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Research Report 165

Allergic Inflammation in the Human Lower Respiratory Tract Affected by Exposure to Diesel Exhaust

Marc A. Riedl et al.

Appendix D. Individual Data

Note: Appendices Available on the Web may appear in a different order than in the original Investigators' Report, and some remnants of their original names may be apparent. HEI has not changed the content of these documents, only the letter identifier.

Appendix D was originally Appendix C

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APPENDIX D
Individual Data

The following tables contain individual exposure and response data to supplement the data presented in the main text. Included are measures of exposure (Tables C1, C2), serum biochemistry (Tables C3-C5), sputum biochemistry (Tables C6-C11), symptoms (Tables C12-C15), and respiratory physiology (Tables C16-C23).

In all tables, column 'ID' contains the subject identification number, 'Exp' the period (1st, 2nd, or 3rd exposure study), and 'Atm' the exposure atmosphere. Blanks or dots indicate missing data. Repeated minimum values within a column indicate measurements below the detection limit, estimated as half the lowest quantified concentration.

Table C1. Individual Data: Basic Exposure Measurements, Phase 1

ID	exp	Atm	SMPS count mean	SMPS count sd	SMPS mass mean	SMPS mass sd	Filter mass	CO (ppm) mean	CO (ppm) sd	NO2 (ppb) mean	NO2 (ppb) sd	Temp (ºC) mean	Temp (ºC) sd	RH (%) mean	RH (%) sd
Ph 1 Prelim Healthy															
2615	1	DE	101670	4618	101.5	3.7	129.0	3.27	0.88	324	6	25.6	1.0	46.3	1.8
2615	2	NO2	218	77	0.7	0.2	30.0	0.65	0.05	353	5	25.8	0.5	40.6	0.8
2615	3	FA	96	18	0.4	0.1	13.7	0.21	0.08	7	3	26.3	1.0	42.9	1.6
2616	2	DE	112421	7418	110.9	5.9	97.0	1.64	0.07	340	14	27.4	0.6	42.3	2.9
2616	1	NO2	194	61	0.5	0.1	12.3	0.48	0.05	348	8	25.6	0.6	43.4	2.2
2616	3	FA	308	414	0.5	0.4	12.3	0.1	0	15	3	26.6	0.9	40.6	1.9
2617	2	DE	118201	3635	106.9	2.1	130.4	1.49	0.07	348	13	25.6	1.1	39.6	1.5
2617	3	NO2	85	28	0.3	0.1	12.4	.	.	348	9	27.2	0.6	40.4	1.1
2617	1	FA	397	534	0.5	0.5	30.6	0.68	0.08	26	1	24.6	1.1	47.4	1.5
2620	1	DE	92799	5067	95.4	4.3	102.8	2.36	0.14	344	11	27.1	0.7	38.4	1.6
2620	3	NO2	.	.	.	.	21.8	0.08	0.04	349	6	26.4	0.8	37.7	1.5
2620	2	FA	414	333	0.6	0.3	32.5	1.3	0.26	45	3	26.3	1.0	31.8	1.6
Ph 1 Asthmatic															
1216	2	DE	145405	7120	99.3	4.2	124.2	1.57	0.51	445	66	25.2	1.0	33	1.2
1216	1	NO2	169	76	0.6	0.3	8.4	0.31	0.03	371	14	23.8	1.0	53	2.2
1216	3	FA	677	345	0.8	0.4	2.8	1.15	0.25	21	1	23.1	0.8	24	1.2
1656	2	DE	122072	11995	102.8	9.0	101.1	1.35	0.24	300	6	26.6	0.9	43.1	2.0
1656	3	NO2	403	60	0.7	0.2	11.2	0.36	0.08	346	9	23.6	0.5	61.6	2.1
1656	1	FA	1606	119	3.0	0.4	18.0	0.31	0.03	18	2	24.5	0.6	55.8	2.3
2525	3	DE	122763	7356	96.0	6.3	123.2	1.67	0.02	366	25	23.9	0.9	41.3	1.0
2525	2	NO2	.	.	.	.	13.8	0.4	0.09	344	8	23.2	0.7	42	2.0
2525	1	FA	404	426	0.2	0.2	27.8	0.38	0.12	20	4	22.6	0.8	44.3	2.3
2602	1	DE	101042	4504	101.2	5.6	155.5	0.5	0.05	320	14	24.5	1.1	46.3	2.2
2602	3	NO2	188	26	0.3	0.1	58.2	0.3	0.02	351	8	24.1	0.8	48.8	2.3
2602	2	FA	.	.	.	.	38.9	0.5	0	16	3	23.5	0.9	39.3	2.8
2606	1	DE	85503	3044	108.8	4.5	105.3	1.71	0.05	339	13	27.6	0.3	54.9	2.9
2606	2	NO2	429	174	0.5	0.2	22.6	0.91	0.26	352	12	21.9	1.0	52	4.1
2606	3	FA	150	59	0.3	0.2	23.1	2.05	0.57	12	3	24.3	0.9	42	0.6
2628	2	DE	109395	5884	105.1	4.9	135.0	2.23	0.13	335	25	25.5	0.9	55.1	2.1
2628	3	NO2	364	30	0.8	0.2	28.0	0.6	0.07	350	6	25.5	0.9	53.4	2.0
2628	1	FA	139	23	0.5	0.1	23.6	0.47	0.05	.	.	25.0	0.9	50.8	1.6
2641	3	DE	107101	7693	101.3	6.2	120.4	1.97	0.08	383	25	24.8	0.8	49.9	1.1
2641	1	NO2	366	33	0.5	0.1	24.5	0.35	0.07	347	6	24.2	0.8	46	1.6
2641	2	FA	169	23	0.6	0.1	42.8	0.41	0.03	0	1	24.3	0.9	49.3	1.4
2642	2	DE	131915	3690	103.3	2.9	138.4	1.58	0.1	327	8	24.3	0.9	41.6	0.5
2642	1	NO2	.	.	.	.	51.1	0.64	0.05	351	7	23.3	0.7	44	2.6
2642	3	FA	171	25	0.7	0.2	43.2	0.31	0.04	4	3	24.3	0.9	50	2.5
2643	3	DE	136287	4670	100.4	4.8	118.6	0.82	0.33	340	24	23.9	0.9	48.7	0.8
2643	1	NO2	499	139	0.6	0.2	34.7	1.02	0.16	344	11	23.1	0.8	46	0.8
2643	2	FA	.	.	.	.	31.8	1.24	0.13	34	1	23.7	0.8	39	0.6
2644	1	DE	108428	5863	103.1	5.0	187.3	2.31	0.36	345	17	22.8	0.6	45.3	1.6
2644	2	NO2	.	.	.	.	20.7	0.34	0.05	346	4	23.7	0.8	45.7	0.8
2644	3	FA	181	20	0.4	0.1	28.4	0.32	0.06	.	.	23.6	0.5	42.6	2.2
2651	3	DE	118404	8585	102.8	5.4	146.2	1.79	0.08	333	24	25.3	1.2	54.4	2.6
2651	2	NO2	779	88	0.9	0.1	20.3	0.84	0.1	351	4	24.3	0.9	49.1	1.7
2651	1	FA	241	38	0.9	0.2	5.5	0.4	0	8	1	24.1	1.0	50.6	1.5
2666	2	DE	132002	22935	99.4	13.3	121.1	1.5	0.18	340	46	23.9	1.1	42.1	1.1
2666	3	NO2	352	26	0.4	0.1	34.2	0.66	0.08	355	8	23.3	0.7	41	1.2
2666	1	FA	846	141	1.4	0.3	2.7	1.59	0.1	51	3	23.1	0.8	31.3	0.5
2669	2	DE	154827	12453	105.8	7.5	108.7	1.87	0.16	317	40	25.0	0.9	54.1	2.5
2669	1	NO2	146	57	0.2	0.1	32.2	0.26	0.05	361	14	23.1	0.8	38.6	2.4
2669	3	FA	336	32	0.4	0.1	19.3	0.52	0.08	15	3	24.3	0.9	48.3	1.9
2702	1	DE	129748	7630	101.8	5.3	113.7	2.4	0.45	434	48	24.7	0.5	29.7	1.1
2702	3	NO2	634	338	0.6	0.4	2.8	1.45	0.42	410	12	22.3	0.6	32.6	0.5
2702	2	FA	489	323	0.5	0.3	2.8	0.69	0.36	13	2	22.6	0.3	24.4	1.3
2703	1	DE	132302	11579	104.6	7.7	103.8	1.82	0.16	380	.	23.4	0.6	51.1	1.9
2703	2	NO2	348	295	0.4	0.3	9.7	0.58	0.38	374	9	24.3	0.6	37.7	5.0
2703	3	FA	385	159	0.3	0.1	15.2	0.3	0.18	13	1	22.6	0.3	29.8	0.9

