Impact of Biodiesel Blends on a Transport Refrigeration Unit Engine (B50 & B100)

(Testing Conducted at ARB's El Monte Facility)

Preliminary Results

Weighted Specific Emissions in g/kwh (n = 8)								
		THC	CH_4	CO	NO_X	N_2O	PM	CO_2
CA ULSD	Avg.	1.831	0.083	7.574	12.20	0.015	1.942	821.7
B50		1.477	0.052	5.793	13.44	0.014	1.617	832.5
B100		0.801	0.026	3.819	14.77	0.013	1.219	845.0
CA ULSD	Std.	0.138	0.010	0.491	0.366	0.001	0.078	3.263
B50	Dev.	0.089	0.008	0.332	0.518	0.001	0.115	3.038
B100		0.178	0.004	0.264	0.609	0.001	0.157	3.538
CA ULSD	COV	0.075	0.123	0.065	0.030	0.049	0.040	0.004
B50		0.061	0.151	0.057	0.039	0.035	0.071	0.004
B100		0.222	0.156	0.069	0.041	0.039	0.129	0.004
% Diff	B50 – CA ULSD*	-19.4%	-37.5%	-23.5%	10.1%	-6.23%	-16.8%	1.31%
	B100 – CA ULSD*	-56.2%	-68.9%	-49.6%	21.1%	-12.5%	-37.2%	2.84%

*Statistic P-value < 0.05