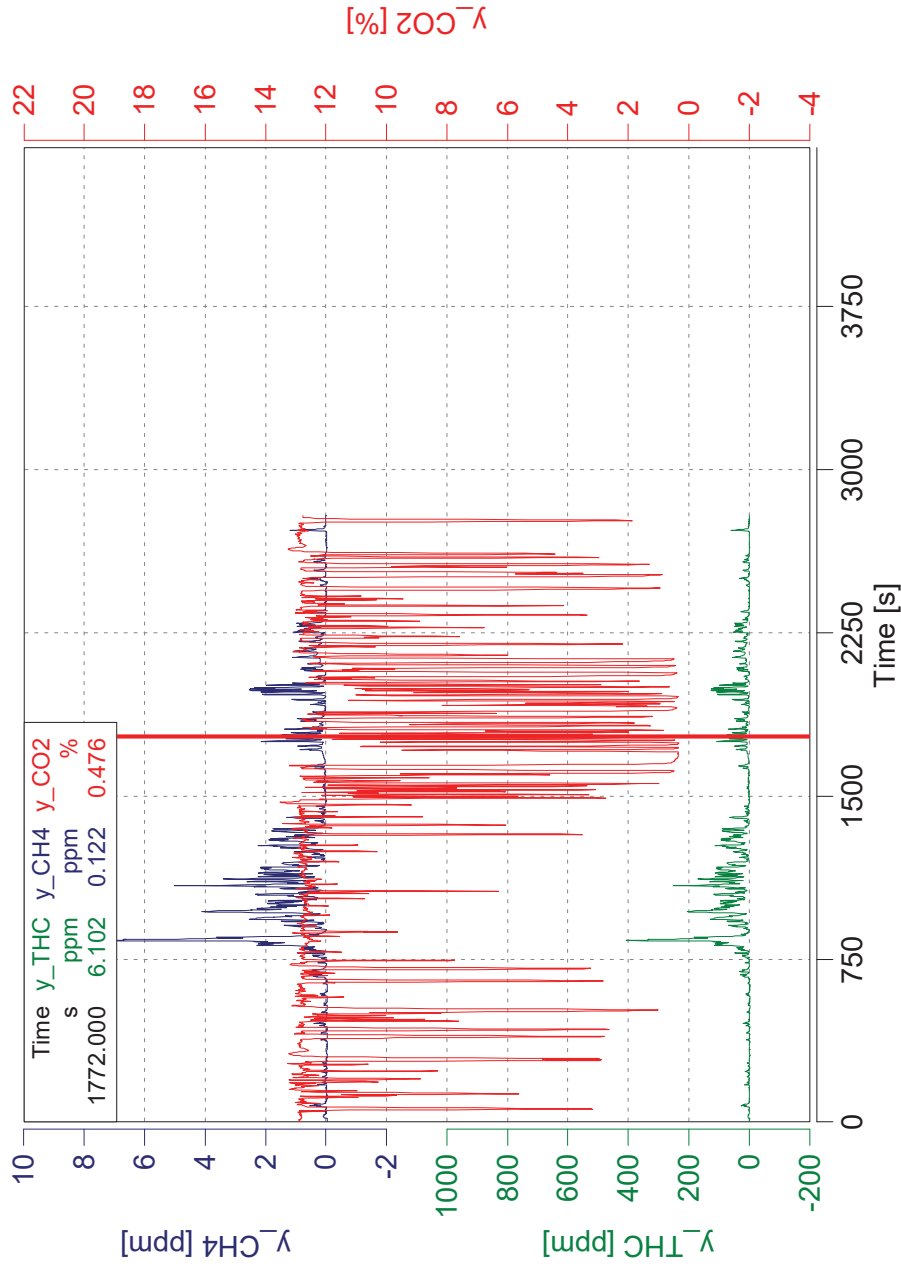
'Mountain'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Ambient Conditions

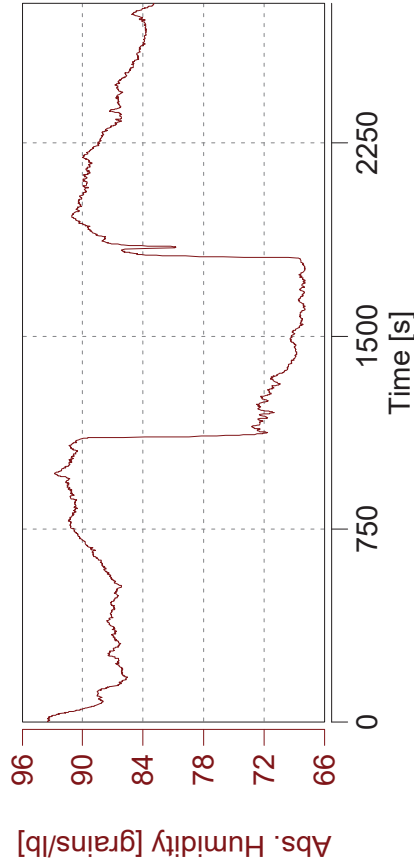
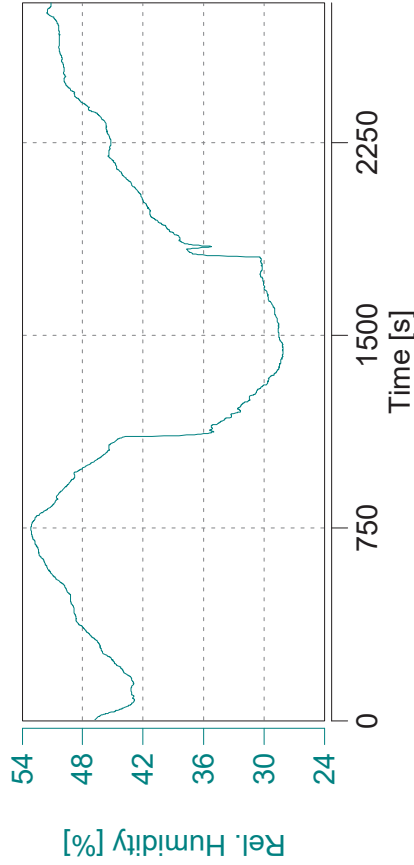
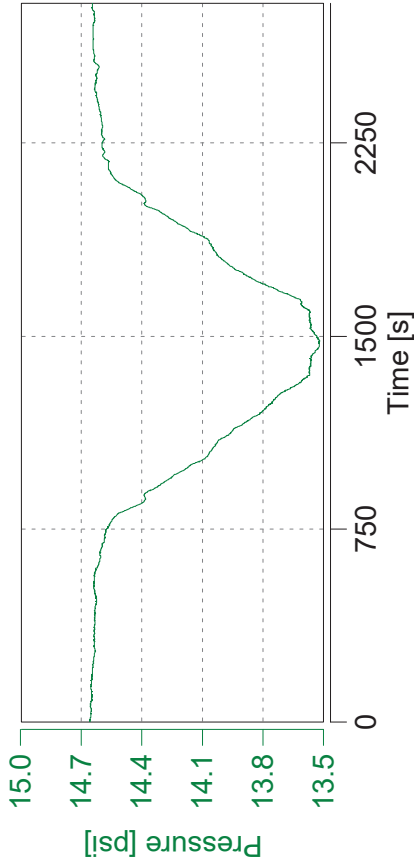
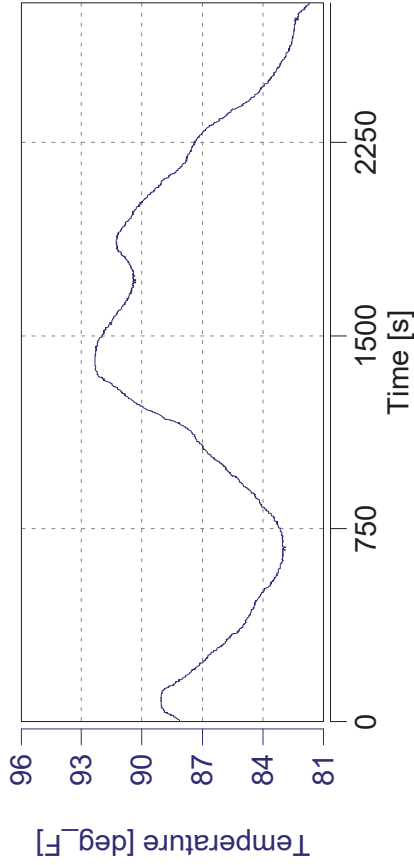
'Mountain'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: GPS

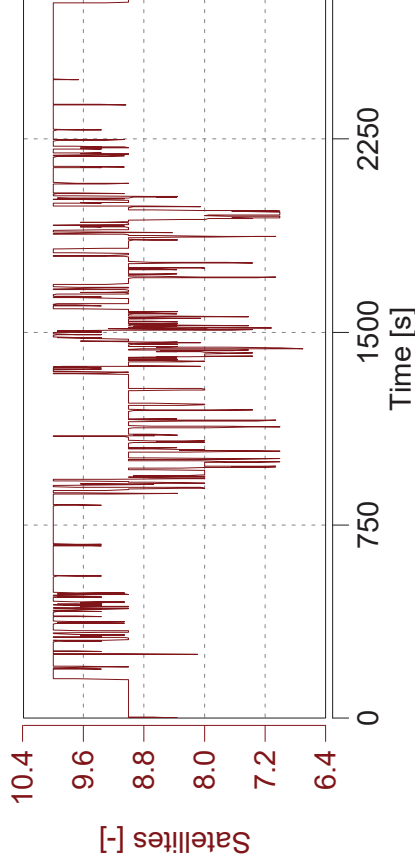
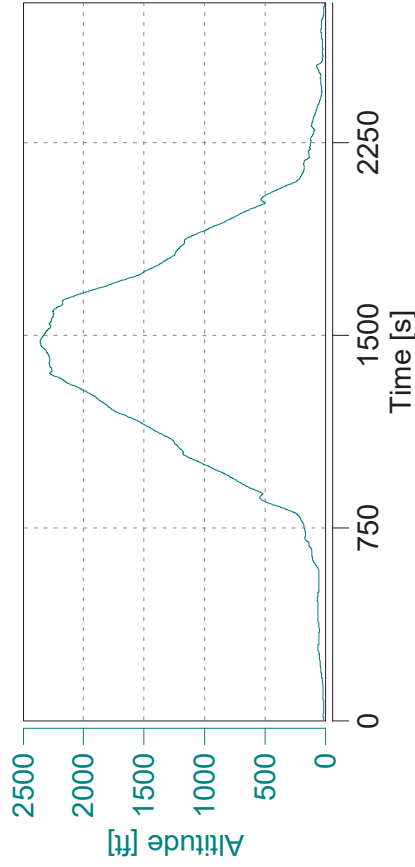
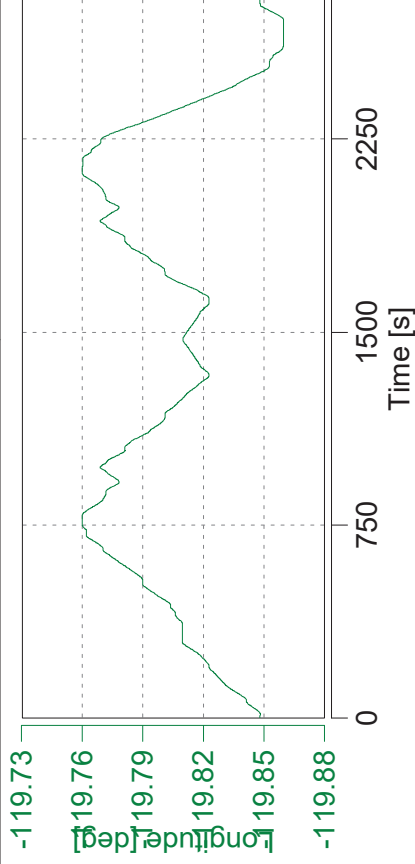
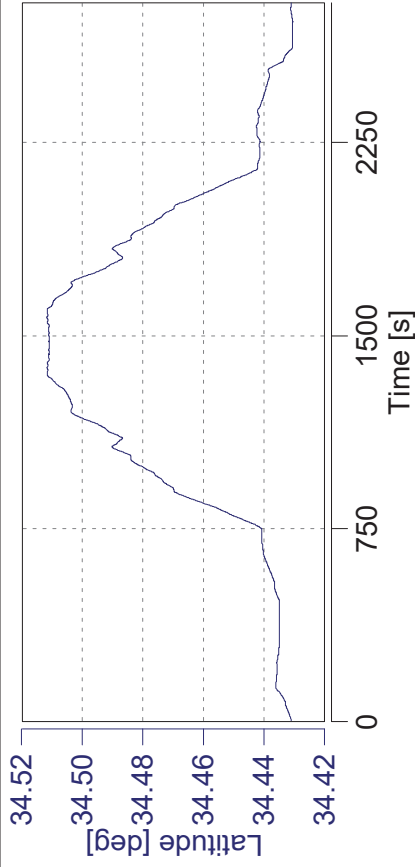
'Mountain'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (1)

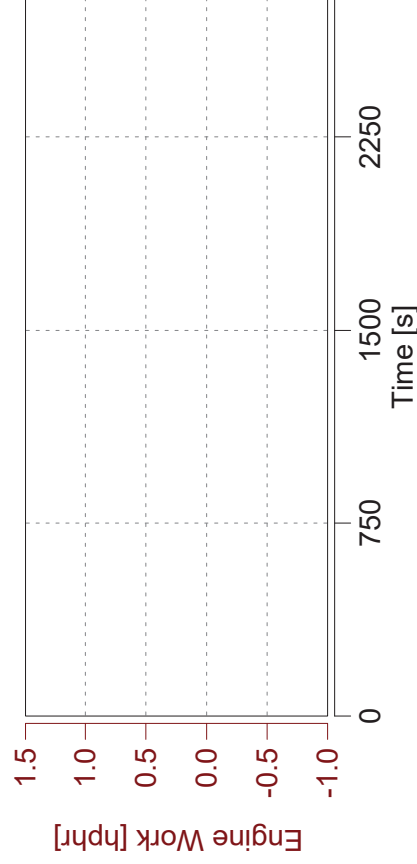
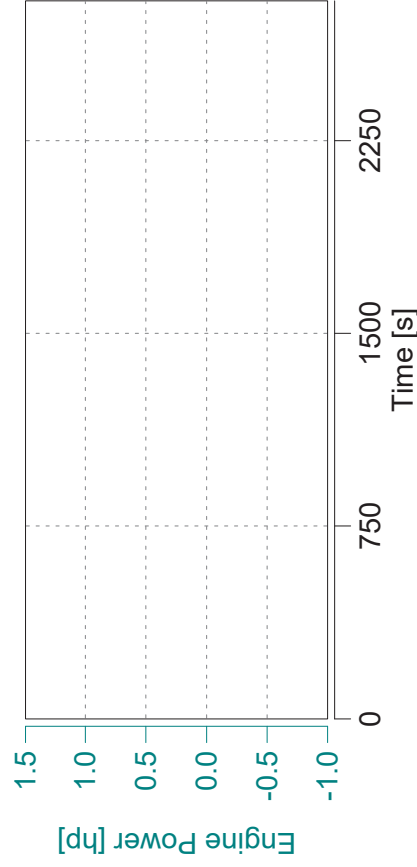
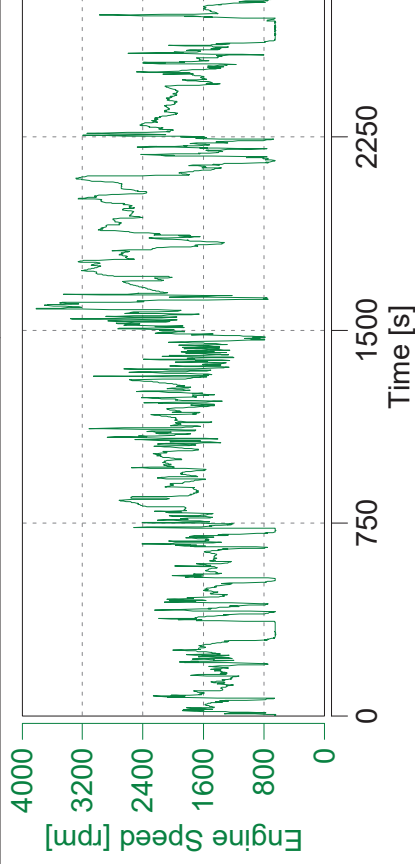
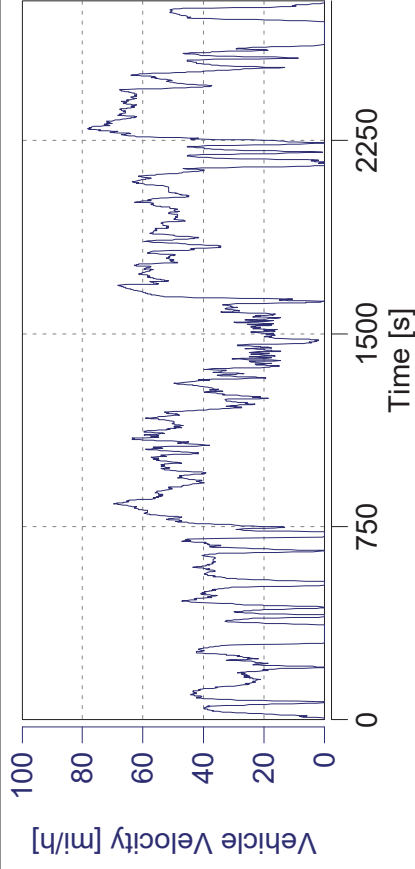
'Mountain'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (2)

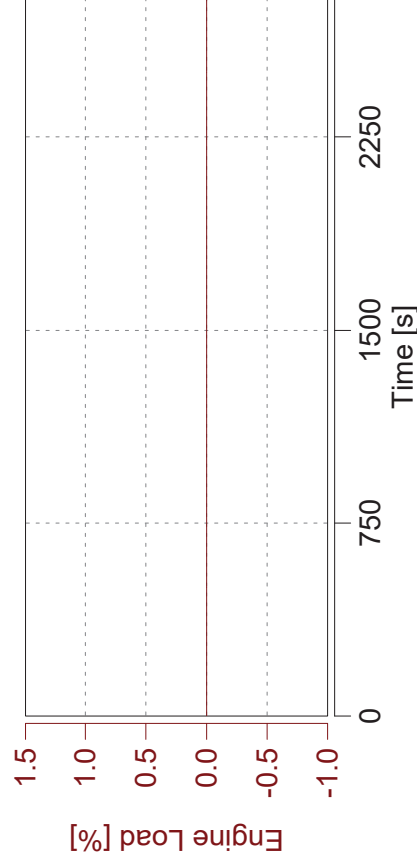
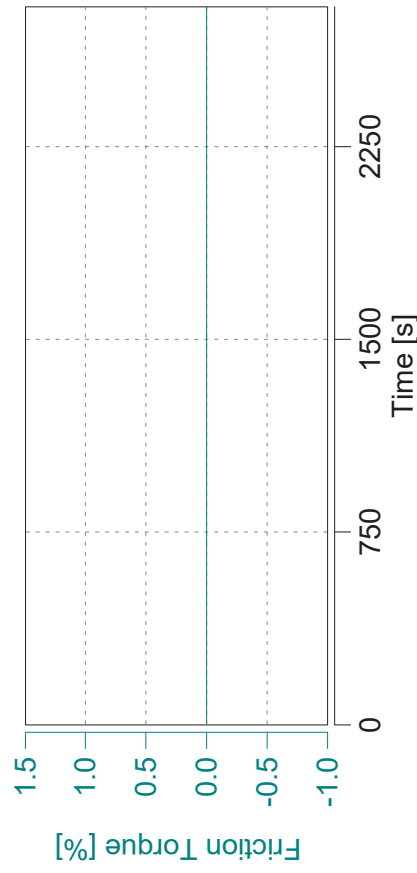
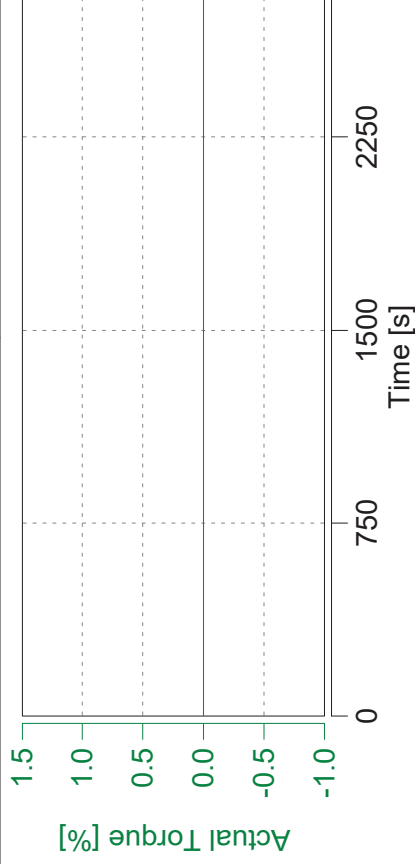
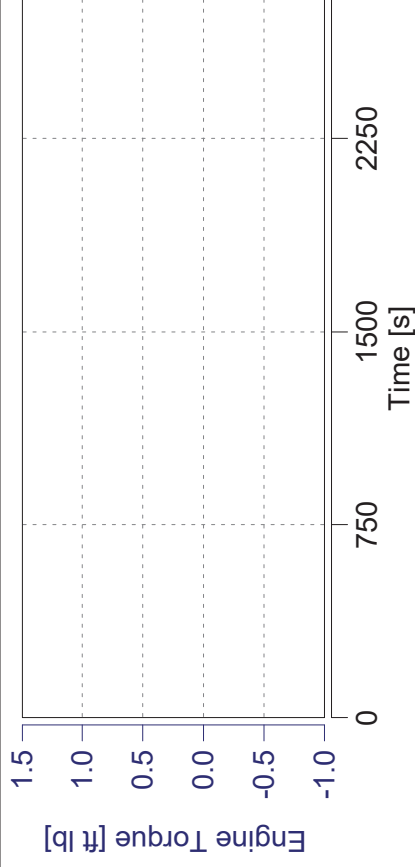
'Mountain'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (3)

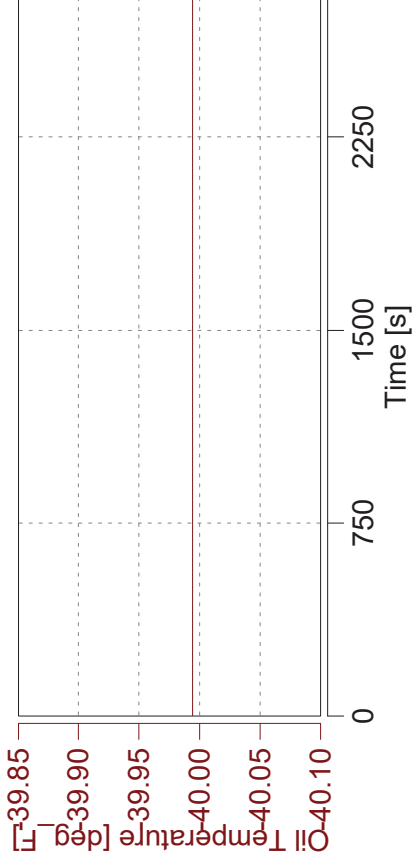
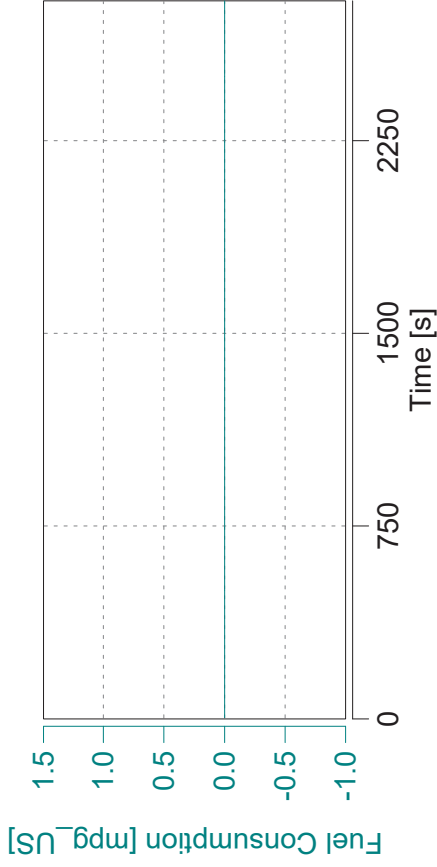
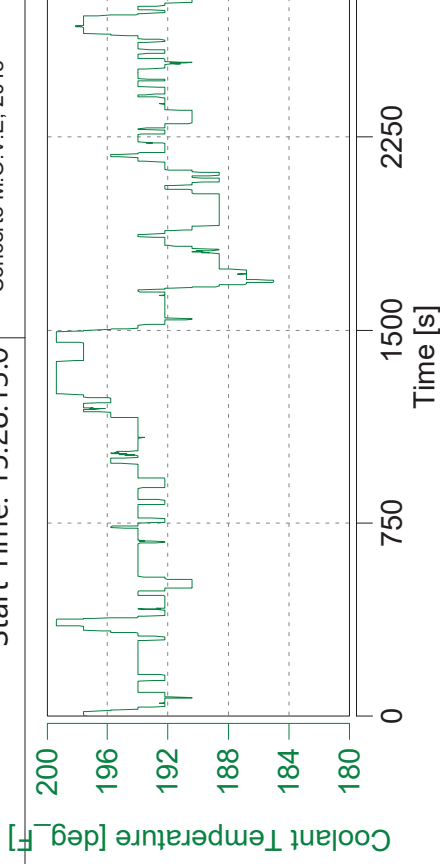
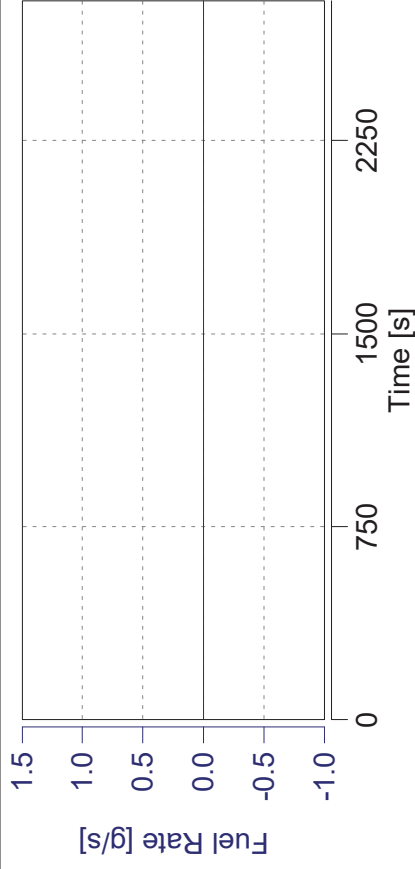
'Mountain'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Exhaust Flow (1)

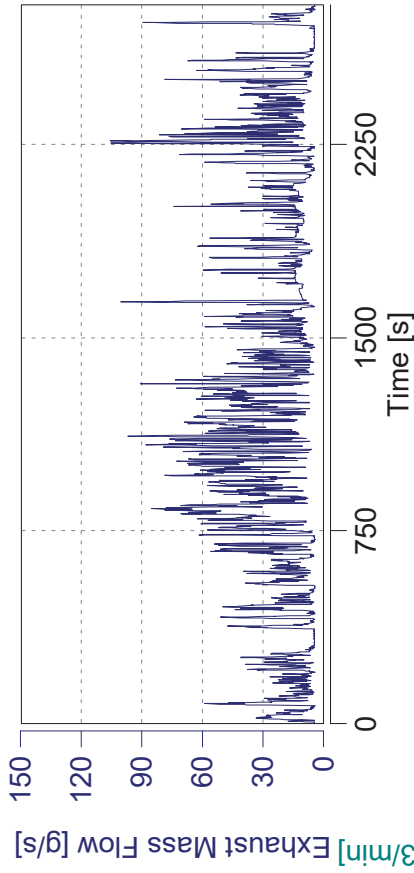
'Mountain'

Start Date: 07/24/2018

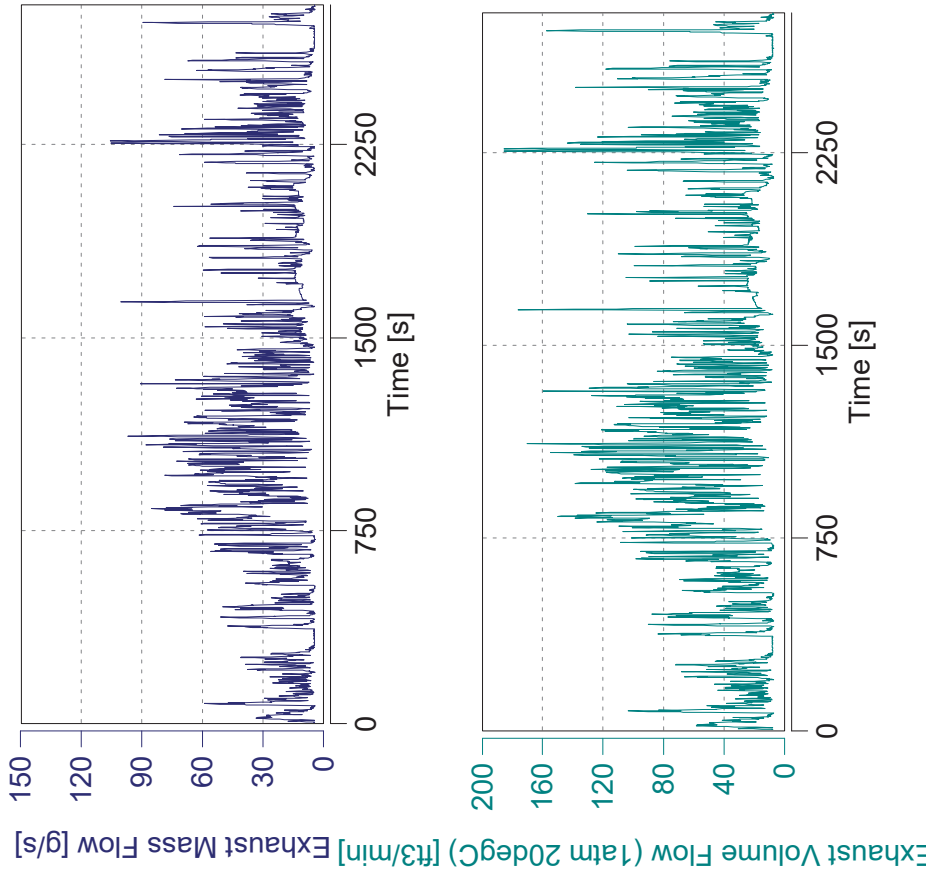
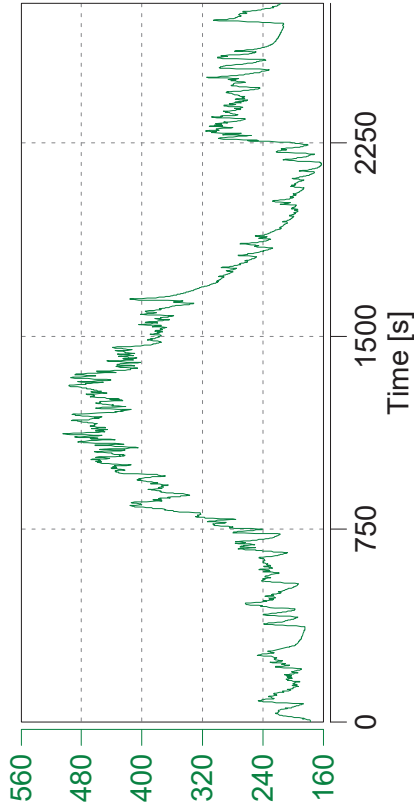
Start Time: 15:28:13.0



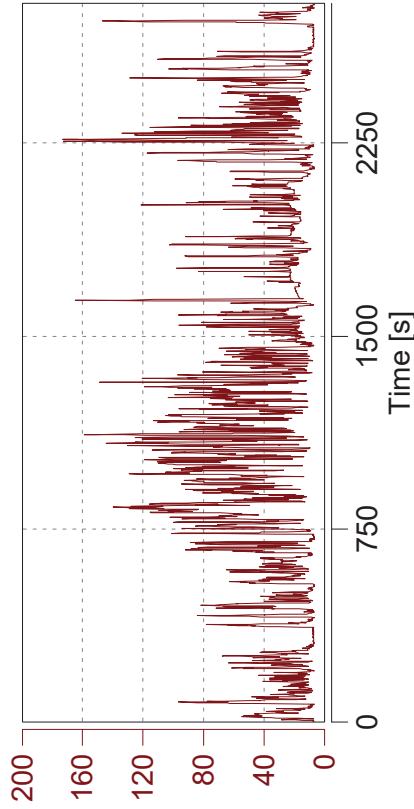
Concerto M.O.V.E., 2018



Exhaust Temperature [deg F]



Exhaust Volume Flow (1atm 0degC) [ft3/min]



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Engine: /

Case: Mountain

Page: Exhaust Flow (2)

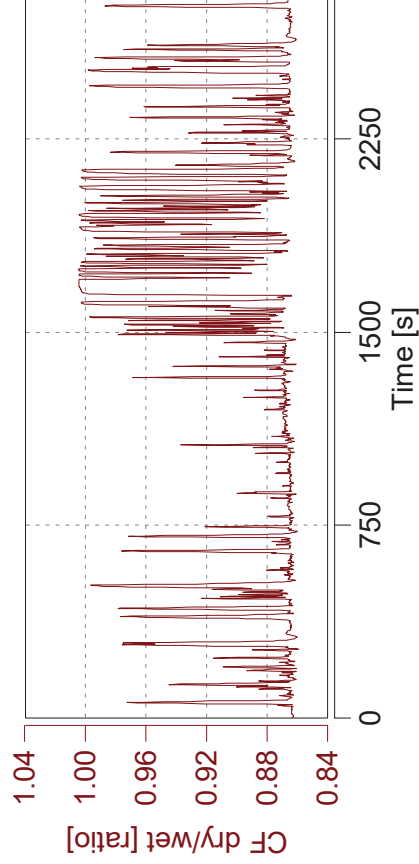
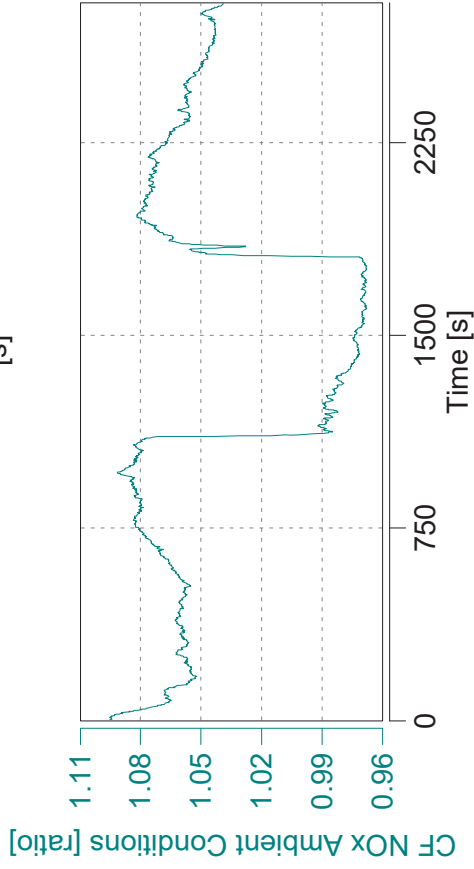
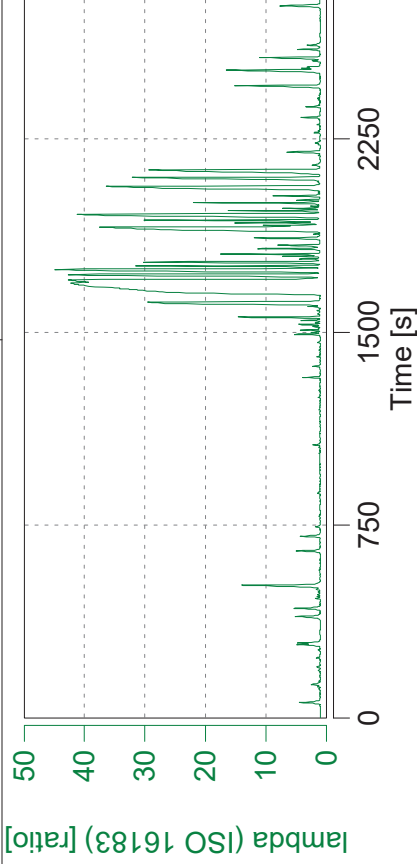
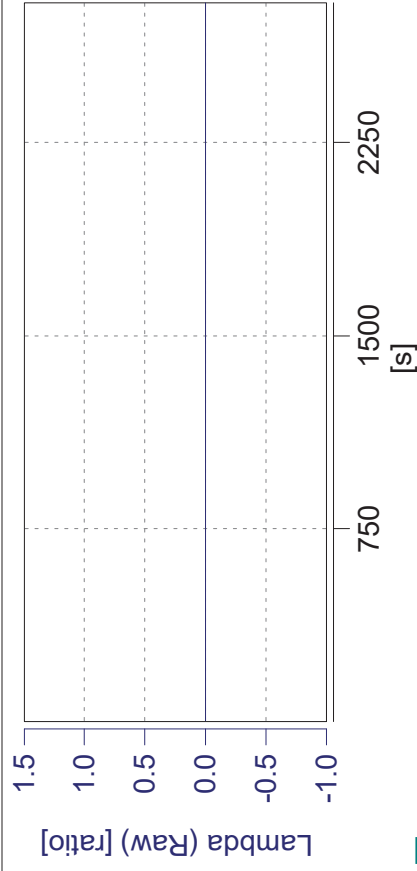
'Mountain'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (1)

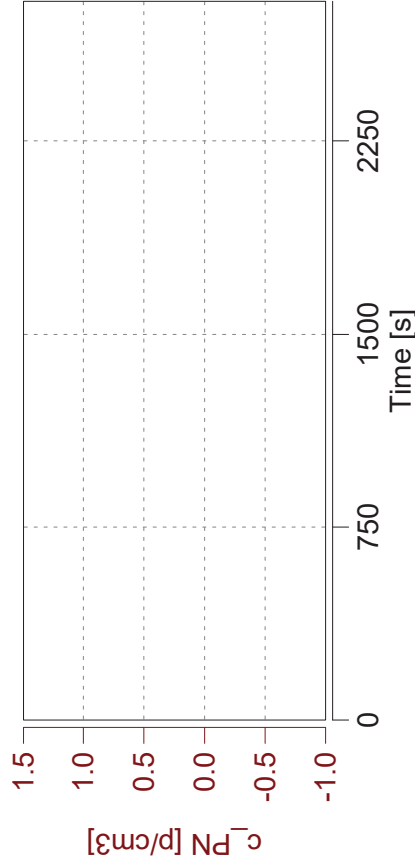
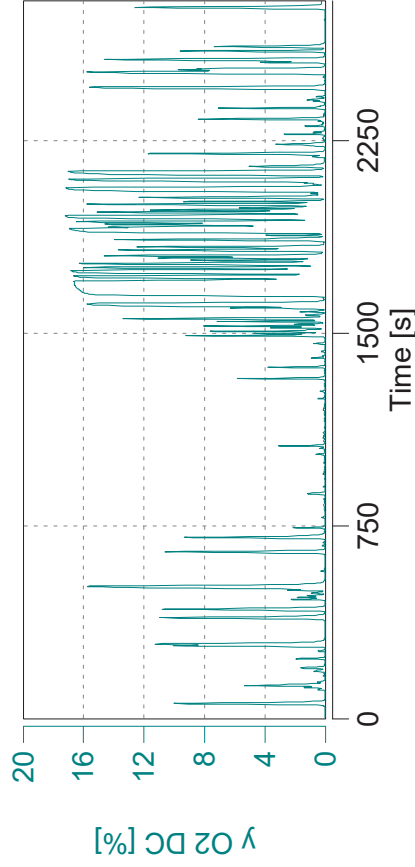
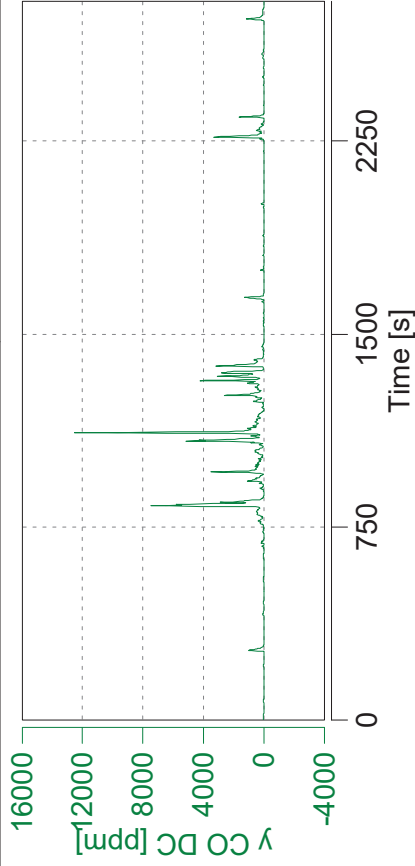
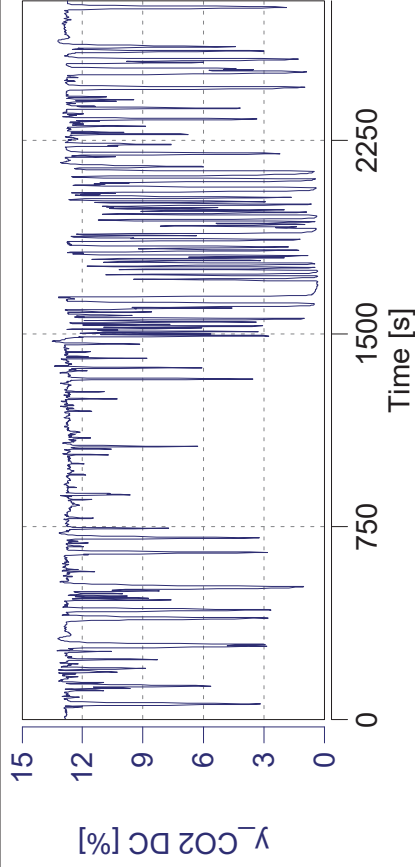
'Mountain'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (2)

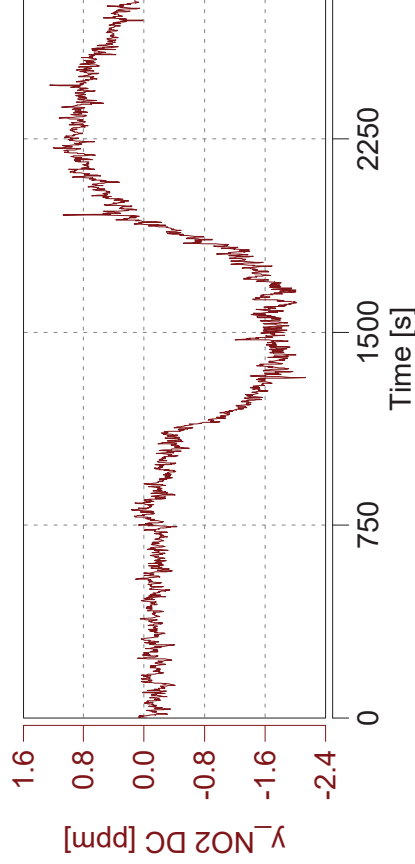
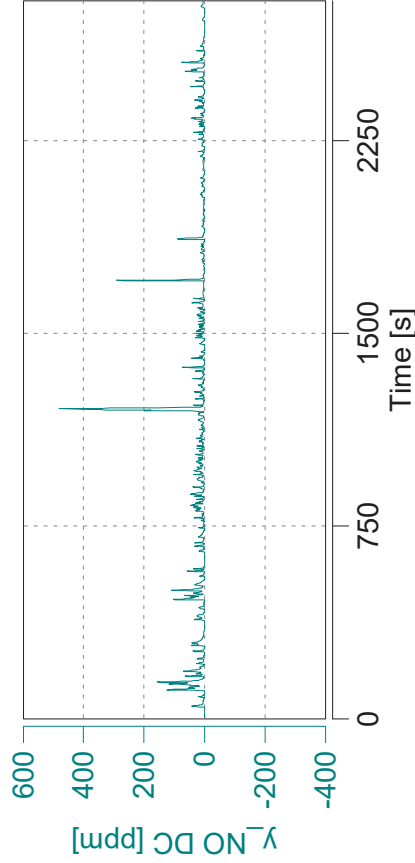
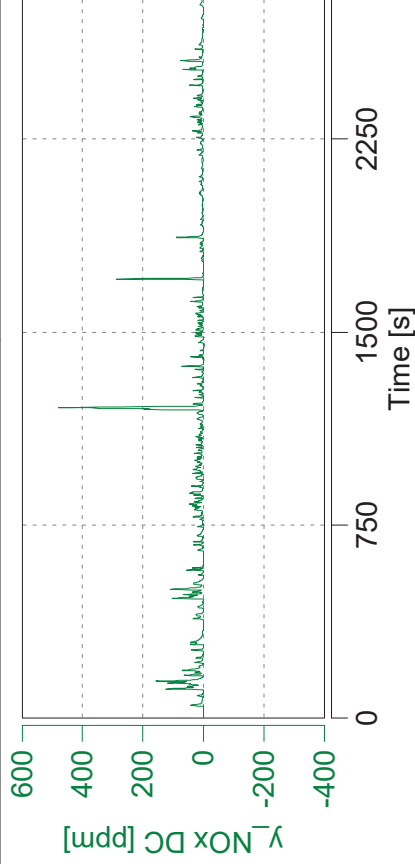
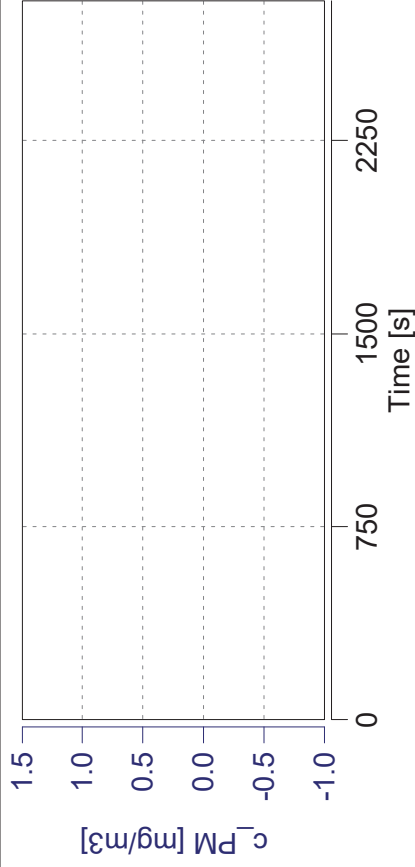
'Mountain'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (3)

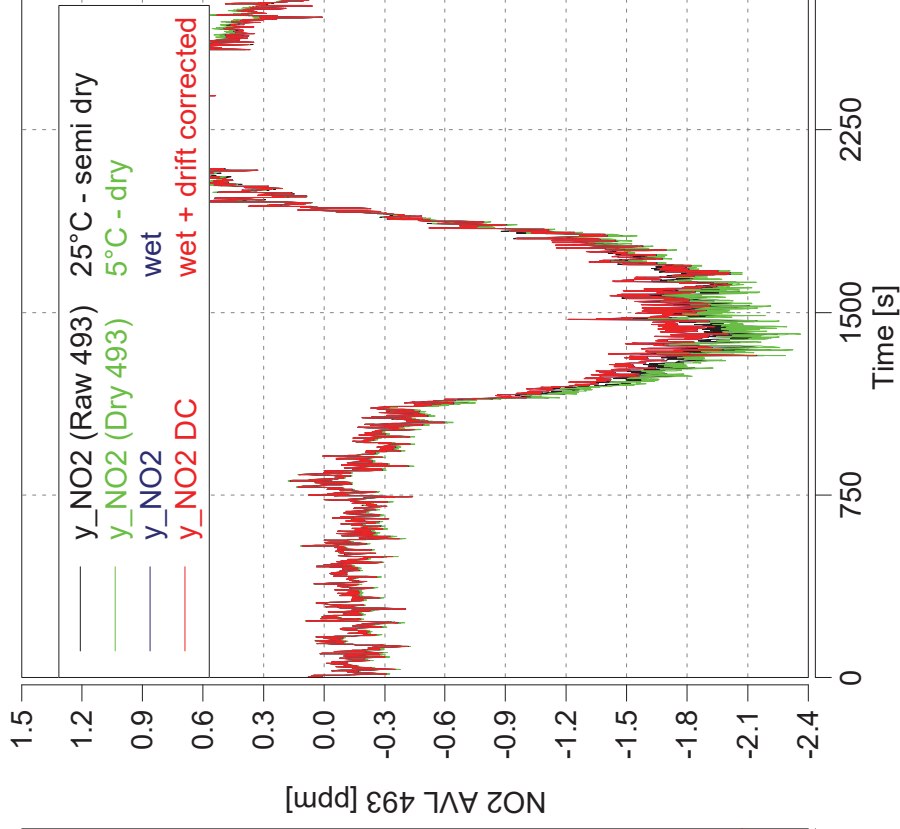
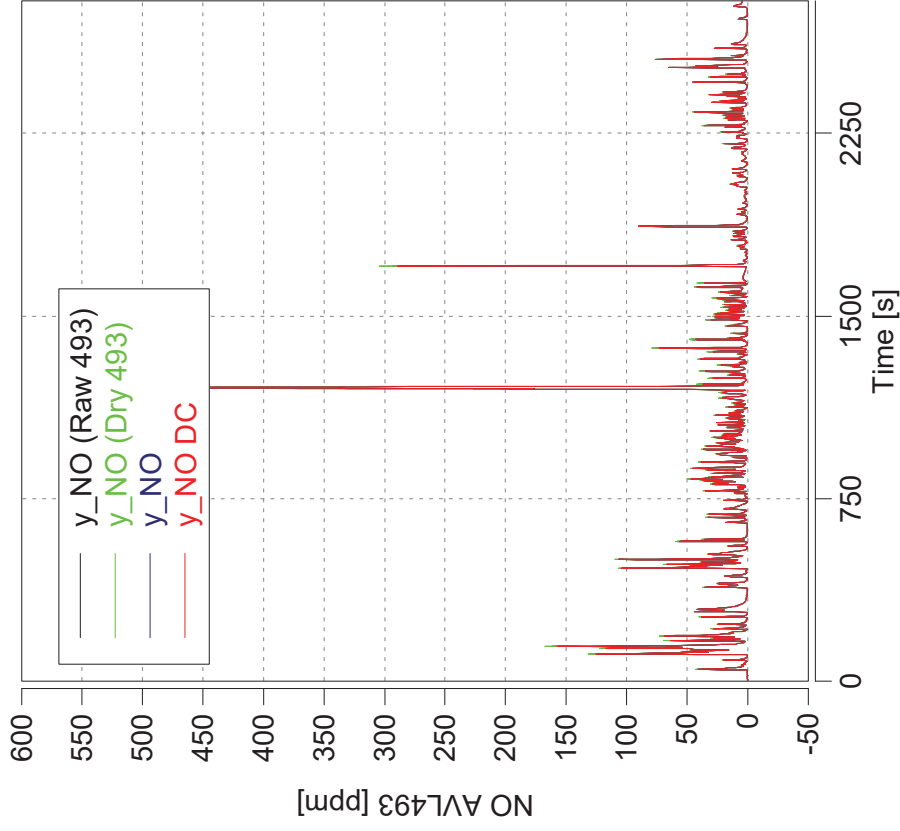
'Mountain'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

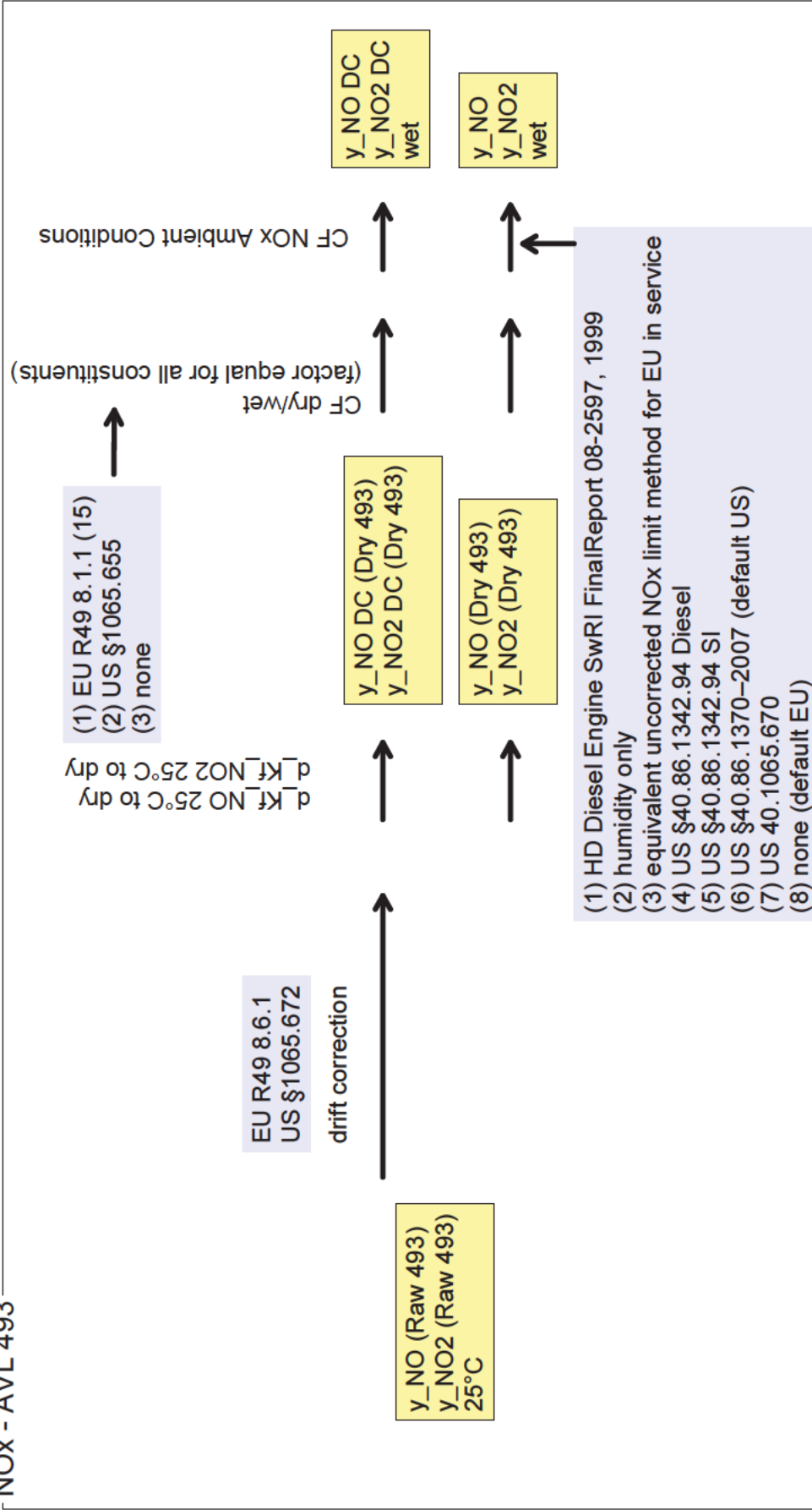
Case: Mountain

Page: Corrected Emissions (4) NOx Corrections

'Mountain'
Start Date: 07/24/2018
Start Time: 15:28:13.0



NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Passat SEL / 3.6L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (5)

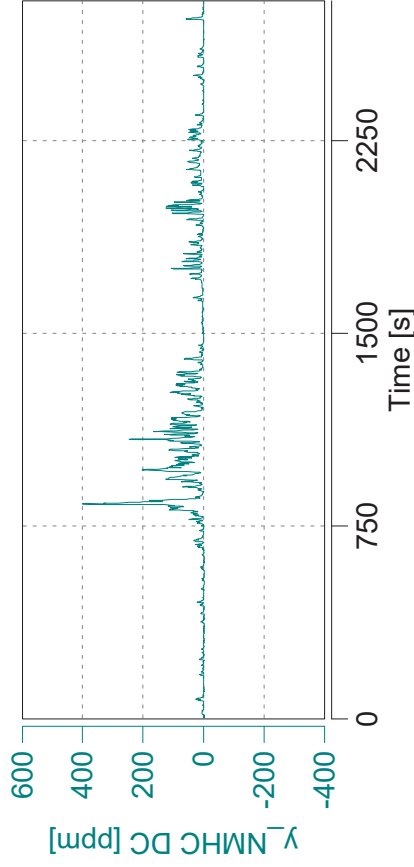
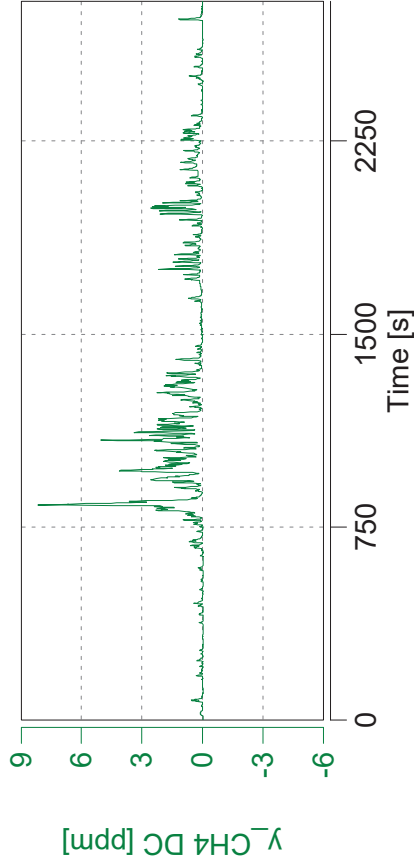
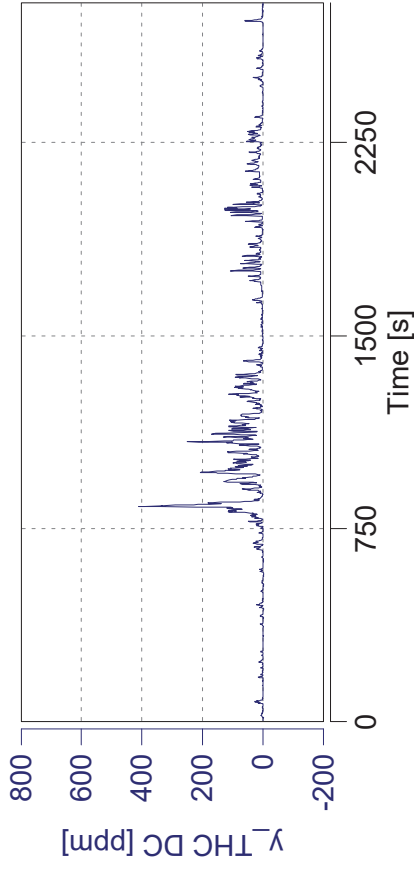
'Mountain'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Vehicle: Passat SEL / 3.6L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI Engine: /
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: NO/NO2/NOx Zero - Span

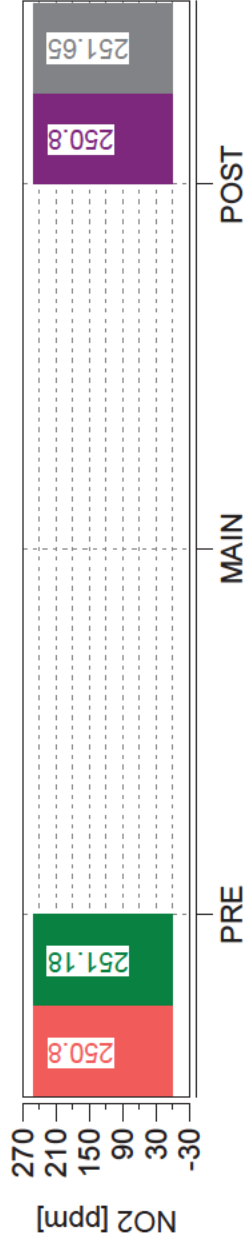
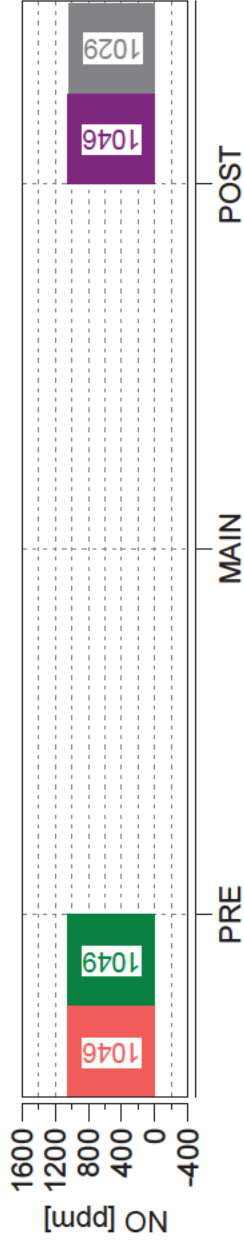
'Mountain'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: CO/CO2 Zero - Span

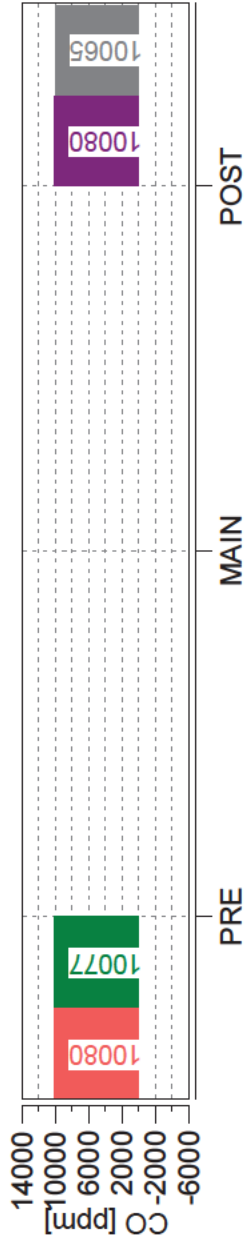
'Mountain'

Start Date: 07/24/2018

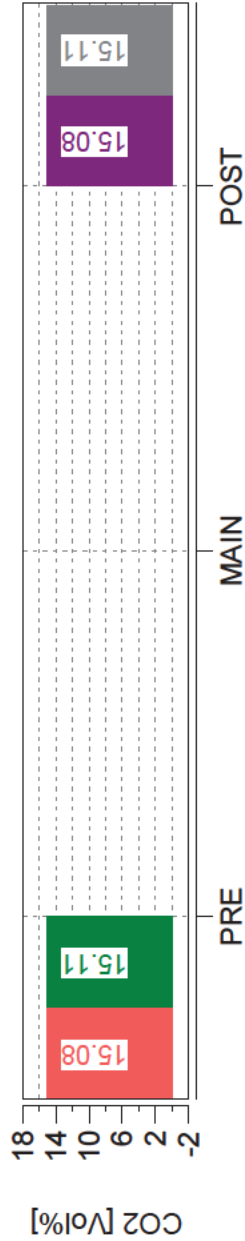
Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



GP_CO_Cal_gas_value
 GP_CO_Adjust_Actual
 GP_CO_Reference
 GP_CO_Audit_Actual



GP_CO2_Cal_gas_value
 GP_CO2_Adjust_Actual
 GP_CO2_Reference
 GP_CO2_Audit_Actual

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: THC/CH4 Zero - Span

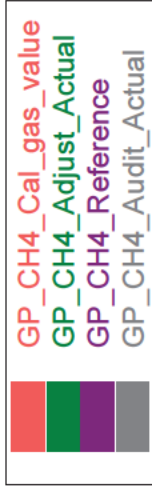
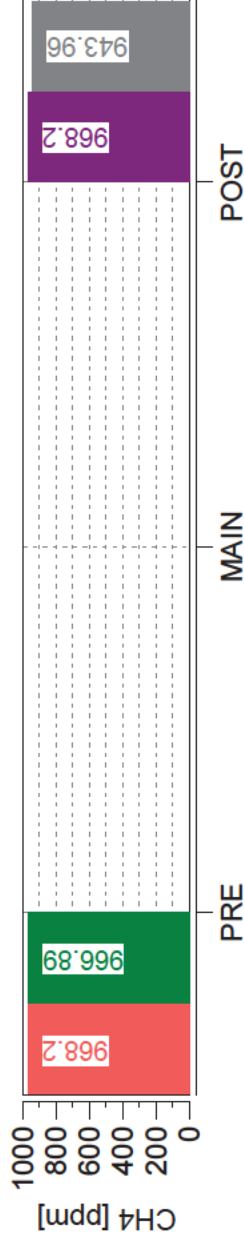
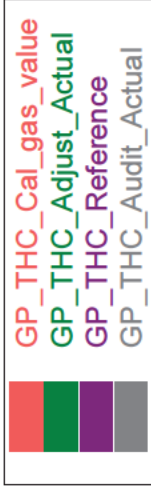
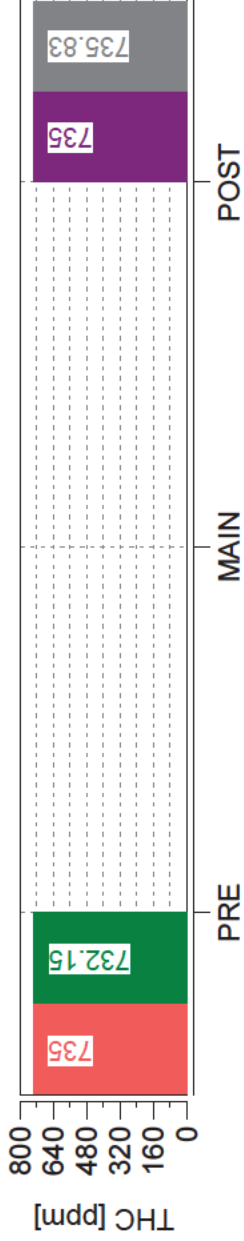
'Mountain'

Start Date: 07/24/2018

Start Time: 15:28:13.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary

'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0



Concerto M.O.V.E., 2018

Trip Duration	4433.00	s	ave THC	0.20670	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	4433.00	s	ave NMHC	0.20257	ppm	BS CO	n/a	g/hphr
Trip Distance	16.08	mi	ave CH4	0.00413	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	16.08	mi	ave CO	14.76484	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	12.20801	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx	8.53158	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.38	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.33	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave Soot meas	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.20	gall	tot THC	0.05213	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.18	gall	tot NMHC	0.04822	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00116	g	DS CO2	631.38051	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	1.65866	g	DS CO	0.10318	g/mi
Trip Fuel Economy EU (ac)	13.45	mpg_US	tot CO2	10149.90313	g	DS THC	0.00324	g/mi
Trip Fuel Economy US (ac)	13.64	mpg_US	tot NO (d)	0.48735	g	DS NMHC	0.00300	g/mi
Trip Av. Eng. Speed	1140.80	rpm	tot NO2	0.10256	g	DS CH4	0.00007	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.58991	g	DS NO (d)	0.03032	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00638	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.03670	g/mi
Trip Exhaust Mass	53.67	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	101.77	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	31.08	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	13.05496	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	28.94203	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary Drift Corrected

'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0



Concerto M.O.V.E. 2018

Trip Duration	4433.00	s	ave THC DC	0.69587	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	4433.00	s	ave NMHC DC	0.68196	ppm	BS CO DC	n/a	g/hphr
Trip Distance	16.08	mi	ave CH4 DC	0.01392	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	16.08	mi	ave CO DC	14.34794	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	12.20396	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	8.24246	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.38	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.33	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.20	gall	tot THC DC	0.06533	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.18	gall	tot NMHC DC	0.06043	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00145	g	DS CO2 DC	631.17124	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	1.63665	g	DS CO DC	0.10181	g/mi
Trip Fuel Economy EU (ac)	13.45	mpg_US	tot CO2 DC	10146.53889	g	DS THC DC	0.00406	g/mi
Trip Fuel Economy US (ac)	13.64	mpg_US	tot NO DC (d)	0.48040	g	DS NMHC DC	0.00376	g/mi
Trip Av. Eng. Speed	1140.80	rpm	tot NO2 DC	0.08486	g	DS CH4 DC	0.00009	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.56525	g	DS NO DC (d)	0.02988	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00528	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.03516	g/mi
Trip Exhaust Mass	53.67	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	101.77	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	31.08	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	13.05496	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	28.94203	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment Check

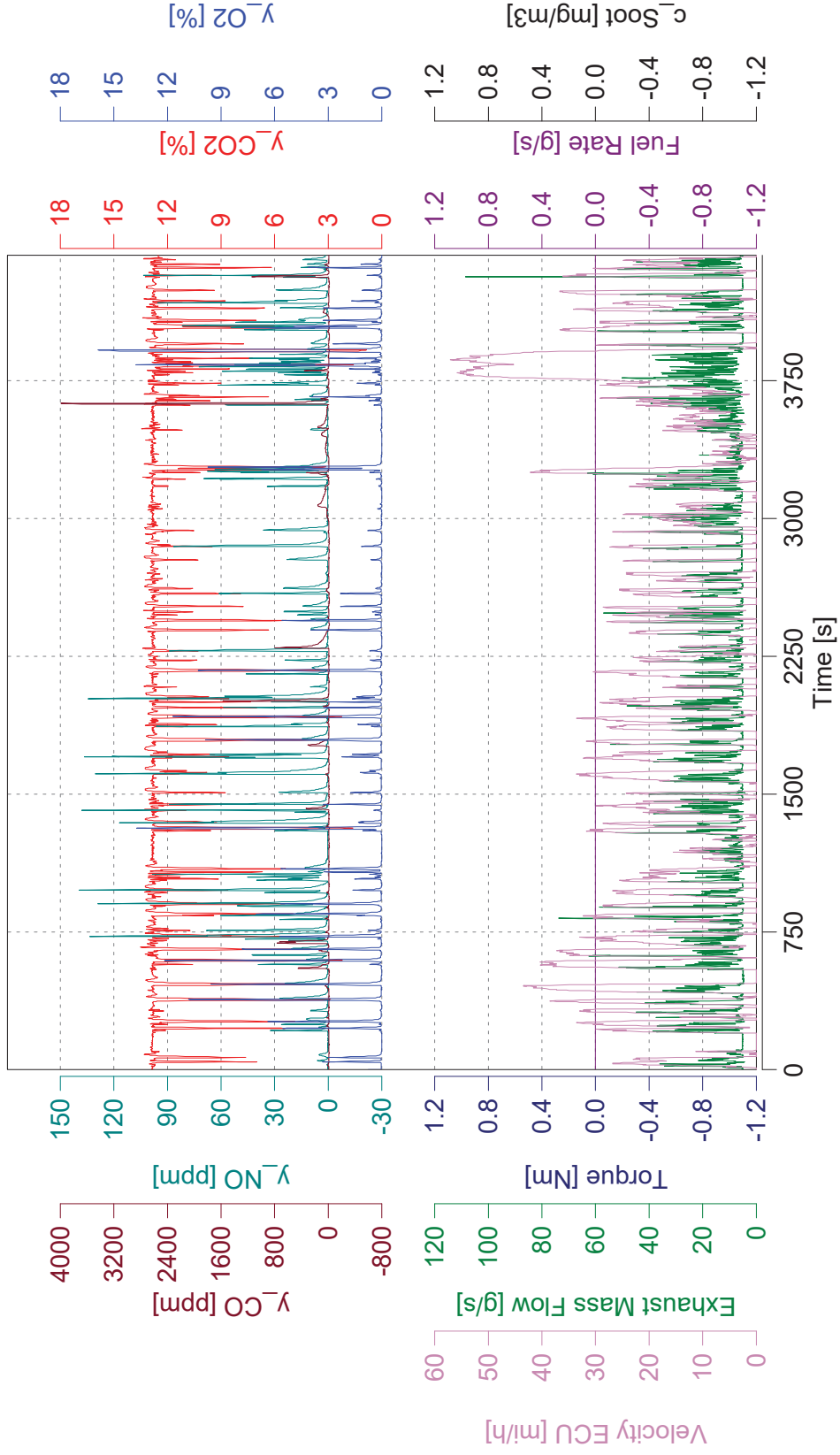
'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment of Gas Concentrations

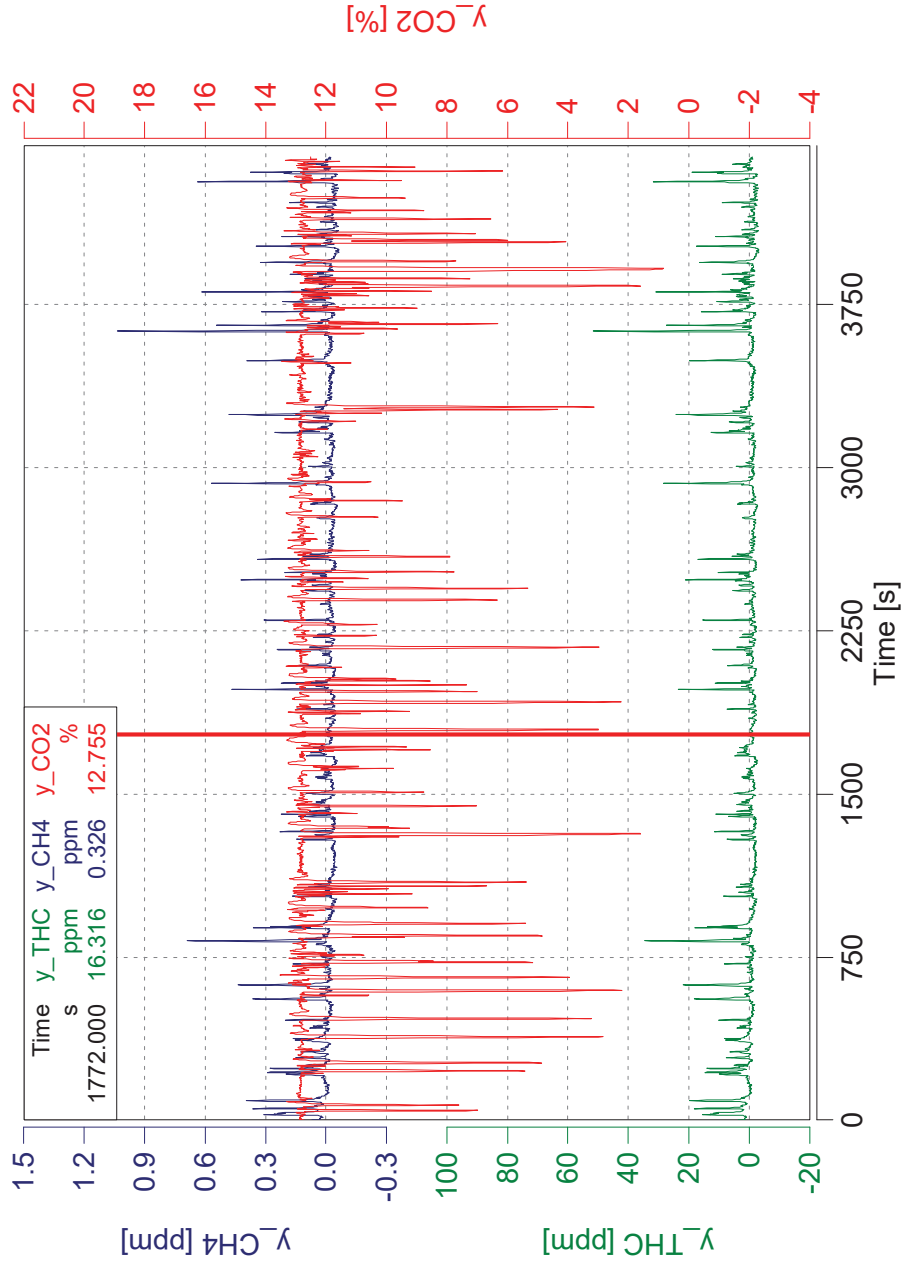
'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Ambient Conditions

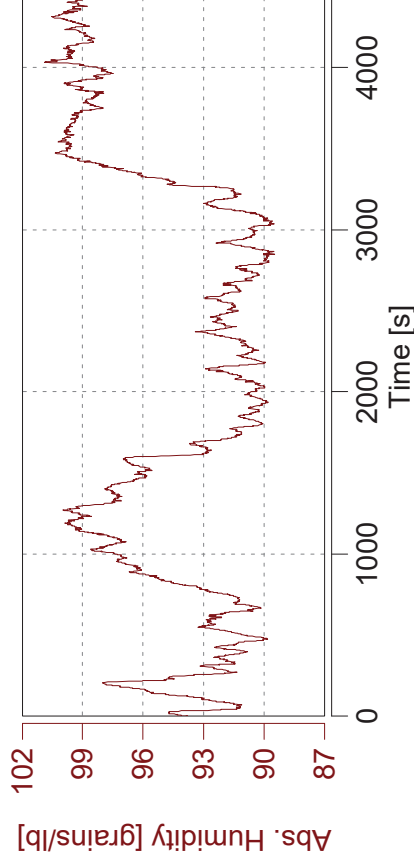
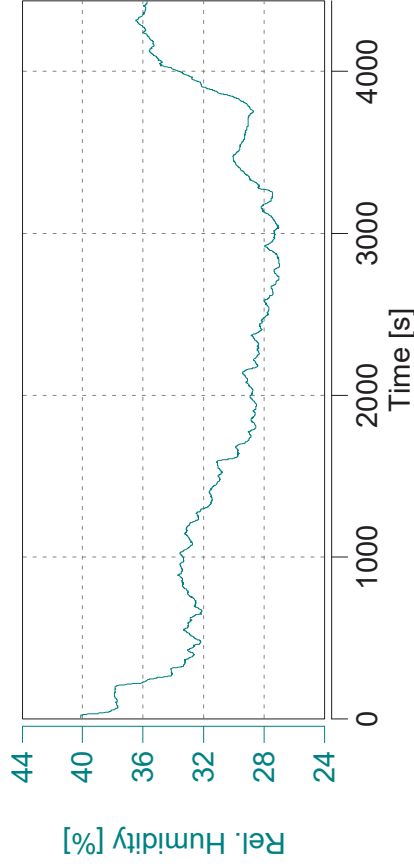
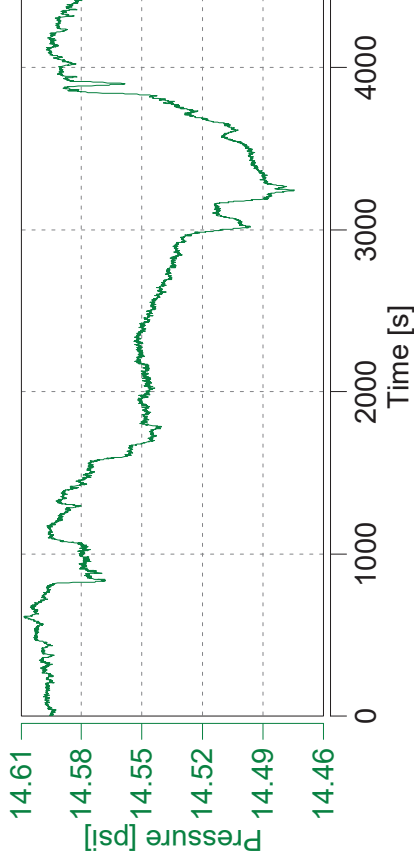
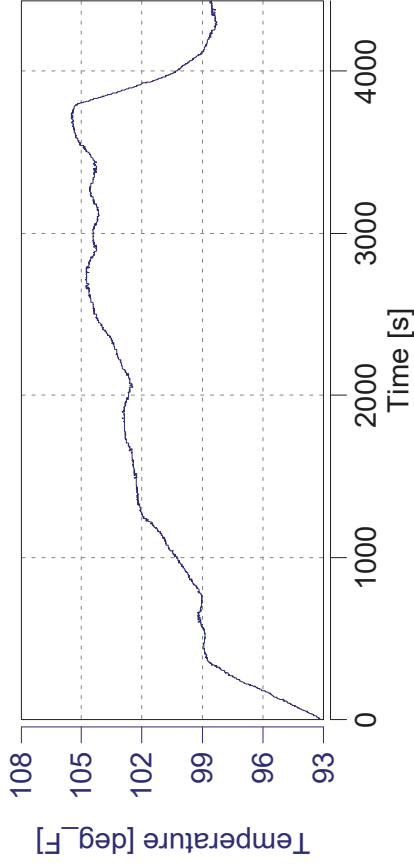
'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

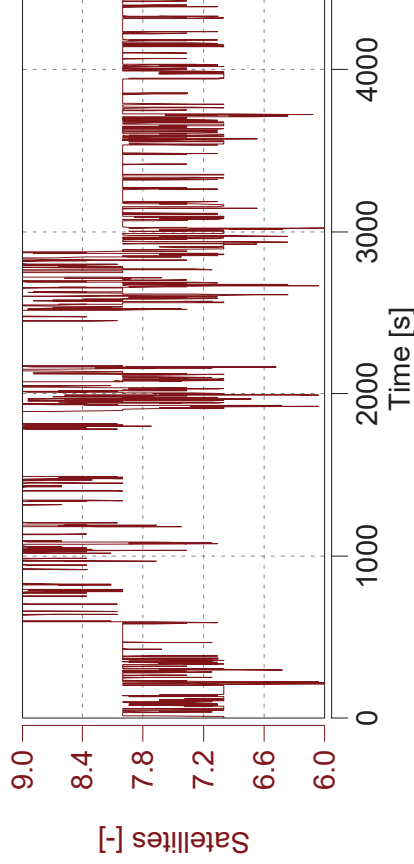
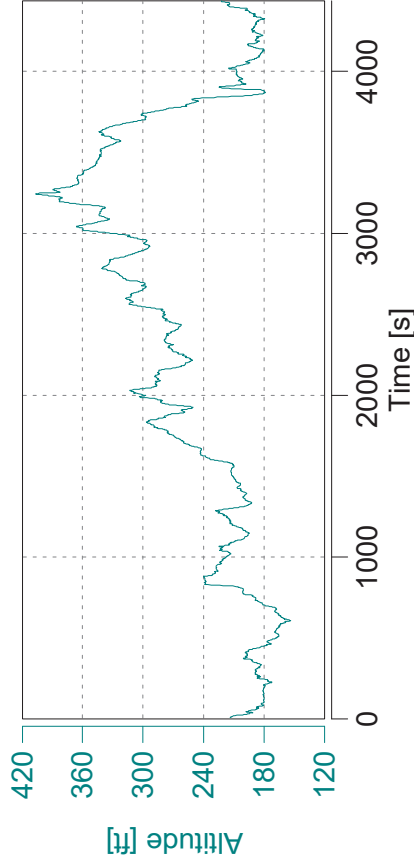
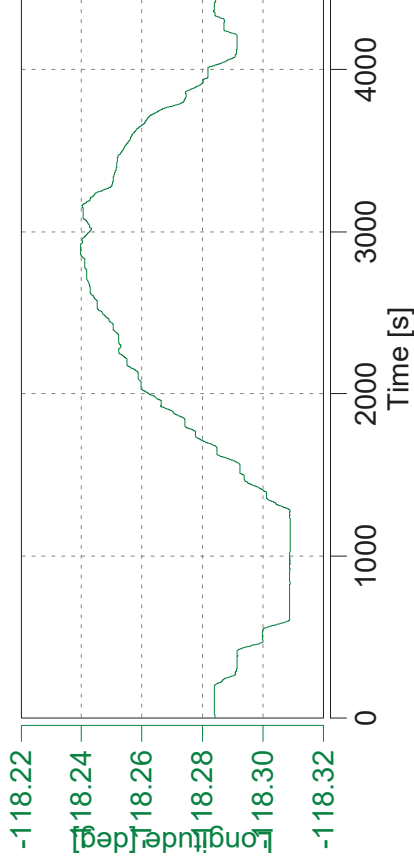
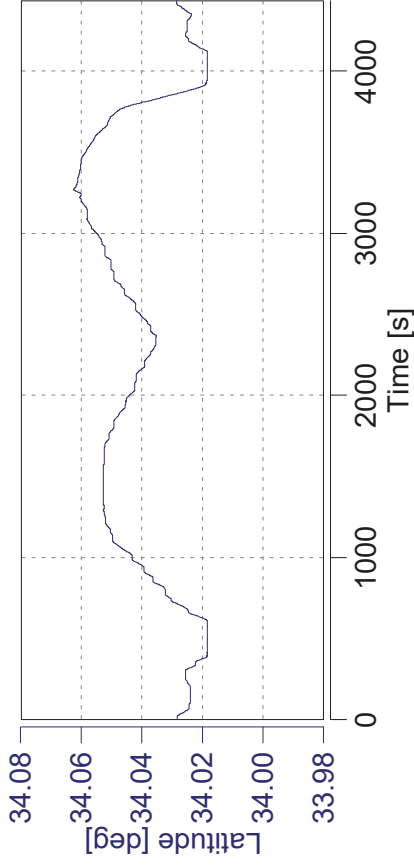
Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City
Page: GPS

'City'
Start Date: 07/24/2018
Start Time: 10:39:01.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (1)

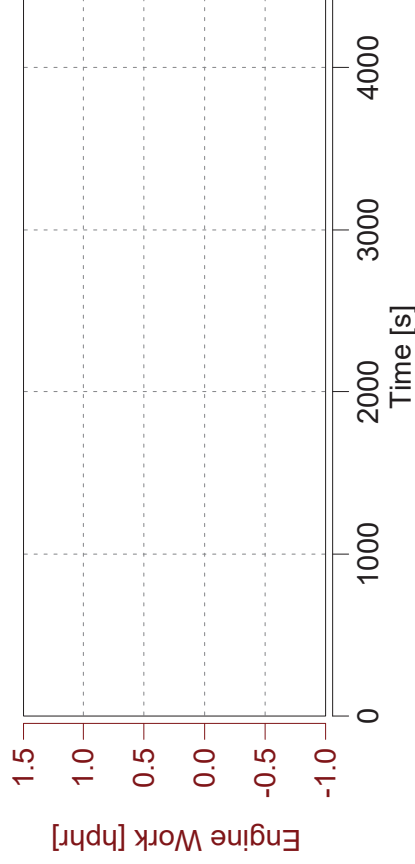
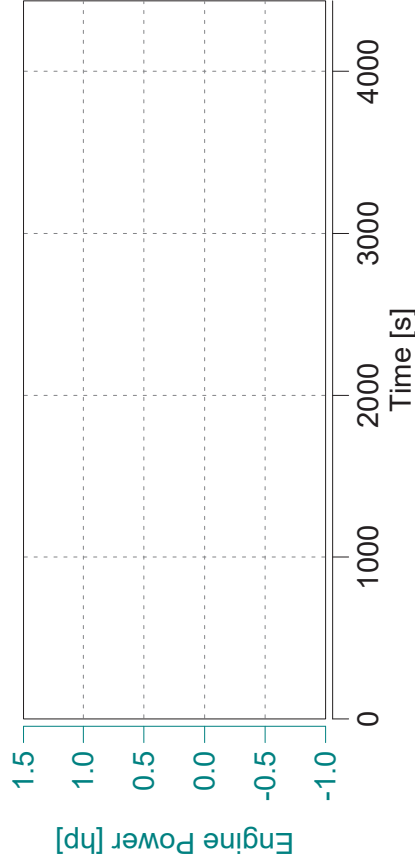
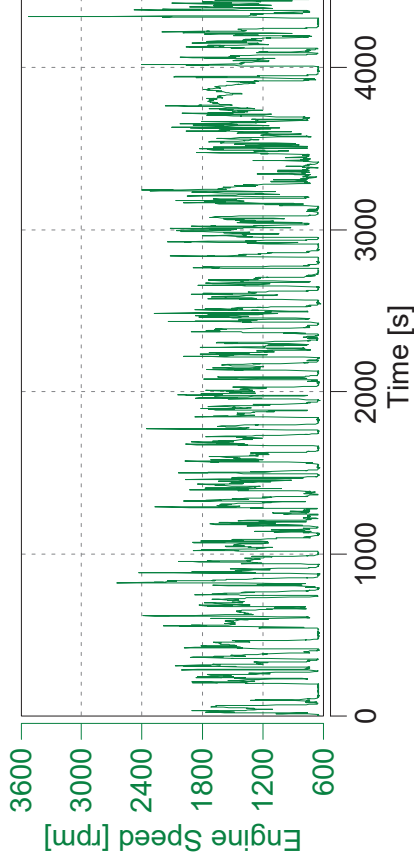
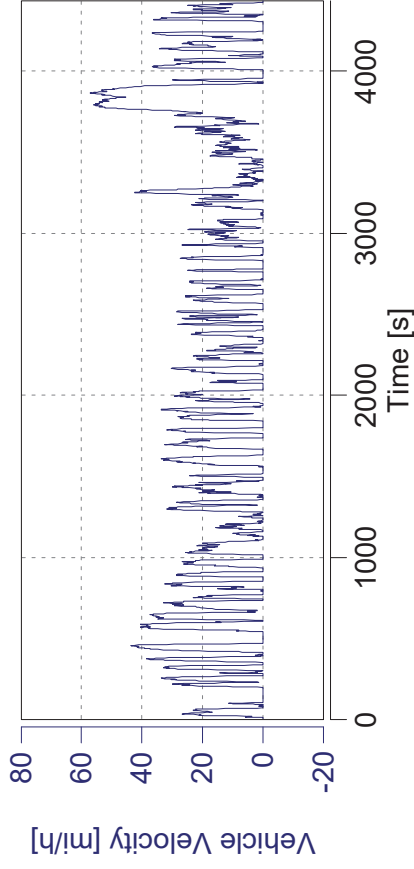
'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (2)

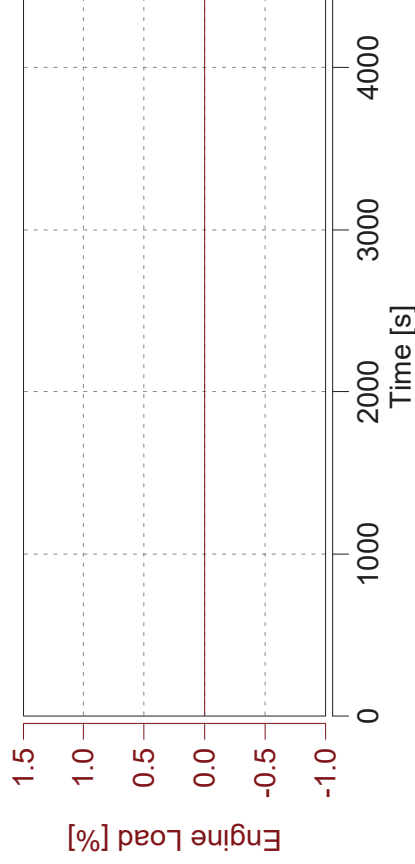
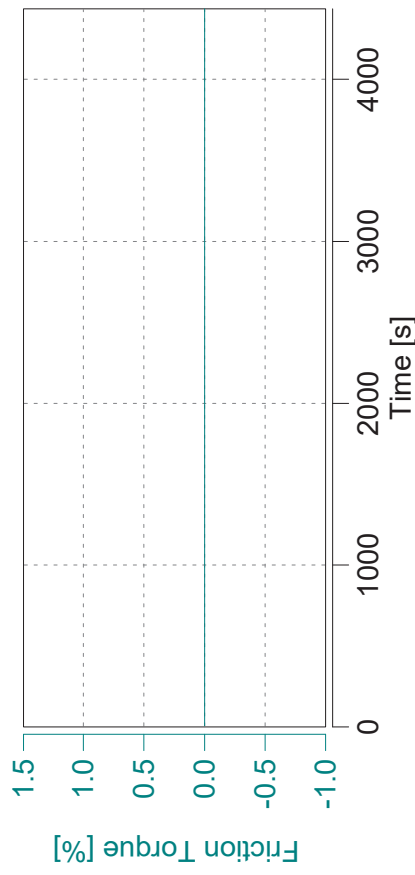
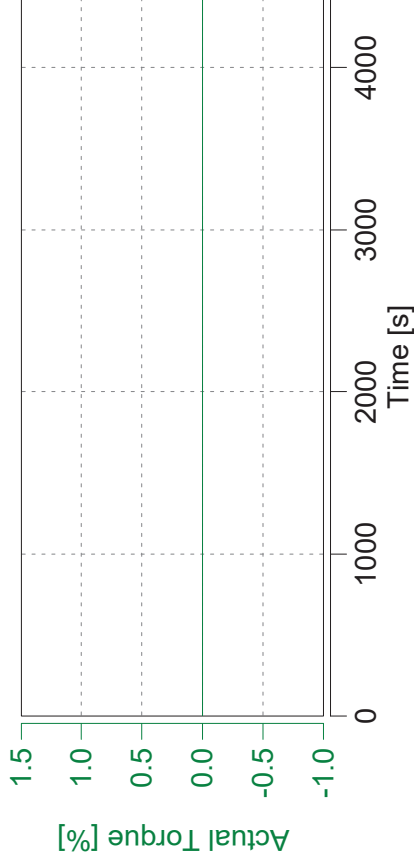
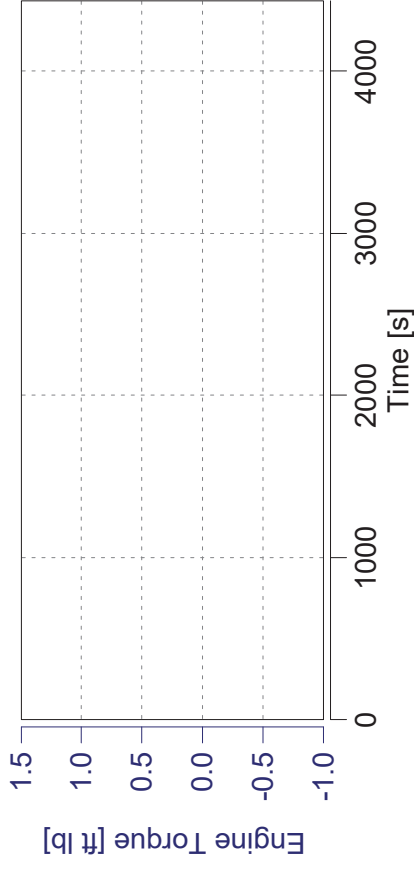
'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (3)

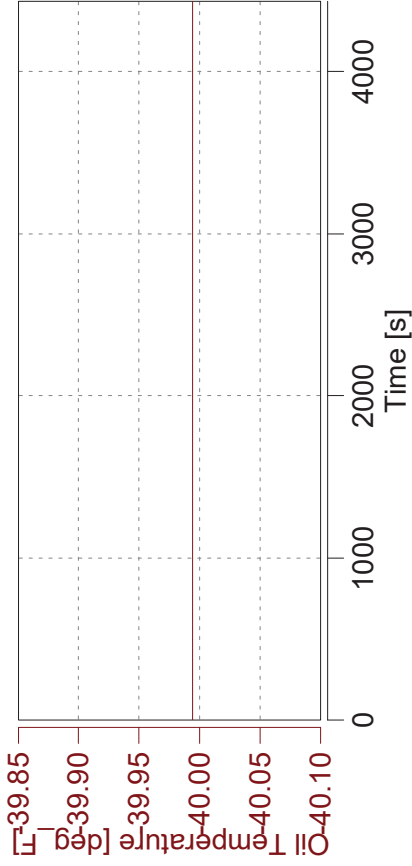
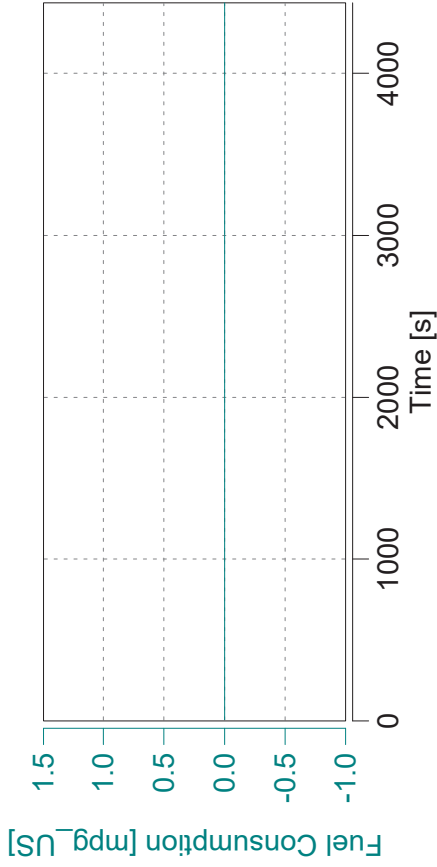
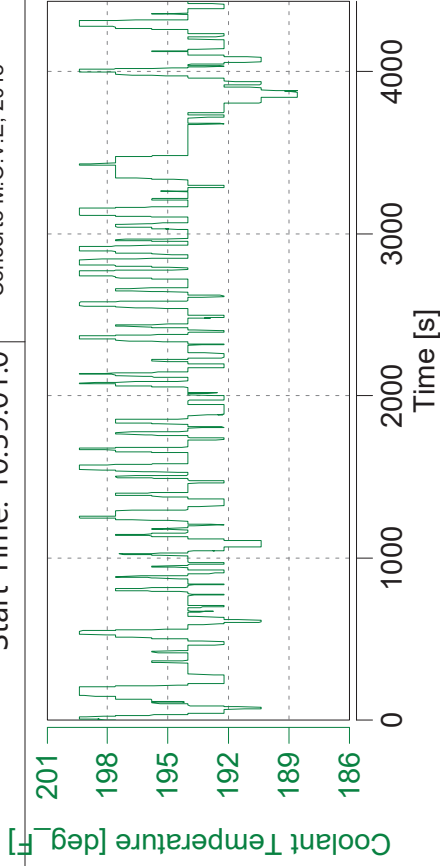
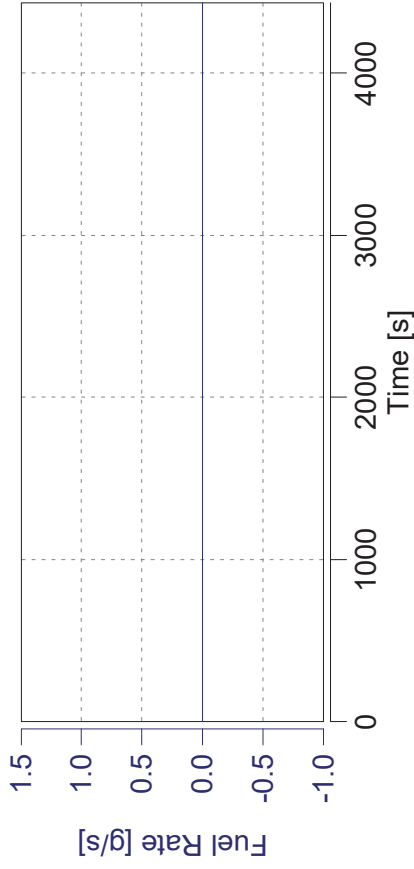
'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Vehicle: Passat SEL / 3.6L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI Engine: /
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (1)

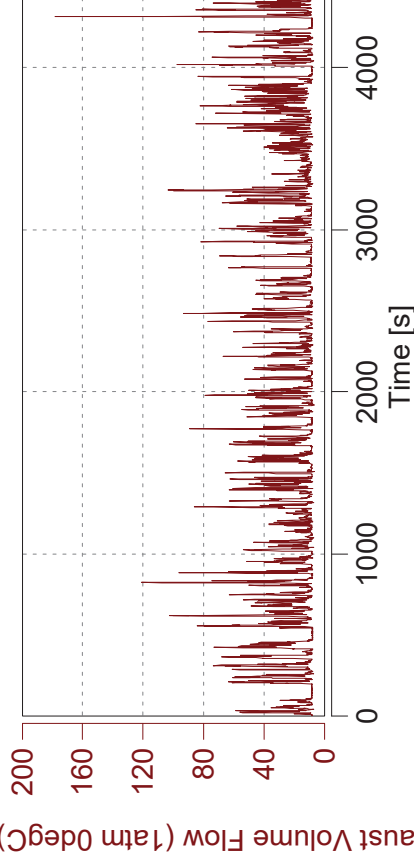
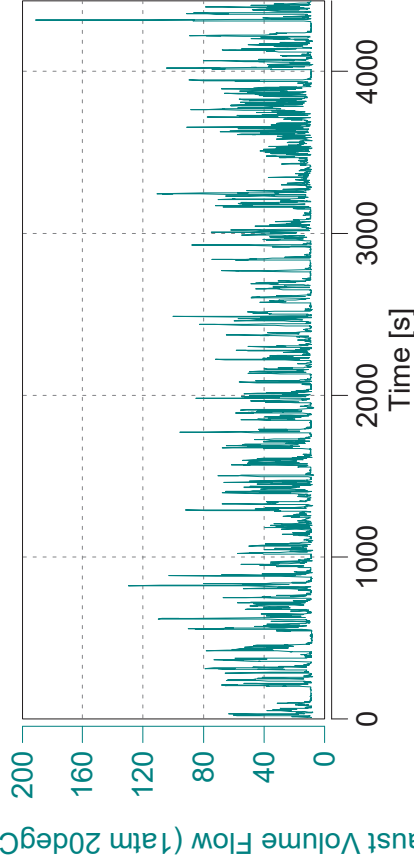
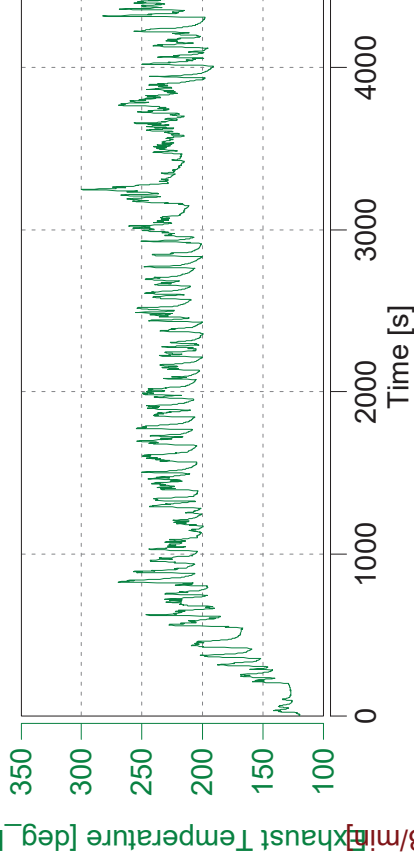
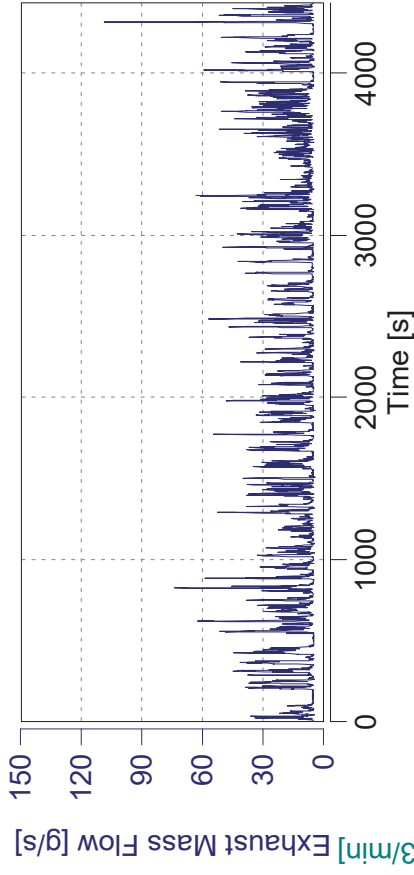
'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (2)

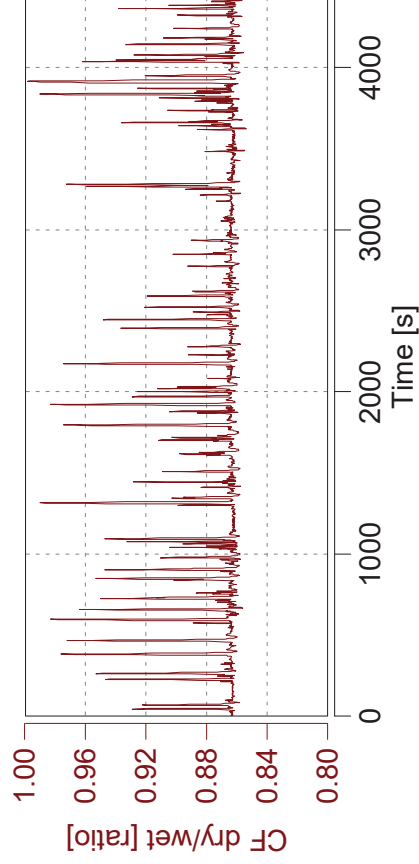
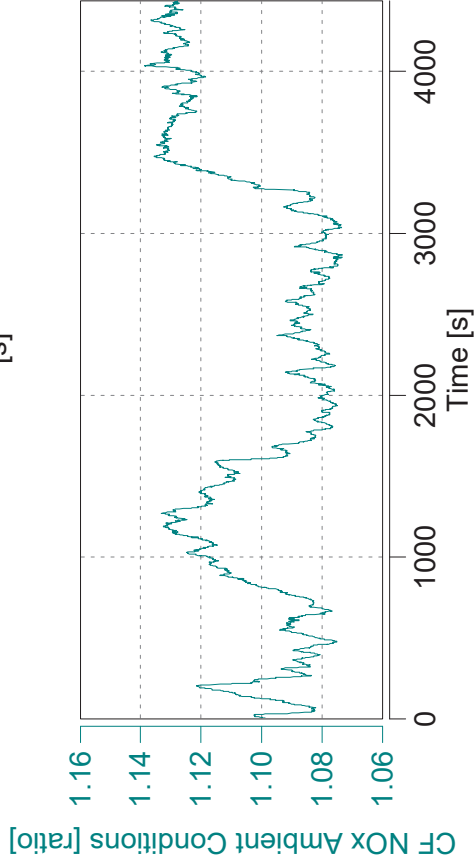
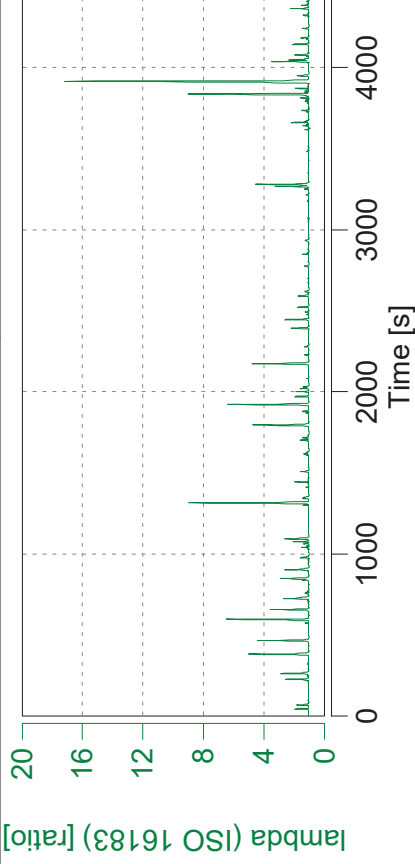
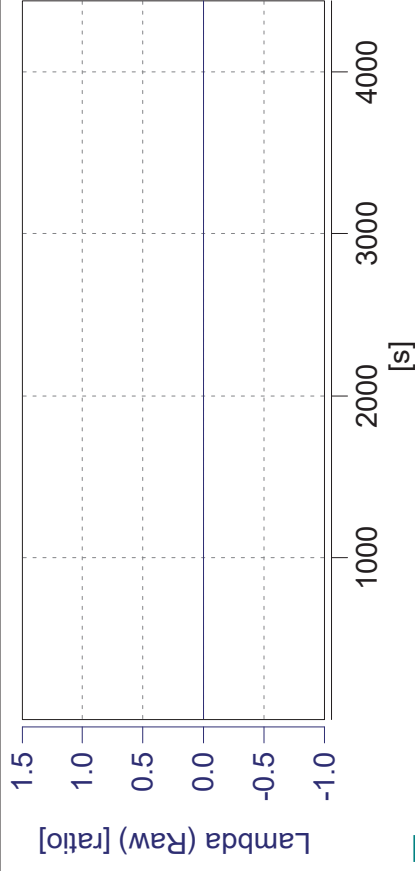
'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat SEL / 3.6L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (1)

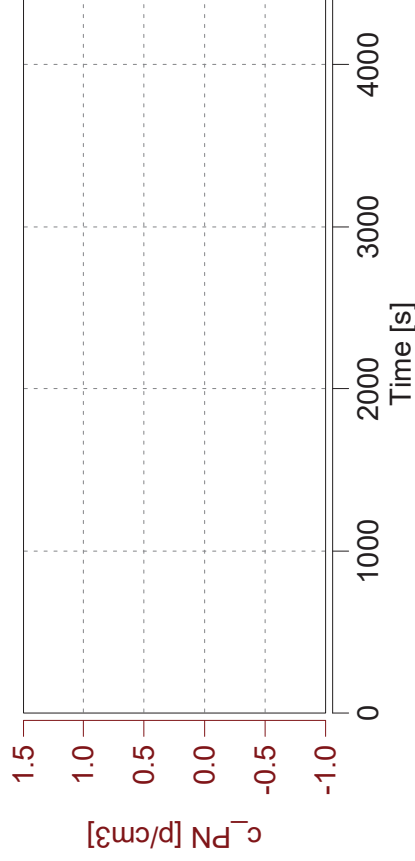
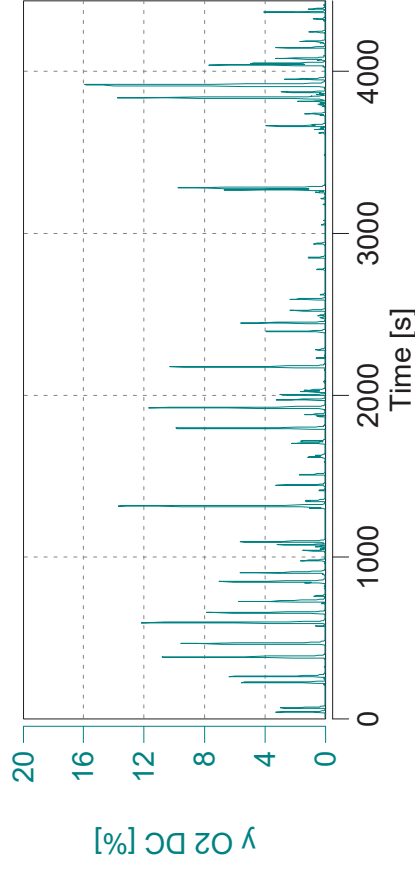
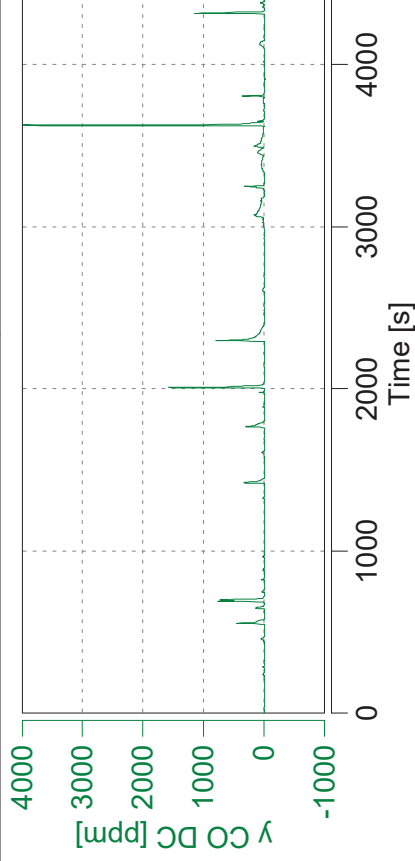
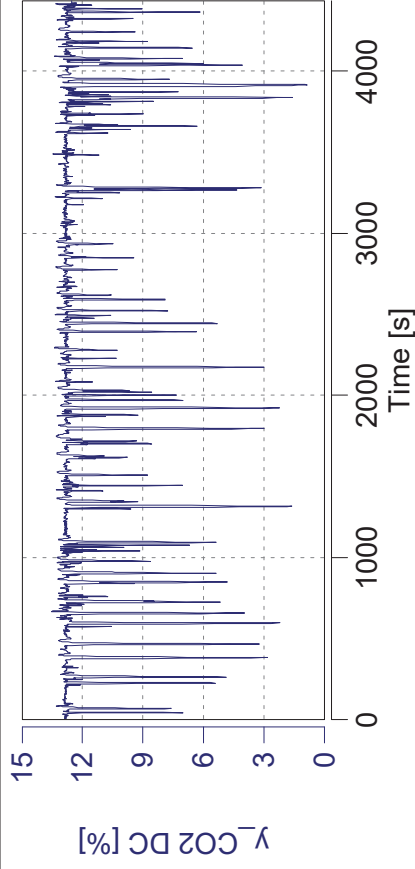
'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat SEL / 3.6L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (2)

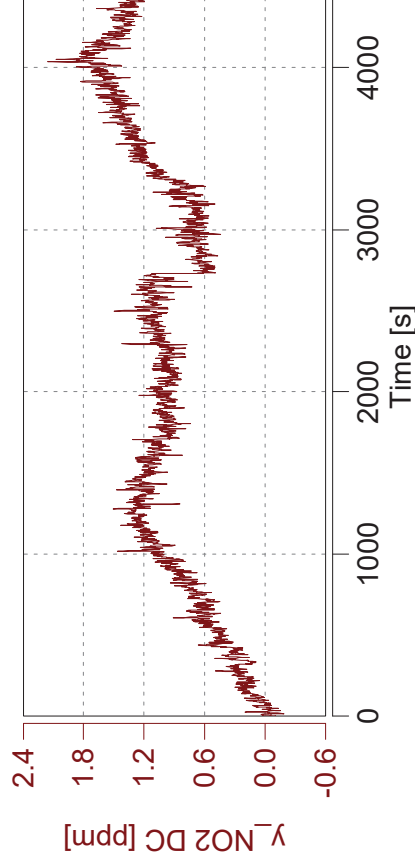
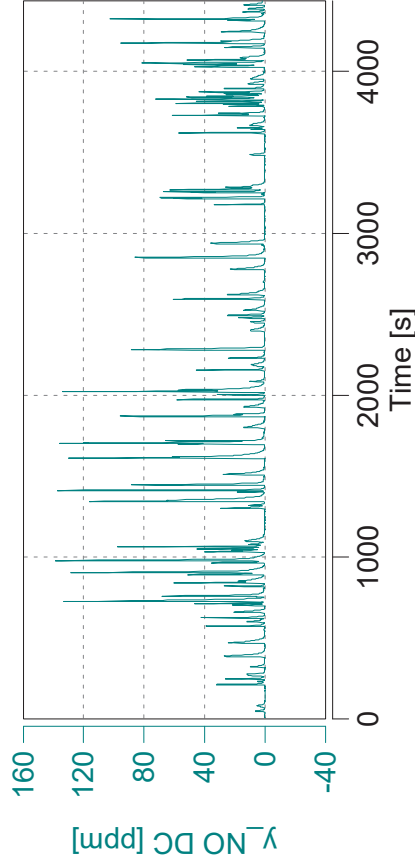
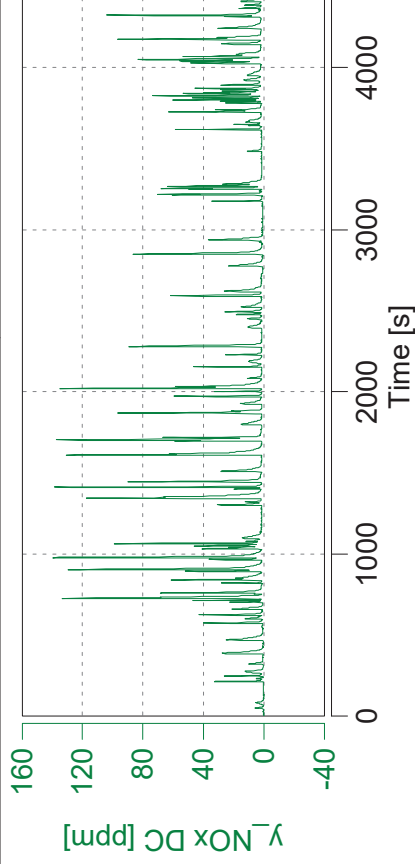
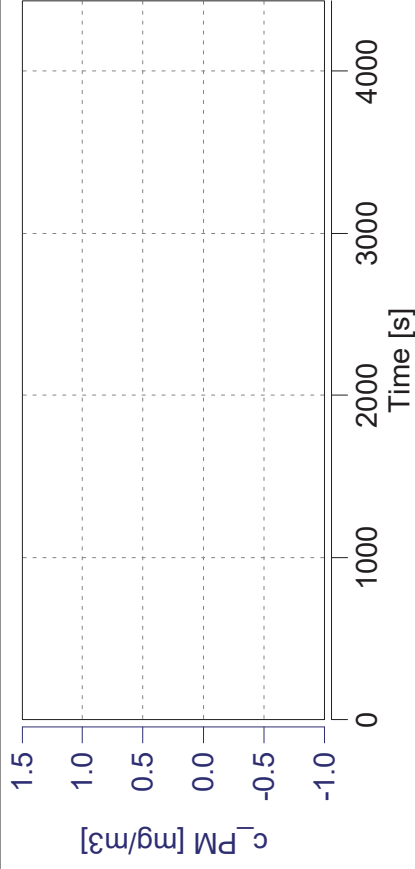
'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Vehicle: Passat SEL / 3.6L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI Engine: /
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (3)

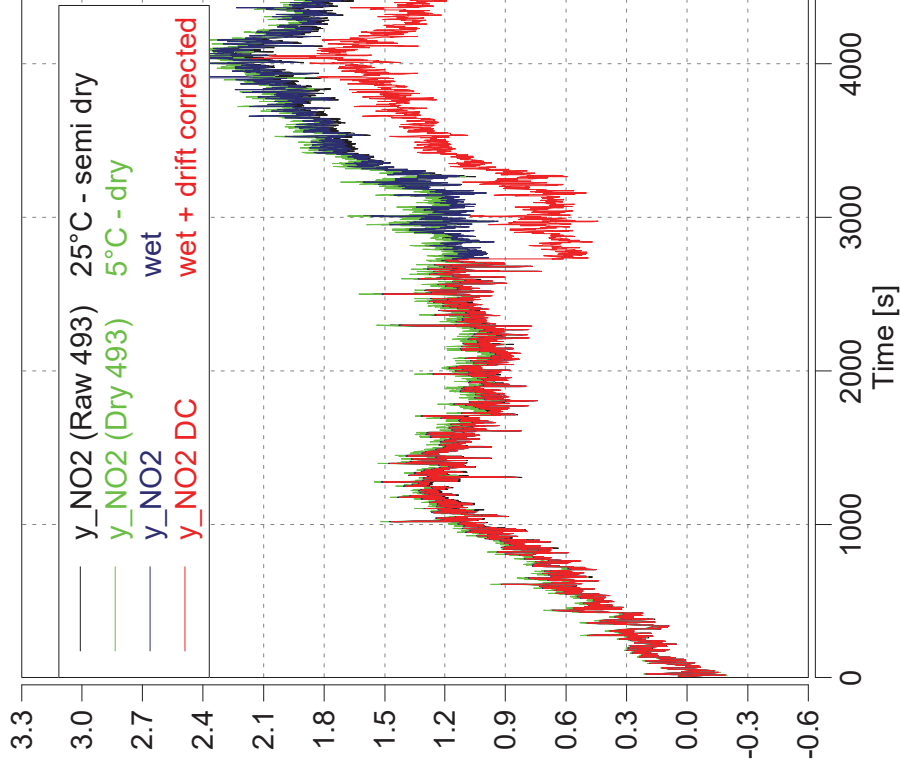
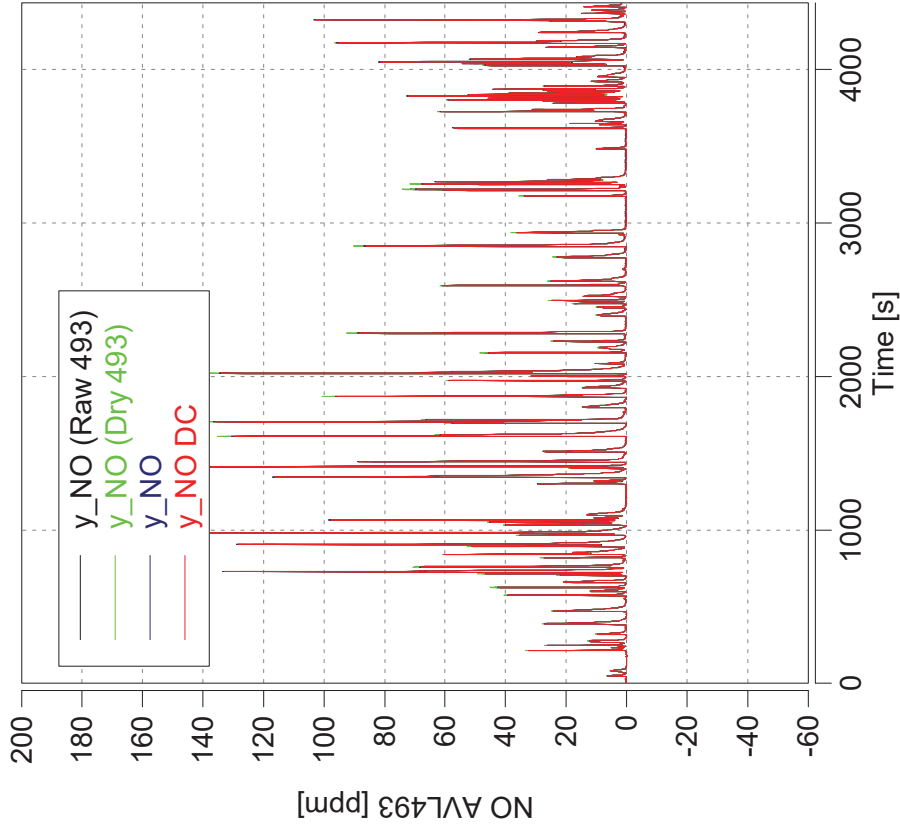
'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Passat SEL / 3.6L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (4) NOx Corrections

NOx - AVL 493

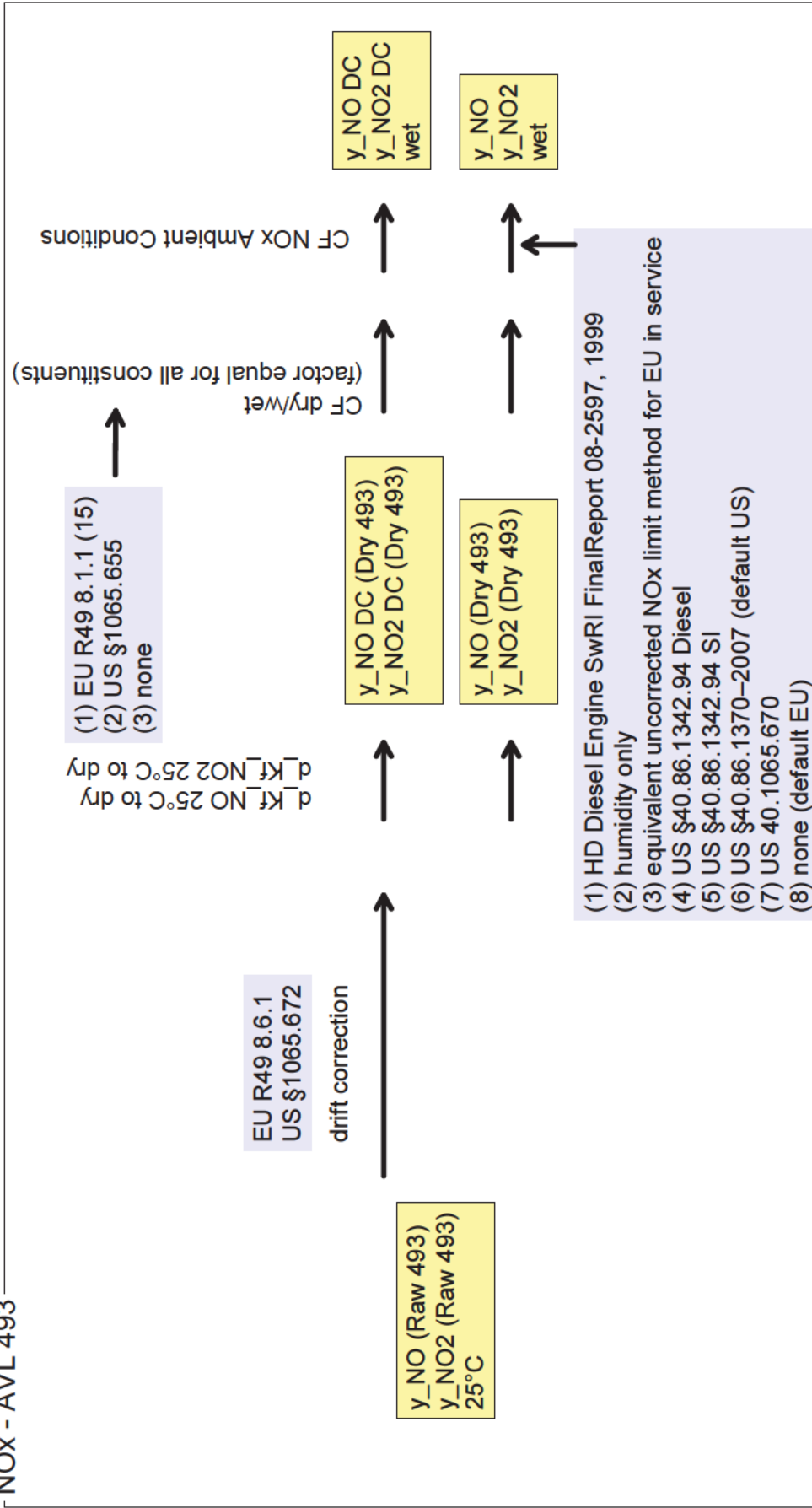
'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat SEL / 3.6L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (5)

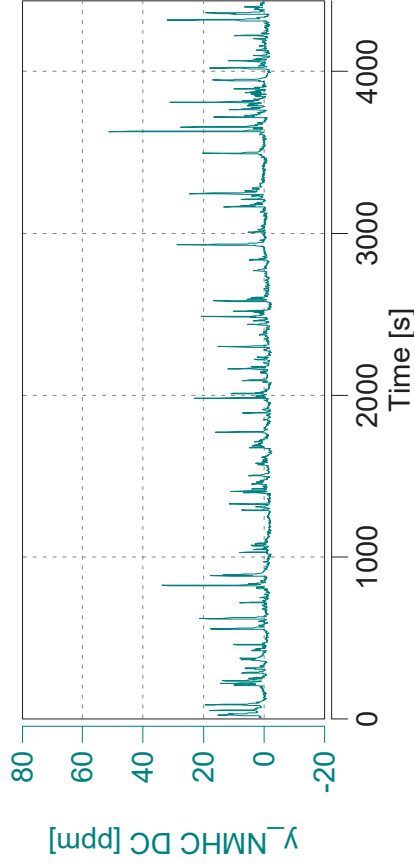
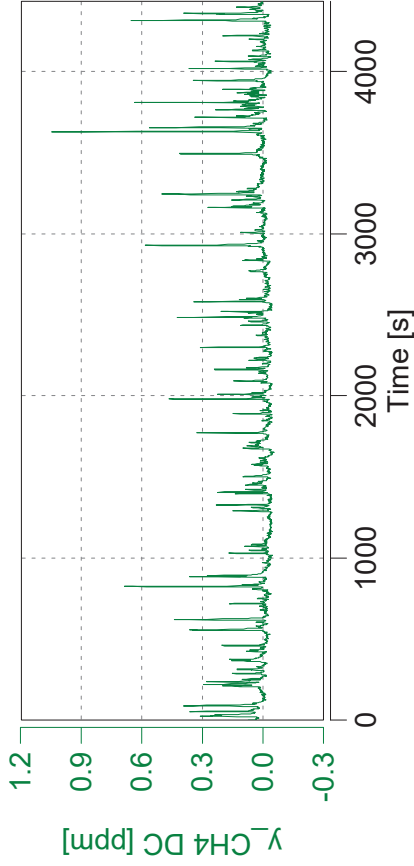
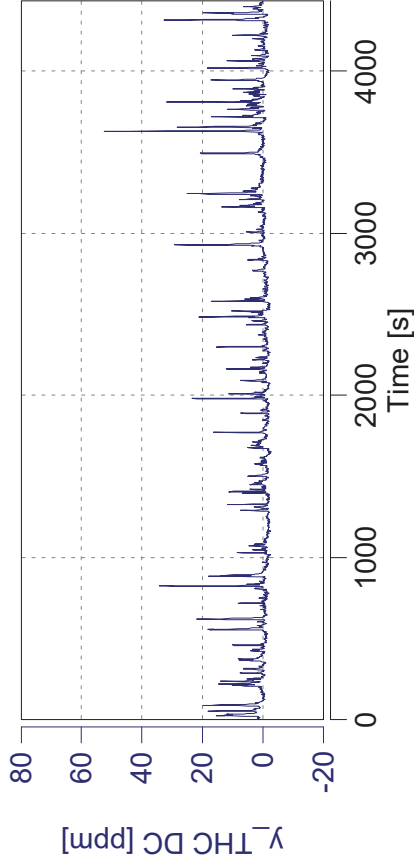
'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_0
Vehicle: Passat SEL / 3.6L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: NO/NO2/NOx Zero - Span

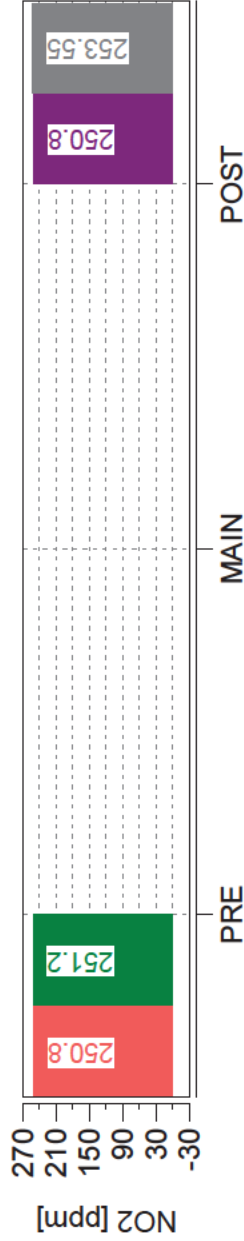
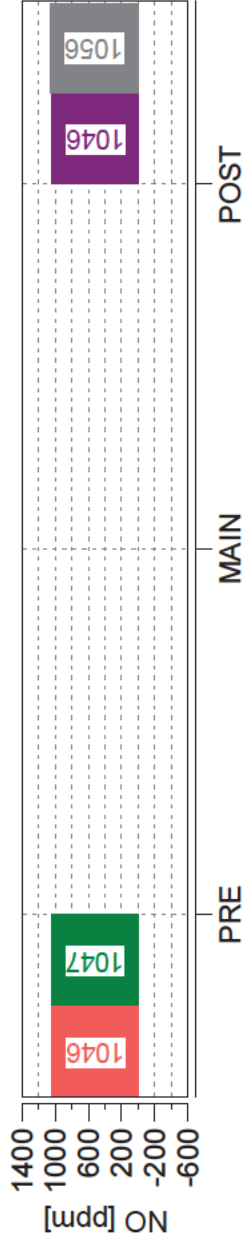
'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Passat SEL / 3.6L

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90



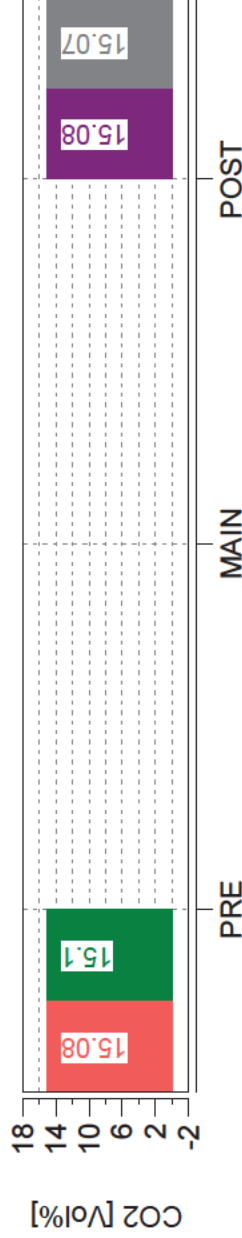
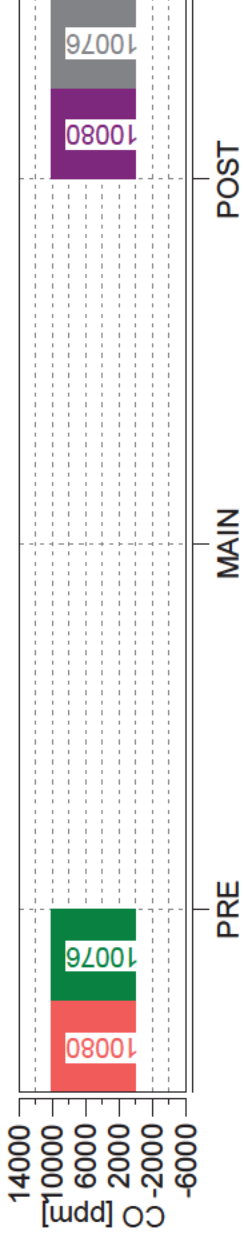
Concerto M.O.V.E., 2018

'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0

Case: City
Page: CO/CO2 Zero - Span



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Passat SEL / 3.6L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: THC/CH4 Zero - Span

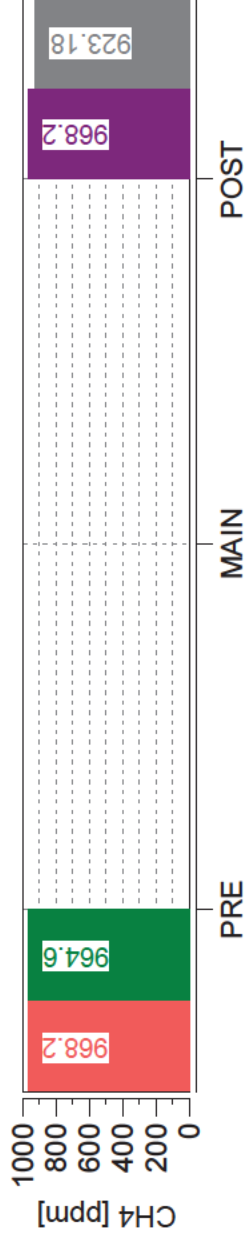
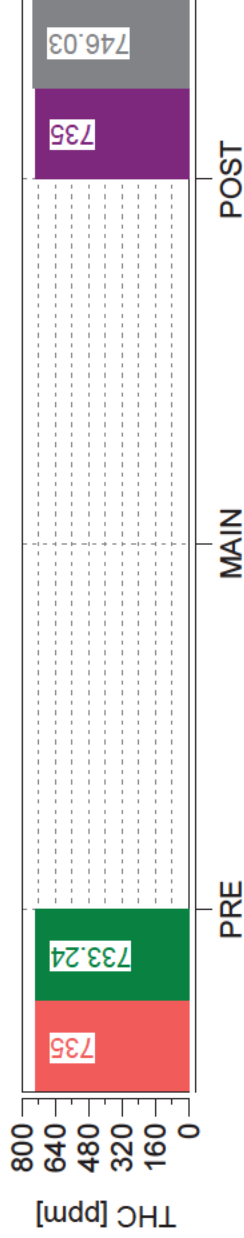
'City'

Start Date: 07/24/2018

Start Time: 10:39:01.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Passat SEL / 3.6L

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway
Page: Trip Summary

'Highway'
Start Date: 07/26/2018
Start Time: 12:37:18.0



Concerto M.O.V.E. 2018

Trip Duration	3423.00	s	ave THC	-0.48547	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3423.00	s	ave NMHC	-0.47576	ppm	BS CO	n/a	g/hphr
Trip Distance	38.95	mi	ave CH4	-0.00971	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	38.95	mi	ave CO	158.57422	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	12.07708	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	6.23847	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.35	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.29	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.54	gall	tot THC	-0.01443	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.52	gall	tot NMHC	-0.01335	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	-0.00032	g	DS CO2	334.79923	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	13.09980	g	DS CO	0.33632	g/mi
Trip Fuel Economy EU (ac)	25.33	mpg_US	tot CO2	13040.47115	g	DS THC	-0.00037	g/mi
Trip Fuel Economy US (ac)	25.68	mpg_US	tot NO (d)	0.41456	g	DS NMHC	-0.00034	g/mi
Trip Av. Eng. Speed	1652.33	rpm	tot NO2	0.16359	g	DS CH4	-0.00001	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.57815	g	DS NO (d)	0.01064	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00420	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.01484	g/mi
Trip Exhaust Mass	70.23	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	81.95	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	57.91	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	40.96420	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	1.81128	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Tiguan SEL / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Trip Summary Drift Corrected

'Highway'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018

Trip Duration	3423.00	s	ave THC DC	-0.20553	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3423.00	s	ave NMHC DC	-0.20142	ppm	BS CO DC	n/a	g/hphr
Trip Distance	38.95	mi	ave CH4 DC	-0.00411	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	38.95	mi	ave CO DC	158.22494	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	12.07708	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	6.21456	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.35	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.29	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.54	gall	tot THC DC	-0.00559	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.52	gall	tot NMHC DC	-0.00517	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	-0.00012	g	DS CO2 DC	334.79923	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	13.08078	g	DS CO DC	0.33583	g/mi
Trip Fuel Economy EU (ac)	25.33	mpg_US	tot CO2 DC	13040.47115	g	DS THC DC	-0.00014	g/mi
Trip Fuel Economy US (ac)	25.68	mpg_US	tot NO DC (d)	0.41681	g	DS NMHC DC	-0.00013	g/mi
Trip Av. Eng. Speed	1652.33	rpm	tot NO2 DC	0.15860	g	DS CH4 DC	-0.00000	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.57541	g	DS NO DC (d)	0.01070	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00407	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.01477	g/mi
Trip Exhaust Mass	70.23	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	81.95	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	57.91	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	40.96420	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	1.81128	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguana SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment Check

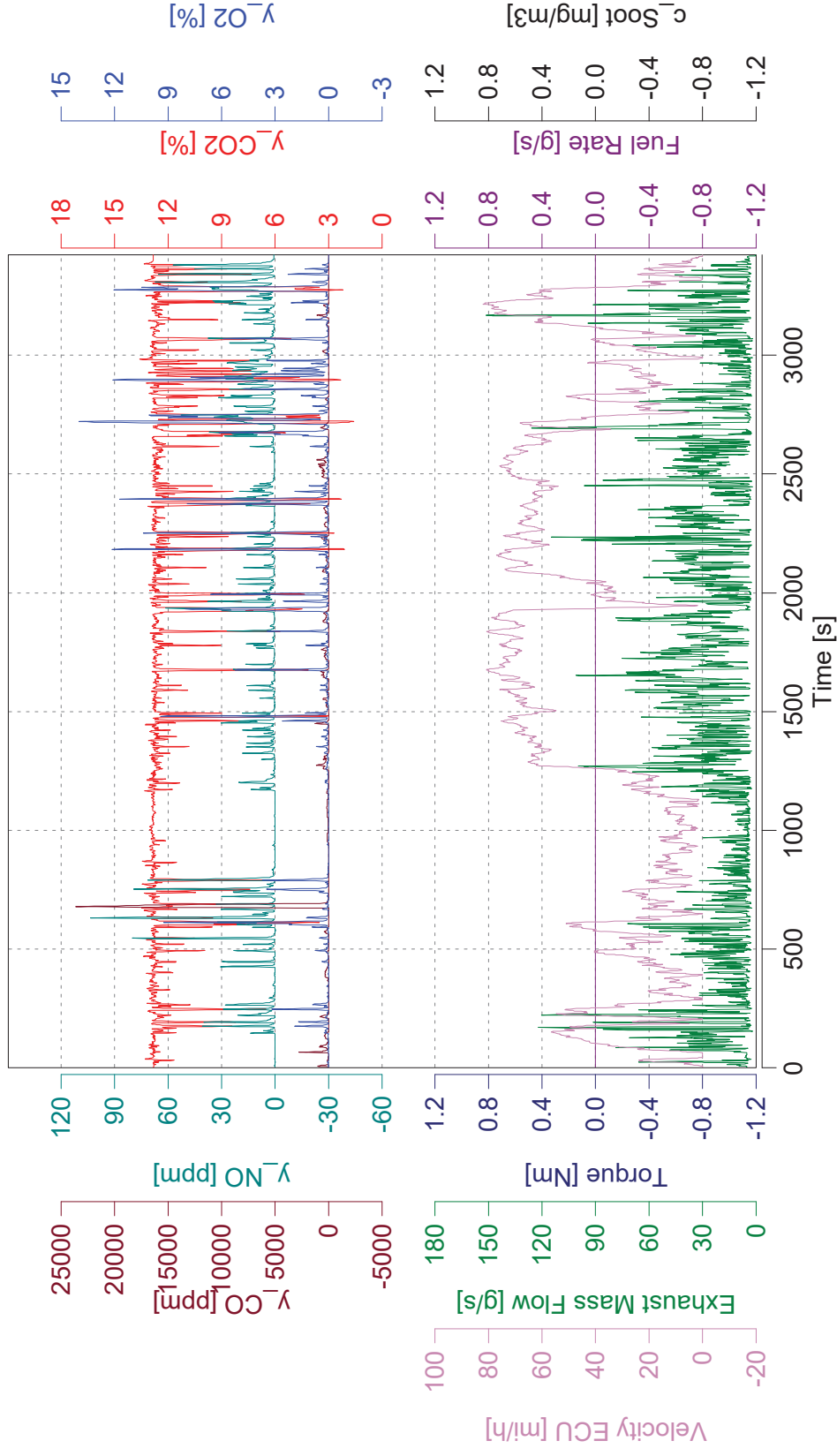
'Highway'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment of Gas Concentrations

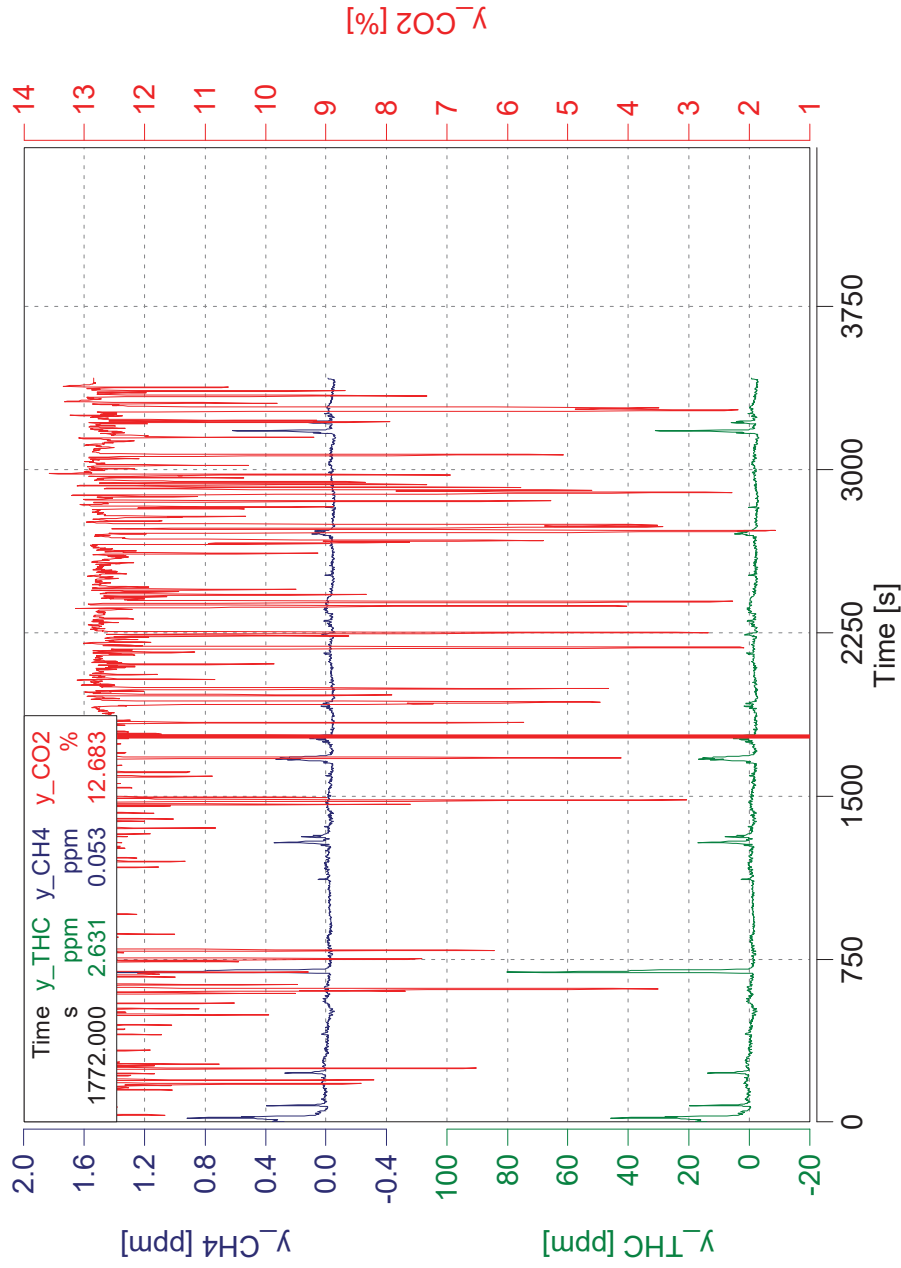
'Highway'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

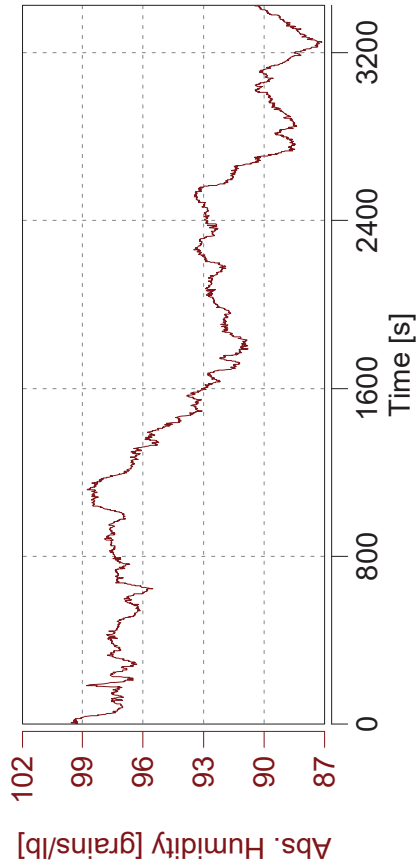
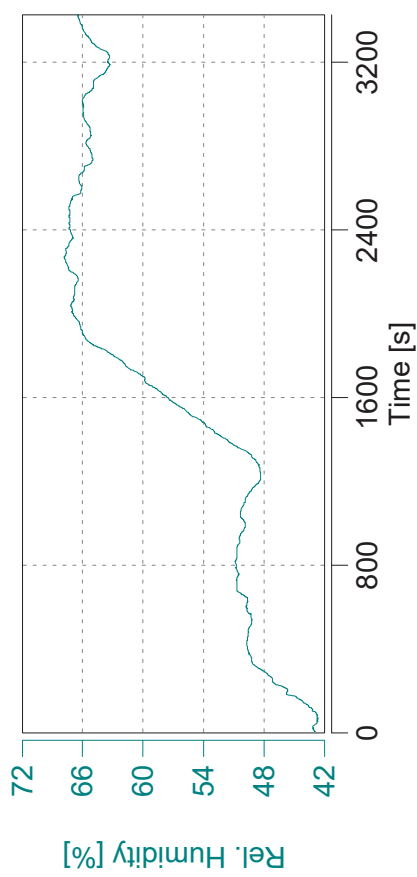
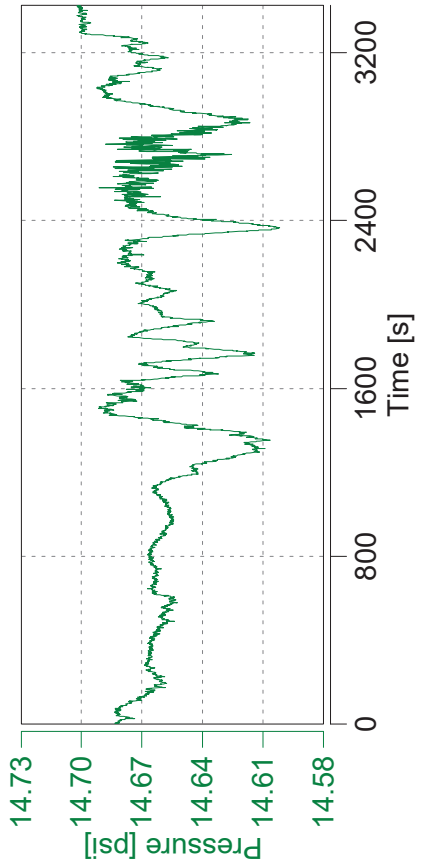
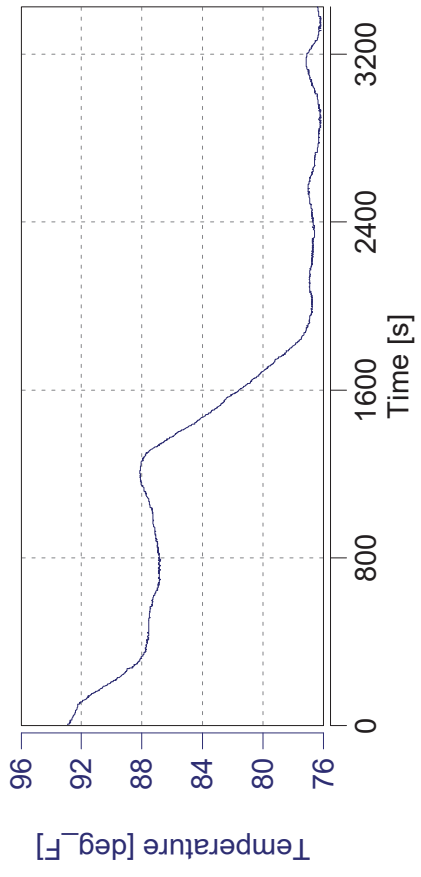
Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90



Case: Highway

Page: GPS

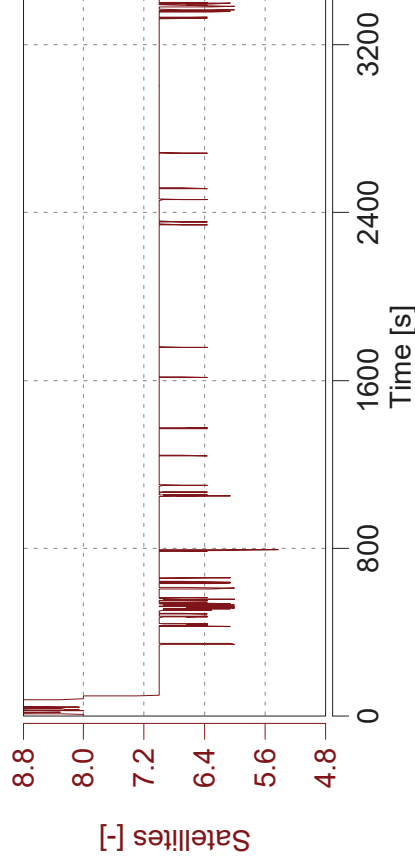
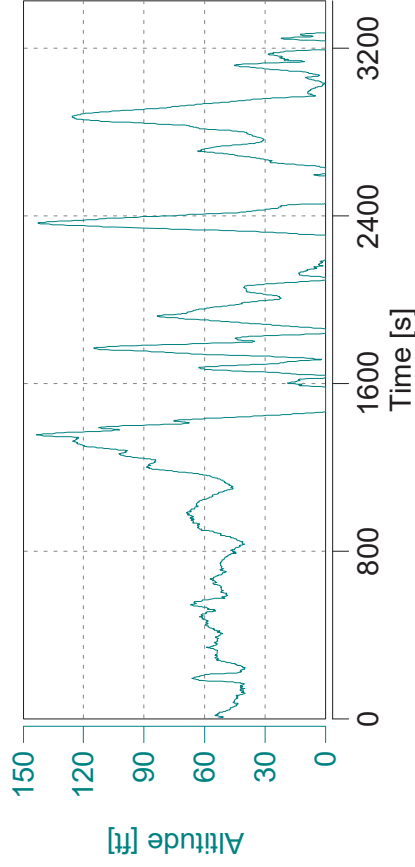
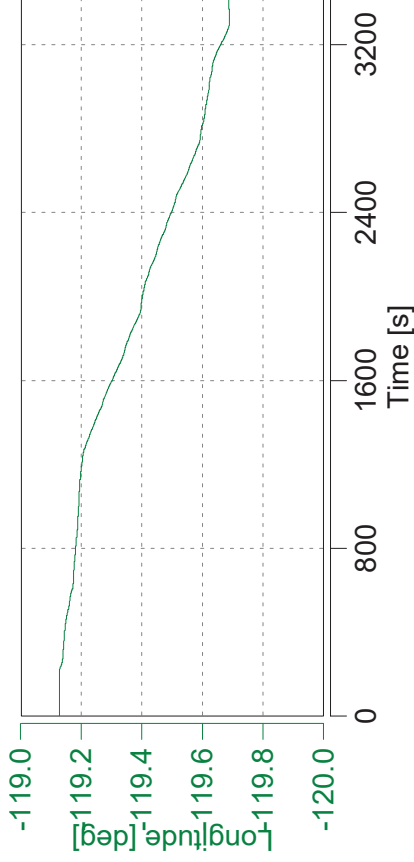
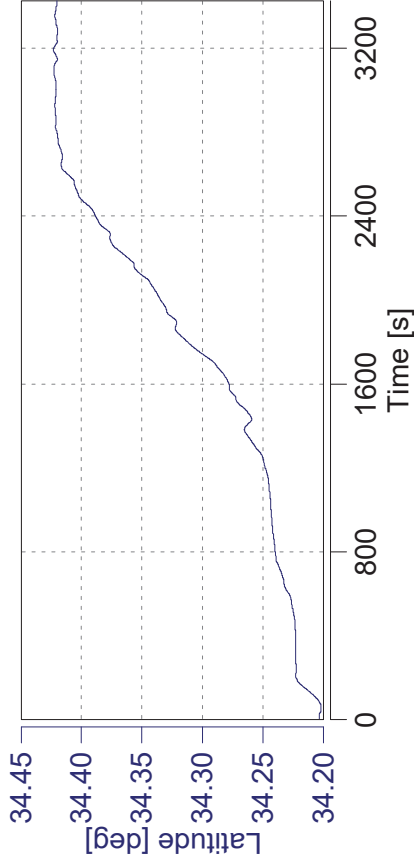
'Highway'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (1)

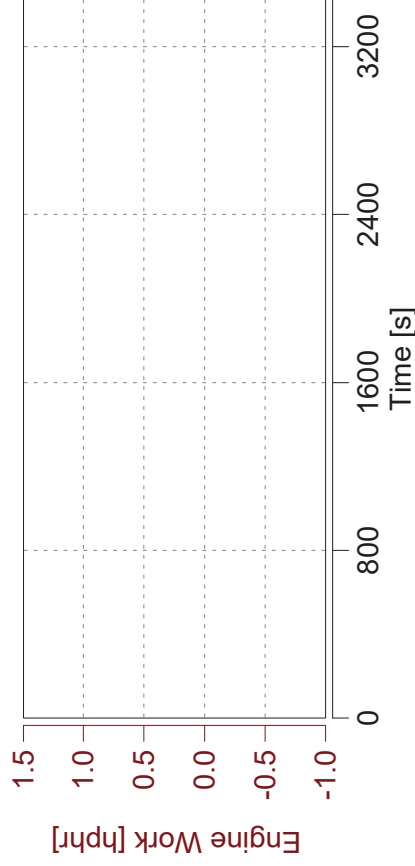
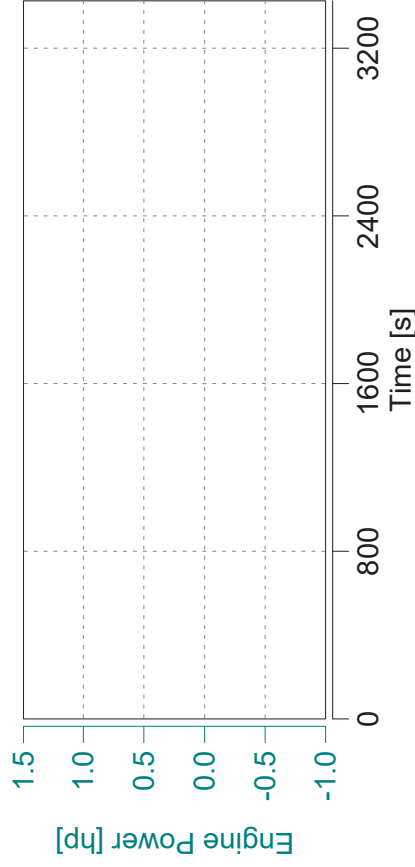
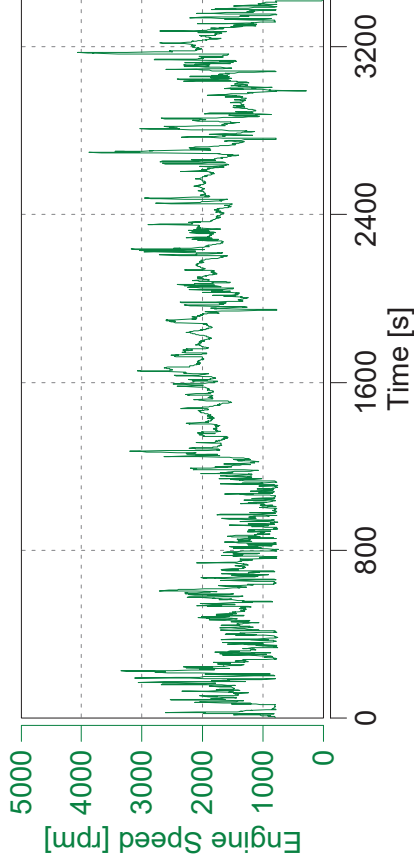
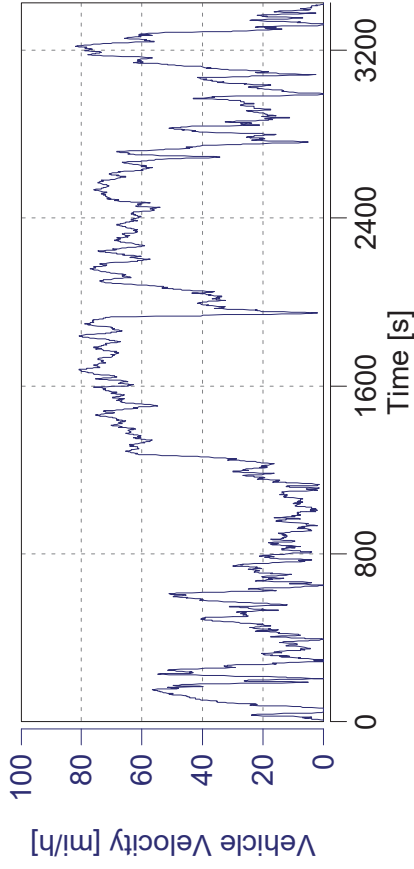
'Highway'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan SEL / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (2)

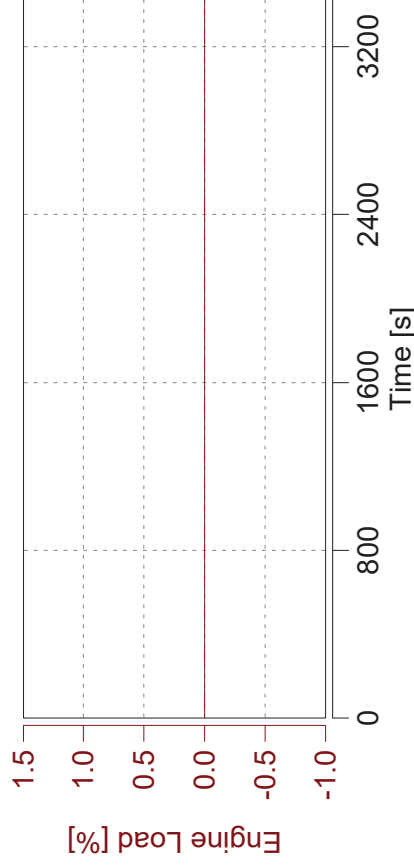
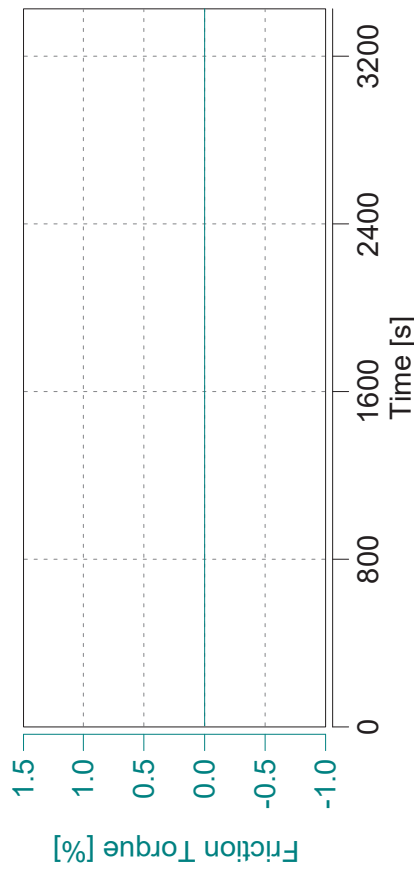
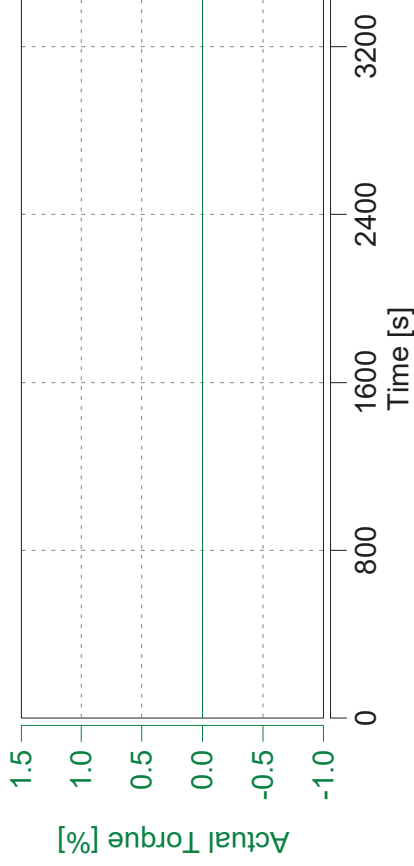
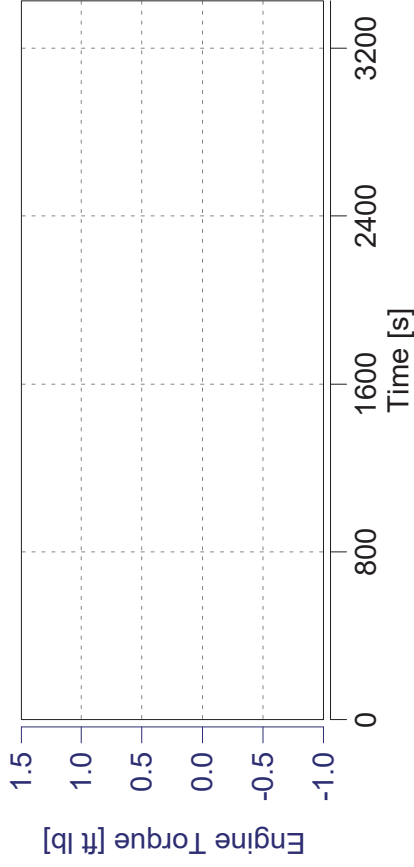
'Highway'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (3)

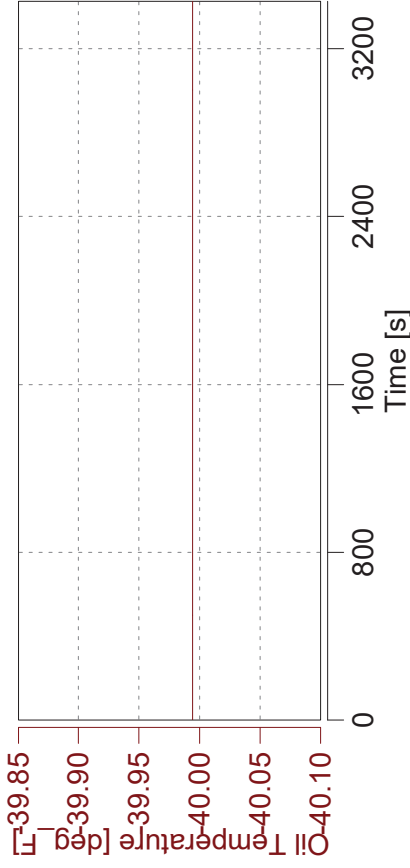
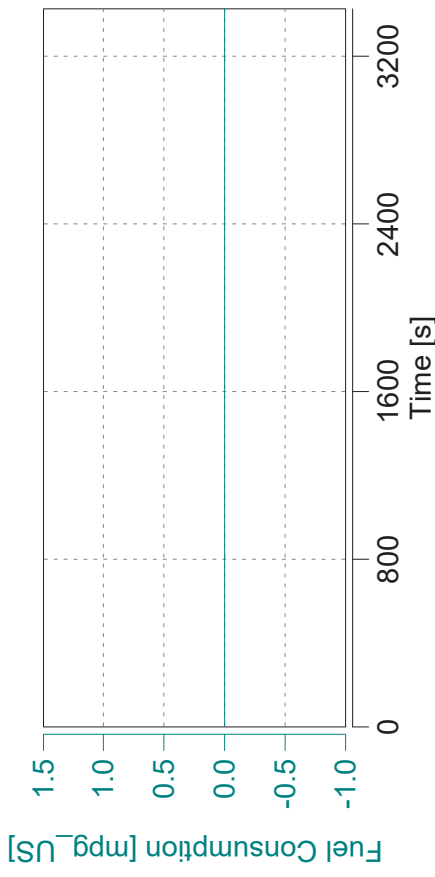
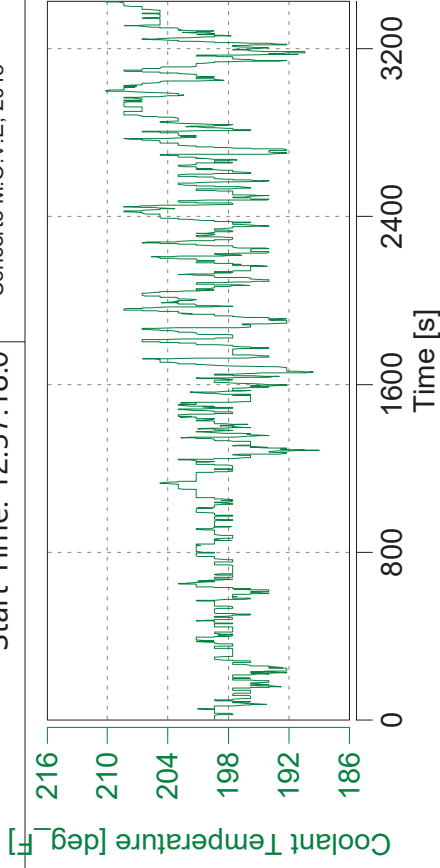
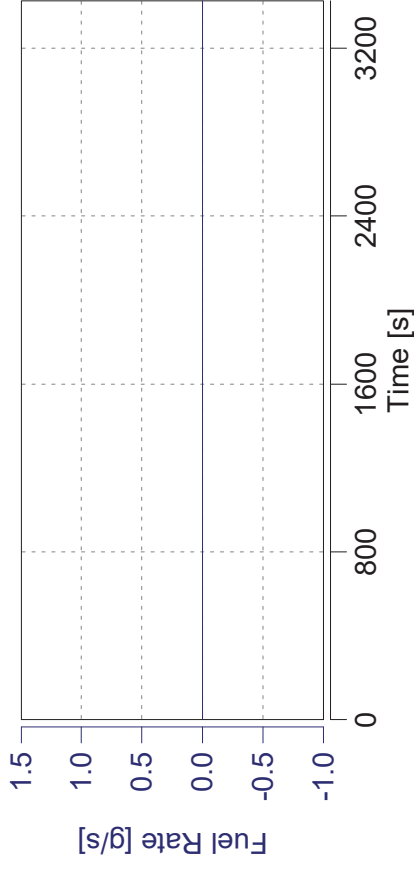
'Highway'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



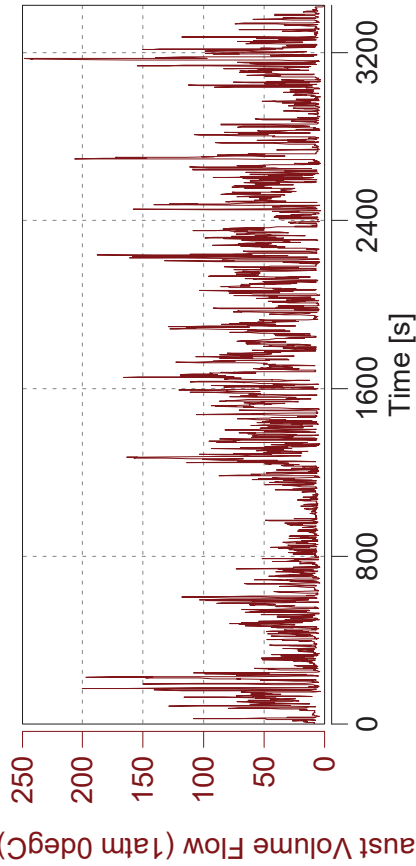
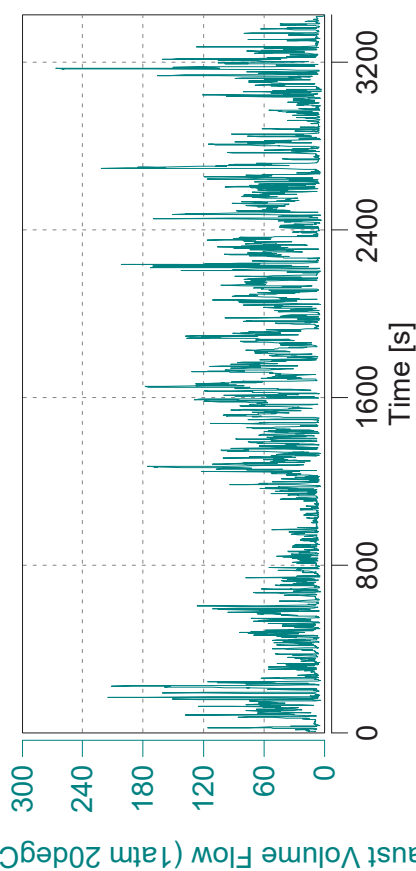
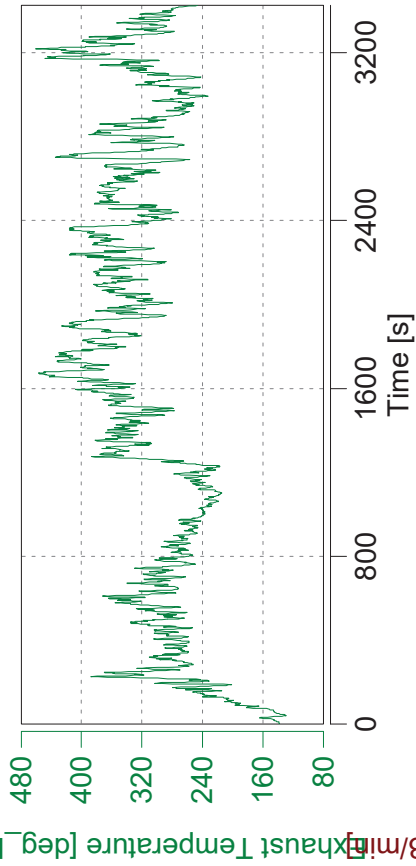
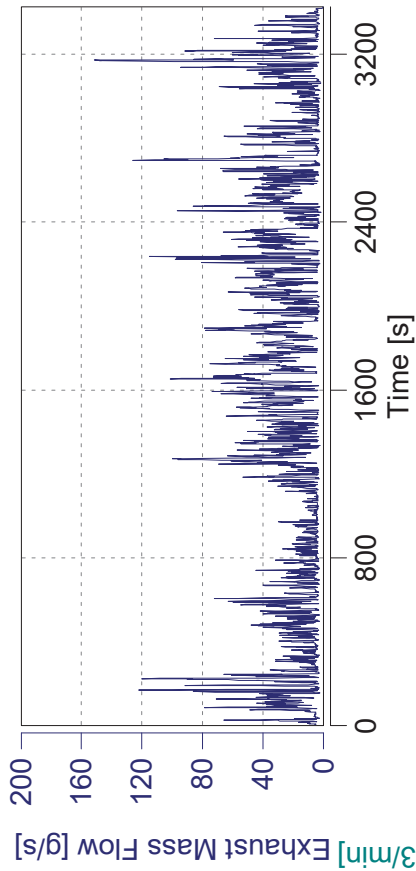
Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

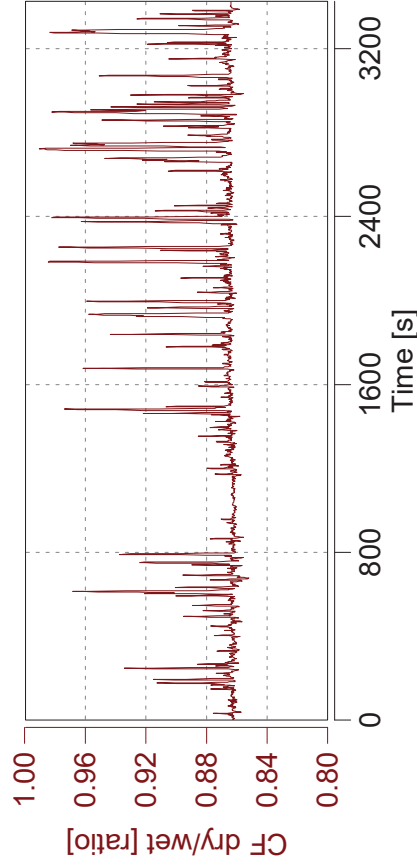
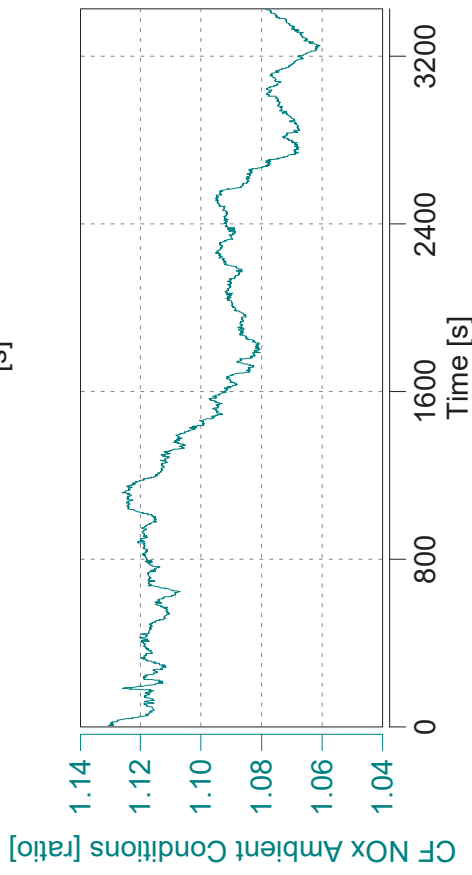
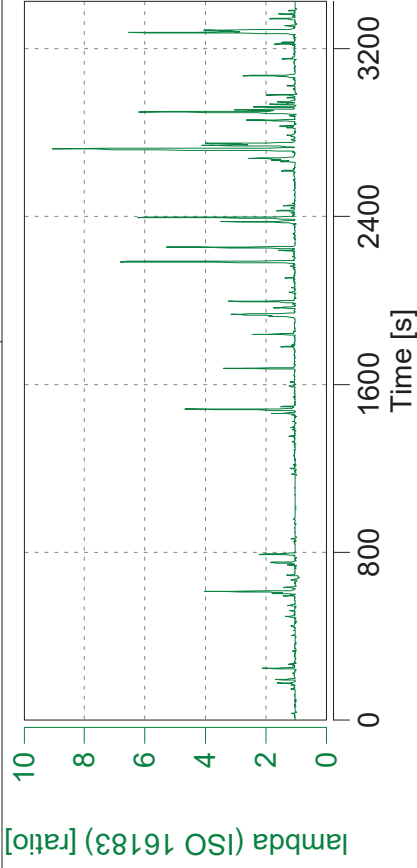
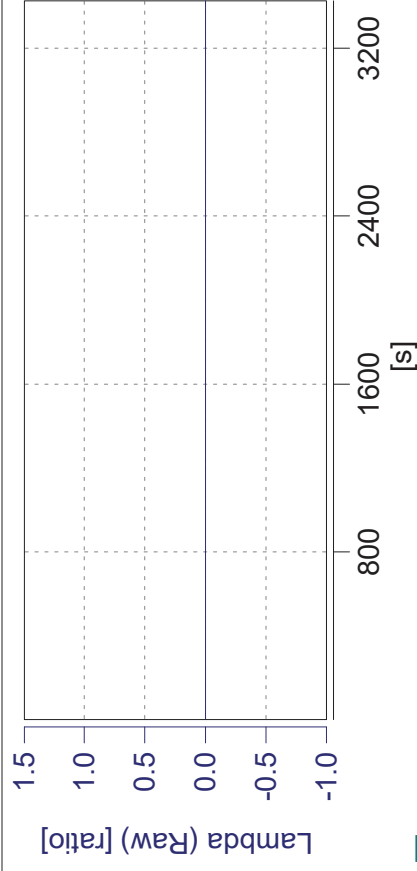
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90



Case: Highway
Page: Exhaust Flow (2)

'Highway'
Start Date: 07/26/2018
Start Time: 12:37:18.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan SEL / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (1)

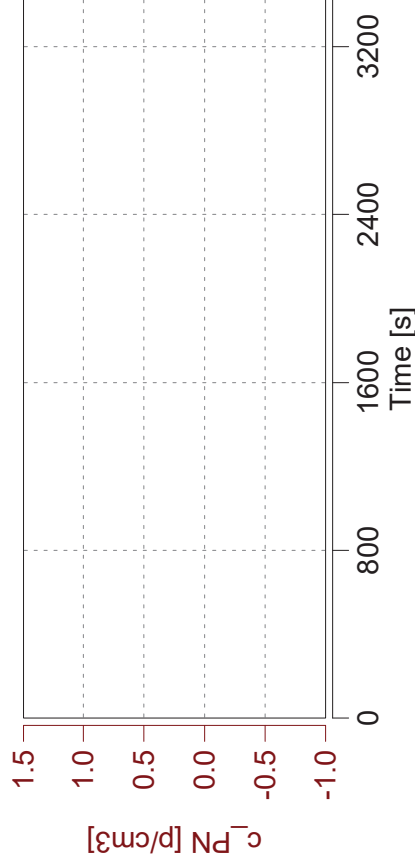
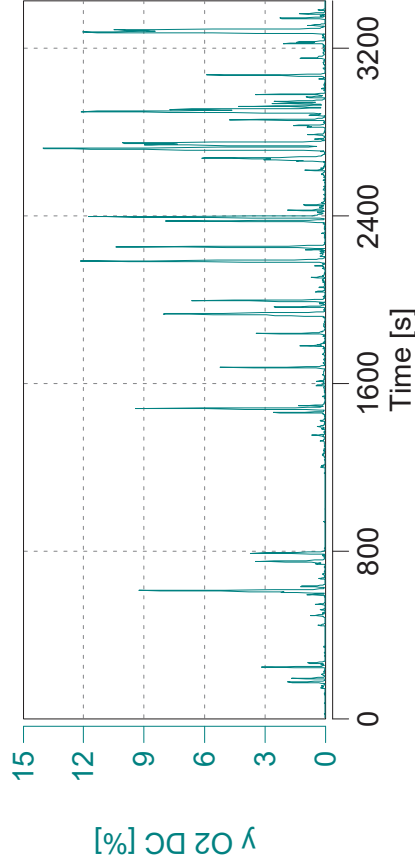
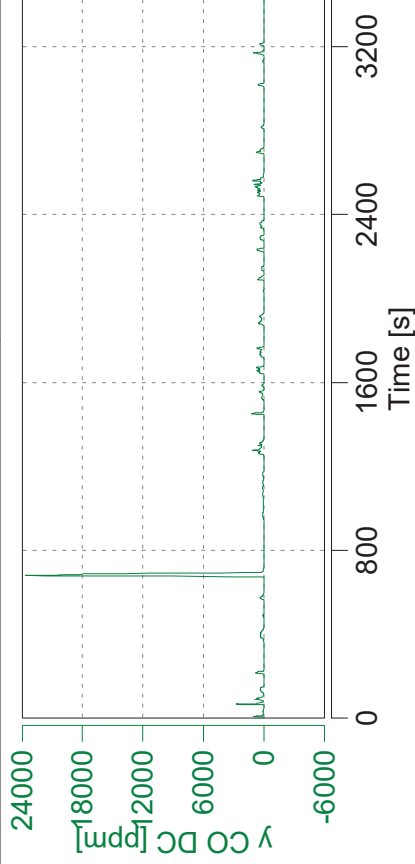
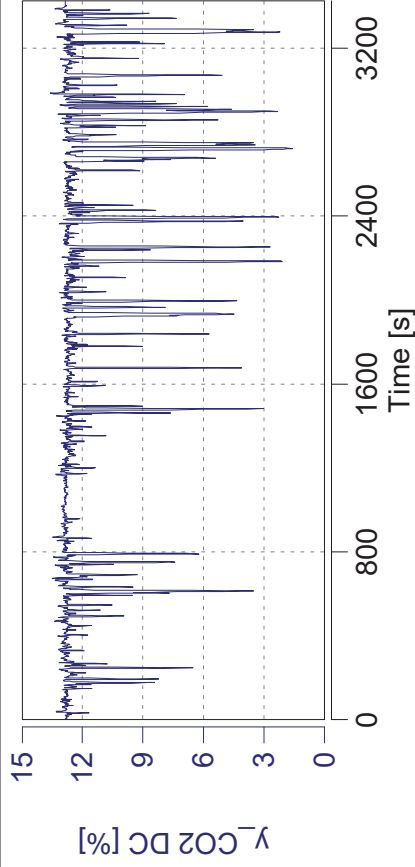
'Highway'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan SEL / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (2)

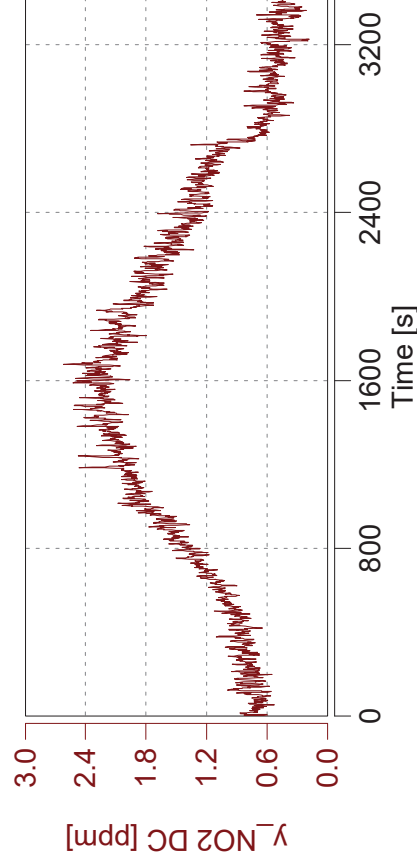
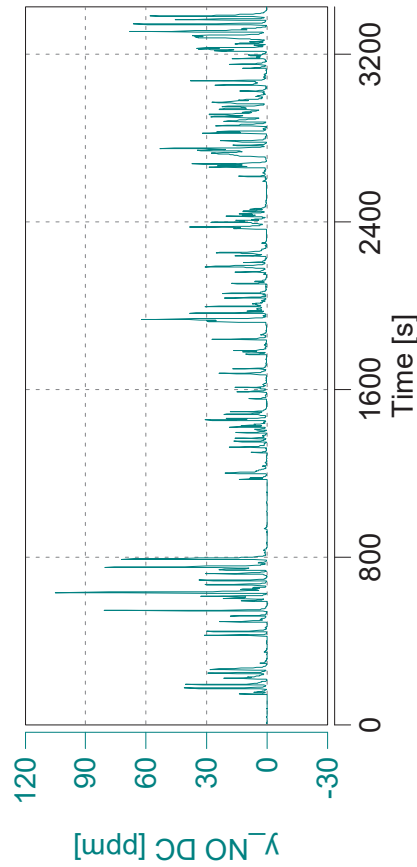
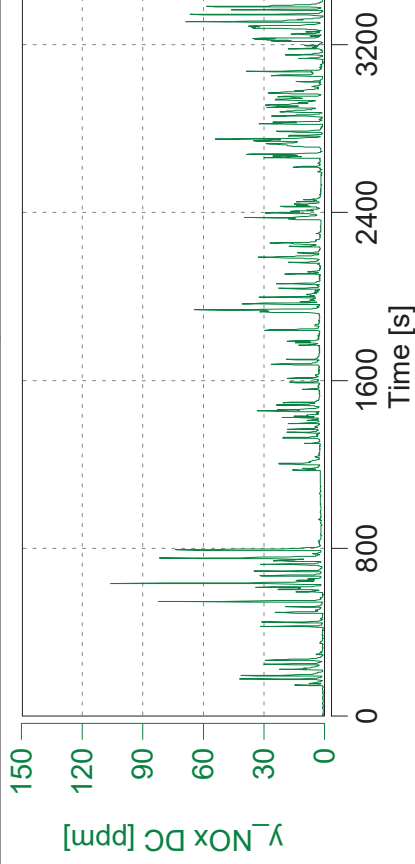
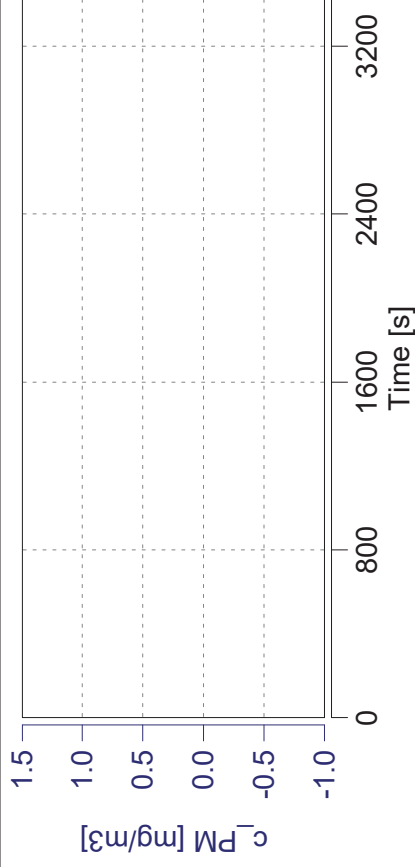
'Highway'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan SEL / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (3)

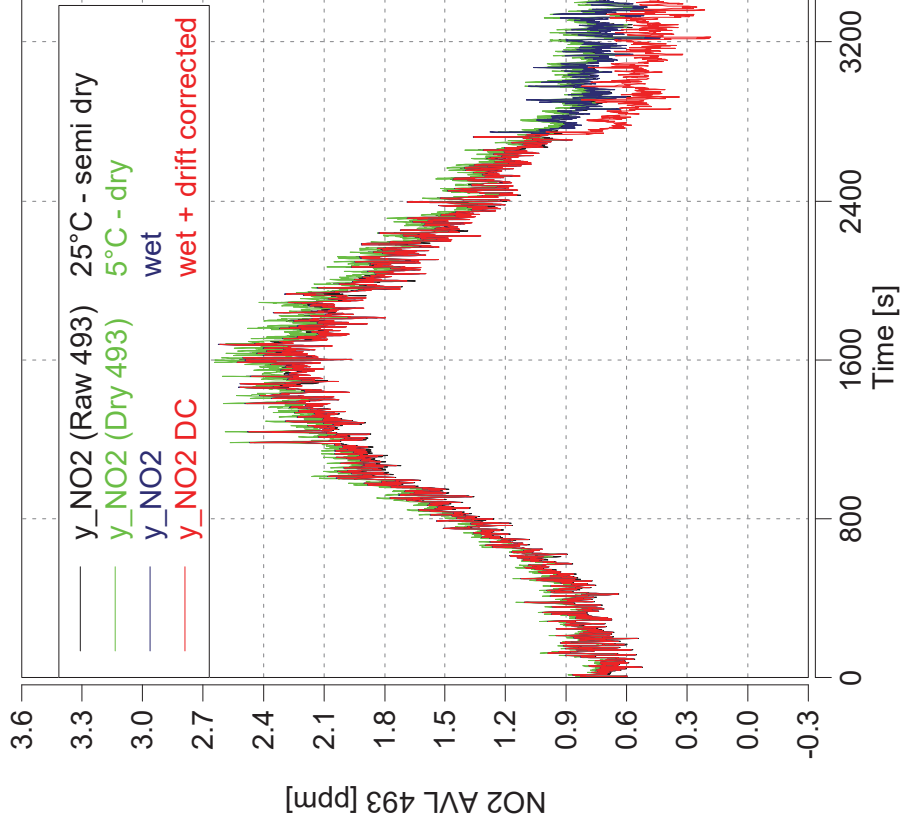
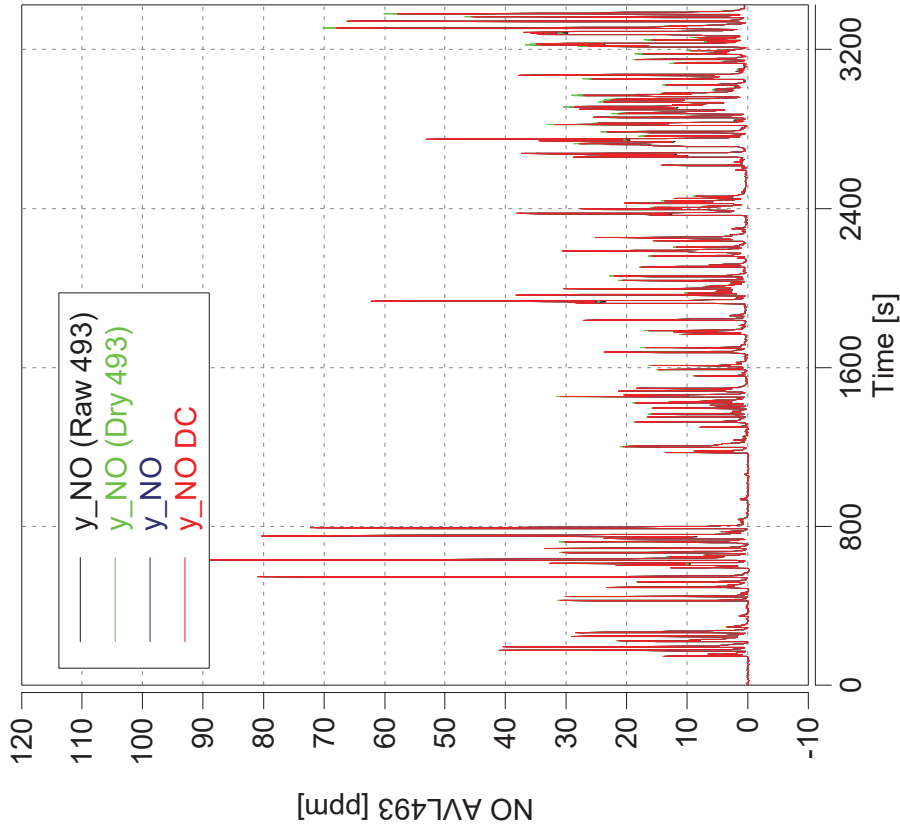
'Highway'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (4) NOx Corrections

'Highway'

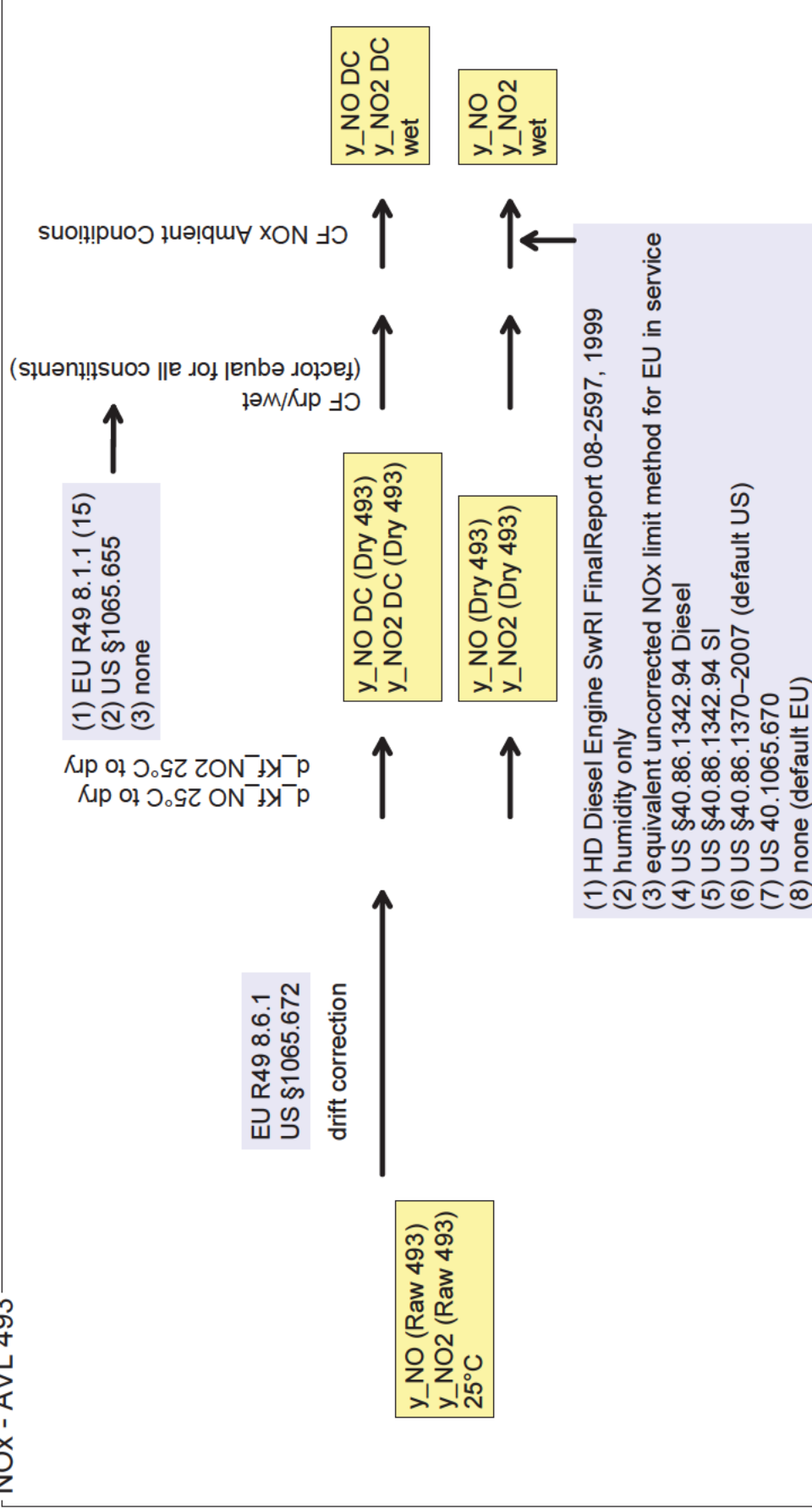
Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (5)

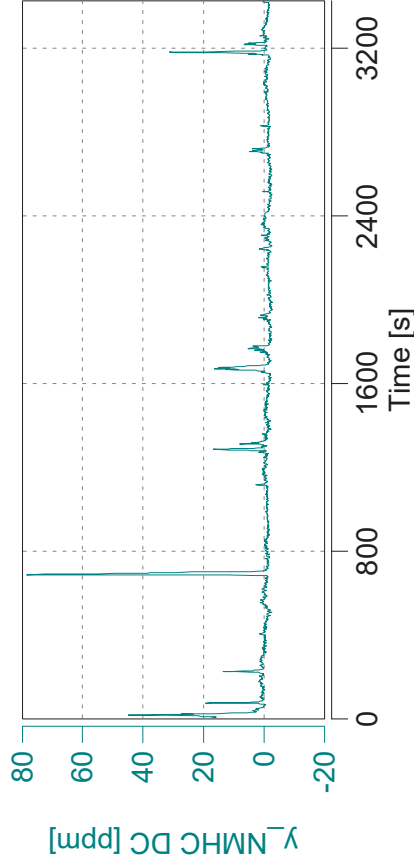
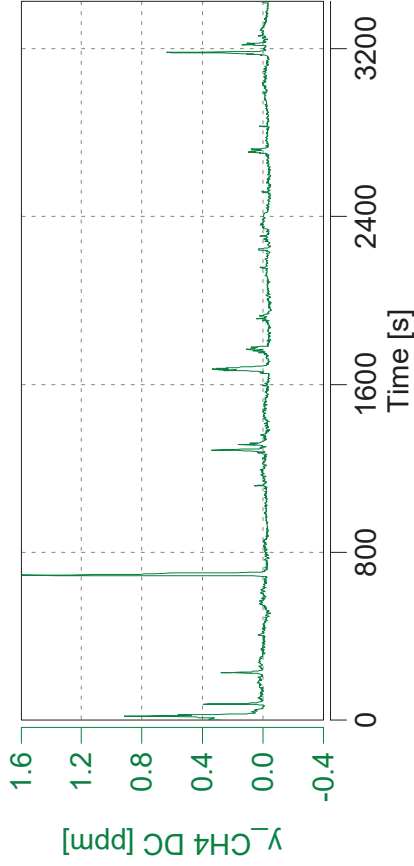
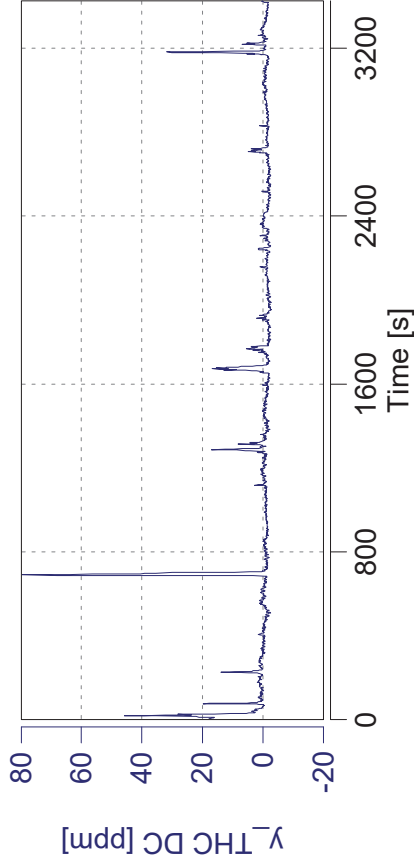
'Highway'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: Tiguan SEL / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: NO/NO2/NOx Zero - Span

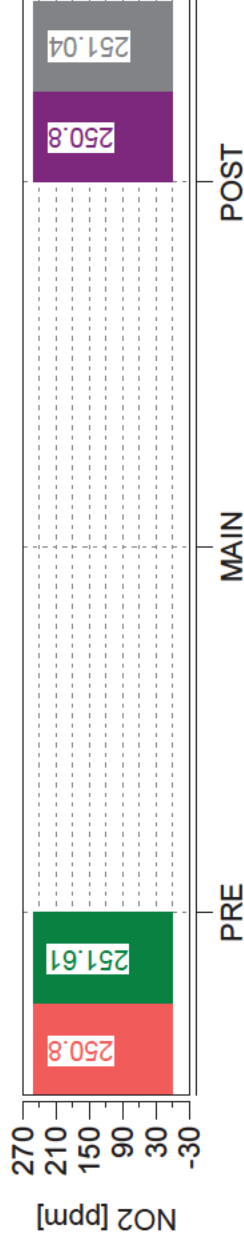
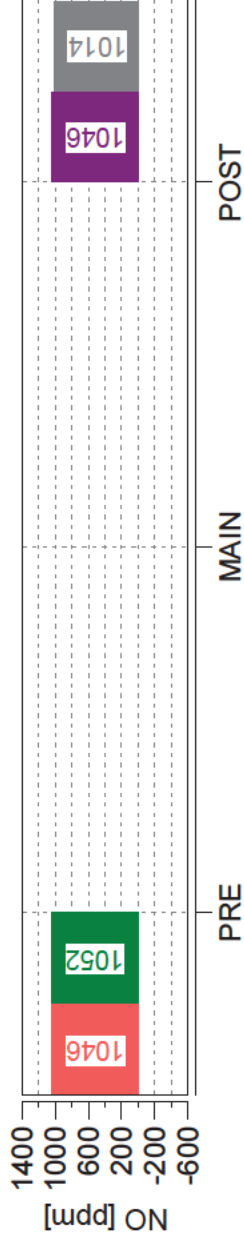
'Highway'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: CO/CO2 Zero - Span

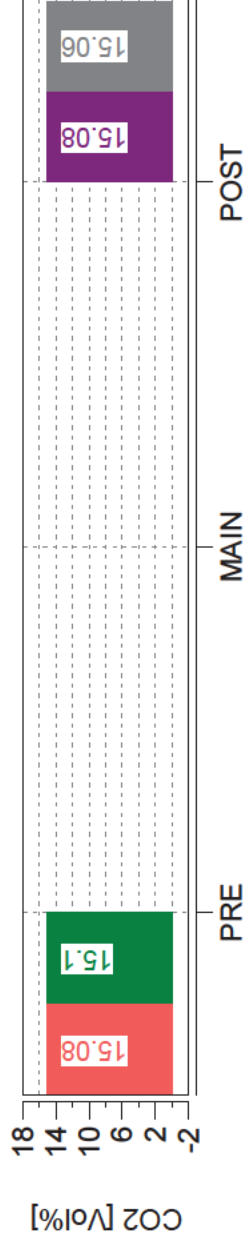
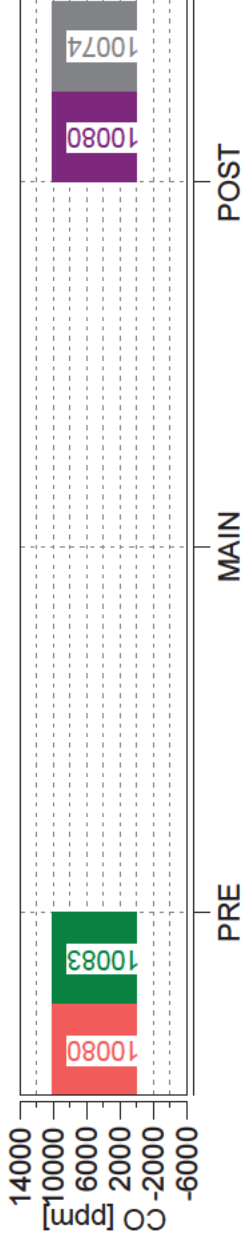
'Highway'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: THC/CH4 Zero - Span