Table C2. Individual Data: Basic Exposure Measurements, Phase 2

			SMPS count		SMPS mass		Filter	CO (ppm)		NO2 (ppb)		Temp (ºC)		RH (%)	
ID	exp	Atm	mean	sd	mean	sd	mass	mean	sd	mean	sd	mean	sd	mean	sd
Ph 2 Asthmatic															
2325	2	DE	109244	8679	101.3	5.3	112.2	1.78	0.26	299	12	26.6	0.6	31.8	2.2
2325	1	NO2	900	144	1.4	0.3	19.3	1.78	0.42	394	10	23.9	0.9	31.7	0.8
2325	3	FA	750	142	1.3	0.3	9.6	0.5	0.12	14	7	25.2	0.8	48.8	2.7
2551	2	DE	137383	4482	104.0	4.8	124.2	2.64	0.36	361	17	25.2	1.0	32.4	0.8
2551	3	NO2	442	164	0.7	0.3	29.1	1.08	0.21	411	1	22.8	0.7	34.3	1.6
2551	1	FA	408	329	0.6	0.5	33.6	0.42	0.69	22	3	23.3	0.8	55.8	1.1
2602	1	DE	138694	5306	104.3	4.0	165.8	1.79	0.08	305	31	24.3	0.9	43.1	1.5
2602	2	NO2	168	23	0.6	0.2	26.0	0.33	0.05	350	19	25.3	0.8	50.6	2.6
2602	3	FA	700	76	1.2	0.2	39.7	0.68	0.1	19	2	26.4	0.8	64.4	2.1
2628	1	DE	127287	6962	105.0	4.7	125.1	1.88	0.13	305	13	25.3	0.8	57.7	1.7
2628	3	NO2	251	170	0.6	0.2	28.9	0.25	0.05	409	9	25.0	0.9	44.4	0.5
2628	2	FA	491	166	0.7	0.3	30.4	1.08	0.16	25	4	24.5	0.6	36	1.7
2651	2	DE	144110	9336	101.0	6.0	116.1	2.12	0.15	451	22	24.3	0.9	52.3	1.4
2651	1	NO2	835	269	1.2	0.4	38.8	1.75	0.32	387	9	25.3	0.8	48.1	1.6
2651	3	FA	216	131	0.3	0.2	24.5	-0.05	0.16	7	4	22.3	0.6	40	1.5
2701	3	DE	133763	9627	101.7	6.7	149.0	1.7	0.21	361	17	24.3	0.9	45.4	3.3
2701	1	NO2	507	129	1.7	0.5	33.4	0.69	0.03	354	13	24.7	0.5	62.4	3.0
2701	2	FA	507	431	0.8	0.6	26.4	0.94	0.56	26	1	22.3	0.6	60.6	3.4
2704	2	DE	137383	4482	104.0	4.8	124.2	2.64	0.36	361	17	25.2	1.0	32.4	0.8
2704	3	NO2	442	164	0.7	0.3	29.1	1.08	0.21	411	1	22.8	0.7	34.3	1.6
2704	1	FA	408	329	0.6	0.5	33.6	0.42	0.69	22	3	23.2	0.8	55.8	1.1
2780	1	DE	132585	7233	104.8	3.9	126.5	1.09	0.08	287	12	23.0	0.6	44	2.2
2780	3	NO2	190	47	0.7	0.2	21.4	0.37	0.05	413	9	25.2	0.8	56.7	2.6
2780	2	FA	948	151	2.1	0.4	26.1	0.64	0.05	13	6	25.0	0.6	54	3.3
2847	3	DE	132839	5983	101.3	4.3	98.3	1.81	0.14	337	12	22.1	0.5	32.7	0.8
2847	1	NO2	.	.	.	.	11.0	1.36	0.1	393	17	23.9	0.8	25.4	0.5
2847	2	FA	.	.	.	.	6.9	0.22	0.04	17	1	22.6	0.3	22.8	0.4
2871	3	DE	106391	6340	102.2	3.9	111.4	1.34	0.05	241	10	25.2	0.8	50.4	1.6
2871	1	NO2	248	94	0.8	0.2	9.6	0.54	0.05	363	11	23.0	0.6	46.3	2.1
2871	2	FA	942	65	1.6	0.2	20.7	0.72	0.04	10	5	24.1	0.8	52	3.3
2876	1	DE	136894	5684	106.3	3.3	124.2	1.77	0.08	300	11	23.9	0.9	42.1	1.9
2876	2	NO2	553	148	1.1	0.4	19.1	0.87	0.15	404	8	25.3	0.8	59.3	2.1
2876	3	FA	419	126	0.9	0.3	26.2	0.72	0.05	2	1	25.6	0.6	57	3.2
2878	1	DE	116736	4408	103.7	3.5	110.7	1.16	0.06	264	13	22.3	0.3	57.9	3.2
2878	3	NO2	553	148	1.1	0.4	36.8	0.26	0.05	377	11	25.6	0.6	58.4	4.8
2878	2	FA	271	71	1.7	0.4	39.6	.	.	.	.	24.7	0.5	62.7	2.8
2879	1	DE	121336	5860	104.6	3.7	123.0	1.31	0.11	320	30	23.2	0.7	54.4	2.9
2879	2	NO2	820	119	1.5	0.3	15.1	0.5	0.06	383	9	25.2	0.8	54.4	3.6
2879	3	FA	350	60	1.0	0.2	26.0	0.62	0.06	.	.	25.0	0.6	55.8	5.4
2883	1	DE	131180	4021	107.3	2.3	114.6	1.52	0.04	269	10	24.8	1.0	58	3.9
2883	3	NO2	706	203	1.2	0.4	17.9	0.77	0.13	380	0	23.7	1.1	55.4	2.9
2883	2	FA	592	158	0.8	0.2	13.8	0.71	0.13	.	.	25.3	0.8	57.4	4.4
2886	1	DE	131180	4021	107.3	2.3	114.6	1.52	0.04	269	11	24.8	1.1	58	3.9
2886	3	NO2	706	203	1.2	0.4	17.9	0.77	0.13	380	0	23.7	1.1	55.4	2.9
2886	2	FA	136	14	0.6	0.2	4.1	0.22	0.02	.	.	24.8	0.4	50.6	2.1

Table C3. Individual Data: Serum Biochemistry, Phase 1 Asthmatics [a]

ID	Exp	Atm	Time	IgE	IgG4	IgM	IgG	IgA	IL6	ICAM
1216	2	DE	Pre	1.75	39		12	85	20.6	5.9
1216	2	DE	D2	9.01	8		147	90	34.7	6.1
1216	1	NO2	Pre	7.14	24		80	559	5.0	5.8
1216	1	NO2	D2	9.18	57		38	128	6.8	5.3
1216	3	FA	Pre	7.46	43		14	90	15.3	6.1
1216	3	FA	D2	7.22	38		19	70	9.9	9.2
1656	2	DE	Pre	367.04		2579		312	120.0	14.0
1656	2	DE	D2	331.00	132	1342		278	105.7	11.5
1656	3	NO2	Pre	123.26	126	1557		252	81.7	12.7
1656	3	NO2	D2	274.17	133	6190		375	102.1	17.4
1656	1	FA	Pre	613.17	149	915		224	188.0	14.5
1656	1	FA	D2	385.67	163	972		176	140.6	17.3
2525	3	DE	Pre		180	214	433533	7	53.8	2.8
2525	3	DE	D2		206	217	66428	4	55.3	3.6
2525	2	NO2	Pre		168	198	113591	5	57.3	2.8
2525	2	NO2	D2		174	251		26	49.0	2.4
2525	1	FA	Pre		152	211	136498	8	83.6	1.6
2525	1	FA	D2		174	211		7	73.6	1.7
2602	1	DE	Pre	31.32	79	375	30020	38	64.7	10.2
2602	1	DE	D2	13.40	88	333	17294	13	41.7	11.5
2602	3	NO2	Pre	11.45	89	342	110686	61	3.9	7.3
2602	3	NO2	D2	59.38	114	391		151	6.9	9.7
2602	2	FA	Pre	12.63	82	289	43391	16	26.2	11.0
2602	2	FA	D2	61.19	77	310		12	9.5	10.6
2606	1	DE	Pre	586.49	36	692	151766	78	273.9	5.4
2606	1	DE	D2	91.11	35	404	29121	22	124.7	6.4
2606	2	NO2	Pre	49.39	36	401	28115	23	94.4	5.4
2606	2	NO2	D2	36.77	32	339	19558	14	81.9	5.7
2606	3	FA	Pre	42.85	36	317	32829	49	78.9	9.1
2606	3	FA	D2	26.50	30	415	50104	81	62.4	3.2
2628	2	DE	Pre	29.55	161	217	17686	219	14.1	4.0
2628	2	DE	D2	8.05	166	216	19167	426	4.1	3.8
2628	3	NO2	Pre	8.03	156	208	16838	396	4.7	3.6
2628	3	NO2	D2	7.92	171	229	15096	328	0.3	5.0
2628	1	FA	Pre	140.51	130	238	19171	161	51.2	4.0
2628	1	FA	D2	208.13	144	215	20941	172	23.2	4.7
2641	3	DE	Pre	57.36	144	353	12825	513	11.1	5.3
2641	3	DE	D2	44.27	197	352	15083	2157	15.4	5.3
2641	1	NO2	Pre	240.30	171	358	10241	1802	65.8	9.8
2641	1	NO2	D2	142.29	243	377	14337	1075	29.4	6.2
2641	2	FA	Pre	63.96	214	350	11686	1263	28.5	5.1
2641	2	FA	D2	333.47	198	323	13906	1739	17.3	5.8
2642	2	DE	Pre	16.50	85	340	4324	612	12.4	13.3
2642	2	DE	D2	7.29	108	373	5104	875	0.7	12.0
2642	1	NO2	Pre	358.88	78	461	3952	635	27.2	9.6
2642	1	NO2	D2	111.71	109	660	6385	4112	7.1	11.0
2642	3	FA	Pre	10.29	107	461	3715	353	0.3	9.6
2642	3	FA	D2	16.67	124	525	4855	715	0.3	8.1

[a] Units: µg/ml for IgG, pg/ml for IL-6, ng/ml for others.

Table C3 (continued). Individual Data: Serum Biochemistry, Phase 1 Asthmatics

ID	Exp	Atm	Time	IgE	IgG4	IgM	IgG	IgA	IL6	ICAM
2643	3	DE	Pre	12.21	22	388	8400	3123	0.3	4.4
2643	3	DE	D2	19.44	44	506	9341	5041	0.3	7.7
2643	1	NO2	Pre	210.92	28	620	16620	5361	38.7	5.9
2643	1	NO2	D2	193.10	35	779	17052	7436	15.1	4.7
2643	2	FA	Pre		41					
2643	2	FA	D2	6.80	34	301	8145	6247	0.3	5.6
2644	1	DE	Pre	103.51	47	456	70332	52	104.5	8.1
2644	1	DE	D2	73.63	59	424	49678	16	95.0	10.8
2644	2	NO2	Pre	70.33	63	410	160931	17	78.8	12.8
2644	2	NO2	D2	38.55	66	474	73498	34	53.3	8.2
2644	3	FA	Pre	61.25	67	499	99024	45	58.0	9.9
2644	3	FA	D2	196.27	83	832	147780	82	62.9	8.3
2651	3	DE	Pre	18.50	273	277	8379	118	0.3	4.7
2651	3	DE	D2	17.11	308	280	7898	172	0.3	5.5
2651	2	NO2	Pre	44.32	286	262	6679	47	0.3	5.1
2651	2	NO2	D2	21.42	301	263	7744	161	0.3	3.8
2651	1	FA	Pre	167.14	197	289	6573	101	22.4	5.7
2651	1	FA	D2	132.17	251	284	6407	21	8.0	4.7
2666	2	DE	Pre	1.50	934		79	28	13.7	7.2
2666	2	DE	D2	14.06	908		48	217	24.1	8.1
2666	3	NO2	Pre	15.15	952		237	71	13.9	8.9
2666	3	NO2	D2	12.16	995		1207	62	8.8	17.3
2666	1	FA	Pre	11.63	937		279	1358	17.3	10.6
2666	1	FA	D2	11.92	960			2217	20.2	7.3
2669	2	DE	Pre	0.97	968		3	6	18.3	9.6
2669	2	DE	D2	6.17	984		3	4	17.2	8.9
2669	1	NO2	Pre	6.29	993		1	32	2.3	17.9
2669	1	NO2	D2	5.27	958		5	18	11.4	7.7
2669	3	FA	Pre	5.14	488		5	7	11.9	9.3
2669	3	FA	D2	6.78	999		4	3	4.9	18.5
2702	1	DE	Pre	18.50	731		4	120	6.3	7.1
2702	1	DE	D2	17.14	759		3	28	6.9	5.9
2702	3	NO2	Pre	24.33	679		16	144	6.2	6.8
2702	3	NO2	D2	12.93	896		1	64	3.4	8.5
2702	2	FA	Pre	1.98	811		1	15	4.2	6.8
2702	2	FA	D2	14.93	866		71	80	5.8	7.2
2703	1	DE	Pre	18.50	299		3	1810	5.5	11.2
2703	1	DE	D2	17.14	308		2	519	7.3	9.4
2703	2	NO2	Pre	1.98	286		2	190	5.9	11.5
2703	2	NO2	D2	14.93	281		1	159	12.9	10.4
2703	3	FA	Pre	24.33	333		2	490	3.3	10.4
2703	3	FA	D2	12.93	415		12	323	10.5	12.2

