Test = US06 90Idle US06

Options = CVS Bag Sec ShowTol Methane MethaneRF

Test Init Start	= June 17, 2020 10:30:24	Test Start	= June 17, 2020 10:34:16
Posttest Completed At	= June 17, 2020 11:17:20	Test Finish	= June 17, 2020 10:56:11
Hot Soak Start Time	= June 16, 2020 15:30:00		

Personnel Information::

Driver	= **REDACTED**	Operator	= **REDACTED**
Requestor	=	Supervisor	=

Vehicle Information:

VIN	= [redacted]	Cert Tracking ID	= 2964-ECRXT03.05PV-217
Vehicle Model	= FCA RAM	Model Year	= 2014
Engine Family	= ECRXT03.05PV	Eng. Disp.	= 3.0L
Ignition Status	= No	Transmission	=
Automatic	= 1	Idle RPM	=
Sample Delay	=		

Vehicle Conditions:

Soak Start Time:	= JUNE 16, 2020 15:30	Ambient Limit Type	= OTHER7

Test Specifications:

TO-Number	= W0110	CVS BulkStream Flow :	= 3) 625 scfm
TestNet Number	= 2964		

Dynamometer:

Inertia	= 6000 (lb)	Road Load A	= 5.75 (lbs)
Road Load B	= 0.3209	Road Load C	= 0.03152

Fuel Information:

Fuel	= DIE-DJ1621HW10	Specific gravity	= 0.8520
NHV	= 18083.00	Fuel R-Factor	= 0.60
CWF	= 0.8710	OWF	= 0.0000
HWF	= 0.1290	Fuel Calculation Type	= Diesel/EPA Calcs

Phase Information:

	Shift Tables	Event Tables
Phase 1	N/A	NotRequired
Phase 2	N/A	NotRequired

Response Factors:

Bag Methane	= 1.05

Pre Test Remarks:
TEST #1 AS RECEIVED

Post Test Remarks:

Non-Critical Information:

Begin Odo	= 99631	Idle RPM	=
Test end Odometer	= 99647	Driveability	= Good
Engine performance	= No Problem	Brakes	= No Problem
Transmission	= No Problem	Vehicle stalls	= None

SUMMARY REPORT

Test = US06 90Idle US06 Test Id = ONT50893 TestNet Number = 2964
Options = CVS Bag Sec ShowTol Methane MethaneRF
Test Init Start = June 17, 2020 10:30:24 Fuel Calculation Type = Diesel/EPA Calcs Idle RPM = Driver = **REDACTED**

MASS calculated by DF method

Phase 1 Bag 2	THC (ppmC)	CO (ppm)	NOX (ppm)	CO2 (%)	CH4 (ppmC)	NM-HC (wRF)	NMHC+NOX (wRF)	FE (mpg)
Range	10.0	50.0	30.0	2.00	10.0			
Sample	3.209	0.434	0.833	1.2679	2.281			
Range	10.0	50.0	30.0	2.00	10.0			
Ambient	3.273	0.648	-0.067	0.0627	2.118			
Net Conc.	0.246	0.000	0.833	1.2112	0.364	0.0000		
Grams/ph.	0.0217	0.0000	0.2224	3387.9043	0.0371	0.0000		24.0558
Grams/mi	0.0027	0.0000	0.0278	422.8598	0.0046	0.0000		

----- Dyno Information -----

Inertia = 6000

Inertia Units = lb

Dynamometer will be set manuall

Dyno Coefficient Units = 2

Road Load A = 5.75

Road Load B = 0.3209

Road Load C = 0.03152

Use Augmented Braking System? =

CVS Bag report
MASS calculated by DF method

Phase 1 Bag 2	THC (ppmC)	CO (ppm)	NOX (ppm)	CO2 (%)	CH4 (ppmC)	NM-HC (wRF)	NMHC+NOX (wRF)	FE (mpg)
Range	10.0	50.0	30.0	2.00	10.0			
Sample	3.209	0.434	0.833	1.2679	2.281			
Range	10.0	50.0	30.0	2.00	10.0			
Ambient	3.273	0.648	-0.067	0.0627	2.118			
Net Conc.	0.246	0.000	0.833	1.2112	0.364	0.0000		
Grams/ph.	0.0217	0.0000	0.2224	3387.9043	0.0371	0.0000		24.0558
Grams/mi	0.0027	0.0000	0.0278	422.8598	0.0046	0.0000		