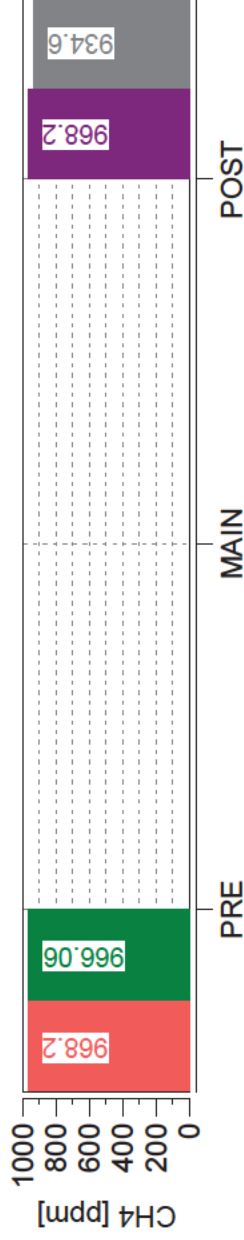
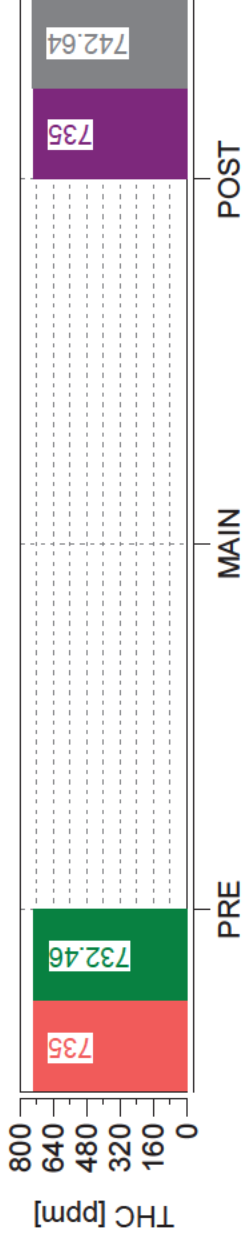
'Highway'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Tiguan SEL / 2.0L

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary

'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E. 2018

Trip Duration	2966.00	s	ave THC	4.25812	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	2966.00	s	ave NMHC	4.17296	ppm	BS CO	n/a	g/hphr
Trip Distance	29.02	mi	ave CH4	0.08516	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	29.02	mi	ave CO	218.77181	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	9.54155	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	6.23969	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.46	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.42	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.22	gall	tot THC	0.24500	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.21	gall	tot NMHC	0.22662	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00543	g	DS CO2	356.61724	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	36.54724	g	DS CO	1.25929	g/mi
Trip Fuel Economy EU (ac)	23.71	mpg_US	tot CO2	10349.80543	g	DS THC	0.00844	g/mi
Trip Fuel Economy US (ac)	24.01	mpg_US	tot NO (d)	0.34649	g	DS NMHC	0.00781	g/mi
Trip Av. Eng. Speed	1893.07	rpm	tot NO2	0.11819	g	DS CH4	0.00019	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.46468	g	DS NO (d)	0.01194	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00407	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.01601	g/mi
Trip Exhaust Mass	59.57	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	83.14	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	50.50	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	35.22583	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	10.11463	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary Drift Corrected

'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018

Trip Duration	2966.00	s	ave THC DC	4.35066	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	2966.00	s	ave NMHC DC	4.26365	ppm	BS CO DC	n/a	g/hphr
Trip Distance	29.02	mi	ave CH4 DC	0.08701	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	29.02	mi	ave CO DC	218.80328	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	9.54155	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	6.29390	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.46	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.42	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave Soot meas	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.22	gall	ave PN DC	0.24732	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.21	gall	tot THC DC	0.22877	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot NMHC DC	0.00548	g	DS CO2 DC	356.61724	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CH4 DC	36.55250	g	DS CO DC	1.25947	g/mi
Trip Fuel Economy EU (ac)	23.71	mpg_US	tot CO DC	10349.80543	g	DS THC DC	0.00852	g/mi
Trip Fuel Economy US (ac)	24.01	mpg_US	tot NO DC (d)	0.35066	g	DS NMHC DC	0.00788	g/mi
Trip Av. Eng. Speed	1893.07	rpm	tot NO2 DC	0.11794	g	DS CH4 DC	0.00019	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.46860	g	DS NO DC (d)	0.01208	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00406	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.01615	g/mi
Trip Exhaust Mass	59.57	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	83.14	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	50.50	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	35.22583	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	10.11463	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguana SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment Check

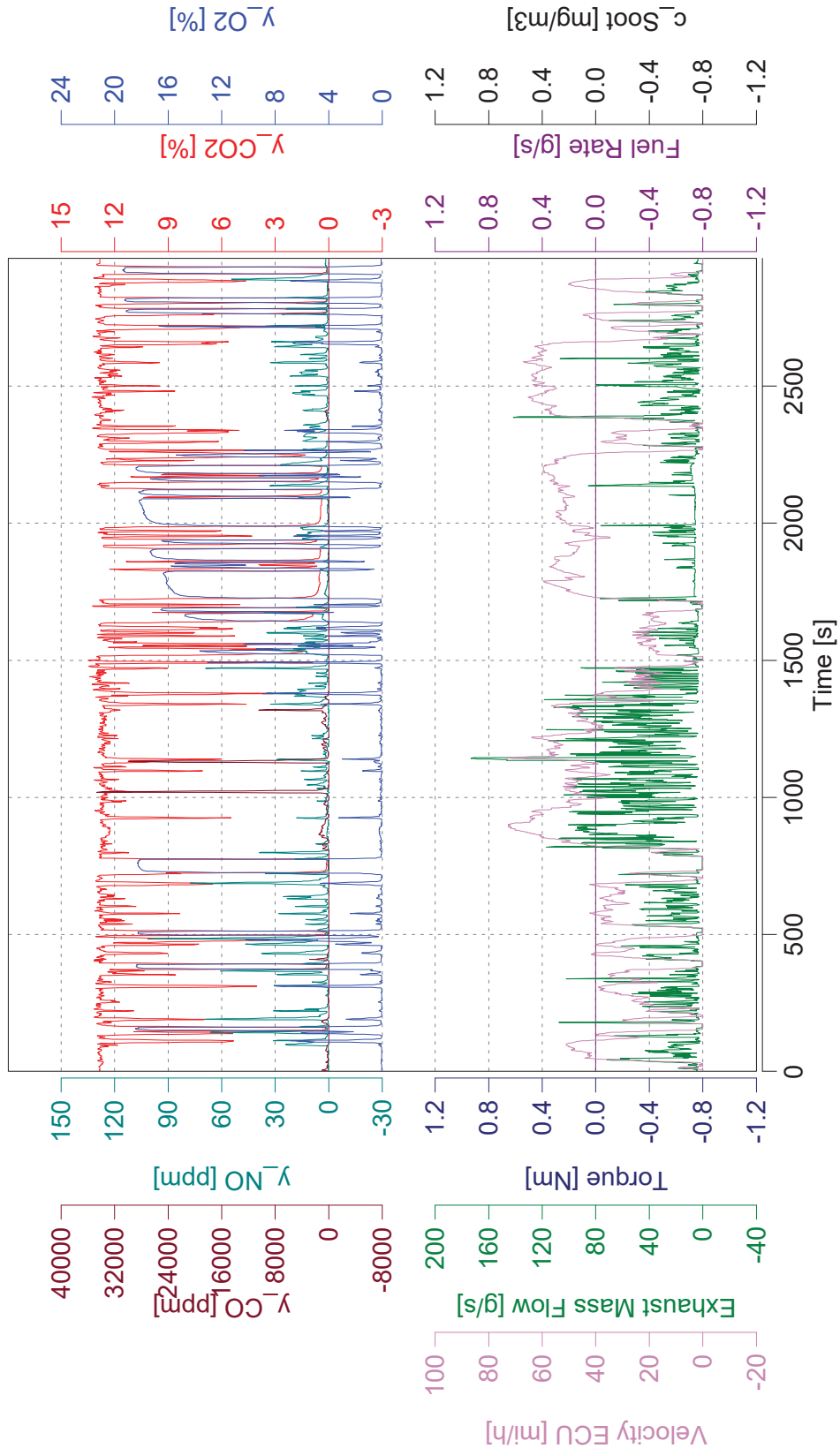
'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment of Gas Concentrations

'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Ambient Conditions

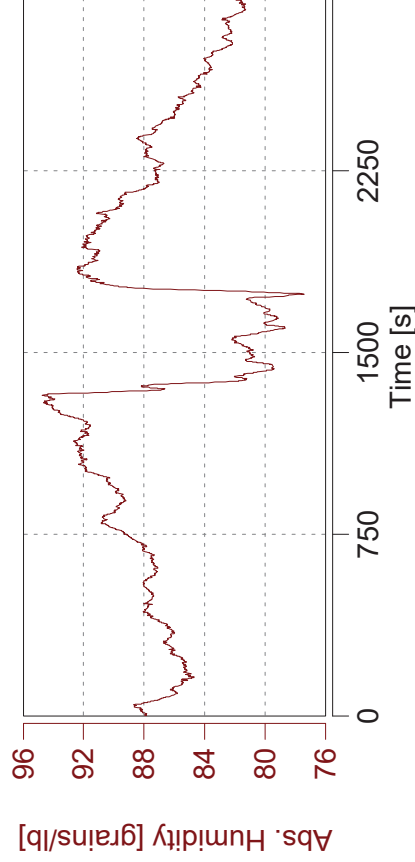
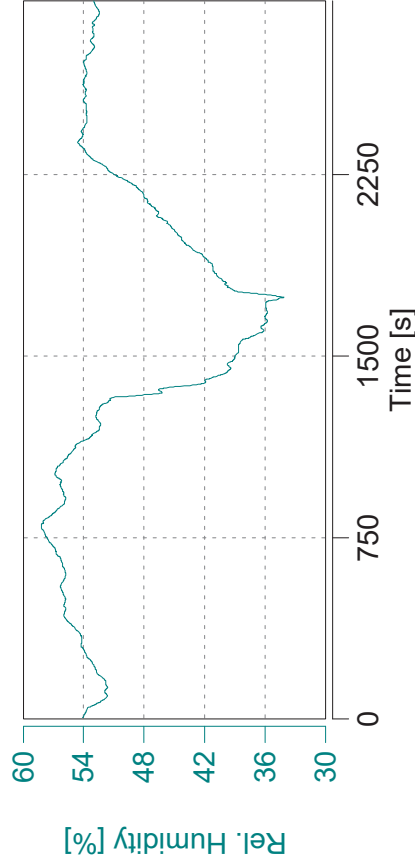
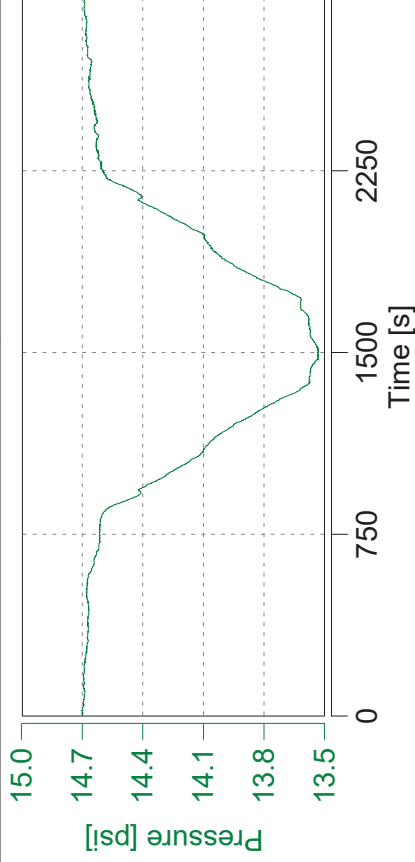
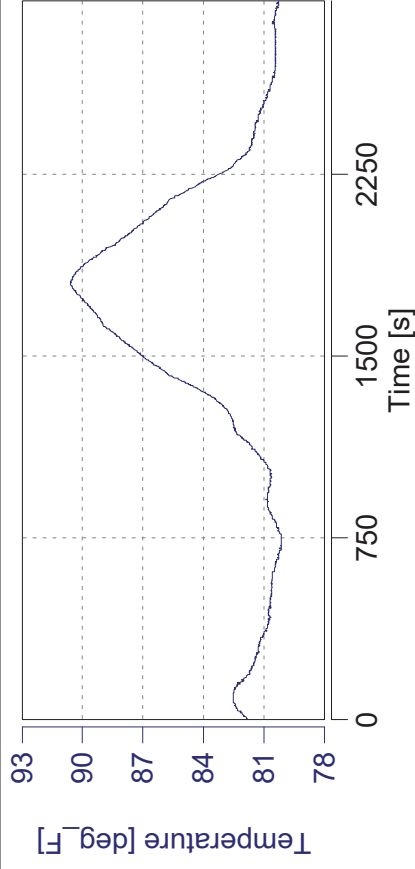
'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan SEL / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: GPS

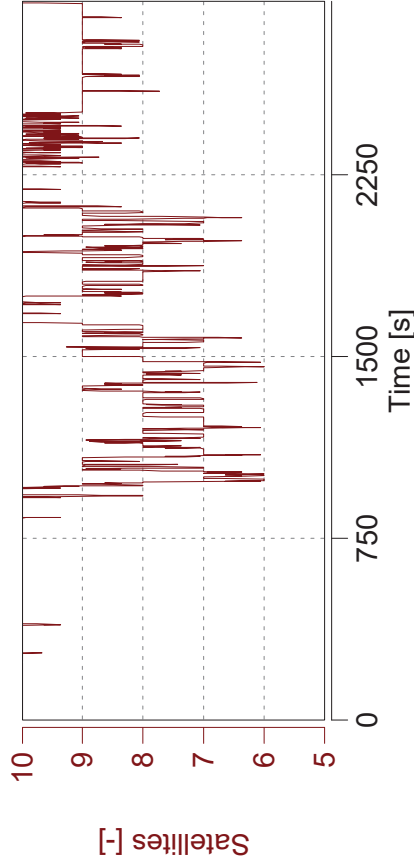
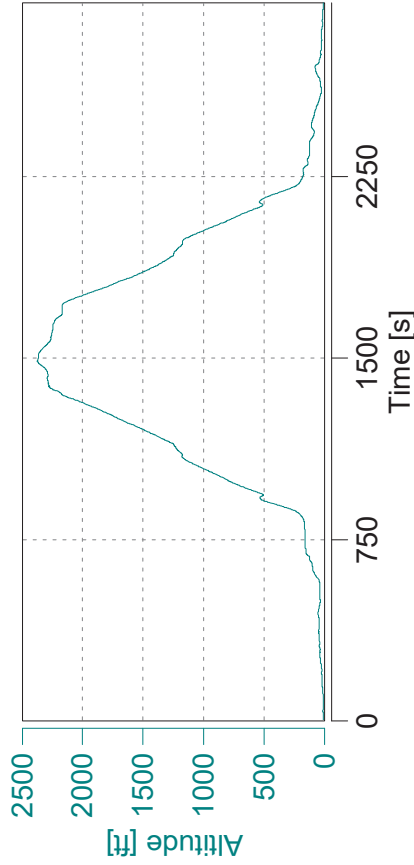
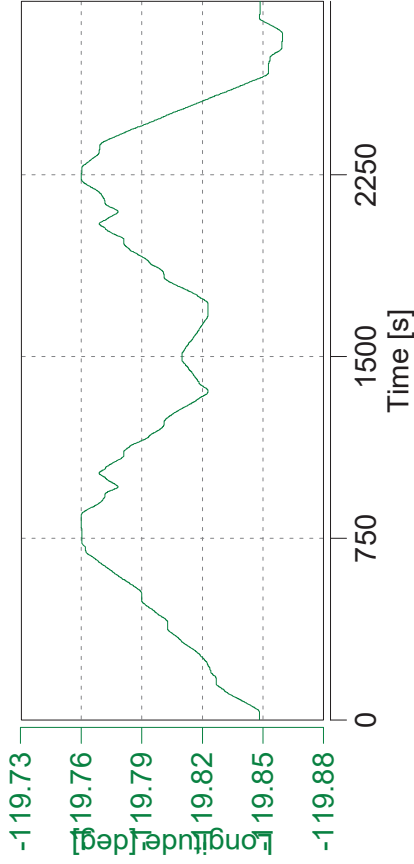
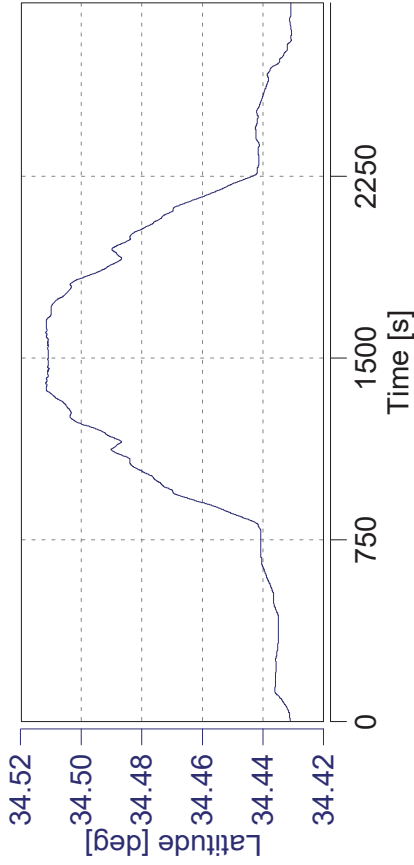
'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Vehicle: Tiguan SEL / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (1)

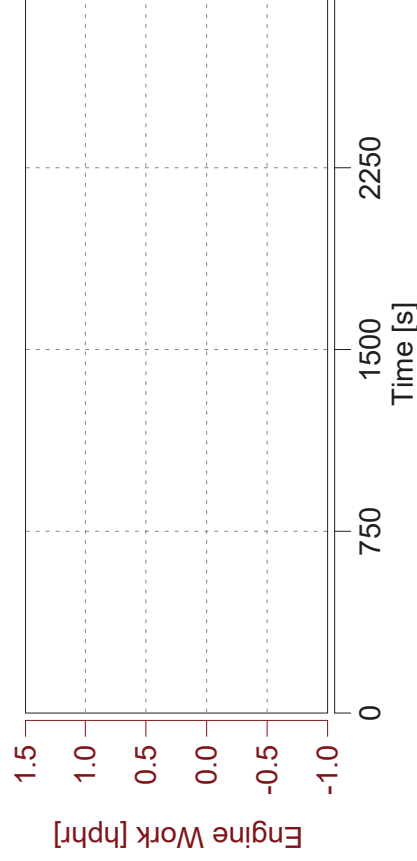
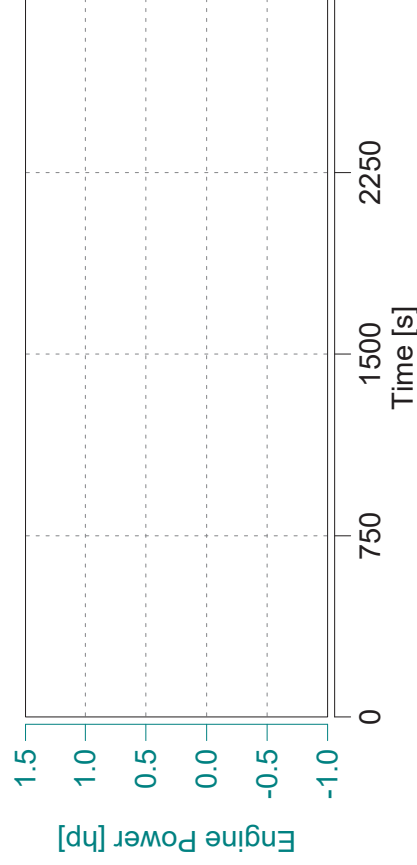
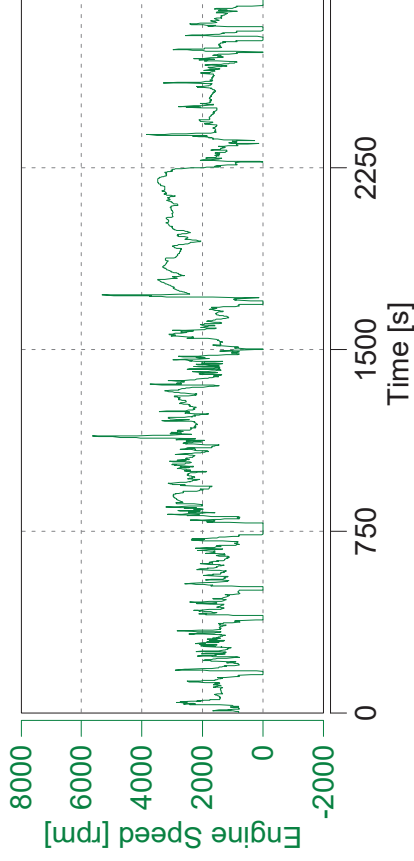
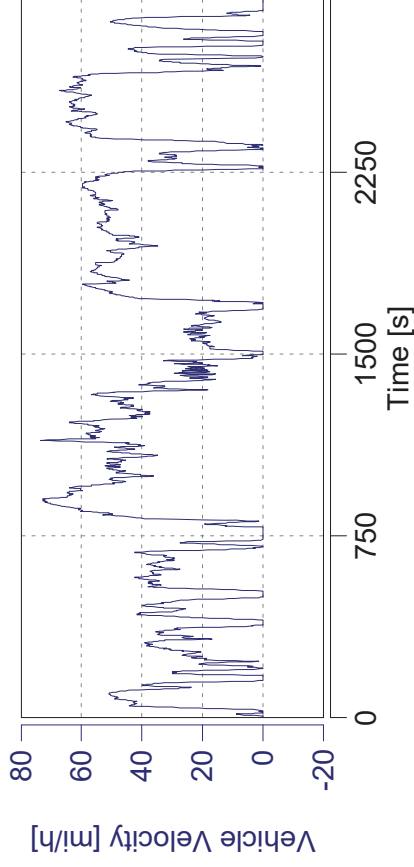
'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (2)

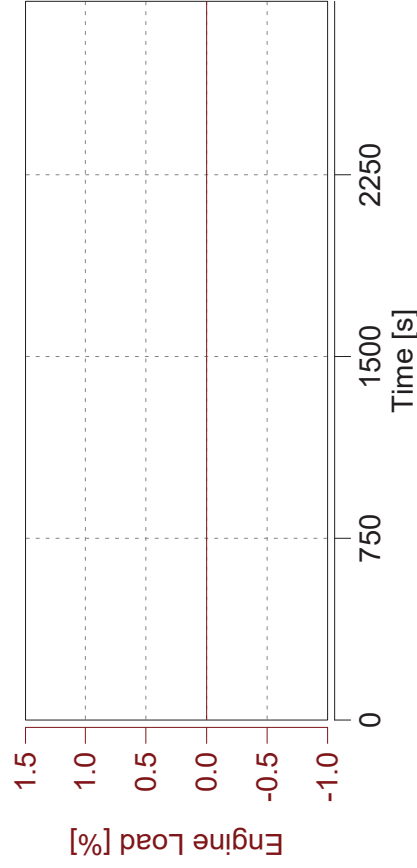
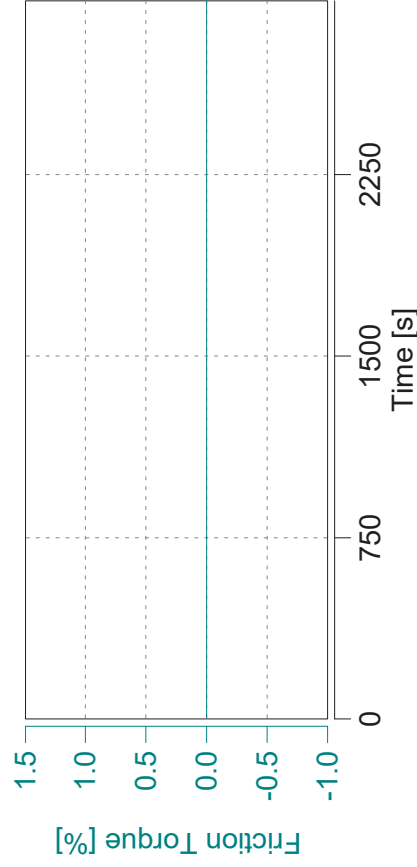
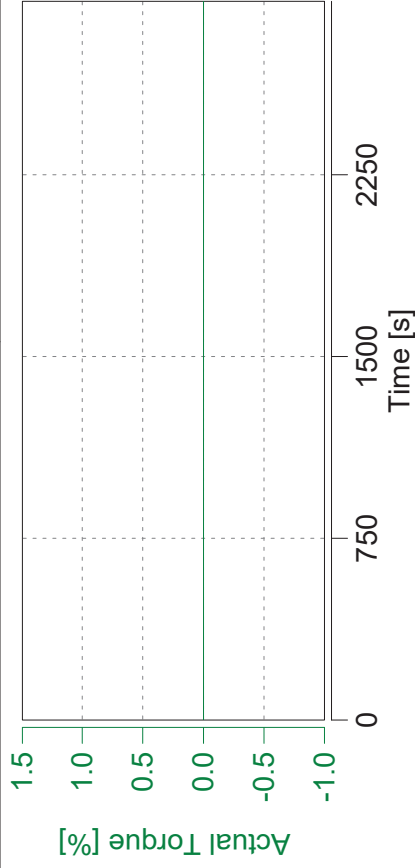
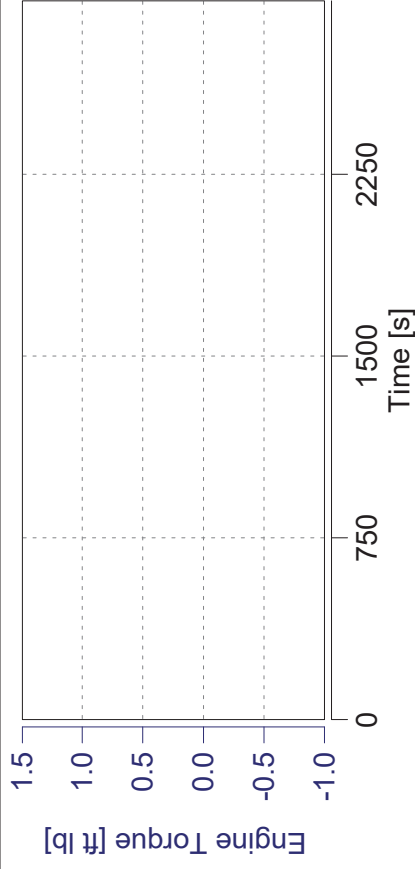
'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (3)

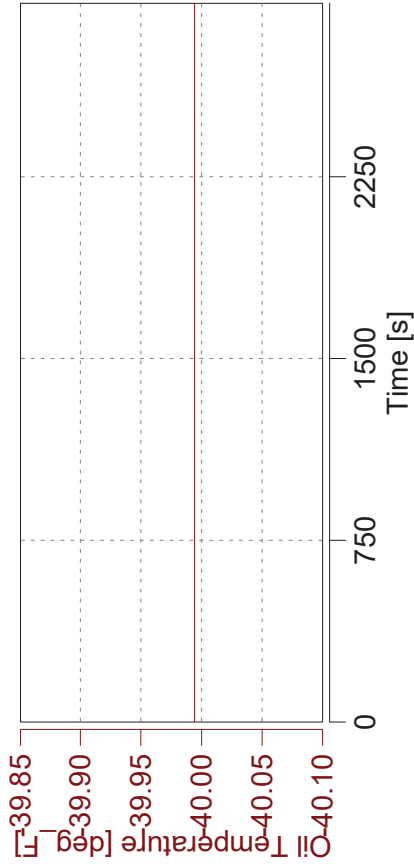
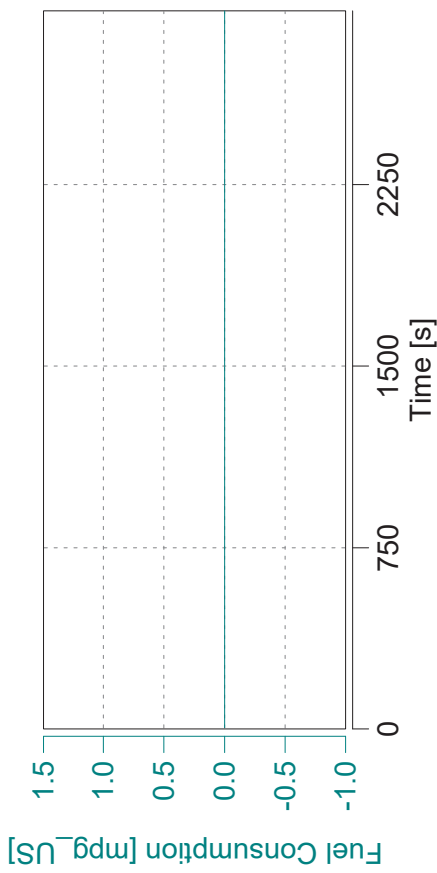
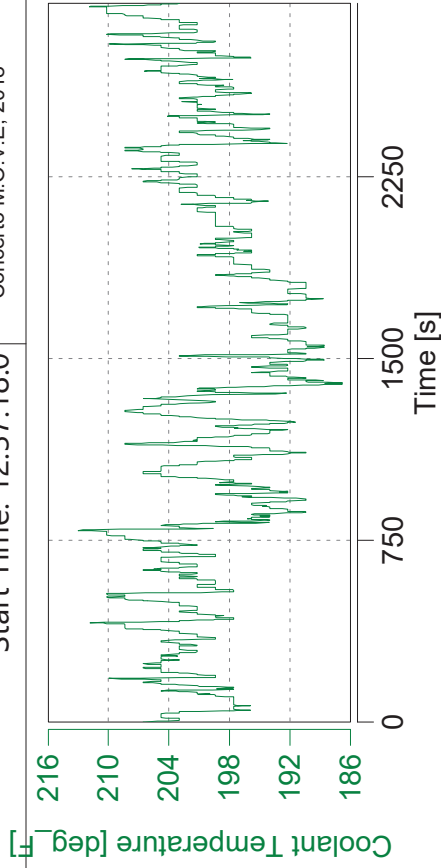
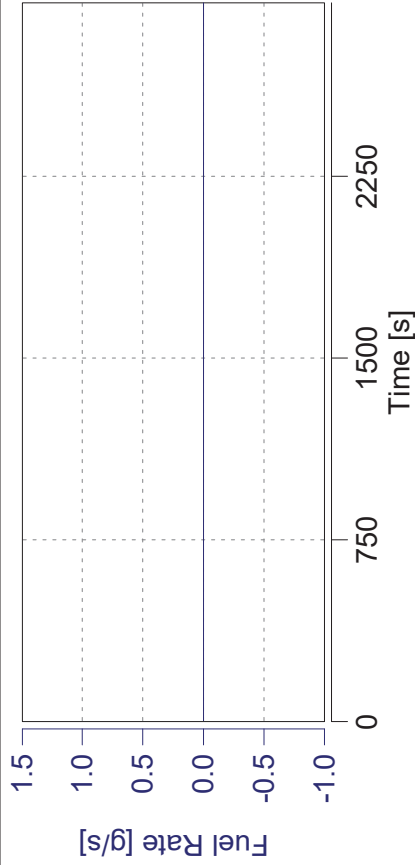
'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Exhaust Flow (1)

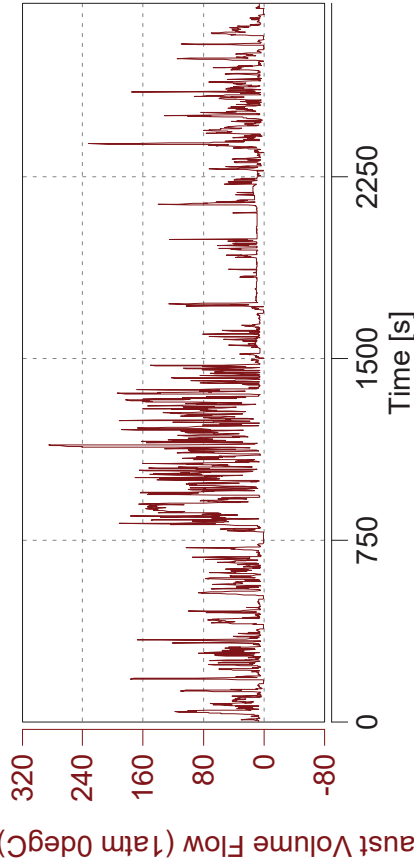
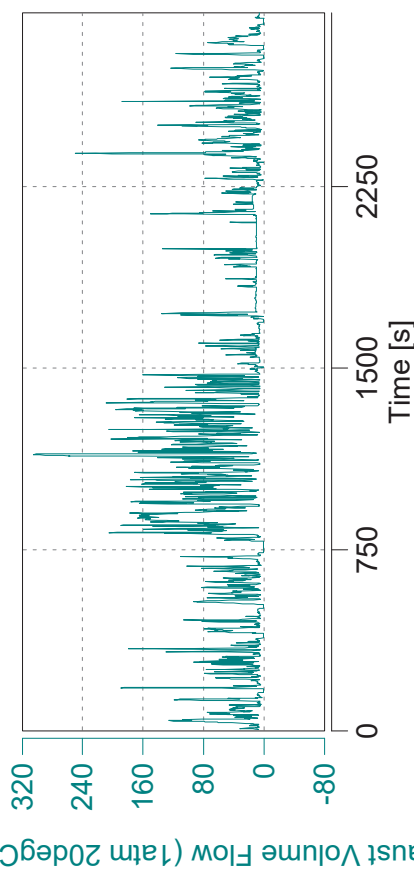
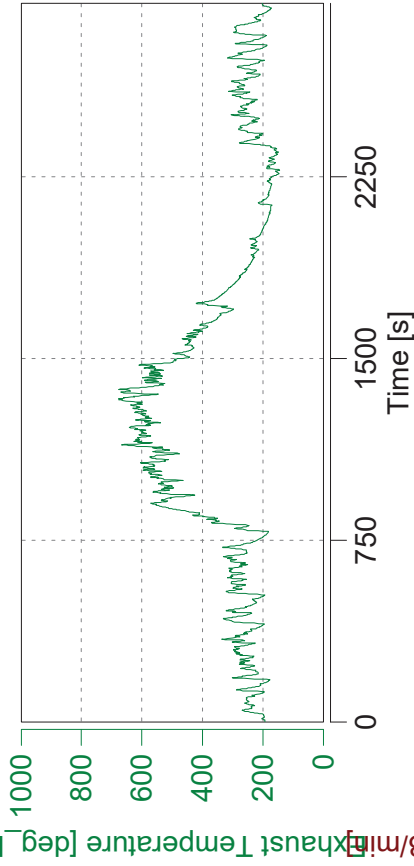
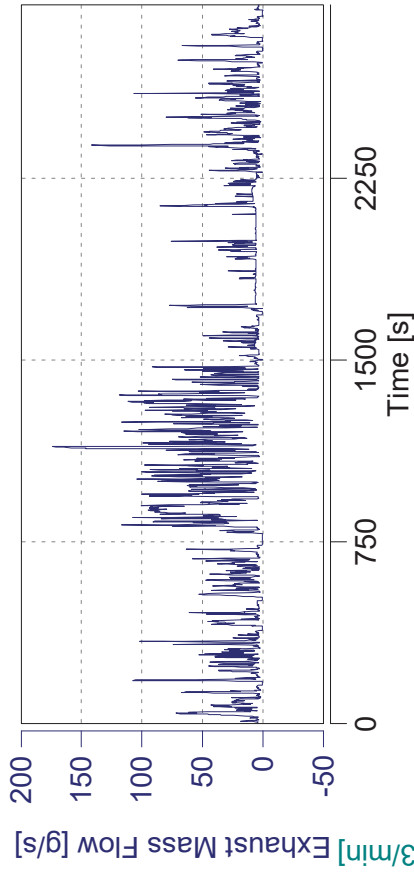
'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Exhaust Flow (2)

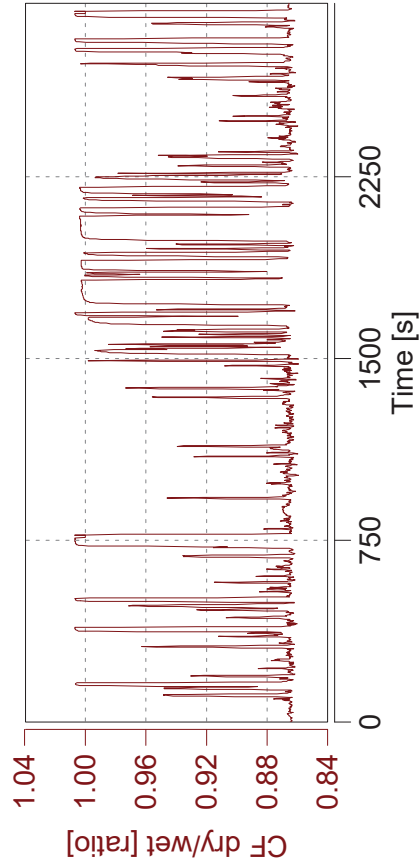
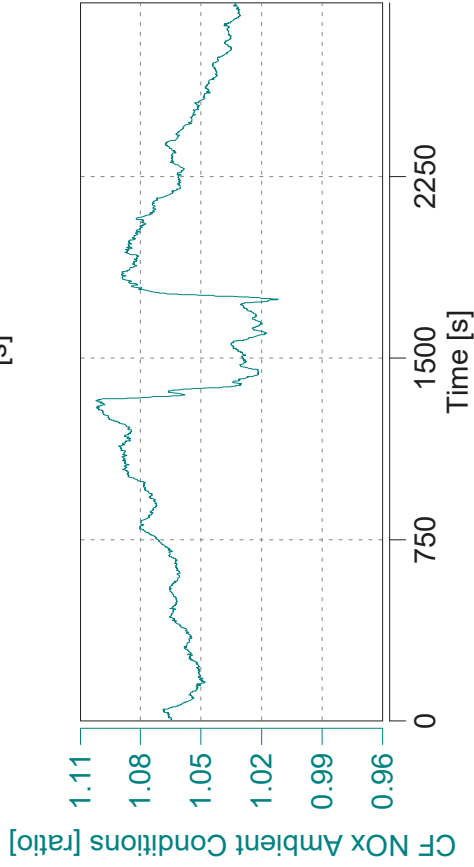
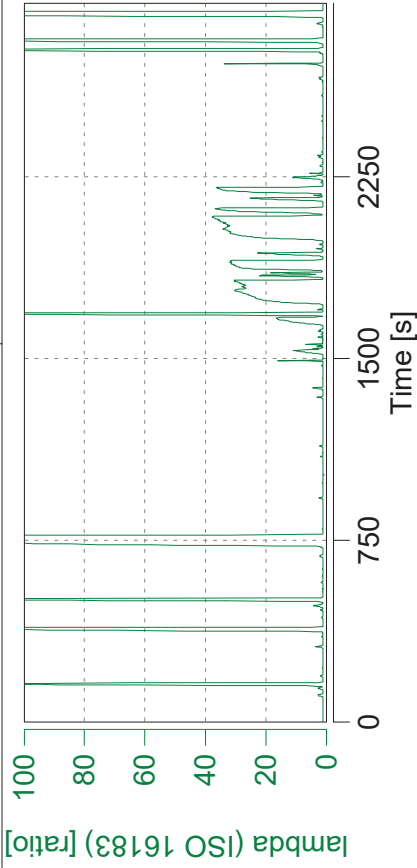
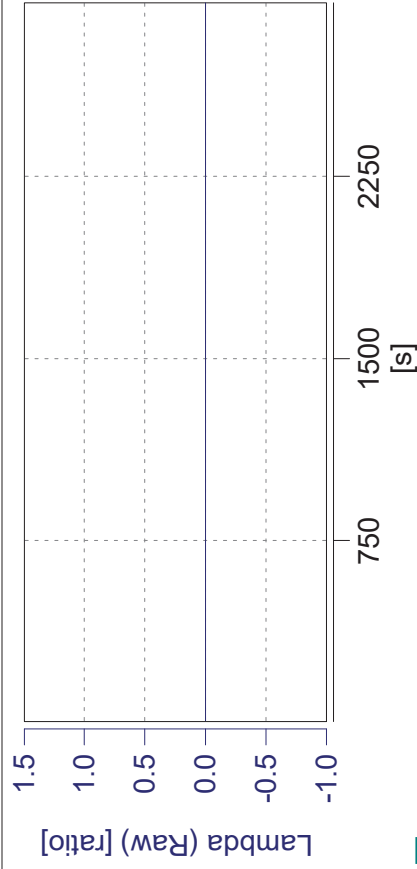
'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (1)

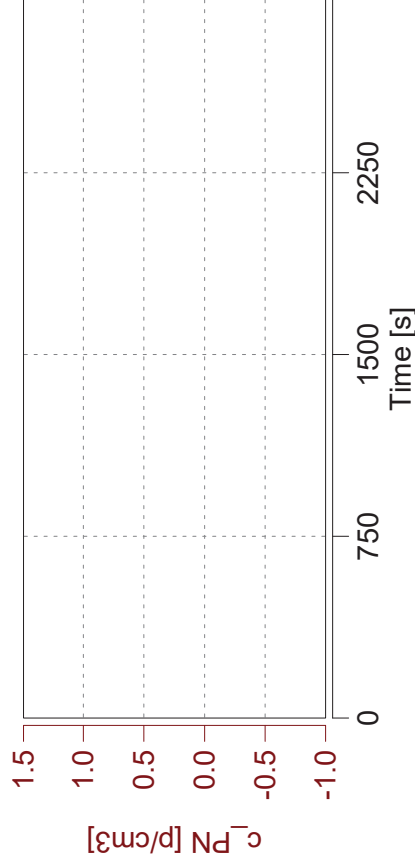
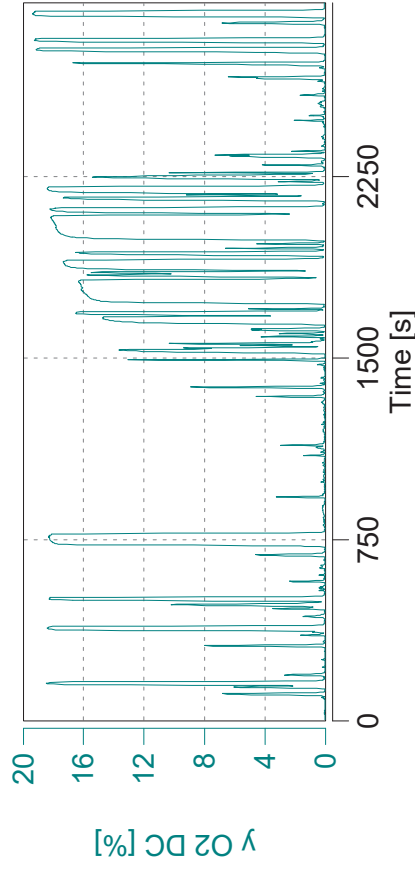
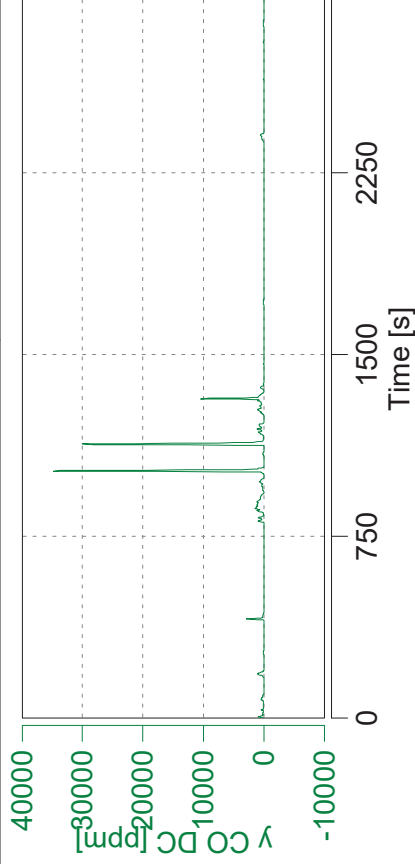
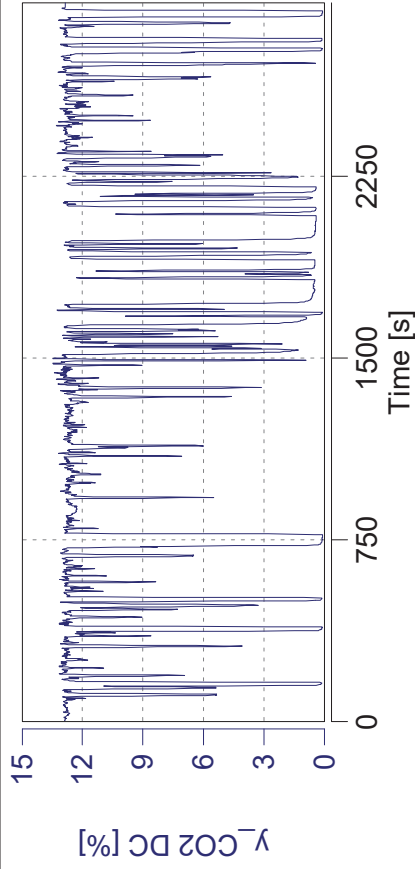
'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan SEL / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (2)

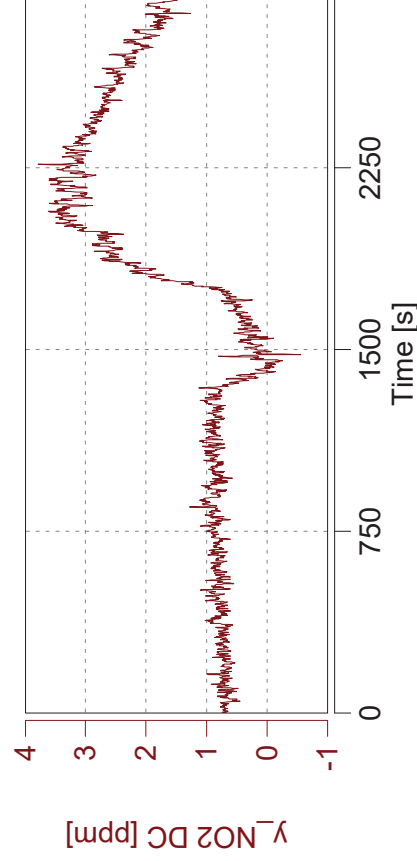
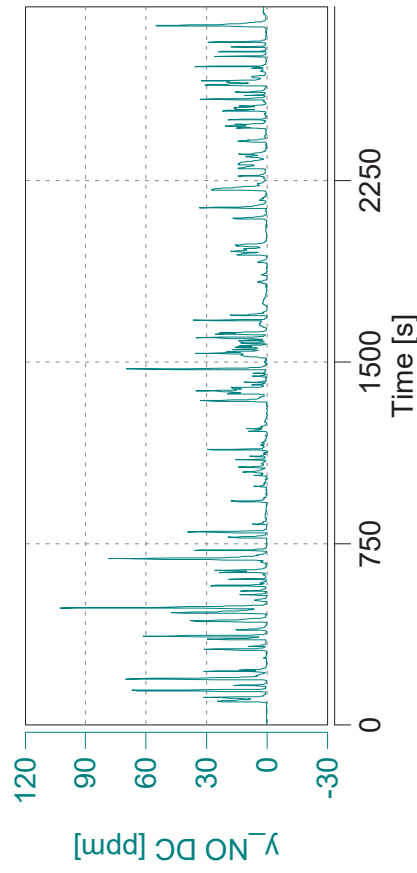
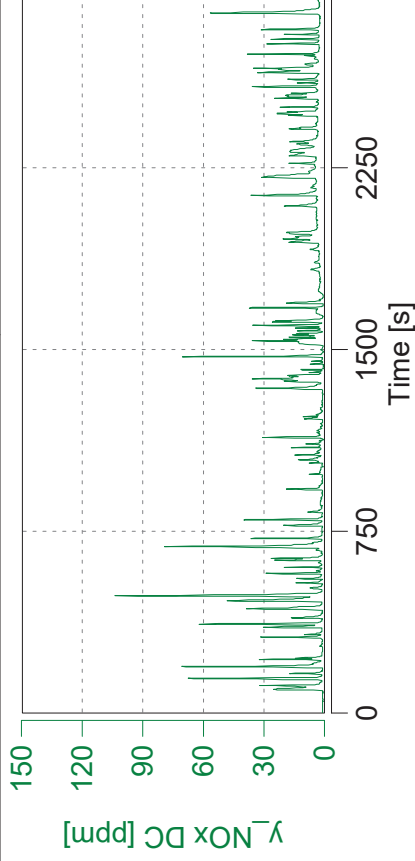
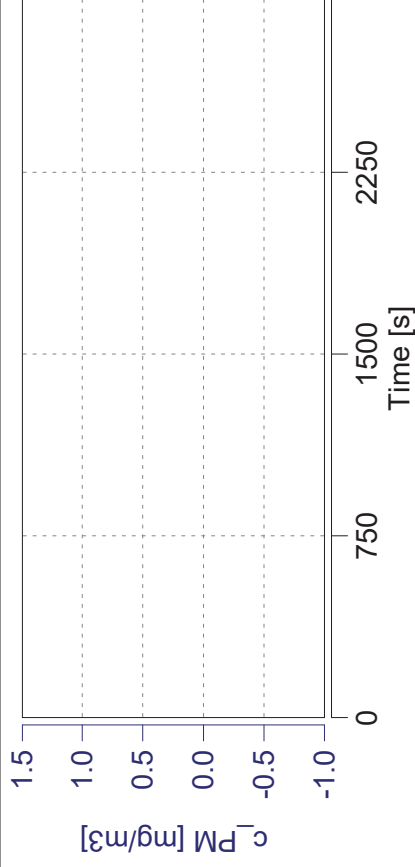
'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (3)

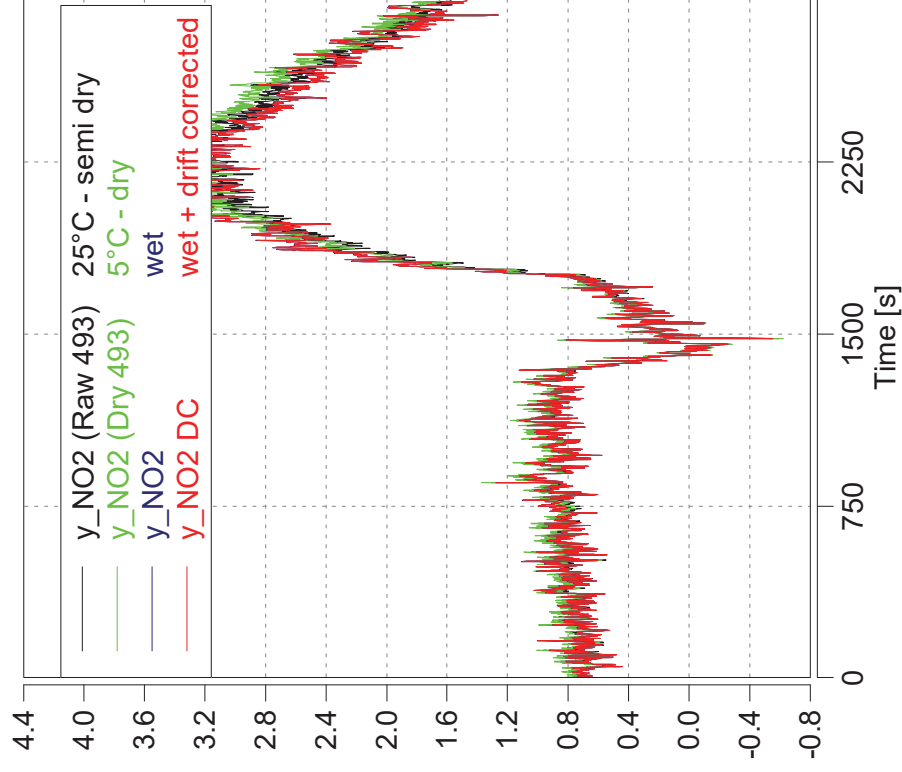
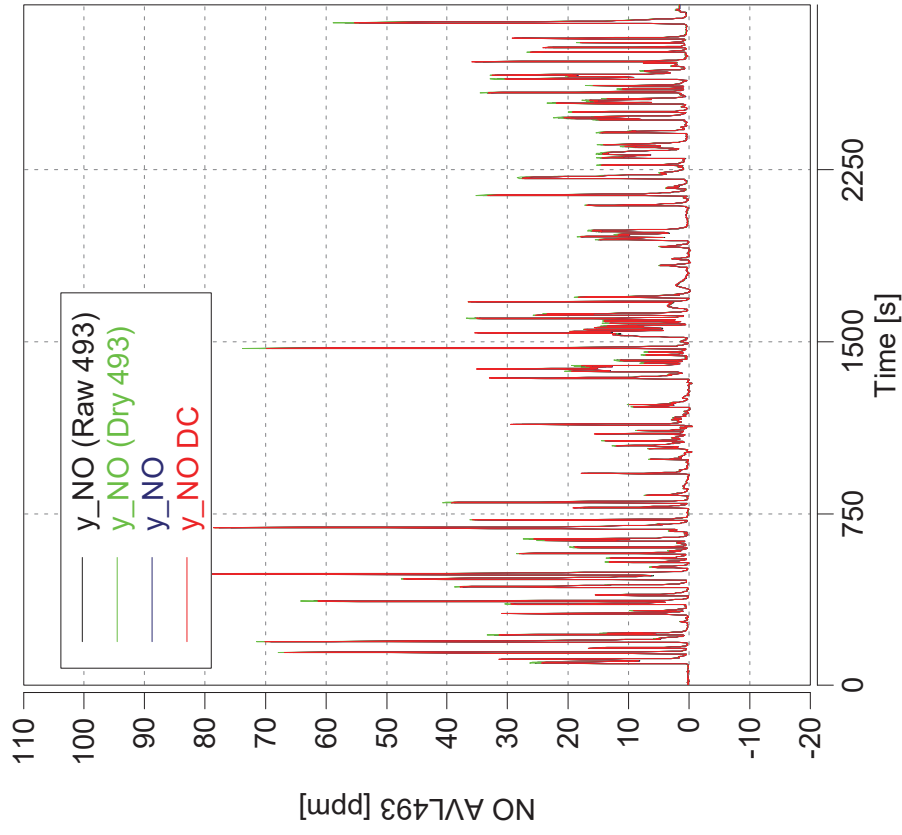
'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (4) NOx Corrections

'Mountain'

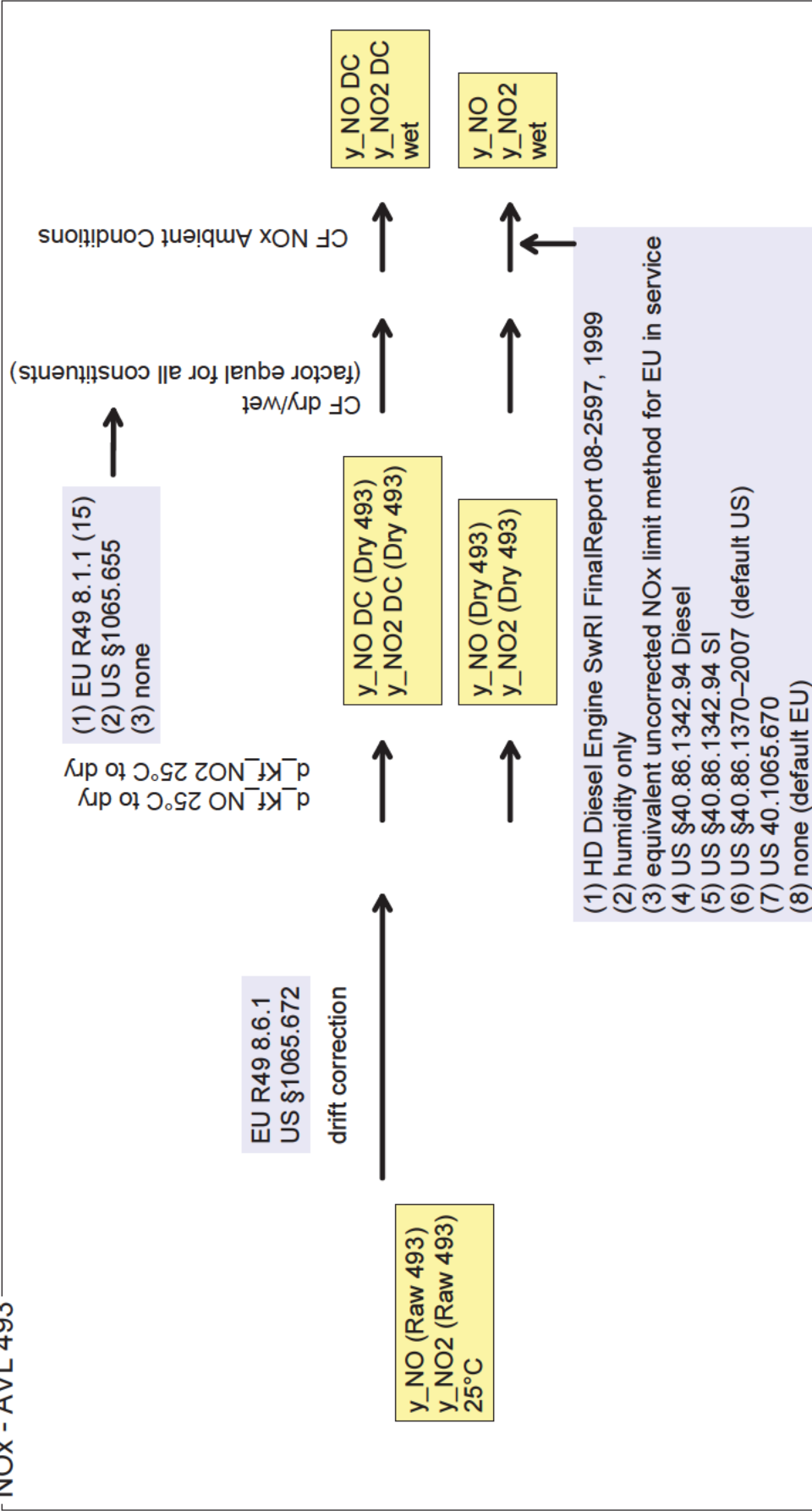
Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: / Vehicle: Tiguan SEL / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (5)

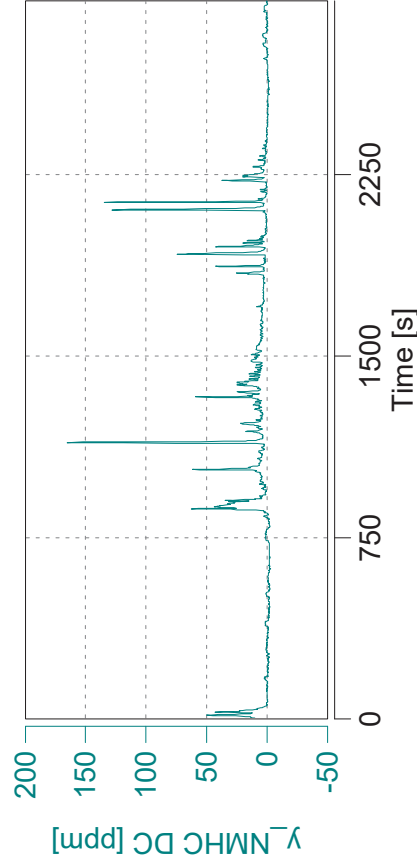
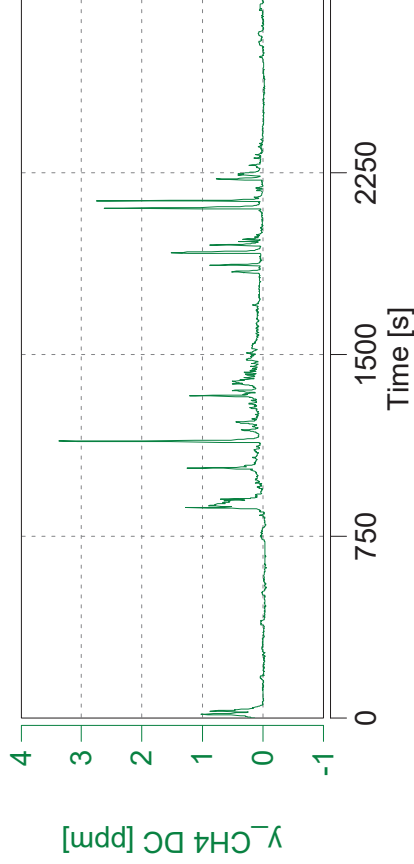
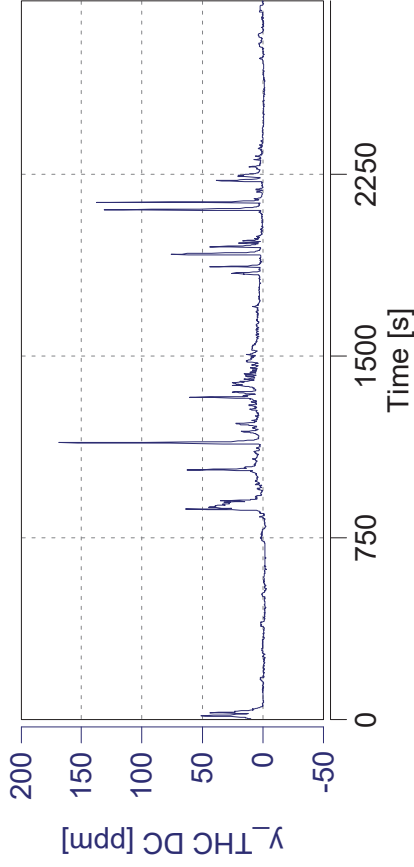
'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan SEL / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: NO/NO2/NOx Zero - Span

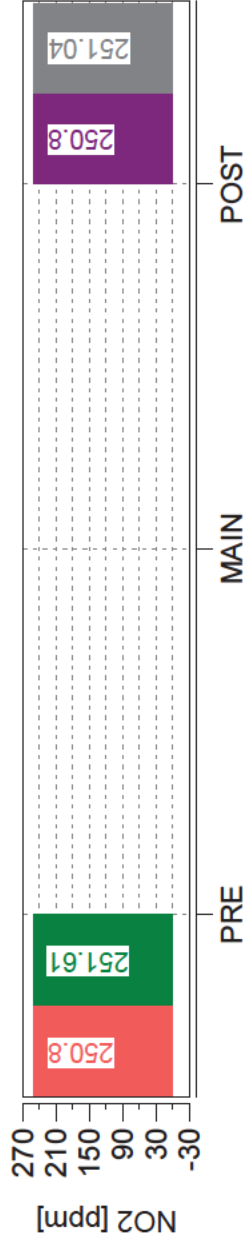
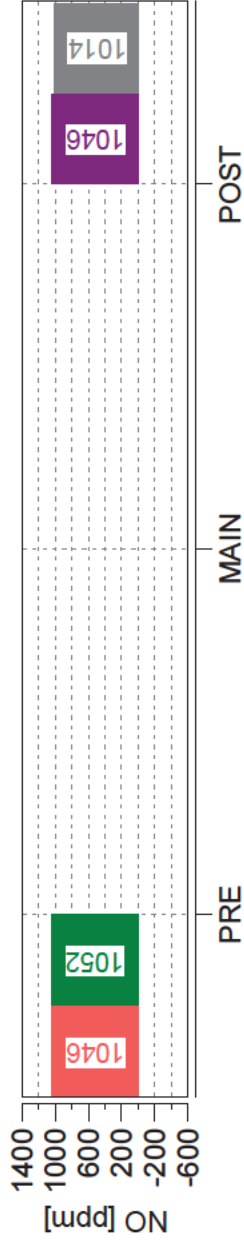
'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: CO/CO2 Zero - Span

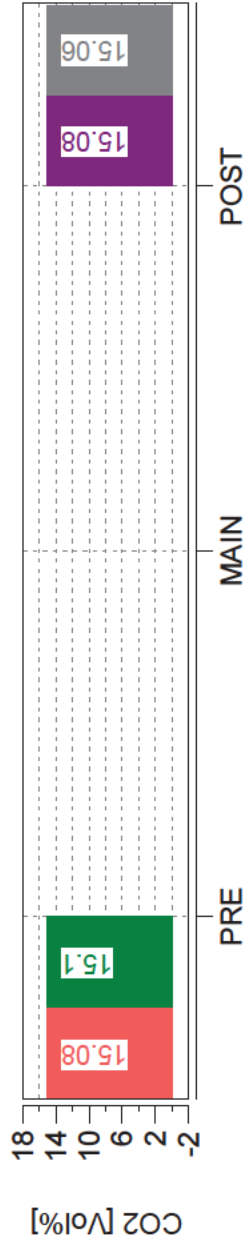
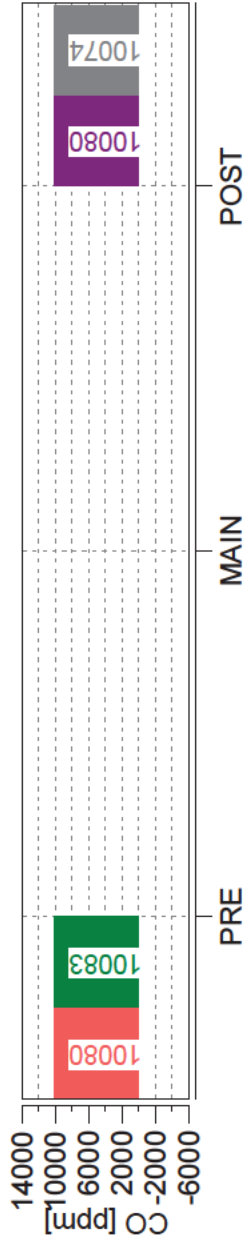
'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: THC/CH4 Zero - Span

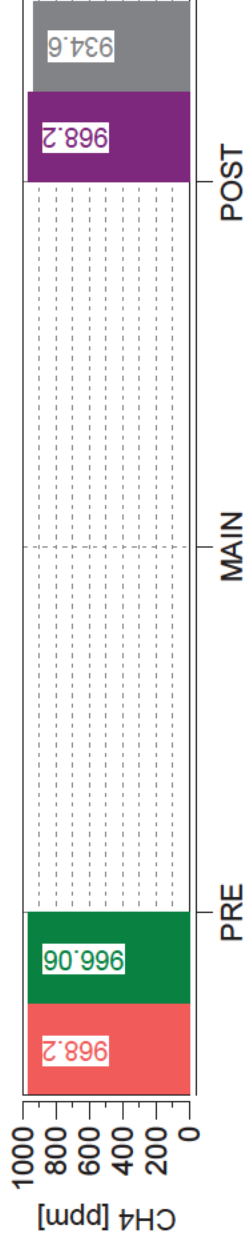
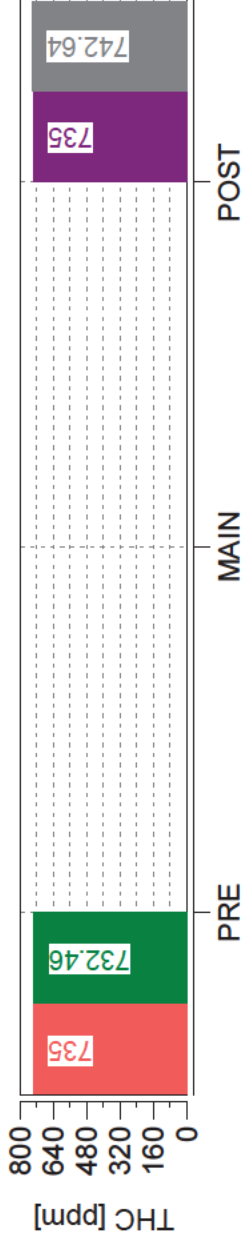
'Mountain'

Start Date: 07/26/2018

Start Time: 12:37:18.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary

'City'

Start Date: 07/26/2018

Start Time: 20:42:45.0



Concerto M.O.V.E. 2018

Trip Duration	3453.00	s	ave THC	2.52813	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3453.00	s	ave NMHC	2.47757	ppm	BS CO	n/a	g/hphr
Trip Distance	16.24	mi	ave CH4	0.05056	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	16.24	mi	ave CO	11.45876	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	10.97231	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	8.06887	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	2.20	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	2.17	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	0.78	gall	tot THC	0.05890	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	0.77	gall	tot NMHC	0.05448	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00131	g	DS CO2	407.05232	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	1.01612	g	DS CO	0.06257	g/mi
Trip Fuel Economy EU (ac)	20.86	mpg_US	tot CO2	6610.47924	g	DS THC	0.00363	g/mi
Trip Fuel Economy US (ac)	21.15	mpg_US	tot NO (d)	0.31817	g	DS NMHC	0.00335	g/mi
Trip Av. Eng. Speed	1171.99	rpm	tot NO2	0.02347	g	DS CH4	0.00008	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.34164	g	DS NO (d)	0.01959	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00145	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.02104	g/mi
Trip Exhaust Mass	36.72	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	72.32	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	79.86	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	16.93124	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	21.22792	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary Drift Corrected

'City'

Start Date: 07/26/2018

Start Time: 20:42:45.0



Concerto M.O.V.E., 2018

Trip Duration	3453.00	s	ave THC DC	2.88729	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3453.00	s	ave NMHC DC	2.82955	ppm	BS CO DC	n/a	g/hphr
Trip Distance	16.24	mi	ave CH4 DC	0.05775	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	16.24	mi	ave CO DC	11.16123	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	10.97231	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	8.12826	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	2.20	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	2.17	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	0.78	gall	tot THC DC	0.06596	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	0.77	gall	tot NMHC DC	0.06101	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00146	g	DS CO2 DC	407.05232	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	1.00545	g	DS CO DC	0.06191	g/mi
Trip Fuel Economy EU (ac)	20.86	mpg_US	tot CO2 DC	6610.47924	g	DS THC DC	0.00406	g/mi
Trip Fuel Economy US (ac)	21.15	mpg_US	tot NO DC (d)	0.31769	g	DS NMHC DC	0.00376	g/mi
Trip Av. Eng. Speed	1171.99	rpm	tot NO2 DC	0.02767	g	DS CH4 DC	0.00009	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.34536	g	DS NO DC (d)	0.01956	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00170	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.02127	g/mi
Trip Exhaust Mass	36.72	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	72.32	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	79.86	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	16.93124	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	21.22792	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment Check

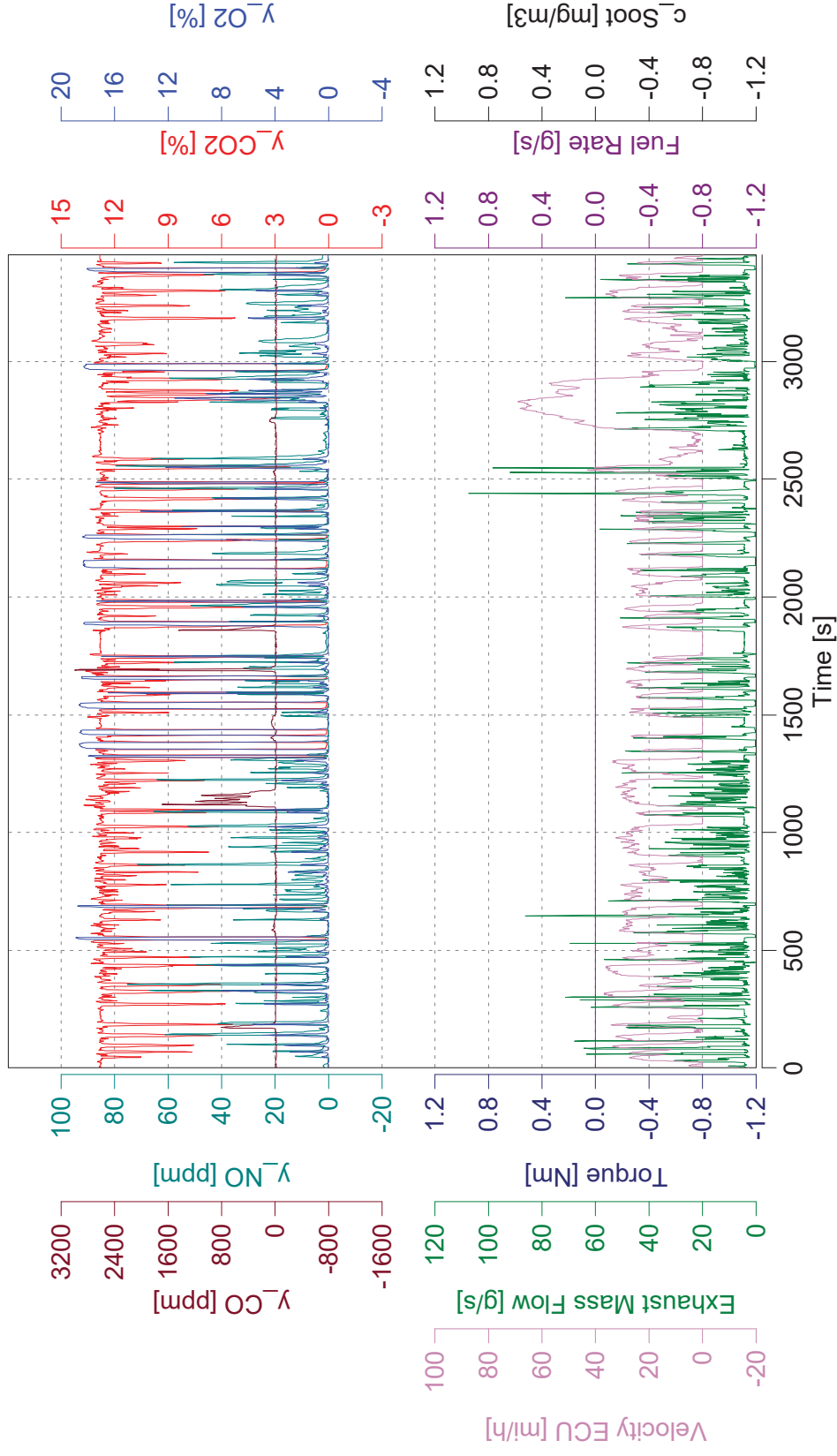
'City'

Start Date: 07/26/2018

Start Time: 20:42:45.0



Concerto M.O.V.E. 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment of Gas Concentrations

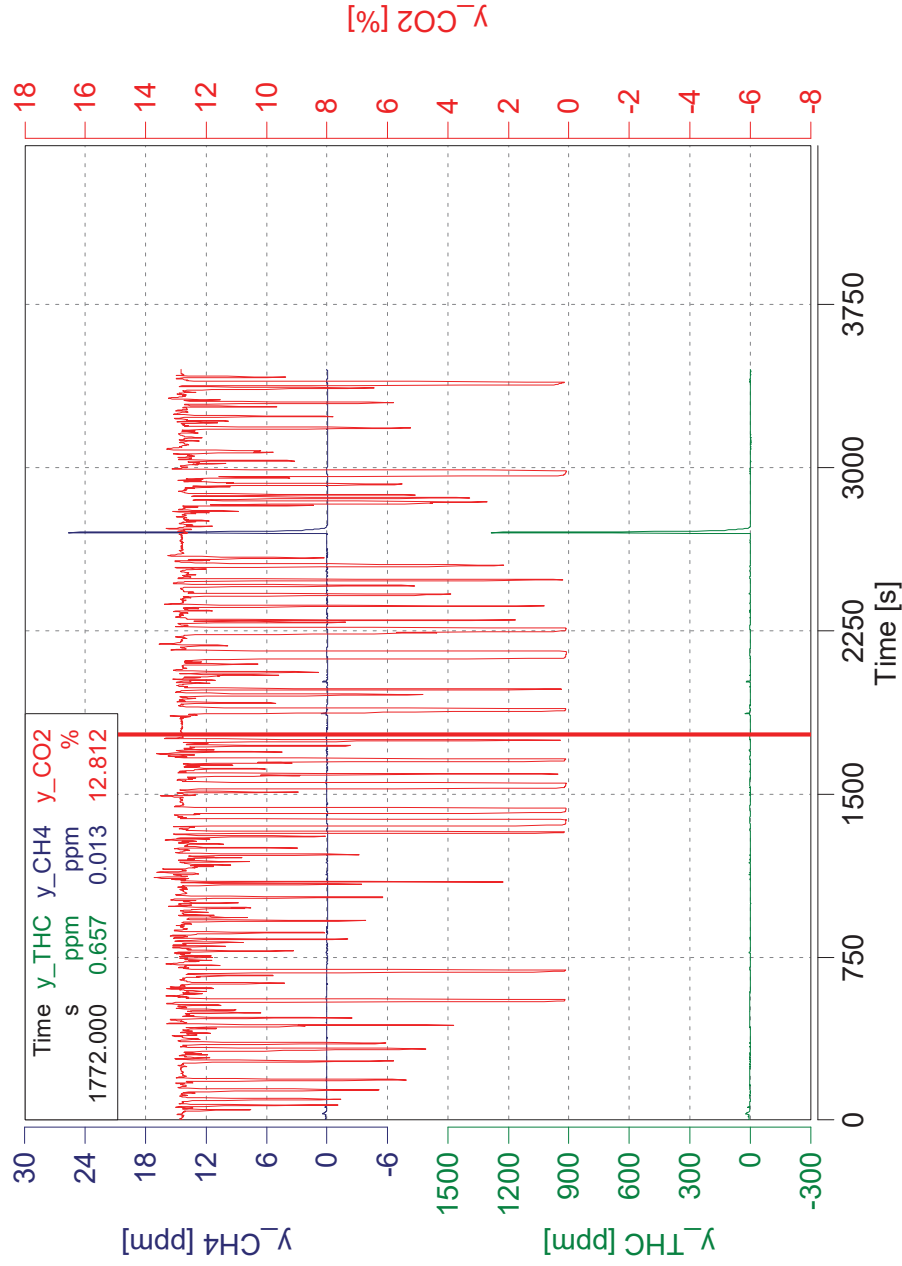
'City'

Start Date: 07/26/2018

Start Time: 20:42:45.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Ambient Conditions

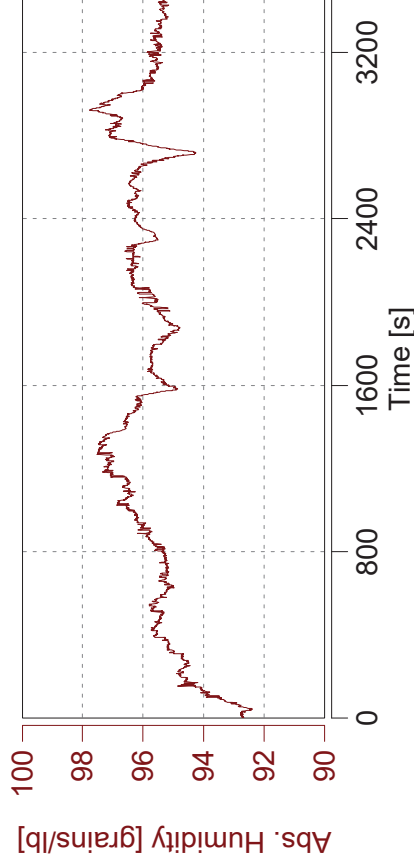
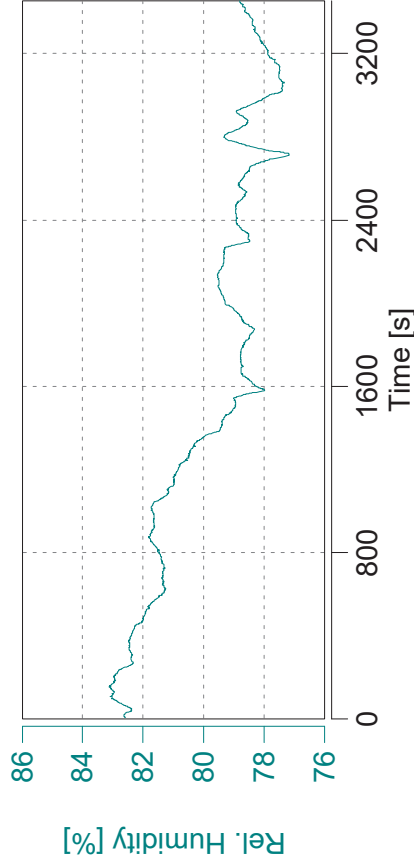
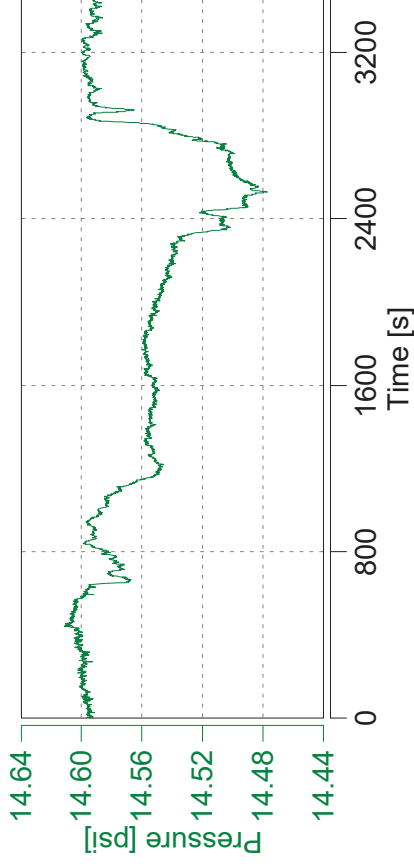
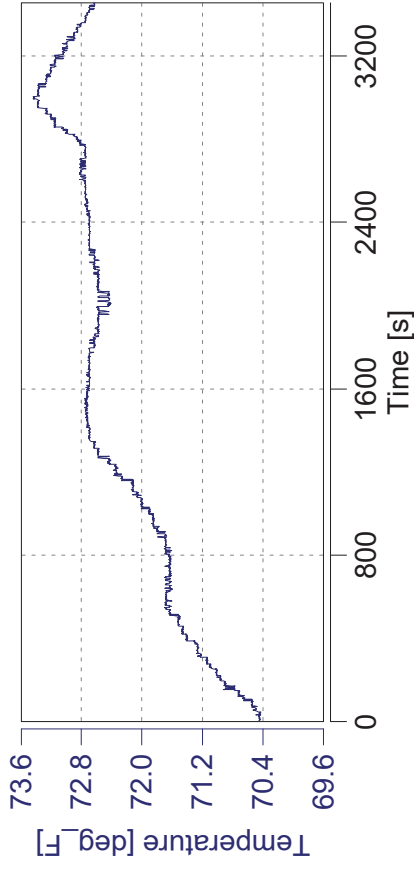
'City'

Start Date: 07/26/2018

Start Time: 20:42:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

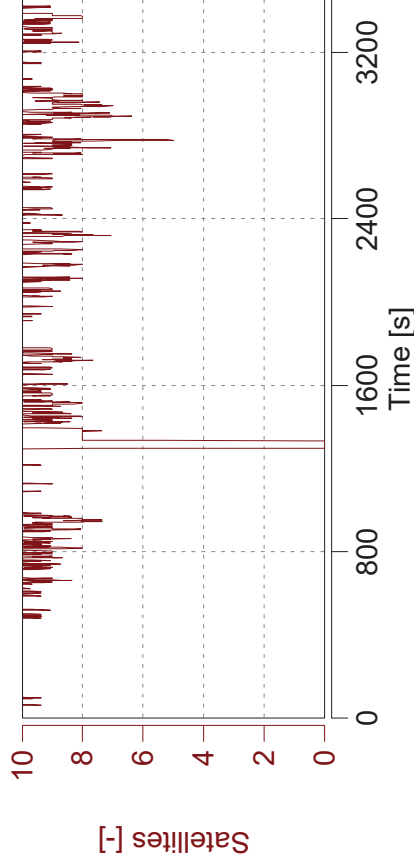
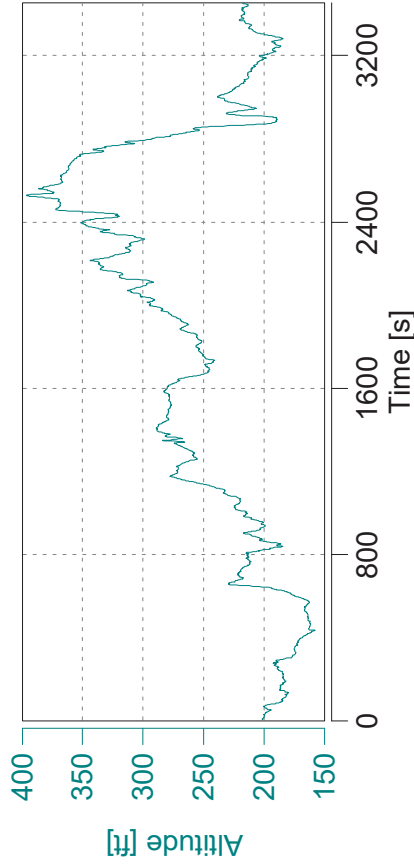
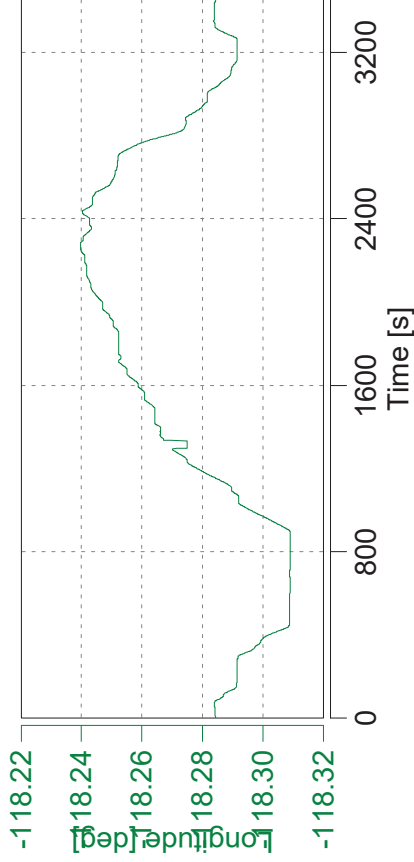
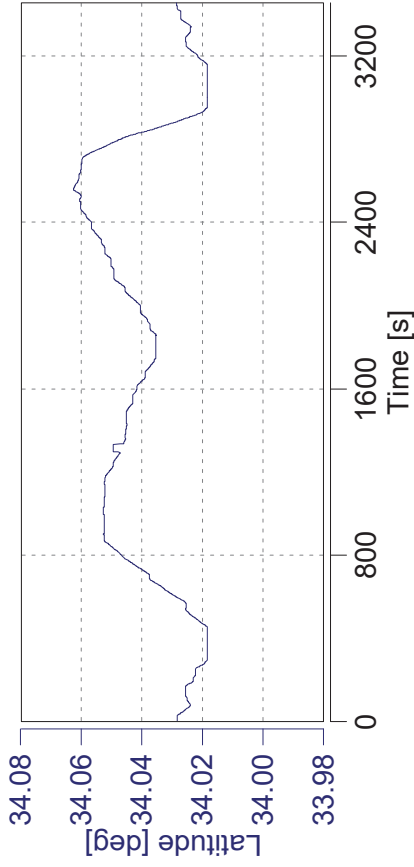
Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City
Page: GPS

'City'
Start Date: 07/26/2018
Start Time: 20:42:45.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan SEL / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (1)

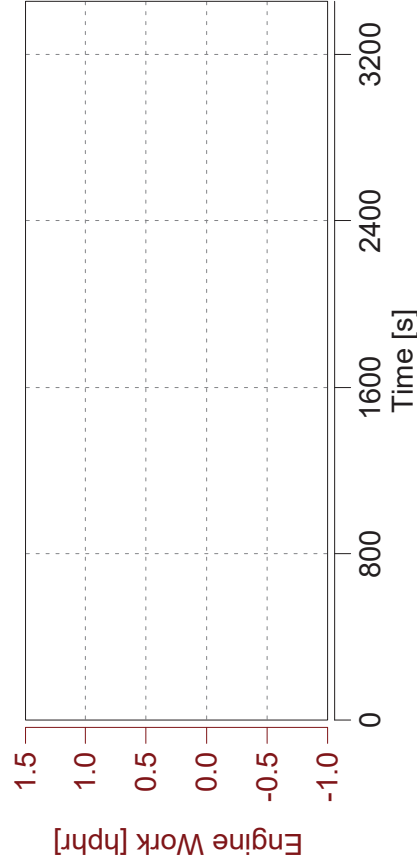
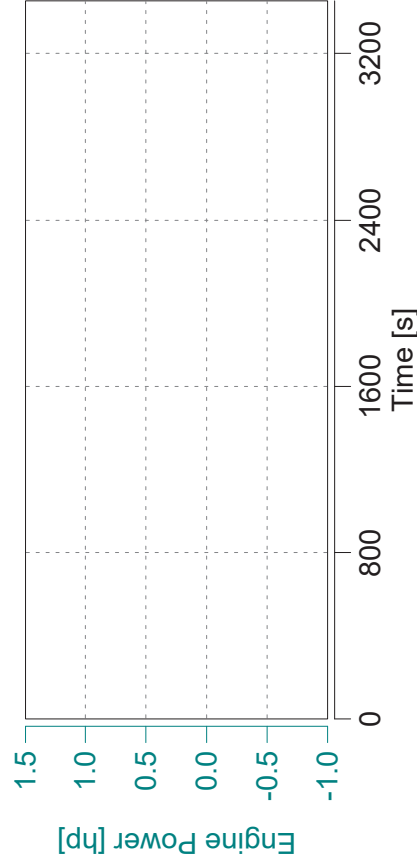
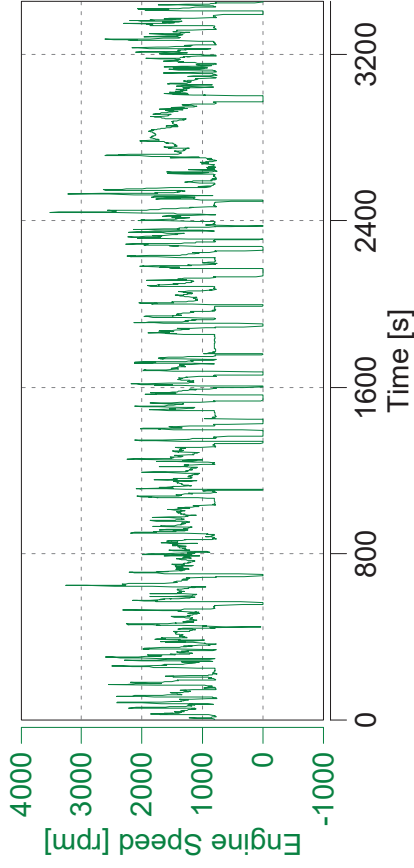
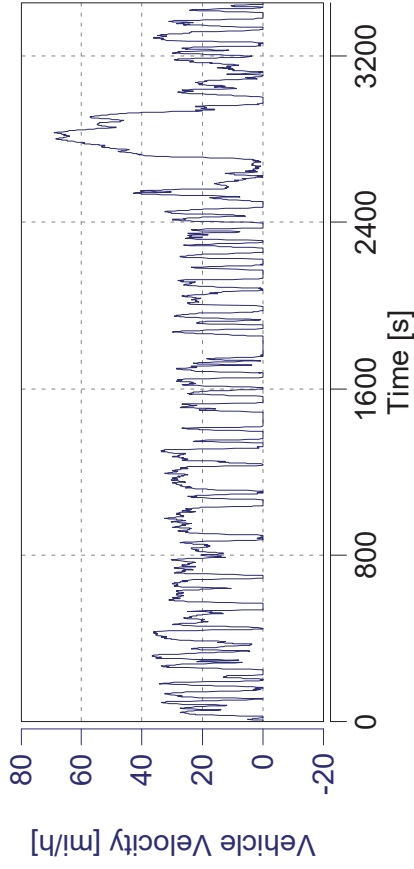
'City'

Start Date: 07/26/2018

Start Time: 20:42:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (2)

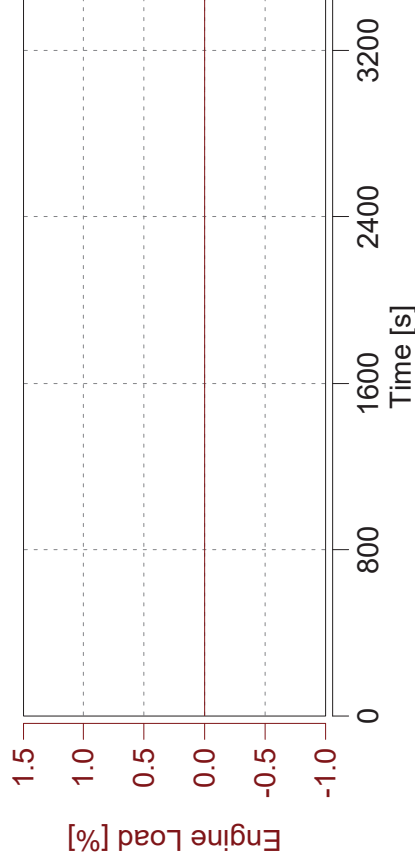
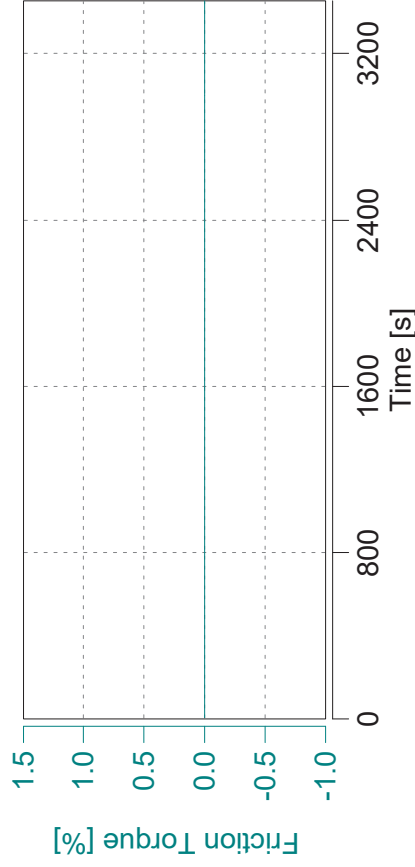
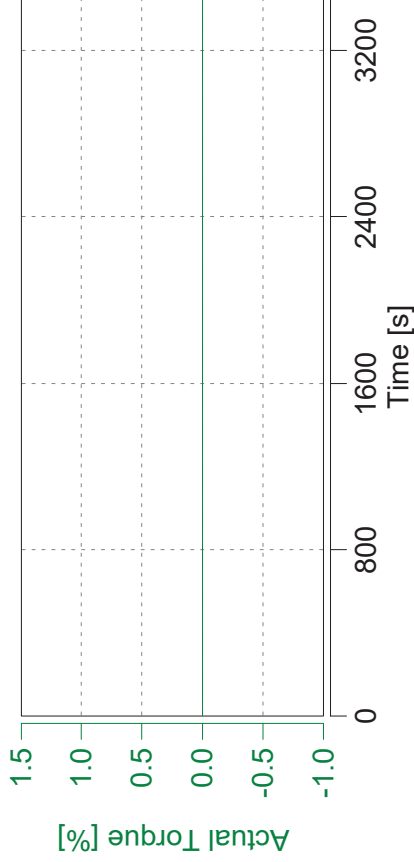
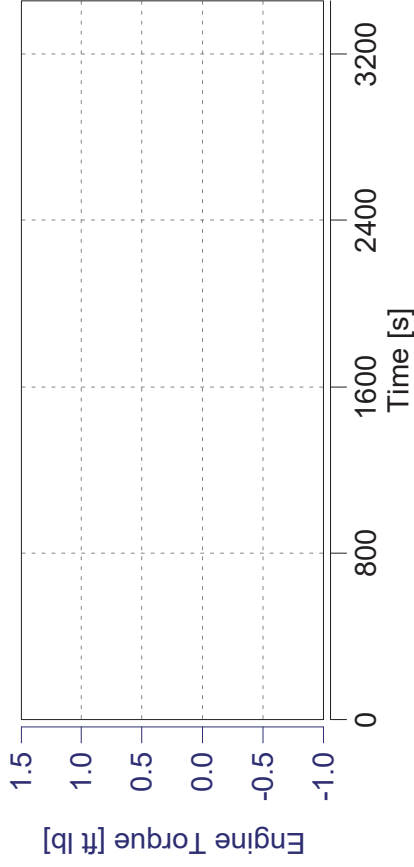
'City'

Start Date: 07/26/2018

Start Time: 20:42:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Tiguan SEL / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (3)

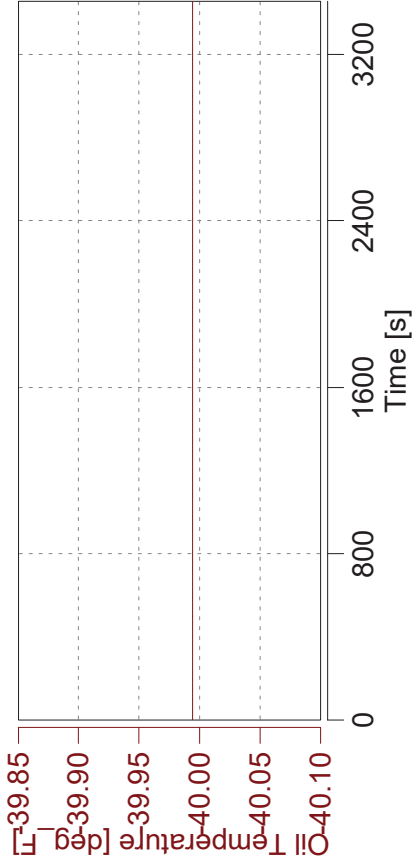
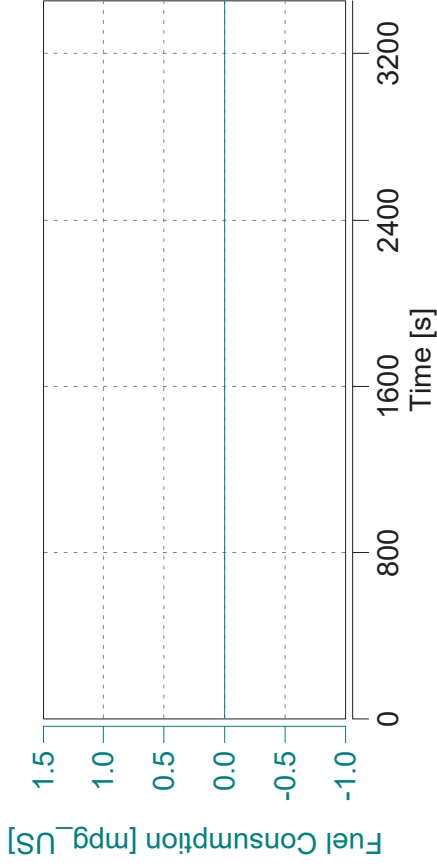
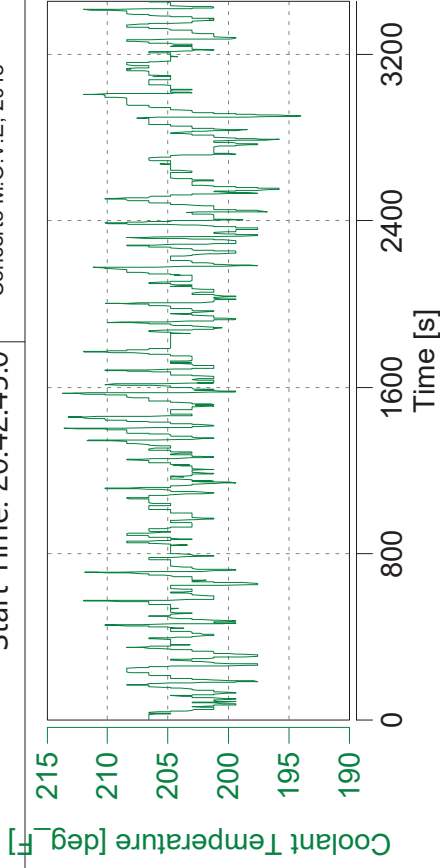
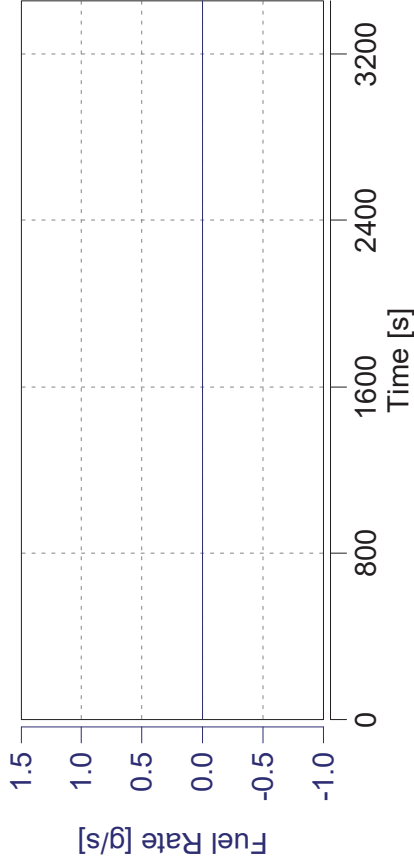
'City'

Start Date: 07/26/2018

Start Time: 20:42:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (1)

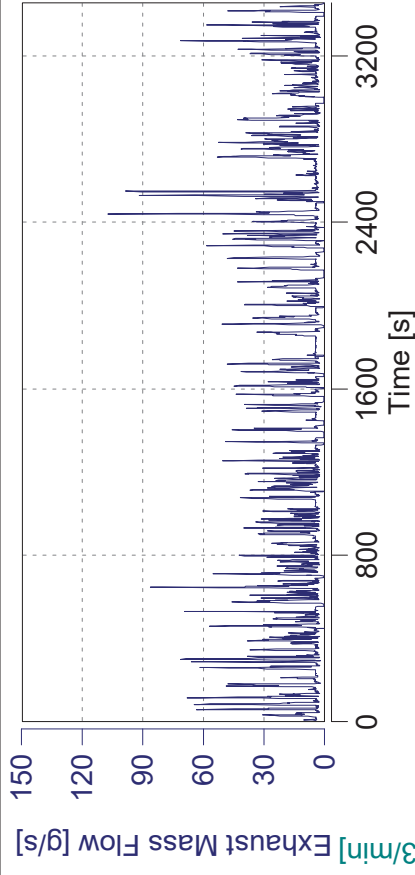
'City'

Start Date: 07/26/2018

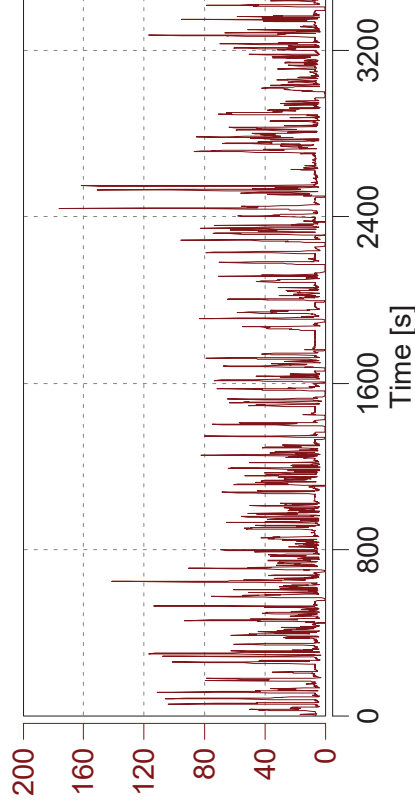
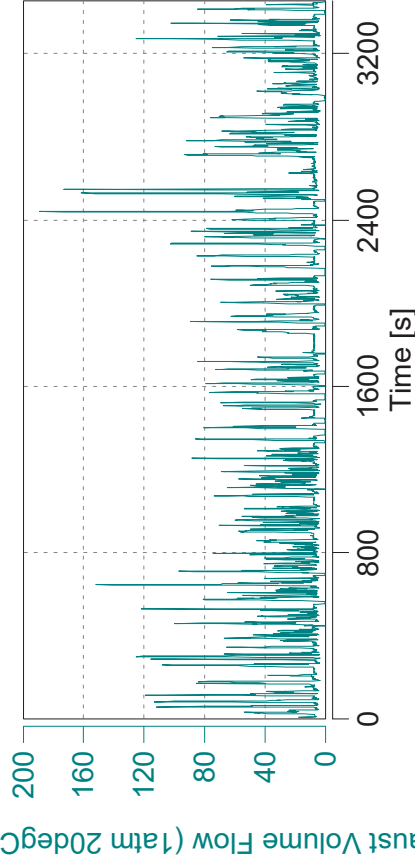
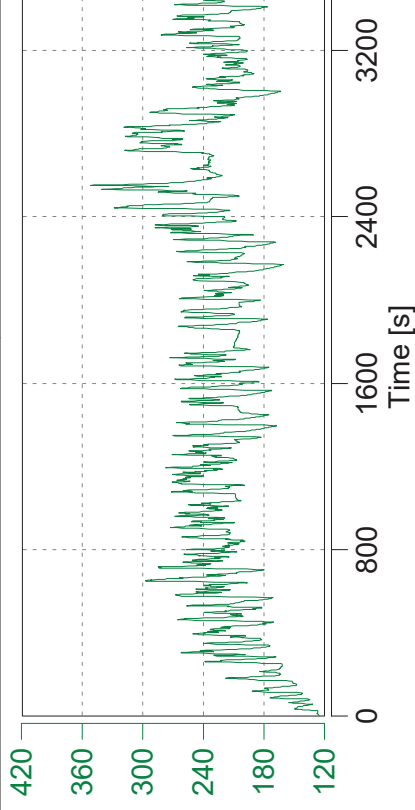
Start Time: 20:42:45.0



Concerto M.O.V.E., 2018



Exhaust Temperature [deg F]



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan SEL / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (2)

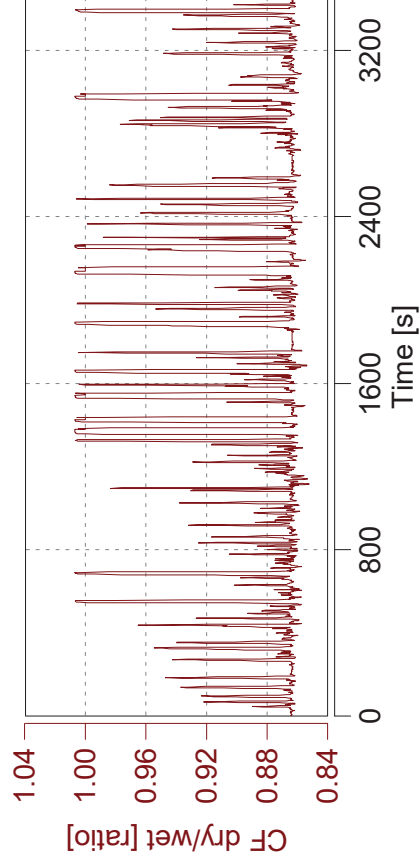
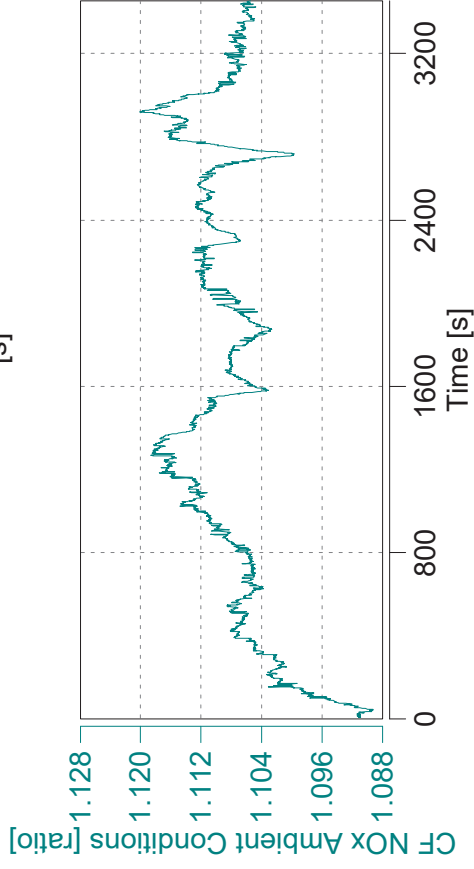
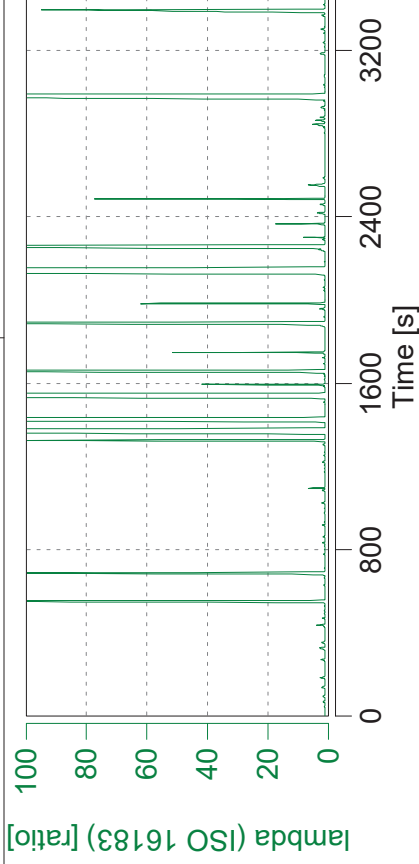
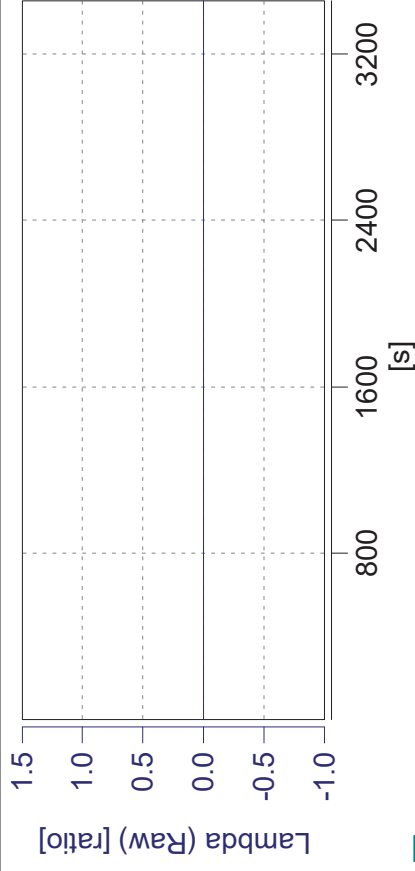
'City'

Start Date: 07/26/2018

Start Time: 20:42:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (1)

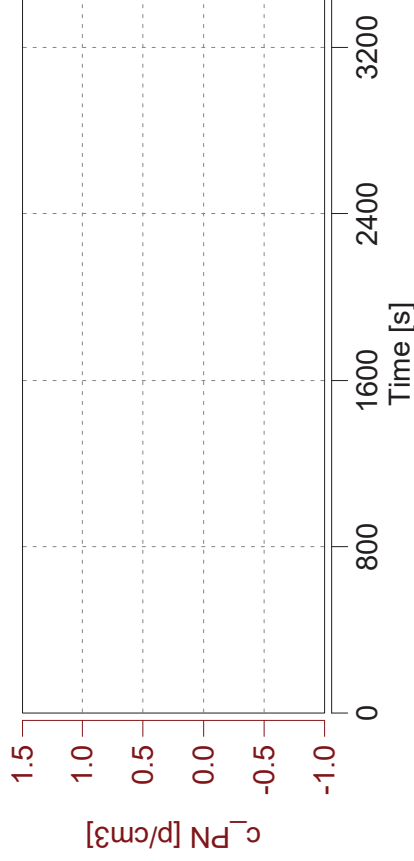
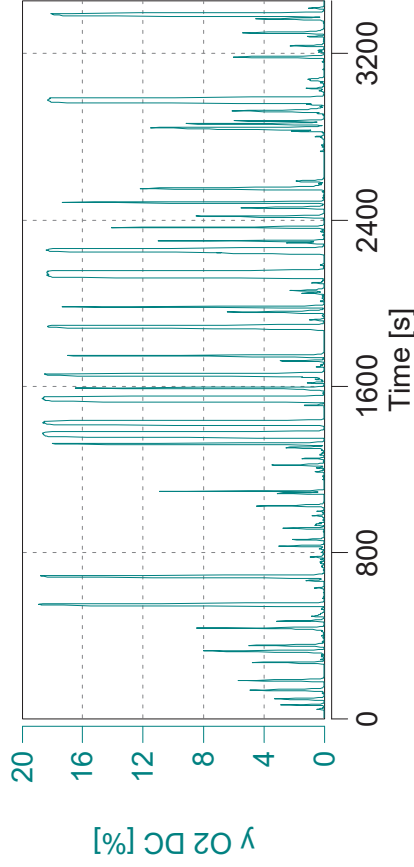
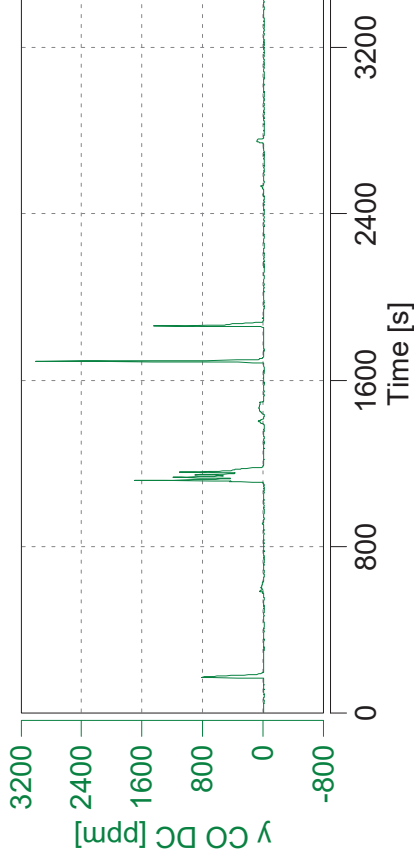
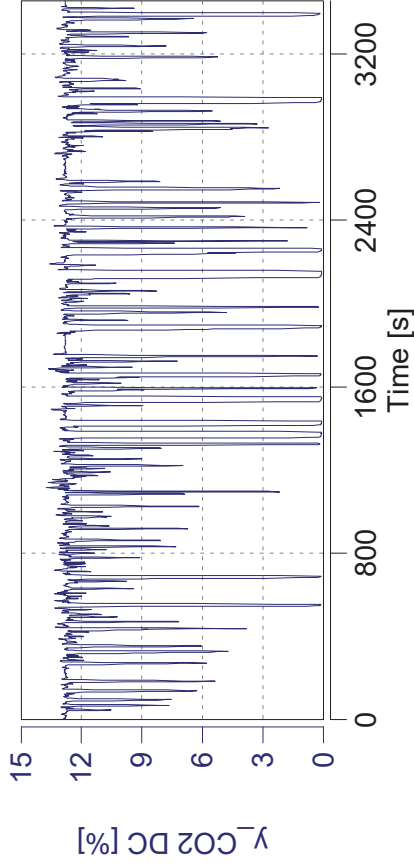
'City'

Start Date: 07/26/2018

Start Time: 20:42:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan SEL / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (2)

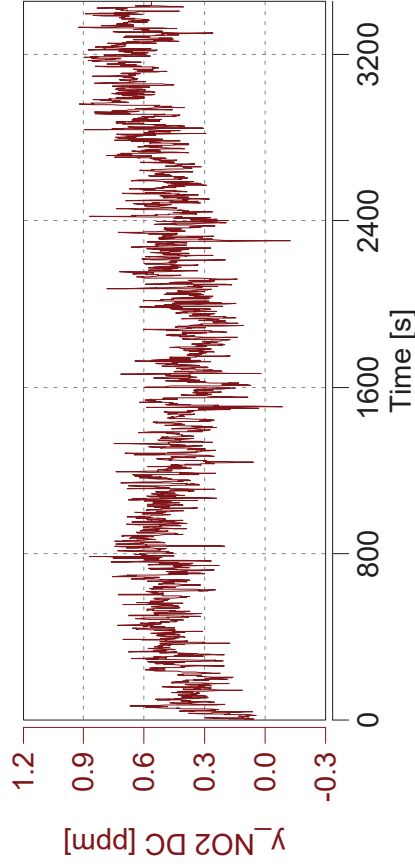
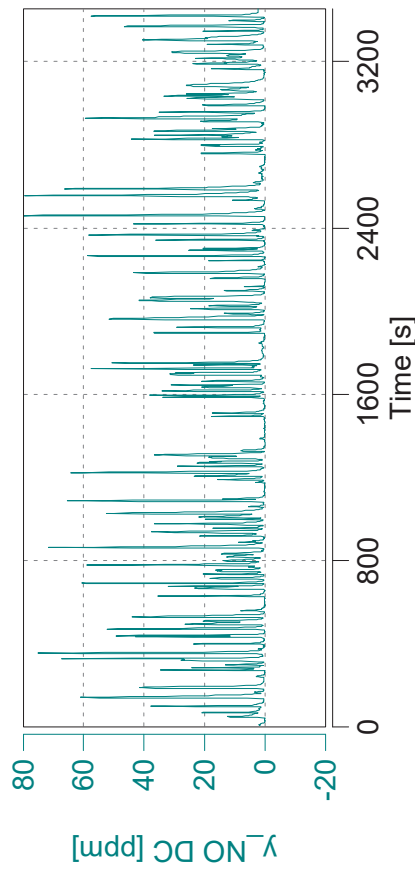
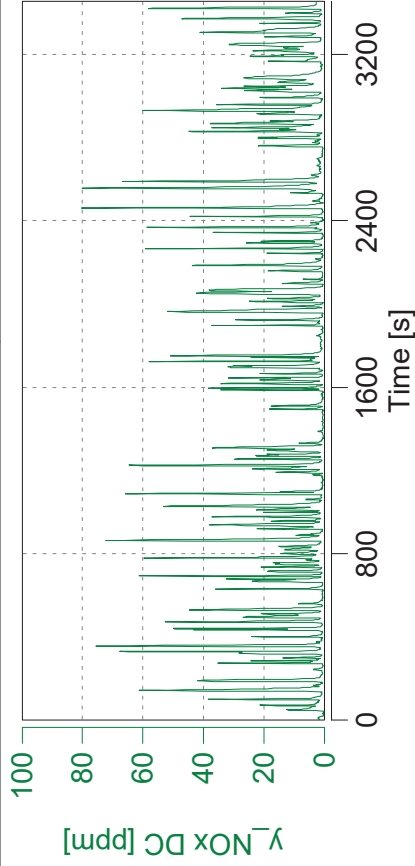
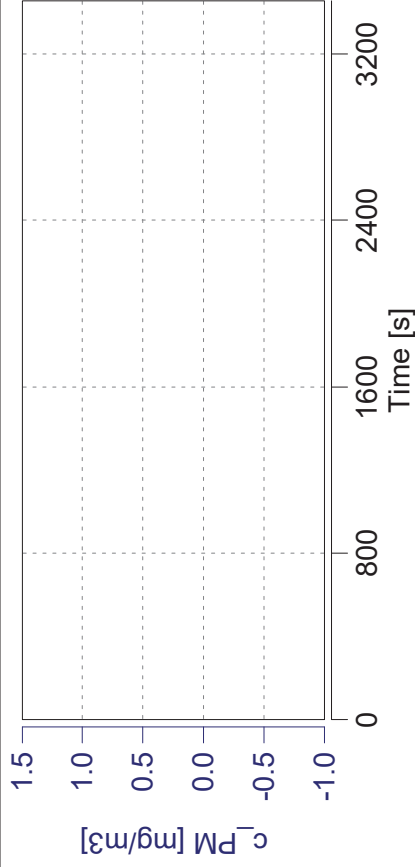
'City'

Start Date: 07/26/2018

Start Time: 20:42:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (3)

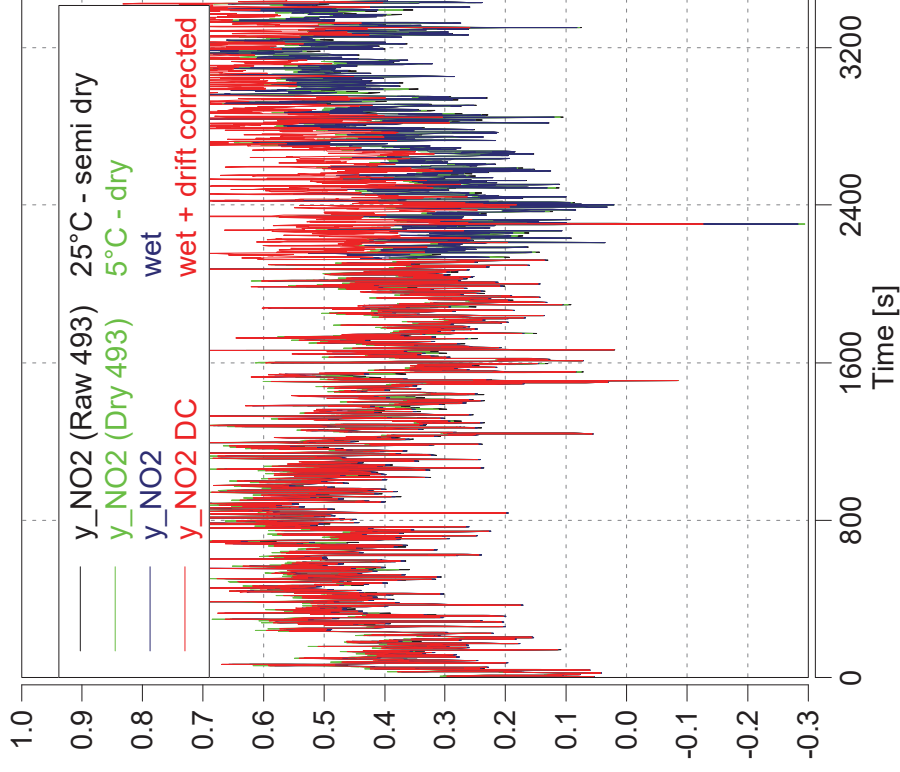
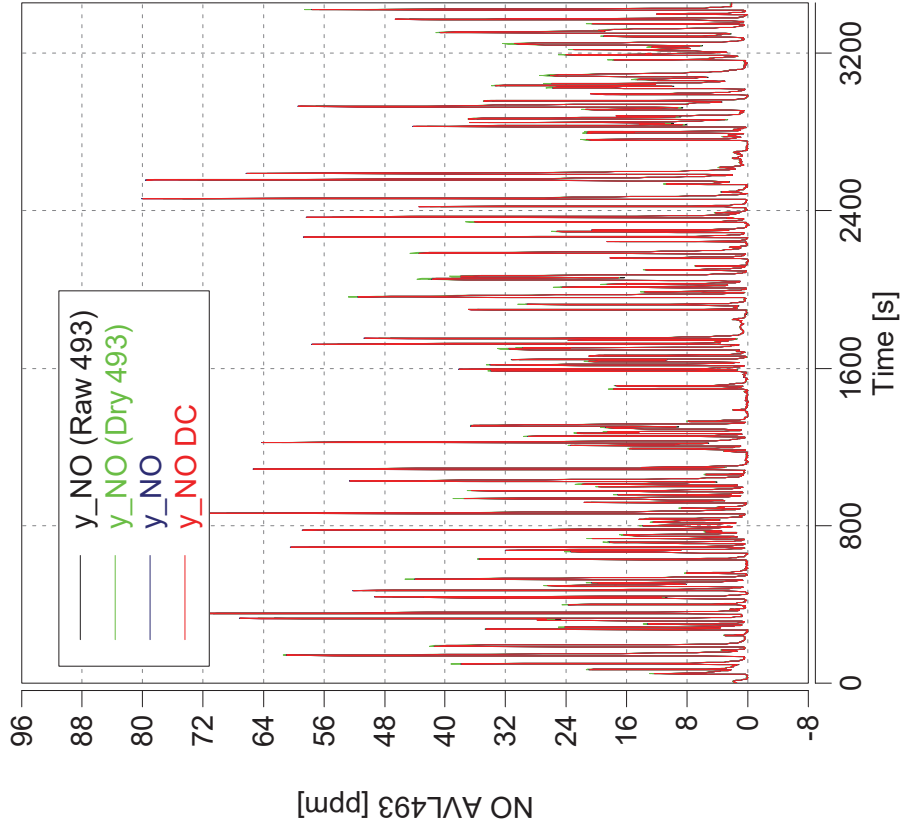
'City'

Start Date: 07/26/2018

Start Time: 20:42:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan SEL / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (4) NOx Corrections

NOx - AVL 493

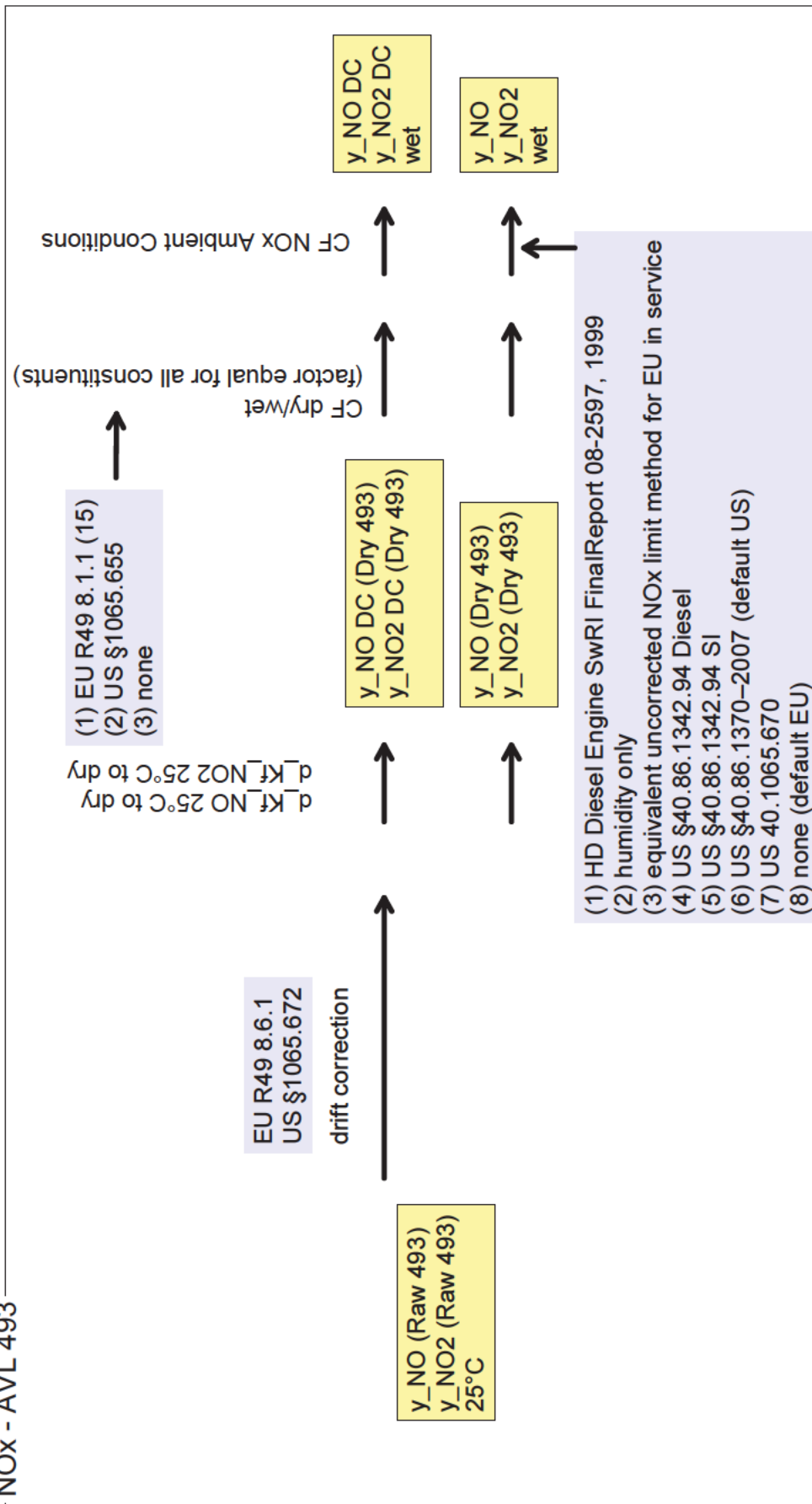
'City'

Start Date: 07/26/2018

Start Time: 20:42:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (5)

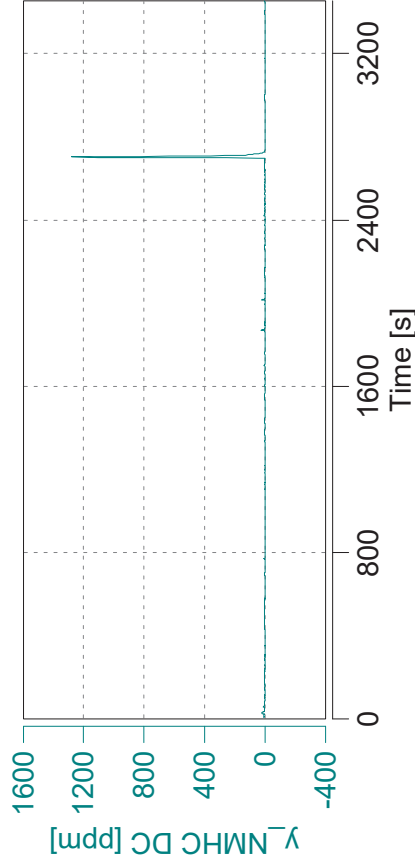
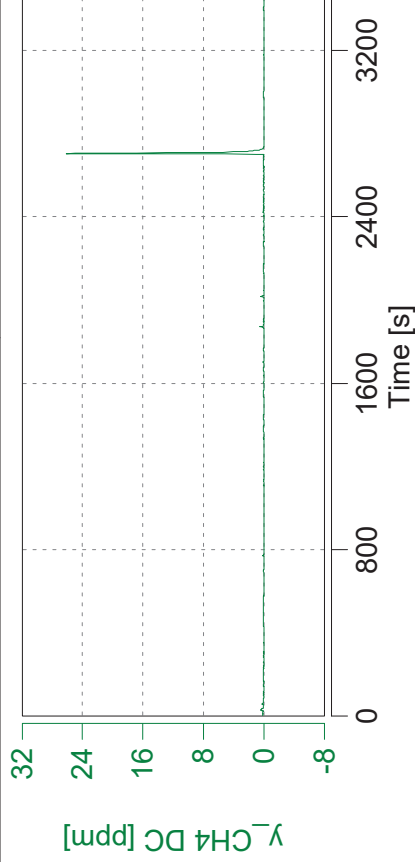
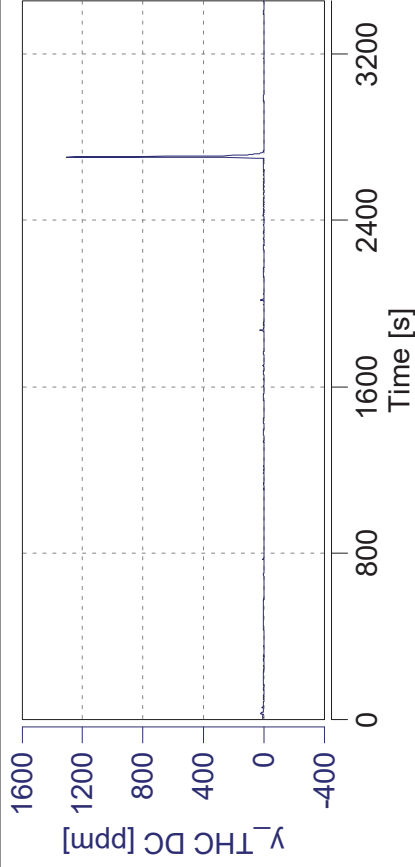
'City'

Start Date: 07/26/2018

Start Time: 20:42:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: Tiguan SEL / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: NO/NO2/NOx Zero - Span

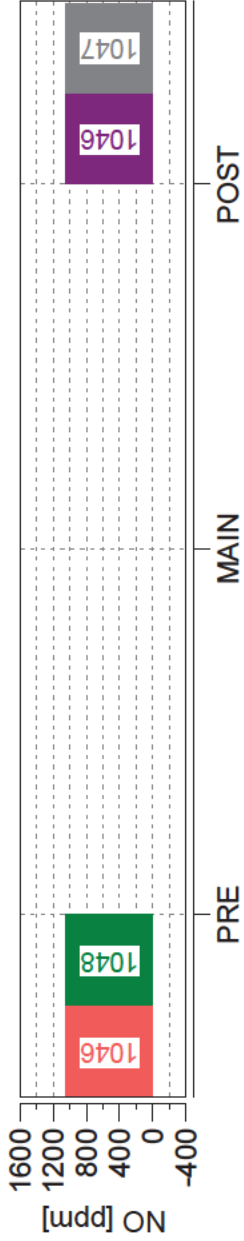
'City'

Start Date: 07/26/2018

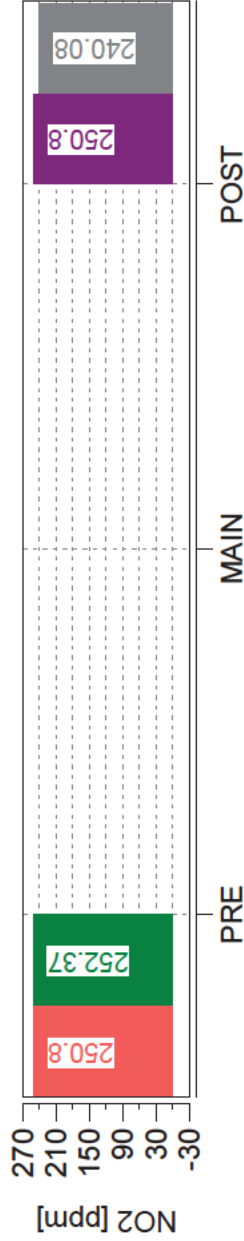
Start Time: 20:42:45.0



Concerto M.O.V.E., 2018



GP_NO_Cal_gas_value
GP_NO_Adjust_Actual
GP_NO_Reference
GP_NO_Audit_Actual



GP_NO2_Cal_gas_value
GP_NO2_Adjust_Actual
GP_NO2_Reference
GP_NO2_Audit_Actual

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: CO/CO2 Zero - Span

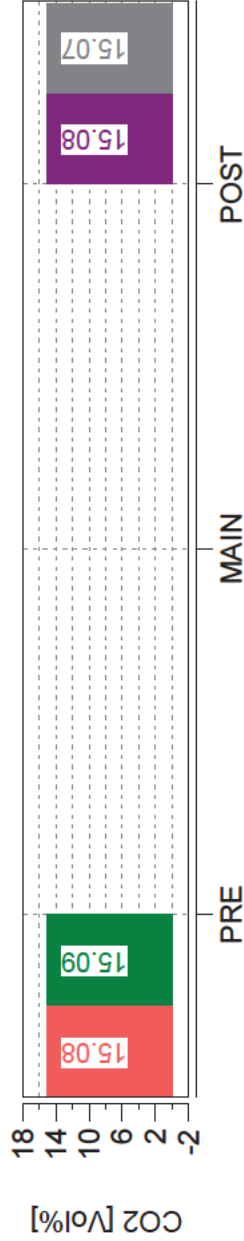
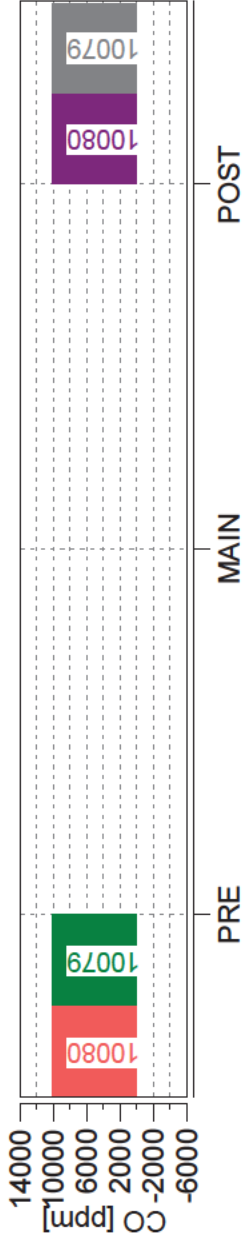
'City'

Start Date: 07/26/2018

Start Time: 20:42:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: THC/CH4 Zero - Span

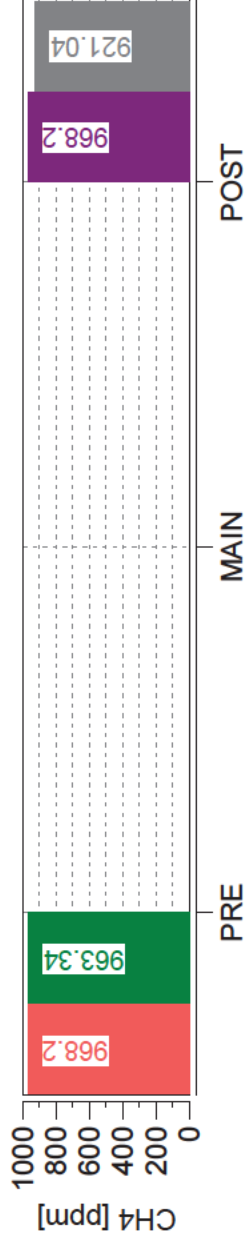
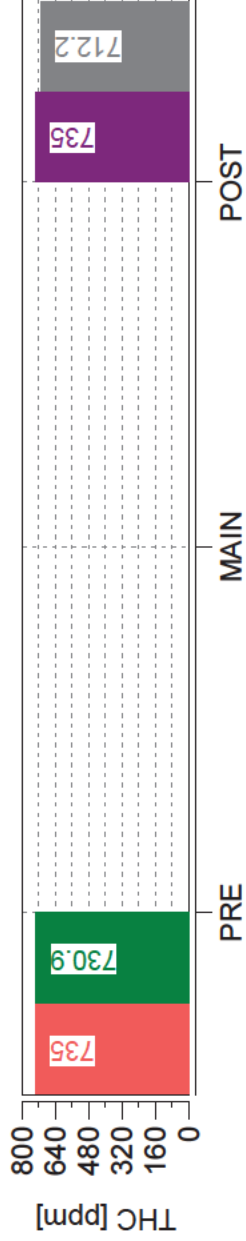
'City'

Start Date: 07/26/2018

Start Time: 20:42:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan SEL / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway
Page: Trip Summary

'Highway'
Start Date: 07/28/2018
Start Time: 11:33:17.0



Trip Duration	4731.00	s	ave THC	0.88216	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	4731.00	s	ave NMHC	0.86451	ppm	BS CO	n/a	g/hphr
Trip Distance	38.79	mi	ave CH4	0.01764	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	38.79	mi	ave CO	204.62991	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	8.11844	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx	5.65479	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.57	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.52	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.26	gall	tot THC	0.04339	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.24	gall	tot NMHC	0.04014	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00096	g	DS CO2	275.05878	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	29.71051	g	DS CO	0.76602	g/mi
Trip Fuel Economy EU (ac)	30.77	mpg_US	tot CO2	10668.28119	g	DS THC	0.00112	g/mi
Trip Fuel Economy US (ac)	31.18	mpg_US	tot NO (d)	0.32691	g	DS NMHC	0.00103	g/mi
Trip Av. Eng. Speed	1067.13	rpm	tot NO2	0.10711	g	DS CH4	0.00002	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.43401	g	DS NO (d)	0.00843	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00276	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.01119	g/mi
Trip Exhaust Mass	56.73	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	84.10	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	51.78	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	29.51335	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	3.80469	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: A3 E-Tron / 1.4L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Trip Summary Drift Corrected

'Highway'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E. 2018

Trip Duration	4731.00	s	ave THC DC	1.42914	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	4731.00	s	ave NMHC DC	1.40056	ppm	BS CO DC	n/a	g/hphr
Trip Distance	38.79	mi	ave CH4 DC	0.02858	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	38.79	mi	ave CO DC	203.98229	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	8.11575	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	5.60031	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.57	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.52	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.26	gall	tot THC DC	0.06492	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.24	gall	tot NMHC DC	0.06006	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00144	g	DS CO2 DC	274.96761	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	29.66732	g	DS CO DC	0.76491	g/mi
Trip Fuel Economy EU (ac)	30.77	mpg_US	tot CO2 DC	10664.74513	g	DS THC DC	0.00167	g/mi
Trip Fuel Economy US (ac)	31.18	mpg_US	tot NO DC (d)	0.32228	g	DS NMHC DC	0.00155	g/mi
Trip Av. Eng. Speed	1067.13	rpm	tot NO2 DC	0.10526	g	DS CH4 DC	0.00004	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.42754	g	DS NO DC (d)	0.00831	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00271	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.01102	g/mi
Trip Exhaust Mass	56.73	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	84.10	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	51.78	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	29.51335	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	3.80469	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment Check

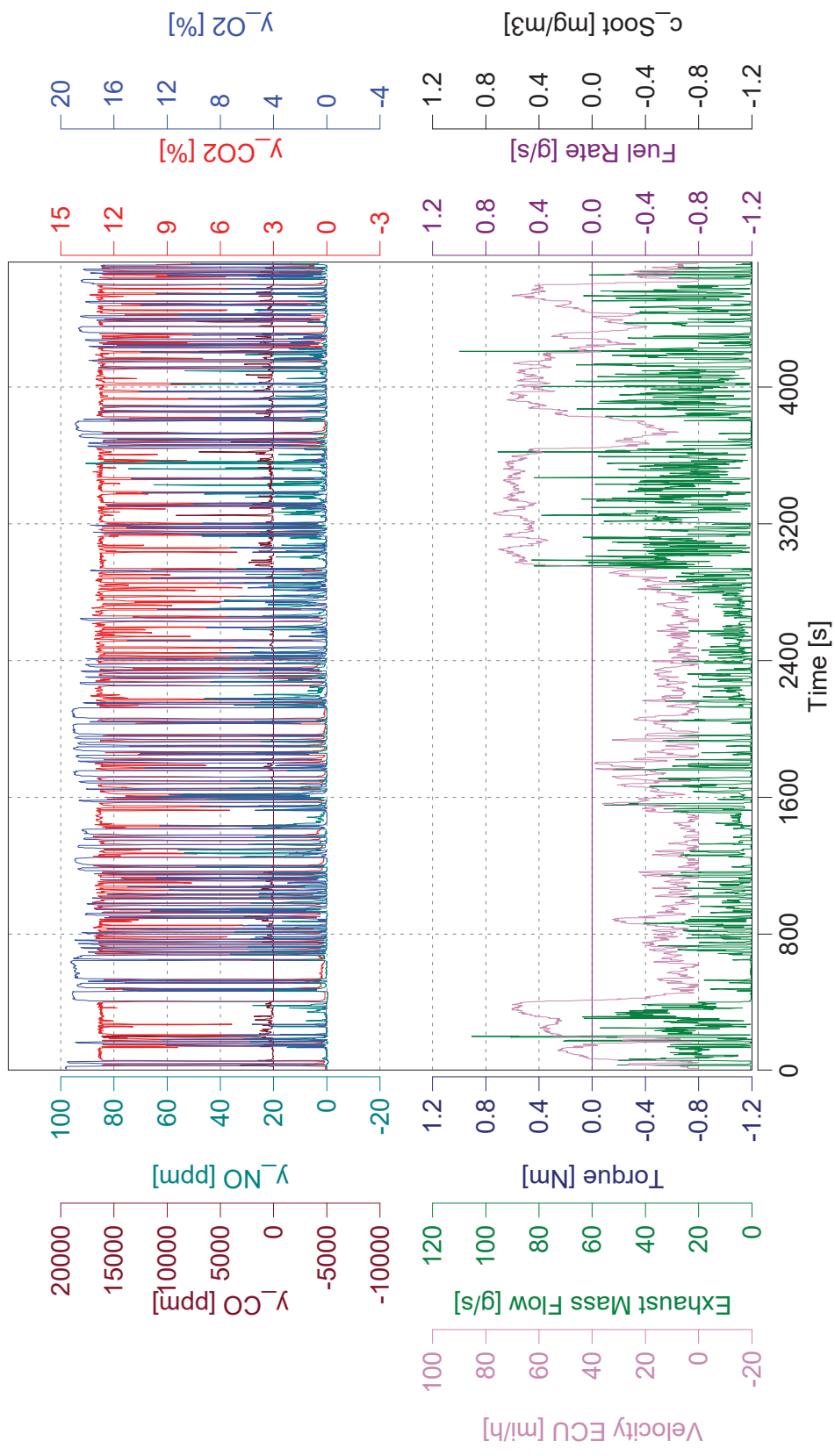
'Highway'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment of Gas Concentrations

'Highway'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

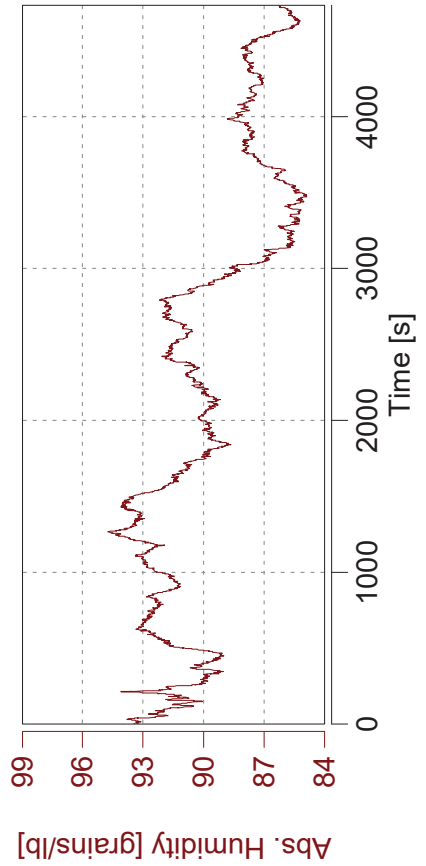
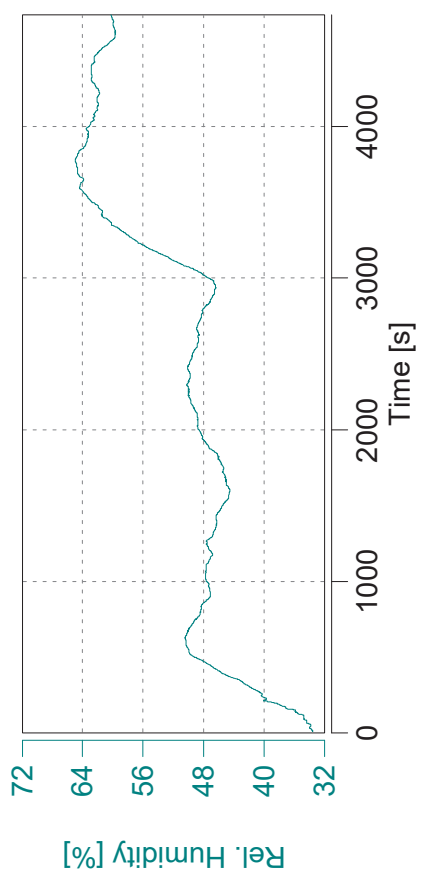
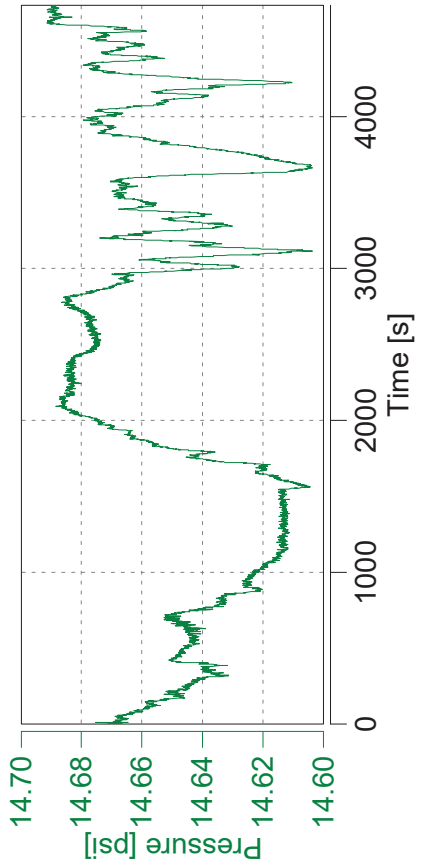
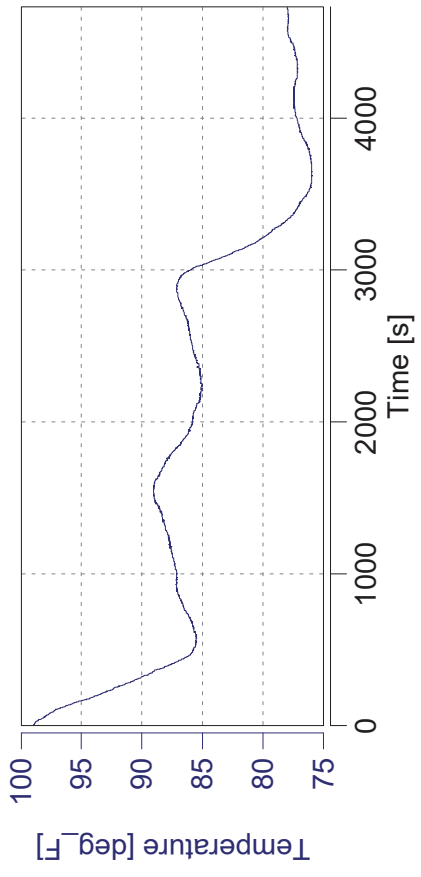
Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90



Case: Highway

Page: GPS

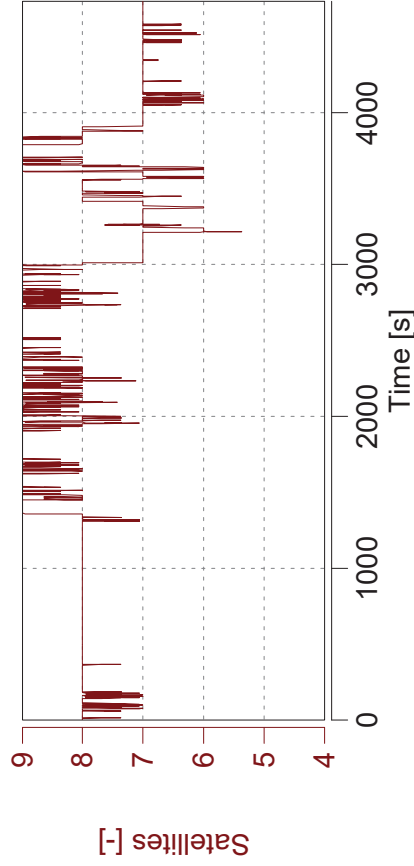
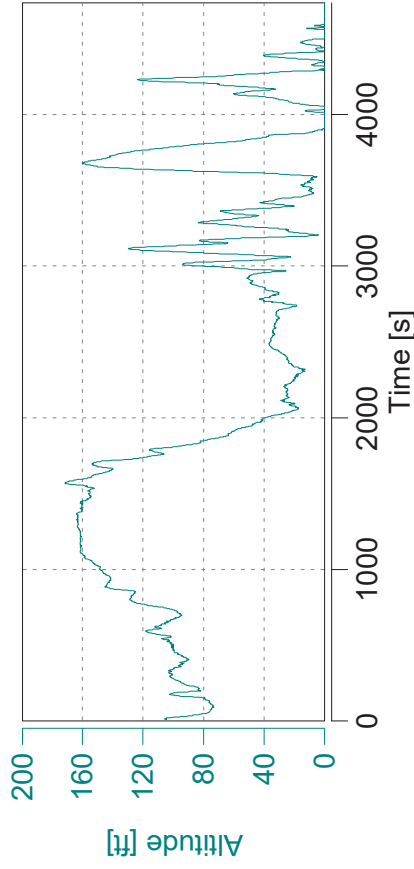
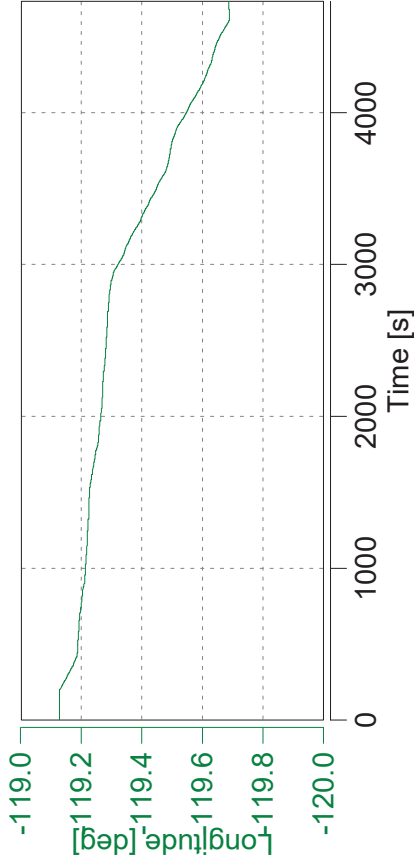
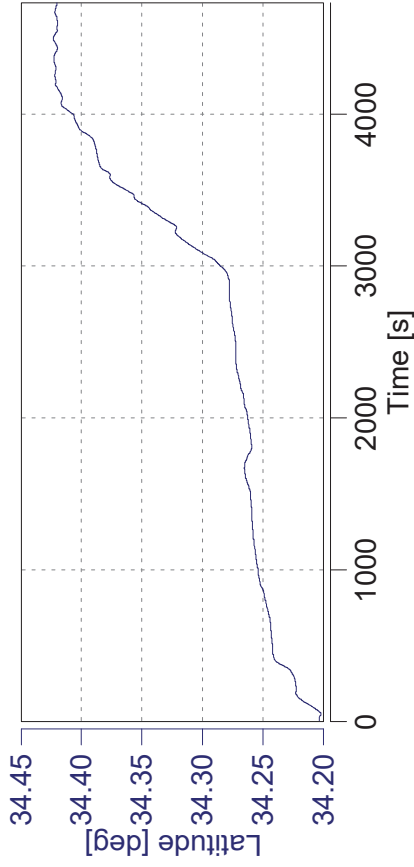
'Highway'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (1)

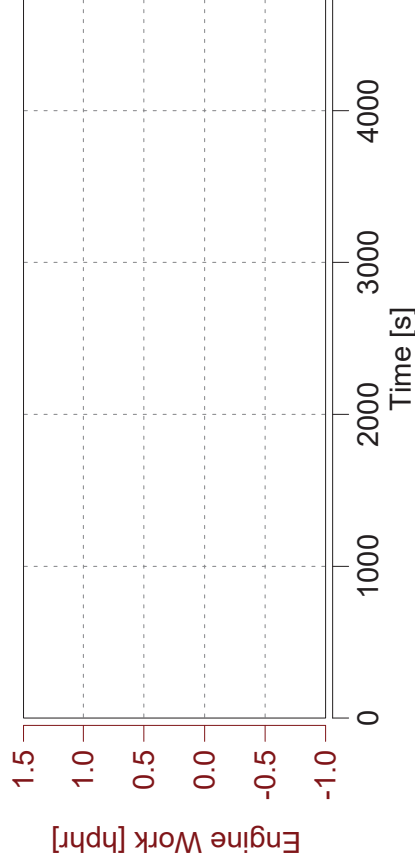
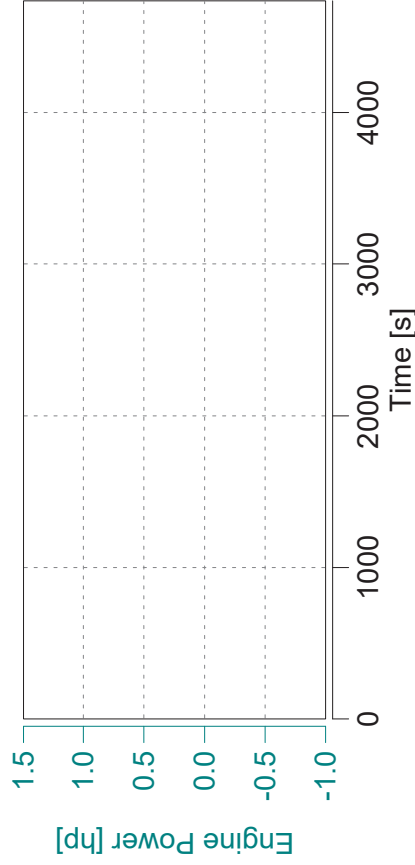
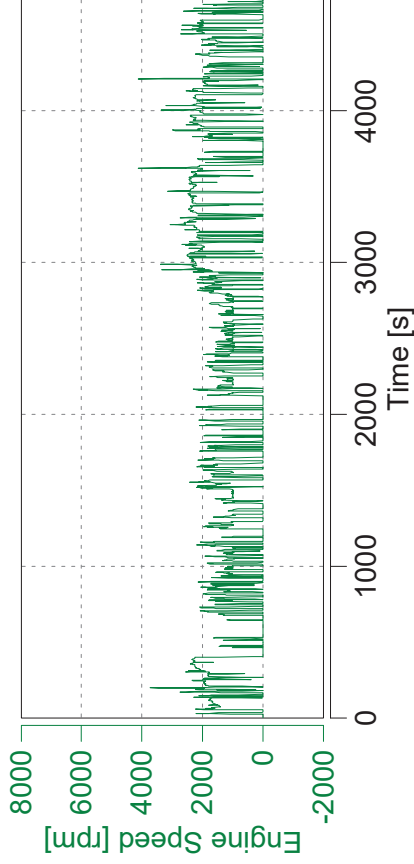
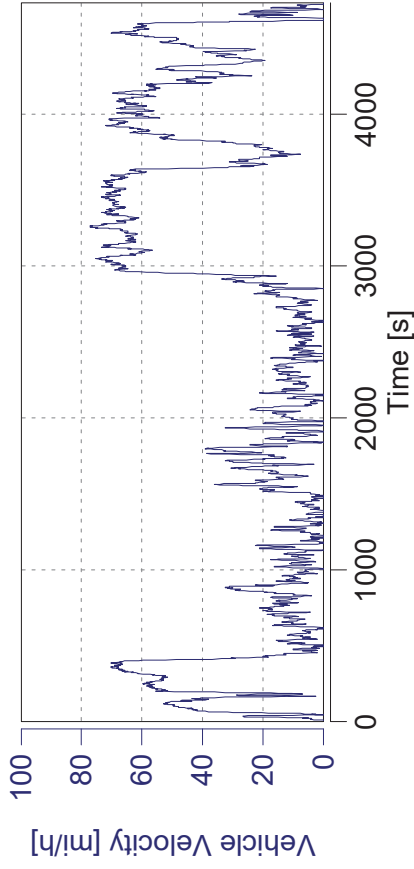
'Highway'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: A3 E-Tron / 1.4L

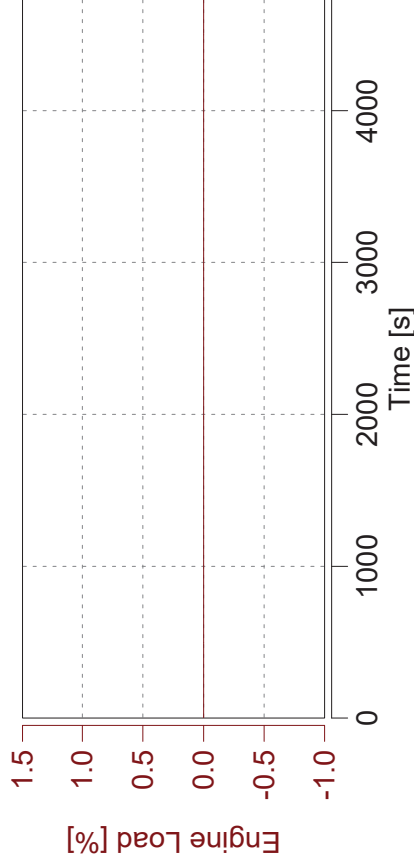
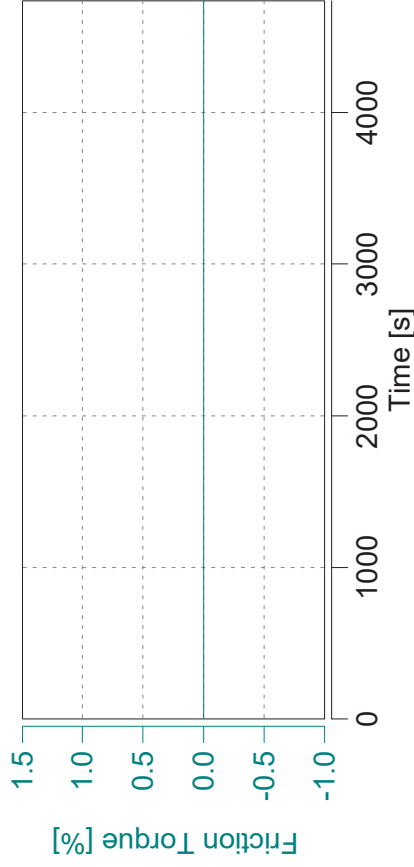
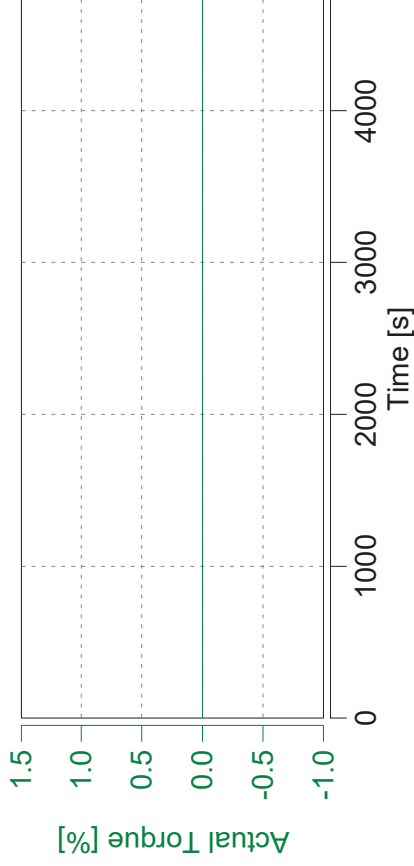
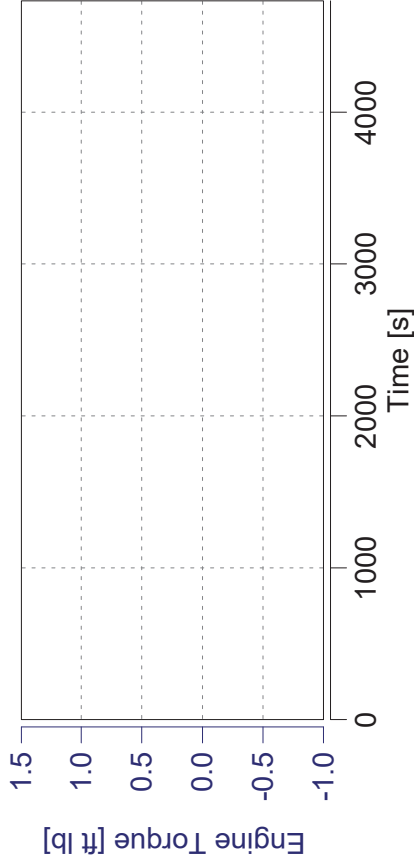
Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway
Page: Engine (2)

'Highway'
Start Date: 07/28/2018
Start Time: 11:33:17.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: A3 E-Tron / 1.4L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (3)

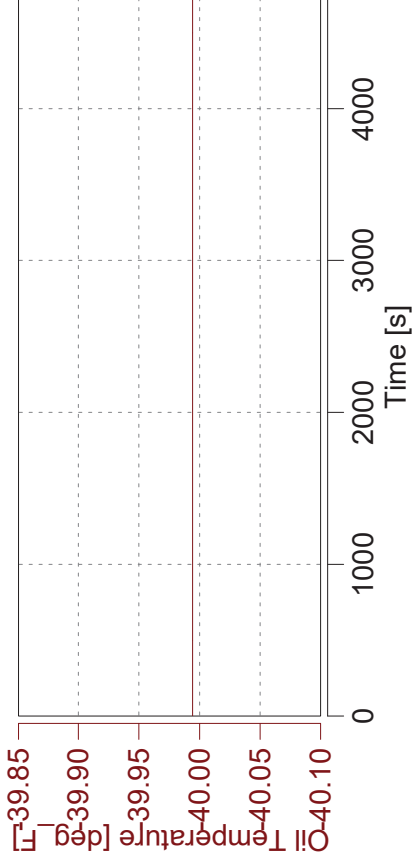
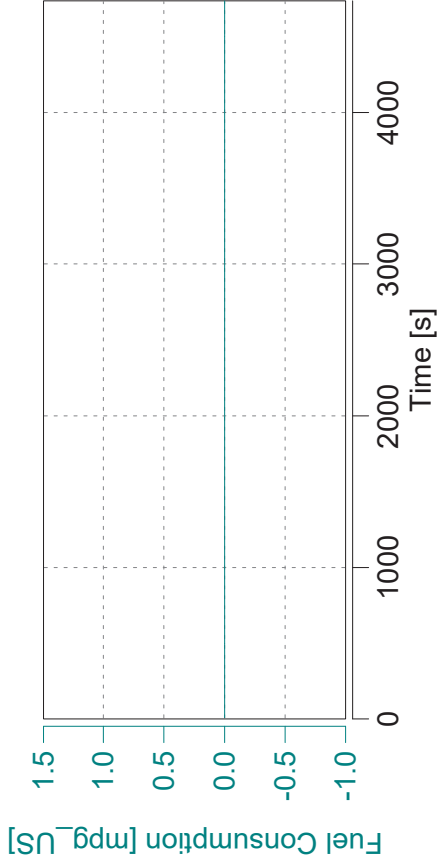
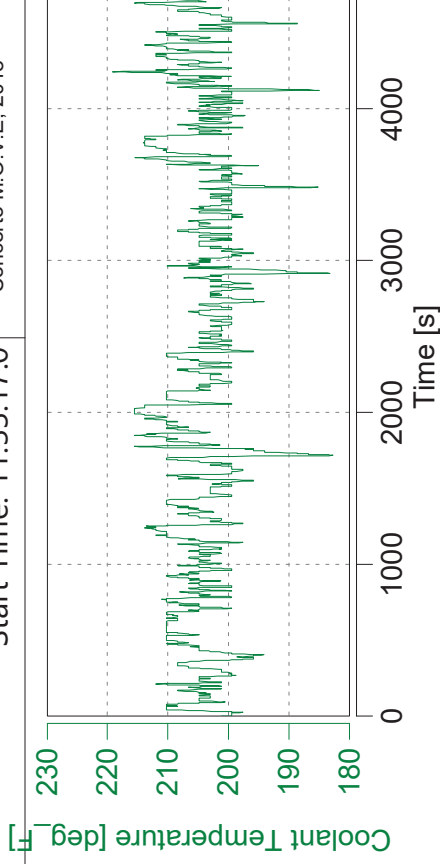
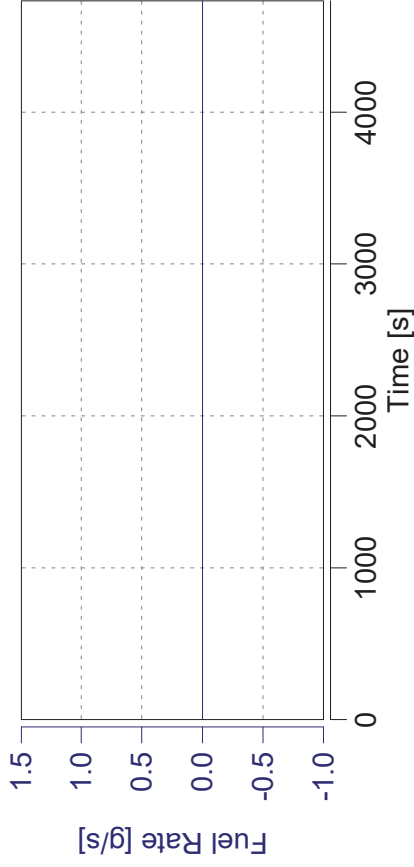
'Highway'

Start Date: 07/28/2018

Start Time: 11:33:17.0

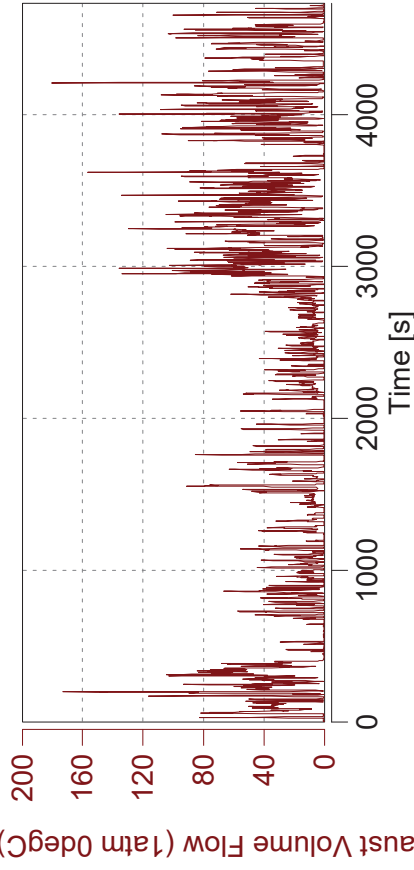
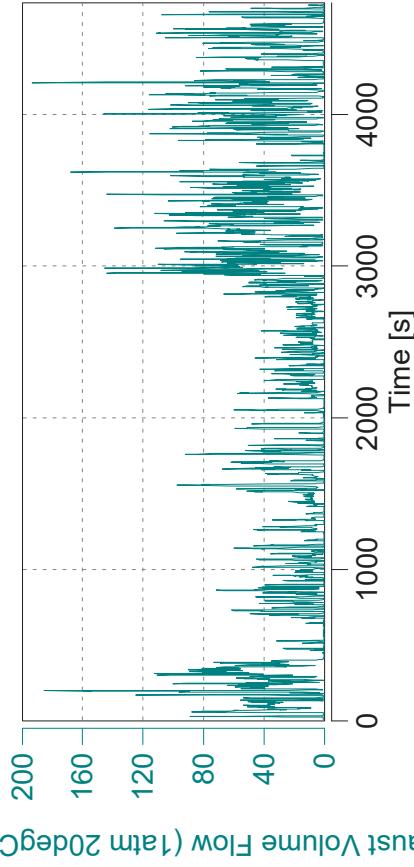
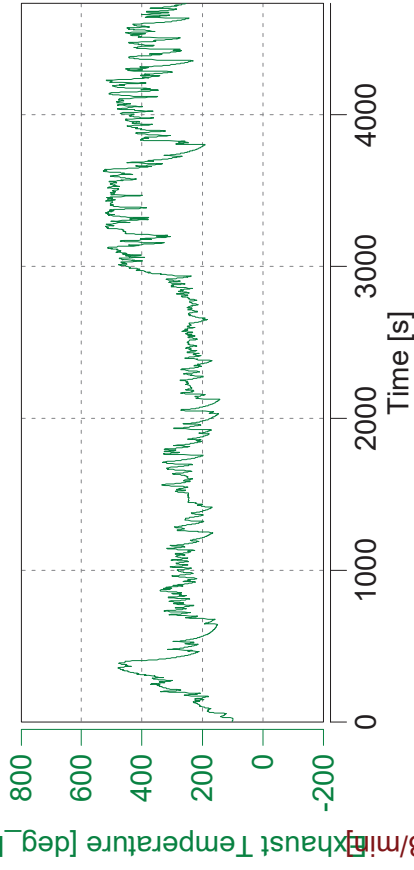
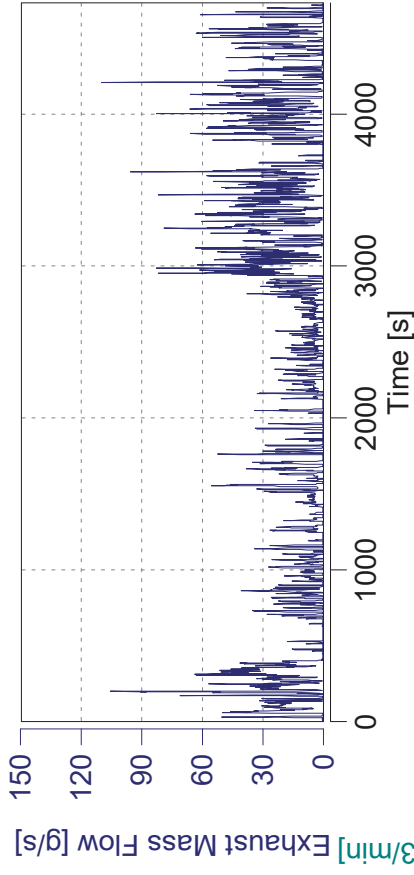


Concerto M.O.V.E., 2018



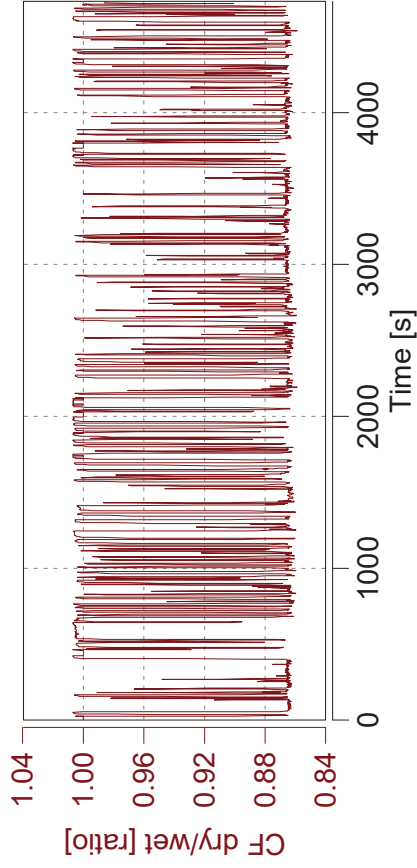
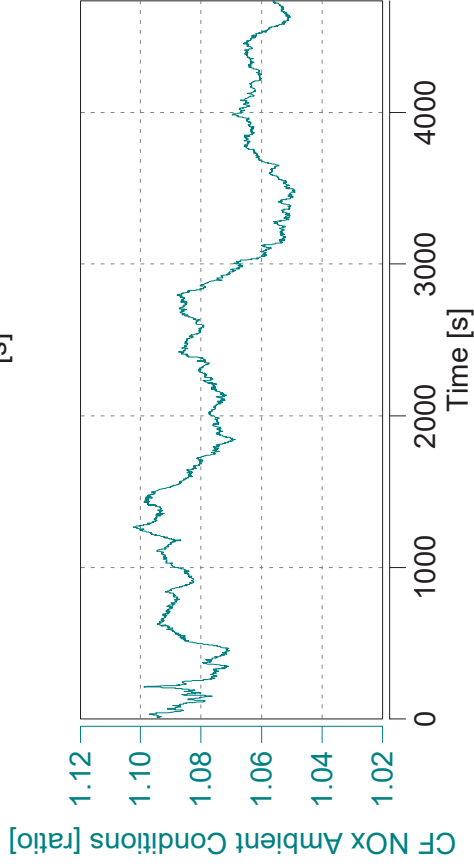
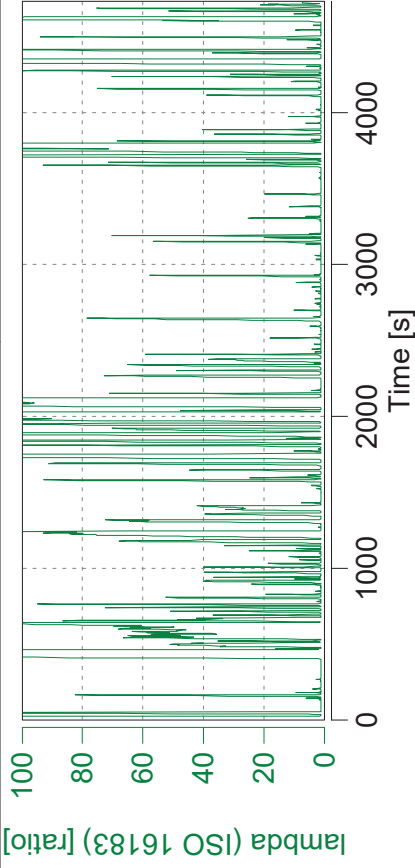
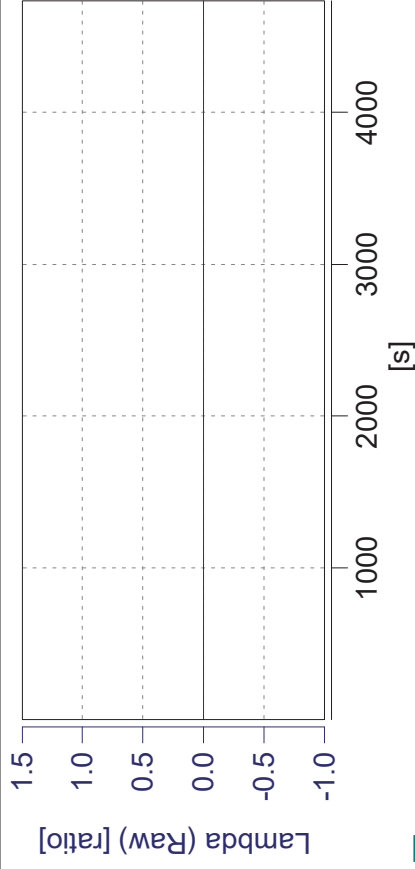
Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: A3 E-Tron / 1.4L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90



Case: Highway
Page: Exhaust Flow (2)

'Highway'
Start Date: 07/28/2018
Start Time: 11:33:17.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: A3 E-Tron / 1.4L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (1)

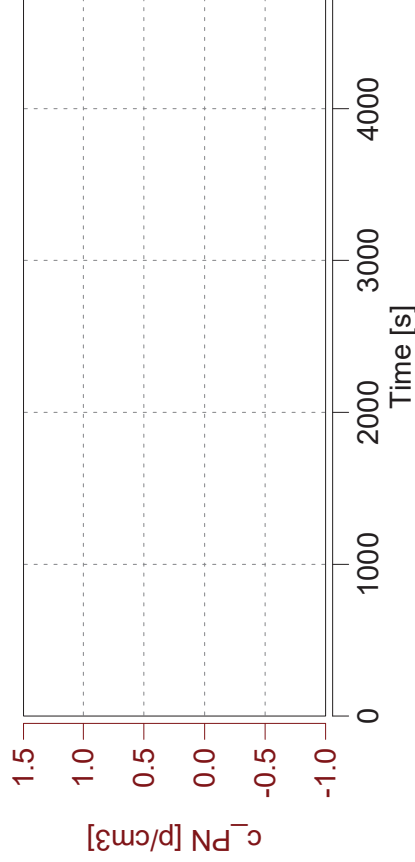
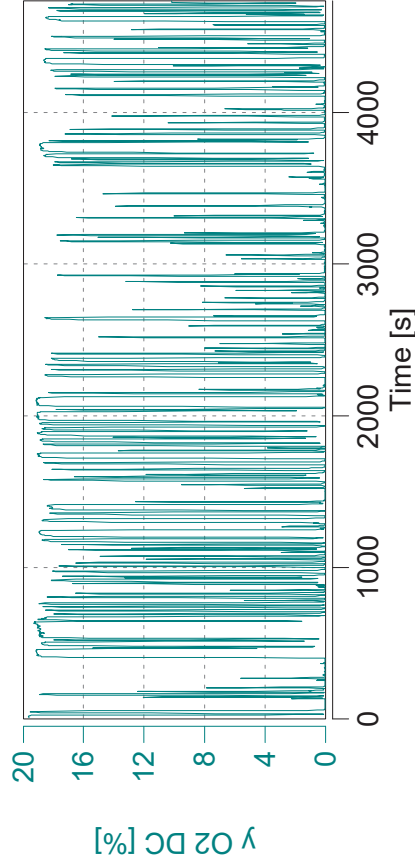
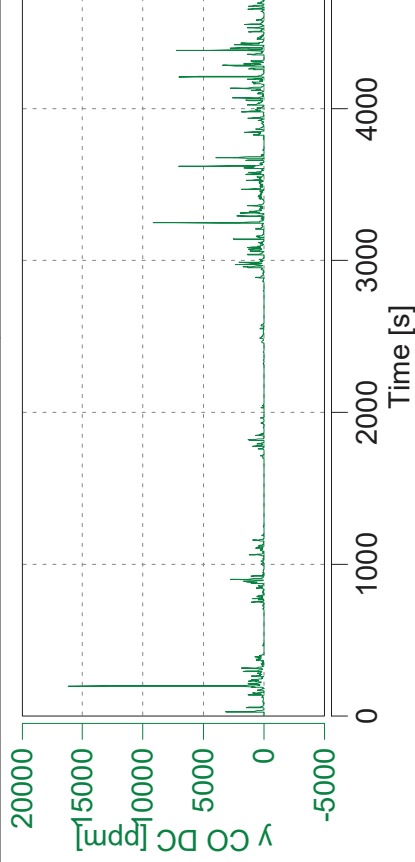
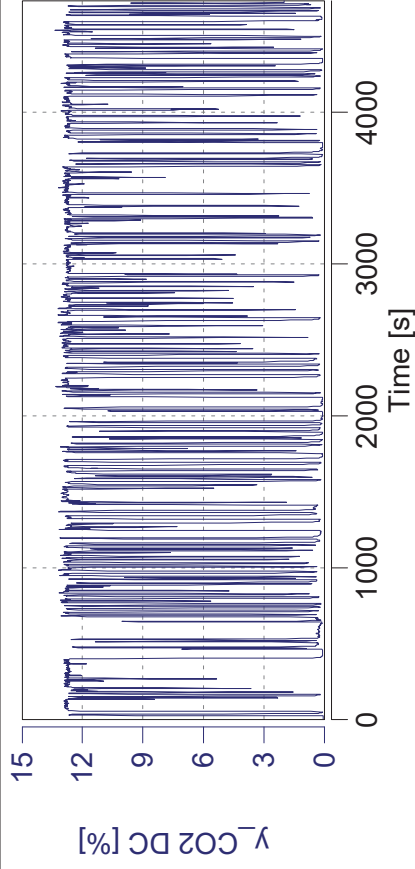
'Highway'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (2)

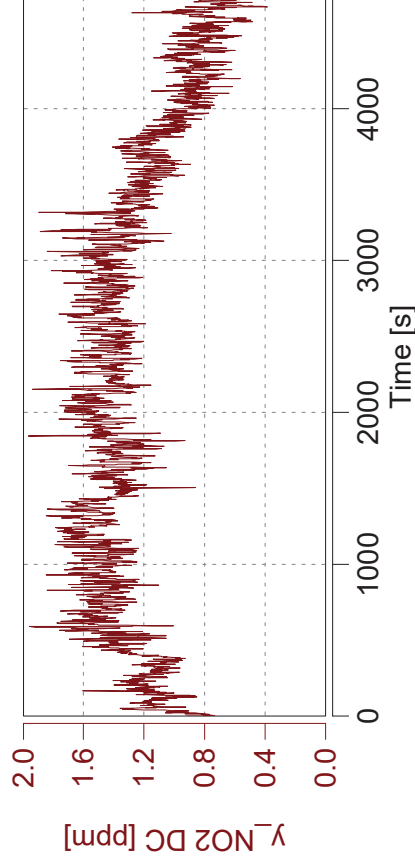
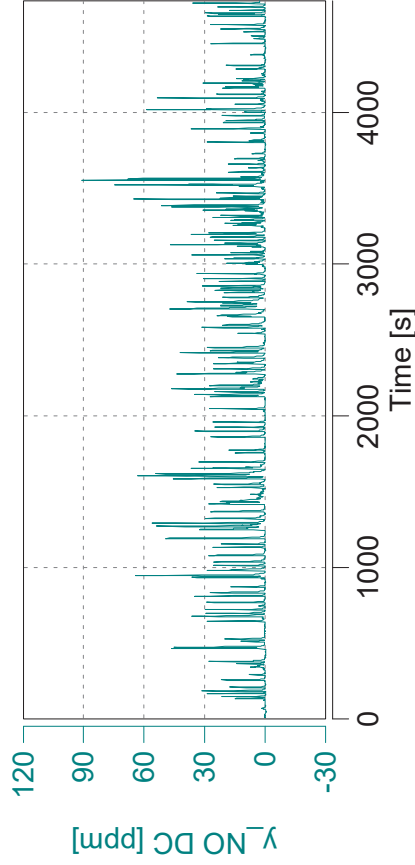
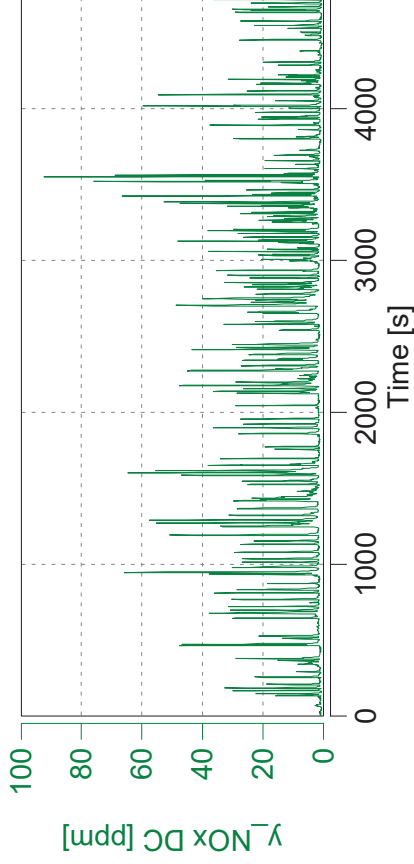
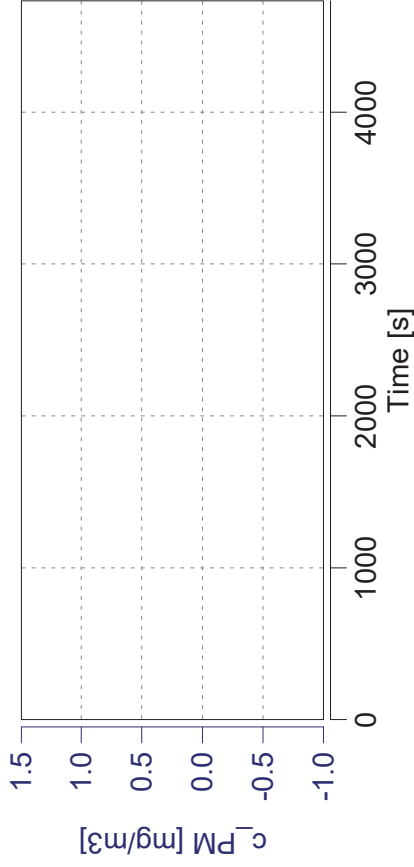
'Highway'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: A3 E-Tron / 1.4L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (3)

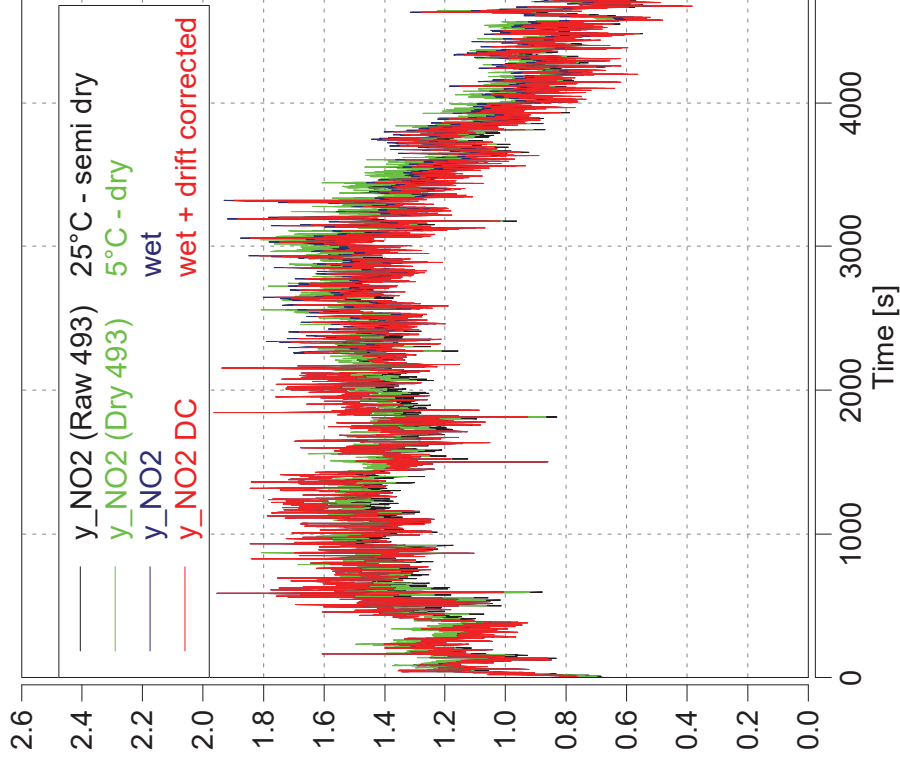
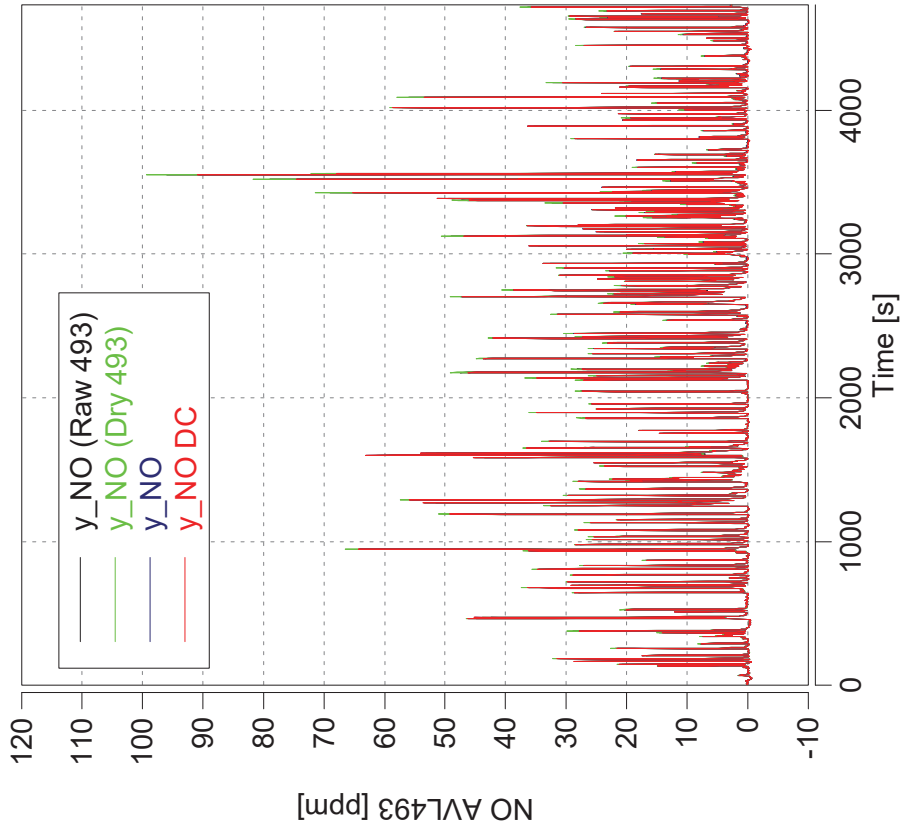
'Highway'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: A3 E-Tron / 1.4L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (4) NOx Corrections

'Highway'

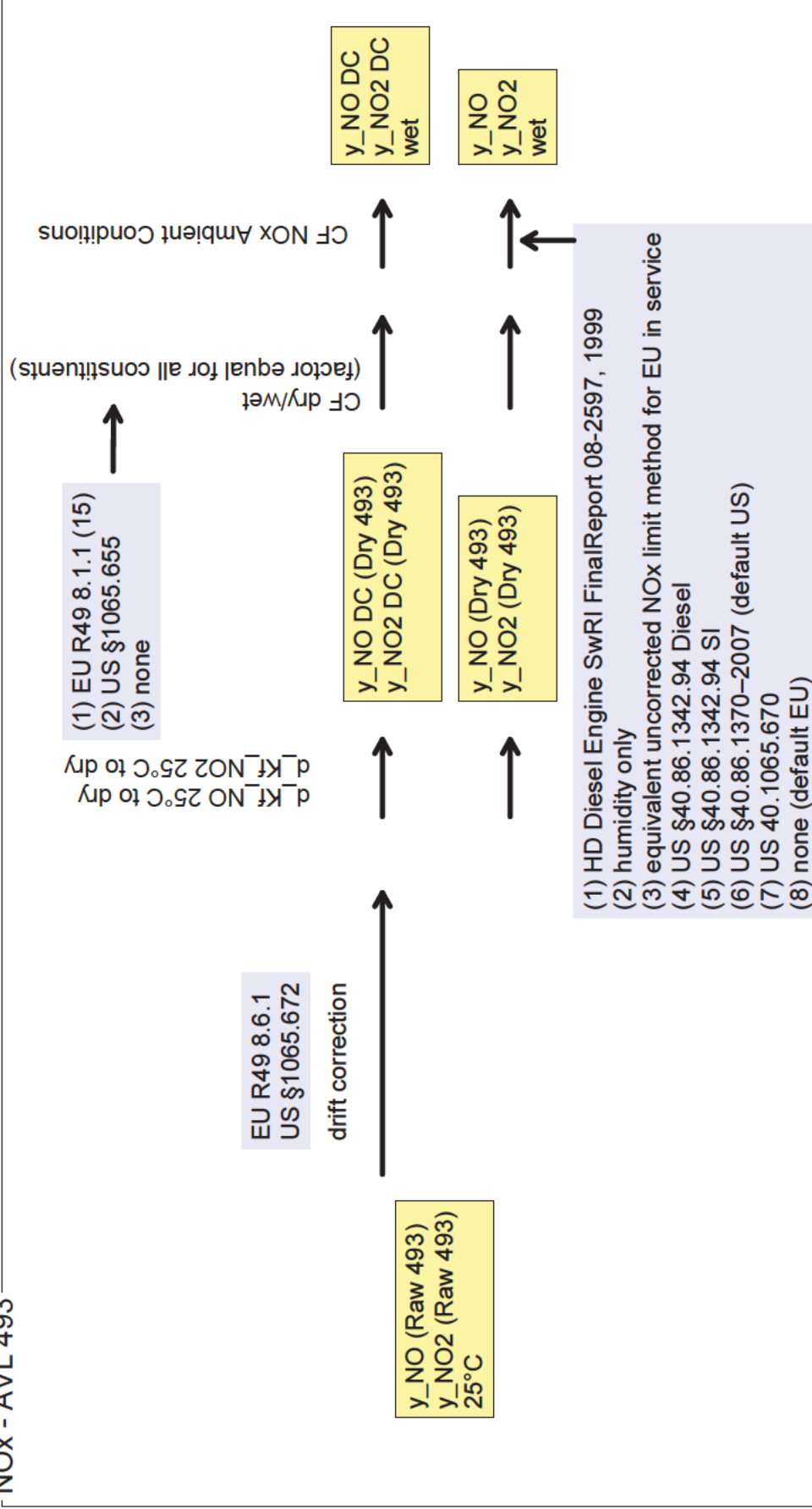
Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: A3 E-Tron / 1.4L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (5)

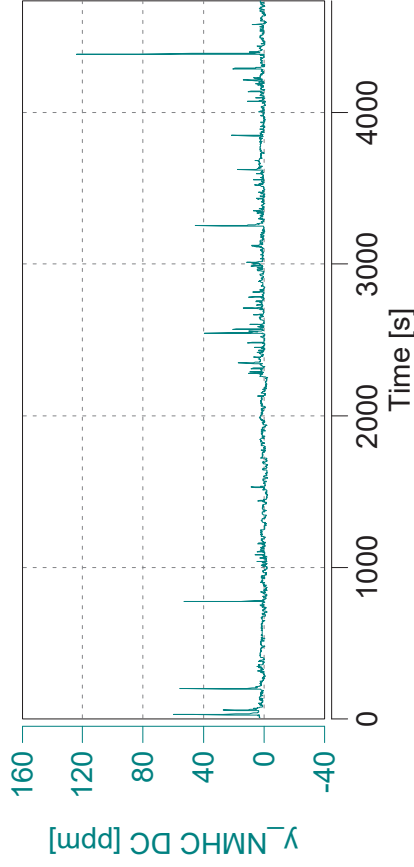
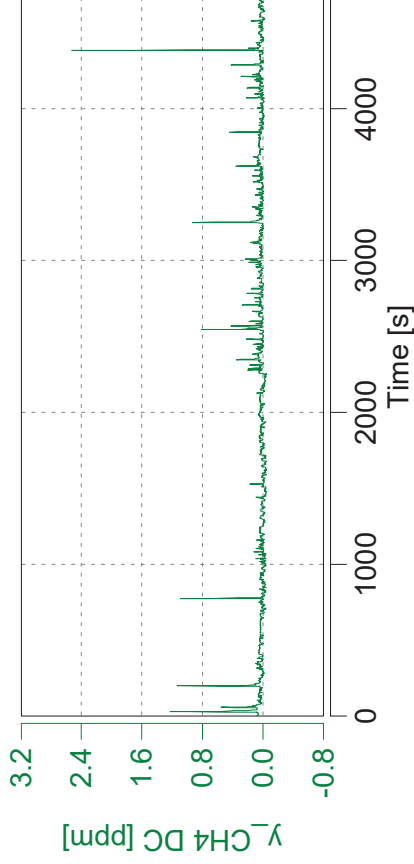
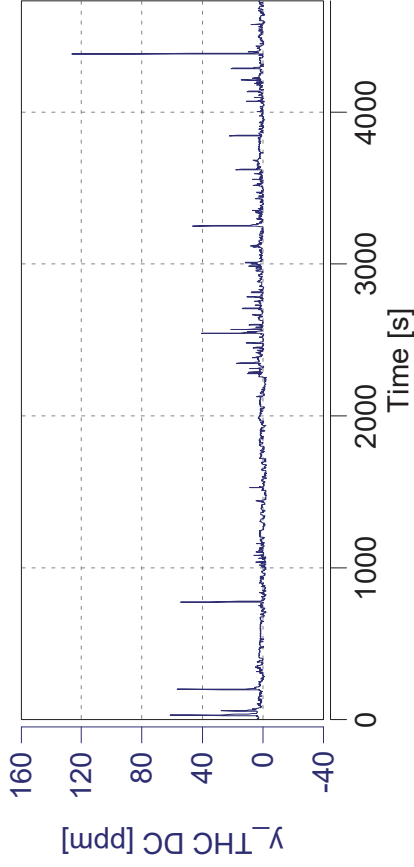
'Highway'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: A3 E-Tron / 1.4L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: NO/NO2/NOx Zero - Span

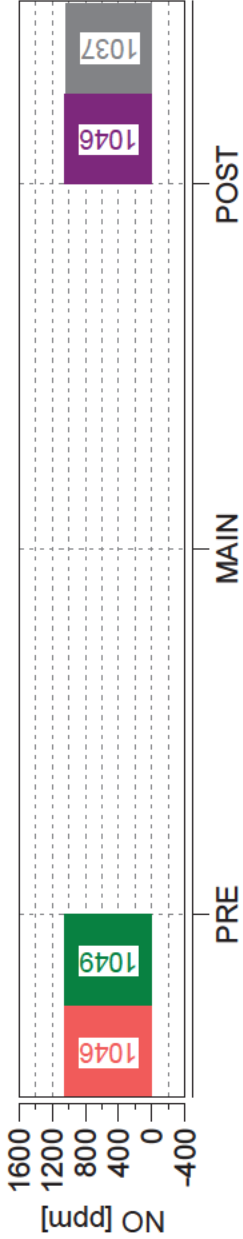
'Highway'

Start Date: 07/28/2018

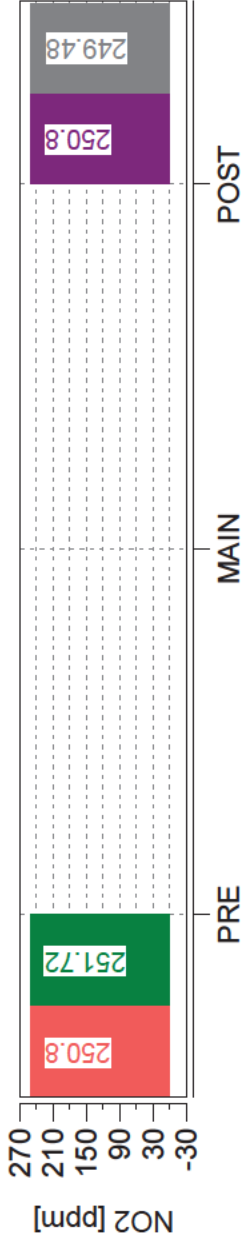
Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



GP_NO_Cal_gas_value
 GP_NO_Adjust_Actual
 GP_NO_Reference
 GP_NO_Audit_Actual



GP_NO2_Cal_gas_value
 GP_NO2_Adjust_Actual
 GP_NO2_Reference
 GP_NO2_Audit_Actual

Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: A3 E-Tron / 1.4L

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: CO/CO2 Zero - Span

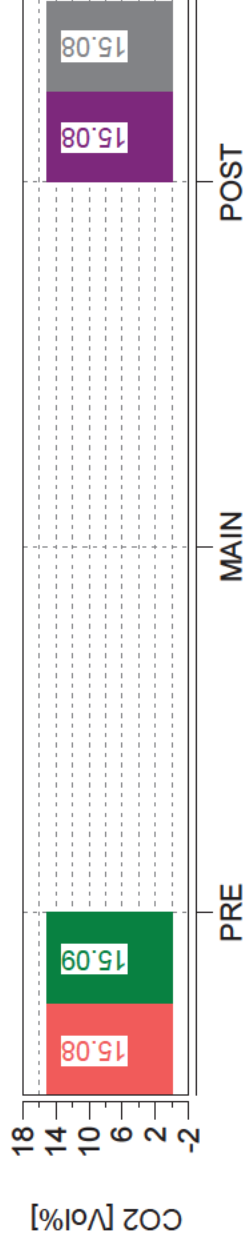
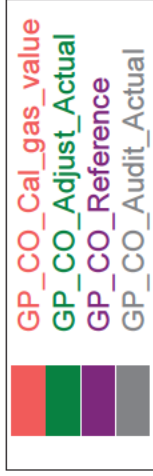
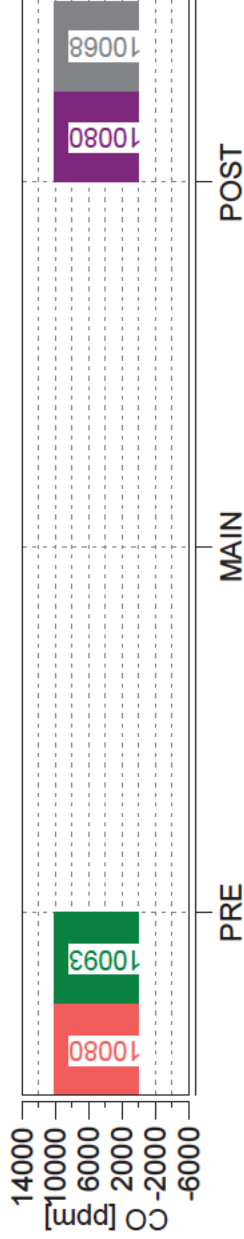
'Highway'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: THC/CH4 Zero - Span

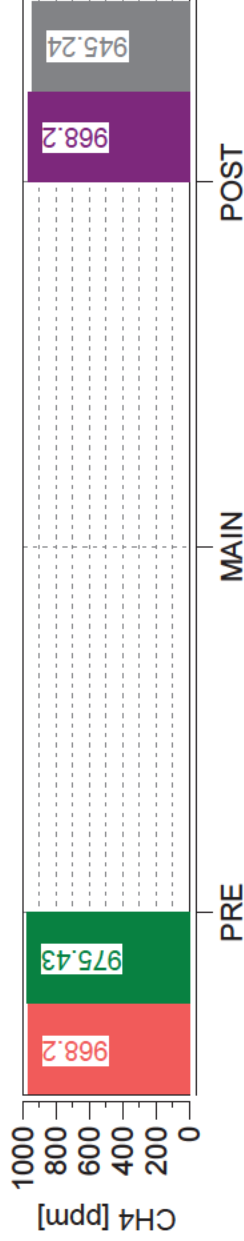
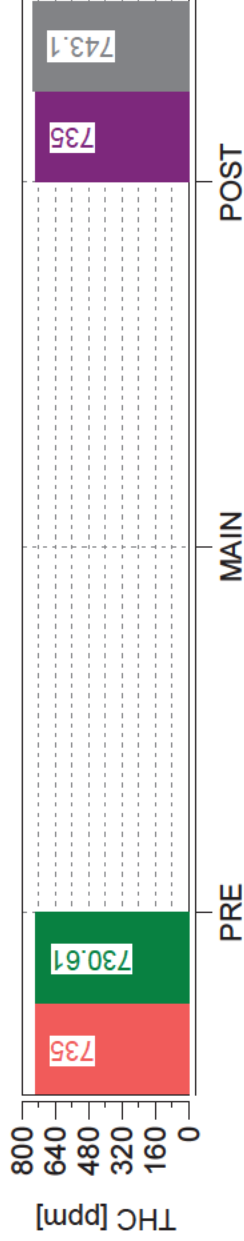
'Highway'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary

'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E. 2018

Trip Duration	2769.00	s	ave THC	10.04718	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	2769.00	s	ave NMHC	9.84624	ppm	BS CO	n/a	g/hphr
Trip Distance	28.96	mi	ave CH4	0.20094	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	28.96	mi	ave CO	689.25390	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	7.23538	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	4.92750	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	2.67	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	2.64	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	0.95	gall	tot THC	0.57831	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	0.93	gall	tot NMHC	0.53494	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.01282	g	DS CO2	271.03762	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	112.57446	g	DS CO	3.88768	g/mi
Trip Fuel Economy EU (ac)	30.64	mpg_US	tot CO2	7848.36901	g	DS THC	0.01997	g/mi
Trip Fuel Economy US (ac)	31.08	mpg_US	tot NO (d)	0.35463	g	DS NMHC	0.01847	g/mi
Trip Av. Eng. Speed	1112.31	rpm	tot NO2	0.02116	g	DS CH4	0.00044	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.37579	g	DS NO (d)	0.01225	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00073	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.01298	g/mi
Trip Exhaust Mass	42.49	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	82.98	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	49.19	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	37.64691	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	8.55905	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary Drift Corrected

'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018

Trip Duration	2769.00	s	ave THC DC	9.80149	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	2769.00	s	ave NMHC DC	9.60546	ppm	BS CO DC	n/a	g/hphr
Trip Distance	28.96	mi	ave CH4 DC	0.19603	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	28.96	mi	ave CO DC	689.21288	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	7.23298	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	4.93987	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	2.67	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	2.64	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave Soot meas	n/a	mg/m3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	0.95	gall	ave PN DC	n/a	#/cm3	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	0.93	gall	tot THC DC	0.57229	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot NMHC DC	0.52937	g	DS CO2 DC	270.94778	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CH4 DC	0.01268	g	DS CO DC	3.88744	g/mi
Trip Fuel Economy EU (ac)	30.64	mpg_US	tot CO DC	112.56776	g	DS THC DC	0.01976	g/mi
Trip Fuel Economy US (ac)	31.08	mpg_US	tot CO2 DC	7845.76763	g	DS NMHC DC	0.01828	g/mi
Trip Av. Eng. Speed	1112.31	rpm	tot NO DC (d)	0.35563	g	DS CH4 DC	0.00044	g/mi
Trip Av. Torque	n/a	lbft	tot NO2 DC	0.02118	g	DS NO DC (d)	0.01228	g/mi
Trip Av. Power	n/a	hp	tot NOx DC	0.37681	g	DS NO2 DC	0.00073	g/mi
Trip Work	n/a	hphr	tot Soot	n/a	g	DS NOx DC	0.01301	g/mi
Trip Exhaust Mass	42.49	kg	tot Soot meas	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PM	n/a	g	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	tot PN DC	n/a	#	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	82.98	deg_F	PM measurement type	0.00000	-	DS PN DC	n/a	#/mi
Trip Av. Humidity	49.19	%	PM correction type	1.00000	alpha(HC)	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		tot Soot on PM filter (estim.)	n/a	mg	FS CO DC	n/a	g/kg
			Soot --> PM simple scaling factor	1.00000	-	FS THC DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS NMHC DC	n/a	g/kg
			Trip Av. Veh. Speed	37.64691	mi/hr	FS CH4 DC	n/a	g/kg
			Trip Velocity Zero	8.55905	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NOx DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment Check

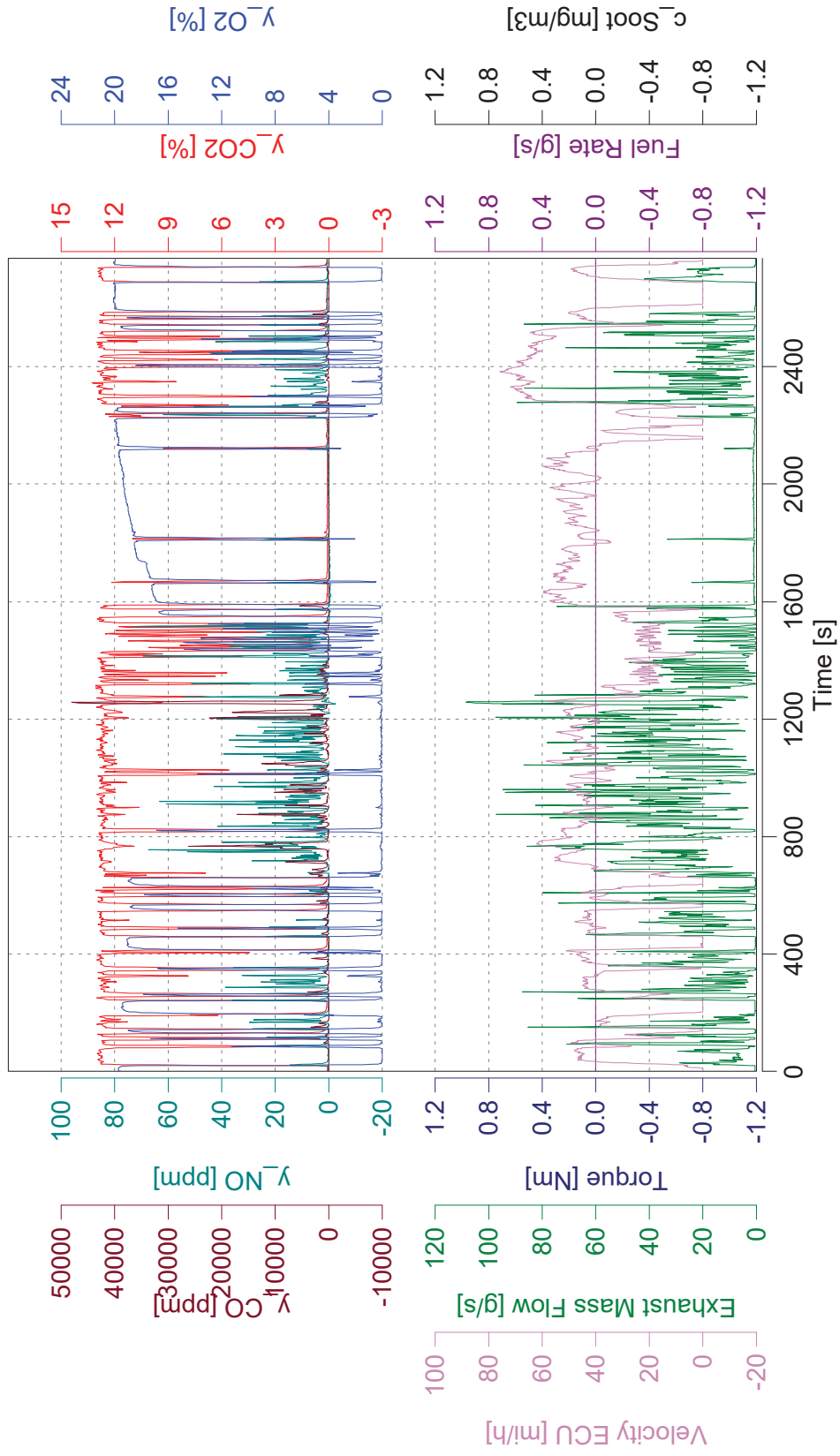
'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment of Gas Concentrations

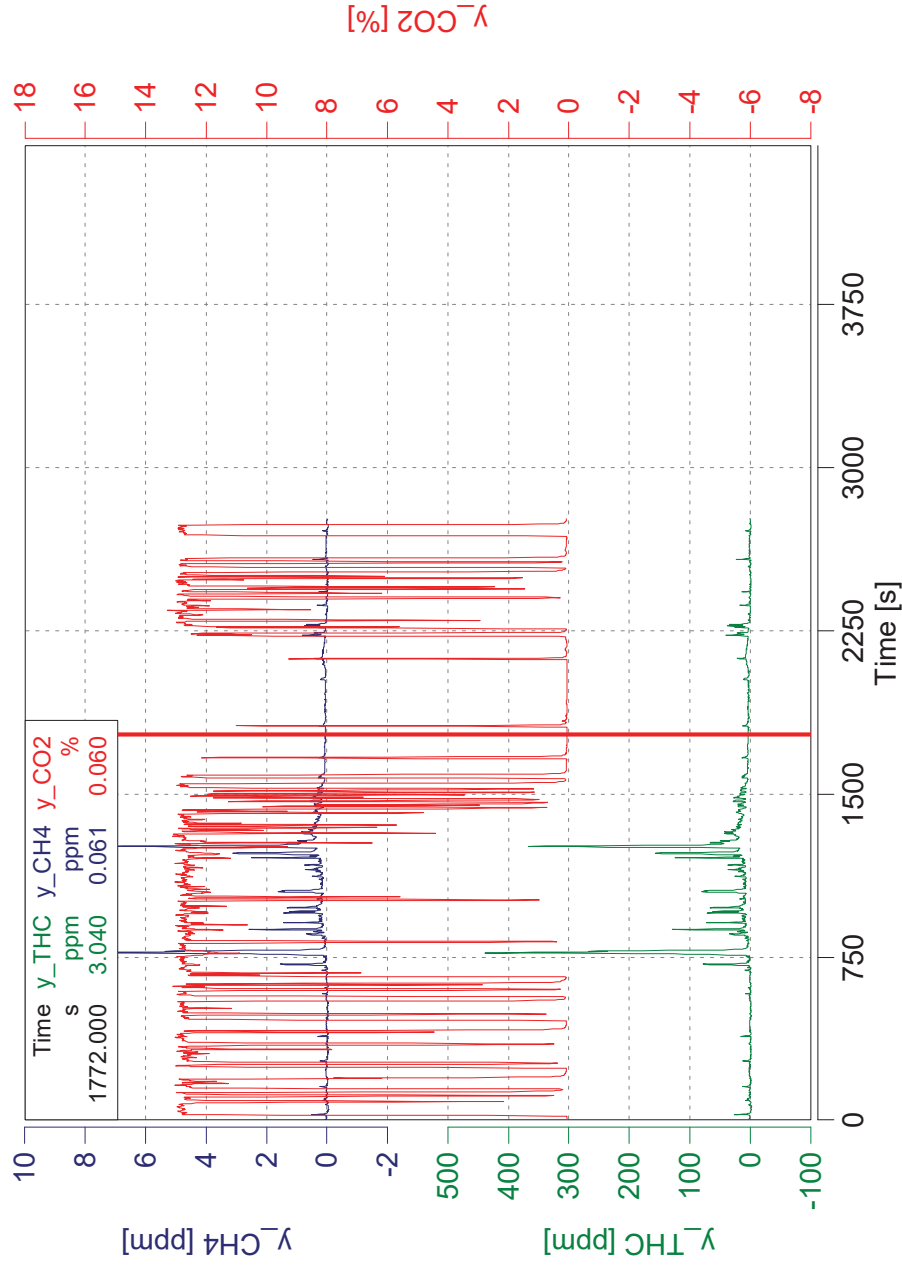
'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Ambient Conditions

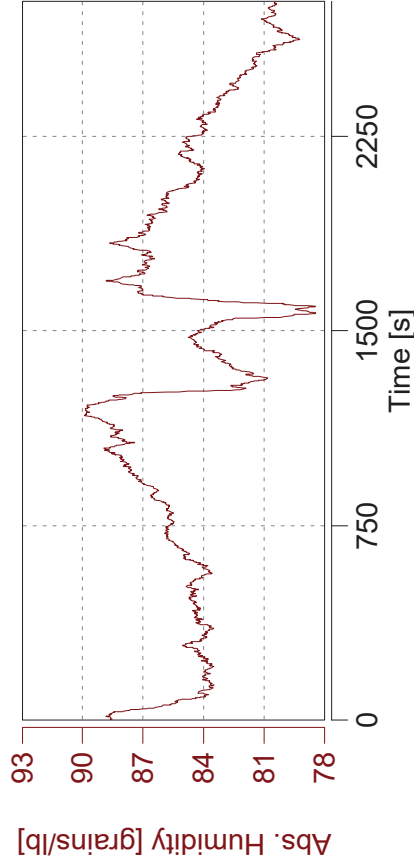
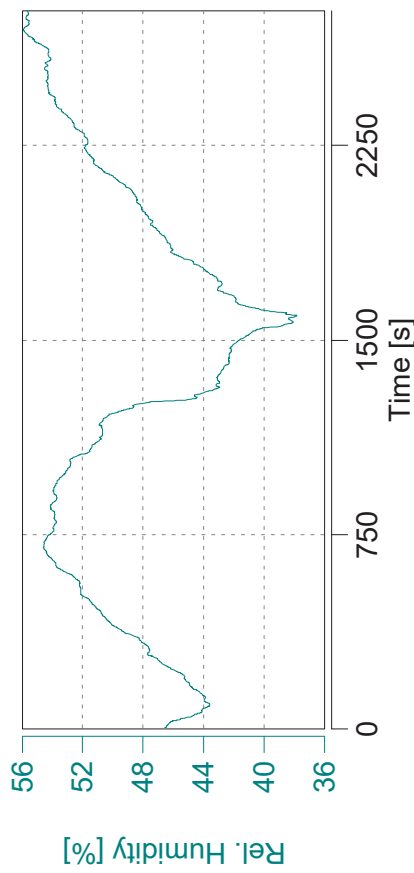
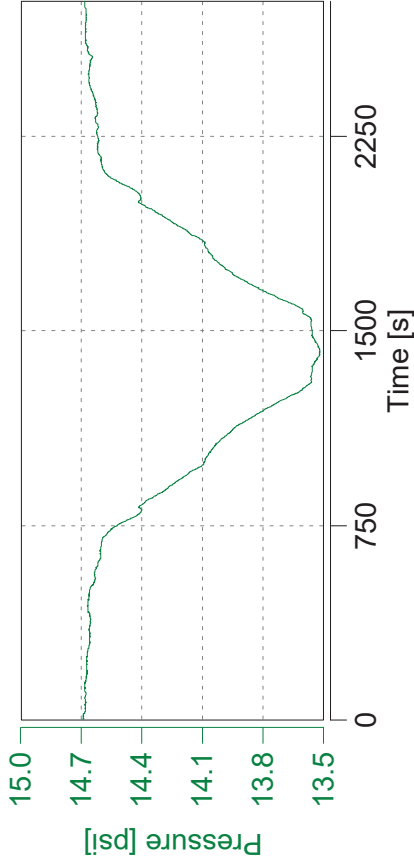
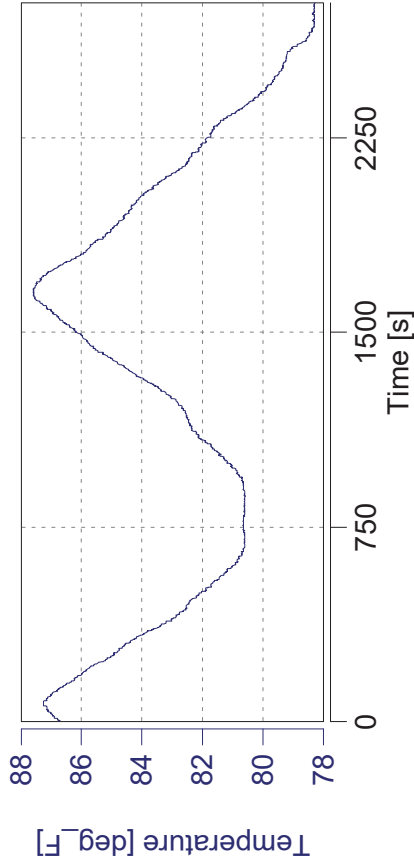
'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: A3 E-Tron / 1.4L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

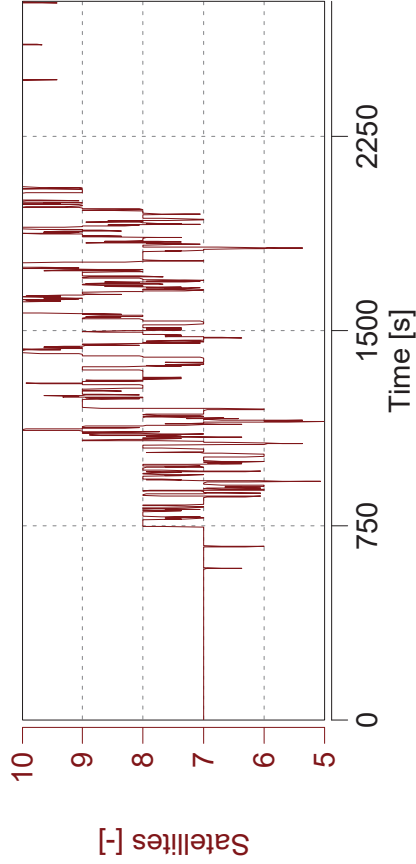
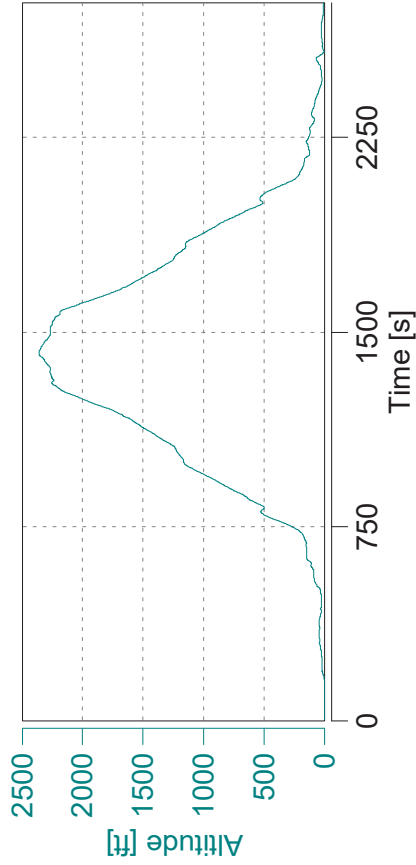
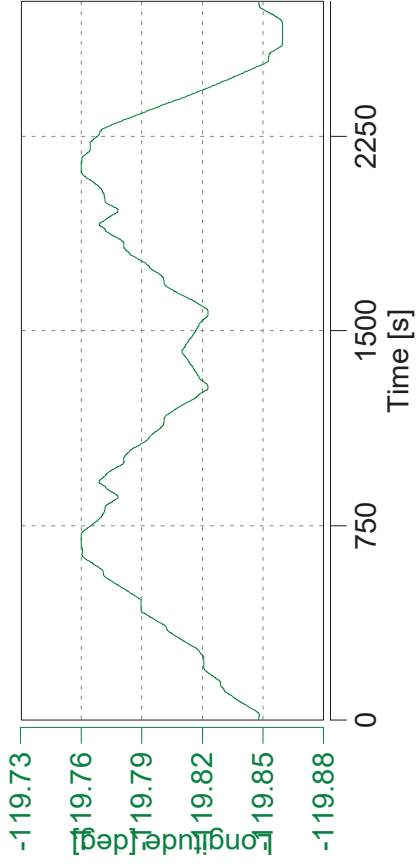
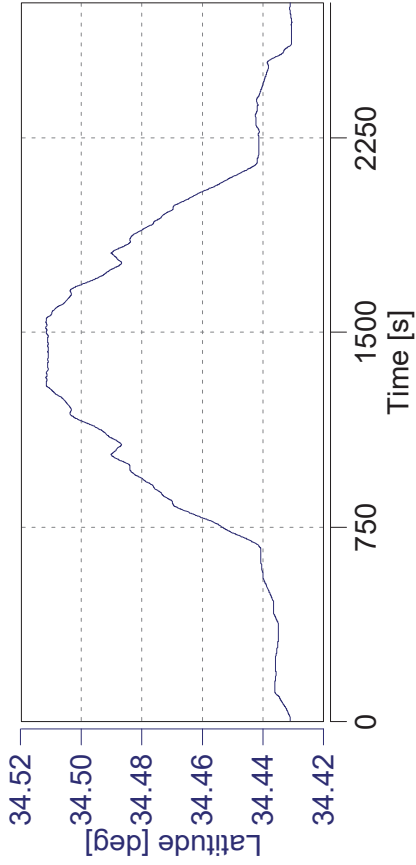
Page: GPS

'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0

Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (1)

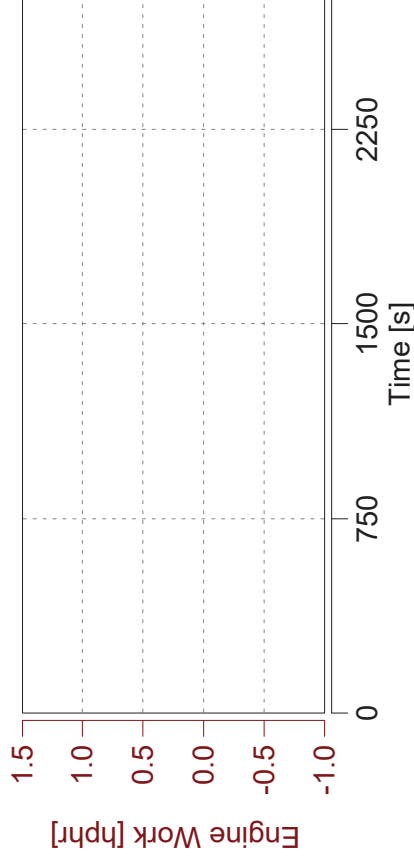
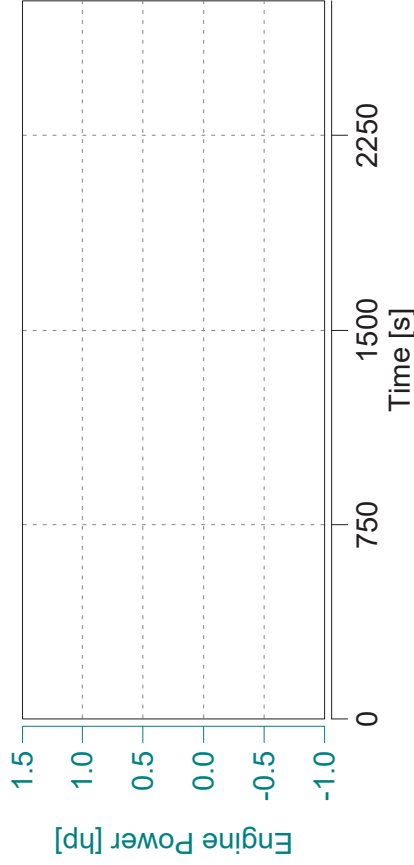
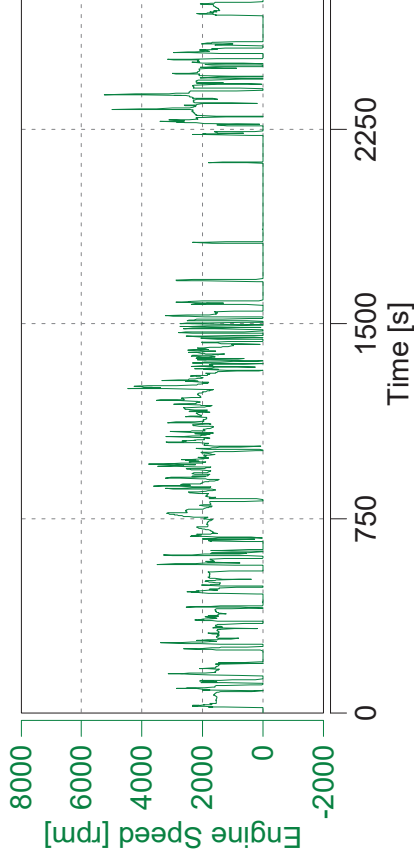
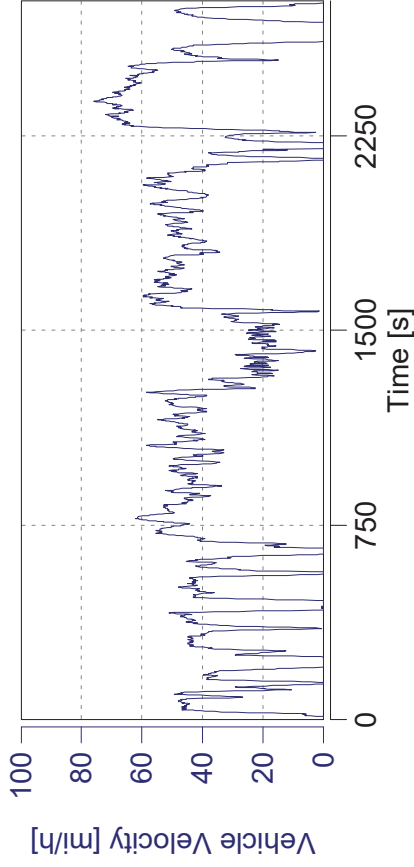
'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (2)

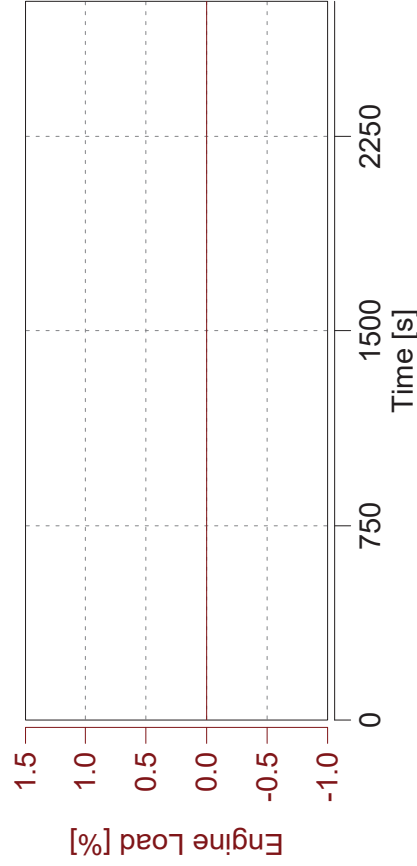
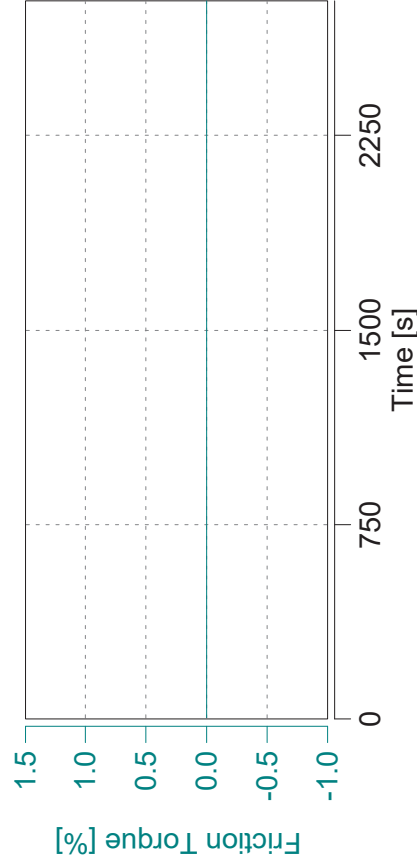
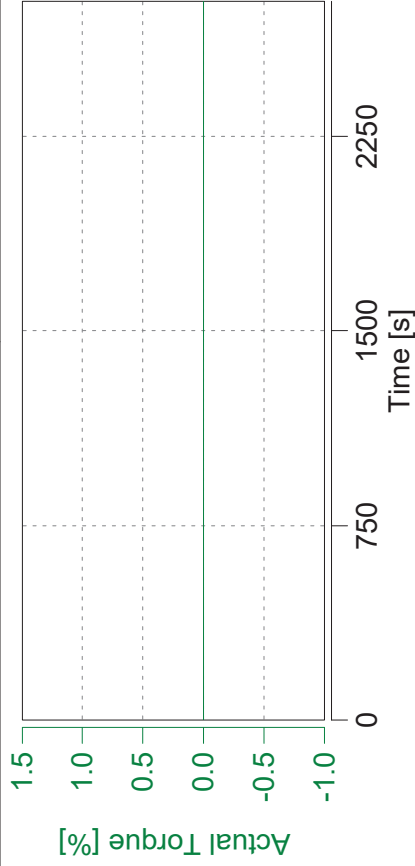
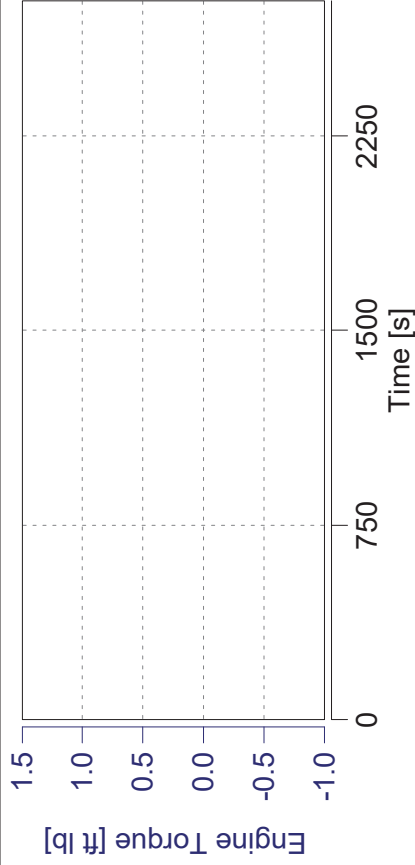
'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (3)

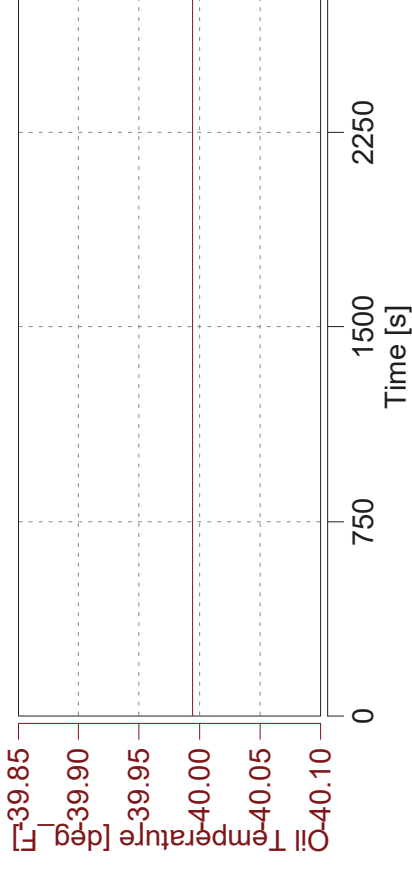
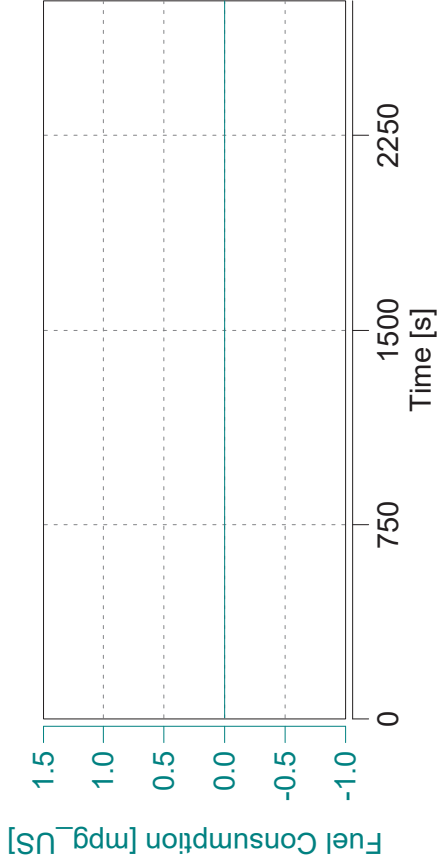
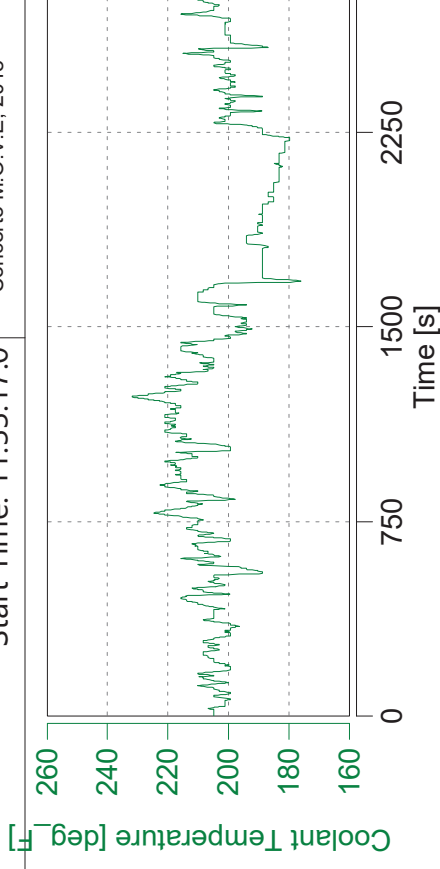
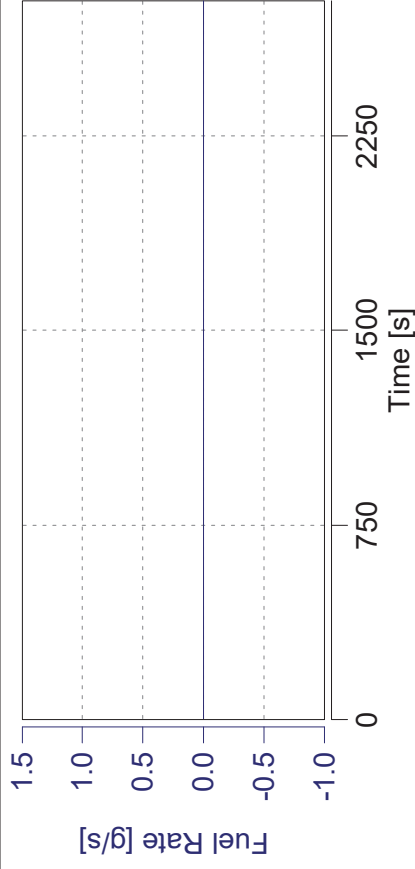
'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Exhaust Flow (1)

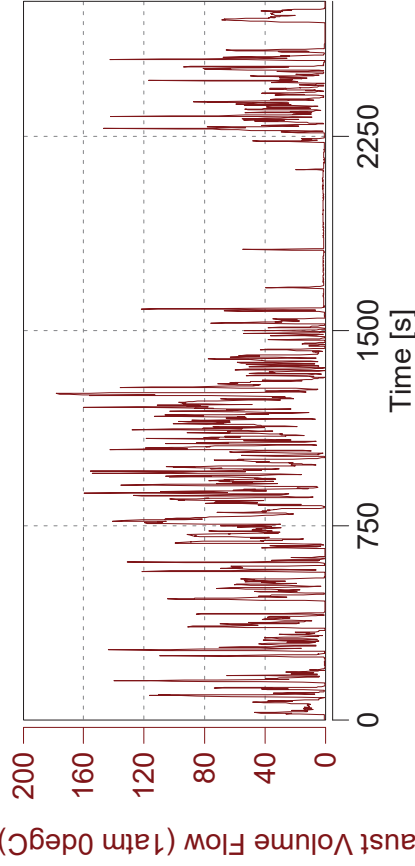
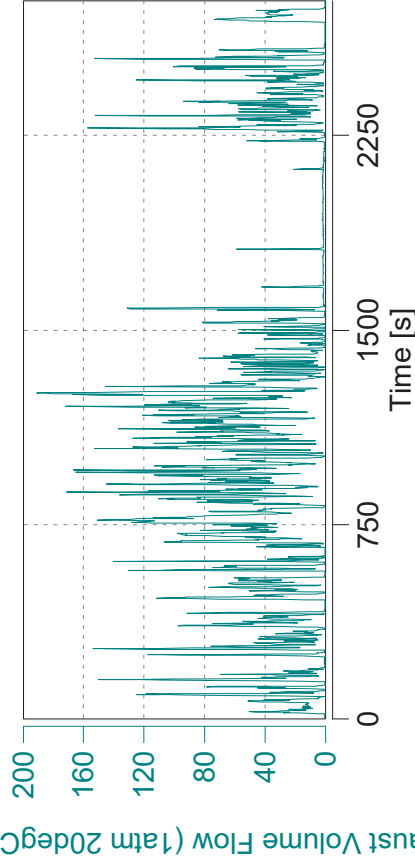
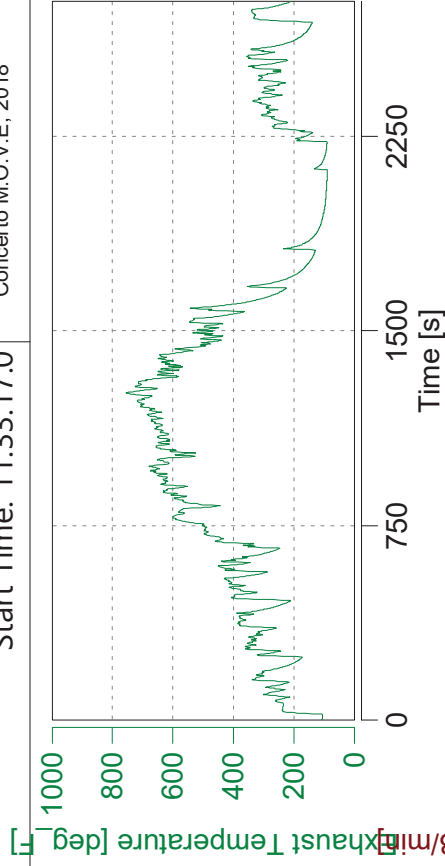
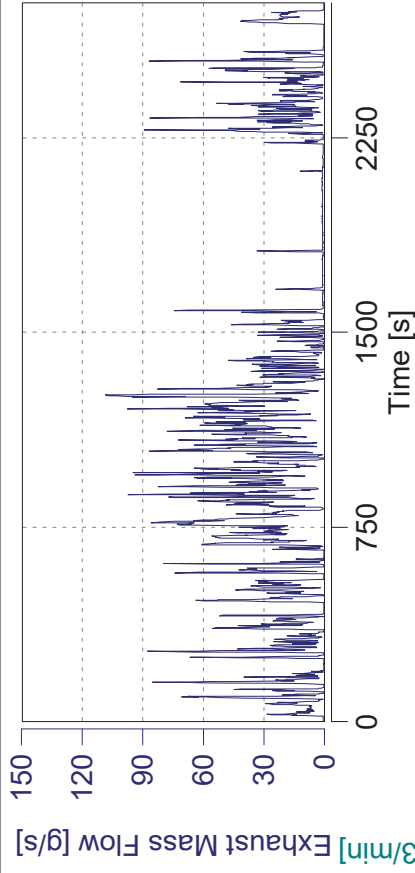
'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: A3 E-Tron / 1.4L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Exhaust Flow (2)

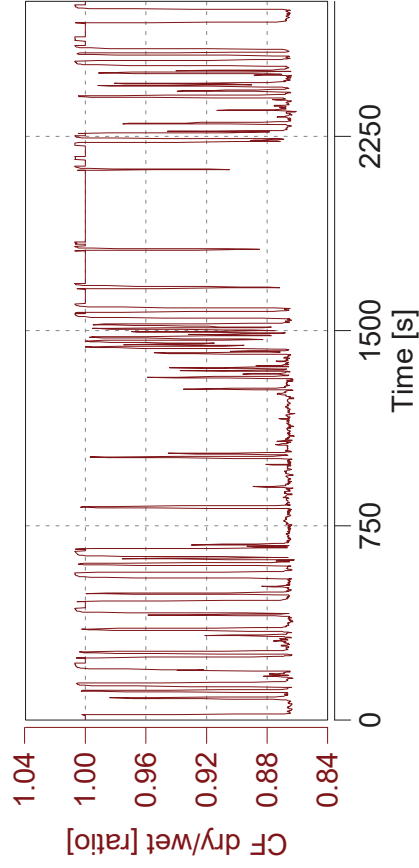
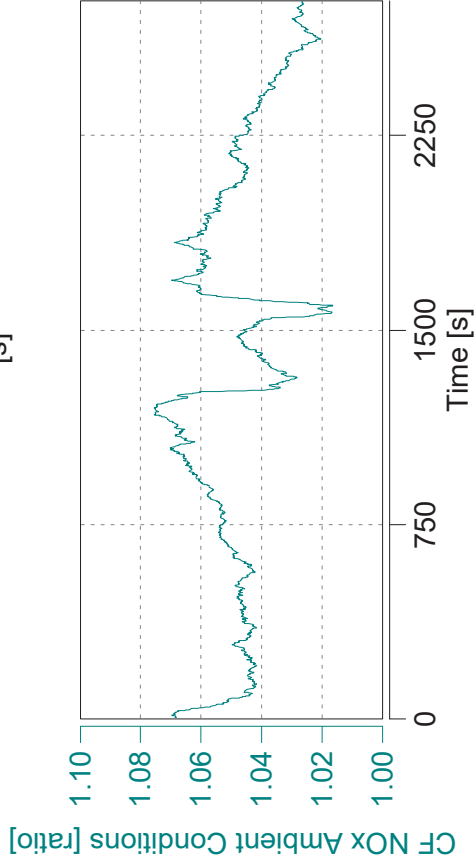
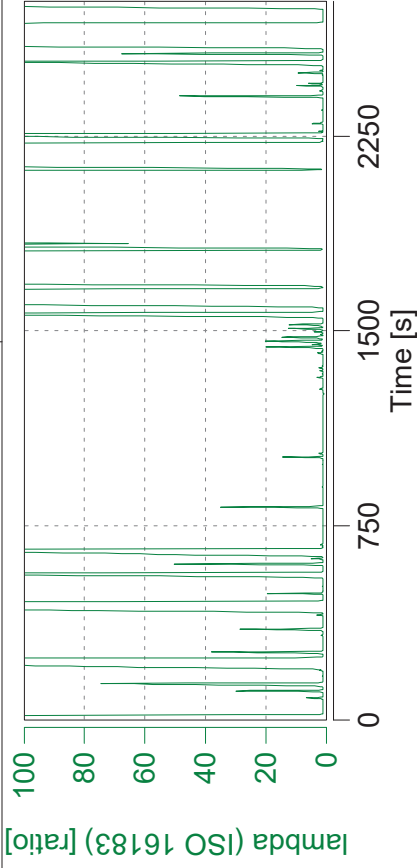
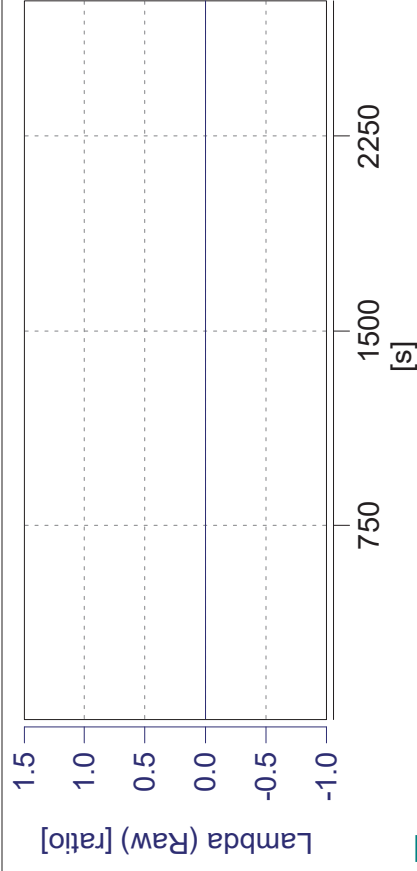
'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (1)

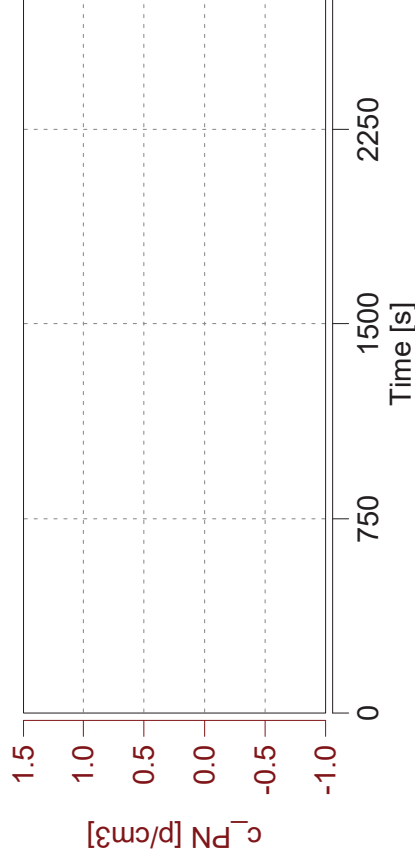
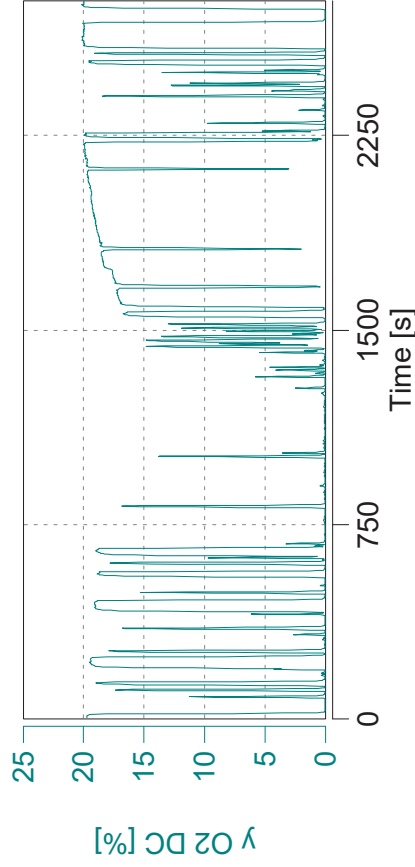
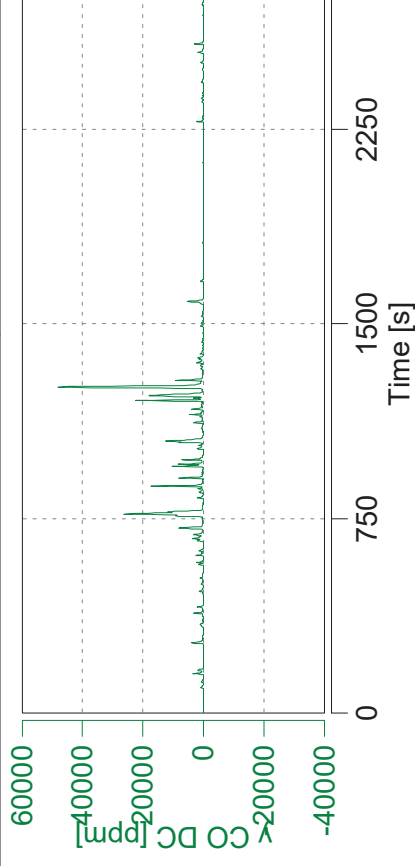
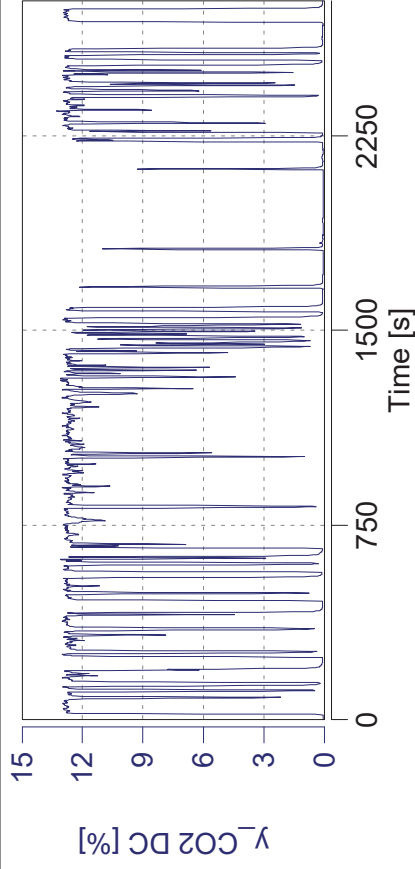
'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: A3 E-Tron / 1.4L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (2)

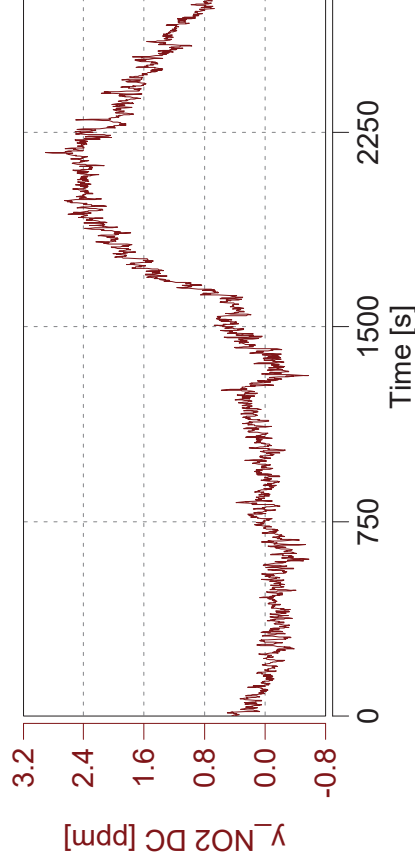
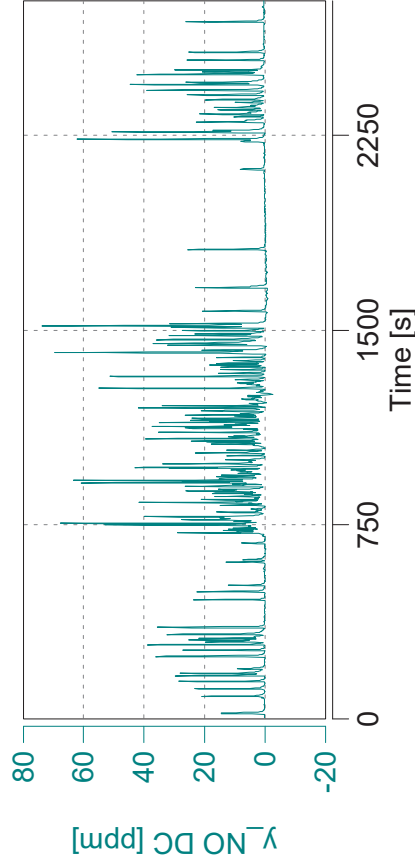
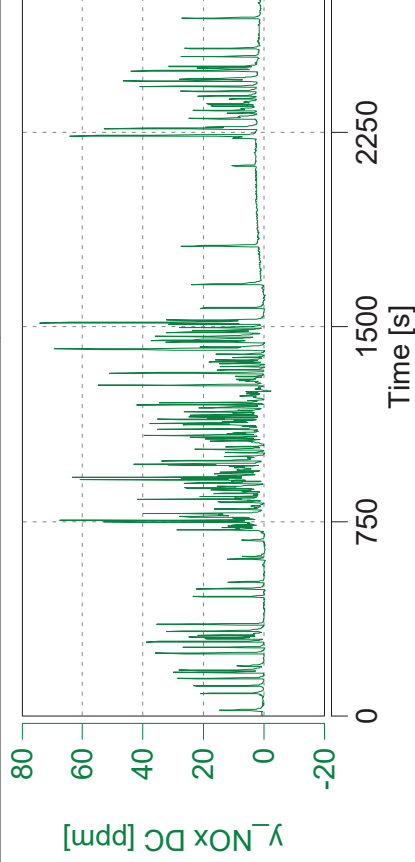
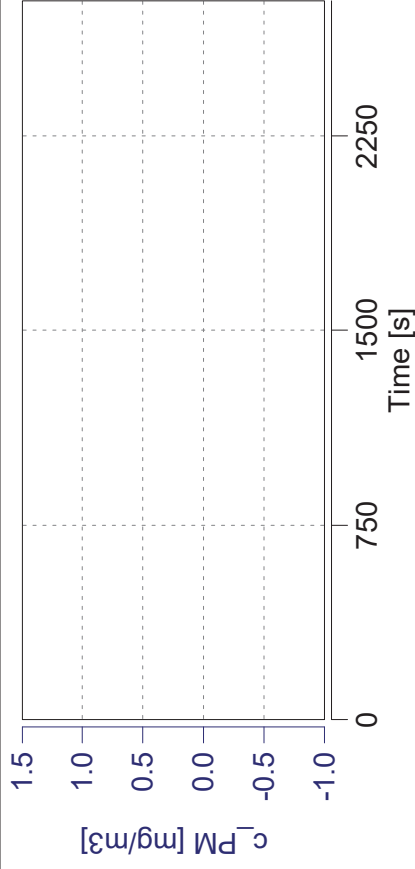
'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (3)

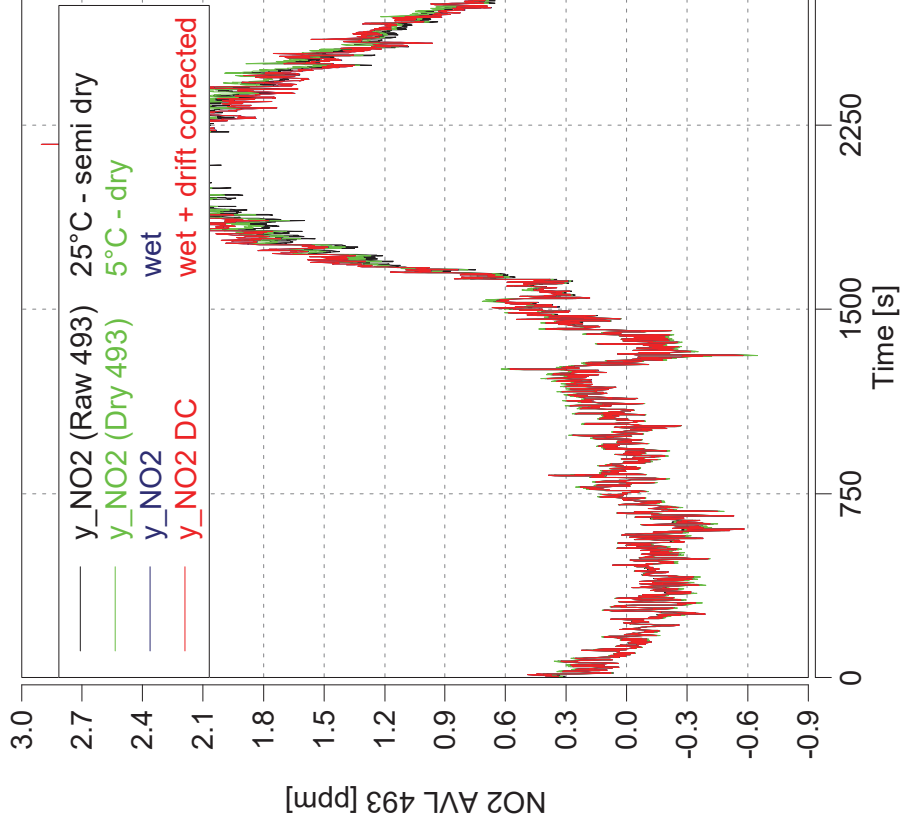
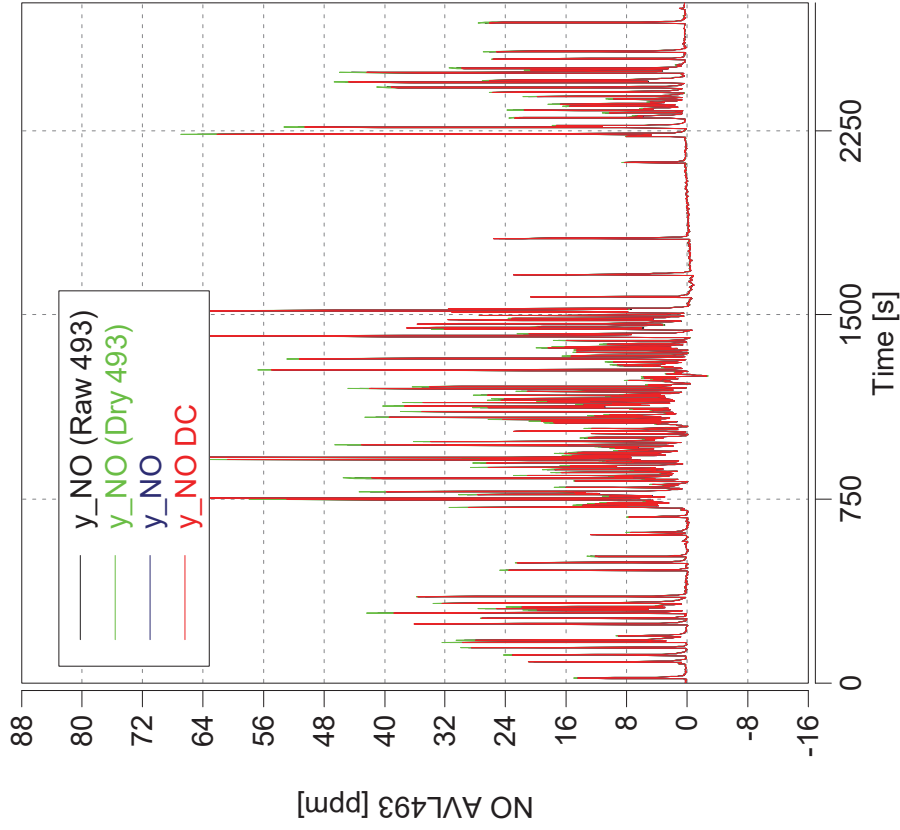
'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: A3 E-Tron / 1.4L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (4) NOx Corrections

'Mountain'

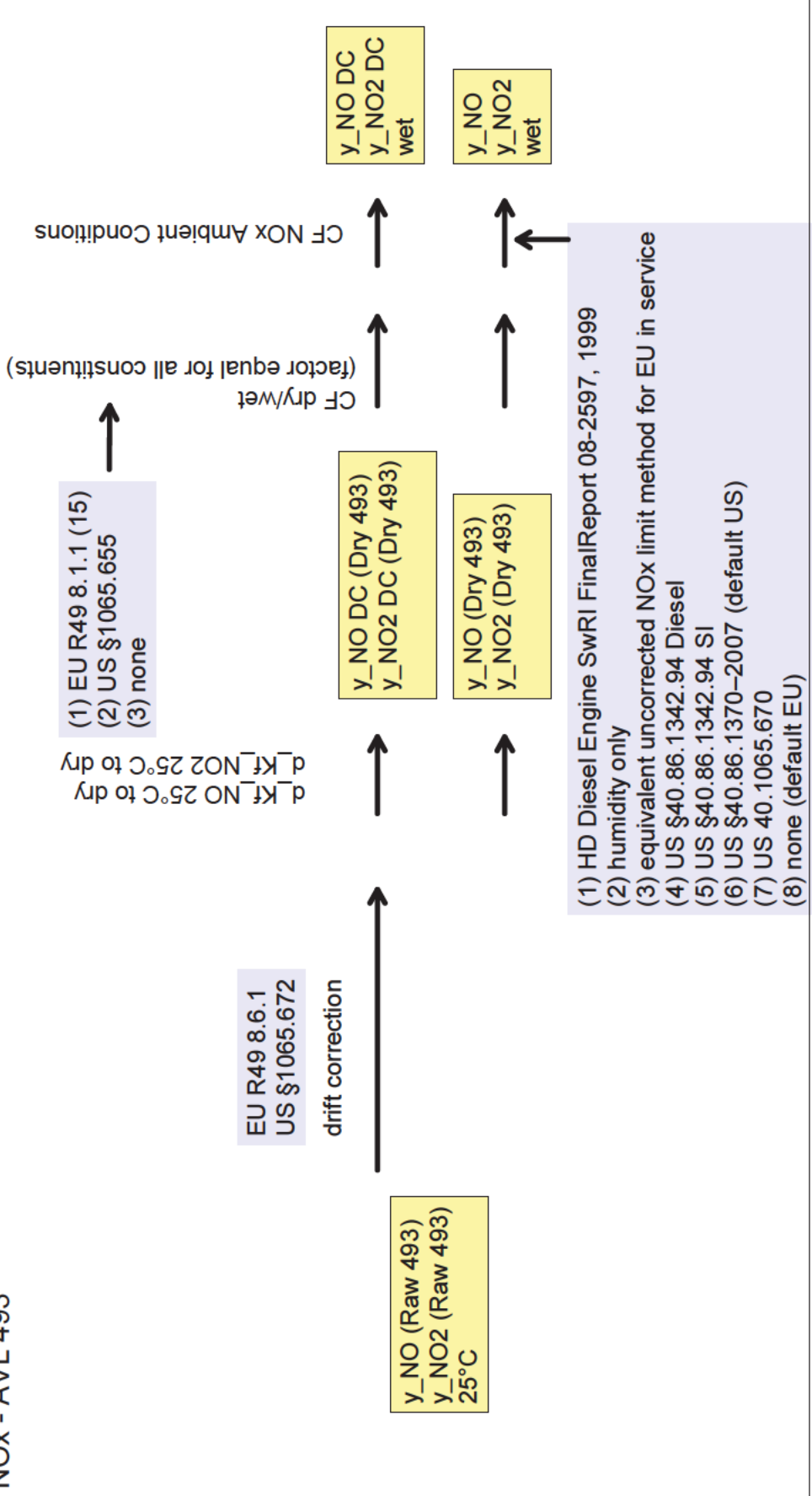
Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: A3 E-Tron / 1.4L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (5)

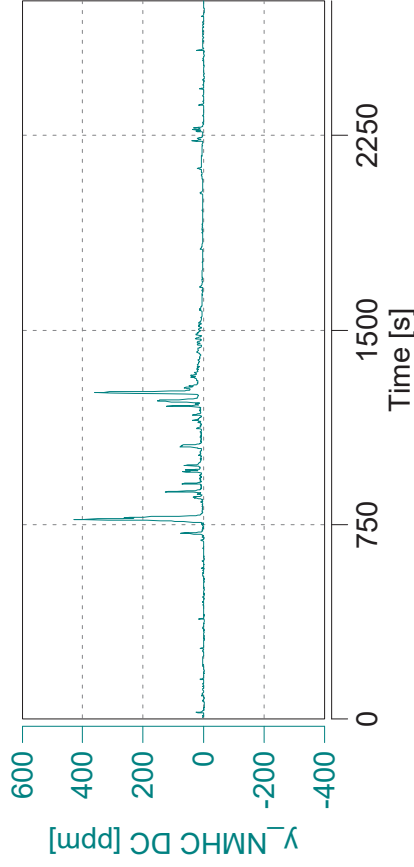
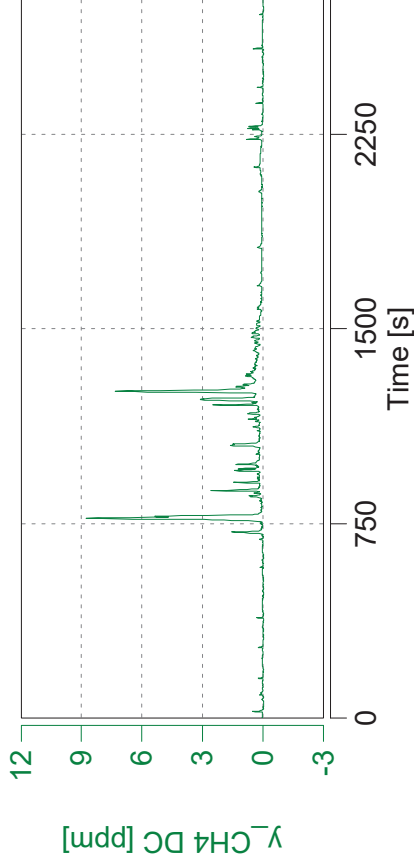
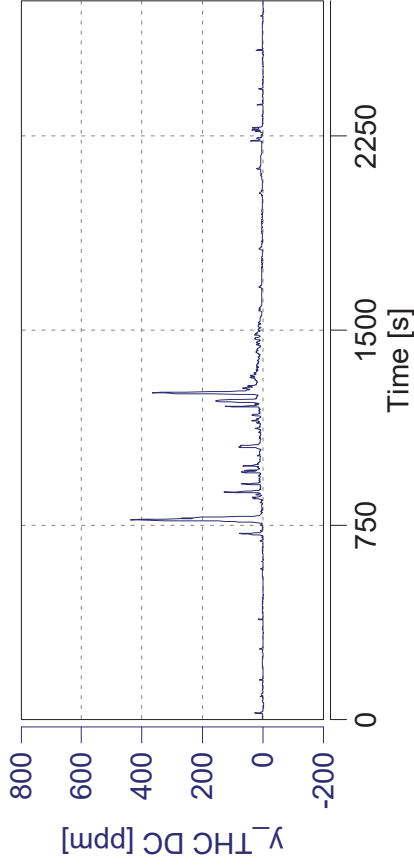
'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_0

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: NO/NO2/NOx Zero - Span

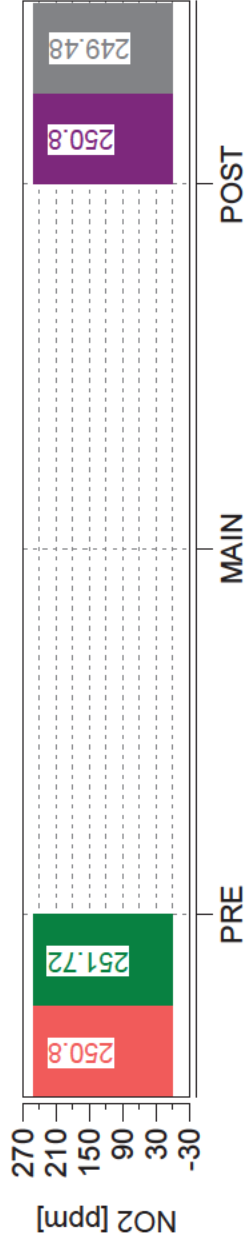
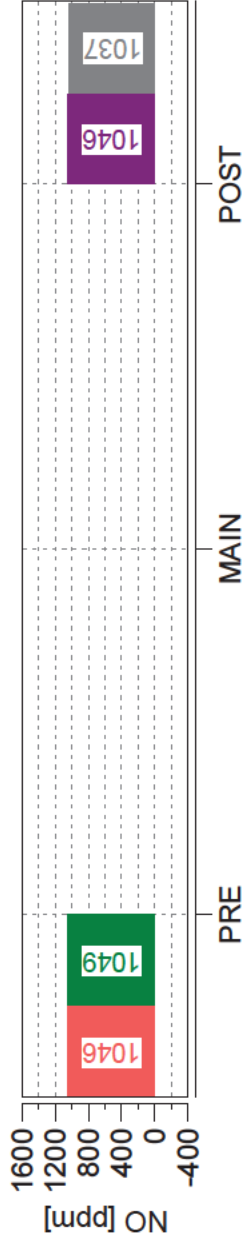
'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: CO/CO2 Zero - Span

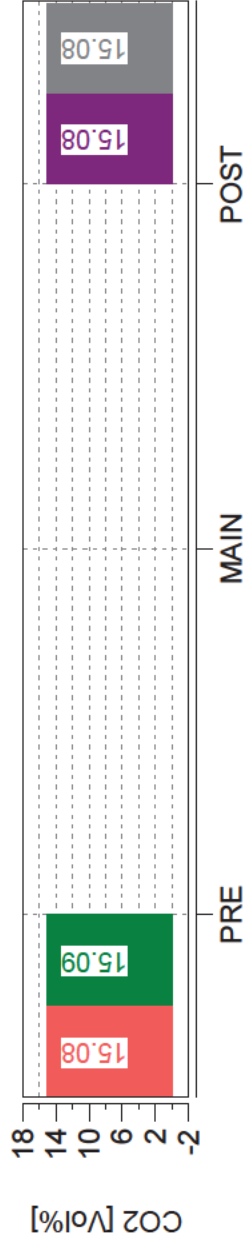
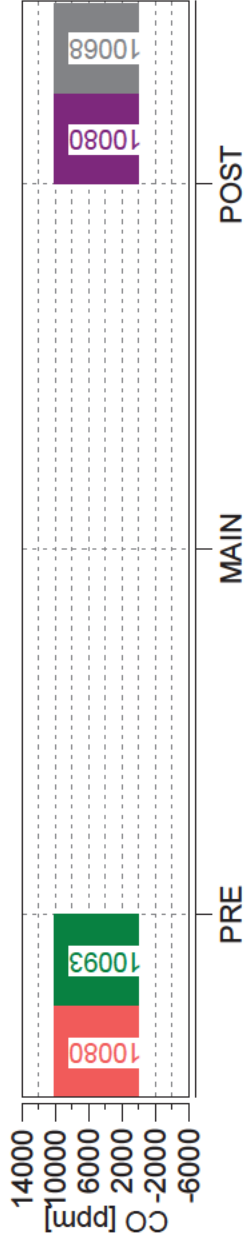
'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: THC/CH4 Zero - Span

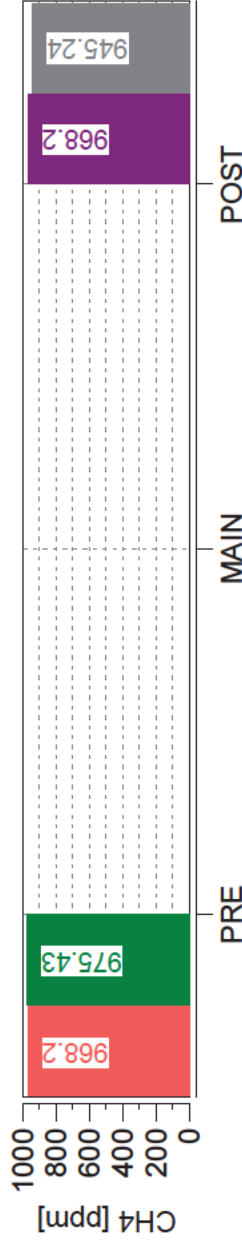
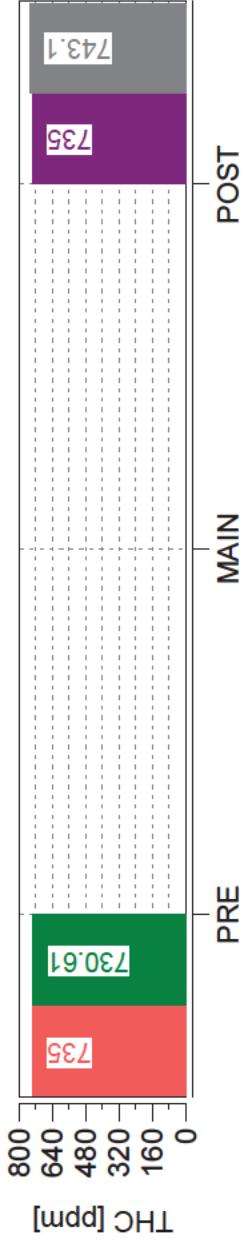
'Mountain'

Start Date: 07/28/2018

Start Time: 11:33:17.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary

'City'

Start Date: 07/28/2018

Start Time: 18:26:28.0



Concerto M.O.V.E., 2018

Trip Duration	3426.00	s	ave THC	4.98626	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3426.00	s	ave NMHC	4.88654	ppm	BS CO	n/a	g/hphr
Trip Distance	16.25	mi	ave CH4	0.09973	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	16.25	mi	ave CO	151.71762	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	5.42565	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	2.41695	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	1.42	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	1.40	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	0.50	gall	tot THC	0.06013	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	0.50	gall	tot NMHC	0.05562	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00133	g	DS CO2	262.05139	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	7.53948	g	DS CO	0.46383	g/mi
Trip Fuel Economy EU (ac)	32.36	mpg_US	tot CO2	4259.57198	g	DS THC	0.00370	g/mi
Trip Fuel Economy US (ac)	32.80	mpg_US	tot NO (d)	0.09128	g	DS NMHC	0.00342	g/mi
Trip Av. Eng. Speed	616.55	rpm	tot NO2	0.01437	g	DS CH4	0.00008	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.10566	g	DS NO (d)	0.00562	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00088	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.00650	g/mi
Trip Exhaust Mass	23.07	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	73.84	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	72.98	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	17.08027	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	26.67834	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary Drift Corrected

'City'

Start Date: 07/28/2018

Start Time: 18:26:28.0



Concerto M.O.V.E., 2018

Trip Duration	3426.00	s	ave THC DC	4.88867	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3426.00	s	ave NMHC DC	4.79090	ppm	BS CO DC	n/a	g/hphr
Trip Distance	16.25	mi	ave CH4 DC	0.09777	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	16.25	mi	ave CO DC	151.70783	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	5.42026	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	2.44300	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	1.42	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	1.40	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	0.50	gall	tot THC DC	0.05902	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	0.50	gall	tot NMHC DC	0.05460	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00131	g	DS CO2 DC	261.79099	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	7.53899	g	DS CO DC	0.46380	g/mi
Trip Fuel Economy EU (ac)	32.36	mpg_US	tot CO2 DC	4255.33922	g	DS THC DC	0.00363	g/mi
Trip Fuel Economy US (ac)	32.80	mpg_US	tot NO DC (d)	0.09209	g	DS NMHC DC	0.00336	g/mi
Trip Av. Eng. Speed	616.55	rpm	tot NO2 DC	0.01465	g	DS CH4 DC	0.00008	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.10674	g	DS NO DC (d)	0.00567	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00090	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.00657	g/mi
Trip Exhaust Mass	23.07	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	73.84	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	72.98	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	17.08027	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	26.67834	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment Check

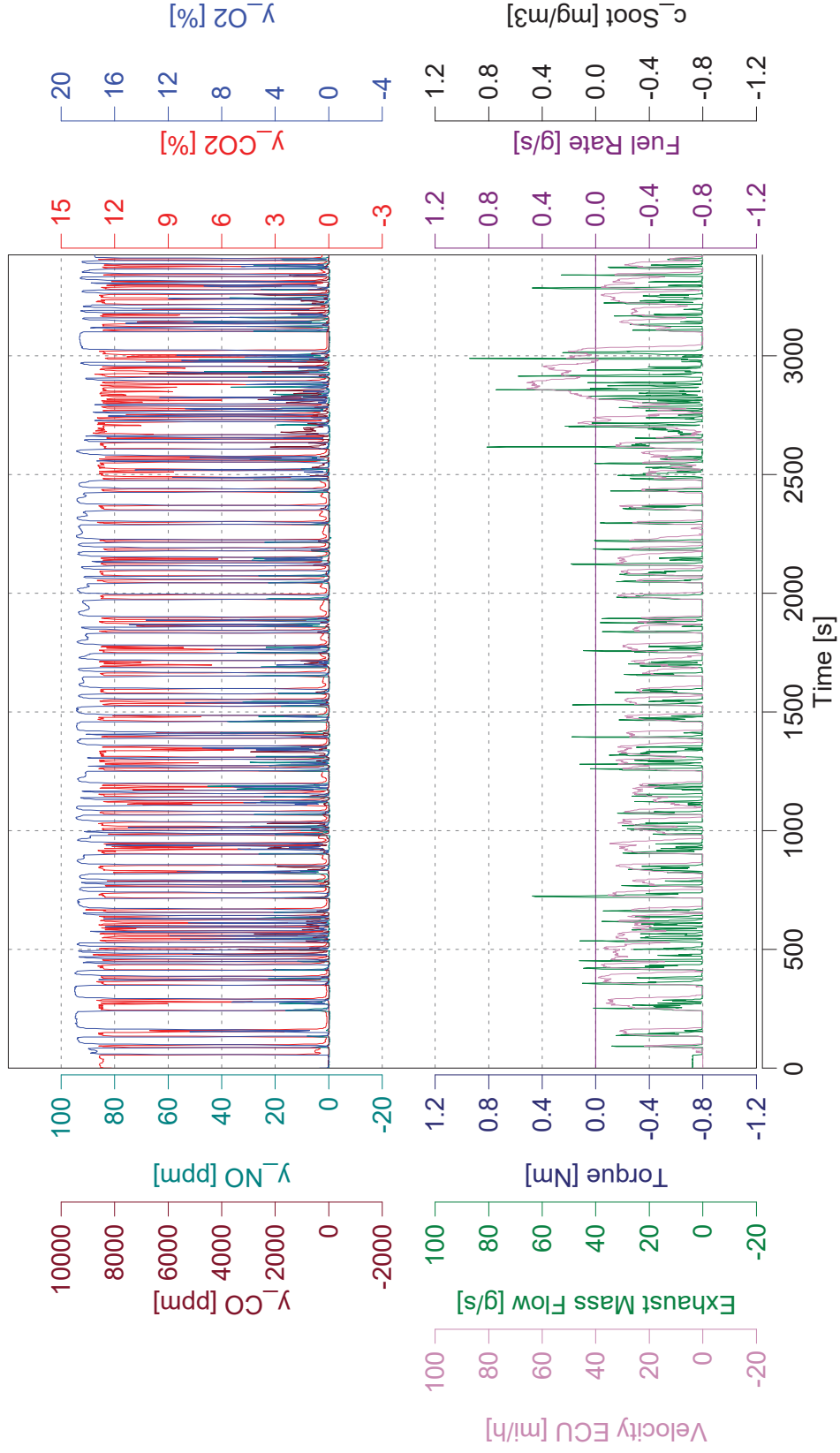
'City'

Start Date: 07/28/2018

Start Time: 18:26:28.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment of Gas Concentrations

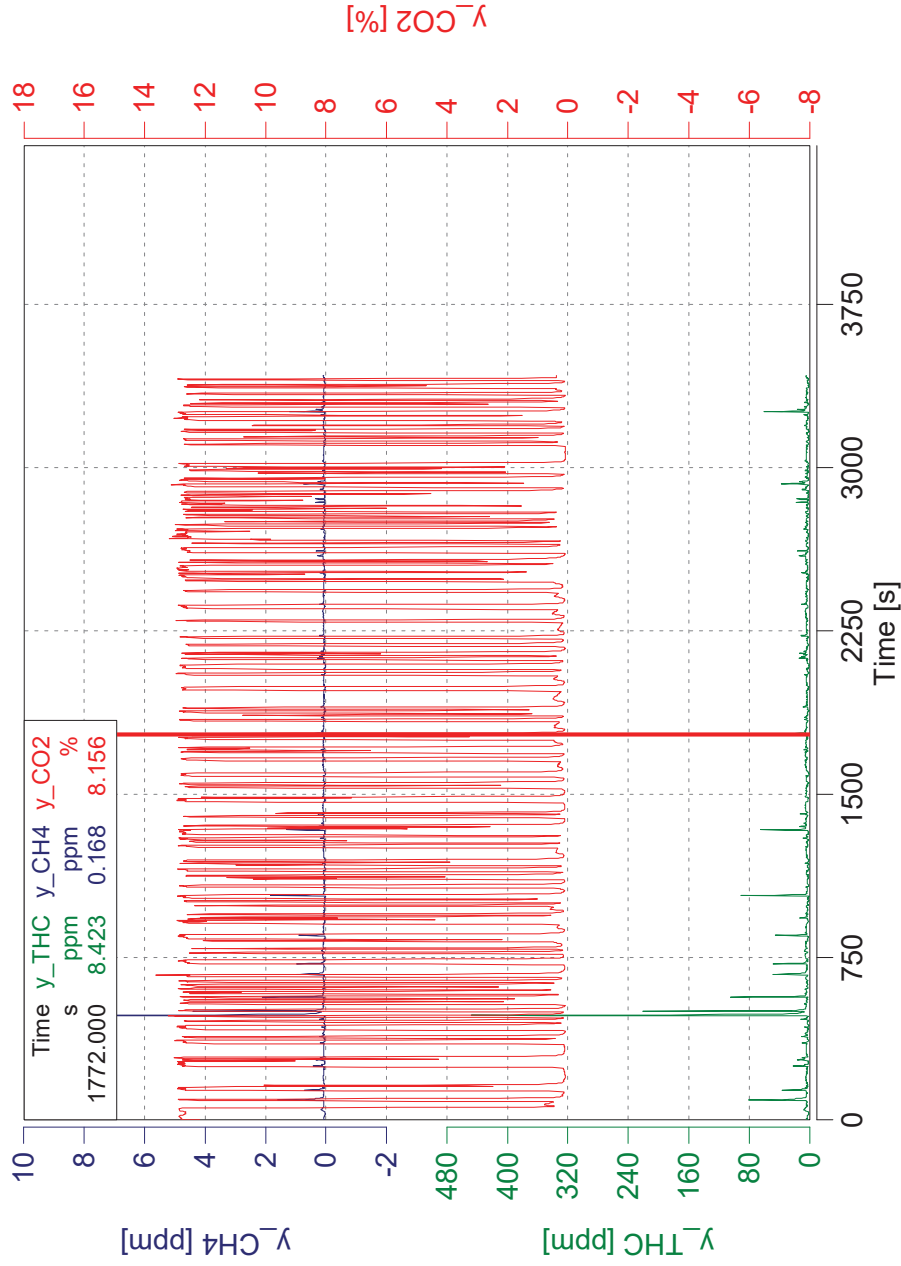
'City'

Start Date: 07/28/2018

Start Time: 18:26:28.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Ambient Conditions

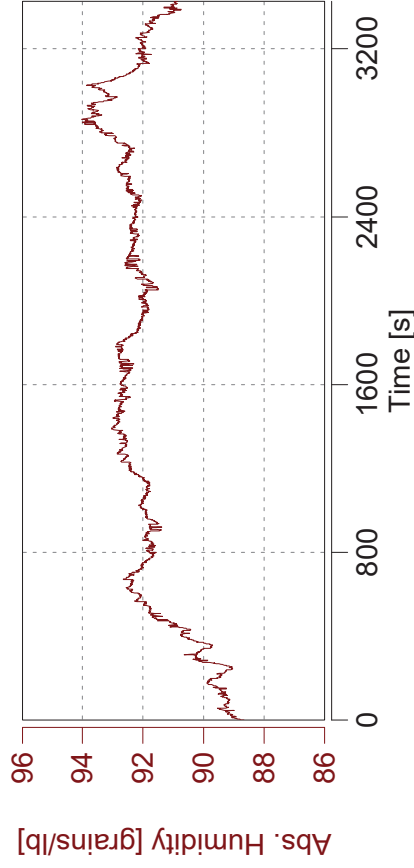
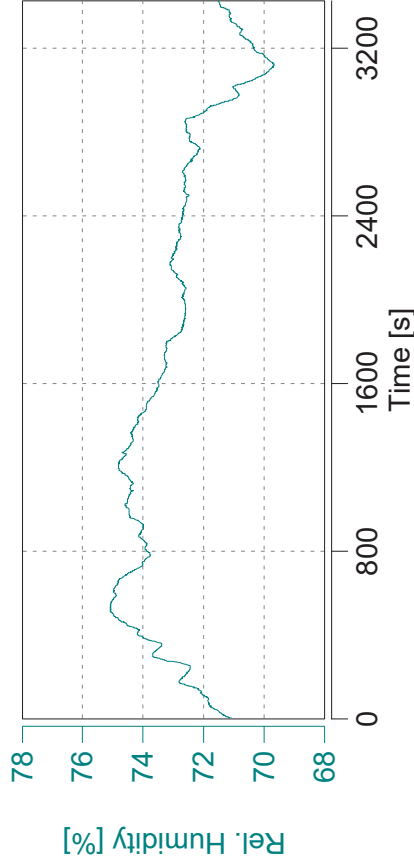
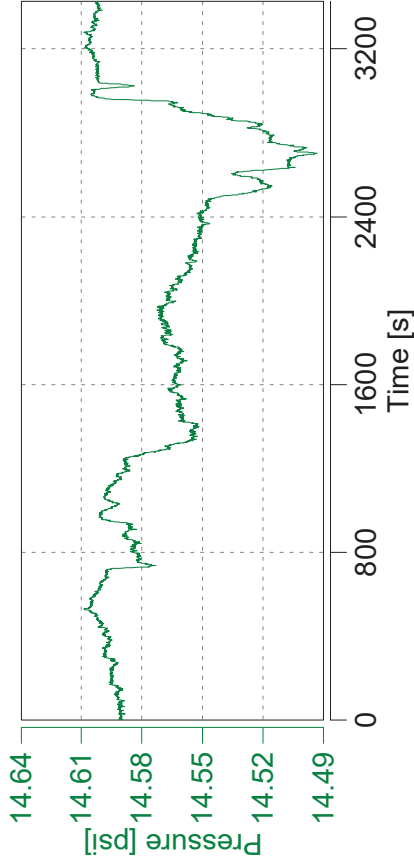
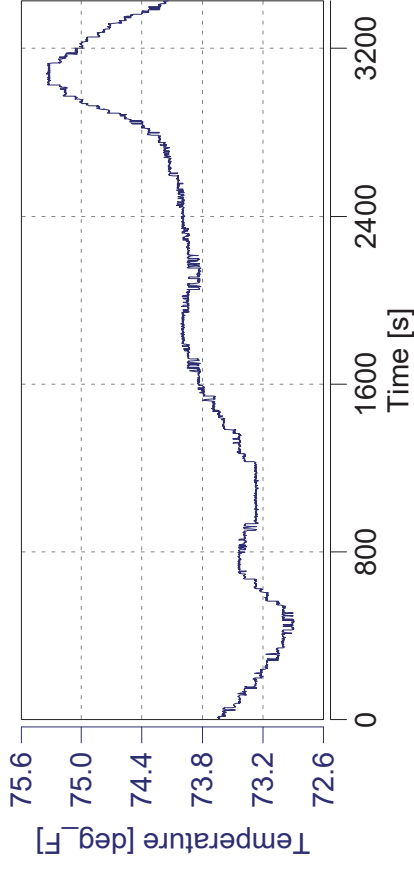
'City'

Start Date: 07/28/2018

Start Time: 18:26:28.0



Concerto M.O.V.E., 2018



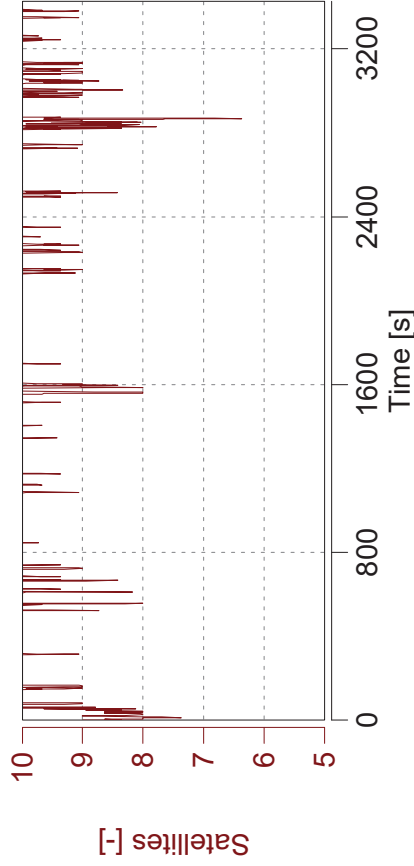
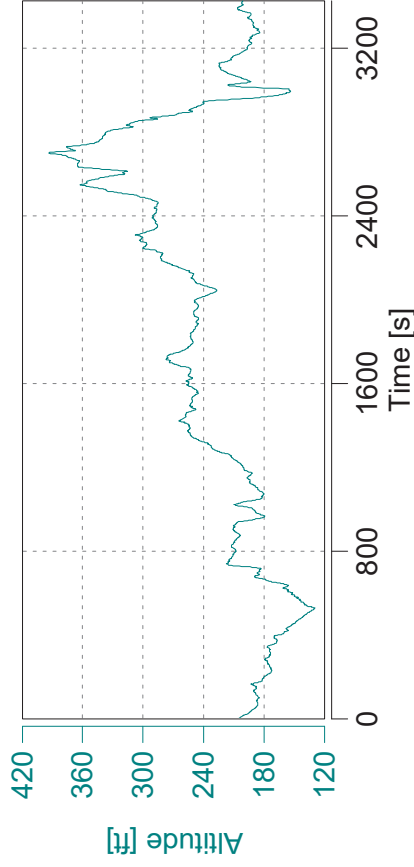
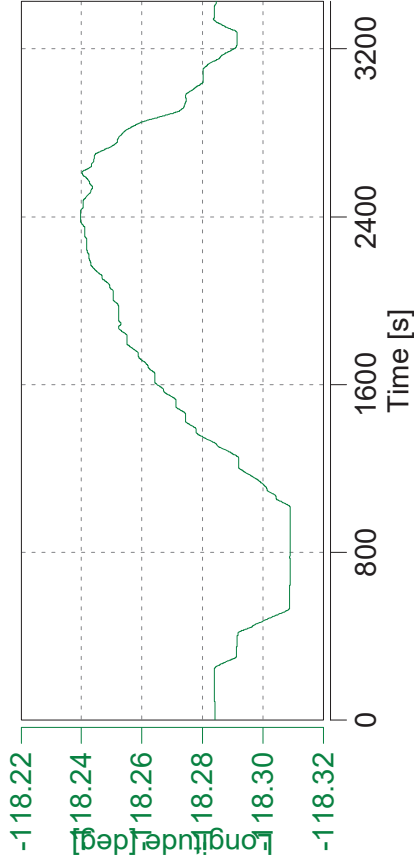
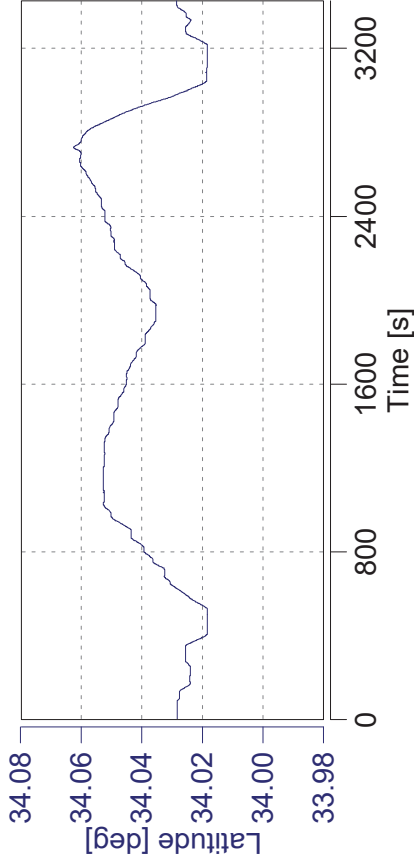
Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: A3 E-Tron / 1.4L
Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City
Page: GPS

'City'
Start Date: 07/28/2018
Start Time: 18:26:28.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: A3 E-Tron / 1.4L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (1)

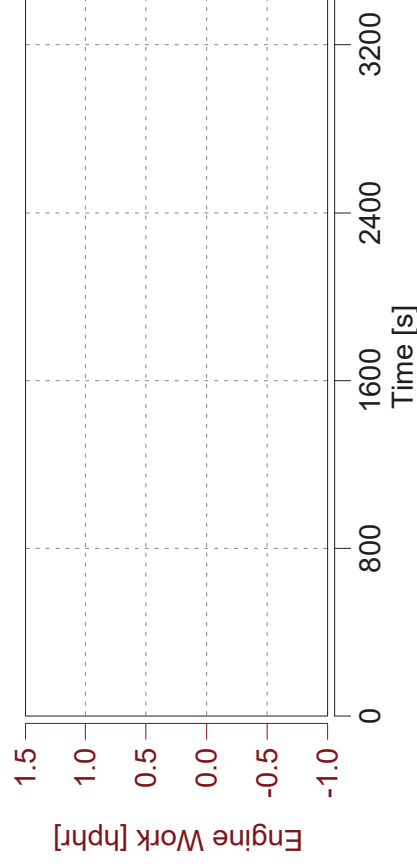
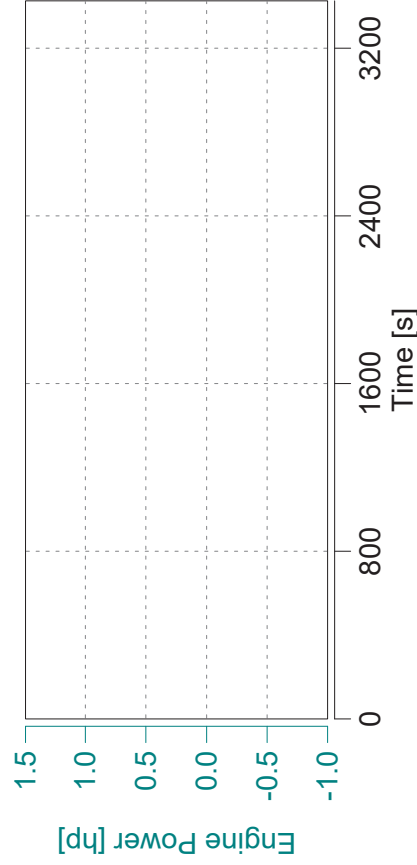
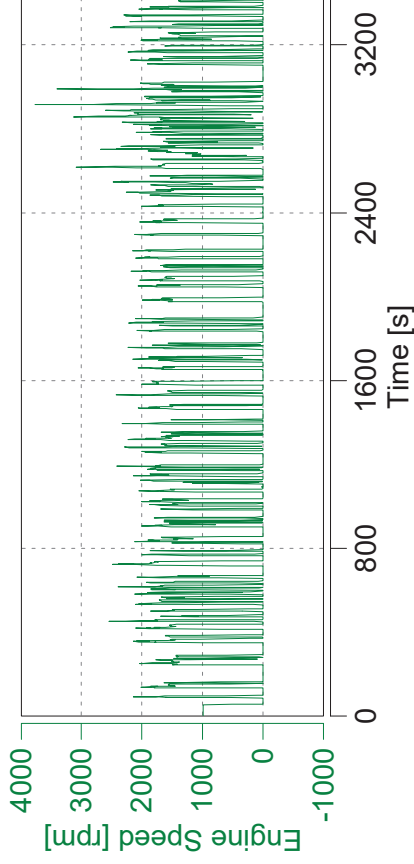
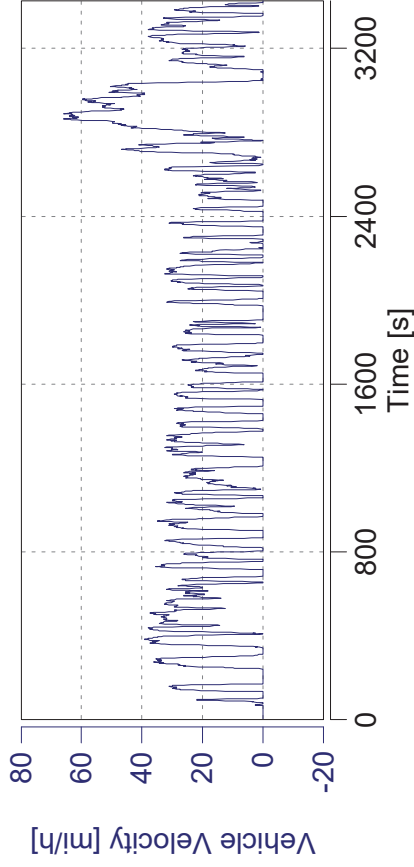
'City'

Start Date: 07/28/2018

Start Time: 18:26:28.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: A3 E-Tron / 1.4L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (2)

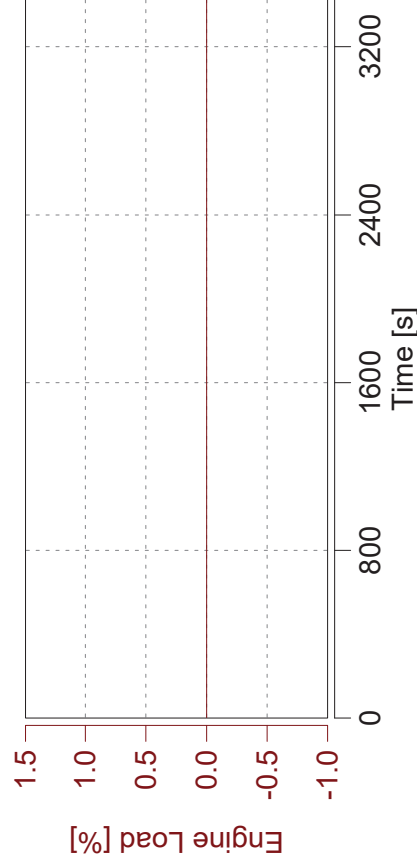
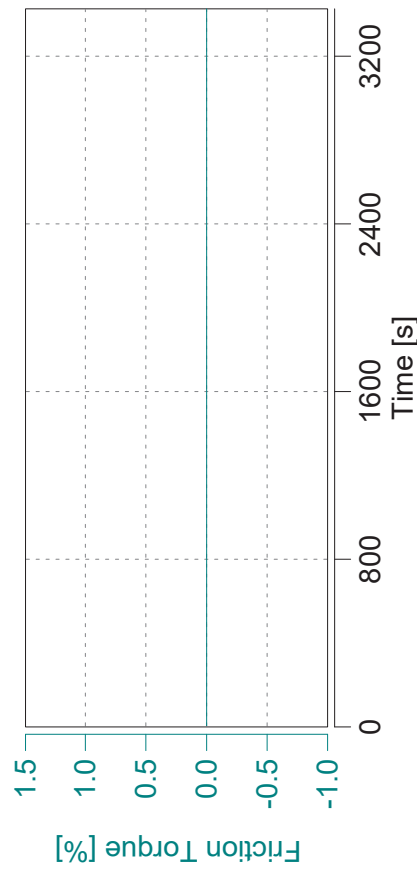
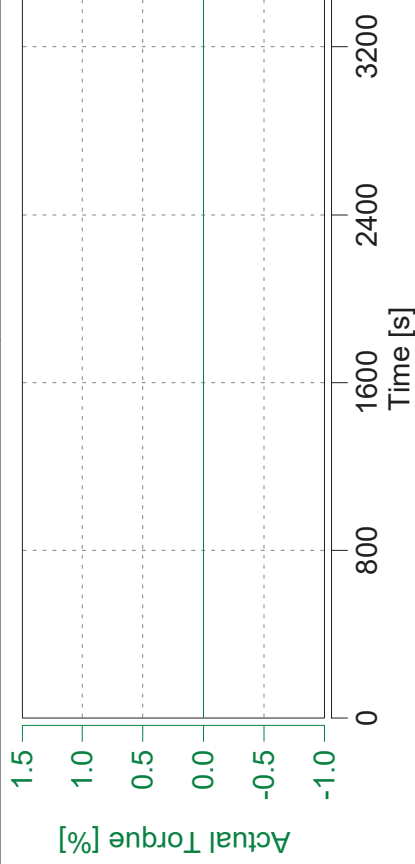
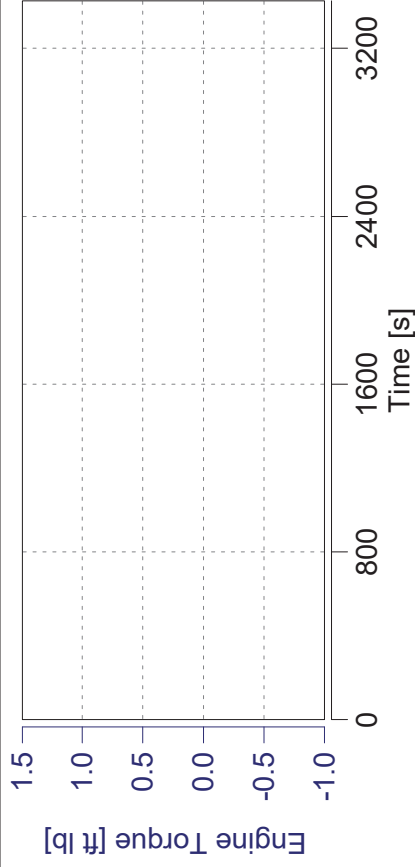
'City'

Start Date: 07/28/2018

Start Time: 18:26:28.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (3)

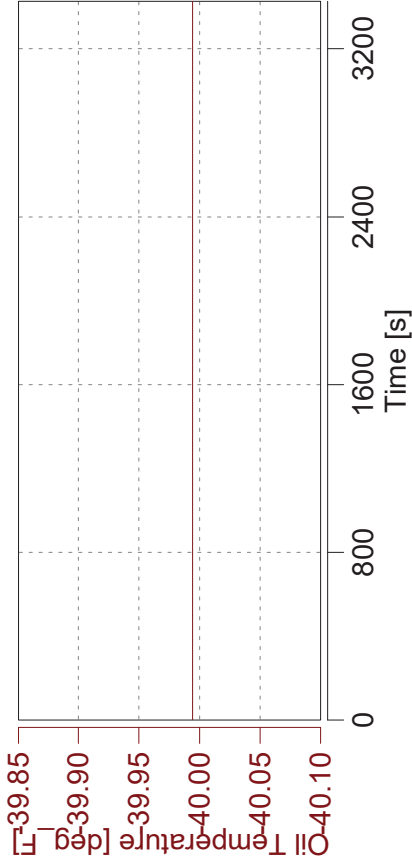
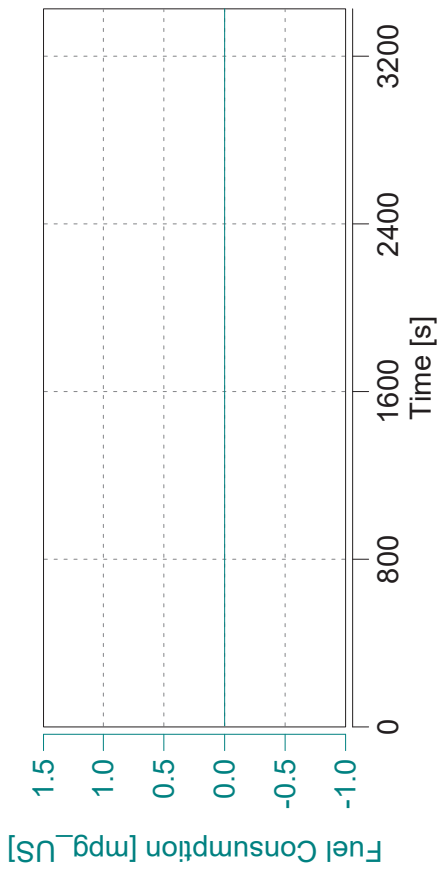
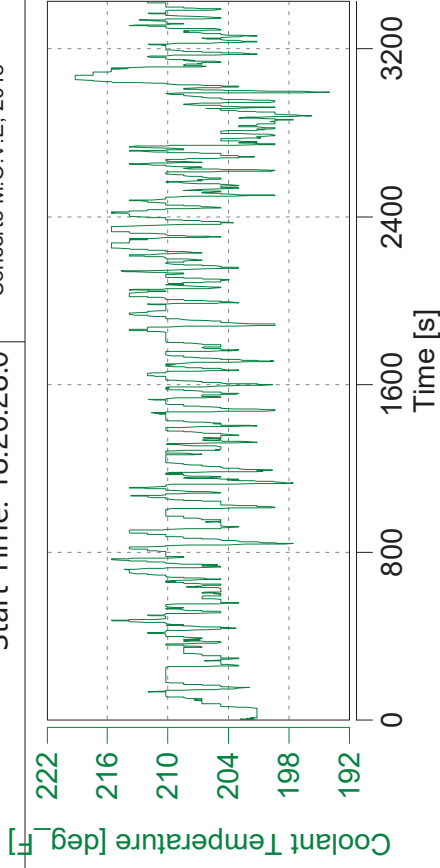
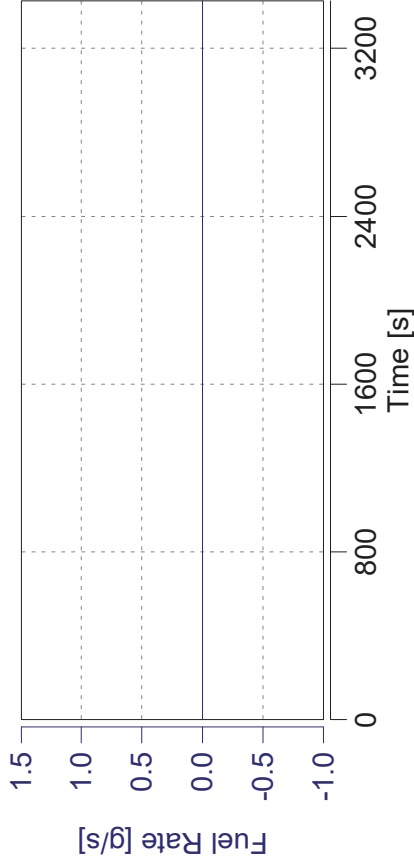
'City'

Start Date: 07/28/2018

Start Time: 18:26:28.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316(CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (1)

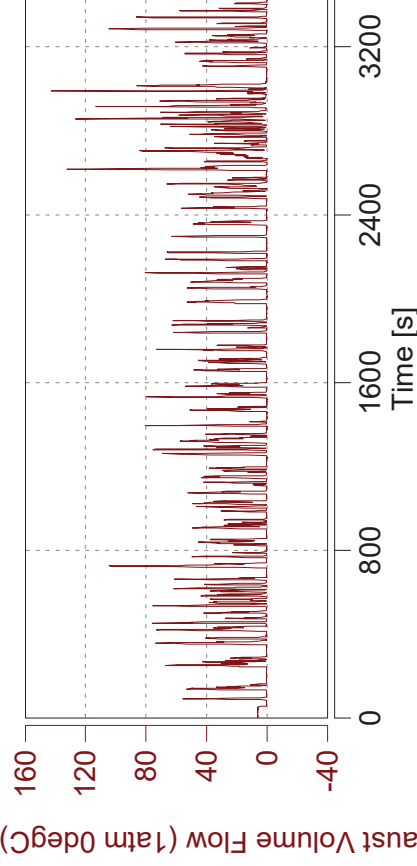
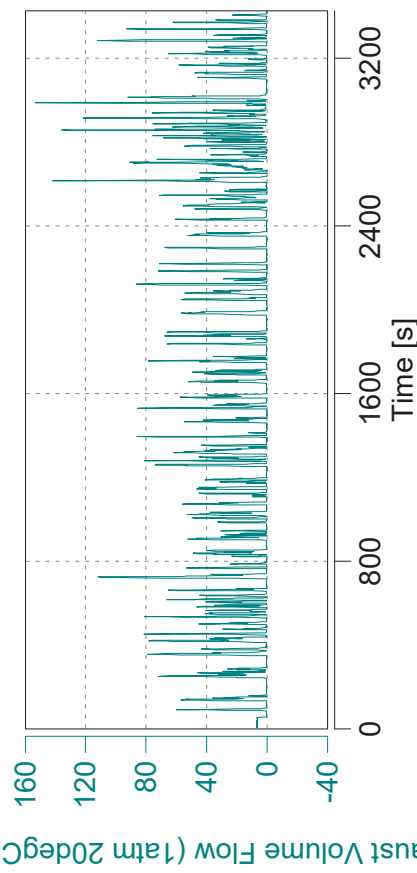
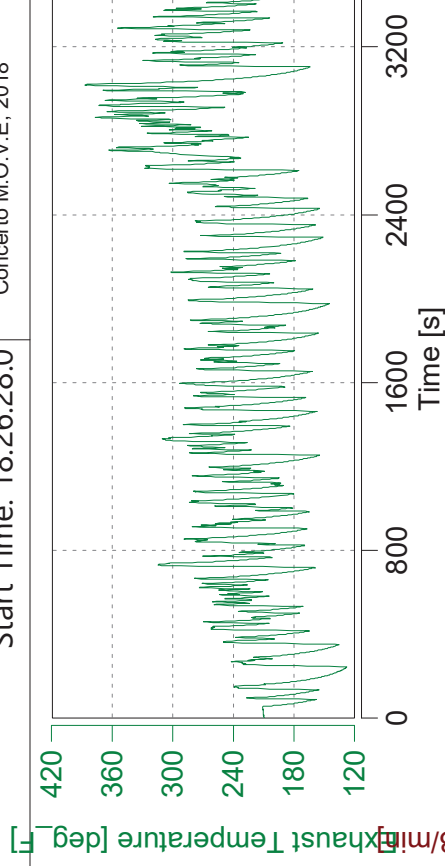
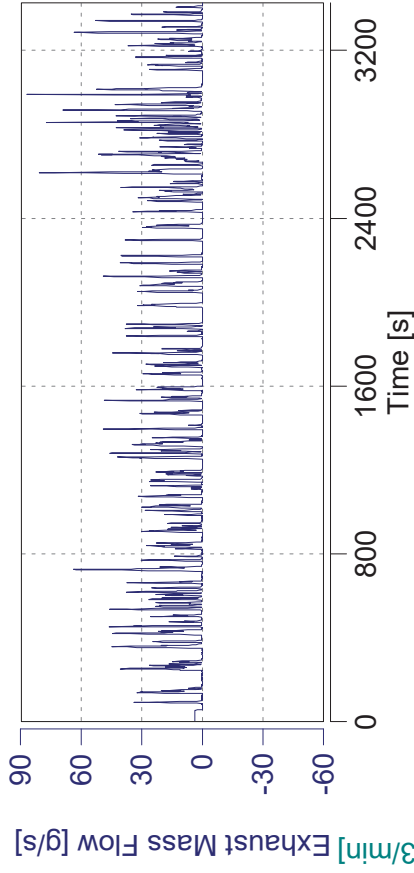
'City'

Start Date: 07/28/2018

Start Time: 18:26:28.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (2)

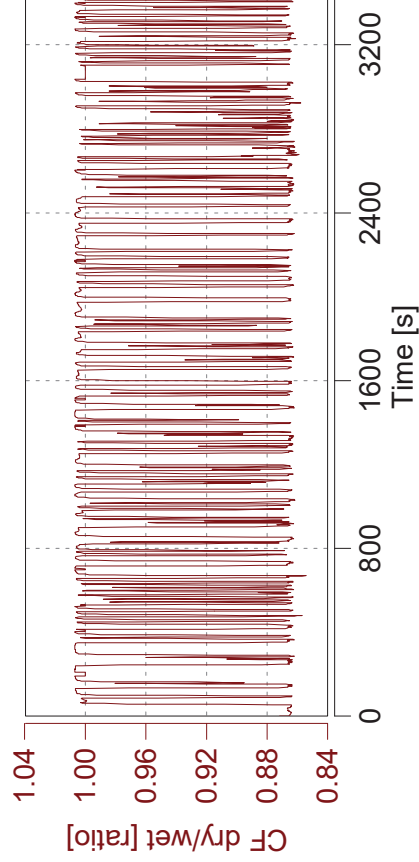
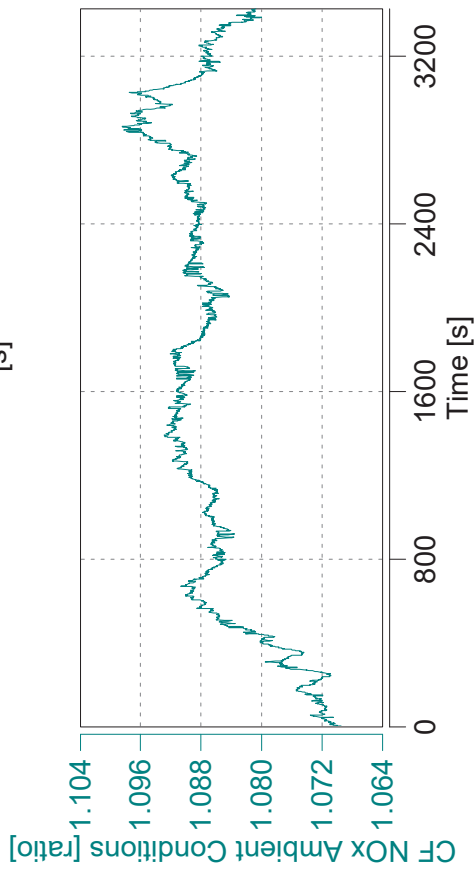
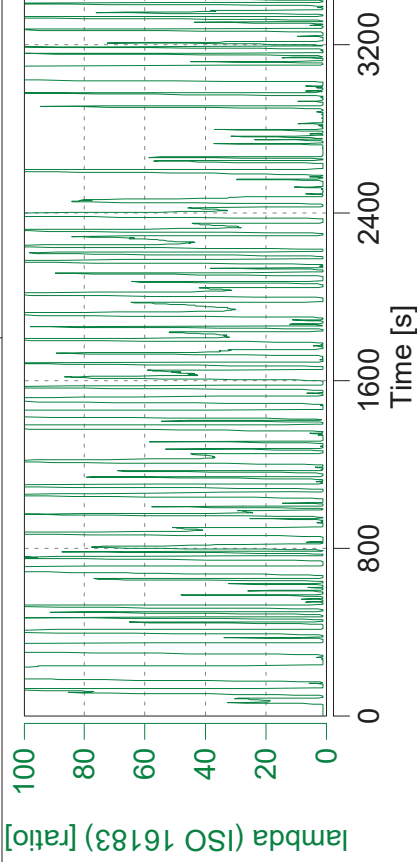
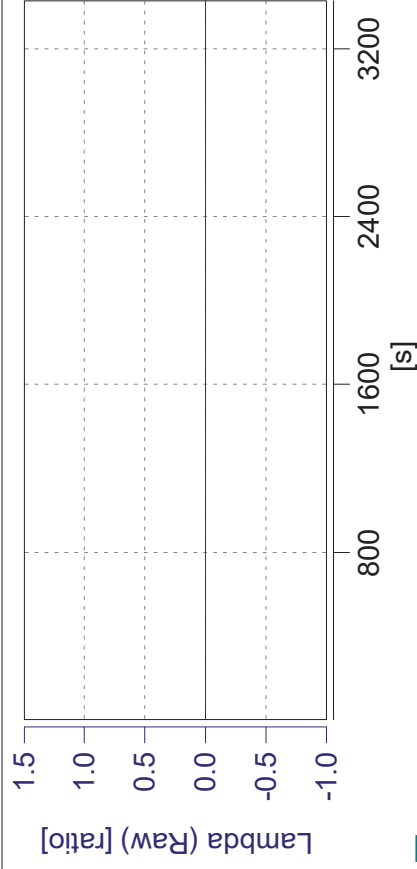
'City'

Start Date: 07/28/2018

Start Time: 18:26:28.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (1)

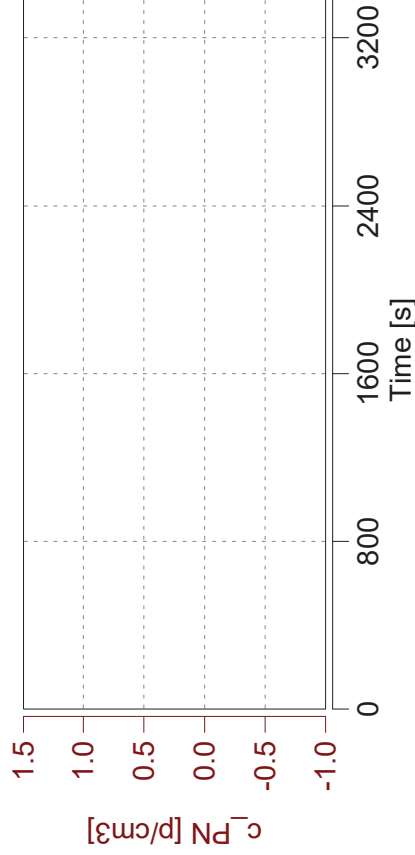
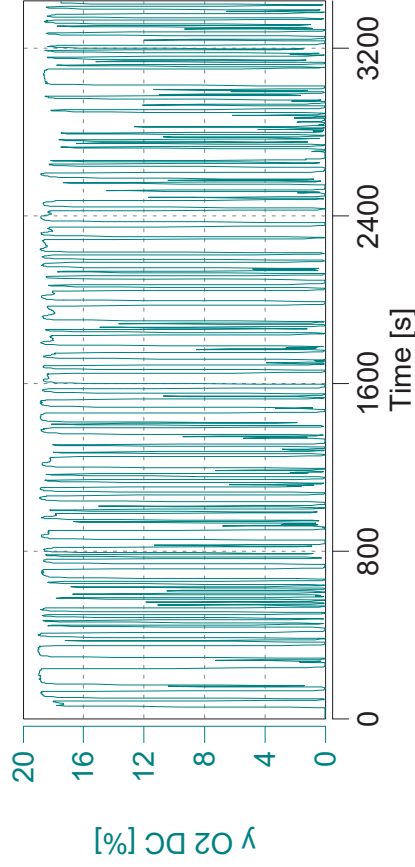
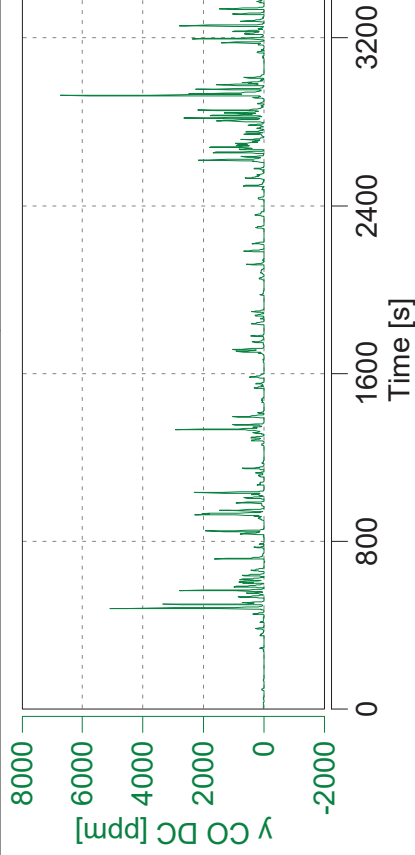
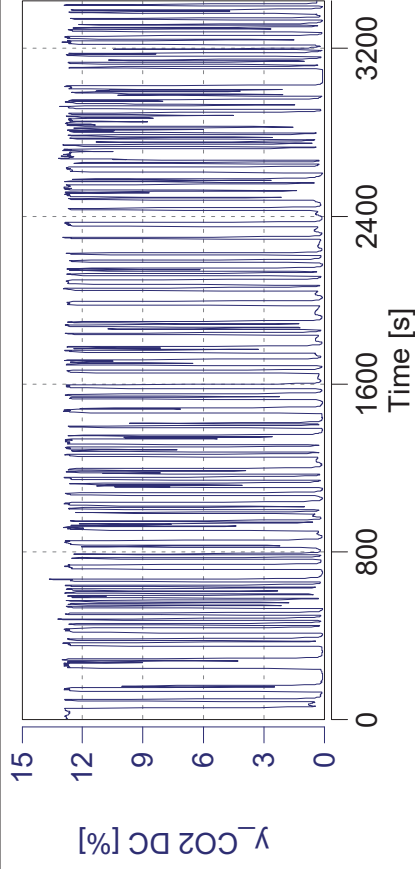
'City'

Start Date: 07/28/2018

Start Time: 18:26:28.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: A3 E-Tron / 1.4L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (2)

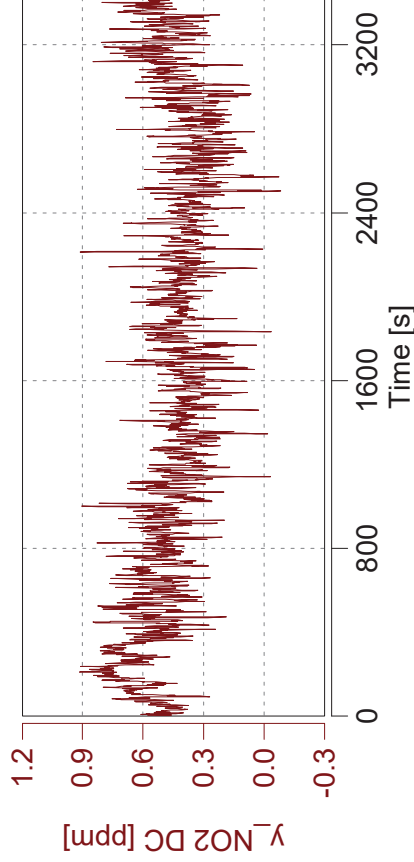
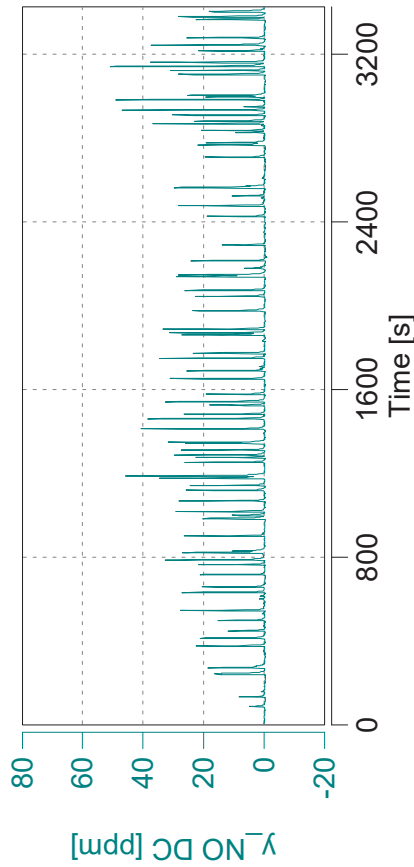
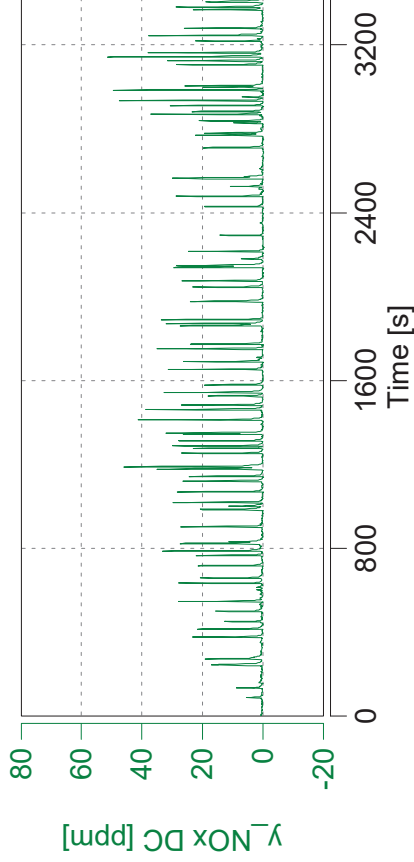
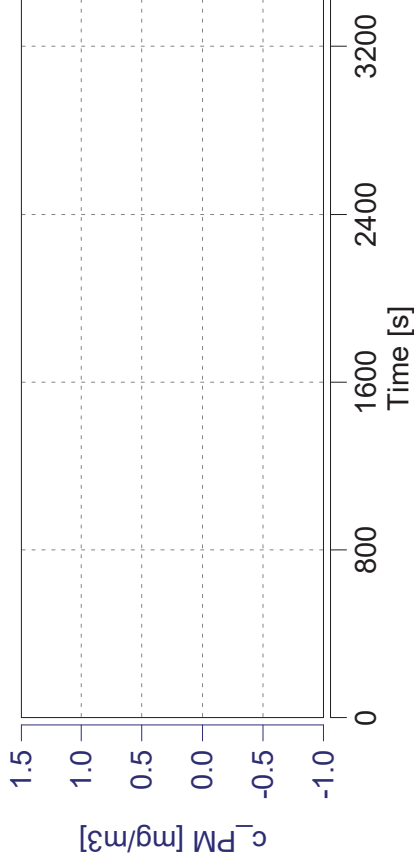
'City'

Start Date: 07/28/2018

Start Time: 18:26:28.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: A3 E-Tron / 1.4L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (3)

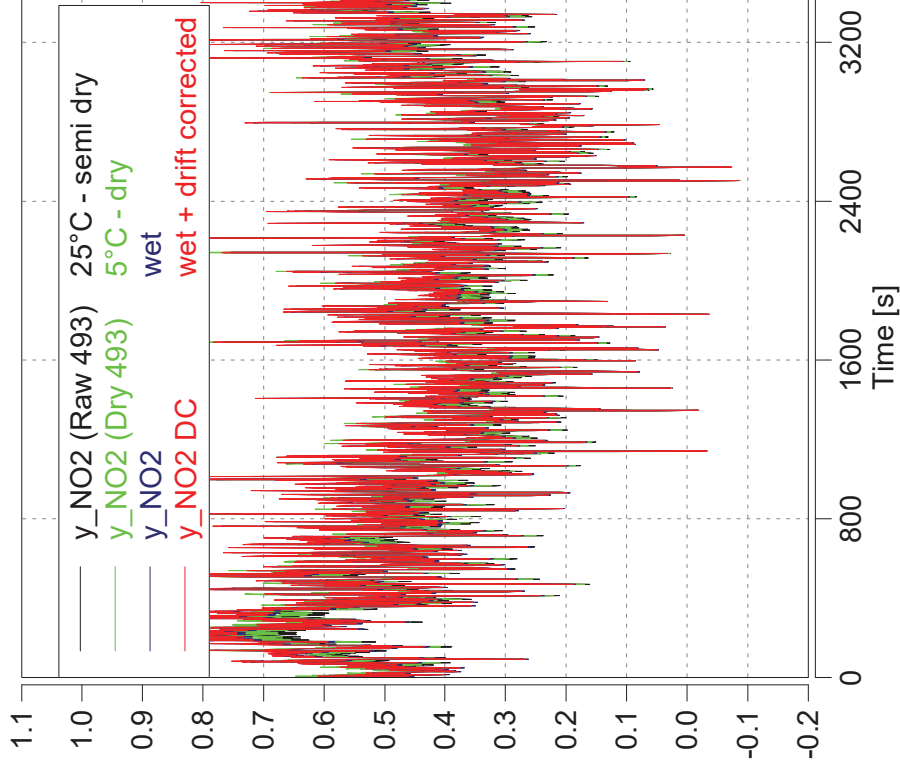
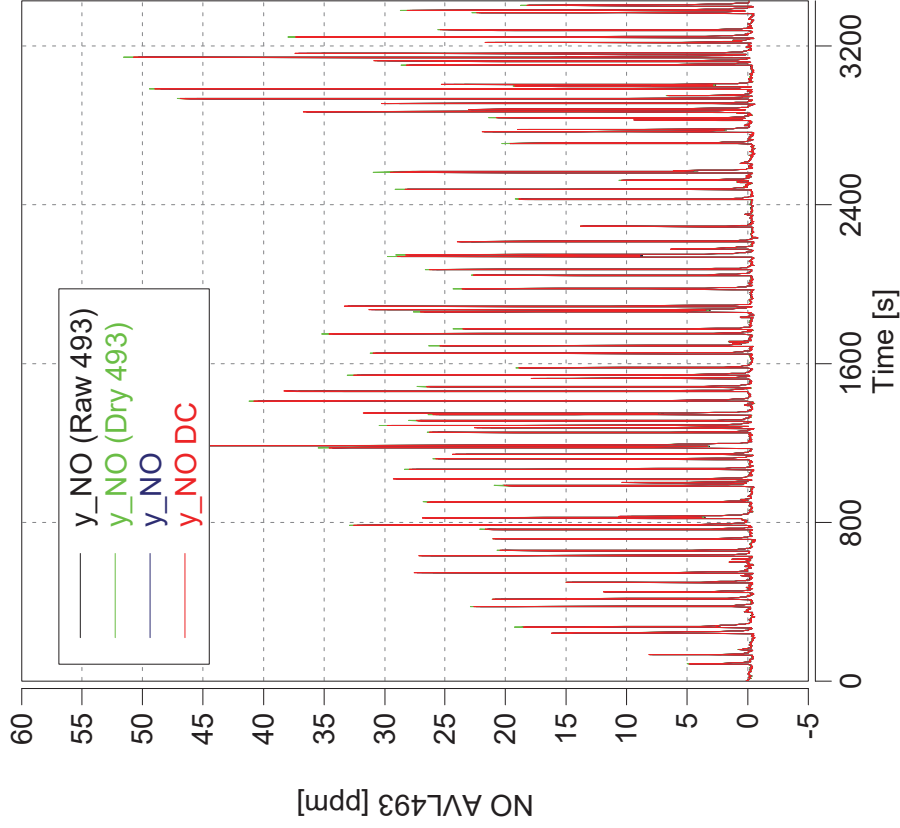
'City'

Start Date: 07/28/2018

Start Time: 18:26:28.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: A3 E-Tron / 1.4L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (4) NOx Corrections

NOx - AVL 493

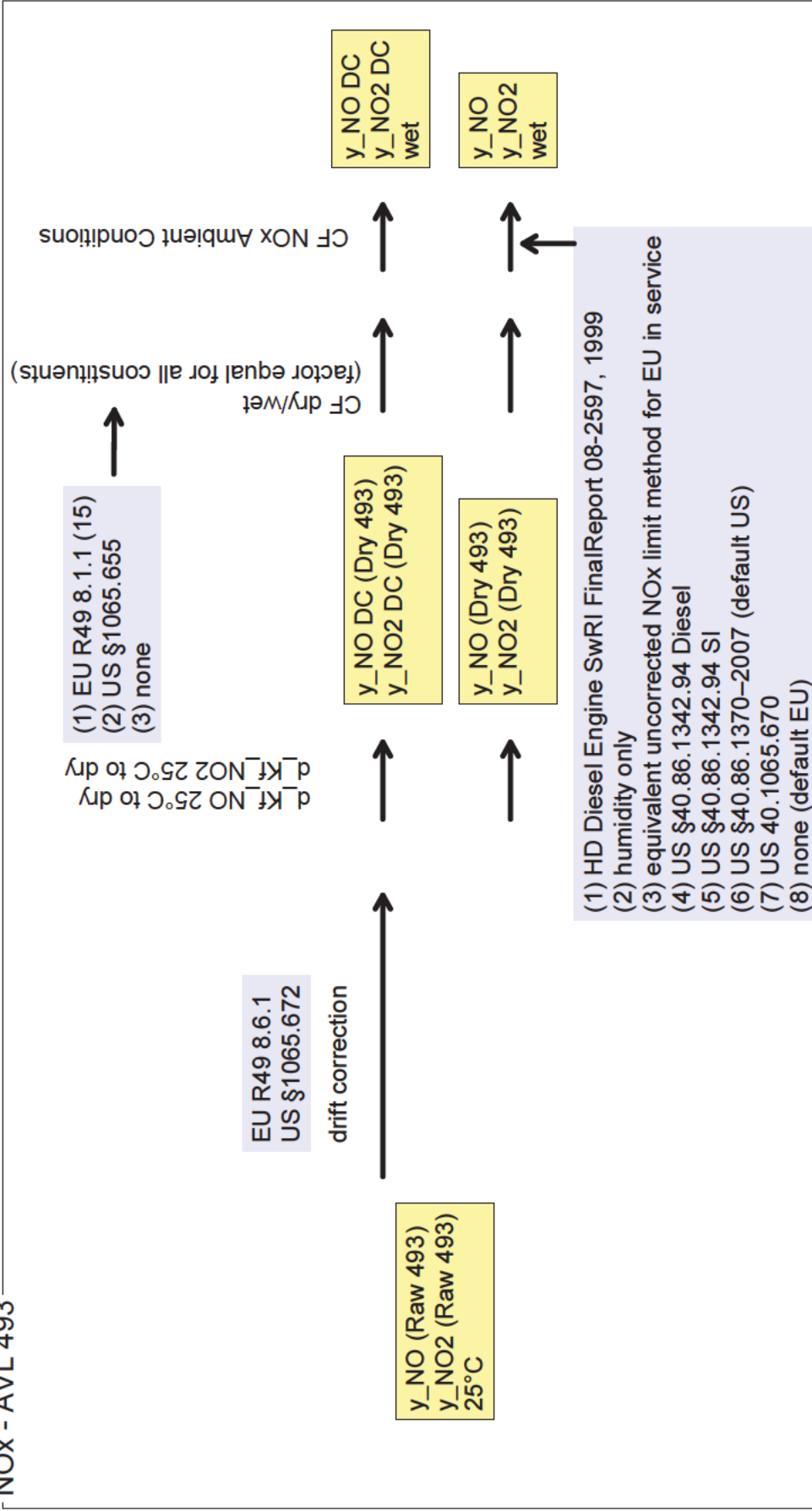
'City'

Start Date: 07/28/2018

Start Time: 18:26:28.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (5)

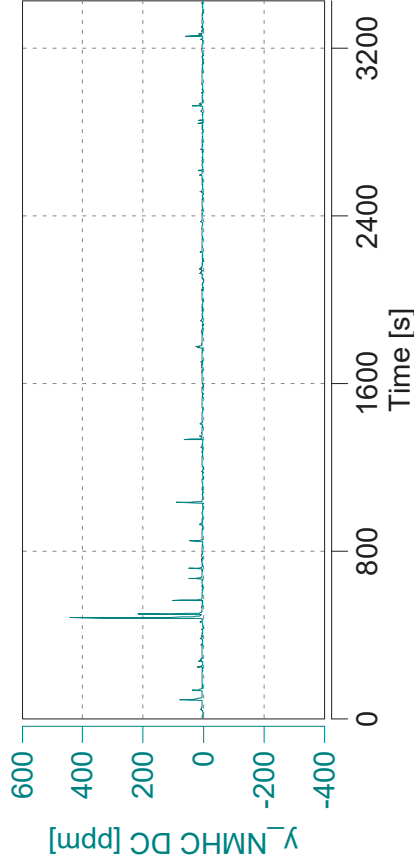
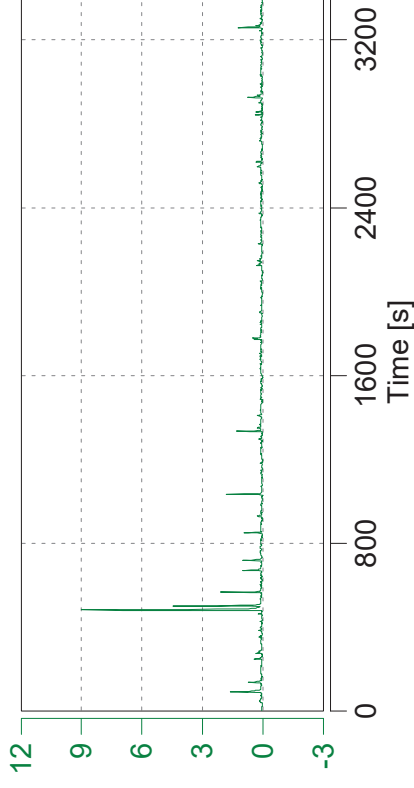
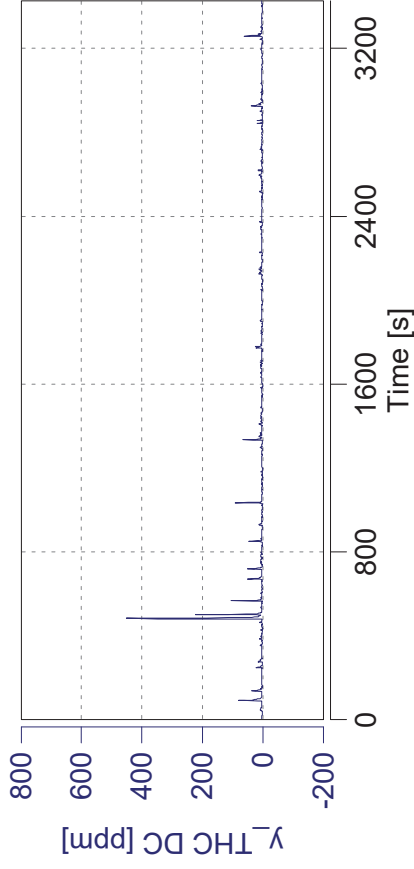
'City'

Start Date: 07/28/2018

Start Time: 18:26:28.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: A3 E-Tron / 1.4L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: NO/NO2/NOx Zero - Span

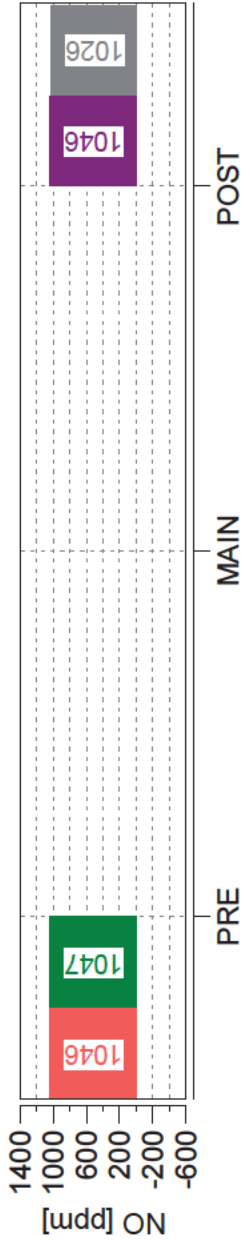
'City'

Start Date: 07/28/2018

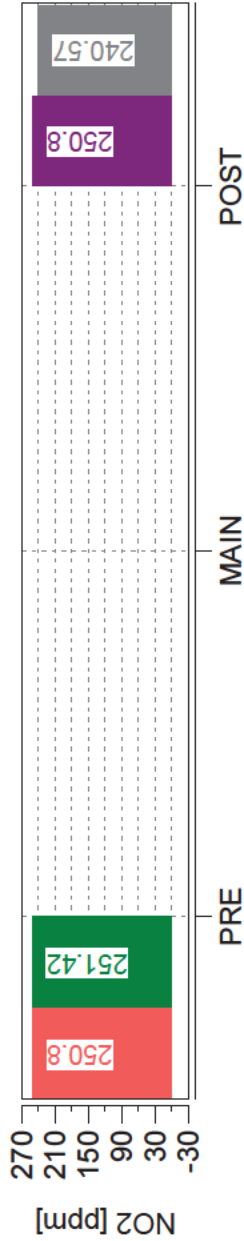
Start Time: 18:26:28.0



Concerto M.O.V.E., 2018



GP_NO_Cal_gas_value
GP_NO_Adjust_Actual
GP_NO_Reference
GP_NO_Audit_Actual



GP_NO2_Cal_gas_value
GP_NO2_Adjust_Actual
GP_NO2_Reference
GP_NO2_Audit_Actual

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90



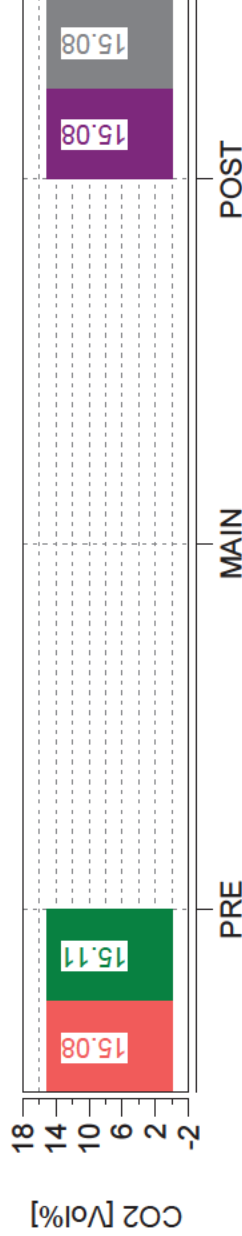
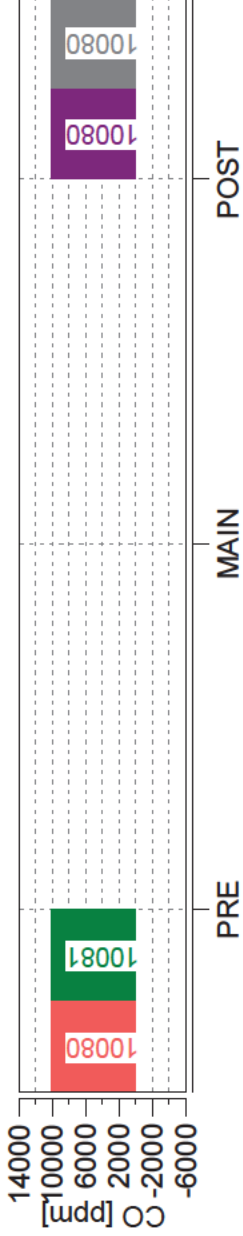
Concerto M.O.V.E., 2018

'City'

Start Date: 07/28/2018

Start Time: 18:26:28.0

Case: City
Page: CO/CO2 Zero - Span



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: A3 E-Tron / 1.4L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: THC/CH4 Zero - Span

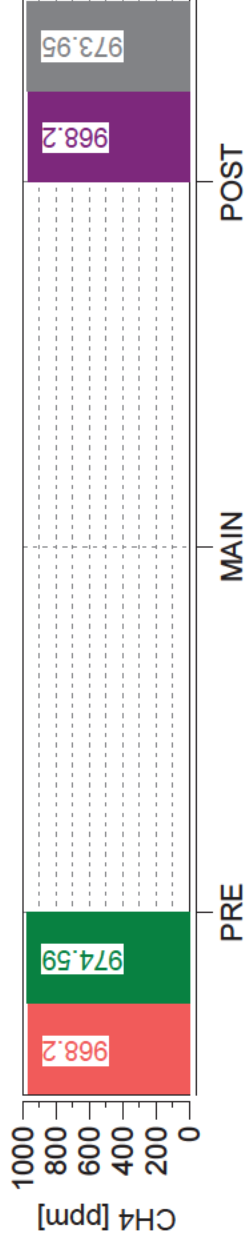
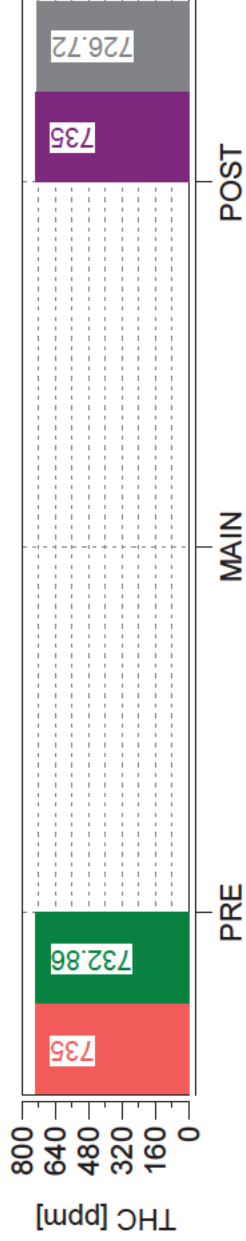
'City'

Start Date: 07/28/2018

Start Time: 18:26:28.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: A3 E-Tron / 1.4L

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway
Page: Trip Summary

'Highway'
Start Date: 07/31/2018
Start Time: 14:11:25.0



Concerto M.O.V.E., 2018

Trip Duration	2669.00	s	ave THC	2.90851	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	2669.00	s	ave NMHC	2.85034	ppm	BS CO	n/a	g/hphr
Trip Distance	38.53	mi	ave CH4	0.05817	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	38.53	mi	ave CO	800.71910	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	12.50080	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	1.49427	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.66	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.60	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.65	gall	tot THC	0.14418	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.63	gall	tot NMHC	0.13337	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00320	g	DS CO2	361.09445	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	64.26173	g	DS CO	1.66786	g/mi
Trip Fuel Economy EU (ac)	23.40	mpg_US	tot CO2	13912.78470	g	DS THC	0.00374	g/mi
Trip Fuel Economy US (ac)	23.71	mpg_US	tot NO (d)	0.18200	g	DS NMHC	0.00346	g/mi
Trip Av. Eng. Speed	1830.66	rpm	tot NO2	-0.01800	g	DS CH4	0.00008	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.16400	g	DS NO (d)	0.00472	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	-0.00047	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.00426	g/mi
Trip Exhaust Mass	72.96	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	81.91	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	52.69	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	51.96934	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	4.38366	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Tiguan LTD / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Trip Summary Drift Corrected

'Highway'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018

Trip Duration	2669.00	s	ave THC DC	3.09926	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	2669.00	s	ave NMHC DC	3.03728	ppm	BS CO DC	n/a	g/hphr
Trip Distance	38.53	mi	ave CH4 DC	0.06199	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	38.53	mi	ave CO DC	801.51289	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	12.48425	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	1.49093	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.66	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.60	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.65	gall	tot THC DC	0.15045	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.63	gall	tot NMHC DC	0.13917	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00333	g	DS CO2 DC	360.61617	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	64.32673	g	DS CO DC	1.66955	g/mi
Trip Fuel Economy EU (ac)	23.40	mpg_US	tot CO2 DC	13894.35717	g	DS THC DC	0.00390	g/mi
Trip Fuel Economy US (ac)	23.71	mpg_US	tot NO DC (d)	0.18353	g	DS NMHC DC	0.00361	g/mi
Trip Av. Eng. Speed	1830.66	rpm	tot NO2 DC	-0.01961	g	DS CH4 DC	0.00009	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.16392	g	DS NO DC (d)	0.00476	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	-0.00051	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.00425	g/mi
Trip Exhaust Mass	72.96	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	81.91	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	52.69	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	51.96934	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	4.38366	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment Check

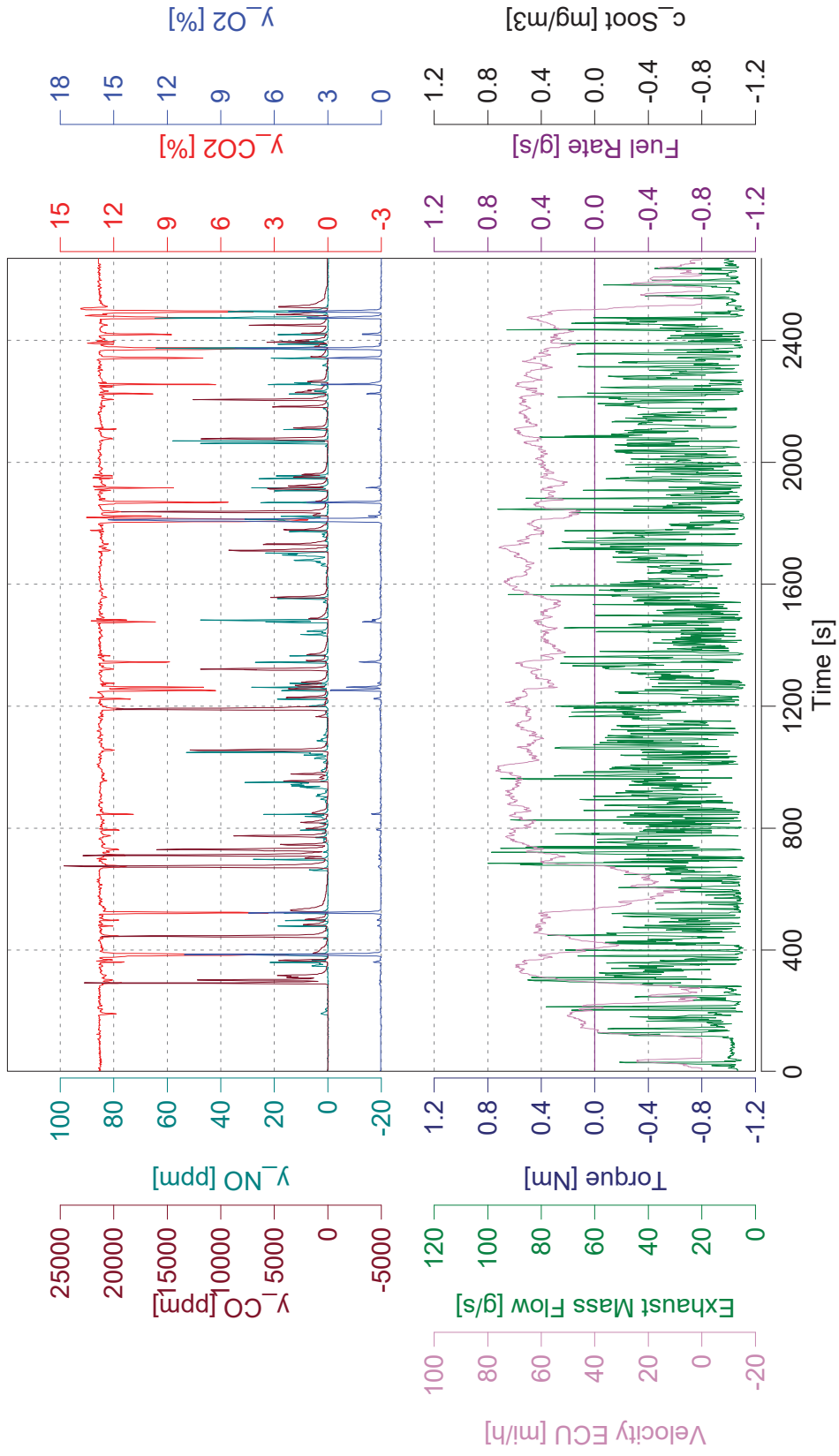
'Highway'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment of Gas Concentrations

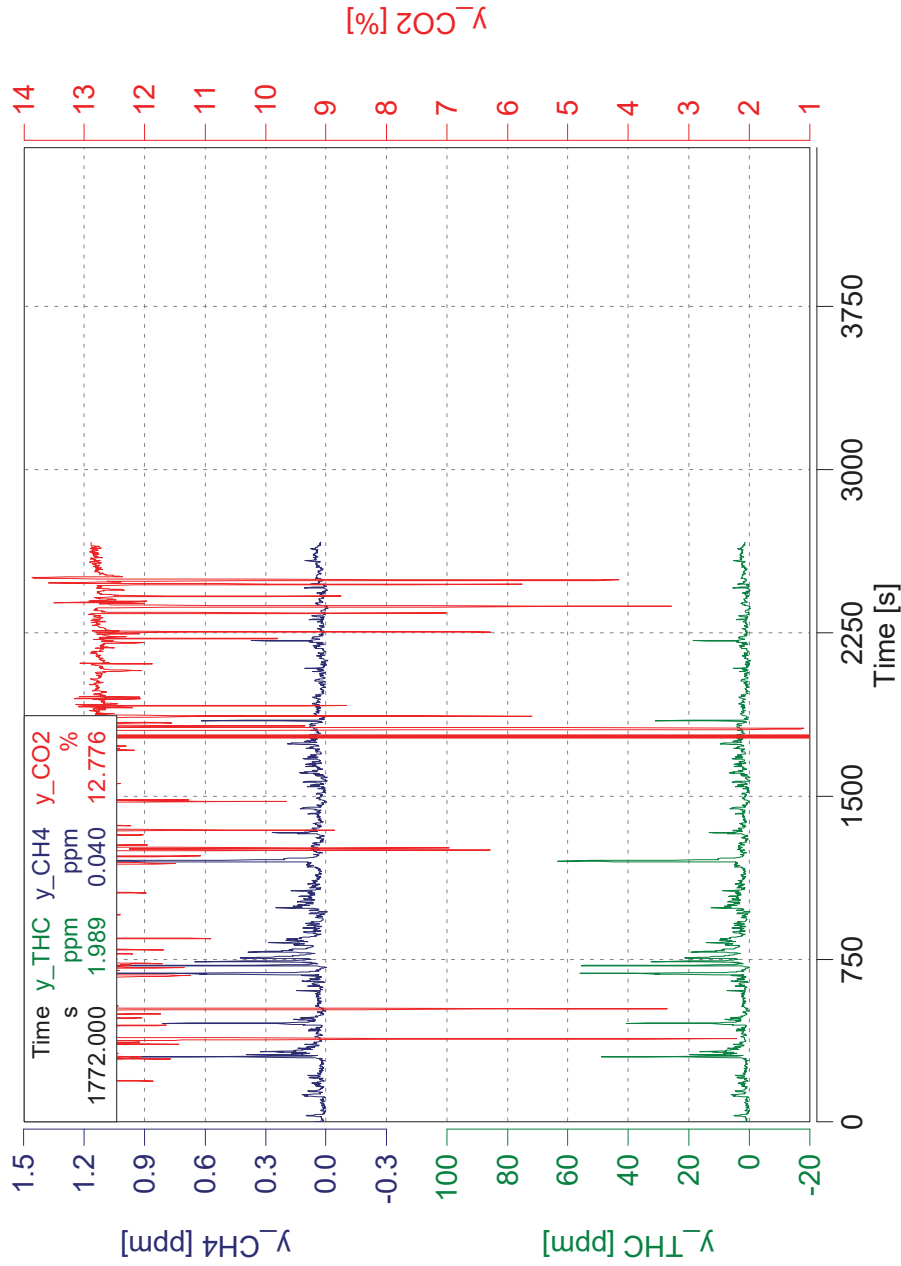
'Highway'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

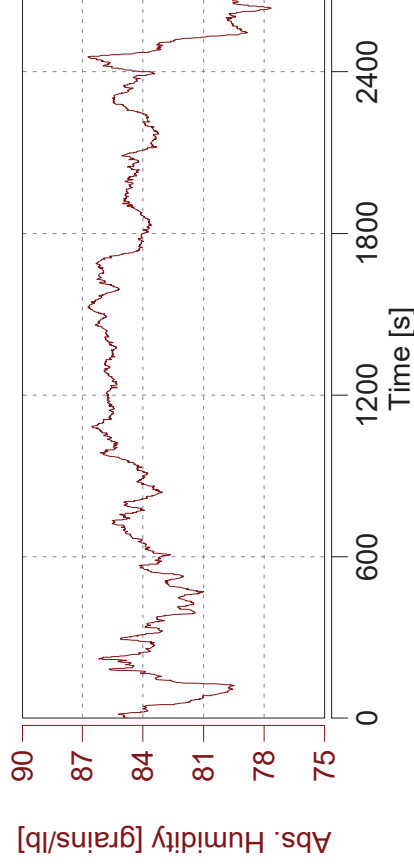
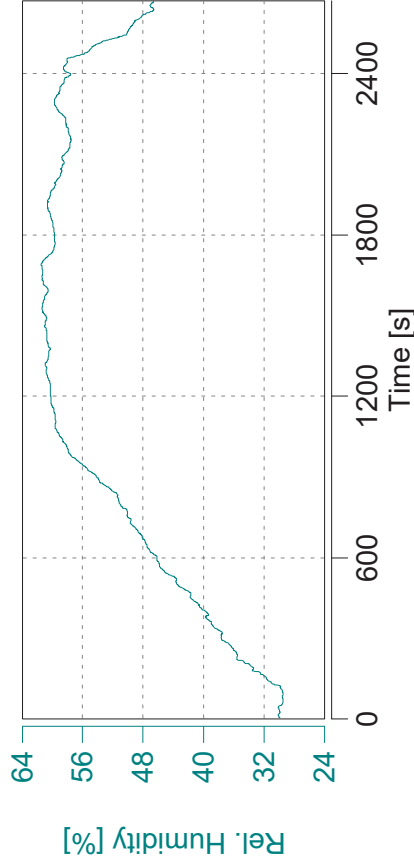
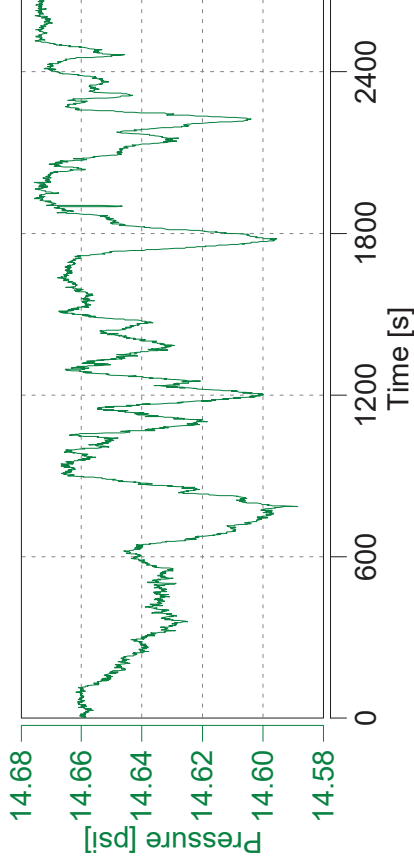
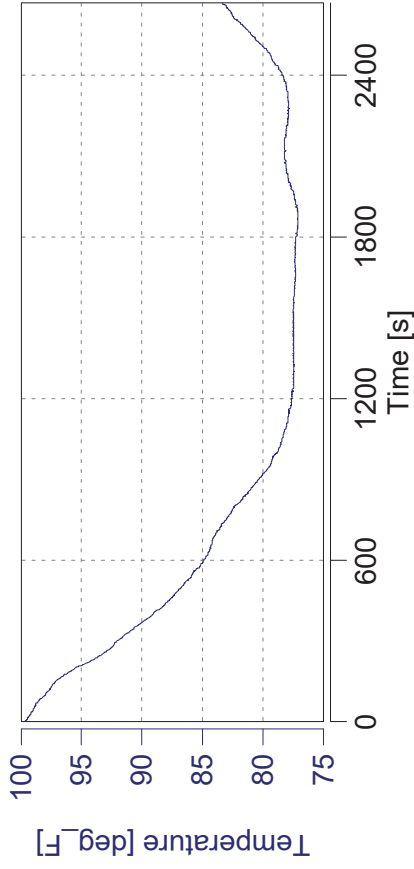
Case: Highway

Page: Ambient Conditions

'Highway'
Start Date: 07/31/2018
Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: GPS

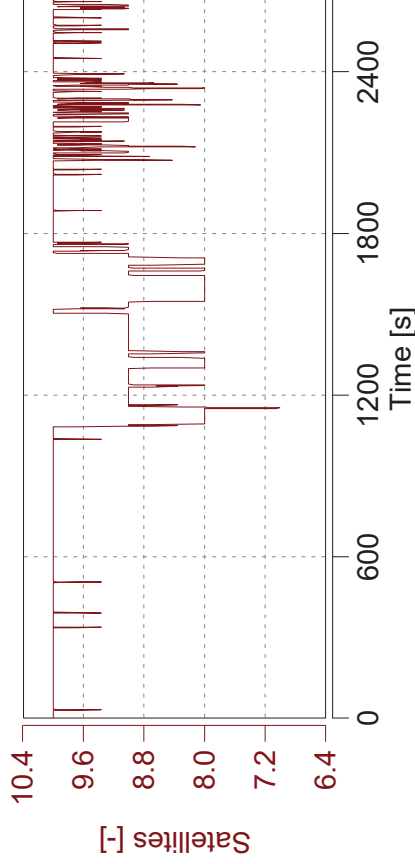
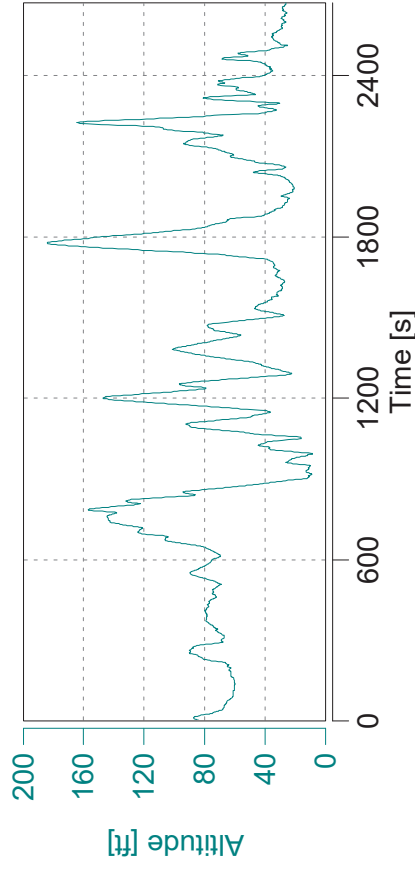
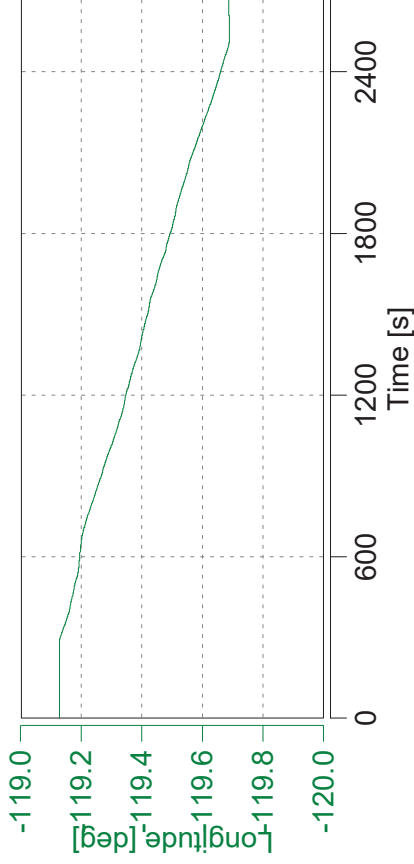
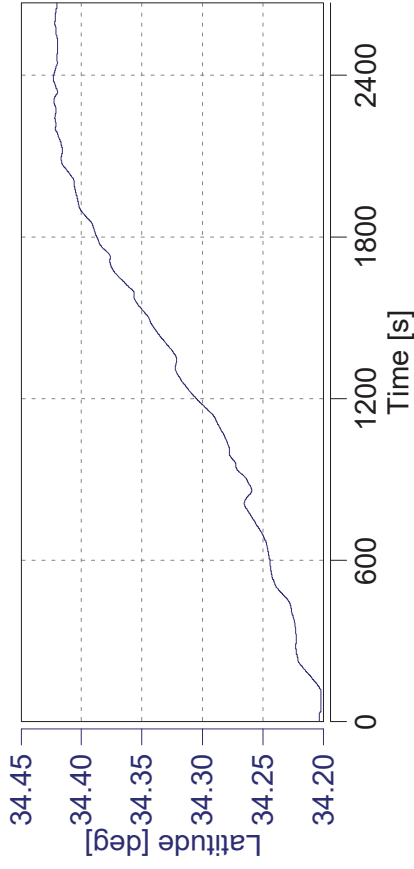
'Highway'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316(CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (1)

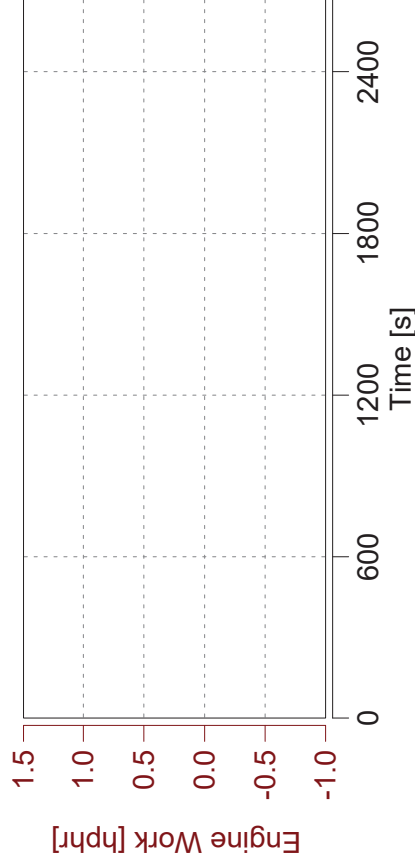
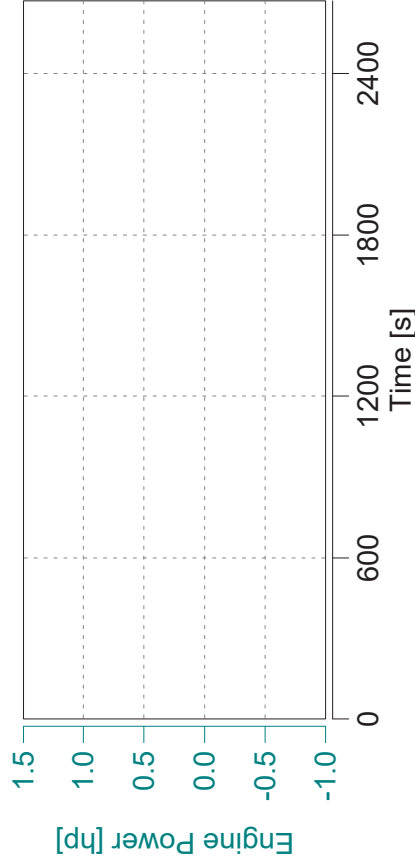
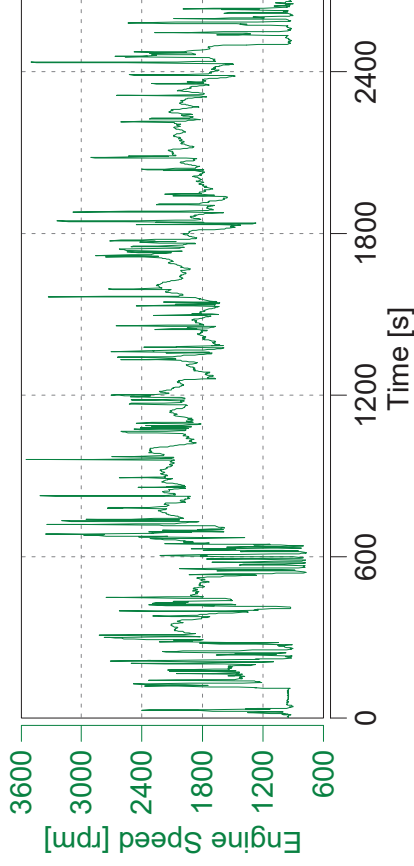
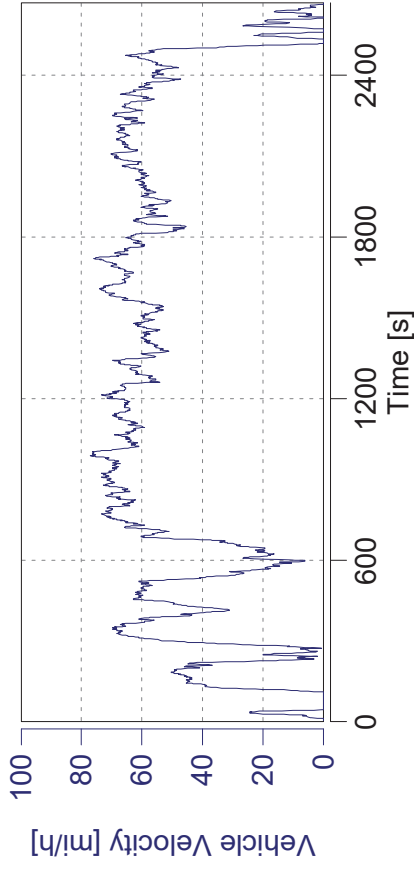
'Highway'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: Tiguan LTD / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (2)

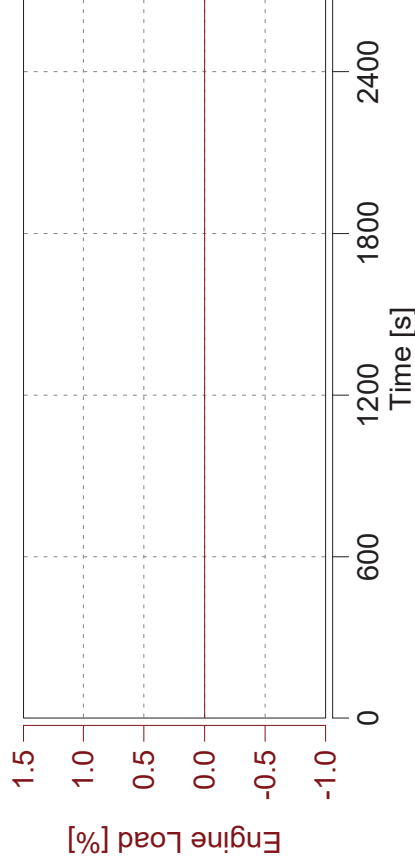
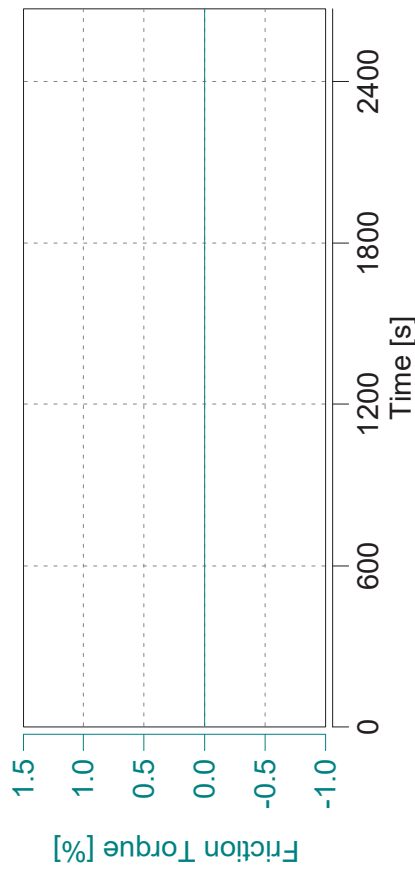
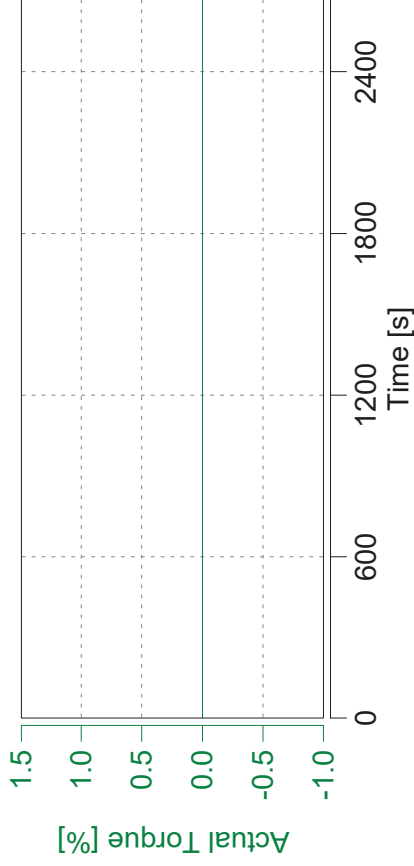
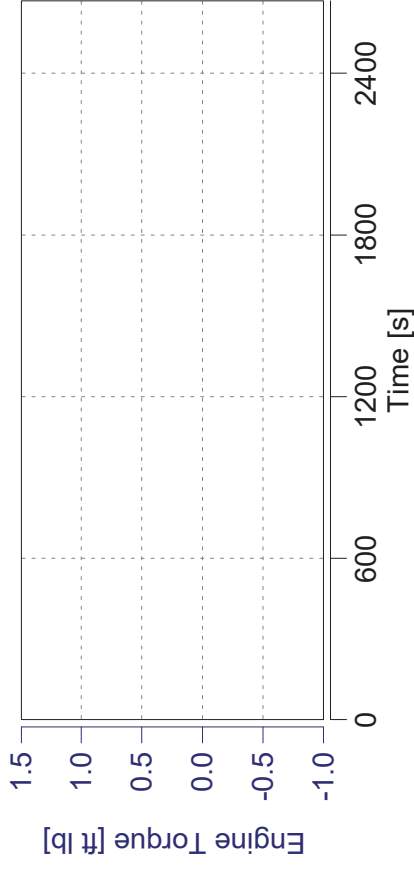
'Highway'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (3)

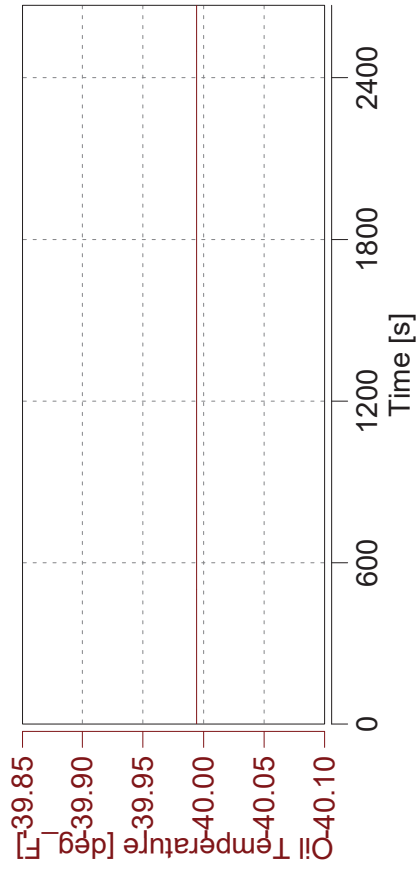
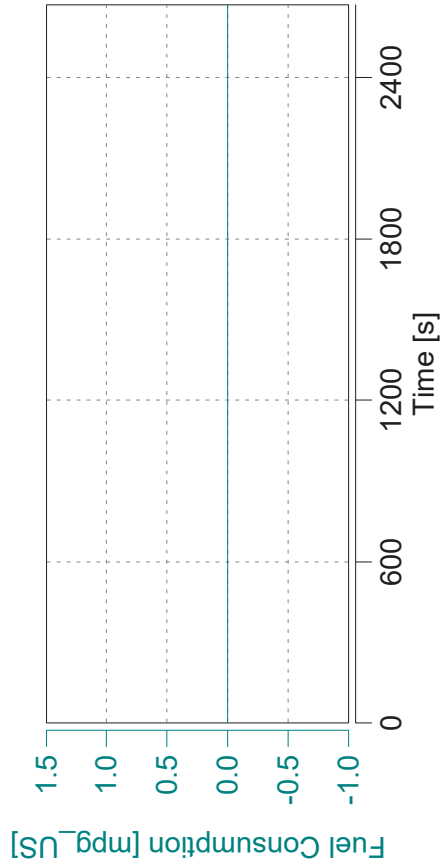
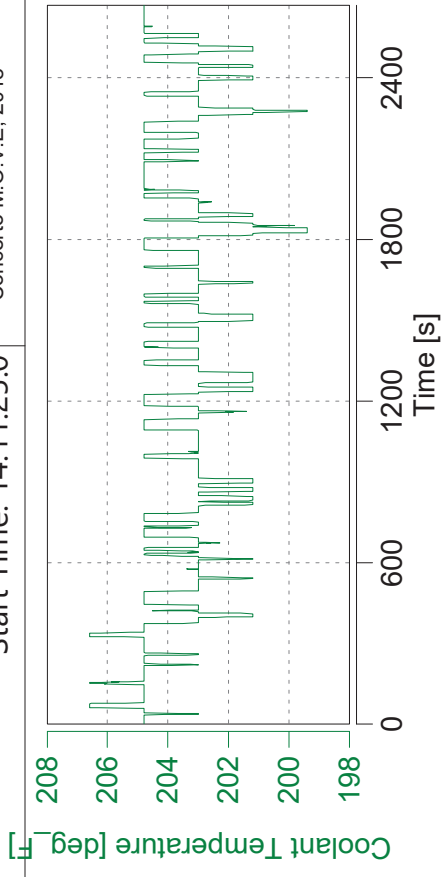
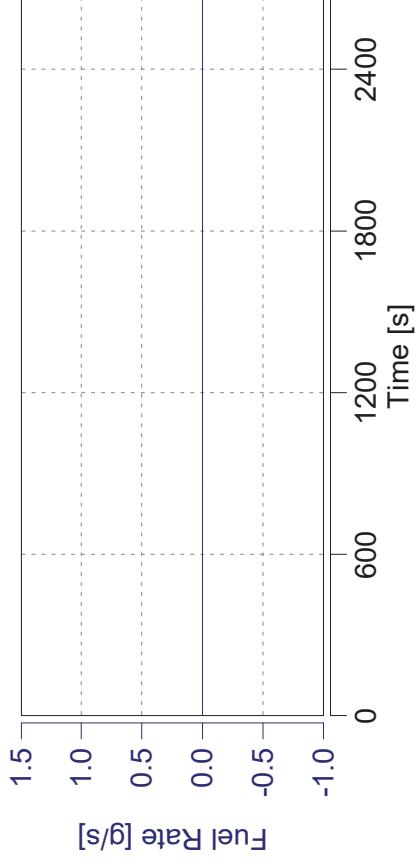
'Highway'

Start Date: 07/31/2018

Start Time: 14:11:25.0

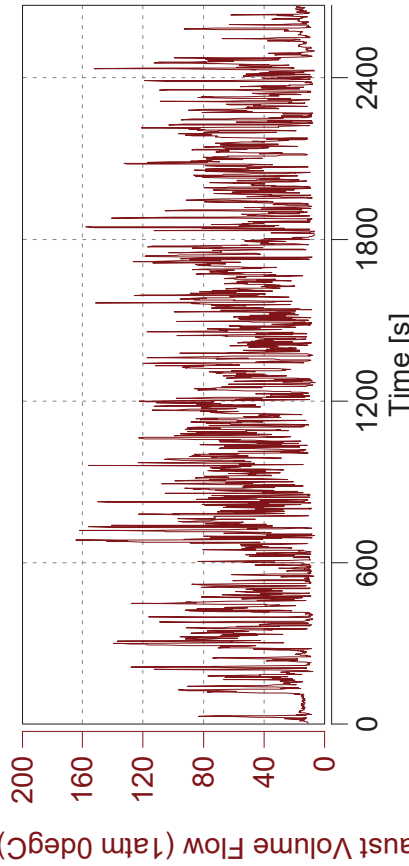
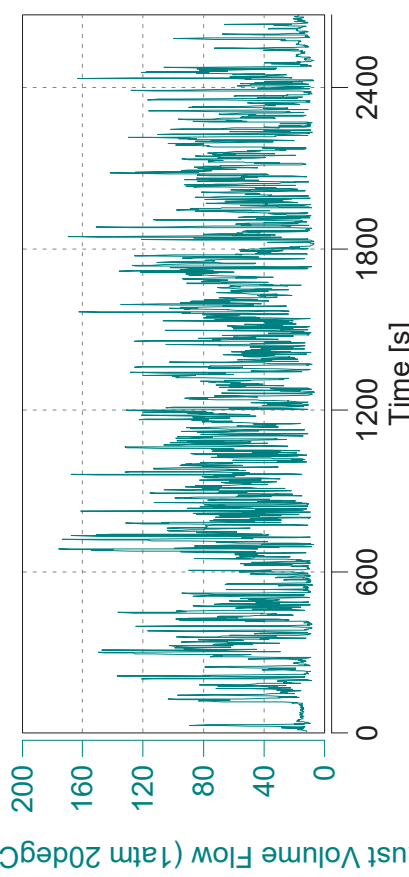
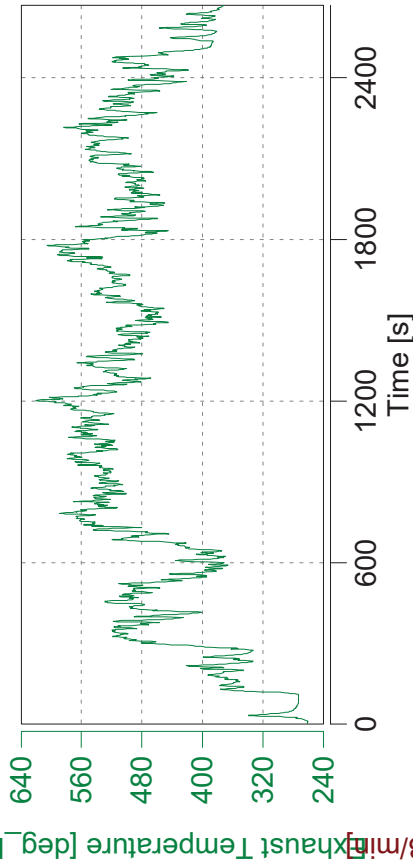
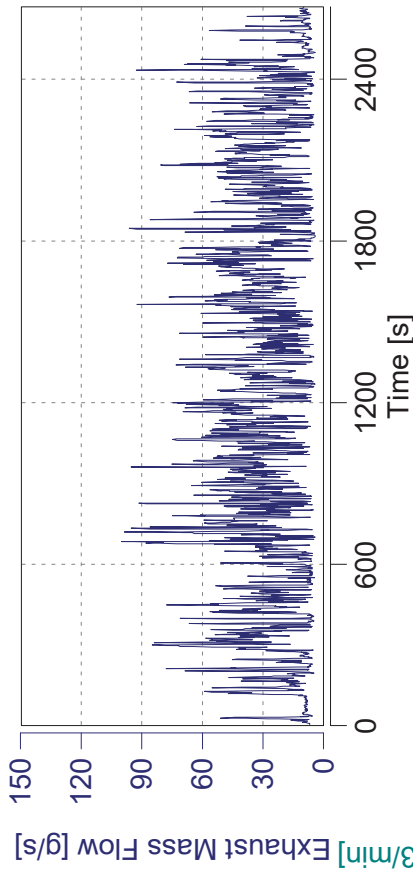


Concerto M.O.V.E., 2018



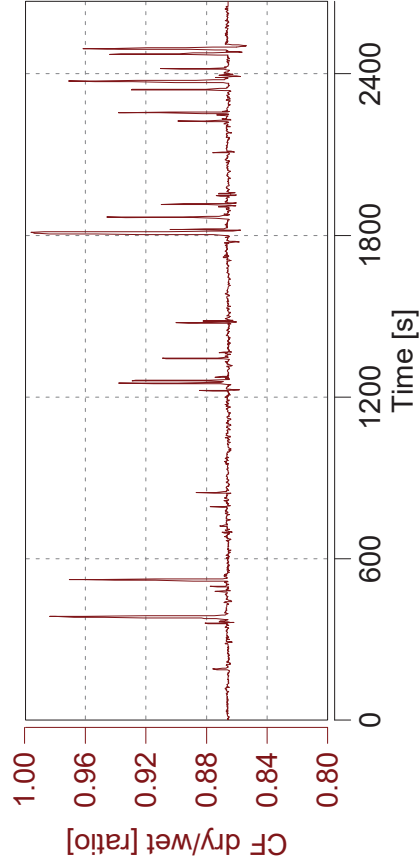
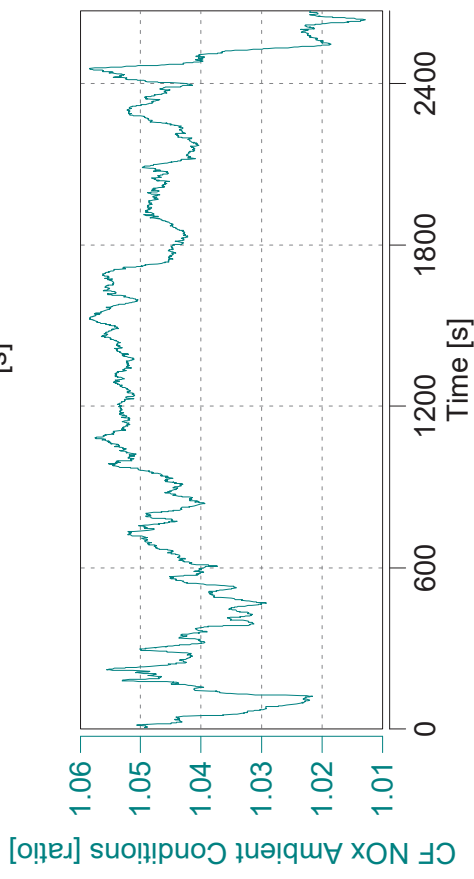
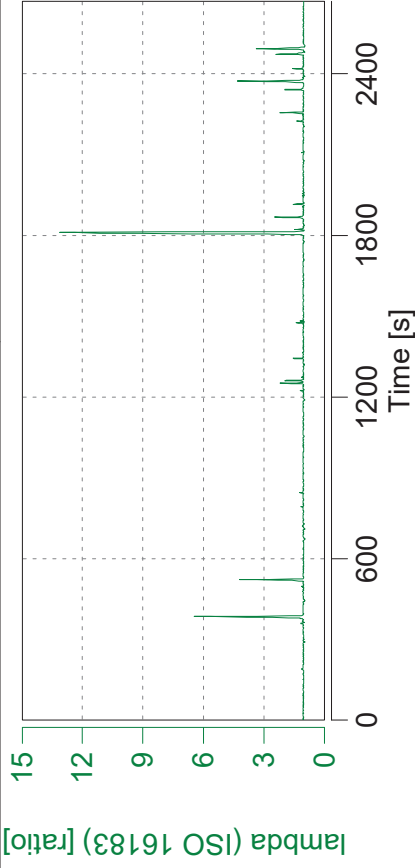
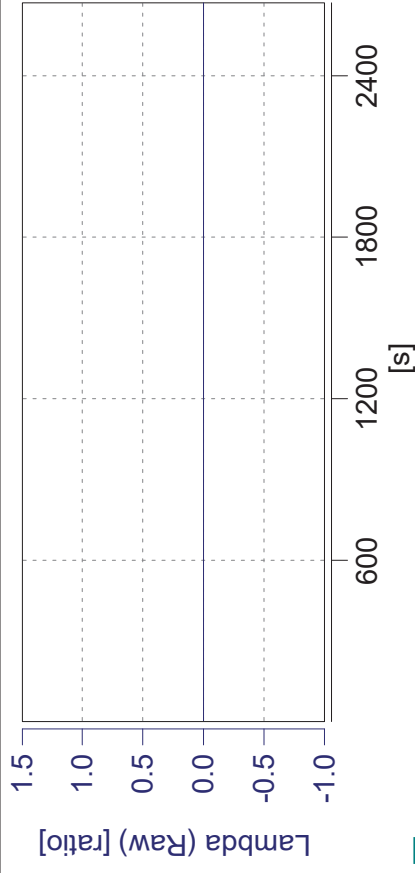
Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: Tiguan LTD / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90



Concerto Version: 480 Build 316, Serial Number: 1120
 M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L
 Engine: /
 NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
 Dry / Wet Corr.: 2 - CFR40 §86.1342-90



Concerto Version: 480 Build 316, Serial Number: 1120
 M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L
 Engine: /
 NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
 Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (1)

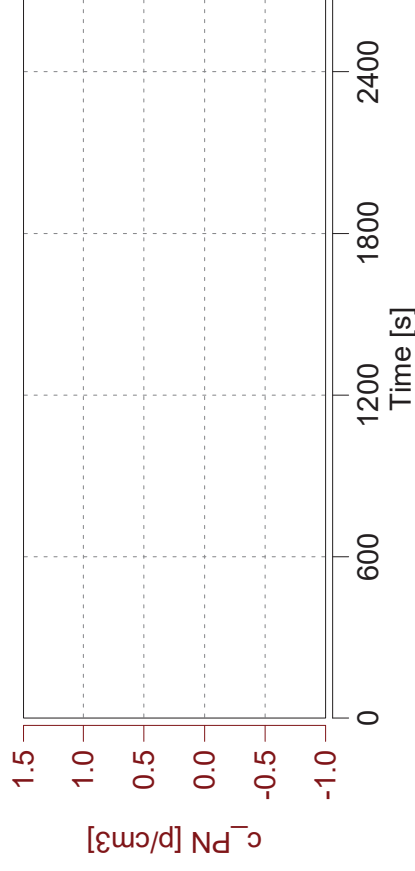
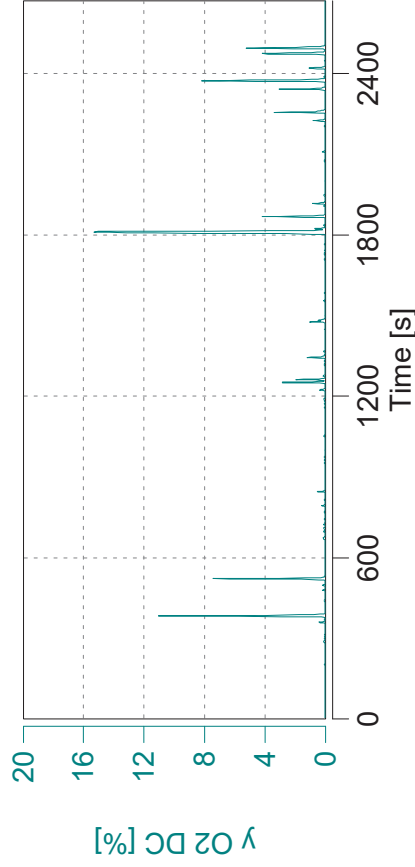
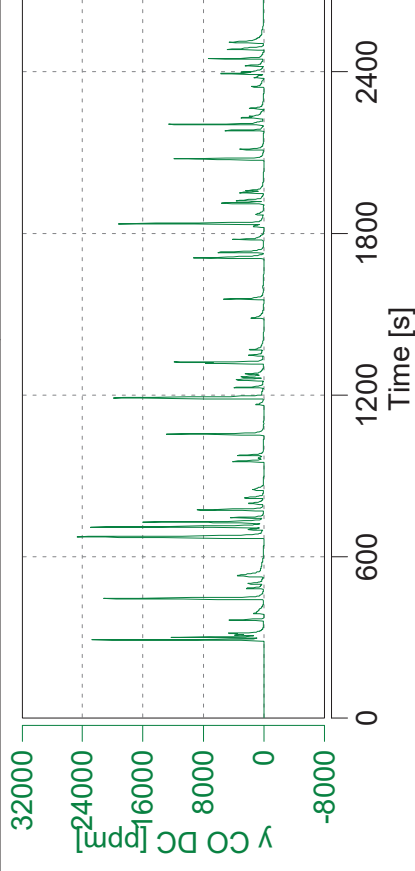
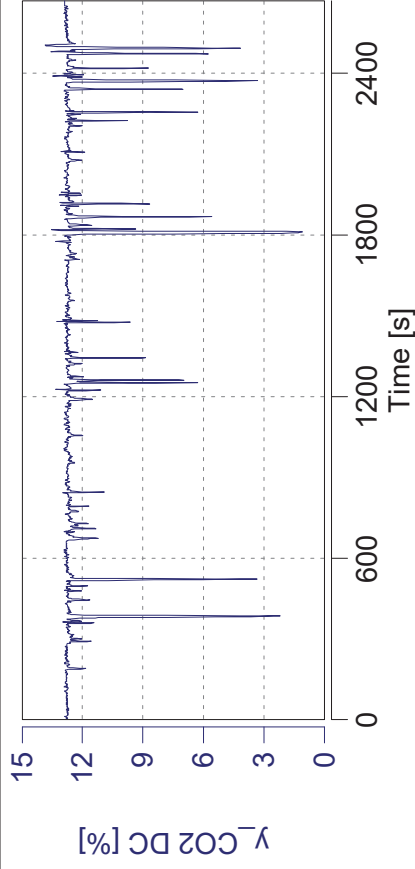
'Highway'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (2)

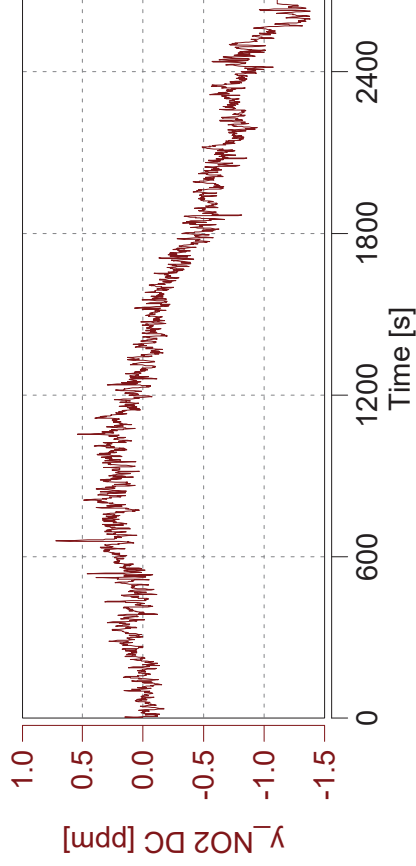
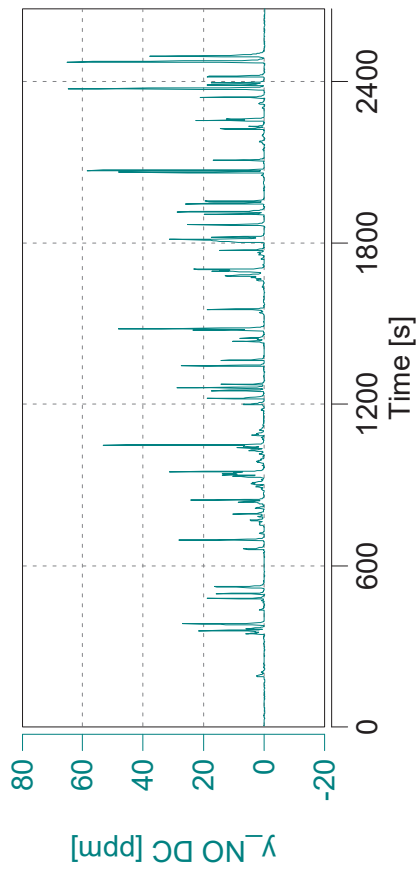
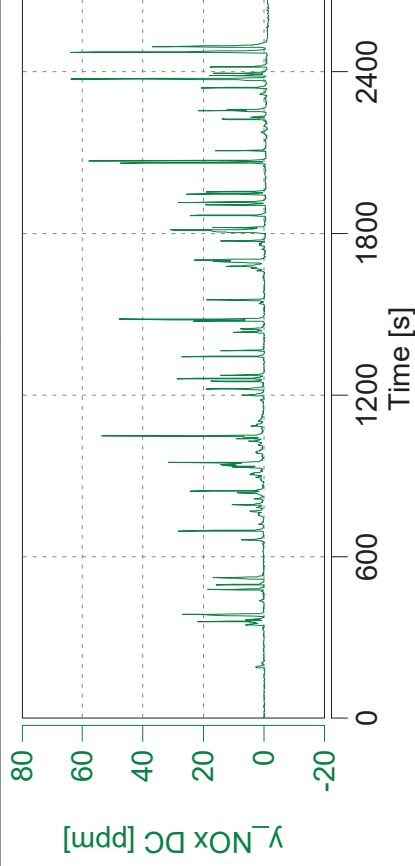
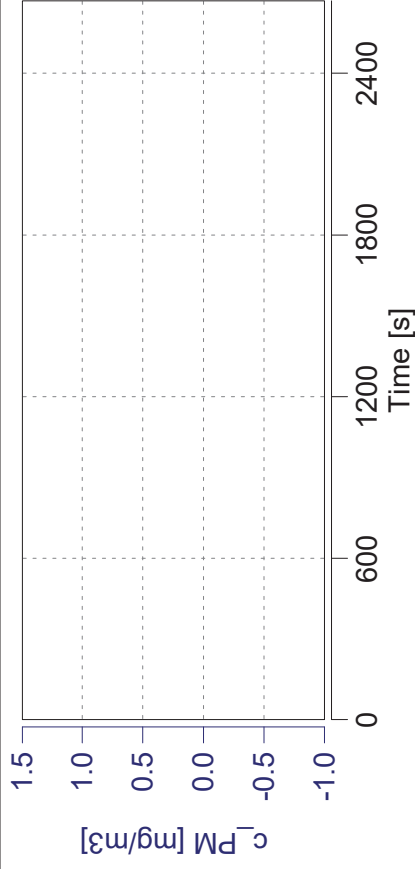
'Highway'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (3)

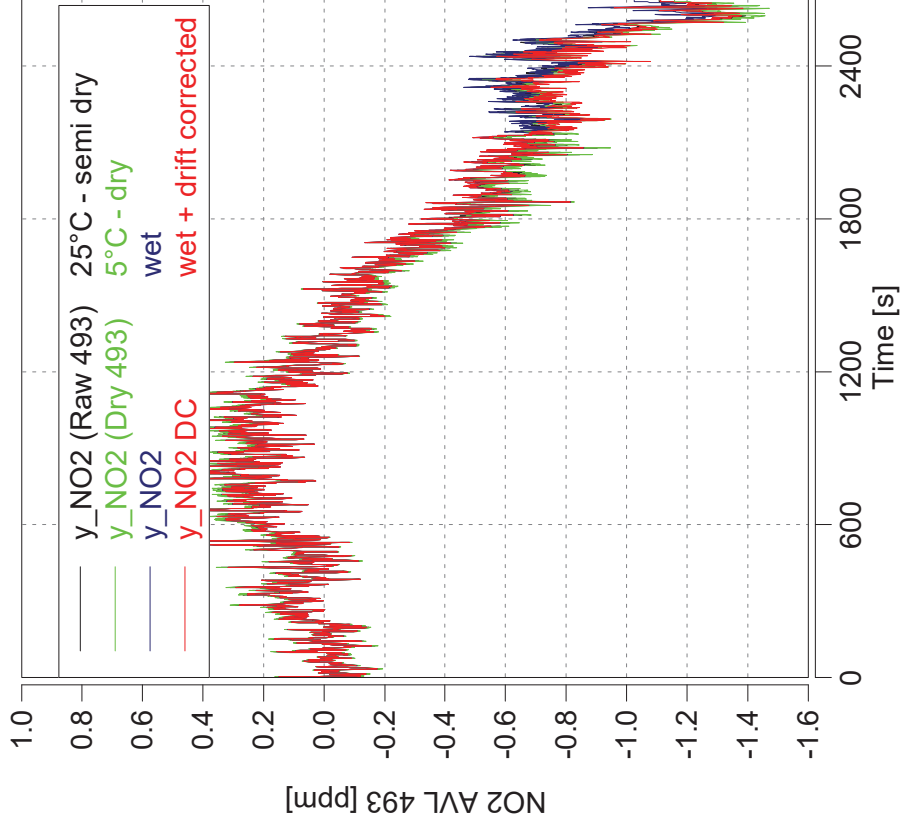
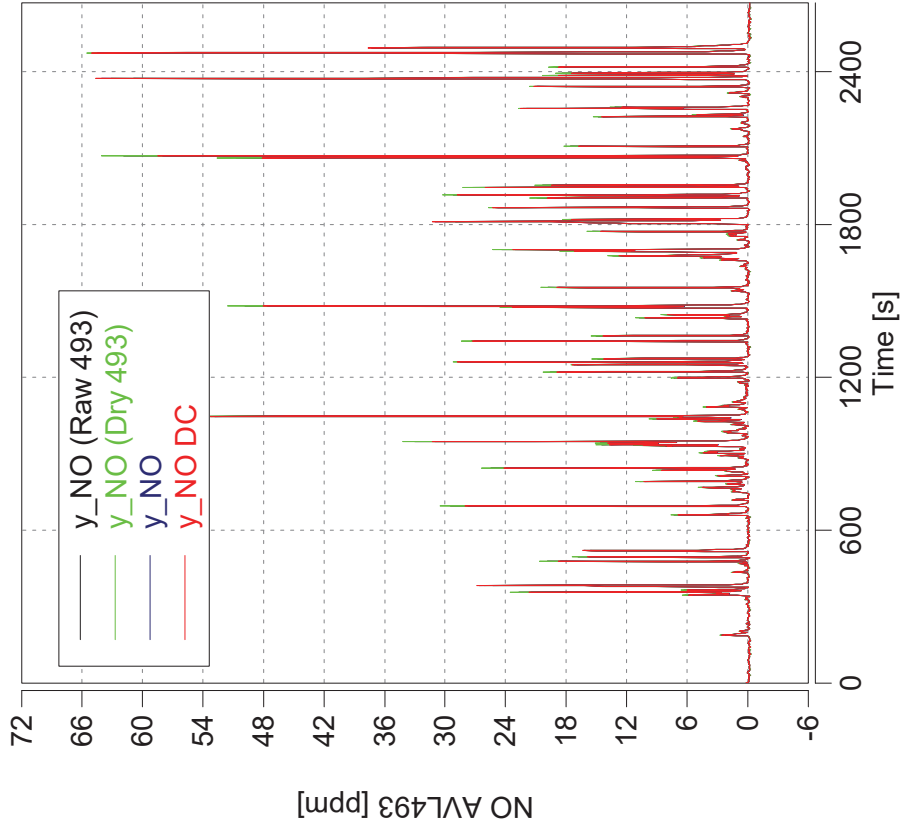
'Highway'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (4) NOx Corrections

'Highway'

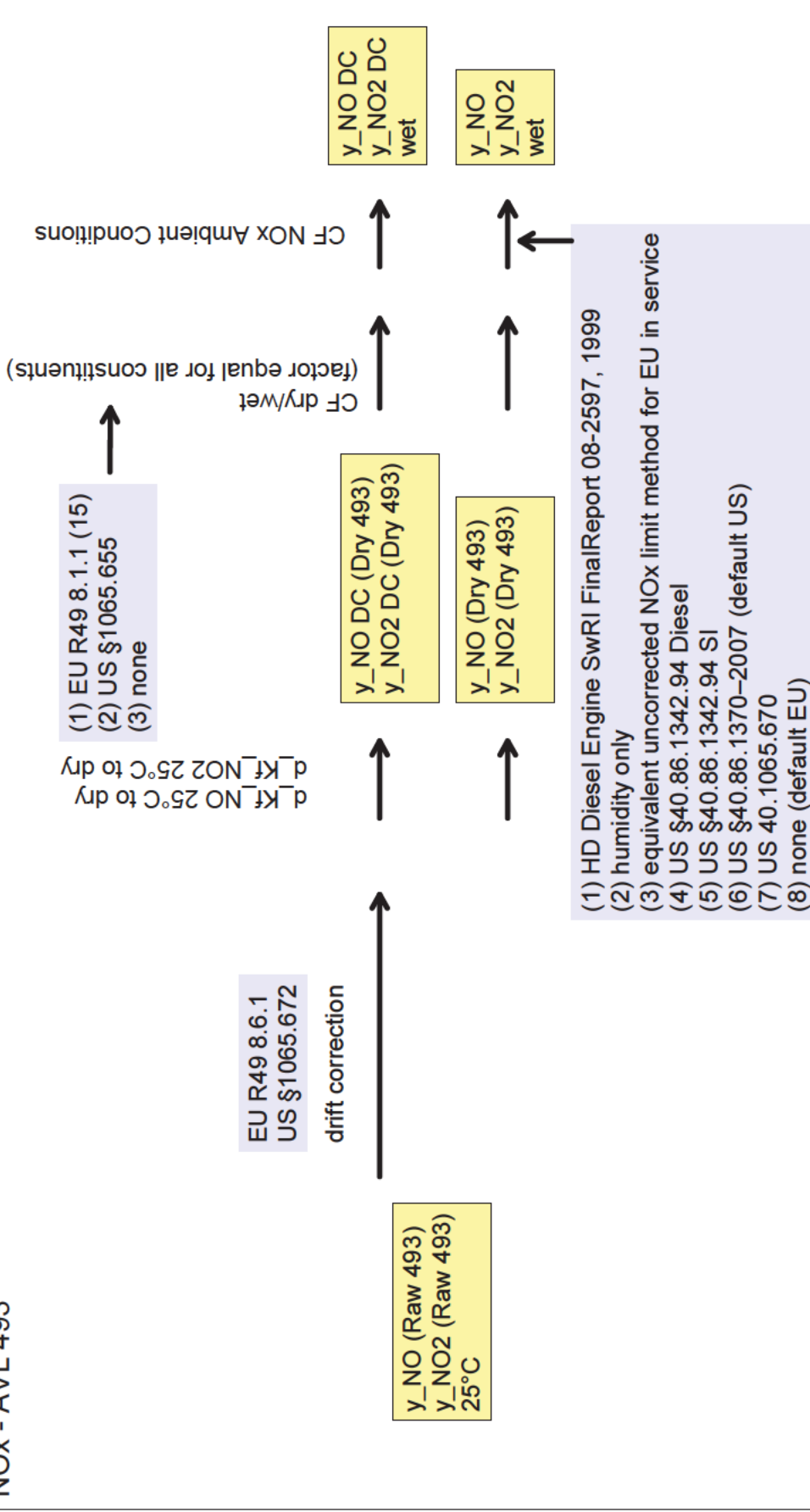
Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: / Vehicle: Tiguan LTD / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (5)

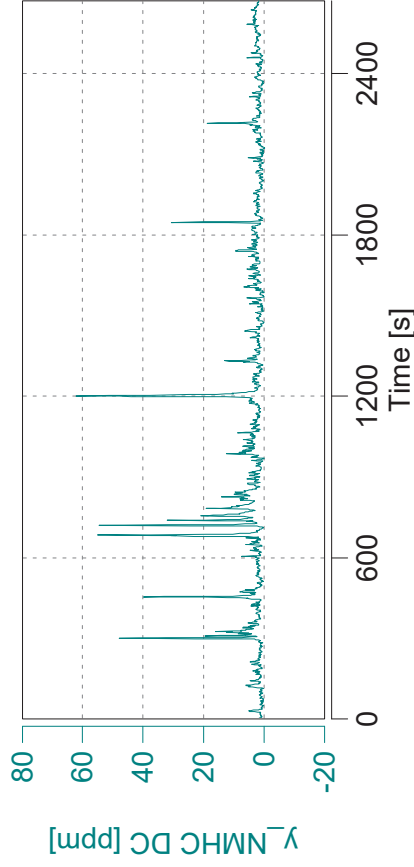
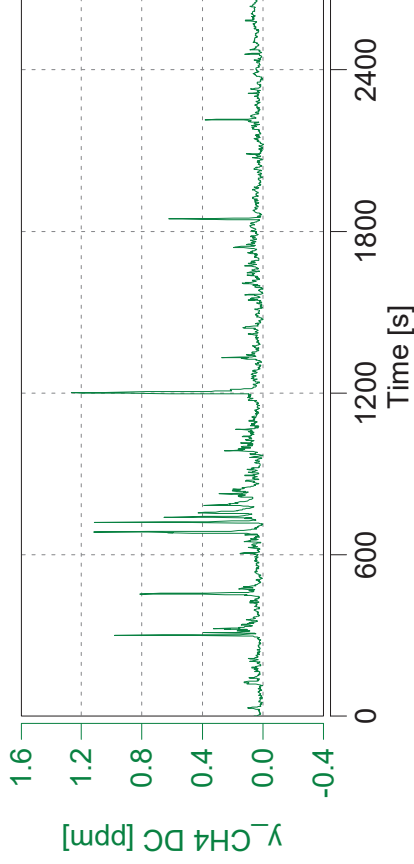
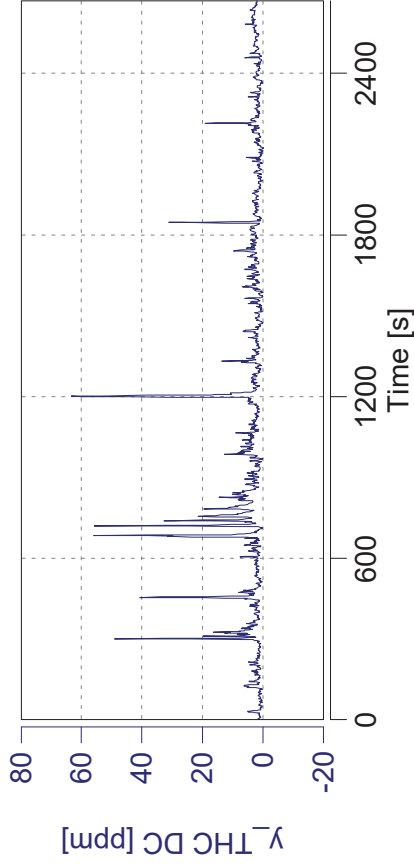
'Highway'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: Tiguan LTD / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: NO/NO2/NOx Zero - Span