Table C4. Individual Data: Serum Biochemistry, Phase 2 [a]

ID	Exp	Atm	Time	IgG	IgG4	IgM	IgE	IL6	ICAM	Cat_IgE
2325	2	DE	Pre	120	2418	53	1.0	271	87	92
2325	2	DE	D2	127	2487	48	0.9	303	70	250
2325	1	NO2	Pre	144	2068	57	1.1	366	88	626
2325	1	NO2	D2	134	1902	46	1.1	325	105	233
2325	3	FA	Pre	165	2442	37	0.8	115	42	463
2325	3	FA	D2	130	2819	24	0.9	252	49	235
2551	2	DE	Pre	213	686	233	4.3	261	12	9
2551	2	DE	D2	162	735	368	4.1	289	11	9
2551	3	NO2	Pre	149	799	365	4.5	355	11	17
2551	3	NO2	D2	138	737	215	4.0	386	9	19
2551	1	FA	Pre	882	828	116	4.9	278	12	38
2551	1	FA	D2	206	741	194	5.2	252	12	33
2602	1	DE	Pre	243	47	412	3.8	0	66	9
2602	1	DE	D2	284	326	225	3.3	0	83	11
2602	2	NO2	Pre	311	294	469	3.3	0	85	1
2602	2	NO2	D2							
2602	3	FA	Pre							
2602	3	FA	D2							
2628	1	DE	Pre	342	785	1213	1.8	102	70	17
2628	1	DE	D2	216	984	820	1.8	96	71	26
2628	3	NO2	Pre	215	2506	790	1.3	50	76	10
2628	3	NO2	D2	358	2386	999	1.3	88	51	14
2628	2	FA	Pre	169	1879	1117	1.5	54	74	13
2628	2	FA	D2	145	2095	800	1.6	98	86	12
2651	2	DE	Pre	310	137	22	3.0	130	55	15
2651	2	DE	D2	169	118	24	2.8	0	79	23
2651	1	NO2	Pre	492	141	22	2.6	563	66	430
2651	1	NO2	D2	409	156	18	2.8	99	45	55
2651	3	FA	Pre	83	184	15	2.9	86	59	39
2651	3	FA	D2	166	210	25	2.6	26	35	44
2704	2	DE	Pre	185	23	121	3.6	222	92	44
2704	2	DE	D2	253	15	133	3.7	188	111	38
2704	3	NO2	Pre	275	18	290	3.1	195	137	37
2704	3	NO2	D2	455	19	112	3.1	203	52	31
2704	1	FA	Pre	168	3	160	3.4	194	108	30
2704	1	FA	D2	451	16	130	3.5	188	99	85
2780	1	DE	Pre	74	30	4938	4.1	264	33	38
2780	1	DE	D2	37	20	2808	3.0	214	33	67
2780	3	NO2	Pre	47	815	2856	3.7	173	40	135
2780	3	NO2	D2	63	821	2929	3.3	196	36	133
2780	2	FA	Pre	35	810	3105	3.5	265	36	25
2780	2	FA	D2	46	913	3778	3.4	249	39	6

[a] Units: µg/ml for IgG, pg/ml for IL-6, ng/ml for others.

Table C4 (continued). Individual Data: Serum Biochemistry, Phase 2

ID	Exp	Atm	Time	IgG	IgG4	IgM	IgE	IL6	ICAM	Cat_IgE
2847	3	DE	Pre	113	222	28	1.7	46	37	6
2847	3	DE	D2	115	285	35	1.6	117	36	9
2847	1	NO2	Pre	76	116	29	1.6	21	53	15
2847	1	NO2	D2	216	182	38	1.6	10	59	4
2847	2	FA	Pre	124	307	31	1.5	41	50	4
2847	2	FA	D2	144	339	36	1.6	25	51	4
2871	3	DE	Pre	157	61	60	1.5	9	40	131
2871	3	DE	D2	113	61	58	2.0	0	39	135
2871	1	NO2	Pre	13	80	66	1.9	15	53	332
2871	1	NO2	D2	138	52	72	1.6	59	48	208
2871	2	FA	Pre	104	8	59	1.6	191	48	6
2871	2	FA	D2	139	59	90	1.3	11	51	130
2876	1	DE	Pre	270	129	91	1.3	50	18	58
2876	1	DE	D2	197	128	112	1.1	47	18	27
2876	2	NO2	Pre	116	148	102	1.0	37	16	27
2876	2	NO2	D2	118	116	94	1.0	41	16	11
2876	3	FA	Pre	162	155	115	0.9	44	16	15
2876	3	FA	D2	112	178	40	1.0	48	17	24
2878	1	DE	Pre	5	143	66	1.6	126	20	30
2878	1	DE	D2	454	166	93	1.5	135	20	26
2878	3	NO2	Pre	156	132	79	1.5	114	0	20
2878	3	NO2	D2	109	146	42	1.5	127	19	51
2878	2	FA	Pre	191	85	49	1.6	159	23	65
2878	2	FA	D2	135	126	54	1.4	120	24	53
2879	1	DE	Pre	78	3	782	4.1	290	36	32
2879	1	DE	D2	46	5	538	3.1	264	33	38
2879	2	NO2	Pre	44	14	902	3.4	295	32	18
2879	2	NO2	D2	48	11	738	3.3	270	27	31
2879	3	FA	Pre	40	13	720	3.2	189	33	103
2879	3	FA	D2	42	10	1065	2.9	195	24	239
2883	1	DE	Pre	63	43	3539	4.3	303	49	93
2883	1	DE	D2	31	72	2948	2.9	264	105	95
2883	3	NO2	Pre	35	56	1816	3.2	201	29	483
2883	3	NO2	D2	38	55	2961	2.7	163	58	636
2883	2	FA	Pre	32	65	2580	2.8	257	99	93
2883	2	FA	D2	48	75	2123	3.1	235	83	226
2886	1	DE	Pre	63	113	4489	3.7	297	4	77
2886	1	DE	D2	57	0	3133	3.5	276	4	126
2886	3	NO2	Pre	31	7	3072	3.3	0	4	14
2886	3	NO2	D2	35	10	3228	3.3	0	4	45
2886	2	FA	Pre	40	2	3047	3.4	296	4	9
2886	2	FA	D2	40	15	3216	3.1	270	4	16

Table C5. Individual Data: Serum Biochemistry, Preliminary Phase 1 Healthy IDjects

ID	Exp	Atm	Time	IgE	IgG4	IgM	IgG	IgA	IL6	ICAM
2615	1	DE	Pre	1.02	437	268	24	118	6.3	11.9
2615	1	DE	D2	0.85	408	247	26	1538	6.6	12.1
2615	2	NO2	Pre	1.05	434	423	89	277	6.3	9.8
2615	2	NO2	D2	0.87	541	830	37	527	7.3	11.9
2615	3	FA	Pre	0.73	397	567	14	494	8.1	10.7
2615	3	FA	D2	0.88	474	664	45	268	8.8	10.1
2616	2	DE	Pre	0.19	16	282	35	99	7.1	16.6
2616	2	DE	D2	0.14	14	308	33	210	6.4	14.1
2616	1	NO2	Pre	0.10	14	413	45		8.1	14.9
2616	1	NO2	D2	0.14	17	728	43	153	11.6	15.6
2616	3	FA	Pre	0.35	15	704	59	790	7.5	16.4
2616	3	FA	D2	0.09	15	1590	43	216	6.6	16.2
2617	2	DE	Pre	0.94	30	268	123		2.9	11.3
2617	2	DE	D2	0.79	35	332	80	183	2.1	10.9
2617	3	NO2	Pre	0.78	31	238	31	187	5.1	8.7
2617	3	NO2	D2	0.63	31	225	57	1563	6.3	10.5
2617	1	FA	Pre	0.59	27	691	66		4.5	12.4
2617	1	FA	D2	0.79	31	446	94		6.6	12.3
2620	1	DE	Pre	0.19	55	221	19	171	2.8	20.5
2620	1	DE	D2	0.18	63	386	26	118	3.2	20.2
2620	3	NO2	Pre	0.29	34	224	69	113	3.0	19.4
2620	3	NO2	D2	0.29	69	253	27	102	5.8	19.4
2620	2	FA	Pre	0.11	53	480	30	267	4.0	22.5
2620	2	FA	D2	0.22	32	254	48	181	2.8	21.3

Table C6. Individual Data: Sputum Immunoglobulins, Phase 1 [a]