Test Info		
Baro(inHg)	=	28.94
Temp(F)	=	78.1
Tdew(F)	=	49.8
Rhum(%)	=	37.1
Ahum(gr/lb)	=	54.7
NOX Factor	=	0.9132
Vmix(ft3 20 C)	=	5397.97
Dilu. Factor	=	10.5657
Dist(mi)	=	8.0119

Times Info		
Phase Start	=	10:46:11
Phase Finish	=	10:56:11
Analysis End	=	11:12:24
Elapsed (sec)	=	600.6
Bag Fill (sec)	=	601.0
Bag Anl (sec)	=	973.0
Drv Err (sec)	=	0.0
Crank Time	=	0.6

Legend
* denotes Unstable Reading
(wRF) denotes with Response Factor
(woRF) denotes without Response Factor

DATA VALIDATION

PARAMETER DESCRIPTION	VALUE OF PARAMETER	LIMIT OF PARAMETER
Temperature	VALID	68 - 86 (degF)
Barometer	VALID	26.99 - 33.0001 (inHg)
Dew Point	VALID	-20 - 200 (degF)
Absolute Humidity	VALID	0 - 150 (gr/lb)
Crank Time	VALID	5 (sec)
Restart Attempts	VALID	1
Pretest Soak Time	VALID	12 - 36 (hr)
Phase Length	VALID	2 (%)
Distance	VALID	2 (%)
Test Hold Conditions	VALID	60 (sec)
Leak Check	VALID	1
Bag Analysis Time	VALID	1200 (sec)
Bag Fill Time	VALID	5 (sec)
Ambient Bag Readings	VALID	THC -0.55 - 10 (ppm)
		CO -0.55 - 15 (ppm)
		NOX -0.55 - 2 (ppm)
		CO2 350 - 850 (ppm)
		CH4 -0.55 - 10 (ppm)
Sample Bag Readings	VALID	THC -0.55 (ppm)
		CO -0.55 (ppm)
		NOX -0.55 (ppm)
		CO2 350 (ppm)
		CH4 -0.55 (ppm)
Bag Read Sequence	VALID	Stabilization Time (T2) 10 (sec)
		Integration Time (T3) 3 (sec)
		Stability Time Out (T4) 30 (sec)
		Stability Chk Tolerance 2 (%)
Bag Zero/Span Sequence	DETAILS BELOW	Pre-Bag Z/S Offset 25 (%)
		Pre-Bag Zero Drift 1 (%)
		Post-Bag Z/S Drift 2 (%)
		Stabilization Time (T2) 10 (sec)
		Integration Time (T3) 3 (sec)
		Stability Time Out (T4) 30 (sec)
		Stability Chk Tolerance 2 (%)
Hot Soak Length	VALID	
Analyzer Overscale	VALID	10 (sec)
Venturi Inlet Temperature	VALID	32 - 300 (degF)

Bag Zero/Span Sequence

Limits:
Pre-Bag Z/S Offset 25 (%)
Pre-Bag Zero Drift 1 (%)
Post-Bag Z/S Drift 2 (%)
Stabilization Time (T2) 10 (sec)
Integration Time (T3) 3 (sec)
Stability Time Out (T4) 30 (sec)
Stability Chk Tolerance 2 (%)

Bag Pair 2 Zero/Span Concentrations (Offset Limit = 25.0% ReZero Limit = 1.0%)

Samp	Gas	Range	Fullscale	Zero	Offset	Std Dev	Spec	Span	Offset	Std Dev	Rezero	Drift	Std Dev	Status
BAG	THC	(1)	10.0ppm	0.410	4.10	0.05714	9.382	9.482	1.00	0.03823	0.101	1.01*	0.35661	FAIL

Legend: * denotes Unstable Reading, Drift/Offset Limit Exceeded

Bag Pair 2 Post Bag Check (Drift Limit = 2.0%)

Samp	Gas	Range	Fullscale	Zero	Drift	Std Dev	Spec	Span	Drift	Std Dev	Status
BAG	THC	(1)	10.0ppm	0.007	0.07	0.01498	9.382	8.800*	-5.82*	0.88806	FAIL
BAG	NOX	(2)	30.0ppm	0.020	0.07	0.14161	28.000	27.053	-3.16*	0.26965	FAIL
BAG	CH4	(1)	10.0ppm	0.032	0.32	0.10090	9.368	8.739*	-6.30*	0.59855	FAIL

Legend: * denotes Unstable Reading, Drift/Offset Limit Exceeded

Bag Pair 2 Re-Read

Zero/Span failed.