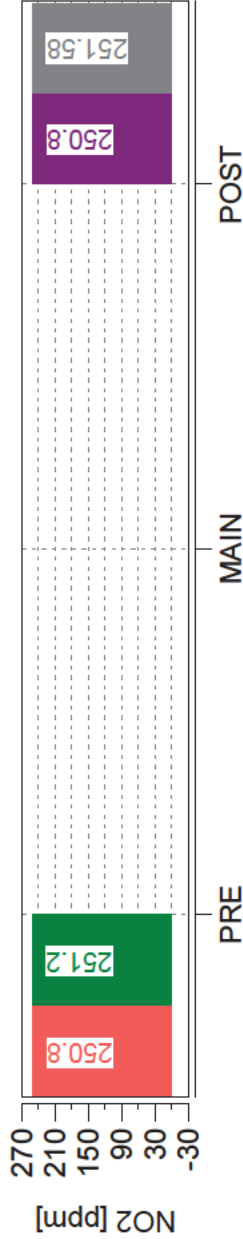
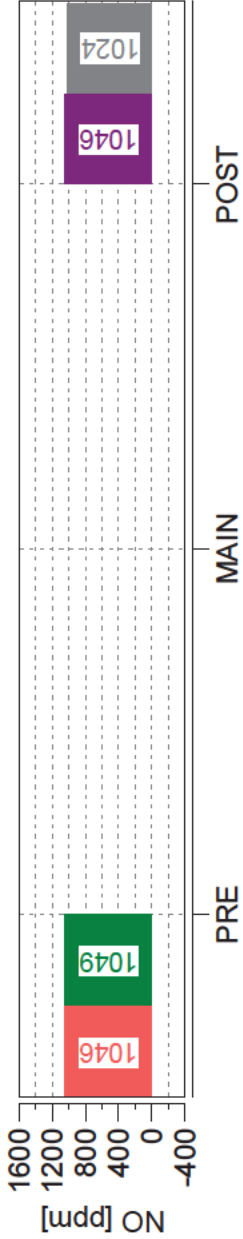
'Highway'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: CO/CO2 Zero - Span

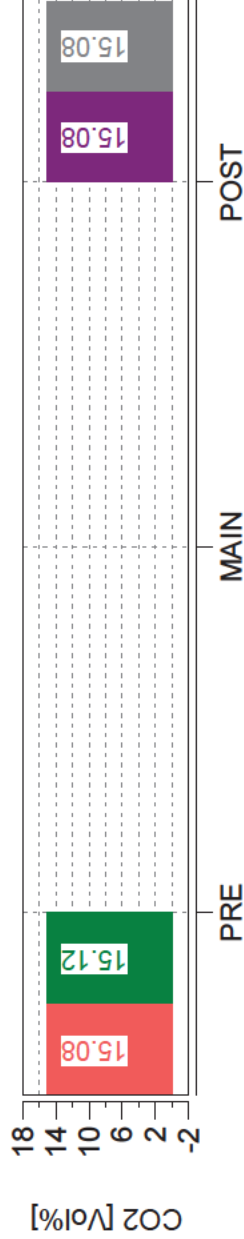
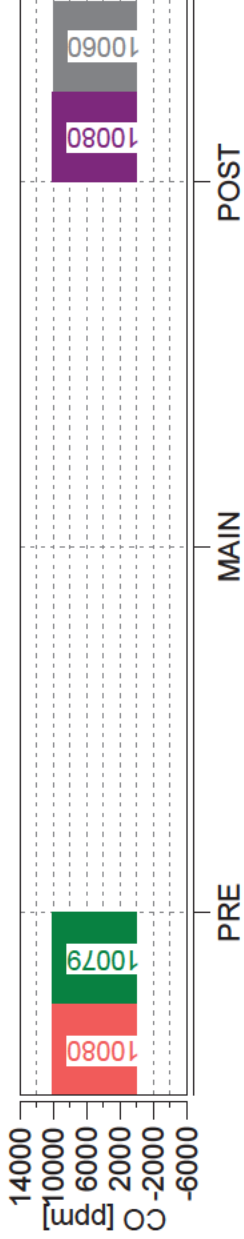
'Highway'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: THC/CH4 Zero - Span

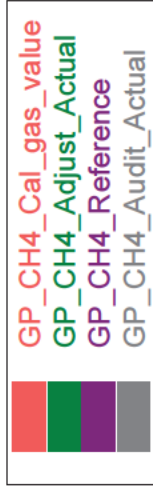
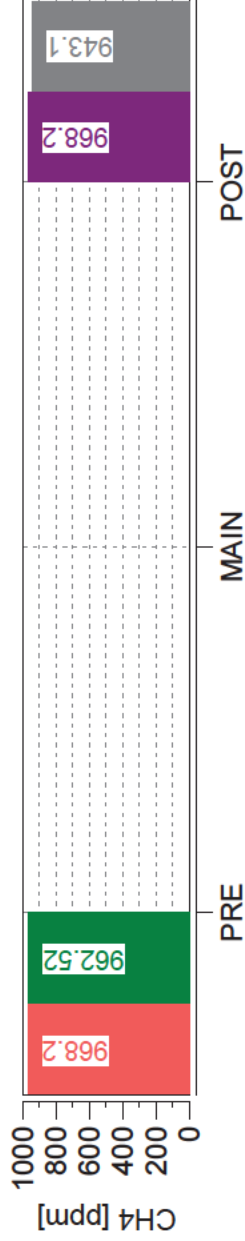
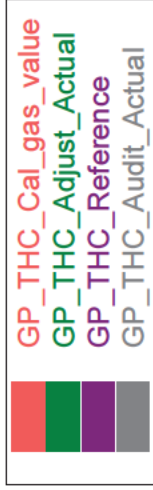
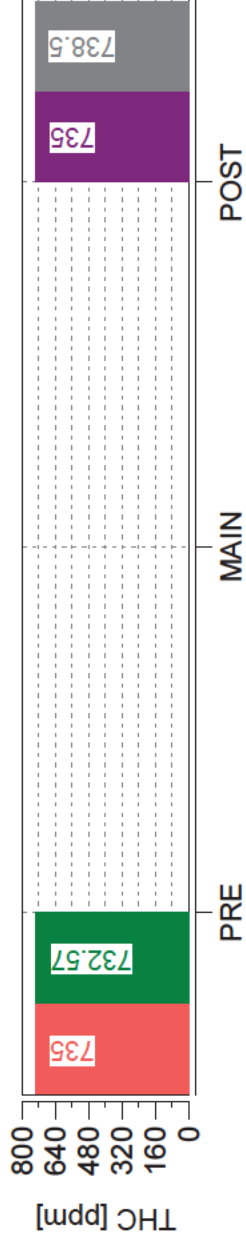
'Highway'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary

'Mountain'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018

Trip Duration	3193.00	s	ave THC	12.15074	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3193.00	s	ave NMHC	11.90773	ppm	BS CO	n/a	g/hphr
Trip Distance	28.62	mi	ave CH4	0.24301	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	28.62	mi	ave CO	1484.77992	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	12.13036	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx	1.64213	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.37	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.32	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.54	gall	tot THC	0.62431	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.53	gall	tot NMHC	0.57749	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.01384	g	DS CO2	449.77214	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	177.90496	g	DS CO	6.21581	g/mi
Trip Fuel Economy EU (ac)	18.55	mpg_US	tot CO2	12873.10107	g	DS THC	0.02181	g/mi
Trip Fuel Economy US (ac)	18.76	mpg_US	tot NO (d)	0.11823	g	DS NMHC	0.02018	g/mi
Trip Av. Eng. Speed	1662.32	rpm	tot NO2	0.00777	g	DS CH4	0.00048	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.12600	g	DS NO (d)	0.00413	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00027	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.00440	g/mi
Trip Exhaust Mass	68.62	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	87.80	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	35.76	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	32.26965	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	12.46477	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary Drift Corrected

'Mountain'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E. 2018

Trip Duration	3193.00	s	ave THC DC	12.24876	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3193.00	s	ave NMHC DC	12.00378	ppm	BS CO DC	n/a	g/hphr
Trip Distance	28.62	mi	ave CH4 DC	0.24498	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	28.62	mi	ave CO DC	1486.35032	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	12.11429	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	1.65363	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.37	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.32	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave Soot meas	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.54	gall	ave PN DC	0.62748	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.53	gall	tot THC DC	0.58043	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot NMHC DC	0.01391	g	DS CO2 DC	449.17642	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CH4 DC	178.09313	g	DS CO DC	6.22238	g/mi
Trip Fuel Economy EU (ac)	18.55	mpg_US	tot CO DC	12856.05061	g	DS THC DC	0.02192	g/mi
Trip Fuel Economy US (ac)	18.76	mpg_US	tot CO2 DC	0.11922	g	DS NMHC DC	0.02028	g/mi
Trip Av. Eng. Speed	1662.32	rpm	tot NO DC (d)	0.00775	g	DS CH4 DC	0.00049	g/mi
Trip Av. Torque	n/a	lbft	tot NO2 DC	0.12697	g	DS NO DC (d)	0.00417	g/mi
Trip Av. Power	n/a	hp	tot NOx DC	n/a	g	DS NO2 DC	0.00027	g/mi
Trip Work	n/a	hphr	tot Soot	n/a	g	DS NOx DC	0.00444	g/mi
Trip Exhaust Mass	68.62	kg	tot Soot meas	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PM	n/a	g	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	tot PN DC	n/a	#	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	87.80	deg_F	PM measurement type	0.00000	-	DS PN DC	n/a	#/mi
Trip Av. Humidity	35.76	%	PM correction type	1.00000	alpha(HC)	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		tot Soot on PM filter (estim.)	n/a	mg	FS CO DC	n/a	g/kg
			Soot --> PM simple scaling factor	1.00000	-	FS THC DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS NMHC DC	n/a	g/kg
			Trip Av. Veh. Speed	32.26965	mi/hr	FS CH4 DC	n/a	g/kg
			Trip Velocity Zero	12.46477	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NOx DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment Check

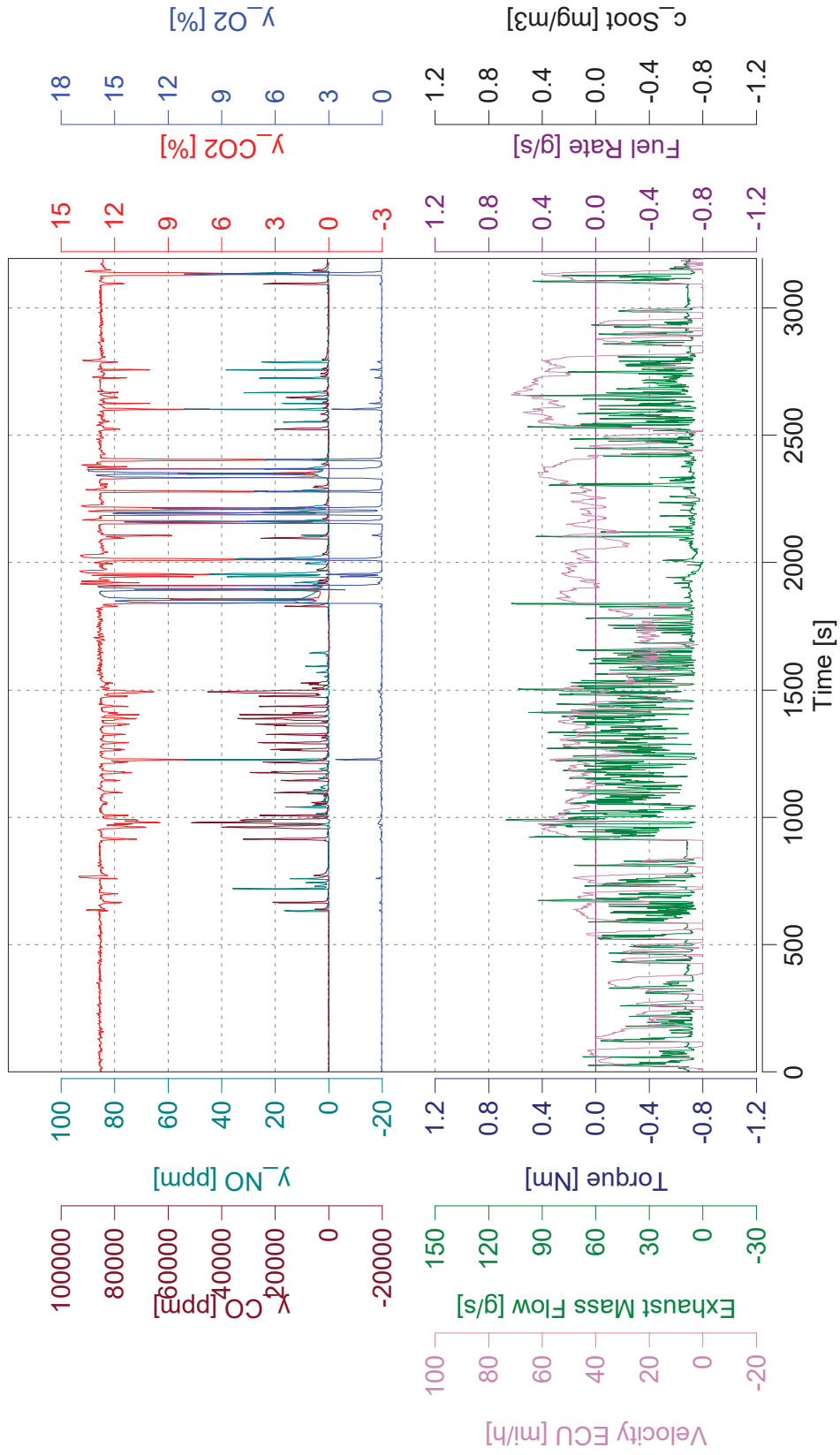
'Mountain'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment of Gas Concentrations

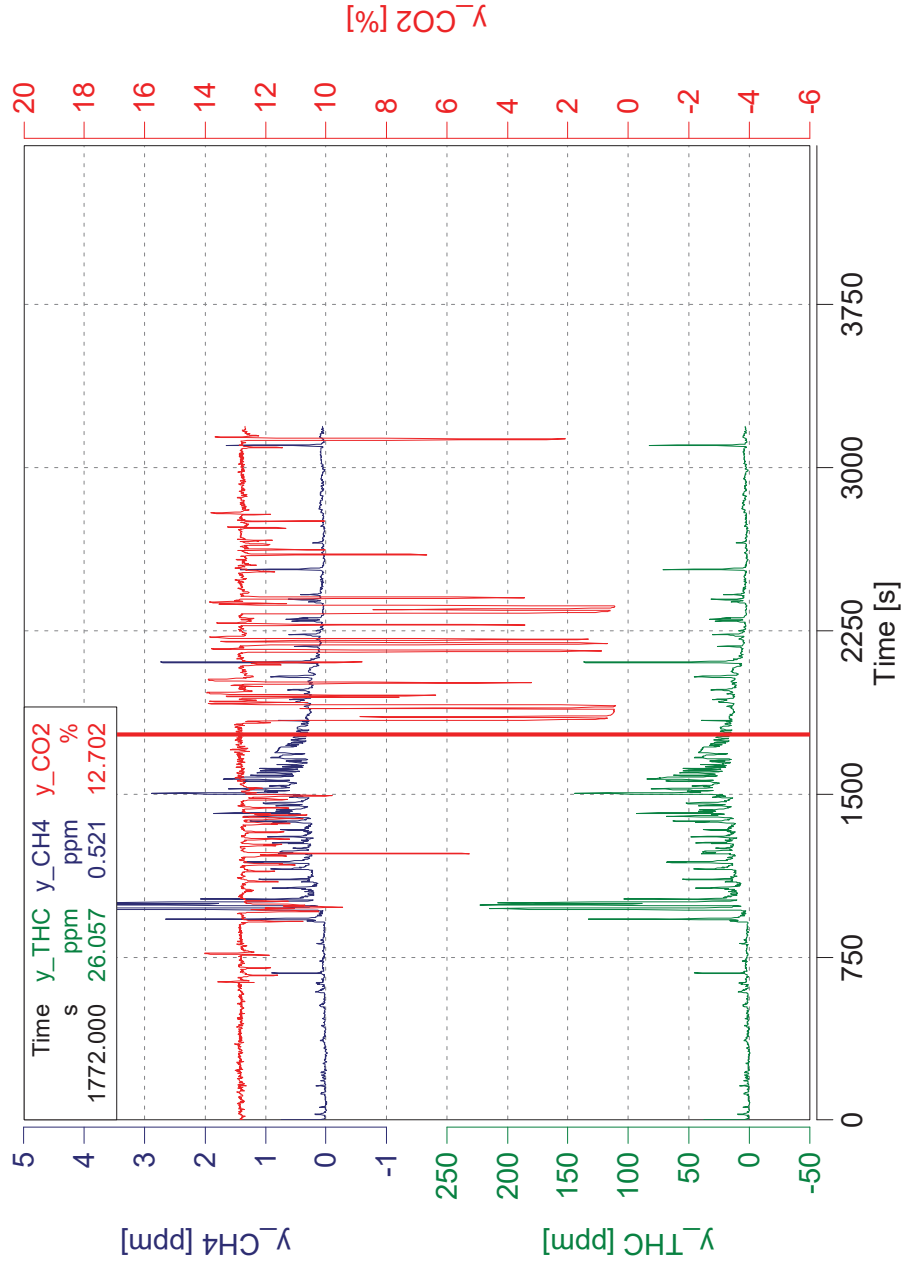
'Mountain'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Ambient Conditions

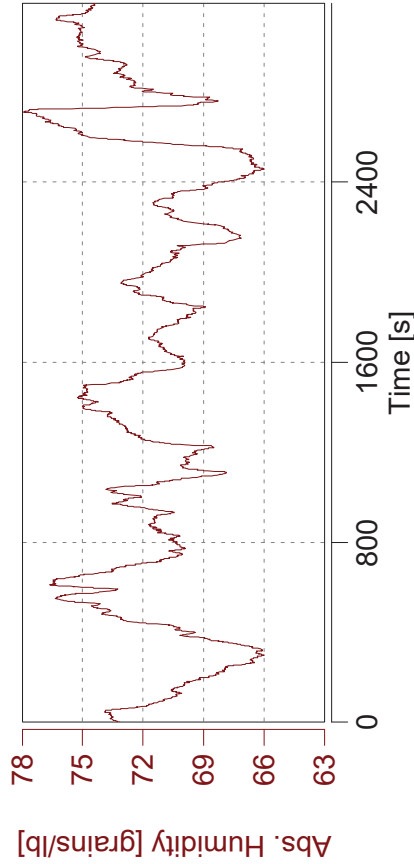
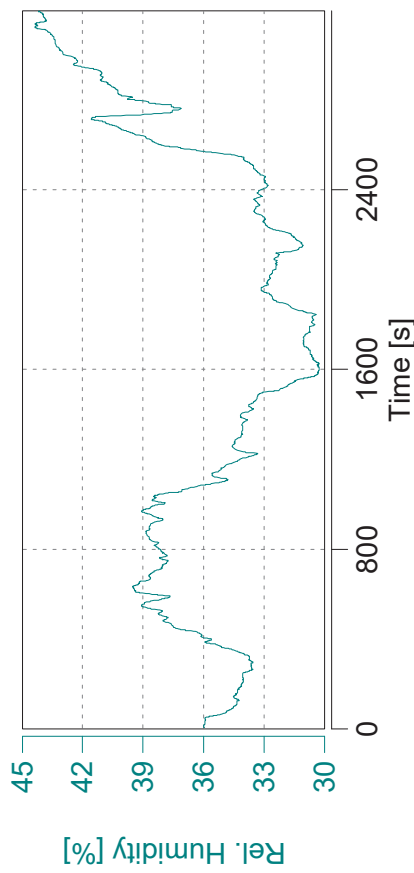
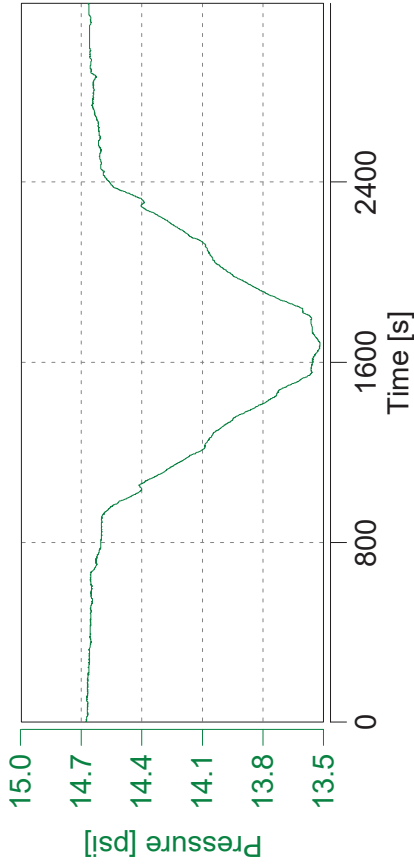
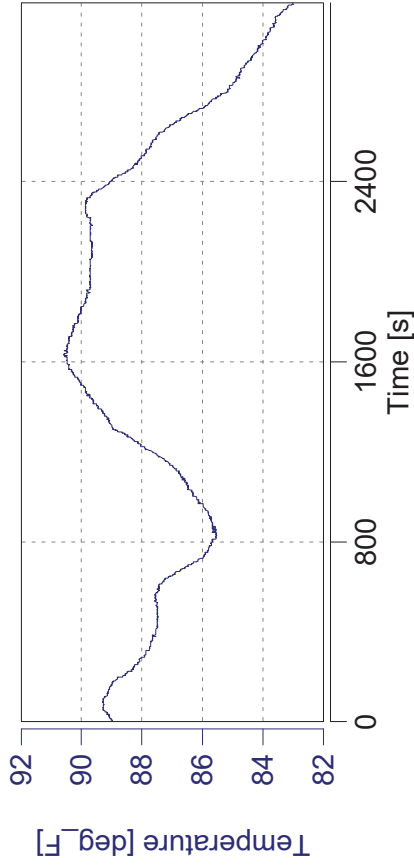
'Mountain'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

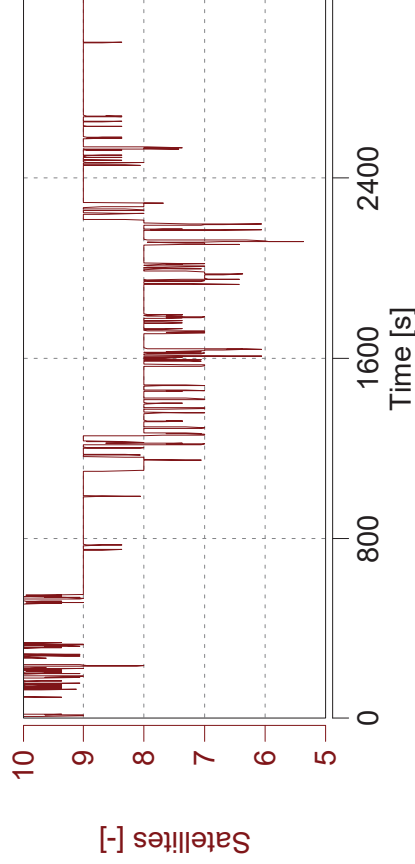
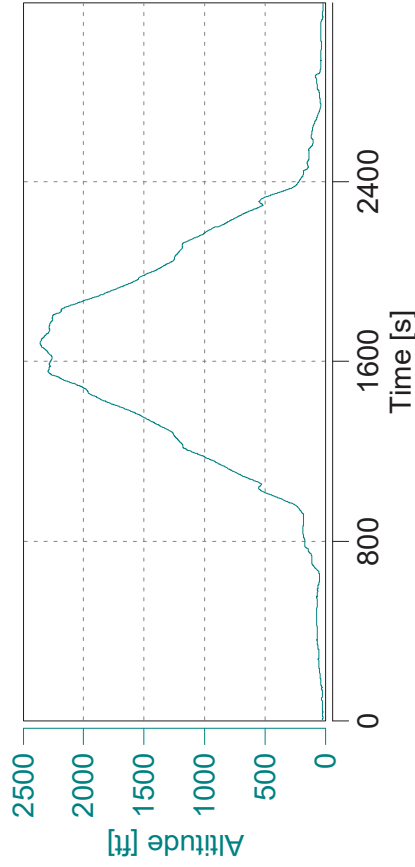
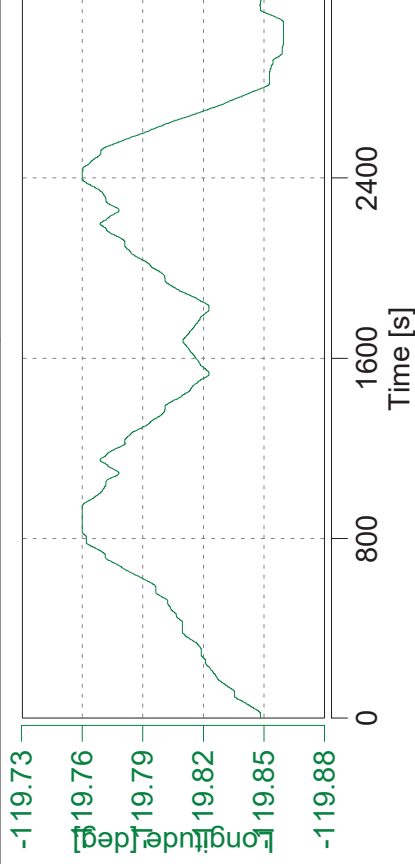
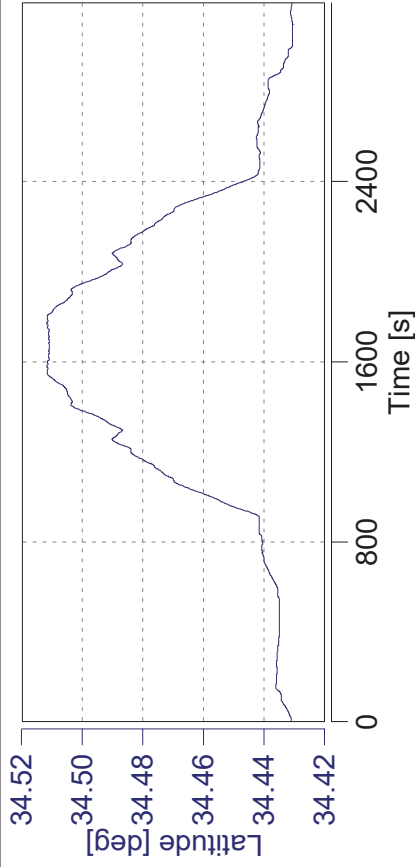
Page: GPS

'Mountain'

Start Date: 07/31/2018

Start Time: 14:11:25.0

Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (1)

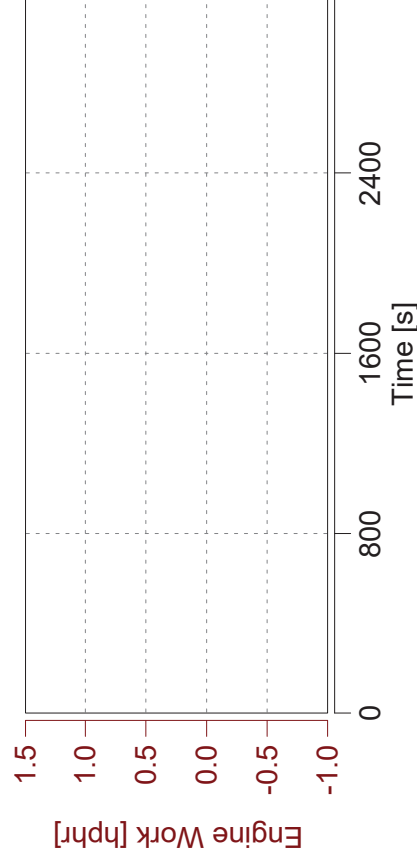
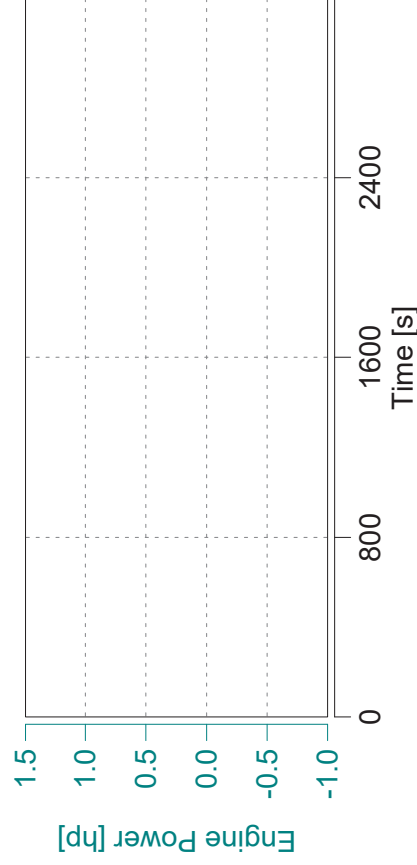
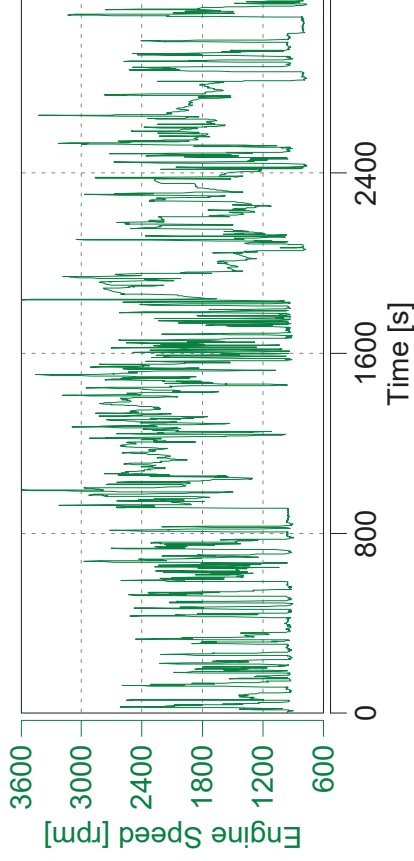
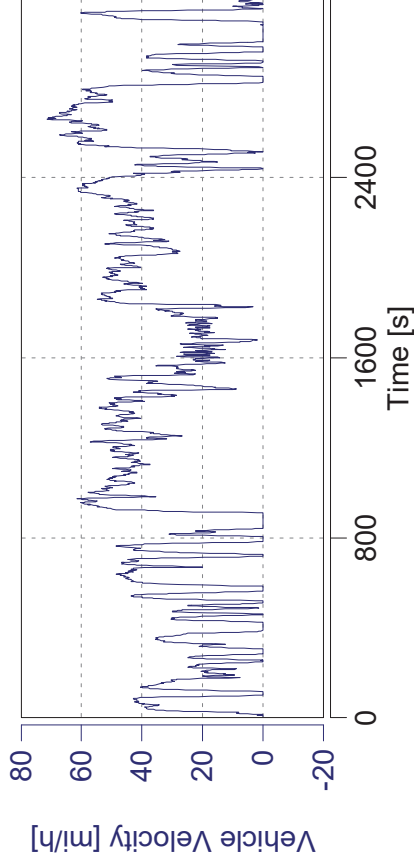
'Mountain'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (2)

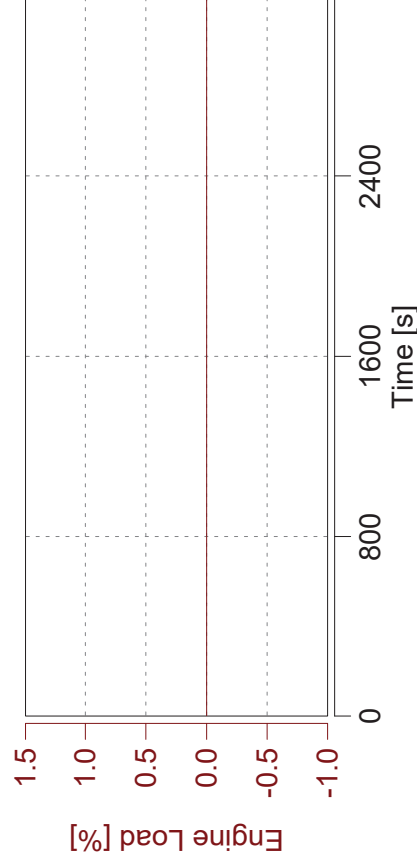
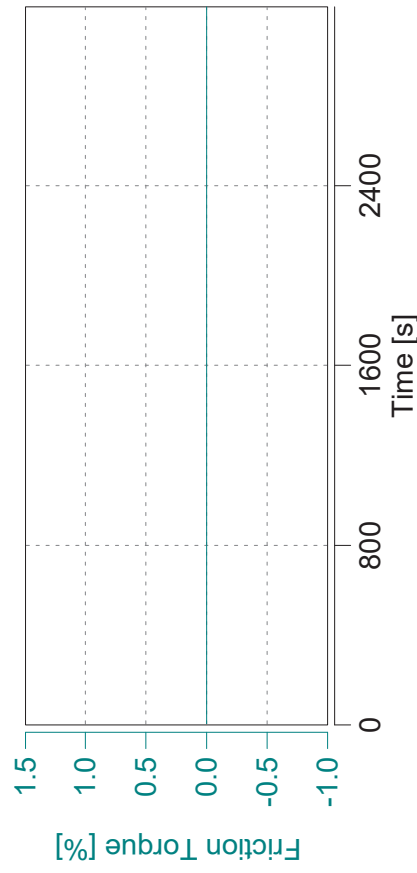
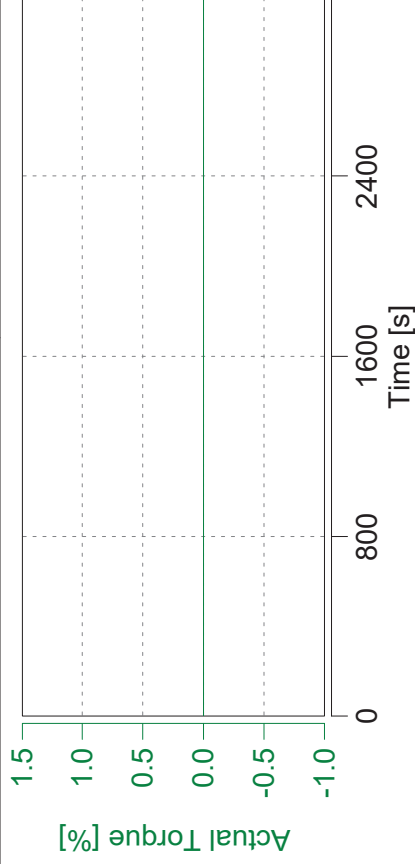
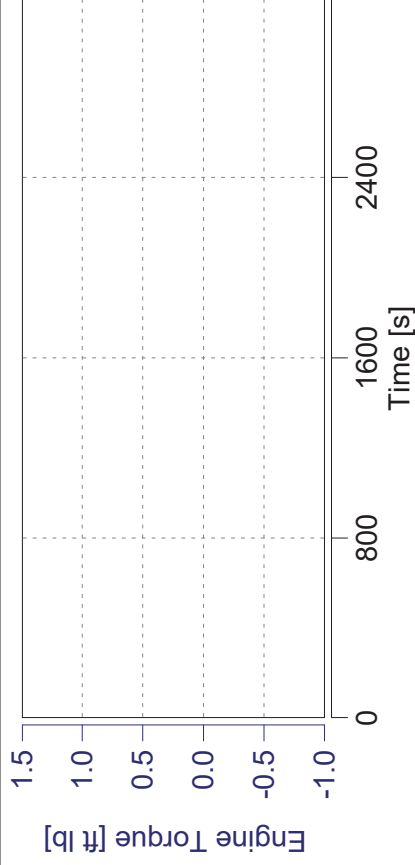
'Mountain'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (3)

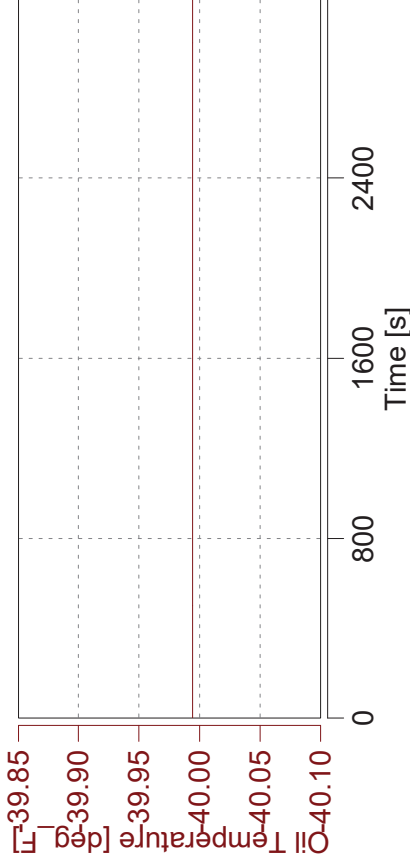
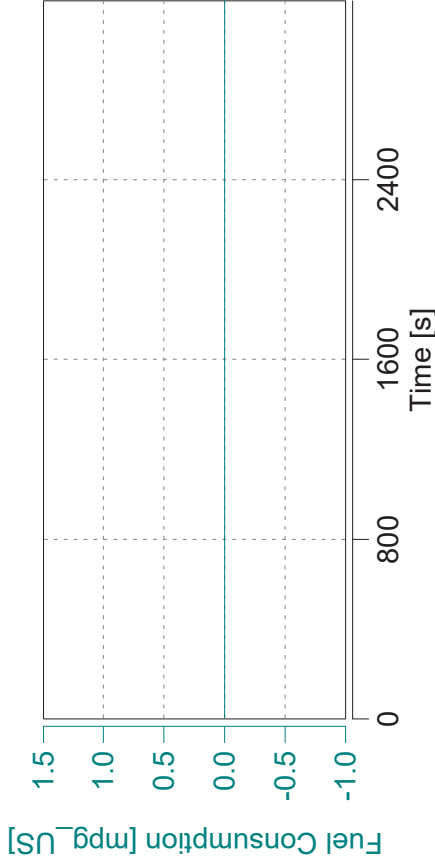
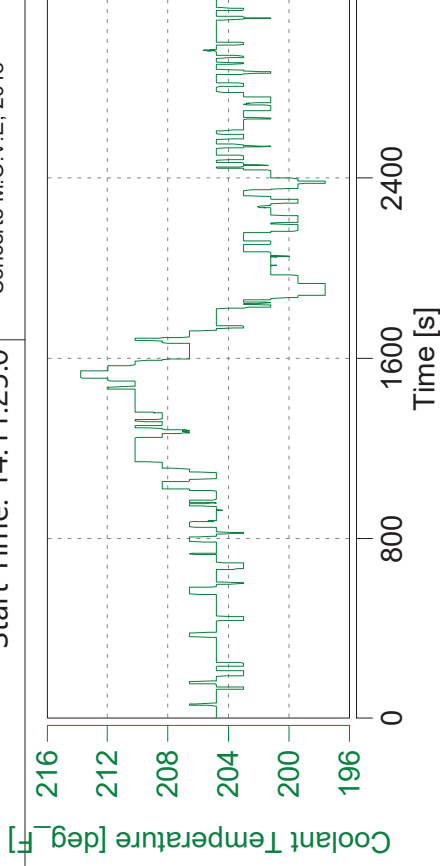
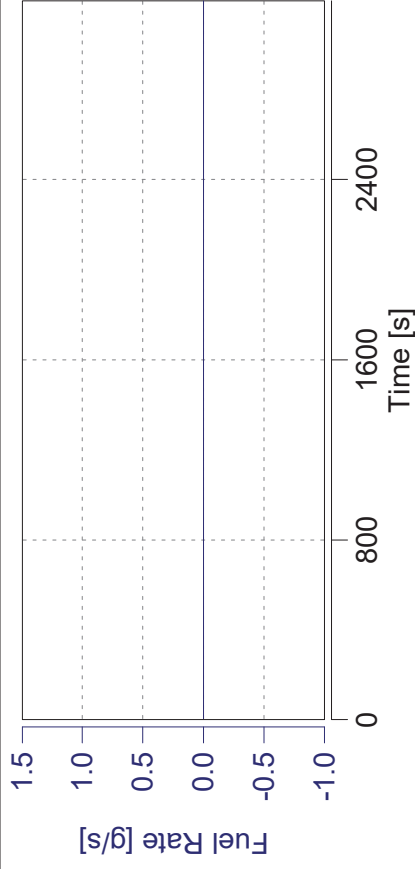
'Mountain'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Exhaust Flow (1)

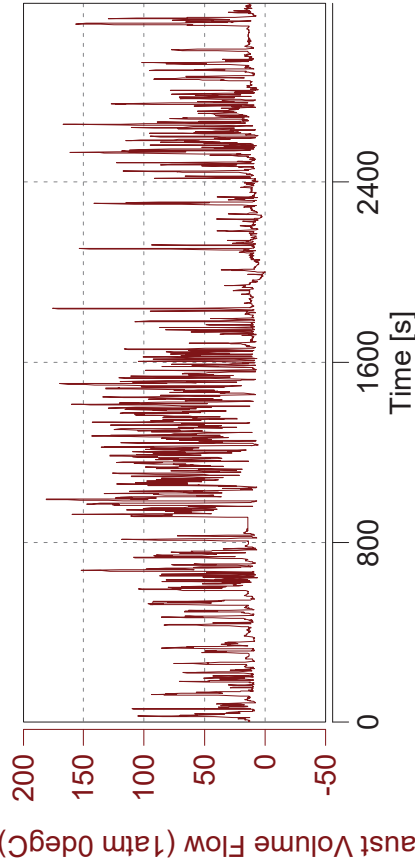
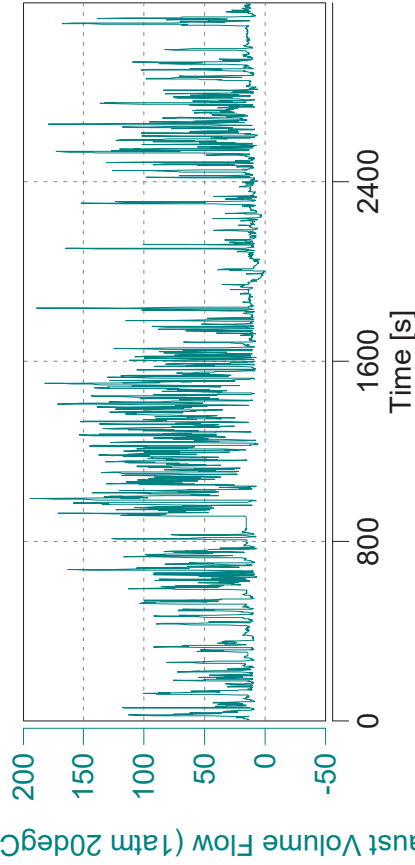
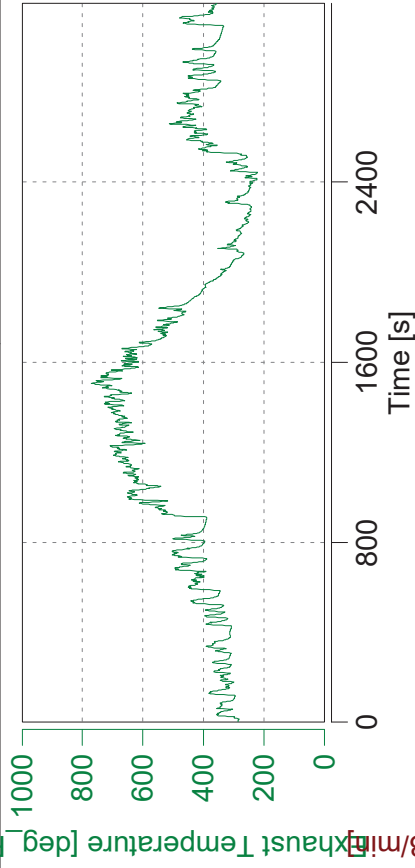
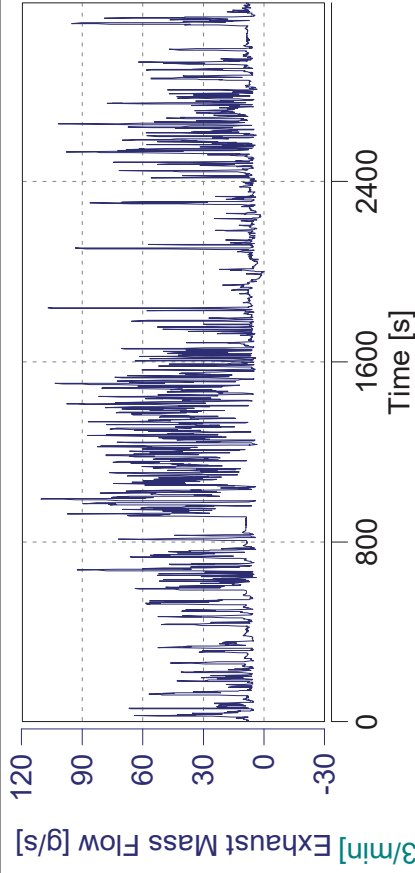
'Mountain'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Exhaust Flow (2)

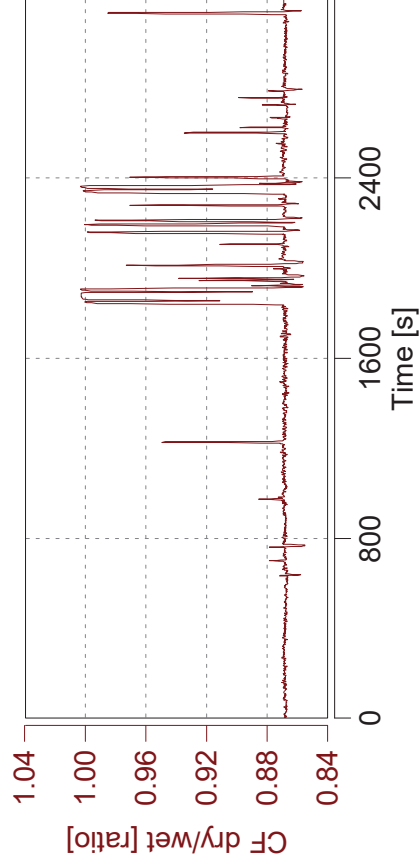
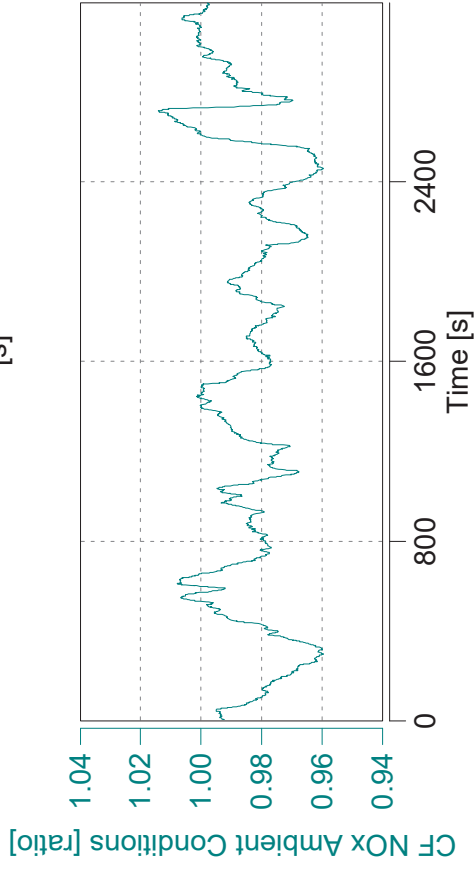
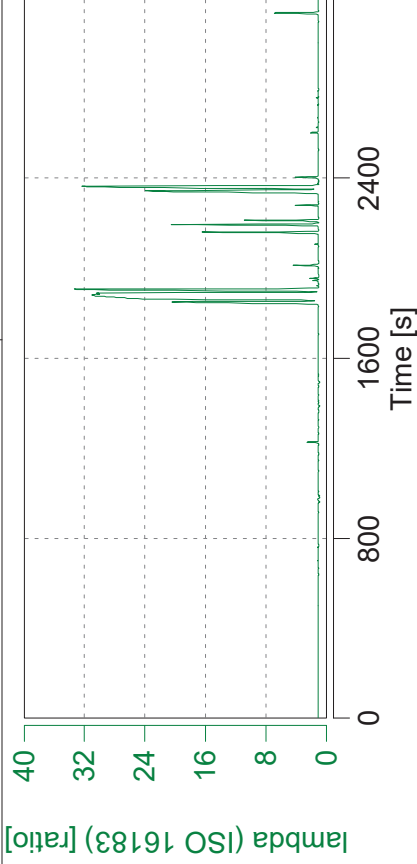
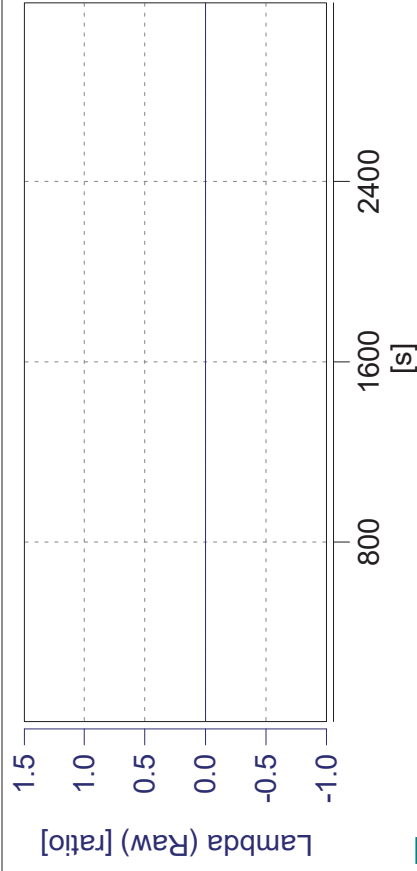
'Mountain'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (1)

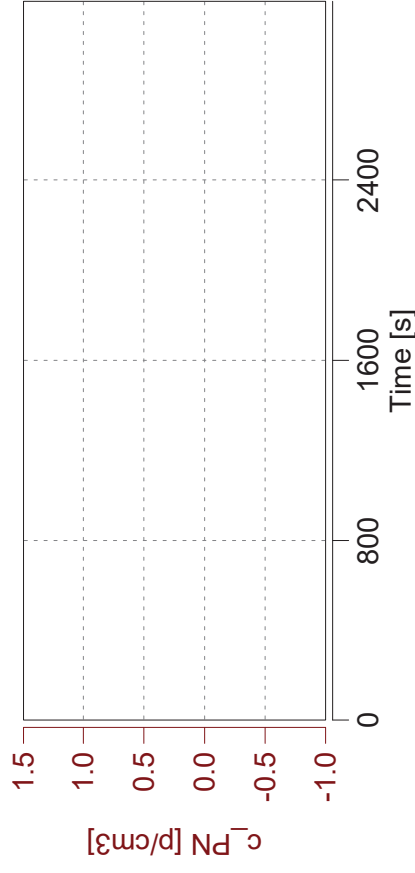
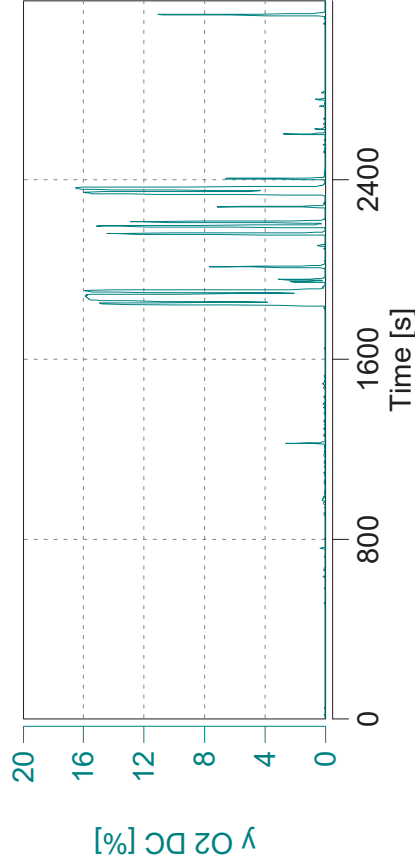
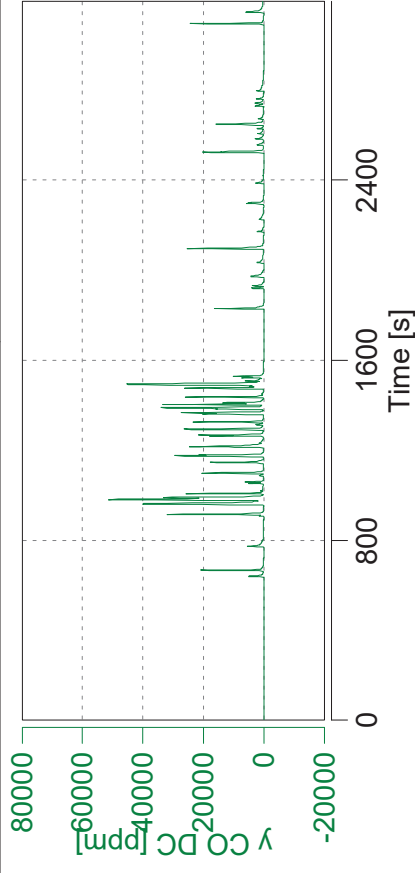
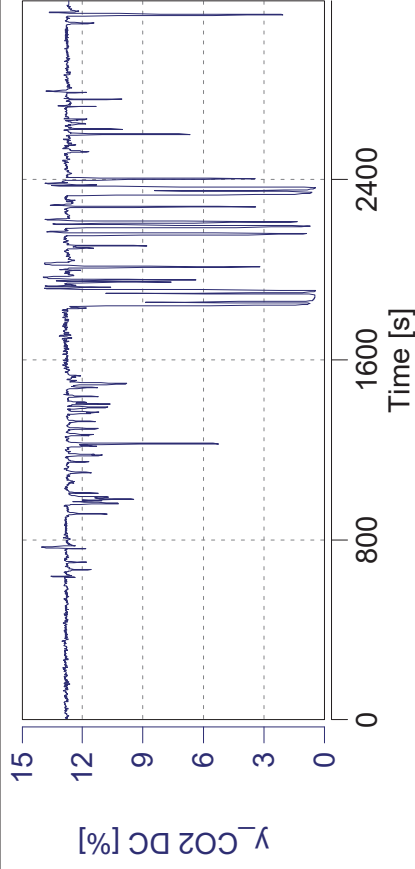
'Mountain'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (2)

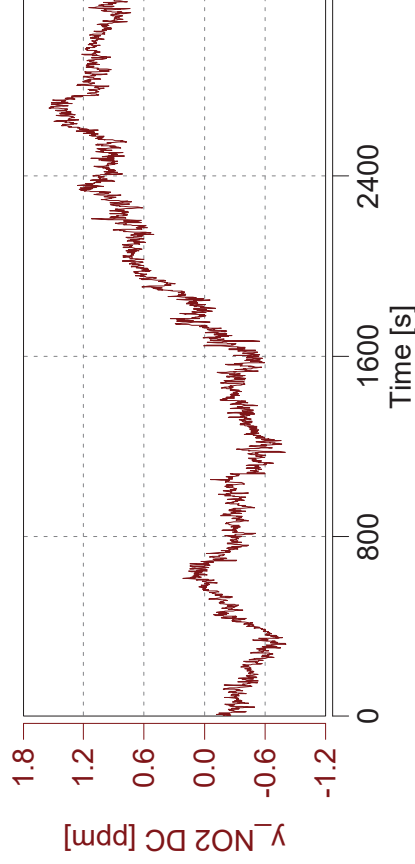
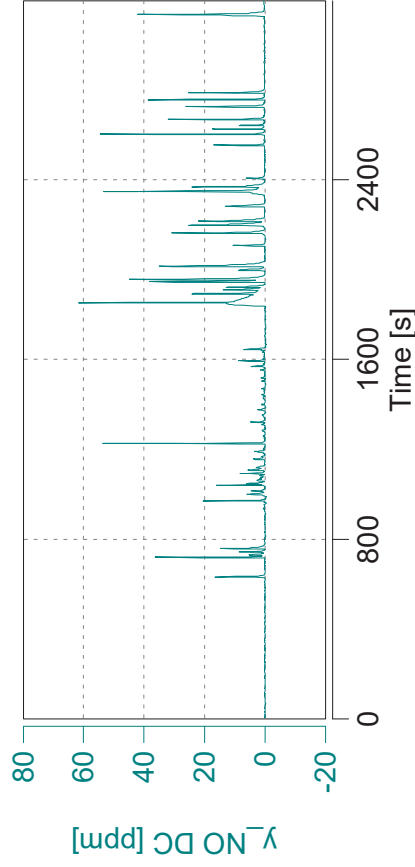
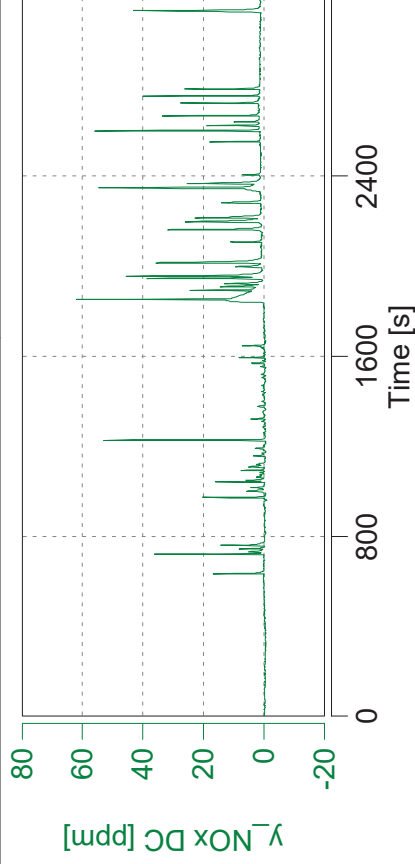
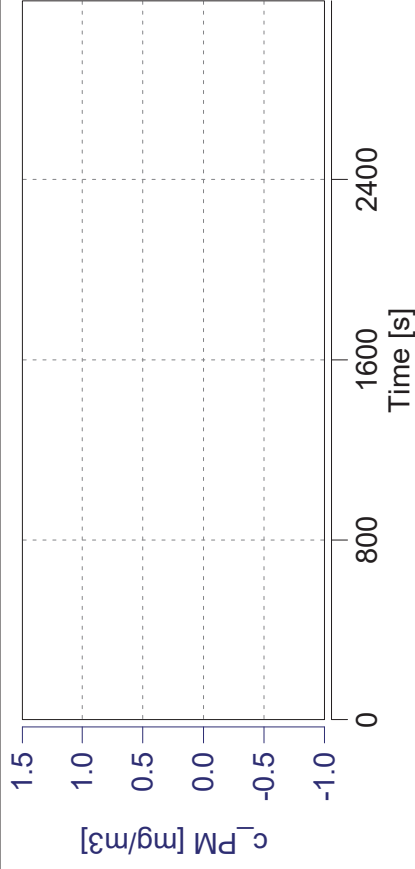
'Mountain'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (3)

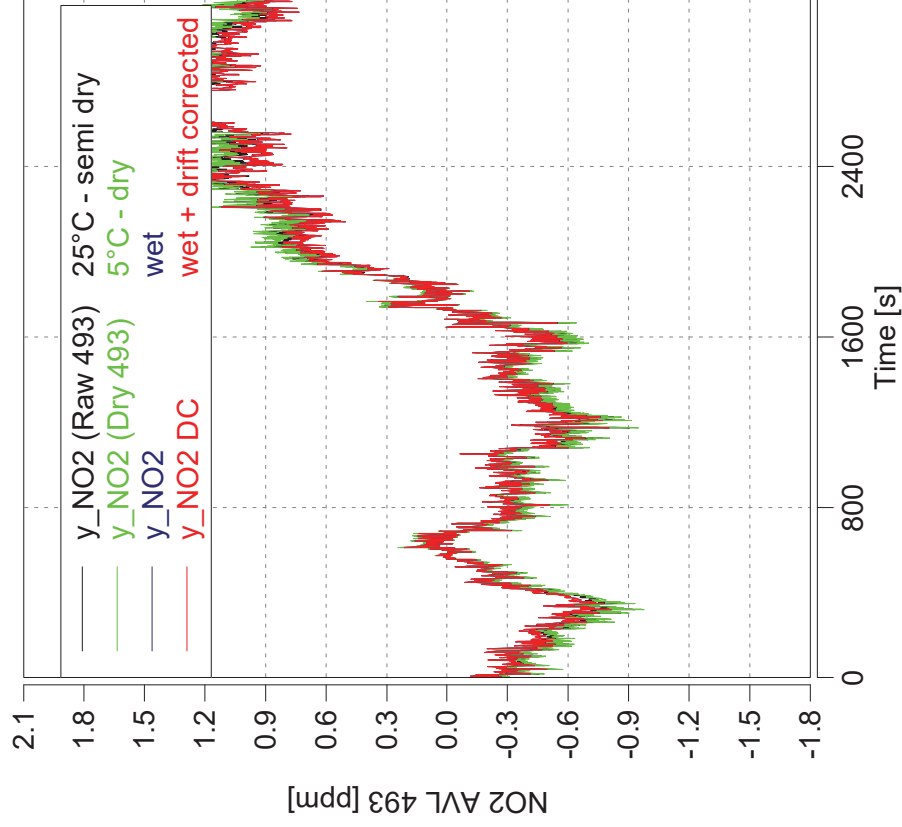
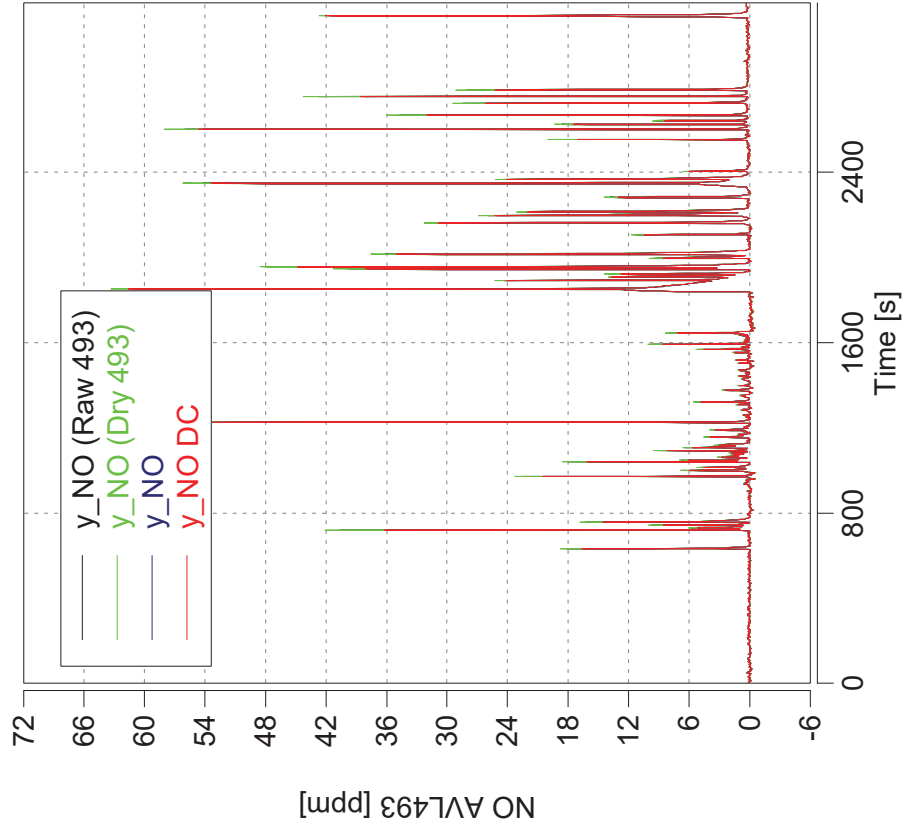
'Mountain'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (4) NOx Corrections

'Mountain'

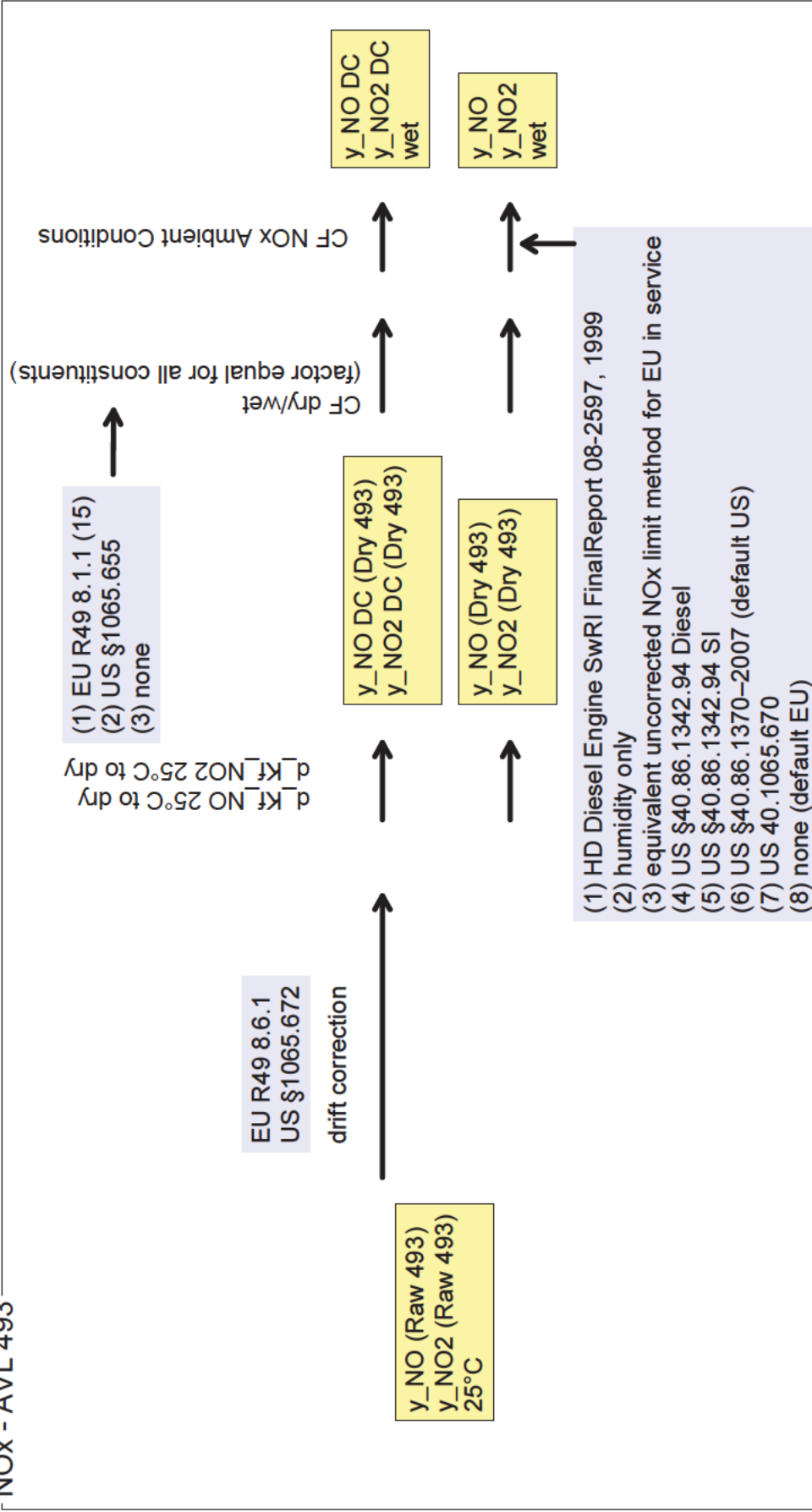
Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (5)

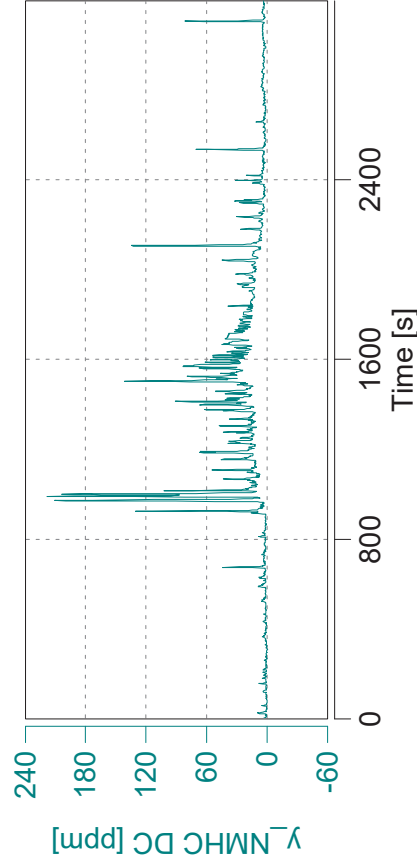
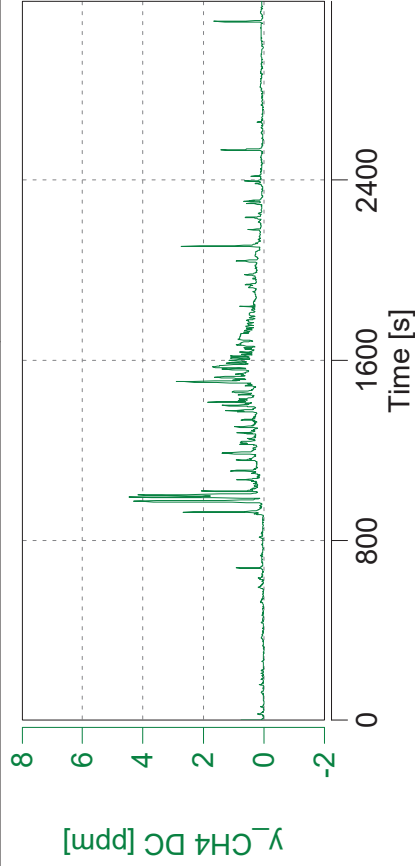
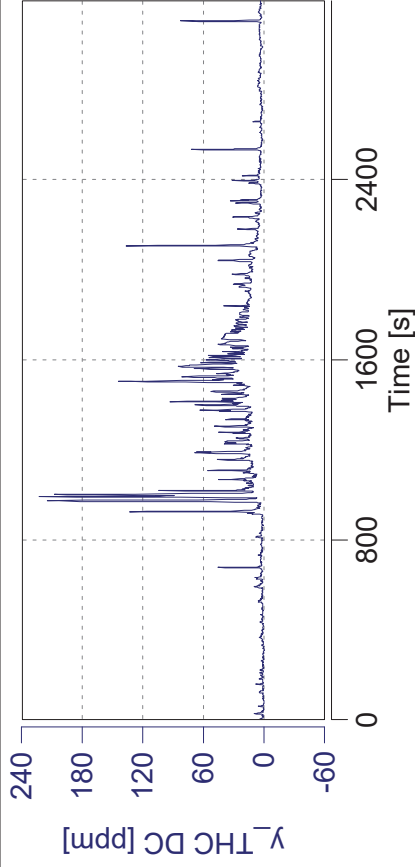
'Mountain'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: NO/NO2/NOx Zero - Span

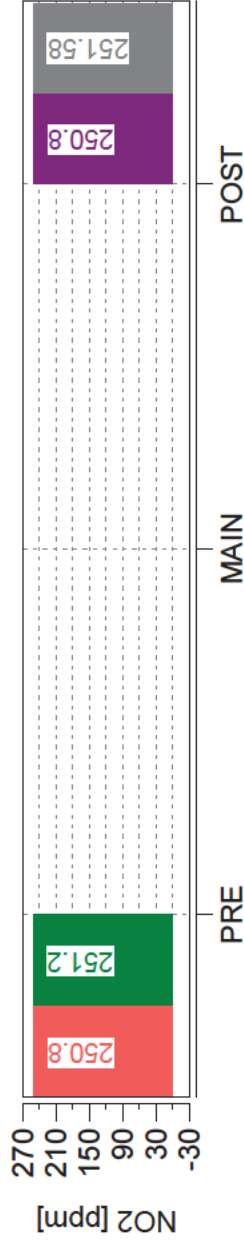
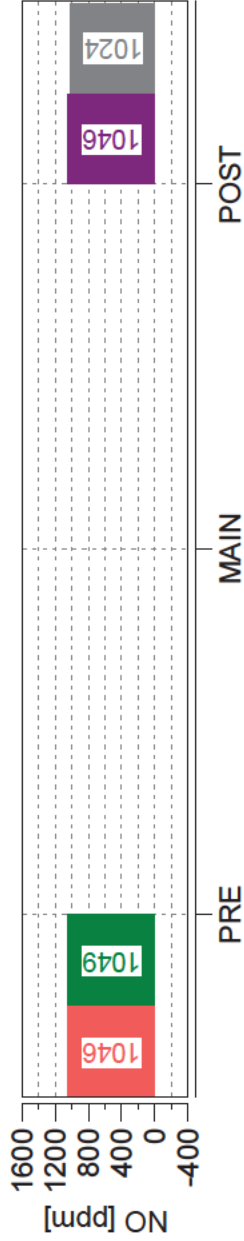
'Mountain'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: CO/CO2 Zero - Span

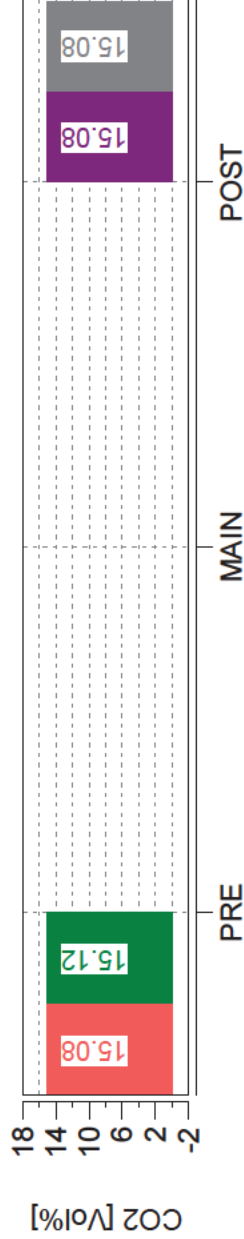
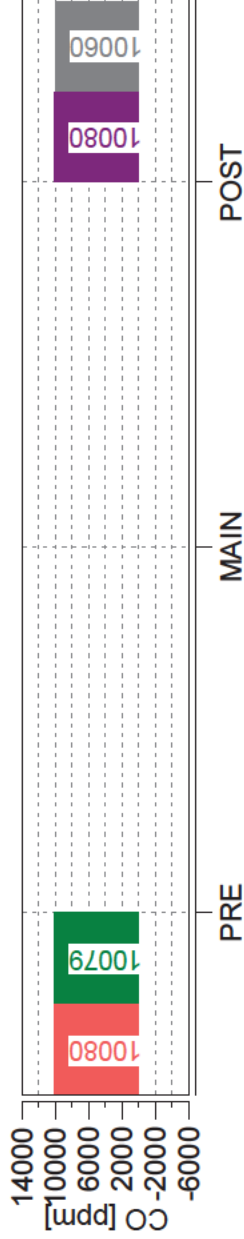
'Mountain'

Start Date: 07/31/2018

Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: THC/CH4 Zero - Span

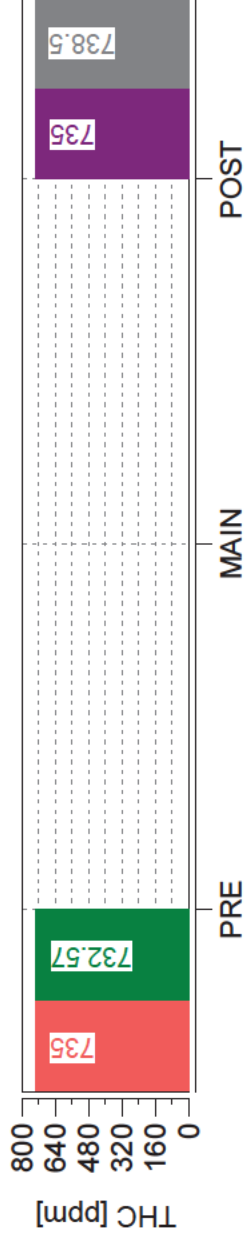
'Mountain'

Start Date: 07/31/2018

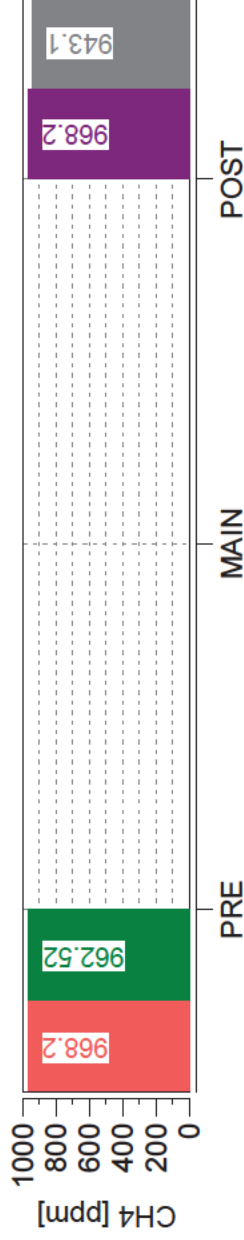
Start Time: 14:11:25.0



Concerto M.O.V.E., 2018



GP_THC_Cal_gas_value
GP_THC_Adjust_Actual
GP_THC_Reference
GP_THC_Audit_Actual



GP_CH4_Cal_gas_value
GP_CH4_Adjust_Actual
GP_CH4_Reference
GP_CH4_Audit_Actual

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary

'City'

Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E. 2018

Trip Duration	3267.00	s	ave THC	0.37543	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3267.00	s	ave NMHC	0.36792	ppm	BS CO	n/a	g/hphr
Trip Distance	16.05	mi	ave CH4	0.00751	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	16.05	mi	ave CO	227.90237	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	12.75056	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	1.42179	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	2.93	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	2.90	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.04	gall	tot THC	0.01158	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.02	gall	tot NMHC	0.01071	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00026	g	DS CO2	549.06150	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	10.70871	g	DS CO	0.66736	g/mi
Trip Fuel Economy EU (ac)	15.48	mpg_US	tot CO2	8810.45394	g	DS THC	0.00072	g/mi
Trip Fuel Economy US (ac)	15.67	mpg_US	tot NO (d)	0.04477	g	DS NMHC	0.00067	g/mi
Trip Av. Eng. Speed	1209.65	rpm	tot NO2	0.05249	g	DS CH4	0.00002	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.09726	g	DS NO (d)	0.00279	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00327	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.00606	g/mi
Trip Exhaust Mass	45.48	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	74.32	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	66.88	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	17.68197	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	19.98776	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary Drift Corrected

'City'

Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E., 2018

Trip Duration	3267.00	s	ave THC DC	0.18582	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3267.00	s	ave NMHC DC	0.18211	ppm	BS CO DC	n/a	g/hphr
Trip Distance	16.05	mi	ave CH4 DC	0.00372	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	16.05	mi	ave CO DC	228.07688	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	12.73367	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	1.39493	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	2.93	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	2.90	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.04	gall	tot THC DC	0.00750	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.02	gall	tot NMHC DC	0.00694	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00017	g	DS CO2 DC	548.33426	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	10.71687	g	DS CO DC	0.66787	g/mi
Trip Fuel Economy EU (ac)	15.48	mpg_US	tot CO2 DC	8798.78447	g	DS THC DC	0.00047	g/mi
Trip Fuel Economy US (ac)	15.67	mpg_US	tot NO DC (d)	0.04452	g	DS NMHC DC	0.00043	g/mi
Trip Av. Eng. Speed	1209.65	rpm	tot NO2 DC	0.05057	g	DS CH4 DC	0.00001	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.09509	g	DS NO DC (d)	0.00277	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00315	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.00593	g/mi
Trip Exhaust Mass	45.48	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	74.32	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	66.88	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	17.68197	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	19.98776	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment Check

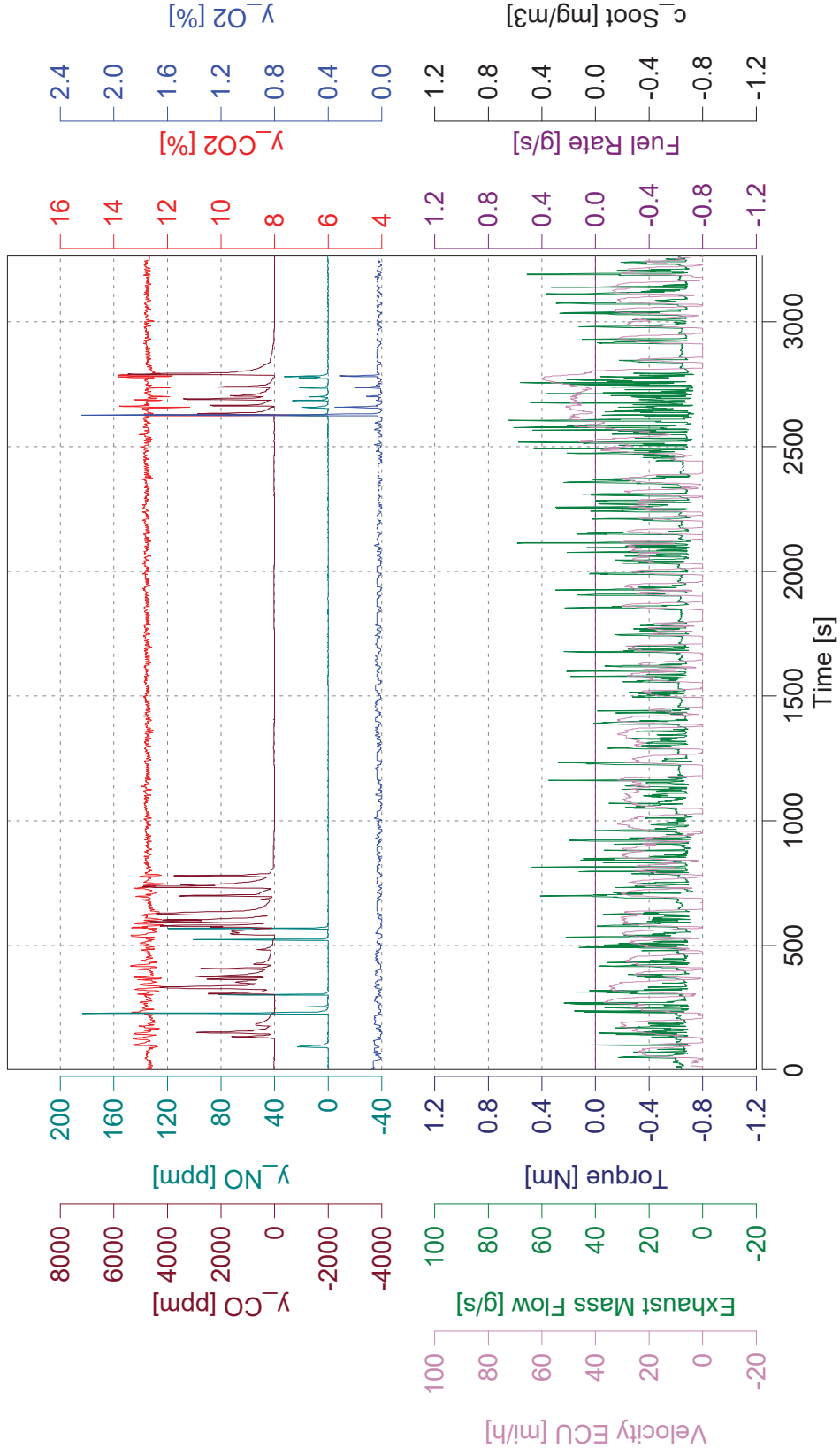
'City'

Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment of Gas Concentrations

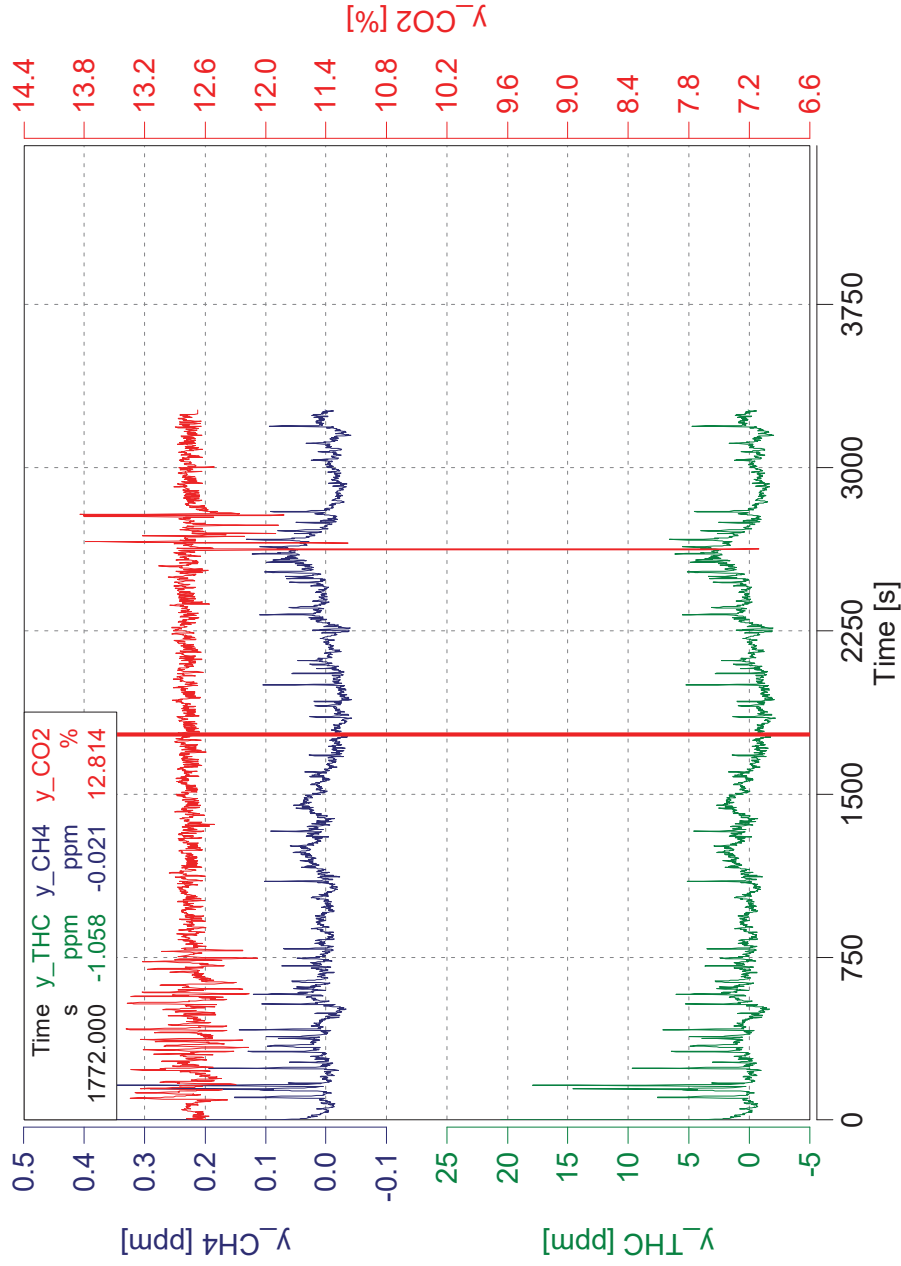
'City'

Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Ambient Conditions

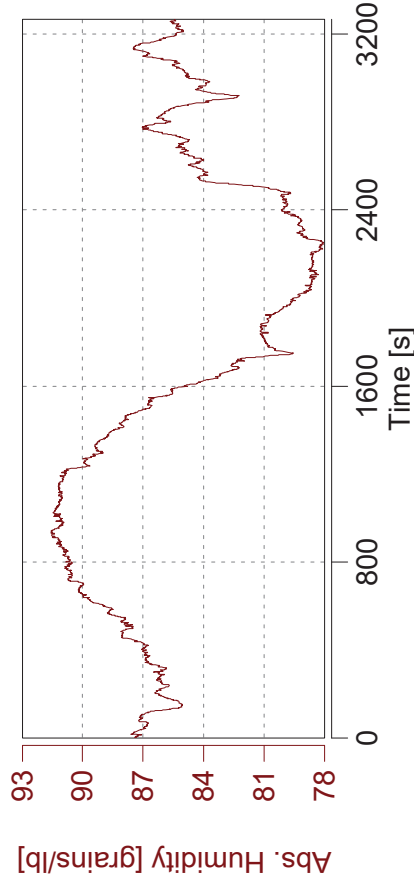
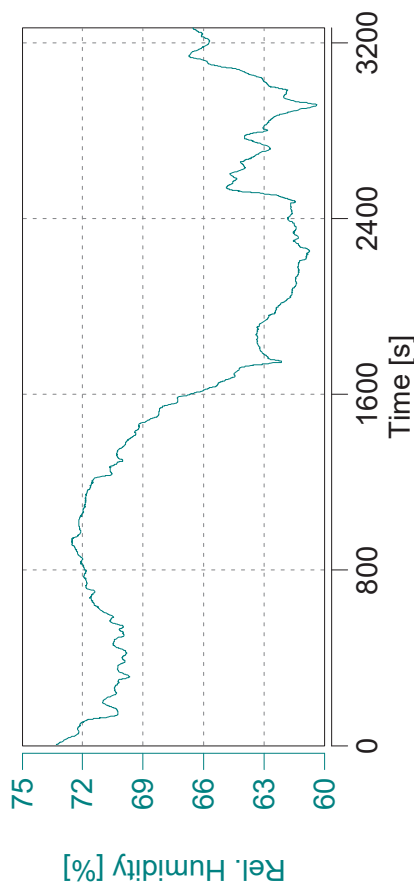
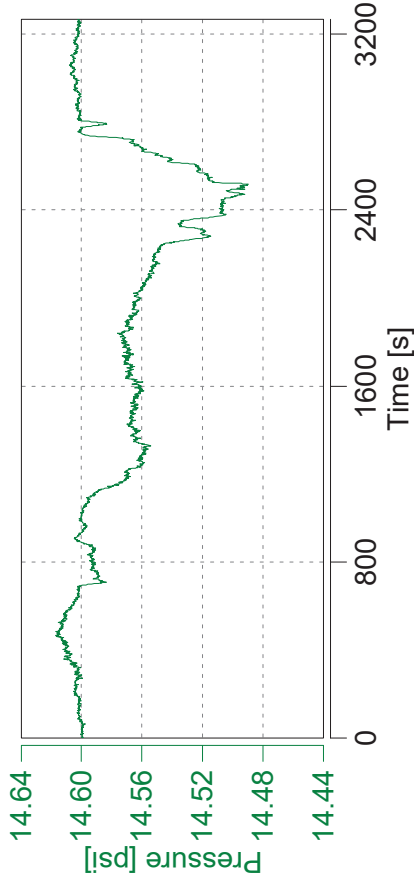
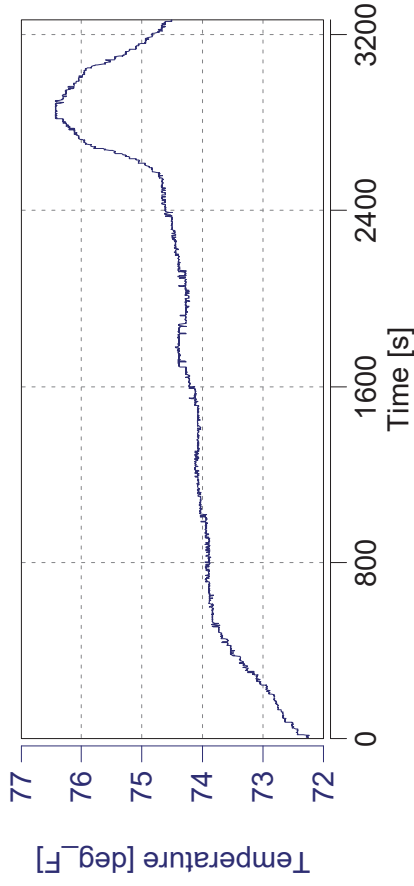
'City'

Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

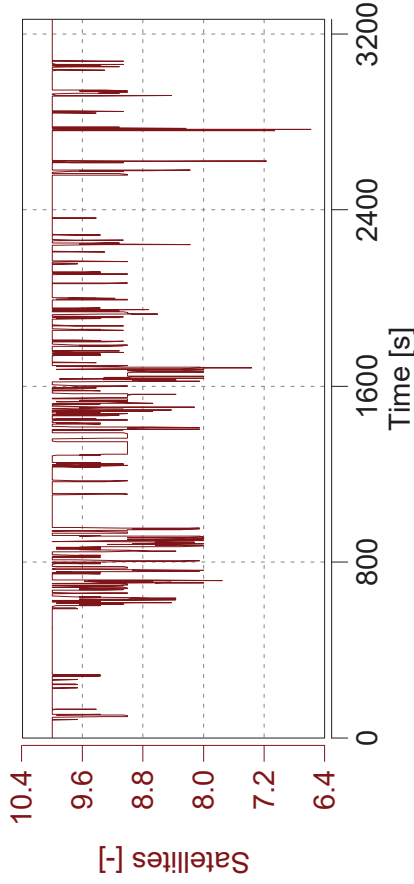
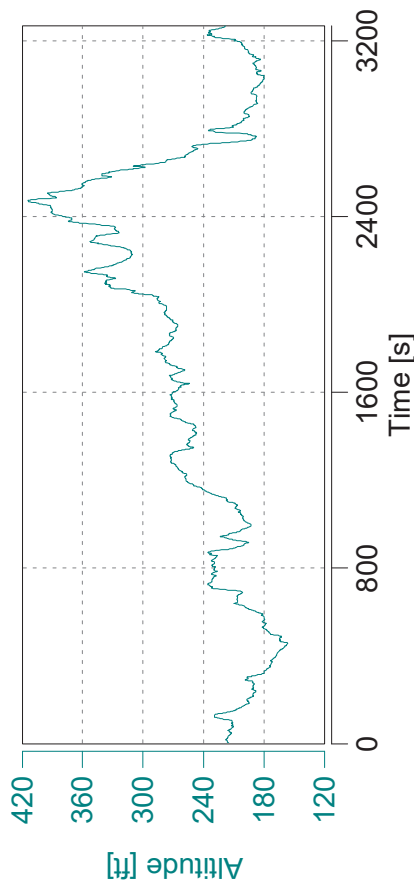
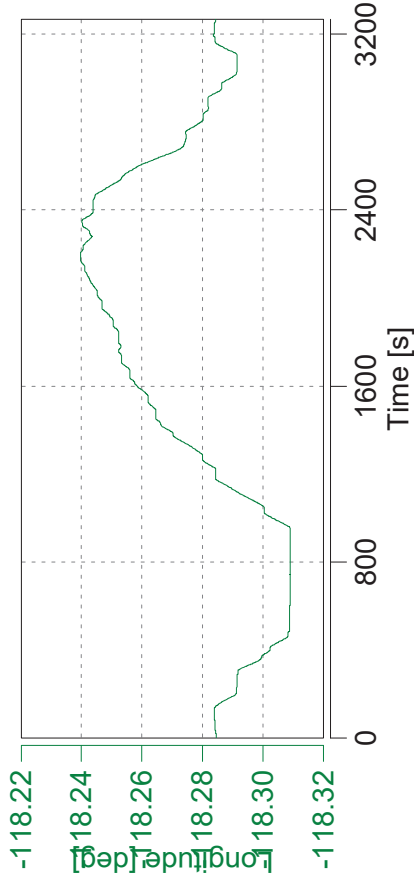
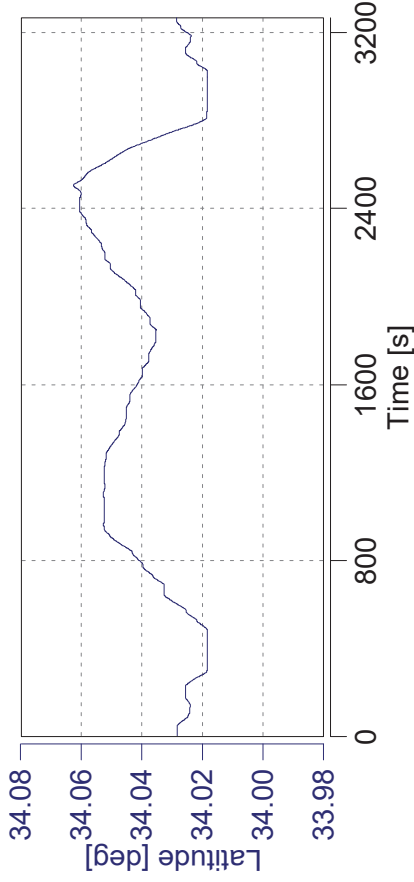
Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City
Page: GPS

'City'
Start Date: 07/31/2018
Start Time: 20:35:08.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (1)

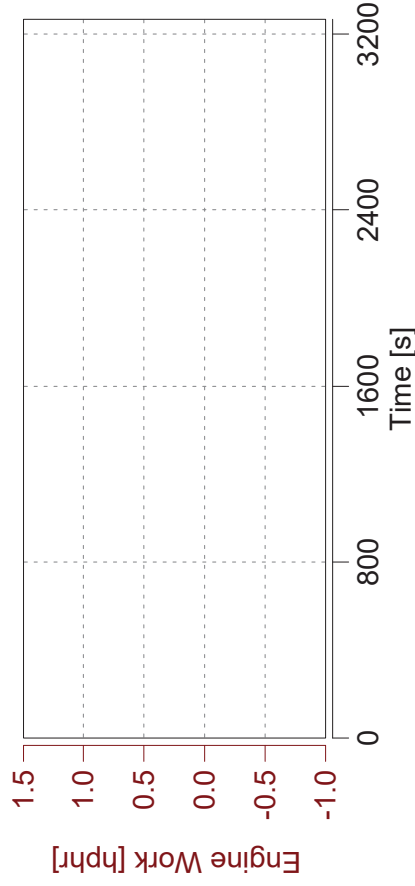
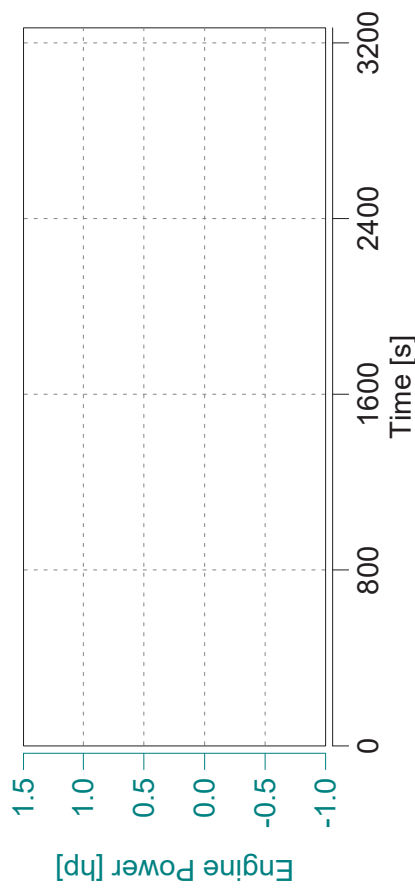
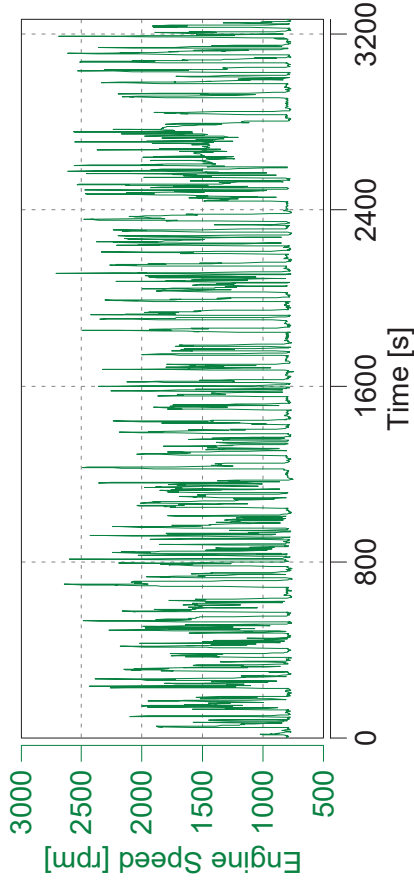
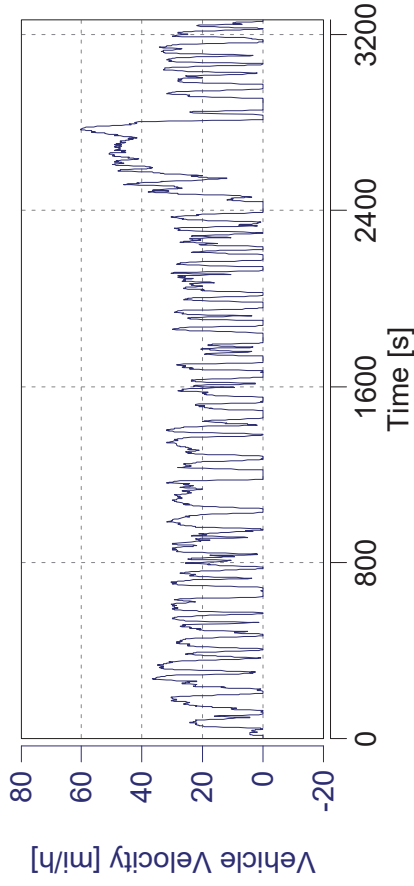
'City'

Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (2)

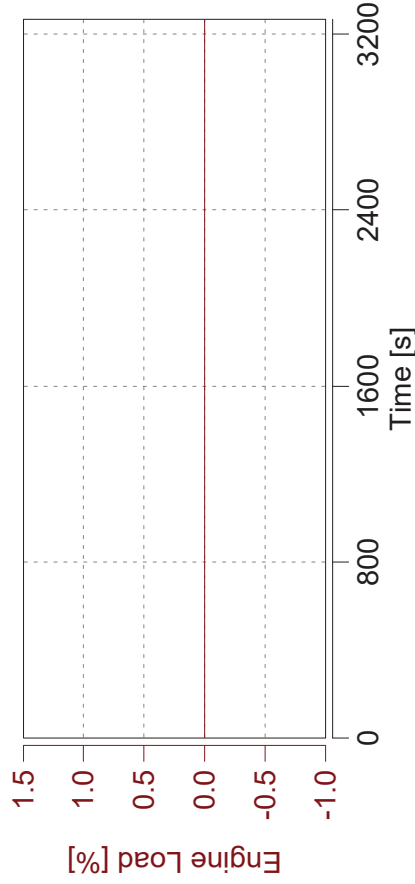
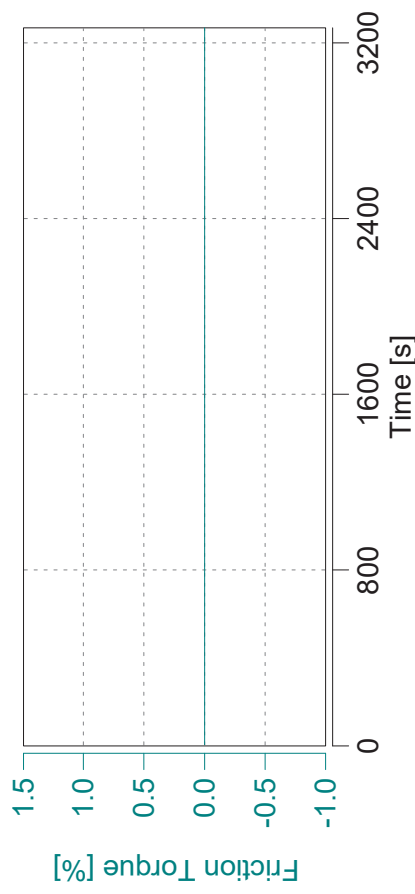
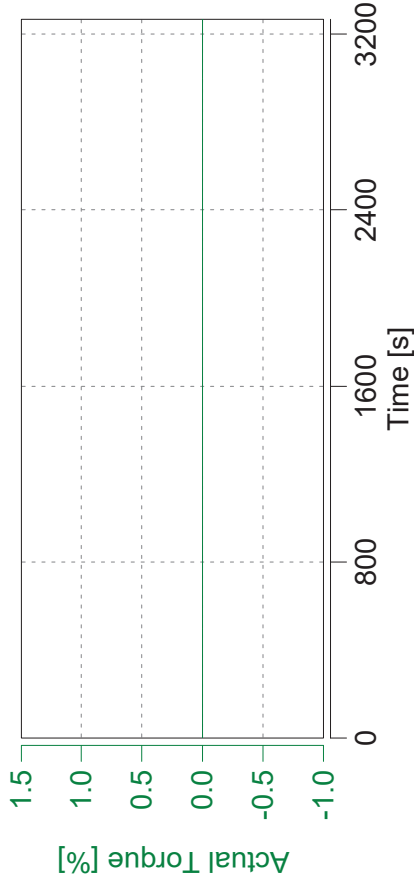
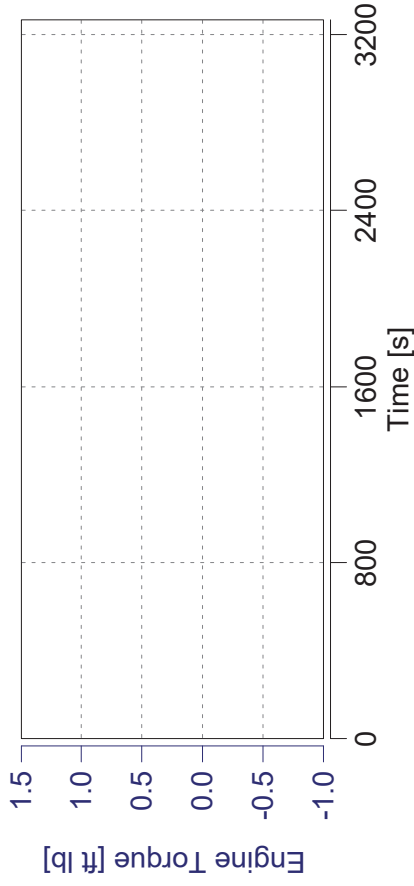
'City'

Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (3)

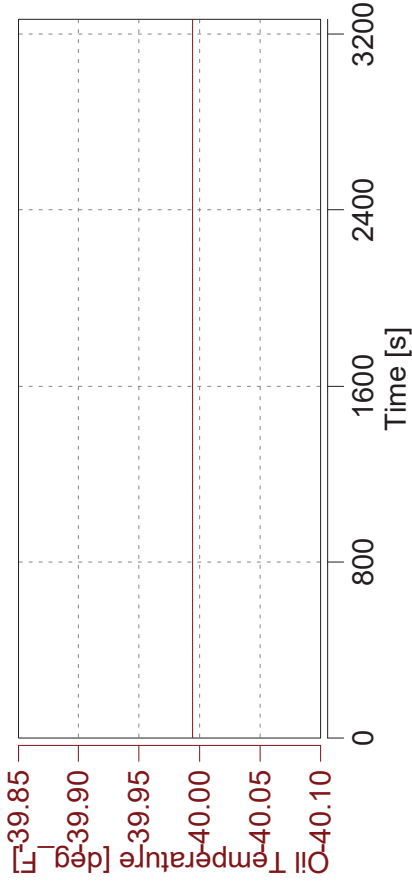
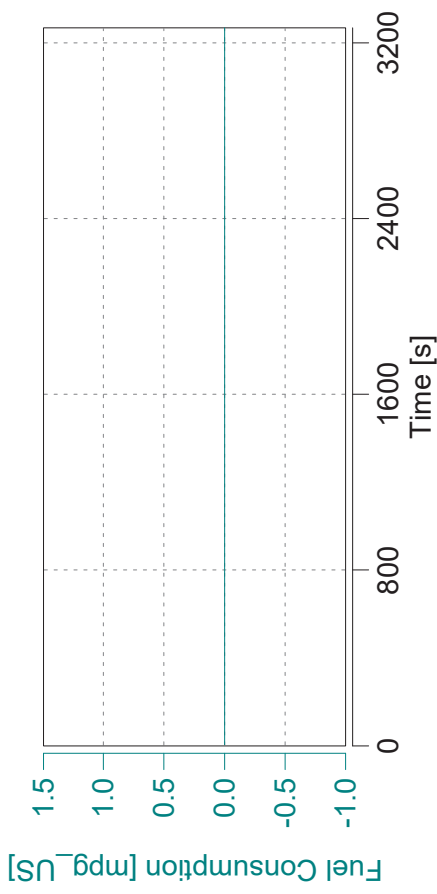
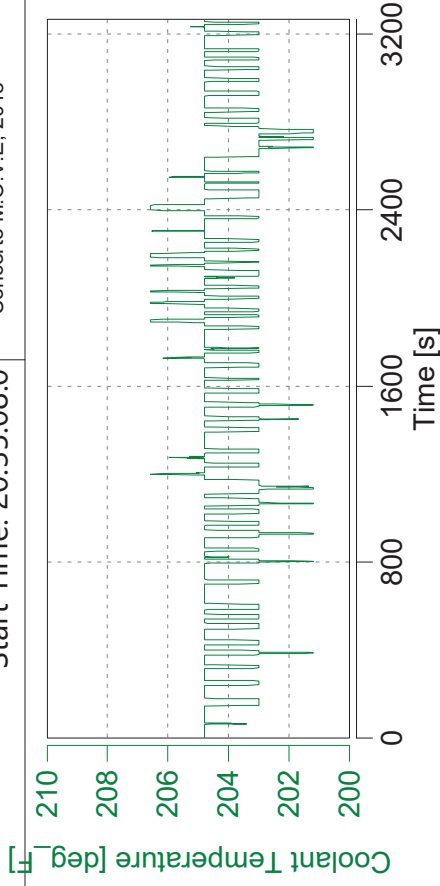
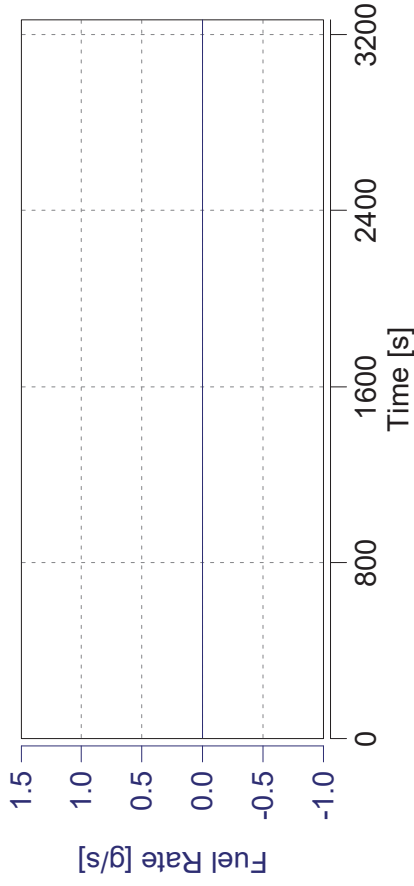
'City'

Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: Tiguan LTD / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (1)

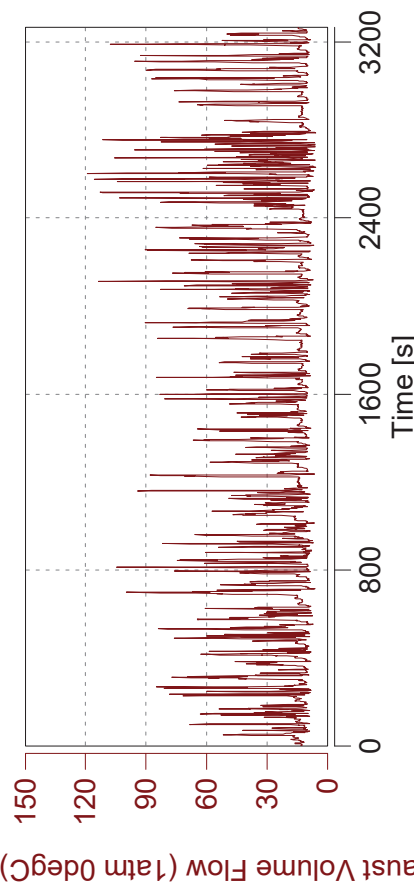
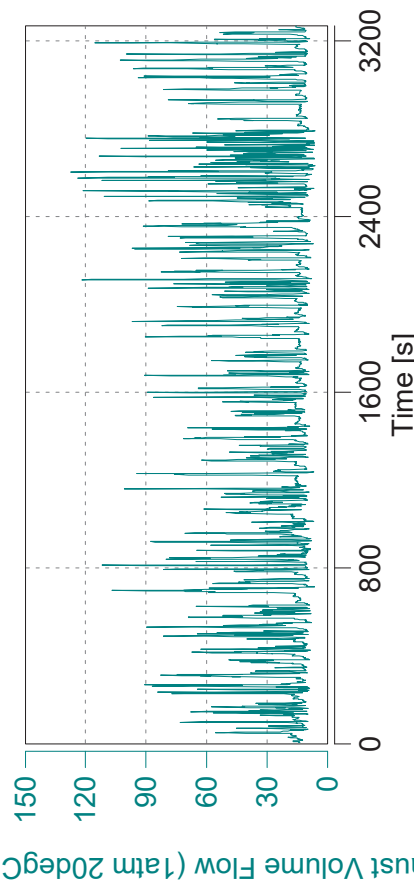
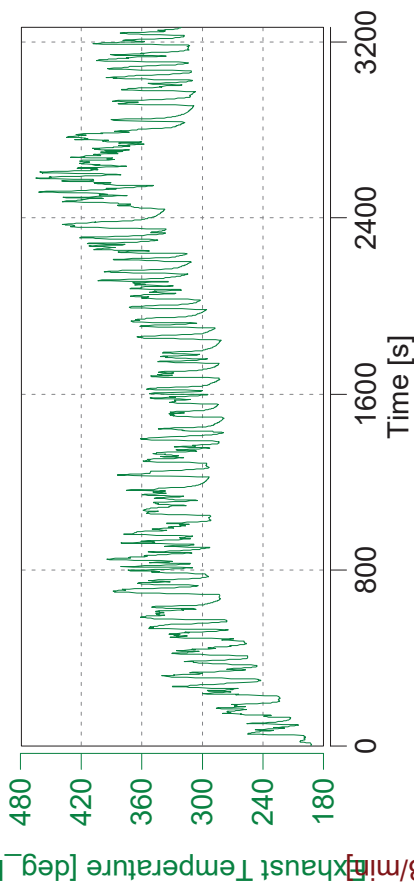
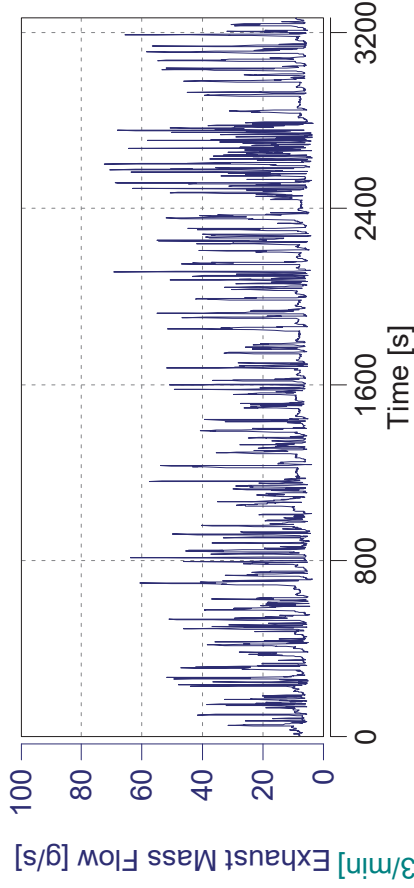
'City'

Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (2)

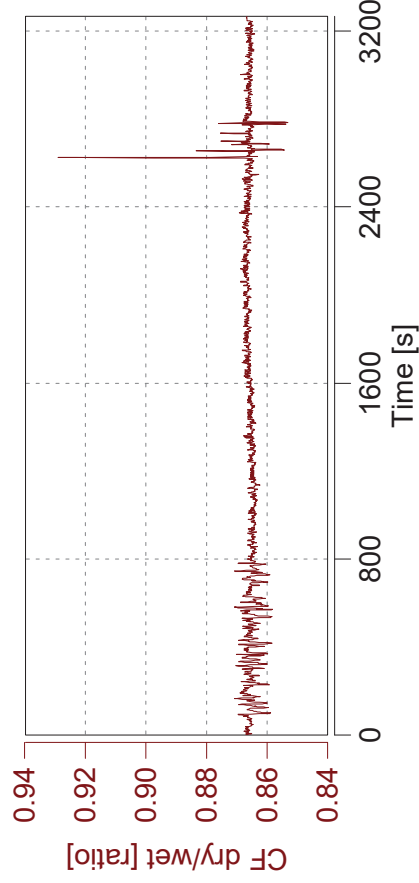
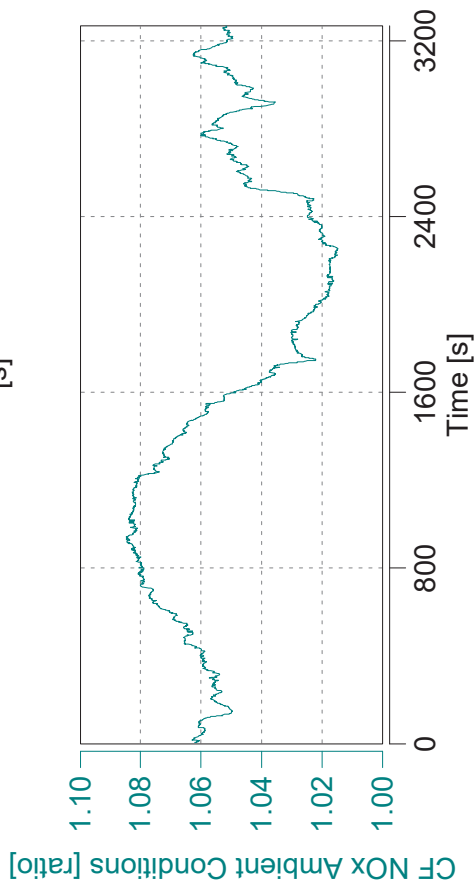
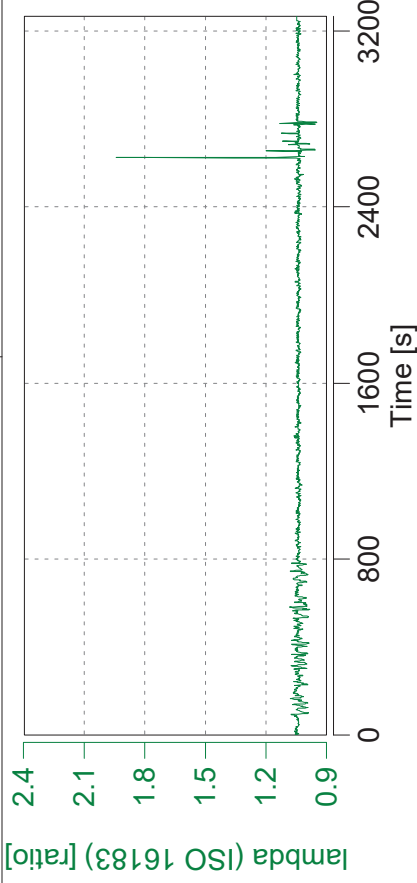
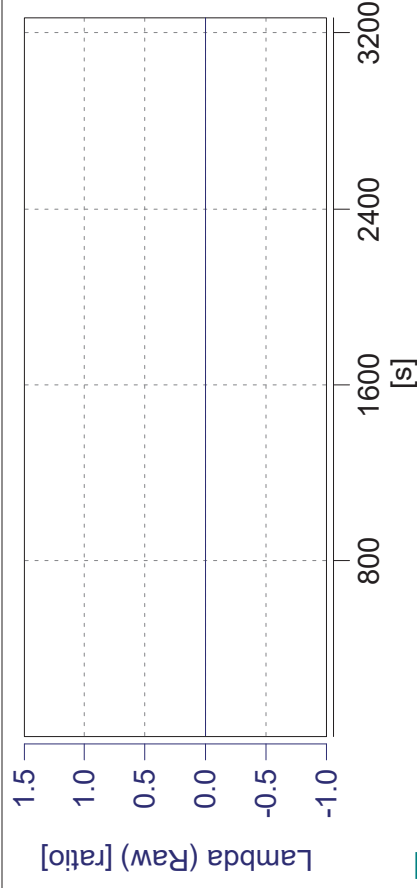
'City'

Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (1)

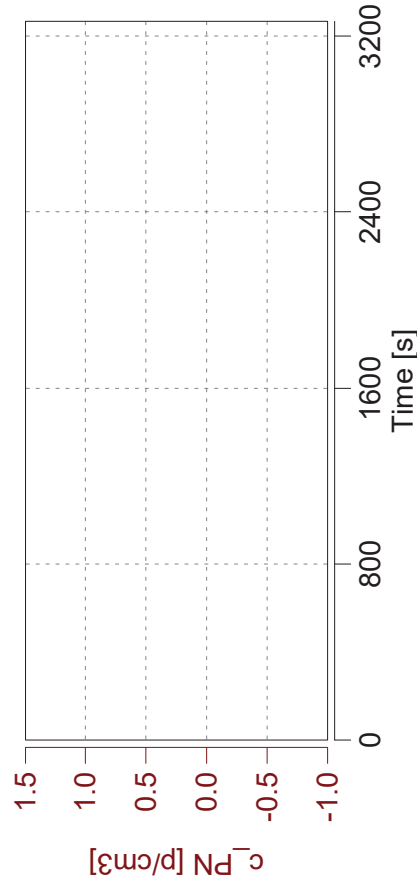
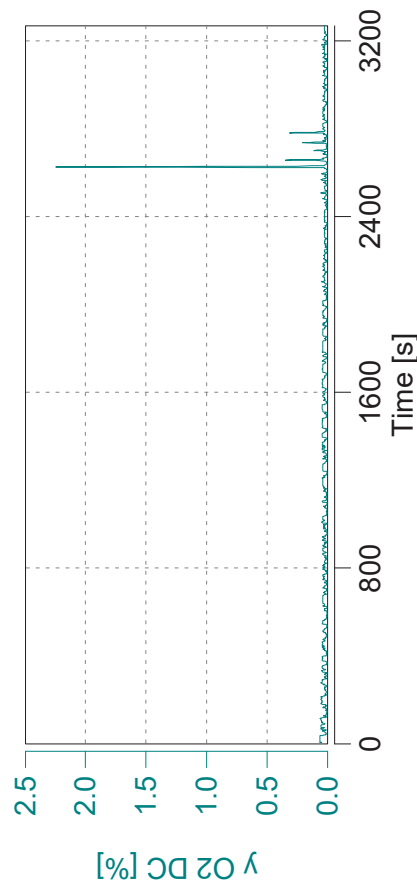
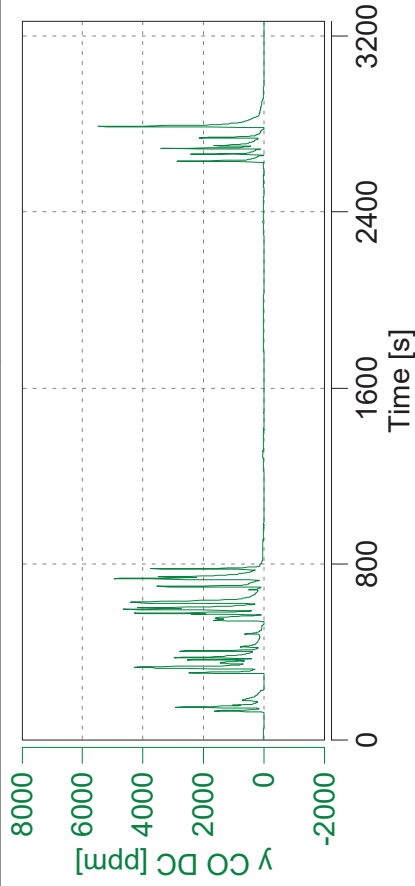
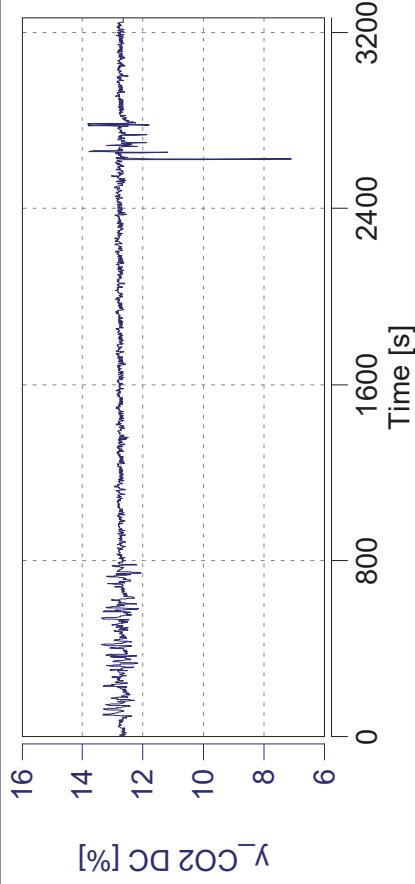
'City'

Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (2)

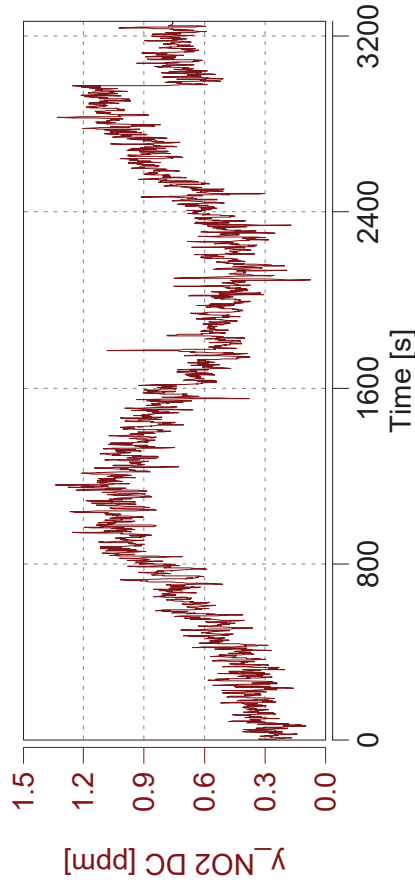
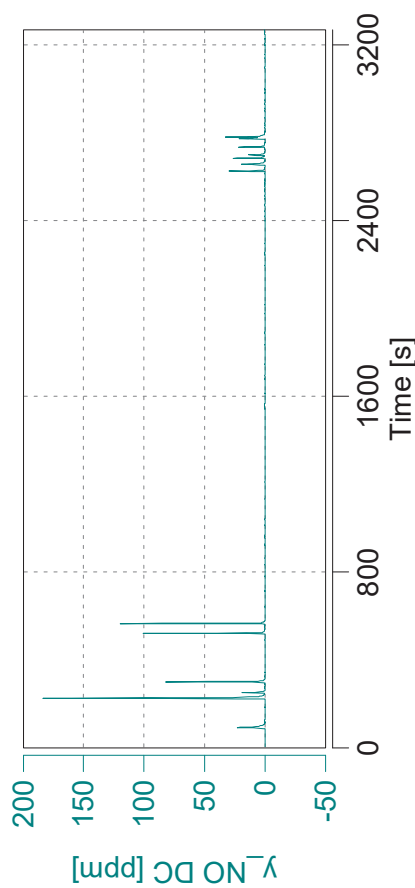
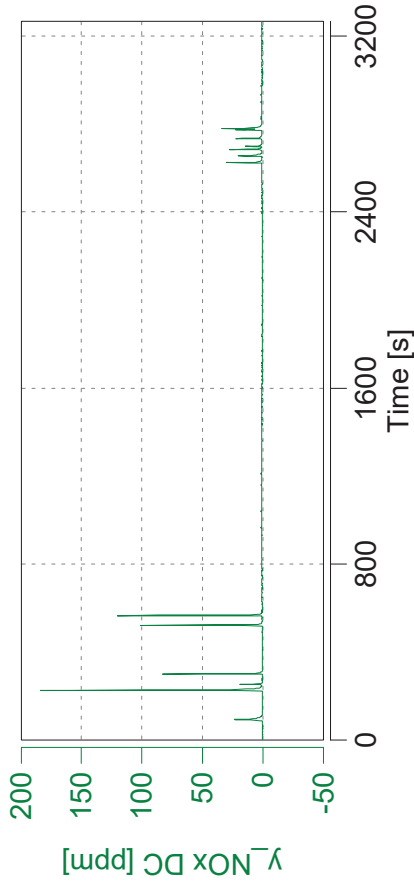
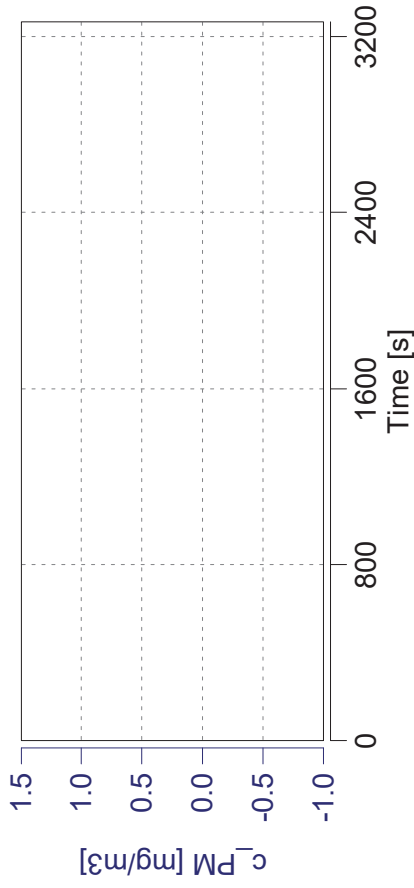
'City'

Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Tiguan LTD / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (3)

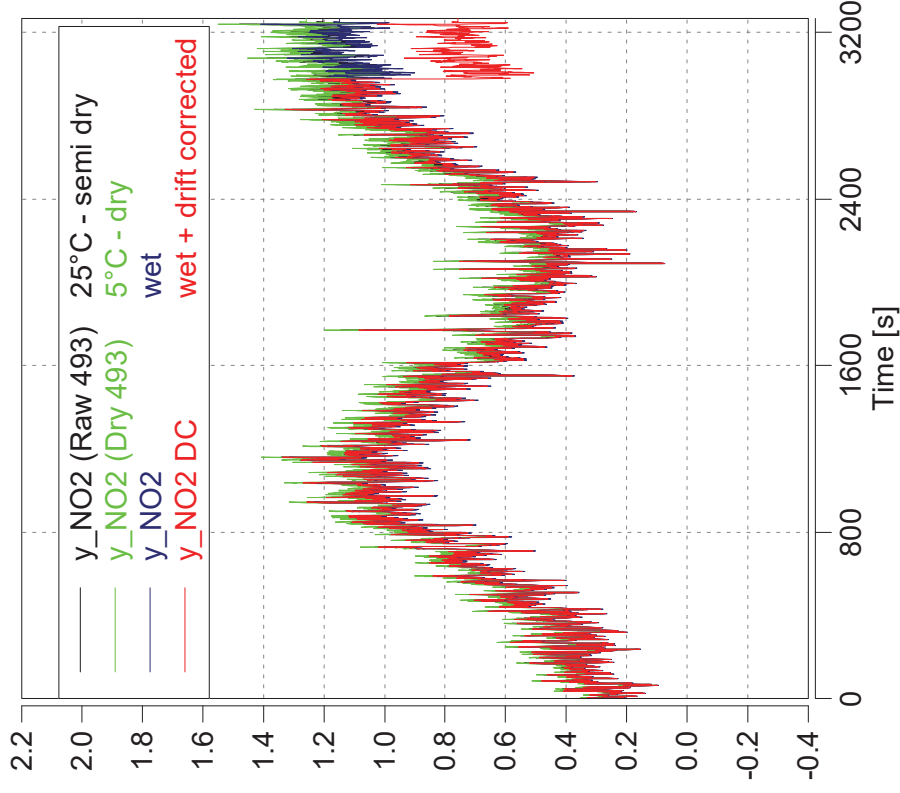
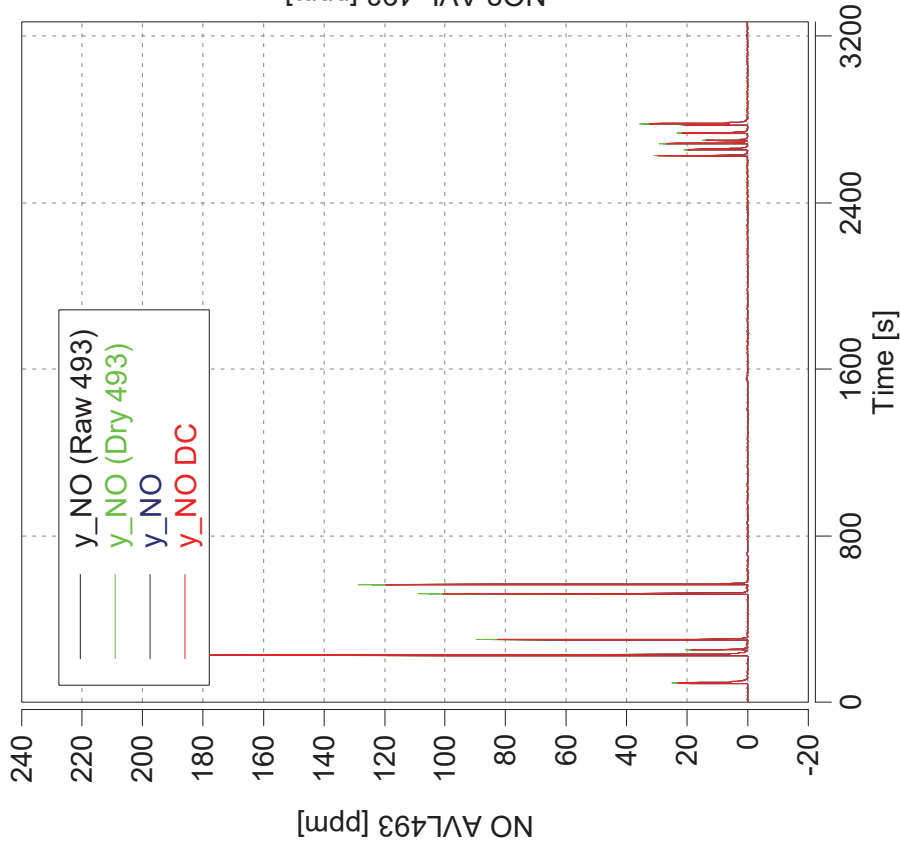
'City'

Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Tiguan LTD / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (4) NOx Corrections

'City'

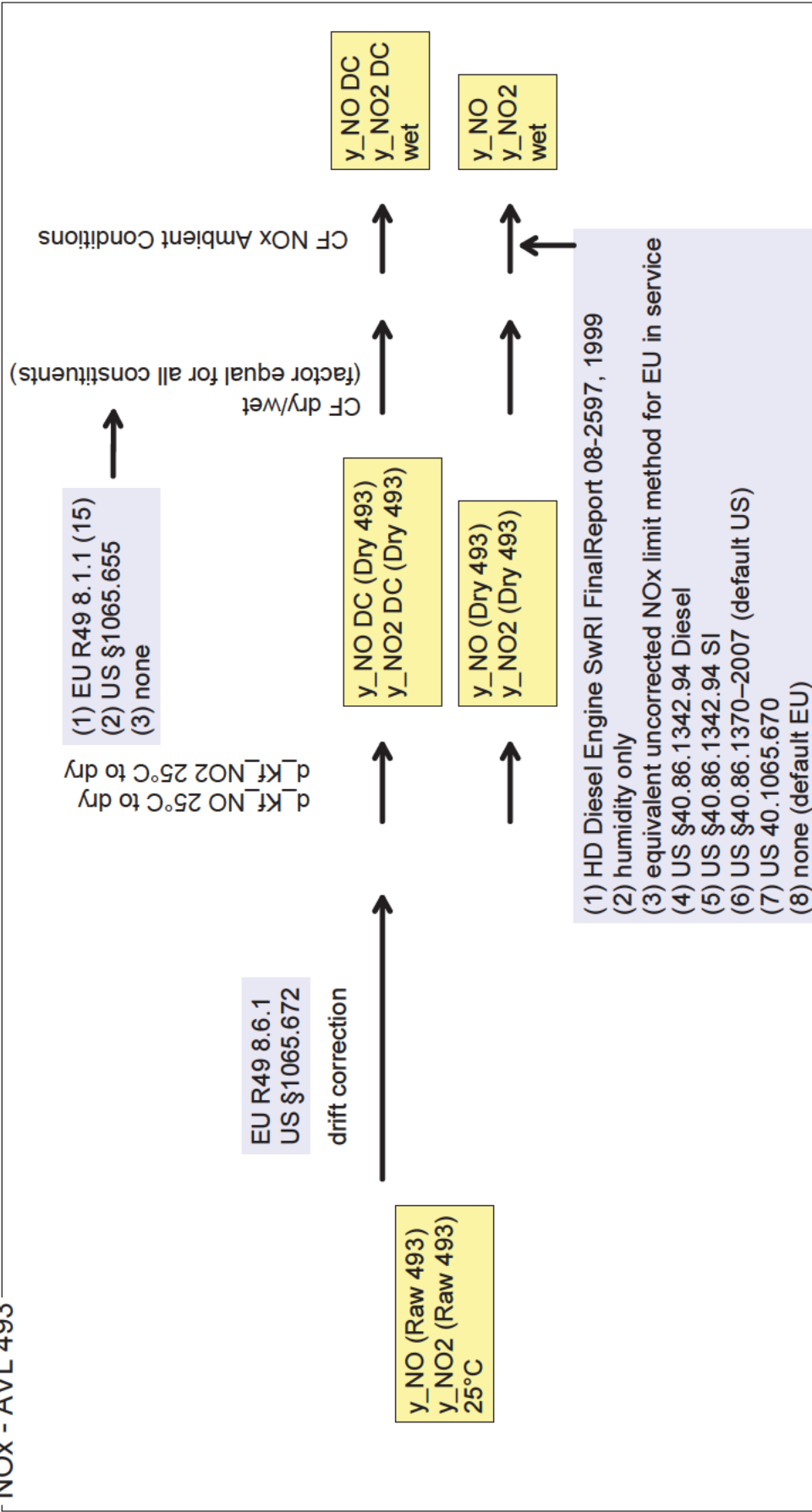
Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: / Vehicle: Tiguan LTD / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (5)

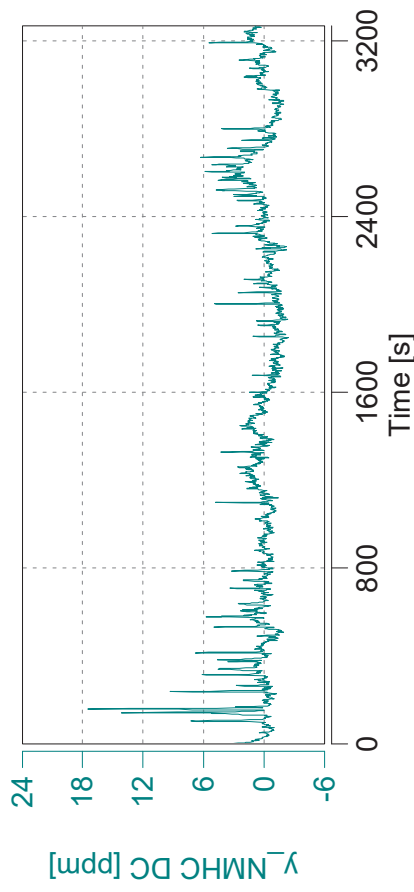
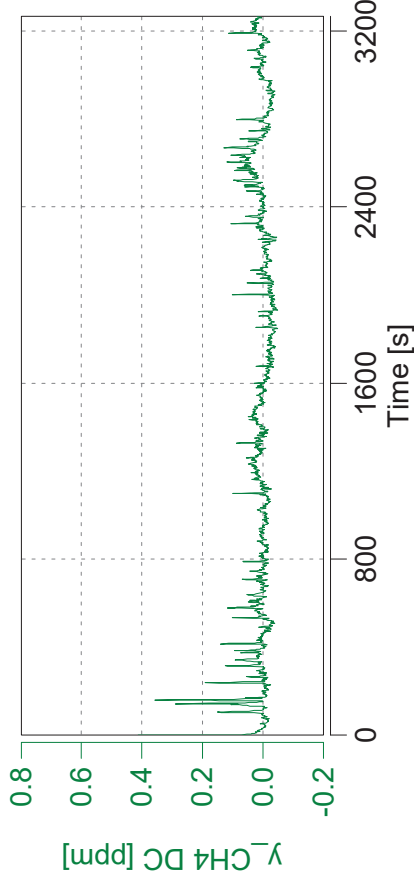
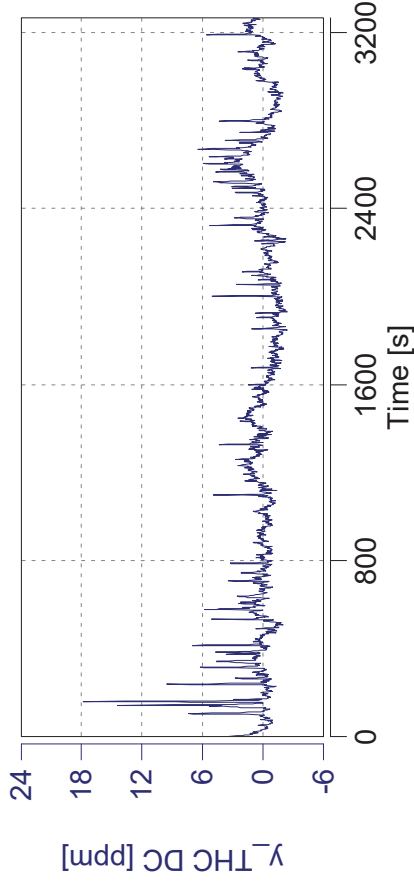
'City'

Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: Tiguan LTD / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: NO/NO2/NOx Zero - Span

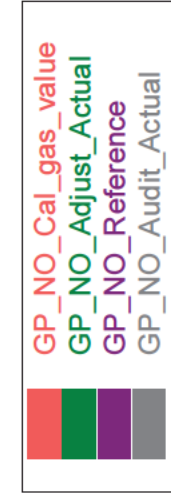
'City'

Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E., 2018



PRE MAIN POST



PRE MAIN POST

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: CO/CO2 Zero - Span

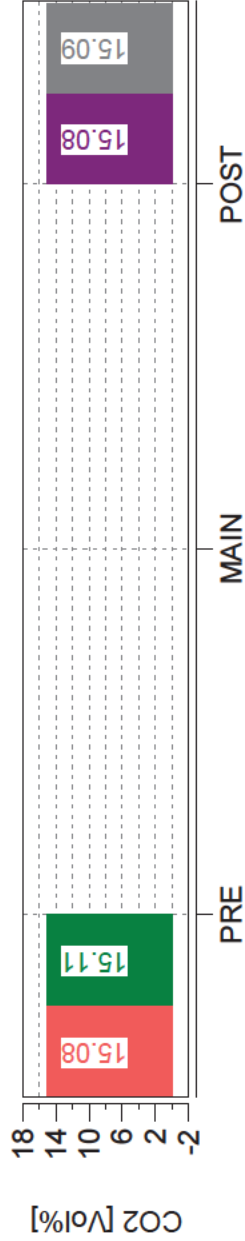
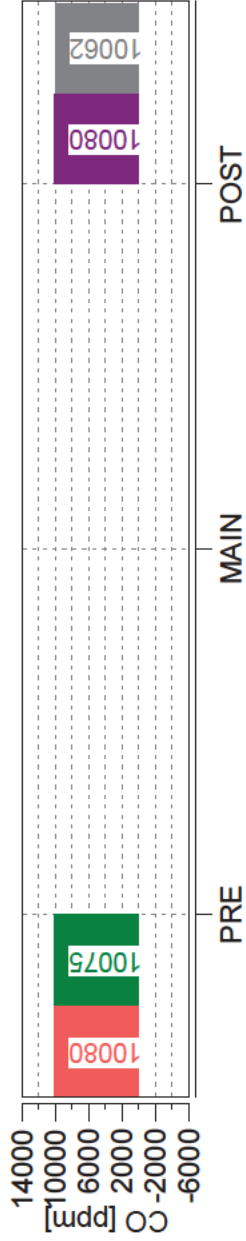
'City'

Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Tiguan LTD / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: THC/CH4 Zero - Span

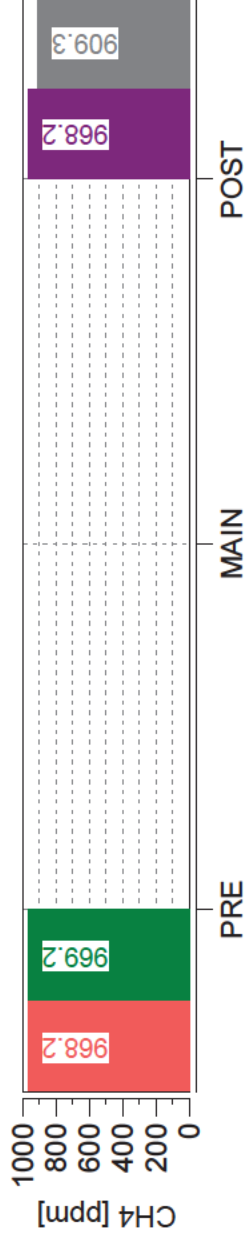
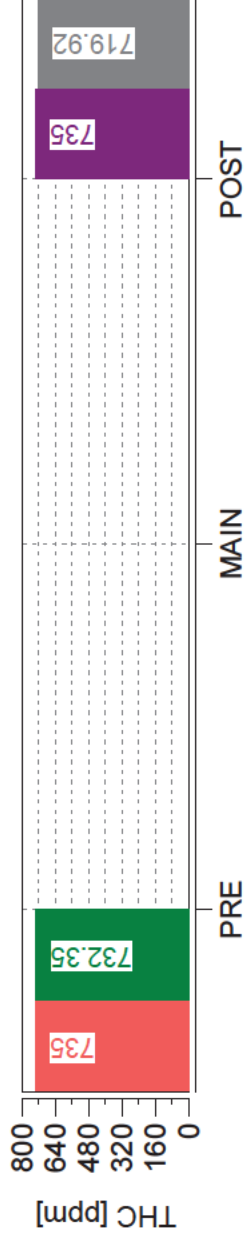
'City'

Start Date: 07/31/2018

Start Time: 20:35:08.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Tiguan LTD / 2.0L

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway
Page: Trip Summary

'Highway'
Start Date: 08/02/2018
Start Time: 13:40:03.0



Concerto M.O.V.E. 2018

Trip Duration	2838.00	s	ave THC	1.59496	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	2838.00	s	ave NMHC	1.56306	ppm	BS CO	n/a	g/hphr
Trip Distance	39.60	mi	ave CH4	0.03190	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	39.60	mi	ave CO	170.12627	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	12.00342	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	8.94071	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.65	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.60	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.29	gall	tot THC	0.12832	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.27	gall	tot NMHC	0.11870	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00284	g	DS CO2	275.87295	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	25.66351	g	DS CO	0.64810	g/mi
Trip Fuel Economy EU (ac)	30.71	mpg_US	tot CO2	10924.08546	g	DS THC	0.00324	g/mi
Trip Fuel Economy US (ac)	31.09	mpg_US	tot NO (d)	0.41390	g	DS NMHC	0.00300	g/mi
Trip Av. Eng. Speed	2058.88	rpm	tot NO2	0.05821	g	DS CH4	0.00007	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.47211	g	DS NO (d)	0.01045	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00147	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.01192	g/mi
Trip Exhaust Mass	57.50	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	82.81	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	50.36	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	50.23034	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	3.24172	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Jetta / 1.4L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Trip Summary Drift Corrected

'Highway'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E. 2018

Trip Duration	2838.00	s	ave THC DC	1.76714	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	2838.00	s	ave NMHC DC	1.73180	ppm	BS CO DC	n/a	g/hphr
Trip Distance	39.60	mi	ave CH4 DC	0.03534	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	39.60	mi	ave CO DC	170.23075	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	12.00740	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	8.96906	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.65	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.60	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave Soot meas	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.29	gall	ave PN DC	n/a		BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.27	gall	tot THC DC	0.13197	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot NMHC DC	0.12207	g	DS CO2 DC	275.96445	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CH4 DC	0.00292	g	DS CO DC	0.64854	g/mi
Trip Fuel Economy EU (ac)	30.71	mpg_US	tot CO DC	25.68114	g	DS THC DC	0.00333	g/mi
Trip Fuel Economy US (ac)	31.09	mpg_US	tot CO2 DC	10927.70871	g	DS NMHC DC	0.00308	g/mi
Trip Av. Eng. Speed	2058.88	rpm	tot NO DC (d)	0.41524	g	DS CH4 DC	0.00007	g/mi
Trip Av. Torque	n/a	lbft	tot NO2 DC	0.05830	g	DS NO DC (d)	0.01049	g/mi
Trip Av. Power	n/a	hp	tot NOx DC	0.47354	g	DS NO2 DC	0.00147	g/mi
Trip Work	n/a	hphr	tot Soot	n/a	g	DS NOx DC	0.01196	g/mi
Trip Exhaust Mass	57.50	kg	tot Soot meas	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PM	n/a	g	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	tot PN DC	n/a	#	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	82.81	deg_F	PM measurement type	0.00000	-	DS PN DC	n/a	#/mi
Trip Av. Humidity	50.36	%	PM correction type	1.00000	alpha(HC)	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		tot Soot on PM filter (estim.)	n/a	mg	FS CO DC	n/a	g/kg
			Soot --> PM simple scaling factor	1.00000	-	FS THC DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS NMHC DC	n/a	g/kg
			Trip Av. Veh. Speed	50.23034	mi/hr	FS CH4 DC	n/a	g/kg
			Trip Velocity Zero	3.24172	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NOx DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment Check

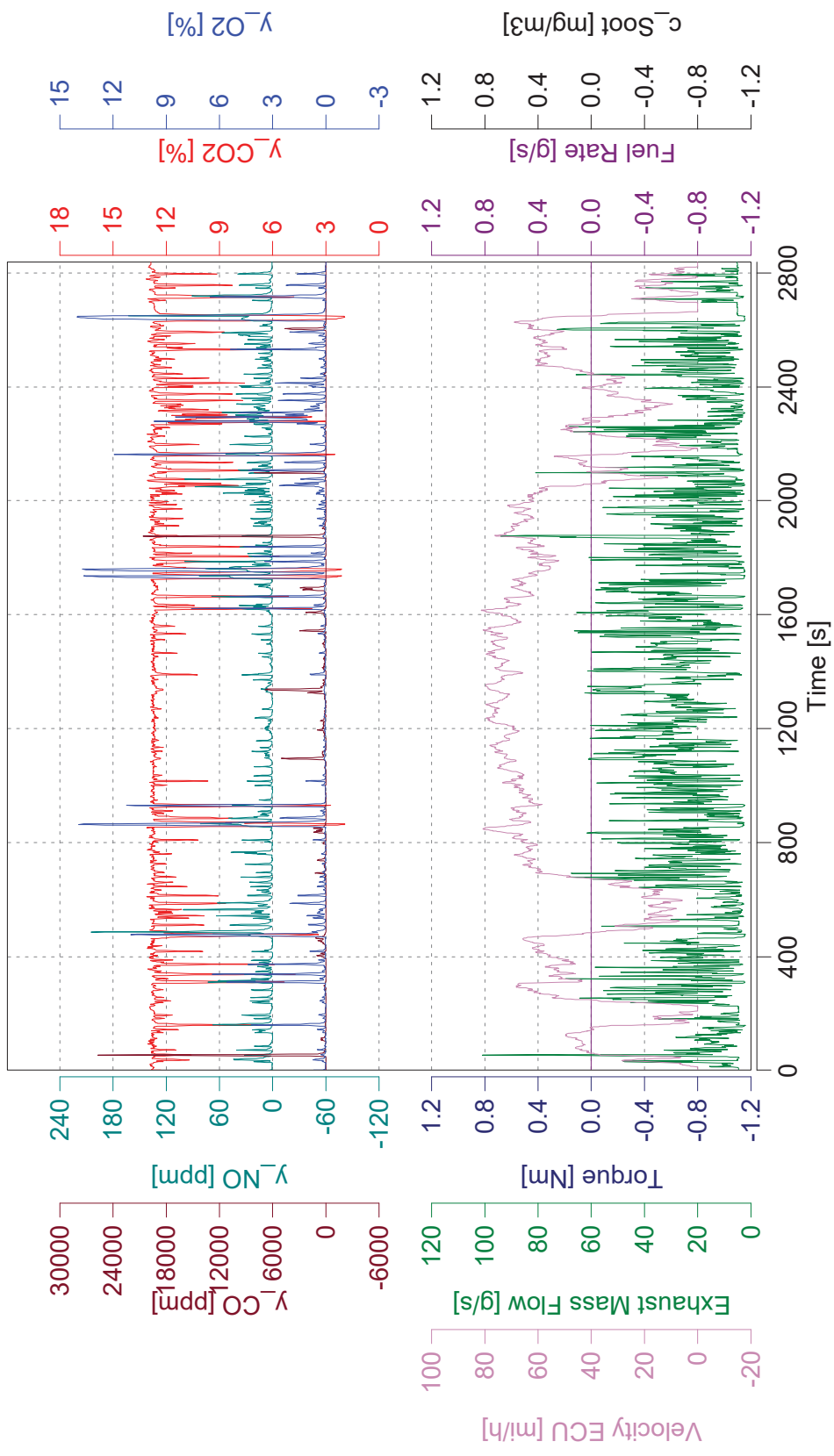
'Highway'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment of Gas Concentrations

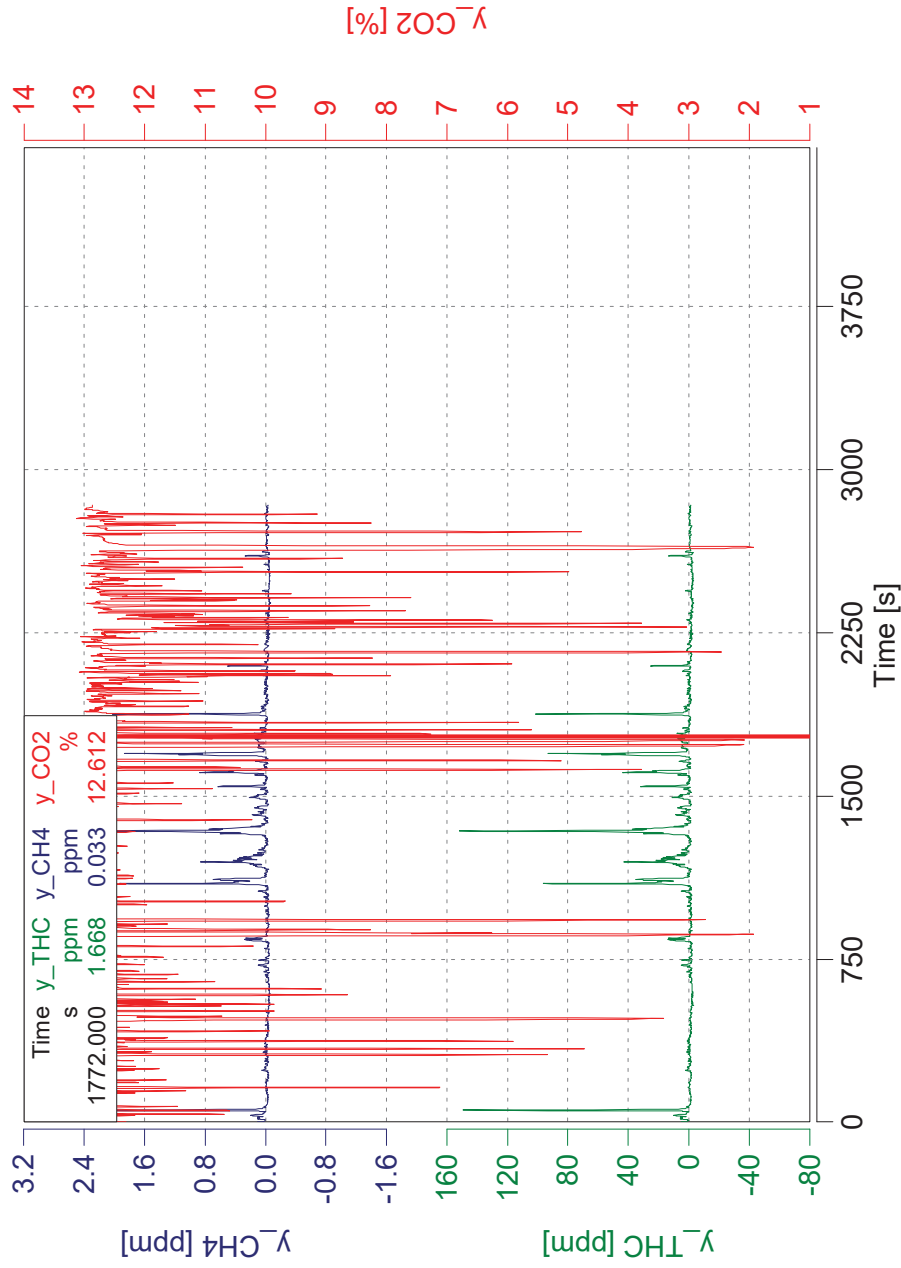
'Highway'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

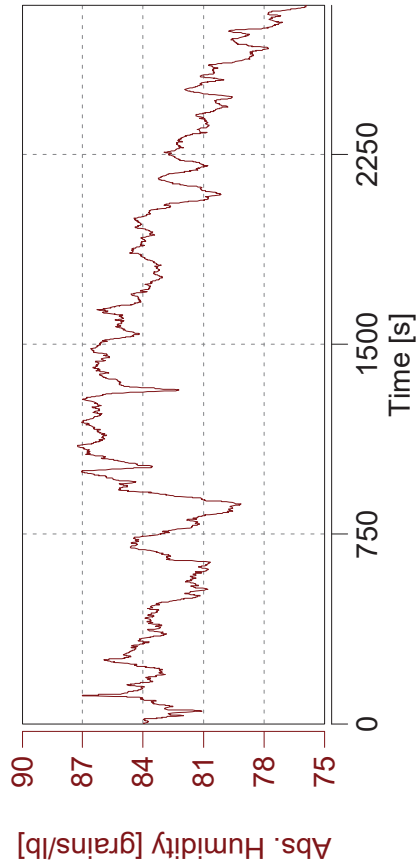
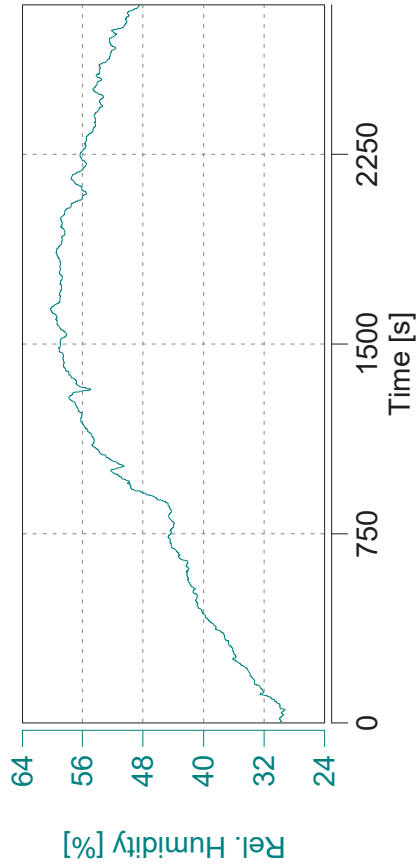
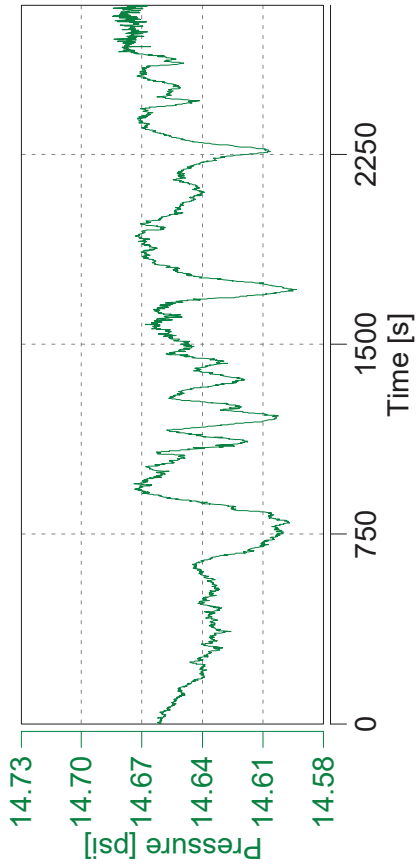
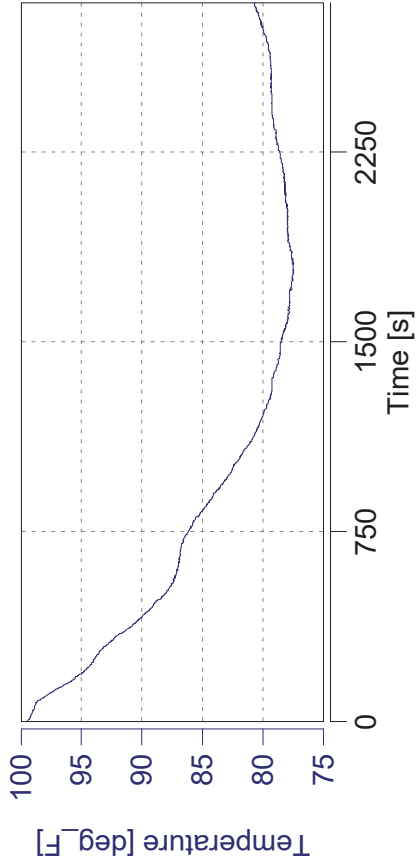
Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90



Case: Highway

Page: GPS

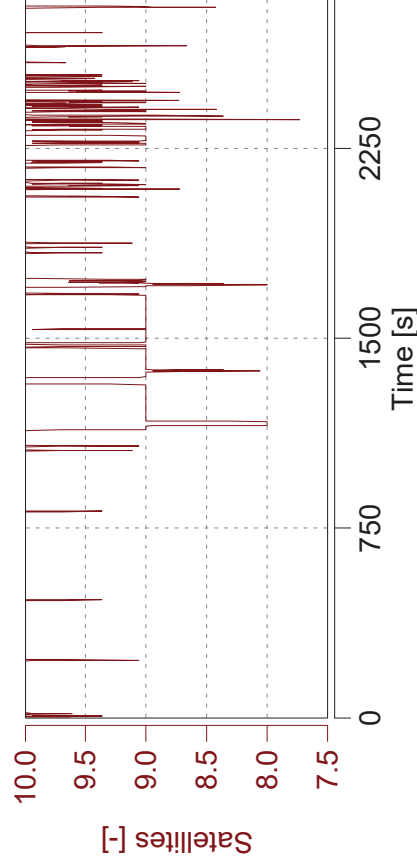
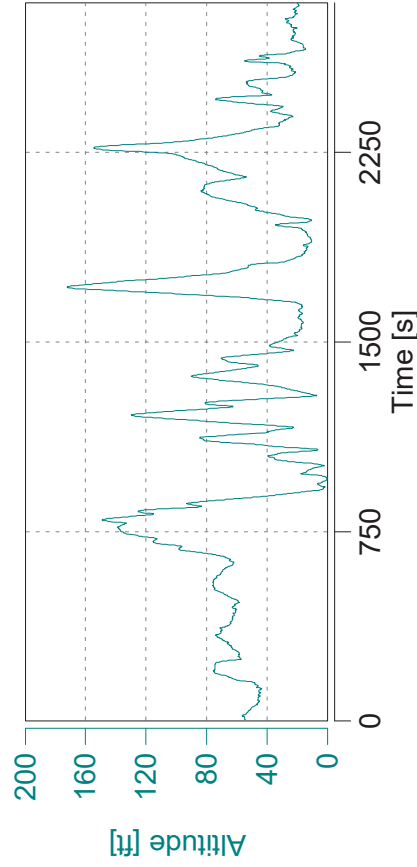
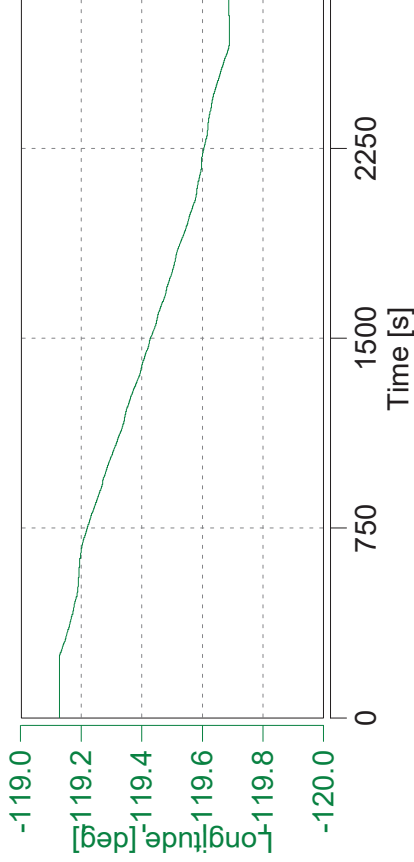
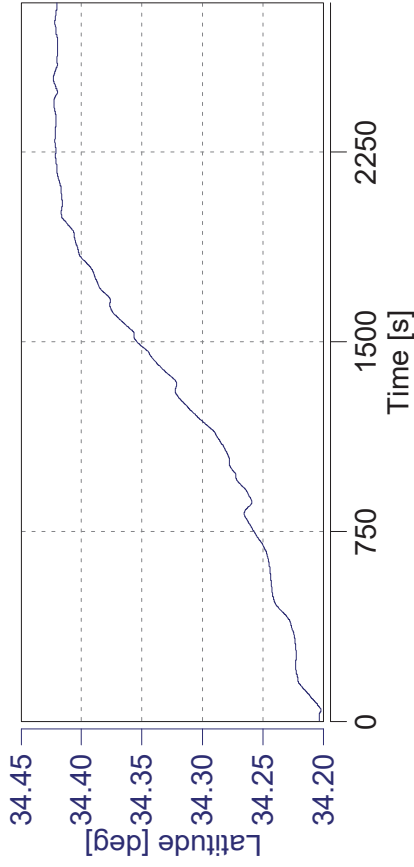
'Highway'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (1)

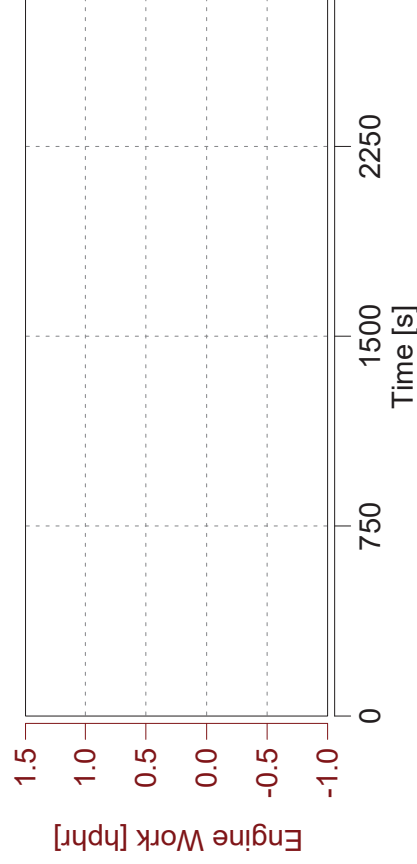
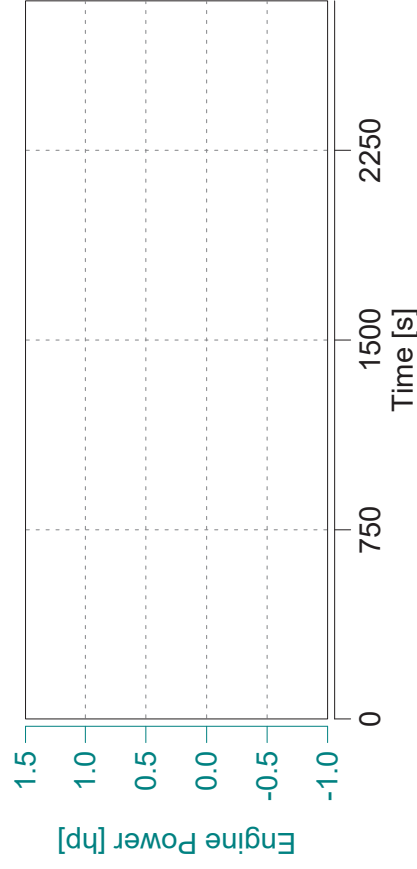
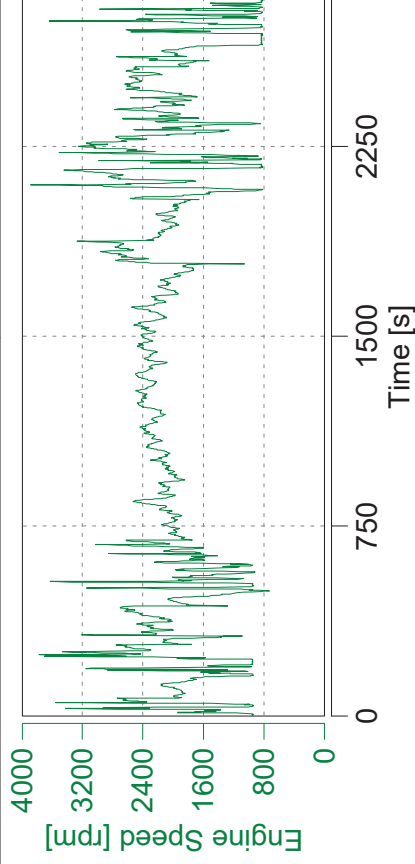
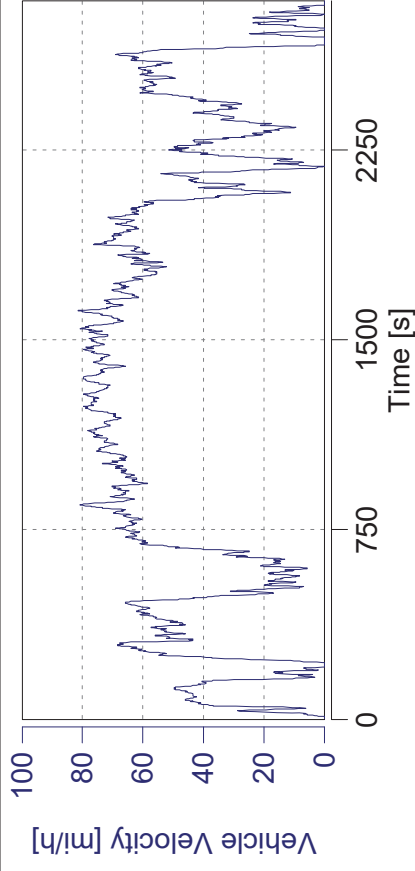
'Highway'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (2)

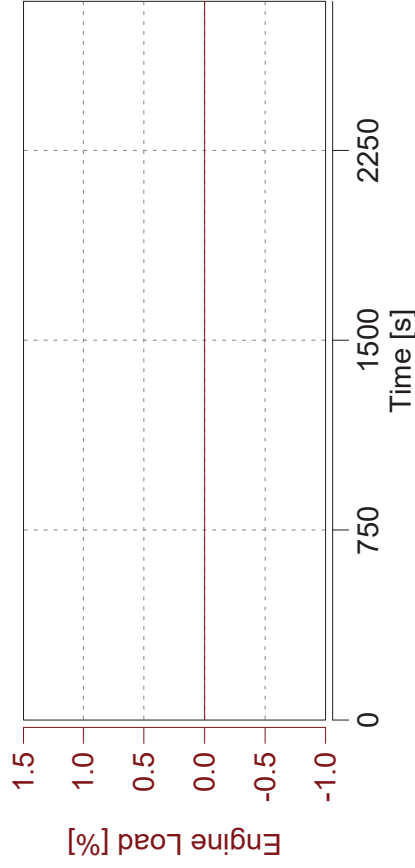
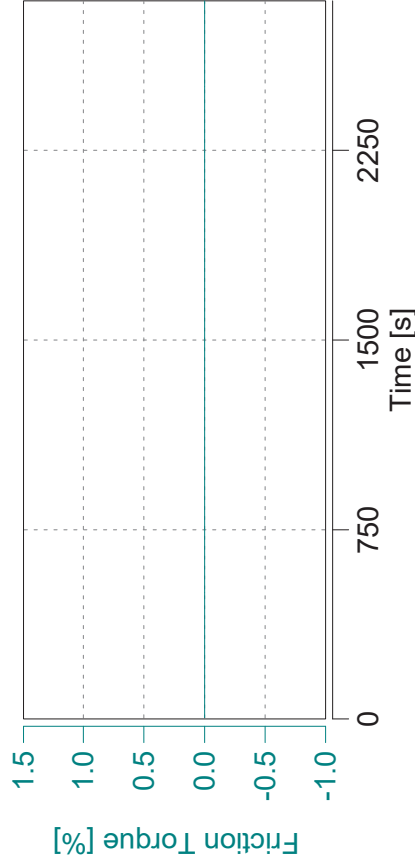
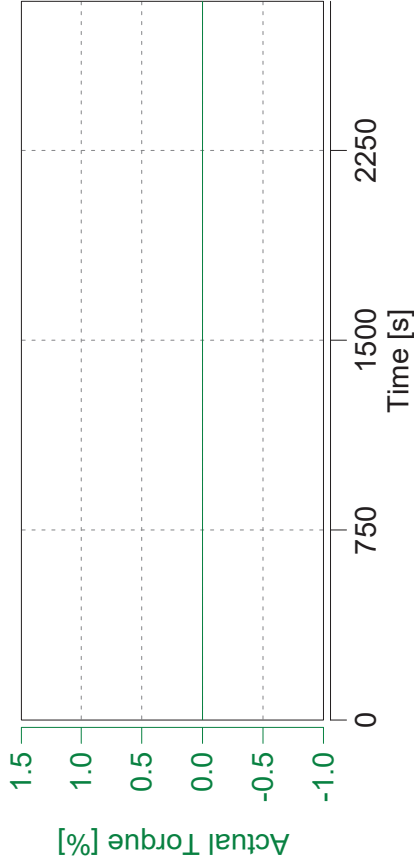
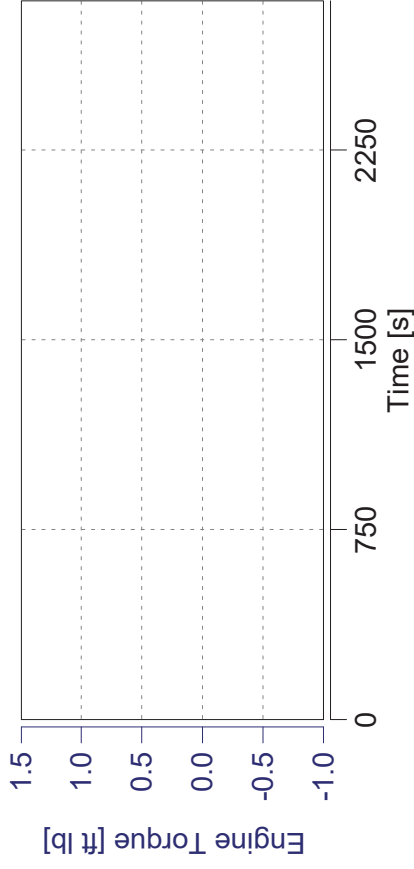
'Highway'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Jetta / 1.4L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (3)

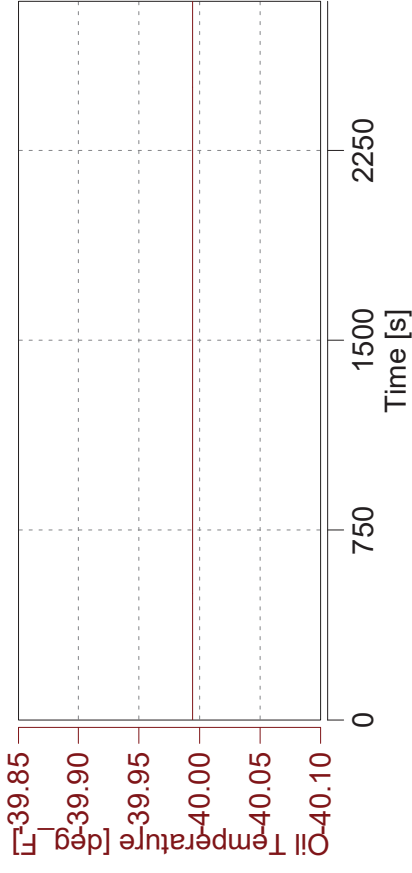
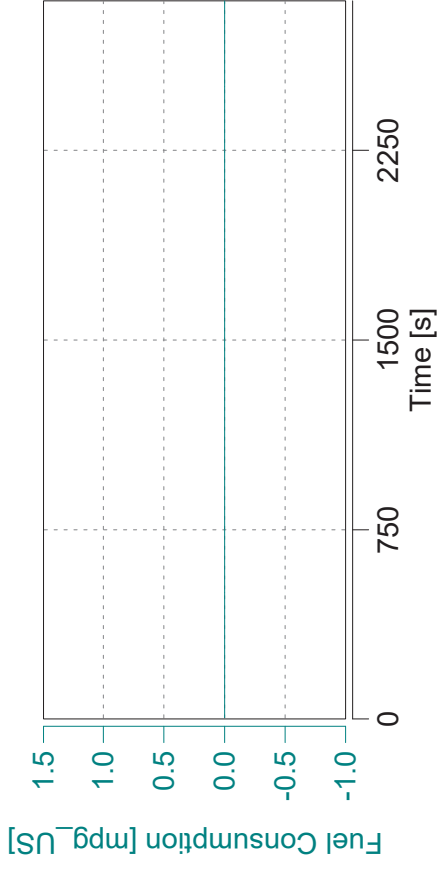
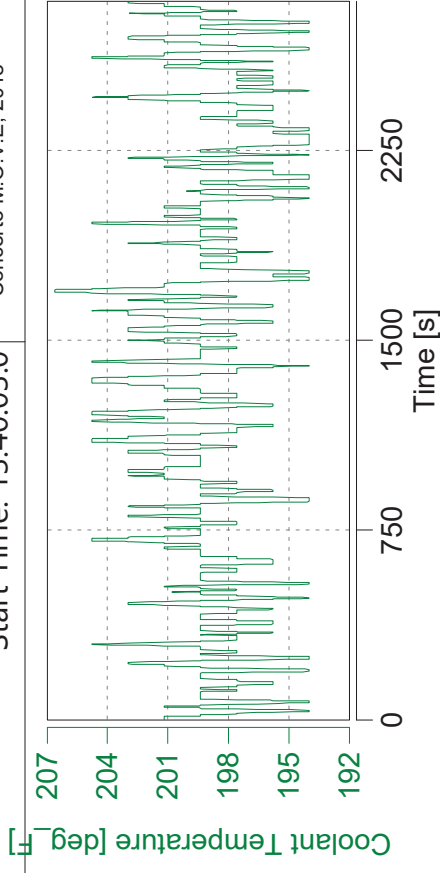
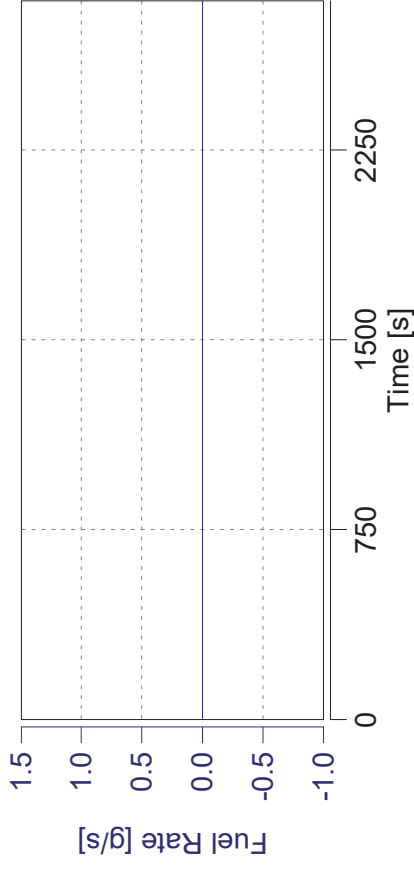
'Highway'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



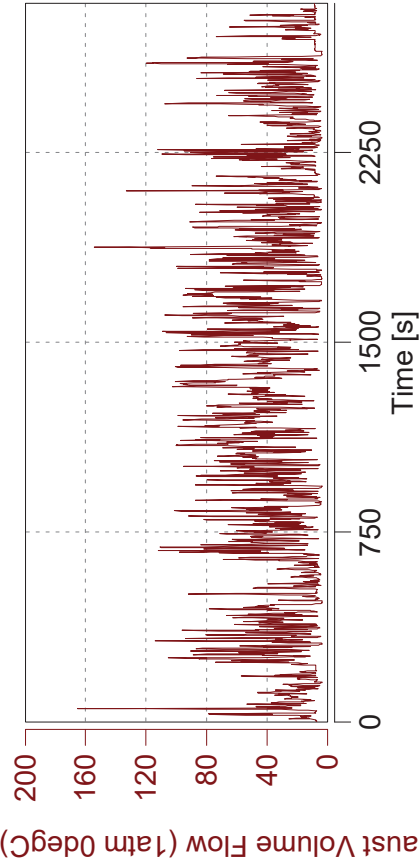
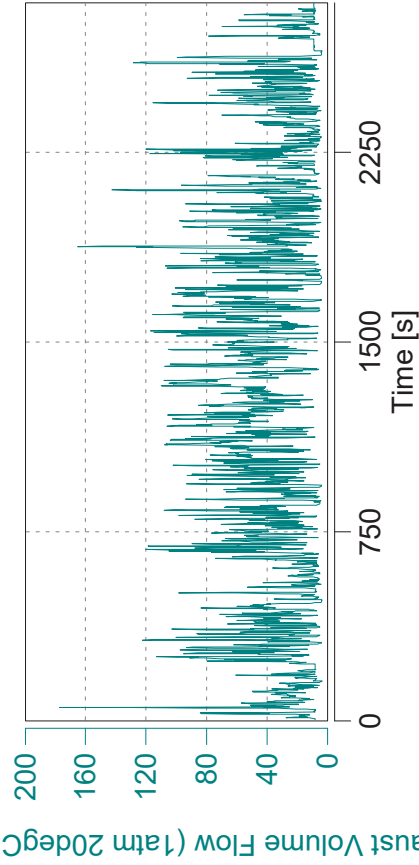
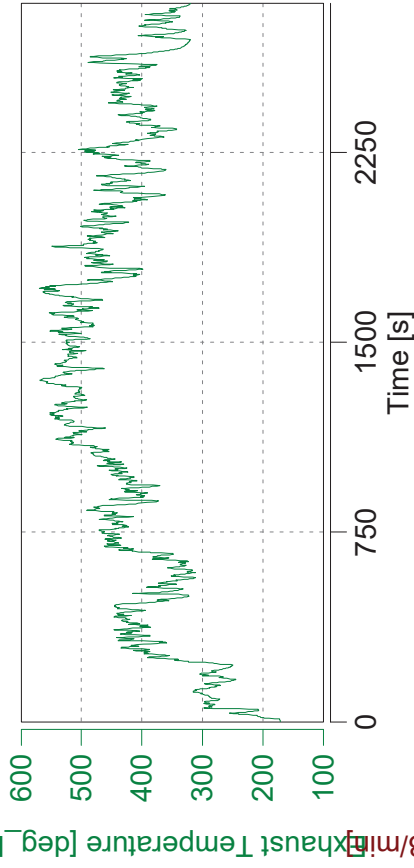
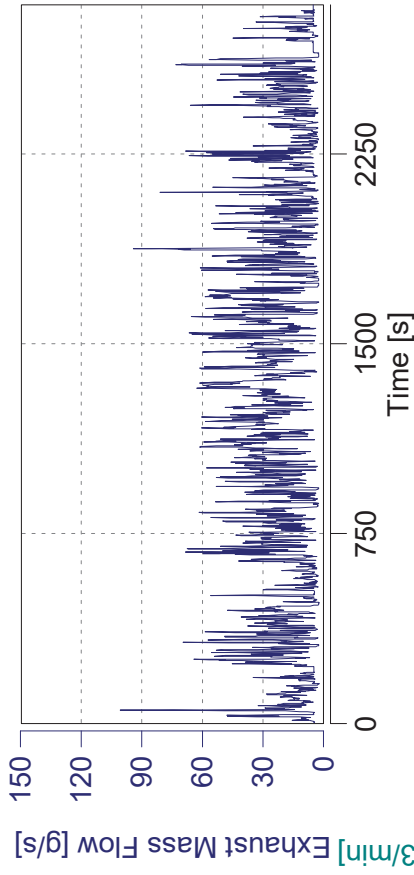
Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

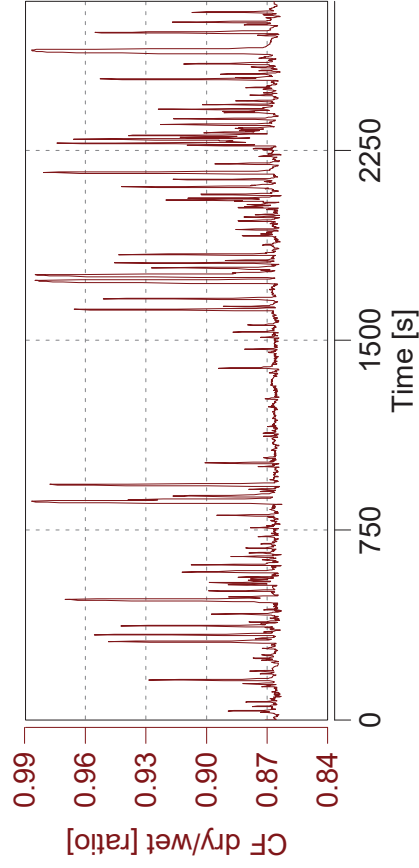
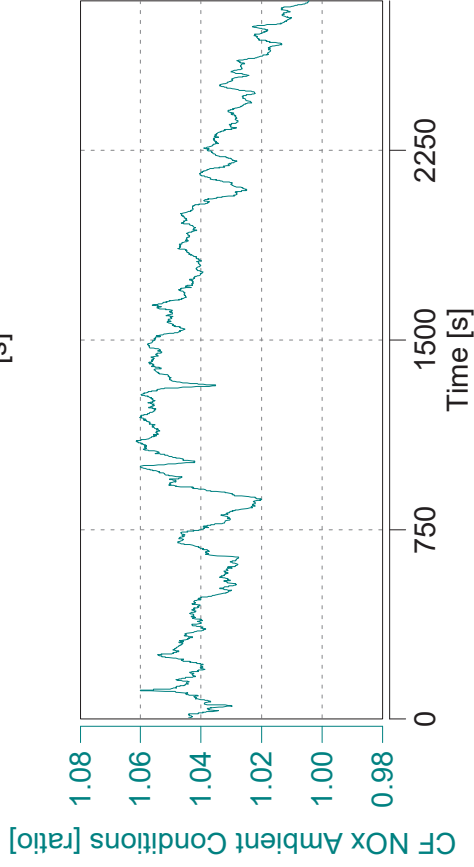
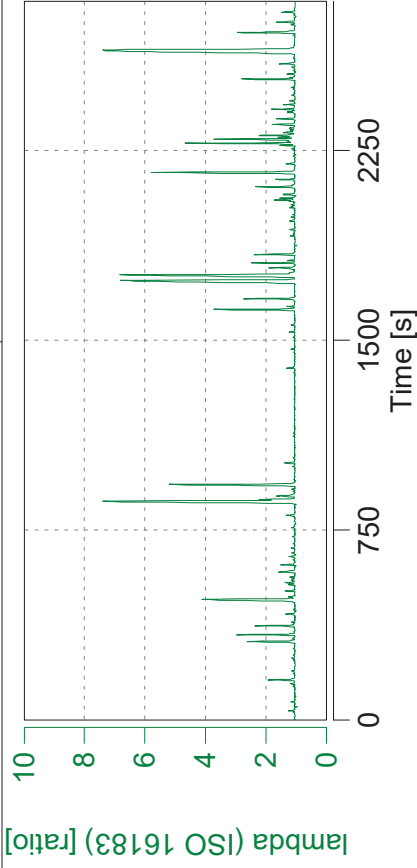
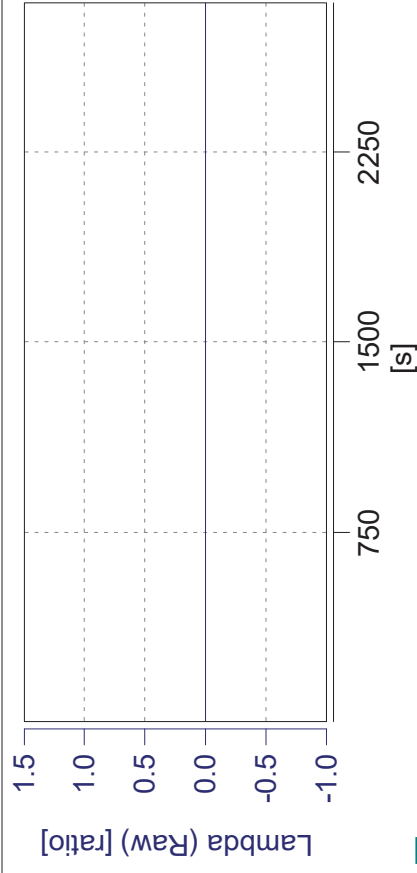
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90



Case: Highway
Page: Exhaust Flow (2)

'Highway'
Start Date: 08/02/2018
Start Time: 13:40:03.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (1)

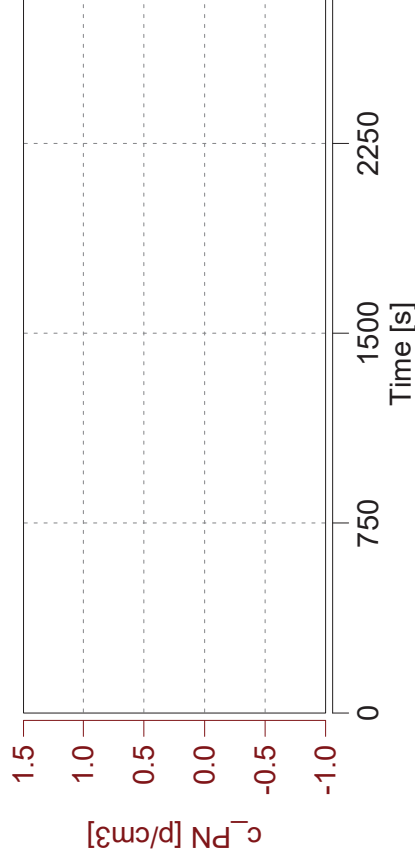
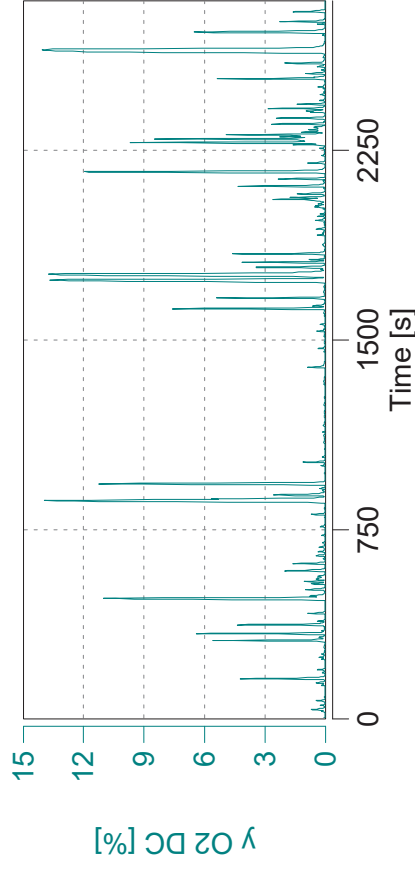
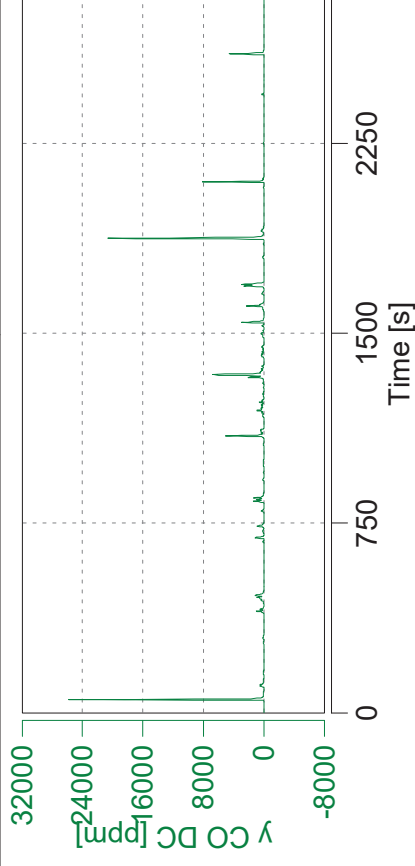
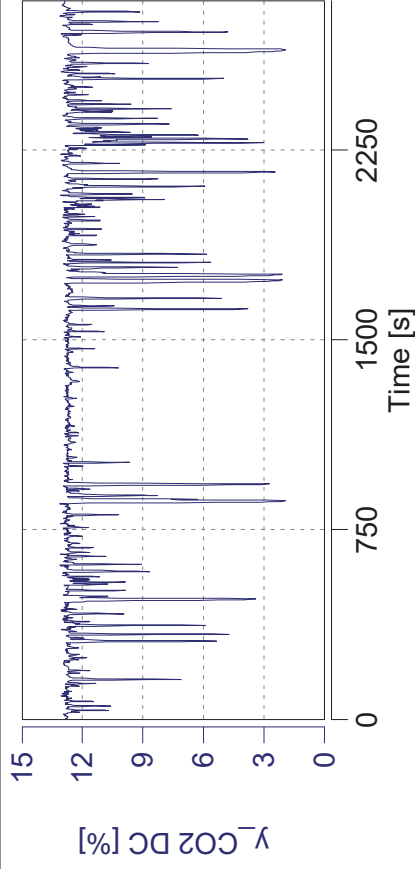
'Highway'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (2)

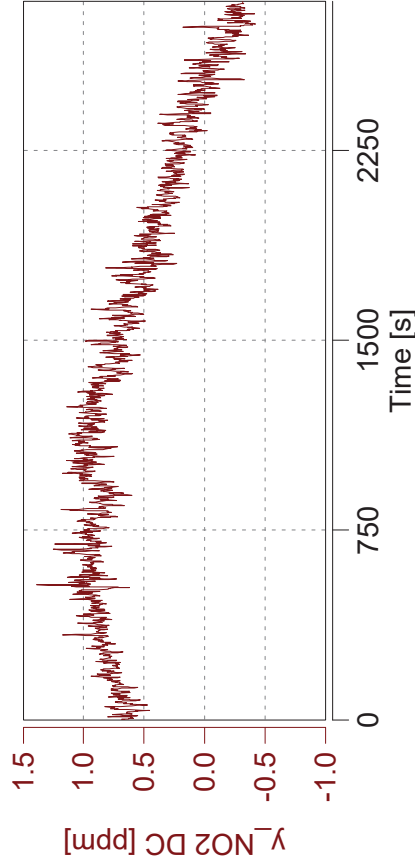
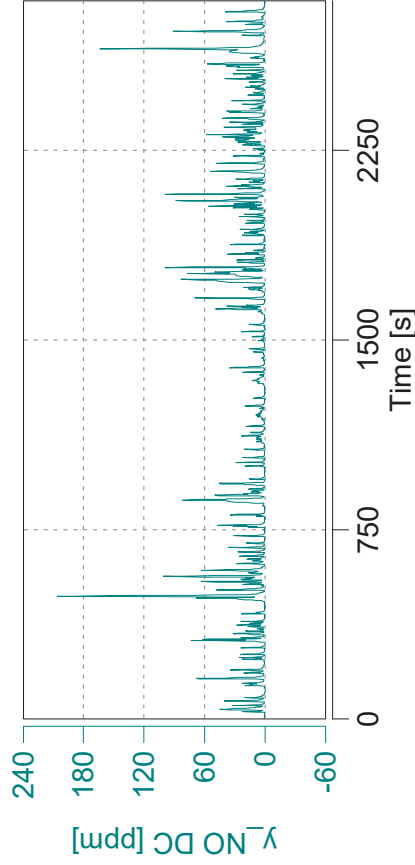
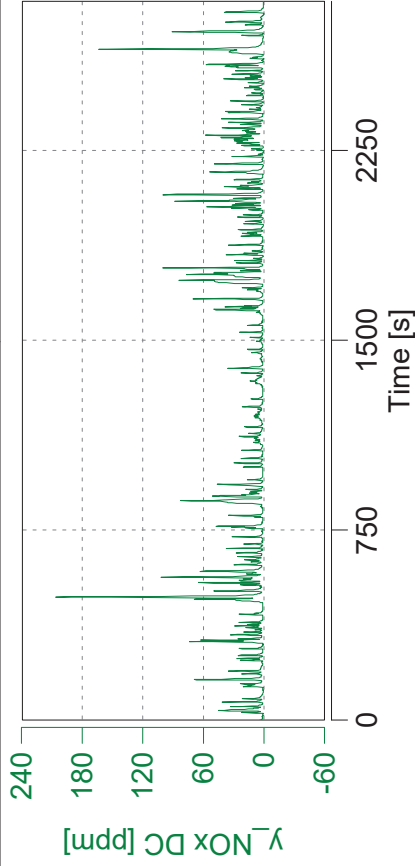
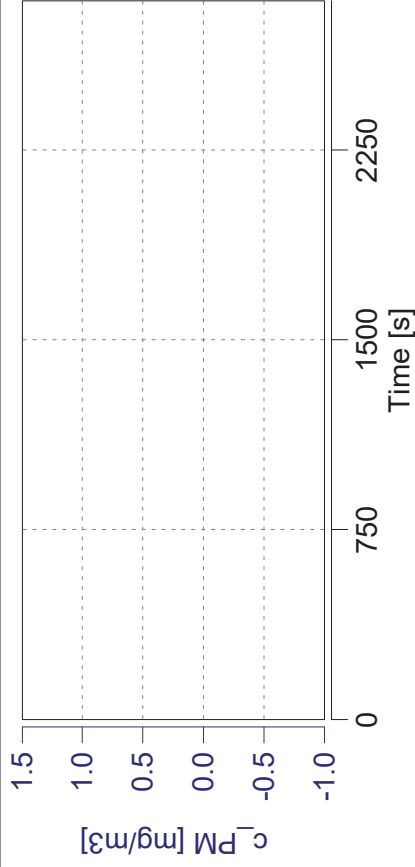
'Highway'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (3)

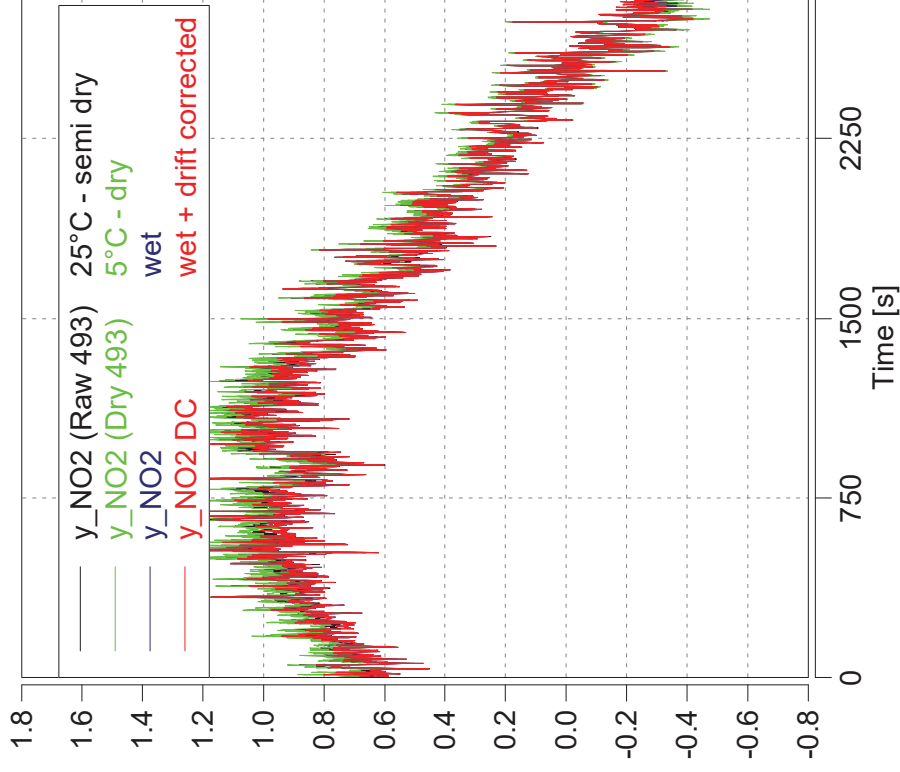
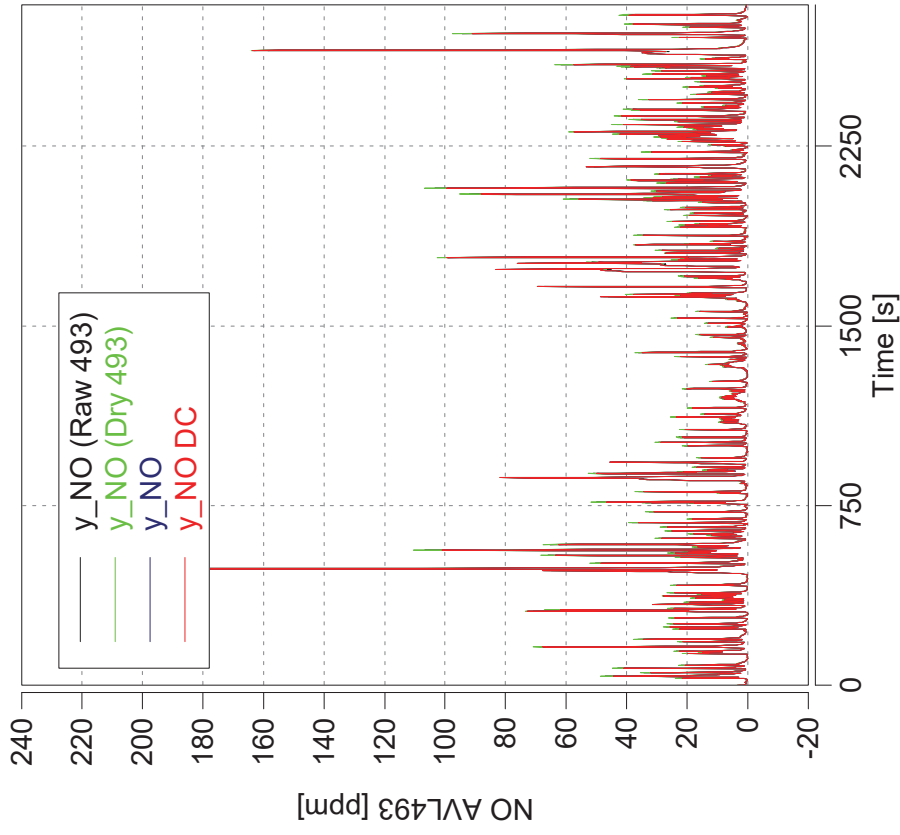
'Highway'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Jetta / 1.4L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (4) NOx Corrections