ID	Exp	Atm	IgE	IgM	IgG	IgA
Ph 1 Prelim Healthy						
2615	1	DE	0.123	22.022	3.221	21.07
2615	2	NO2	0.123	45.396	3.731	24.42
2615	3	FA	0.001	23.593	2.755	20.18
2616	2	DE	0.001	28.684	2.979	19.36
2616	1	NO2	0.001	55.79	3.945	22.4
2616	3	FA	0.001	15.793	1.311	18.35
2617	2	DE	0.064	22.808	3.091	17.17
2617	3	NO2	0.001	35.691	2.832	18.22
2617	1	FA	0.123	70.567	5.312	22.43
2620	1	DE	0.001	81.299	7.12	24.45
2620	3	NO2	0.001	78.739	6.495	26.89
2620	2	FA	0.094	63.894	3.711	25.62
Ph 1 Asthmatic						
1216	2	DE	0.001	110.956	41.002	975.58
1216	1	NO2	0.001	33.213	34.634	996.75
1216	3	FA	1.884	143.657	113.639	1084.91
1656	2	DE	0.001	59.196	23.624	55.06
1656	3	NO2	0.001	62.166	26.837	50.7
1656	1	FA	0.007	41.29	9.988	48.87
2525	3	DE	0.001	55.503	8.698	24.36
2525	2	NO2	0.001	57.313	15.1	33.48
2525	1	FA	0.001	83.837	20.9	40.01
2602	1	DE	0.001	96.467	104.142	58.39
2602	3	NO2	0.001	73.762	48.802	43.19
2602	2	FA	0.001	101.146	141.612	68.46
2606	1	DE	0.001	45.178	9.546	32.87
2606	2	NO2	0.04	37.404	6.75	30.42
2606	3	FA	0.001	74.508	10.182	39.16
2628	2	DE	0.001	42.311	10.367	28.13
2628	3	NO2	0.001	35.586	6.326	20.56
2628	1	FA	0.001	42.725	10.746	27.75
2641	3	DE	0.001	33.403	6.533	22
2641	1	NO2	0.001	36.444	7.229	18.3
2641	2	FA	0.001	38.653	13.877	29
2642	2	DE	0.001	35.069	10.845	16.92
2642	1	NO2	0.001	31.347	8.155	19.71
2642	3	FA	0.001	31.65	8.95	17.32
2643	3	DE	0.22	48.846	7.32	32.84
2643	1	NO2	0.002	34.079	6.236	29.4
2643	2	FA	0.14	29.876	4.785	24.46
2644	1	DE	0.285	69.498	16.928	34.66
2644	2	NO2	0.278	69.785	16.495	41.34
2644	3	FA	0.309	63.983	20.499	51.25
2651	3	DE	0.001	39.072	10.14	27.26
2651	2	NO2	0.001	32.085	7.815	18.32
2651	1	FA	0.031	34.258	5.133	18.15
2666	2	DE	0.001	2.823	0.395	843.81
2666	3	NO2	0.001	4.296	0.668	857.53
2666	1	FA	0.001	0.976	0.355	841.16
2669	2	DE	0.608	17.191	3.942	1045.57
2669	1	NO2	1.3	7.548	3.108	931.98
2669	3	FA	0.001	30.16	1.665	983.32
2702	1	DE	0.001	0.58	0.139	930.09
2702	3	NO2	0.001	1.361	0.196	808.21
2702	2	FA	0.001	0.492	0.127	774.84
2703	1	DE	0.001	12.973	2.09	1070.61
2703	2	NO2	1.136	24.075	1.773	1000.11
2703	3	FA	0.001	28.833	1.382	1005.07

[a] Units: ng/ml.

Table C7. Individual Data: Sputum Immunoglobulins, Phase 2 [a]

ID	exp	Atm	IgE	IgM	IgG	IgA
Ph 2 Asthmatic						
2325	2	DE	0.254	22.601	0.735	3.98
2325	1	NO2	0.009	14.923	0.226	38.91
2325	3	FA	0.041	27.073	1.493	4.3
2551	2	DE	0.009	18.934	1.404	4.03
2551	3	NO2	0.062	66.558	1.827	.
2551	1	FA	0.041	14.017	1.418	2.06
2602	1	DE	0.009	16.974	4.953	97.87
2602	2	NO2	.	.	.	.
2602	3	FA	0.062	256.595	5.02	1.11
2628	1	DE	0.009	116.495	1.704	67
2628	3	NO2	0.009	101.475	1.482	40.58
2628	2	FA	0.018	1.2	1.875	24.91
2651	2	DE	0.009	5.375	1.817	13.77
2651	1	NO2	0.009	3.837	1.102	40.84
2651	3	FA	0.009	5.153	2.614	2.29
2701	3	DE	0.37	219.587	3.182	81.294
2701	1	NO2	0.769	286.894	5.034	59.248
2701	2	FA	1.288	166.159	4.285	53.617
2704	2	DE	0.062	209.9	1.557	0.274
2704	3	NO2	0.018	148.386	1.504	0.737
2704	1	FA	0.116	99.662	1.546	13.864
2780	1	DE	0.009	26.635	2.631	45.578
2780	3	NO2	0.009	6.413	2.289	15.712
2780	2	FA	0.009	1.2	2.022	4.649
2847	3	DE	0.105	4.191	3.891	61.345
2847	1	NO2	0.041	6.242	4.164	36.803
2847	2	FA	0.084	8.171	4.626	41.025
2871	3	DE	0.77	2.407	2.87	0.13
2871	1	NO2	0.169	3.089	1.32	0.13
2871	2	FA	0.59	6.021	1.525	0.13
2876	1	DE	0.018	13.173	1.301	0.13
2876	2	NO2	0.009	6.414	1.924	0.13
2876	3	FA	0.148	3.413	1.056	0.13
2878	1	DE	0.009	53.814	3.846	58.028
2878	3	NO2	0.009	49.964	2.912	295.202
2878	2	FA	0.009	72.02	3.922	82.147
2879	1	DE	0.009	15.705	3.914	97.218
2879	2	NO2	0.009	30.885	3.119	68.781
2879	3	FA	0.009	9.89	2.912	55.688
2883	1	DE	0.009	9.142	3.133	54.035
2883	3	NO2	0.041	14.993	2.363	10.664
2883	2	FA	0.018	16.065	3.143	8.37
2886	1	DE	0.009	0.99	4.172	56.773
2886	3	NO2	0.009	26.815	6.694	49.035
2886	2	FA	0.009	22.665	8.192	46.323

[a] Units: ng/ml.

Table C8. Individual Data: Sputum Interleukins, Phase 1 [a]

ID	Exp	Atm	IL4	IL5	IL8	IL12
Ph 1 Prelim Healthy						
2615	1	DE	5.626	6.096	7.26	17.608
2615	2	NO2	0.272	0.073	12.36	5.712
2615	3	FA	1.044	1.372	5.96	8.296
2616	2	DE	0.272	1.895	29.88	7.866
2616	1	NO2	0.272	1.17	65.38	4.275
2616	3	FA	3.316	4.556	27.89	15.03
2617	2	DE	6.726	7.909	31.36	16.176
2617	3	NO2	2.861	5.772	136.84	9.872
2617	1	FA	4.346	5.554	252.1	13.598
2620	1	DE	3.093	2.826	73.77	12.307
2620	3	NO2	0.272	0.073	61.37	12.308
2620	2	FA	0.272	0.248	27.37	13.311
Ph 1 Asthmatic						
1216	2	DE	0.272	0.073	491.26	9.445
1216	1	NO2	0.272	0.073	393.53	.
1216	3	FA	1.631	0.073	1548.83	5.452
1656	2	DE	125.054	43.603	195.42	71.207
1656	3	NO2	55.647	8.414	128.34	41.261
1656	1	FA	184.411	47.801	160.56	22.634
2525	3	DE	210.955	5.337	104.71	1.096
2525	2	NO2	17.217	18.363	124.44	2.192
2525	1	FA	23.19	0.073	149.21	1.096
2602	1	DE	70.3	45.457	243.17	1.096
2602	3	NO2	18.307	0.073	94.02	34.128
2602	2	FA	18.11	7.688	342.2	1.096
2606	1	DE	6.171	0.073	56.35	1.096
2606	2	NO2	153.221	6.336	146.38	74.949
2606	3	FA	96.698	13.416	130.67	31.873
2628	2	DE	69.007	9.553	132.63	32.058
2628	3	NO2	80.212	10.805	121.48	14.242
2628	1	FA	83.595	9.271	99.02	1.096
2641	3	DE	123.235	6.487	78.67	1.096
2641	1	NO2	16.676	2.917	12.74	1.096
2641	2	FA	34.324	3.311	85.23	1.096
2642	2	DE	94.815	4.653	117.14	1.096
2642	1	NO2	105.109	8.538	186.58	45.18
2642	3	FA	13.82	1.057	107.49	1.096
2643	3	DE	175.292	32.581	146.45	214.718
2643	1	NO2	17.819	0.415	27.84	140.175
2643	2	FA	53.436	9.779	102.56	190.932
2644	1	DE	106.33	13.246	167.04	74.967
2644	2	NO2	40.344	6.941	116.78	78.921
2644	3	FA	69.393	6.394	257.4	54.657
2651	3	DE	106.41	20.643	64.61	83.924
2651	2	NO2	102.341	14.715	87.26	105.035
2651	1	FA	127.561	23.831	64.56	153.968
2666	2	DE	0.272	0.073	39.5	13.301
2666	3	NO2	0.272	10.934	76.94	6.251
2666	1	FA	0.544	0.073	45.78	32.36
2669	2	DE	7.603	0.073	214.39	6.464
2669	1	NO2	0.272	4.205	182.02	5.804
2669	3	FA	0.272	21.784	111.83	9.971
2702	1	DE	18.422	0.073	14.23	52.34
2702	3	NO2	0.272	0.073	11.47	42.992
2702	2	FA	2.77	50.454	29.15	86.733
2703	1	DE	0.272	0.073	557.13	5.064
2703	2	NO2	0.272	0.073	226.64	13.622
2703	3	FA	0.272	0.073	270.56	6.474

[a] Units: pg/ml.

Table C9. Individual Data: Sputum Interleukins, Phase 2 [a]

ID	Exp	Atm	IL4	IL5	IL8	IL12
Ph 2 Asthmatic						
2325	2	DE	18	0.08	113.9	276.334
2325	1	NO2	18	11.334	106.7	259.472
2325	3	FA	42.055	0.08	181.86	273.903
2551	2	DE	66.064	18.649	24.08	14
2551	3	NO2	84.137	0.08	72.24	65.418
2551	1	FA	48.129	0.08	37.2	14
2602	1	DE	44.572	11.063	1677.15	14
2602	2	NO2	.	.	.	.
2602	3	FA	63.602	25.551	420	120.397
2628	1	DE	34.683	8.315	266.81	124.353
2628	3	NO2	23.296	64.31	465.35	179.879
2628	2	FA	49.529	0.08	255.99	148.899
2651	2	DE	18	0.08	39	28.34
2651	1	NO2	18	0.08	11.49	78.611
2651	3	FA	58.65	4.55	41.5	76.015
2701	3	DE	18	0.08	690.4	156.681
2701	1	NO2	18	0.08	1901.9	158.132
2701	2	FA	22.721	5.061	1311.99	155.098
2704	2	DE	31.887	0.08	86.39	142.987
2704	3	NO2	96.96	79.616	85.91	185.582
2704	1	FA	26.456	40.104	297.05	14
2780	1	DE	18	0.08	23.89	123.553
2780	3	NO2	67.399	3.631	31.94	219.683
2780	2	FA	18	0.08	18.52	277.161
2847	3	DE	38.141	591.056	62.09	92.126
2847	1	NO2	0	2.681	90.62	130.778
2847	2	FA	53.874	0.08	64.04	144.1
2871	3	DE	34.299	538.528	46.83	214.453
2871	1	NO2	15.188	39.495	33.82	238.862
2871	2	FA	18	0.08	57.35	148.257
2876	1	DE	18	48.591	77.41	470.741
2876	2	NO2	26.456	0.08	67.91	387.3
2876	3	FA	18	35.586	35.99	594.8
2878	1	DE	18	0.08	131.4	156.681
2878	3	NO2	18	0.08	151.5	14
2878	2	FA	18	0.08	483.91	14
2879	1	DE	18	0.08	113.2	14
2879	2	NO2	18	0.08	90.22	14
2879	3	FA	18	0.08	47.78	14
2883	1	DE	31.887	0.17	100	132.375
2883	3	NO2	45.182	9.975	193.89	157.893
2883	2	FA	20.936	0.08	191.95	14
2886	1	DE	31	0.08	27.17	14
2886	3	NO2	54.644	0.08	16.09	14
2886	2	FA	30.068	0.08	22.23	14

[a] Units: pg/ml.

