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**APPENDIX C  
AQ EMISSION CALCS**

**Diablo Canyon Power Plant - Ocean Bottom Seismometer Project**  
**Criteria Pollutants - Off-Road Sources**

Source	Fuel	BHP	Number	Load Factor	Hours/Day	Lbs/BHP-Hour					Pounds/Day					Days	Tons				
						NO <sub>x</sub>	ROG	PM10	CO	SO <sub>2</sub>	NO <sub>x</sub>	ROG	PM10	CO	SO <sub>2</sub>		NO <sub>x</sub>	ROG	PM10	CO	SO <sub>2</sub>
Vessel (Michael Uhl)	Diesel	400	2	50	12	0.0161	0.0015	0.0008	0.0043	0.0020	77.28	7.20	3.84	20.64	9.60	8	0.309	0.029	0.015	0.083	0.038
Vessel - auxiliary generator	Diesel	104	1	74	20	0.0117	0.0026	0.0007	0.0082	0.0020	18.01	4.00	1.08	12.62	3.08	8	0.072	0.016	0.004	0.050	0.012
Diver support vessel	Diesel	200	2	50	2	0.0161	0.0018	0.0007	0.0061	0.0020	6.44	0.72	0.28	2.44	0.80	1	0.003	0.000	0.000	0.001	0.000
On-shore winch	Diesel	25	1	62	8	0.0152	0.0047	0.0014	0.0114	0.0020	1.88	0.58	0.17	1.41	0.25	1	0.001	0.000	0.000	0.001	0.000

Off-Road Equipment Summary					NO <sub>x</sub>	ROG	PM10	CO	SO <sub>2</sub>
Pounds/Day					103.61	12.50	5.37	37.12	13.73
Tons					0.39	0.05	0.02	0.13	0.05

Emission factors for marine sources obtained from Emissions Estimation Methodology for Commercial Harbor Craft Operating in California

**Harborcraft Study Factors - Conversion**

	g/BHP-Hr (App. A)				lb/BHP-Hr			
	NO <sub>x</sub>	ROG	PM	CO	NO <sub>x</sub>	ROG	PM	CO
Main Engine (176-250 BHP) - Year 2000	7.31	0.68	0.36	1.97	0.0161	0.0015	0.0008	0.0043
Main Engine (251-500 BHP) - Year 2000	7.31	0.68	0.36	1.97	0.0161	0.0015	0.0008	0.0043
Aux Engine (51-120 BHP) - Year 2005	5.32	1.18	0.3	3.73	0.0117	0.0026	0.0007	0.0082
Aux Engine (25-50 BHP) - Year 2000	6.9	2.14	0.64	5.15	0.0152	0.0047	0.0014	0.0114

Project: Diablo Canyon OBS project - OBS delivery from POLA

**RESULTS: pounds per day**

Speed	ROG	CO	NOx	PM10	CO2
25	1.07	4.95	12.58	0.59	2089.52
30	0.87	4.22	12.07	0.52	1968.35
35	0.72	3.64	11.70	0.47	1869.72
40	0.62	3.19	11.45	0.45	1793.61
45	0.58	2.88	11.32	0.46	1740.03
50	0.58	2.71	11.32	0.49	1708.98

**Greenhouse gases**

Vehicle Type	Total VMT	N2O g/mile	CH4 g/mile	N2O lb/day	CH4 lb/day
Auto	0	0.04	0.04	0.000	0.000
LDT	0	0.06	0.05	0.000	0.000
MDT	0	0.05	0.06	0.000	0.000
HDT	464	0.05	0.06	0.051	0.061
SUM				0.051	0.061

GHG emissions factors from California Climate Action Registry General Reporting Protocol, Table C5