'Highway'

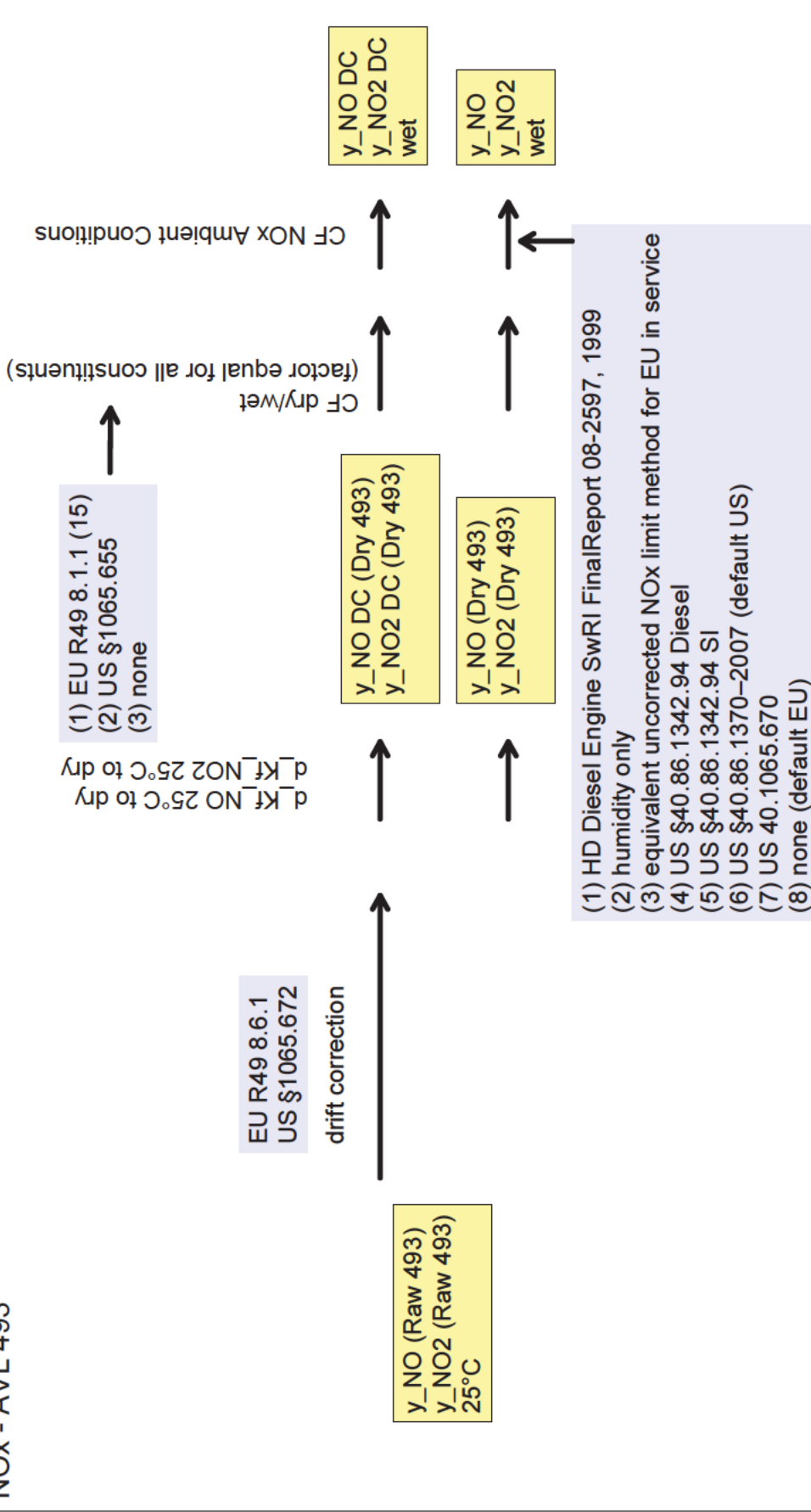
Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Jetta / 1.4L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (5)

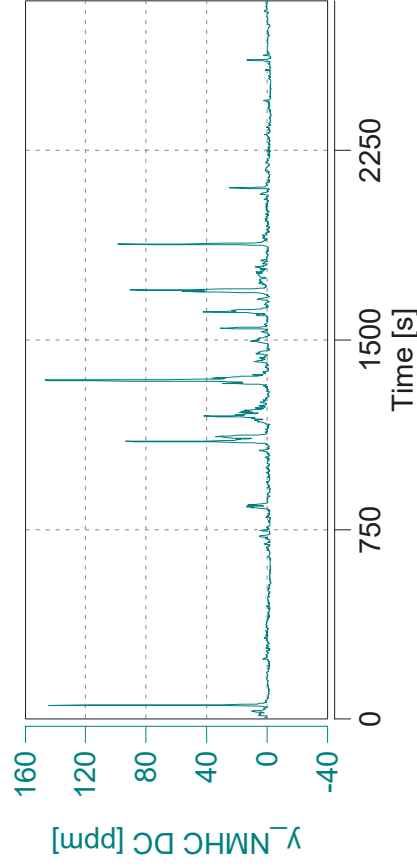
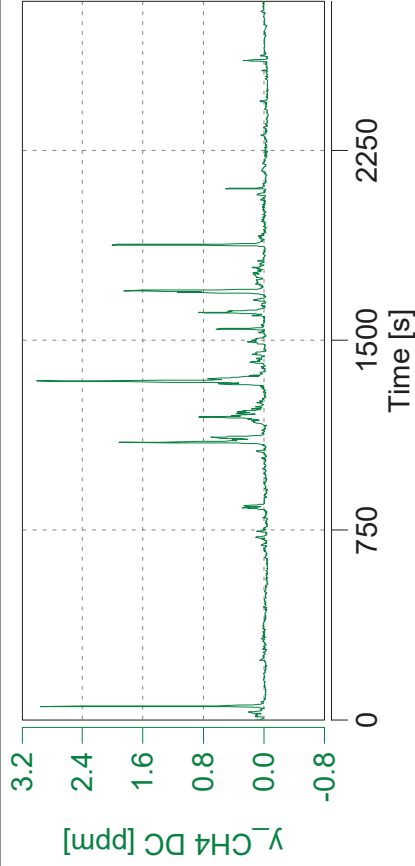
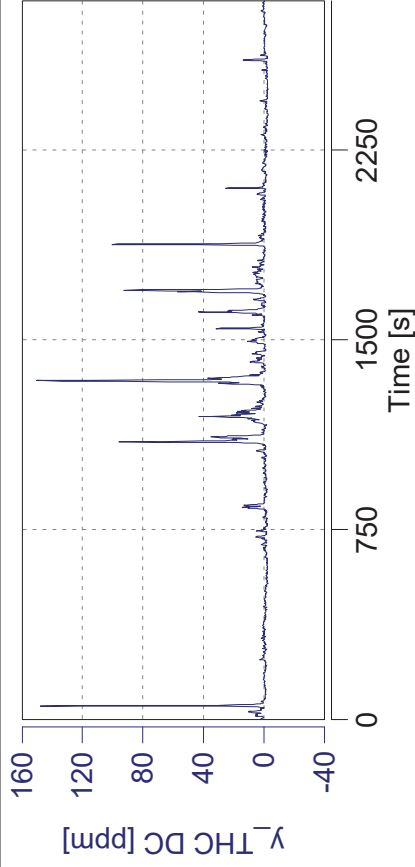
'Highway'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: NO/NO2/NOx Zero - Span

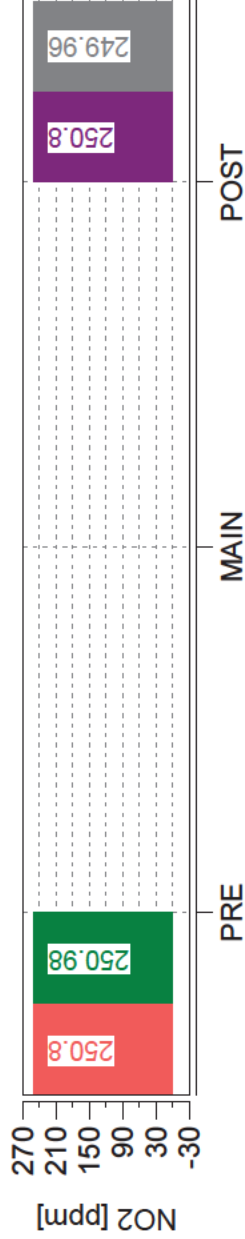
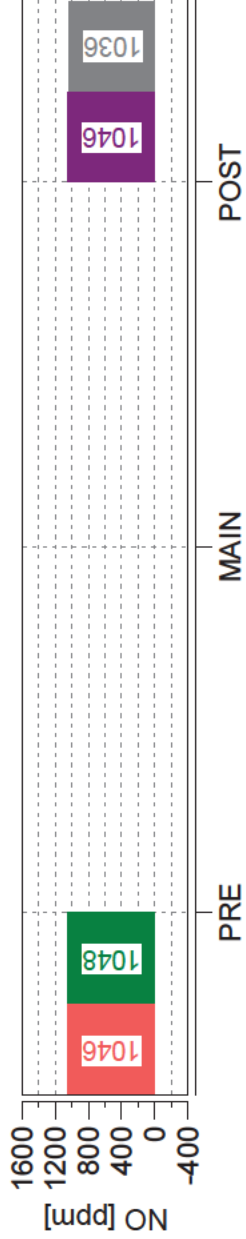
'Highway'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: CO/CO2 Zero - Span

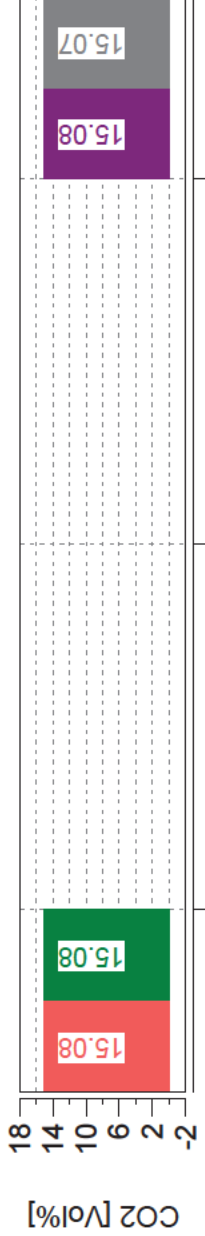
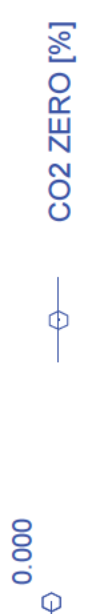
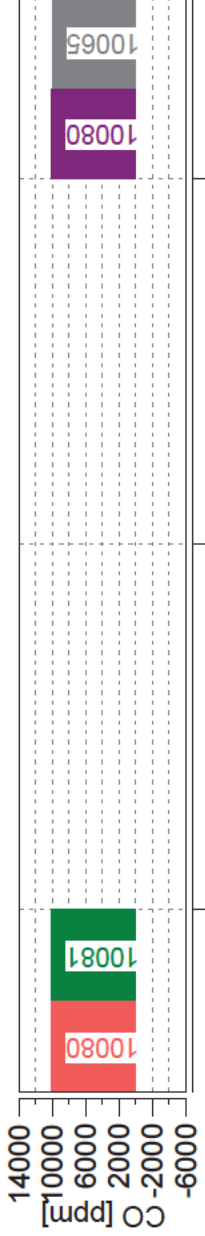
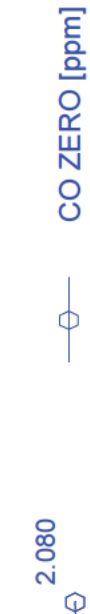
'Highway'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: THC/CH4 Zero - Span

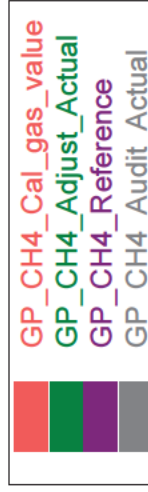
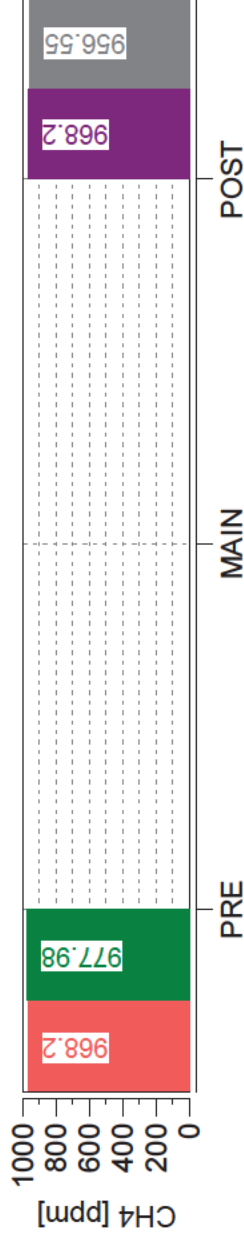
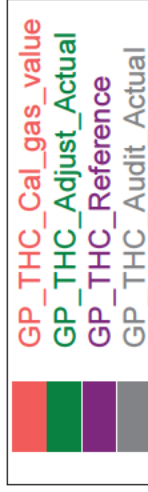
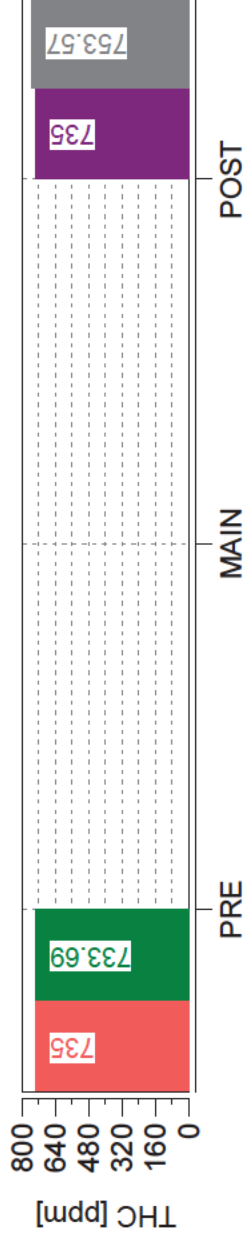
'Highway'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary

'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E. 2018

Trip Duration	3148.00	s	ave THC	10.22970	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3148.00	s	ave NMHC	10.02511	ppm	BS CO	n/a	g/hphr
Trip Distance	29.45	mi	ave CH4	0.20459	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	29.45	mi	ave CO	348.61596	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	10.74012	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx	10.39617	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.11	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.08	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.10	gall	tot THC	0.47268	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.09	gall	tot NMHC	0.43724	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.01048	g	DS CO2	314.54237	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	64.03472	g	DS CO	2.17448	g/mi
Trip Fuel Economy EU (ac)	26.77	mpg_US	tot CO2	9262.74610	g	DS THC	0.01605	g/mi
Trip Fuel Economy US (ac)	27.07	mpg_US	tot NO (d)	0.66005	g	DS NMHC	0.01485	g/mi
Trip Av. Eng. Speed	1987.80	rpm	tot NO2	0.01154	g	DS CH4	0.00036	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.67159	g	DS NO (d)	0.02241	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00039	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.02281	g/mi
Trip Exhaust Mass	50.45	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	85.25	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	40.75	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	33.67661	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	9.87929	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary Drift Corrected

'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018

Trip Duration	3148.00	s	ave THC DC	10.28421	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3148.00	s	ave NMHC DC	10.07853	ppm	BS CO DC	n/a	g/hphr
Trip Distance	29.45	mi	ave CH4 DC	0.20568	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	29.45	mi	ave CO DC	348.85822	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	10.74368	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	10.42936	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.11	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.08	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.10	gall	tot THC DC	0.47151	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.09	gall	tot NMHC DC	0.43615	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.01045	g	DS CO2 DC	314.64670	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	64.07922	g	DS CO DC	2.17599	g/mi
Trip Fuel Economy EU (ac)	26.77	mpg_US	tot CO2 DC	9265.81832	g	DS THC DC	0.01601	g/mi
Trip Fuel Economy US (ac)	27.07	mpg_US	tot NO DC (d)	0.66218	g	DS NMHC DC	0.01481	g/mi
Trip Av. Eng. Speed	1987.80	rpm	tot NO2 DC	0.01156	g	DS CH4 DC	0.00035	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.67373	g	DS NO DC (d)	0.02249	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00039	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.02288	g/mi
Trip Exhaust Mass	50.45	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	85.25	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	40.75	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	33.67661	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	9.87929	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment Check

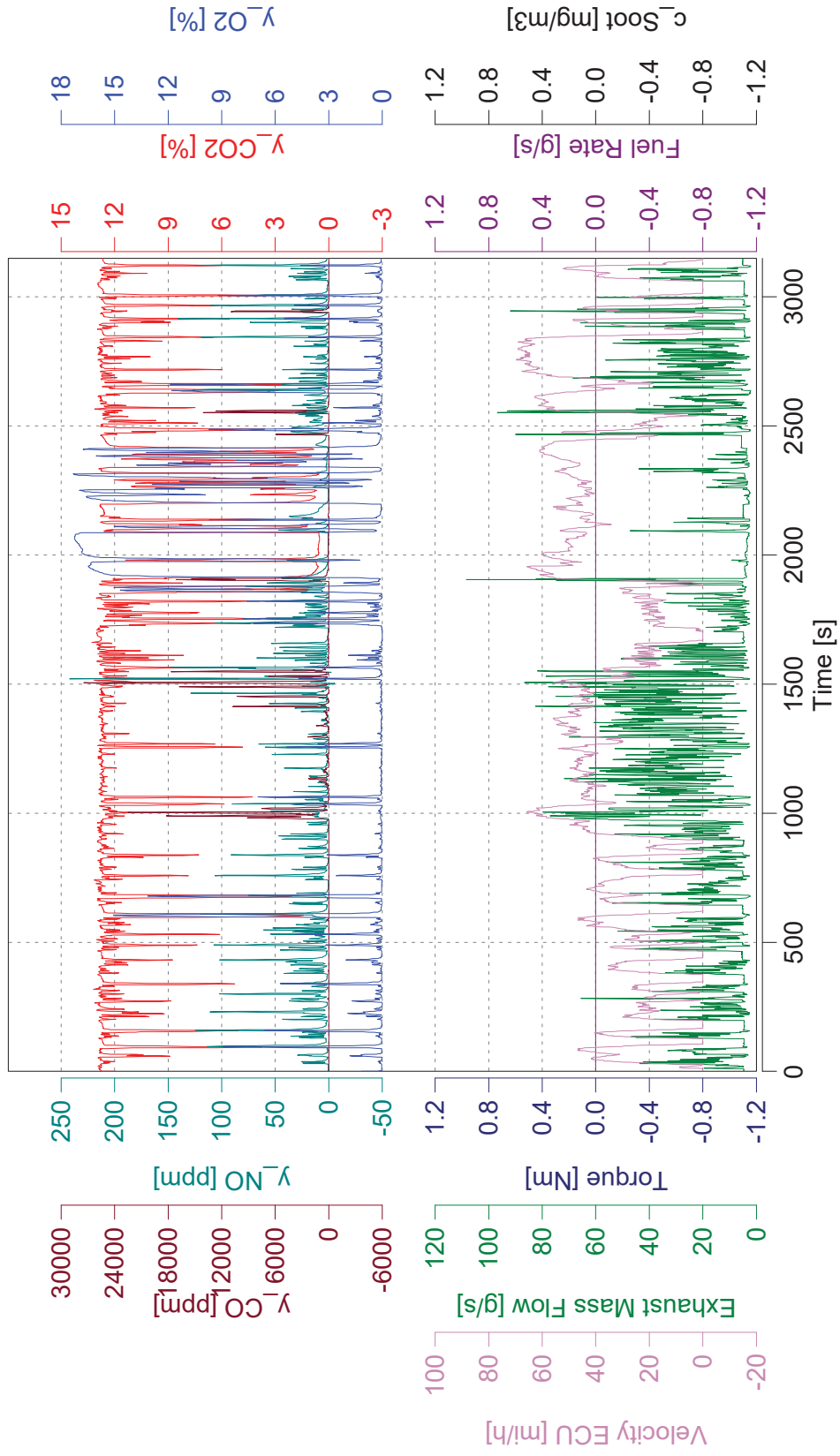
'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment of Gas Concentrations

'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Ambient Conditions

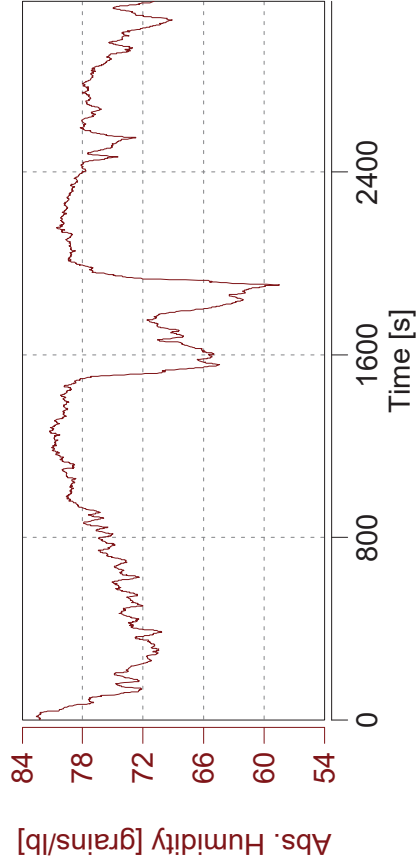
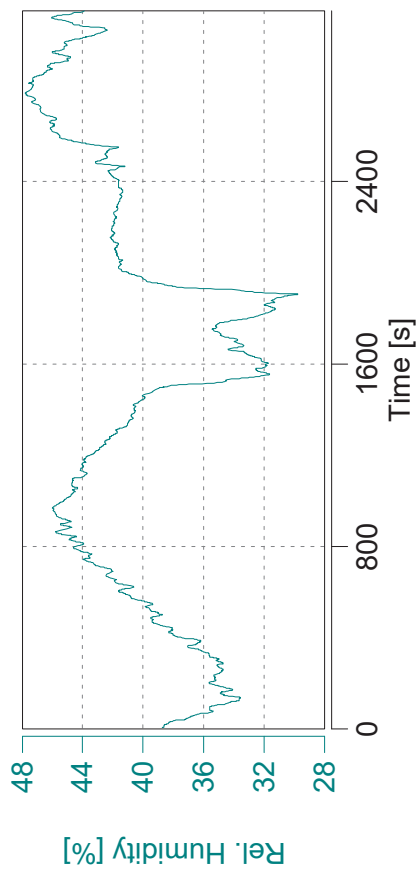
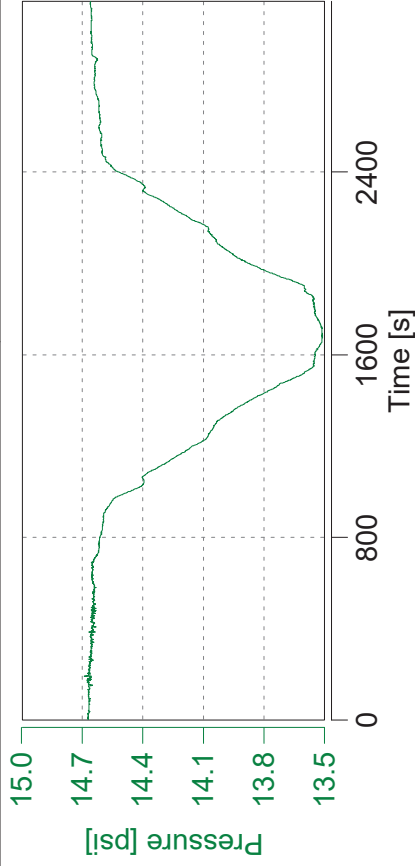
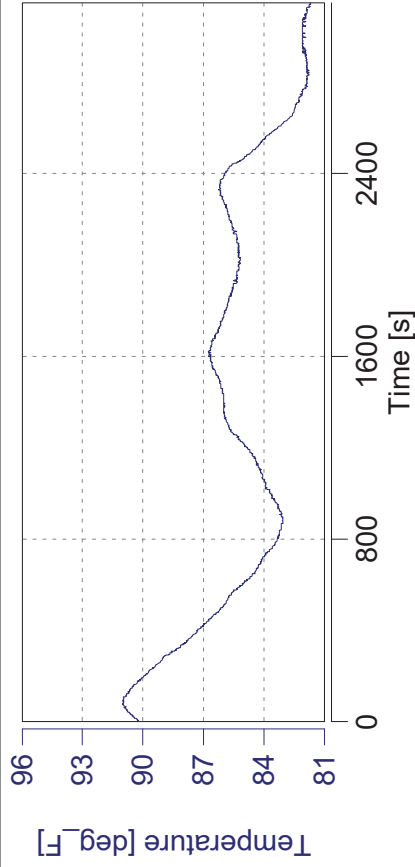
'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: GPS

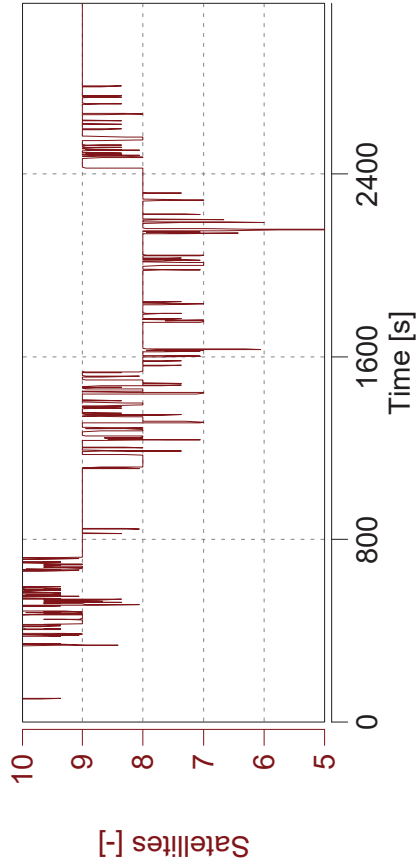
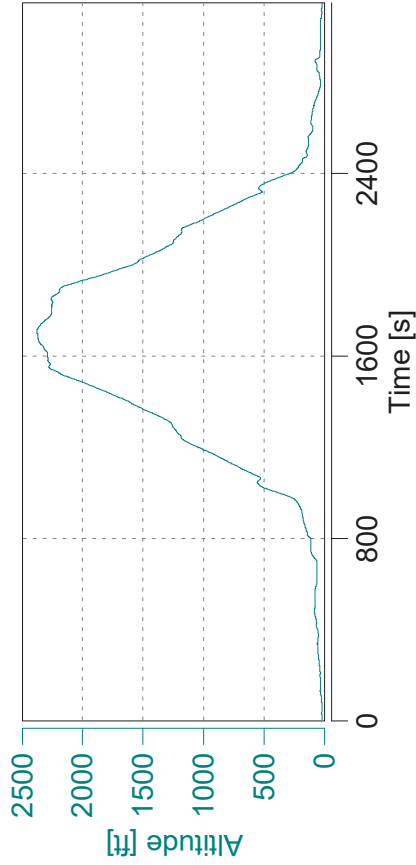
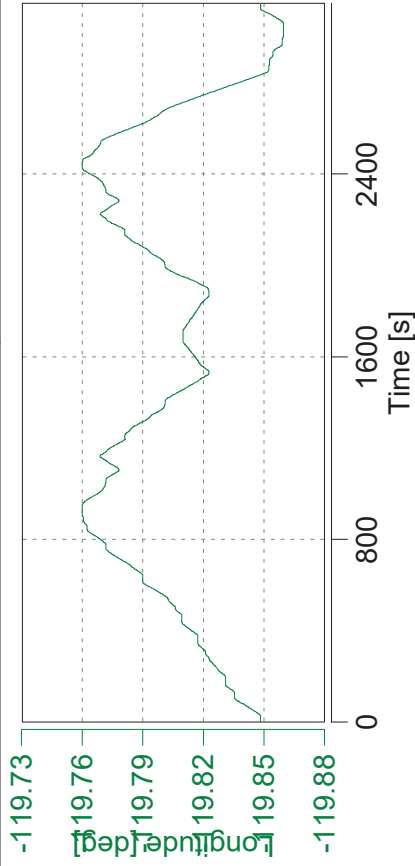
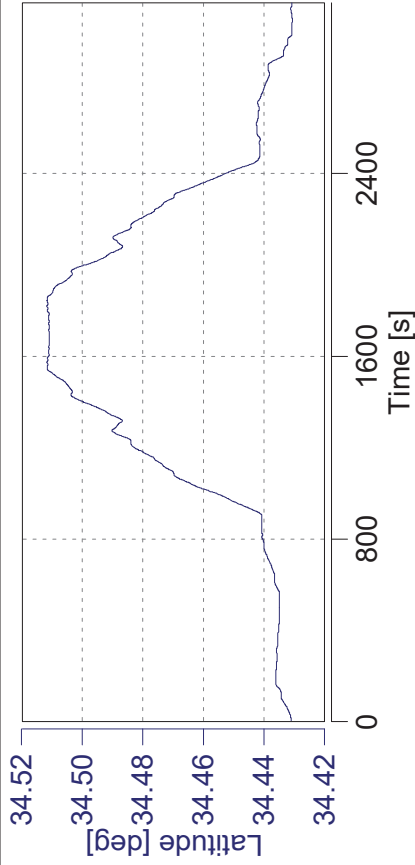
'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (1)

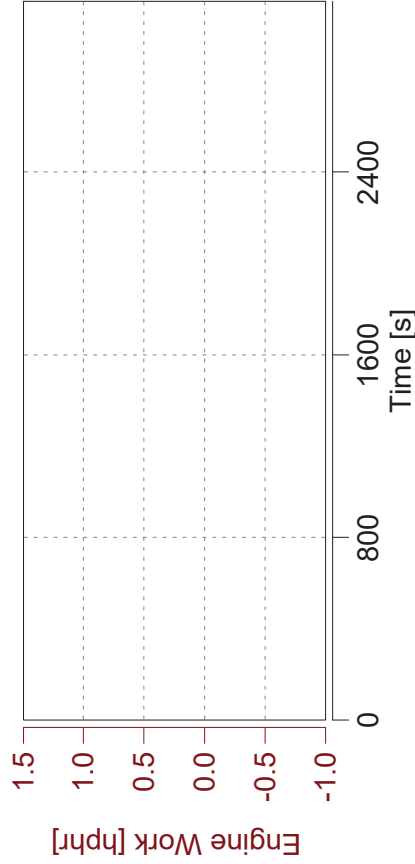
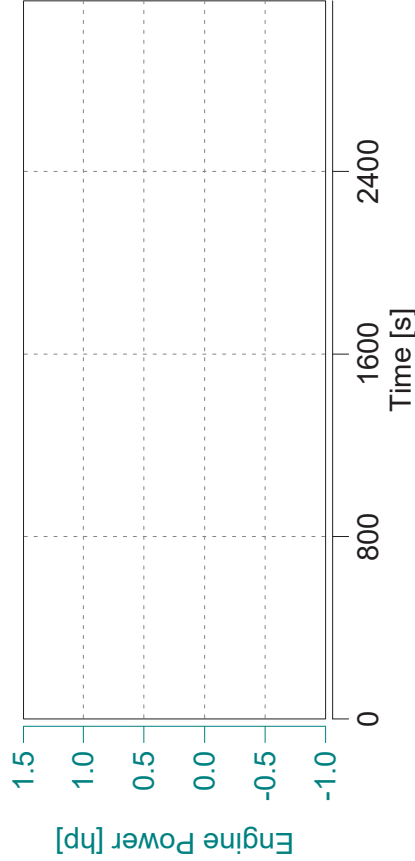
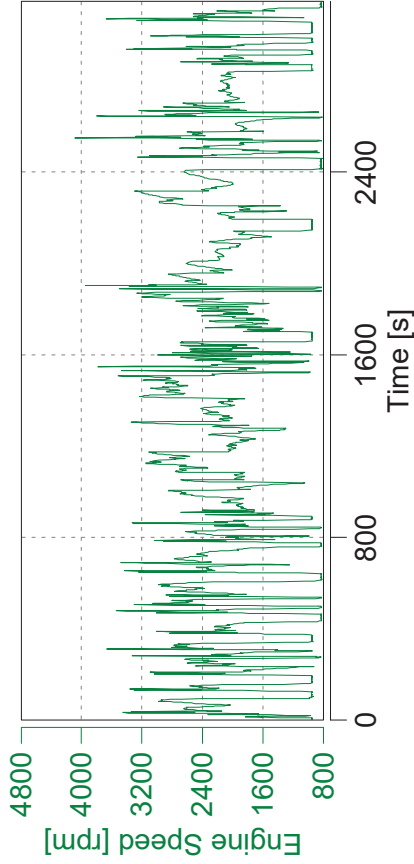
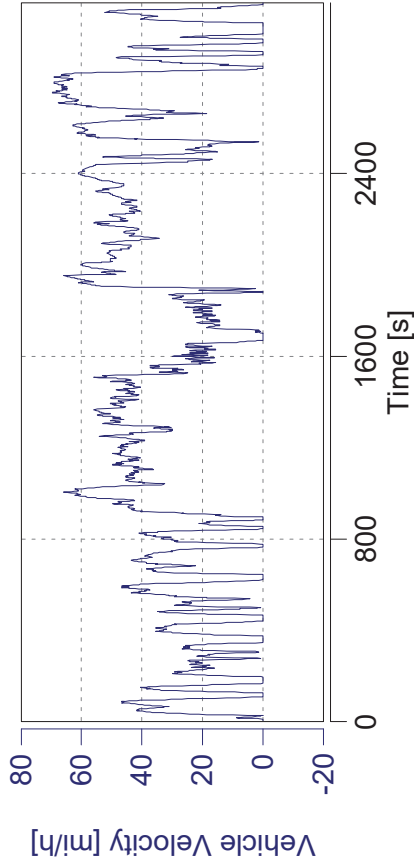
'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (2)

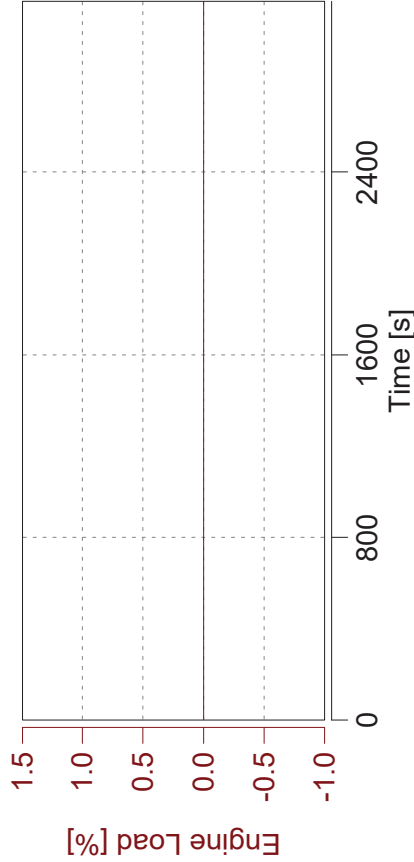
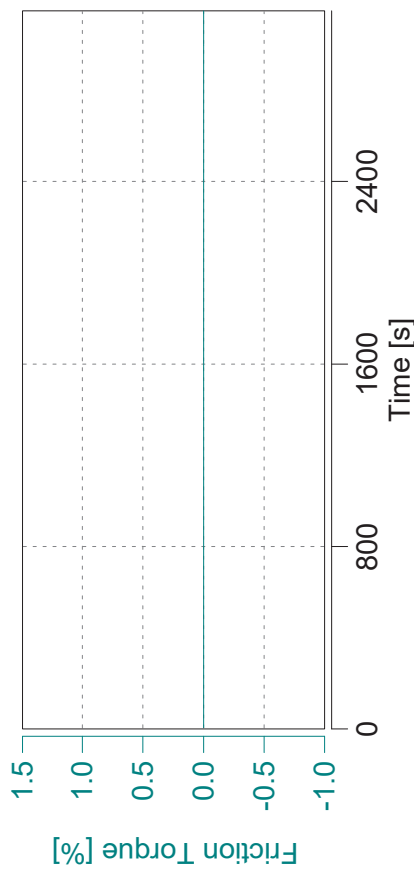
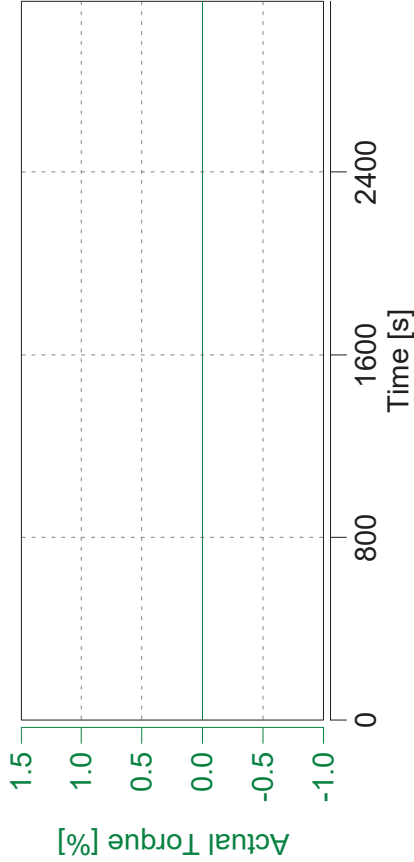
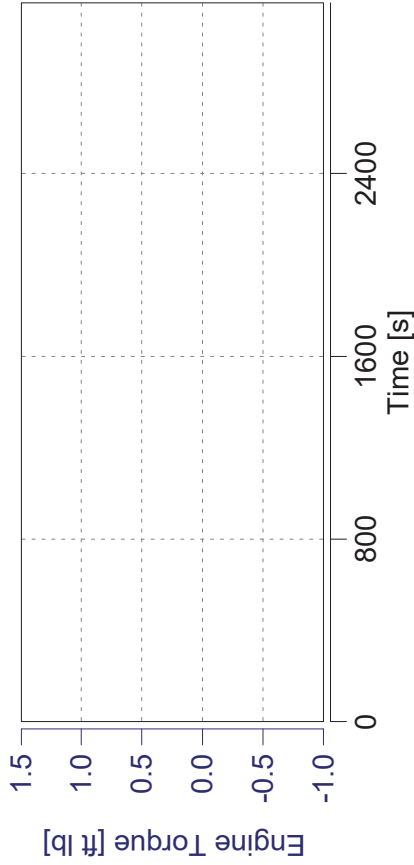
'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (3)

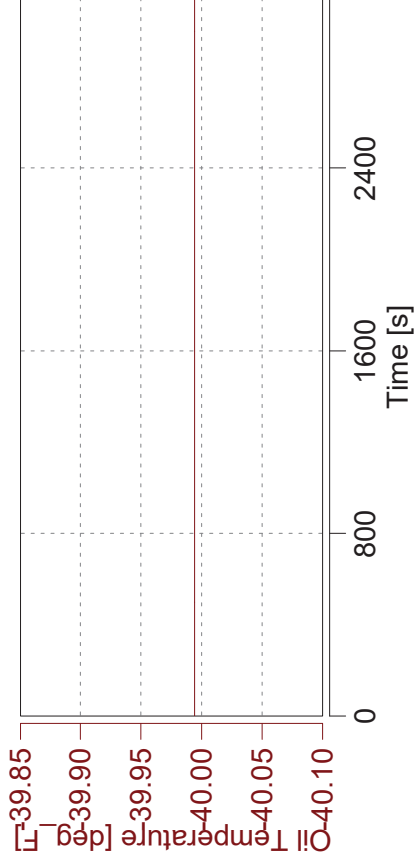
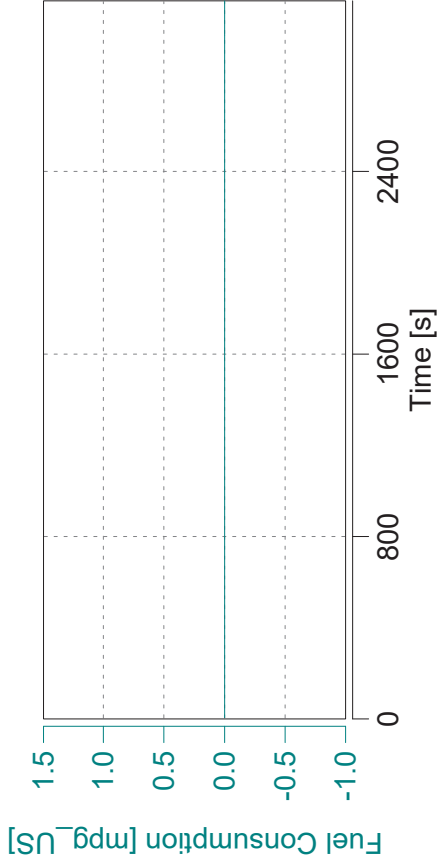
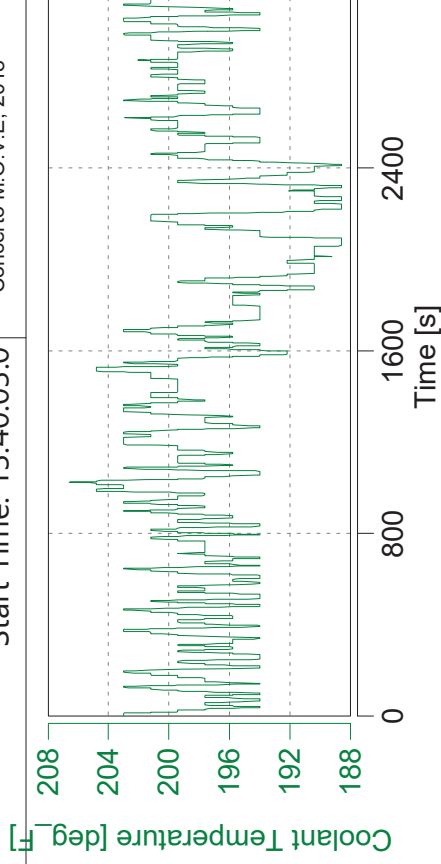
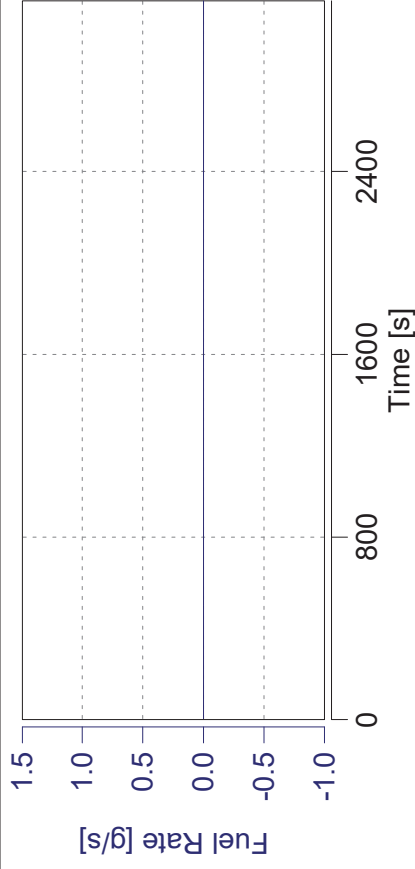
'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Exhaust Flow (1)

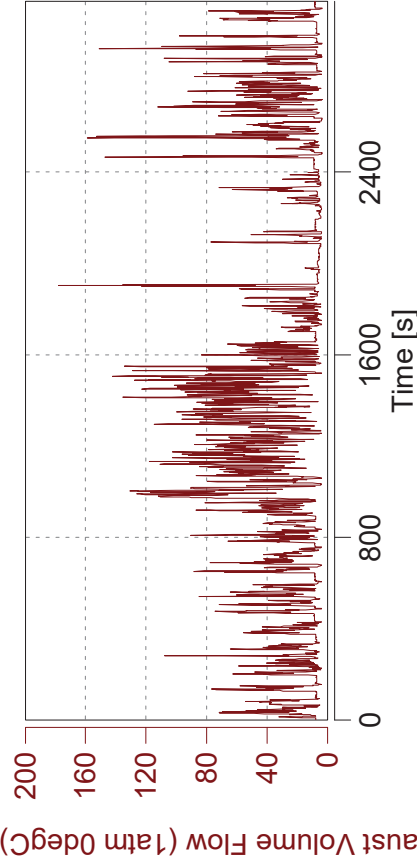
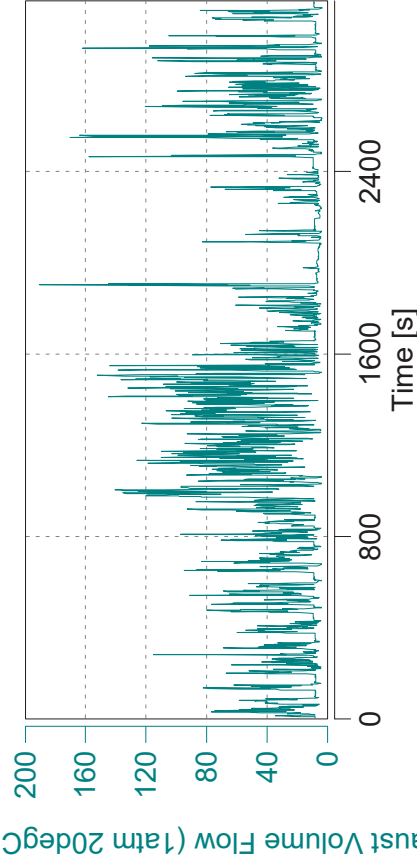
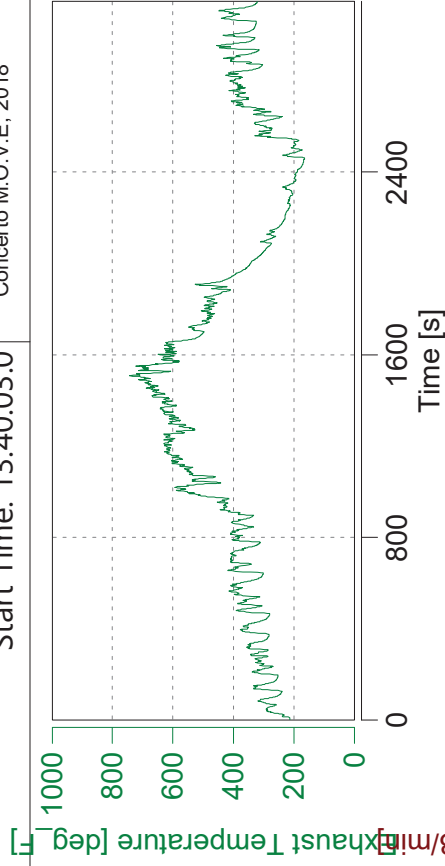
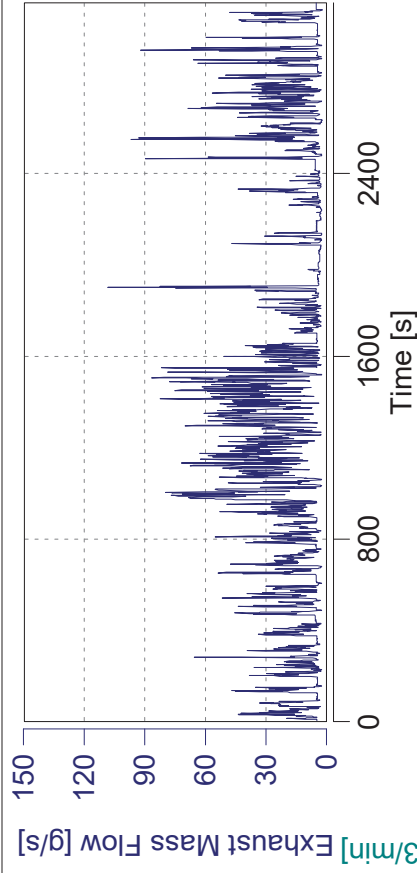
'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Exhaust Flow (2)

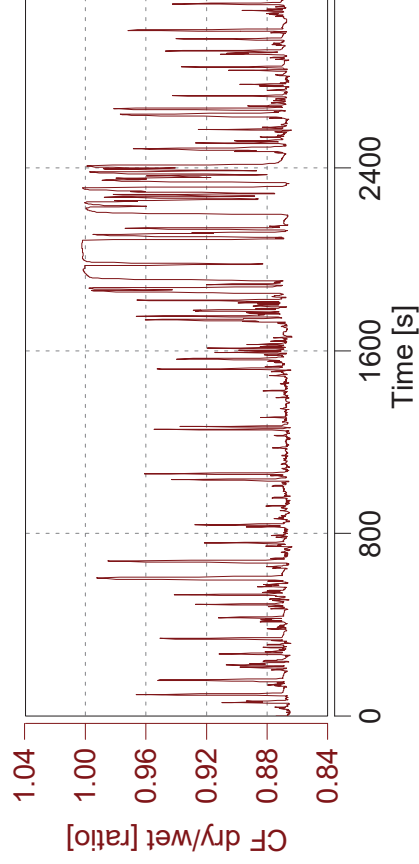
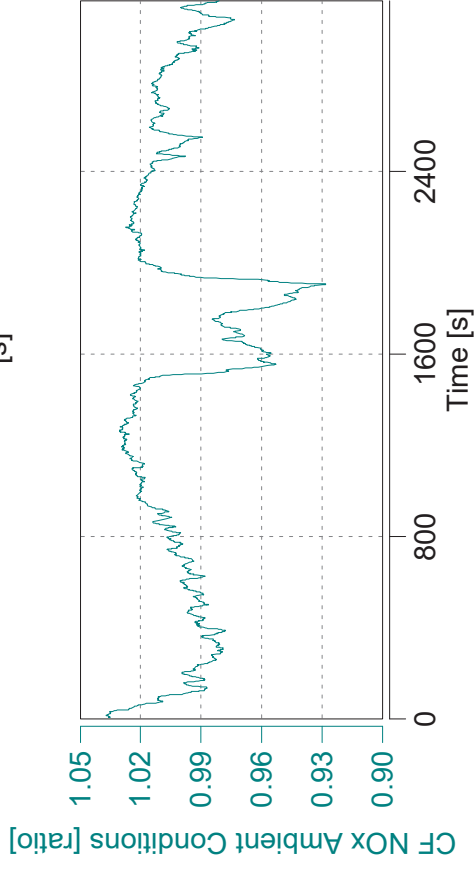
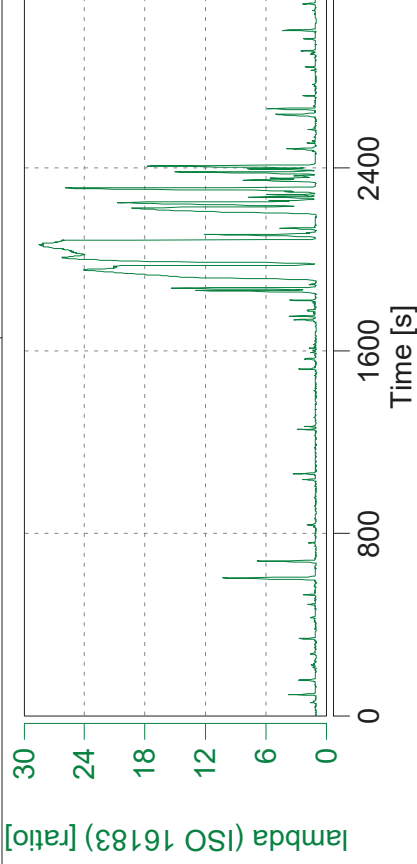
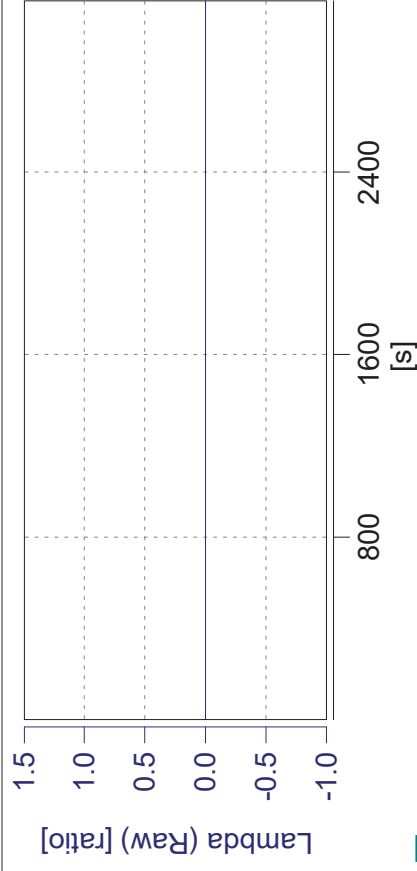
'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (1)

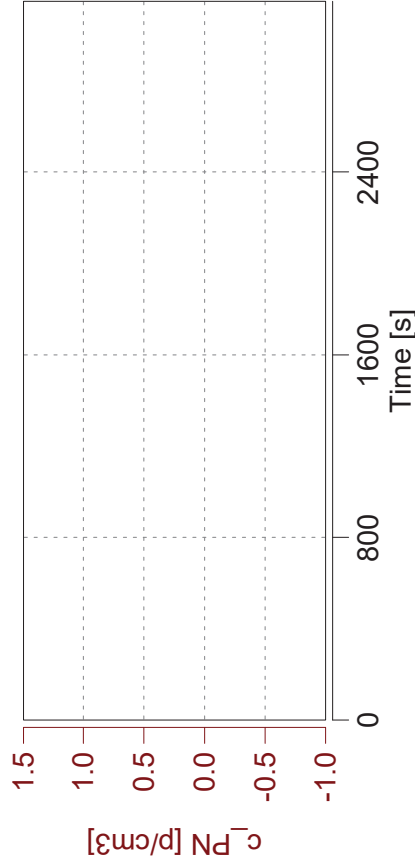
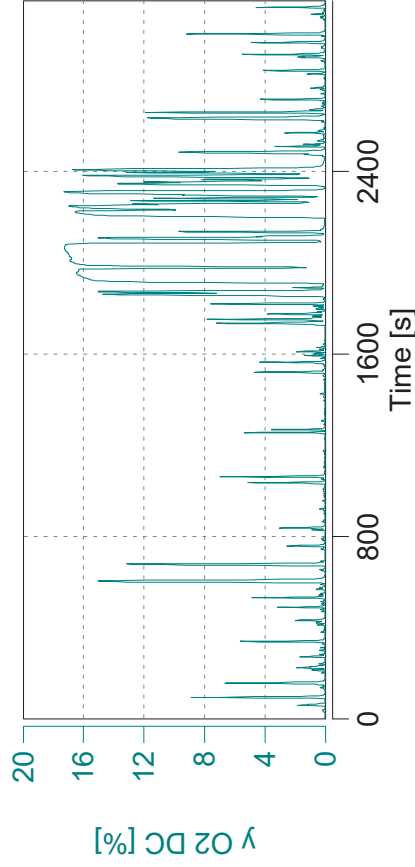
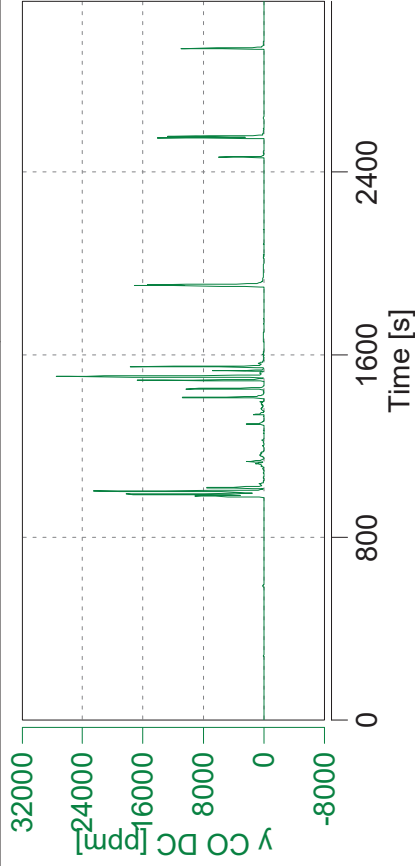
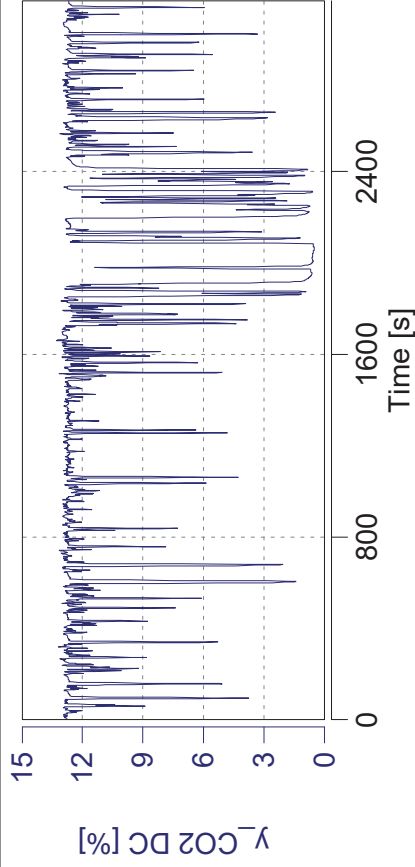
'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (2)

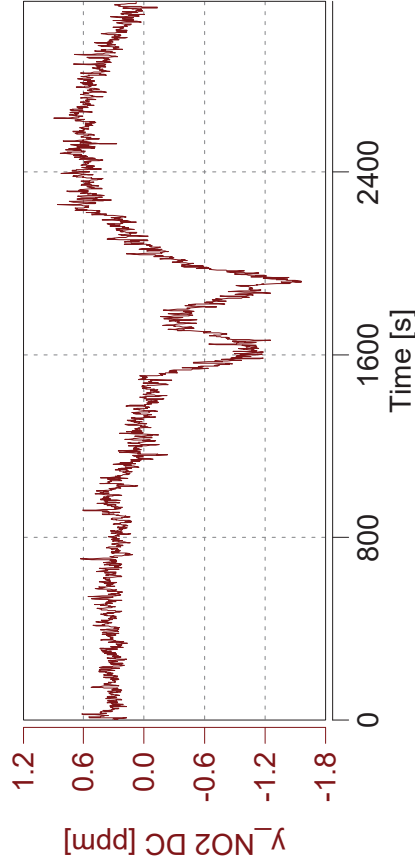
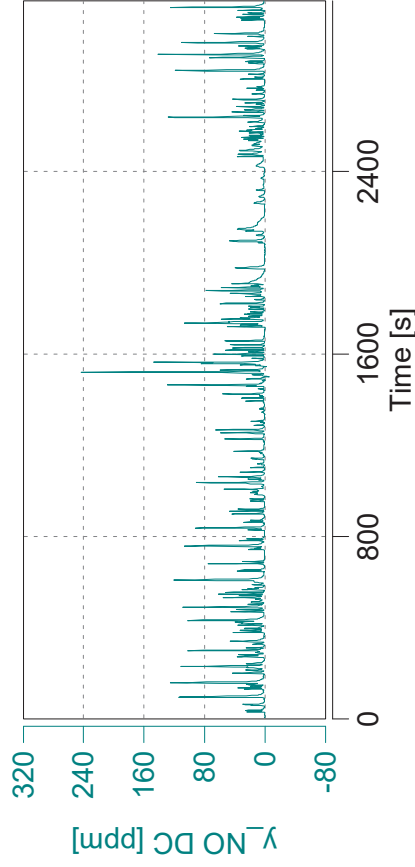
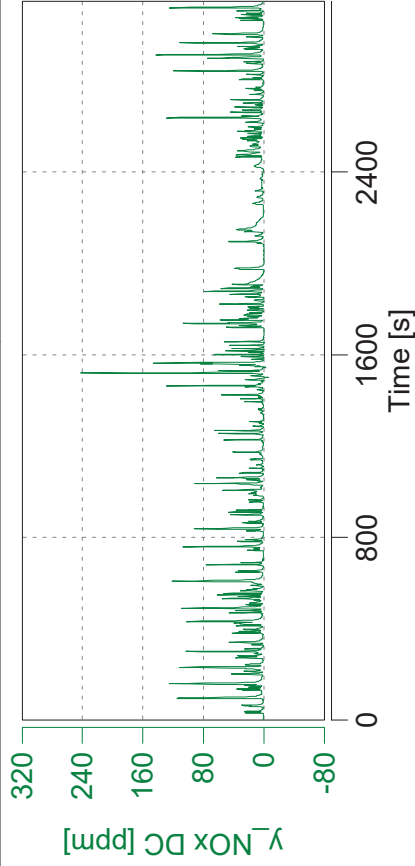
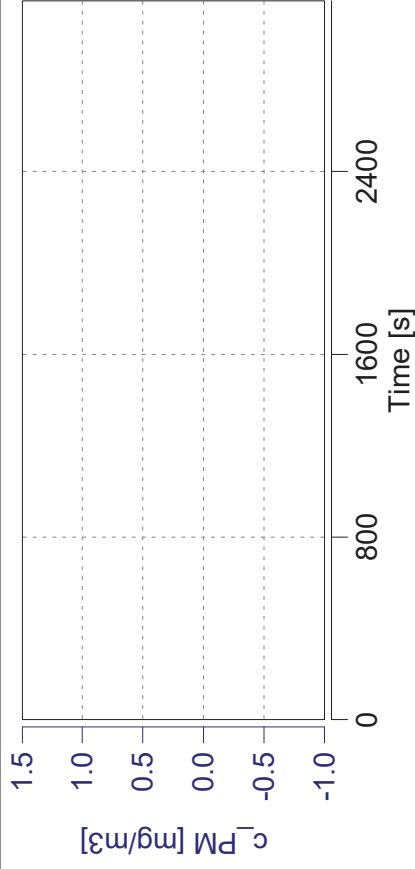
'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (3)

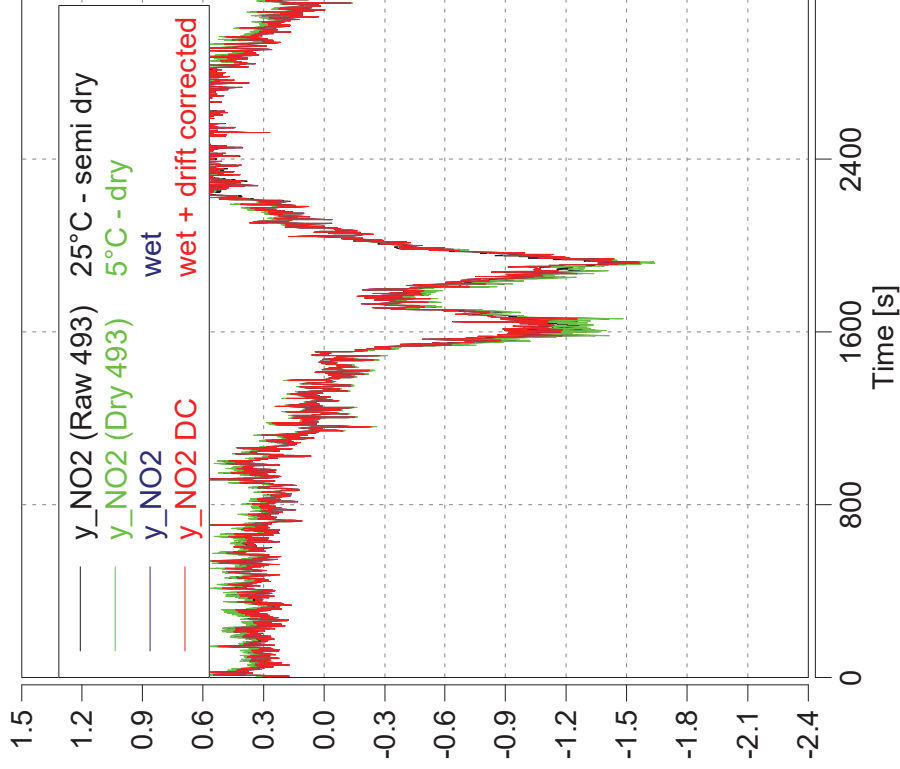
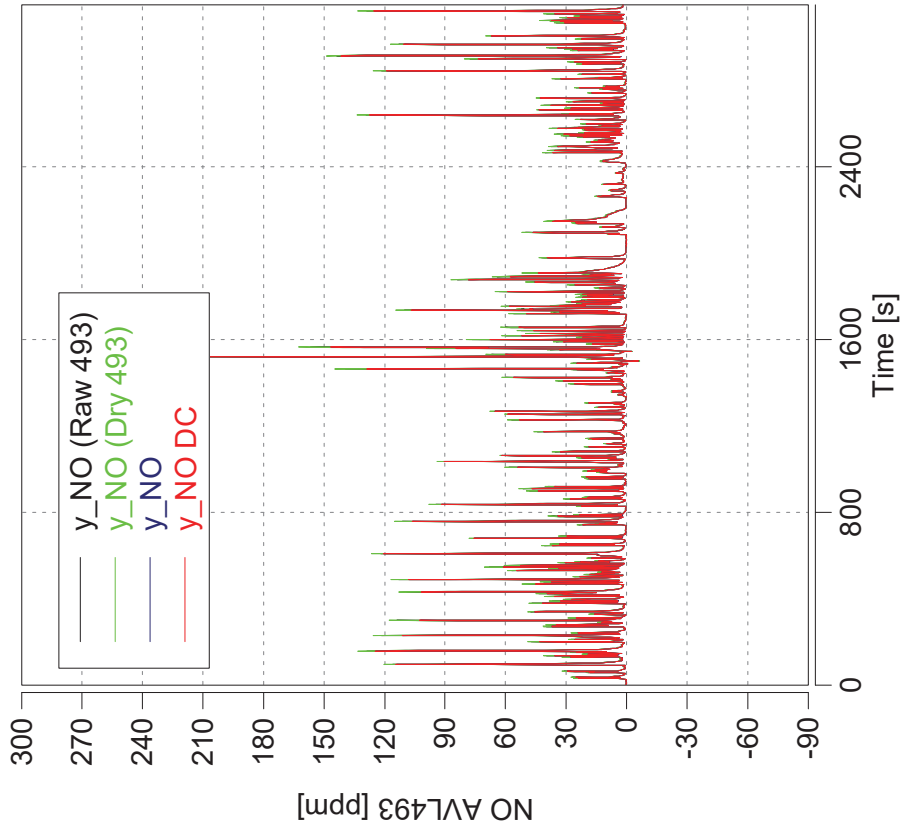
'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (4) NOx Corrections

'Mountain'

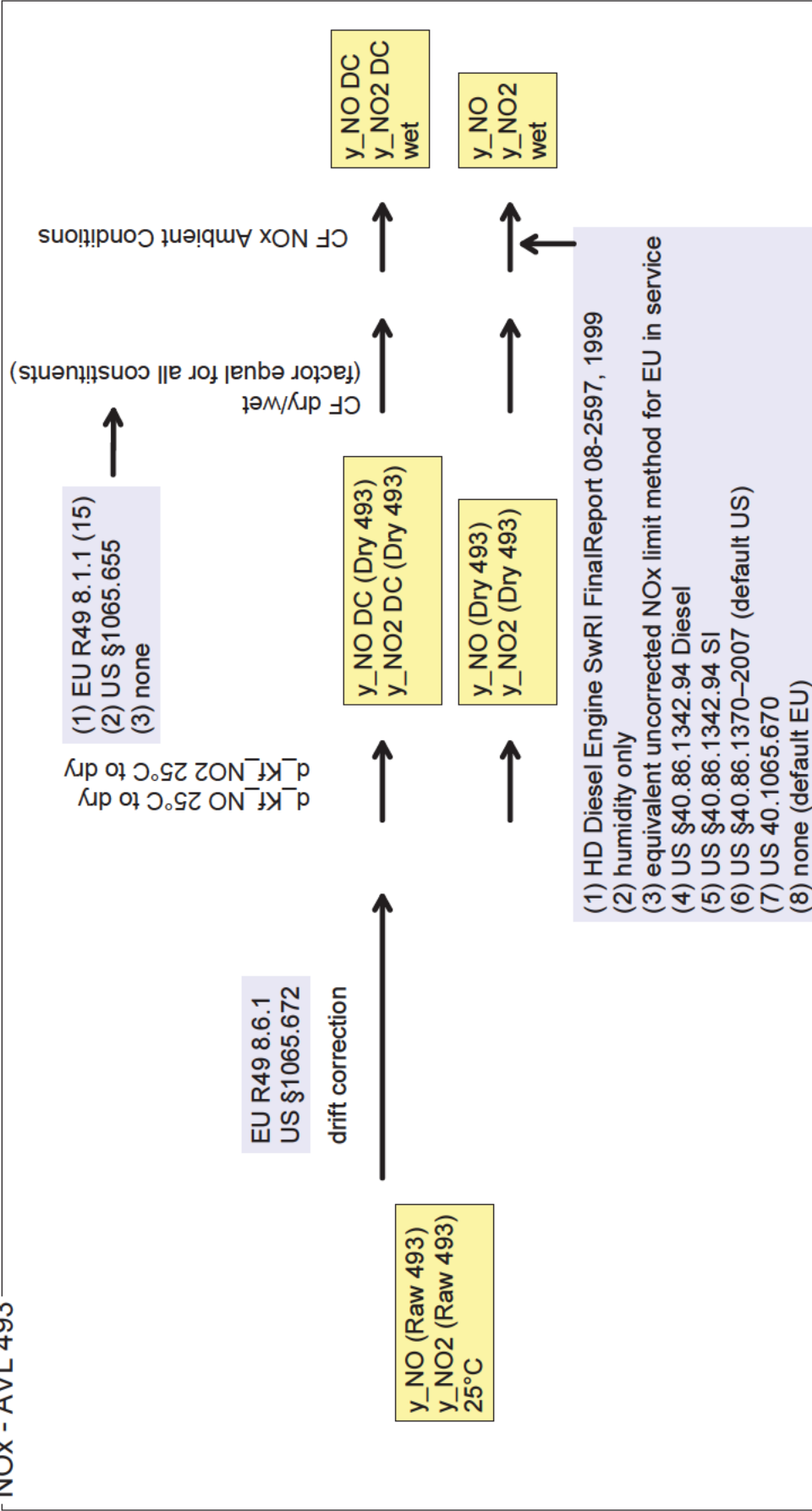
Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (5)

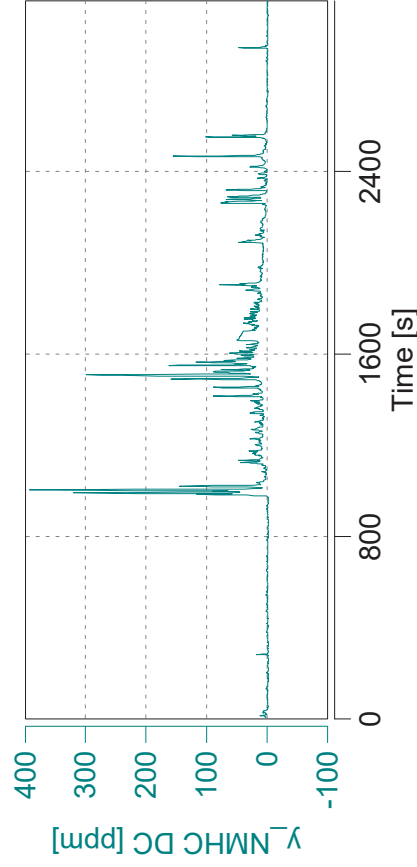
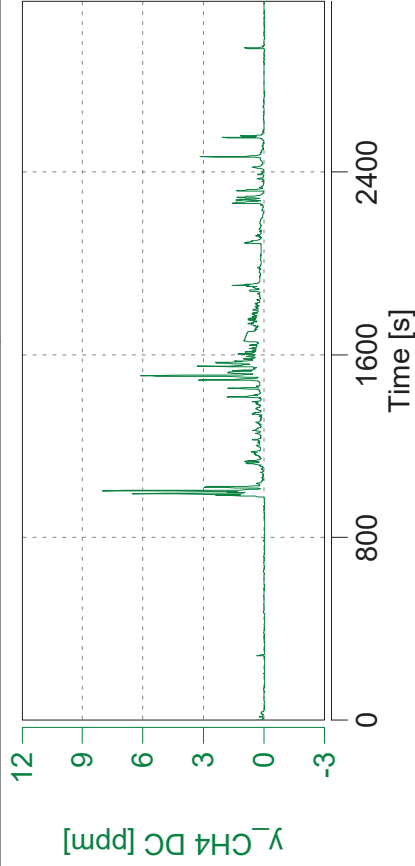
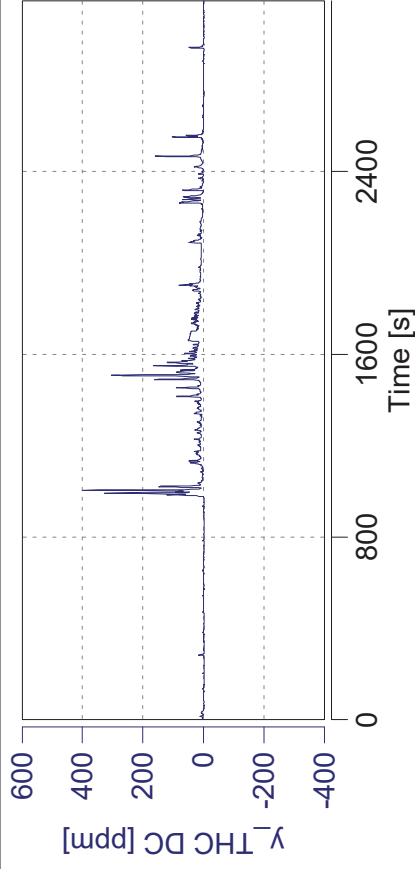
'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: NO/NO2/NOx Zero - Span

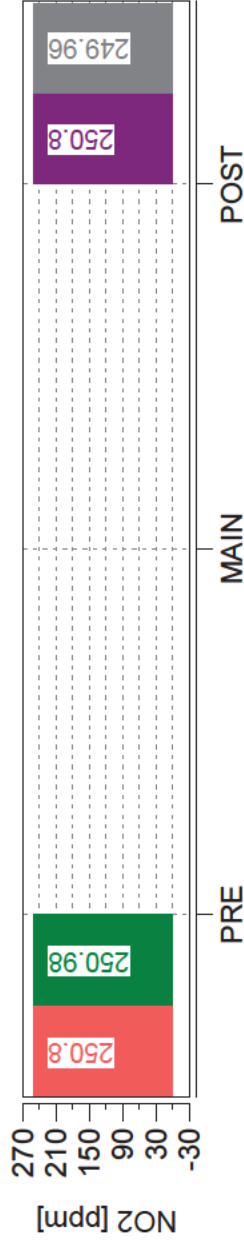
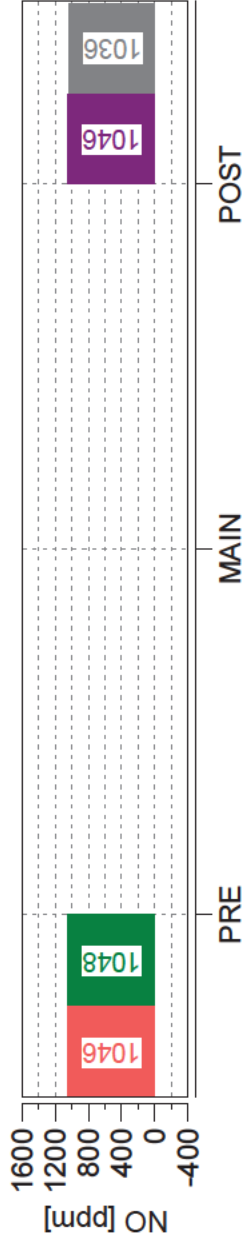
'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: CO/CO2 Zero - Span

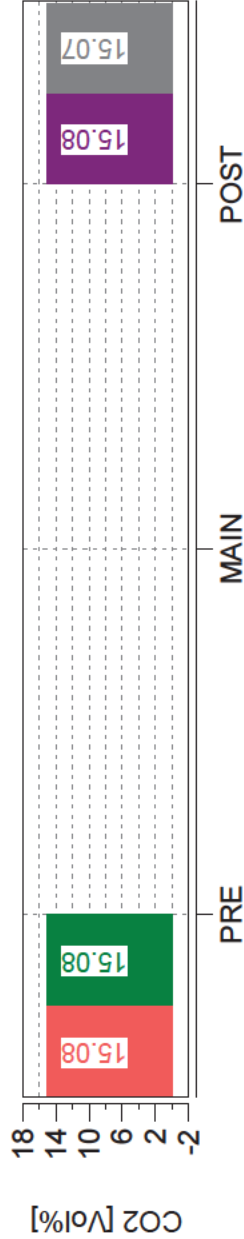
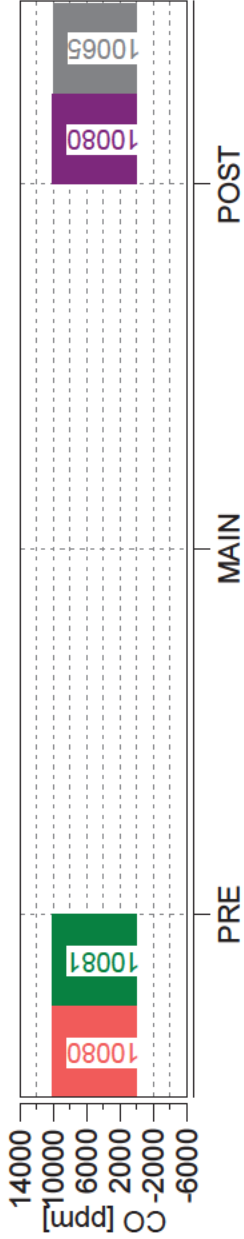
'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: THC/CH4 Zero - Span

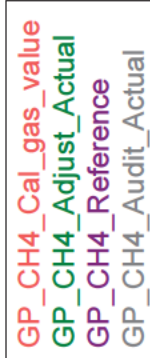
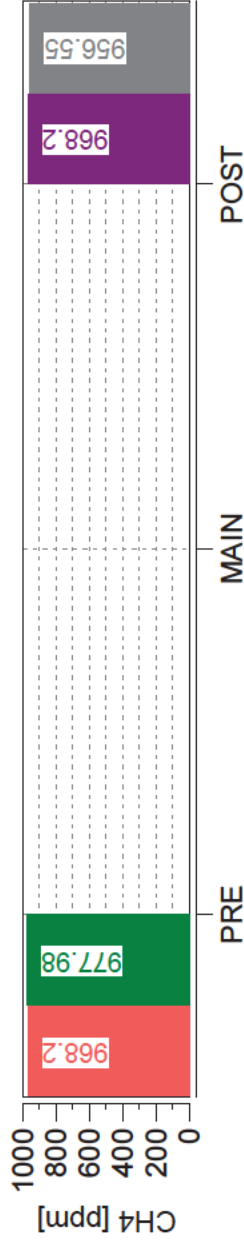
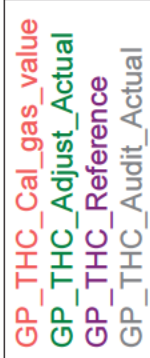
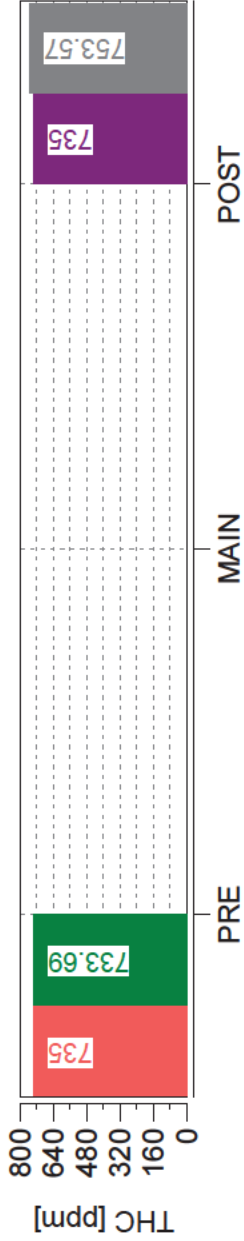
'Mountain'

Start Date: 08/02/2018

Start Time: 13:40:03.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary

'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E. 2018

Trip Duration	3248.00	s	ave THC	0.22682	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3248.00	s	ave NMHC	0.22229	ppm	BS CO	n/a	g/hphr
Trip Distance	16.51	mi	ave CH4	0.00454	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	16.51	mi	ave CO	-16.60561	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	11.99753	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	12.72225	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	1.92	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	1.90	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	0.68	gall	tot THC	0.01164	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	0.67	gall	tot NMHC	0.01076	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00026	g	DS CO2	350.11966	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	-0.46140	g	DS CO	-0.02794	g/mi
Trip Fuel Economy EU (ac)	24.32	mpg_US	tot CO2	5781.26123	g	DS THC	0.00070	g/mi
Trip Fuel Economy US (ac)	24.61	mpg_US	tot NO (d)	0.63064	g	DS NMHC	0.00065	g/mi
Trip Av. Eng. Speed	1593.03	rpm	tot NO2	0.02228	g	DS CH4	0.00002	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.65292	g	DS NO (d)	0.03819	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00135	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.03954	g/mi
Trip Exhaust Mass	30.94	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	73.65	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	67.64	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	18.30175	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	21.64409	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
 (d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary Drift Corrected

'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E., 2018

Trip Duration	3248.00	s	ave THC DC	0.80820	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3248.00	s	ave NMHC DC	0.79204	ppm	BS CO DC	n/a	g/hphr
Trip Distance	16.51	mi	ave CH4 DC	0.01616	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	16.51	mi	ave CO DC	-16.68378	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	11.98958	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	12.75219	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	1.92	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	1.90	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	0.68	gall	tot THC DC	0.02063	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	0.67	gall	tot NMHC DC	0.01908	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00046	g	DS CO2 DC	349.88764	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	-0.46383	g	DS CO DC	-0.02809	g/mi
Trip Fuel Economy EU (ac)	24.32	mpg_US	tot CO2 DC	5777.43005	g	DS THC DC	0.00125	g/mi
Trip Fuel Economy US (ac)	24.61	mpg_US	tot NO DC (d)	0.63364	g	DS NMHC DC	0.00116	g/mi
Trip Av. Eng. Speed	1593.03	rpm	tot NO2 DC	0.02079	g	DS CH4 DC	0.00003	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.65443	g	DS NO DC (d)	0.03837	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00126	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.03963	g/mi
Trip Exhaust Mass	30.94	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	73.65	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	67.64	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	18.30175	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	21.64409	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment Check

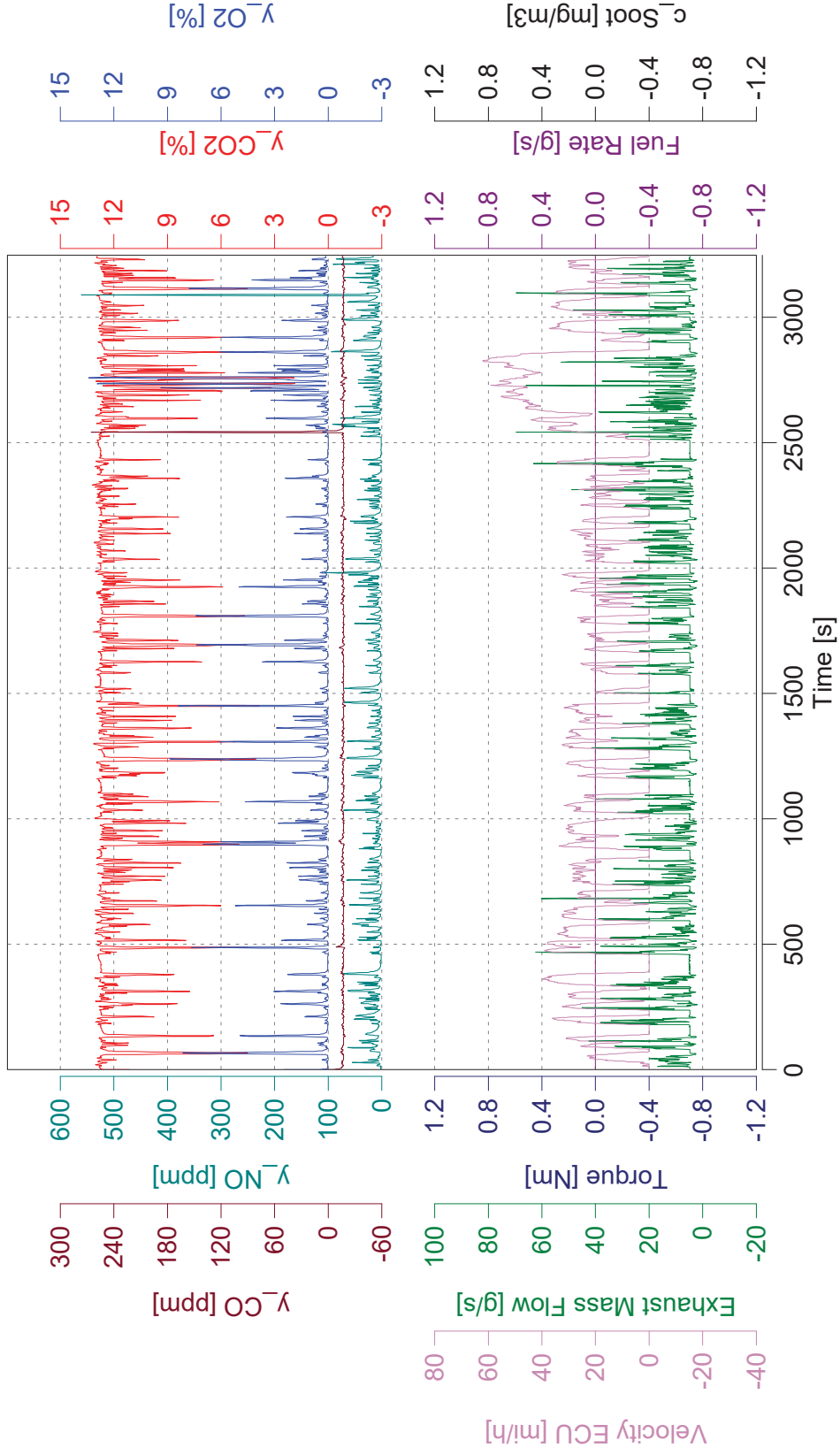
'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment of Gas Concentrations

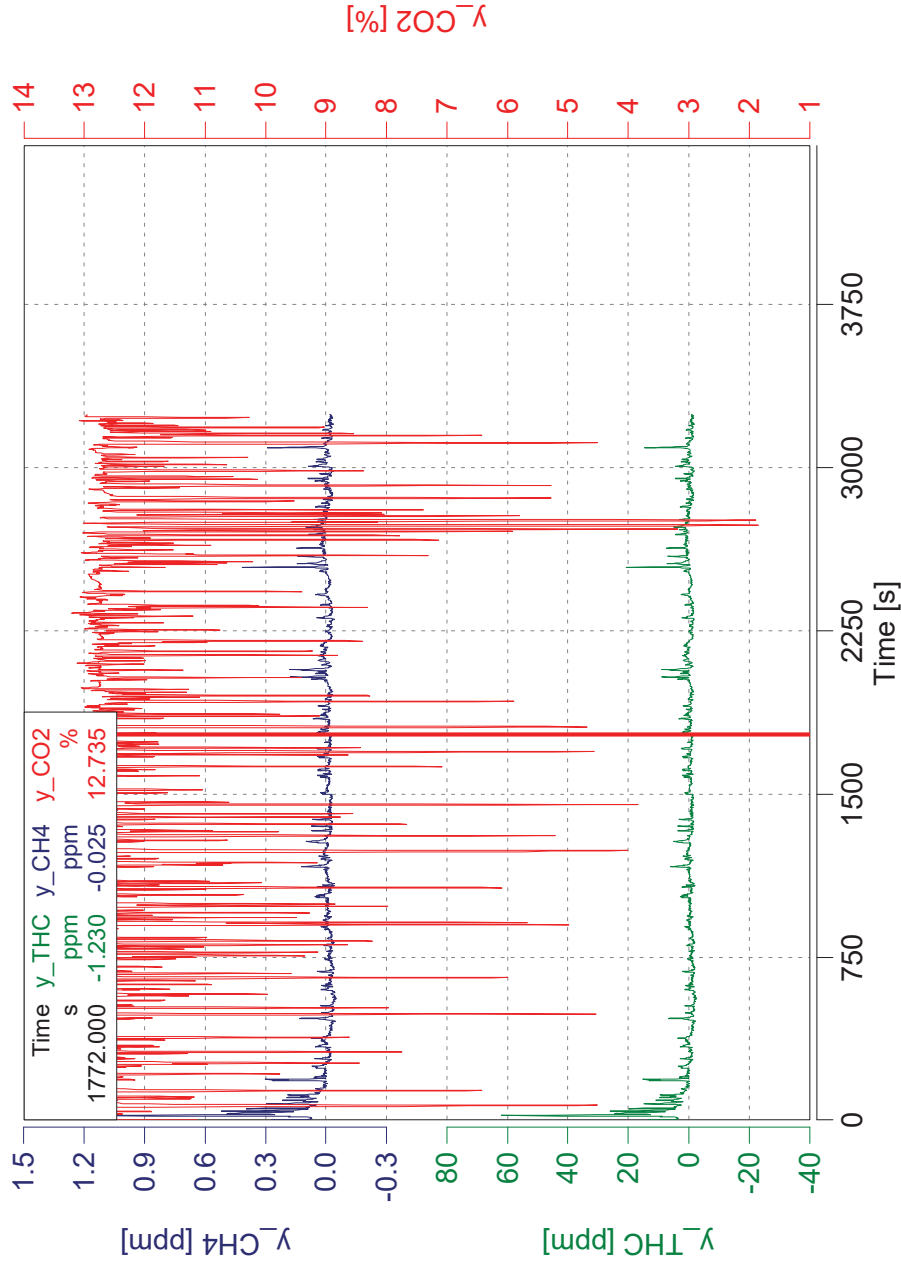
'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Ambient Conditions

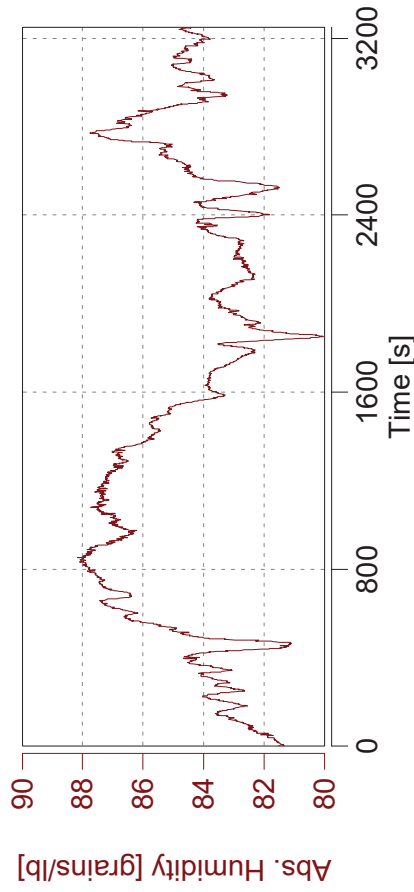
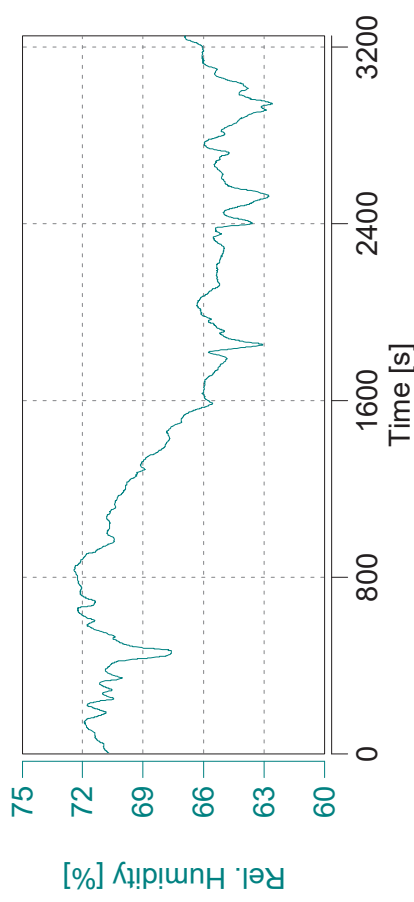
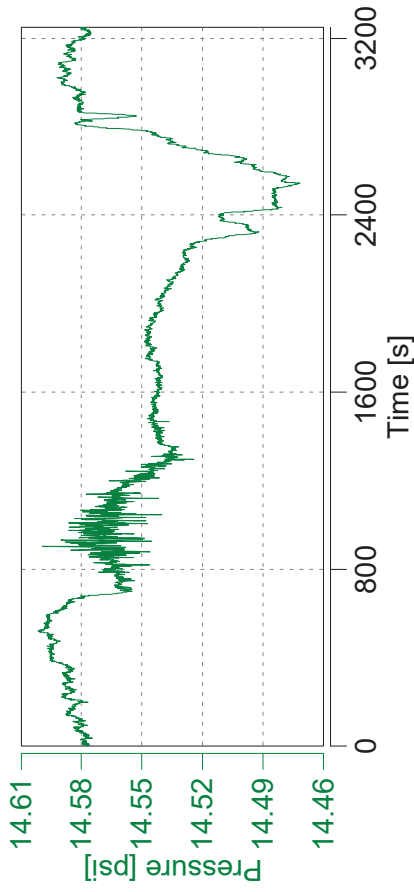
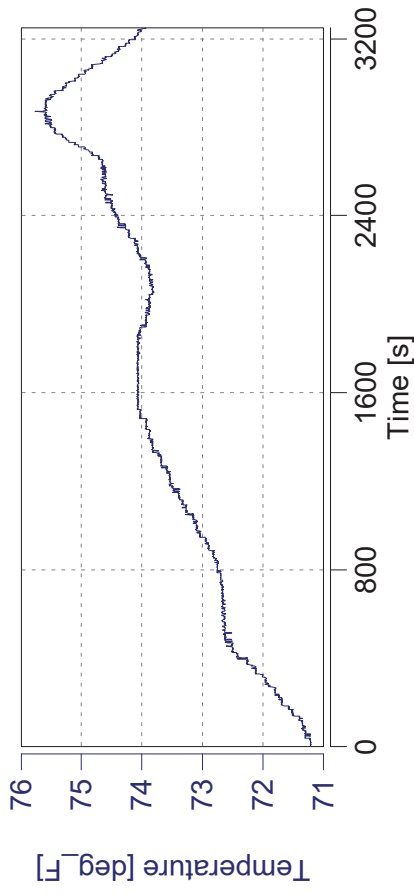
'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

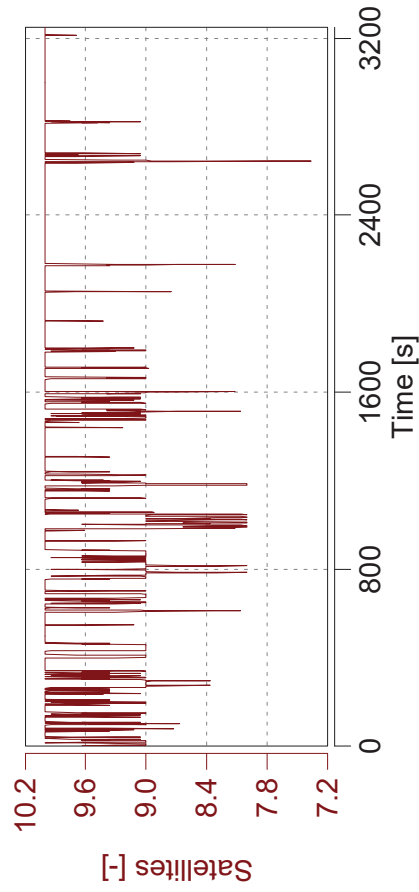
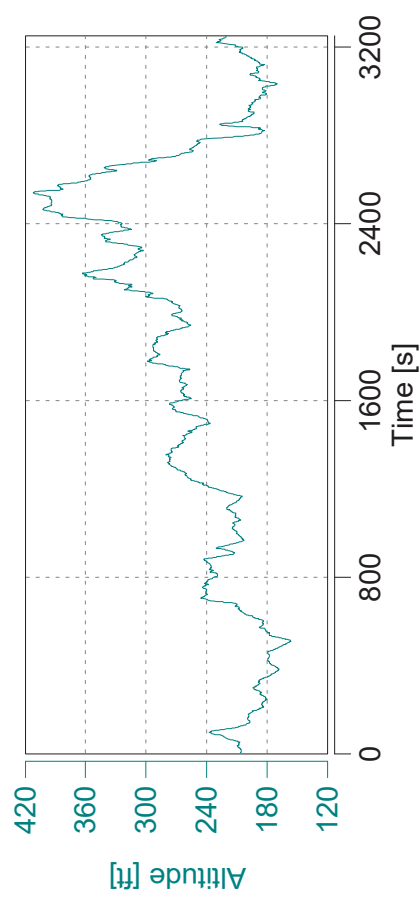
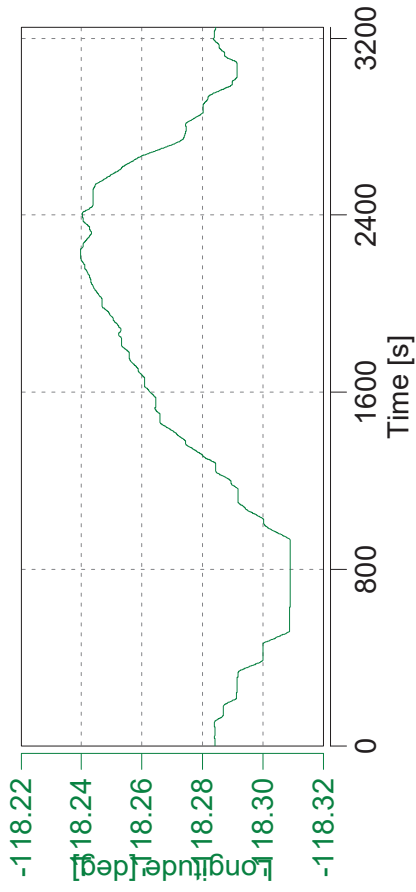
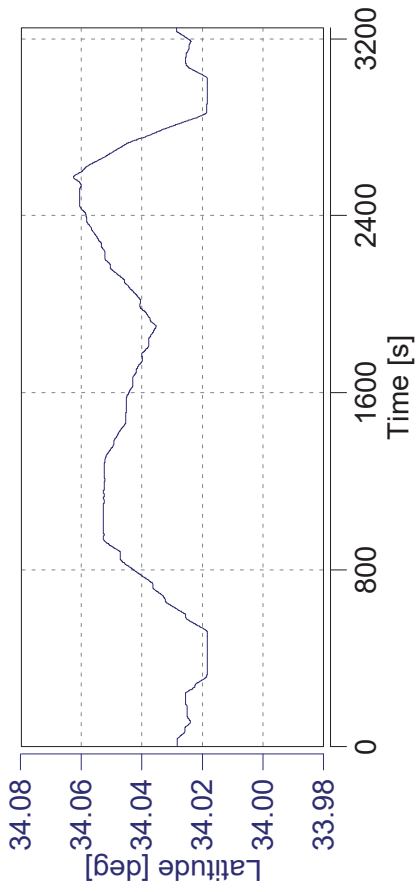
Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City
Page: GPS

'City'
Start Date: 08/02/2018
Start Time: 20:48:45.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (1)

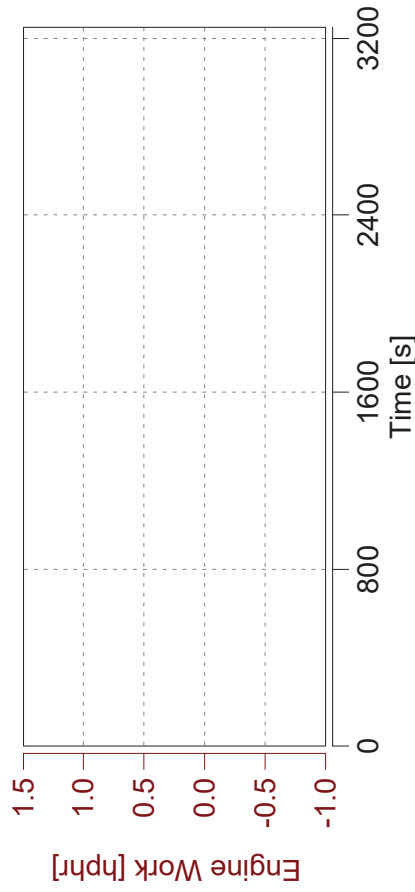
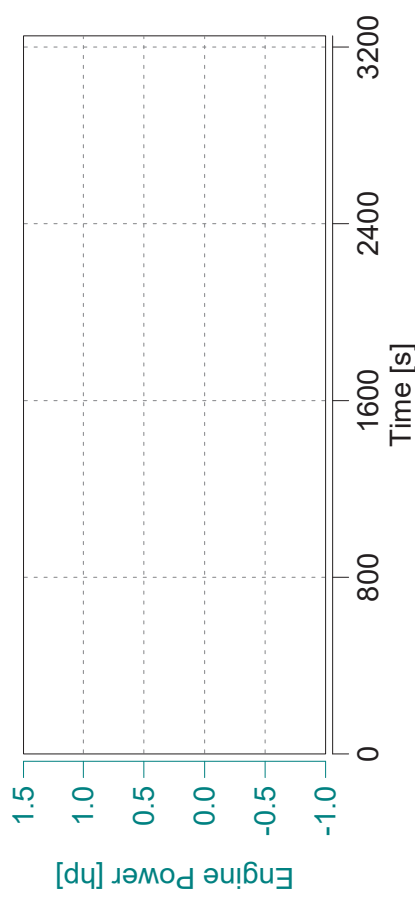
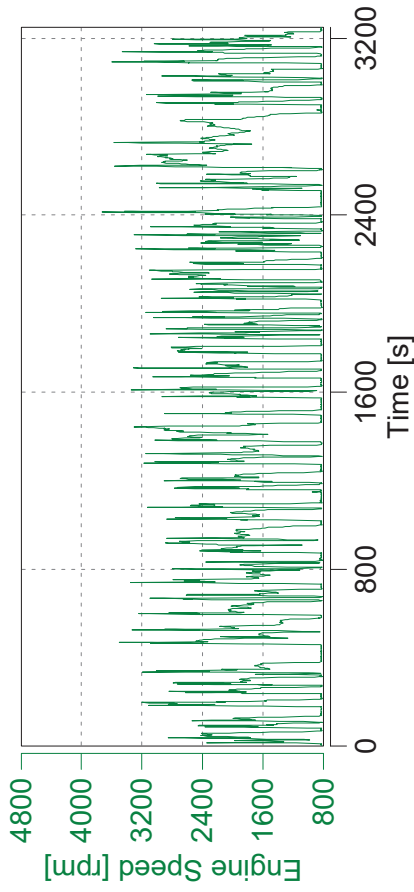
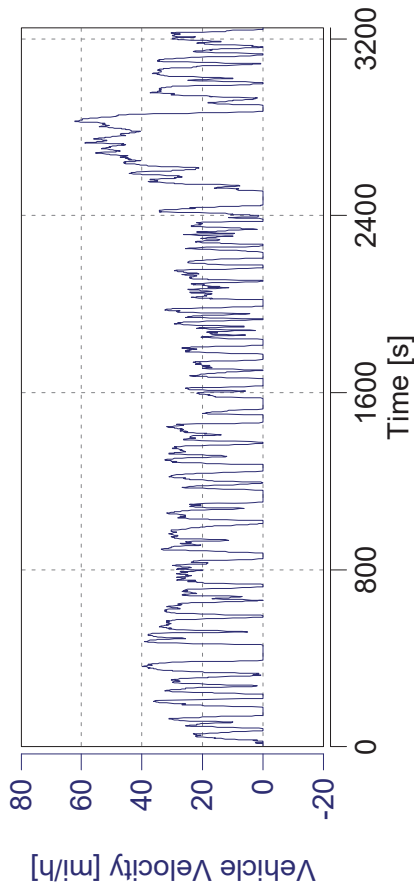
'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (2)

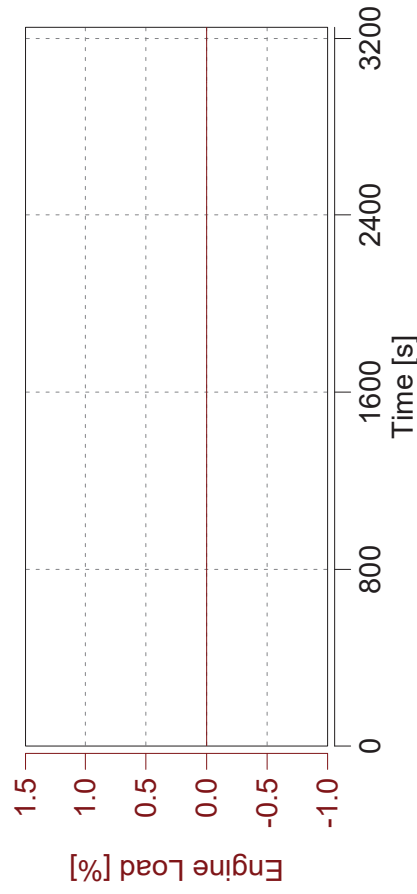
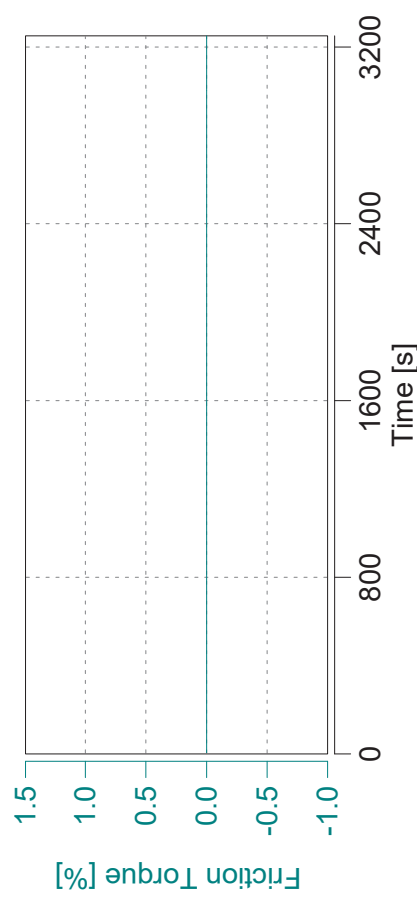
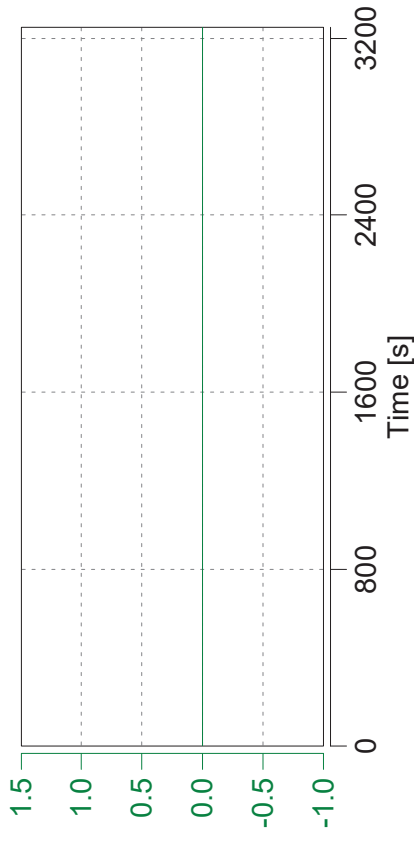
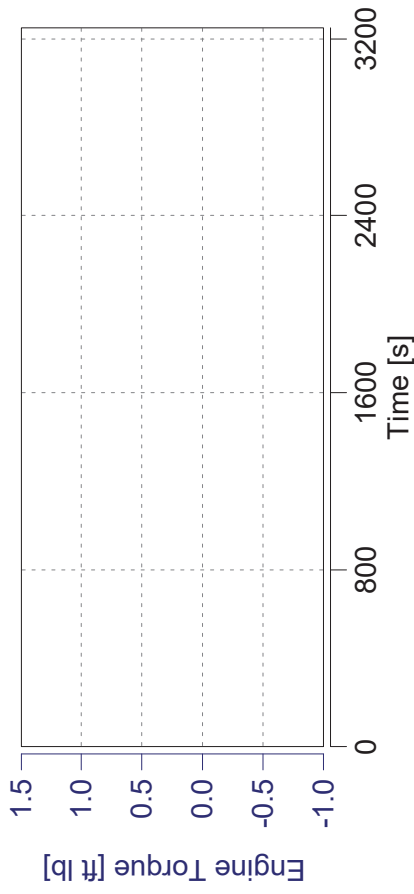
'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (3)

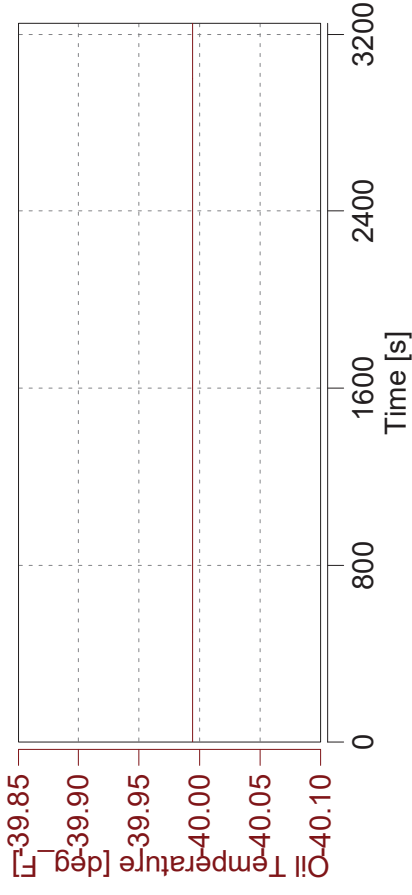
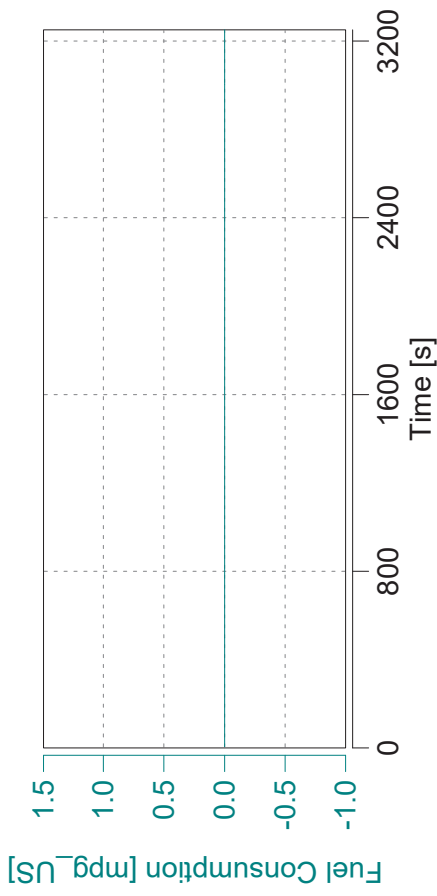
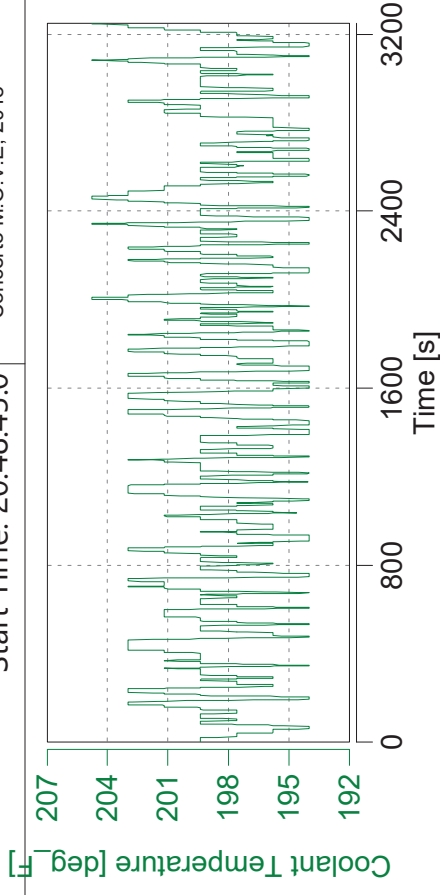
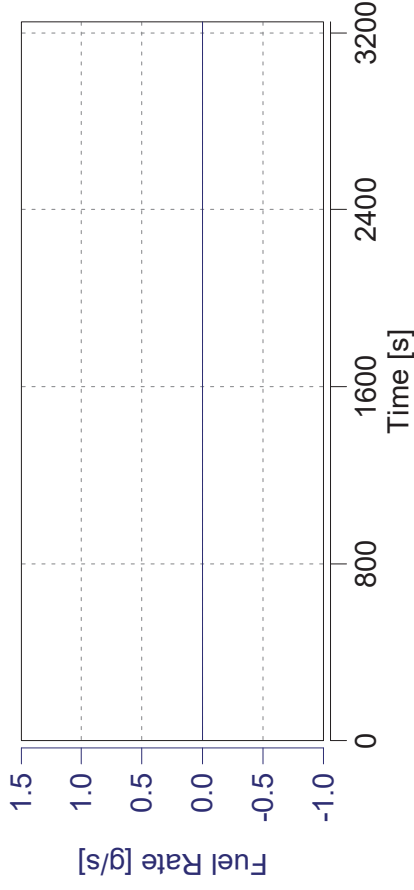
'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (1)

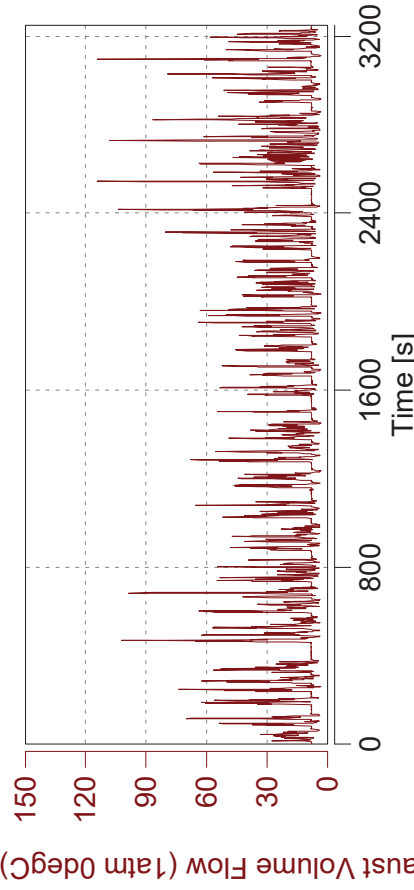
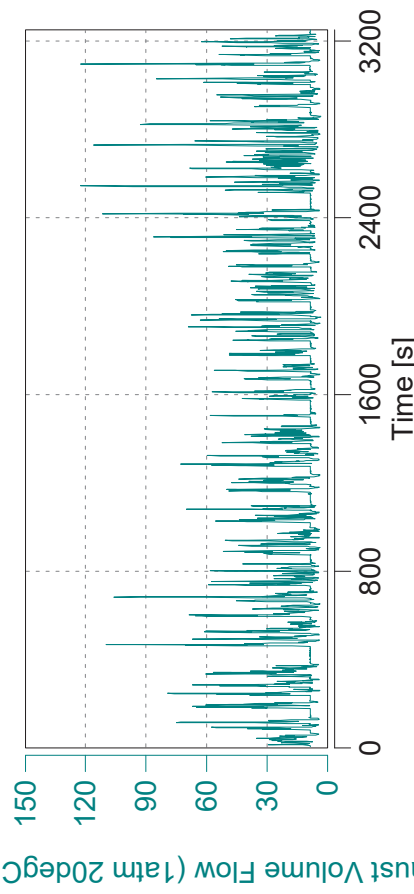
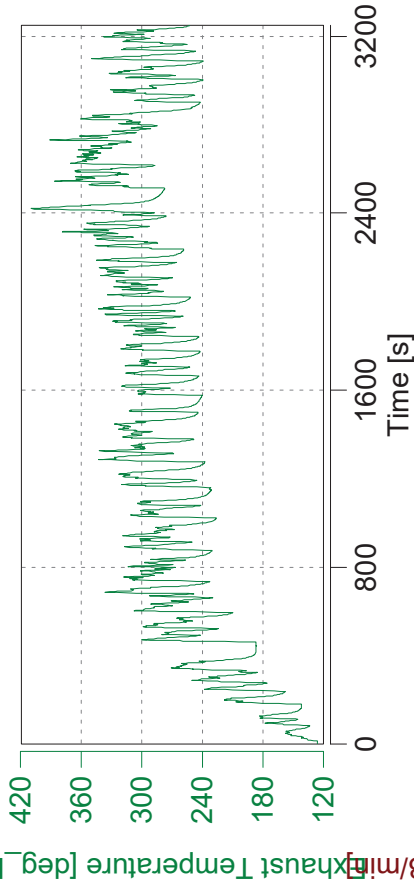
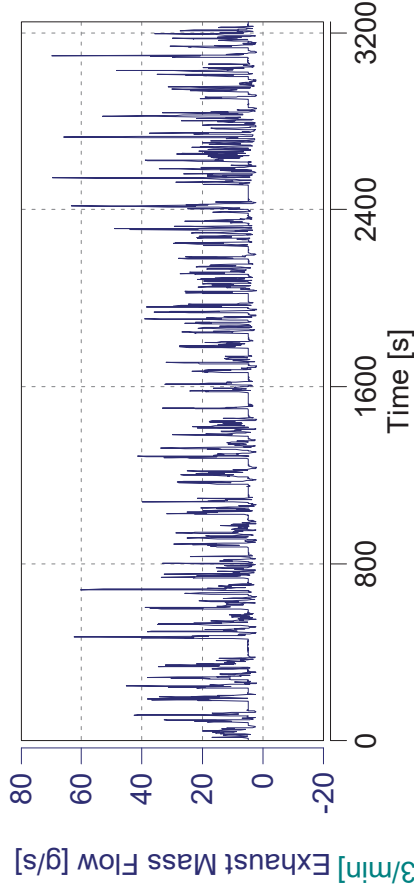
'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (2)

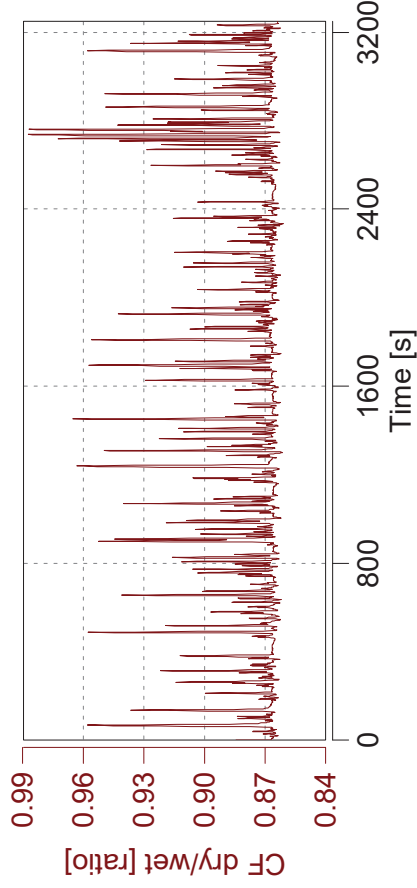
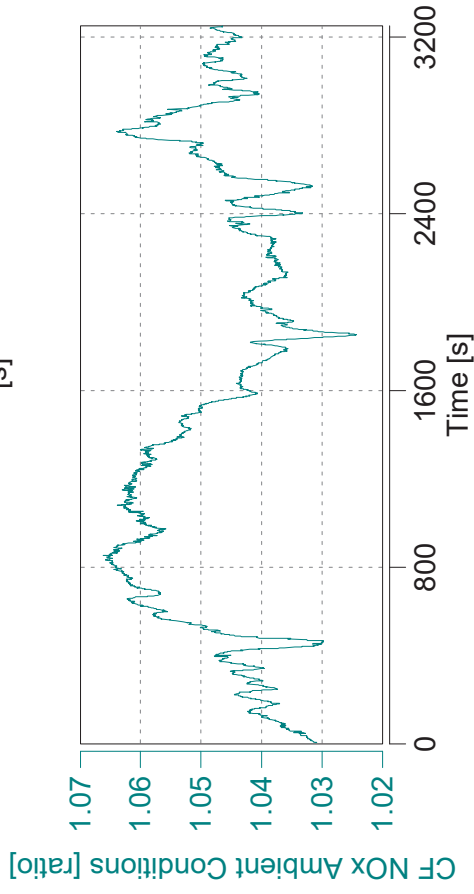
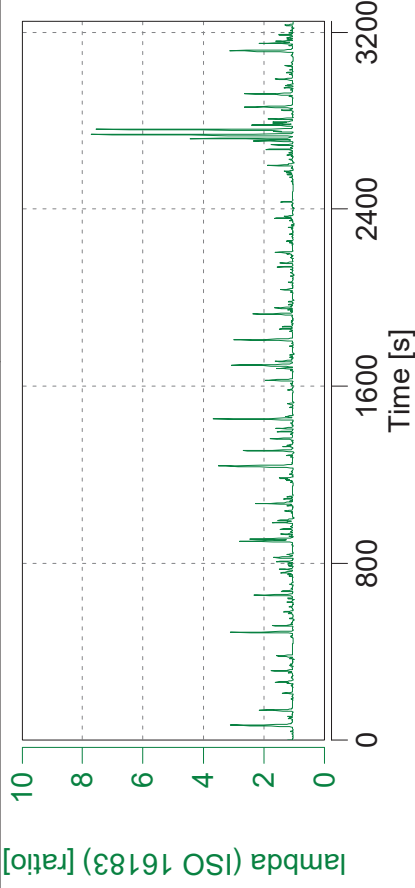
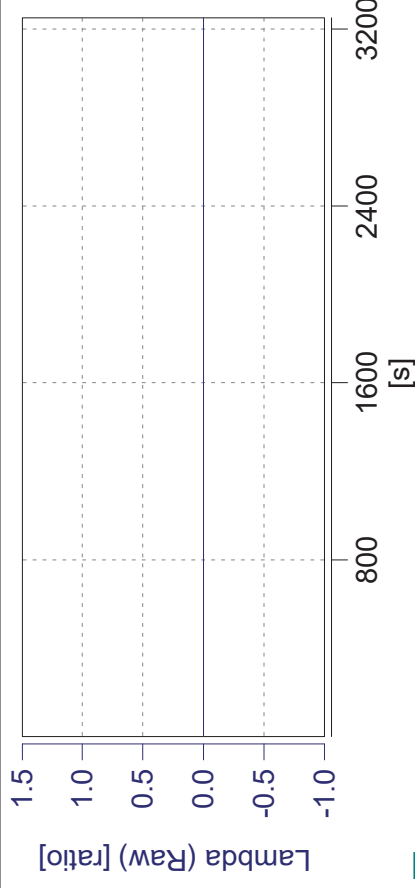
'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (1)

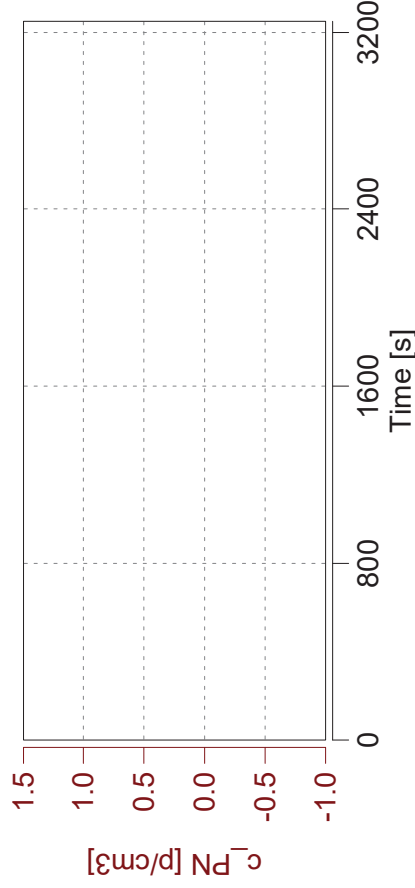
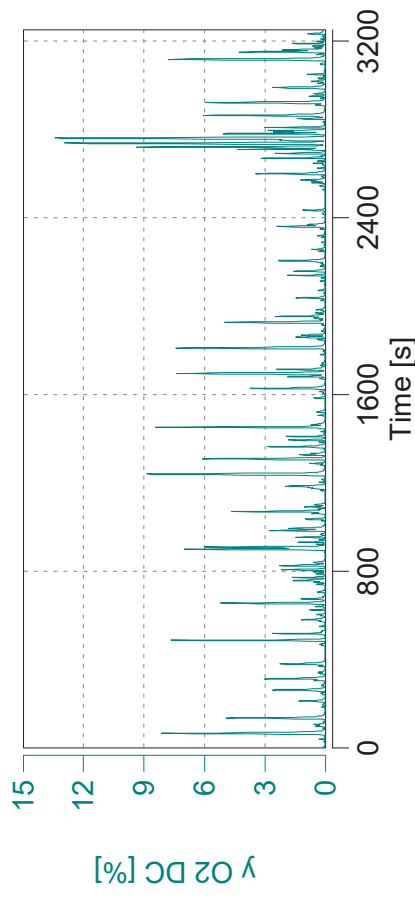
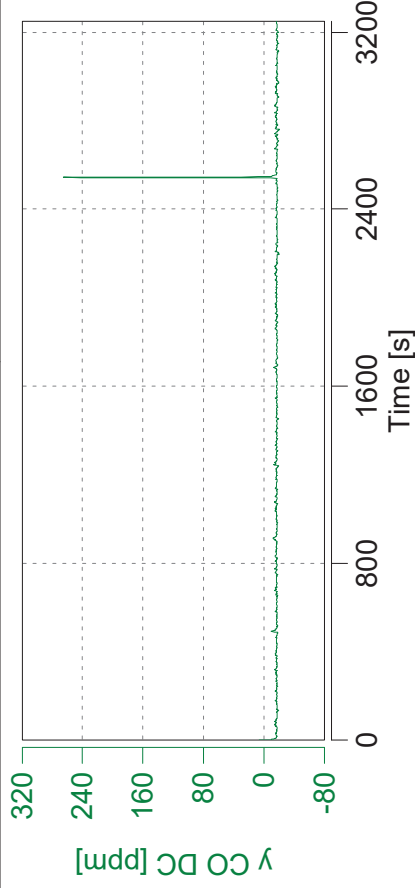
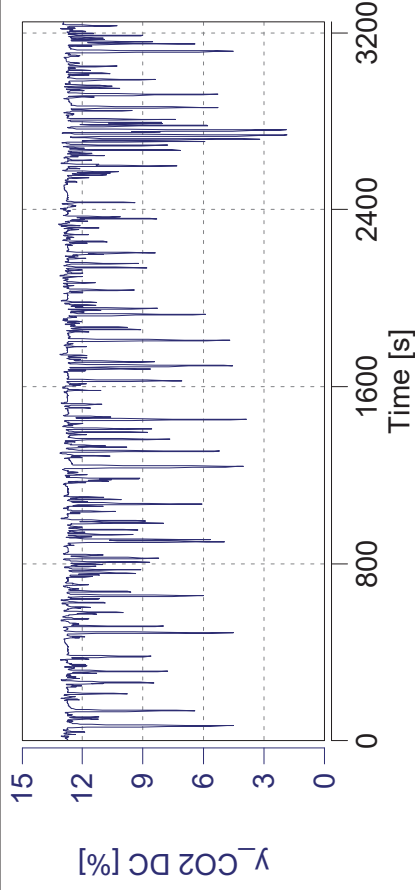
'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (2)

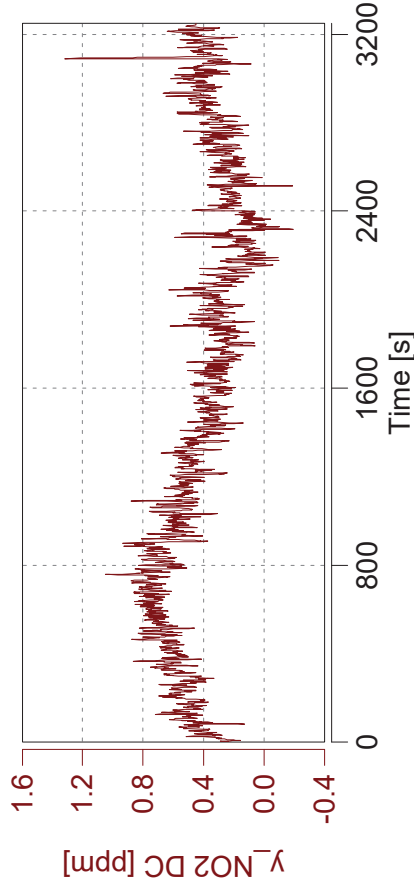
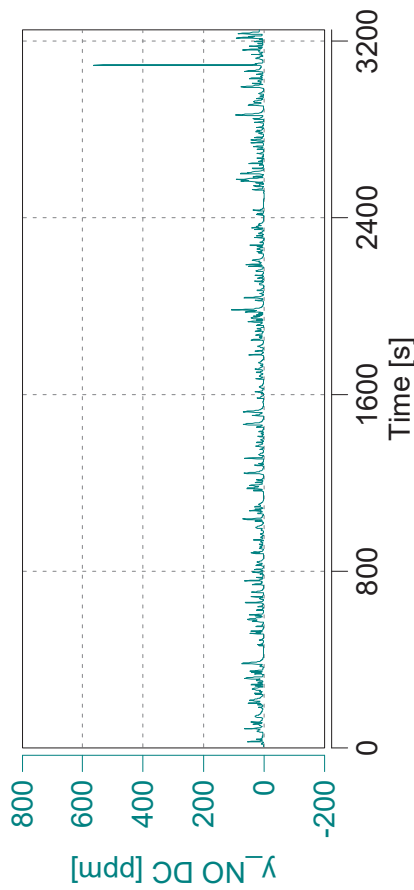
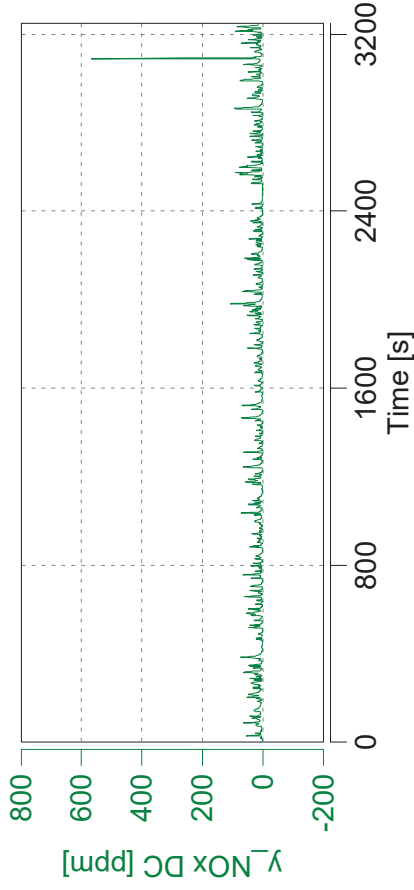
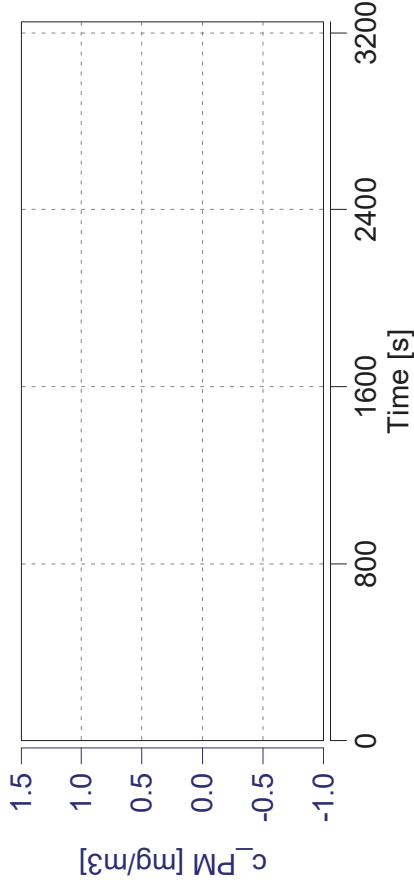
'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (3)

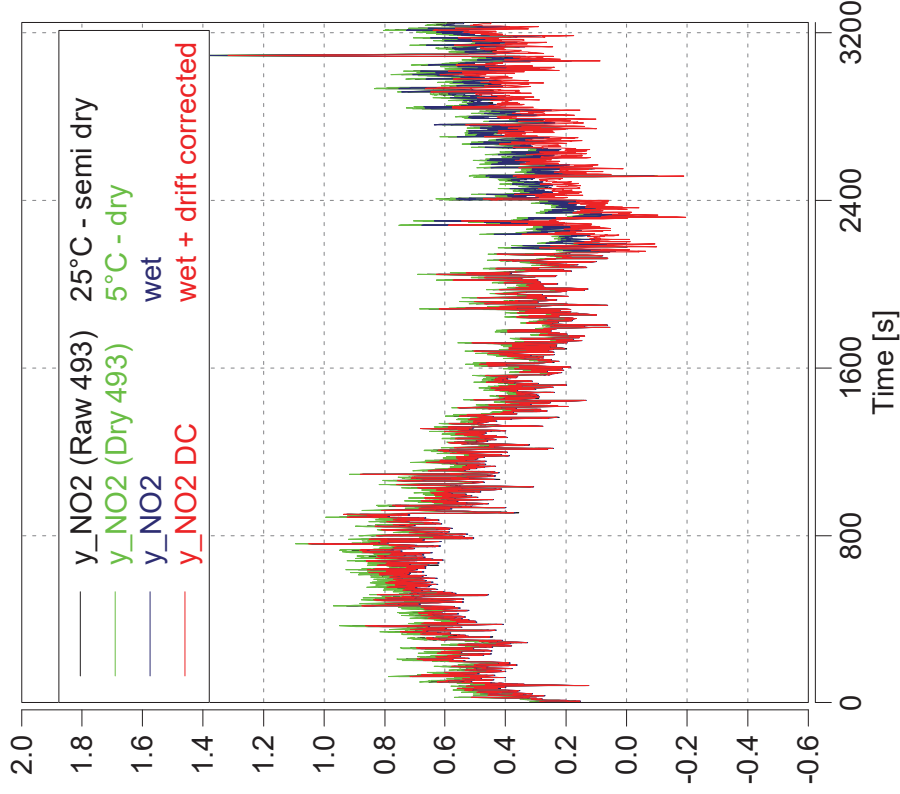
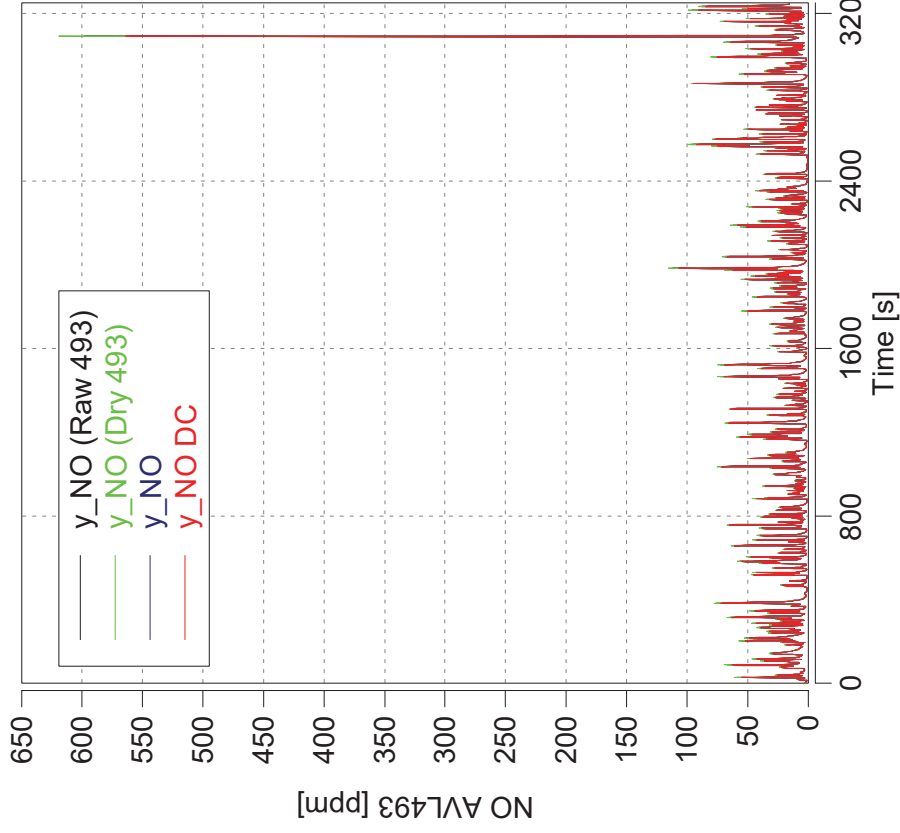
'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Jetta / 1.4L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (4) NOx Corrections

NOx - AVL 493

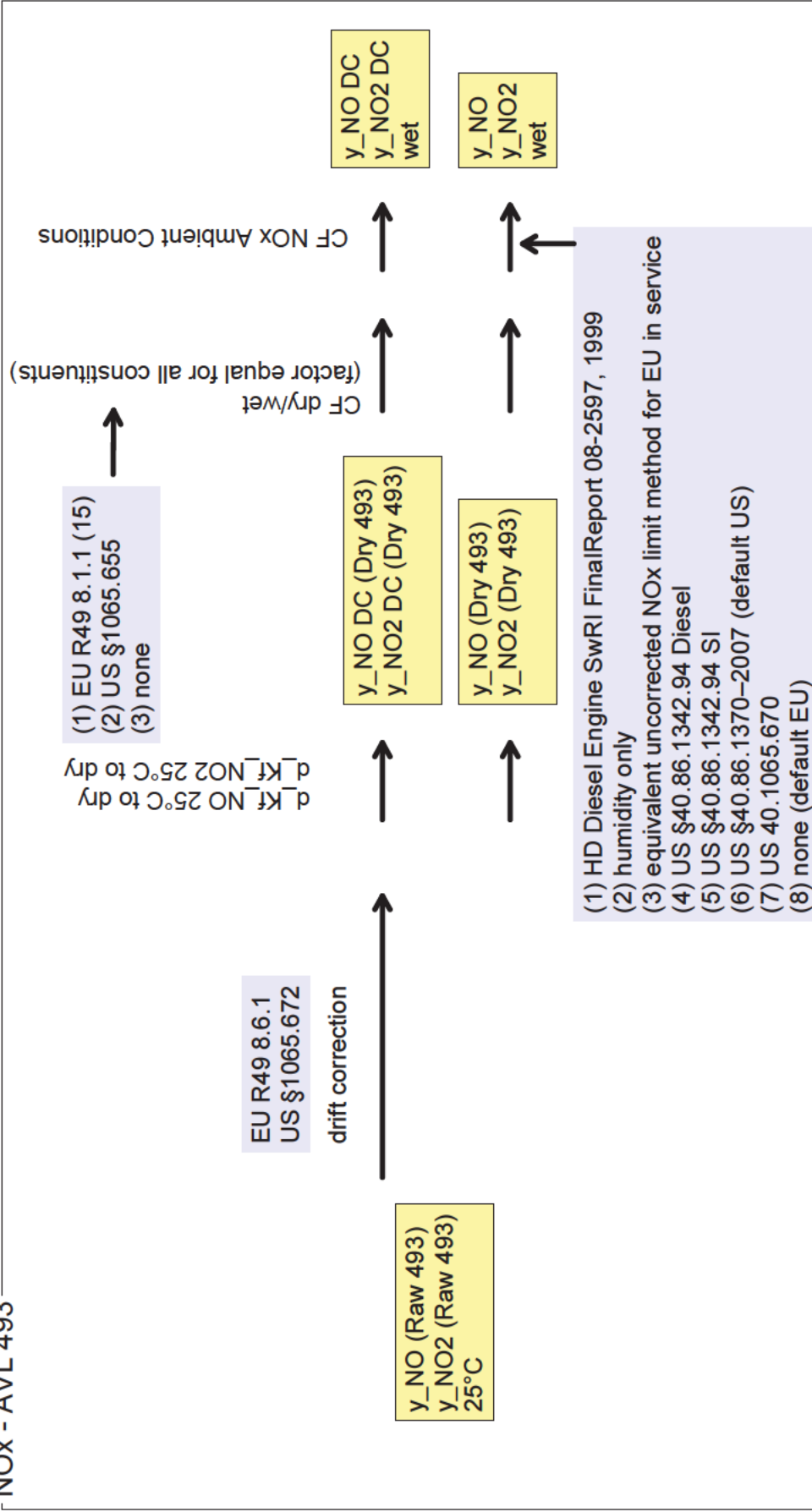
'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Jetta / 1.4L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (5)

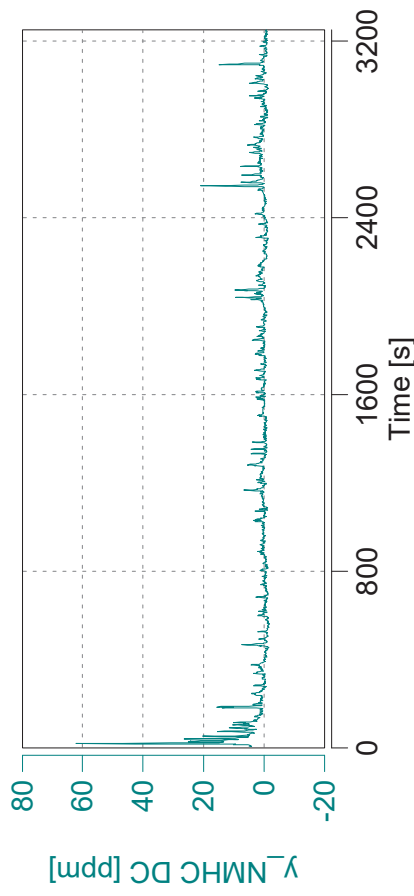
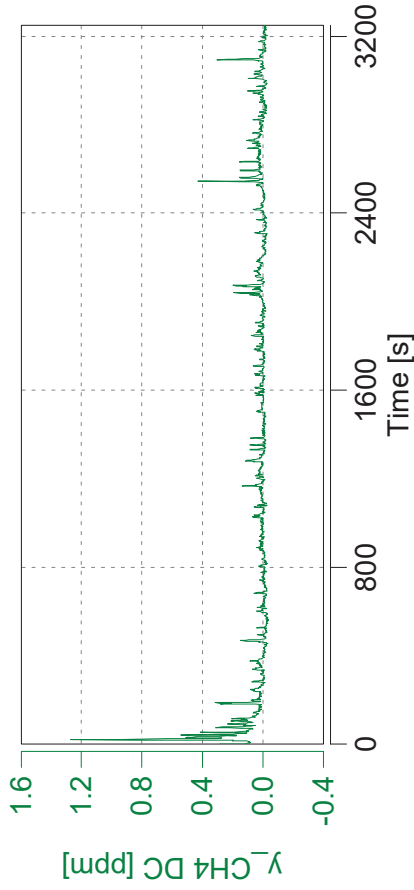
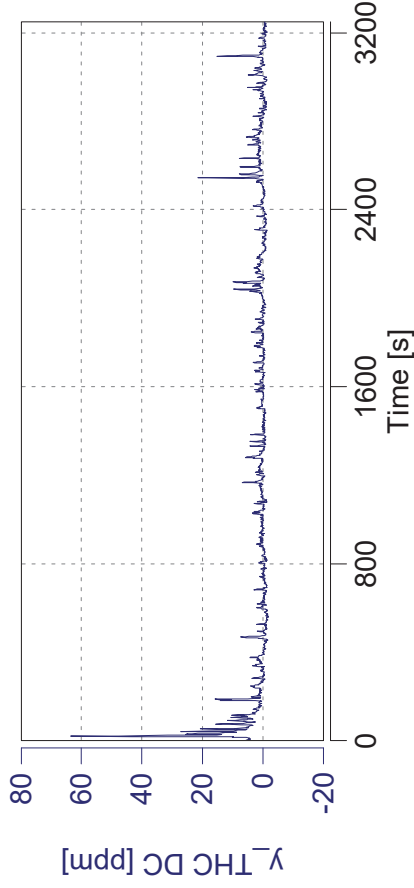
'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Jetta / 1.4L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: NO/NO2/NOx Zero - Span

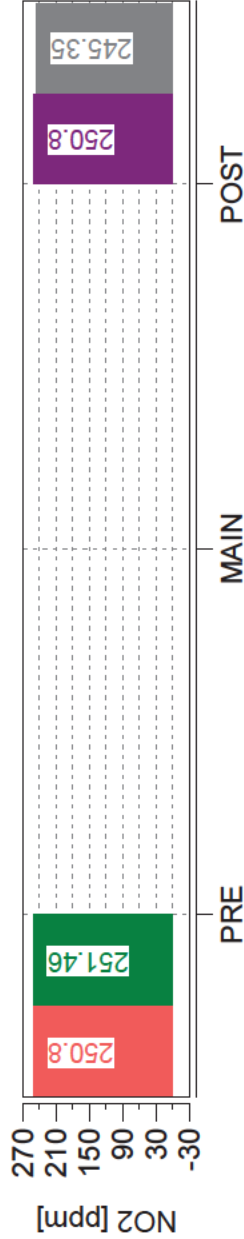
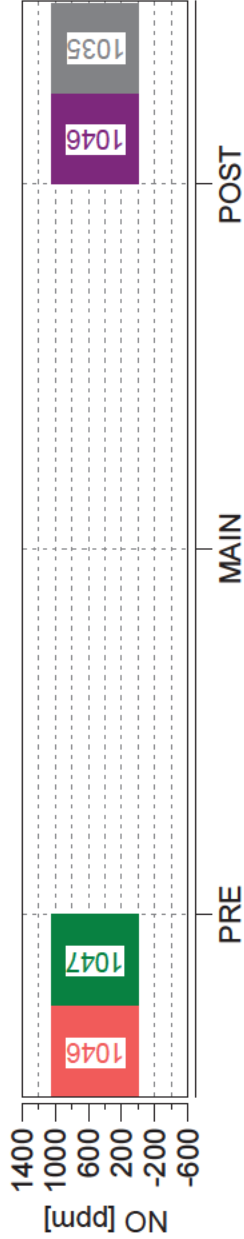
'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: City

Page: CO/CO2 Zero - Span

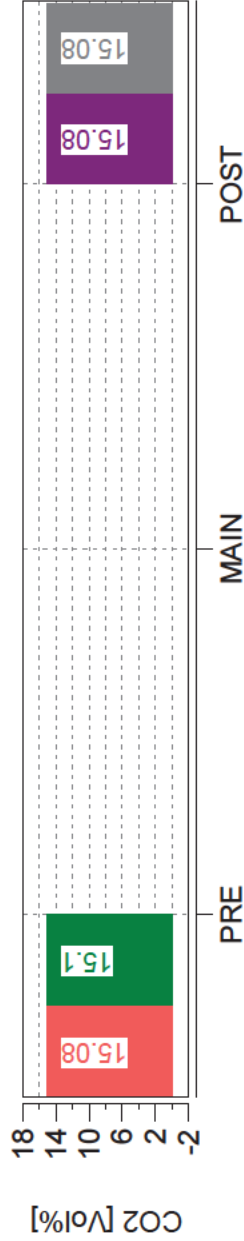
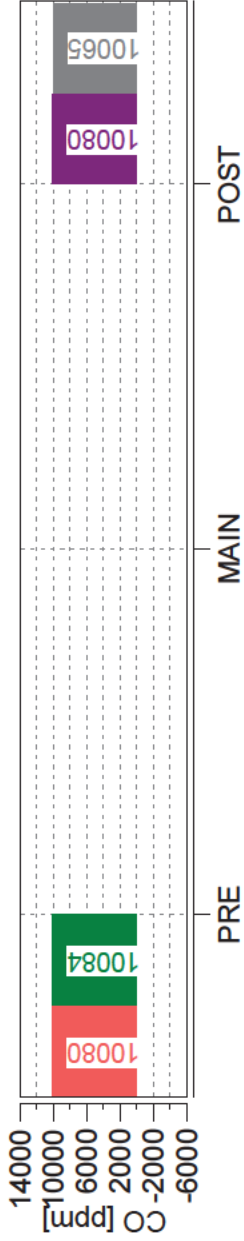
'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: THC/CH4 Zero - Span

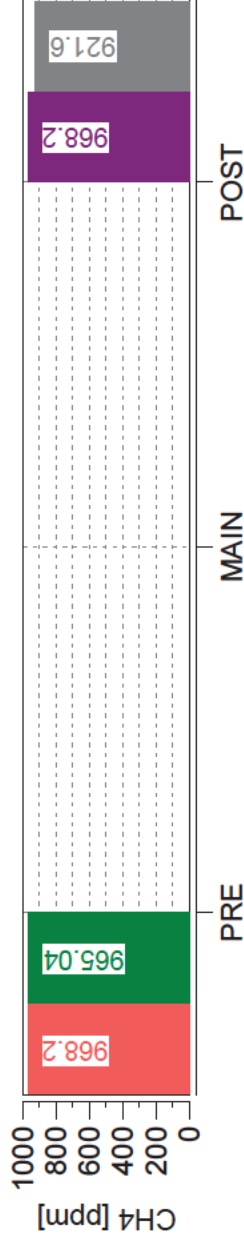
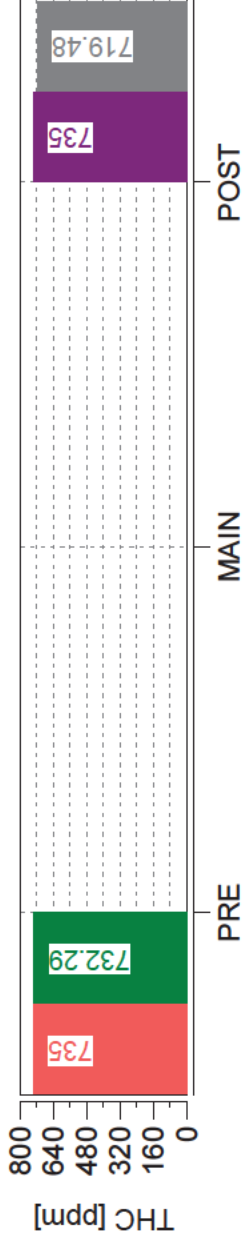
'City'

Start Date: 08/02/2018

Start Time: 20:48:45.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Jetta / 1.4L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway
Page: Trip Summary

'Highway'
Start Date: 08/07/2018
Start Time: 14:56:47.0



Concerto M.O.V.E. 2018

Trip Duration	2791.00	s	ave THC	-1.31501	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	2791.00	s	ave NMHC	-1.28871	ppm	BS CO	n/a	g/hphr
Trip Distance	38.25	mi	ave CH4	-0.02630	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	38.25	mi	ave CO	529.13203	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	12.19952	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	4.89324	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.56	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.51	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.26	gall	tot THC	-0.03264	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.24	gall	tot NMHC	-0.03020	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	-0.00072	g	DS CO2	278.20673	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	28.63177	g	DS CO	0.74845	g/mi
Trip Fuel Economy EU (ac)	30.38	mpg_US	tot CO2	10642.66869	g	DS THC	-0.00085	g/mi
Trip Fuel Economy US (ac)	30.80	mpg_US	tot NO (d)	0.29546	g	DS NMHC	-0.00079	g/mi
Trip Av. Eng. Speed	1723.03	rpm	tot NO2	0.04879	g	DS CH4	-0.00002	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.34425	g	DS NO (d)	0.00772	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00128	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.00900	g/mi
Trip Exhaust Mass	56.59	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	86.44	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	49.98	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	49.34300	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	3.40380	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Passat / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Trip Summary Drift Corrected

'Highway'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018

Trip Duration	2791.00	s	ave THC DC	-1.39979	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	2791.00	s	ave NMHC DC	-1.37179	ppm	BS CO DC	n/a	g/hphr
Trip Distance	38.25	mi	ave CH4 DC	-0.02800	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	38.25	mi	ave CO DC	529.66378	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	12.20762	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	4.94691	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.56	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.51	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.26	gall	tot THC DC	-0.03832	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.24	gall	tot NMHC DC	-0.03544	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	-0.00085	g	DS CO2 DC	278.39134	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	28.66536	g	DS CO DC	0.74933	g/mi
Trip Fuel Economy EU (ac)	30.38	mpg_US	tot CO2 DC	10649.73084	g	DS THC DC	-0.00100	g/mi
Trip Fuel Economy US (ac)	30.80	mpg_US	tot NO DC (d)	0.29590	g	DS NMHC DC	-0.00093	g/mi
Trip Av. Eng. Speed	1723.03	rpm	tot NO2 DC	0.05121	g	DS CH4 DC	-0.00002	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.34711	g	DS NO DC (d)	0.00773	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00134	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.00907	g/mi
Trip Exhaust Mass	56.59	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	86.44	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	49.98	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	49.34300	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	3.40380	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment Check

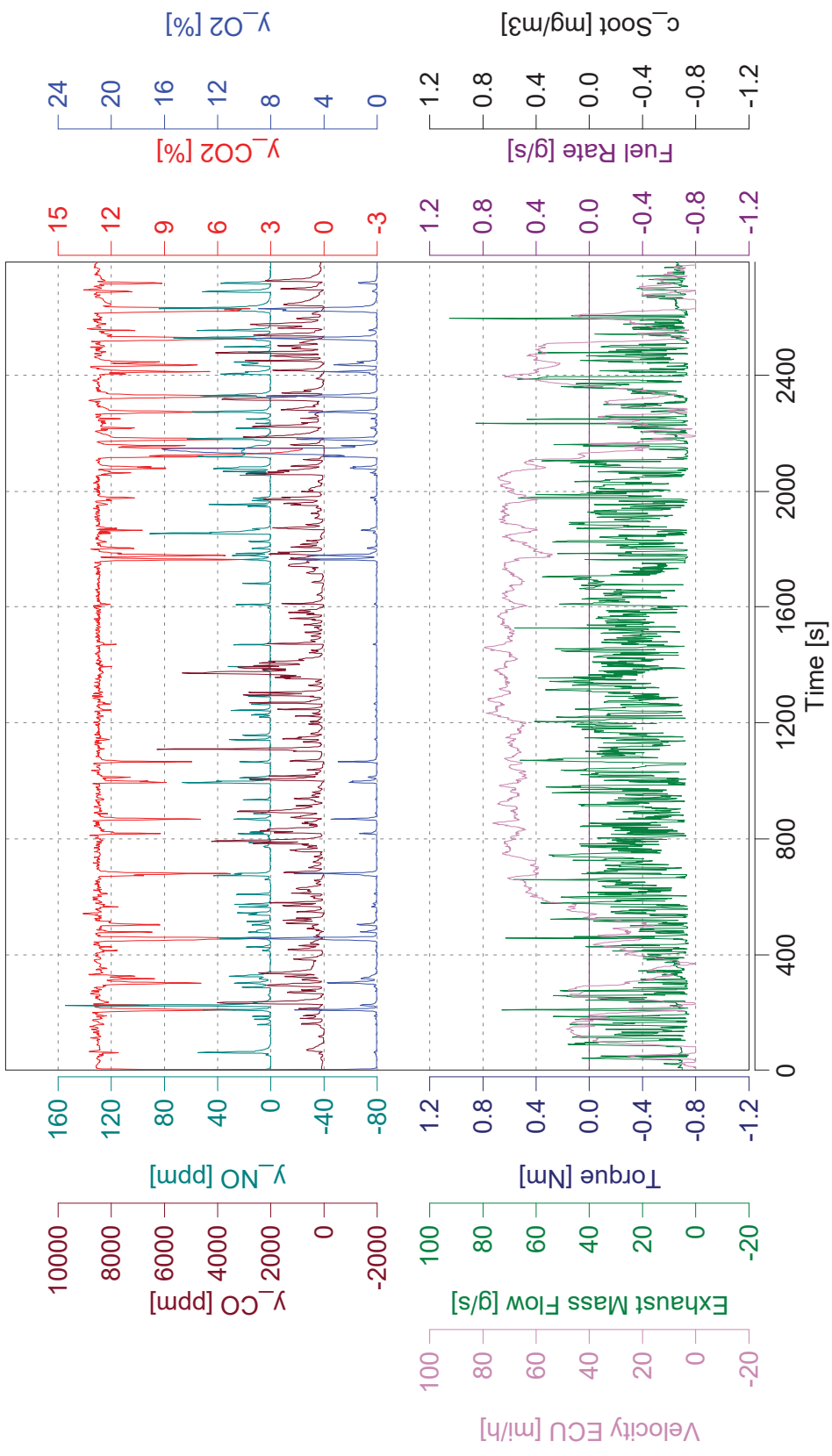
'Highway'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E. 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Passat / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment of Gas Concentrations

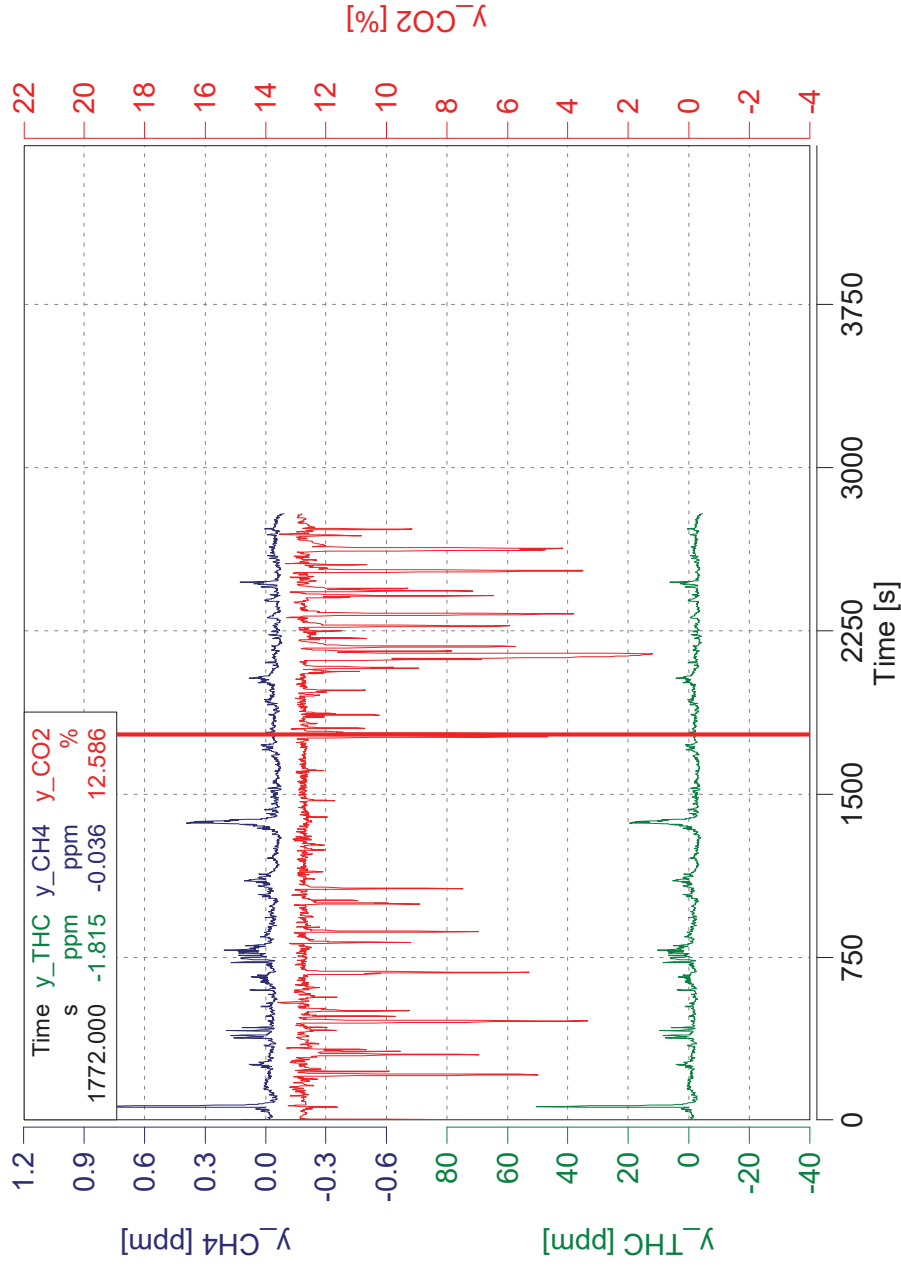
'Highway'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Ambient Conditions

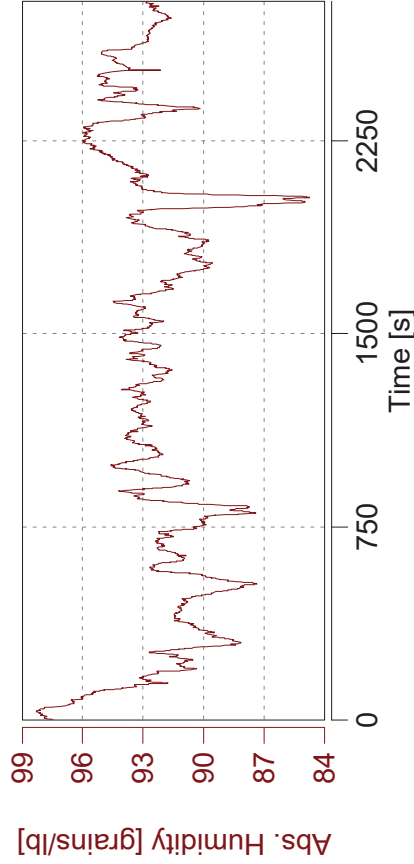
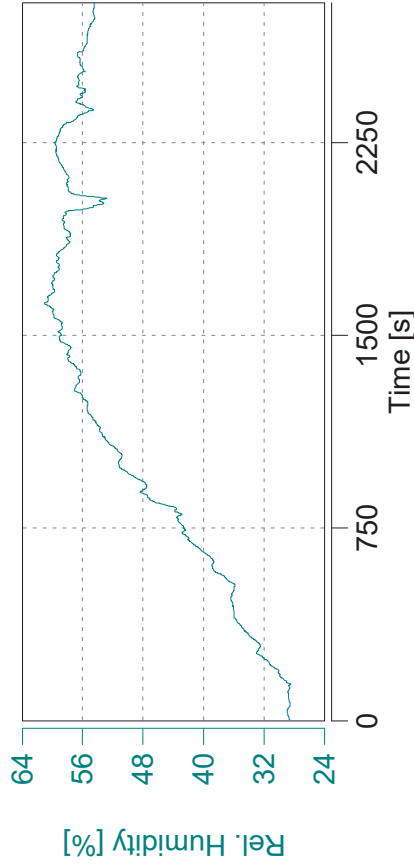
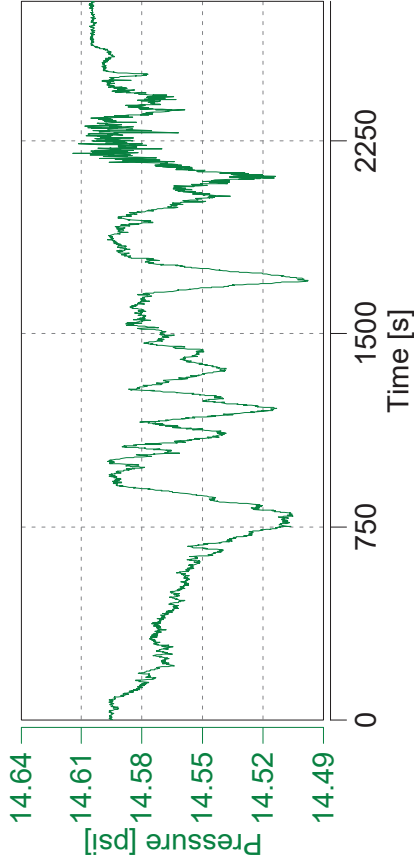
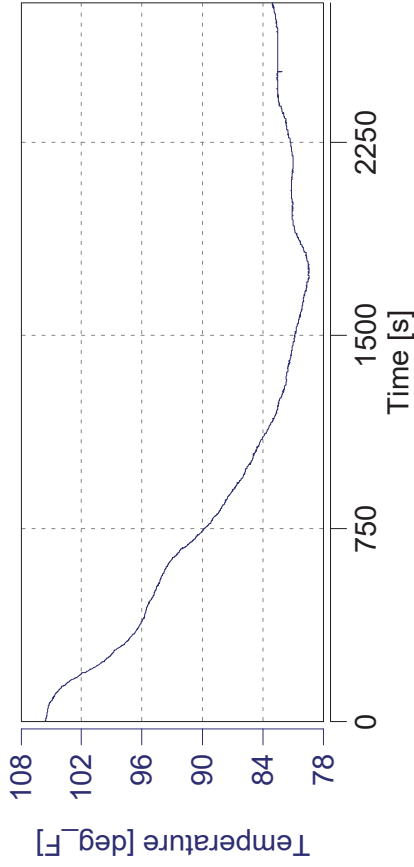
'Highway'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: GPS

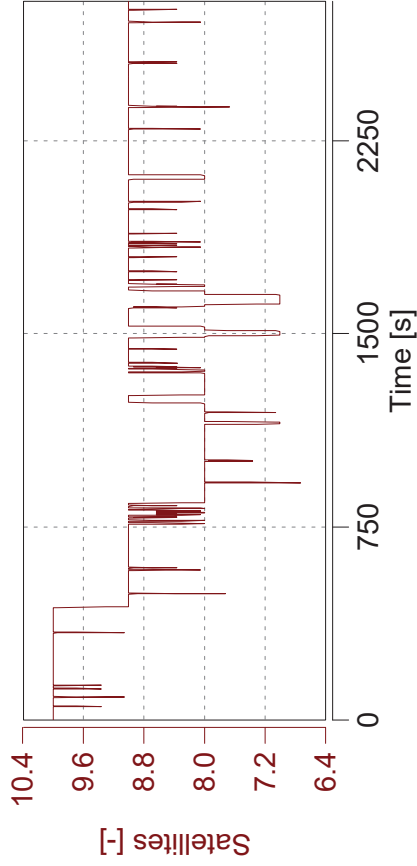
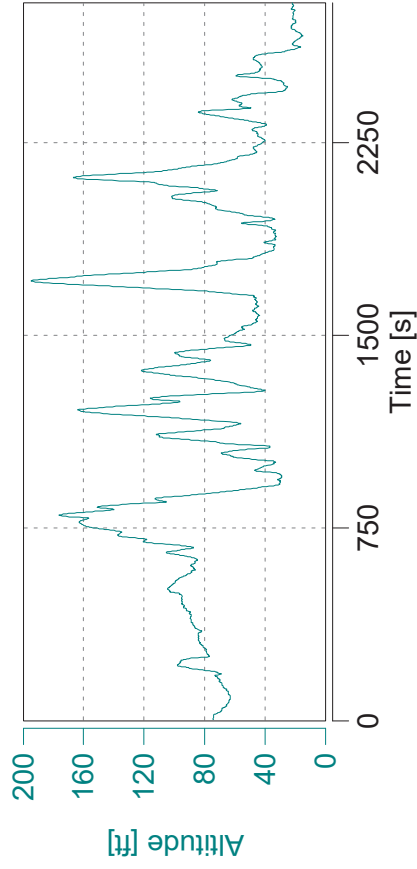
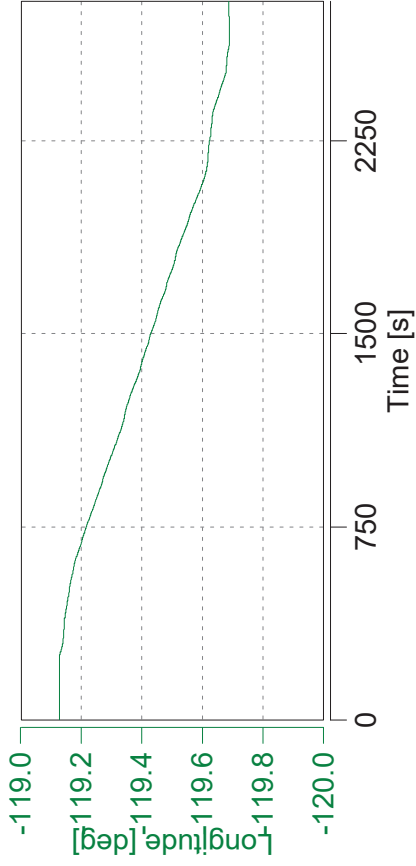
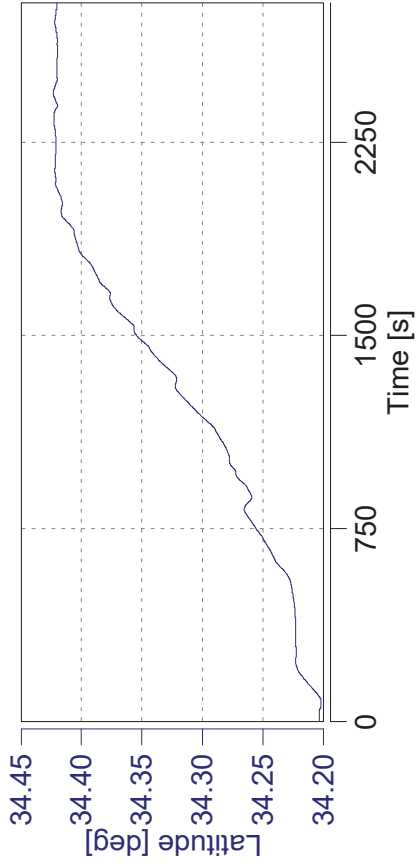
'Highway'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (1)

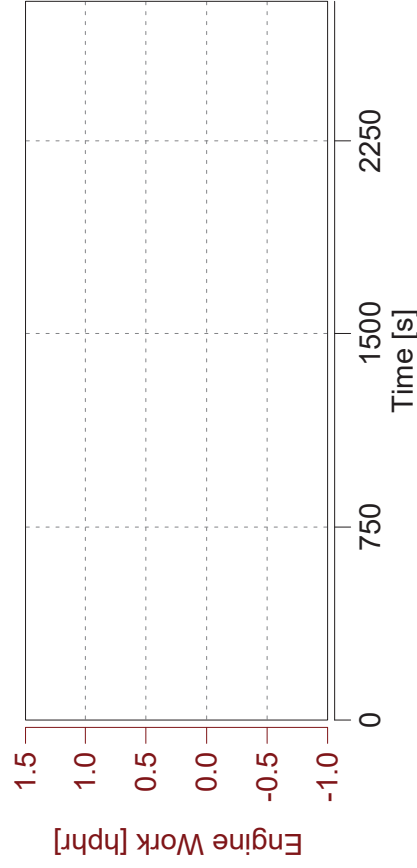
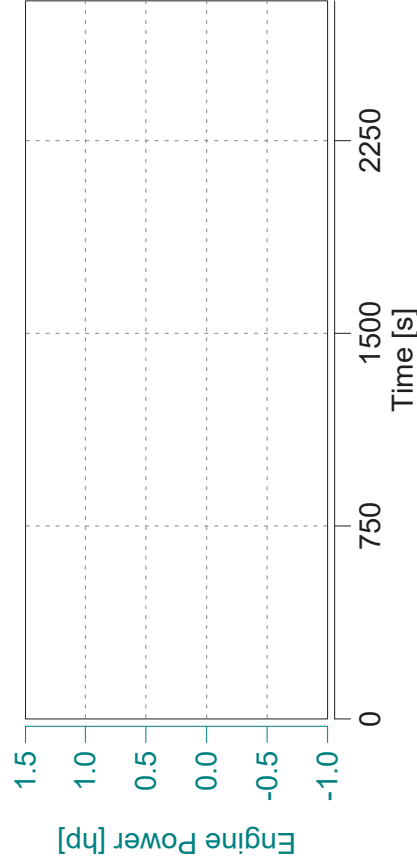
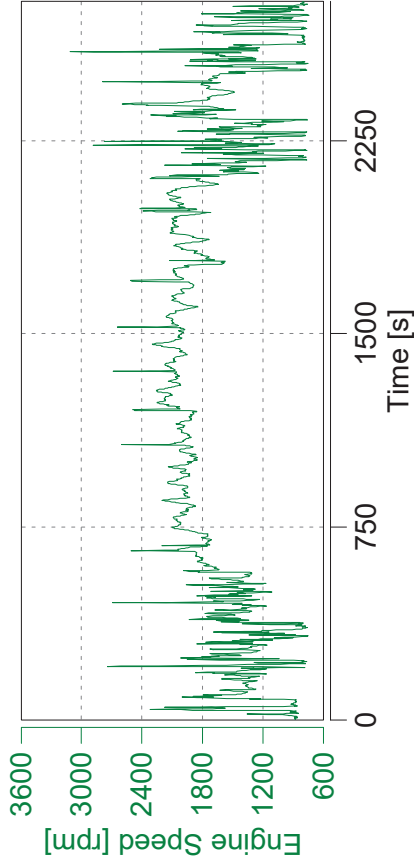
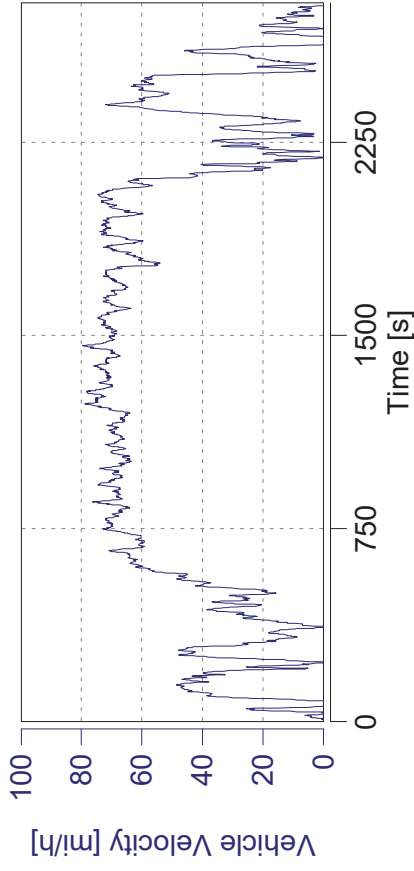
'Highway'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Vehicle: Passat / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI Engine: /
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (2)

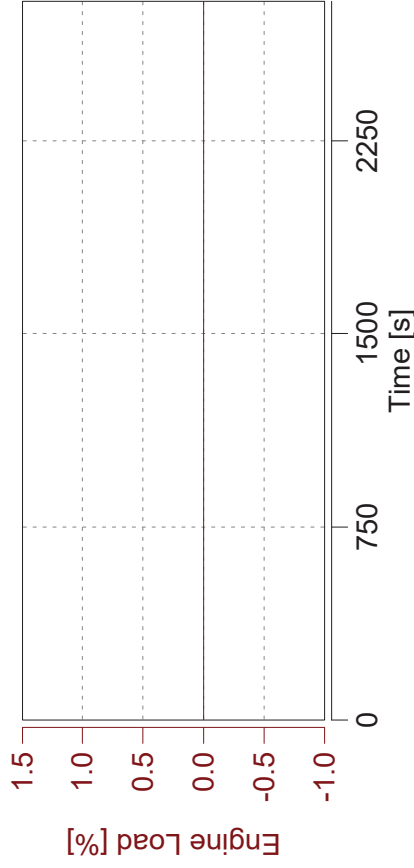
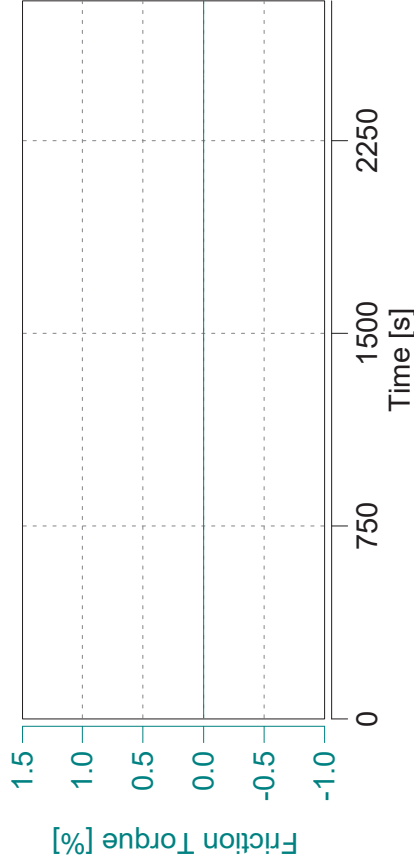
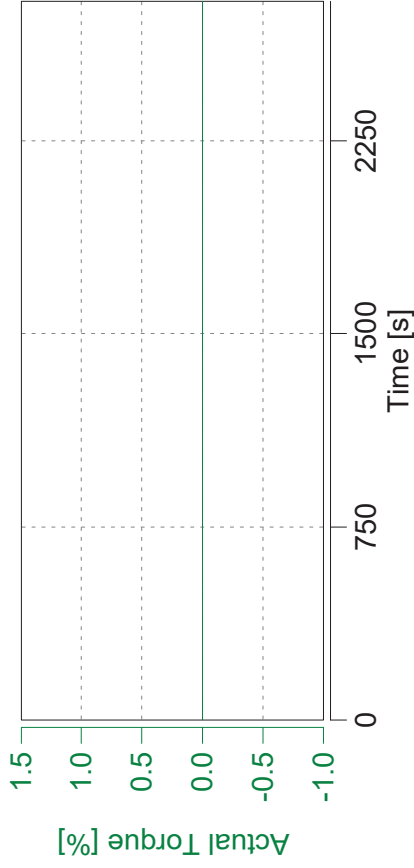
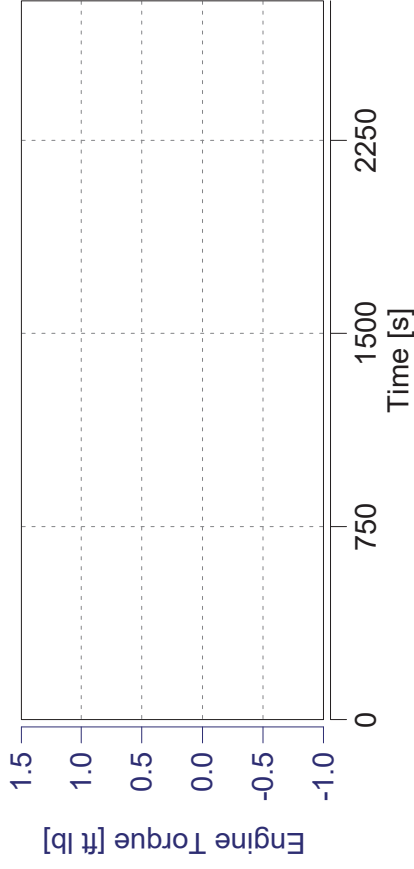
'Highway'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (3)

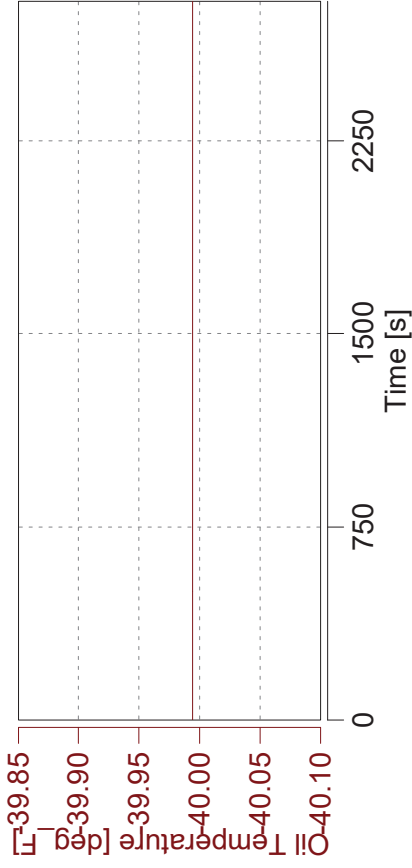
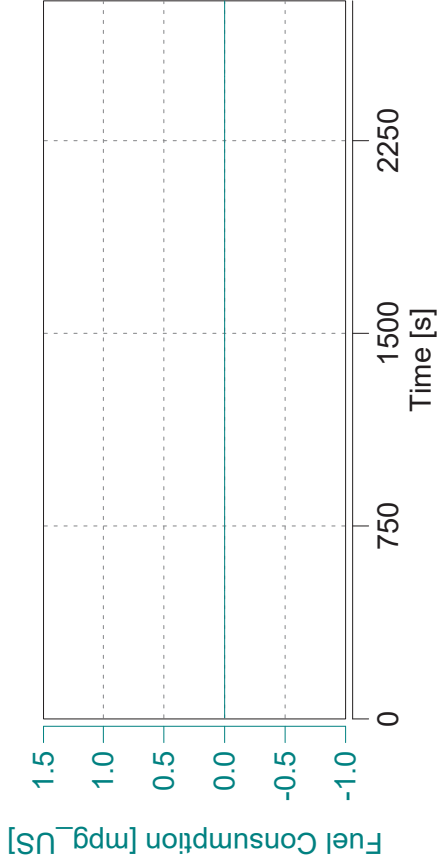
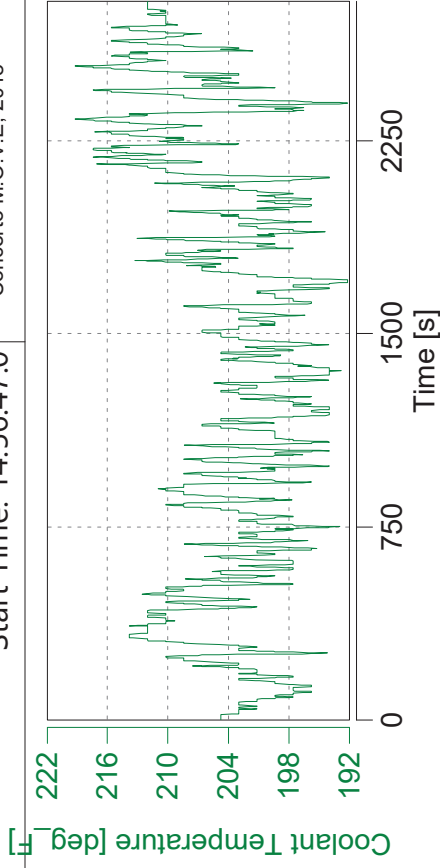
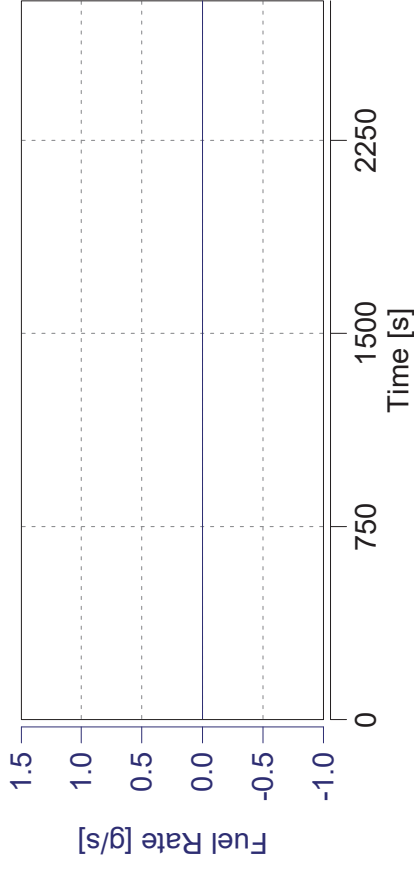
'Highway'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



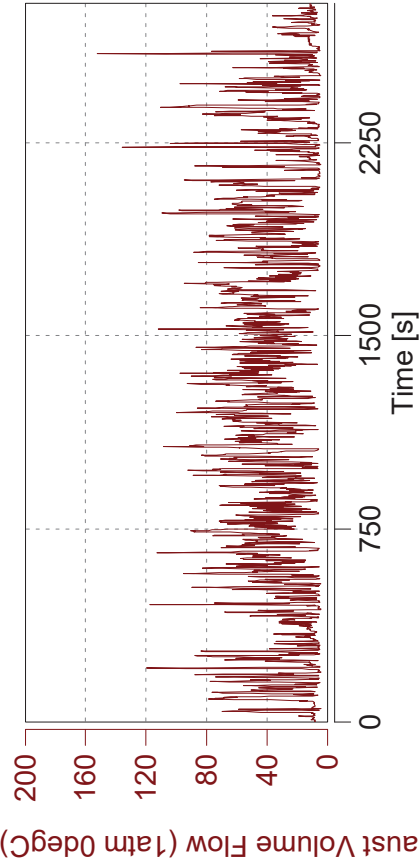
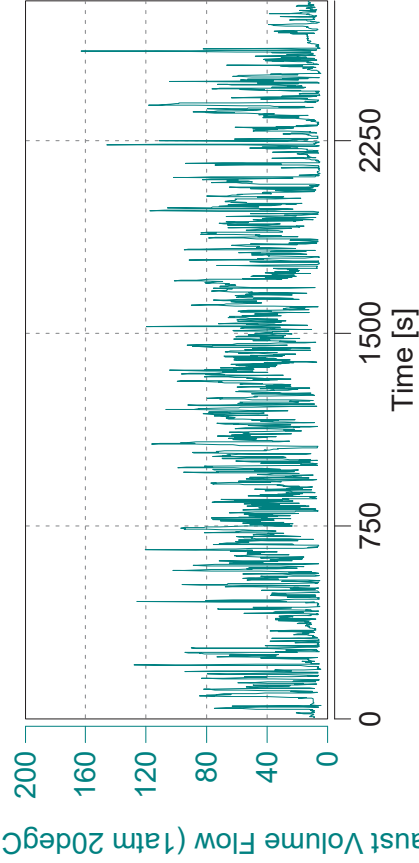
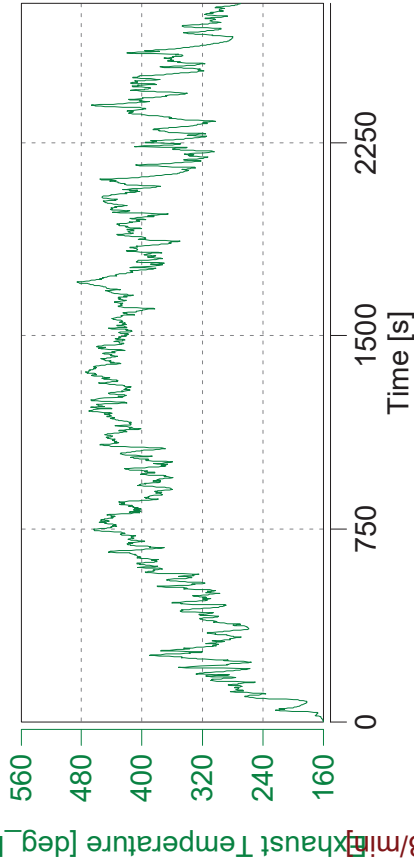
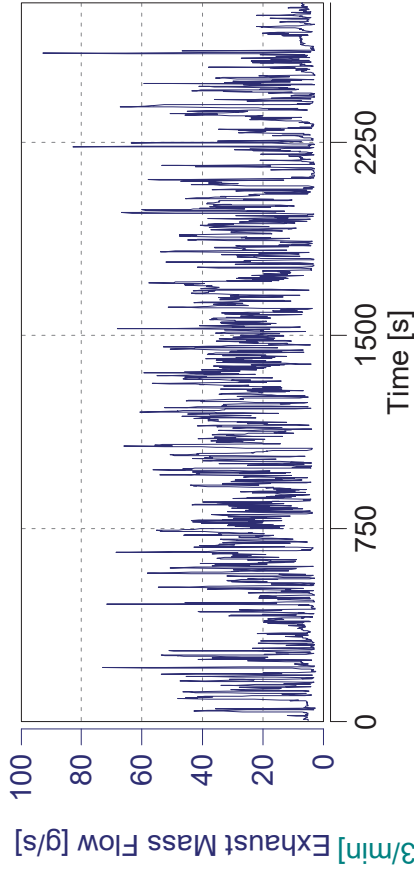
Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

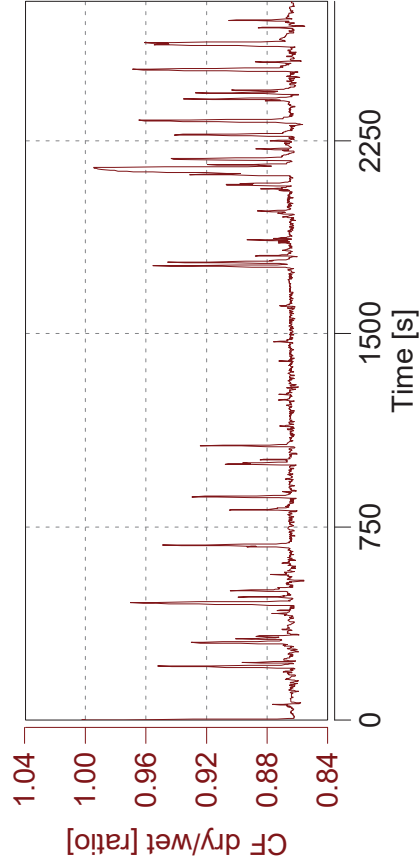
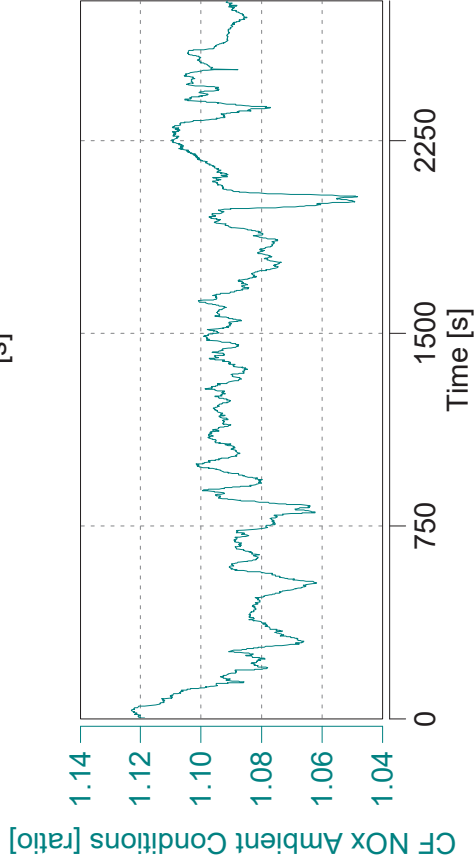
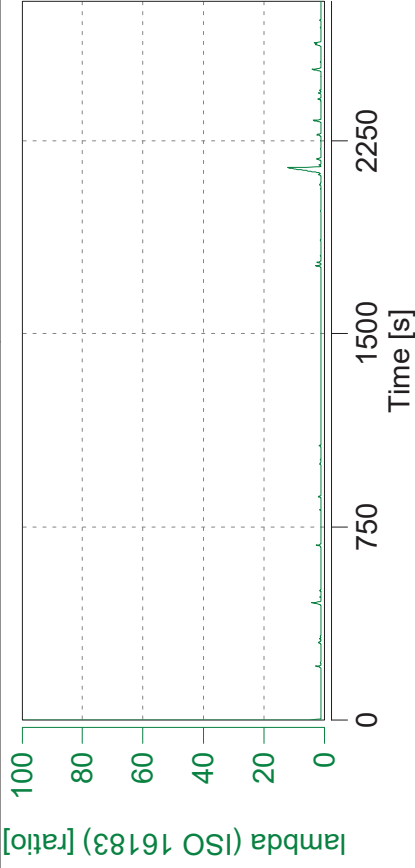
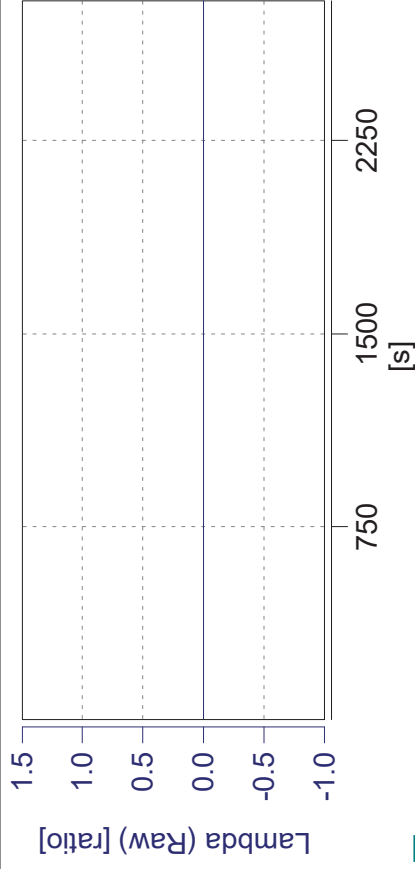
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90



Case: Highway
Page: Exhaust Flow (2)

'Highway'
Start Date: 08/07/2018
Start Time: 14:56:47.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (1)

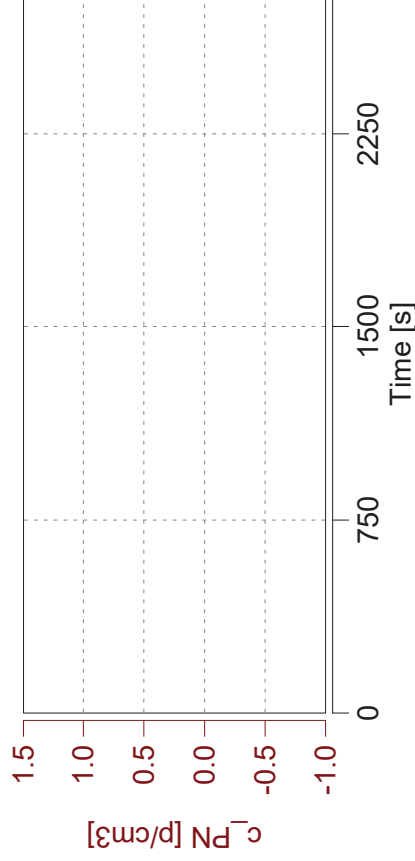
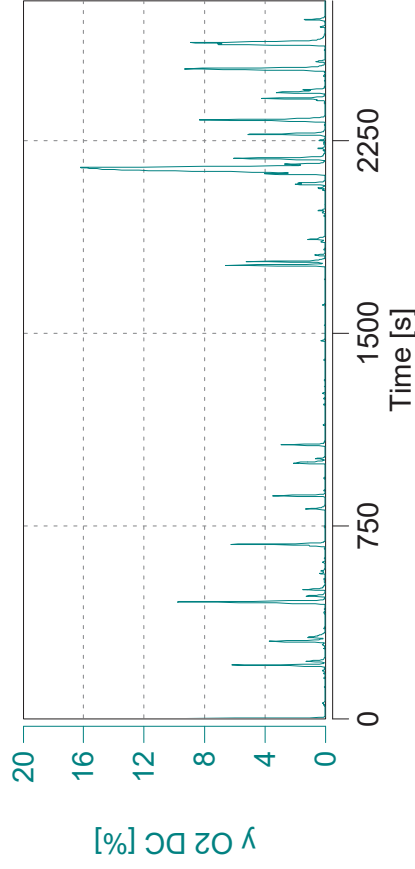
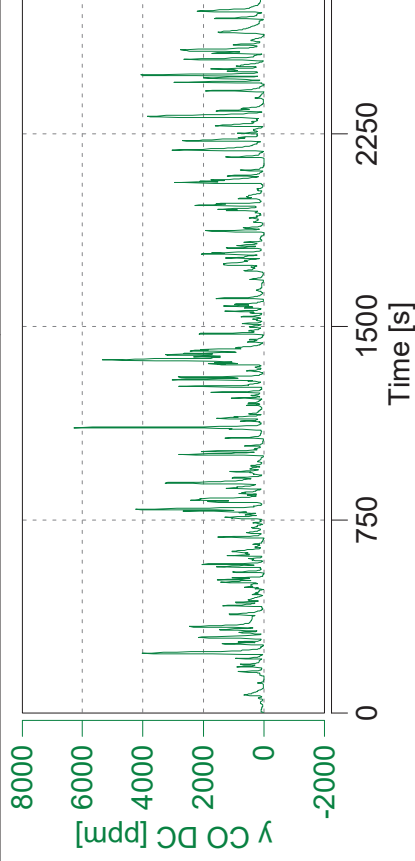
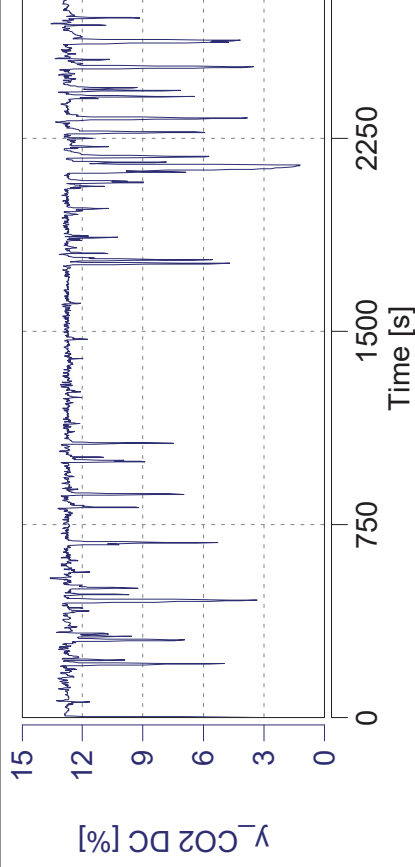
'Highway'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (2)

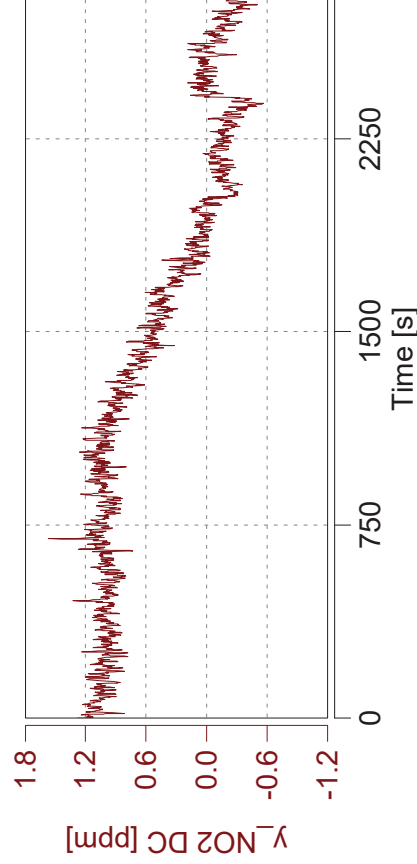
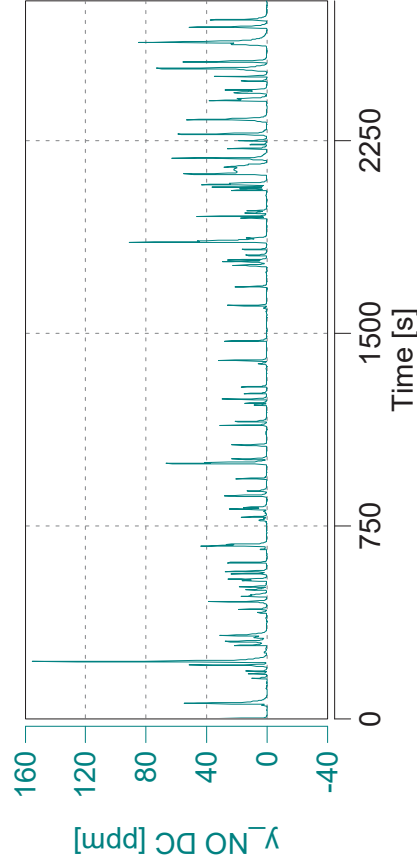
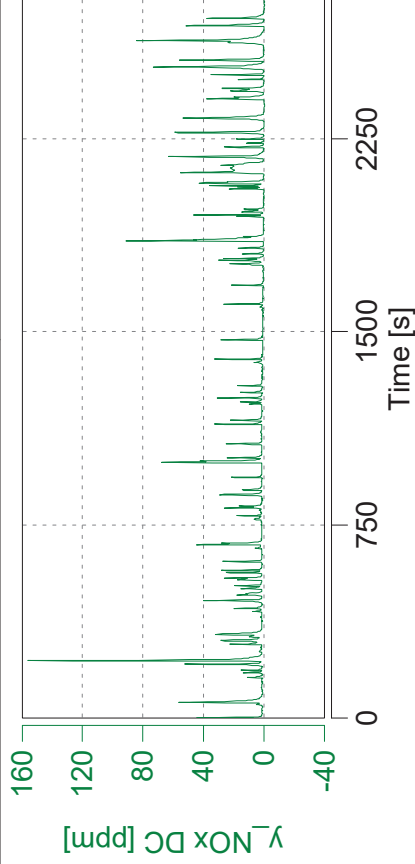
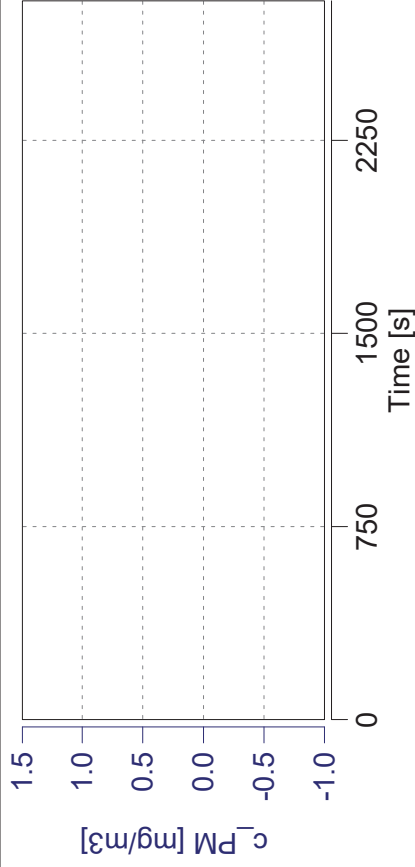
'Highway'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Vehicle: Passat / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI Engine: /
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (3)