Table C10. Individual Data: Additional Sputum Biochemistry, Phase 1 [a]

ID	Exp	Atm	TNFa	GMCSF	IFNg	ECP	Eotaxin
Ph 1 Prelim Healthy							
2615	1	DE	5.8	0.001	3.195	3.563	0.106
2615	2	NO2	5.8	0.001	0.68	0.398	0.106
2615	3	FA	5.8	0.001	1.78	0.903	0.106
2616	2	DE	5.8	0.001	0.68	1.368	1.057
2616	1	NO2	5.8	0.001	0.68	3.668	4.753
2616	3	FA	5.8	0.001	5.36	0.509	0.106
2617	2	DE	5.8	0.001	3.626	1.177	0.213
2617	3	NO2	5.8	0.001	2.857	10.009	3.04
2617	1	FA	5.8	0.001	3.639	7.329	23.433
2620	1	DE	5.8	0.001	1.877	1.599	0.106
2620	3	NO2	5.8	0.001	0.68	2.183	0.106
2620	2	FA	5.8	0.001	0.68	0.099	0.106
Ph 1 Asthmatic							
1216	2	DE	5.8	0.153	0.68	32.307	14.269
1216	1	NO2	5.8	.	0.68	0.362	.
1216	3	FA	5.8	0.731	0.68	42.147	33.263
1656	2	DE	45.244	145.401	8.625	9.324	0.106
1656	3	NO2	34.278	12.057	0.68	11.139	0.106
1656	1	FA	110.054	339.408	7.255	6.838	1.012
2525	3	DE	72.403	24.129	0.68	36	0.106
2525	2	NO2	58.892	104.527	0.68	27.869	0.106
2525	1	FA	11.671	0.842	0.68	47.718	0.106
2602	1	DE	95.327	390.159	0.68	46.56	0.106
2602	3	NO2	5.8	0.017	0.68	1.509	0.106
2602	2	FA	5.8	7.269	0.68	2.964	0.106
2606	1	DE	30.465	5.845	0.68	34.514	0.106
2606	2	NO2	113.281	275.004	44.041	16.751	0.106
2606	3	FA	89.313	56.482	0.68	32.229	1.97
2628	2	DE	95.274	30.342	0.68	48.657	0.106
2628	3	NO2	81.143	6.541	0.68	50.987	0.106
2628	1	FA	79.692	31.753	0.68	25.952	0.106
2641	3	DE	108.036	2.57	0.68	42.821	0.106
2641	1	NO2	19.784	6.634	0.68	33.367	0.106
2641	2	FA	105.025	103.747	0.68	34.547	0.106
2642	2	DE	97.891	13.591	0.68	8.786	0.106
2642	1	NO2	113.518	2.789	9.801	15.437	0.106
2642	3	FA	5.8	1.618	0.68	37.249	0.106
2643	3	DE	222.677	195.63	18.4	2.594	0.106
2643	1	NO2	31.891	10.758	0.68	3.259	0.106
2643	2	FA	114.638	215.099	5.18	5.902	0.106
2644	1	DE	52.642	21.493	15.04	30.405	0.106
2644	2	NO2	5.8	0.781	15.39	5.496	0.917
2644	3	FA	44.372	0.478	8.65	31.536	2.552
2651	3	DE	98.632	204.505	3.26	0.13	0.106
2651	2	NO2	66.256	108.853	1.77	20.65	0.106
2651	1	FA	97.874	57.856	12.78	1.002	0.106
2666	2	DE	5.8	6.88	0.68	33.303	2.957
2666	3	NO2	5.8	71.13	0.68	39.084	2.353
2666	1	FA	5.8	1.94	0.68	30.89	2.353
2669	2	DE	5.8	0.182	57.14	16.704	2.353
2669	1	NO2	5.8	0.146	0.68	40.092	1.752
2669	3	FA	5.8	1.739	71.21	11.942	2.654
2702	1	DE	5.8	0.138	92.81	3.113	2.355
2702	3	NO2	5.8	100.635	0.68	5.039	2.355
2702	2	FA	5.8	1.43	46.42	35.056	3.257
2703	1	DE	12.314	0.447	0.68	25.849	5.38
2703	2	NO2	5.8	0.135	0.68	14.287	1.453
2703	3	FA	5.8	0.277	0.68	15.382	1.752

[a] Units: ng/ml for ECP, pg/ml for others.

Table C11. Additional Sputum Biochemistry, Phase 2 [a]

ID	Exp	Atm	TNFa	GMCSF	IFNg	ECP	Eotaxin
Ph 2 Asthmatic							
2325	2	DE	17	1	10	44.834	7.408
2325	1	NO2	17	1	10	39.394	6.171
2325	3	FA	34.47	1	442.01	67.392	9.282
2551	2	DE	17	1	10	6.894	25.347
2551	3	NO2	17	1	10	6.142	28.079
2551	1	FA	17	1	10	3.734	22.012
2602	1	DE	17	1	1468.24	26.498	18.648
2602	2	NO2	.	1	.	.	.
2602	3	FA	17	1	1442.15	0.92	9.887
2628	1	DE	17	1	10	17.71	11.051
2628	3	NO2	125.803	1	10	11.647	16.364
2628	2	FA	76.981	1	10	32.253	18.079
2651	2	DE	88.366	1	20.07	4.467	7.408
2651	1	NO2	17	1	56.97	3.983	6.143
2651	3	FA	87.776	22.205	214.21	15.728	13.45
2701	3	DE	79.059	1	10	42.151	45.896
2701	1	NO2	17	1	34.32	17.65	14.047
2701	2	FA	104.155	1	227.37	52.863	47.123
2704	2	DE	17	2.945	10	6.203	14.619
2704	3	NO2	17	40.932	10	11.641	12.209
2704	1	FA	17	1	3.27	4.663	4.883
2780	1	DE	17	1	10	1.062	24.241
2780	3	NO2	48.205	1	10	0.79	10.493
2780	2	FA	78.398	1	10	0.56	8.054
2847	3	DE	17	1	2056.19	7.681	9.282
2847	1	NO2	17	1	1773.87	3.389	8.054
2847	2	FA	17	1	1866.66	6.596	6.807
2871	3	DE	39.858	1.947	1272.43	11.24	7.408
2871	1	NO2	17	1	652.67	22.492	9.887
2871	2	FA	17	1	733	44.991	6.807
2876	1	DE	57.177	4.626	150.51	11.013	12.851
2876	2	NO2	72.161	1	458.84	13.591	18.955
2876	3	FA	100.602	1	196.44	15.192	12.246
2878	1	DE	48.205	1	10	7.332	9.282
2878	3	NO2	61.078	1	60.48	9.527	10.493
2878	2	FA	86.586	1	24.67	11.25	10.486
2879	1	DE	91.256	1	47.33	25.817	5.469
2879	2	NO2	104.437	1	10	32.122	4.209
2879	3	FA	106.054	1	10	9.867	7.431
2883	1	DE	17	1	40.99	38.198	13.396
2883	3	NO2	49.97	1	15.93	32.704	12.246
2883	2	FA	55.564	1	10	34.994	2.883
2886	1	DE	48.205	1	179.87	5.178	4.231
2886	3	NO2	37.667	1	711.85	5.588	7.431
2886	2	FA	74.044	1	707.2	8.288	7.408

[a] Units: ng/ml for ECP, pg/ml for others.

Table C12. Individual Data: Total and Respiratory Symptom Score, Pre-Exposure Value and Mean Change During Exposure, Phase 1

			Total		Respiratory	
ID	exp	Atm	Pre	Chg	Pre	Chg
Ph 1 Prelim Healthy						
2615	1	DE	0	1.875	0	0
2615	2	NO2	0	0	0	0
2615	3	FA	0	0	0	0
2616	2	DE	0	1.5	0	0.375
2616	1	NO2	0	4.25	0	0.75
2616	3	FA	0	0	0	0
2617	2	DE	0	0	0	0
2617	3	NO2	0	0	0	0
2617	1	FA	0	0	0	0
2620	1	DE	0	0	0	0
2620	3	NO2	0	0	0	0
2620	2	FA	0	0.375	0	0
Ph 1 Asthmatic						
1216	2	DE	8	-0.25	7	-2.25
1216	1	NO2	1	5.625	1	4
1216	3	FA	8	-1.375	8	-4.875
1656	2	DE	2	0.75	0	0
1656	3	NO2	0	0	0	0
1656	1	FA	0	0	0	0
2525	3	DE	0	2.25	0	2.25
2525	2	NO2	0	0	0	0
2525	1	FA	0	0	0	0
2602	1	DE	0	0	0	0
2602	3	NO2	0	0	0	0
2602	2	FA	0	0	0	0
2606	1	DE	0	0	0	0
2606	2	NO2	0	0	0	0
2606	3	FA	0	0	0	0
2628	2	DE	0	0	0	0
2628	3	NO2	0	0	0	0
2628	1	FA	1	-0.625	1	-0.625
2641	3	DE	1	-0.875	1	-0.875
2641	1	NO2	0	0	0	0
2641	2	FA	0	0	0	0
2642	2	DE	1	1.75	1	0.5
2642	1	NO2	3	-0.875	3	-2.375
2642	3	FA	0	0.5	0	0
2643	3	DE	4	4.75	4	2.5
2643	1	NO2	2	0.25	1	0
2643	2	FA	7	-3.625	5	-3.375
2644	1	DE	1	6	1	2.75
2644	2	NO2	0	1.5	0	0.5
2644	3	FA	1	-1	1	-1
2651	3	DE	2	2.875	2	1.125
2651	2	NO2	1	4.125	0	3.25
2651	1	FA	1	6.875	1	4.75
2666	2	DE	0	4.875	0	0
2666	3	NO2	0	1.625	0	0
2666	1	FA	1	6.125	1	4
2669	2	DE	1	14.875	1	7.375
2669	1	NO2	2	6.875	0	6.375
2669	3	FA	0	0.125	0	0
2702	1	DE	0	5.625	0	2.125
2702	3	NO2	0	1.5	0	1.25
2702	2	FA	0	2.125	0	0.875
2703	1	DE	3	9.25	1	4.875
2703	2	NO2	3	6.875	2	4.875
2703	3	FA	2	2.75	2	2.75