BAG Zero/Span Results
Printed on: Wed June 17, 2020 11:18 * Single Roll Dyno Configuration *

Bag Pair 2 Zero/Span Concentrations (Offset Limit = 25.0% ReZero Limit = 1.0%)

Samp	Gas	Range	Fullscale	Zero	Offset	Std Dev	Spec	Span	Offset	Std Dev	Rezero	Drift	Std Dev	Status
BAG	LCO	(1)	50.0ppm	0.496	0.99	0.04971	46.352	46.316	-0.07	0.04179	-0.038	-0.08	0.03951	PASS
BAG	CO2	(2)	2.00%	0.0021	0.10	0.00687	1.8733	1.8893	0.80	0.05476	0.0020	0.10	0.02007	PASS
BAG	THC	(1)	10.0ppm	0.410	4.10	0.05714	9.382	9.482	1.00	0.03823	0.101	1.01*	0.35661	FAIL
BAG	NOX	(2)	30.0ppm	0.168	0.56	0.09389	28.000	28.638	2.13	0.19355	0.037	0.12	0.11290	PASS
BAG	CH4	(1)	10.0ppm	0.358	3.58	0.62492	9.368	9.397	0.29	0.08676	-0.082	-0.82	0.04922	PASS

Legend: * denotes Unstable Reading, Drift/Offset Limit Exceeded

Bag Pair 2 Post Bag Check (Drift Limit = 2.0%)

Samp	Gas	Range	Fullscale	Zero	Drift	Std Dev	Spec	Span	Drift	Std Dev	Status
BAG	LCO	(1)	50.0ppm	0.029	0.06	0.02335	46.352	46.488	0.27	0.04104	PASS
BAG	CO2	(2)	2.00%	0.0017	0.08	0.01137	1.8733	1.8767	0.17	0.05725	PASS
BAG	THC	(1)	10.0ppm	0.007	0.07	0.01498	9.382	8.800*	-5.82*	0.88806	FAIL
BAG	NOX	(2)	30.0ppm	0.020	0.07	0.14161	28.000	27.053	-3.16*	0.26965	FAIL
BAG	CH4	(1)	10.0ppm	0.032	0.32	0.10090	9.368	8.739*	-6.30*	0.59855	FAIL

Legend: * denotes Unstable Reading, Drift/Offset Limit Exceeded

Bag Pair 2 Re-Read

Bag Pair 2 Zero/Span Concentrations (Offset Limit = 25.0% ReZero Limit = 1.0%)

Samp	Gas	Range	Fullscale	Zero	Offset	Std Dev	Spec	Span	Offset	Std Dev	Rezero	Drift	Std Dev	Status
BAG	LCO	(1)	50.0ppm	0.466	0.93	0.04999	46.352	46.375	0.05	0.06366	-0.026	-0.05	0.04072	PASS
BAG	CO2	(2)	2.00%	0.0047	0.23	0.01955	1.8733	1.8962	1.15	0.03756	-0.0001	-0.01	0.01316	PASS
BAG	THC	(1)	10.0ppm	0.150	1.50	0.02856	9.382	9.378	-0.04	0.04101	0.006	0.06	0.02549	PASS
BAG	NOX	(2)	30.0ppm	0.218	0.73	0.14159	28.000	27.781	-0.73	0.23646	-0.043	-0.14	0.13239	PASS
BAG	CH4	(1)	10.0ppm	0.066	0.66	0.16879	9.368	9.307	-0.62	0.16018	0.019	0.19	0.13234	PASS

Bag Pair 2 Post Bag Check (Drift Limit = 2.0%)

Samp	Gas	Range	Fullscale	Zero	Drift	Std Dev	Spec	Span	Drift	Std Dev	Status
BAG	LCO	(1)	50.0ppm	0.000	0.00	0.07240	46.352	46.407	0.11	0.05148	PASS
BAG	CO2	(2)	2.00%	0.0003	0.02	0.01531	1.8733	1.8770	0.19	0.05091	PASS
BAG	THC	(1)	10.0ppm	-0.011	-0.11	0.03259	9.382	9.364	-0.18	0.03652	PASS
BAG	NOX	(2)	30.0ppm	-0.074	-0.25	0.13479	28.000	28.405	1.35	0.39946	PASS
BAG	CH4	(1)	10.0ppm	0.040	0.40	0.08506	9.368	9.405	0.36	0.11449	PASS