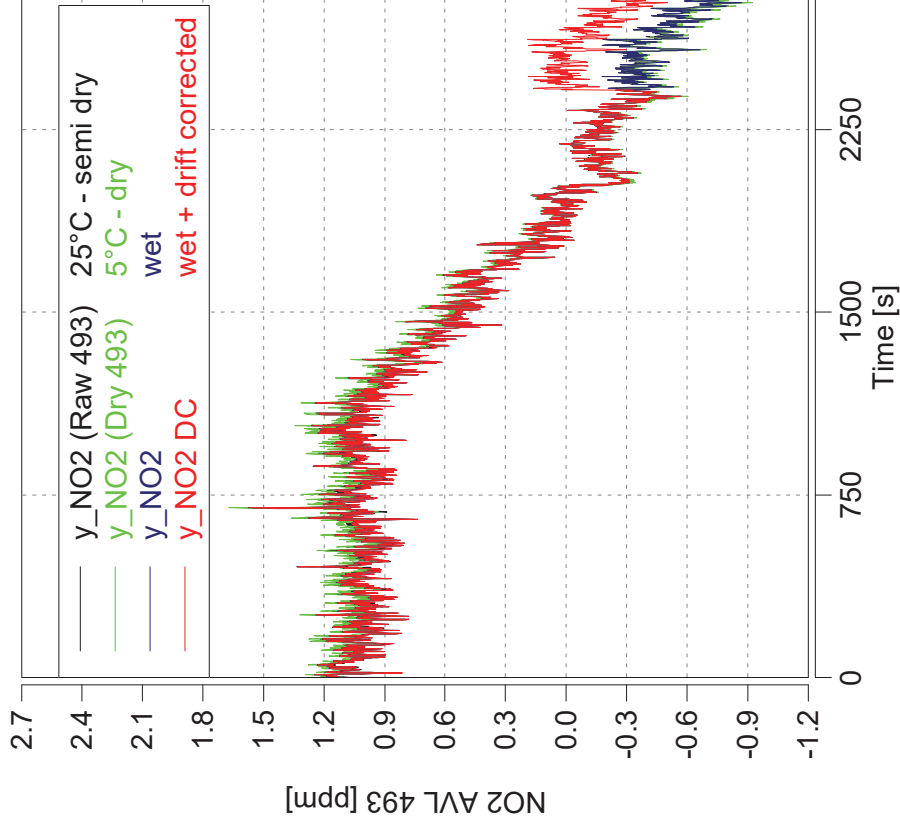
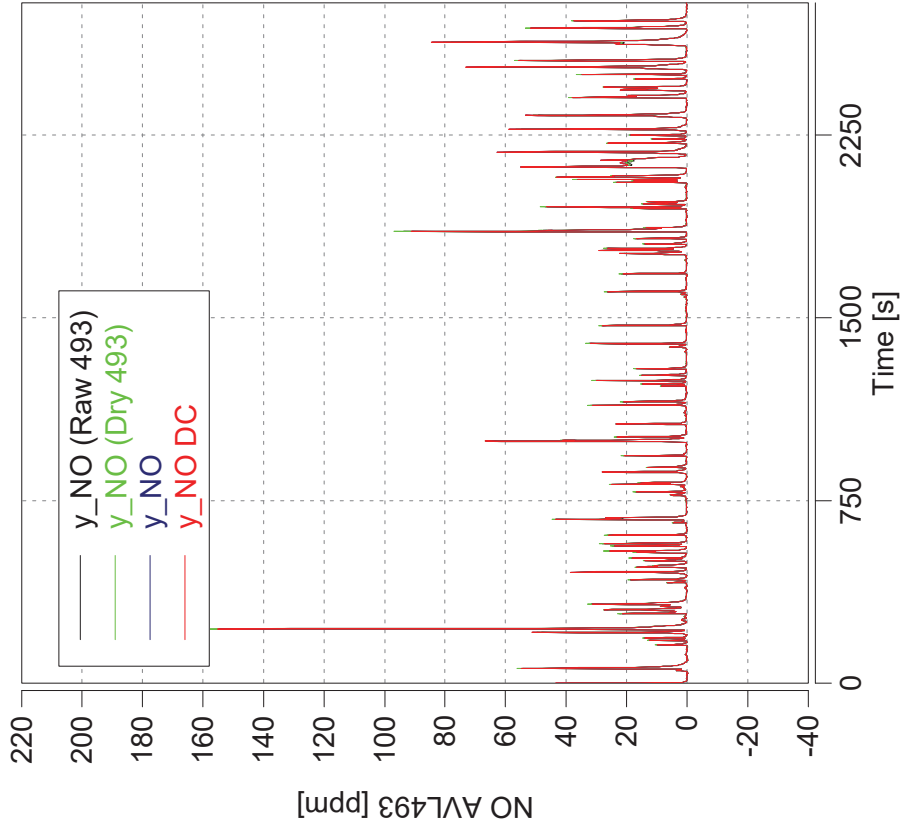
'Highway'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Passat / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (4) NOx Corrections

'Highway'

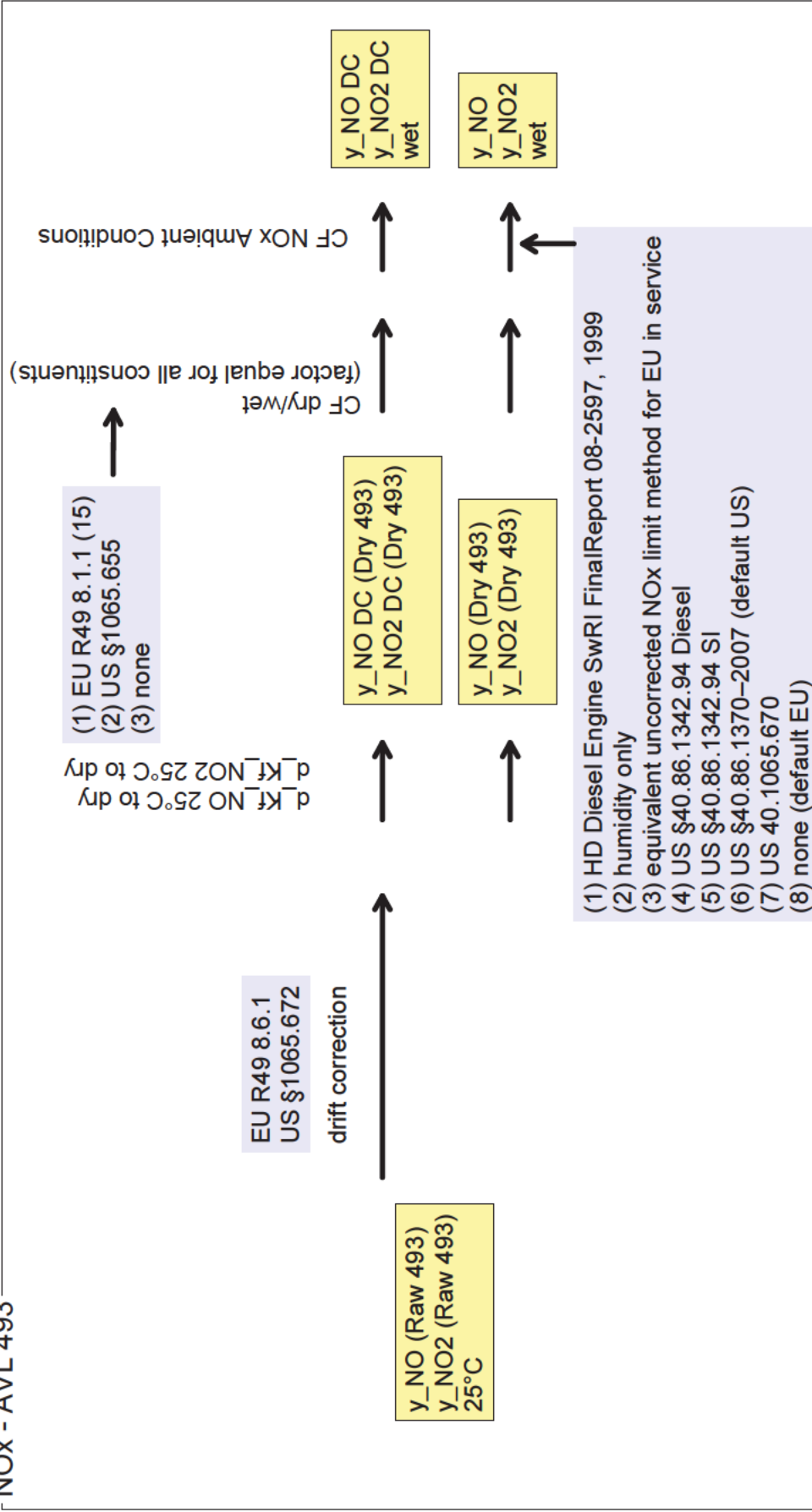
Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Passat / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (5)

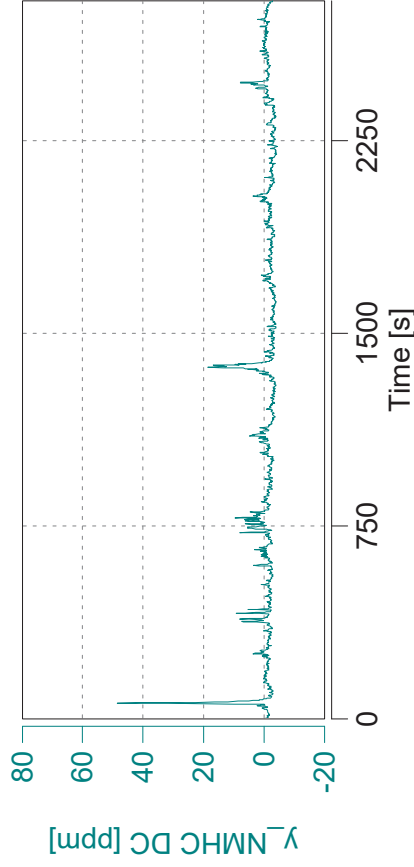
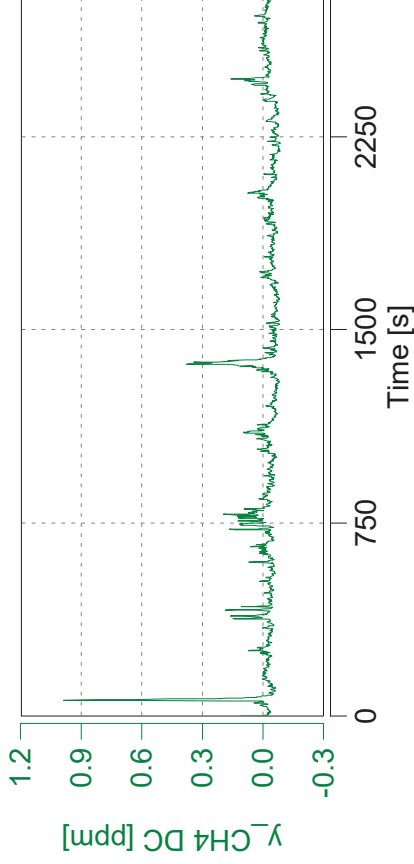
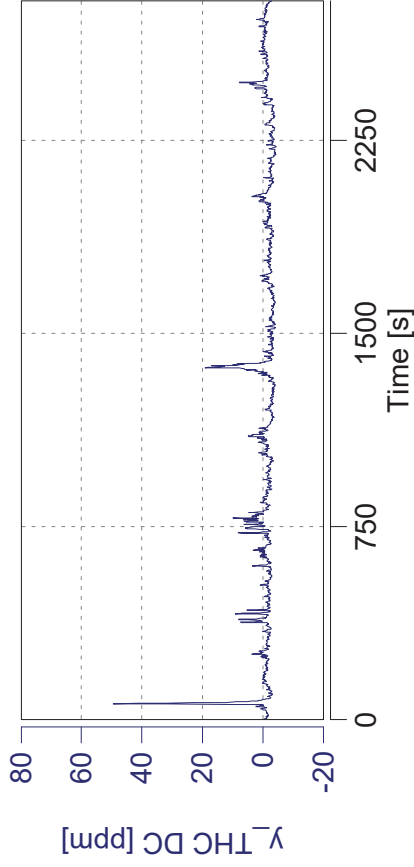
'Highway'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_0
Vehicle: Passat / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: NO/NO2/NOx Zero - Span

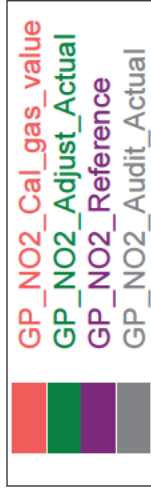
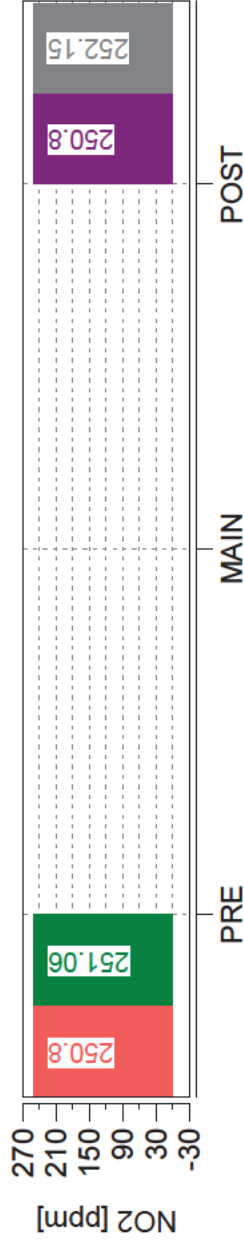
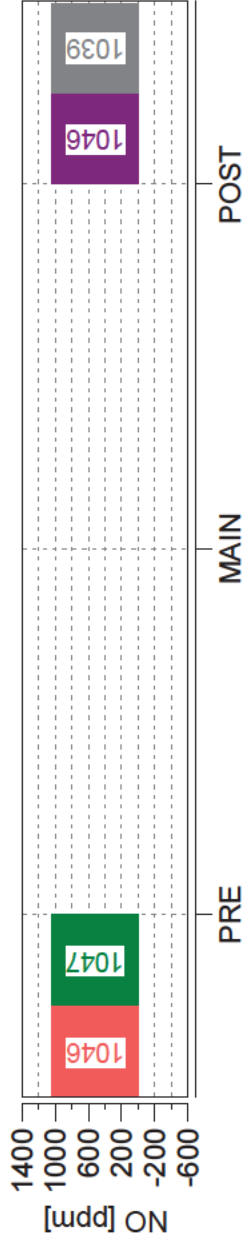
'Highway'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: CO/CO2 Zero - Span

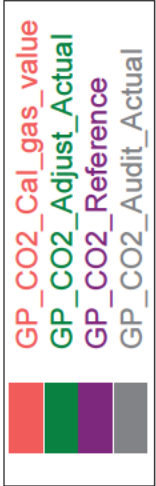
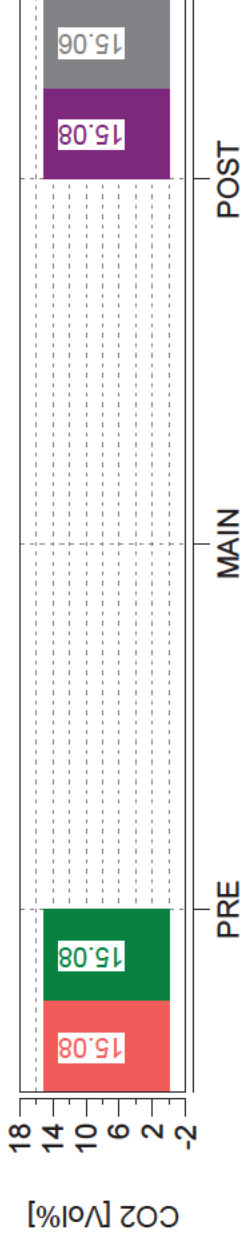
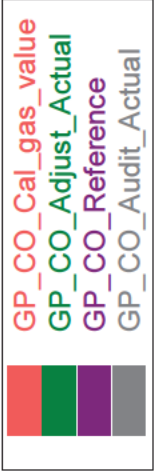
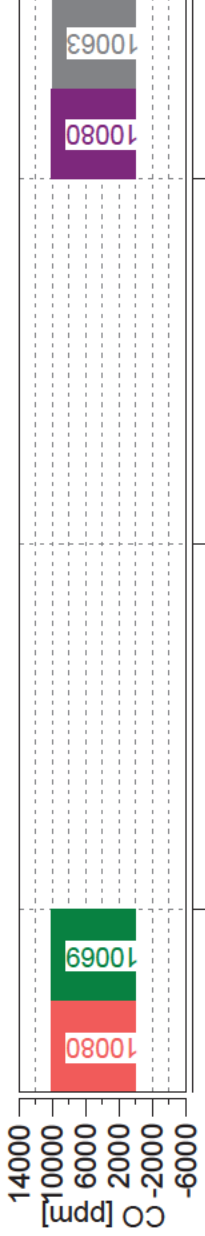
'Highway'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: THC/CH4 Zero - Span

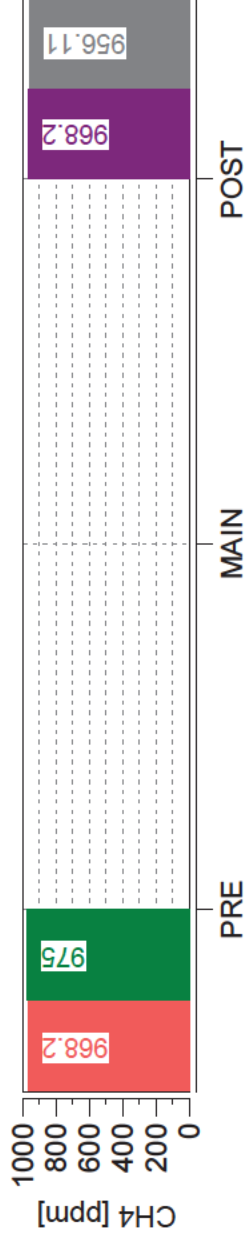
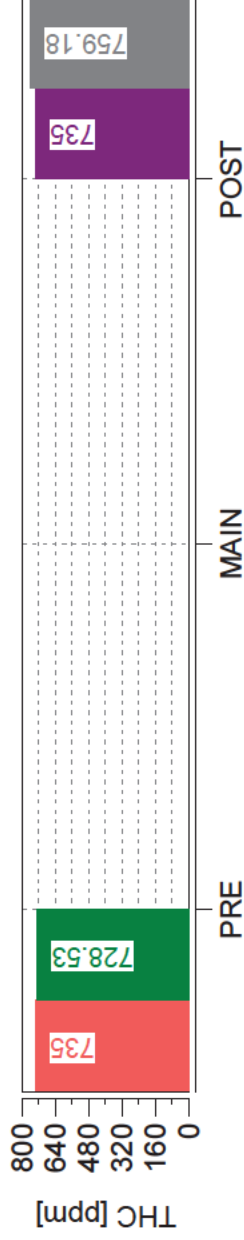
'Highway'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary

'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E. 2018

Trip Duration	3262.00	s	ave THC	2.03699	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3262.00	s	ave NMHC	1.99626	ppm	BS CO	n/a	g/hphr
Trip Distance	28.46	mi	ave CH4	0.04074	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	28.46	mi	ave CO	488.28967	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	10.82167	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	4.65878	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.31	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.27	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.17	gall	tot THC	0.09012	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.16	gall	tot NMHC	0.08337	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00200	g	DS CO2	347.83866	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	26.59690	g	DS CO	0.93452	g/mi
Trip Fuel Economy EU (ac)	24.36	mpg_US	tot CO2	9899.66832	g	DS THC	0.00317	g/mi
Trip Fuel Economy US (ac)	24.64	mpg_US	tot NO (d)	0.40544	g	DS NMHC	0.00293	g/mi
Trip Av. Eng. Speed	1628.56	rpm	tot NO2	-0.07690	g	DS CH4	0.00007	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.32854	g	DS NO (d)	0.01425	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	-0.00270	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.01154	g/mi
Trip Exhaust Mass	55.26	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	86.34	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	42.69	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	31.40952	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	11.40405	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary Drift Corrected

'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018

Trip Duration	3262.00	s	ave THC DC	1.64508	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3262.00	s	ave NMHC DC	1.61218	ppm	BS CO DC	n/a	g/hphr
Trip Distance	28.46	mi	ave CH4 DC	0.03290	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	28.46	mi	ave CO DC	488.96636	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	10.82885	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	4.67539	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.31	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.27	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.17	gall	tot THC DC	0.07893	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.16	gall	tot NMHC DC	0.07301	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00175	g	DS CO2 DC	348.06947	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	26.63376	g	DS CO DC	0.93581	g/mi
Trip Fuel Economy EU (ac)	24.36	mpg_US	tot CO2 DC	9906.23744	g	DS THC DC	0.00277	g/mi
Trip Fuel Economy US (ac)	24.64	mpg_US	tot NO DC (d)	0.40646	g	DS NMHC DC	0.00257	g/mi
Trip Av. Eng. Speed	1628.56	rpm	tot NO2 DC	-0.07665	g	DS CH4 DC	0.00006	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.32980	g	DS NO DC (d)	0.01428	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	-0.00269	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.01159	g/mi
Trip Exhaust Mass	55.26	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	86.34	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	42.69	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	31.40952	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	11.40405	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment Check

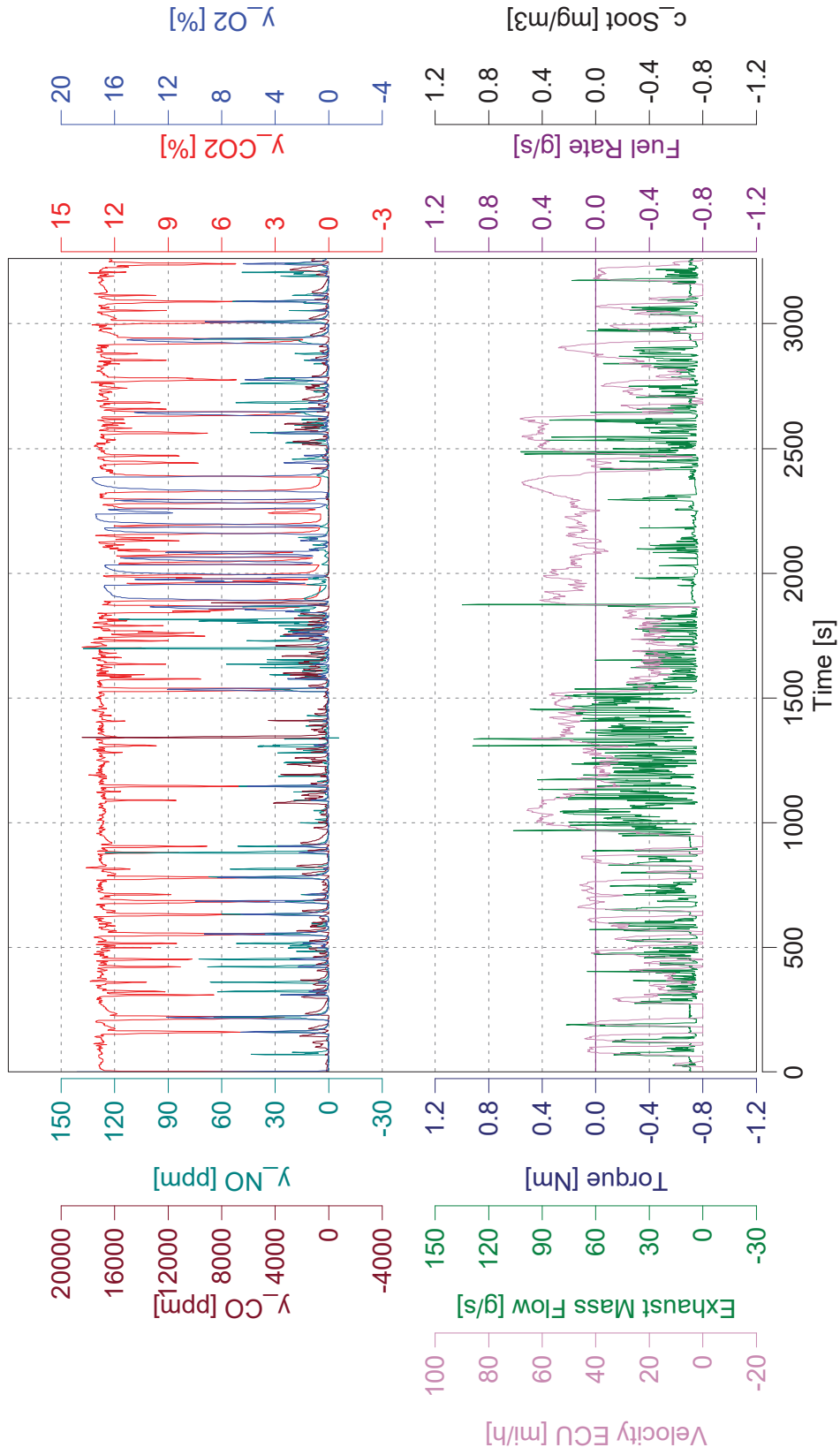
'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment of Gas Concentrations

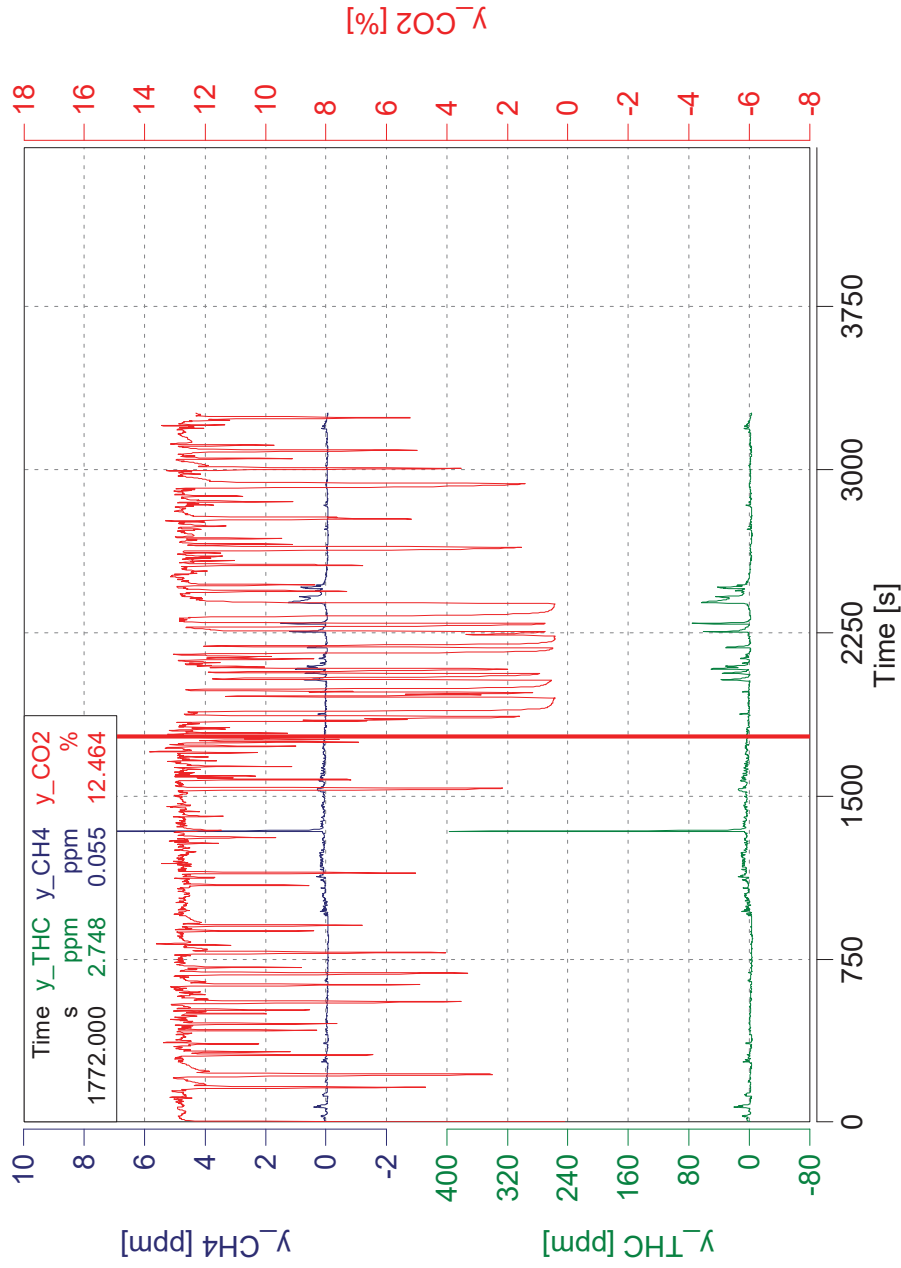
'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Ambient Conditions

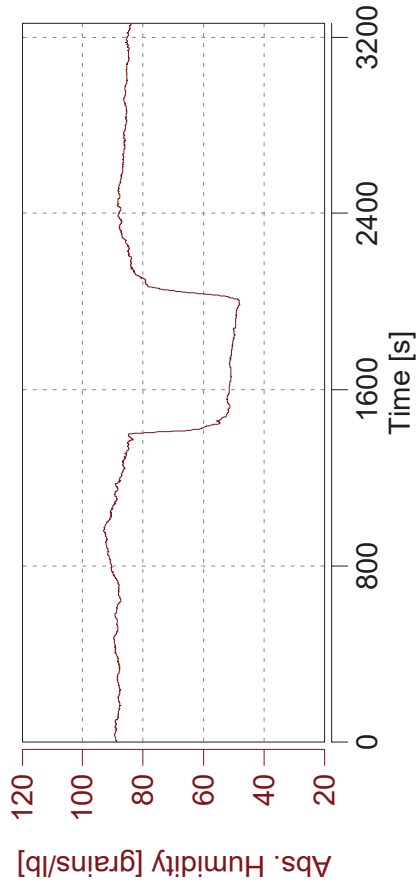
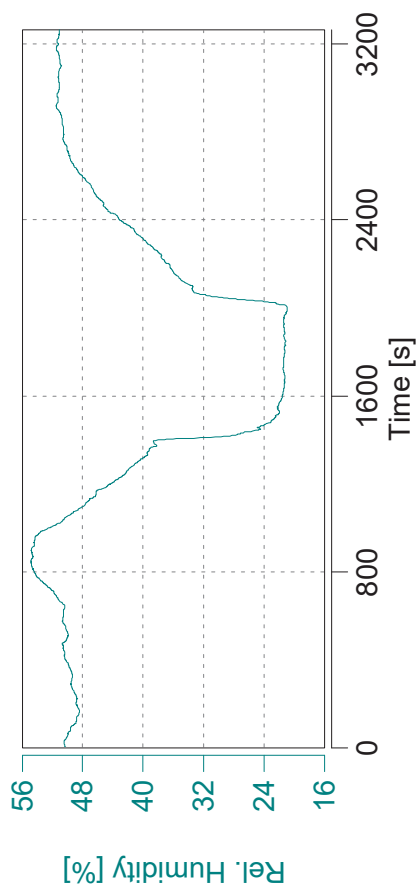
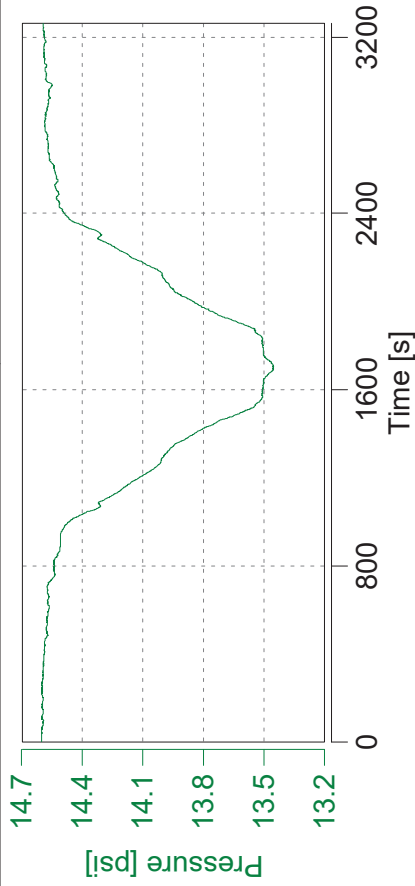
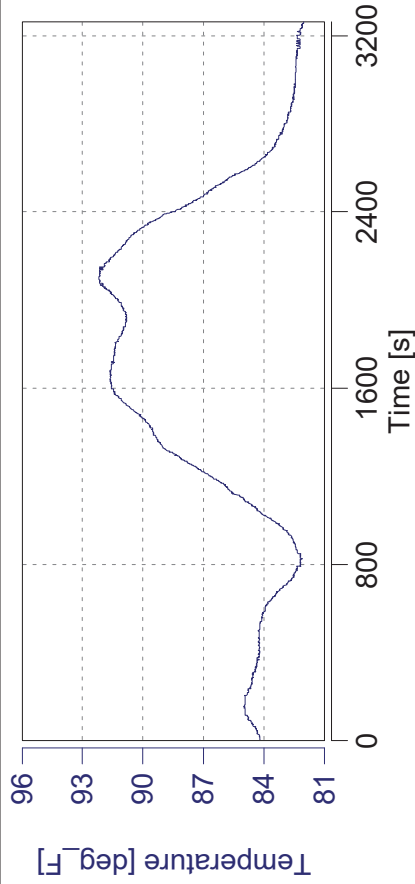
'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: GPS

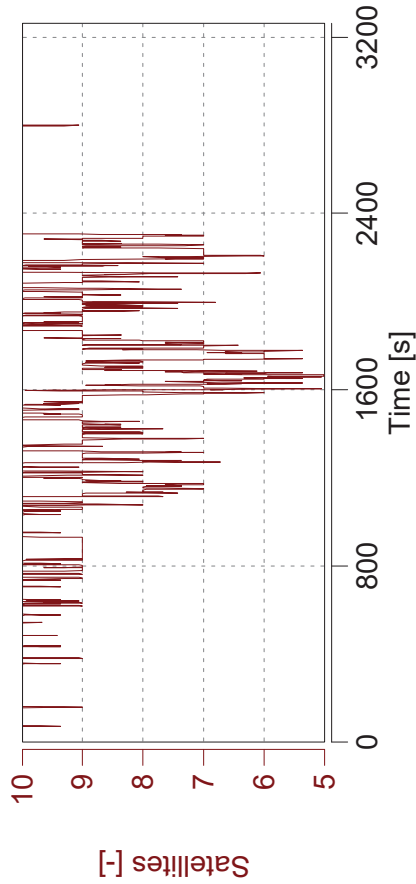
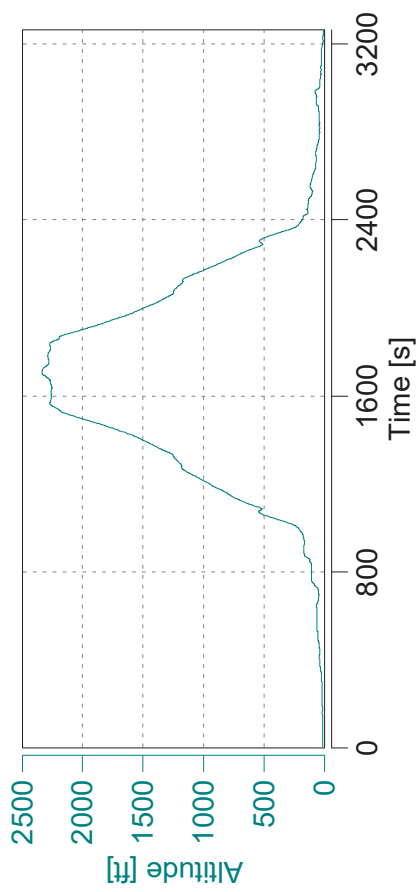
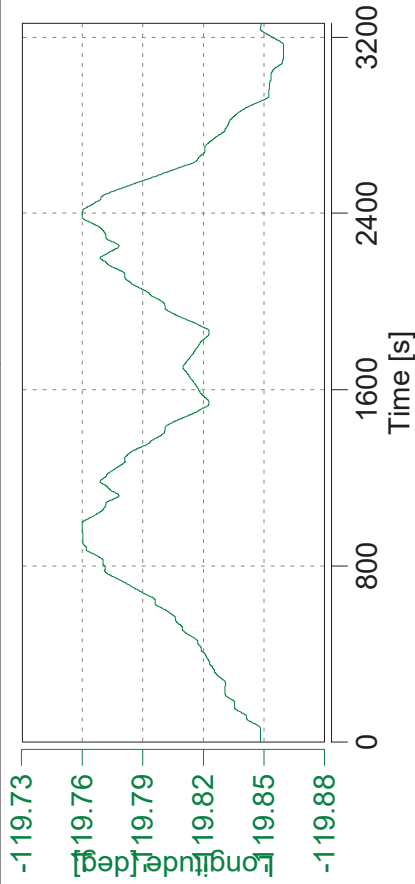
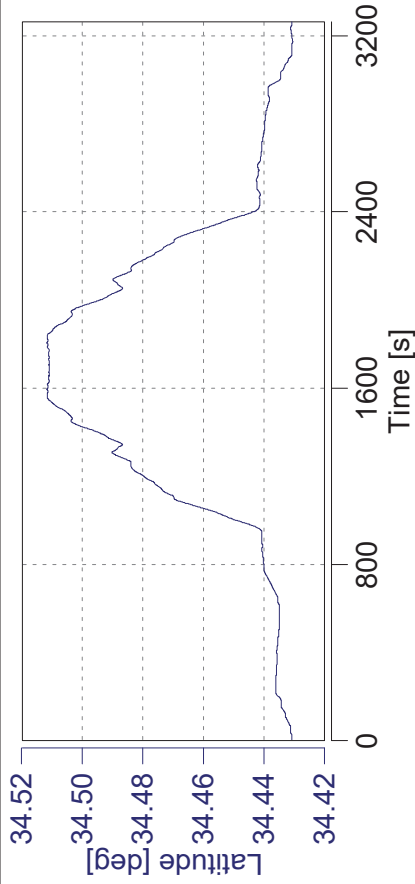
'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (1)

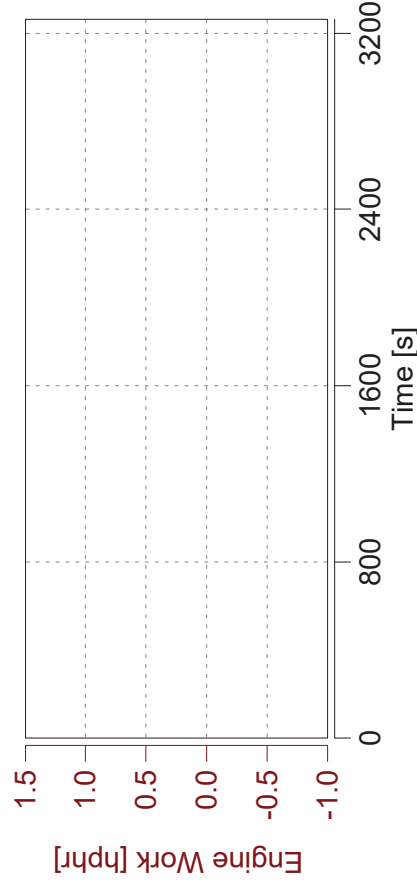
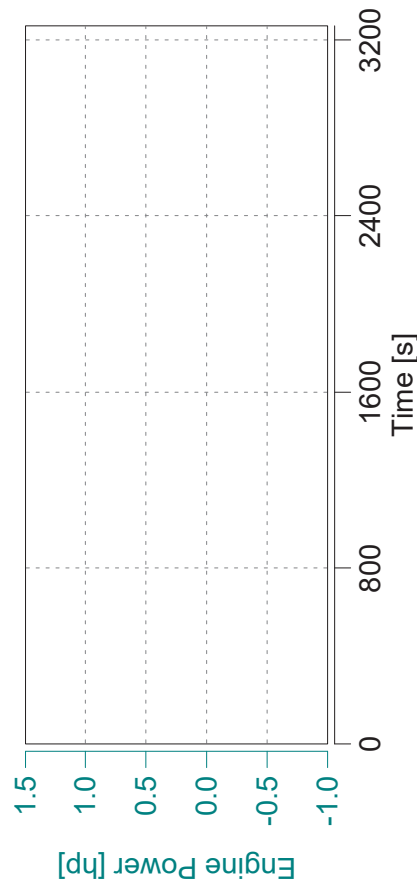
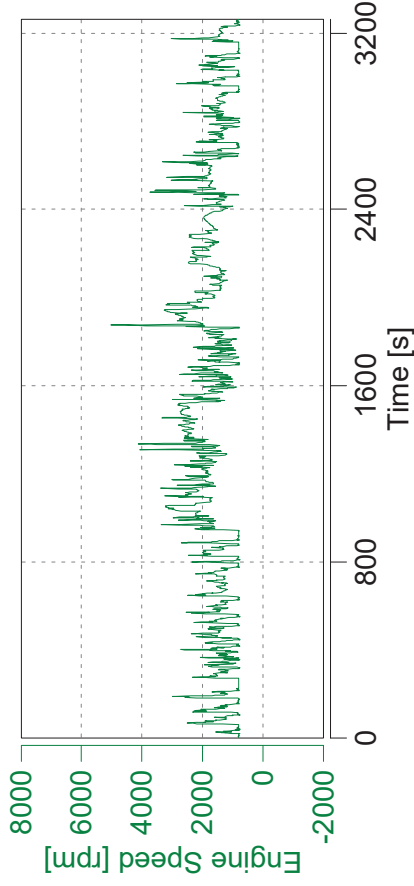
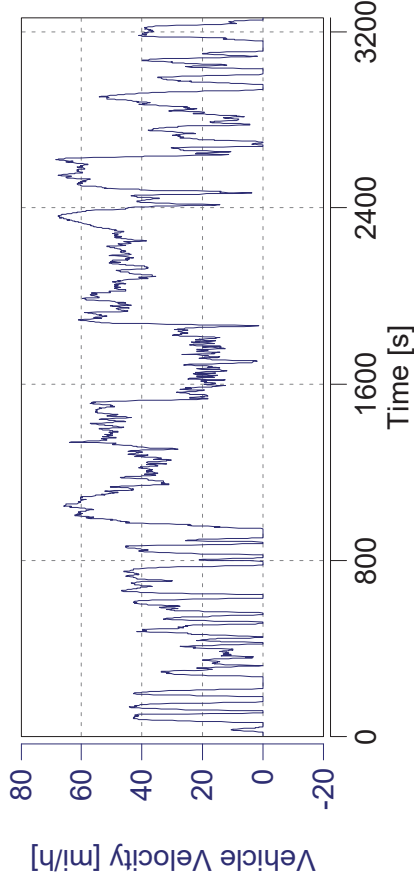
'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (2)

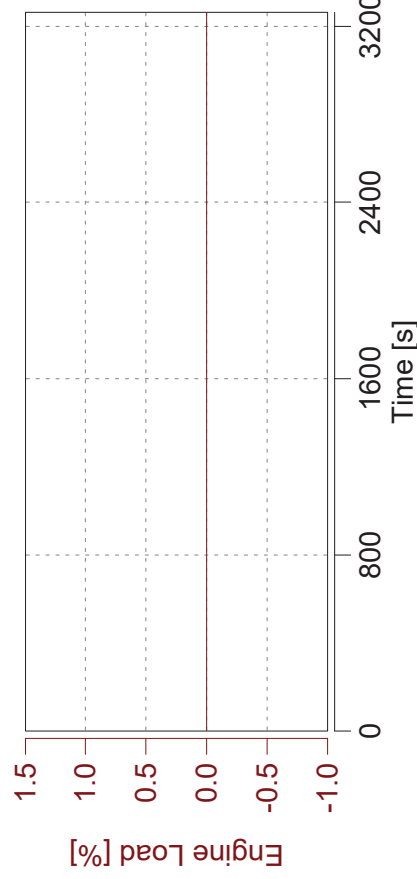
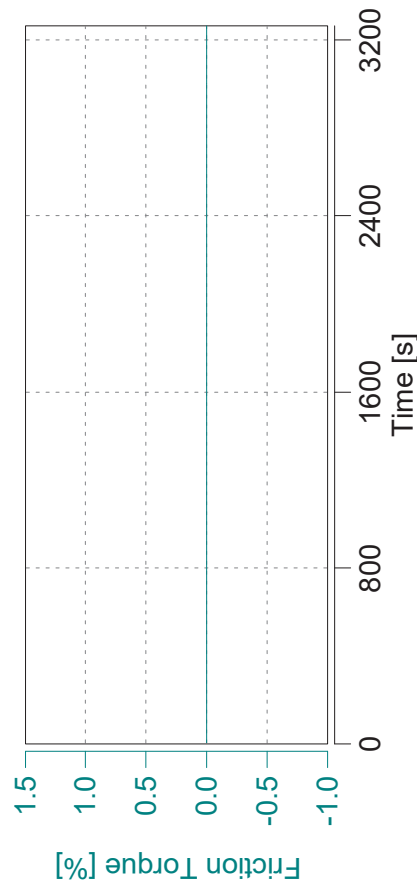
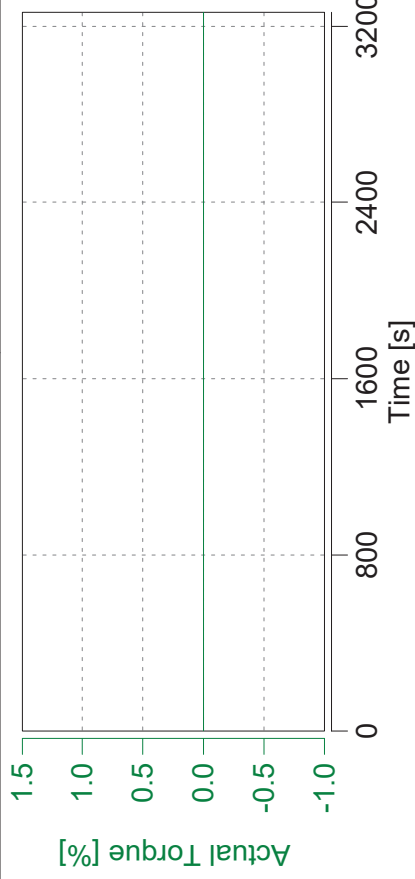
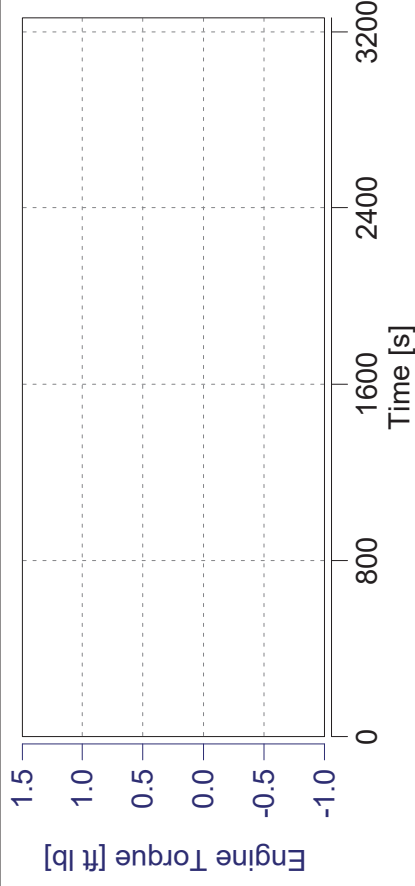
'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (3)

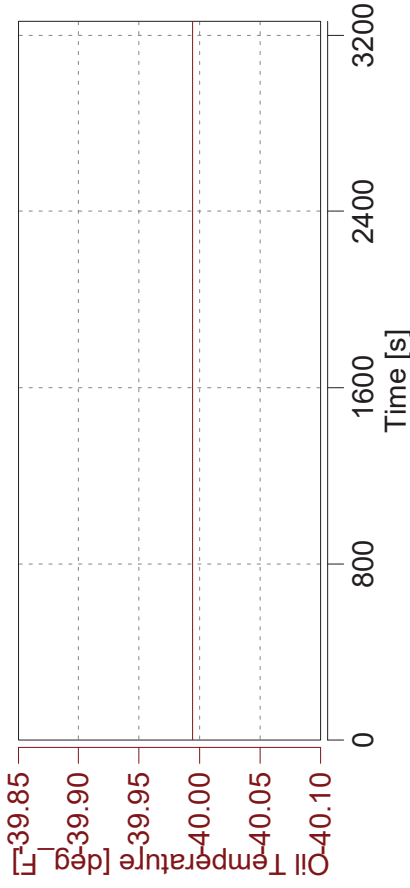
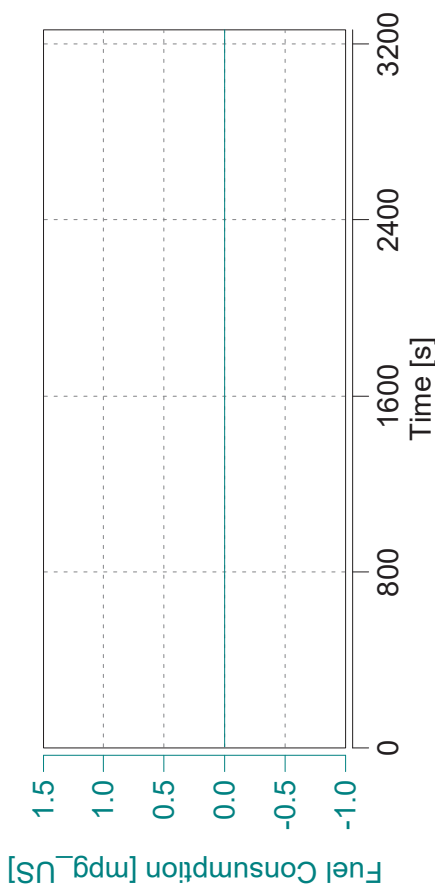
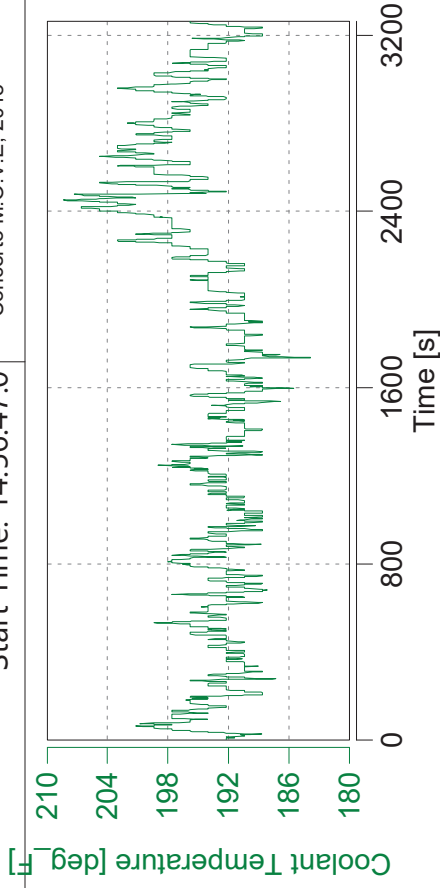
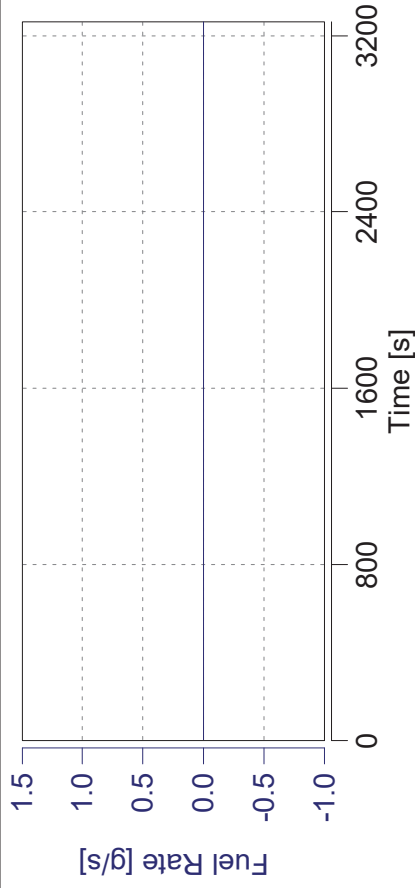
'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Exhaust Flow (1)

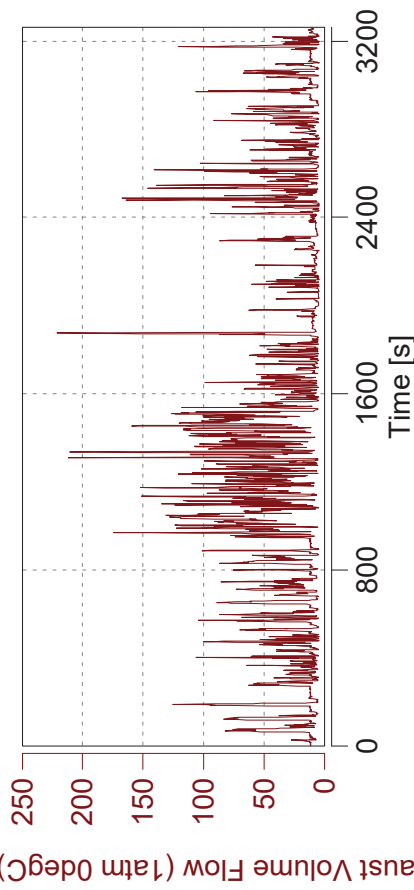
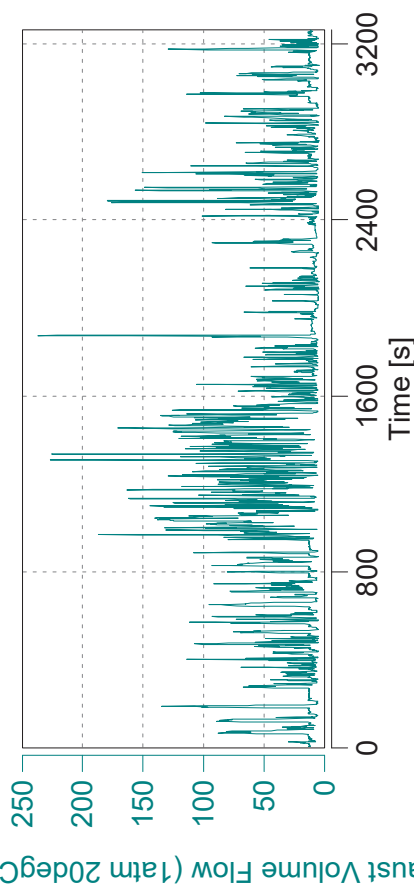
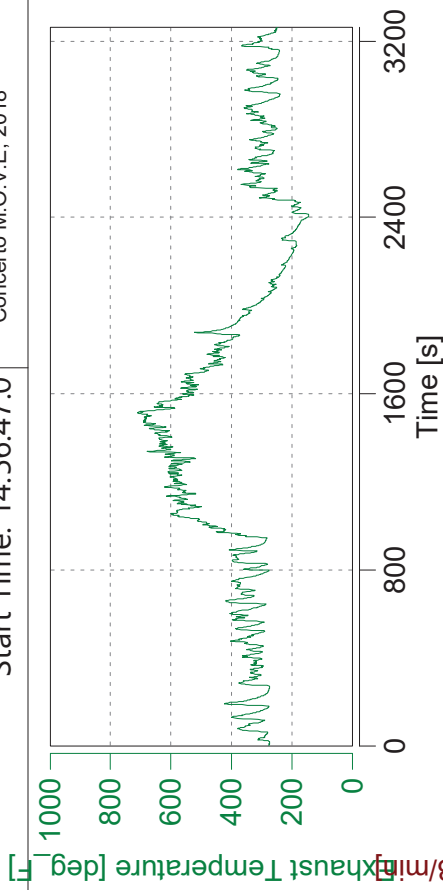
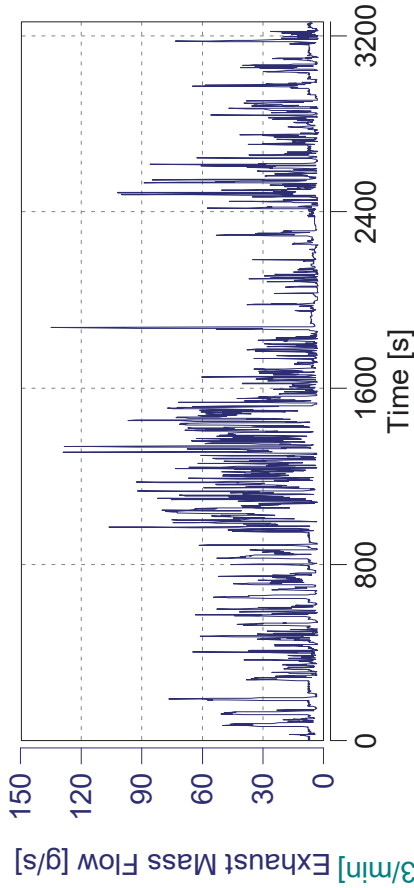
'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Exhaust Flow (2)

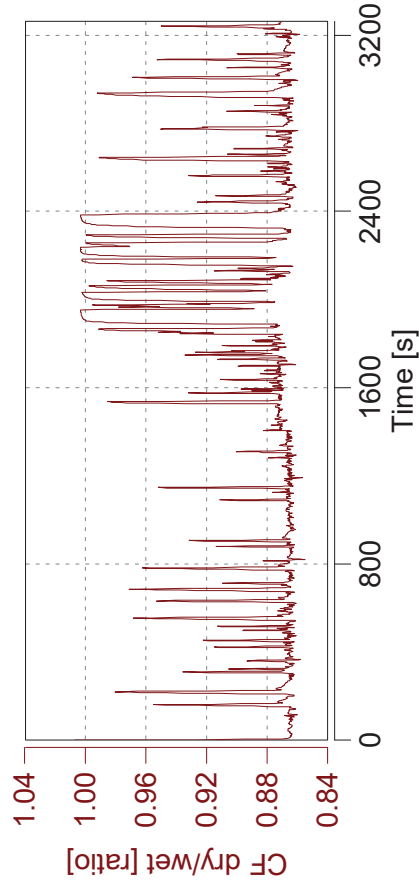
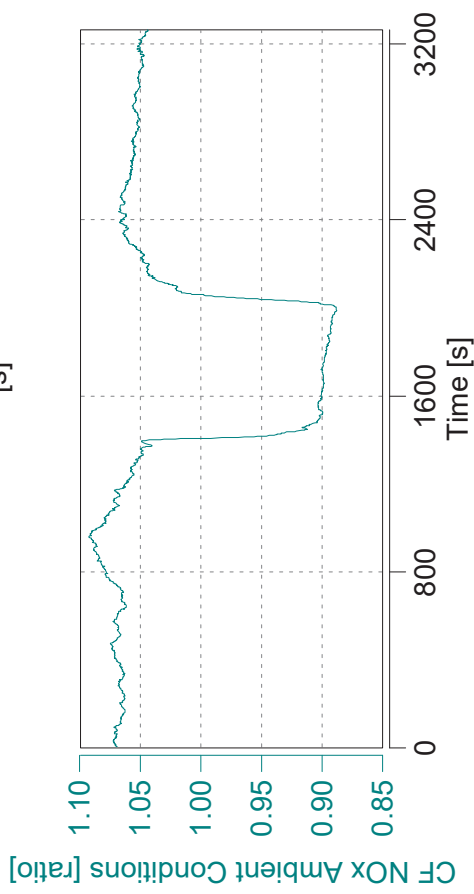
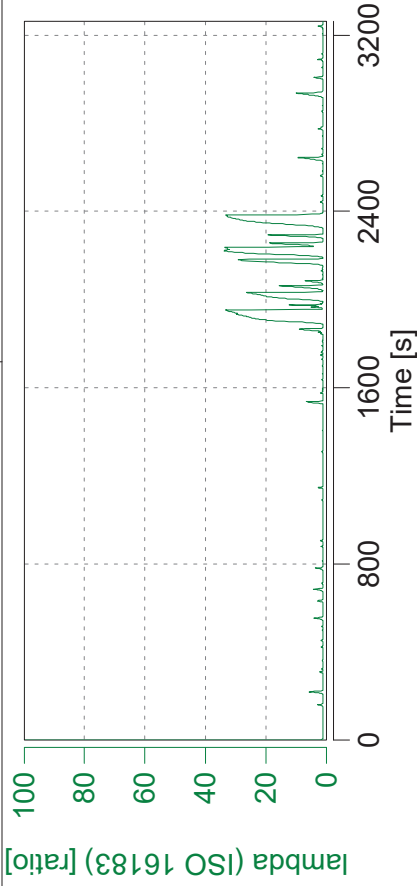
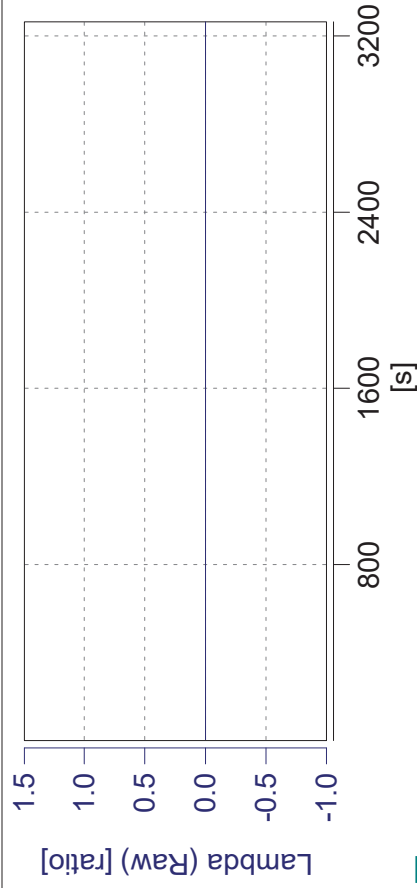
'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (1)

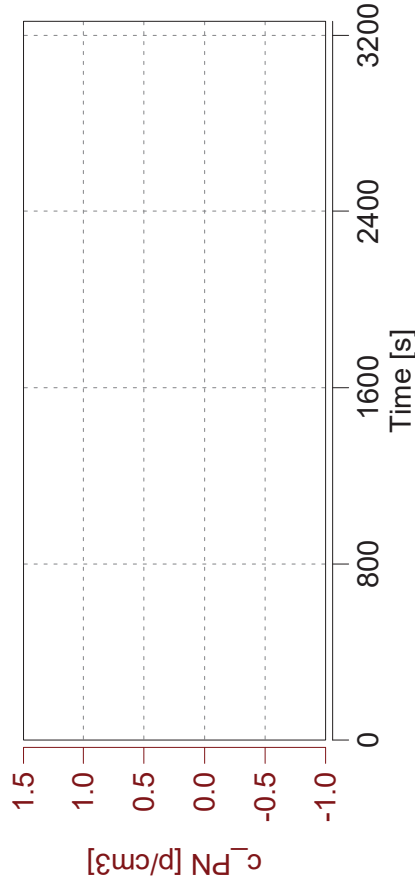
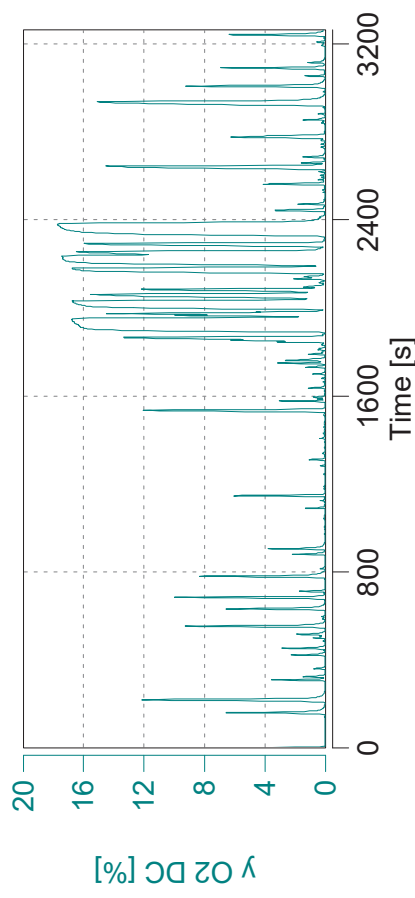
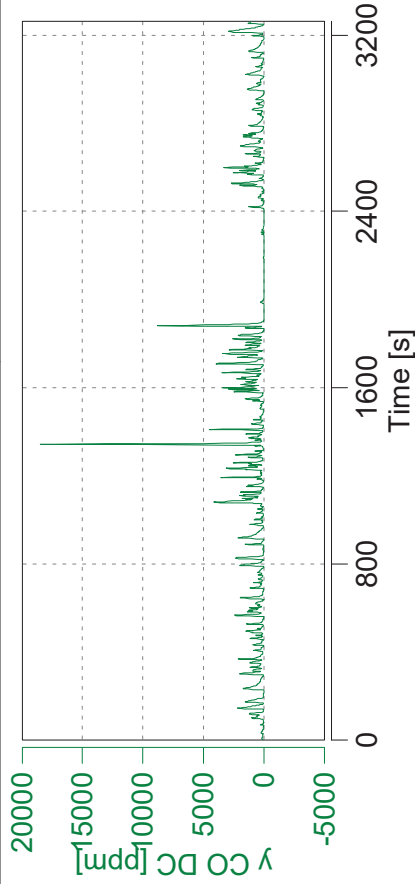
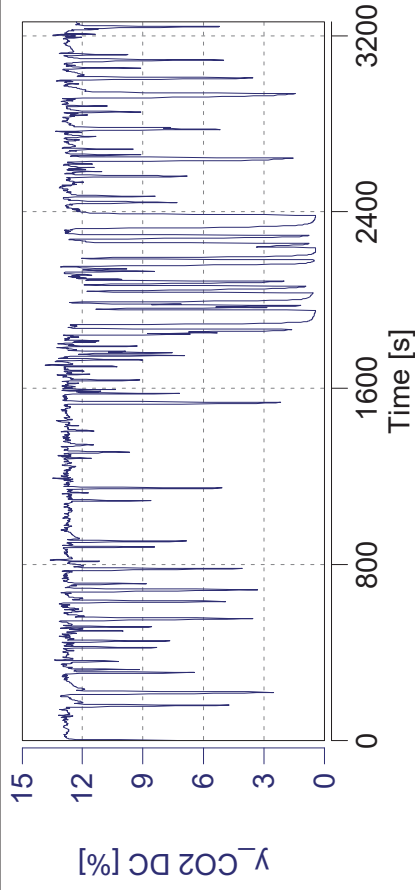
'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (2)

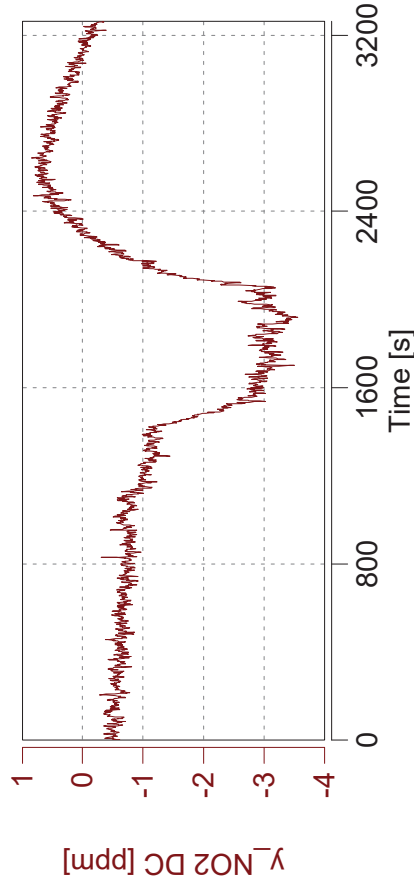
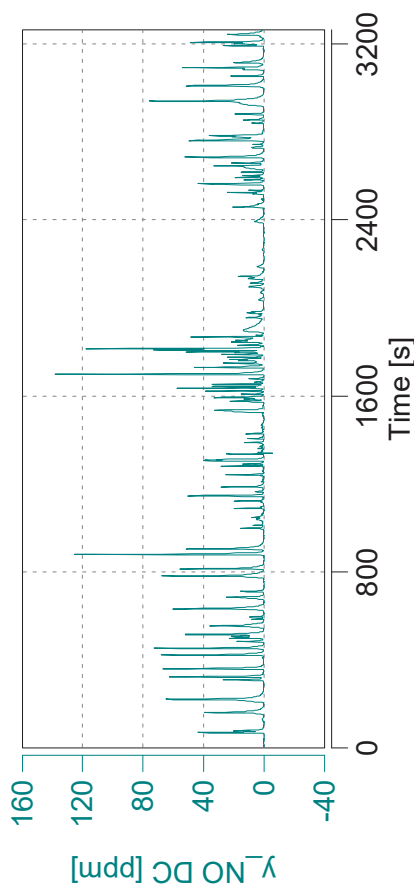
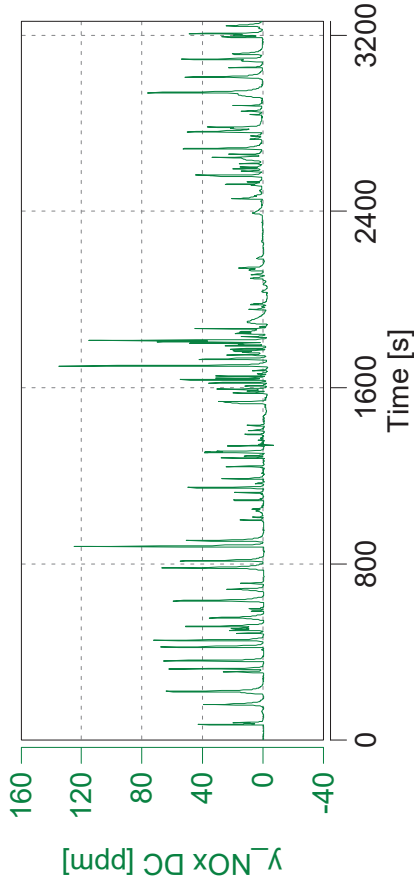
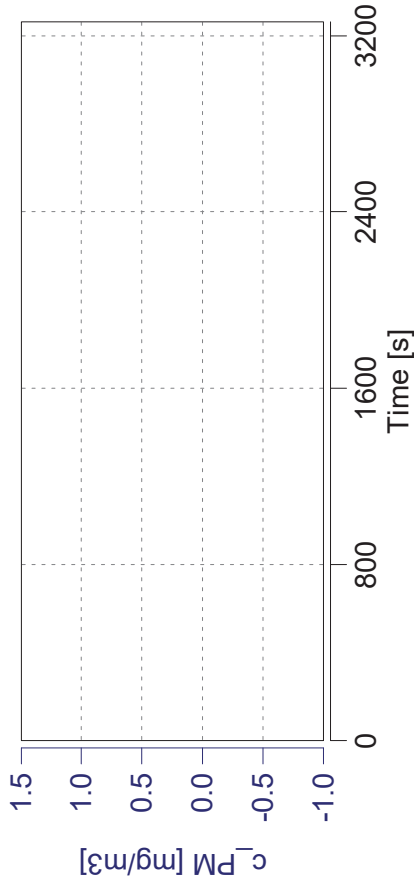
'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (3)

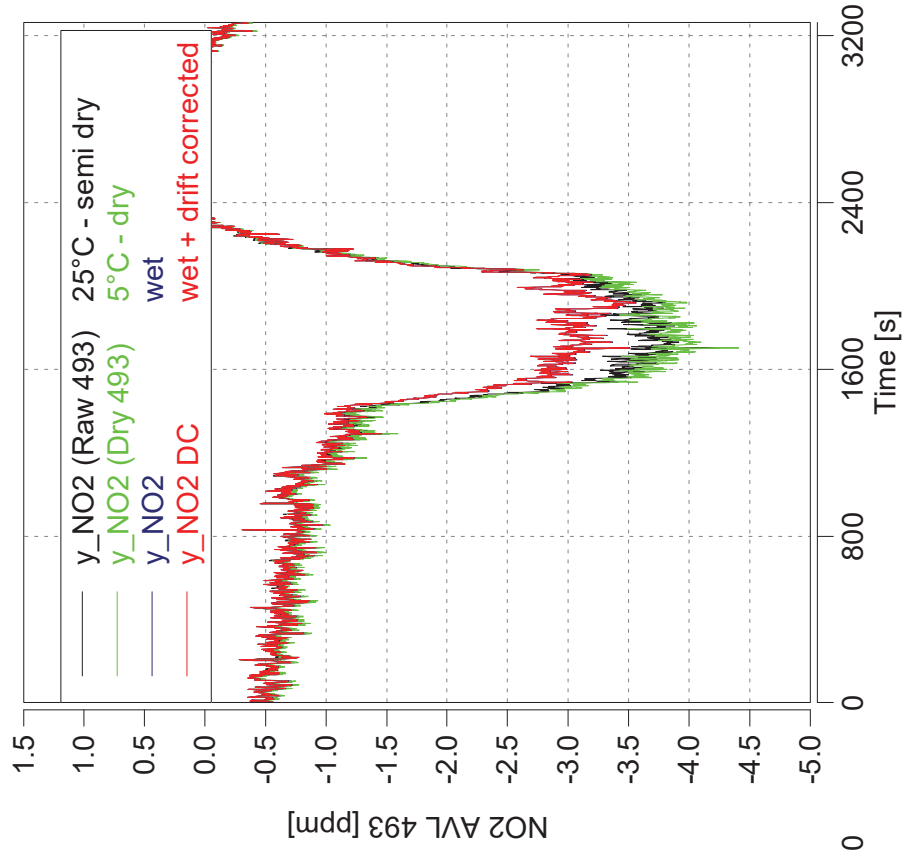
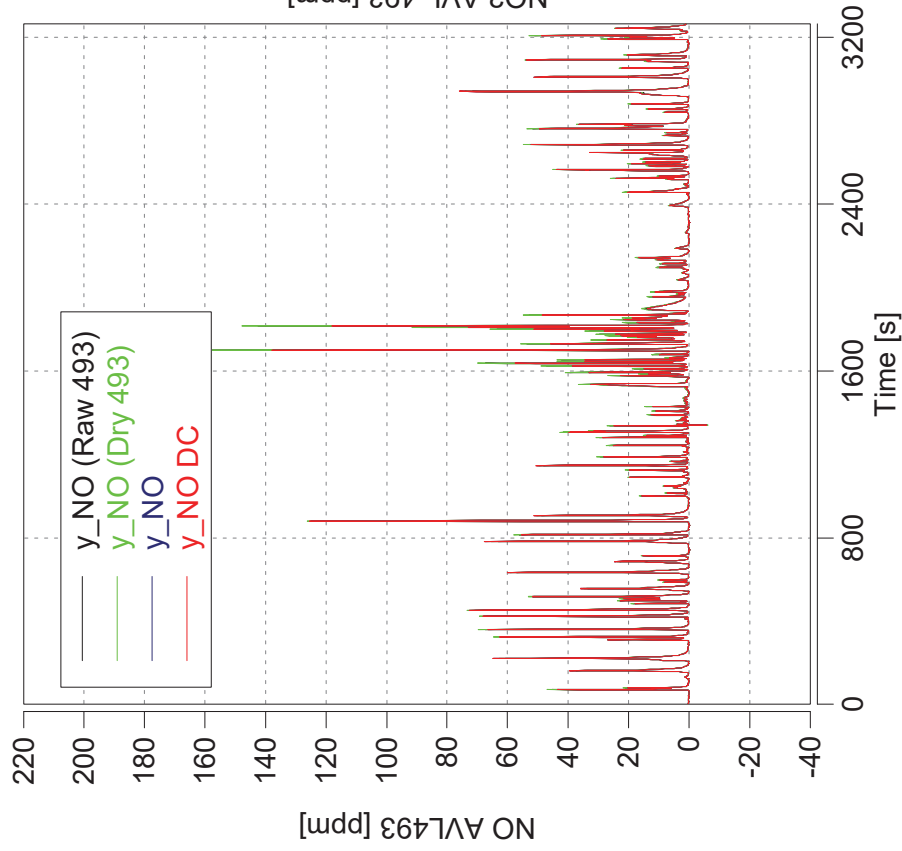
'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (4) NOx Corrections

'Mountain'

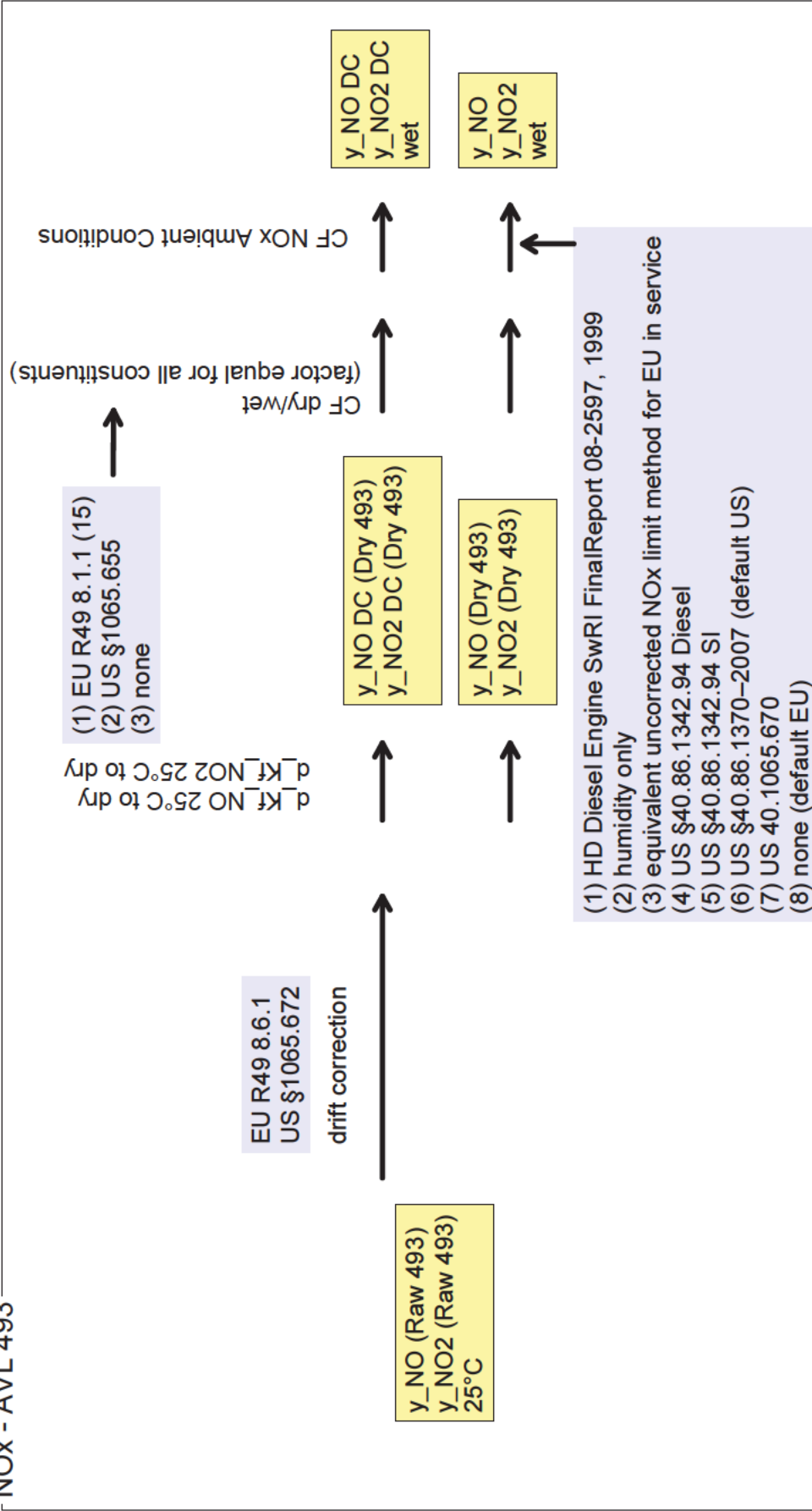
Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: / Vehicle: Passat / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (5)

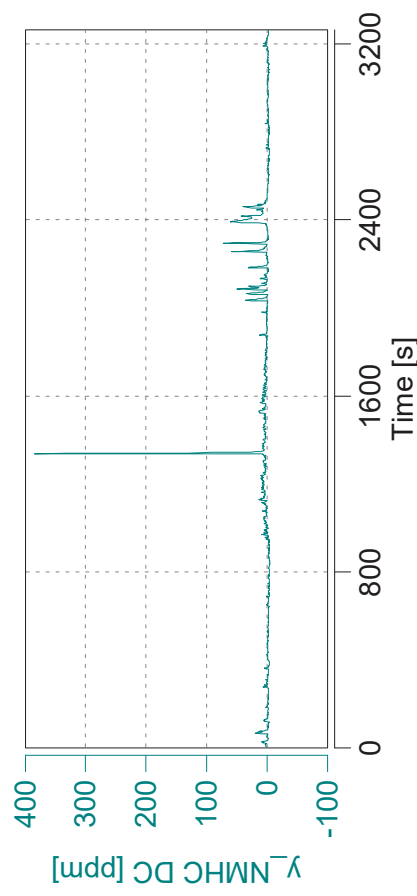
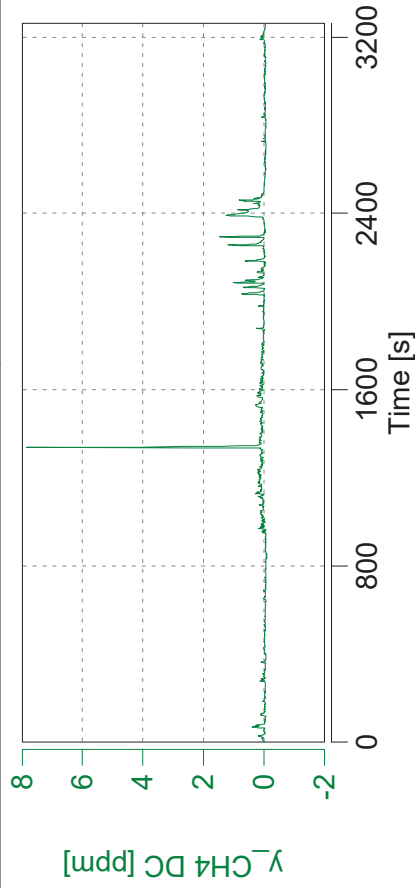
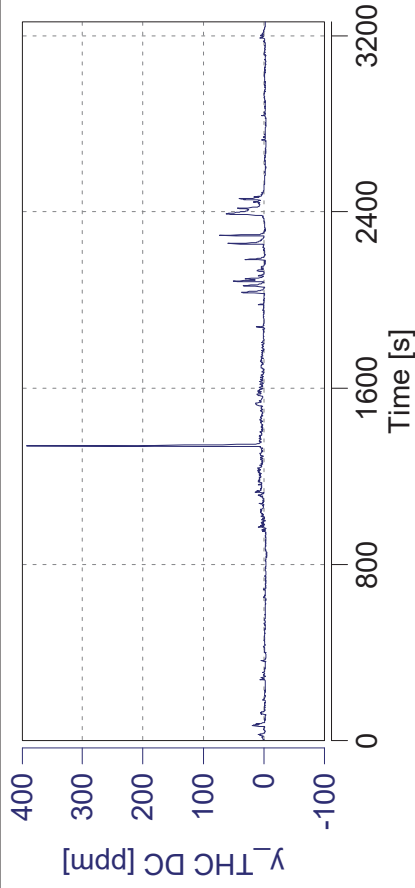
'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: NO/NO2/NOx Zero - Span

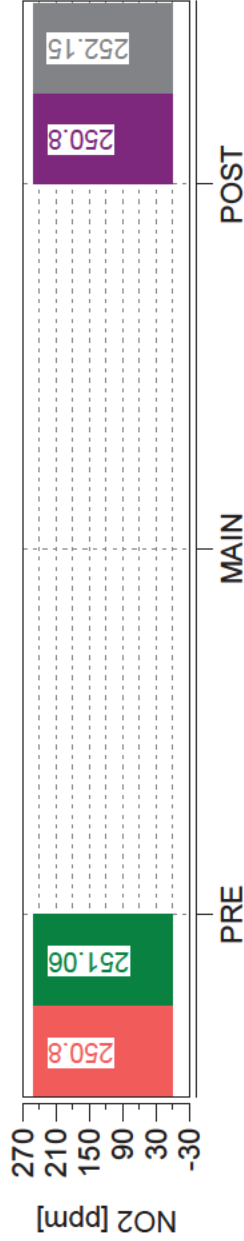
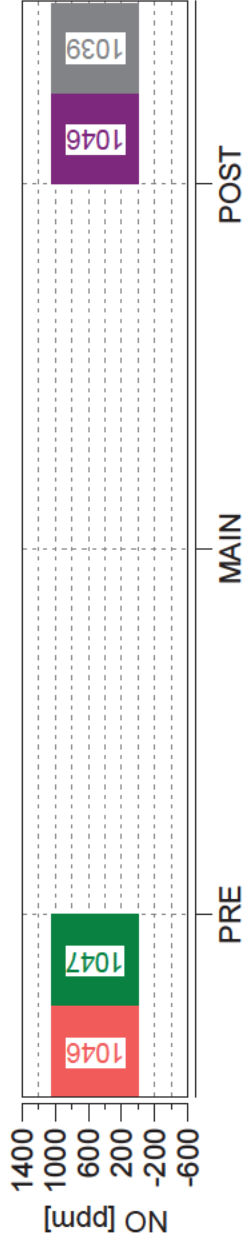
'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: Mountain

Page: CO/CO2 Zero - Span

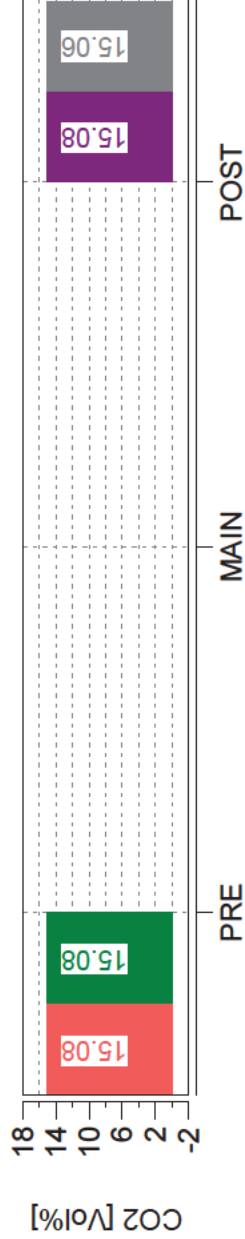
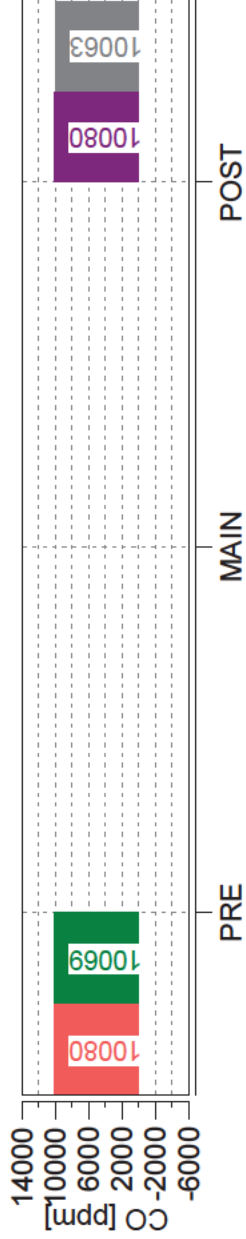
'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: THC/CH4 Zero - Span

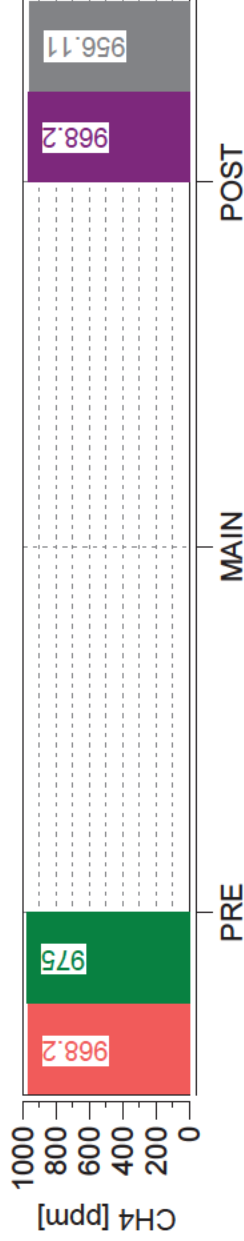
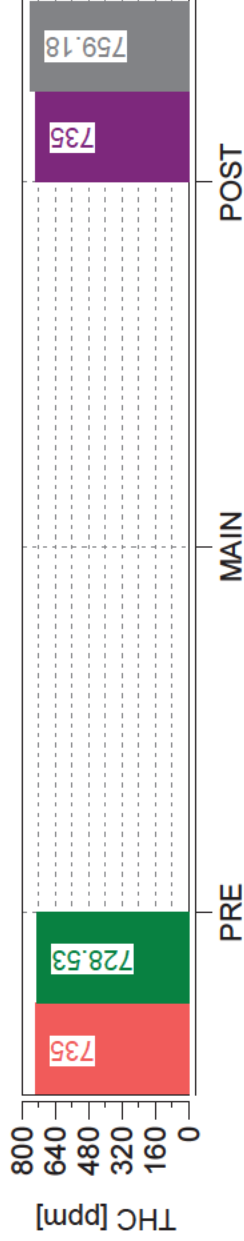
'Mountain'

Start Date: 08/07/2018

Start Time: 14:56:47.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary

'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0



Concerto M.O.V.E. 2018

Trip Duration	3244.00	s	ave THC	2.75503	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3244.00	s	ave NMHC	2.69993	ppm	BS CO	n/a	g/hphr
Trip Distance	15.94	mi	ave CH4	0.05510	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	15.94	mi	ave CO	296.61859	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	12.11400	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx	6.28460	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	2.07	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	2.04	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	0.73	gall	tot THC	0.04300	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	0.72	gall	tot NMHC	0.03977	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00095	g	DS CO2	389.26981	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	9.57575	g	DS CO	0.60076	g/mi
Trip Fuel Economy EU (ac)	21.78	mpg_US	tot CO2	6204.71717	g	DS THC	0.00270	g/mi
Trip Fuel Economy US (ac)	22.07	mpg_US	tot NO (d)	0.30132	g	DS NMHC	0.00250	g/mi
Trip Av. Eng. Speed	1298.29	rpm	tot NO2	-0.00160	g	DS CH4	0.00006	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.29972	g	DS NO (d)	0.01890	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	-0.00010	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.01880	g/mi
Trip Exhaust Mass	33.64	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	77.91	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	63.84	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	17.68858	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	22.74969	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary Drift Corrected

'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0



Concerto M.O.V.E. 2018

Trip Duration	3244.00	s	ave THC DC	2.77031	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3244.00	s	ave NMHC DC	2.71491	ppm	BS CO DC	n/a	g/hphr
Trip Distance	15.94	mi	ave CH4 DC	0.05541	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	15.94	mi	ave CO DC	296.79317	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	12.11400	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	6.34165	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	2.07	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	2.04	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	0.73	gall	tot THC DC	0.04321	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	0.72	gall	tot NMHC DC	0.03997	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00096	g	DS CO2 DC	389.26981	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	9.58098	g	DS CO DC	0.60109	g/mi
Trip Fuel Economy EU (ac)	21.78	mpg_US	tot CO2 DC	6204.71717	g	DS THC DC	0.00271	g/mi
Trip Fuel Economy US (ac)	22.07	mpg_US	tot NO DC (d)	0.30222	g	DS NMHC DC	0.00251	g/mi
Trip Av. Eng. Speed	1298.29	rpm	tot NO2 DC	0.00045	g	DS CH4 DC	0.00006	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.30267	g	DS NO DC (d)	0.01896	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00003	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.01899	g/mi
Trip Exhaust Mass	33.64	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	77.91	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	63.84	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	17.68858	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	22.74969	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment Check

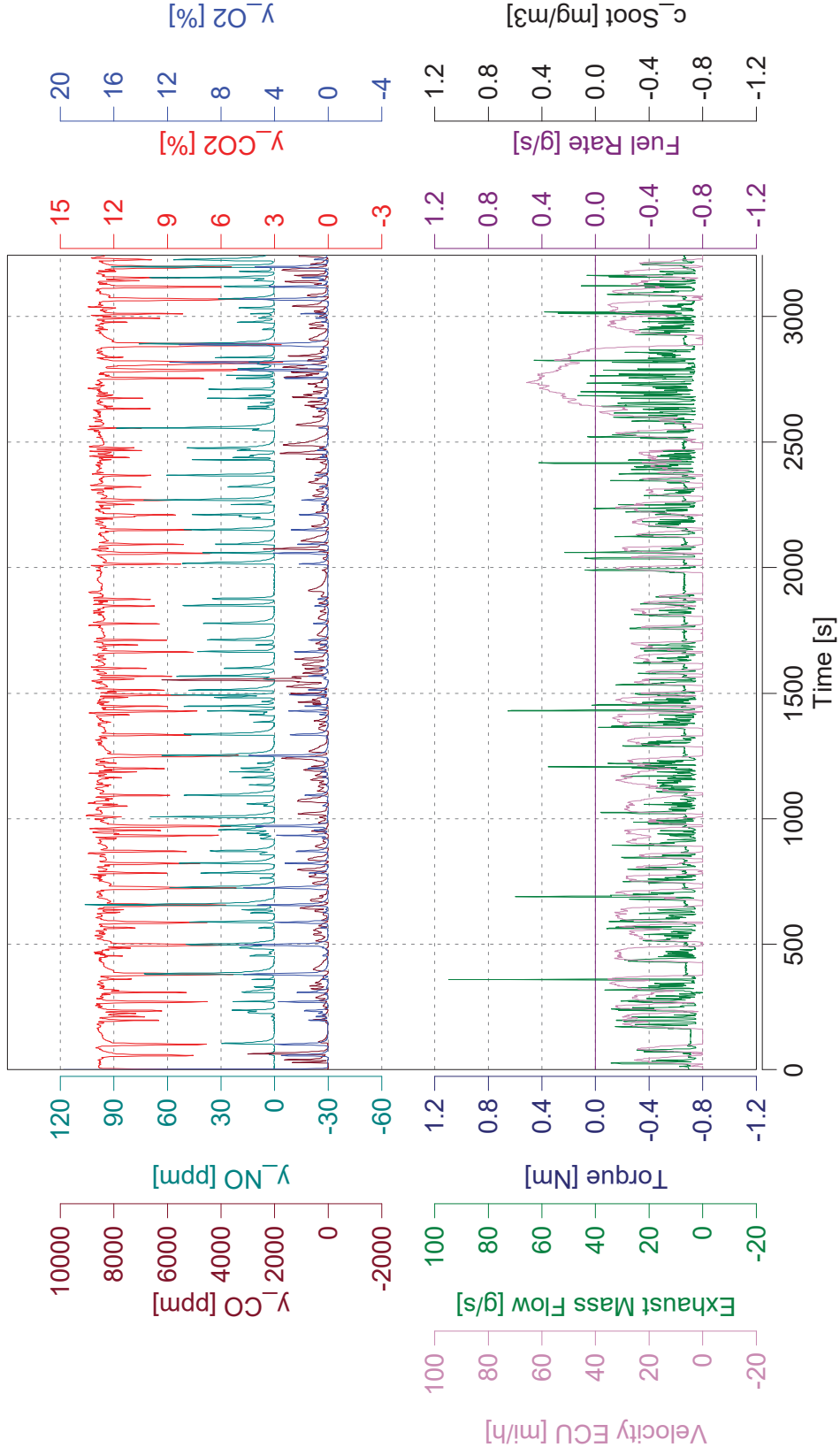
'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment of Gas Concentrations

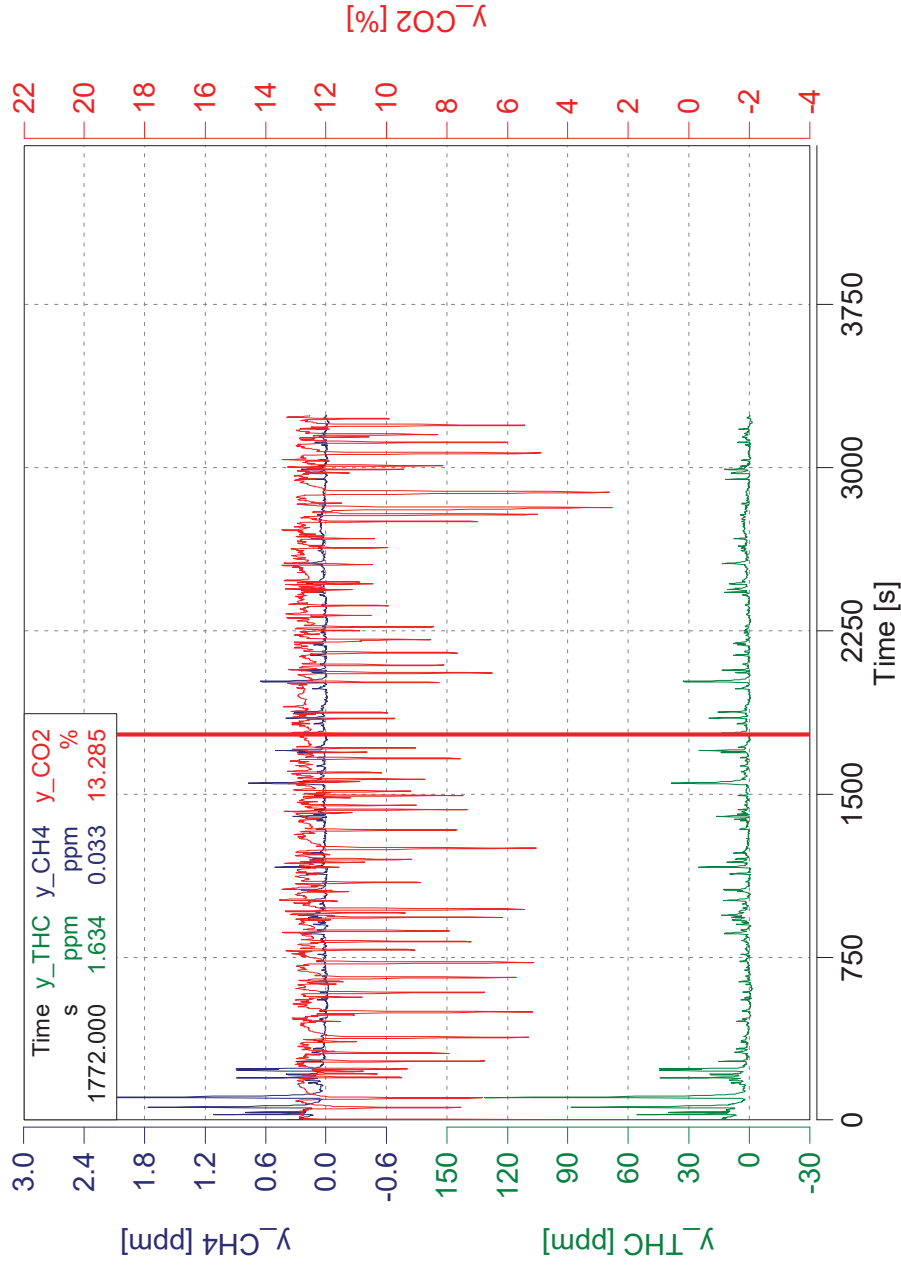
'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Ambient Conditions

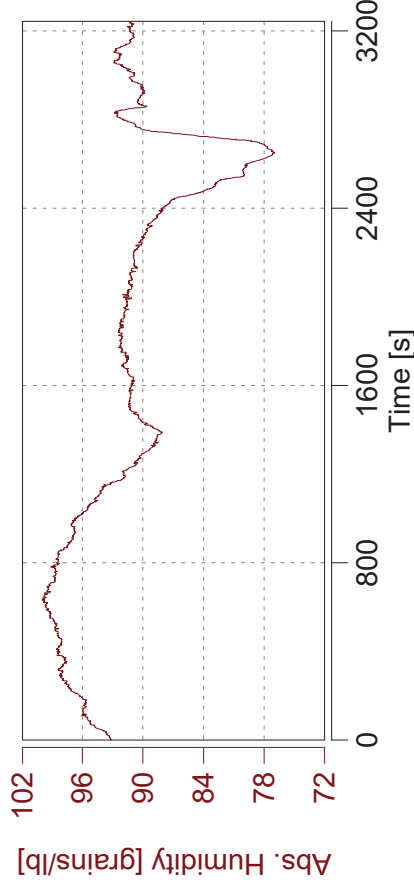
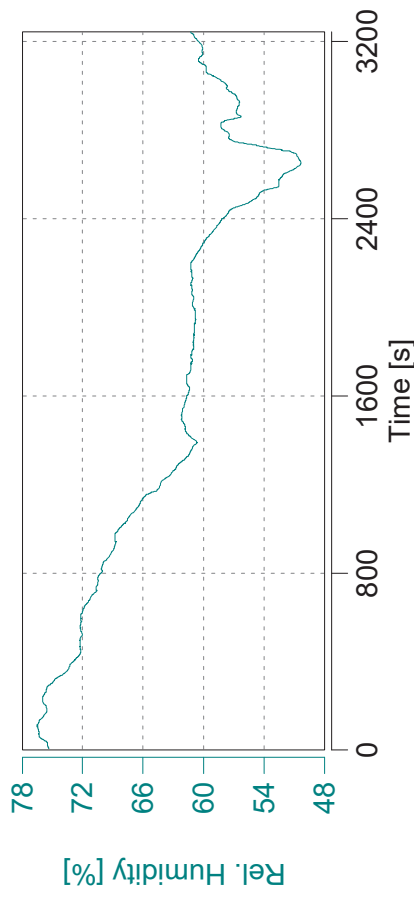
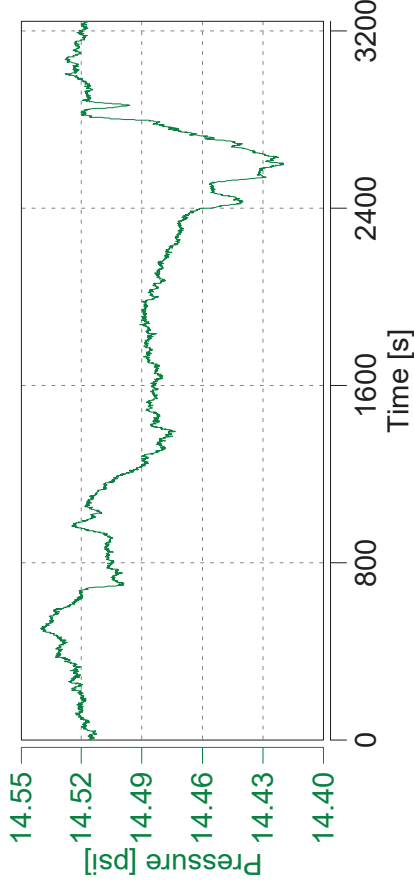
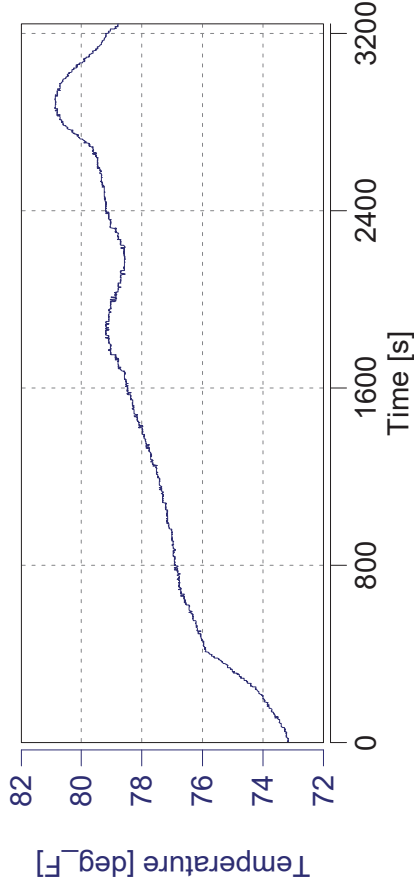
'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

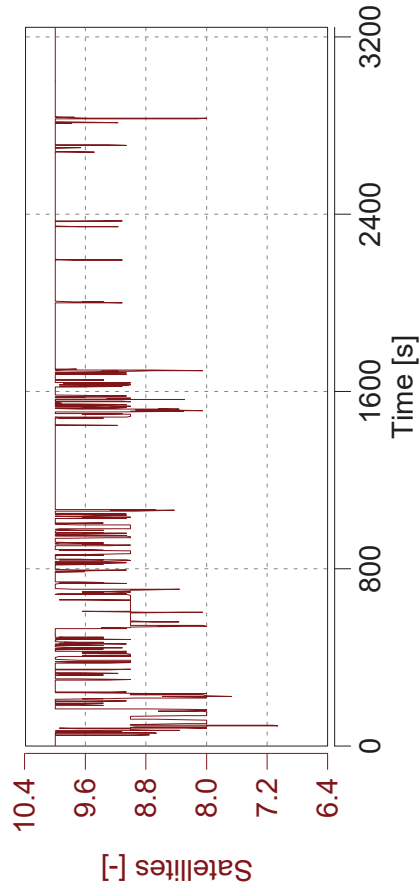
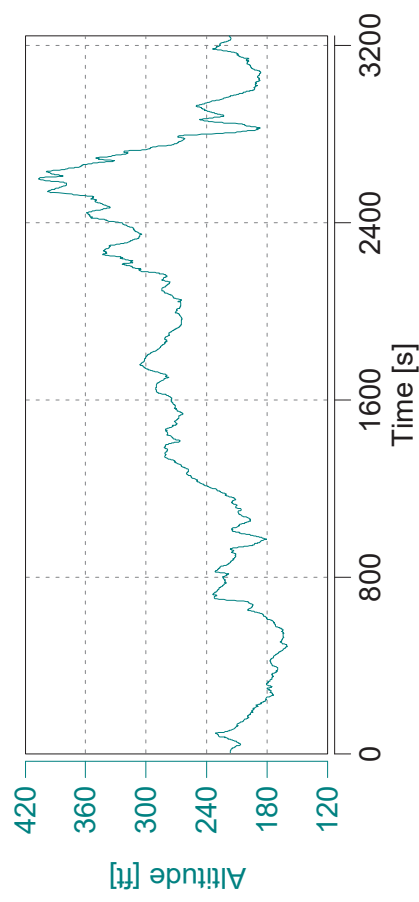
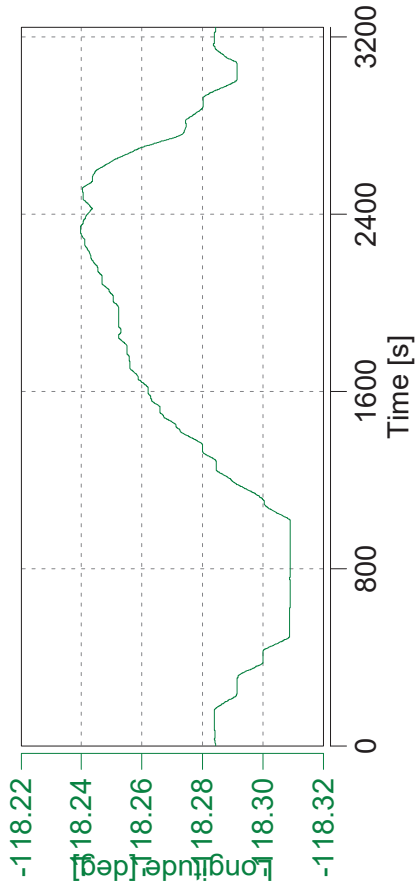
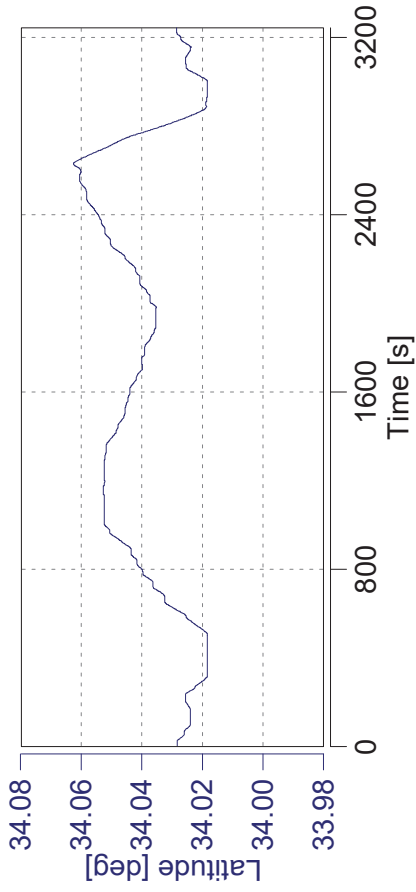
Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City
Page: GPS

'City'
Start Date: 08/07/2018
Start Time: 20:33:39.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (1)

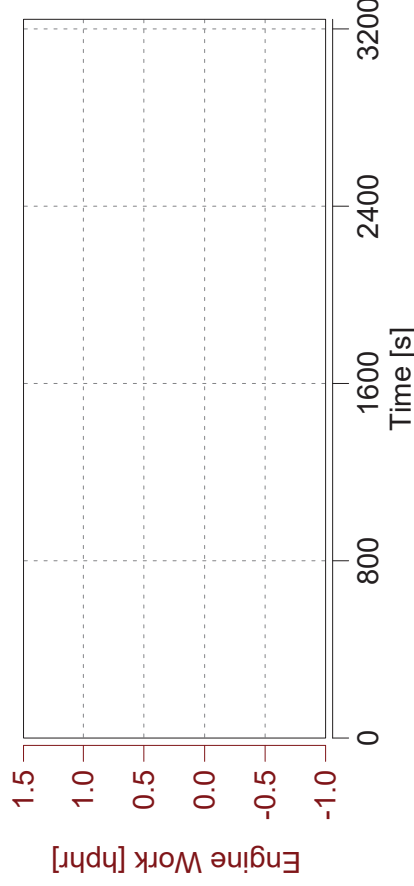
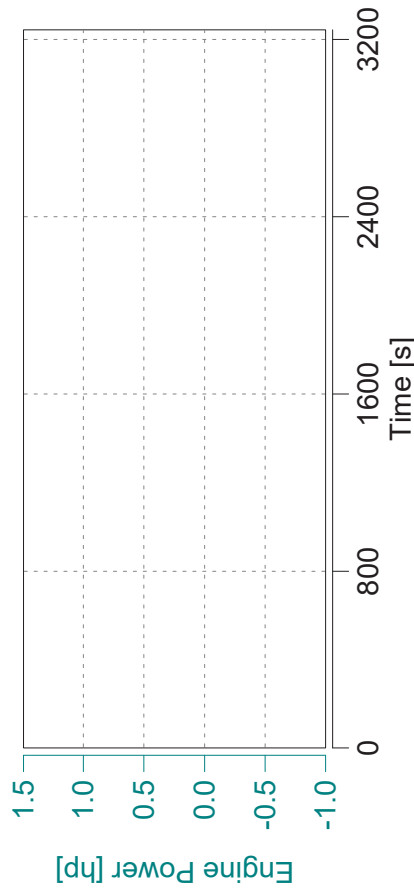
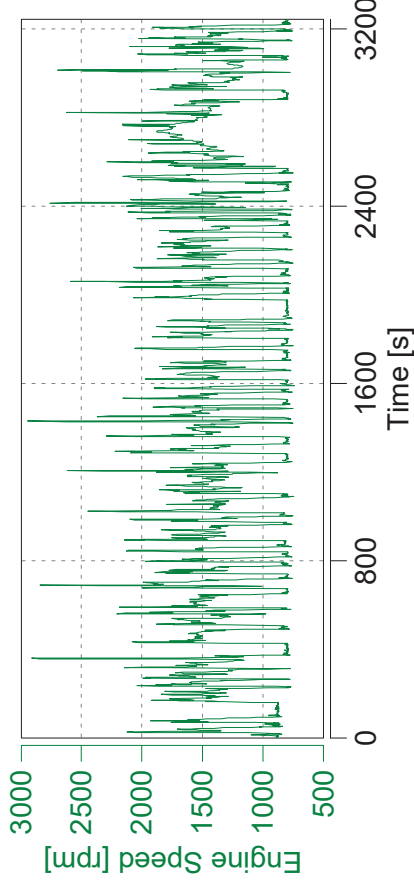
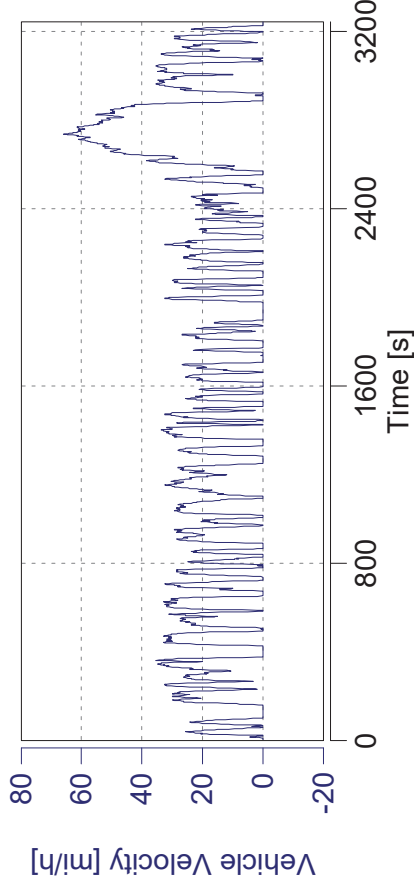
'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (2)

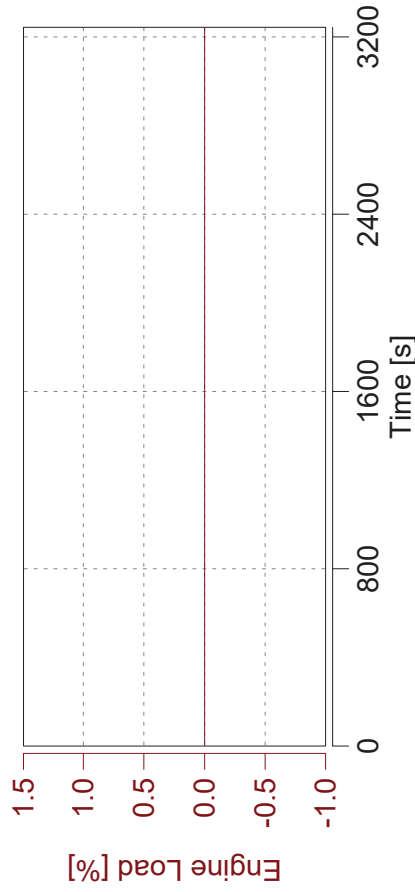
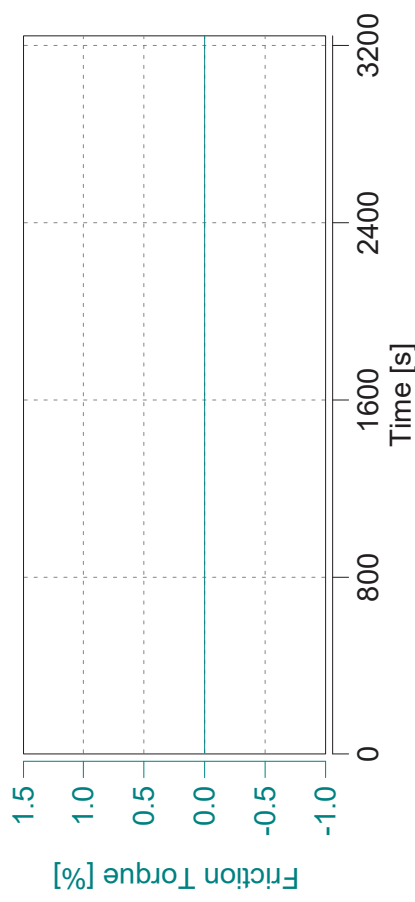
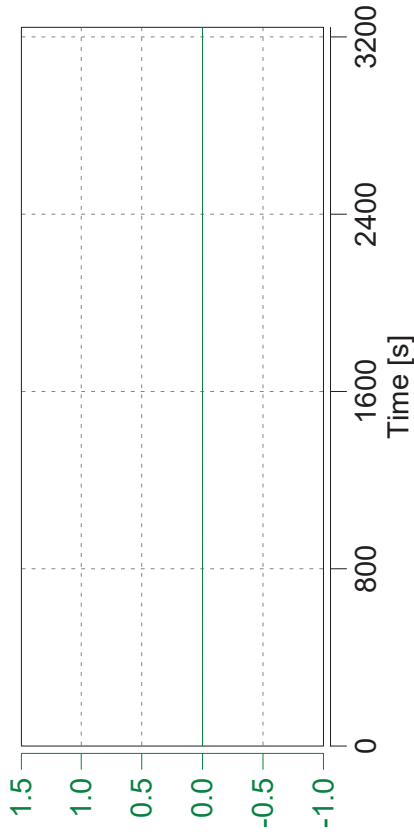
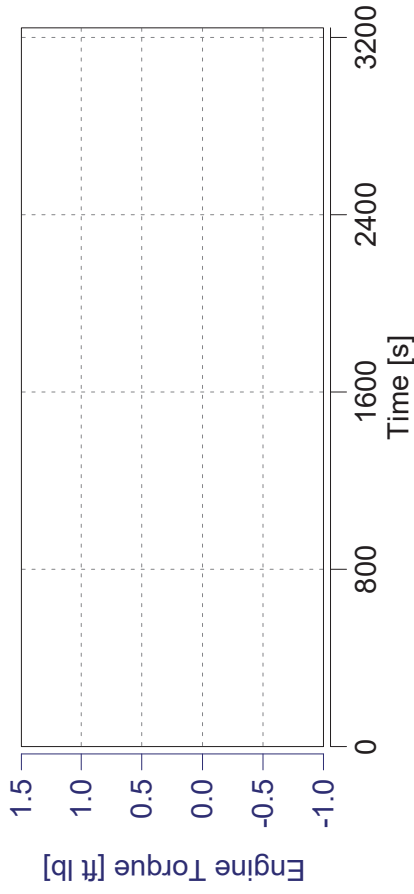
'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: Passat / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (3)

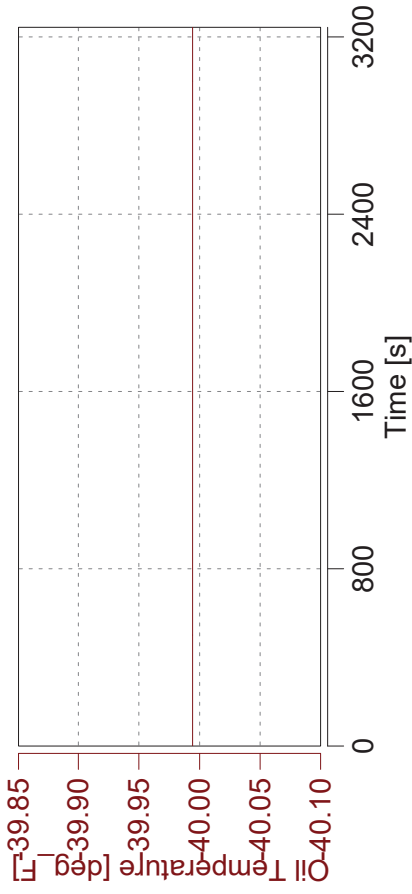
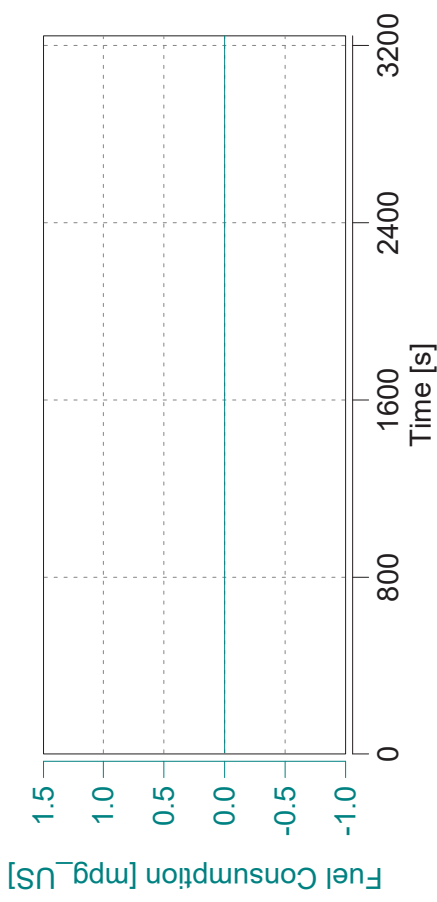
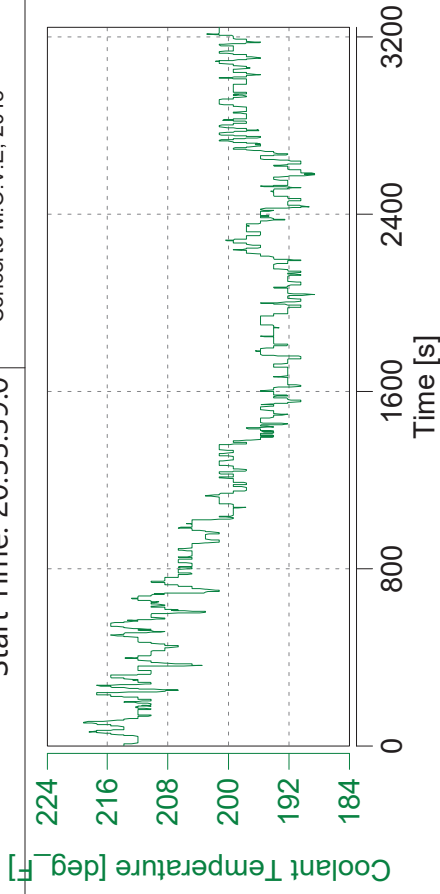
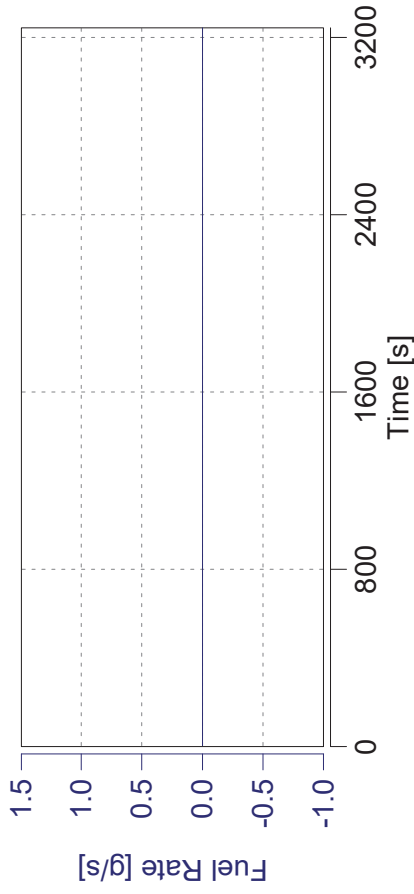
'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Vehicle: Passat / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI Engine: /
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (1)

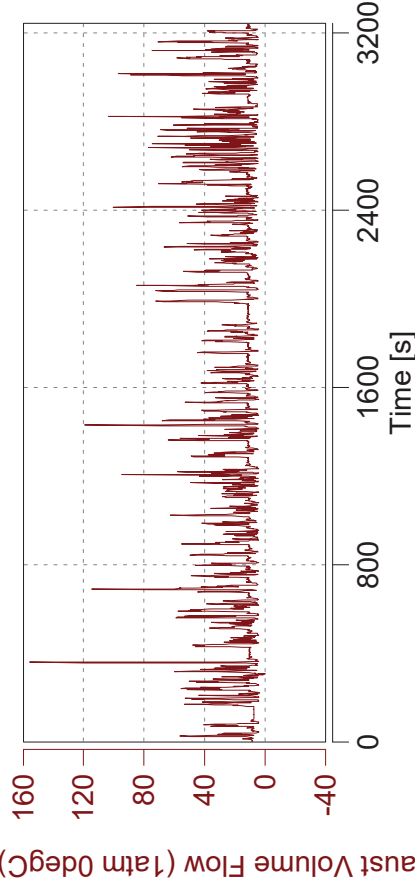
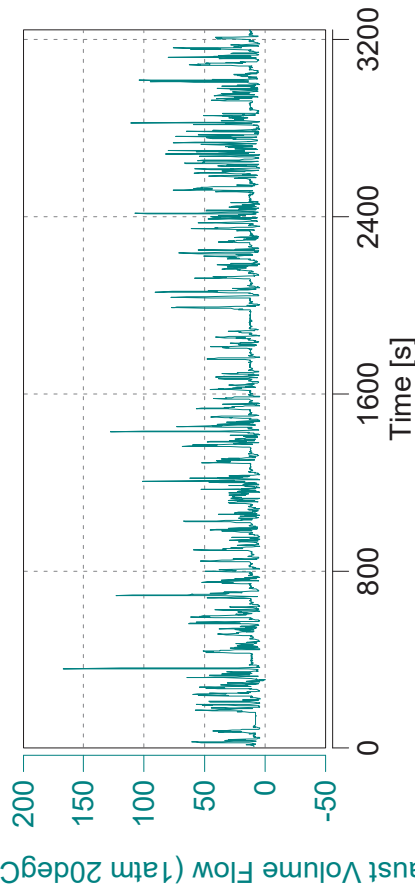
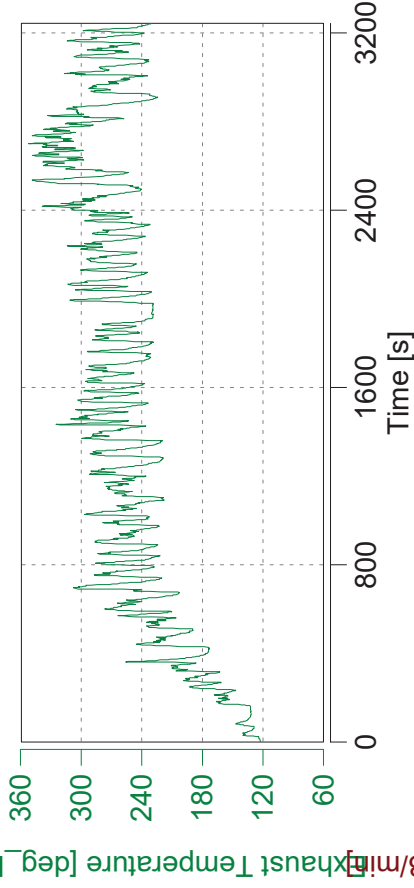
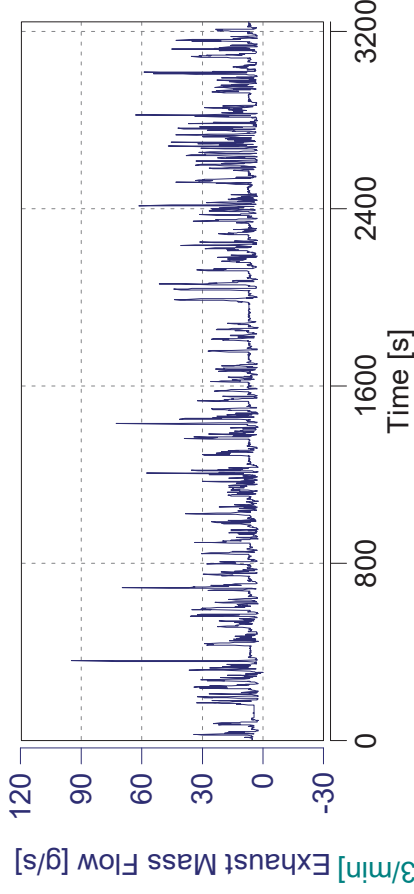
'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (2)

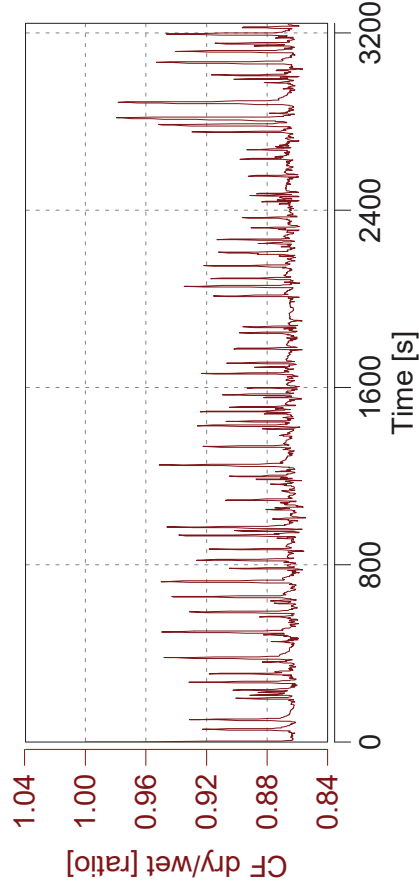
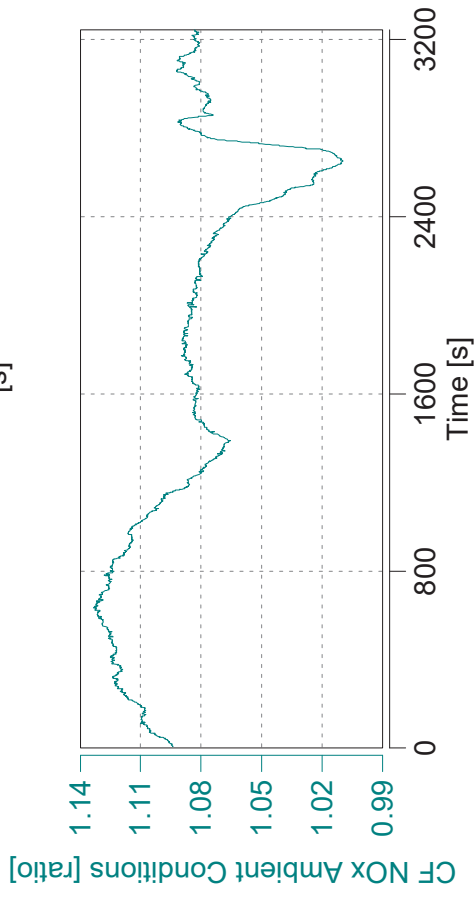
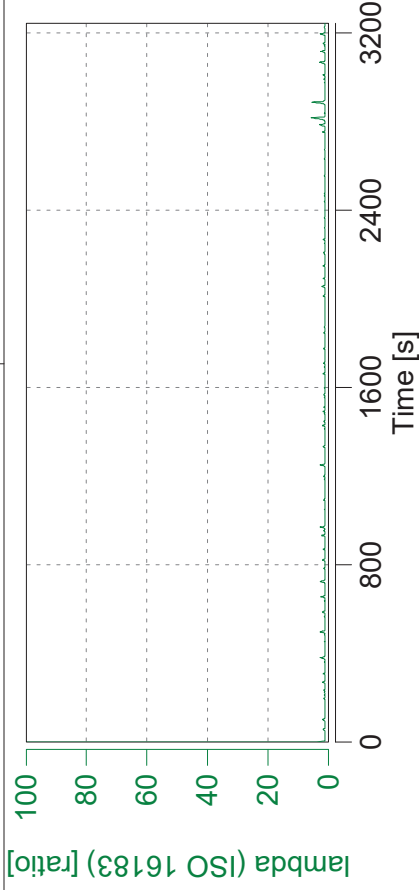
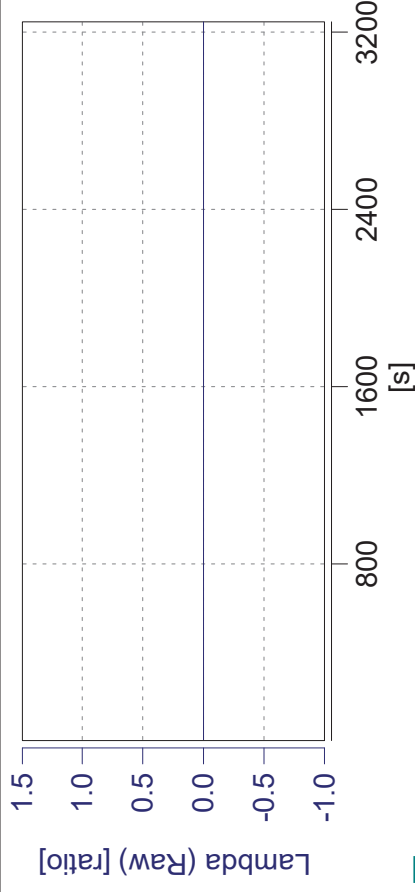
'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (1)

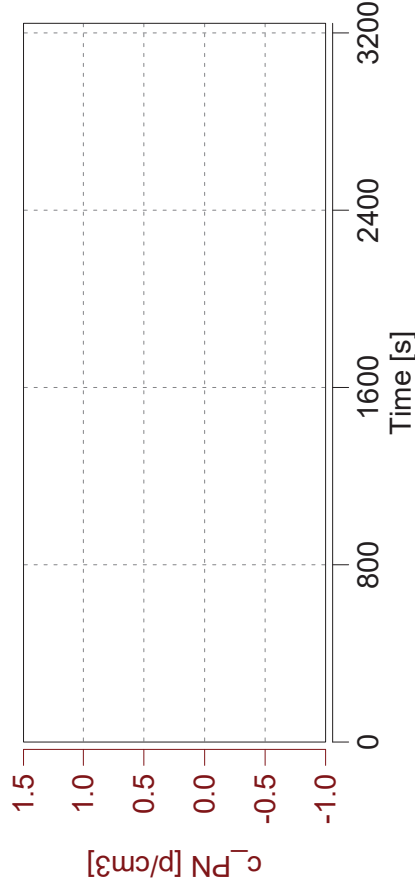
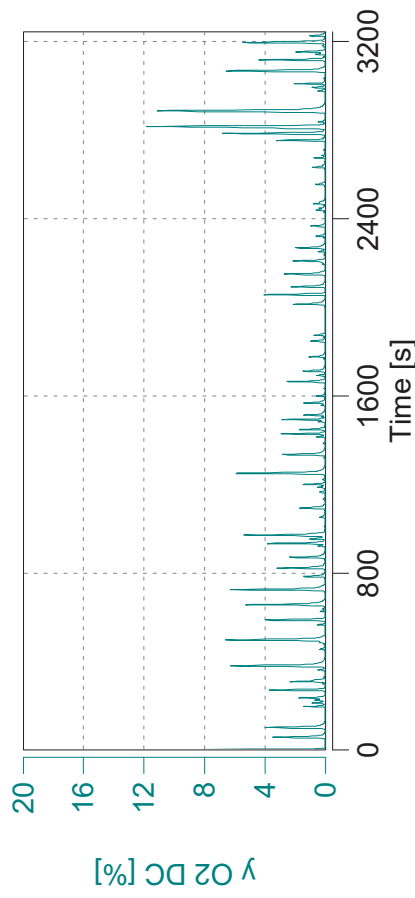
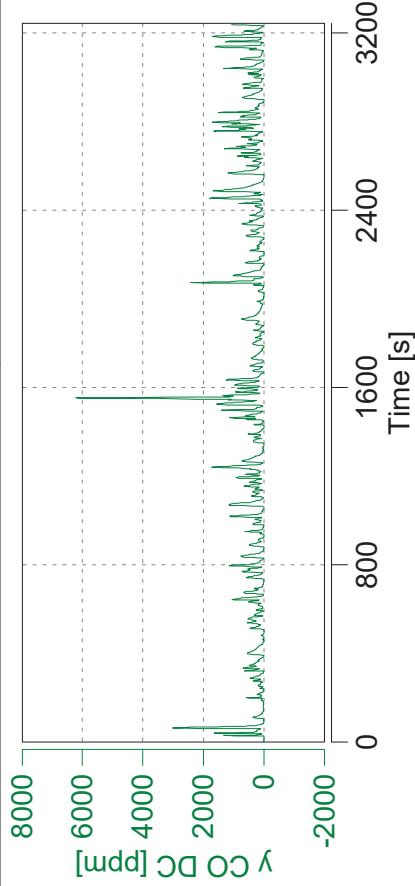
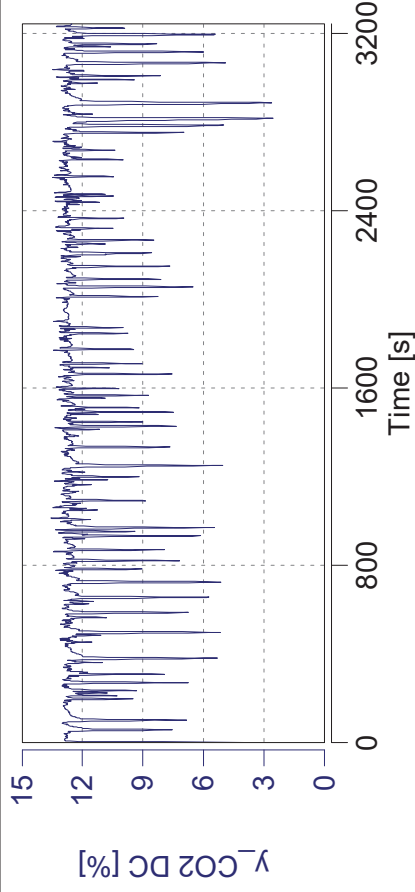
'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (2)

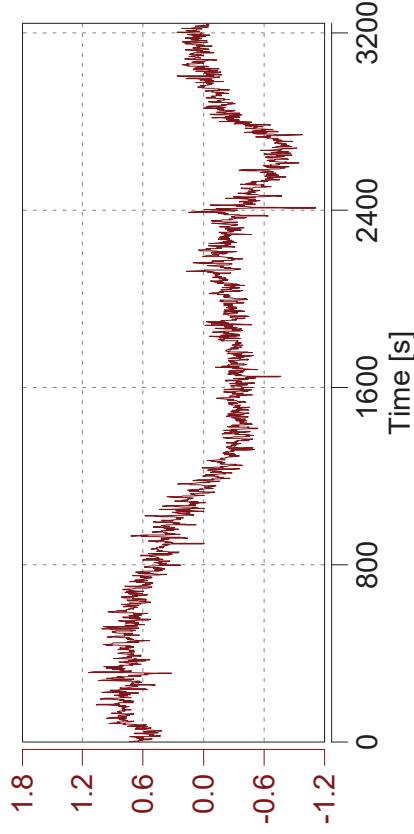
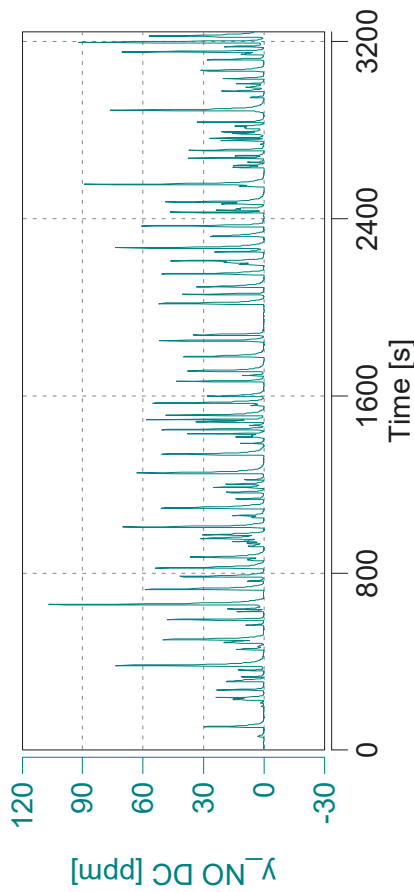
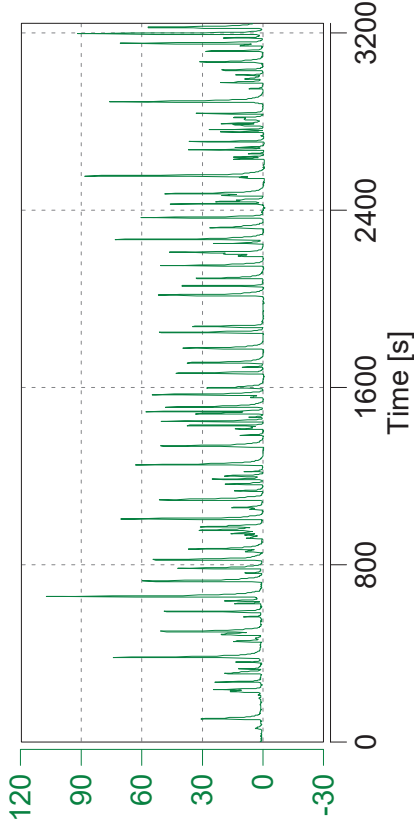
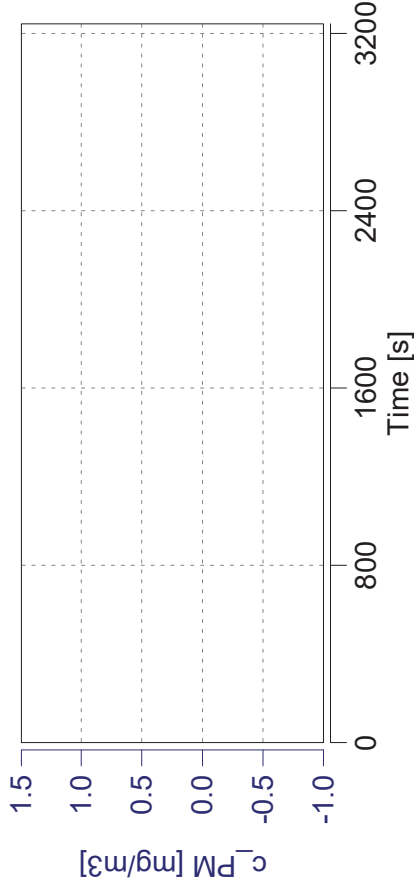
'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Passat / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (3)

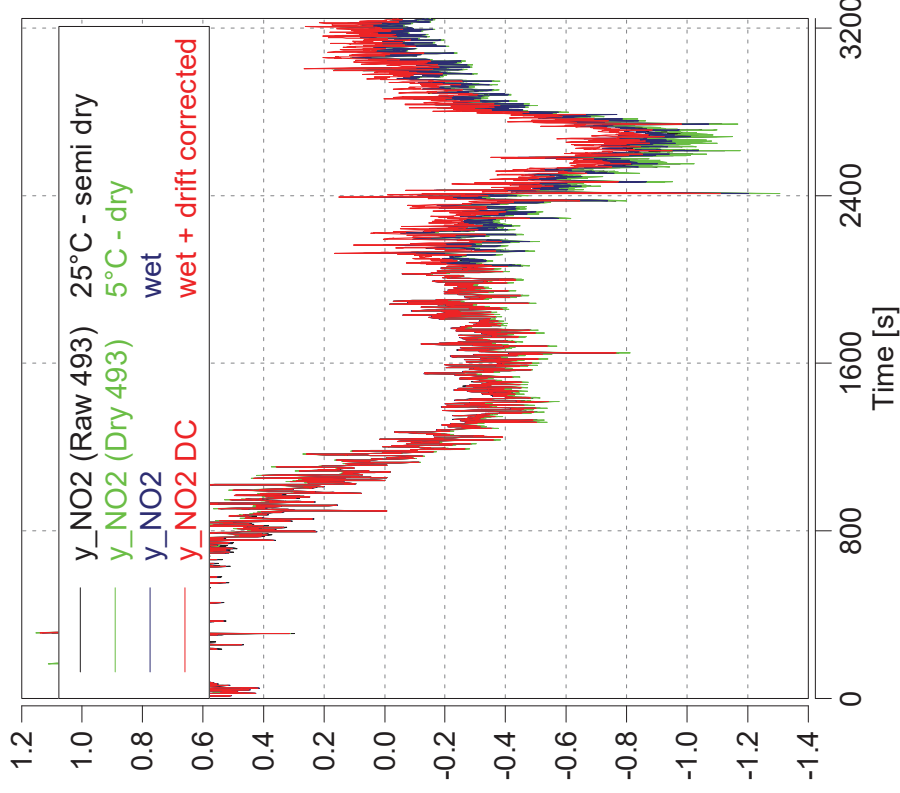
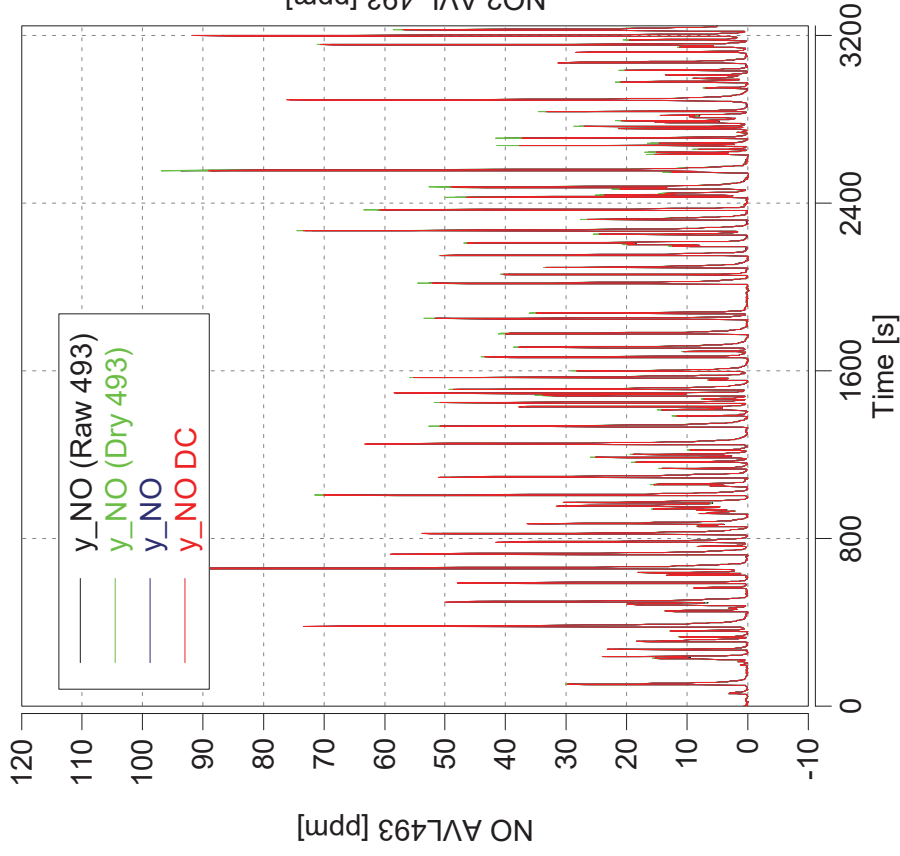
'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Passat / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (4) NOx Corrections

NOx - AVL 493

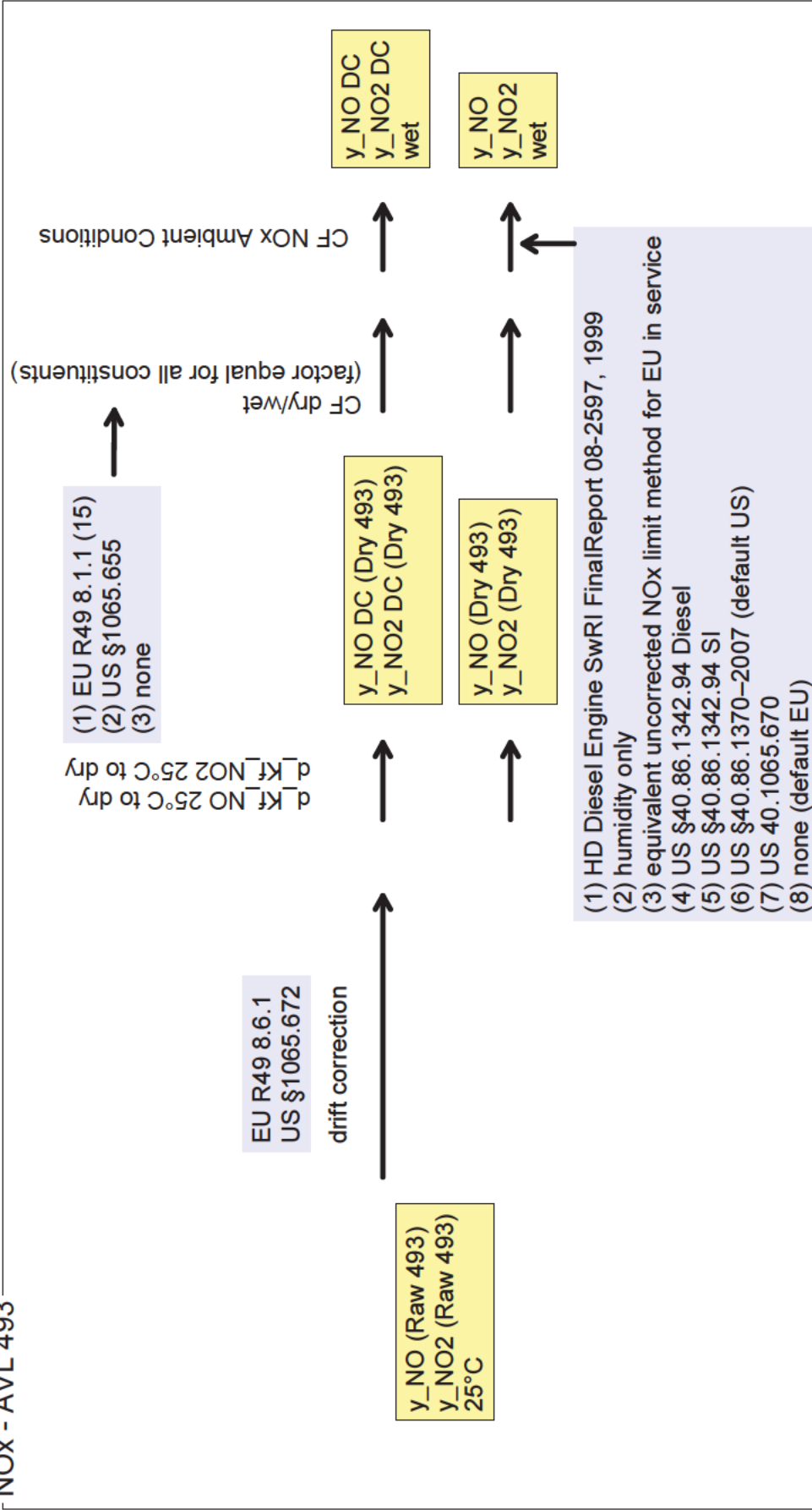
'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (5)

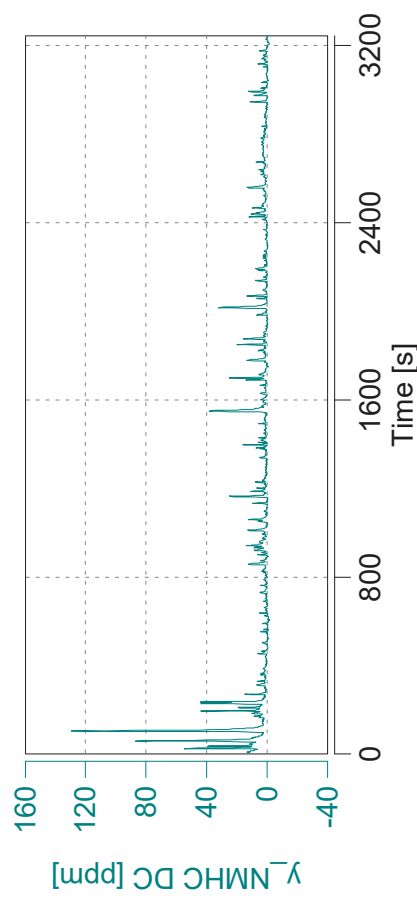
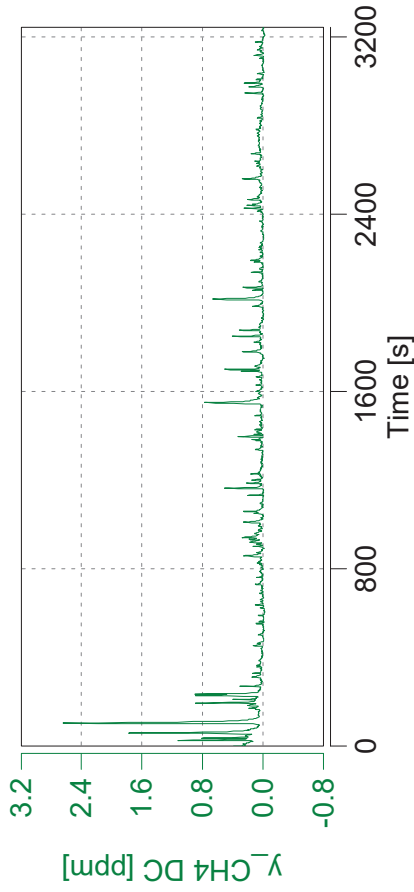
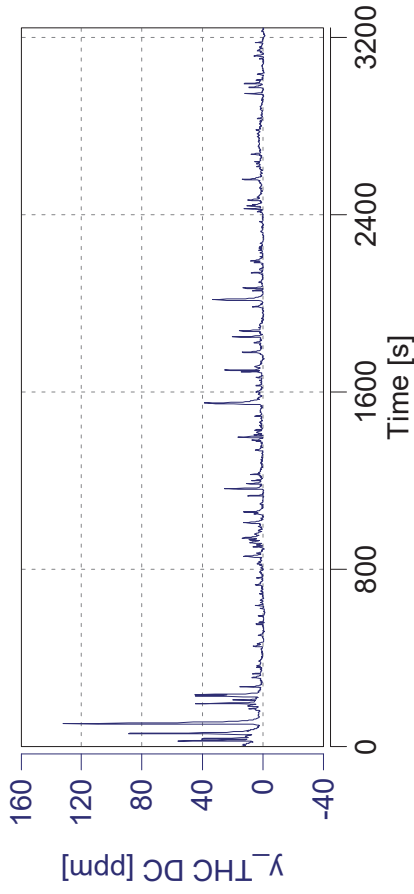
'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Vehicle: Passat / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI Engine: /
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: NO/NO2/NOx Zero - Span

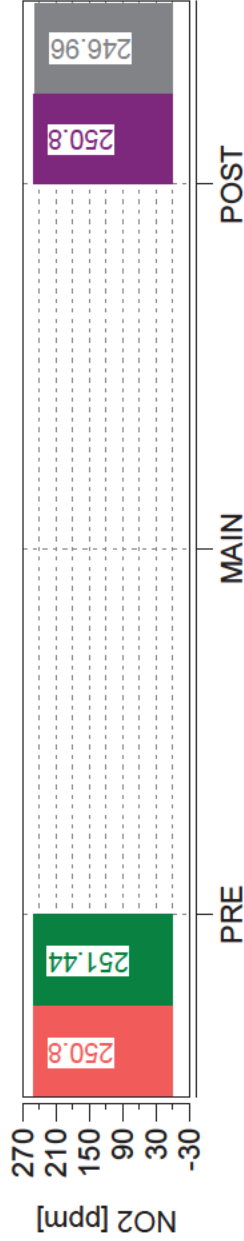
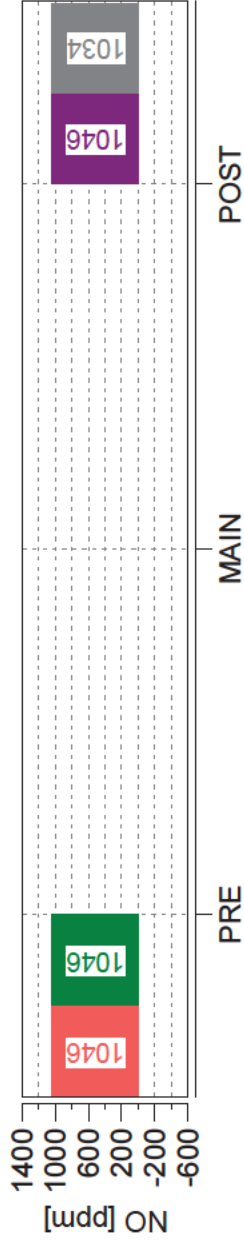
'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /



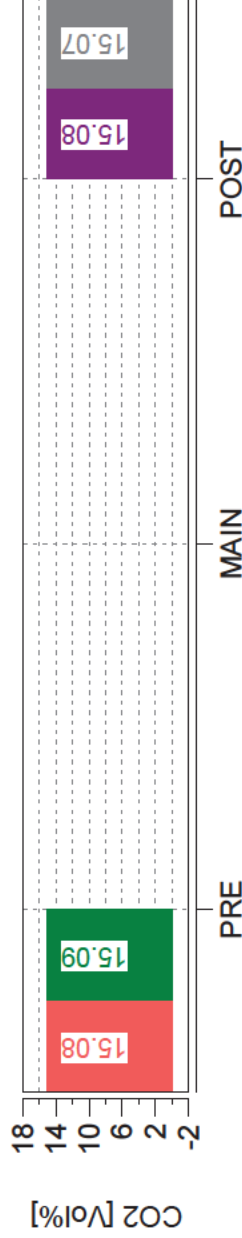
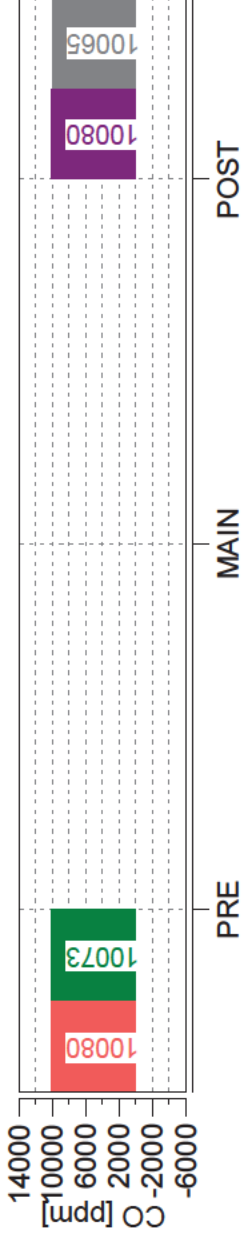
Concerto M.O.V.E., 2018

'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0

Case: City
Page: CO/CO2 Zero - Span



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: Passat / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: THC/CH4 Zero - Span

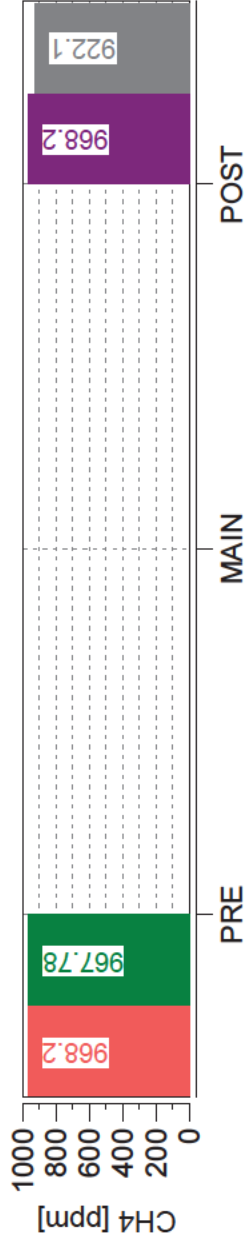
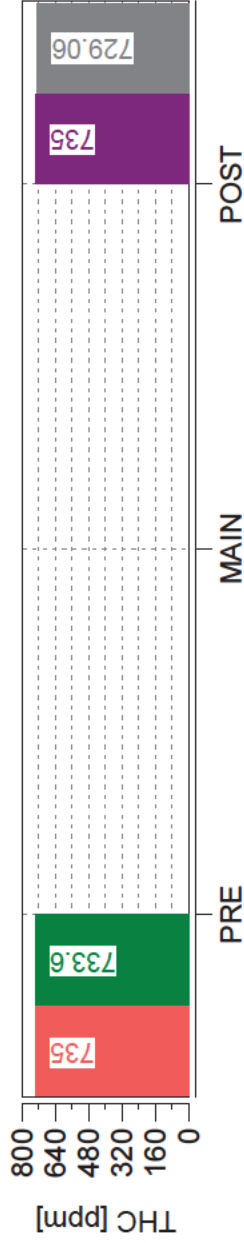
'City'

Start Date: 08/07/2018

Start Time: 20:33:39.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Passat / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: Highway

Page: Trip Summary

'Highway'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E. 2018

Trip Duration	2547.00	s	ave THC	4.62773	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	2547.00	s	ave NMHC	4.53517	ppm	BS CO	n/a	g/hphr
Trip Distance	38.55	mi	ave CH4	0.09255	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	38.55	mi	ave CO	360.97687	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	12.11401	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx	17.21599	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.40	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.34	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.55	gall	tot THC	0.40651	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.53	gall	tot NMHC	0.37602	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00901	g	DS CO2	340.41622	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	54.41917	g	DS CO	1.41178	g/mi
Trip Fuel Economy EU (ac)	24.79	mpg_US	tot CO2	13121.88033	g	DS THC	0.01055	g/mi
Trip Fuel Economy US (ac)	25.15	mpg_US	tot NO (d)	1.33950	g	DS NMHC	0.00976	g/mi
Trip Av. Eng. Speed	1833.80	rpm	tot NO2	0.04561	g	DS CH4	0.00023	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	1.38511	g	DS NO (d)	0.03475	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00118	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.03593	g/mi
Trip Exhaust Mass	69.44	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	84.67	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	52.43	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	54.48279	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	3.10169	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
 (d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Trip Summary Drift Corrected

'Highway'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018

Trip Duration	2547.00	s	ave THC DC	4.36876	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	2547.00	s	ave NMHC DC	4.28139	ppm	BS CO DC	n/a	g/hphr
Trip Distance	38.55	mi	ave CH4 DC	0.08738	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	38.55	mi	ave CO DC	361.50766	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	12.10598	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	17.23017	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.40	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.34	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.55	gall	tot THC DC	0.39371	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.53	gall	tot NMHC DC	0.36418	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00873	g	DS CO2 DC	340.19063	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	54.49919	g	DS CO DC	1.41385	g/mi
Trip Fuel Economy EU (ac)	24.79	mpg_US	tot CO2 DC	13113.18459	g	DS THC DC	0.01021	g/mi
Trip Fuel Economy US (ac)	25.15	mpg_US	tot NO DC (d)	1.34064	g	DS NMHC DC	0.00945	g/mi
Trip Av. Eng. Speed	1833.80	rpm	tot NO2 DC	0.04559	g	DS CH4 DC	0.00023	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	1.38623	g	DS NO DC (d)	0.03478	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00118	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.03596	g/mi
Trip Exhaust Mass	69.44	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	84.67	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	52.43	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	54.48279	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	3.10169	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment Check

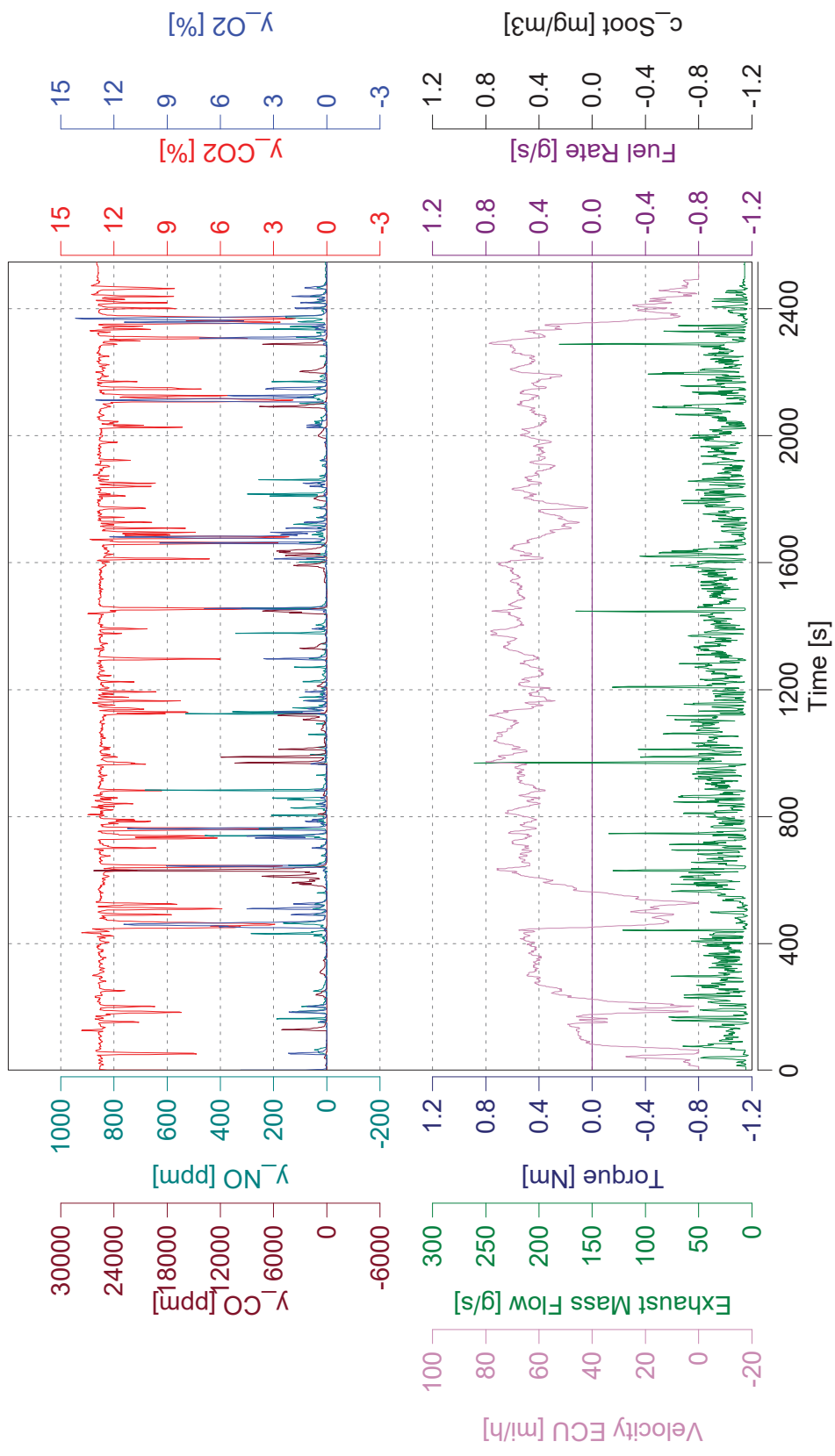
'Highway'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment of Gas Concentrations

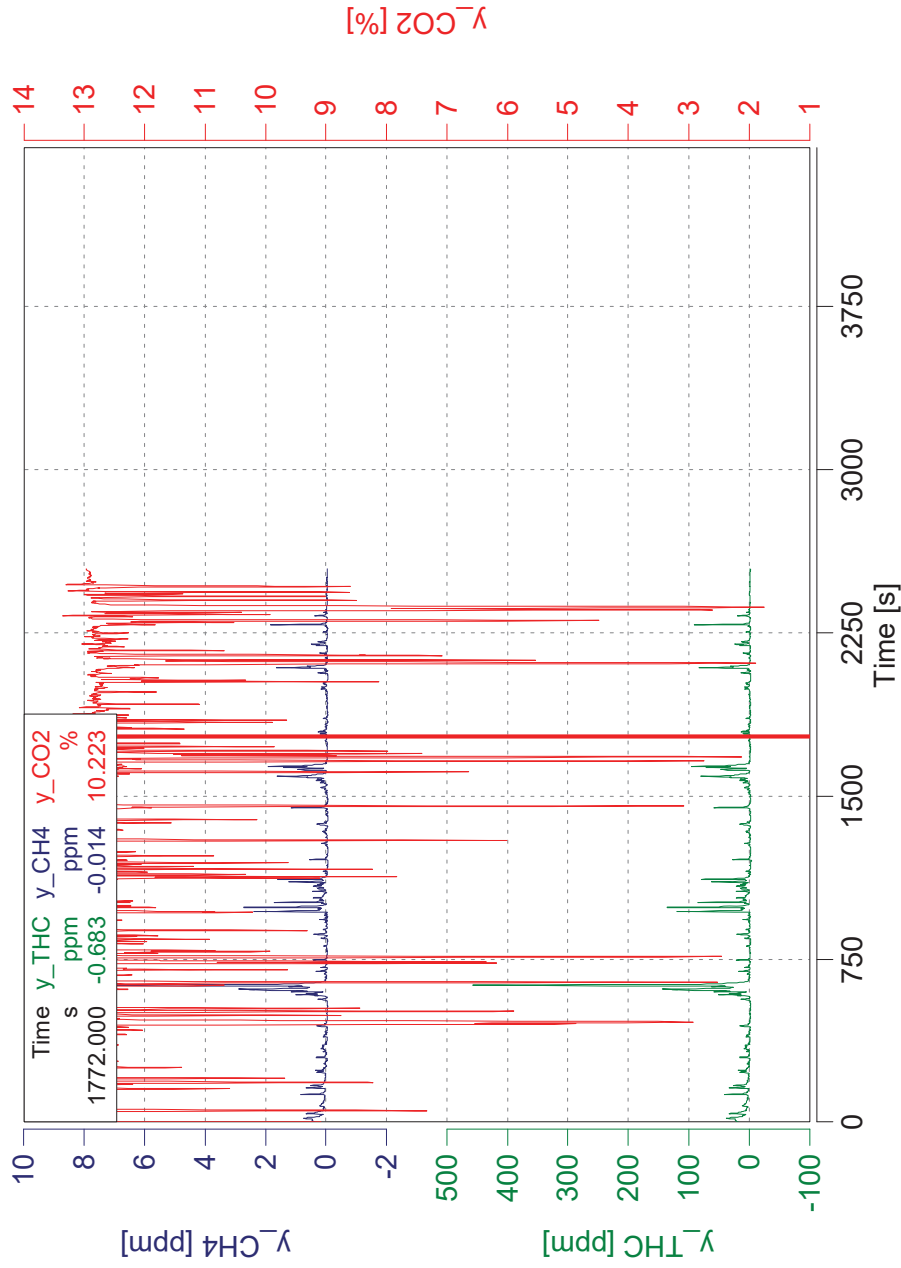
'Highway'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Ambient Conditions

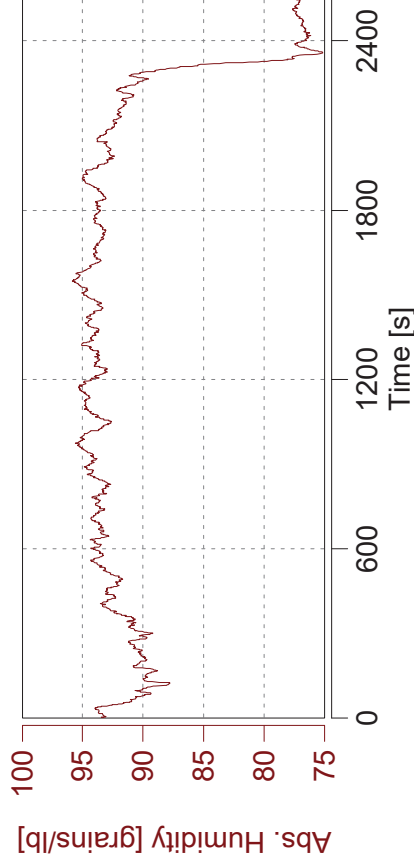
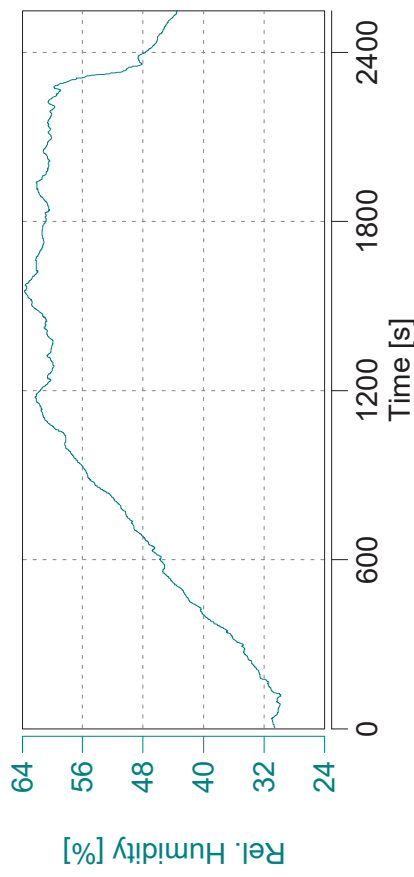
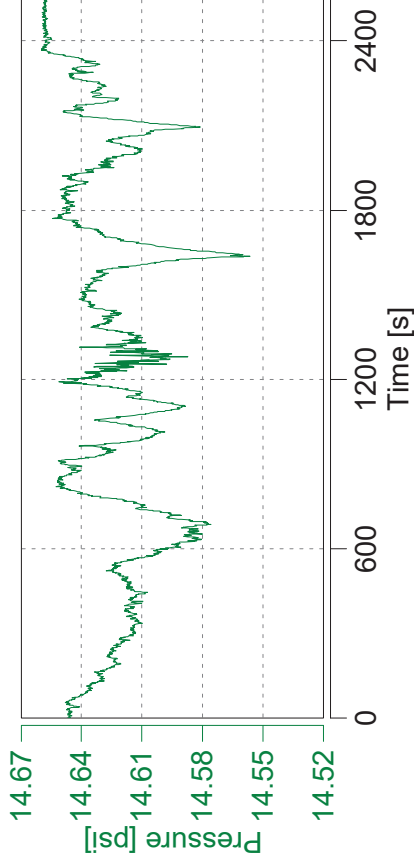
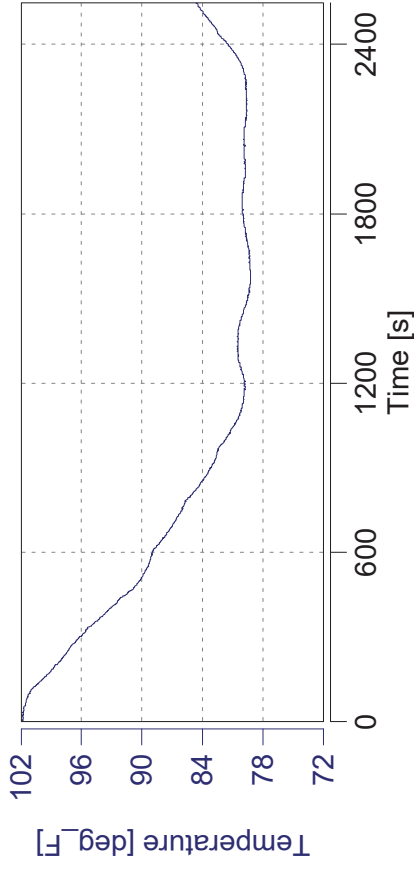
'Highway'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: GPS

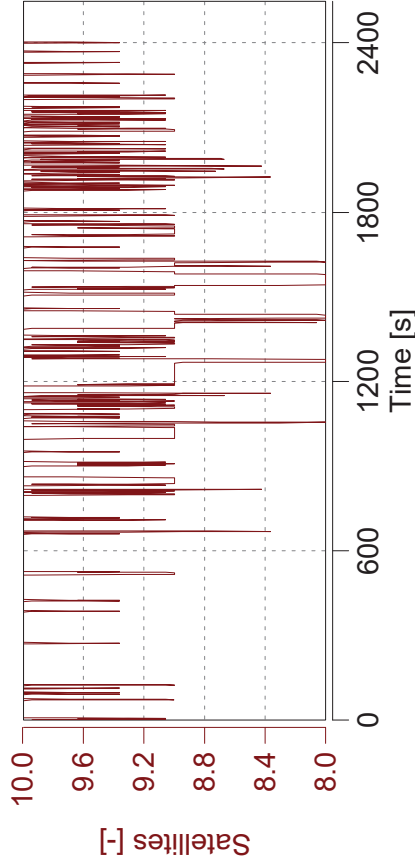
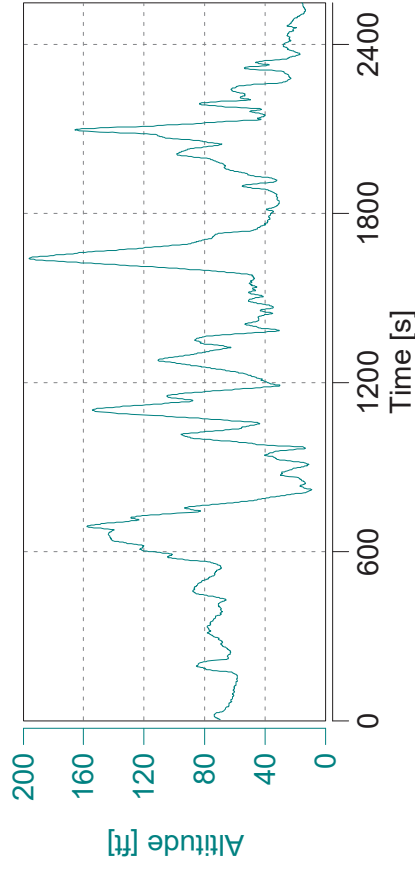
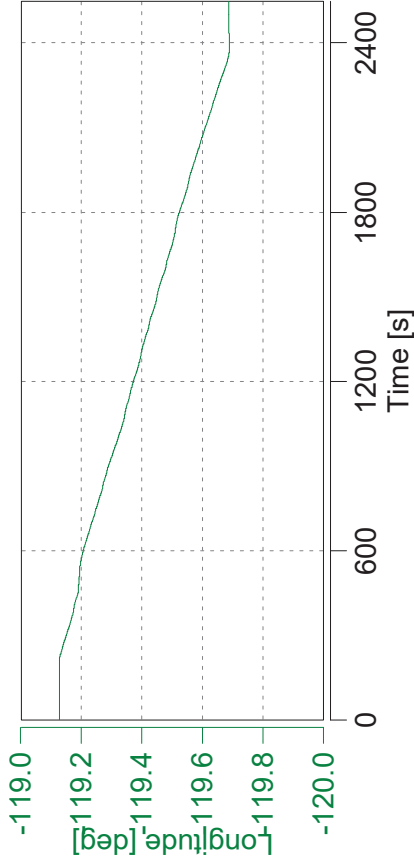
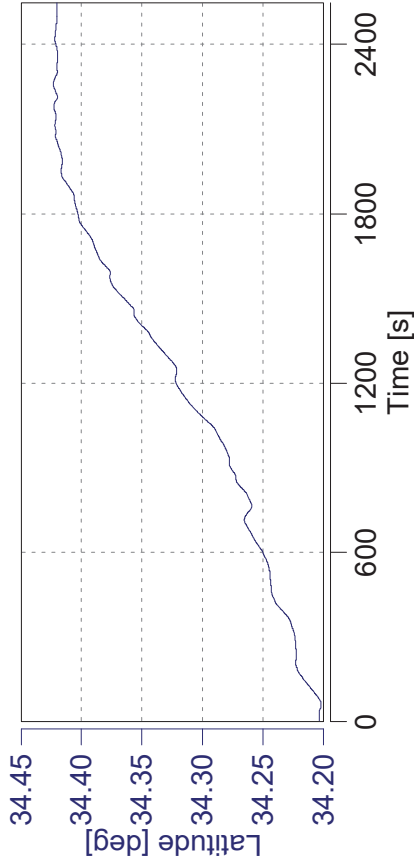
'Highway'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (1)

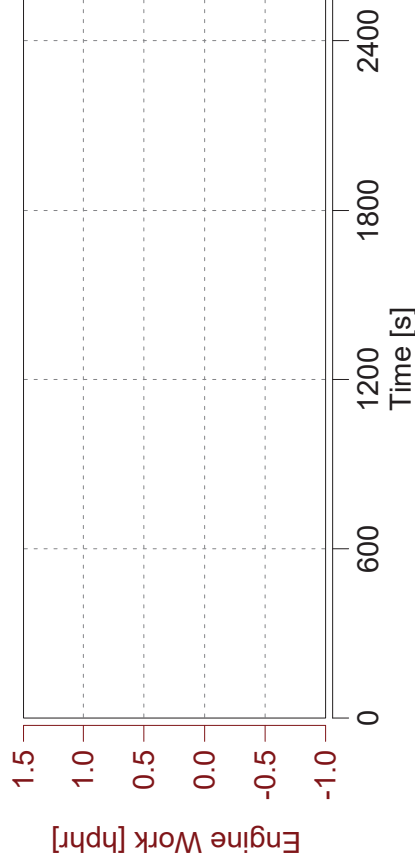
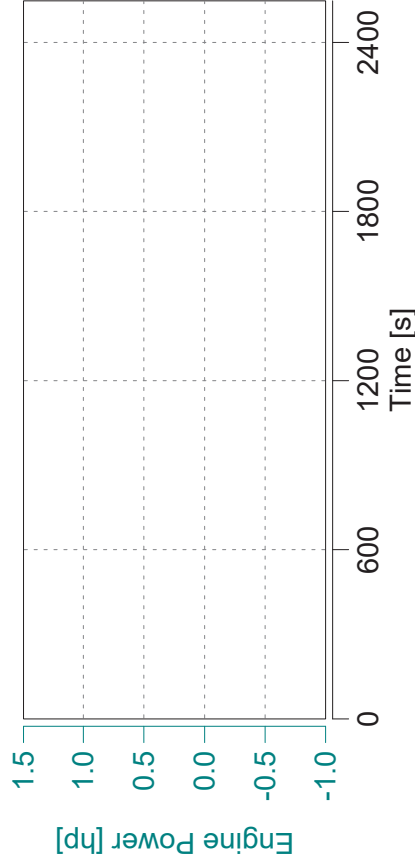
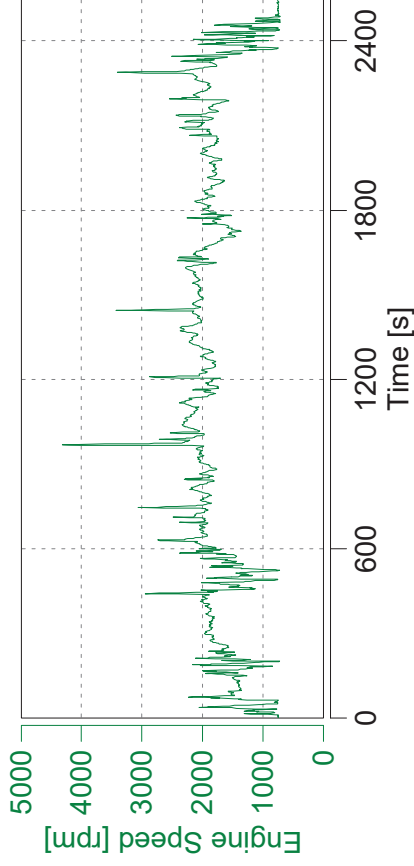
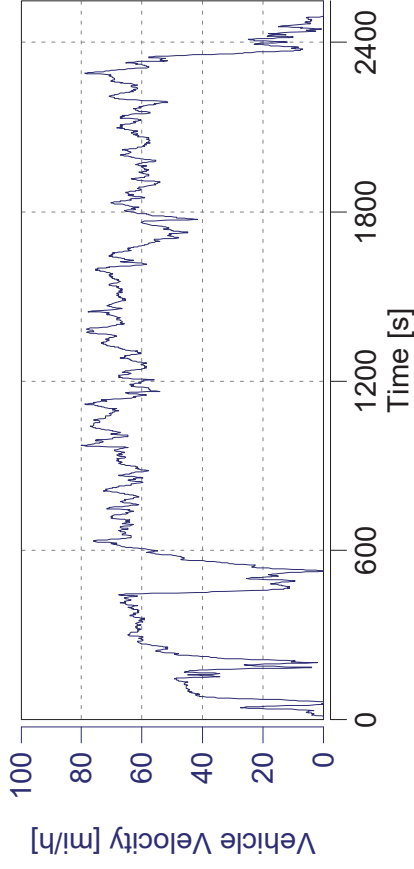
'Highway'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (2)

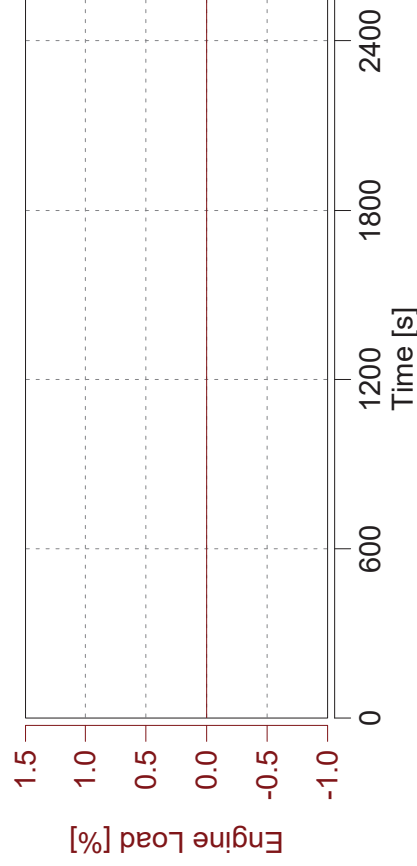
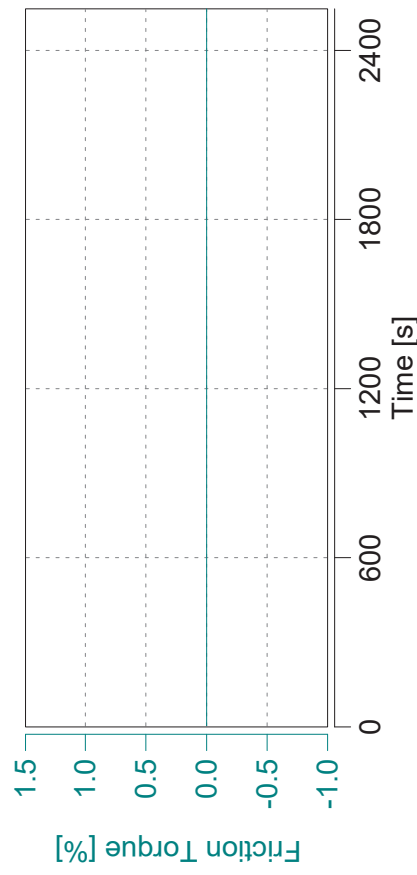
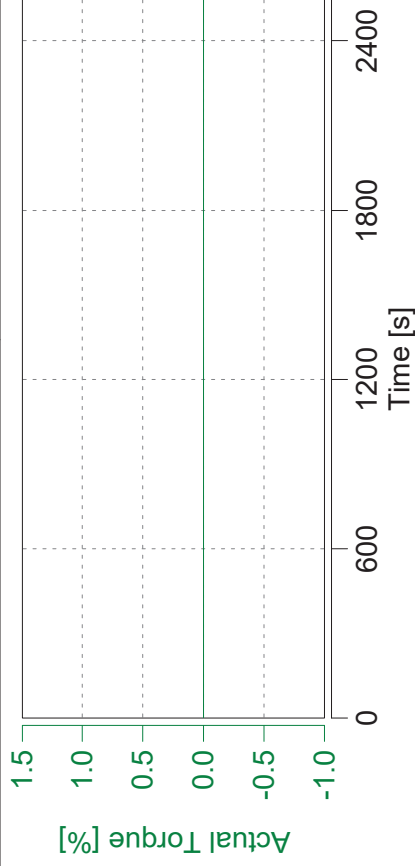
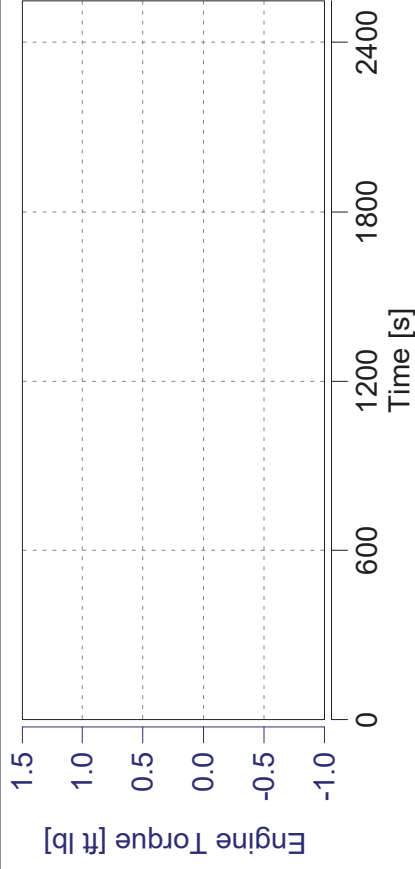
'Highway'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (3)

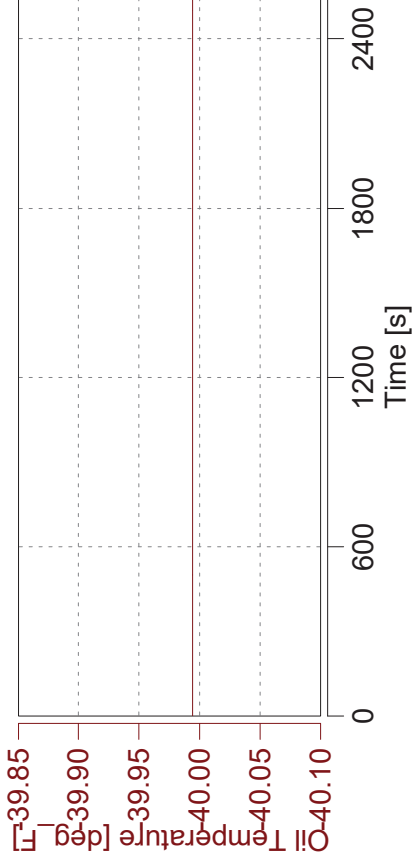
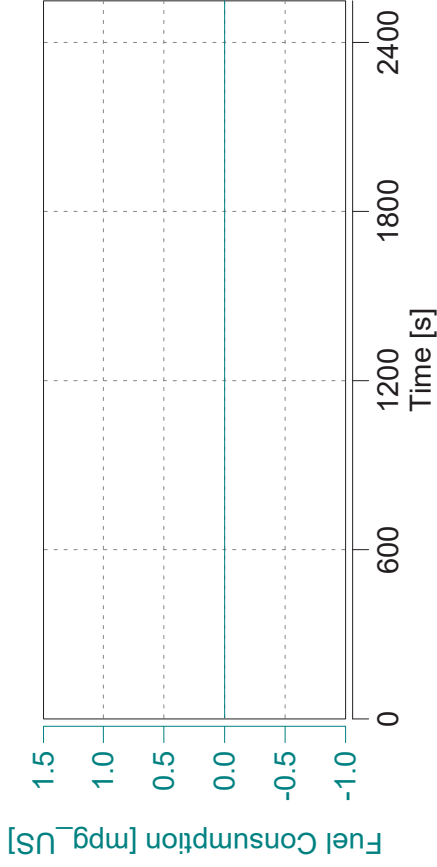
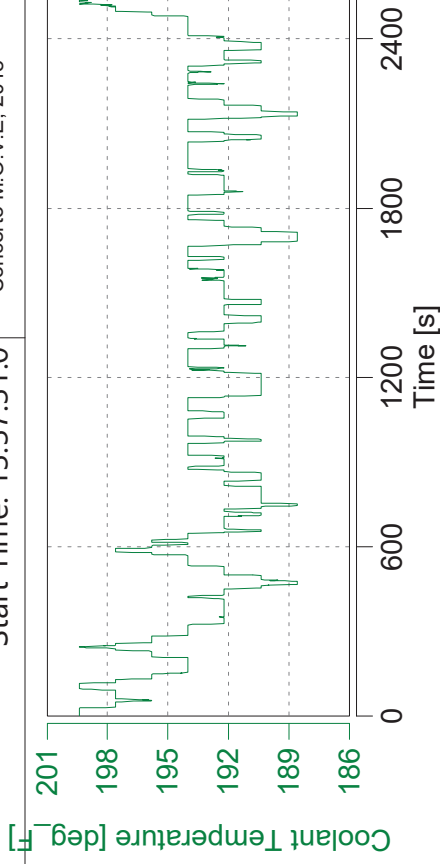
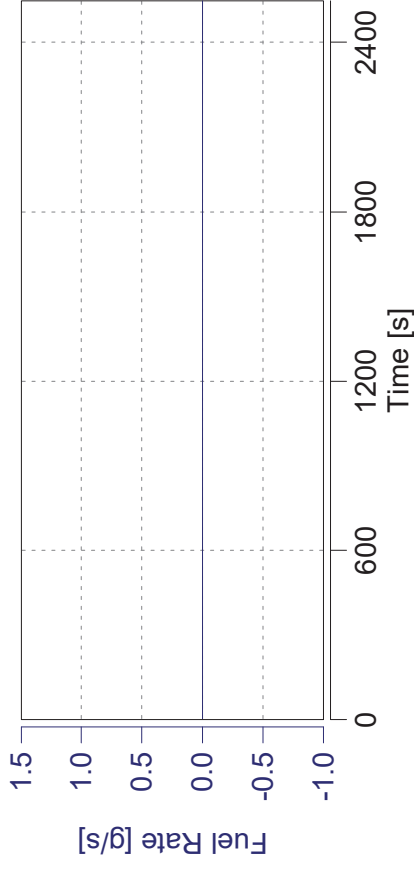
'Highway'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



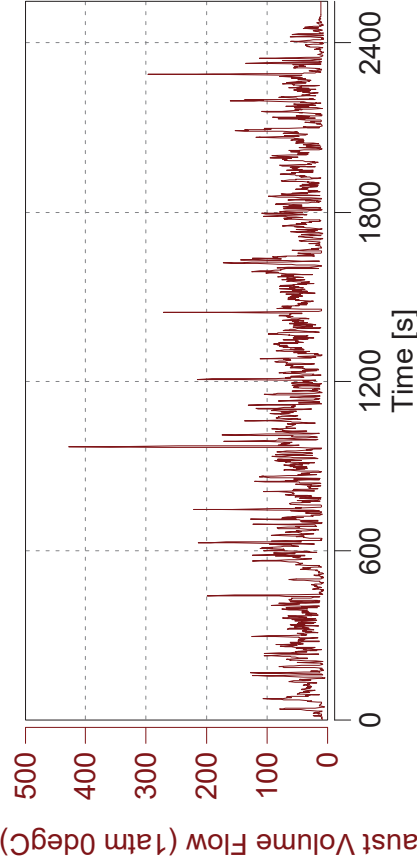
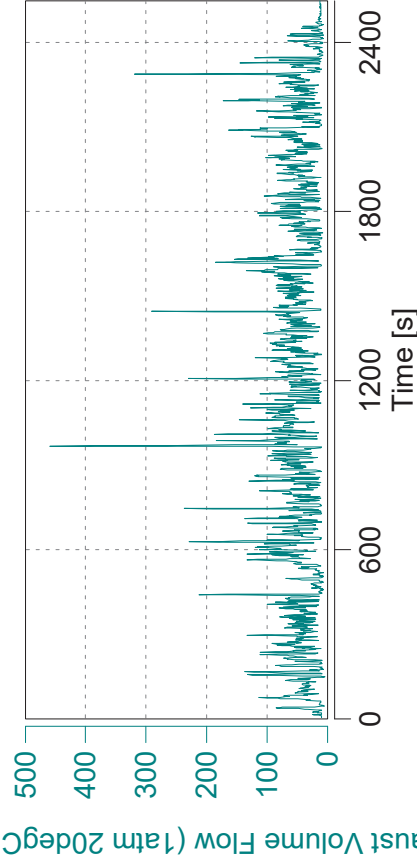
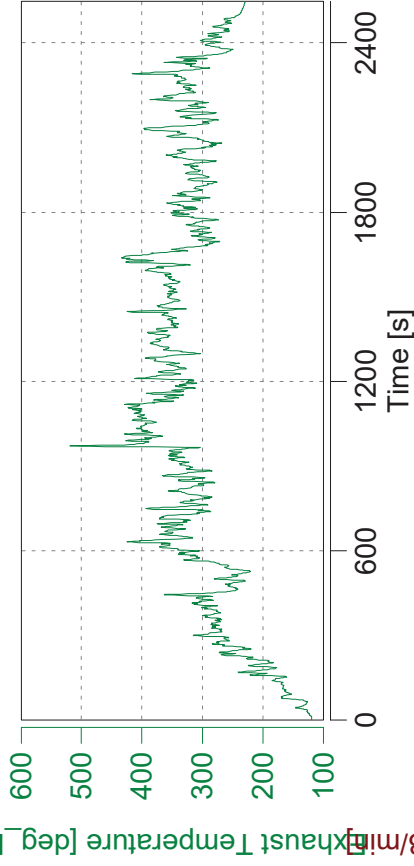
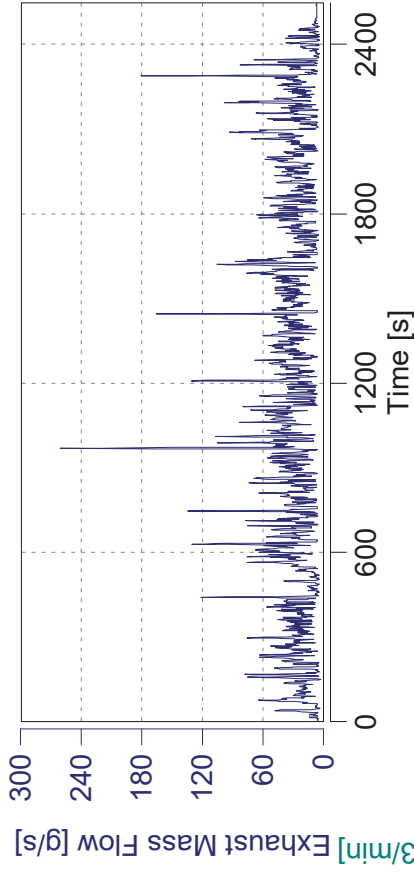
Concerto Version: 480 Build 316, Serial Number: 1120

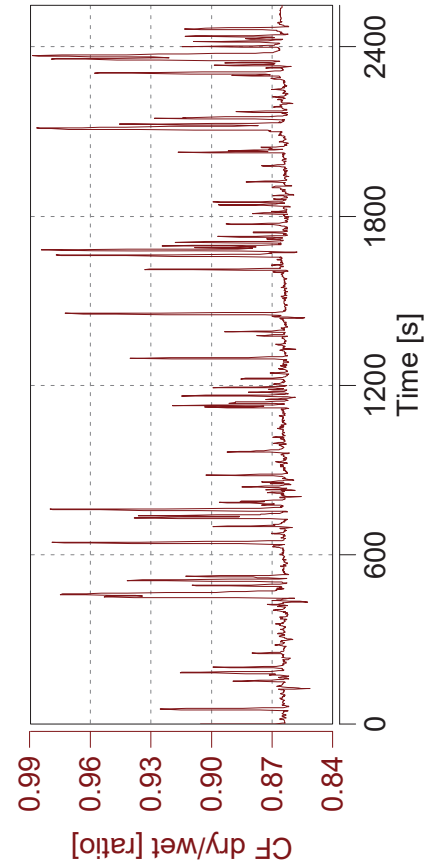
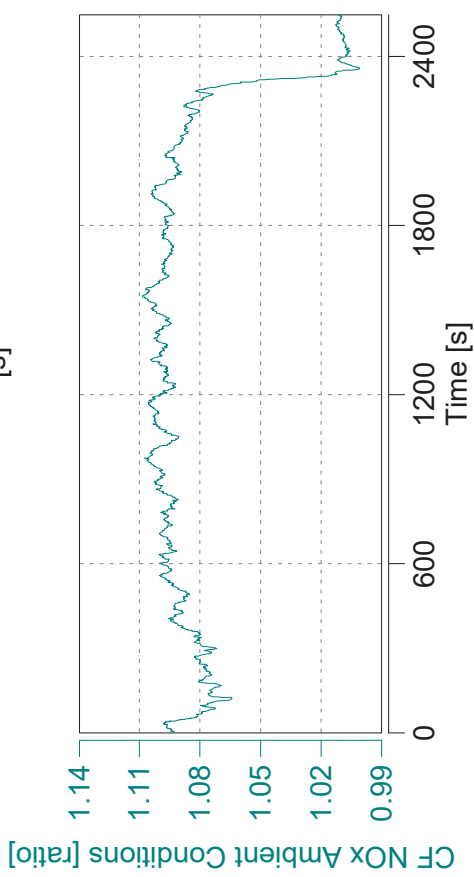
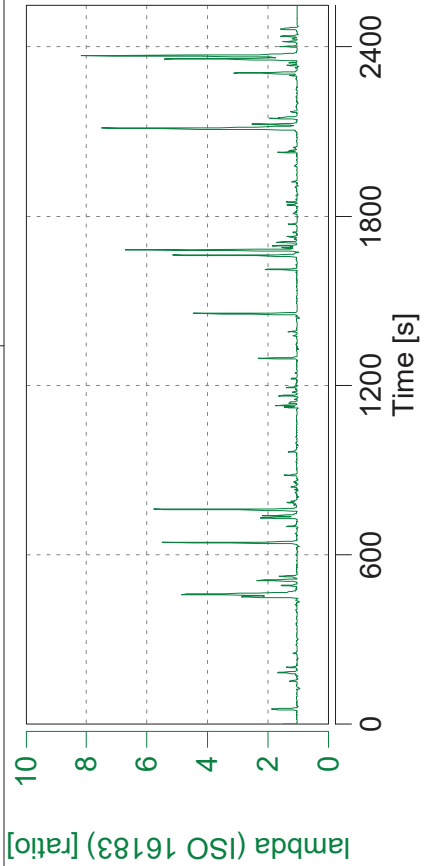
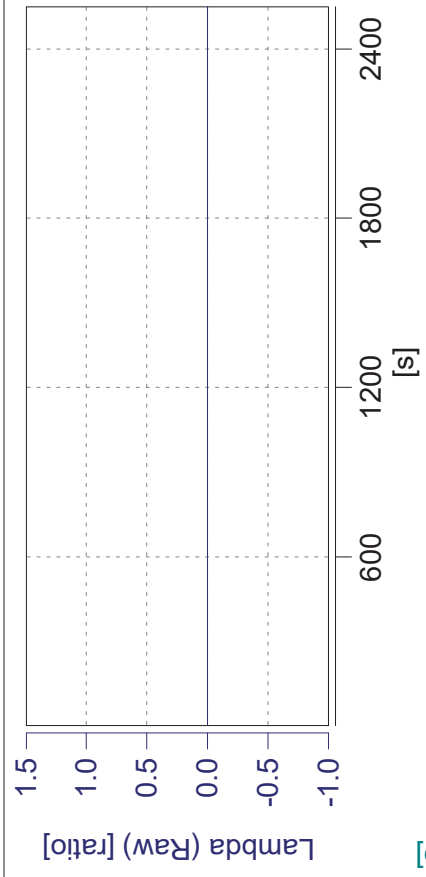
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90





Concerto Version: 480 Build 316, Serial Number: 1120
 M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L
 Engine: /
 NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
 Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (1)

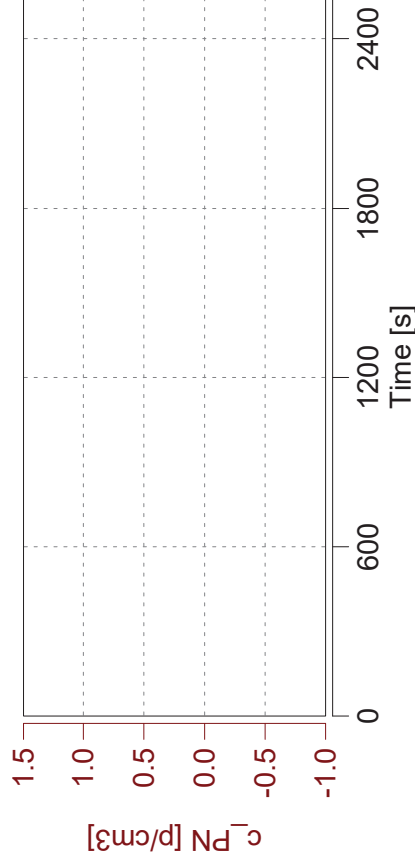
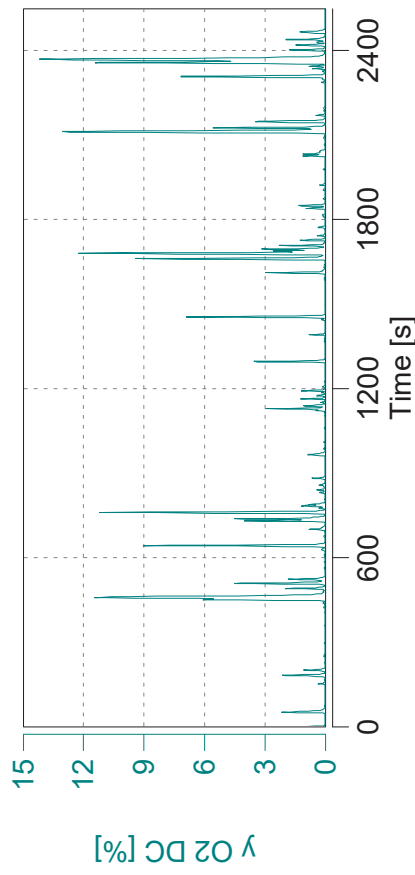
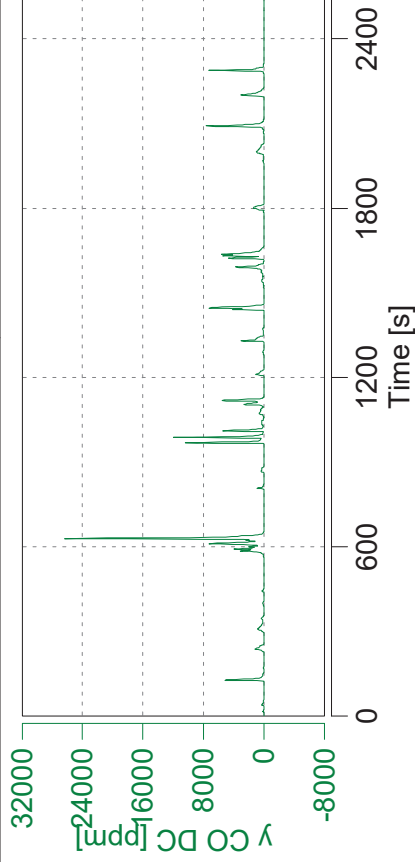
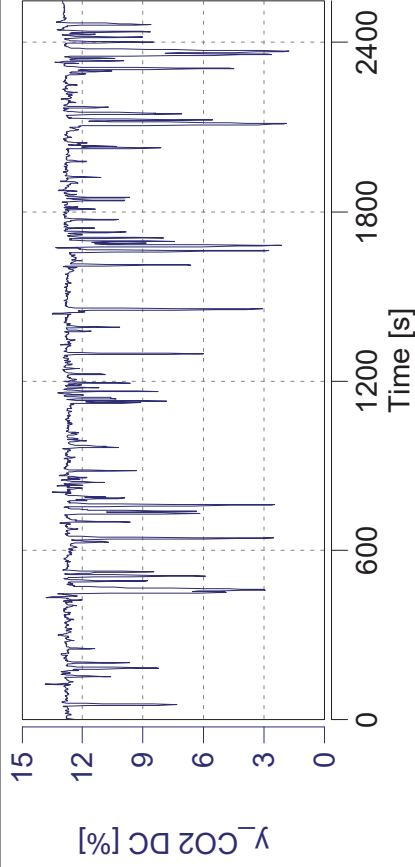
'Highway'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (2)