Table C13. Individual Data: Total and Respiratory Symptom Score, Pre-Exposure Value and Mean Change During Exposure, Phase 2

ID	exp	Atm	Total Pre	Total Chg	Respiratory Pre	Respiratory Chg
Ph 2 Asthmatic						
2325	2	DE	0	0.5	0	0
2325	1	NO2	0	0	0	0
2325	3	FA	1	-0.625	1	-0.625
2551	2	DE	2	0	1	0.375
2551	3	NO2	0	0.5	0	0.5
2551	1	FA	0	2.5	0	1.75
2602	1	DE	0	0	0	0
2602	2	NO2	0	0	0	0
2602	3	FA	0	0	0	0
2628	1	DE	1	-0.875	1	-0.875
2628	3	NO2	0	0	0	0
2628	2	FA	0	0	0	0
2651	2	DE	3	3.125	2	1.75
2651	1	NO2	0	1.5	0	1.5
2651	3	FA	0	3.5	0	2.625
2701	3	DE	0	10.25	0	3.25
2701	1	NO2	2	10.625	0	7
2701	2	FA	0	9.125	0	4.75
2704	2	DE	4	-1.875	4	-2.875
2704	3	NO2	7	-5.375	7	-5.375
2704	1	FA	0	1.5	0	0
2780	1	DE	11	6.125	4	4
2780	3	NO2	5	10.875	4	5.5
2780	2	FA	13	5.375	1	4.25
2847	3	DE	0	0.75	0	0.125
2847	1	NO2	0	3.375	0	0.875
2847	2	FA	0	1	0	0.25
2871	3	DE	0	0.5	0	0.5
2871	1	NO2	0	1.625	0	0.5
2871	2	FA	2	-0.625	1	0.125
2876	1	DE	0	5.875	0	3.375
2876	2	NO2	1	1.125	1	-0.125
2876	3	FA	5	-3.75	5	-4.5
2878	1	DE	0	9.875	0	2.25
2878	3	NO2	0	7.375	0	0.5
2878	2	FA	0	11.25	0	5
2879	1	DE	5	-2.25	5	-3
2879	2	NO2	3	-2.875	1	-0.875
2879	3	FA	0	1.5	0	0.375
2883	1	DE	8	-0.875	3	-0.875
2883	3	NO2	9	-4.5	2	-1.375
2883	2	FA	7	-2.375	3	-1.375
2886	1	DE	1	-0.625	1	-0.875
2886	3	NO2	0	0.625	0	0.625
2886	2	FA	0	0	0	0

Table C14. Individual Data: Cardiovascular and Miscellaneous Symptom Score, Pre-Exposure Value and Mean Change During Exposure, Phase 1

ID	Exp	Atm	Cardiovascular Pre	Cardiovascular Chg	Miscellaneous Pre	Miscellaneous Chg
Ph 1 Prelim Healthy						
2615	1	DE	0	0	0	1.875
2615	2	NO2	0	0	0	0
2615	3	FA	0	0	0	0
2616	2	DE	0	0	0	1.125
2616	1	NO2	0	0.875	0	2.625
2616	3	FA	0	0	0	0
2617	2	DE	0	0	0	0
2617	3	NO2	0	0	0	0
2617	1	FA	0	0	0	0
2620	1	DE	0	0	0	0
2620	3	NO2	0	0	0	0
2620	2	FA	0	0.375	0	0
Ph 1 Asthmatic						
1216	2	DE	0	0.75	1	1.25
1216	1	NO2	0	0.75	0	0.875
1216	3	FA	0	2.5	0	1
1656	2	DE	0	0	2	0.75
1656	3	NO2	0	0	0	0
1656	1	FA	0	0	0	0
2525	3	DE	0	0	0	0
2525	2	NO2	0	0	0	0
2525	1	FA	0	0	0	0
2602	1	DE	0	0	0	0
2602	3	NO2	0	0	0	0
2602	2	FA	0	0	0	0
2606	1	DE	0	0	0	0
2606	2	NO2	0	0	0	0
2606	3	FA	0	0	0	0
2628	2	DE	0	0	0	0
2628	3	NO2	0	0	0	0
2628	1	FA	0	0	0	0
2641	3	DE	0	0	0	0
2641	1	NO2	0	0	0	0
2641	2	FA	0	0	0	0
2642	2	DE	0	0.125	0	1.125
2642	1	NO2	0	0.25	0	1.25
2642	3	FA	0	0	0	0.5
2643	3	DE	0	0.625	0	1.625
2643	1	NO2	0	0.875	1	-0.625
2643	2	FA	0	0.25	2	-0.5
2644	1	DE	0	0.75	0	2.5
2644	2	NO2	0	0	0	1
2644	3	FA	0	0	0	0
2651	3	DE	0	0.375	0	1.375
2651	2	NO2	0	0.5	1	0.375
2651	1	FA	0	1.125	0	1
2666	2	DE	0	0	0	4.875
2666	3	NO2	0	0	0	1.625
2666	1	FA	0	0	0	2.125
2669	2	DE	0	2.125	0	5.375
2669	1	NO2	0	0.375	2	0.125
2669	3	FA	0	0	0	0.125
2702	1	DE	0	1.5	0	2
2702	3	NO2	0	0.25	0	0
2702	2	FA	0	1.25	0	0
2703	1	DE	0	2	2	2.375
2703	2	NO2	0	0.875	1	1.125
2703	3	FA	0	0	0	0

Table C15. Individual Data: Cardiovascular and Miscellaneous Symptom Score, Pre-Exposure Value and Mean Change During Exposure, Phase 2

ID	Exp	Atm	Cardiovascular Pre	Cardiovascular Chg	Miscellaneous Pre	Miscellaneous Chg
Ph 2 Asthmatic						
2325	2	DE	0	0	0	0.5
2325	1	NO2	0	0	0	0
2325	3	FA	0	0	0	0
2551	2	DE	0	0	1	-0.375
2551	3	NO2	0	0	0	0
2551	1	FA	0	0	0	0.75
2602	1	DE	0	0	0	0
2602	2	NO2	0	0	0	0
2602	3	FA	0	0	0	0
2628	1	DE	0	0	0	0
2628	3	NO2	0	0	0	0
2628	2	FA	0	0	0	0
2651	2	DE	0	0.625	1	0.75
2651	1	NO2	0	0	0	0
2651	3	FA	0	0	0	0.875
2701	3	DE	0	3.25	0	3.75
2701	1	NO2	0	2.625	2	1
2701	2	FA	0	2.375	0	2
2704	2	DE	0	0	0	1
2704	3	NO2	0	0	0	0
2704	1	FA	0	0.75	0	0.75
2780	1	DE	0	0	7	2.125
2780	3	NO2	0	0	1	5.375
2780	2	FA	0	1.125	12	0
2847	3	DE	0	0	0	0.625
2847	1	NO2	0	0	0	2.5
2847	2	FA	0	0	0	0.75
2871	3	DE	0	0	0	0
2871	1	NO2	0	0	0	1.125
2871	2	FA	0	0	1	-0.75
2876	1	DE	0	0.625	0	1.875
2876	2	NO2	0	0.375	0	0.875
2876	3	FA	0	0.75	0	0
2878	1	DE	0	1.25	0	6.375
2878	3	NO2	0	2.625	0	4.25
2878	2	FA	0	1.125	0	5.125
2879	1	DE	0	0.125	0	0.625
2879	2	NO2	0	0	2	-2
2879	3	FA	0	0	0	1.125
2883	1	DE	0	0	5	0
2883	3	NO2	1	-0.875	6	-2.25
2883	2	FA	1	-0.75	3	-0.25
2886	1	DE	0	0	0	0.25
2886	3	NO2	0	0	0	0
2886	2	FA	0	0	0	0

Table C16. Individual Data: Forced Expired Volume in One Second and Arterial Oxygen Saturation (by Pulse Oximeter), Phase 1 [a]

			FEV1			SaO2		
ID	Exp	Atm	Pre	Post	D2	Pre	Post	D2
Ph 1 Prelim Healthy								
2615	1	DE	4.16	4.30	4.16	100.0	99.0	.
2615	2	NO2	4.24	4.26	4.04	100.0	99.0	98.0
2615	3	FA	4.07	4.05	4.17	100.0	97.0	99.0
2616	2	DE	3.82	3.90	3.76	98.0	98.0	98.0
2616	1	NO2	3.96	3.88	3.79	97.0	97.0	97.0
2616	3	FA	3.82	3.96	3.96	99.0	99.0	99.0
2617	2	DE	3.92	3.93	3.90	98.0	97.0	98.0
2617	3	NO2	3.82	3.82	3.73	99.0	98.0	98.0
2617	1	FA	3.94	3.97	3.87	98.0	98.0	.
2620	1	DE	3.27	3.16	3.08	99.0	98.0	99.0
2620	3	NO2	3.22	3.20	3.10	99.0	99.0	99.0
2620	2	FA	3.13	3.13	3.15	99.0	99.0	100.0
Ph 1 Asthmatic								
1216	2	DE	2.63	2.88	2.85	97.0	99.0	.
1216	1	NO2	2.74	3.14	2.78	98.0	.	.
1216	3	FA	2.94	2.75	2.94	97.0	99.0	.
1656	2	DE	2.86	2.77	2.91	97.0	96.0	97.0
1656	3	NO2	2.90	2.91	2.72	99.0	99.0	98.0
1656	1	FA	2.58	2.69	2.74	97.0	97.0	98.0
2525	3	DE	2.43	2.65	2.62	97.0	97.0	98.0
2525	2	NO2	2.46	2.40	2.52	97.0	98.0	98.0
2525	1	FA	2.44	2.44	2.55	99.0	99.0	99.0
2602	1	DE	2.86	2.93	2.75	98.0	97.0	99.0
2602	3	NO2	2.43	2.53	2.86	96.0	98.0	97.0
2602	2	FA	2.63	2.48	2.19	97.0	97.0	96.0
2606	1	DE	2.31	2.52	2.60	97.0	97.0	97.0
2606	2	NO2	2.42	2.43	2.42	97.0	97.0	98.0
2606	3	FA	2.44	2.65	2.43	98.0	98.0	98.0
2628	2	DE	4.16	4.22	4.13	98.0	97.0	98.0
2628	3	NO2	3.83	4.16	4.08	99.0	96.0	96.0
2628	1	FA	4.10	4.30	4.10	98.0	97.0	.
2641	3	DE	3.32	3.63	3.45	98.0	97.0	100.0
2641	1	NO2	3.32	3.57	2.90	98.0	97.0	98.0
2641	2	FA	2.96	3.32	3.14	99.0	98.0	99.0
2642	2	DE	3.42	3.10	3.21	98.0	99.0	98.0
2642	1	NO2	3.56	3.45	3.44	99.0	99.0	99.0
2642	3	FA	3.96	3.31	3.74	98.0	98.0	99.0
2643	3	DE	2.57	2.60	2.39	100.0	98.0	99.0
2643	1	NO2	2.50	2.69	2.33	99.0	99.0	98.0
2643	2	FA	2.51	2.65	2.30	98.0	99.0	98.0
2644	1	DE	2.54	2.54	2.54	98.0	98.0	99.0
2644	2	NO2	2.46	2.73	2.46	97.0	98.0	98.0
2644	3	FA	2.31	2.48	2.38	98.0	98.0	98.0
2651	3	DE	3.13	3.31	3.20	98.0	98.0	99.0
2651	2	NO2	3.24	3.27	3.26	99.0	97.0	97.0
2651	1	FA	3.51	3.53	3.16	99.0	98.0	98.0
2666	2	DE	3.66	3.87	3.57	98.0	98.0	99.0
2666	3	NO2	3.87	3.99	3.87	.	98.0	99.0
2666	1	FA	3.27	3.55	3.30	97.0	98.0	99.0
2669	2	DE	5.62	5.97	5.95	99.0	97.0	98.0
2669	1	NO2	6.22	5.76	5.87	100.0	98.0	97.0
2669	3	FA	5.61	5.86	6.27	98.0	98.0	98.0
2702	1	DE	3.26	3.26	.	100.0	99.0	.
2702	3	NO2	3.22	3.27	.	100.0	100.0	100.0
2702	2	FA	3.01	3.17	3.18	100.0	99.0	100.0
2703	1	DE	3.08	3.00	2.38	98.0	.	99.0
2703	2	NO2	3.01	2.94	2.56	99.0	.	98.0
2703	3	FA	2.76	2.57	2.54	100.0	98.0	100.0