**Diablo Canyon Power Plant - Ocean Bottom Seismometer Project**  
**Greenhouse Gases - Off-Road Sources**

Source	Fuel	BHP	Number	Load Factor	Hours/Day	Lbs/BHP-Hour			Pounds/Day			Days	Tons		
						CO2	N2O	CH4	CO2	N2O	CH4		CO2	N2O	CH4
Vessel (Michael Uhl)	Diesel	400	2	50	12	1.1200	0.000029	0.000082	5376.00	0.14	0.39	8	21.50	0.001	0.002
Vessel - auxiliary generator	Diesel	104	1	74	20	1.1200	0.000029	0.000082	1723.90	0.04	0.13	8	6.90	0.000	0.001
Diver support vessel	Diesel	200	2	50	2	1.1200	0.000029	0.000082	448.00	0.01	0.03	1	0.22	0.000	0.000
On-shore winch	Diesel	25	1	62	8	1.1200	0.000029	0.000082	138.88	0.00	0.01	1	0.07	0.000	0.000

Off-Road Equipment Summary					
Pounds/Day				CO2	N2O
				7,686.78	0.199
Tons				28.69	0.001
					0.002

Source	CO2	N2O	CH4	MT CO2eq
Off-road vessels and equipment	28.69	0.001	0.002	
On-road worker transportation (assume 10 work days)	1.42	0.0002	0.0002	
OBS equipment delivery from POLA	0.85	0.000026	0.000031	
Total English tons	30.96	0.001	0.002	
Metric tons	27.65	0.001	0.002	
<b>CO2 Eq</b>	<b>27.65</b>	<b>0.268</b>	<b>0.044</b>	<b>27.96</b>



Speed MPH	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL	LHD1 NCAT	LHD1 CAT	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	LHV NCAT
25	3.371	0.242	1.118	0.27	3.262	0.479	1.135	0.566	3.277	0.451	1.108	0.469	5.189	0.465	1.139	0.49	1.653	0.244	3.348	1.166	1.653	0.569	3.887	2.248	2.48	1.854	6.338	5.601	14.531	9.3	12.294	12.134	2.48
30	3.525	0.227	1.069	0.255	3.412	0.449	1.085	0.538	3.427	0.421	1.059	0.44	5.427	0.435	1.089	0.46	1.723	0.255	3.202	1.13	1.723	0.593	3.717	2.174	2.584	1.932	6.061	5.382	15.143	9.692	11.802	11.69	2.584
35	3.682	0.216	1.059	0.246	3.563	0.43	1.075	0.522	3.579	0.401	1.05	0.421	5.668	0.414	1.079	0.441	1.792	0.265	3.172	1.128	1.792	0.617	3.683	2.169	2.689	2.01	6.005	5.349	15.755	10.084	11.434	11.362	2.689
40	3.84	0.21	1.087	0.241	3.716	0.421	1.104	0.518	3.733	0.39	1.078	0.411	5.912	0.403	1.108	0.431	1.862	0.275	3.257	1.161	1.862	0.641	3.781	2.23	2.793	2.088	6.165	5.495	16.368	10.476	11.189	11.152	2.793
45	4	0.209	1.156	0.241	3.871	0.422	1.174	0.526	3.889	0.387	1.146	0.41	6.158	0.4	1.179	0.429	1.932	0.285	3.464	1.229	1.932	0.665	4.022	2.364	2.898	2.166	6.557	5.836	16.98	10.868	11.067	11.058	2.898
50	4.161	0.211	1.275	0.245	4.027	0.431	1.294	0.545	4.045	0.393	1.263	0.416	6.406	0.405	1.299	0.436	2.001	0.296	3.818	1.342	2.001	0.689	4.433	2.583	3.002	2.244	7.227	6.408	17.593	11.26	11.069	11.081	3.002