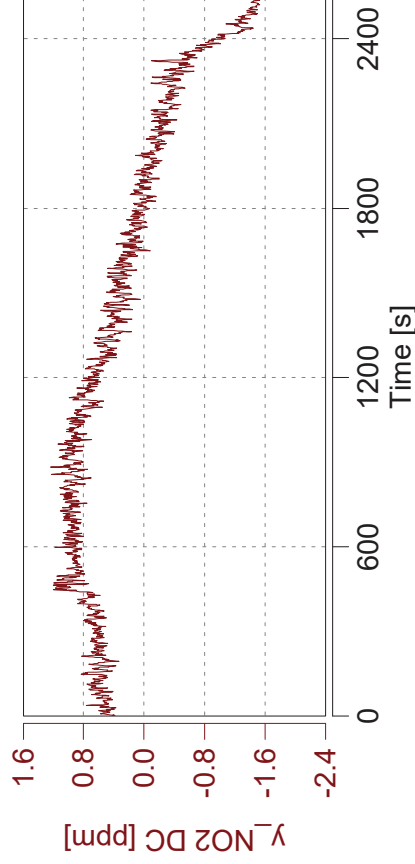
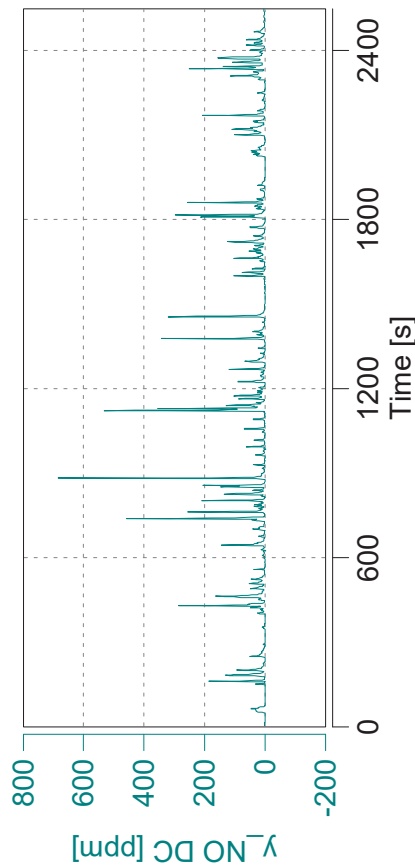
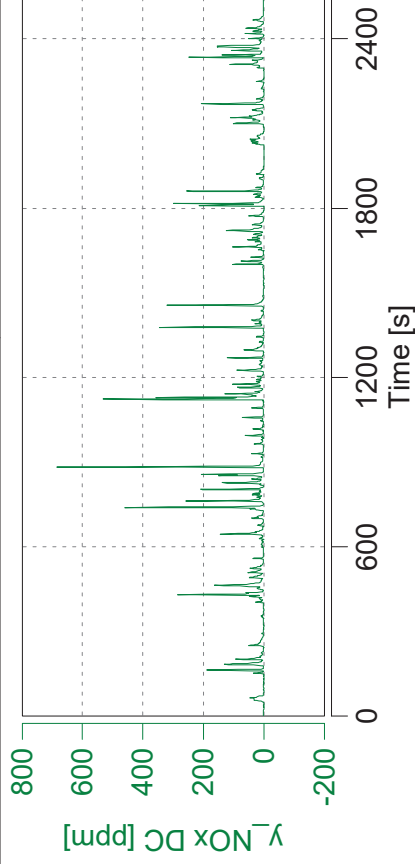
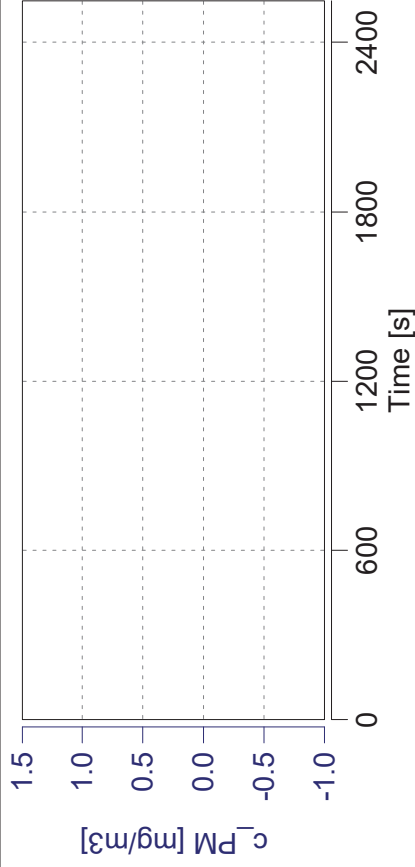
'Highway'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (3)

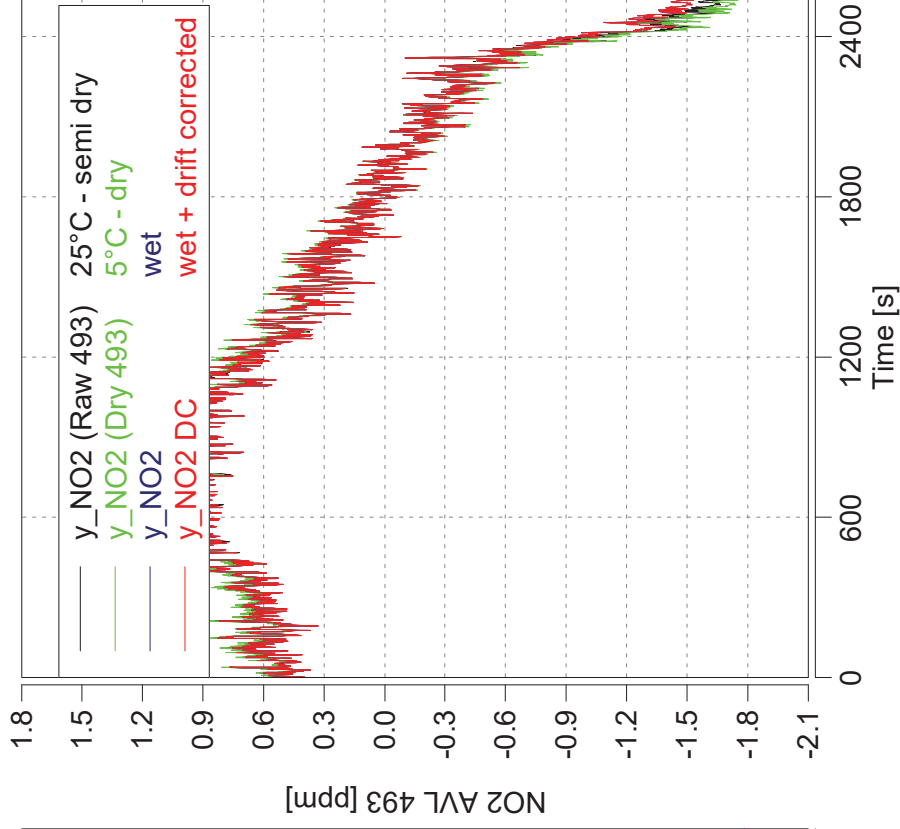
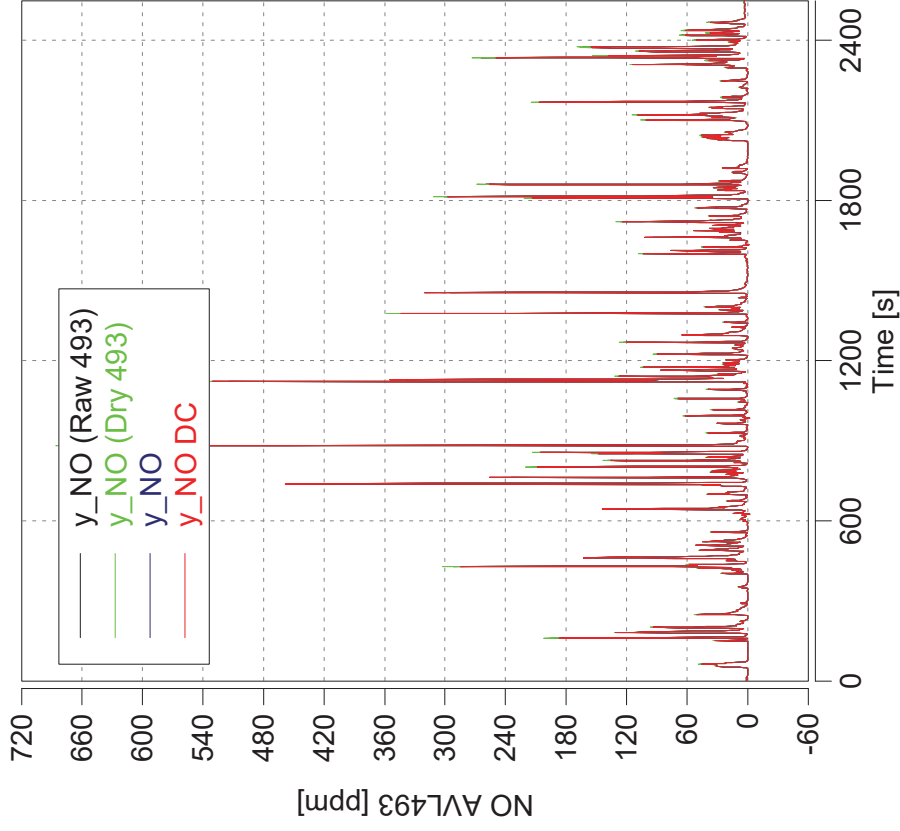
'Highway'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (4) NOx Corrections

'Highway'

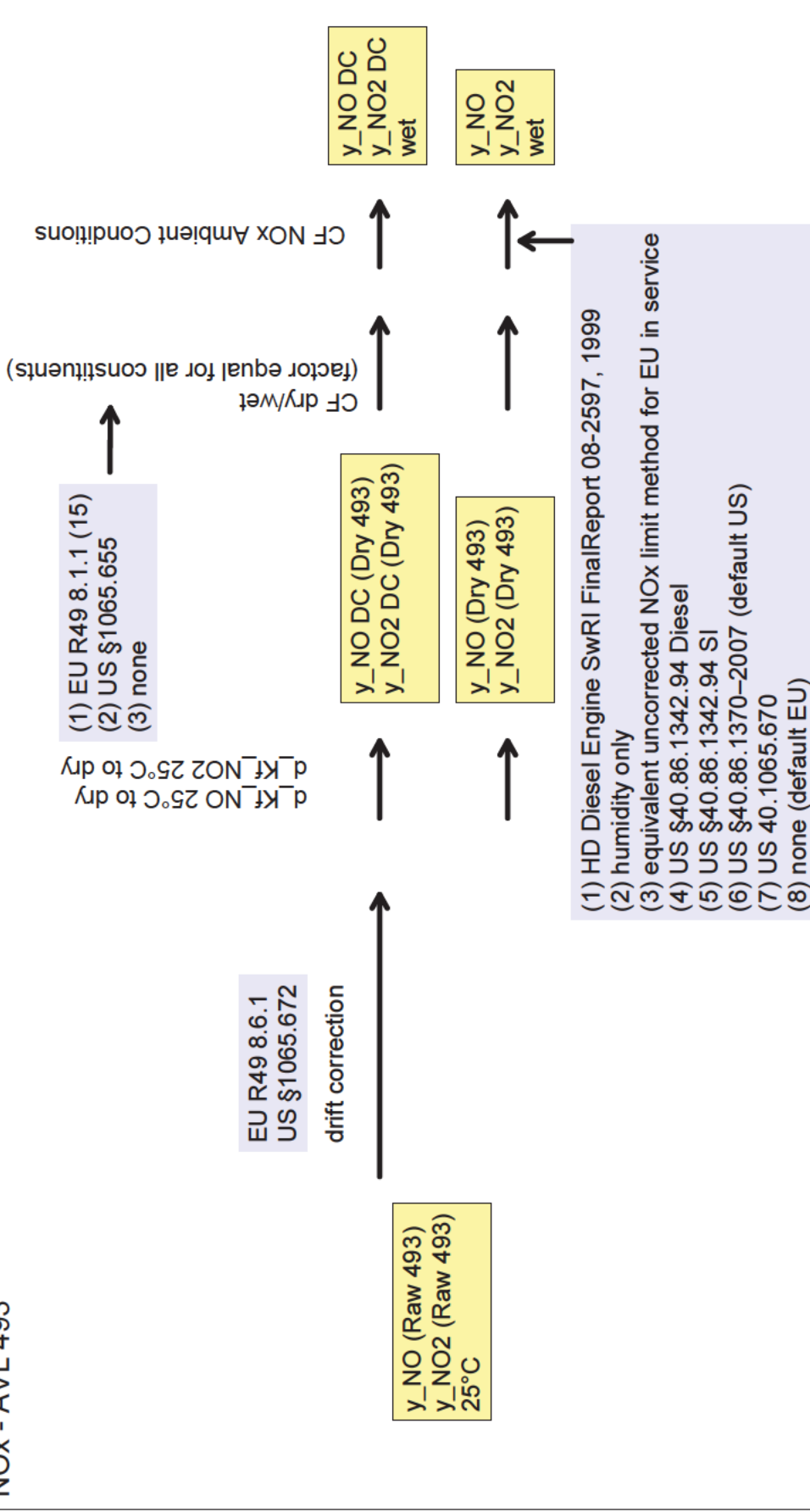
Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine /

Vehicle: RS3 / 2.5L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (5)

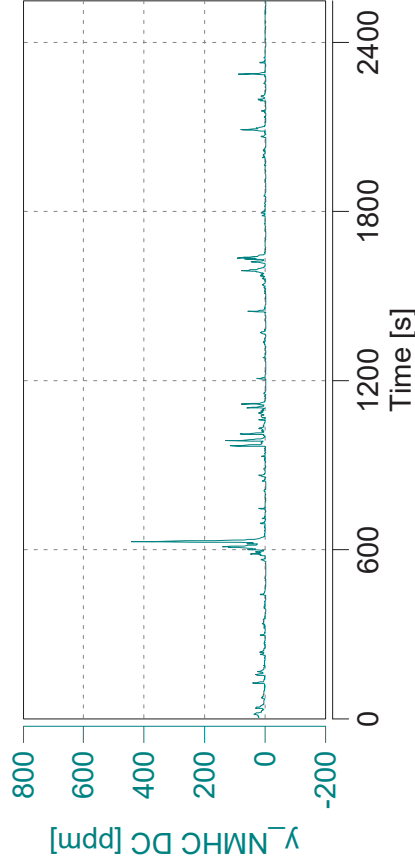
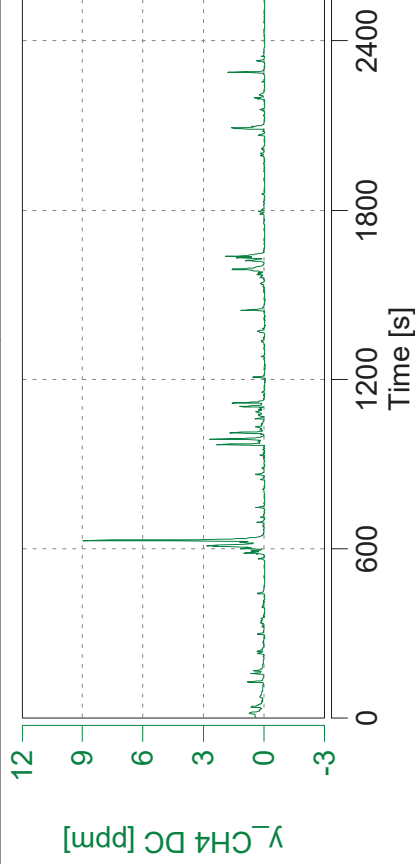
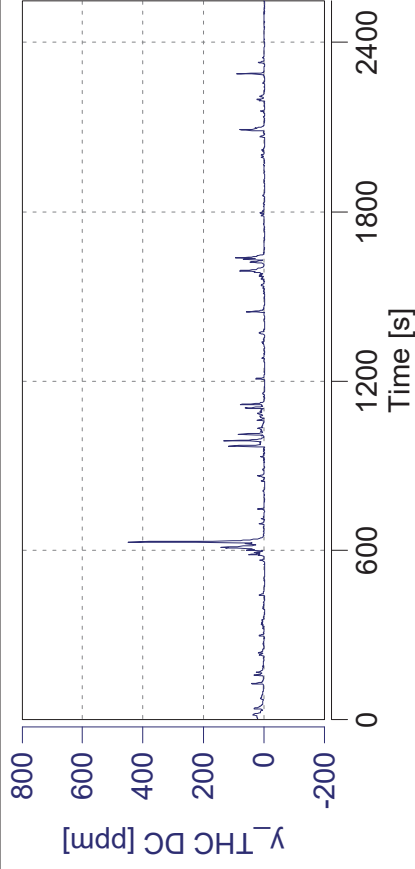
'Highway'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: NO/NO2/NOx Zero - Span

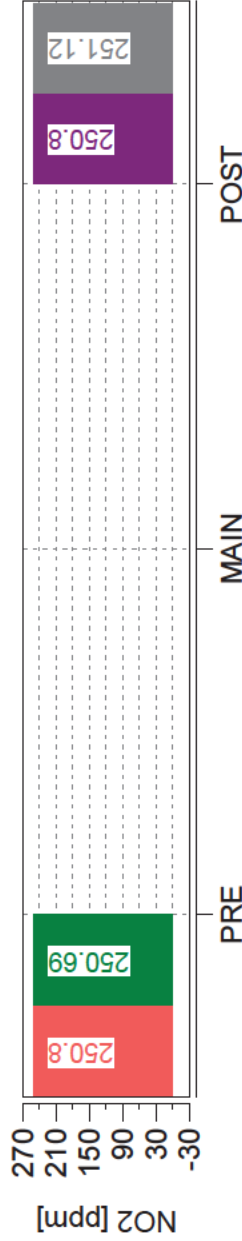
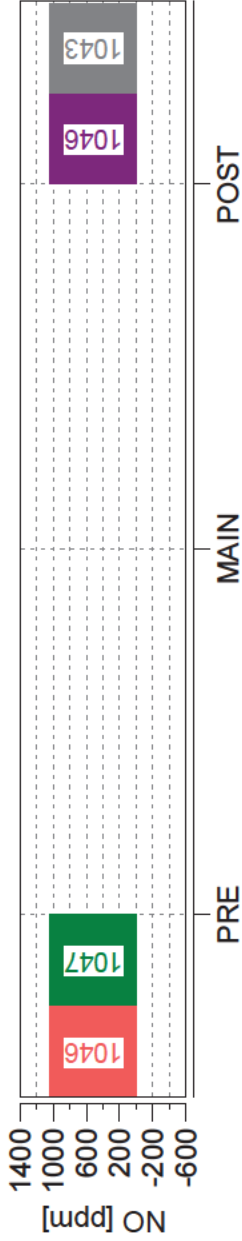
'Highway'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: Highway

Page: CO/CO2 Zero - Span

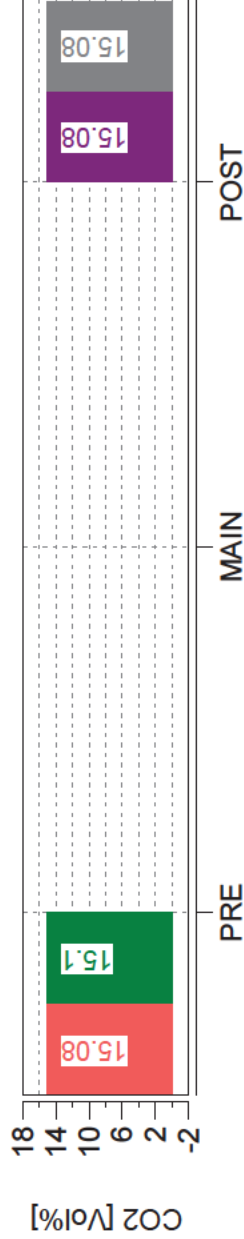
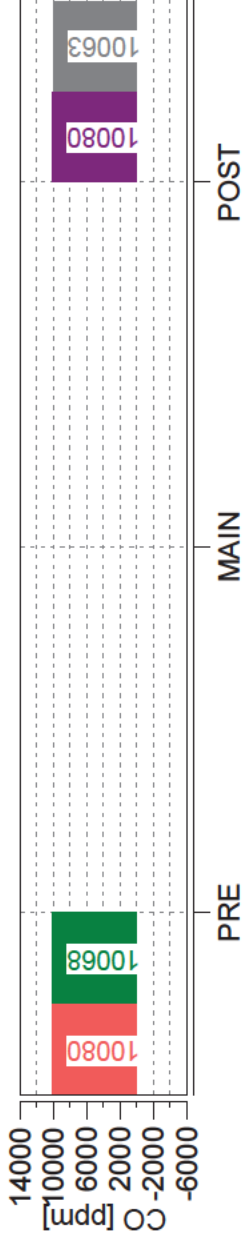
'Highway'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: THC/CH4 Zero - Span

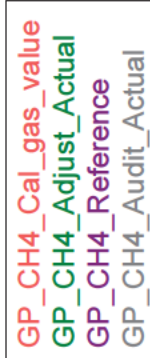
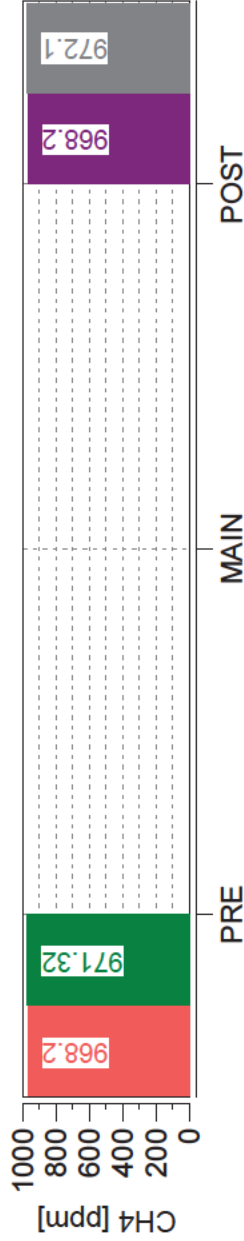
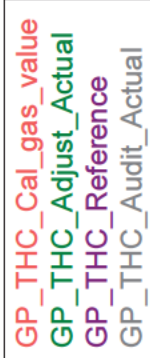
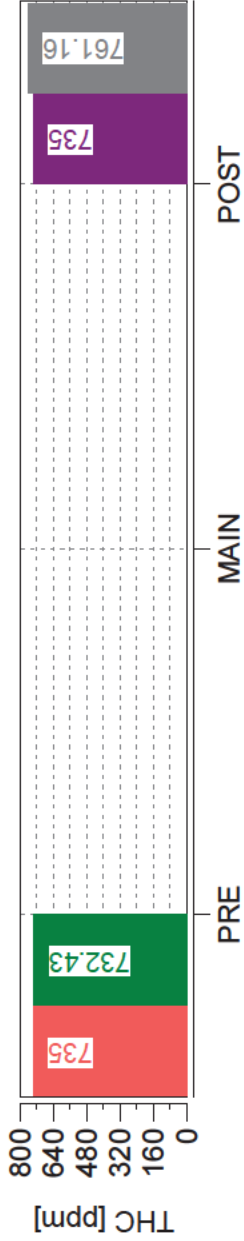
'Highway'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary

'Mountain'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E. 2018

Trip Duration	3236.00	s	ave THC	6.16939	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3236.00	s	ave NMHC	6.04600	ppm	BS CO	n/a	g/hphr
Trip Distance	28.63	mi	ave CH4	0.12339	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	28.63	mi	ave CO	623.11106	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	10.92845	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	22.68120	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.16	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.12	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.47	gall	tot THC	0.77031	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.45	gall	tot NMHC	0.71254	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.01707	g	DS CO2	429.25931	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	153.04752	g	DS CO	5.34528	g/mi
Trip Fuel Economy EU (ac)	19.46	mpg_US	tot CO2	12290.66331	g	DS THC	0.02690	g/mi
Trip Fuel Economy US (ac)	19.68	mpg_US	tot NO (d)	2.09909	g	DS NMHC	0.02489	g/mi
Trip Av. Eng. Speed	1590.98	rpm	tot NO2	-0.03930	g	DS CH4	0.00060	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	2.05978	g	DS NO (d)	0.07331	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	-0.00137	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.07194	g/mi
Trip Exhaust Mass	68.43	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	91.75	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	32.97	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	31.85294	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	12.97899	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary Drift Corrected

'Mountain'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018

Trip Duration	3236.00	s	ave THC DC	5.88647	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3236.00	s	ave NMHC DC	5.76874	ppm	BS CO DC	n/a	g/hphr
Trip Distance	28.63	mi	ave CH4 DC	0.11773	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	28.63	mi	ave CO DC	624.02729	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	10.92121	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	22.70083	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.16	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.12	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave Soot meas	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.47	gall	ave PN DC	0.75195	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.45	gall	tot THC DC	0.69556	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot NMHC DC	0.01667	g	DS CO2 DC	428.97485	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CH4 DC	153.27256	g	DS CO DC	5.35314	g/mi
Trip Fuel Economy EU (ac)	19.46	mpg_US	tot CO DC	12282.51840	g	DS THC DC	0.02626	g/mi
Trip Fuel Economy US (ac)	19.68	mpg_US	tot CO2 DC	2.10086	g	DS NMHC DC	0.02429	g/mi
Trip Av. Eng. Speed	1590.98	rpm	tot NO DC (d)	-0.03929	g	DS CH4 DC	0.00058	g/mi
Trip Av. Torque	n/a	lbft	tot NO2 DC	2.06157	g	DS NO DC (d)	0.07337	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	-0.00137	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.07200	g/mi
Trip Exhaust Mass	68.43	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	91.75	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	32.97	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	31.85294	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	12.97899	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment Check

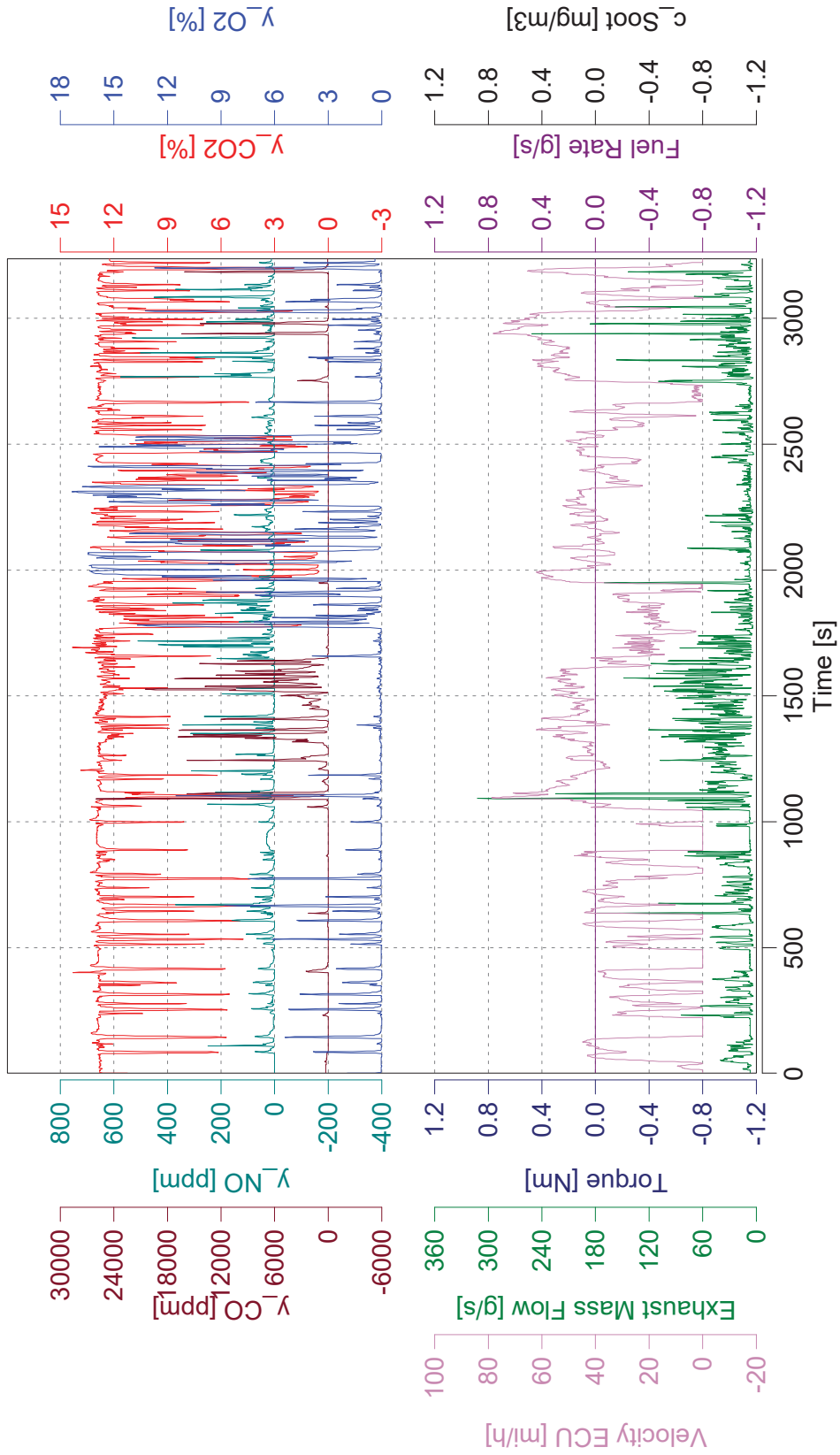
'Mountain'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment of Gas Concentrations

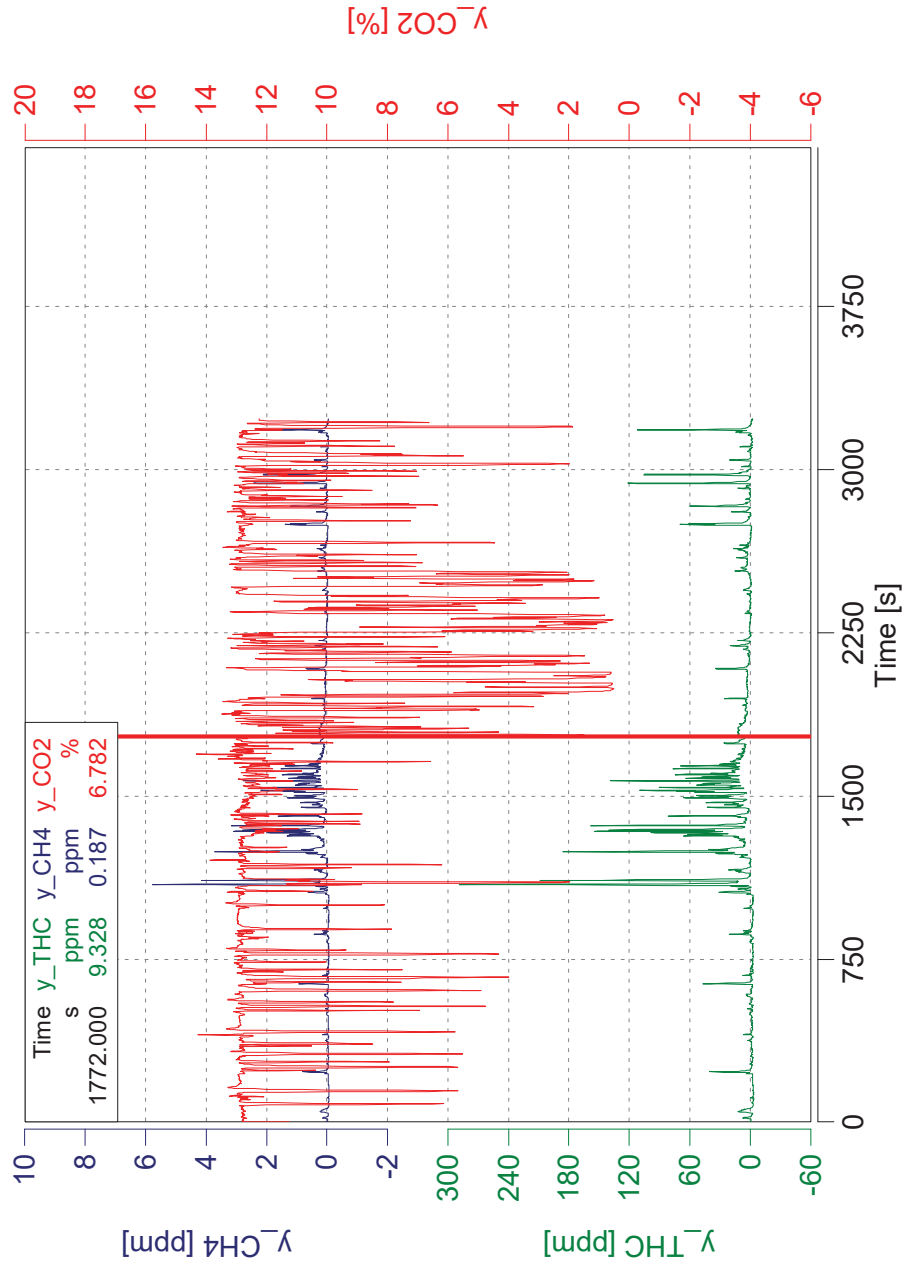
'Mountain'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

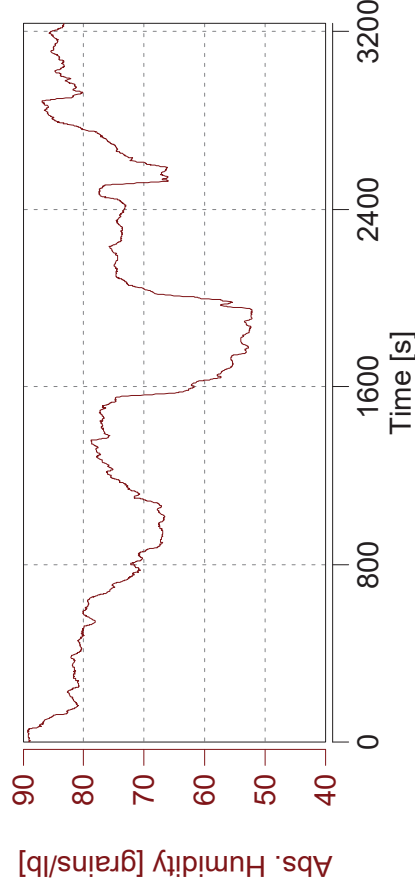
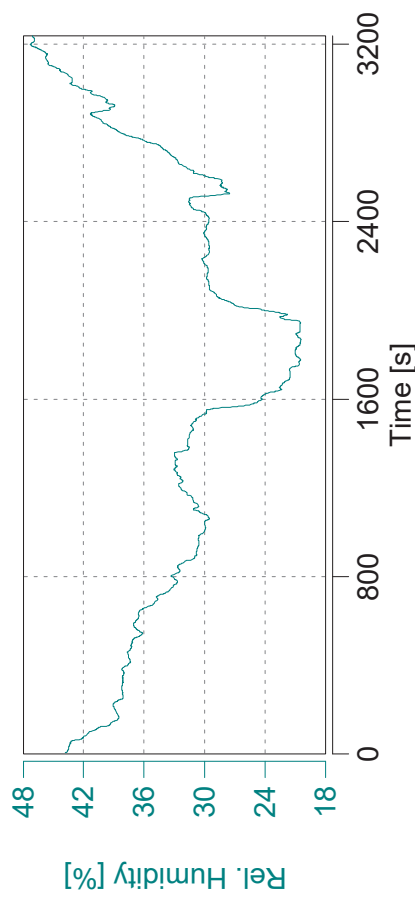
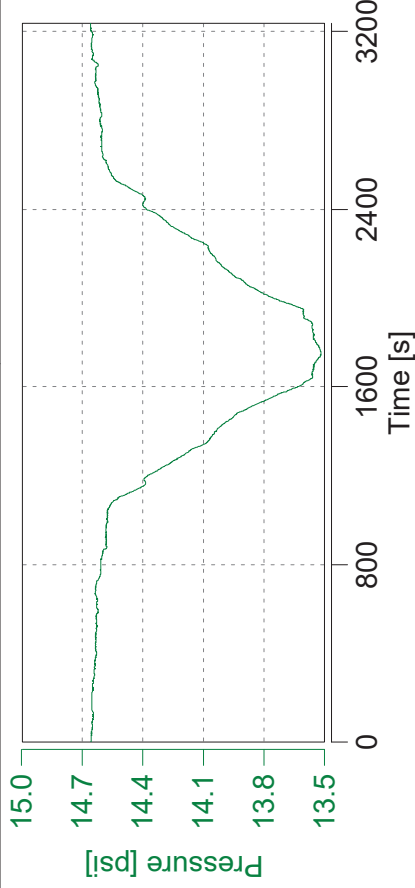
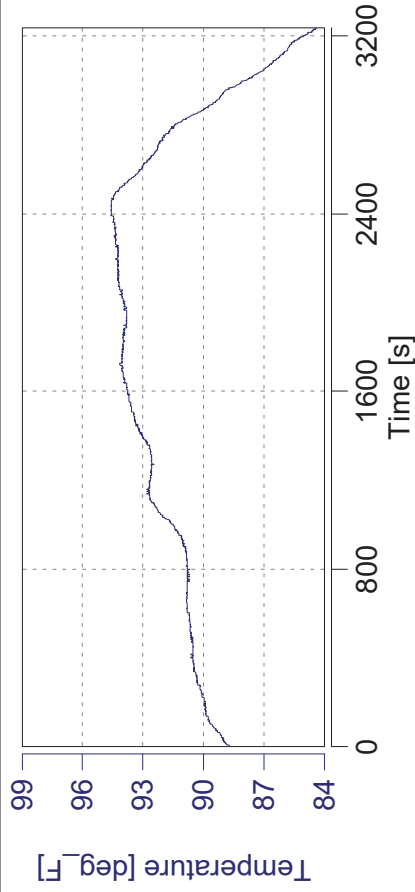
Case: Mountain

Page: Ambient Conditions

'Mountain'
Start Date: 08/09/2018
Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: GPS

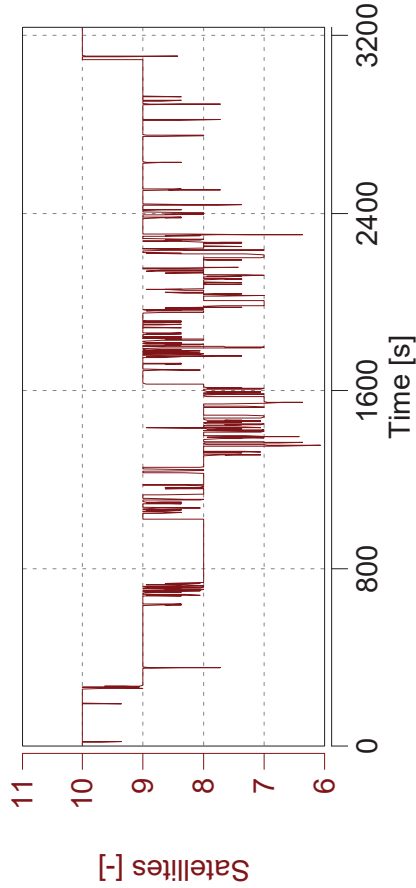
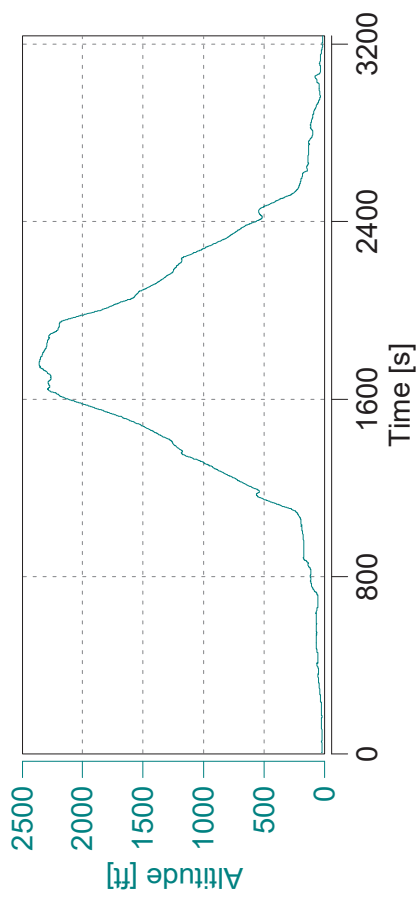
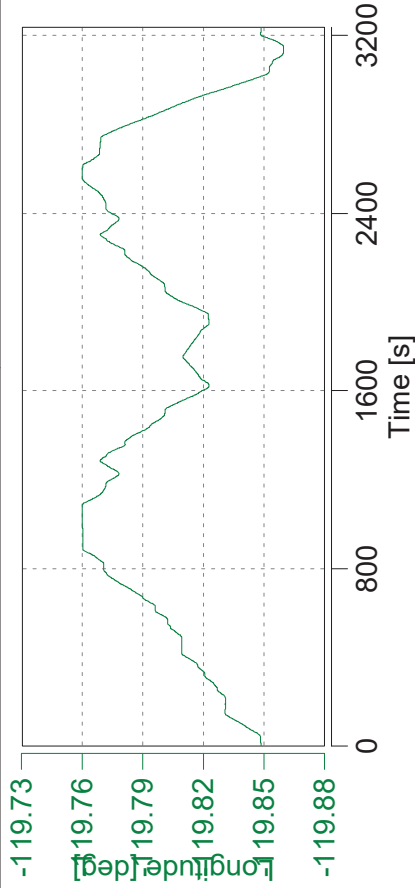
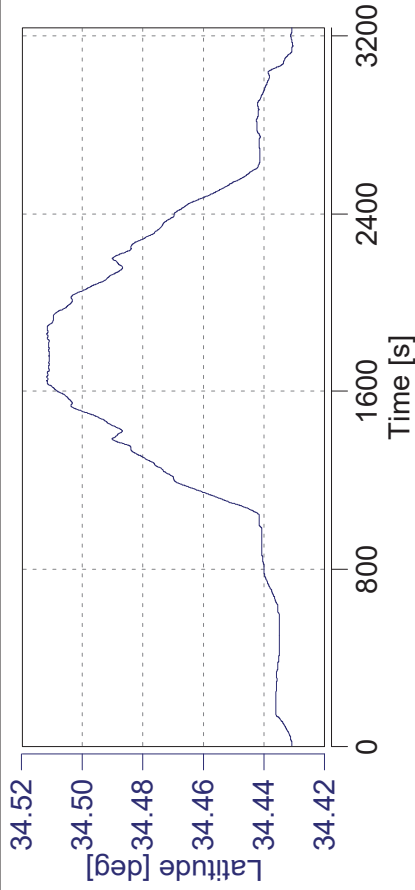
'Mountain'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (1)

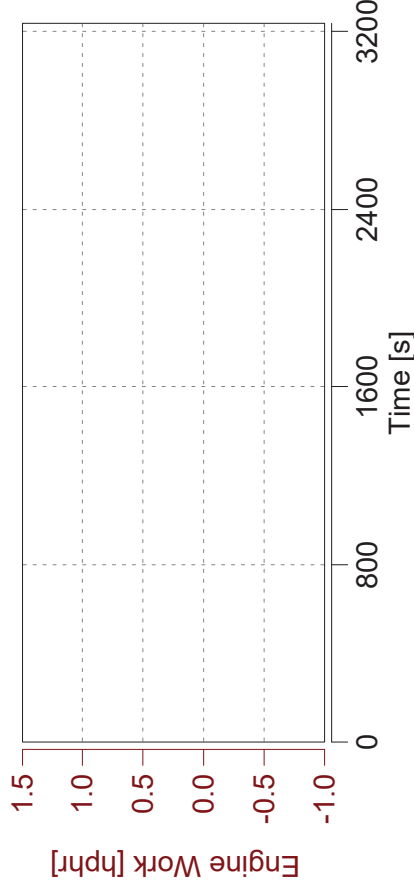
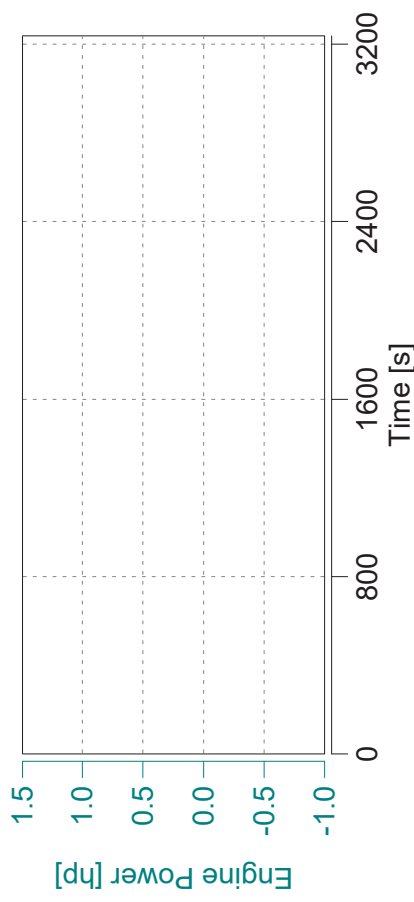
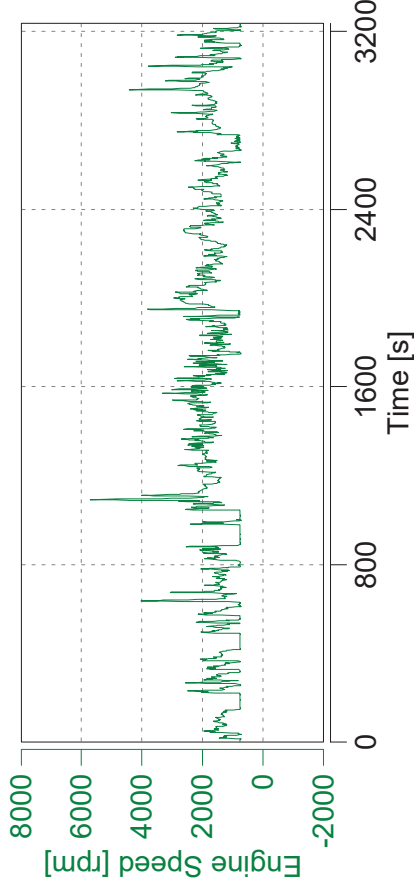
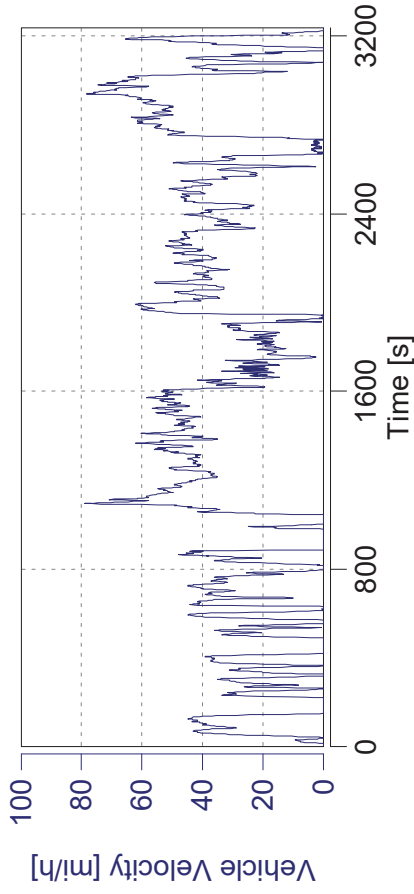
'Mountain'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (2)

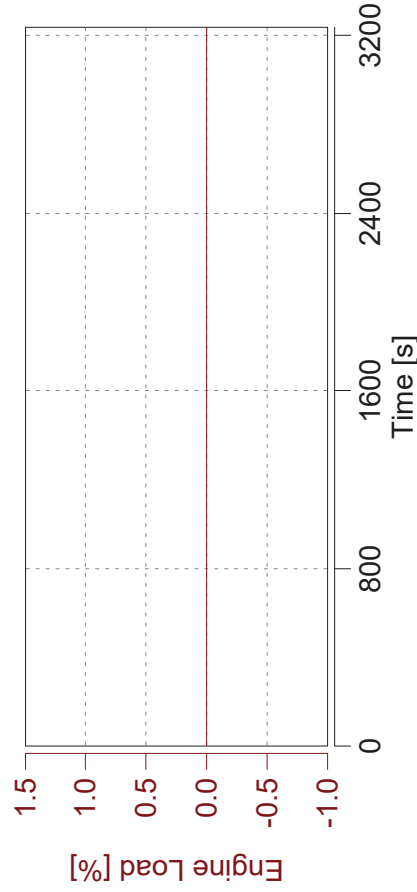
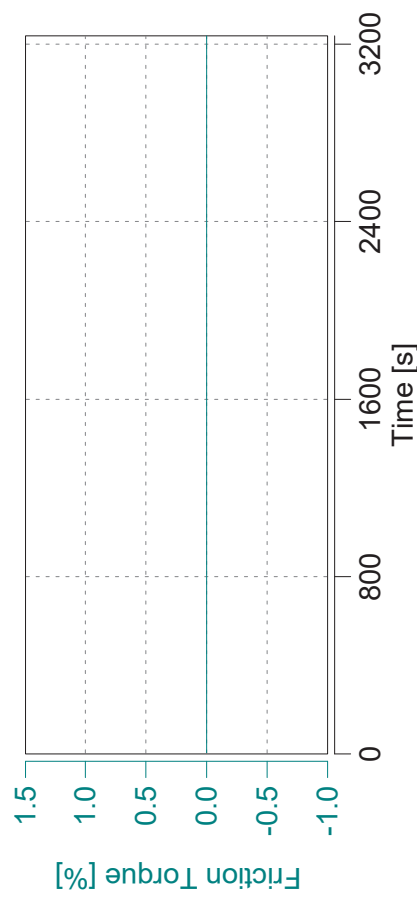
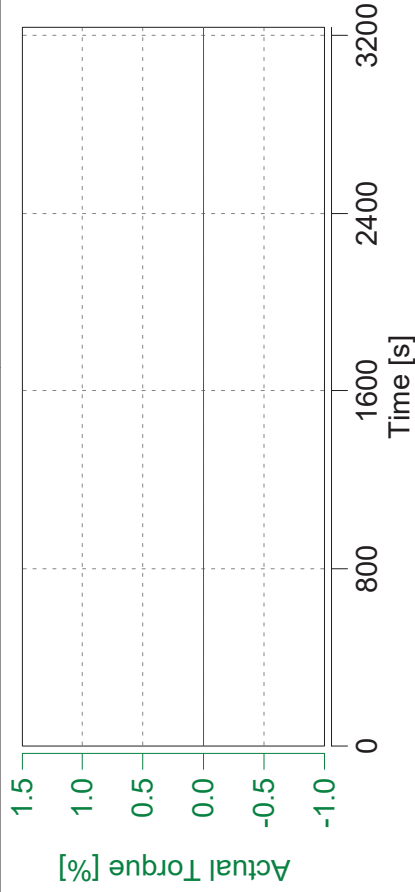
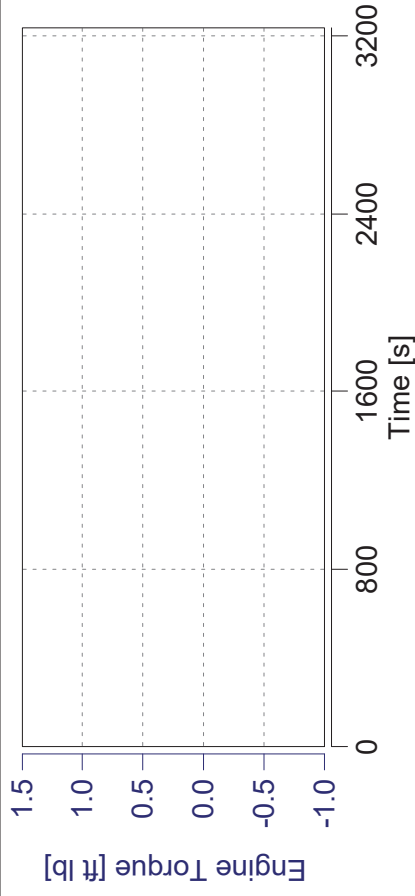
'Mountain'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (3)

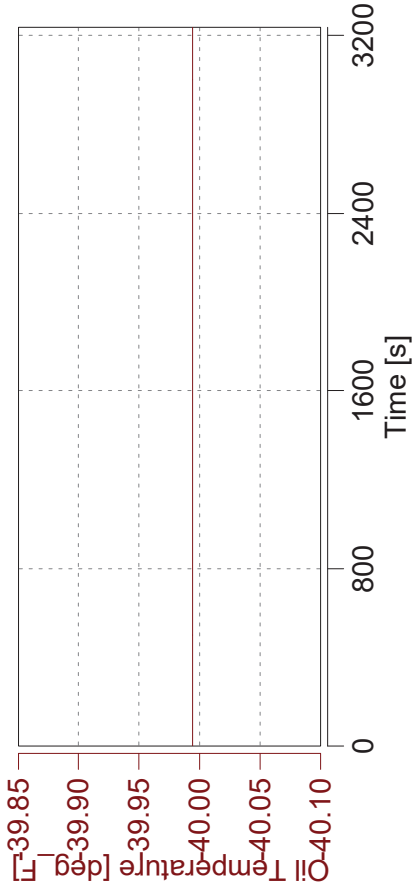
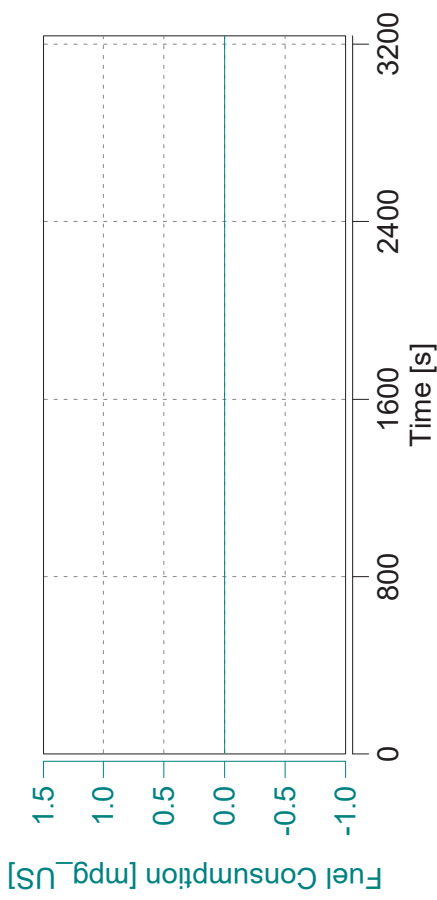
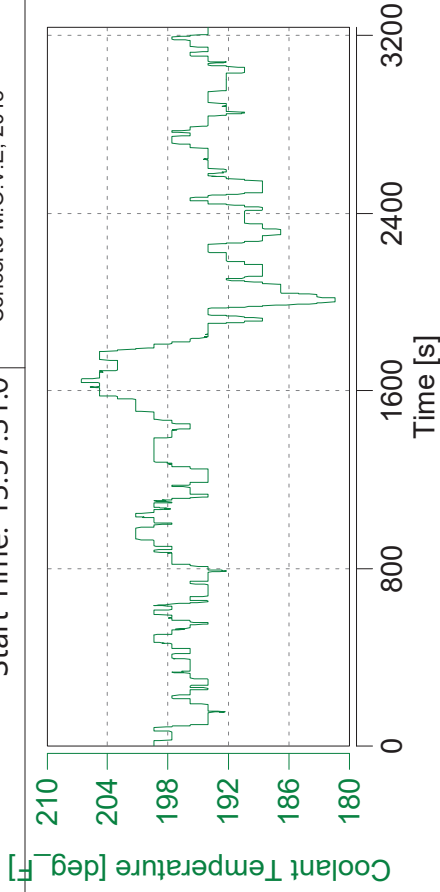
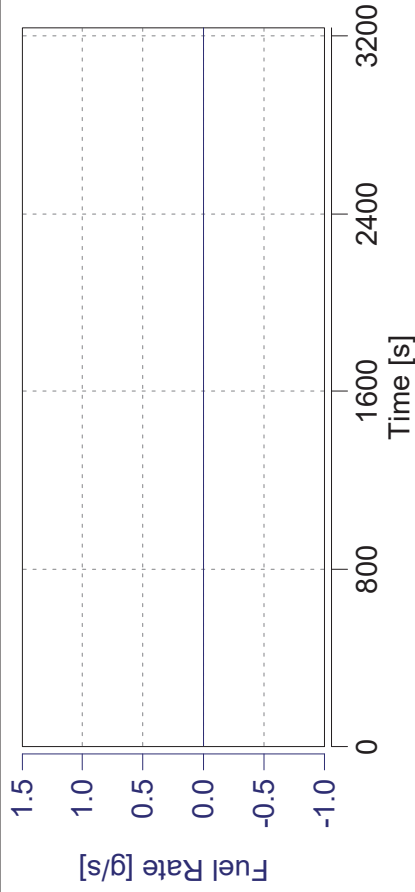
'Mountain'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

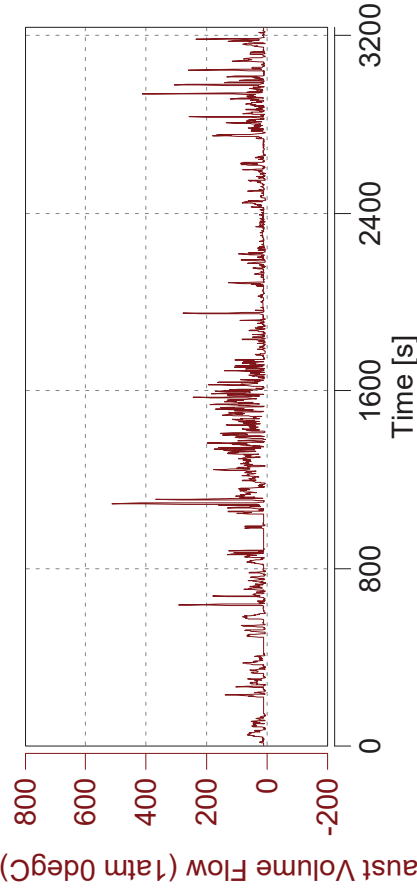
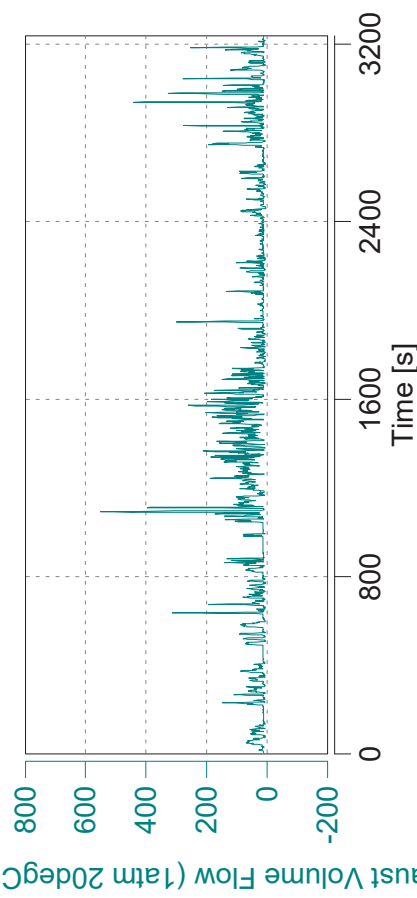
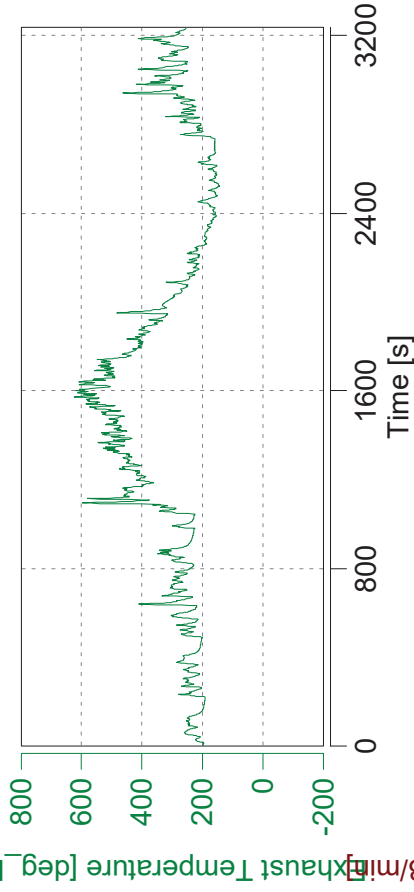
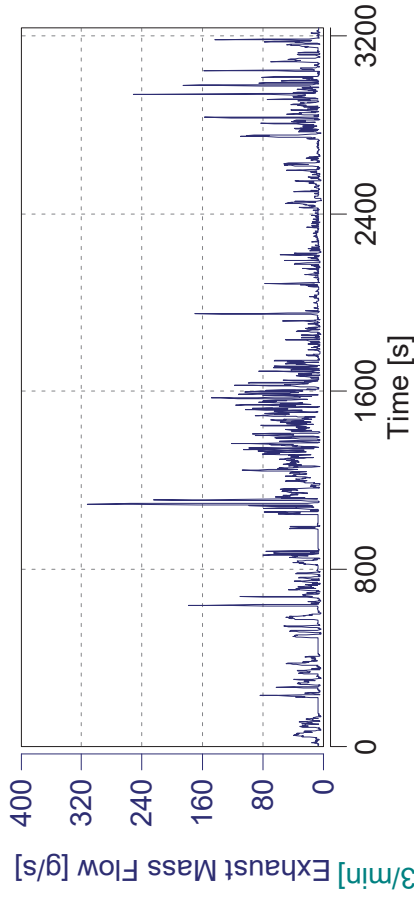
Page: Exhaust Flow (1)

'Mountain'

Start Date: 08/09/2018

Start Time: 13:37:31.0

Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Exhaust Flow (2)

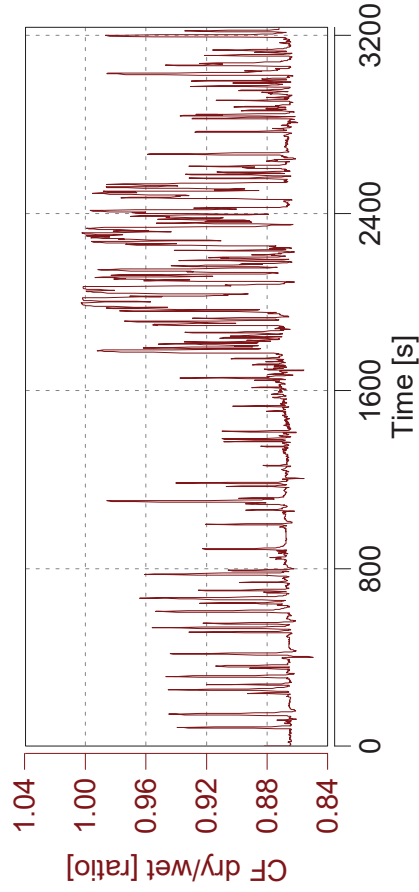
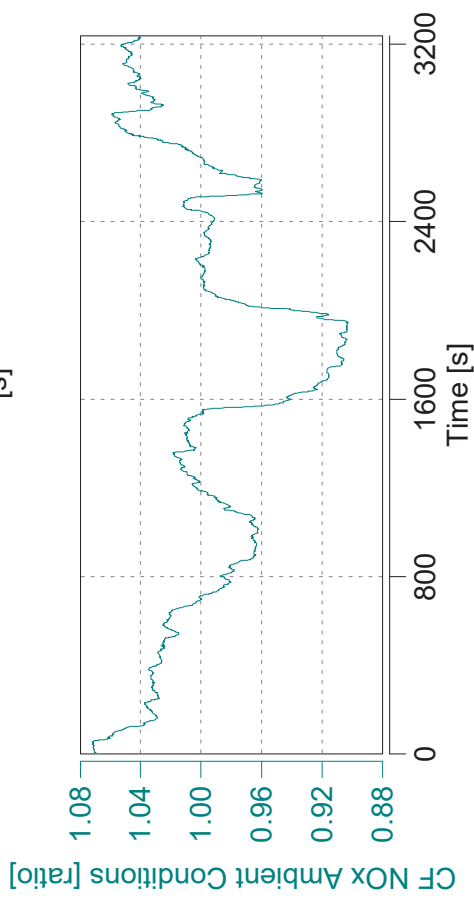
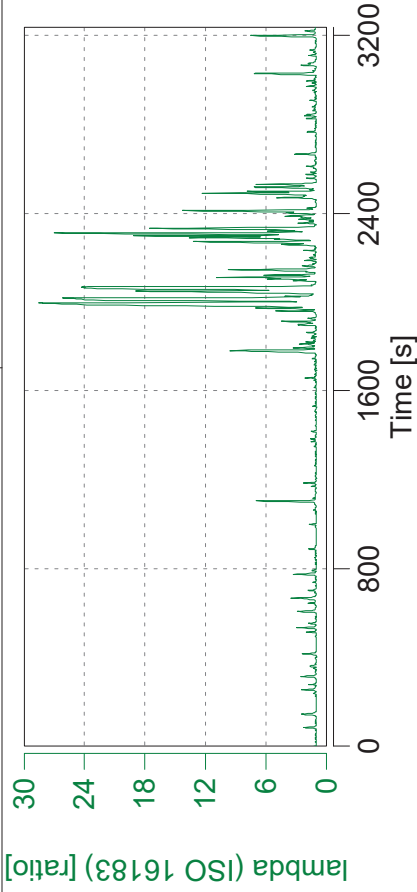
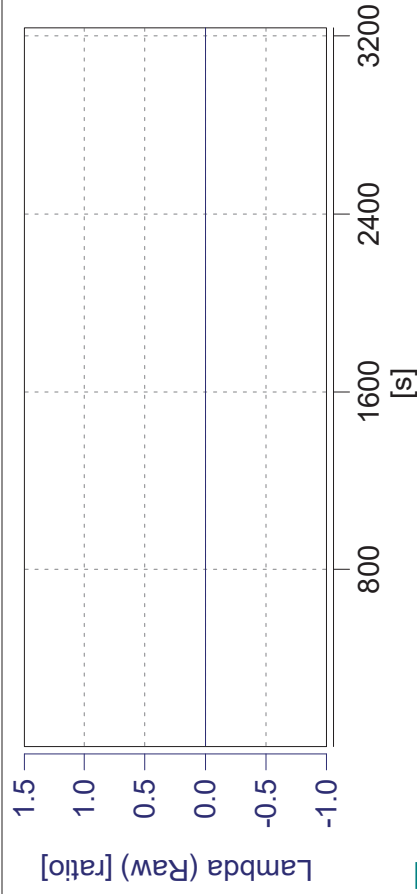
'Mountain'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (1)

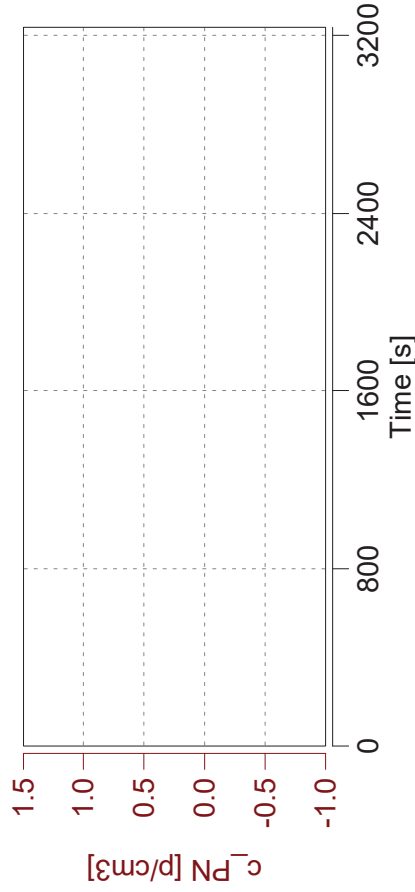
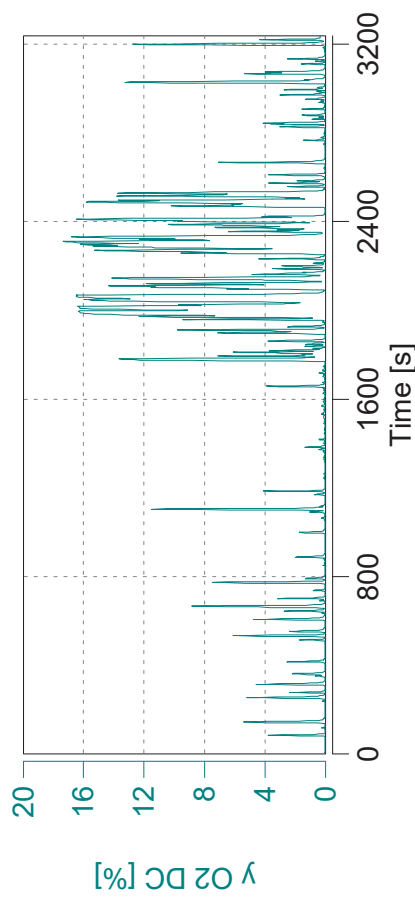
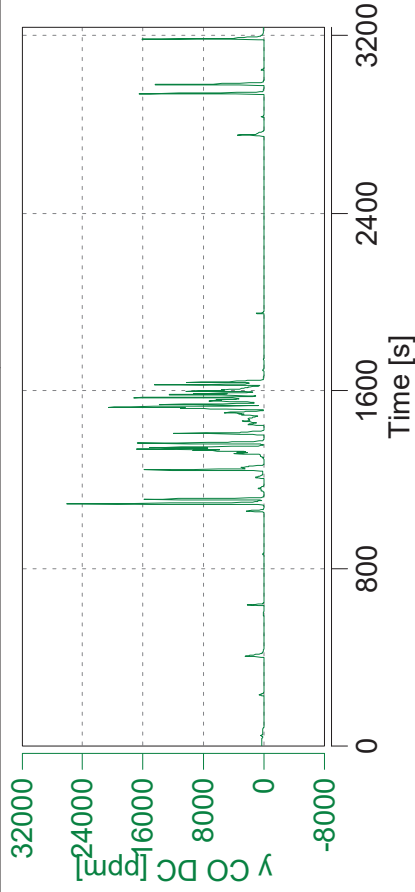
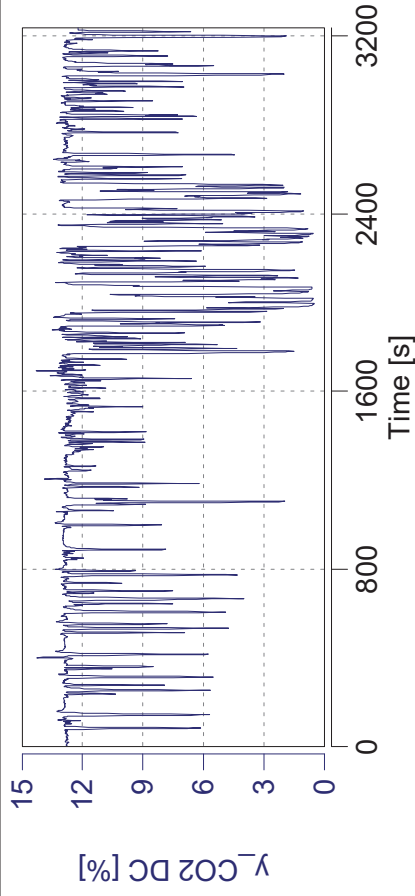
'Mountain'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (2)

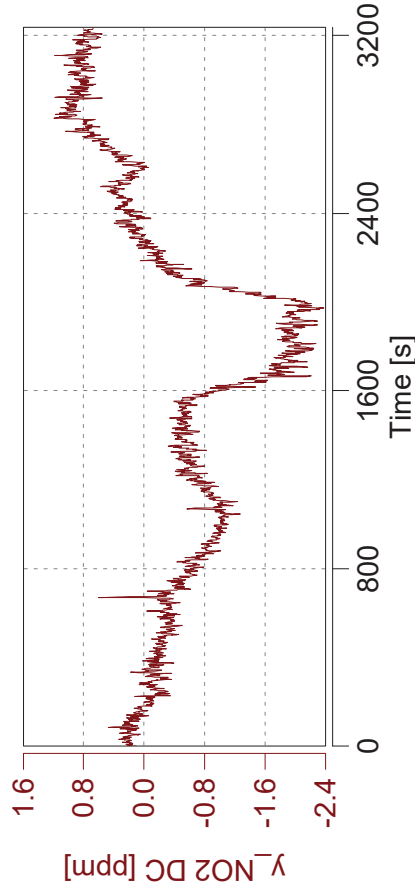
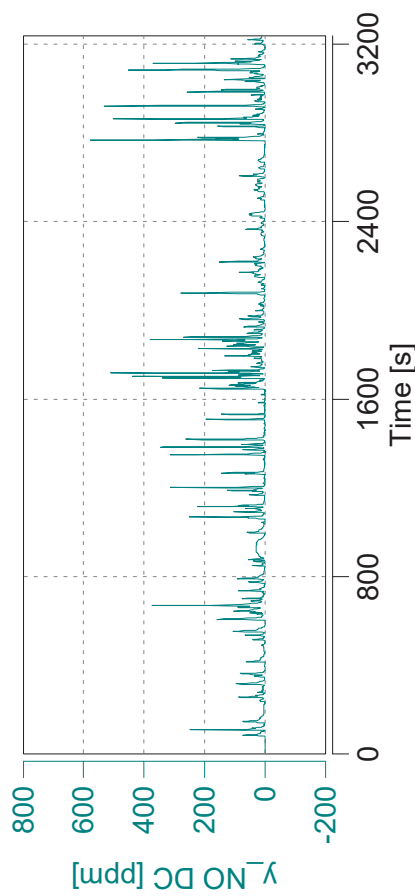
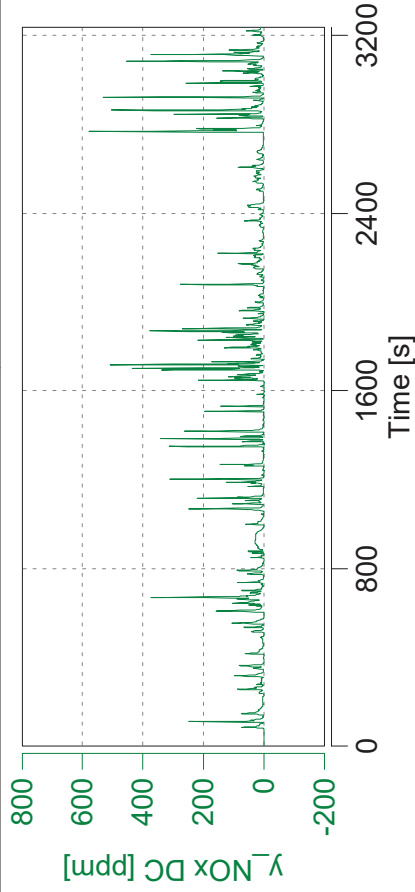
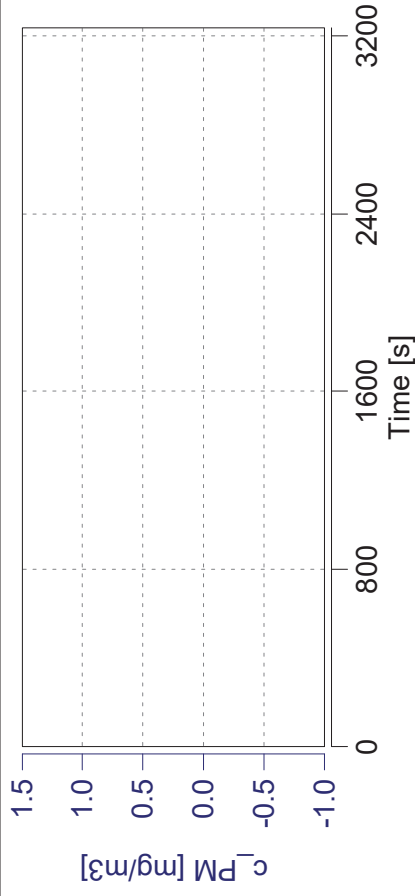
'Mountain'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (3)

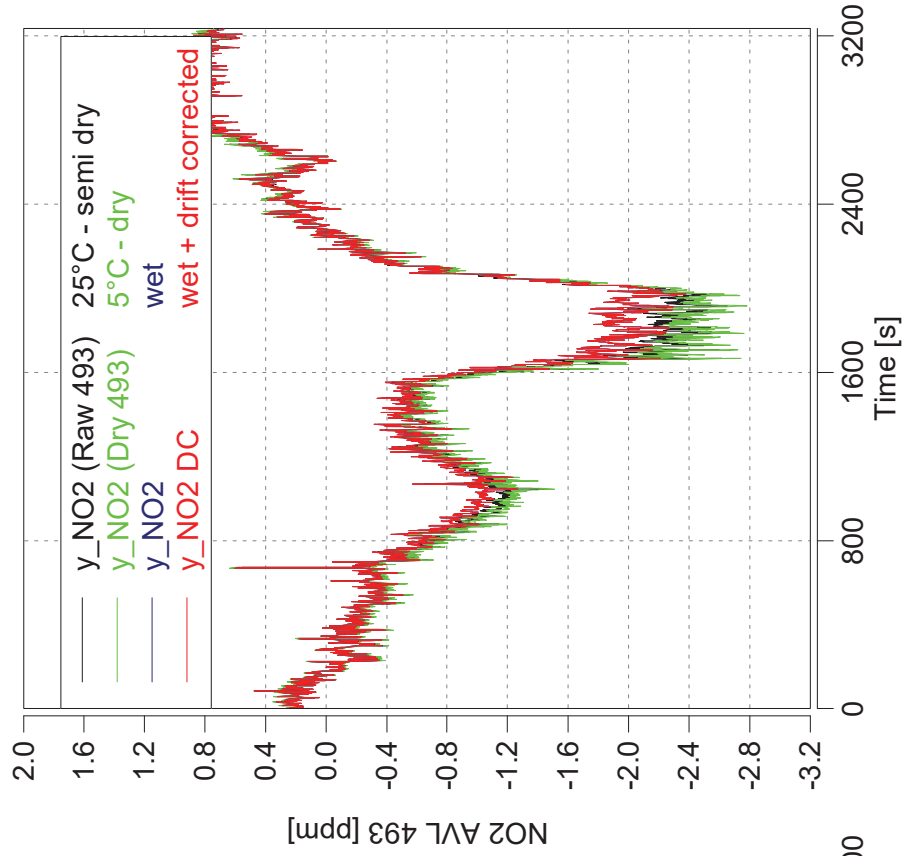
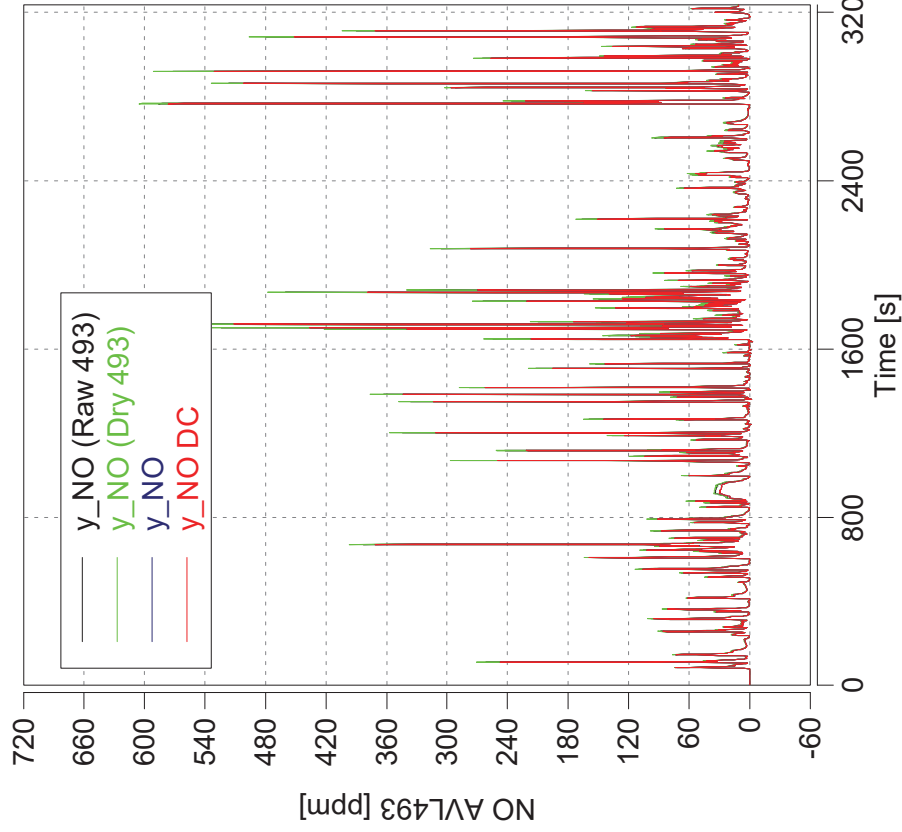
'Mountain'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (4) NOx Corrections

'Mountain'

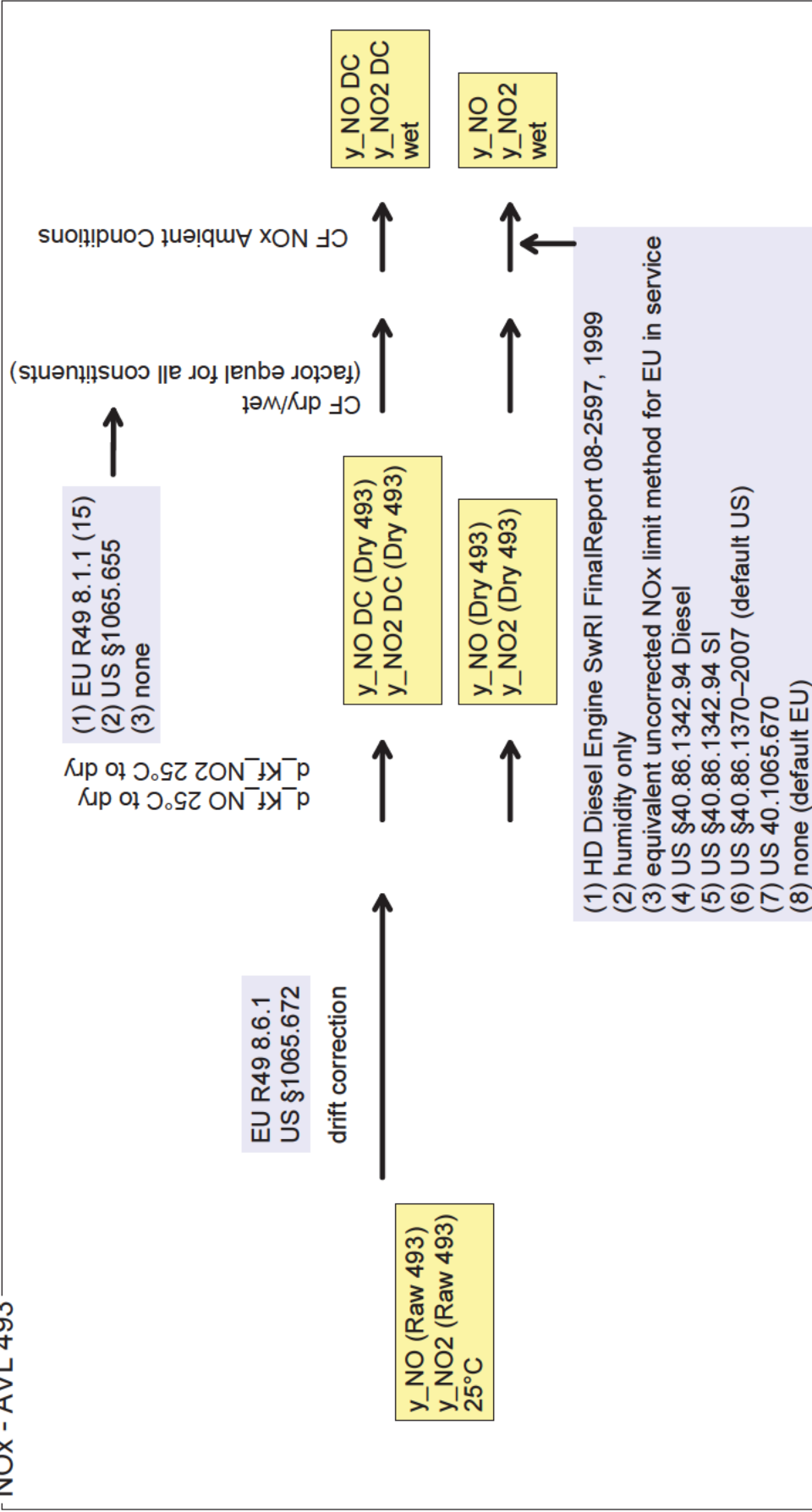
Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: / Vehicle: RS3 / 2.5L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (5)

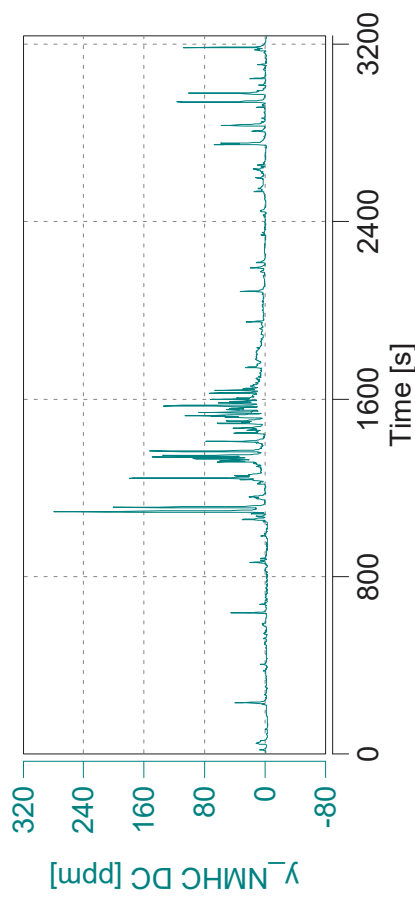
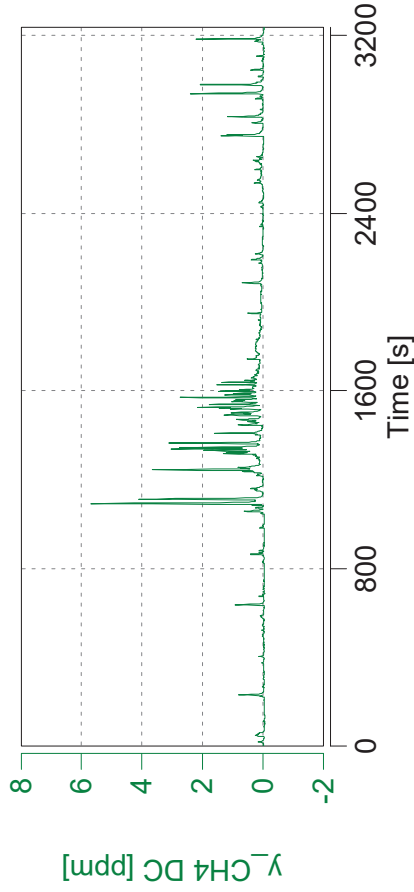
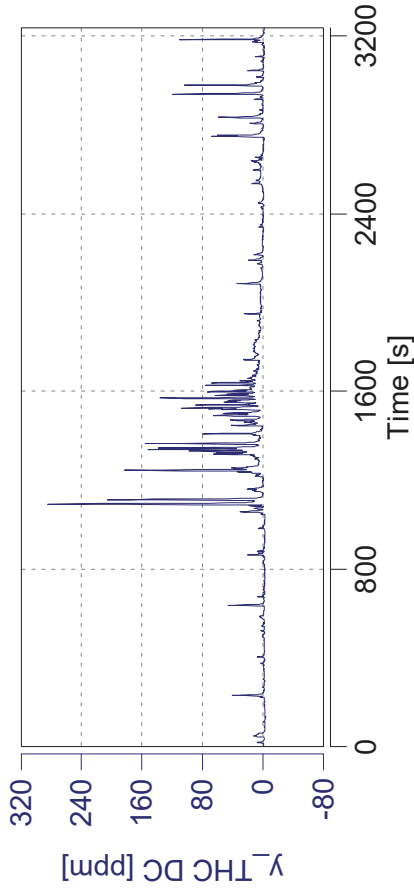
'Mountain'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: NO/NO2/NOx Zero - Span

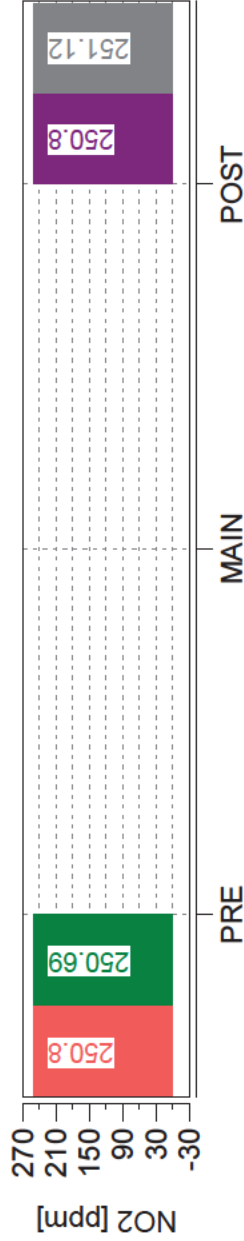
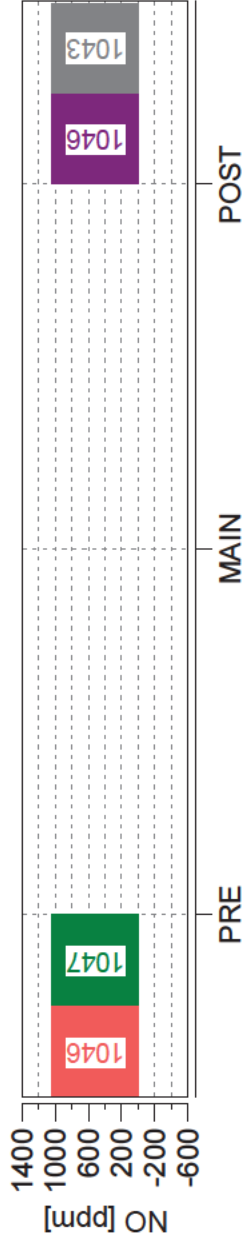
'Mountain'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: Mountain

Page: CO/CO2 Zero - Span

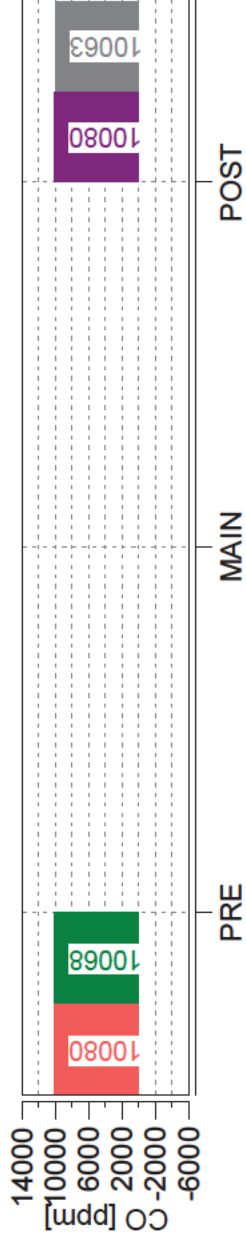
'Mountain'

Start Date: 08/09/2018

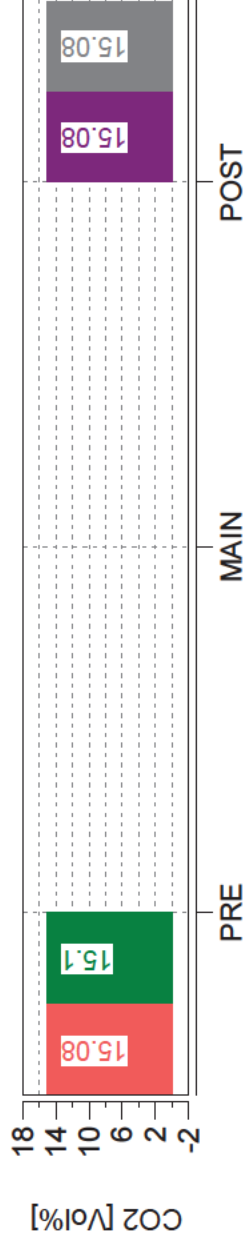
Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



GP_CO_Cal_gas_value
 GP_CO_Adjust_Actual
 GP_CO_Reference
 GP_CO_Audit_Actual



GP_CO2_Cal_gas_value
 GP_CO2_Adjust_Actual
 GP_CO2_Reference
 GP_CO2_Audit_Actual

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: THC/CH4 Zero - Span

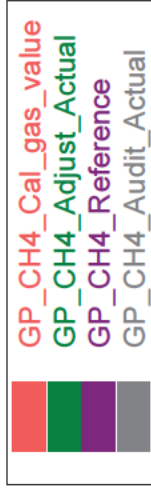
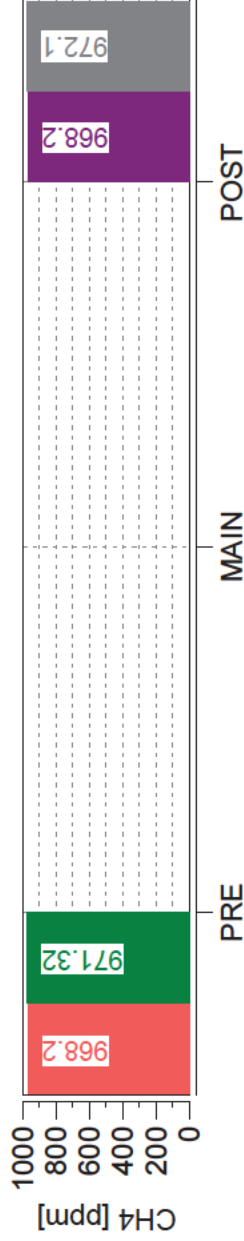
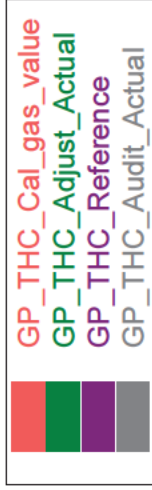
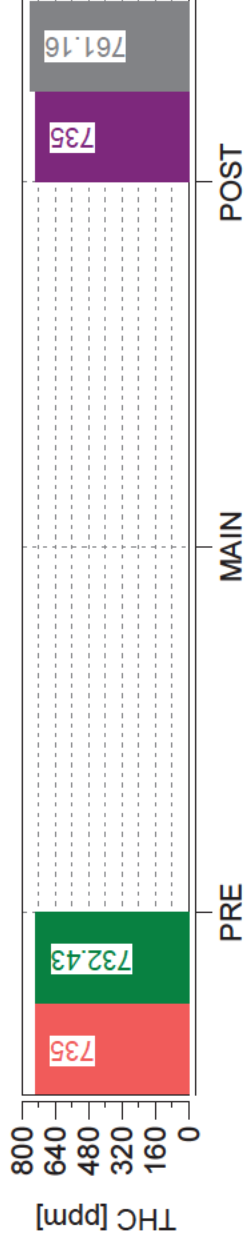
'Mountain'

Start Date: 08/09/2018

Start Time: 13:37:31.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary

'City'

Start Date: 08/09/2018

Start Time: 20:52:34.0



Concerto M.O.V.E. 2018

Trip Duration	3248.00	s	ave THC	2.90399	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3248.00	s	ave NMHC	2.84591	ppm	BS CO	n/a	g/hphr
Trip Distance	16.07	mi	ave CH4	0.05808	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	16.07	mi	ave CO	-9.32987	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	12.06170	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx	15.79956	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	2.51	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	2.49	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	0.89	gall	tot THC	0.07702	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	0.88	gall	tot NMHC	0.07125	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00171	g	DS CO2	471.04389	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	0.06243	g	DS CO	0.00388	g/mi
Trip Fuel Economy EU (ac)	18.09	mpg_US	tot CO2	7570.91127	g	DS THC	0.00479	g/mi
Trip Fuel Economy US (ac)	18.29	mpg_US	tot NO (d)	1.00821	g	DS NMHC	0.00443	g/mi
Trip Av. Eng. Speed	1281.53	rpm	tot NO2	-0.02015	g	DS CH4	0.00011	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.98806	g	DS NO (d)	0.06273	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	-0.00125	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.06147	g/mi
Trip Exhaust Mass	40.42	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	78.74	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	54.40	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	17.81448	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	25.21552	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary Drift Corrected

'City'

Start Date: 08/09/2018

Start Time: 20:52:34.0



Concerto M.O.V.E. 2018

Trip Duration	3248.00	s	ave THC DC	3.02428	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3248.00	s	ave NMHC DC	2.96380	ppm	BS CO DC	n/a	g/hphr
Trip Distance	16.07	mi	ave CH4 DC	0.06049	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	16.07	mi	ave CO DC	-9.46451	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	12.05770	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	15.74796	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	2.51	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	2.49	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	0.89	gall	tot THC DC	0.07978	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	0.88	gall	tot NMHC DC	0.07380	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00177	g	DS CO2 DC	470.88776	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	0.05669	g	DS CO DC	0.00353	g/mi
Trip Fuel Economy EU (ac)	18.09	mpg_US	tot CO2 DC	7568.40186	g	DS THC DC	0.00496	g/mi
Trip Fuel Economy US (ac)	18.29	mpg_US	tot NO DC (d)	1.00097	g	DS NMHC DC	0.00459	g/mi
Trip Av. Eng. Speed	1281.53	rpm	tot NO2 DC	-0.01577	g	DS CH4 DC	0.00011	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.98520	g	DS NO DC (d)	0.06228	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	-0.00098	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.06130	g/mi
Trip Exhaust Mass	40.42	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	78.74	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	54.40	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	17.81448	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	25.21552	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment Check

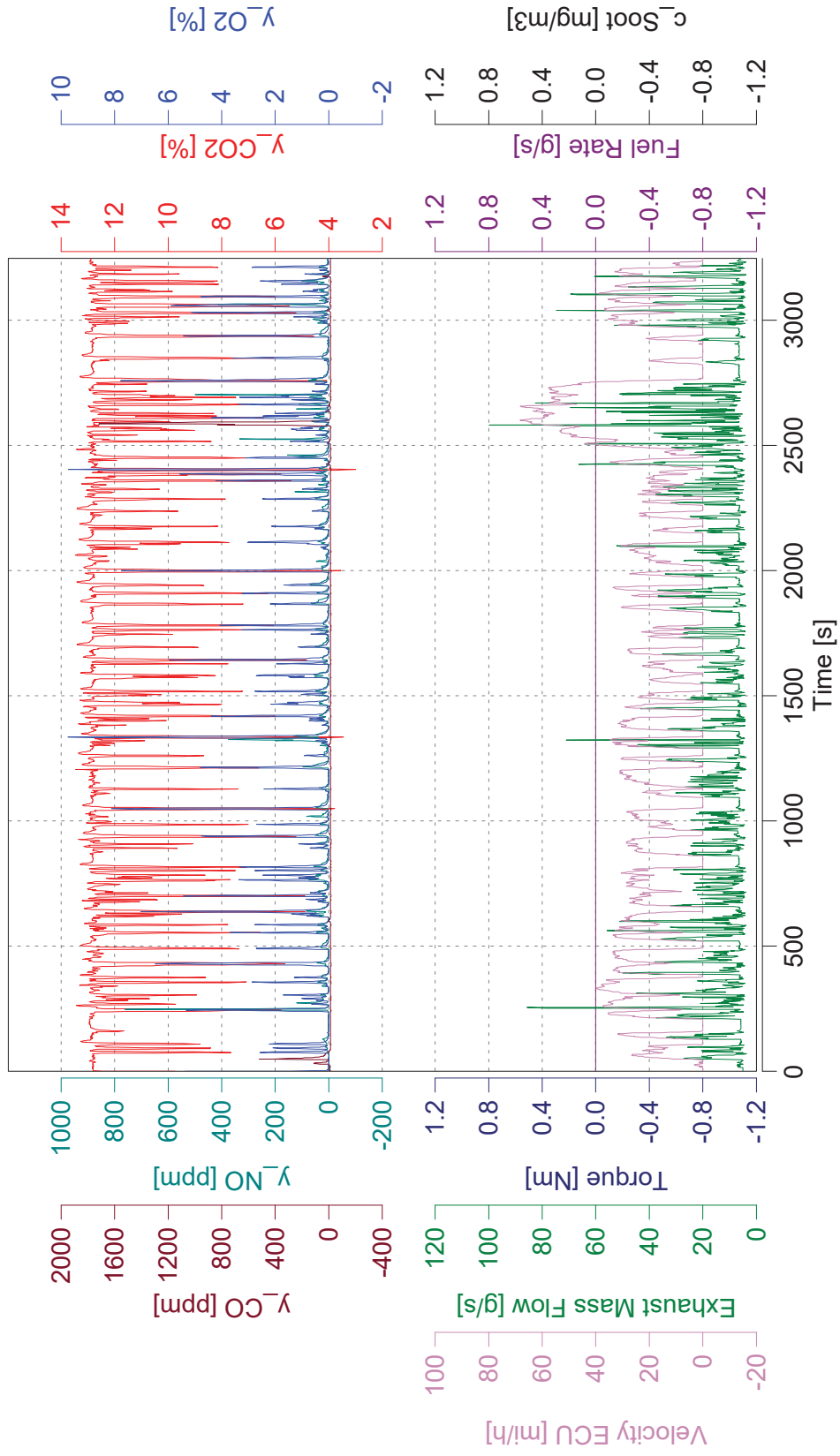
'City'

Start Date: 08/09/2018

Start Time: 20:52:34.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment of Gas Concentrations

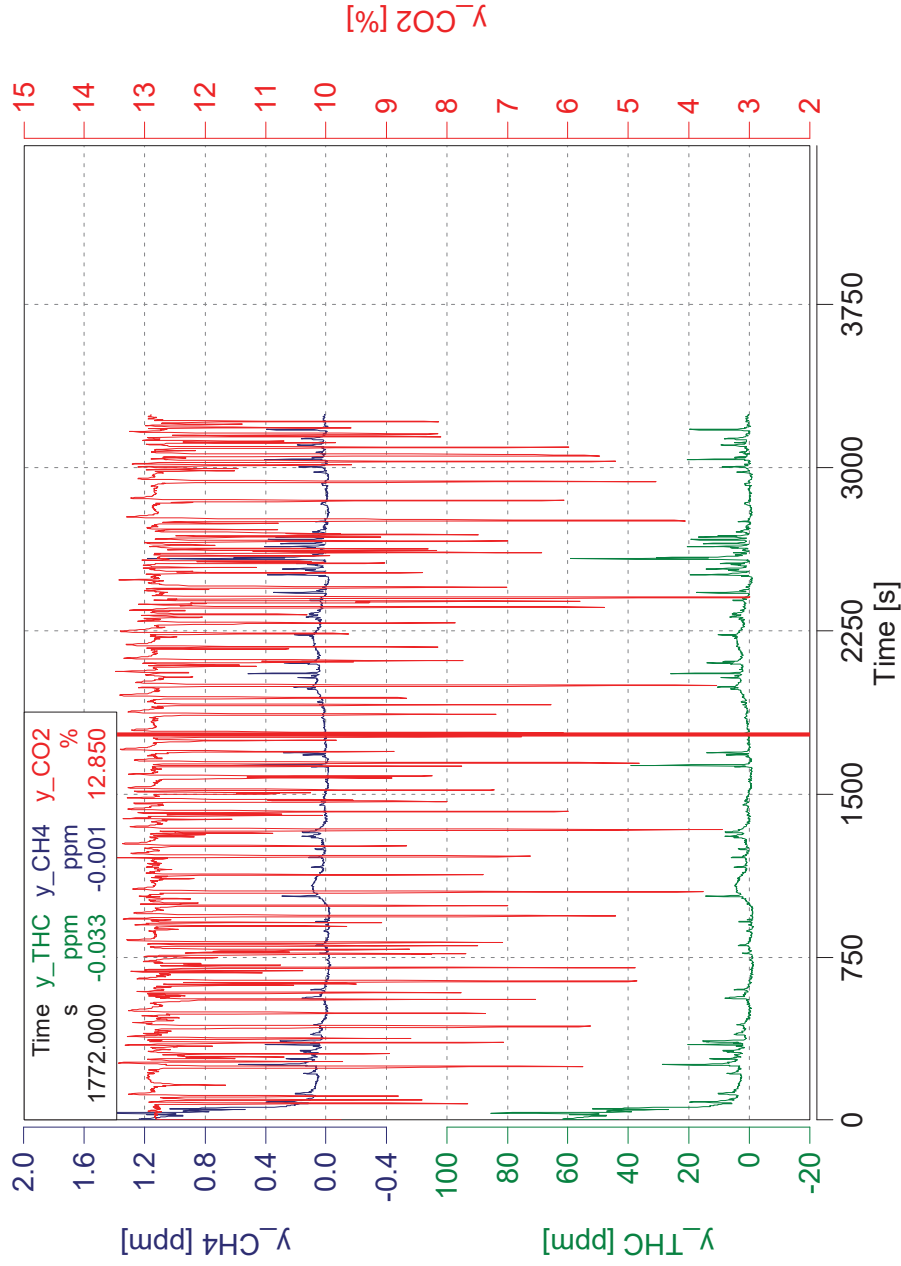
'City'

Start Date: 08/09/2018

Start Time: 20:52:34.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Ambient Conditions

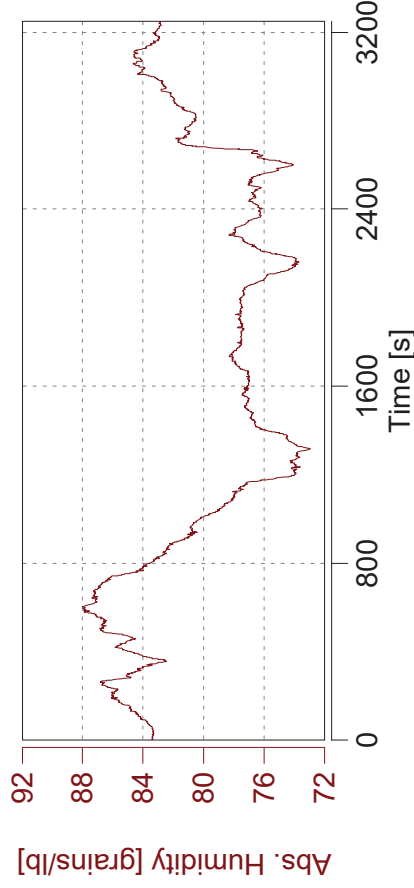
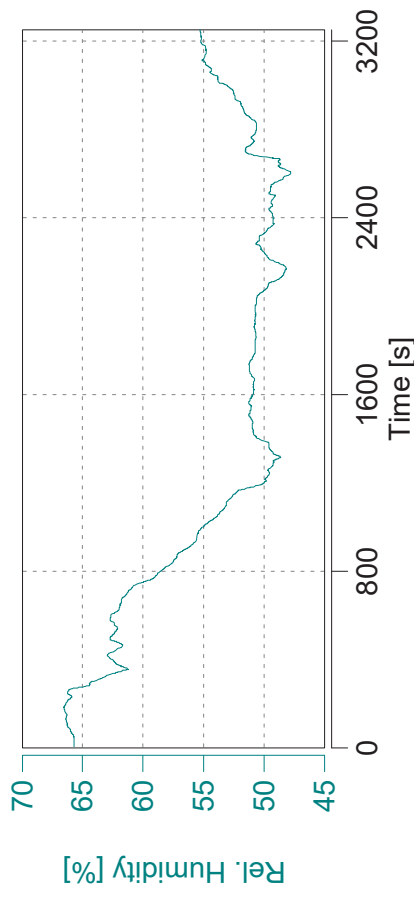
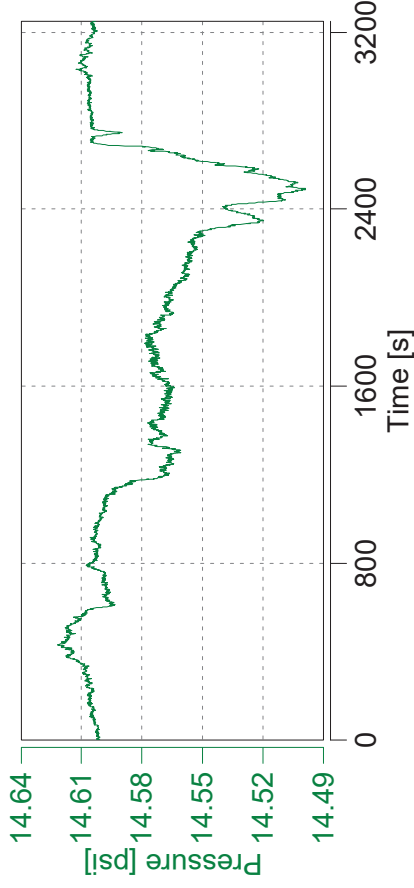
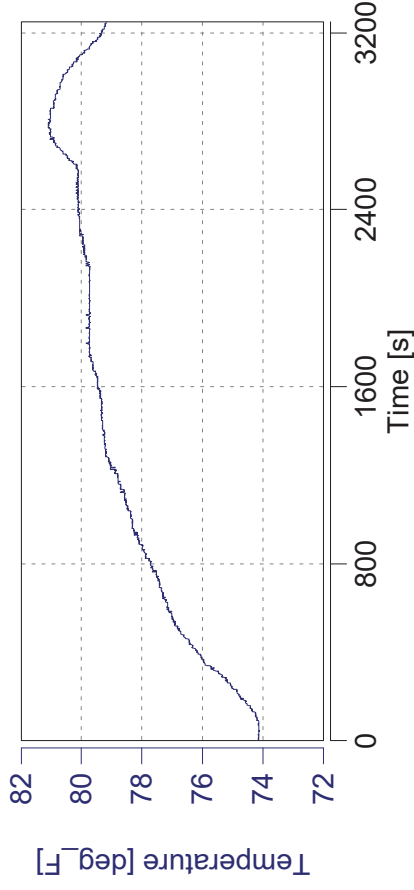
'City'

Start Date: 08/09/2018

Start Time: 20:52:34.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

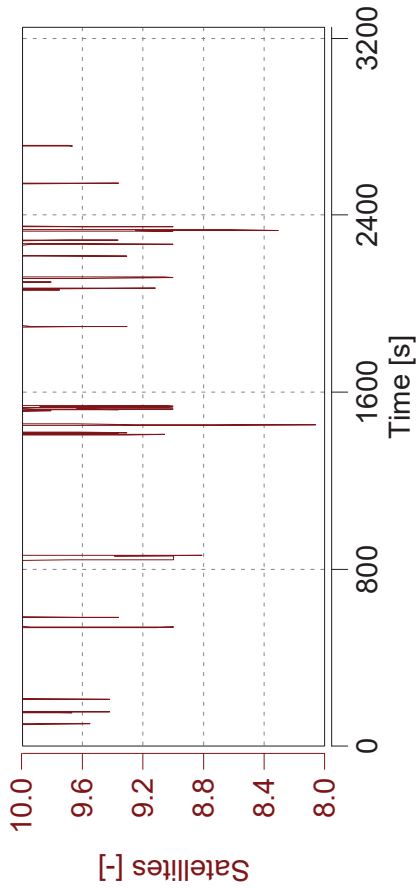
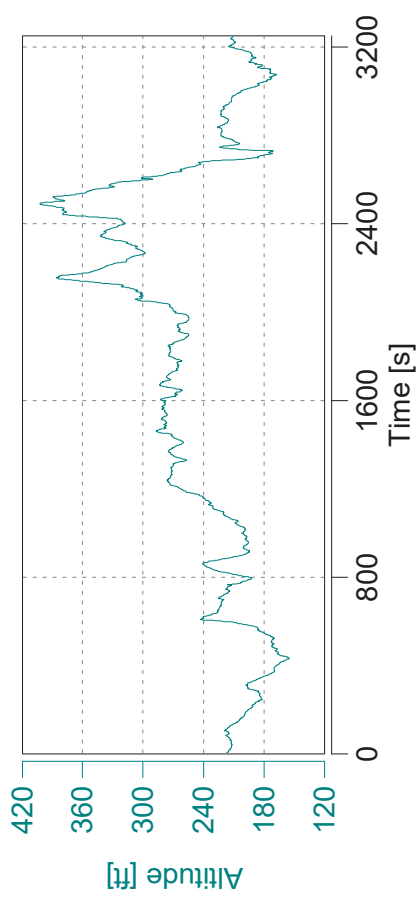
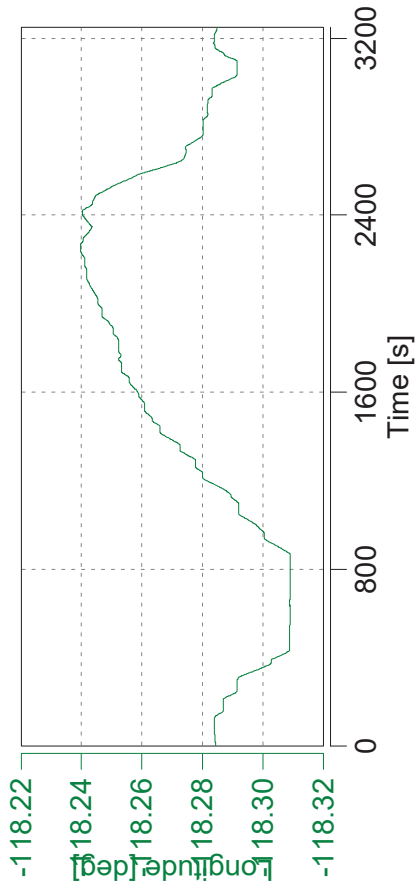
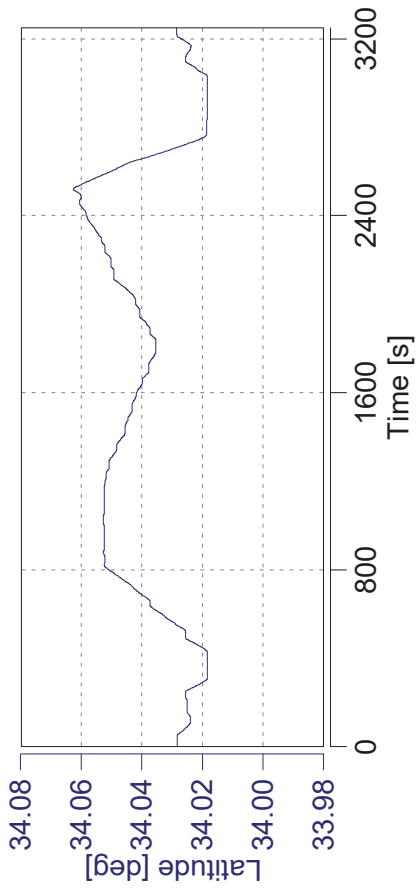
Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City
Page: GPS

'City'
Start Date: 08/09/2018
Start Time: 20:52:34.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (1)

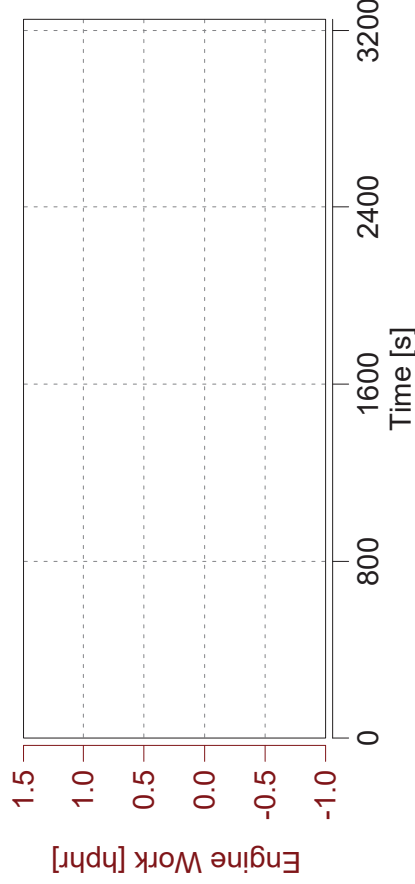
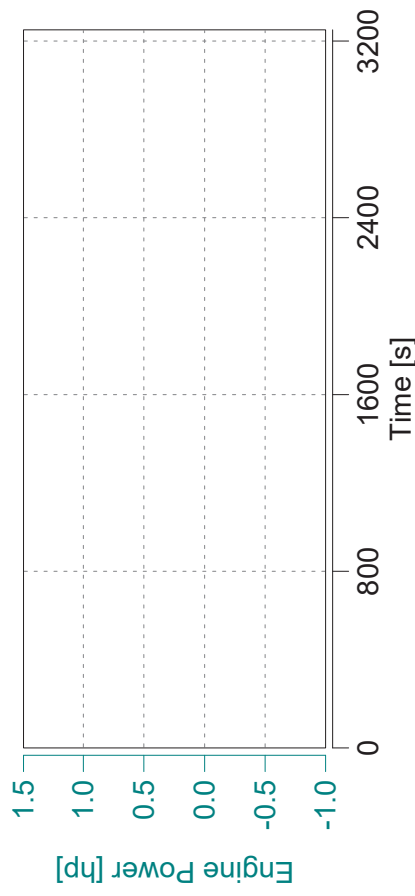
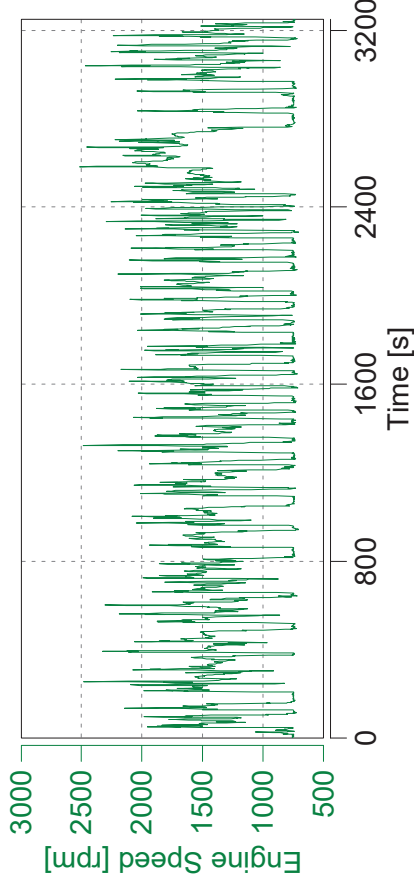
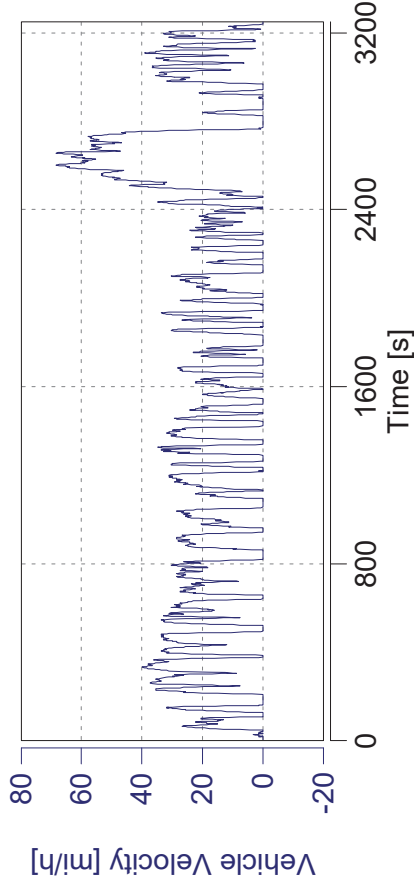
'City'

Start Date: 08/09/2018

Start Time: 20:52:34.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (2)

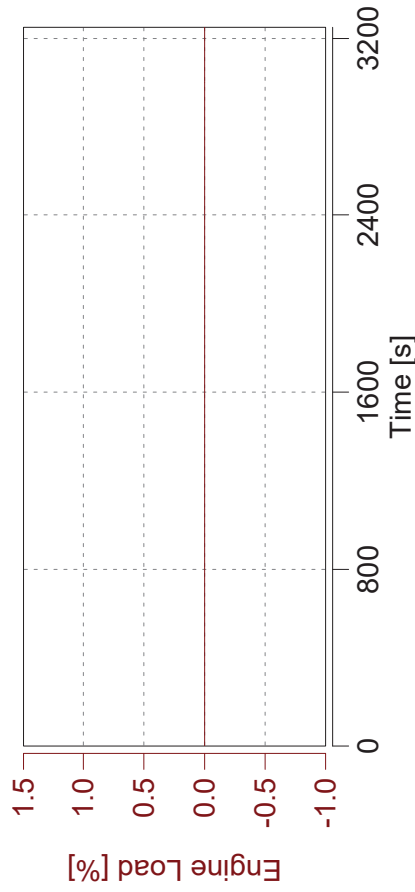
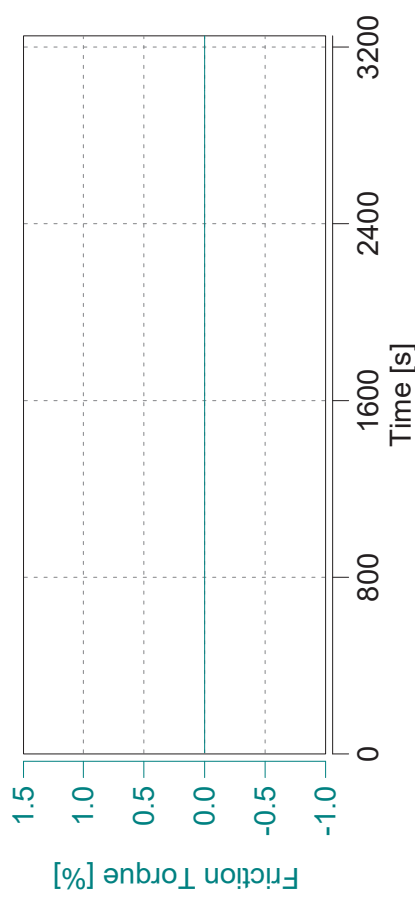
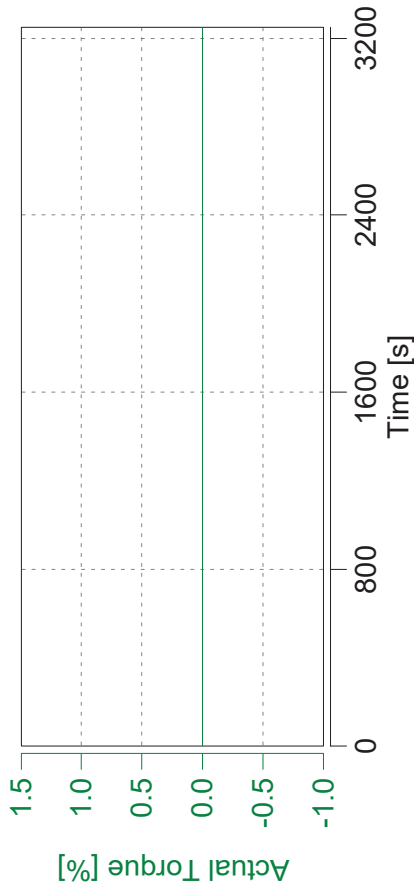
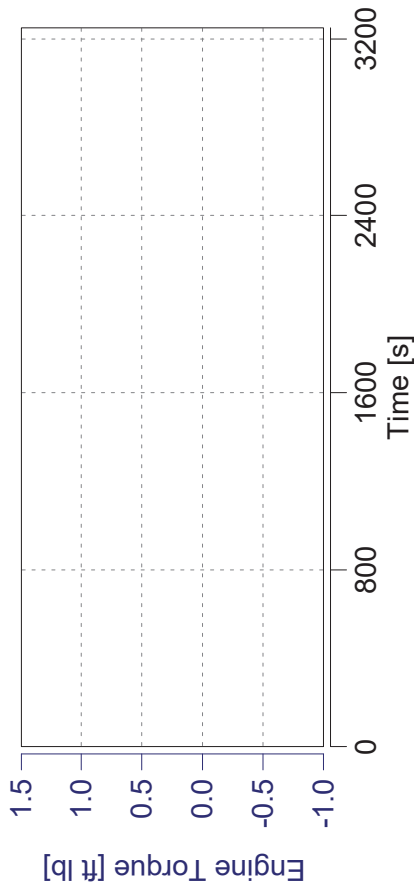
'City'

Start Date: 08/09/2018

Start Time: 20:52:34.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (3)

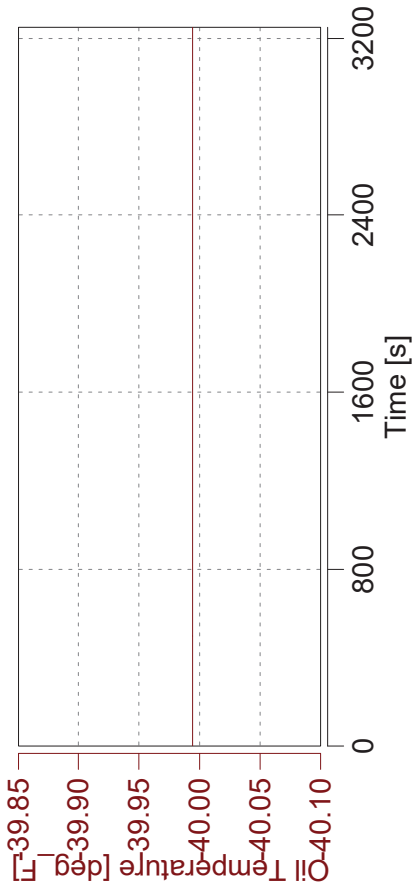
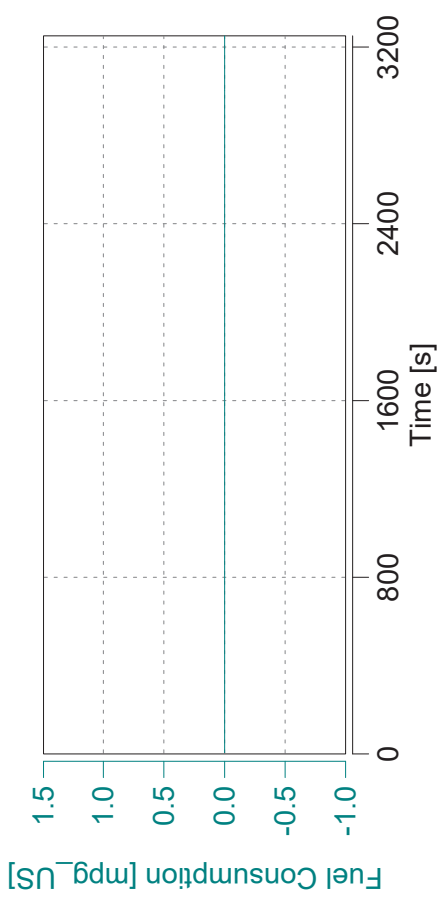
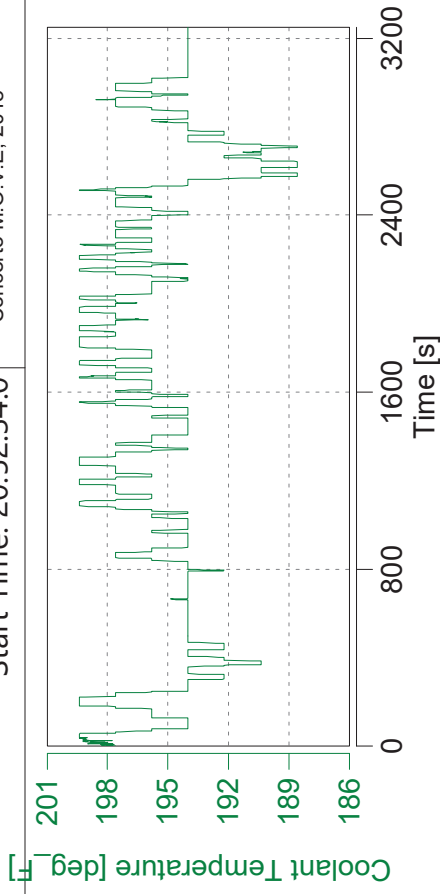
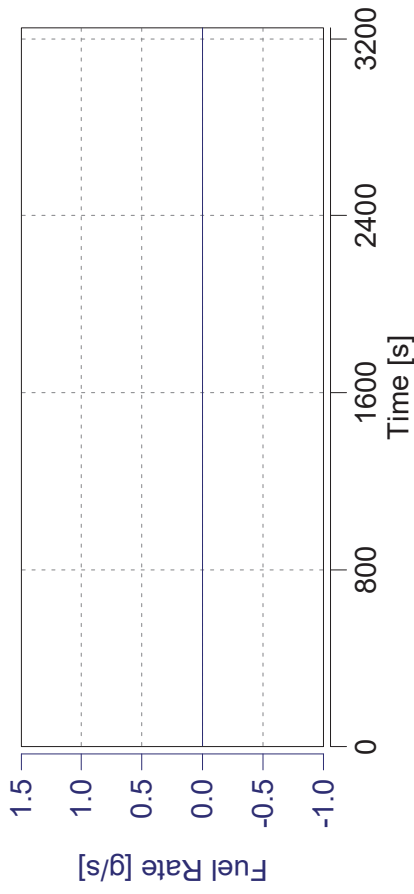
'City'

Start Date: 08/09/2018

Start Time: 20:52:34.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: RS3 / 2.5L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (1)

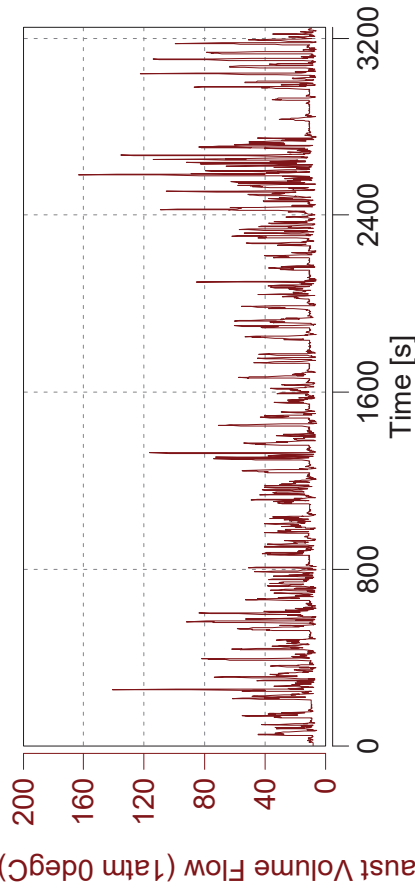
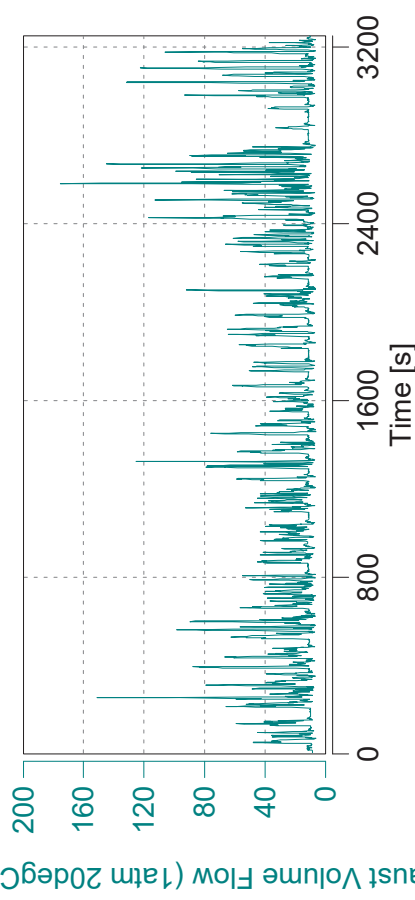
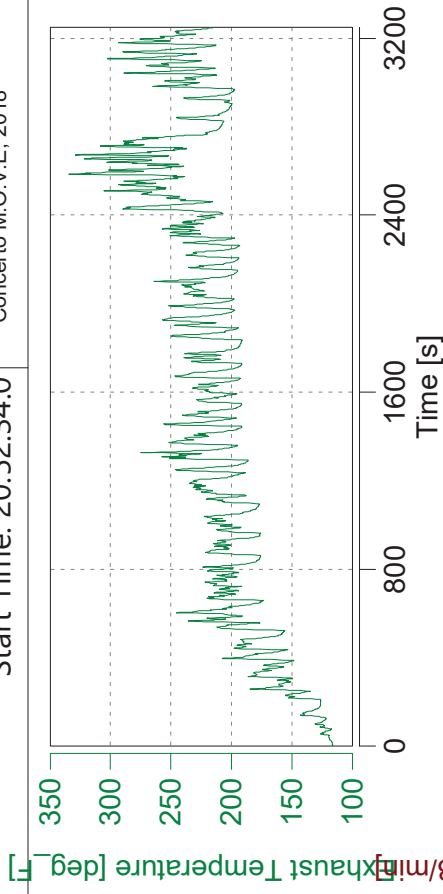
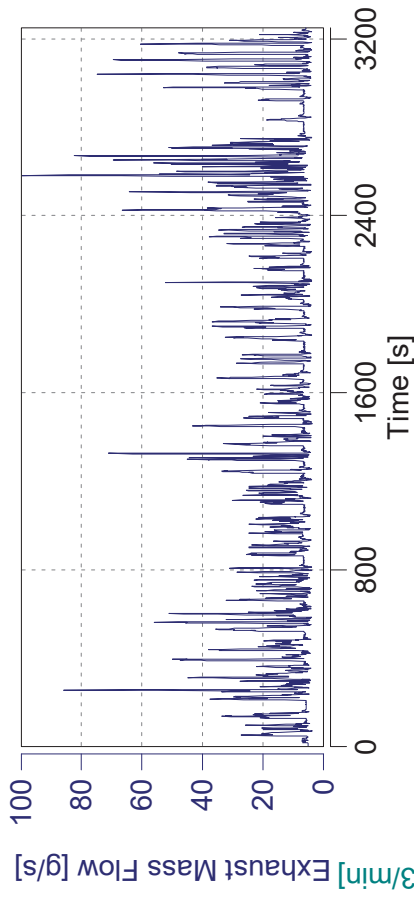
'City'

Start Date: 08/09/2018

Start Time: 20:52:34.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (2)

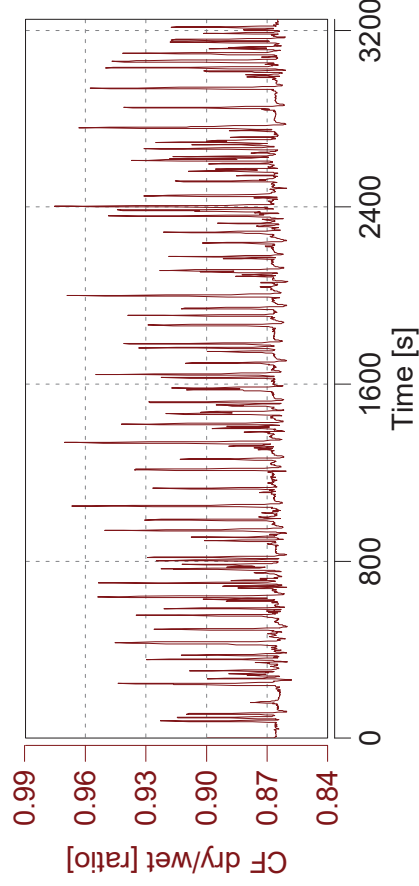
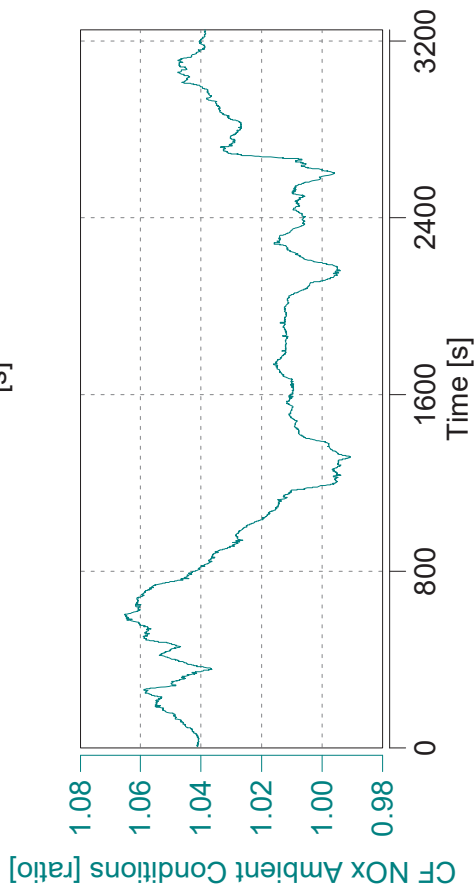
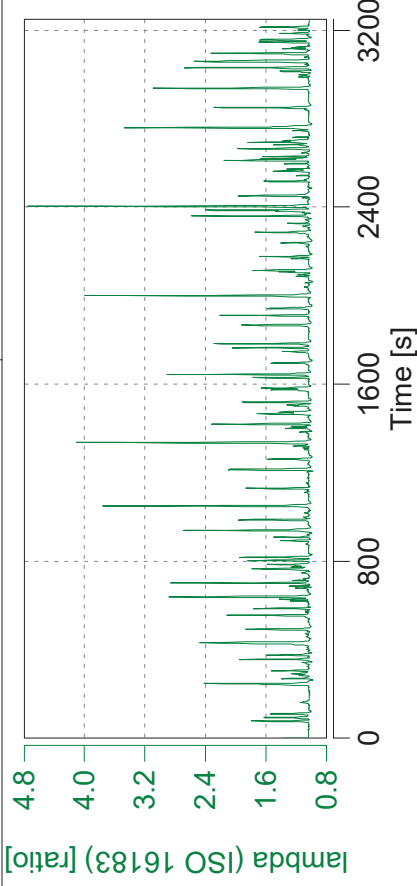
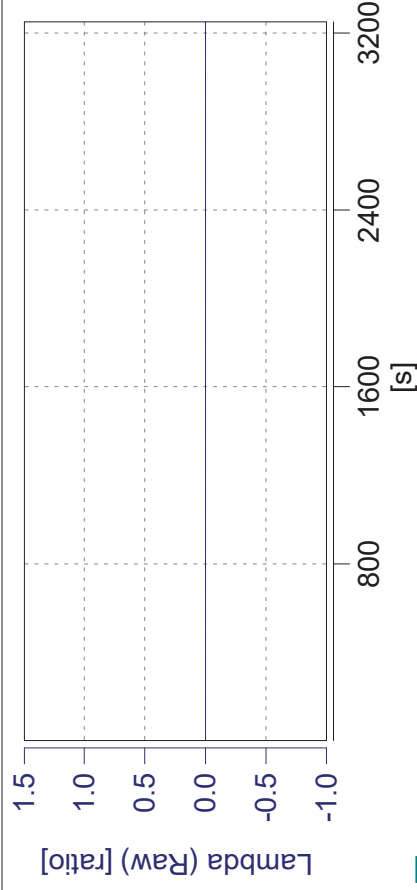
'City'

Start Date: 08/09/2018

Start Time: 20:52:34.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (1)

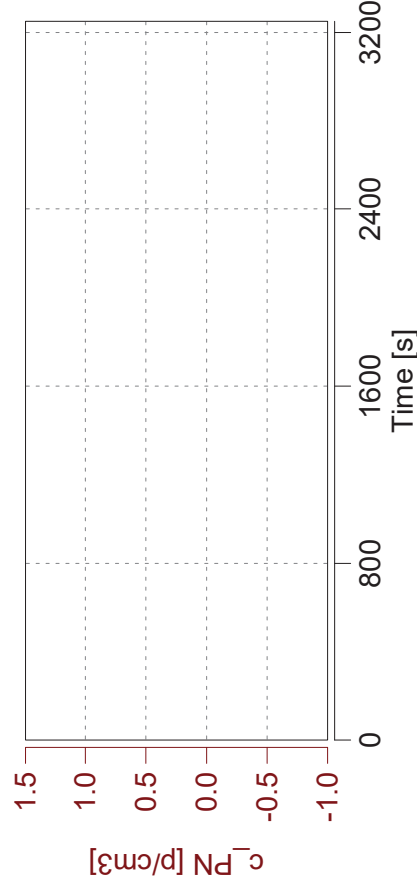
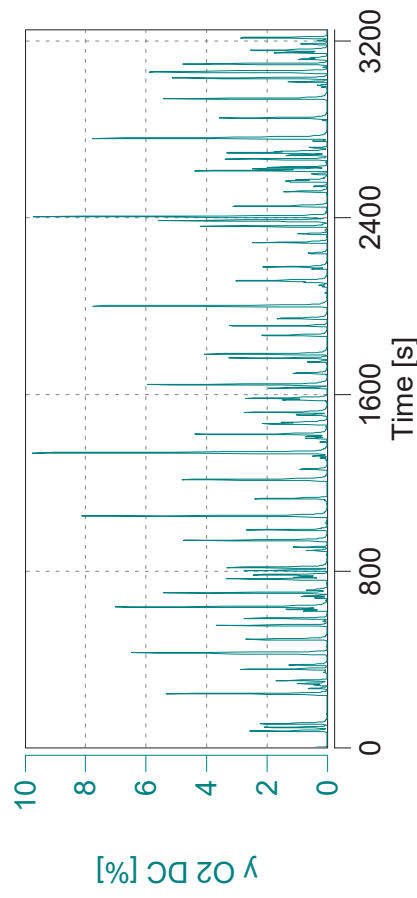
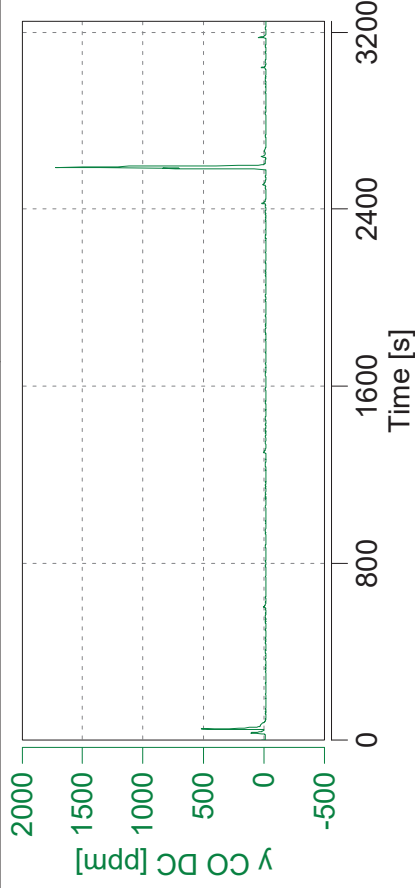
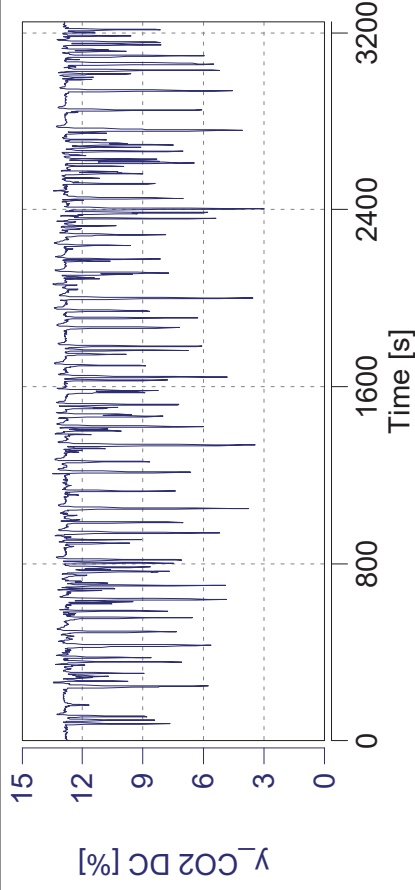
'City'

Start Date: 08/09/2018

Start Time: 20:52:34.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (2)

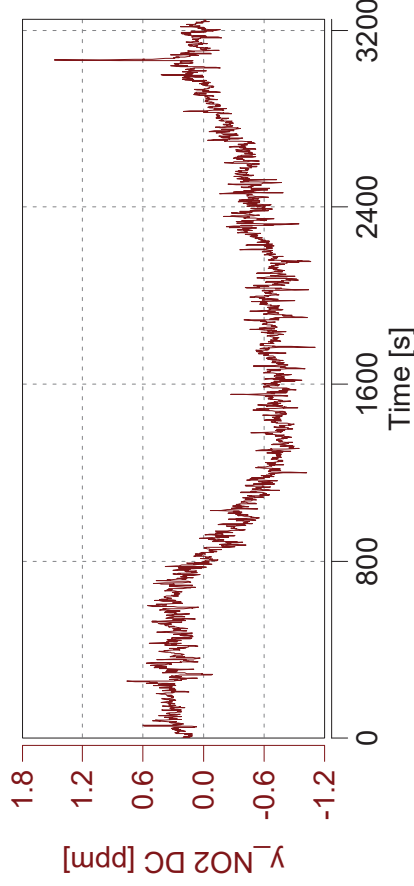
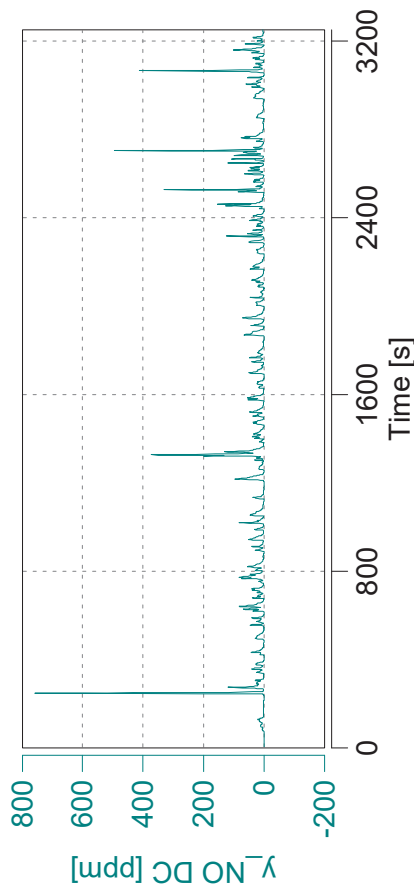
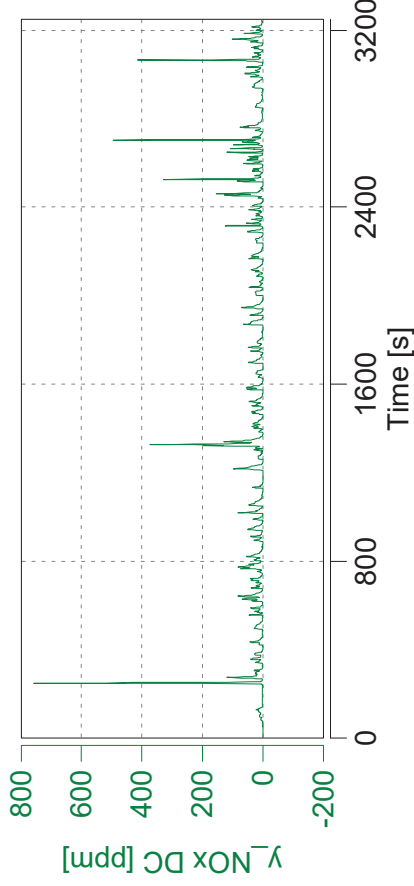
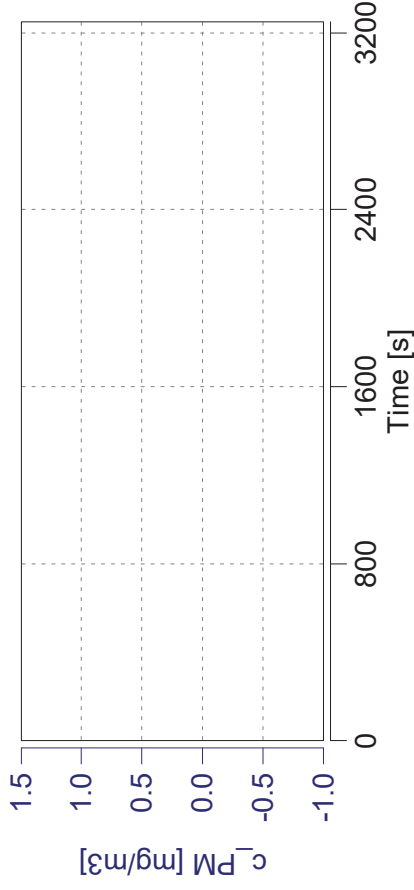
'City'

Start Date: 08/09/2018

Start Time: 20:52:34.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (3)

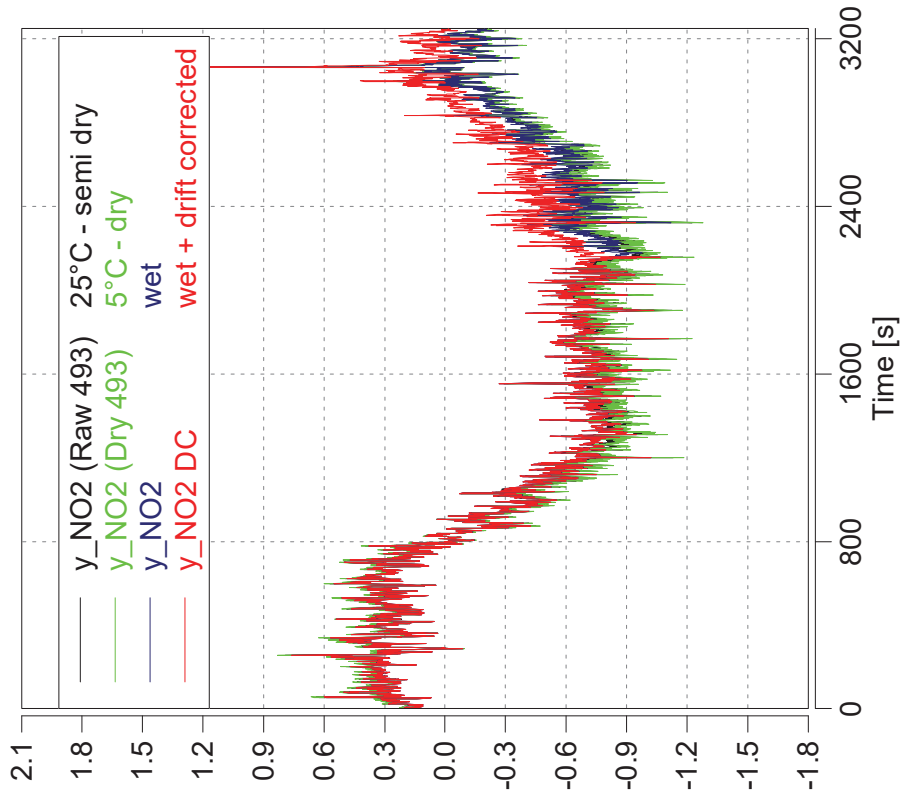
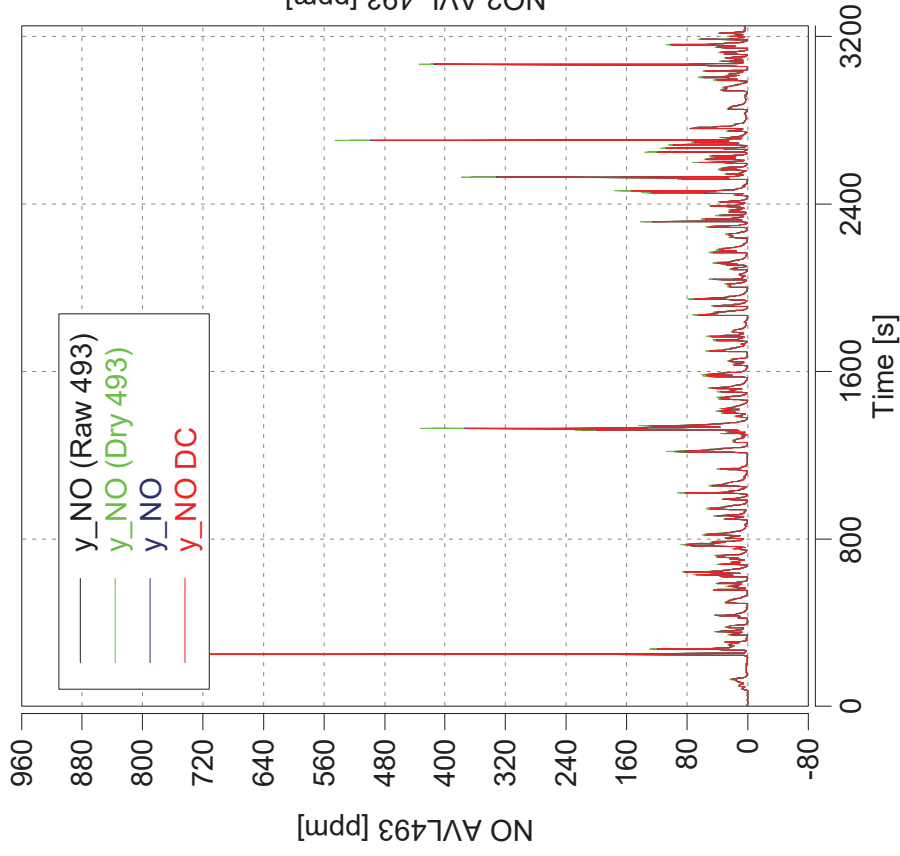
'City'

Start Date: 08/09/2018

Start Time: 20:52:34.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

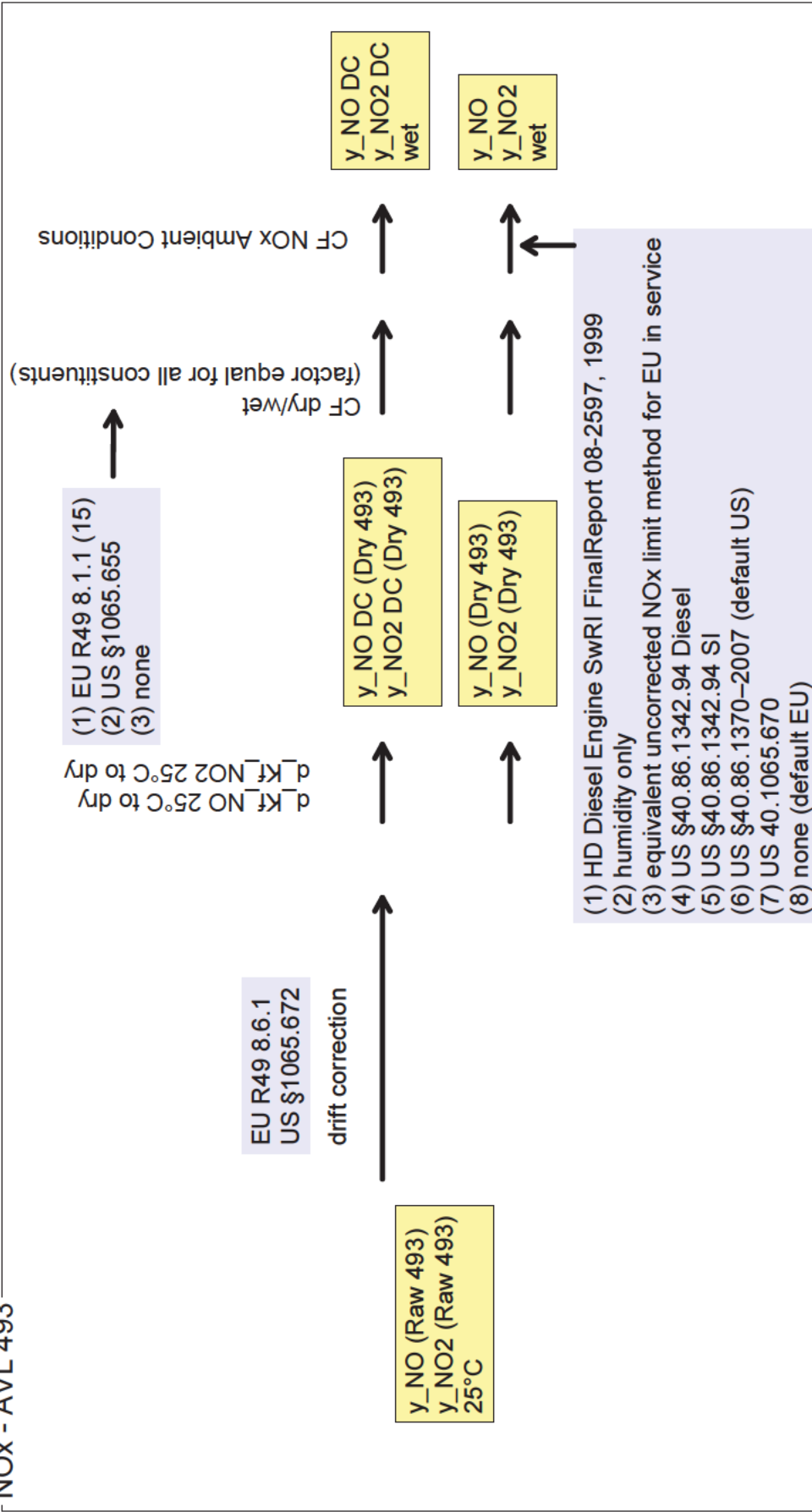
Case: City

Page: Corrected Emissions (4) NOx Corrections

'City'
Start Date: 08/09/2018
Start Time: 20:52:34.0



NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (5)

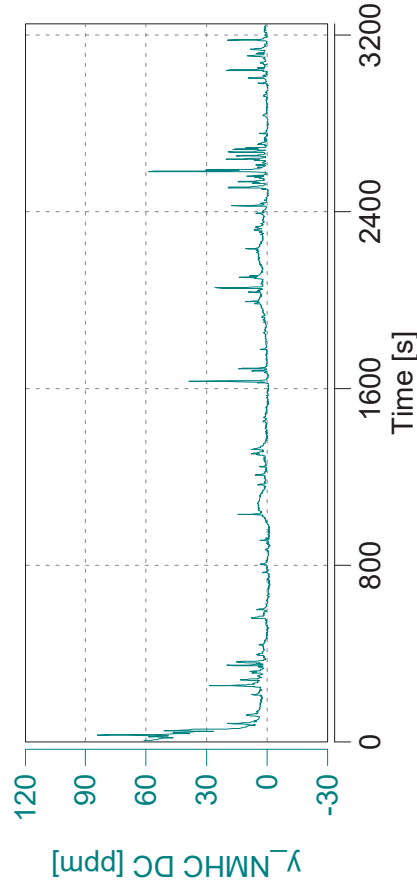
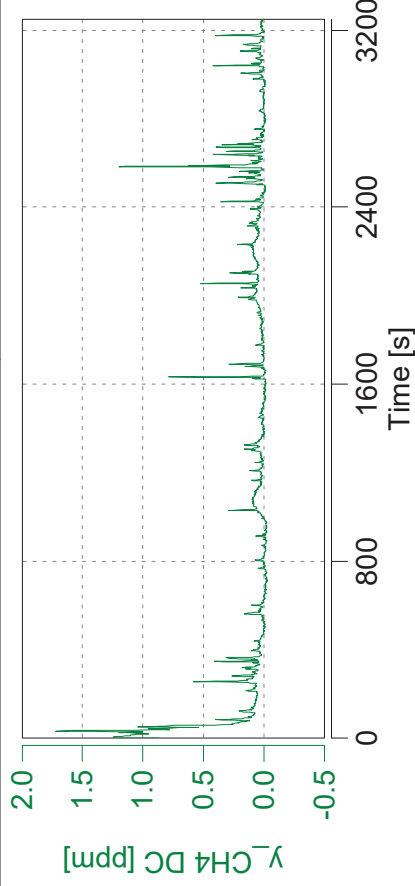
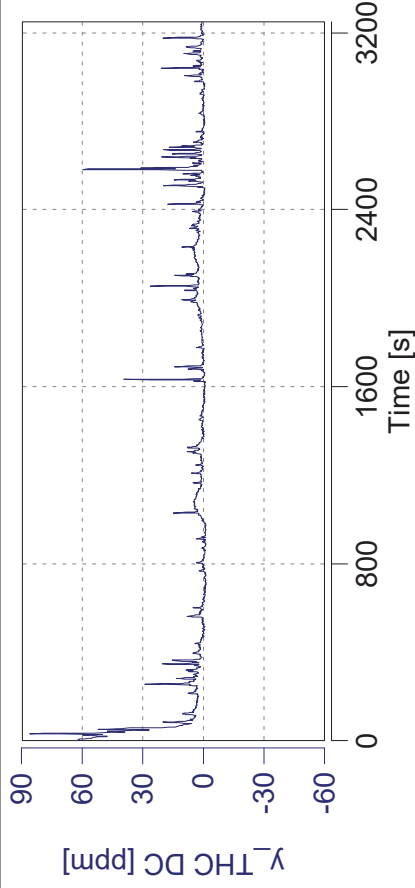
'City'

Start Date: 08/09/2018

Start Time: 20:52:34.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: NO/NO2/NOx Zero - Span

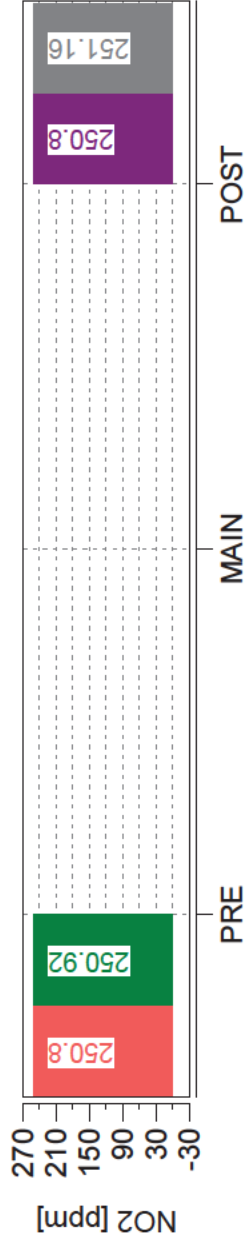
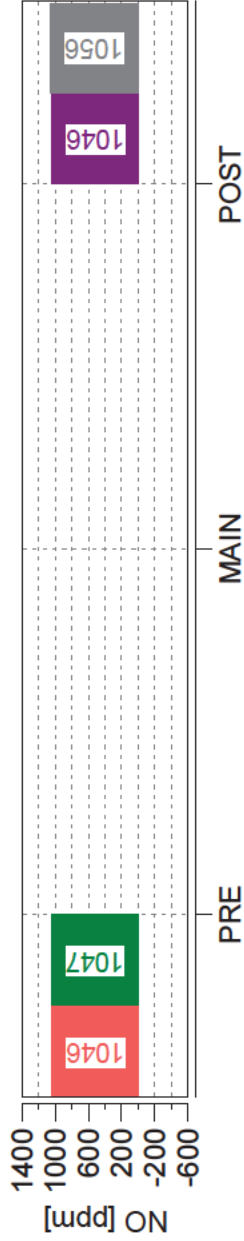
'City'

Start Date: 08/09/2018

Start Time: 20:52:34.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /



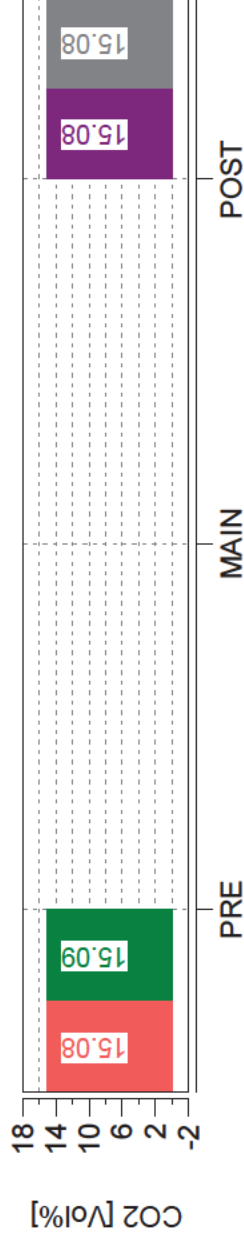
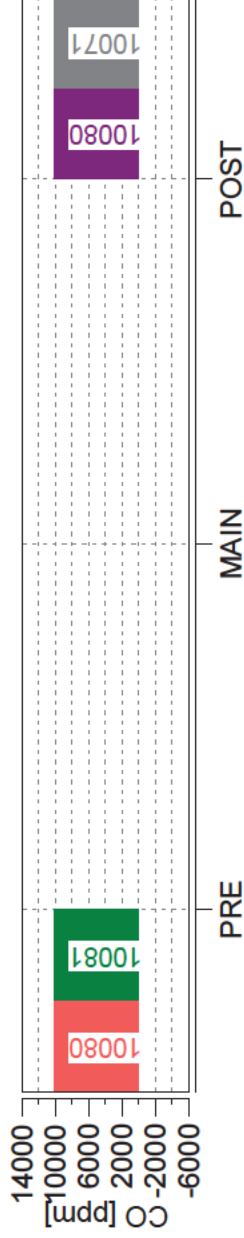
Concerto M.O.V.E., 2018

'City'

Start Date: 08/09/2018

Start Time: 20:52:34.0

Case: City
Page: CO/CO2 Zero - Span



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: RS3 / 2.5L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: THC/CH4 Zero - Span

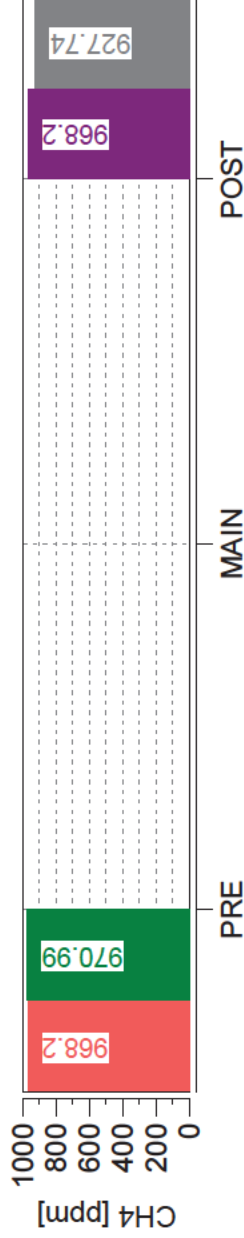
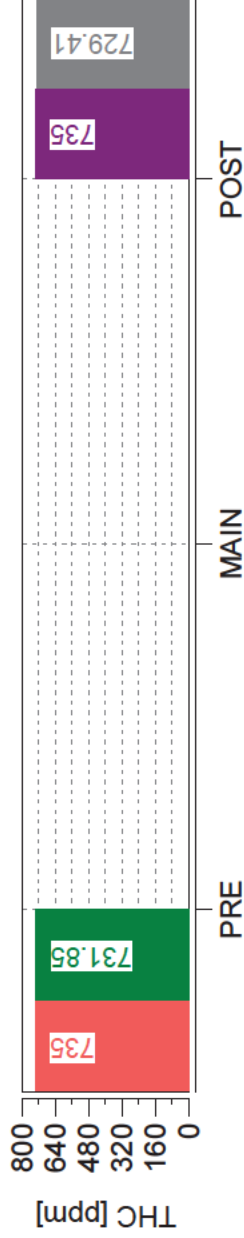
'City'

Start Date: 08/09/2018

Start Time: 20:52:34.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: RS3 / 2.5L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: Highway
Page: Trip Summary

'Highway'
Start Date: 08/12/2018
Start Time: 12:21:32.0



Concerto M.O.V.E., 2018

Trip Duration	3397.00	s	ave THC	6.98137	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3397.00	s	ave NMHC	6.84175	ppm	BS CO	n/a	g/hphr
Trip Distance	38.78	mi	ave CH4	0.13963	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	38.78	mi	ave CO	84.01206	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	11.97868	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx	11.66461	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.32	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.26	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.53	gall	tot THC	0.37189	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.51	gall	tot NMHC	0.34401	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00824	g	DS CO2	333.84078	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	7.51414	g	DS CO	0.19374	g/mi
Trip Fuel Economy EU (ac)	25.43	mpg_US	tot CO2	12947.88008	g	DS THC	0.00959	g/mi
Trip Fuel Economy US (ac)	25.77	mpg_US	tot NO (d)	0.68886	g	DS NMHC	0.00887	g/mi
Trip Av. Eng. Speed	1554.90	rpm	tot NO2	0.04918	g	DS CH4	0.00021	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.73803	g	DS NO (d)	0.01776	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00127	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.01903	g/mi
Trip Exhaust Mass	68.62	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	85.64	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	50.20	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	41.10231	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	2.97321	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Q5 / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Trip Summary Drift Corrected

'Highway'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018

Trip Duration	3397.00	s	ave THC DC	6.81380	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3397.00	s	ave NMHC DC	6.67752	ppm	BS CO DC	n/a	g/hphr
Trip Distance	38.78	mi	ave CH4 DC	0.13628	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	38.78	mi	ave CO DC	83.63417	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	11.97868	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	11.82560	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	4.32	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	4.26	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.53	gall	tot THC DC	0.36589	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.51	gall	tot NMHC DC	0.33845	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00811	g	DS CO2 DC	333.84078	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	7.48532	g	DS CO DC	0.19300	g/mi
Trip Fuel Economy EU (ac)	25.43	mpg_US	tot CO2 DC	12947.88008	g	DS THC DC	0.00943	g/mi
Trip Fuel Economy US (ac)	25.77	mpg_US	tot NO DC (d)	0.70824	g	DS NMHC DC	0.00873	g/mi
Trip Av. Eng. Speed	1554.90	rpm	tot NO2 DC	0.04505	g	DS CH4 DC	0.00021	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.75329	g	DS NO DC (d)	0.01826	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00116	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.01942	g/mi
Trip Exhaust Mass	68.62	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	85.64	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	50.20	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	41.10231	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	2.97321	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment Check

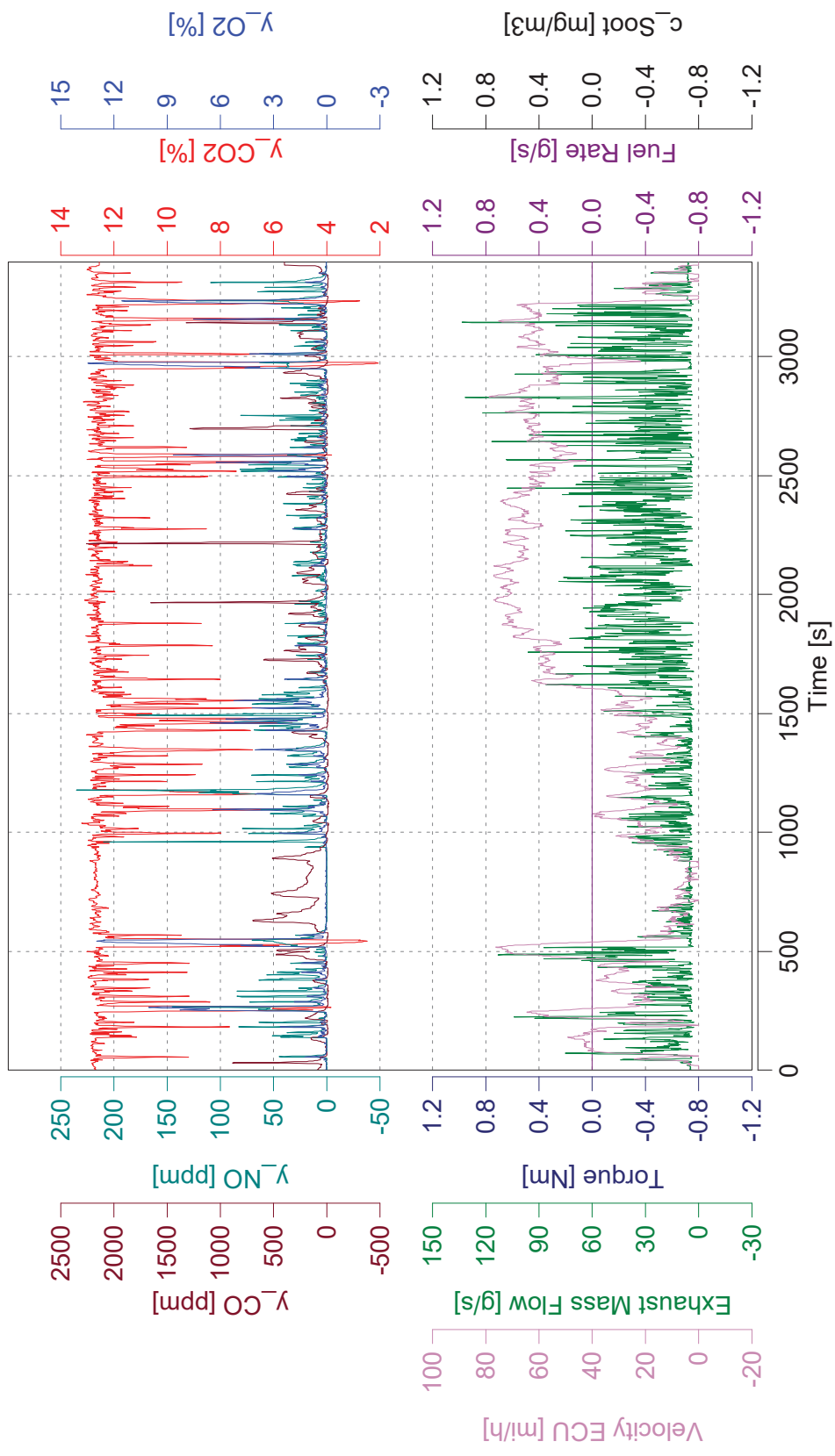
'Highway'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Time Alignment of Gas Concentrations

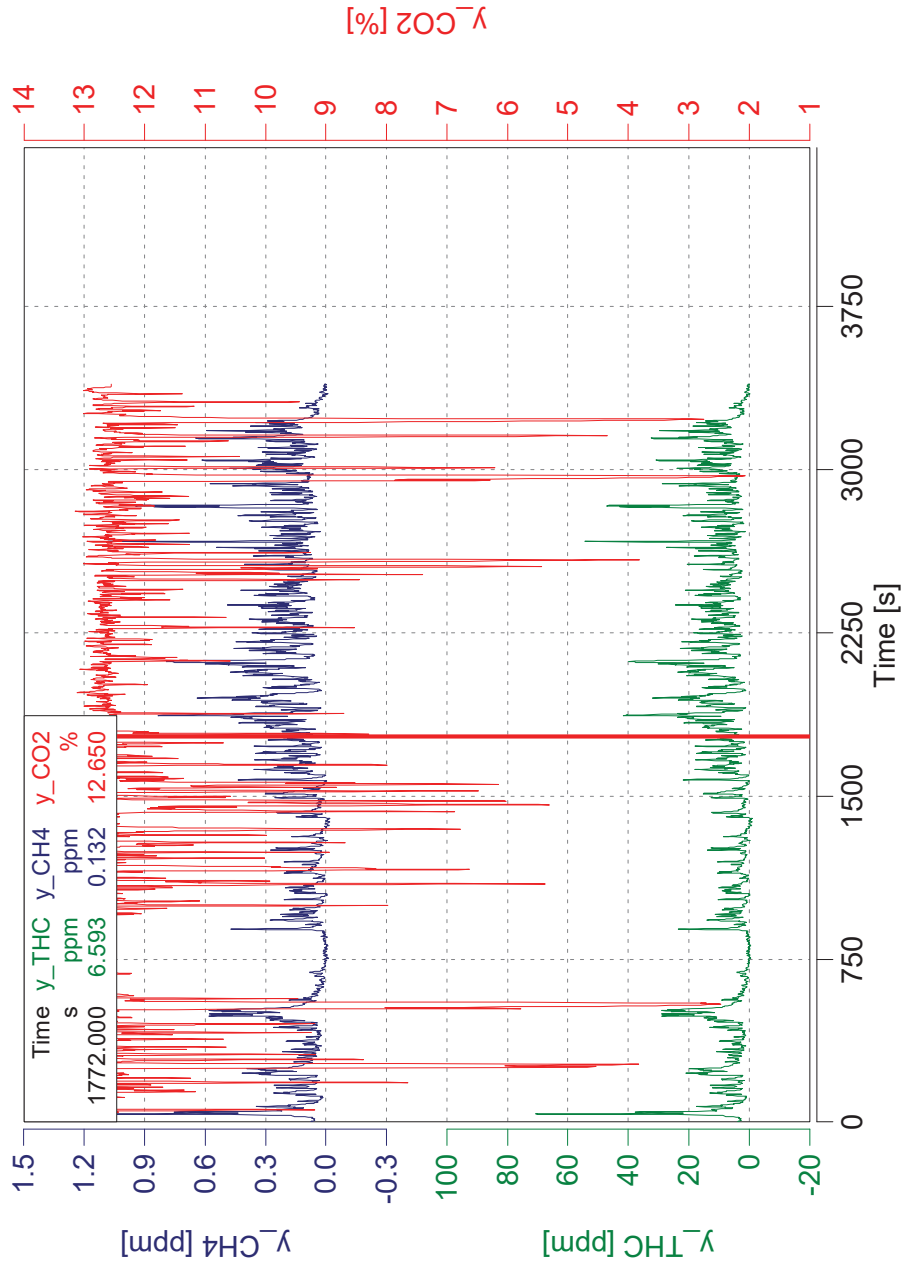
'Highway'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Ambient Conditions

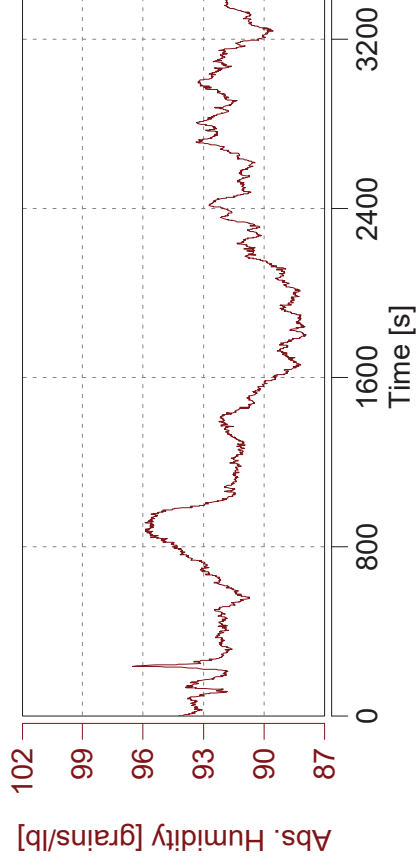
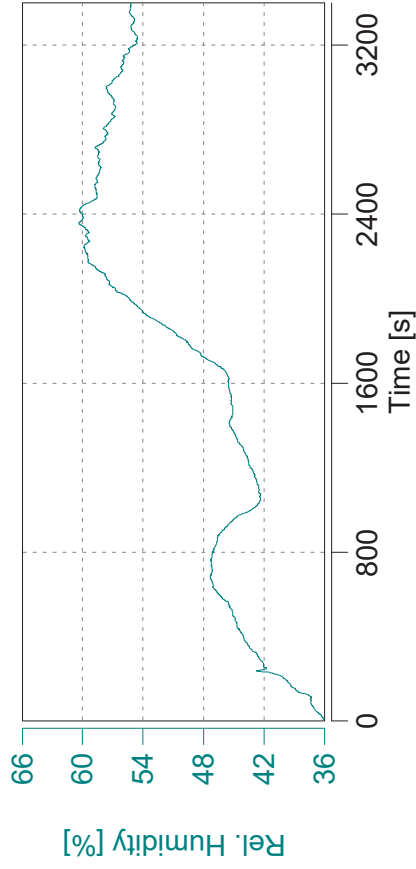
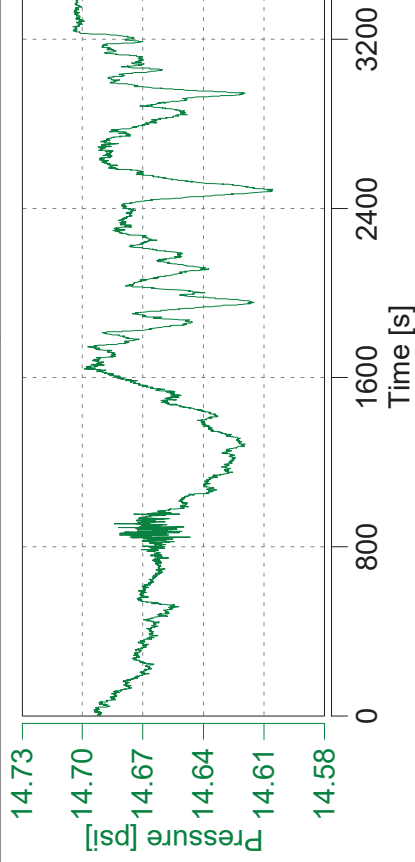
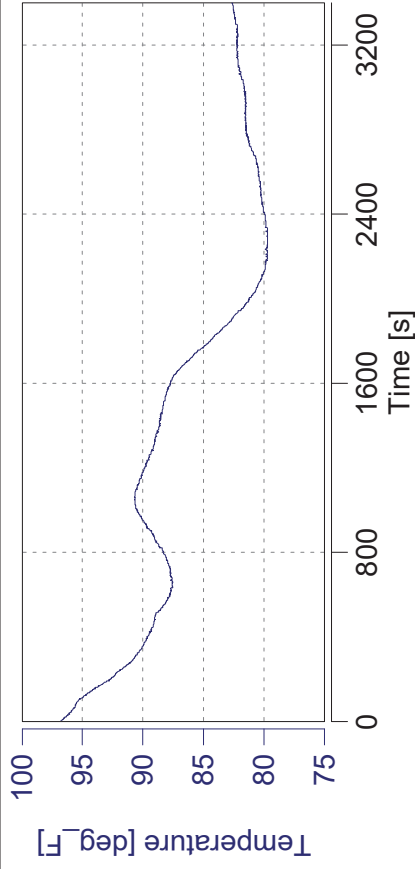
'Highway'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: GPS

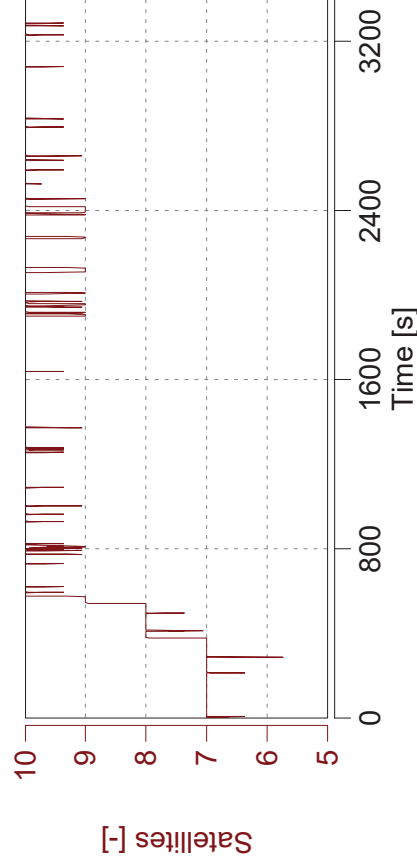
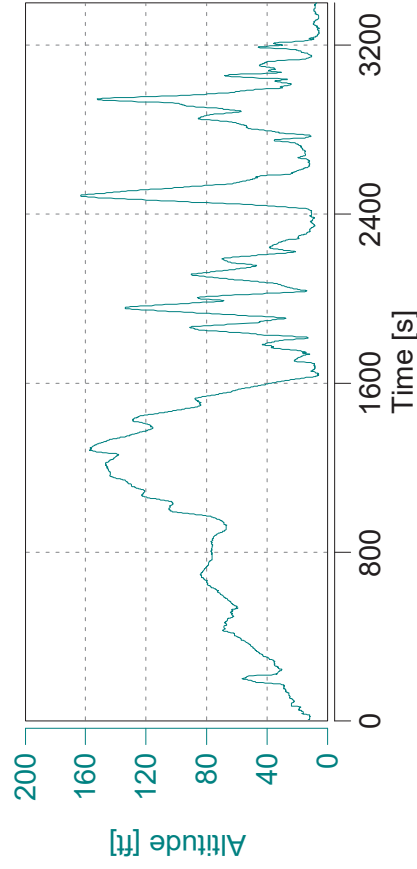
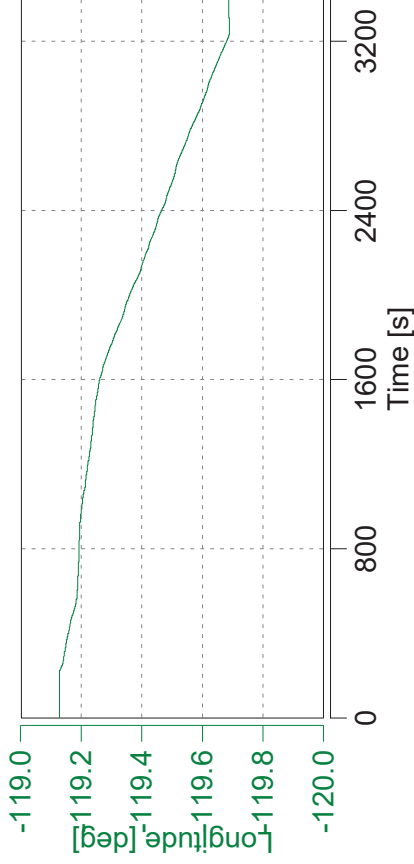
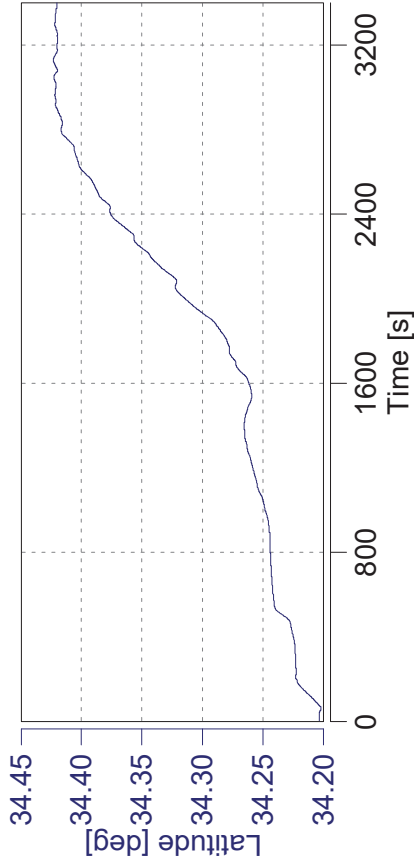
'Highway'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (1)

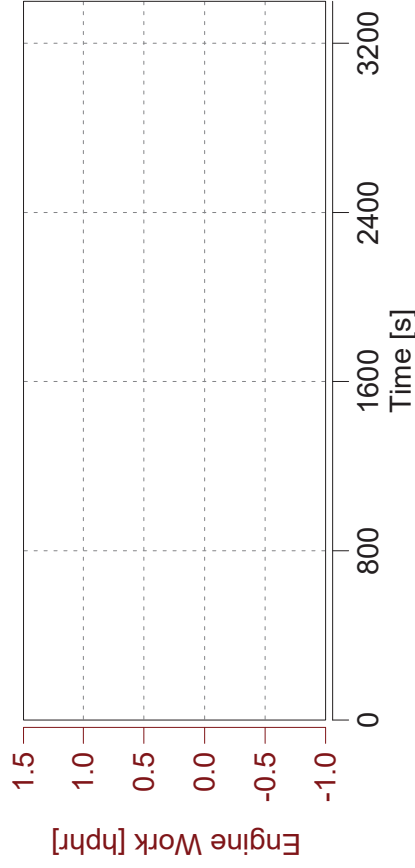
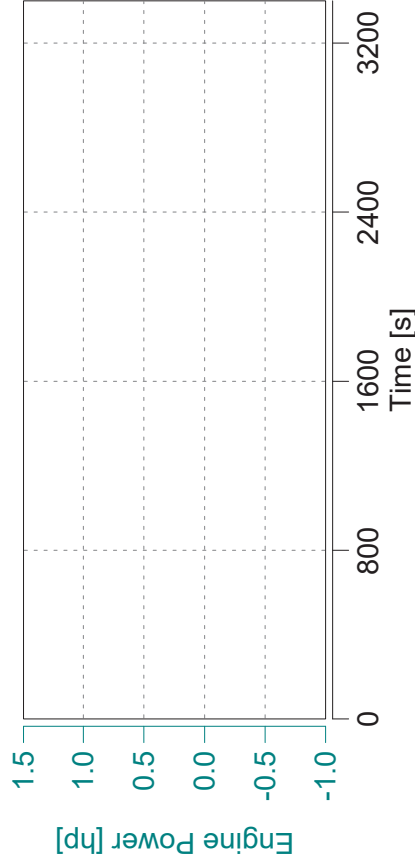
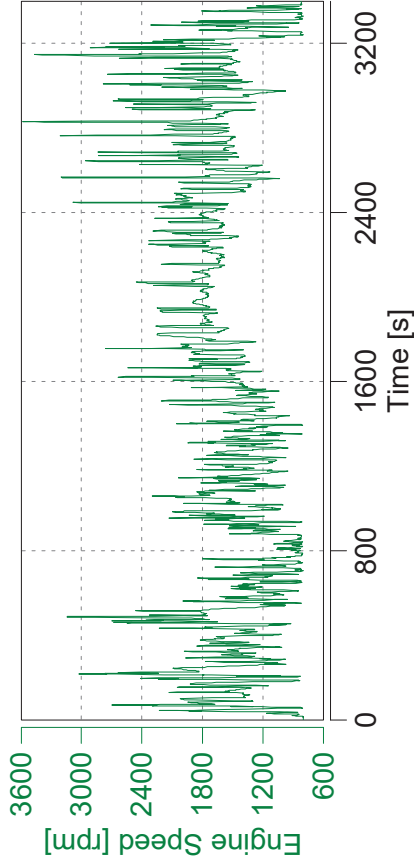
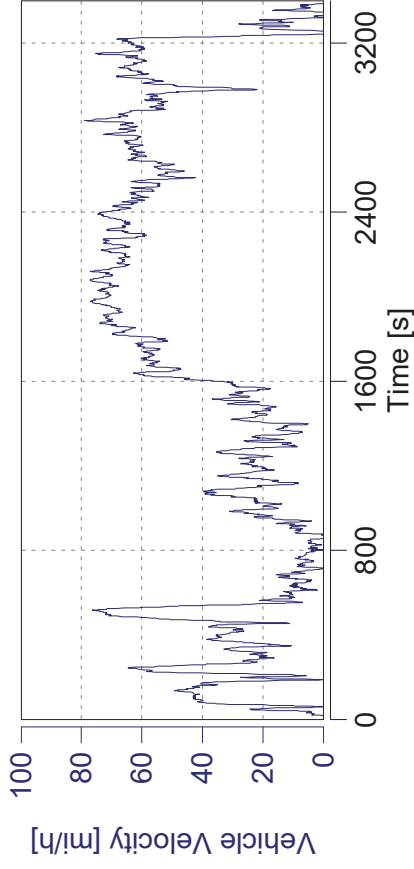
'Highway'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: Q5 / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (2)

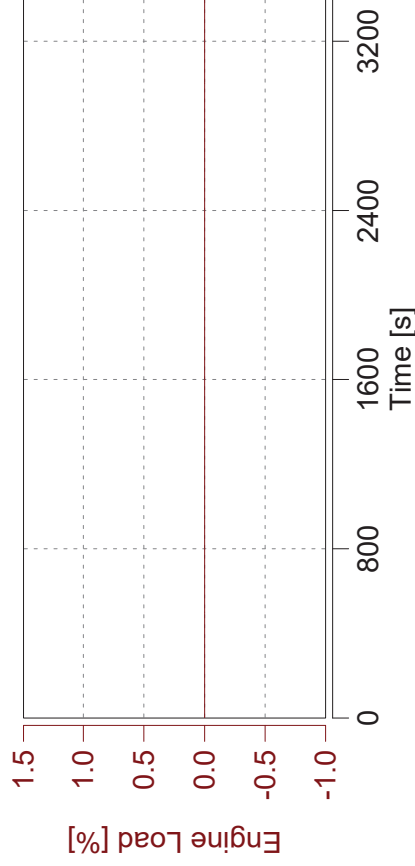
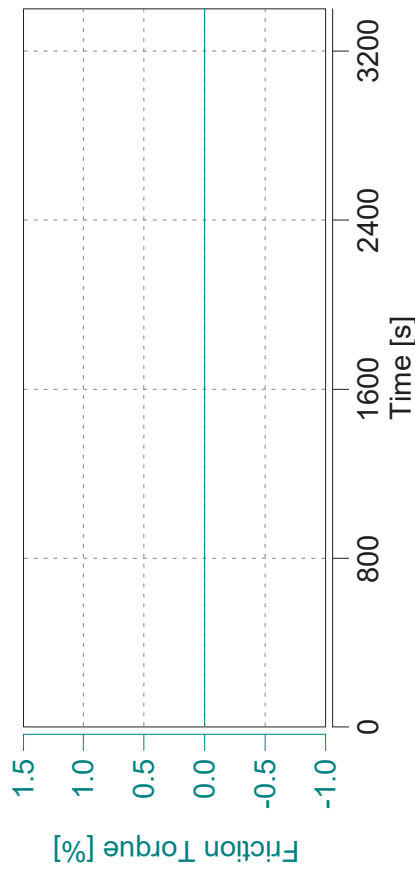
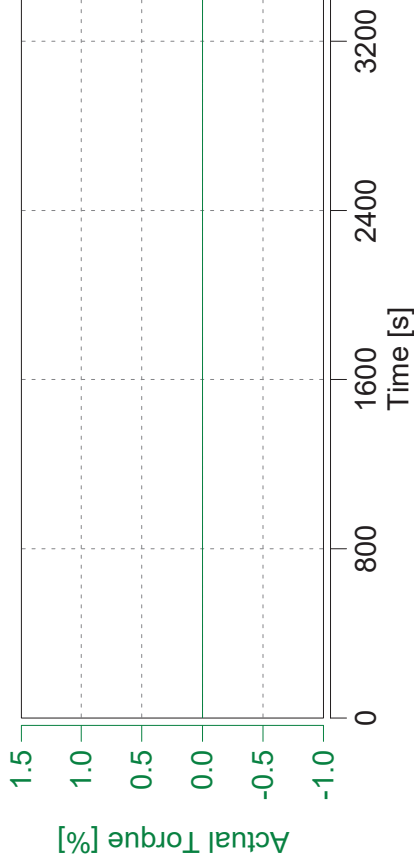
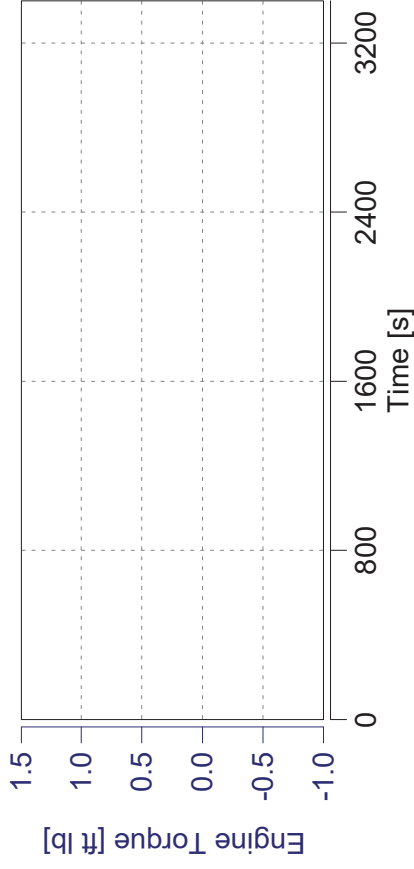
'Highway'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Engine (3)

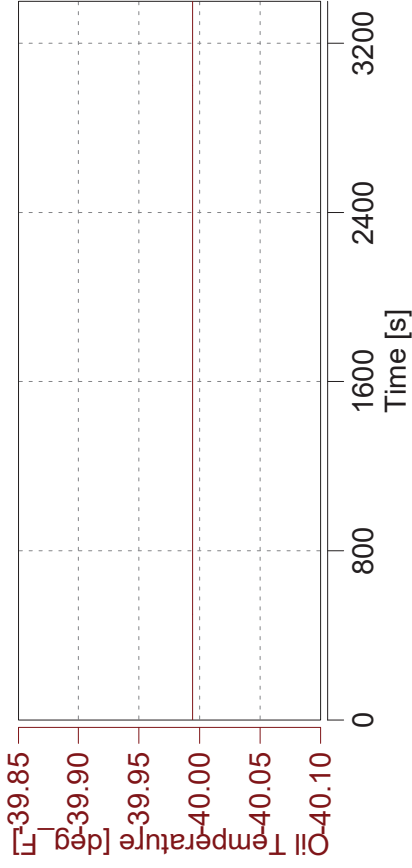
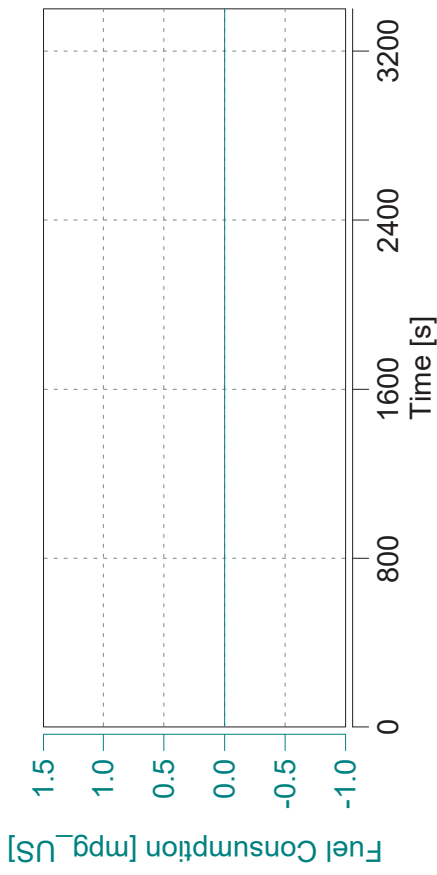
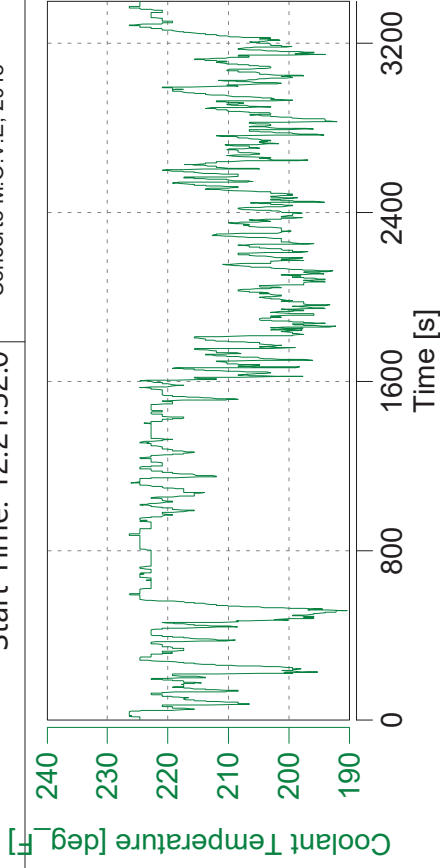
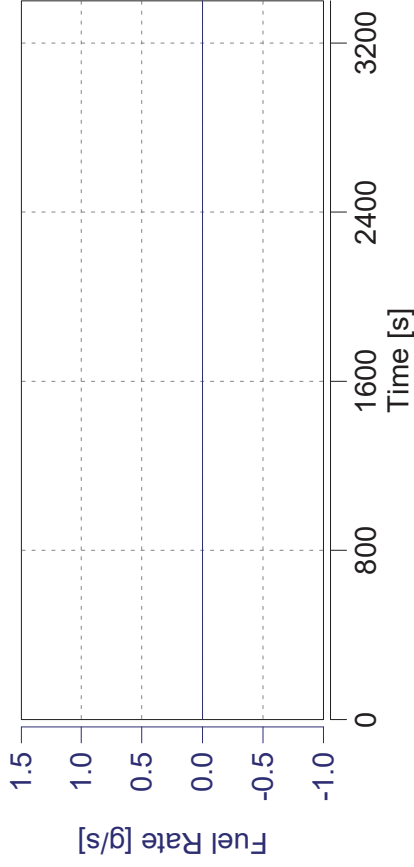
'Highway'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



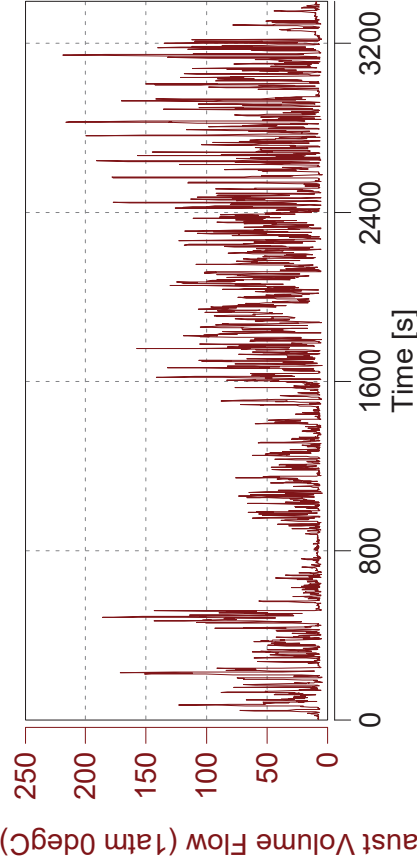
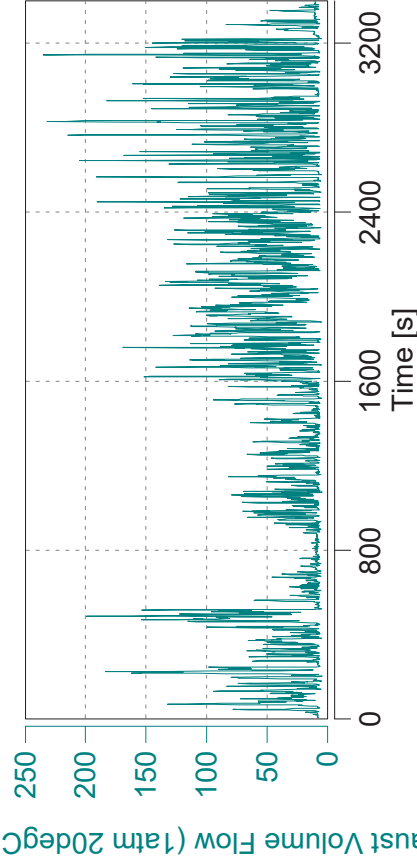
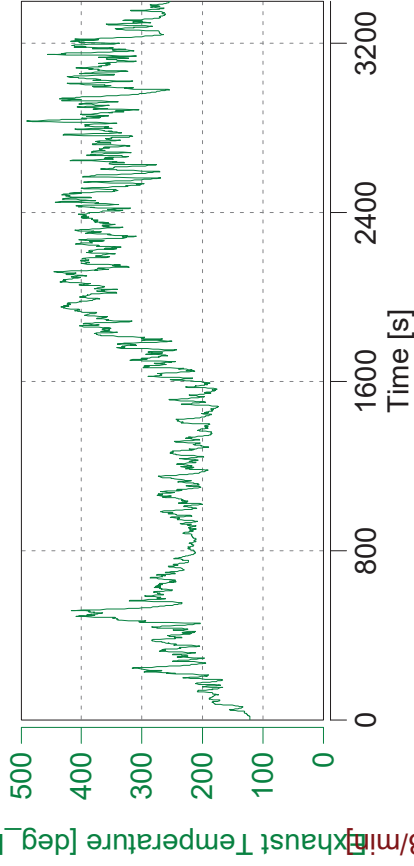
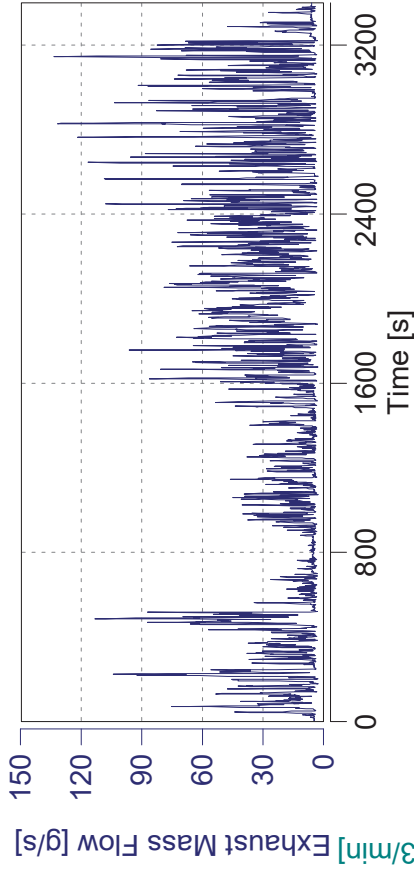
Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Q5 / 2.0L