[a] Units: liters for FEV_1, percent for SaO_2.

Table C17. Individual Data: Forced Expired Volume in One Second and Arterial Oxygen Saturation (by Pulse Oximeter), Phase 2 [a]

			FEV1			SaO2		
ID	Exp	Atm	Pre	Post	D2	Pre	Post	D2
Ph 2 Asthmatic								
2325	2	DE	3.33	3.36	3.24	98.0	98.0	98.5
2325	1	NO2	3.24	3.31	3.18	98.0	98.0	98.0
2325	3	FA	3.17	3.33	3.22	98.0	95.0	99.0
2551	2	DE	1.88	2.06	1.83	96.0	.	97.0
2551	3	NO2	2.07	2.00	2.08	98.0	96.0	99.0
2551	1	FA	2.04	2.00	2.04	96.0	.	95.0
2602	1	DE	2.84	2.77	2.84	96.0	97.0	97.0
2602	2	NO2	2.79	2.69	2.60	97.0	97.0	96.0
2602	3	FA	2.83	2.75	2.67	97.0	96.0	97.0
2628	1	DE	4.28	4.59	.	98.0	97.0	97.0
2628	3	NO2	4.07	4.39	4.19	98.0	96.0	98.0
2628	2	FA	4.14	4.31	3.90	96.0	97.0	.
2651	2	DE	2.99	3.11	3.20	98.0	99.0	98.0
2651	1	NO2	3.03	3.27	3.11	99.0	96.5	98.0
2651	3	FA	3.03	3.23	2.90	99.0	98.0	99.0
2701	3	DE	2.17	2.09	2.04	.	97.0	99.0
2701	1	NO2	1.99	2.16	2.14	98.0	99.0	98.0
2701	2	FA	2.13	2.26	2.15	98.5	97.5	99.0
2704	2	DE	3.65	3.92	3.98	97.0	96.0	97.0
2704	3	NO2	3.77	3.92	4.14	97.0	100.0	99.0
2704	1	FA	4.49	4.53	4.22	96.0	97.0	97.0
2780	1	DE	1.35	1.29	1.24	98.0	99.0	98.0
2780	3	NO2	1.42	1.47	1.56	99.0	99.0	98.0
2780	2	FA	1.57	1.35	1.67	98.0	99.0	98.0
2847	3	DE	2.93	3.22	3.06	100.0	99.0	99.0
2847	1	NO2	3.13	3.17	3.55	99.0	98.0	99.5
2847	2	FA	3.21	3.21	3.13	99.5	99.0	99.0
2871	3	DE	2.91	2.73	2.77	100.0	98.0	100.0
2871	1	NO2	2.81	2.84	2.72	99.0	99.0	97.0
2871	2	FA	2.70	2.78	2.79	100.0	100.0	99.0
2876	1	DE	2.88	2.82	2.77	98.0	98.0	96.0
2876	2	NO2	2.54	2.61	2.68	98.0	98.0	97.0
2876	3	FA	2.53	2.62	2.53	98.0	98.0	98.0
2878	1	DE	3.71	3.65	3.74	97.0	97.0	98.0
2878	3	NO2	3.89	3.81	3.61	100.0	98.0	99.0
2878	2	FA	3.91	3.69	3.78	98.0	98.0	98.0
2879	1	DE	2.62	2.65	2.61	97.0	98.0	96.0
2879	2	NO2	2.86	2.72	2.70	98.0	99.0	95.0
2879	3	FA	2.58	2.63	2.83	98.0	98.0	95.0
2883	1	DE	3.21	2.56	2.90	100.0	98.0	99.0
2883	3	NO2	2.78	2.87	3.02	98.0	100.0	100.0
2883	2	FA	3.05	3.21	2.89	100.0	97.0	98.0
2886	1	DE	2.85	2.96	3.27	99.0	98.0	99.0
2886	3	NO2	2.73	2.86	2.96	99.0	100.0	98.0
2886	2	FA	3.14	2.81	3.05	99.0	99.0	100.0

[a] Units: liters for FEV_1, percent for SaO_2.

Table C18. Individual Data: Blood Pressure (mm Hg), Phase 1

ID	Exp	Atm	Systolic Pre	Post	D2	Diastolic Pre	Post	D2
Ph 1 Prelim Healthy								
2615	1	DE	118	115	110	73	78	78
2615	2	NO2	108	98	92	70	63	65
2615	3	FA	104	108	98	73	74	71
2616	2	DE	104	96	98	57	63	58
2616	1	NO2	104	109	100	65	64	60
2616	3	FA	118	104	105	75	60	60
2617	2	DE	92	104	99	56	65	66
2617	3	NO2	96	98	103	68	59	64
2617	1	FA	95	92	94	52	62	70
2620	1	DE	128	107	124	74	82	72
2620	3	NO2	103	99	130	79	76	68
2620	2	FA	111	114	115	71	76	73
Ph 1 Asthmatic								
1216	2	DE	112	108	.	70	69	.
1216	1	NO2	112	108	.	70	77	.
1216	3	FA	112	108	.	70	69	.
1656	2	DE	96	111	126	66	75	76
1656	3	NO2	105	104	112	63	72	71
1656	1	FA	100	96	119	59	61	63
2525	3	DE	124	130	131	82	88	89
2525	2	NO2	137	122	136	88	88	79
2525	1	FA	148	143	144	79	87	84
2602	1	DE	121	106	111	80	65	72
2602	3	NO2	146	131	138	89	85	74
2602	2	FA	132	126	124	85	74	80
2606	1	DE	120	122	122	70	77	78
2606	2	NO2	121	119	136	76	75	77
2606	3	FA	131	112	129	84	84	85
2628	2	DE	104	99	113	65	67	69
2628	3	NO2	99	109	110	64	64	67
2628	1	FA	115	111	106	60	64	63
2641	3	DE	111	123	104	73	65	75
2641	1	NO2	100	108	112	65	72	66
2641	2	FA	111	102	113	68	59	62
2642	2	DE	118	116	128	73	73	76
2642	1	NO2	136	132	114	85	80	76
2642	3	FA	134	115	131	84	76	89
2643	3	DE	92	97	107	70	64	75
2643	1	NO2	100	83	92	60	62	70
2643	2	FA	94	95	94	73	66	64
2644	1	DE	88	128	122	64	82	78
2644	2	NO2	95	100	115	73	84	85
2644	3	FA	123	121	118	87	82	79
2651	3	DE	108	107	112	65	76	79
2651	2	NO2	117	107	104	79	76	76
2651	1	FA	109	111	106	73	68	69
2666	2	DE	143	116	118	80	76	63
2666	3	NO2	112	116	124	71	66	93
2666	1	FA	126	120	112	68	74	78
2669	2	DE	135	136	145	73	74	71
2669	1	NO2	118	135	149	66	73	62
2669	3	FA	119	121	118	61	63	64
2702	1	DE	128	126	132	88	95	96
2702	3	NO2	141	128	142	67	96	88
2702	2	FA	149	124	138	92	86	97
2703	1	DE	112	103	104	77	76	70
2703	2	NO2	108	92	117	72	77	73
2703	3	FA	108	118	119	79	78	71

Table C19. Individual Data: Blood Pressure (mm Hg), Phase 2

ID	Exp	Atm	Systolic Pre	Post	D2	Diastolic Pre	Post	D2
Ph 2 Asthmatic								
2325	2	DE	118	116	116	81	73	67
2325	1	NO2	103	105	109	67	68	68
2325	3	FA	112	116	109	68	68	68
2551	2	DE	110	113	116	84	76	84
2551	3	NO2	119	107	112	80	86	80
2551	1	FA	107	112	108	76	83	84
2602	1	DE	130	110	131	88	72	77
2602	2	NO2	125	128	122	77	71	79
2602	3	FA	139	112	126	90	69	77
2628	1	DE	128	161	115	78	84	75
2628	3	NO2	121	99	132	74	68	71
2628	2	FA	132	110	114	83	66	69
2651	2	DE	116	114	109	80	80	79
2651	1	NO2	109	107	113	76	76	68
2651	3	FA	107	106	111	77	77	68
2701	3	DE	129	130	132	72	76	73
2701	1	NO2	139	138	142	85	107	81
2701	2	FA	128	112	127	69	93	76
2704	2	DE	108	92	96	59	64	83
2704	3	NO2	105	96	106	67	61	71
2704	1	FA	128	114	113	68	68	60
2780	1	DE	140	125	116	82	82	79
2780	3	NO2	142	152	148	86	88	89
2780	2	FA	132	142	141	106	80	89
2847	3	DE	112	111	110	73	72	75
2847	1	NO2	109	100	108	70	63	74
2847	2	FA	110	111	108	75	77	80
2871	3	DE	92	88	88	57	56	62
2871	1	NO2	88	94	92	58	59	65
2871	2	FA	88	.	96	64	.	64
2876	1	DE	123	133	123	84	82	84
2876	2	NO2	127	128	112	91	78	81
2876	3	FA	121	128	136	82	82	84
2878	1	DE	113	122	120	79	85	80
2878	3	NO2	145	140	110	88	92	80
2878	2	FA	163	138	116	100	92	80
2879	1	DE	105	111	125	75	88	90
2879	2	NO2	109	122	116	84	87	80
2879	3	FA	117	129	121	92	100	96
2883	1	DE	99	106	106	65	88	86
2883	3	NO2	111	109	116	72	70	79
2883	2	FA	101	107	120	72	76	83
2886	1	DE	112	100	.	68	63	.
2886	3	NO2	100	109	101	65	68	70
2886	2	FA	114	100	92	66	61	63