Pollutant Name: Oxides of Nitrogen

Temperature: 75F

Relative Humidity: ALL

Time min	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL	LHD1 NCAT	LHD1 CAT	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	LHV NCAT
5	1.06	0.254	0	0.26	1.042	0.303	0	0.294	1.046	0.459	0	0.461	1.662	0.564	0	0.566	0.53	1.259	0	1.075	0.53	1.269	0	0.907	0.795	1.607	0	0.511	3.142	4.671	0	2.637	0.795
10	1.152	0.294	0	0.3	1.133	0.362	0	0.349	1.137	0.519	0	0.52	1.807	0.621	0	0.623	0.576	1.399	0	1.195	0.576	1.61	0	1.15	0.864	2.421	0	0.752	3.415	7.038	0	3.951	0.864
20	1.32	0.364	0	0.371	1.298	0.467	0	0.447	1.303	0.625	0	0.627	2.07	0.722	0	0.725	0.66	1.649	0	1.408	0.66	2.212	0	1.578	0.99	3.851	0	1.176	3.912	11.194	0	6.26	0.99
30	1.465	0.422	0	0.43	1.441	0.553	0	0.528	1.446	0.714	0	0.715	2.297	0.808	0	0.811	0.732	1.857	0	1.586	0.732	2.704	0	1.929	1.099	5.016	0	1.521	4.342	14.581	0	8.142	1.099
40	1.588	0.468	0	0.477	1.562	0.62	0	0.592	1.568	0.784	0	0.786	2.49	0.876	0	0.879	0.794	2.025	0	1.729	0.794	3.089	0	2.203	1.191	5.916	0	1.789	4.707	17.199	0	9.596	1.191
50	1.689	0.502	0	0.511	1.661	0.67	0	0.639	1.667	0.837	0	0.838	2.648	0.928	0	0.932	0.844	2.151	0	1.836	0.844	3.365	0	2.4	1.266	6.552	0	1.978	5.004	19.046	0	10.624	1.266
60	1.767	0.524	0	0.534	1.737	0.701	0	0.668	1.744	0.871	0	0.873	2.77	0.964	0	0.968	0.883	2.236	0	1.909	0.883	3.534	0	2.52	1.325	6.923	0	2.089	5.236	20.125	0	11.224	1.325
120	1.771	0.549	0	0.558	1.741	0.728	0	0.693	1.748	0.919	0	0.92	2.776	1.027	0	1.03	0.885	2.373	0	2.026	0.885	3.625	0	2.585	1.328	6.946	0	2.096	5.247	20.193	0	11.262	1.328
180	1.728	0.548	0	0.556	1.7	0.725	0	0.69	1.706	0.916	0	0.917	2.71	1.024	0	1.026	0.864	2.366	0	2.02	0.864	3.612	0	2.576	1.296	6.921	0	2.087	5.122	20.119	0	11.219	1.296
240	1.672	0.544	0	0.552	1.644	0.721	0	0.685	1.651	0.91	0	0.911	2.622	1.017	0	1.019	0.836	2.349	0	2.005	0.836	3.59	0	2.56	1.254	6.882	0	2.074	4.956	20.006	0	11.154	1.254
300	1.603	0.538	0	0.546	1.576	0.714	0	0.678	1.582	0.9	0	0.901	2.513	1.005	0	1.007	0.801	2.323	0	1.983	0.801	3.557	0	2.536	1.202	6.829	0	2.056	4.749	19.853	0	11.066	1.202
360	1.519	0.531	0	0.538	1.494	0.704	0	0.668	1.5	0.887	0	0.887	2.382	0.989	0	0.99	0.759	2.287	0	1.952	0.759	3.515	0	2.506	1.139	6.763	0	2.033	4.502	19.662	0	10.956	1.139
420	1.422	0.521	0	0.527	1.398	0.692	0	0.656	1.404	0.87	0	0.87	2.23	0.969	0	0.97	0.711	2.242	0	1.913	0.711	3.462	0	2.468	1.066	6.684	0	2.006	4.215	19.431	0	10.823	1.066
480	1.311	0.51	0	0.515	1.29	0.678	0	0.641	1.294	0.85	0	0.849	2.056	0.945	0	0.945	0.656	2.187	0	1.866	0.656	3.4	0	2.423	0.983	6.591	0	1.975	3.886	19.161	0	10.668	0.983
540	1.187	0.496	0	0.501	1.167	0.662	0	0.624	1.172	0.826	0	0.825	1.861	0.916	0	0.916	0.593	2.123	0	1.812	0.593	3.328	0	2.371	0.89	6.485	0	1.939	3.517	18.851	0	10.491	0.89
600	1.049	0.481	0	0.484	1.031	0.643	0	0.605	1.035	0.799	0	0.797	1.644	0.884	0	0.882	0.524	2.049	0	1.748	0.524	3.245	0	2.312	0.786	6.365	0	1.898	3.108	18.503	0	10.291	0.786
660	0.897	0.464	0	0.466	0.882	0.622	0	0.583	0.885	0.768	0	0.766	1.406	0.847	0	0.844	0.448	1.966	0	1.677	0.448	3.153	0	2.246	0.673	6.231	0	1.853	2.658	18.115	0	10.069	0.673
720	0.731	0.444	0	0.445	0.719	0.599	0	0.559	0.722	0.734	0	0.731	1.147	0.805	0	0.802	0.366	1.873	0	1.598	0.366	3.05	0	2.172	0.548	6.085	0	1.804	2.167	17.689	0	9.825	0.548