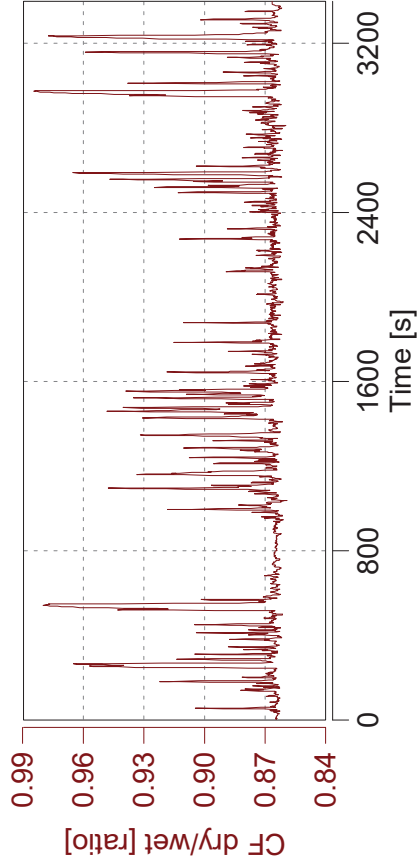
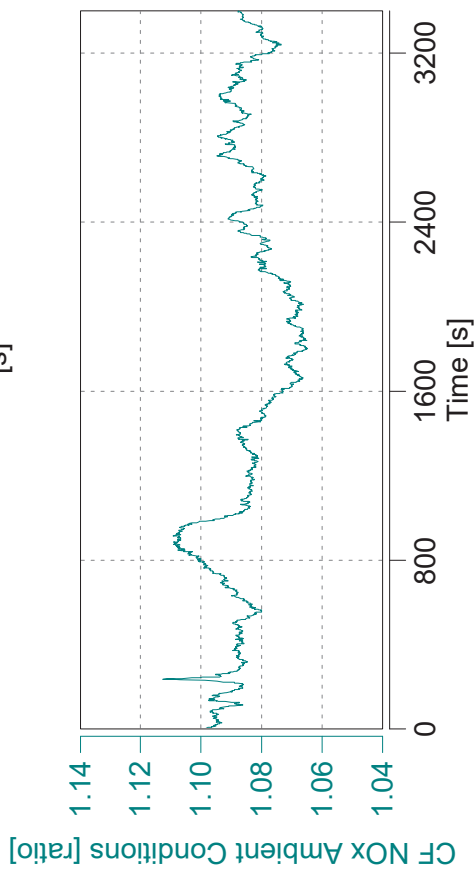
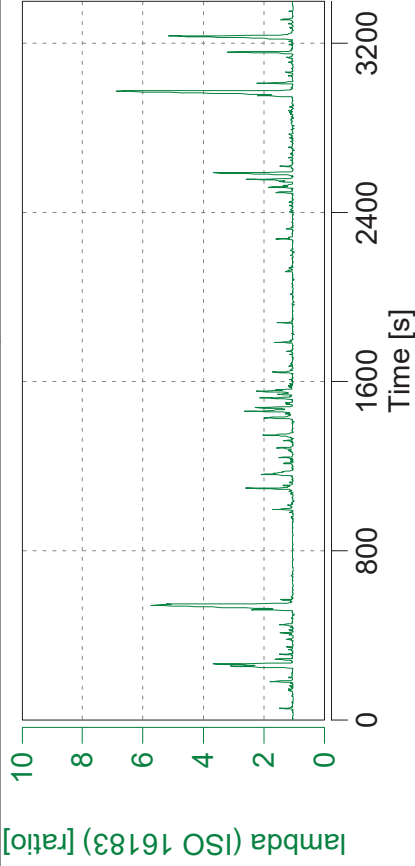
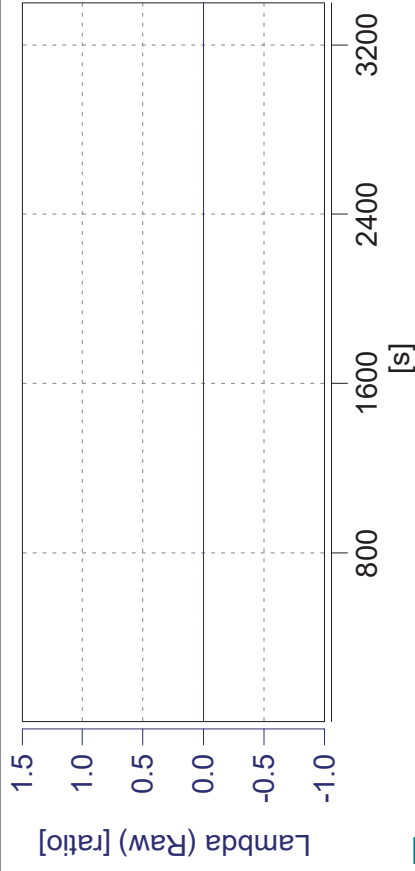
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90



Case: Highway
 Page: Exhaust Flow (2)

'Highway'
 Start Date: 08/12/2018
 Start Time: 12:21:32.0



Concerto Version: 480 Build 316, Serial Number: 1120
 M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L
 Engine: /
 NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
 Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (1)

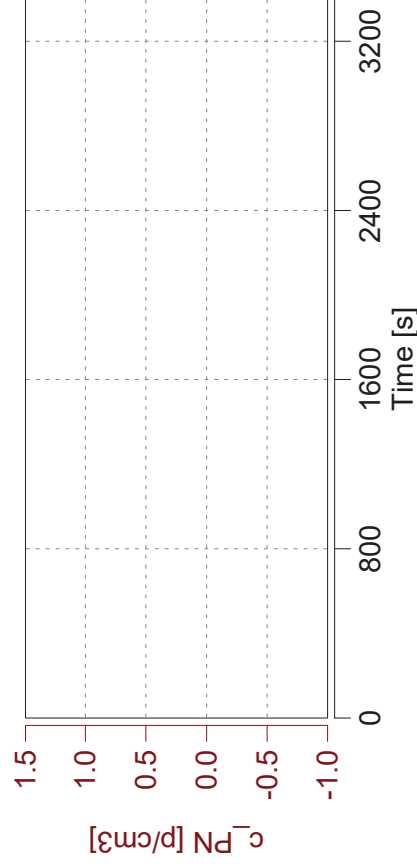
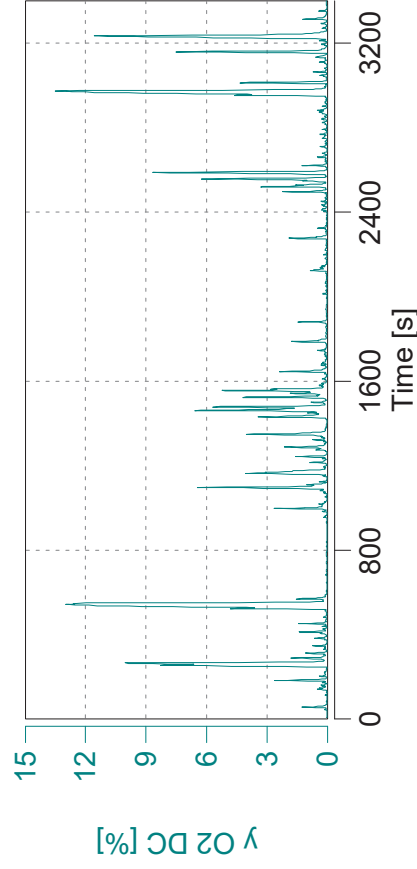
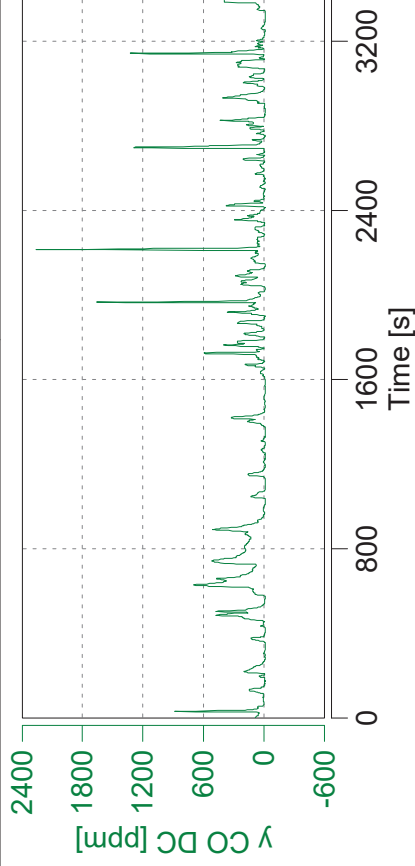
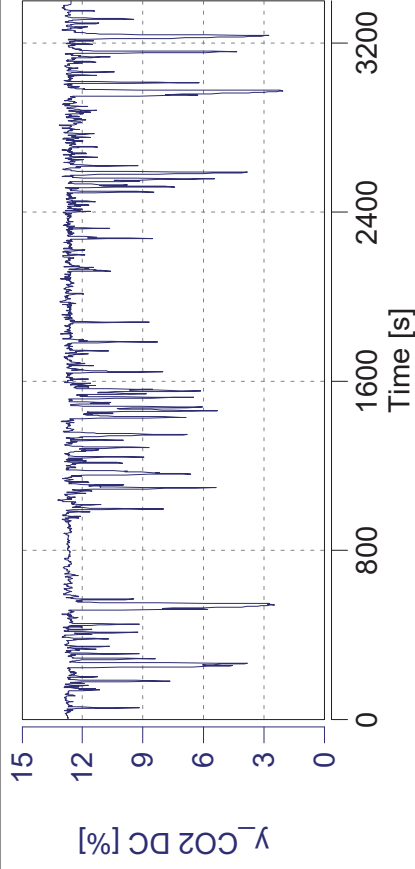
'Highway'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (2)

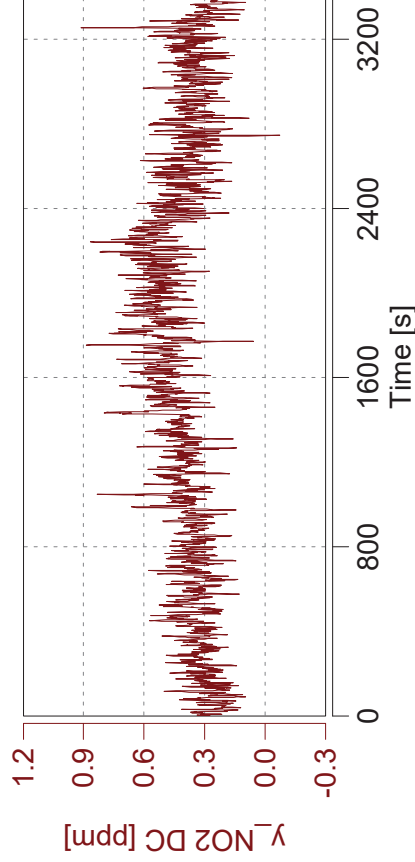
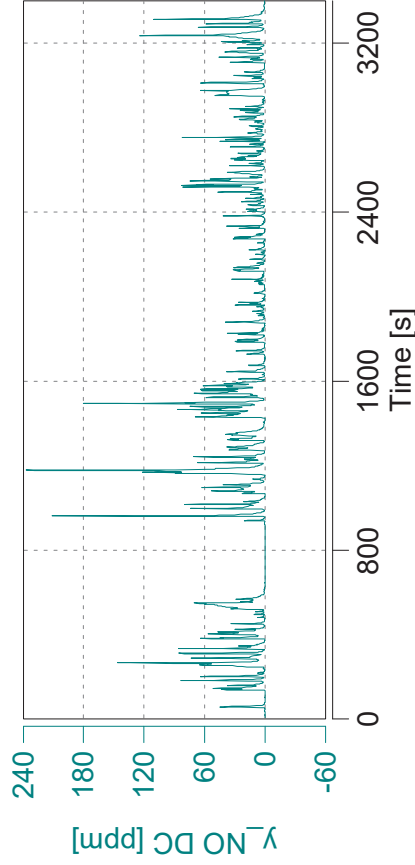
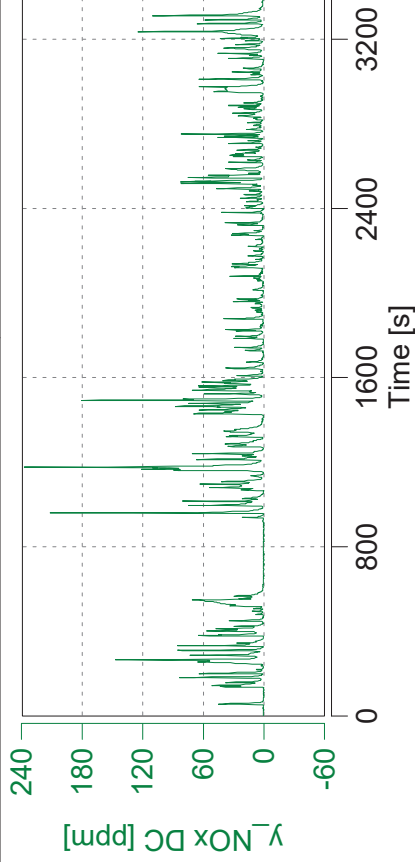
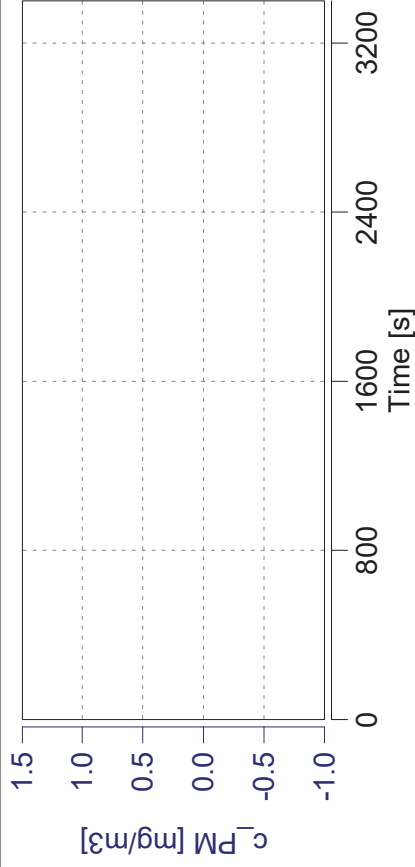
'Highway'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (3)

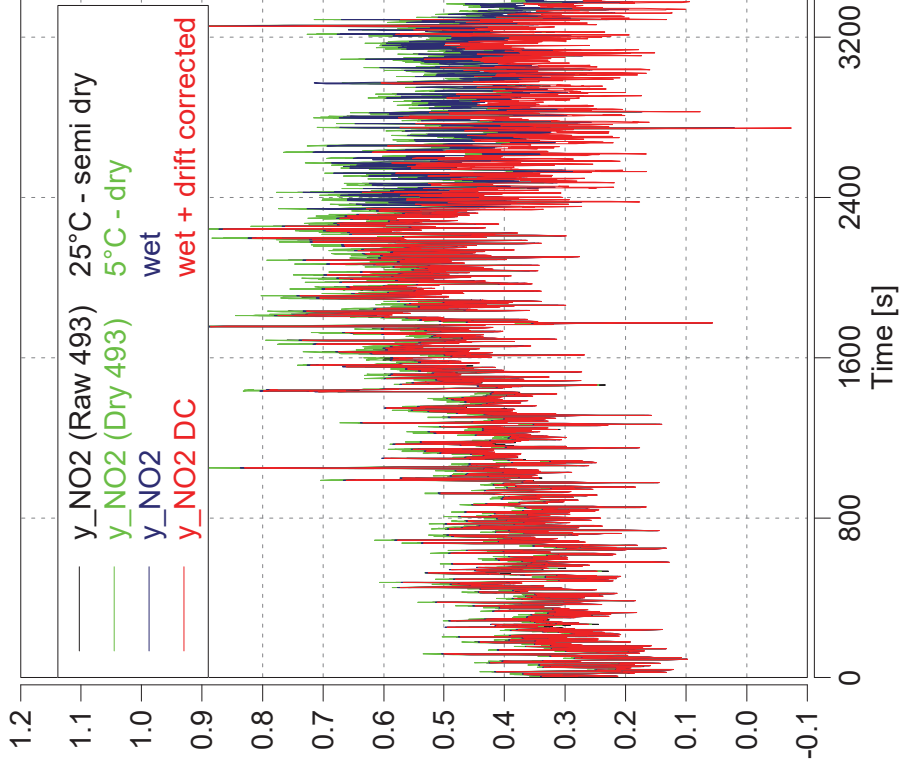
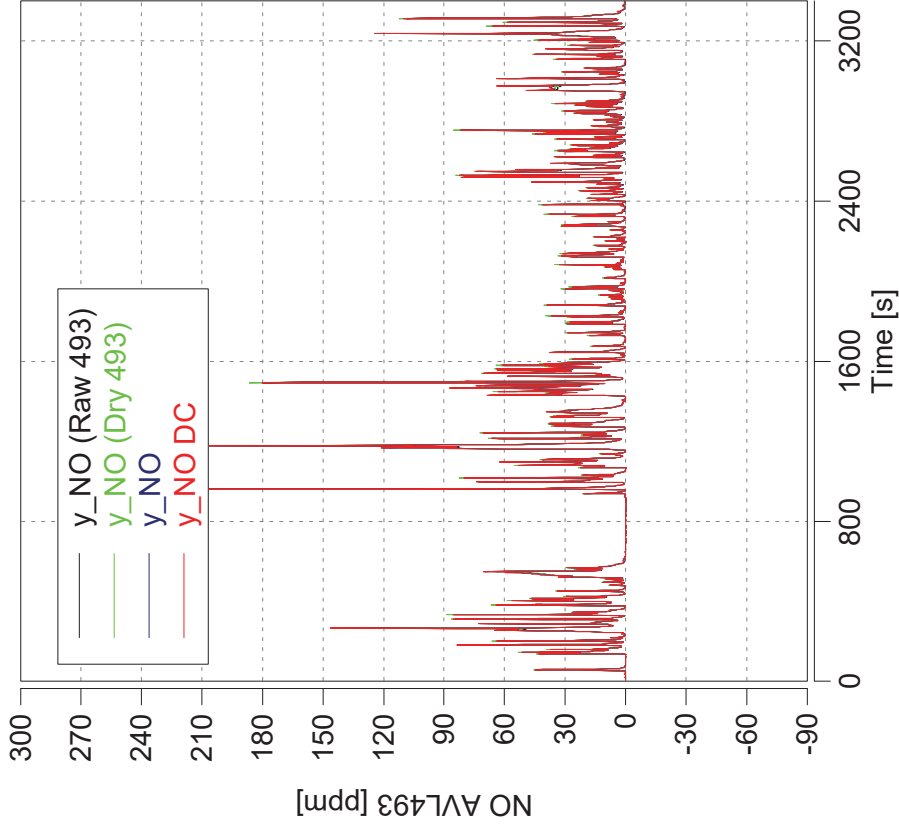
'Highway'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (4) NOx Corrections

'Highway'

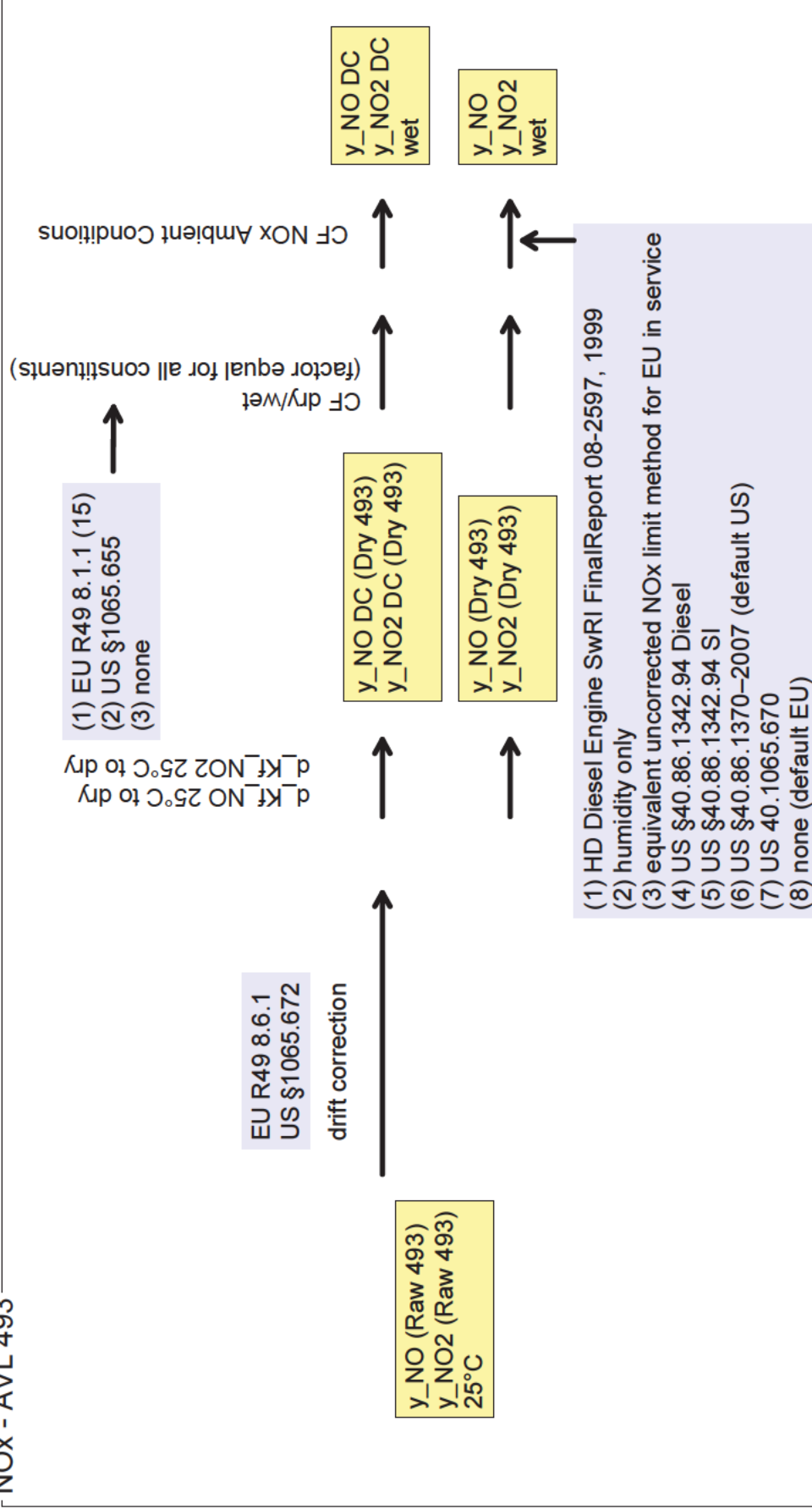
Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Q5 / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: Corrected Emissions (5)

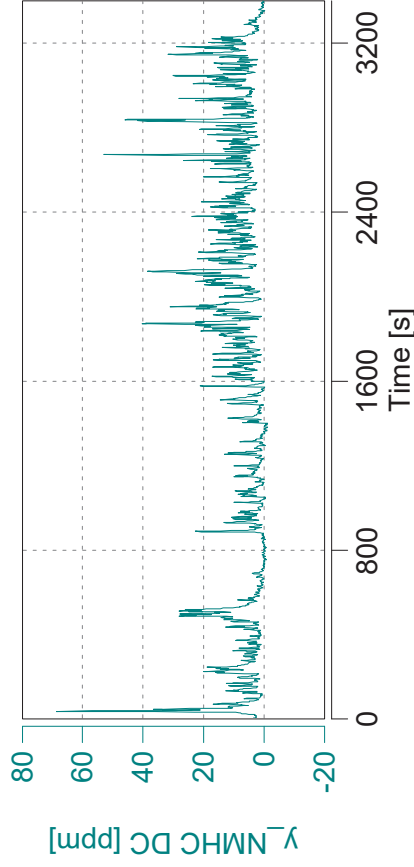
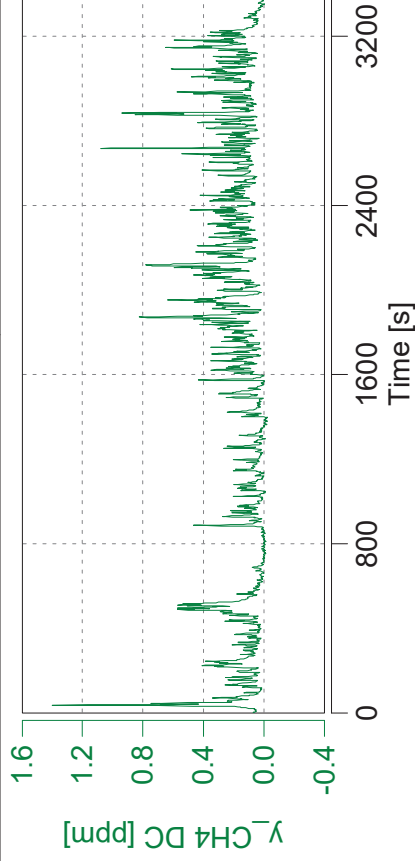
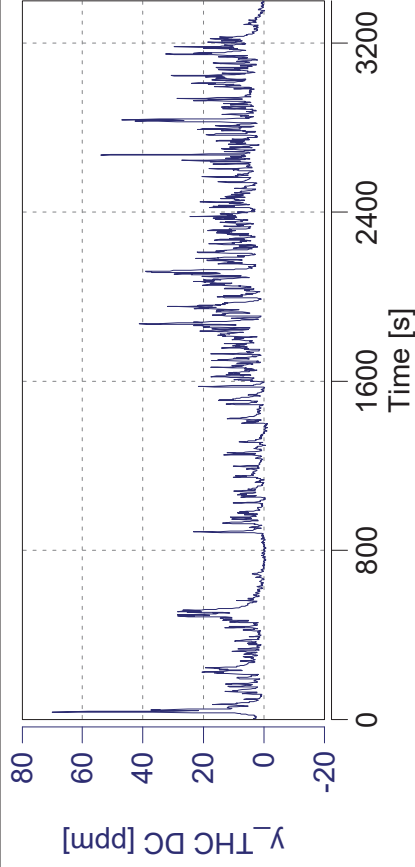
'Highway'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_0
Vehicle: Q5 / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Highway

Page: NO/NO2/NOx Zero - Span

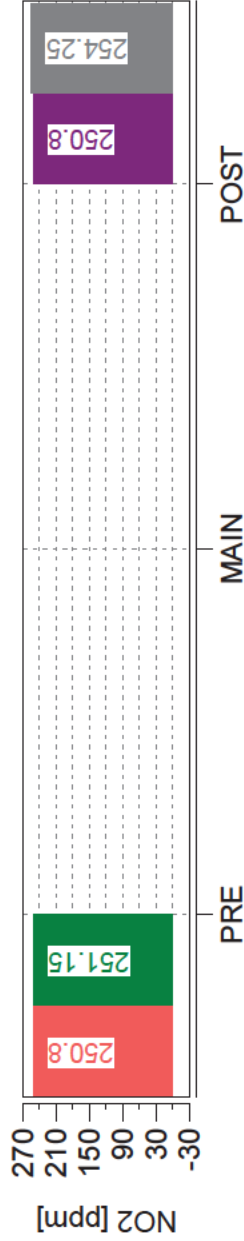
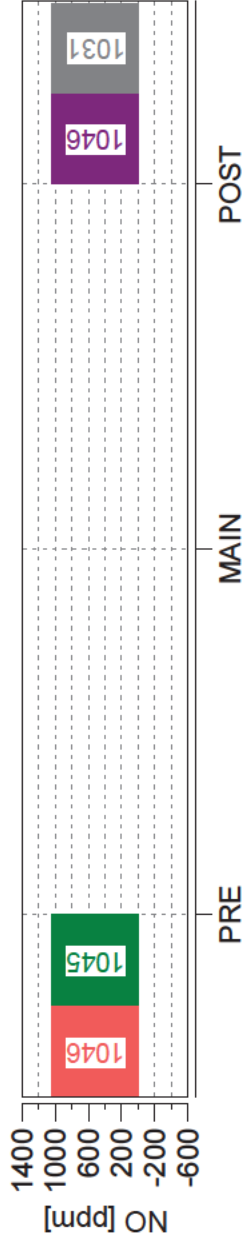
'Highway'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: Highway

Page: CO/CO2 Zero - Span

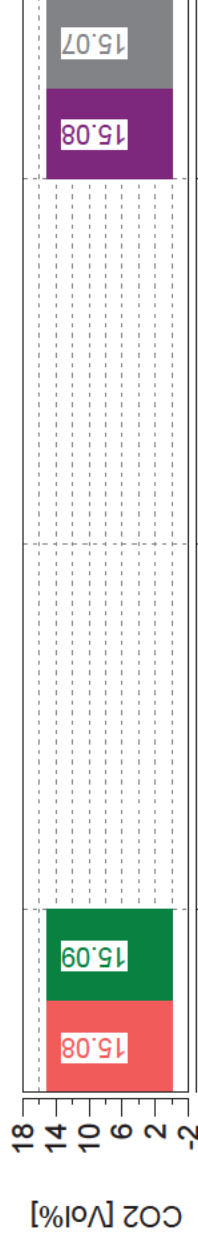
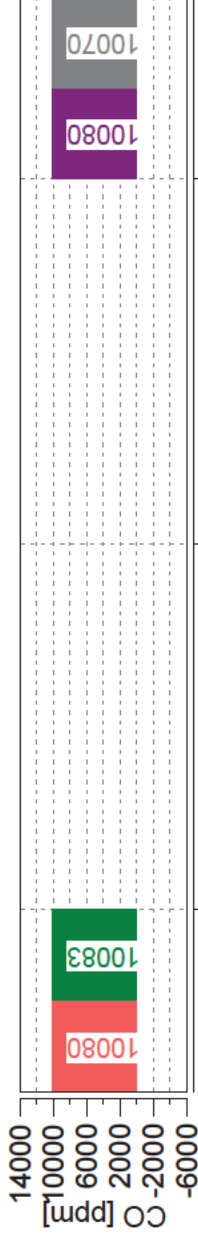
'Highway'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: Highway

Page: THC/CH4 Zero - Span

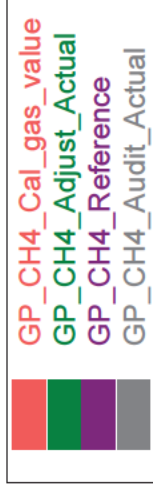
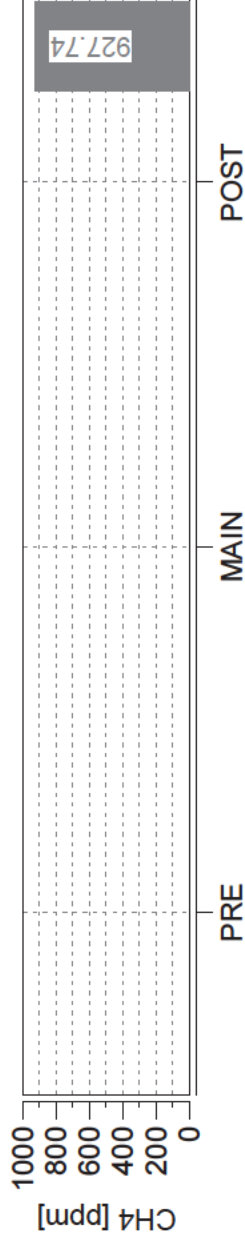
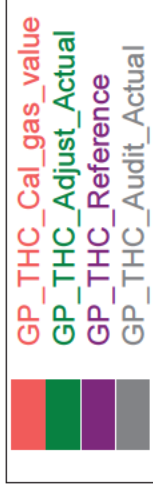
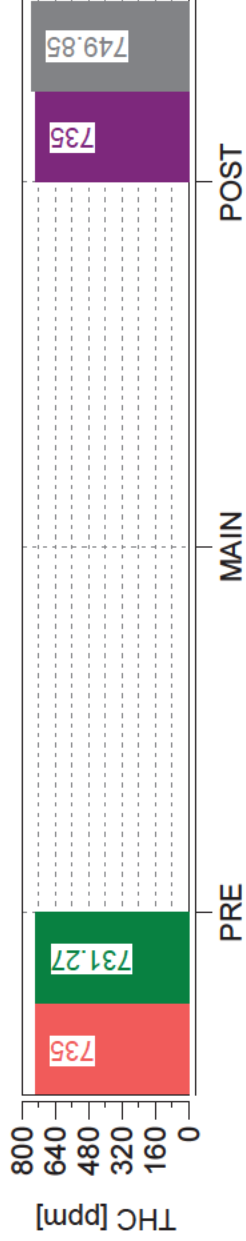
'Highway'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: Mountain

Page: Trip Summary

'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E. 2018

Trip Duration	2689.00	s	ave THC	8.73085	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	2689.00	s	ave NMHC	8.55623	ppm	BS CO	n/a	g/hphr
Trip Distance	28.93	mi	ave CH4	0.17462	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	28.93	mi	ave CO	82.33831	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	10.62188	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	11.62092	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.68	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.63	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.30	gall	tot THC	0.36049	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.28	gall	tot NMHC	0.33345	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00799	g	DS CO2	381.52728	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	8.62419	g	DS CO	0.29814	g/mi
Trip Fuel Economy EU (ac)	22.25	mpg_US	tot CO2	11036.46396	g	DS THC	0.01246	g/mi
Trip Fuel Economy US (ac)	22.54	mpg_US	tot NO (d)	0.52590	g	DS NMHC	0.01153	g/mi
Trip Av. Eng. Speed	1822.18	rpm	tot NO2	0.08652	g	DS CH4	0.00028	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.61243	g	DS NO (d)	0.01818	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	0.00299	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.02117	g/mi
Trip Exhaust Mass	60.66	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	85.23	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	48.56	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	38.72720	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	6.58237	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Trip Summary Drift Corrected

'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
Trip Duration	2689.00	s	ave THC DC	8.43454	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	2689.00	s	ave NMHC DC	8.26585	ppm	BS CO DC	n/a	g/hphr
Trip Distance	28.93	mi	ave CH4 DC	0.16869	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	28.93	mi	ave CO DC	82.36486	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	10.62188	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	11.69061	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	3.68	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	3.63	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	1.30	gall	tot THC DC	0.35082	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	1.28	gall	tot NMHC DC	0.32452	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00778	g	DS CO2 DC	381.52728	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	8.62698	g	DS CO DC	0.29823	g/mi
Trip Fuel Economy EU (ac)	22.25	mpg_US	tot CO2 DC	11036.46396	g	DS THC DC	0.01213	g/mi
Trip Fuel Economy US (ac)	22.54	mpg_US	tot NO DC (d)	0.52970	g	DS NMHC DC	0.01122	g/mi
Trip Av. Eng. Speed	1822.18	rpm	tot NO2 DC	0.08587	g	DS CH4 DC	0.00027	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.61558	g	DS NO DC (d)	0.01831	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	0.00297	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.02128	g/mi
Trip Exhaust Mass	60.66	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	85.23	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	48.56	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	38.72720	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	6.58237	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
 (d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment Check

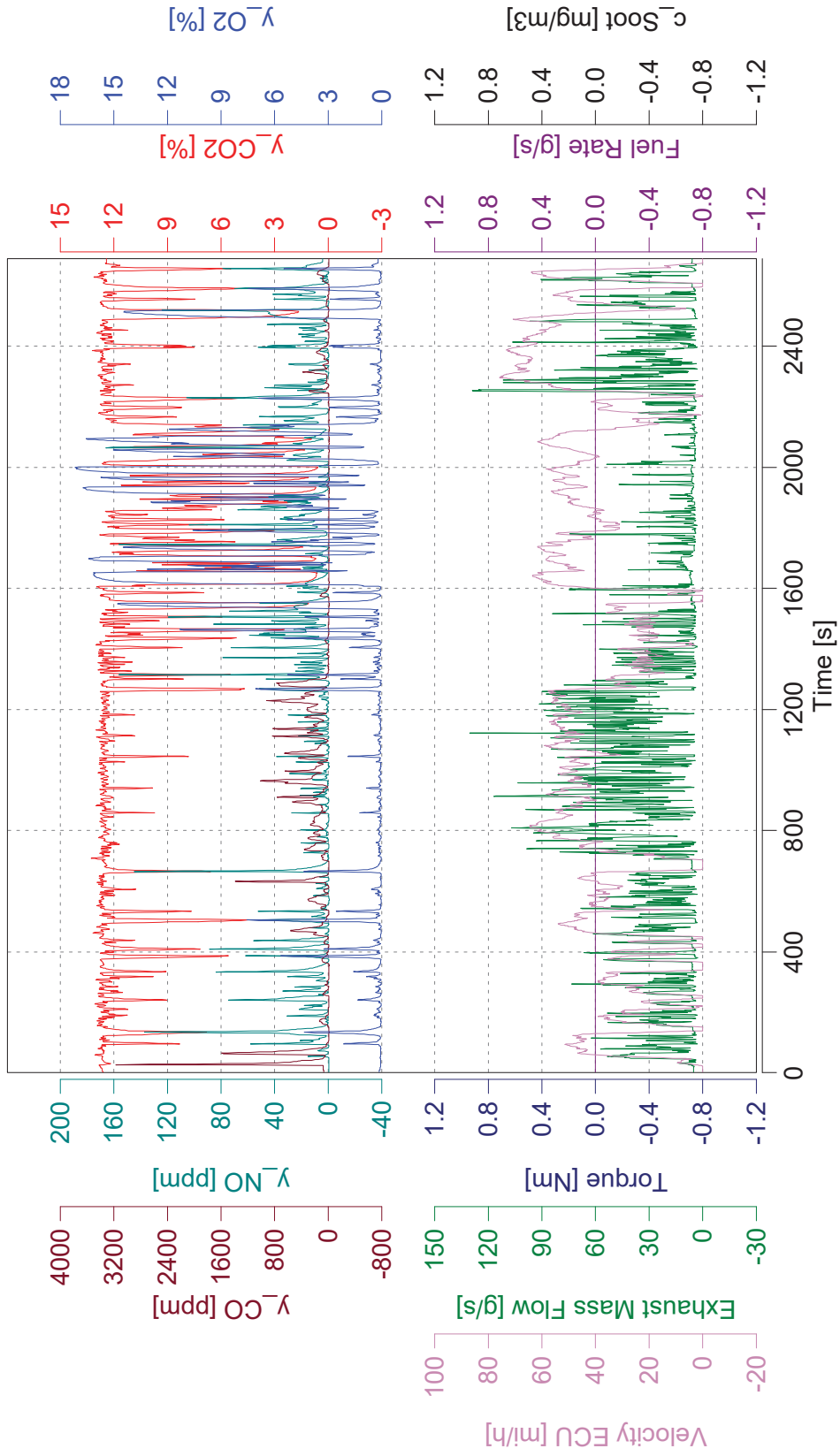
'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Time Alignment of Gas Concentrations

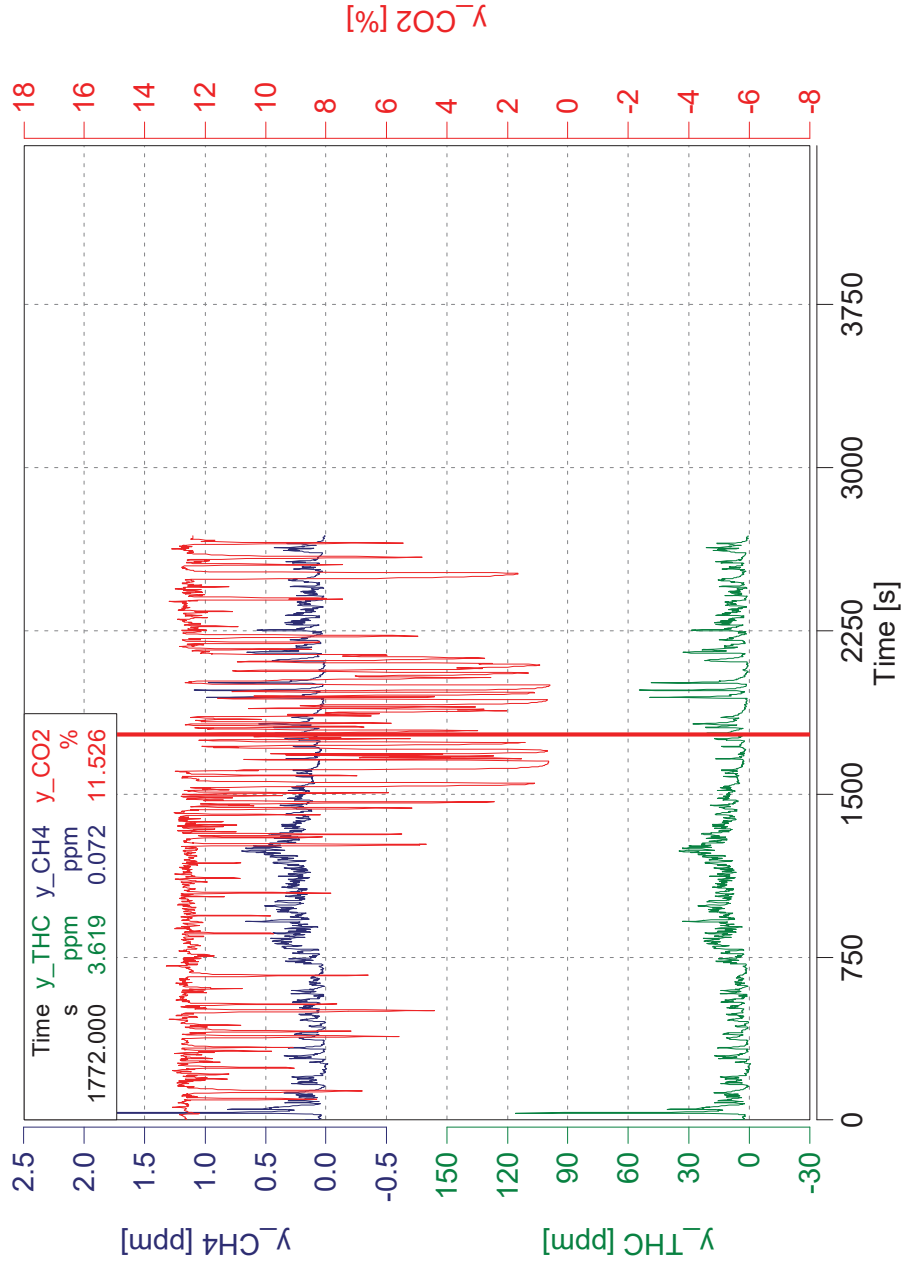
'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Ambient Conditions

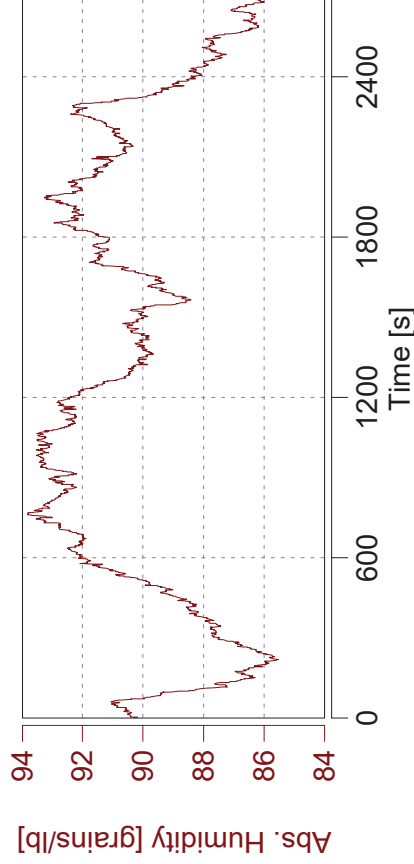
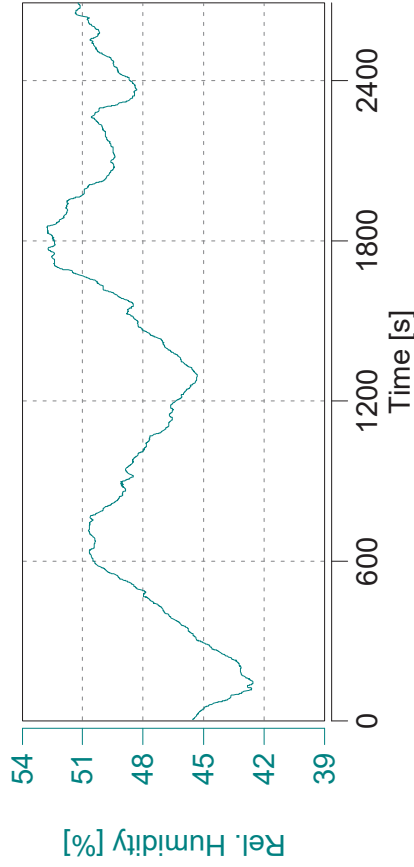
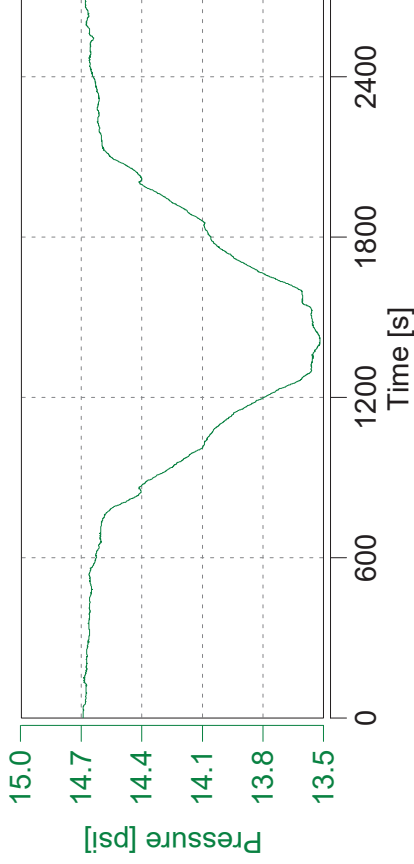
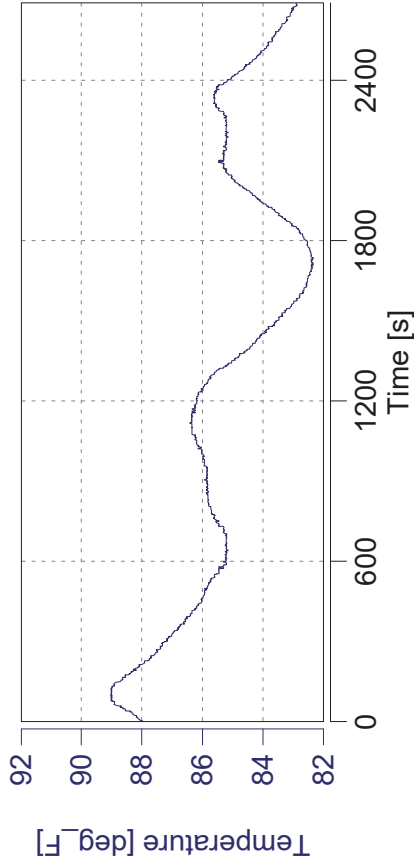
'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

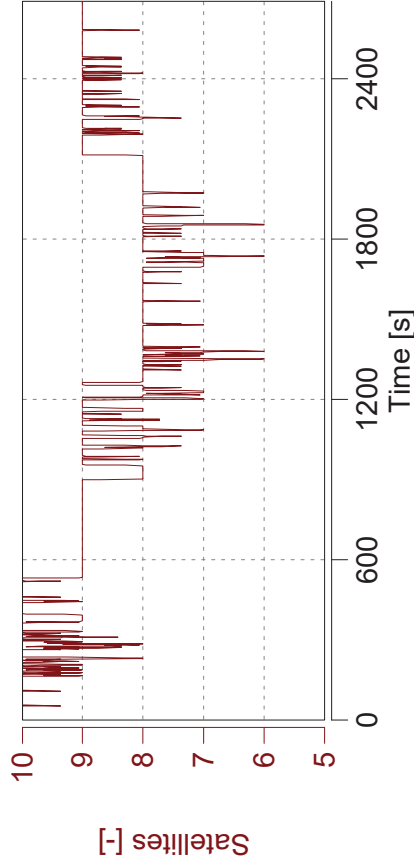
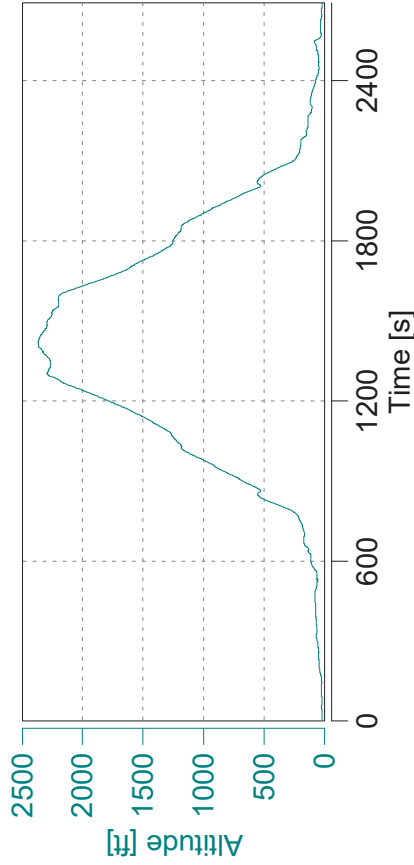
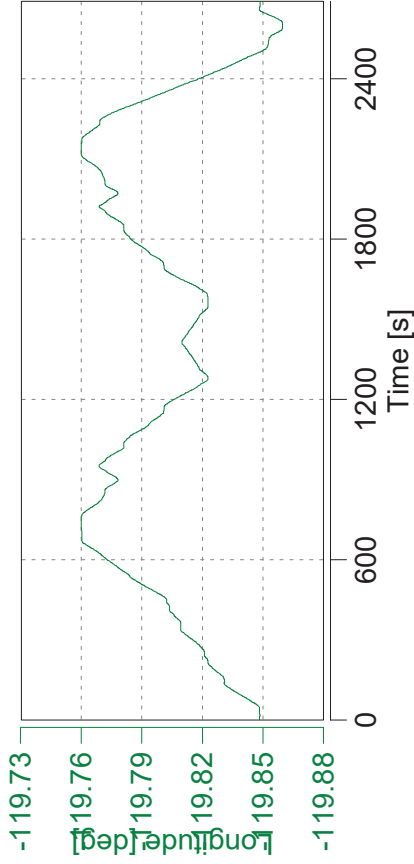
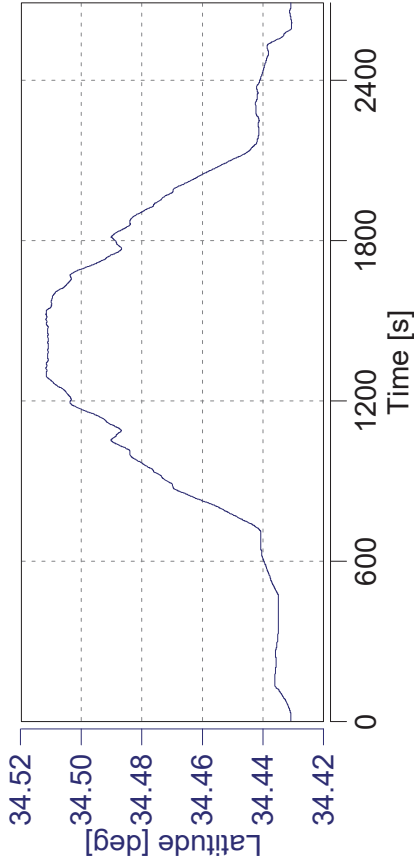
Page: GPS

'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0

Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (1)

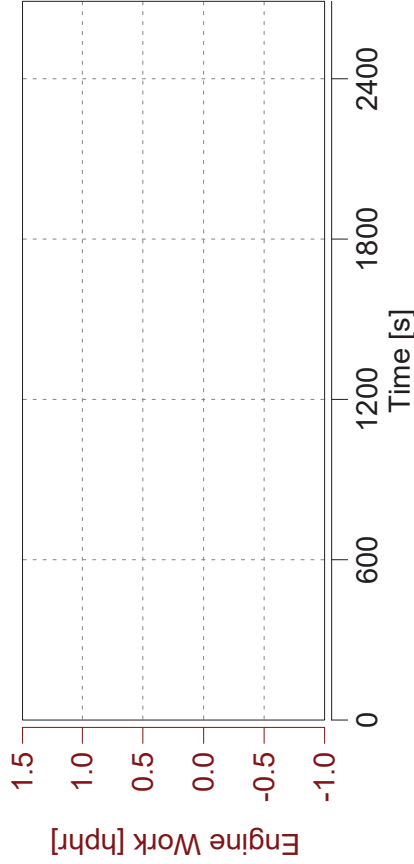
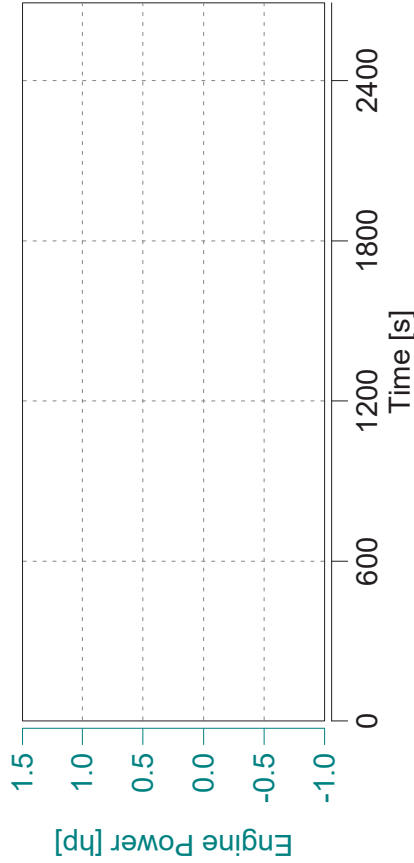
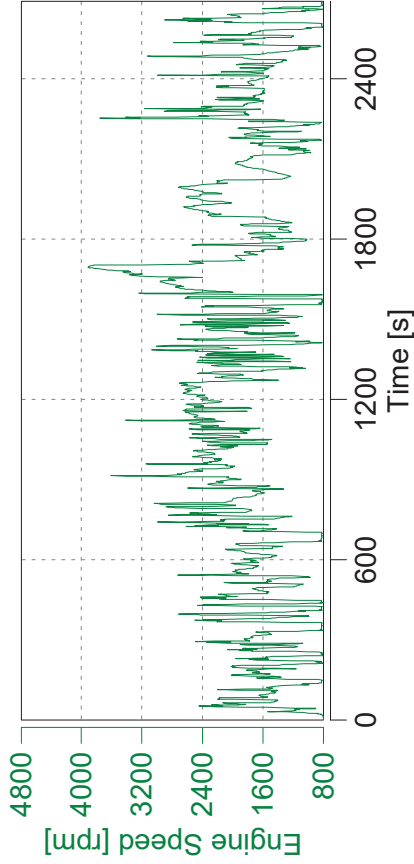
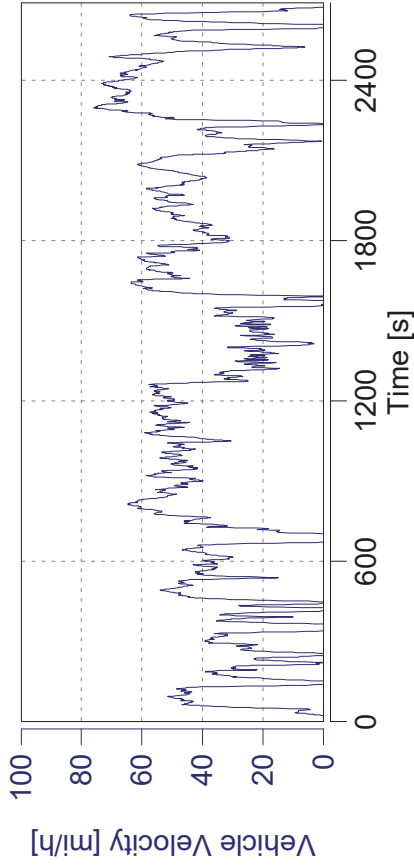
'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (2)

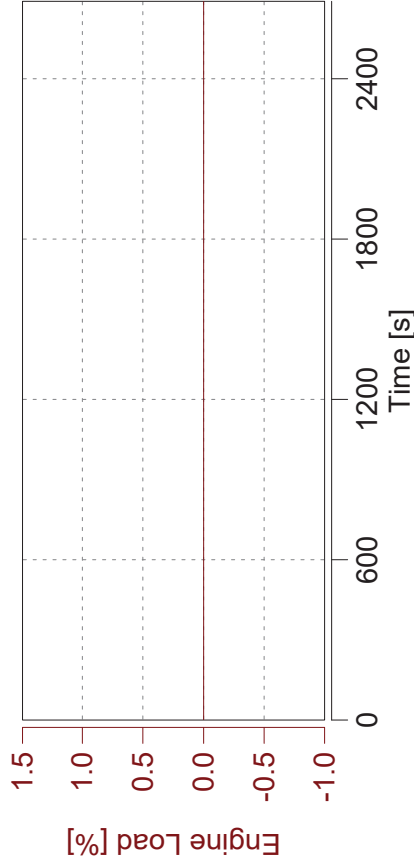
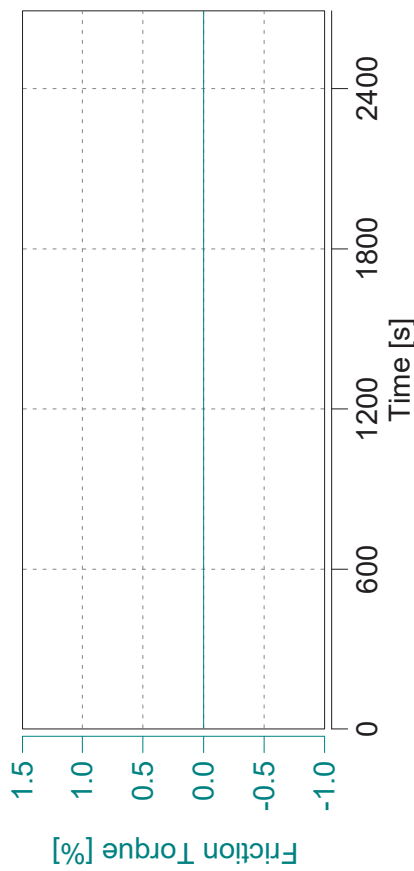
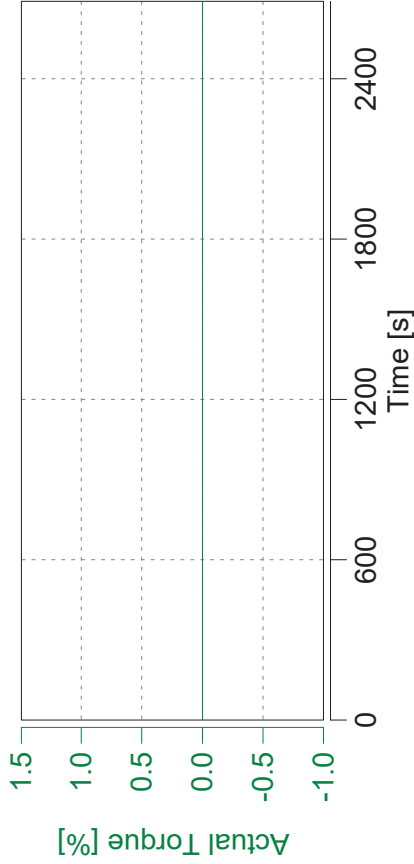
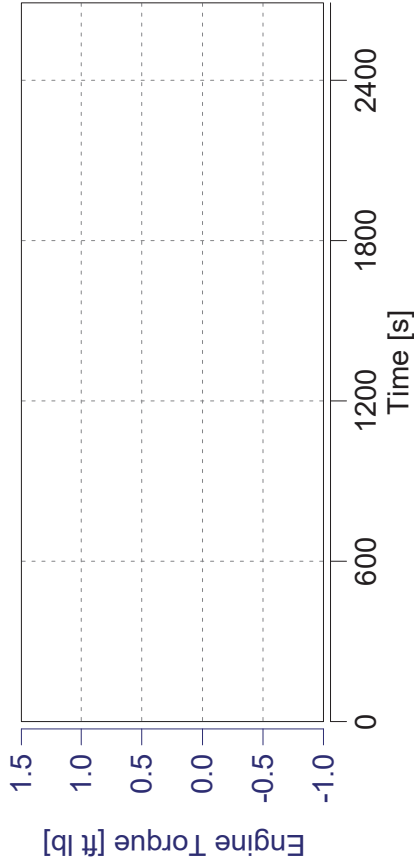
'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Engine (3)

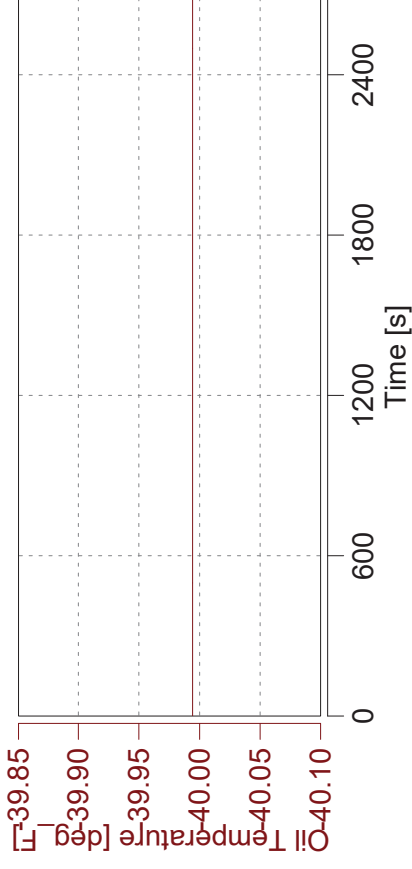
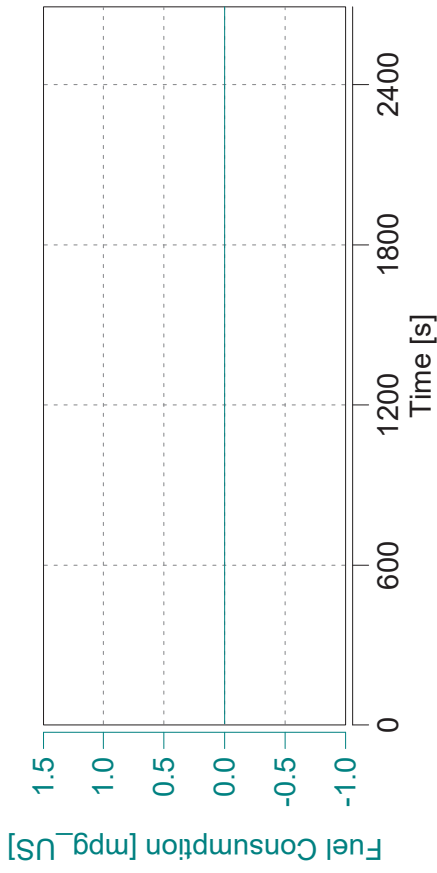
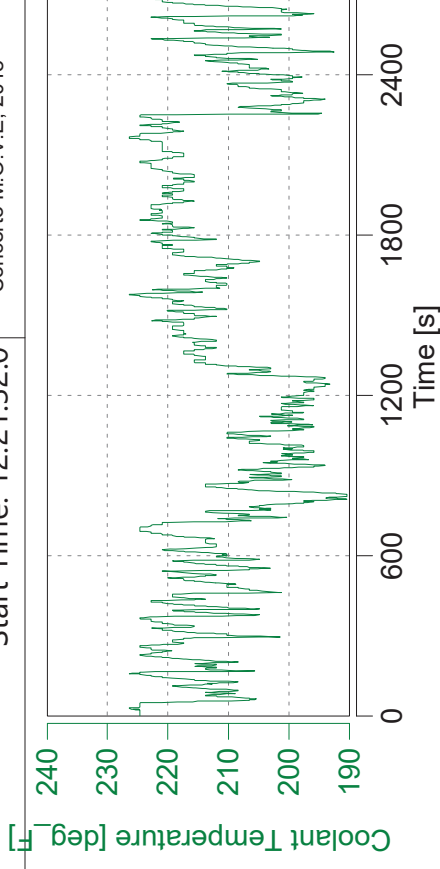
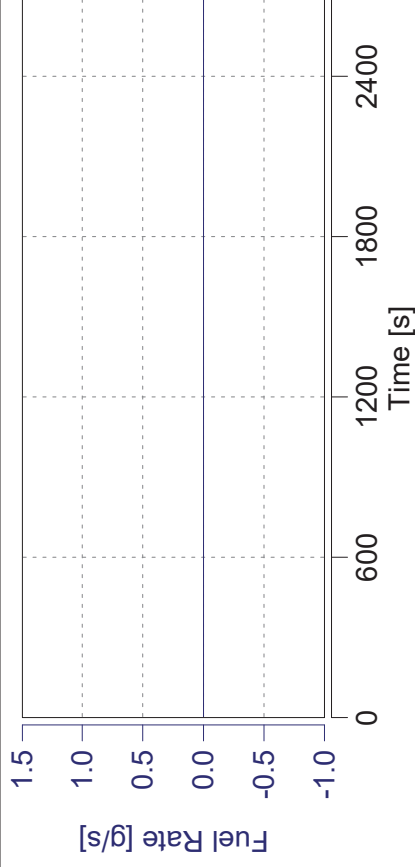
'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

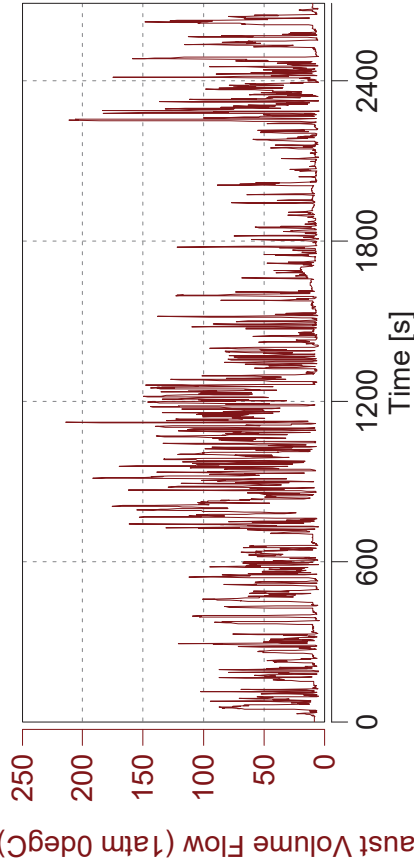
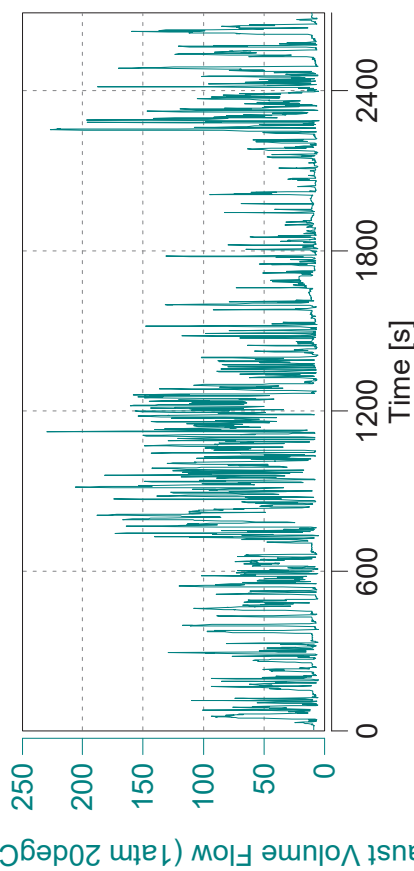
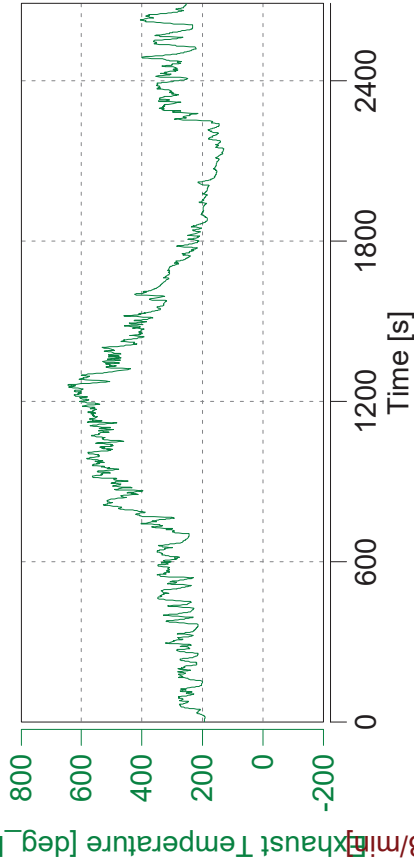
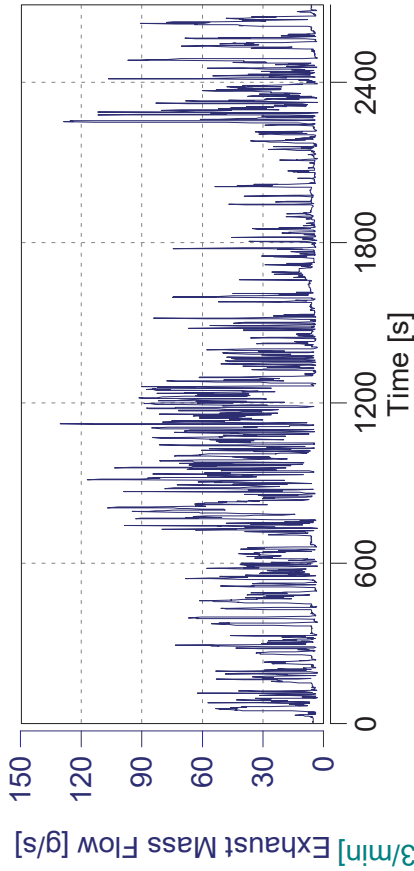
Page: Exhaust Flow (1)

'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0

Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

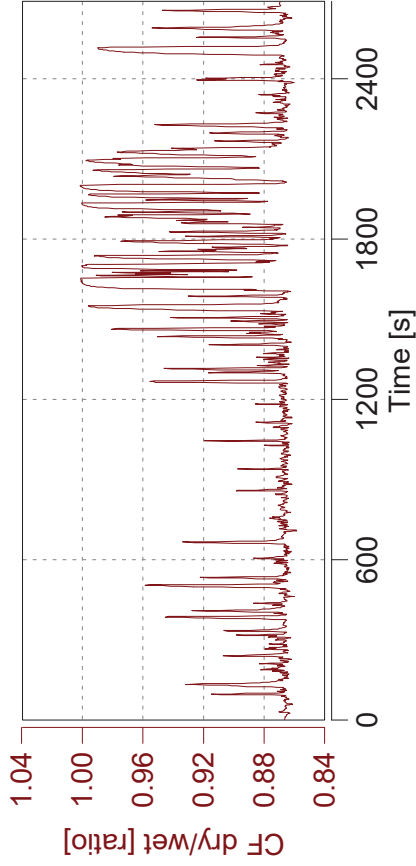
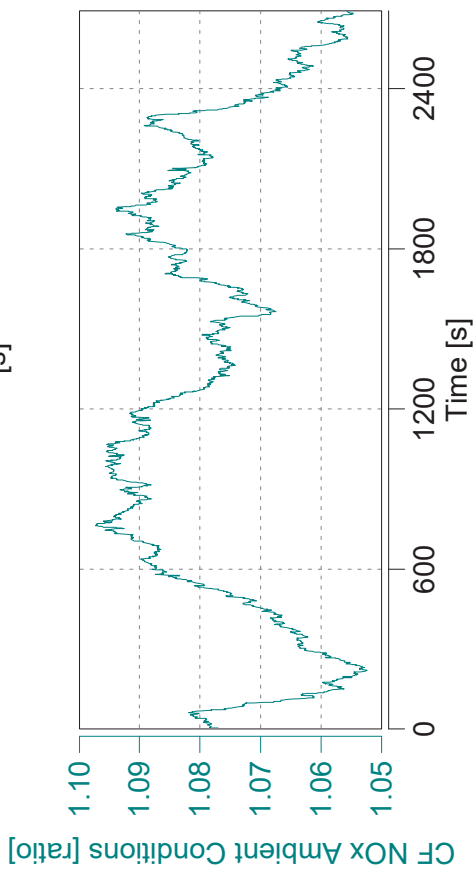
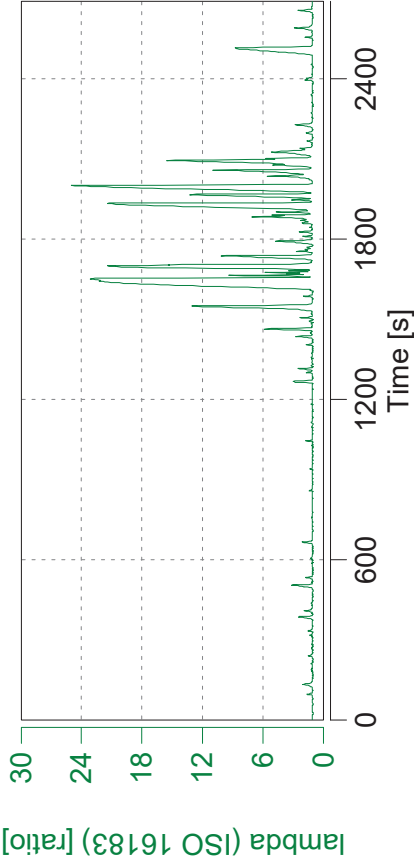
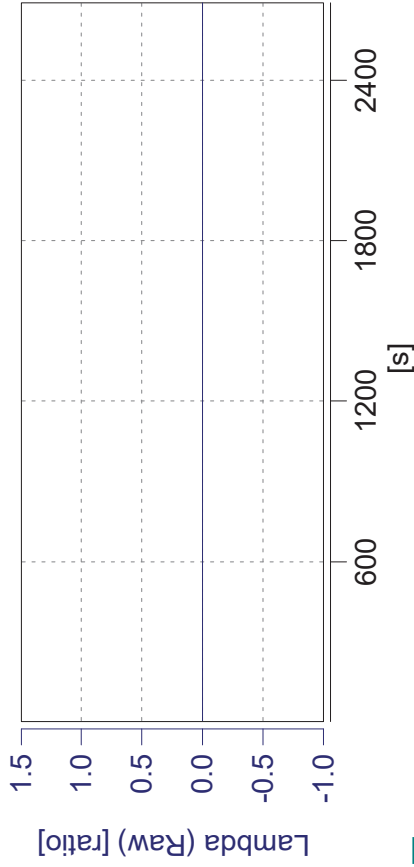
Case: Mountain

Page: Exhaust Flow (2)

'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (1)

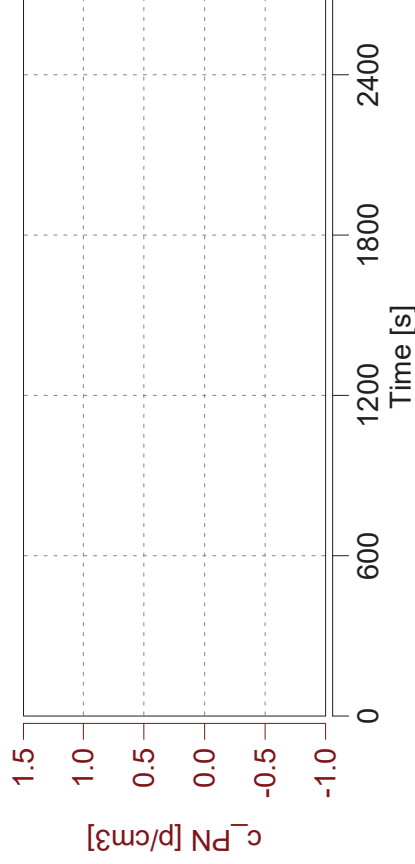
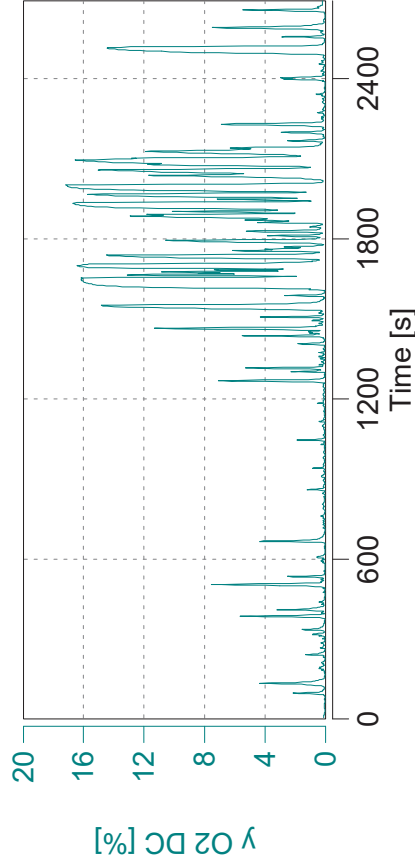
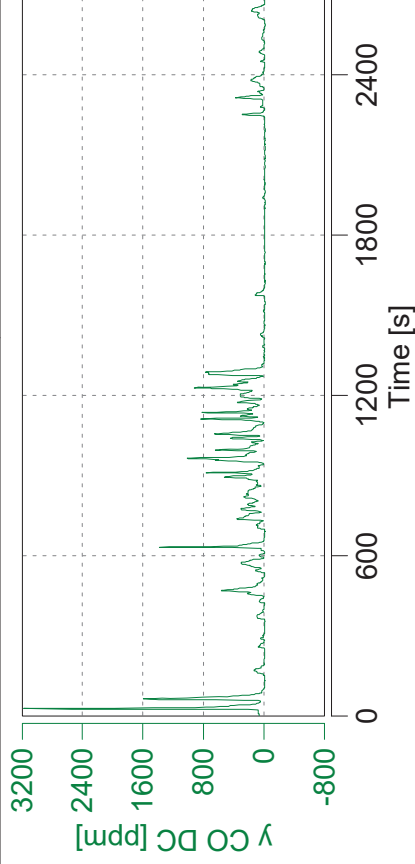
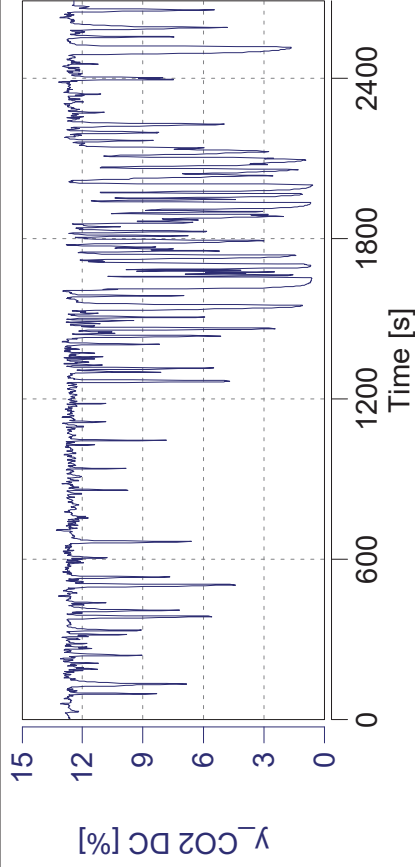
'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (2)

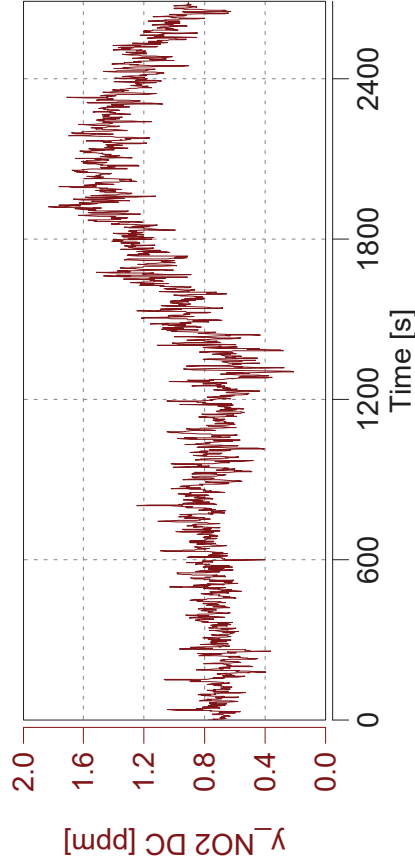
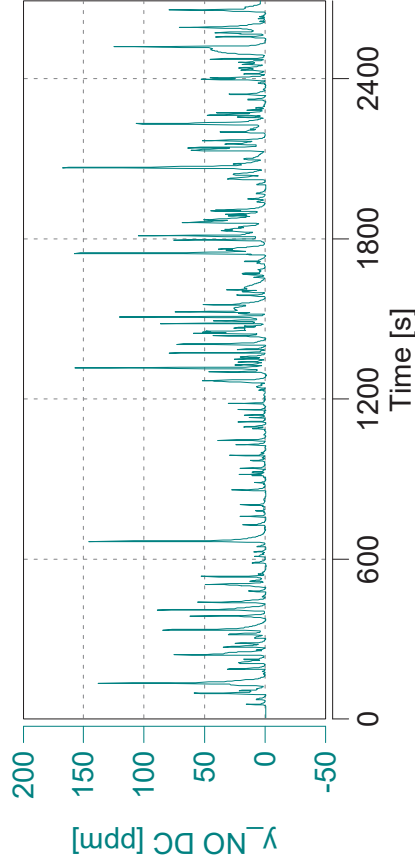
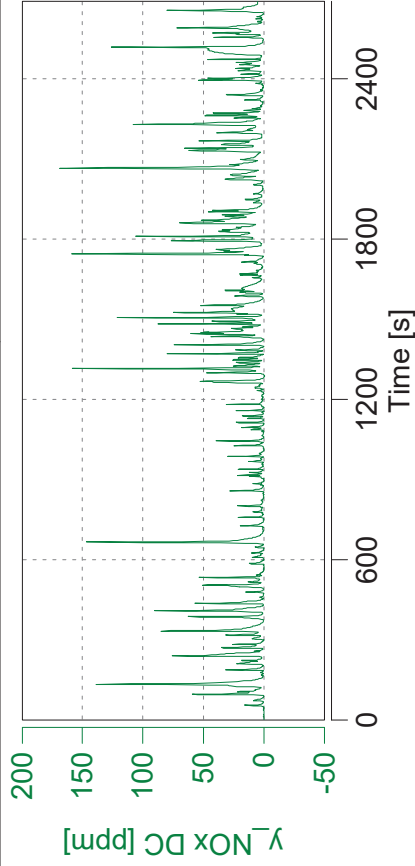
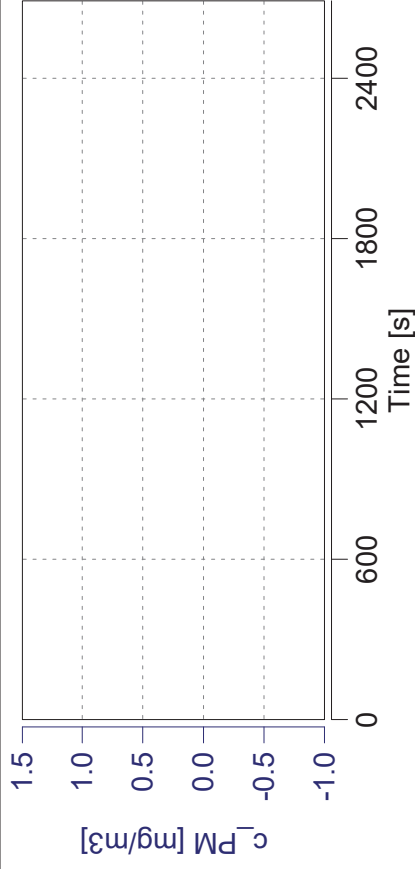
'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (3)

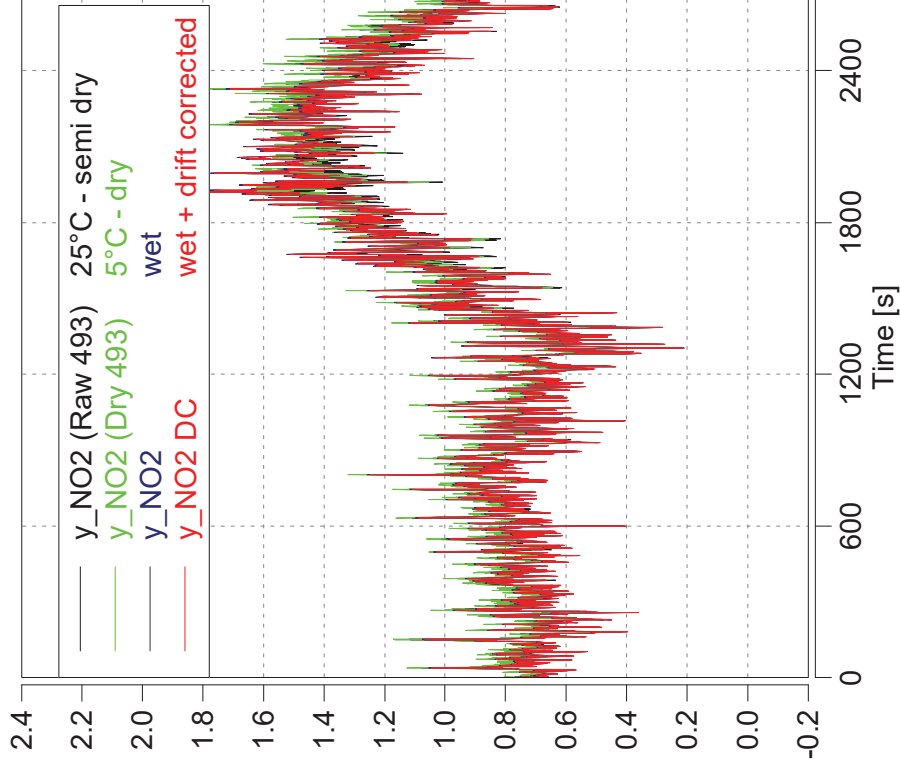
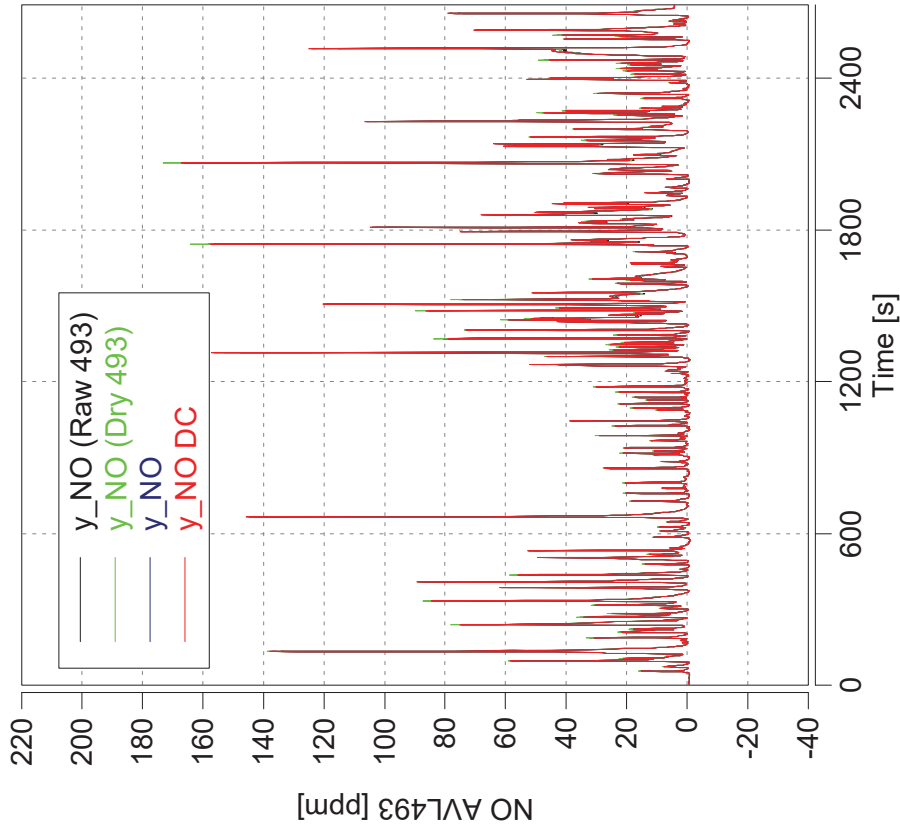
'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (4) NOx Corrections

'Mountain'

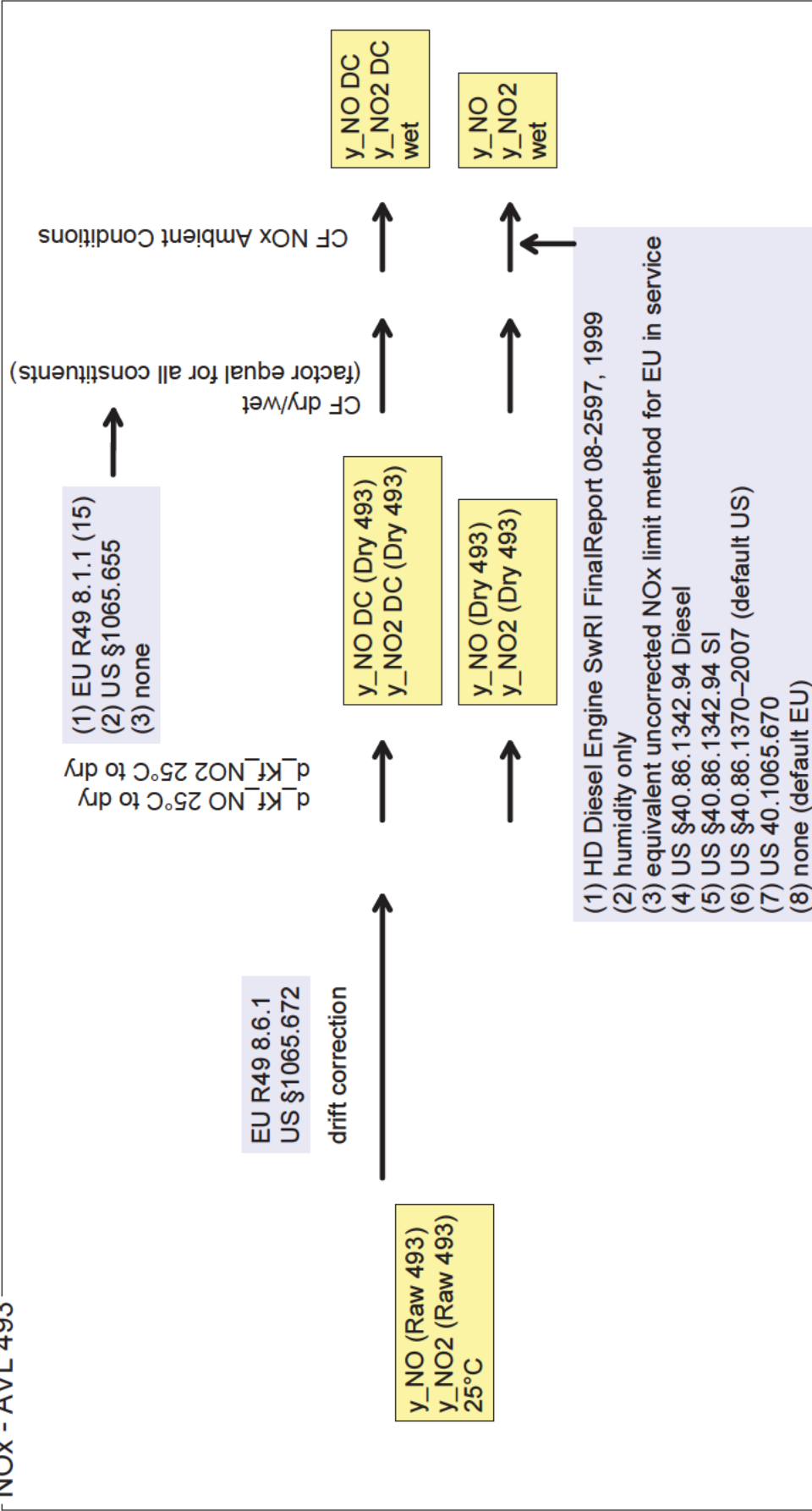
Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018

NOx - AVL 493



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: Corrected Emissions (5)

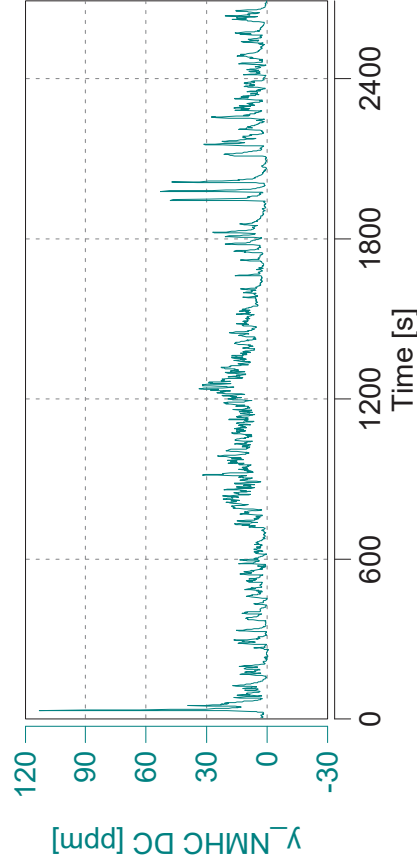
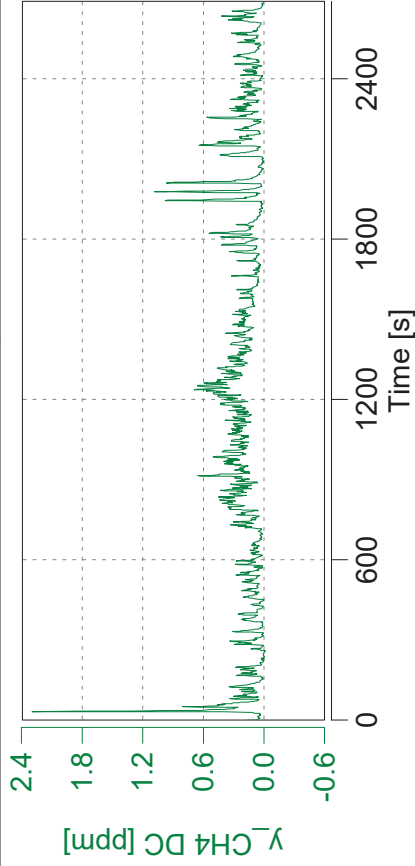
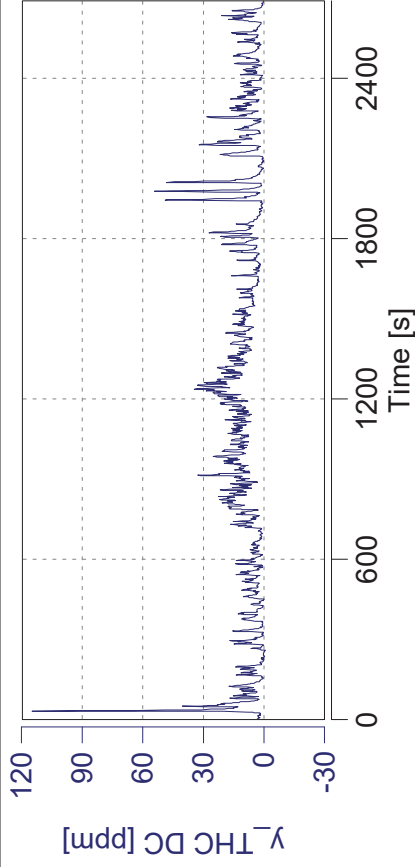
'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: NO/NO2/NOx Zero - Span

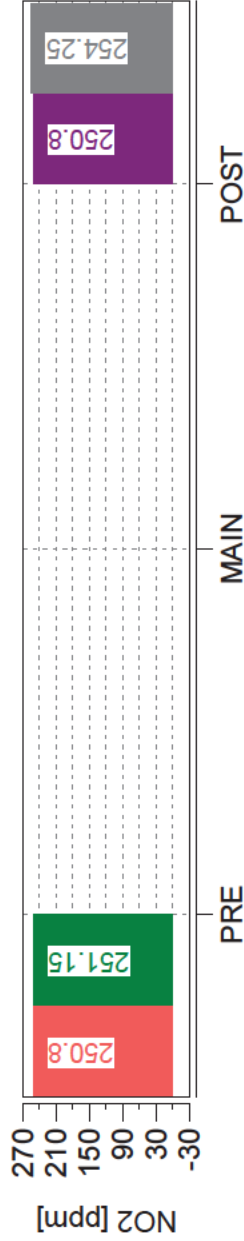
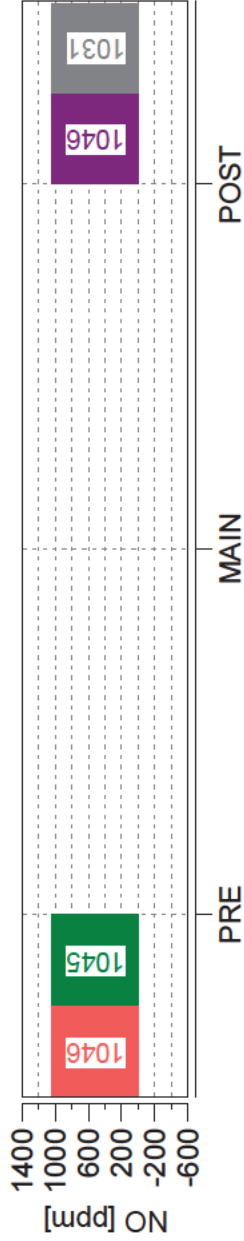
'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: Mountain

Page: CO/CO2 Zero - Span

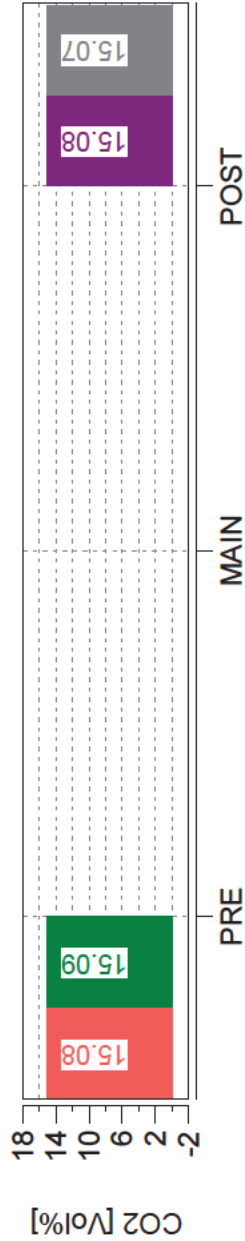
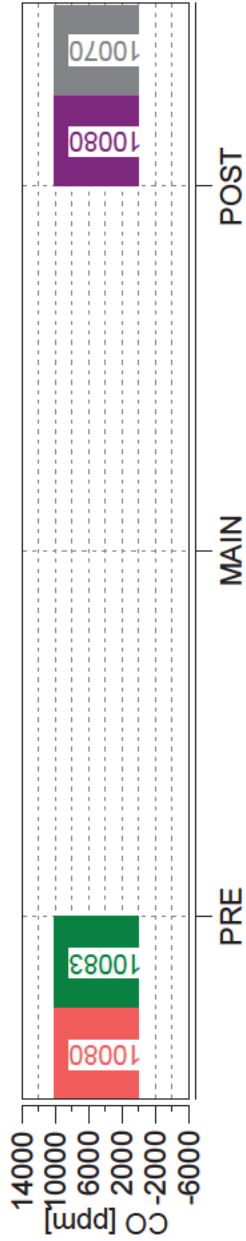
'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: Mountain

Page: THC/CH4 Zero - Span

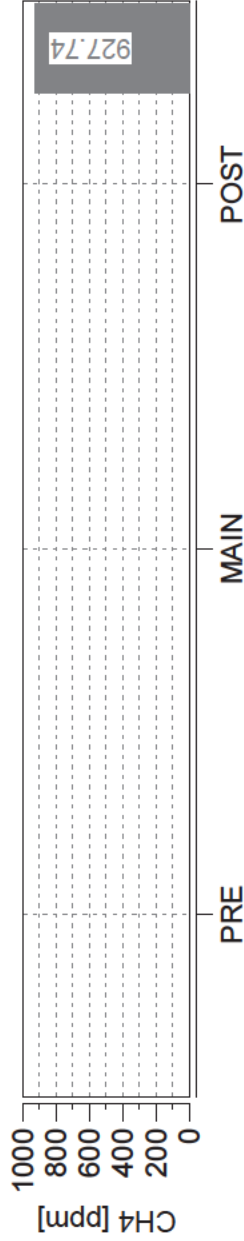
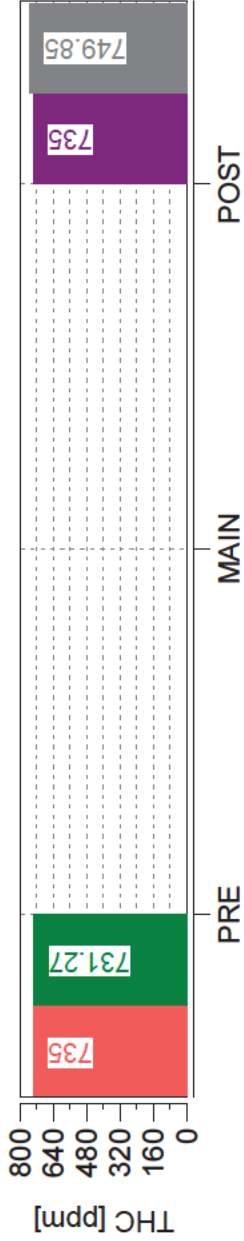
'Mountain'

Start Date: 08/12/2018

Start Time: 12:21:32.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary

'City'

Start Date: 08/12/2018

Start Time: 19:25:53.0



Concerto M.O.V.E., 2018

Trip Duration	3193.00	s	ave THC	5.65052	ppm	BS CO2	n/a	g/hphr
Trip Duration (a)	3193.00	s	ave NMHC	5.53751	ppm	BS CO	n/a	g/hphr
Trip Distance	16.24	mi	ave CH4	0.11301	ppm	BS THC	n/a	g/hphr
Trip Distance (a)	16.24	mi	ave CO	55.59285	ppm	BS NMHC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2	11.83239	%	BS CH4	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOX	11.03265	ppm	BS NO (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	2.56	kg	ave PM	n/a	mg/m3	BS NO2	n/a	g/hphr
Trip Fuel Cons. US (ac)	2.53	kg	ave Soot meas	n/a	mg/m3	BS NOx	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	0.90	gall	tot THC	0.15437	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	0.89	gall	tot NMHC	0.14280	g	BS PN	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4	0.00342	g	DS CO2	473.75182	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO	4.06328	g	DS CO	0.25020	g/mi
Trip Fuel Economy EU (ac)	17.95	mpg_US	tot CO2	7693.83455	g	DS THC	0.00951	g/mi
Trip Fuel Economy US (ac)	18.17	mpg_US	tot NO (d)	0.44887	g	DS NMHC	0.00879	g/mi
Trip Av. Eng. Speed	1337.95	rpm	tot NO2	-0.04823	g	DS CH4	0.00021	g/mi
Trip Av. Torque	n/a	lbft	tot NOx	0.40065	g	DS NO (d)	0.02764	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2	-0.00297	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx	0.02467	g/mi
Trip Exhaust Mass	41.40	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	71.97	deg_F	PM correction type	1.00000	alpha(HC)	DS PN	n/a	#/mi
Trip Av. Humidity	72.24	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC	n/a	g/kg
			Trip Av. Veh. Speed	18.31030	mi/hr	FS NMHC	n/a	g/kg
			Trip Velocity Zero	24.89821	%	FS CH4	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
 (d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Trip Summary Drift Corrected

'City'

Start Date: 08/12/2018

Start Time: 19:25:53.0



Concerto M.O.V.E., 2018

Trip Duration	3193.00	s	ave THC DC	5.70869	ppm	BS CO2 DC	n/a	g/hphr
Trip Duration (a)	3193.00	s	ave NMHC DC	5.59451	ppm	BS CO DC	n/a	g/hphr
Trip Distance	16.24	mi	ave CH4 DC	0.11417	ppm	BS THC DC	n/a	g/hphr
Trip Distance (a)	16.24	mi	ave CO DC	55.34695	ppm	BS NMHC DC	n/a	g/hphr
Trip Fuel Cons. (b)	0.00	kg	ave CO2 DC	11.82888	%	BS CH4 DC	n/a	g/hphr
Trip Fuel Cons. (ab)	0.00	kg	ave NOx DC	11.16543	ppm	BS NO DC (d)	n/a	g/hphr
Trip Fuel Cons. EU (ac)	2.56	kg	ave PM	n/a	mg/m3	BS NO2 DC	n/a	g/hphr
Trip Fuel Cons. US (ac)	2.53	kg	ave Soot meas	n/a	mg/m3	BS NOx DC	n/a	g/hphr
Trip Fuel Cons. Volume (b)	0.00	gall	ave Soot	n/a	mg/m3	BS Soot	n/a	g/hphr
Trip Fuel Cons. Volume (ab)	0.00	gall	ave PN DC	n/a	#/cm3	BS Soot meas	n/a	g/hphr
Trip Fuel Cons. Volume EU (ac)	0.90	gall	tot THC DC	0.15548	g	BS PM	n/a	g/hphr
Trip Fuel Cons. Volume US (ac)	0.89	gall	tot NMHC DC	0.14382	g	BS PN DC	n/a	#/hpr
Trip Fuel Economy (b)	n/a	mpg_US	tot CH4 DC	0.00345	g	DS CO2 DC	473.60664	g/mi
Trip Fuel Economy (ab)	n/a	mpg_US	tot CO DC	4.05096	g	DS CO DC	0.24944	g/mi
Trip Fuel Economy EU (ac)	17.95	mpg_US	tot CO2 DC	7691.47681	g	DS THC DC	0.00957	g/mi
Trip Fuel Economy US (ac)	18.17	mpg_US	tot NO DC (d)	0.45301	g	DS NMHC DC	0.00886	g/mi
Trip Av. Eng. Speed	1337.95	rpm	tot NO2 DC	-0.04172	g	DS CH4 DC	0.00021	g/mi
Trip Av. Torque	n/a	lbft	tot NOx DC	0.41129	g	DS NO DC (d)	0.02789	g/mi
Trip Av. Power	n/a	hp	tot Soot	n/a	g	DS NO2 DC	-0.00257	g/mi
Trip Work	n/a	hphr	tot Soot meas	n/a	g	DS NOx DC	0.02533	g/mi
Trip Exhaust Mass	41.40	kg	tot PM	n/a	g	DS Soot	n/a	g/mi
Trip Exhaust Mass EU (ac)	n/a	kg	tot PN DC	n/a	#	DS Soot meas	n/a	g/mi
Trip Exhaust Mass US (ac)	n/a	kg	PM measurement type	0.00000	-	DS PM	n/a	g/mi
Trip Av. Amb. Temperature	71.97	deg_F	PM correction type	1.00000	alpha(HC)	DS PN DC	n/a	#/mi
Trip Av. Humidity	72.24	%	tot Soot on PM filter (estim.)	n/a	mg	FS CO2 DC	n/a	g/kg
Fuel Type	Petrol (E10)		Soot --> PM simple scaling factor	1.00000	-	FS CO DC	n/a	g/kg
			Soot --> PM alpha scaling factor	0.00000	-	FS THC DC	n/a	g/kg
			Trip Av. Veh. Speed	18.31030	mi/hr	FS NMHC DC	n/a	g/kg
			Trip Velocity Zero	24.89821	%	FS CH4 DC	n/a	g/kg
			Trip Velocity Urban	0.00000	%	FS NO DC (d)	n/a	g/kg
			Trip Velocity Rural	0.00000	%	FS NO2 DC	n/a	g/kg
			Trip Velocity Motorway	100.00000	%	FS NOx DC	n/a	g/kg
						FS Soot	n/a	g/kg
						FS Soot meas	n/a	g/kg
						FS PM	n/a	g/kg
						FS PN DC	n/a	#/kg

(a) GAS PEMS measurement state only, (b) based on fuel rate input (ECU, Fuel Meter), (c) calculated from carbon balance
(d) NO calculated using molecular weight of NO2

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment Check

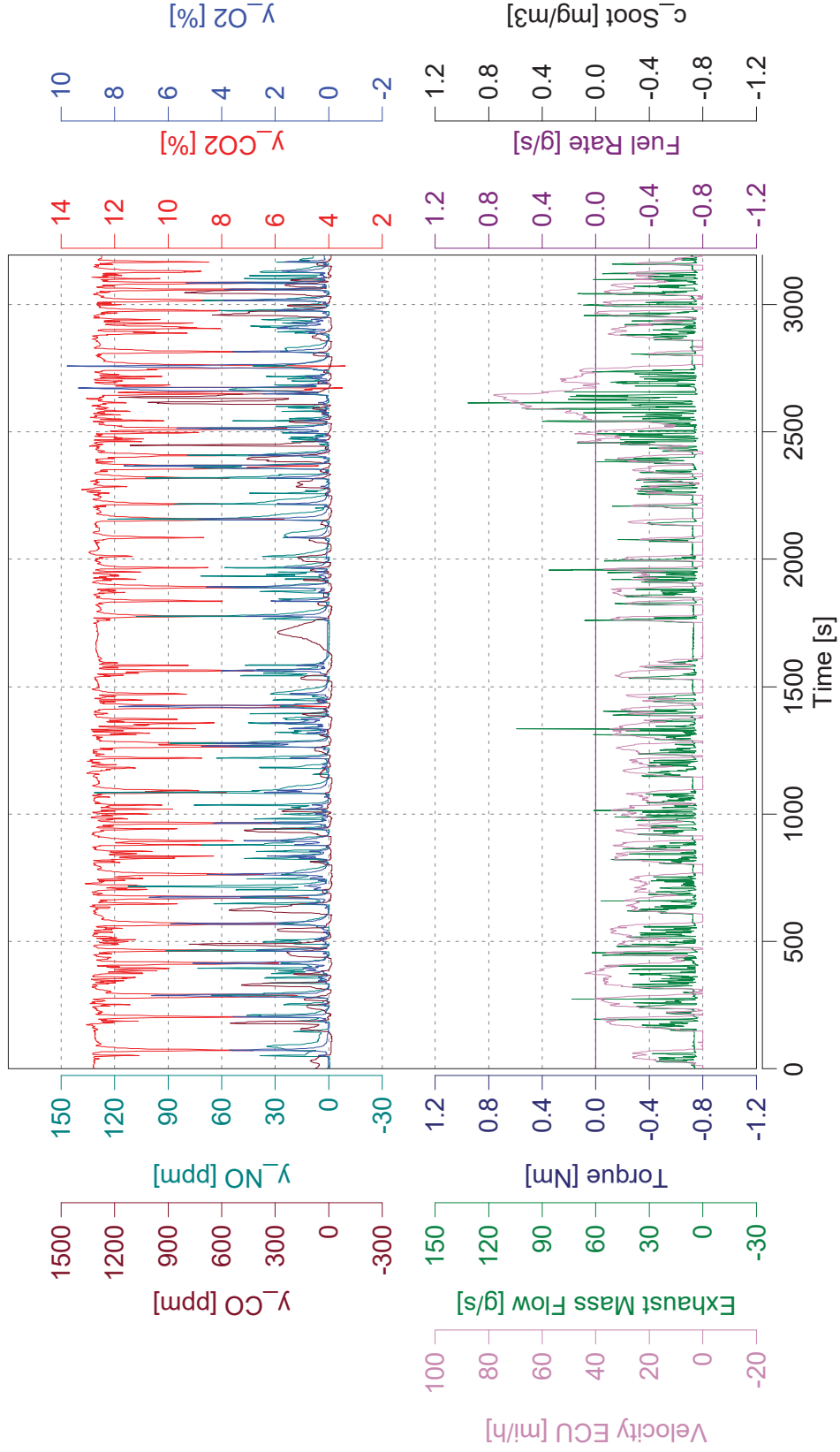
'City'

Start Date: 08/12/2018

Start Time: 19:25:53.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Time Alignment of Gas Concentrations

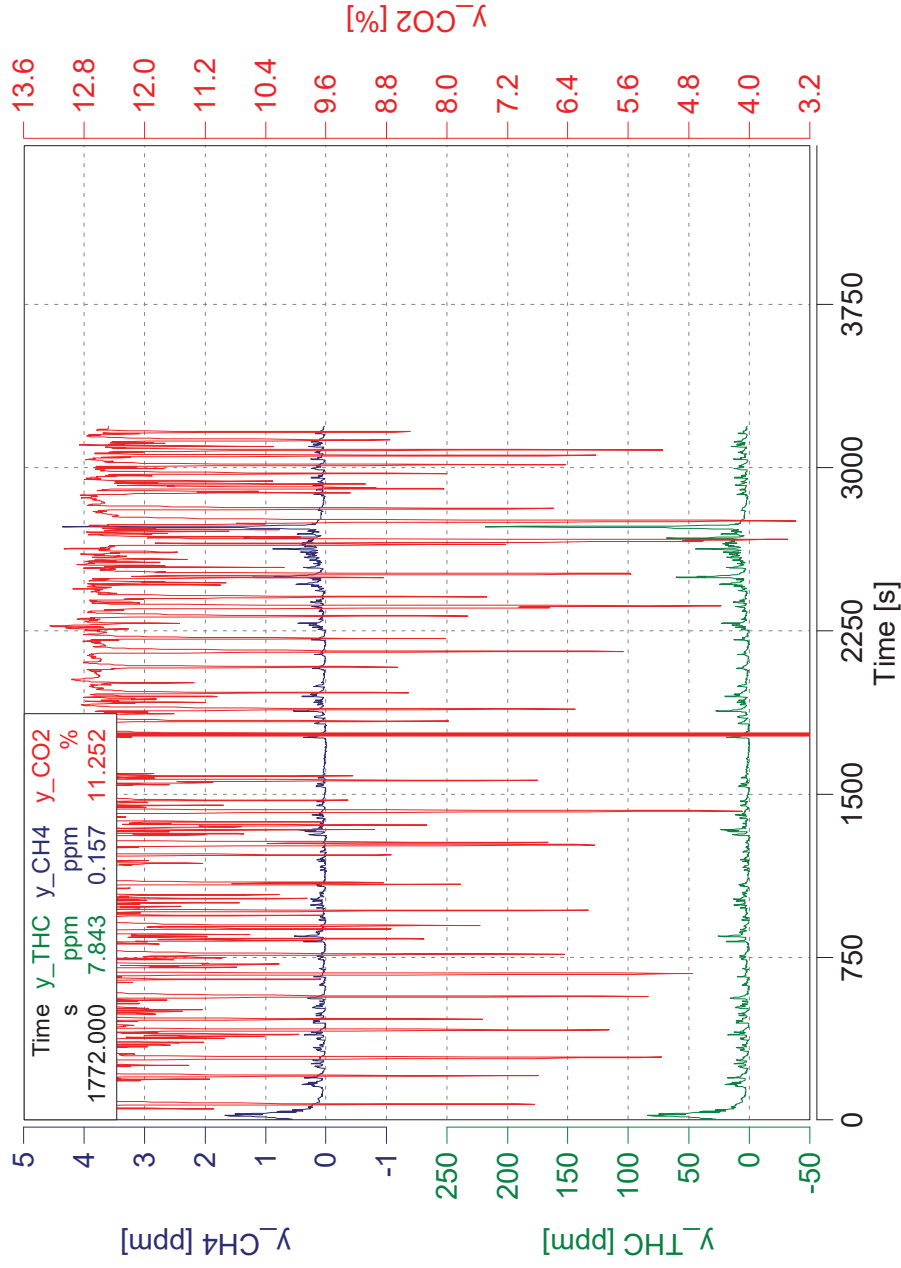
'City'

Start Date: 08/12/2018

Start Time: 19:25:53.0



Concerto M.O.V.E., 2018



Absolute Time Shifts

y_THC s -0.9
y_CH4 s -1.1

Reset Time Shifts in Plot

Apply Current Values

Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Ambient Conditions

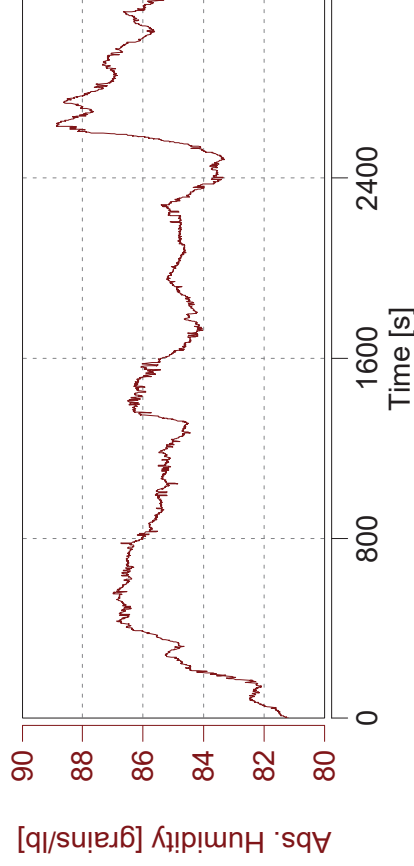
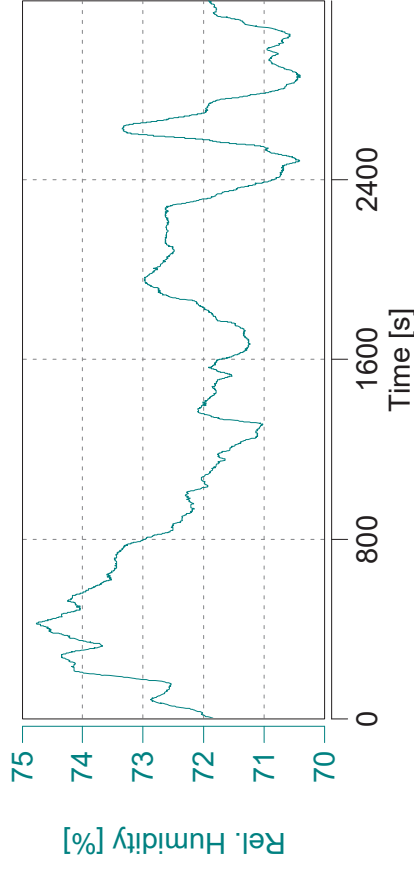
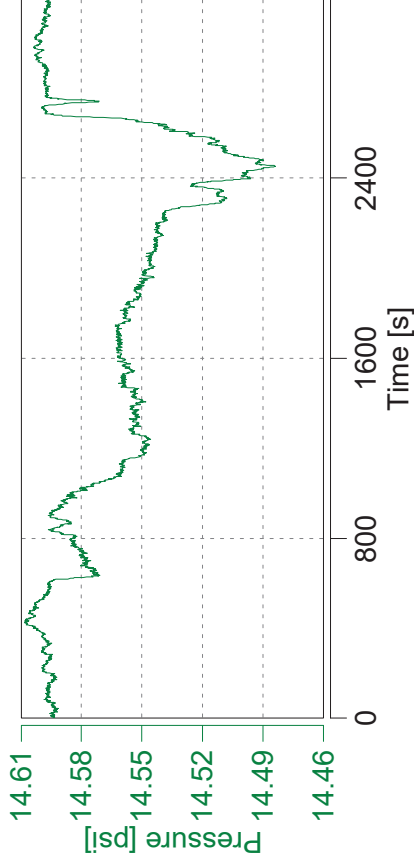
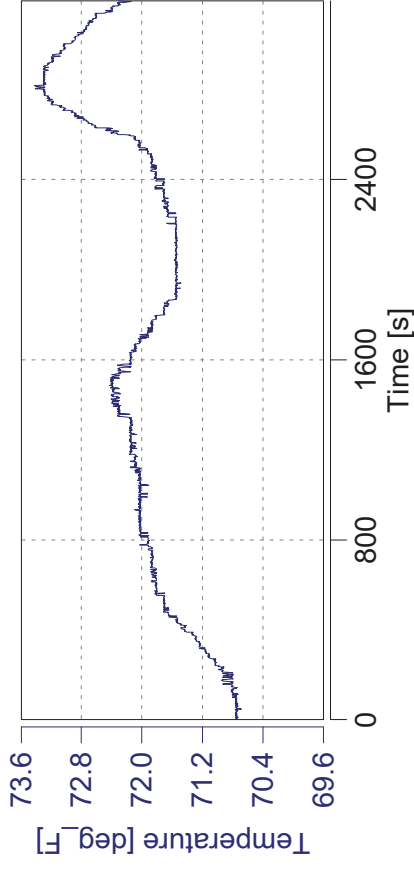
'City'

Start Date: 08/12/2018

Start Time: 19:25:53.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

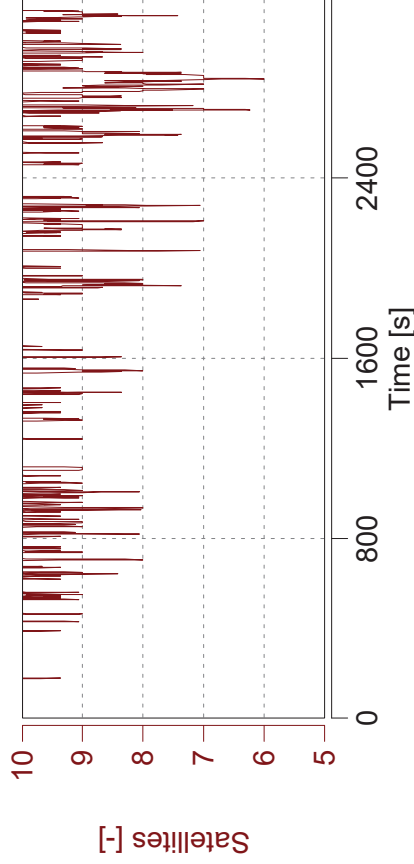
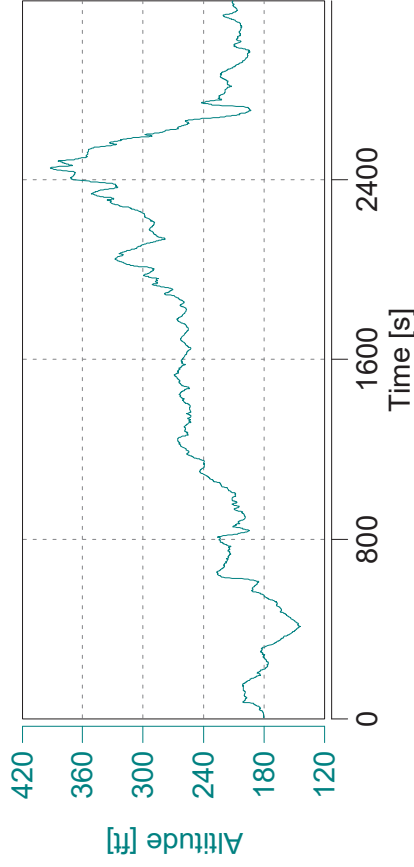
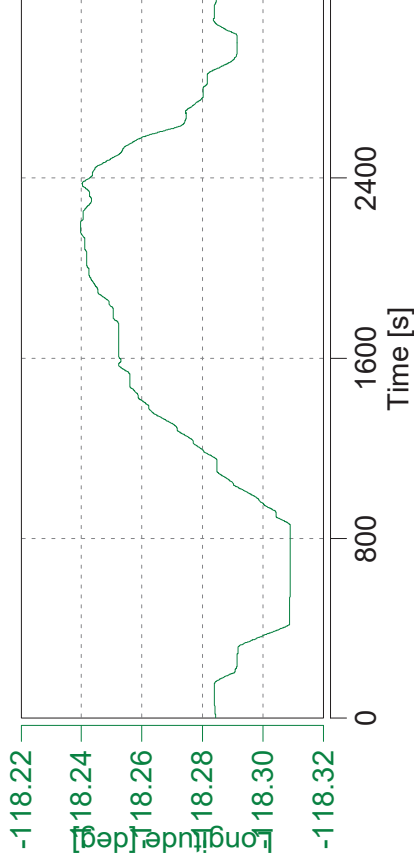
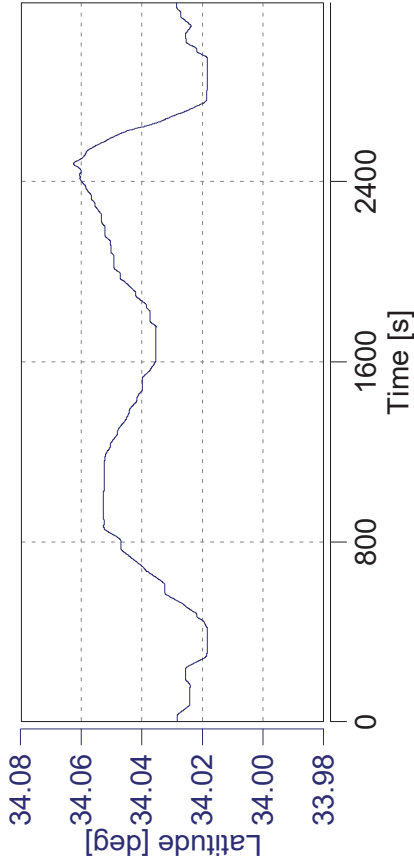
Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City
Page: GPS

'City'
Start Date: 08/12/2018
Start Time: 19:25:53.0



Concerto Version: 480 Build 316, Serial Number: 1120
M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L
Engine: /
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (1)

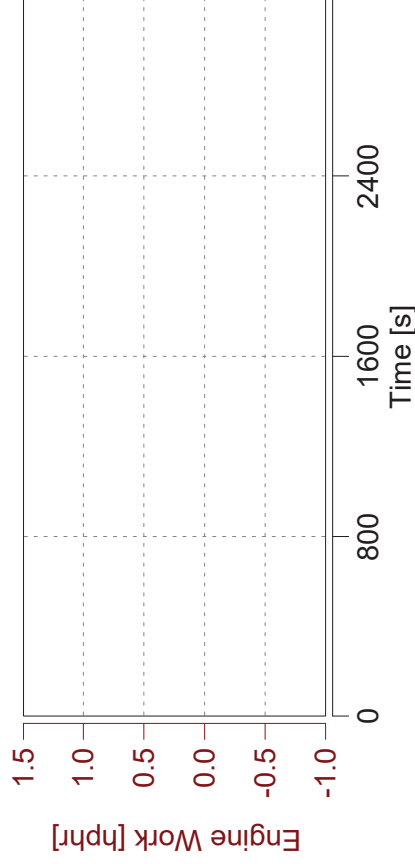
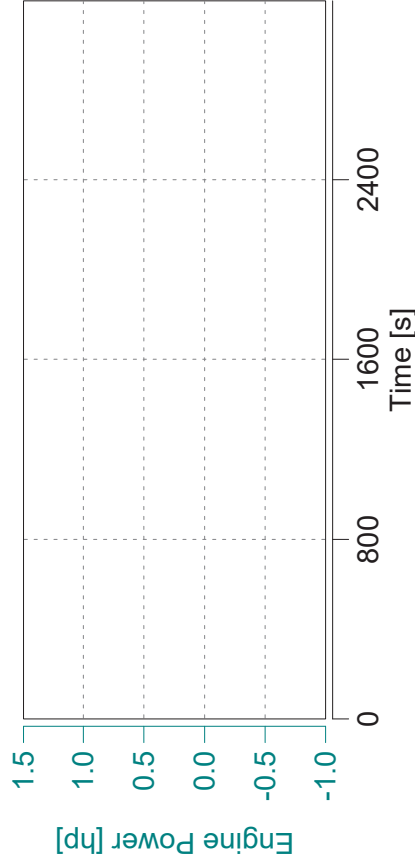
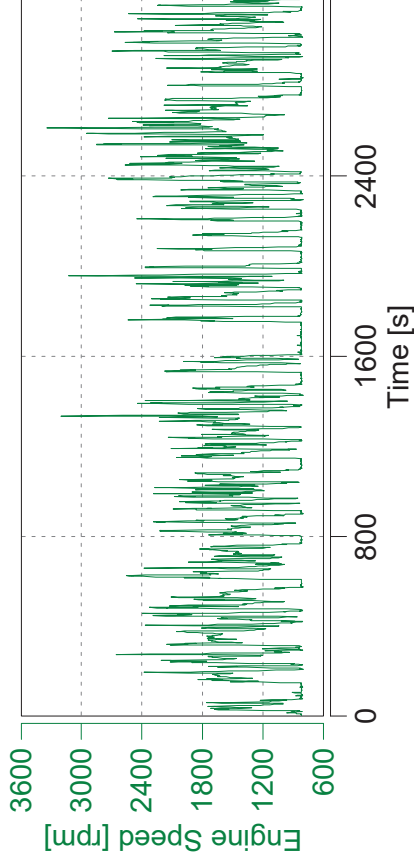
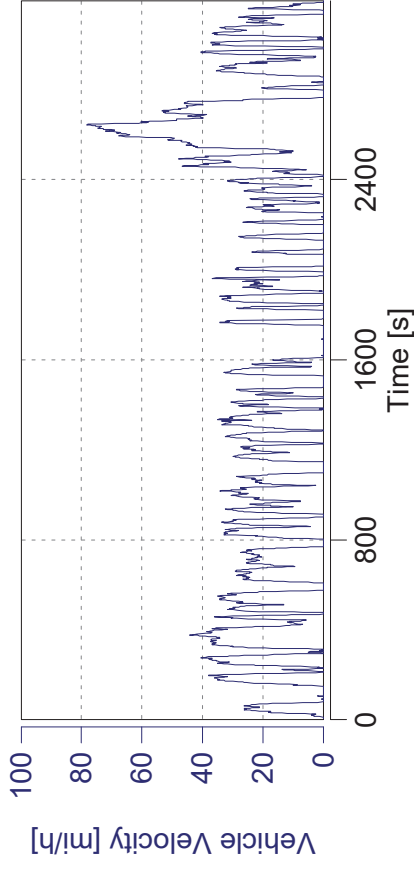
'City'

Start Date: 08/12/2018

Start Time: 19:25:53.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (2)

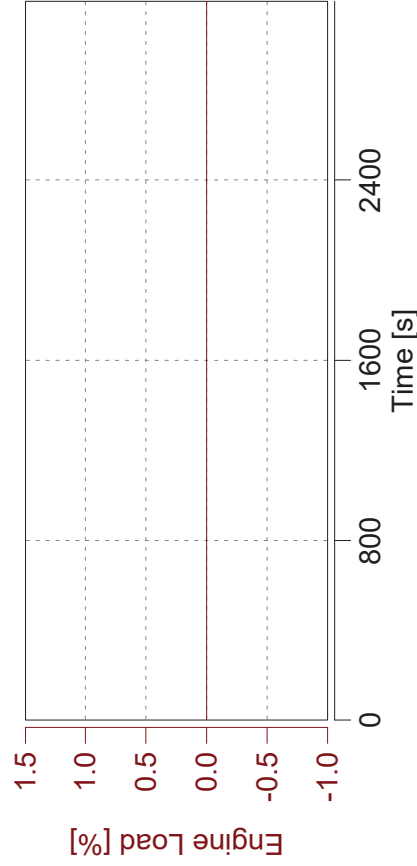
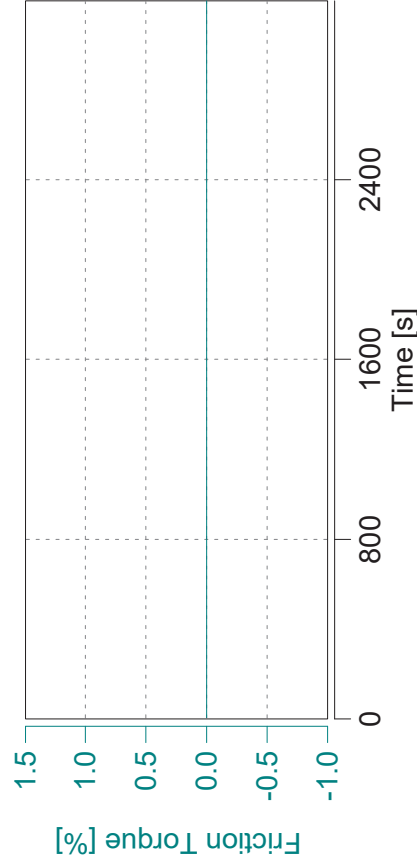
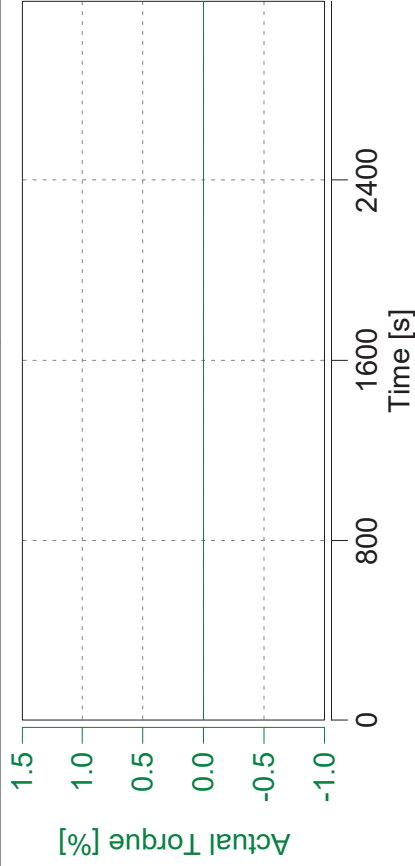
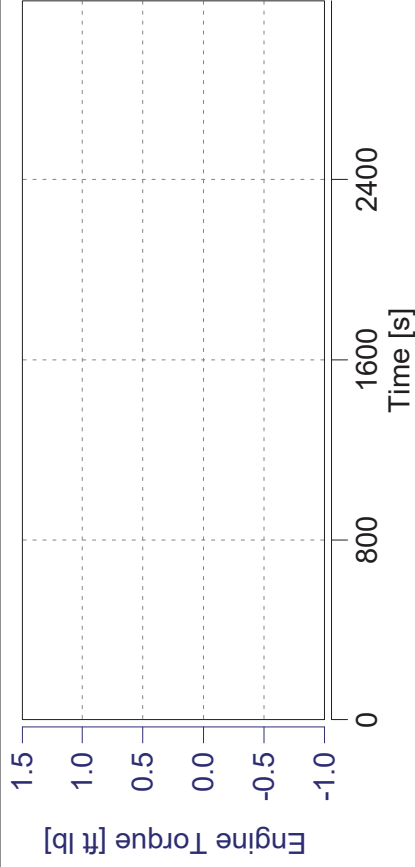
'City'

Start Date: 08/12/2018

Start Time: 19:25:53.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Engine (3)

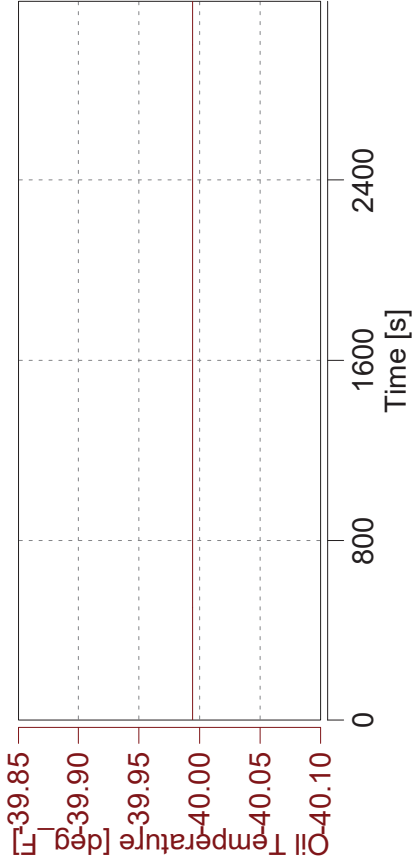
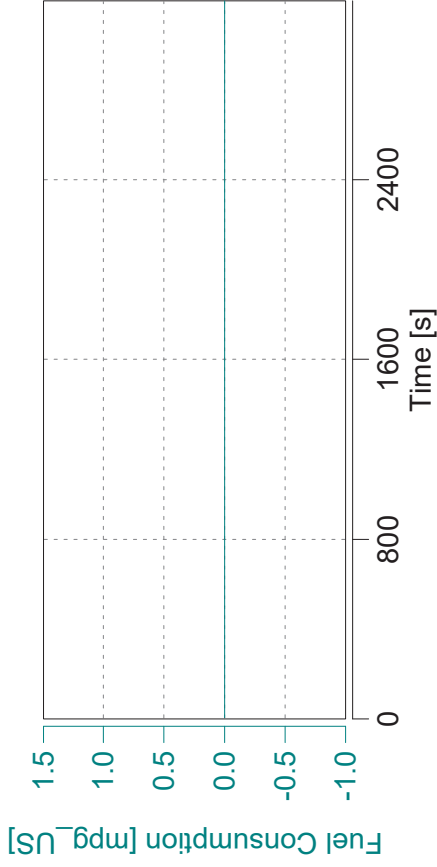
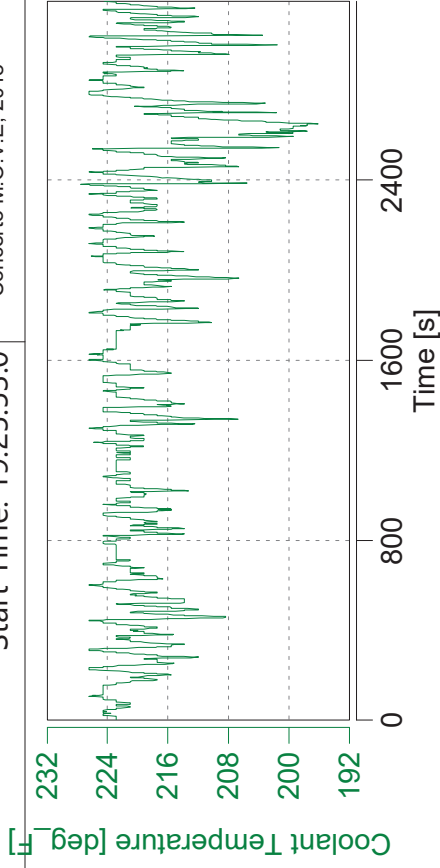
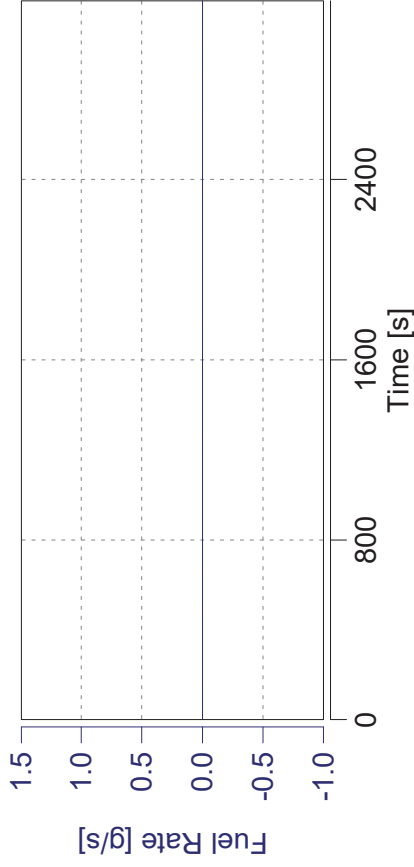
'City'

Start Date: 08/12/2018

Start Time: 19:25:53.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: Q5 / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (1)

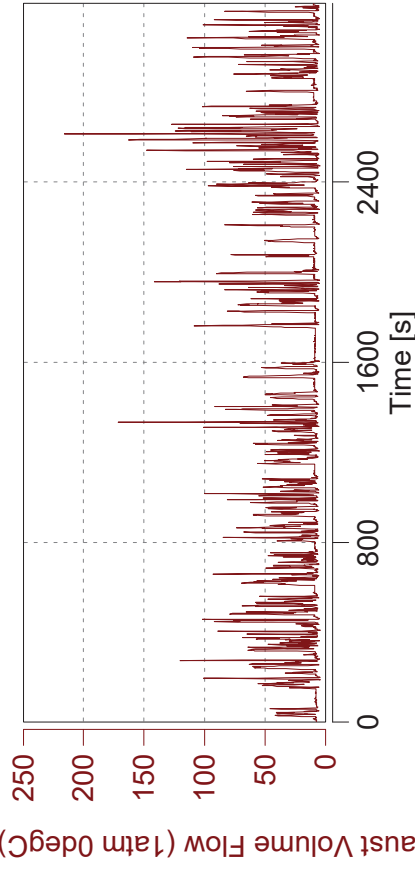
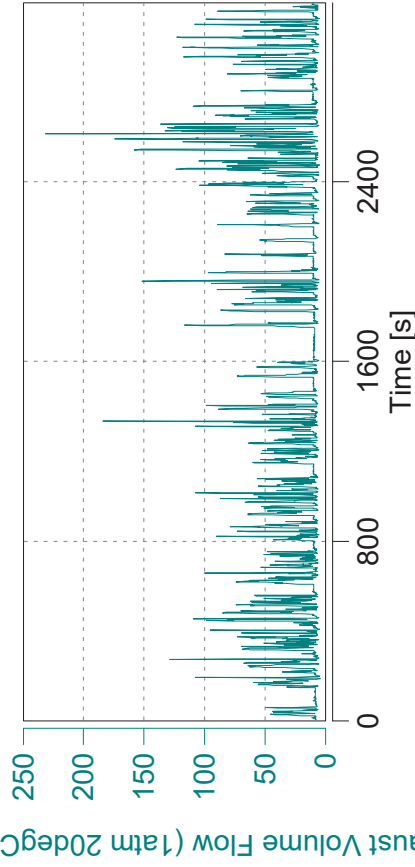
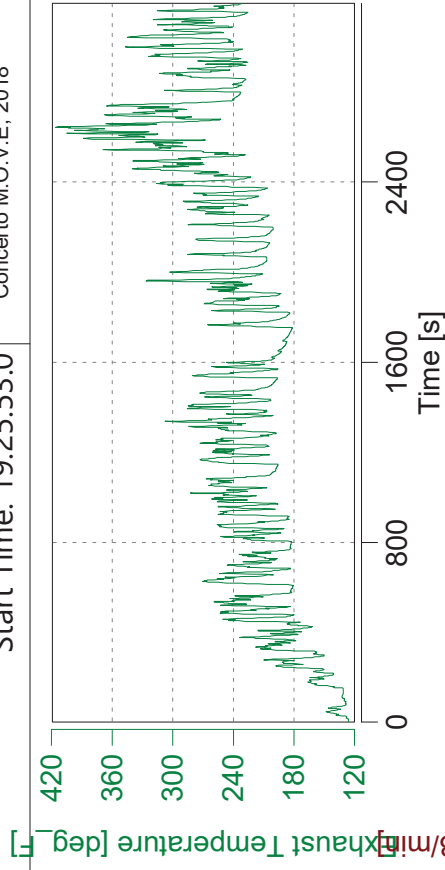
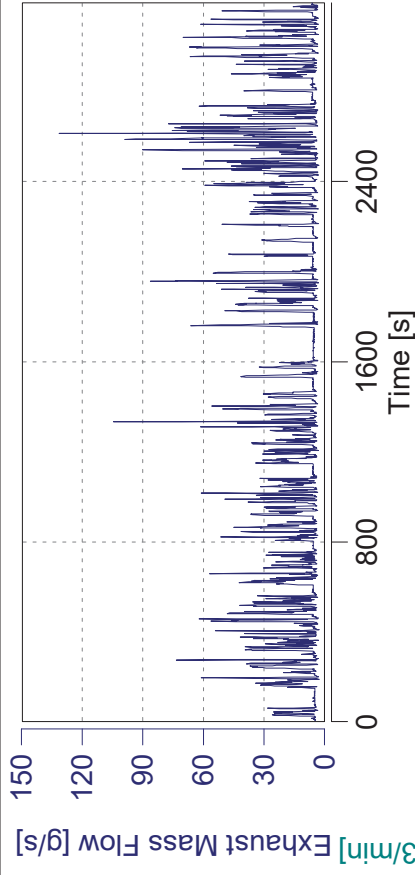
'City'

Start Date: 08/12/2018

Start Time: 19:25:53.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Exhaust Flow (2)

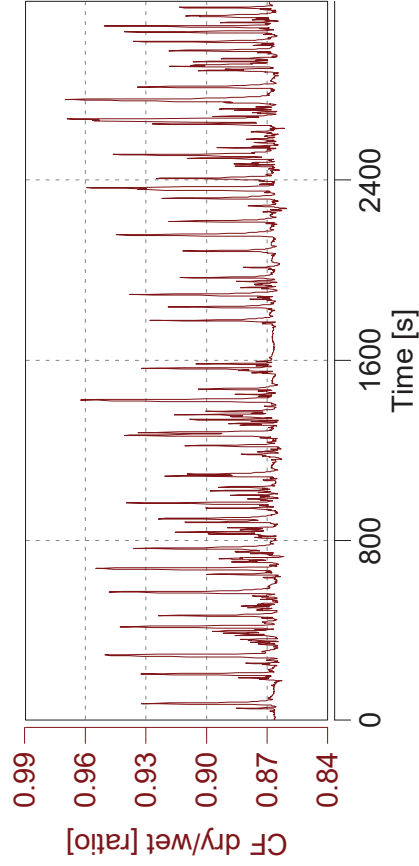
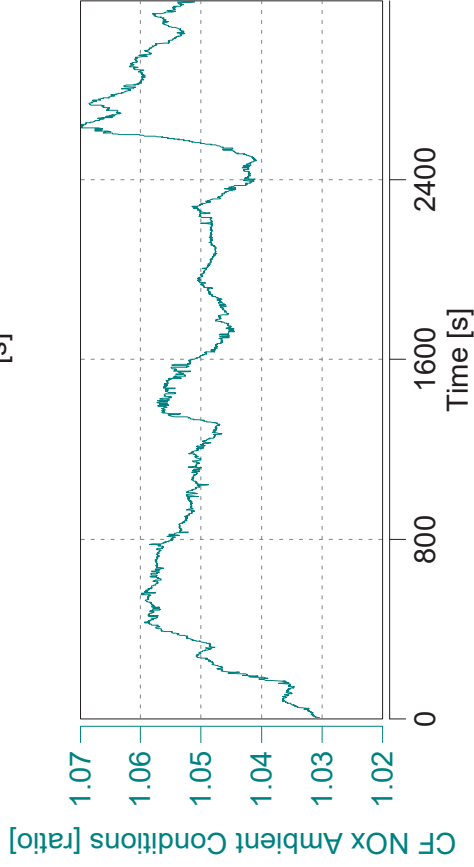
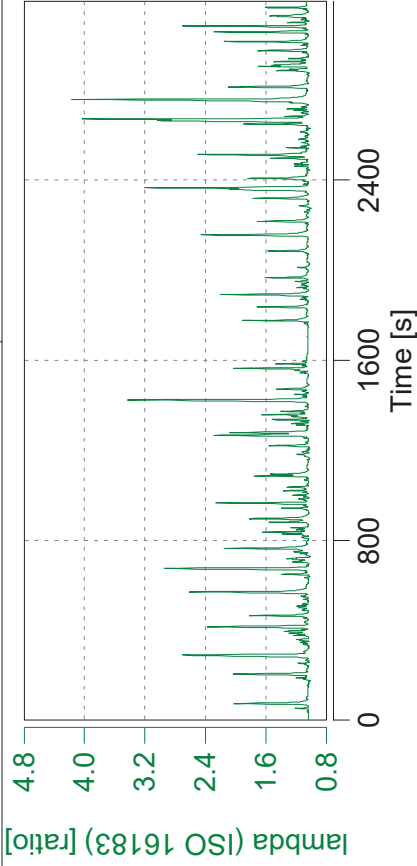
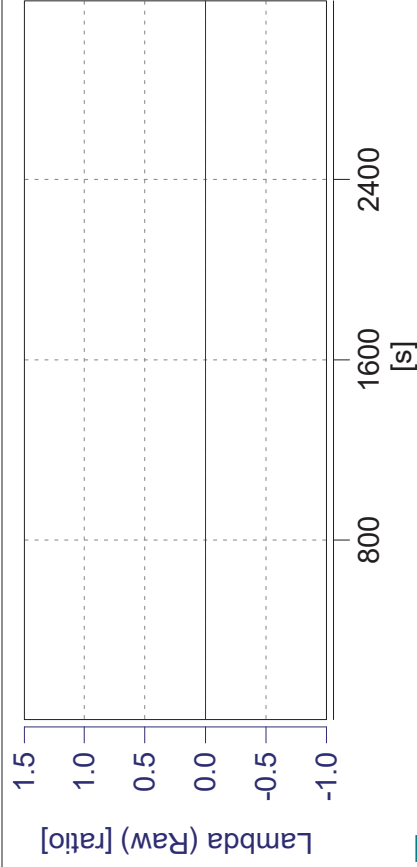
'City'

Start Date: 08/12/2018

Start Time: 19:25:53.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (1)

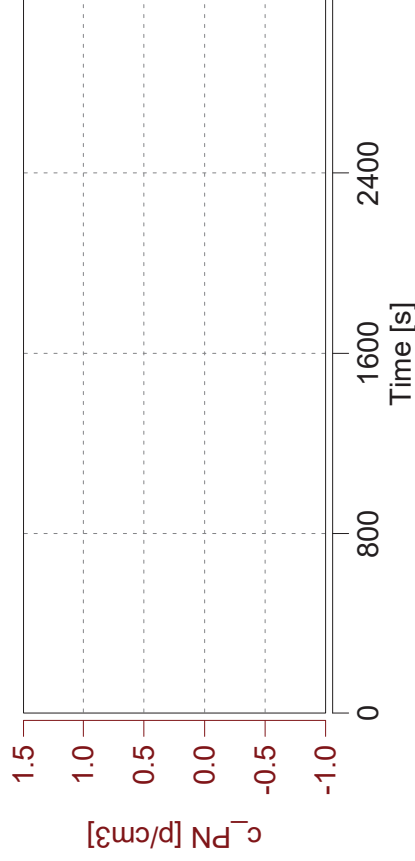
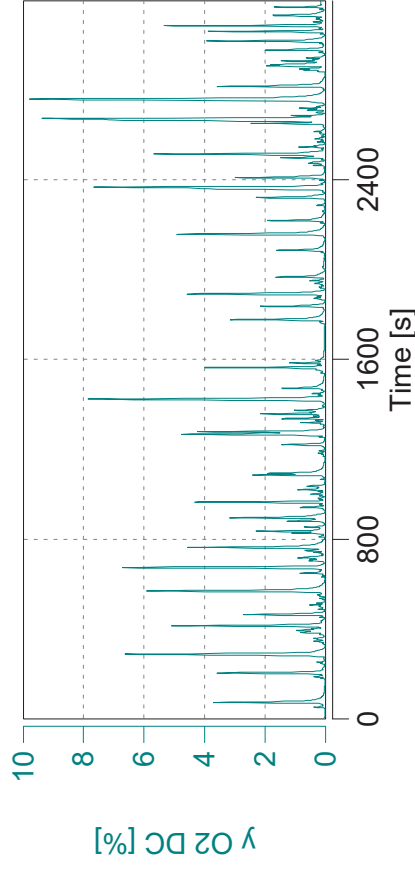
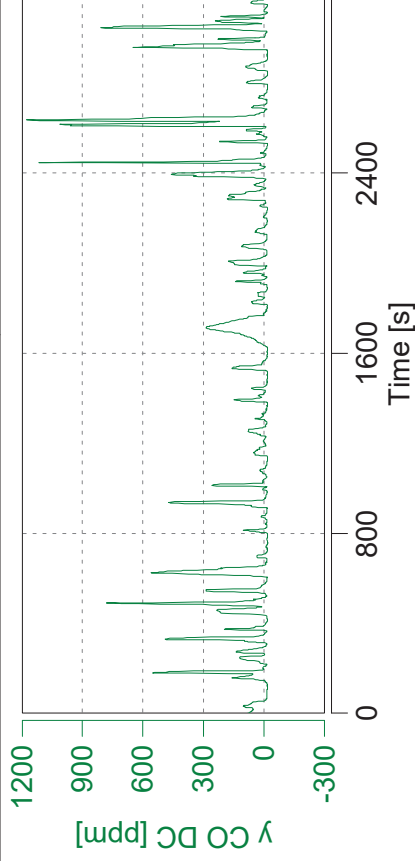
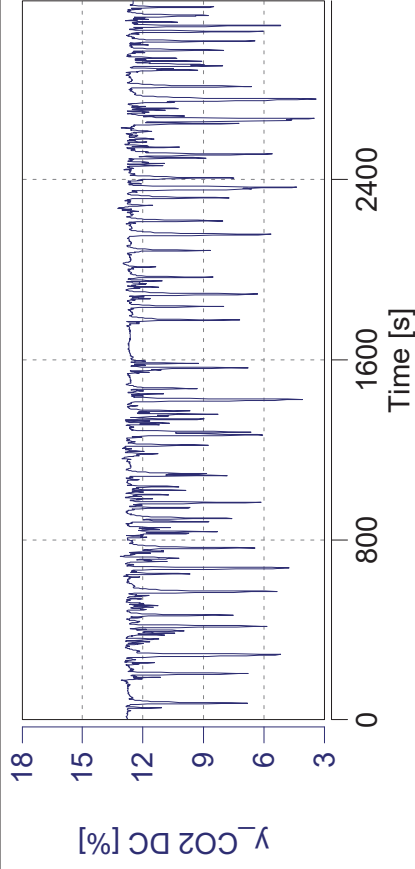
'City'

Start Date: 08/12/2018

Start Time: 19:25:53.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (2)

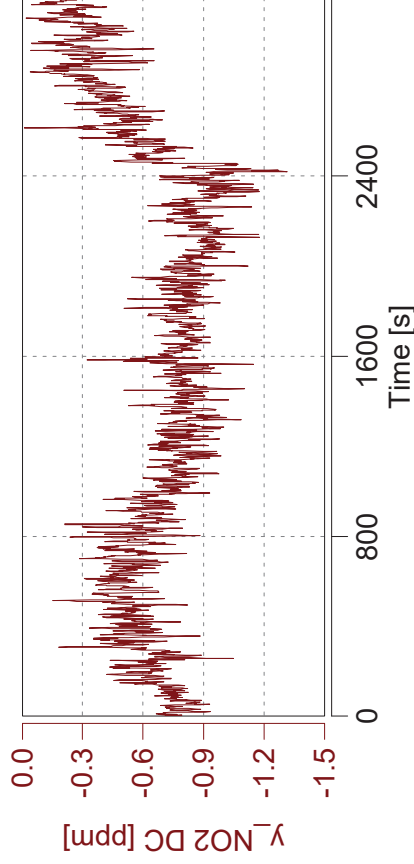
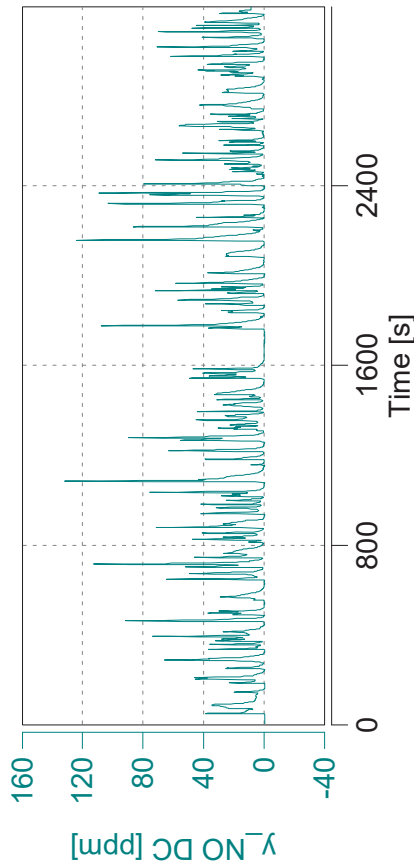
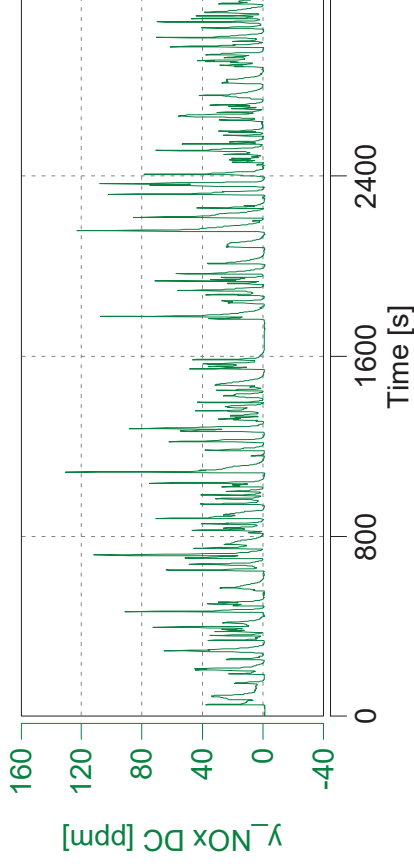
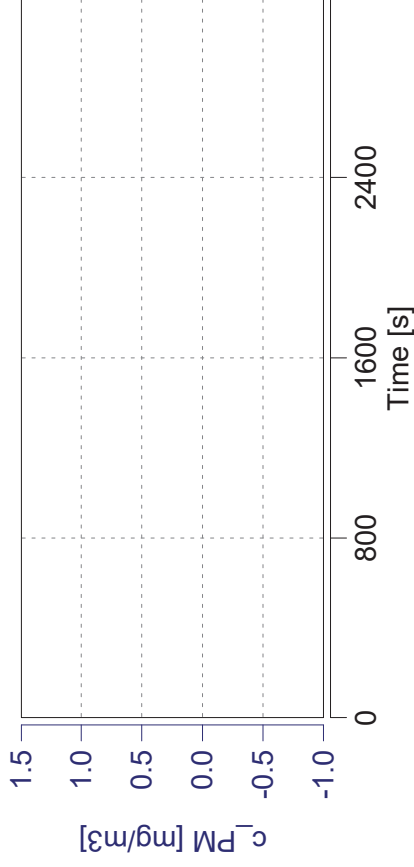
'City'

Start Date: 08/12/2018

Start Time: 19:25:53.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_

Vehicle: Q5 / 2.0L

Engine: /

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (3)

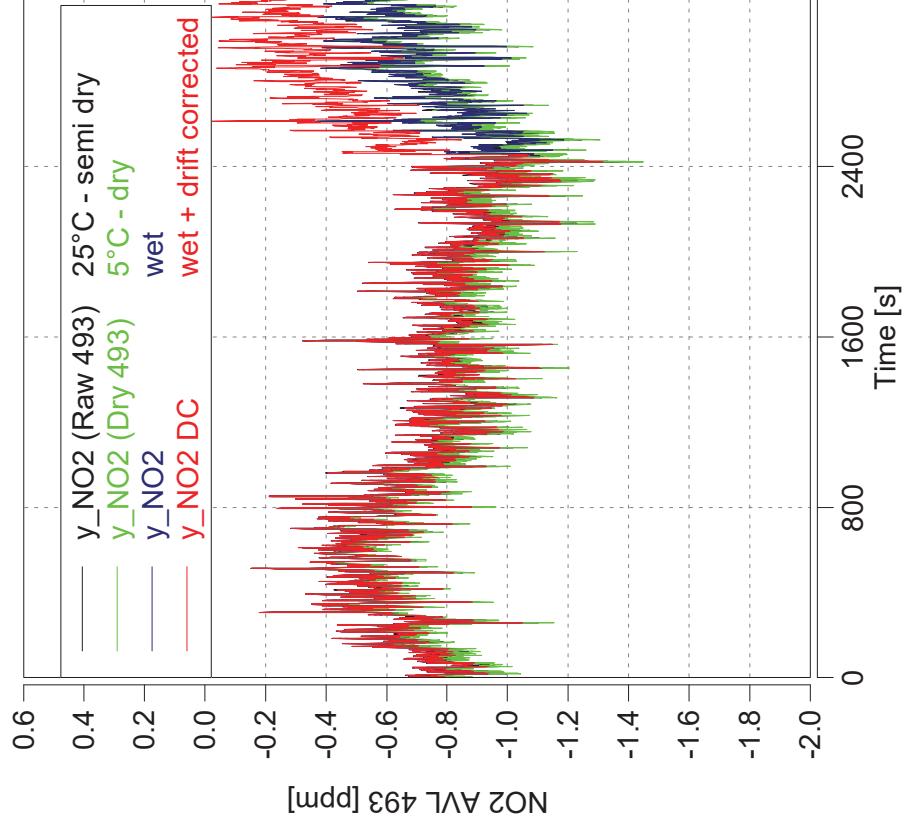
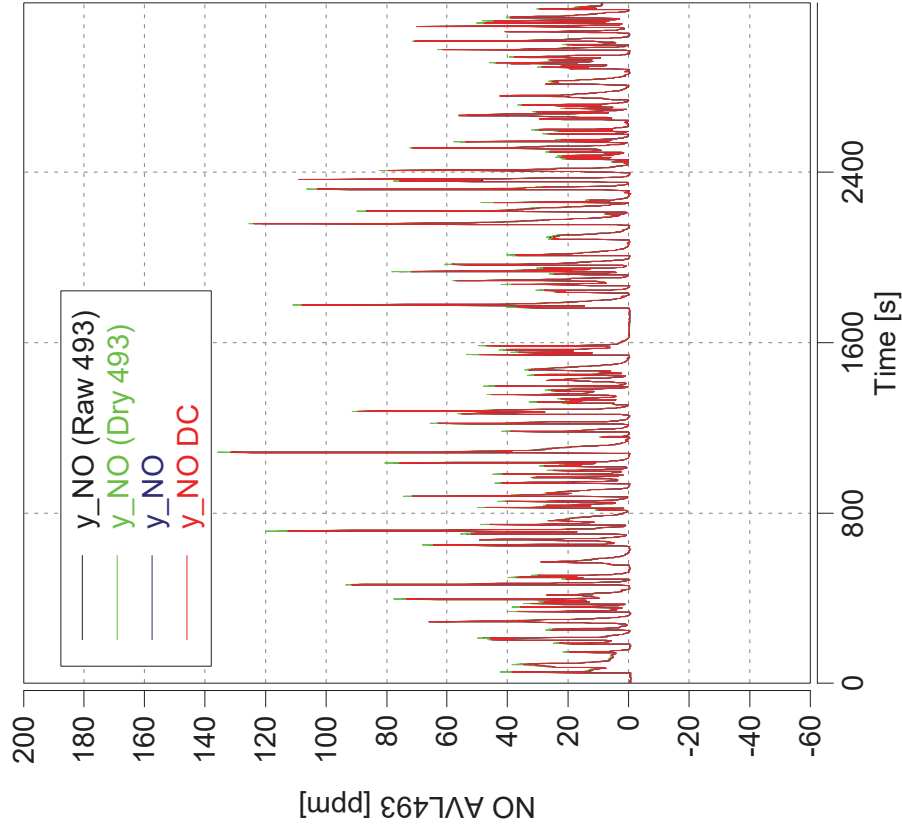
'City'

Start Date: 08/12/2018

Start Time: 19:25:53.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (4) NOx Corrections

NOx - AVL 493

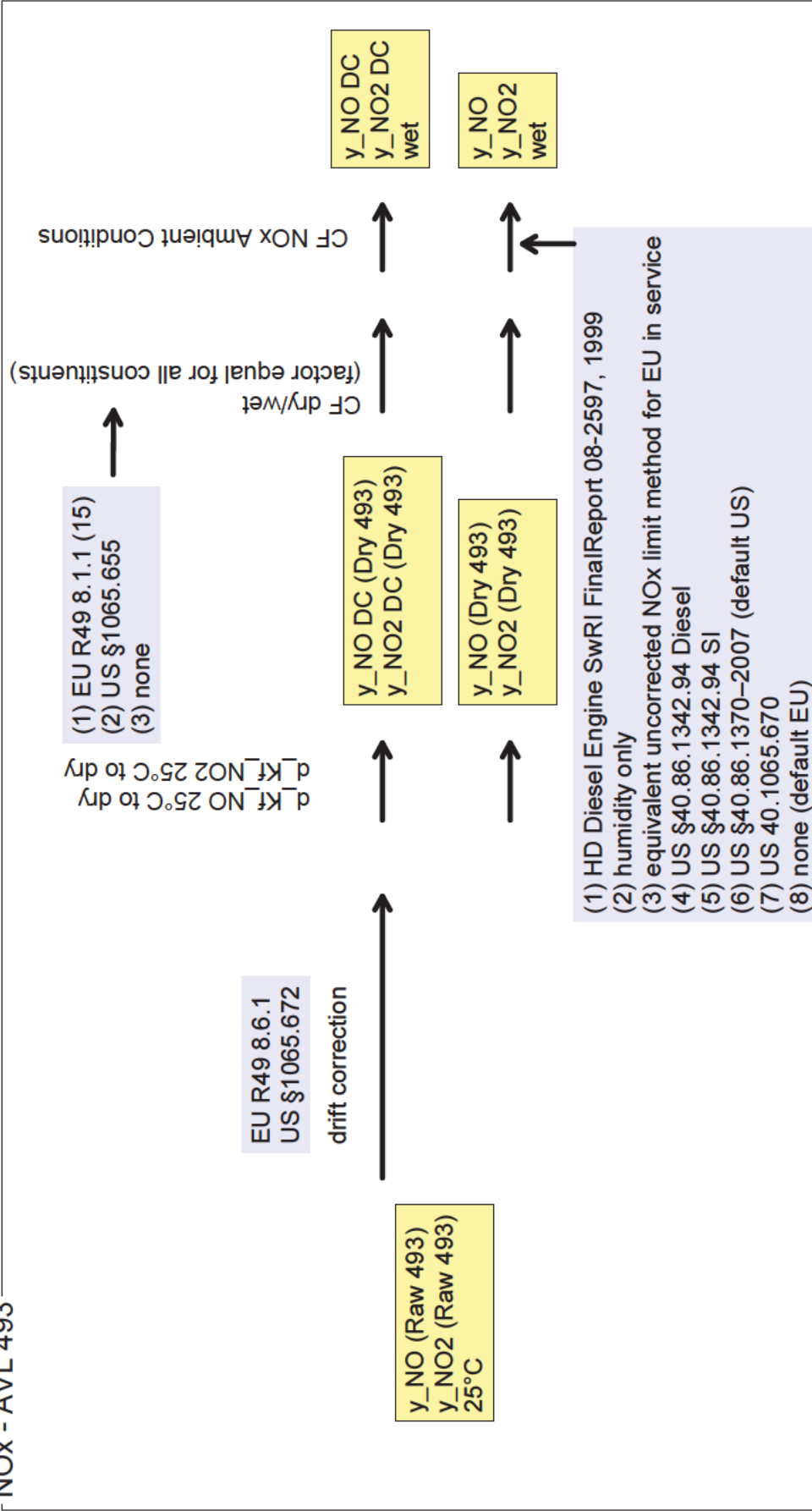
'City'

Start Date: 08/12/2018

Start Time: 19:25:53.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /
Vehicle: Q5 / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: Corrected Emissions (5)

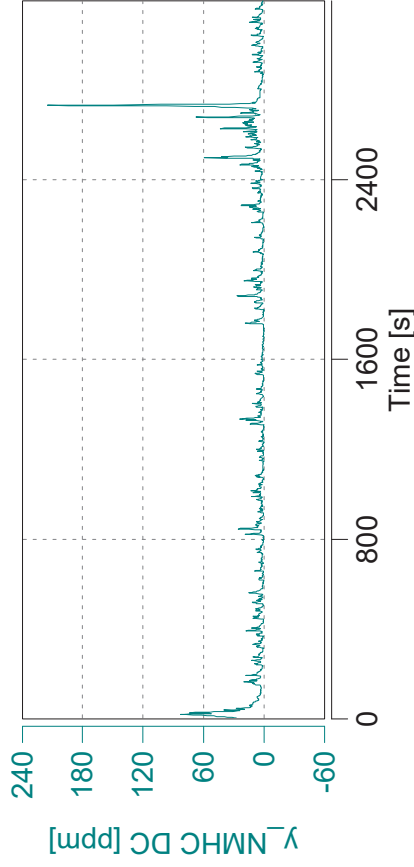
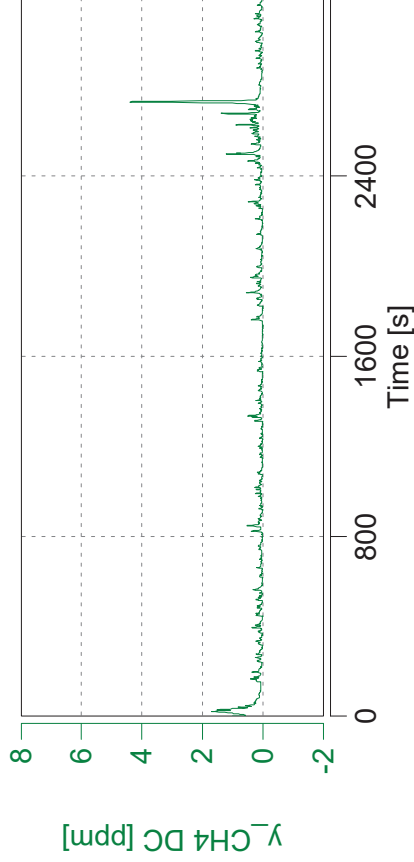
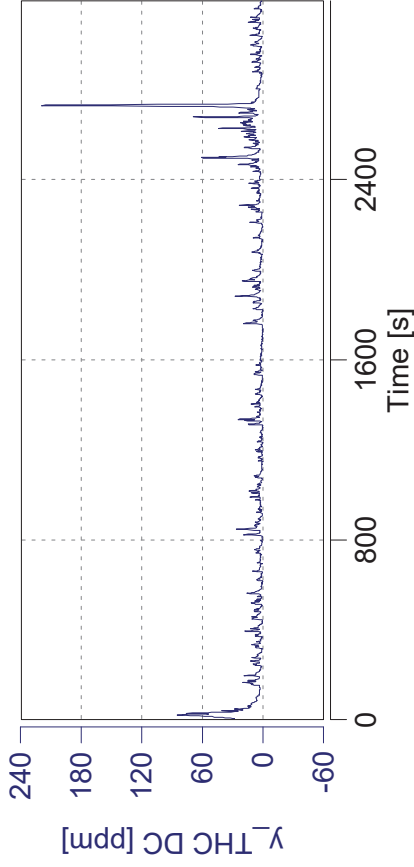
'City'

Start Date: 08/12/2018

Start Time: 19:25:53.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

M.O.V.E Post-Processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_ Engine: /
Vehicle: Q5 / 2.0L
NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI
Dry / Wet Corr.: 2 - CFR40 §86.1342-90

Case: City

Page: NO/NO2/NOx Zero - Span

'City'

Start Date: 08/12/2018

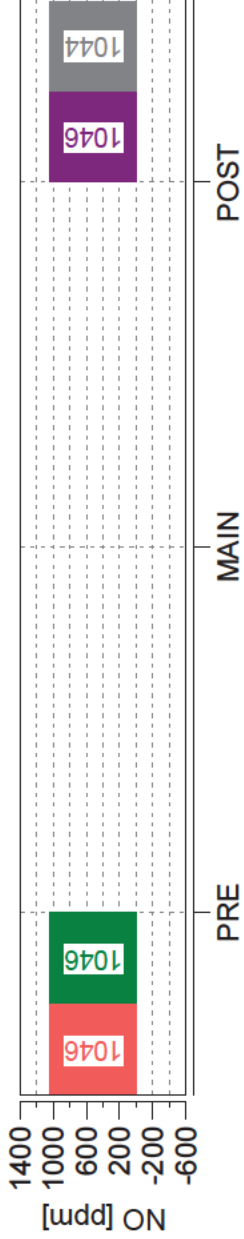
Start Time: 19:25:53.0



Concerto M.O.V.E., 2018



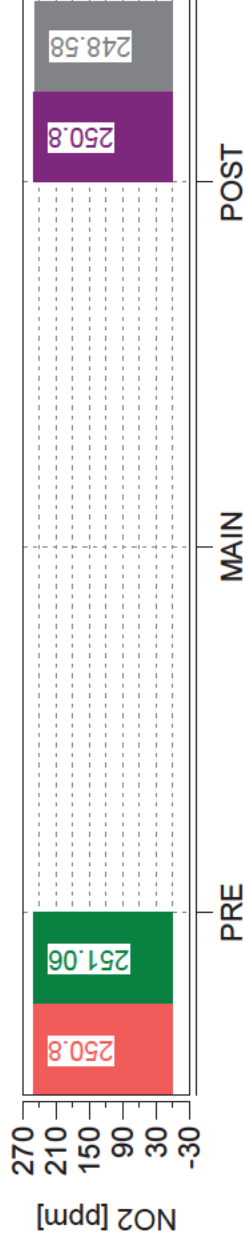
NO ZERO [ppm]



GP_NO_Cal_gas_value
 GP_NO_Adjust_Actual
 GP_NO_Reference
 GP_NO_Audit_Actual



NO2 ZERO [ppm]



GP_NO2_Cal_gas_value
 GP_NO2_Adjust_Actual
 GP_NO2_Reference
 GP_NO2_Audit_Actual

Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: City

Page: CO/CO2 Zero - Span

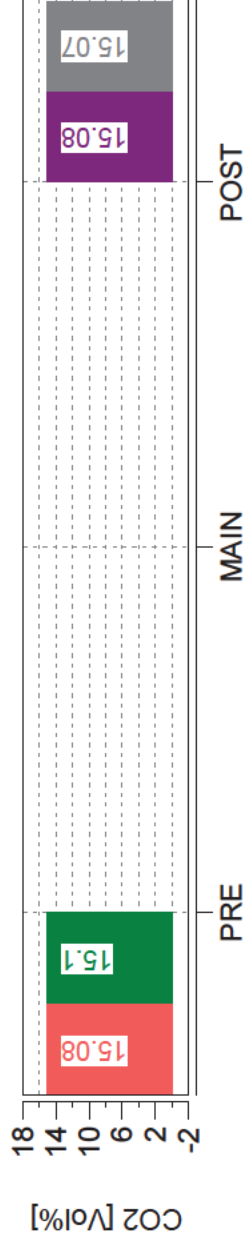
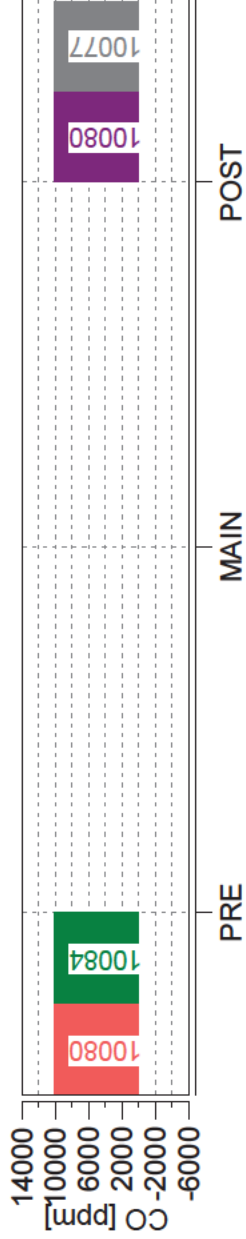
'City'

Start Date: 08/12/2018

Start Time: 19:25:53.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\CONCERTO_4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Case: City

Page: THC/CH4 Zero - Span

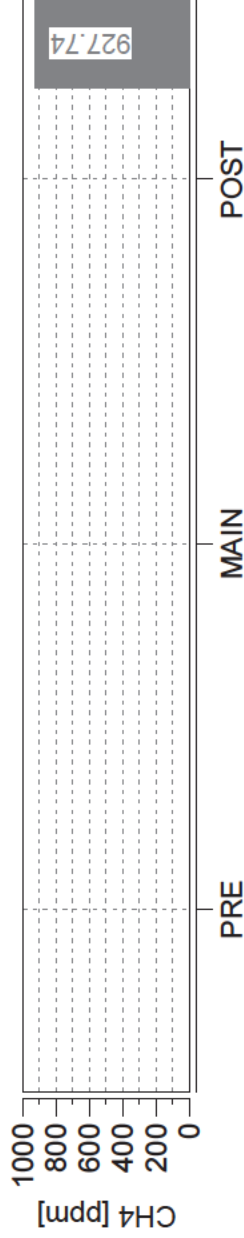
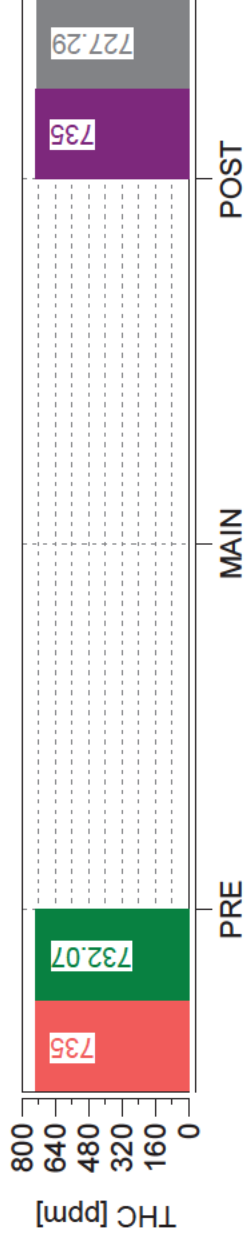
'City'

Start Date: 08/12/2018

Start Time: 19:25:53.0



Concerto M.O.V.E., 2018



Concerto Version: 480 Build 316, Serial Number: 1120

Vehicle: Q5 / 2.0L

NOx Ambient Condition Corr.: 5 - CFR40 §86.1342-94 SI

Dry / Wet Corr.: 2 - CFR40 §86.1342-90

M.O.V.E Post-P processing: 4R8.4.2_Build 316\WorkEnvironments\MOVE_DT_1R1_Engine: /

Anhang C - Versuch

Die Emissionen jedes relevanten Schadstoffes wurden auf der Grundlage Gramm/Test verglichen. Die UCR bearbeitete die Daten der PEMS-Messungen nach und erhielt die erforderlichen Daten für die Vergleiche von den CVS-Emissionsmessungen, siehe Abbildung 1. Die Kriterien für akzeptable Korrelationen für die Gramm/Test-Emissionen hingen von dem jeweils gemessenen Schadstoff ab und wie nahe die Messungen an den Nachweisgrenzen lagen. Typische Kriterien für diese Vergleiche wurden auf Grundlage ähnlicher Tests, die in Europa durchgeführt wurden, entwickelt. Diese Kriterien sind unten in Tabelle 1 aufgeführt. Die UCR hat nach Abschluss der Korrelations-Emissionstests an jedem Fahrzeug auch die gemessenen Emissionen und andere Daten verifiziert (einschließlich Datenprotokolle, Konsistenzprüfungen und Plausibilitätsprüfungen).

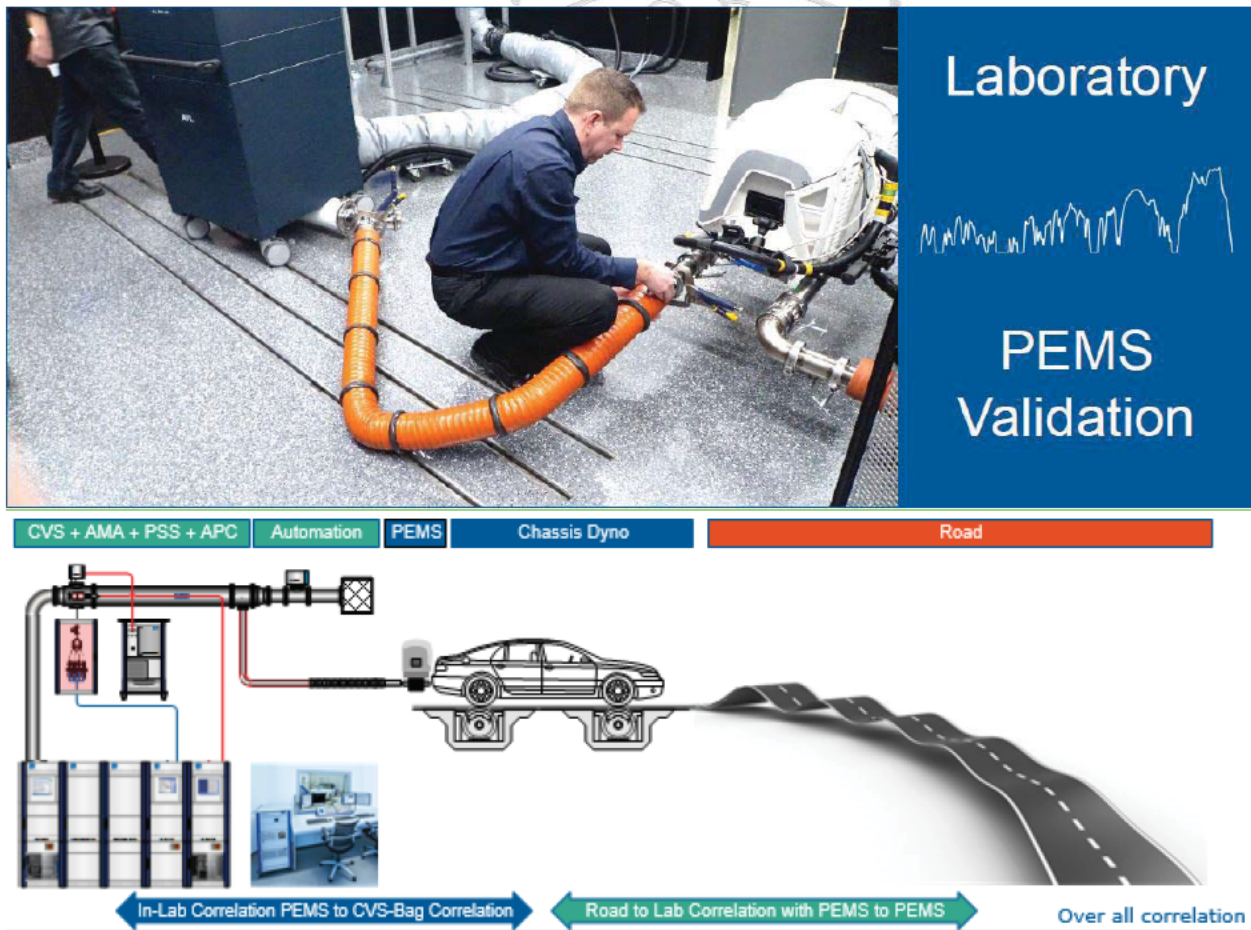


Abbildung 1. Validierung des PEMS durch stationäre Laboren

Tabelle 1: Typische Spezifikationen für auf europäischen Kriterien basierende PEMS/CVS-Vergleiche

Pollutant	Absolute Zero response drift	Absolute Span response drift (!)
CO ₂	≤ 2 000 ppm per test	≤ 2 % of reading or ≤ 2 000 ppm per test, whichever is larger
CO	≤ 75 ppm per test	≤ 2 % of reading or ≤ 75 ppm per test, whichever is larger
NO _x	≤ 5 ppm per test	≤ 2 % of reading or ≤ 5 ppm per test, whichever is larger
CH ₄	≤ 10 ppm C ₁ per test	≤ 2 % of reading or ≤ 10 ppm C ₁ per test, whichever is larger
THC	≤ 10 ppm C ₁ per test	≤ 2 % of reading or ≤ 10 ppm C ₁ per test, whichever is larger

(!) If the zero drift is within the permissible range, it is permissible to zero the analyser prior to verifying the span drift.

Das AVL PEMS führt eine Daten-Konsistenzprüfung durch, die eine Korrelation zwischen dem in der Motorsteuereinheit (ECU) gemessenen Kraftstoffdurchfluss und dem mit der Formel in Abschnitt 8.4.1.6 von Anhang 4B der UN/ECE-Regelung Nr. 49 oder mit Verfahren gemäß U.S.-Regelungen berechneten Kraftstoffdurchfluss beinhaltet. Für diesen Test war ein Mindest-Bestimmtheitsmaß von 0,90 und eine Steigung zwischen 0,9 und 1,1 erforderlich.

Das PEMS-System gleicht vor Massenberechnungen Motor, GPS, Konzentration und Abgasstrommessungen auf eine gemeinsame Zeitbasis an. AVL CONCERTO verfügt über eine automatische Zeitabgleichsfunktion, die in den Postprozessor eingebaut ist, die verwendet wurde. Die UCR führte einen Abgleich der Fahrzeuggeschwindigkeit auf die GPS-Geschwindigkeit, der Motordrehzahl auf die CO-Konzentration und der Motordrehzahl auf den Abgasstrom durch. Diese Abgleiche wurden für den Datensatz der Stadtroute durchgeführt. Die Stadtroute wurde ausgewählt, da die Route transienter ist als die anderen und die CO-Spitzen gewöhnlich den Übergängen der Motordrehzahl entsprechen.

Probenentnahme von Prüfungen mit einem Mobilem Emissionsmessgerät (PEMS)

In diesem Unterabschnitt werden die für die Tests eingesetzte PEMS-Ausrüstung sowie die Betriebsabläufe für PEMS und die Datenverarbeitung beschrieben.

Mobiles Emissionsmessgerät (PEMS)

Die UCR hat direkt mit AVL zusammengearbeitet, um die Systeme zu erhalten, die für die PEMS-Tests eingesetzt wurden. Bei dem hier verwendeten PEMS handelte es sich um einen AVL M.O.V.E Gas PEMS iS. (AVL PEMS). Die PEMS-Einheiten wurden von AVL vollständig 1065-verifiziert und einsatzbereit geliefert. Die UCR erhielt jeweils zwei Einheiten der PEMS-Komponenten, sodass immer ein PEMS für die Tests zur Verfügung stand und das andere im Fall von technischen Problemen als Ersatzgerät eingesetzt werden konnte. Die UCR wird beide PEMS-Einheiten über die Laufzeit des dreijährigen Testprogramms behalten.

Das AVL PEMS ist ein kompaktes, mobiles Gerät zur Messung von NO/NO₂, CO/CO₂ sowie der THC-Konzentrationen im Abgas von Diesel-, Gas- oder Benzinfahrzeugen. Dieses System verfügt über das beheizte FID von AVL zur Messung des Gesamtkohlenwasserstoffs (THC), das aus deren Schwerlast-PEMS-Anwendung übernommen wurde. In Verbindung mit den Emissionsmessungen liefert das PEMS-System von AVL GPS-Daten (Route, Fahrzeuggeschwindigkeit, Höhe und Beschleunigung) auf Sekundenbasis aus dem Motorsteuergerät (MSG) des Fahrzeugs sowie verbundene Parameter über eine OBD-Verbindung. Das PEMS von AVL wurde für Emissionen im praktischen Fahrbetrieb (RDE) und andere regulatorische Compliance-Anwendungen entwickelt.

Das AVL PEMS verwendet ein UV-Analysegerät zur Messung von NO/NO₂. Dieses UV- Analysegerät misst die NO und NO₂ gleichzeitig und direkt, ohne dass ein Umwandler erforderlich wäre. Das Analysegerät bietet in Bezug auf Stabilität eine gute Leistung, die Abweichung über mehrere Stunden beträgt nur wenige PPM. Für CO-/CO₂-Messungen wird ein NDIR-Analysegerät verwendet. Dieses NDIR-Analysegerät ist optimal für eine geringe Abweichung und hohe Genauigkeit des CO-Kanals, selbst bei sehr niedrigen Messbereichen.

In AVLs neueste Version des AVL PEMS wurde ein externes Cutter-FID-Modul integriert, um auch die Methan-Abgaskonzentrationen von Diesel-, Gas- oder Benzinmotoren und Fahrzeugen aufzunehmen. Das Modul wurde für diese Prüfung außerhalb des Fahrzeugs an einer Anhängerkupplung befestigt. Das Abgas wird über eine beheizte Transferleitung durch das Modul an die PEMS-Einheit geleitet. Das Modul ist vollständig in das AVL PEMS-System integriert. Es wurde bestätigt, dass das System alle DOT-Anforderungen in Bezug auf das Befördern von FID-Kraftstoff während der Straßentests erfüllt.

Der AVL M.O.V.E Abgasmassenstrommesser (EFM) misst den Abgasmassenstrom von Fahrzeugen mit Diesel- oder Benzinmotoren, siehe Abbildung 2. Er basiert auf dem Prinzip der Differenzdruckmessung und besteht aus zwei Hauptkomponenten: Einem „Pitot“-EFM-Messrohr und einem EFM-Steuerkasten mit Druckwandler und der Berechnungseinheit. Das EFM-Messrohr wird direkt am Auspuffrohr des Fahrzeugs unter dem Gehäusekasten, wie unten dargestellt, montiert. Der Abgasstrom wird zur Berechnung der Emissionsmassen aus den gemessenen Abgasemissionskonzentrationen benötigt. Abhängig von Motorgröße und -art sind verschiedene Arten von EFM-Messrohren verfügbar. Normalerweise ist ein 2,5“ EFM für den Abgasflussbereich eines normalen PKWs ausreichend, aber 3“-Zoll-EFM-Rohre sind bei Bedarf für Fahrzeuge mit einem Motor mit größerer Verdrängung verfügbar.

Der EFM-Steuerkasten AVL M.O.V.E misst die statischen und den dynamischen Drücke sowie die Abgastemperatur und berechnet den Abgasfluss auf der Grundlage des Pitotprinzips. Für genaue Messungen, selbst bei äußerst dynamischen Flussbedingungen im Abgasrohr, werden Druckwandler mit sehr hohen Übertragungsraten (5 kHz) verwendet. Die interne Temperatur des Steuerkastens wird auf ~50°C geregelt, um Kondensatbildung zu verhindern und stabile Flussmessungen zu ermöglichen, auch wenn sich die Umgebungstemperatur verändert. Die EFM-Steuerbox ist vollständig in das AVL PEMS-System integriert und wurde über die AVL M.O.V.E-Systemsteuerung bedient. Die EFM-Steuerbox ist von dem ASM-Rohr getrennt und wurde für diese Prüfung außerhalb des Fahrzeugs installiert. Dadurch reduziert sich das Eigengewicht des EFM-Rohrs und macht die Installation am

Abgasrohr einfacher. Zur Verbindung des EFM-Steuerkastens mit dem EFM wird ein hybrides Pneumatik-Elektro-Kombikabel verwendet, um die Anzahl der Kabel, die für die Installation erforderlich sind, zu reduzieren.



Abbildung 2: Der mit dem AVL-System zusammen verwendete Abgasmassenstrommesser

Alle Analysegeräte werden in temperaturgesteuerten Gehäusen (Abbildung 3) installiert, um auch bei veränderlichen Umgebungsbedingungen für stabile Bedingungen und eine hohe Genauigkeit zu sorgen. Der Zugang zu den Verbrauchsstoffen ist einfach über eine Serviceklappe gewährleistet. Das AVL PEMS kann im Innern des Fahrzeugs oder außen an einer Anhängerkupplung installiert werden. Für die Prüfung in diesem Programm, wurde das PEMS an einer Anhängerkupplung außerhalb des Fahrzeugs installiert. Ein internes Temperaturlaufbereitungssystem, das gezielt für den mobilen Einsatz konstruiert wurde, stellt einen zuverlässigen Betrieb über einen großen Betriebstemperaturbereich in der Umgebung von $-10\text{ }^{\circ}\text{C}$ bis $+45\text{ }^{\circ}\text{C}$ ohne zusätzliche Heiz- oder Kühlvorrichtungen sicher. Das Gerät ist mit internen Dämpfern ausgestattet, sodass keine zusätzlichen externen Dämpfplatten in PKW-Anwendungen erforderlich sind. Der Stromverteiler (eBox) und die Batterien können auf dem AVL PEMS montiert werden und befinden sich in der abgebildeten Schutzabdeckung. Bei Anordnungen mit doppeltem Abgasrohr ist eine neue, Y-förmige, beheizte Leitung verfügbar, um den Installationsaufwand zu verringern. Für die im Rahmen dieses Programms durchgeführte Prüfung wurde eine einzelne Abgas-Probennahmeleitung verwendet, die mit der EFM-Sektion verbunden wurde.



Abbildung 3: Typische Installationen des AVL-Systems mit Gehäuse an der Anhängerkupplung

Die Spezifikationen für das AVL PEMS-System sind in der nachfolgenden Tabelle 2 enthalten.

Tabelle 2: Spezifikationen für das AVL-PEMS System

Betriebstemperatur (Umgebung)	-10°C bis 45°C
Lagertemperatur	-40°C bis +70°C (Sauerstoffsensor muss bei unter 0°C und über 50°C entfernt werden)
Abmessungen (BxHxT)	Messmodul: ~ 500 x 350 x 374 mm mit Schutzabdeckung: ~ 590 x 480 x 447 mm
Gewicht	< 30 kg (NO _x -Modul)
Aufwärmzeit	Normalerweise 45 Min. ... Abhängig von der Umgebungstemperatur
Energiebedarf	22 V bis 28 V DC, ca. 250 W bei 20°C Umgebungstemperatur (mit 1,25 m Probennahmeleitung und nach dem Aufwärmen)
Probendurchsatz	< 3,5 L/Min
Probenbedingungen	Ende des Abgasendrohrs, ±50 mbar Relativdruck
Elektrische Eingänge/Ausgänge	1x Anschluss für Heizleitung 1x Ethernet (TCP/IP)
Messbereich	NO/ NO ₂ : 0 - 5.000 ppm (NO) 0 - 2.500 ppm (NO ₂) CO/ CO ₂ : 0 - 5 % Vol. (CO), 0 - 20 Vol.% (CO ₂)
Genauigkeit	CO: 0 – 1.499 ppm: ±30 ppm abs., 1.500 ppm – 49.999 ppm: ±2% rel. CO ₂ : 0 – 9,99 %vol.: ±0,1 Vol.% abs., 10 - 20 vol.:%: ±2% rel. NO: 0 – 5.000 ppm: ±0,2% FS oder ±2% rel. NO ₂ : 0 – 2.500 ppm: ±0,2% FS oder ±2% rel.
Nullpunktdrift	CO: 20 ppm/8h, CO ₂ : 0,1 % Vol./8h, NO: 2 ppm/ 8h NO ₂ : 4 ppm/8h
Messbereichsdrift	CO: ≤ 20 ppm abs./8h oder 2% rel./8h CO ₂ : ≤ 0,1 Vol.% abs./8h oder 2% rel./ 8h NO/ NO ₂ : ≤ 1% rel./ Woche
Linearität	Steigung: 0,99 ≤ Steigung ≤ 1,01, Achsenabschnitt ≤ 0,5 %, SEE: ≤ 1% des Bereichs und R2: ≥ 0,999

*Gerät vollständig aufgewärmt, 24 V-Versorgung, Laborbedingungen und unter Verwendung von trockenen Kalibrierungsgasen

Bei Straßentests wurde ein Folgefahrzeug zusammen mit dem tatsächlichen Testfahrzeug eingesetzt. Das Folgefahrzeug fuhr direkt hinter dem Testfahrzeug, um das AVL PEMS-System zu schützen. Dies half dabei, etwaige Schäden zu minimieren, zu denen es während der Praxistests und den damit verbundenen Fahrten hätte kommen können. Abbildung 4 zeigt ein typisches Bild eines Praxistests von einem Verfolgerfahrzeug aus.



Abbildung 4: Typischer Straßentest, vom Verfolgerfahrzeug aus gesehen

Die UCR arbeitete in Bezug auf ggf. erforderliche Wartung und Kalibrierung dieser Einheiten direkt mit AVL zusammen. Dafür hat AVL unmittelbar auf dem UCR CE-CERT Gelände eine Wartungs-, Kalibrierungs- und Reparaturreinrichtung für ihr PEMS-System eingerichtet.

Datenverarbeitung und Berichterstattung

Die Bewertung und Verarbeitung der Testdaten wurde mit der AVL CONCERTO M.O.V.E-Software (CONCERTO) durchgeführt, die einen vollständigen Datenanalyse- und Abgleichberechnungsprozess ermöglicht. Die Software hat eine graphische Benutzeroberfläche mit der Fähigkeit, Daten durch Verschieben mit der Maus zu parametrieren. Die Software enthält auch benutzergeführte Testsequenzen (Vor-, Haupt- und Nachtests), um den Betrieb so einfach wie möglich zu gestalten und ungültige Testläufe zu vermeiden. Die Software unterstützt alle Berechnungen sowie die vollständige Testvalidierung für gebräuchliche Testanwendungen. Sie bietet darüber hinaus Funktionen wie die Integration von Google Maps für schnelle Fahrtenbewertungen, Videointegration und Synchronisierung sowie viele weitere Funktionen. Die grafische Benutzeroberfläche (GUI) der CONCERTO-Datennachbearbeitung bietet die Möglichkeit, Testdaten mit Google Maps oder externen Videodateien zu verknüpfen. Zusätzliche Informationen wie z.B. GPS-Daten, Umgebungsbedingungen, Drehmomentverlaufskurve des Motors, Motorleistungsdaten, Testfahrt und Kraftstoffverbrauch können ebenfalls angezeigt werden. Dies ist eine Hauptfunktion zur Bewertung von realen Testdaten unter veränderlichen Testbedingungen. Die CONCERTO Datennachbearbeitung bietet eine wertvolle Einsicht in die Daten und wie die tatsächlichen Bedingungen auf der Straße damit verbunden sind. Das Programm verfügt ebenfalls über Funktionen für Hybridfahrzeuge, bei welchen in gewissen Zeiträumen kein Abgasstrom vorhanden ist.

Für dieses Programm wurde CONCERTO kundenspezifisch für Straßentests angepasst. Die individuellen Datenberichte für jedes Fahrzeug und jede Teststrecke wurden so formatiert, dass sie Datenberichte und Diagramme für jeden relevanten Schadstoff sowie Informationen über die QA-/QC-Prüfungen beinhalten. Das Format basiert auf Vorlagen, die in der Berichterstattung für gesetzliche Anforderungen zu RDE verwendet werden und enthält ähnliche Mengen an Details. Die Daten wurden in eine CONCERTO-Transportdatei (CTF-Datei) oder eine CSV-Datei exportiert.

Qualitätssicherung und Qualitätskontrolle (QA/QC)

Als ein wichtiges Element dieser Tests gilt, dass die Instrumente den höchstmöglichen Stand in Bezug auf QA/QC erfüllen. Die UCR hat direkt mit AVL zusammengearbeitet, um sicherzustellen, dass alle QA-/QC-Merkmale erfüllt wurden. Die beiden PEMS-Systeme, die AVL bereitgestellt hat, wurden vollständig kalibriert gemäß den 1065 Kalibrierungskriterien geliefert. Dies beinhaltet alle jährlichen, halbjährlichen und monatlichen Prüfungen gemäß CFR 1065, Teil J. AVL hat zusätzliche Kalibrierungen durchgeführt, die im Laufe der Tests erforderlich wurden, und wird zwischen den Testkampagnen jährliche Kalibrierungen für die getesteten Fahrzeuge durchführen. Es wurden auch als Teil der täglichen, monatlichen und Test-zu-Test-Routine QA-/QC-Prüfungen durchgeführt. Die QA/QC wurden größtenteils als Teil der automatisierten Prozesse innerhalb der CONCERTO-Software durchgeführt. Dies umfasst eine Reihe von Prüfungen vor und nach den Tests, sowie Linearitäts- und andere Prüfungen.

Motorparameter

Die Motorparameter wurden angefordert wie im Prüfplan für dieses Testprogramm aufgeführt. Dazu zählen MIL-Informationen, Temperaturen, Geschwindigkeit sowie andere emissionsbezogene PIDs. Einige Parameter waren wegen nicht installiertem Equipment in den Fahrzeugen nicht verfügbar (Lambda, B3- und Drehzahldaten).

Betrieb der Fahrzeuge

Alle Fahrzeuge wurden für die Prüfung des MJ 2018 von demselben Universitätsstudenten gefahren. Der verwendete Kraftstoff basierte auf den Empfehlungen auf dem Kraftstoffetikett und es wurde Kraftstoff von einer Standard-Tankstelle (E10) verwendet. Bei einem Fahrzeug handelte es sich um ein Plug-in-Hybridfahrzeug (PHEV), das im EV-Modus (Elektrofahrt), dem Standard-Fahrmodus, betrieben wurde. Das Fahrzeug wurde zuerst vollständig aufgeladen (100%) und dann für den Test im EV-Modus betrieben. Die Batterieladung betrug zum Zeitpunkt des Testbeginns 0%.

Ausstattung und Hinweise zur Prüfung

Während der Prüfung des MJ 2018 kam es zu drei Problemen mit Instrumenten: 1) Überhitzung des Methan-Analysegeräts, 2) Verbindung Feuchtigkeitssensor und 3) MSG-Verbindung. Außerdem gab es auch Streckenprobleme, wo eine Straße gesperrt war und der Route nicht gefolgt werden konnte. Zu

der Überhitzung des Methan-Analysegeräts kam es bei mehreren Tests, das Problem mit der Verbindung des Feuchtigkeitssensors trat bei einem Test auf, das Problem mit der MSG-Verbindung bei zwei Tests und zu Straßensperrungen kam es ebenfalls bei zwei Tests. Alle Tests, bei denen es zu Problemen mit Instrumenten oder der Strecke kam, wurden wiederholt und es sind beide Datensätze verfügbar.

Das Methan-Analysegerät war im Vergleich zur Prüfung des MJ 2017 während der Stadtstrecke höheren Temperaturen ausgesetzt (die max. Innentemperatur von 45°C wurde überschritten). Angesichts der Probleme mit dem Methan- Analysegerät entschied die UCR nach bestem technischen Ermessen, die NMHC aus dem THC zu berechnen, was gemäß den einschlägigen Regelungen zulässig ist. Die Analysegerät-Temperatur hat keine anderen Messsysteme beeinträchtigt.

Der Feuchtigkeitssensor funktionierte bei den Prüfungen vor dem Test, aber während der Fahrt und des Tests hörte der Sensor auf zu arbeiten und lieferte dem Messsystem ungültige Daten. Die Feuchtigkeitsdaten werden verwendet, um die um die Feuchtigkeit korrigierten NOx-Werte zu berechnen. Der PEMS-Bericht enthält ausschließlich die korrekten Feuchtigkeitstestläufe, es stehen jedoch beide Datensätze zur Verfügung.

Die MSG-Verbindung funktionierte während der Vorprüfungen und der Fahrt zur Teststrecke. Bei zwei Tests (auf einer Stadt- und einer Bergteststrecke) hörte die MSG-Verbindung auf zu arbeiten. Da die MSG-Signale zur Berechnung der Distanz benötigt werden, wurden diese Tests wiederholt, es stehen aber alle Datensätze zur Verfügung.

Zwei Mal gab es auf der Stadtstrecke eine Baustelle und der Fahrer wurde auf eine andere Strecke als die in unserem Testplan genehmigte umgeleitet. Die Straßensperrungen wurden im Verlauf des Tages aufgehoben und die UCR hat den Test auf diesen Strecken nach Freigabe der Straßen wiederholt.