Pounds/day: 180 min soak																																SUM	
0.000312782	0.012432	0	0.000498	0.010909	0	0.000167	0.016199	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0405172

Pollutant Name: PM10

Temperature: 75F

Relative Humidity: ALL

Time min	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL	LHD1 NCAT	LHD1 CAT	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	LHV NCAT
5	0.011	0.001	0	0.001	0.011	0.001	0	0.001	0.011	0.001	0	0.001	0.012	0.001	0	0.001	0.011	0	0	0	0.011	0.001	0	0.001	0.011	0.001	0	0.001	0.011	0.002	0	0.001	0.011
10	0.01	0.001	0	0.001	0.01	0.002	0	0.002	0.01	0.003	0	0.003	0.01	0.003	0	0.003	0.01	0.001	0	0.001	0.01	0.002	0	0.001	0.01	0.003	0	0.001	0.01	0.004	0	0.002	0.01
20	0.008	0.003	0	0.003	0.008	0.004	0	0.003	0.008	0.006	0	0.006	0.008	0.005	0	0.005	0.008	0.002	0	0.002	0.008	0.004	0	0.003	0.008	0.005	0	0.002	0.008	0.007	0	0.004	0.008
30	0.006	0.004	0	0.004	0.006	0.005	0	0.005	0.006	0.008	0	0.008	0.006	0.007	0	0.007	0.006	0.003	0	0.002	0.006	0.005	0	0.004	0.006	0.007	0	0.002	0.006	0.01	0	0.005	0.006
40	0.004	0.005	0	0.005	0.004	0.007	0	0.006	0.004	0.01	0	0.01	0.004	0.009	0	0.009	0.004	0.003	0	0.003	0.004	0.006	0	0.005	0.004	0.009	0	0.003	0.004	0.012	0	0.007	0.004
50	0.003	0.006	0	0.006	0.003	0.008	0	0.007	0.003	0.012	0	0.012	0.003	0.011	0	0.011	0.003	0.004	0	0.003	0.003	0.008	0	0.005	0.003	0.011	0	0.003	0.003	0.015	0	0.008	0.003
60	0.003	0.007	0	0.007	0.003	0.009	0	0.009	0.003	0.014	0	0.014	0.003	0.013	0	0.013	0.003	0.005	0	0.004	0.003	0.009	0	0.006	0.003	0.013	0	0.004	0.003	0.017	0	0.009	0.003
120	0.007	0.01	0	0.01	0.007	0.014	0	0.013	0.007	0.022	0	0.021	0.007	0.02	0	0.02	0.007	0.007	0	0.006	0.007	0.012	0	0.009	0.007	0.017	0	0.005	0.007	0.023	0	0.013	0.007
180	0.011	0.011	0	0.011	0.011	0.014	0	0.013	0.011	0.023	0	0.023	0.012	0.022	0	0.021	0.011	0.007	0	0.006	0.011	0.013	0	0.009	0.011	0.018	0	0.006	0.011	0.024	0	0.013	0.011
240	0.015	0.012	0	0.012	0.015	0.015	0	0.014	0.015	0.025	0	0.025	0.015	0.023	0	0.023	0.015	0.008	0	0.007	0.015	0.013	0	0.01	0.015	0.018	0	0.006	0.015	0.024	0	0.014	0.015
300	0.018	0.012	0	0.012	0.018	0.016	0	0.015	0.019	0.026	0	0.026	0.019	0.024	0	0.024	0.018	0.008	0	0.007	0.018	0.014	0	0.01	0.018	0.019	0	0.006	0.018	0.025	0	0.014	0.018
360	0.021	0.013	0	0.013	0.021	0.017	0	0.016	0.021	0.027	0	0.027	0.022	0.026	0	0.025	0.021	0.008	0	0.007	0.021	0.014	0	0.01	0.021	0.019	0	0.007	0.021	0.026	0	0.015	0.021
420	0.023	0.013	0	0.013	0.023	0.017	0	0.016	0.024	0.028	0	0.028	0.024	0.027	0	0.027	0.023	0.009	0	0.008	0.023	0.015	0	0.011	0.023	0.02	0	0.007	0.023	0.027	0	0.015	0.023
480	0.025	0.014	0	0.014	0.025	0.018	0	0.017	0.026	0.029	0	0.029	0.026	0.028	0	0.027	0.025	0.009	0	0.008	0.025	0.015	0	0.011	0.025	0.021	0	0.007	0.025	0.027	0	0.016	0.025
540	0.027	0.014	0	0.014	0.026	0.018	0	0.017	0.027	0.03	0	0.03	0.028	0.028	0	0.028	0.027	0.009	0	0.008	0.027	0.016	0	0.011	0.027	0.021	0	0.008	0.027	0.028	0	0.016	0.027
600	0.028	0.015	0	0.015	0.027	0.019	0	0.018	0.028	0.031	0	0.031	0.029	0.029	0	0.029	0.028	0.01	0	0.008	0.028	0.016	0	0.012	0.028	0.022	0	0.008	0.028	0.029	0	0.017	0.028
660	0.029	0.015	0	0.015	0.028	0.019	0	0.018	0.029	0.031	0	0.031	0.029	0.029	0	0.029	0.029	0.01	0	0.008	0.029	0.016	0	0.012	0.029	0.022	0	0.008	0.029	0.03	0	0.017	0.029
720	0.029	0.015	0	0.015	0.028	0.019	0	0.018	0.029	0.																							

Table 4: Hot Soak Emissions (grams/trip)

Pollutant Name: Reactive Org Gases

Temperature: 75F Relative Humidity: ALL

Time min	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL	LHD1 NCAT	LHD1 CAT	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	LHV NCAT
5	0.886	0.061	0	0.069	0.898	0.084	0	0.091	0.898	0.055	0	0.059	0.435	0.044	0	0.046	0.383	0.013	0	0.013	0.383	0.037	0	0.029	0.221	0.022	0	0.018	0.219	0.022	0	0.016	0.22
10	1.632	0.114	0	0.127	1.654	0.156	0	0.168	1.653	0.101	0	0.11	0.802	0.082	0	0.085	0.705	0.025	0	0.024	0.705	0.069	0	0.055	0.406	0.04	0	0.033	0.404	0.041	0	0.03	0.405
20	2.769	0.195	0	0.217	2.807	0.268	0	0.289	2.806	0.174	0	0.188	1.36	0.141	0	0.146	1.197	0.043	0	0.042	1.197	0.119	0	0.094	0.69	0.071	0	0.057	0.685	0.073	0	0.052	0.688
30	3.537	0.251	0	0.28	3.583	0.347	0	0.373	3.582	0.225	0	0.243	1.737	0.182	0	0.189	1.528	0.057	0	0.055	1.528	0.154	0	0.121	0.88	0.094	0	0.074	0.874	0.097	0	0.068	0.878
40	3.815	0.273	0	0.304	3.865	0.376	0	0.404	3.864	0.245	0	0.264	1.873	0.198	0	0.206	1.648	0.062	0	0.06	1.648	0.168	0	0.132	0.95	0.104	0	0.08	0.943	0.107	0	0.075	0.947

Hot soak results are scaled to reflect zero emissions for trip lengths of less than 5 minutes (about 25% of in-use trips).

Pounds/day: 30 min	0.000640226	0.005694	0	0.00105	0.005221	0	0.00035	0.003979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>SUM</b>
																																	0.0169347

Table 7: Estimated Travel Fractions

Pollutant Name:

Temperature: ALL Relative Humidity: ALL

	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL	LHD1 NCAT	LHD1 CAT	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	LHV NCAT
%VMT	0.003	0.417	0.001	0.422	0.003	0.171	0.012	0.186	0.001	0.21	0.001	0.212	0	0.086	0	0.087	0	0.019	0.008	0.027	0	0.007	0.007	0.014	0	0.002	0.011	0.014	0	0.001	0.015	0.016	0
%TRIP	0.003	0.376	0.001	0.381	0.003	0.154	0.012	0.168	0.001	0.181	0.001	0.183	0	0.073	0	0.074	0	0.07	0.012	0.082	0	0.028	0.011	0.04	0.002	0.014	0.03	0.046	0	0.003	0.002	0.005	0
%VEH	0.006	0.409	0.002	0.416	0.004	0.171	0.013	0.188	0.002	0.196	0.001	0.199	0.001	0.079	0.001	0.08	0	0.014	0.006	0.021	0	0.006	0.006	0.012	0	0.002	0.007	0.01	0	0	0.003	0.004	0
Project:	0.003	0.396	0.001		0.005	0.263	0.020		0.002	0.309	0.002		0.000	0.000	0.000		0.000	0.000	0.000												0		<b>SUM:</b>

Table 8: Evaporative Running Loss Emissions (grams/minute)

Pollutant Name: Reactive Org Gases

Temperature: 75F Relative Humidity: ALL

Time min	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL	LHD1 NCAT	LHD1 CAT	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	LHV NCAT
1	1.601	0.02	0	0.033	1.769	0.71	0	0.681	1.77	0.426	0	0.432	0.824	0.284	0	0.285	1.677	0.211	0	0.151	1.673	0.805	0	0.401	1.656	0.519	0	0.092	3.591	0.556	0	0.031	1.708
2	1.446	0.023	0	0.034	1.204	0.36	0	0.351	1.208	0.216	0	0.221	0.536	0.145	0	0.146	1.113	0.112	0	0.08	1.096	0.42	0	0.21	1.188	0.286	0	0.053	1.97	0.307	0	0.017	1.285
3	1.391	0.026	0	0.037	1.013	0.246	0	0.243	1.019	0.149	0	0.153	0.439	0.101	0	0.102	0.924	0.08	0	0.057	0.902	0.294	0	0.147	1.03	0.21	0	0.04	1.429	0.225	0	0.012	1.141
4	1.36	0.029	0	0.039	0.917	0.191	0	0.191	0.922	0.116	0	0.12	0.39	0.081	0	0.081	0.828	0.064	0	0.046	0.804	0.232	0	0.116	0.949	0.173	0	0.033	1.158	0.185	0	0.01	1.067
5	1.34	0.031	0	0.041	0.857	0.159	0	0.16	0.863	0.097	0	0.101	0.36	0.068	0	0.069	0.769	0.055	0	0.04	0.744	0.194	0	0.098	0.899	0.151	0	0.029	0.994	0.161	0	0.009	1.021
10	1.283	0.034	0	0.044	0.73	0.097	0	0.101	0.737	0.061	0	0.064	0.297	0.045	0	0.046	0.645	0.038	0	0.027	0.618	0.122	0	0.062	0.789	0.108	0	0.022	0.663	0.113	0	0.006	0.917
15	1.248	0.034	0	0.044	0.679	0.079	0	0.083	0.685	0.051	0	0.054	0.272	0.039	0	0.04	0.596	0.033	0	0.024	0.569	0.099	0	0.05	0.743	0.095	0	0.019	0.548	0.097	0	0.005	0.87
20	1.22	0.034	0	0.043	0.647	0.072	0	0.076	0.653	0.047	0	0.05	0.258	0.037	0	0.038	0.567	0.031	0	0.022	0.539	0.089	0	0.045	0.713	0.089	0	0.018	0.487	0.089	0	0.005	0.838
25	1.194	0.034	0	0.043	0.623	0.068	0	0.073	0.63	0.045	0	0.048	0.247	0.036	0	0.037	0.545	0.03	0	0.022	0.518	0.083	0	0.042	0.69	0.086	0	0.018	0.448	0.084	0	0.005	0.813
30	1.173	0.033	0	0.042	0.61	0.065	0	0.07	0.616	0.043	0	0.046	0.242	0.034	0	0.035	0.534	0.029	0	0.021	0.507	0.08	0	0.041	0.675	0.083	0	0.017	0.438	0.082	0	0.005	0.796
35	1.152	0.032	0	0.041	0.597	0.062	0	0.067	0.604	0.041	0	0.044	0.237	0.033	0	0.034	0.524	0.028	0	0.02	0.497	0.078	0	0.039	0.662	0.081	0	0.017	0.428	0.08	0	0.004	0.78
40	1.132	0.031	0	0.04	0.585	0.059	0	0.064	0.592	0.04	0	0.043	0.233	0.032	0	0.032	0.514	0.027	0	0.02	0.488	0.075	0	0.038	0.649	0.079	0	0.016	0.419	0.078	0	0.004	0.764
45	1.113	0.03	0	0.039	0.574	0.057	0	0.061	0.58	0.038	0	0.041	0.228	0.03	0	0.031	0.504	0.026	0	0.019	0.478	0.072	0	0.037	0.637	0.077	0	0.016	0.411	0.077	0	0.004	0.75
50	1.067	0.029	0	0.037	0.557	0.054	0	0.059	0.563	0.036	0	0.039	0.222	0.029	0	0.03	0.49	0.025	0	0.018	0.466	0.07	0	0.036	0.617	0.075	0	0.016	0.402	0.075	0	0.004	0.725
55	1.011	0.027	0	0.035	0.539	0.052	0	0.056	0.544	0.035	0	0.037	0.216	0.028	0	0.029	0.474	0.024	0	0.018	0.452	0.068	0	0.034	0.594	0.073	0	0.015	0.395	0.074	0	0.004	0.697
60	0.962	0.026	0	0.033	0.522	0.05	0	0.054	0.527	0.033	0	0.036	0.21	0.027	0	0.028	0.46	0.023	0	0.017	0.439	0.065	0	0.033	0.574	0.071	0	0.015	0.387	0.072	0	0.004	0.672

Pounds/day: 30 min per trip	0.000212322	0.000749	0	0.000179	0.000978	0	6.02E-05	0.00076	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>SUM</b>
																																	0.0029384

**RESULTS: pounds per day**

Speed	ROG	CO	NOx	PM10	CO2
25	0.22	4.22	0.35	0.03	353.91
30	0.19	3.89	0.34	0.03	311.63
35	0.17	3.64	0.33	0.03	284.92
40	0.16	3.46	0.32	0.03	270.29
45	0.16	3.33	0.32	0.03	265.87
50	0.16	3.27	0.33	0.03	270.95