Table C20. Individual Data: Exhaled Carbon Monoxide and Concurrent Ambient Carbon Monoxide (ppm), Phase 1

ID	Exp	Atm	Pre ambient	exhaled	Post ambient	exhaled	Day 2 ambient	exhaled
Ph 1 Prelim Healthy								
2615	1	DE	0.3	1.0	0.3	1.7	0.0	0.7
2615	2	NO2	0.0	0.6	0.0	1.1	0.0	1.1
2615	3	FA	0.0	0.6	0.0	0.6	0.0	0.8
2616	2	DE	0.0	0.3	0.0	0.9	0.3	0.9
2616	1	NO2	0.0	0.3	0.0	0.0	0.0	0.3
2616	3	FA	0.0	0.3	0.0	0.0	0.0	0.3
2617	2	DE	0.0	0.0	0.0	0.9	0.0	0.9
2617	3	NO2	0.0	0.6	0.0	0.0	0.0	0.3
2617	1	FA	0.0	0.0	0.0	0.0	0.0	0.3
2620	1	DE	0.0	0.0	0.0	0.6	0.0	0.9
2620	3	NO2	0.0	0.0	0.0	2.5	0.0	0.0
2620	2	FA	0.0	0.6	0.0	1.0	0.0	0.6
Ph 1 Asthmatic								
1216	2	DE	0.5	1.3	2.4	2.9	0.0	1.3
1216	1	NO2	0.0	1.9	0.0	1.4	.	.
1216	3	FA	0.3	0.0	0.0	0.0	0.3	2.5
1656	2	DE	0.0	0.9	0.0	0.9	0.9	2.3
1656	3	NO2	0.0	0.6	0.0	0.9	0.0	0.0
1656	1	FA	0.0	0.9	.	.	0.0	1.2
2525	3	DE	0.0	0.6	1.4	3.7	0.0	2.0
2525	2	NO2	0.0	1.7	0.0	0.6	0.0	1.7
2525	1	FA	0.0	0.3	0.0	1.2	0.0	2.8
2602	1	DE	0.0	0.3	0.3	1.1	0.3	1.4
2602	3	NO2	0.3	0.9	0.0	0.9	0.0	0.9
2602	2	FA	0.0	1.1	0.3	0.9	0.0	2.0
2606	1	DE	0.6	0.9	0.0	0.6	0.0	0.9
2606	2	NO2	0.0	0.3	0.0	0.6	0.0	0.6
2606	3	FA	0.0	0.6	0.0	0.6	0.0	0.6
2628	2	DE	0.0	0.9	0.3	2.0	0.0	0.9
2628	3	NO2	0.0	1.1	0.0	0.9	0.0	0.0
2628	1	FA	0.0	0.9	0.3	0.0	0.3	0.9
2641	3	DE	0.3	0.3	0.0	1.1	0.0	1.1
2641	1	NO2	0.3	0.3	0.0	0.0	0.0	1.5
2641	2	FA	0.0	0.6	0.0	0.6	0.0	0.9
2642	2	DE	0.3	4.9	0.3	3.7	0.0	3.7
2642	1	NO2	0.0	1.1	0.3	0.9	0.0	1.7
2642	3	FA	0.3	2.0	0.0	0.9	0.0	2.6
2643	3	DE	0.3	0.6	0.0	1.1	0.3	0.3
2643	1	NO2	0.0	2.0	0.3	1.4	0.0	0.9
2643	2	FA	0.3	0.6	0.0	0.6	0.0	0.9
2644	1	DE	0.3	1.5	0.0	2.1	0.3	2.1
2644	2	NO2	0.3	2.0	0.0	0.9	0.0	0.9
2644	3	FA	0.0	2.6	0.3	2.0	0.0	3.1
2651	3	DE	0.0	0.9	0.0	0.9	0.3	0.9
2651	2	NO2	0.3	0.6	0.3	1.1	0.3	0.9
2651	1	FA	0.0	0.9	0.0	0.3	0.0	1.4
2666	2	DE	0.3	0.8	0.3	0.8	0.0	0.3
2666	3	NO2	0.0	0.9	0.3	1.5	0.3	0.0
2666	1	FA	0.3	2.2	0.0	2.2	0.3	2.2
2669	2	DE	0.3	3.4	0.0	1.8	0.0	2.4
2669	1	NO2	0.0	0.9	0.3	0.3	0.0	2.6
2669	3	FA	0.0	1.3	0.0	1.8	0.0	0.8
2702	1	DE	0.0	1.3	0.0	0.8	0.0	0.8
2702	3	NO2	0.8	1.3	0.3	0.3	1.3	2.4
2702	2	FA	0.3	2.2	0.3	0.9	0.9	4.7
2703	1	DE	0.0	0.9	0.0	1.4	0.3	1.4
2703	2	NO2	.	.	.	.	0.0	0.8
2703	3	FA	0.0	0.3	0.3	0.3	0.0	0.3

Table C21. Individual Data: Exhaled Carbon Monoxide and Concurrent Ambient Carbon Monoxide (ppm), Phase 2

ID	Exp	Atm	Pre ambient	exhaled	Post ambient	exhaled	Day 2 ambient	exhaled
Ph 2 Asthmatic								
2325	2	DE	0.0	0.3	0.0	0.3	0.0	1.4
2325	1	NO2	0.0	1.4	0.0	0.9	0.0	2.6
2325	3	FA	0.6	0.6	0.0	1.1	0.0	1.1
2551	2	DE	0.0	0.3	0.0	0.3	0.3	2.9
2551	3	NO2	0.0	0.9	0.0	2.1	0.0	0.9
2551	1	FA	.	.	0.6	1.1	0.3	0.0
2602	1	DE	0.0	0.7	0.0	1.7	0.2	1.7
2602	2	NO2	0.0	1.7	0.3	1.0	0.0	1.0
2602	3	FA	.	.	.	.	0.0	2.1
2628	1	DE	0.2	1.7	0.2	2.2	0.0	0.2
2628	3	NO2	0.3	0.3	0.0	0.9	0.0	2.0
2628	2	FA	0.0	0.8	0.3	0.0	0.3	0.0
2651	2	DE	0.0	1.4	0.0	0.3	0.3	0.8
2651	1	NO2	0.0	2.4	0.0	0.3	0.0	0.0
2651	3	FA	3.7	4.9	3.1	5.4	0.0	1.1
2701	3	DE	0.0	0.3	0.0	1.4	0.3	0.8
2701	1	NO2	0.3	1.8	0.0	0.0	0.3	1.3
2701	2	FA	0.0	1.9	0.0	0.3	.	.
2704	2	DE	0.3	0.0	0.3	0.3	0.0	2.9
2704	3	NO2	0.0	0.9	0.0	0.3	0.0	0.9
2704	1	FA	0.0	0.3	0.0	0.0	0.0	0.3
2780	1	DE	0.3	3.4	0.0	4.5	0.0	7.1
2780	3	NO2	0.0	6.7	0.0	2.6	0.0	7.7
2780	2	FA	0.6	4.0	0.6	2.3	0.0	4.6
2847	3	DE	0.0	0.0	0.0	0.9	0.0	0.0
2847	1	NO2	0.0	0.9	0.0	0.0	0.0	2.1
2847	2	FA	0.0	0.0	0.3	0.0	0.0	0.3
2871	3	DE	0.0	0.3	0.0	0.0	0.0	0.3
2871	1	NO2	0.0	2.3	0.0	0.6	0.0	2.3
2871	2	FA	0.0	0.5	0.0	0.0	0.5	0.5
2876	1	DE	0.5	0.5	0.5	0.0	0.0	0.5
2876	2	NO2	0.6	0.6	0.6	0.6	0.0	1.1
2876	3	FA	0.0	0.6	0.0	0.6	0.0	1.1
2878	1	DE	0.0	1.1	0.0	1.1	0.0	1.1
2878	3	NO2	0.0	1.5	0.0	0.5	0.0	0.5
2878	2	FA	0.0	0.5	0.0	1.5	0.0	1.0
2879	1	DE	0.0	1.5	0.0	1.5	0.0	2.1
2879	2	NO2	0.0	0.6	0.6	0.6	0.0	1.7
2879	3	FA	0.0	0.5	0.0	0.5	0.0	0.5
2883	1	DE	0.0	1.5	0.0	1.5	0.0	1.0
2883	3	NO2	0.0	1.7	0.0	1.0	0.0	3.0
2883	2	FA	0.0	1.1	0.0	1.1	2.3	4.0
2886	1	DE	0.0	0.0	0.5	0.5	0.0	1.0
2886	3	NO2	0.0	1.7	0.0	0.0	0.0	1.7
2886	2	FA	0.0	1.0	0.0	1.0	1.5	3.6

Table C22. Individual Data: Exhaled Nitric Oxide (50 ml/sec Nominal Flow) and Concurrent Ambient Nitric Oxide (ppb), Phase 1

ID	Exp	Atm	Pre ambient	exhaled	Post ambient	exhaled	Day 2 ambient	exhaled
Ph 1 Prelim Healthy								
2615	1	DE	72.8	25.4	16.1	25.1	-0.1	31.3
2615	2	NO2	4.5	23.7	16.0	30.4	0.7	27.1
2615	3	zFA	0.7	22.1	1.3	24.9	5.4	29.9
2616	2	DE	1.4	6.0	1.6	5.6	0.9	5.0
2616	1	NO2	8.9	8.0	3.0	6.9	2.3	6.0
2616	3	zFA	5.5	3.4	3.7	6.2	0.8	3.9
2617	2	DE	0.3	12.8	0.4	15.8	1.2	13.4
2617	3	NO2	1.3	12.1	1.2	16.0	0.9	14.8
2617	1	zFA	22.8	18.7	0.8	16.5	0.5	14.6
2620	1	DE	90.0	13.1	16.1	12.5	1.9	11.8
2620	3	NO2	0.3	9.7	0.8	9.3	0.9	7.5
2620	2	zFA	96.3	7.8	19.6	8.3	0.9	7.8
Ph 1 Asthmatic								
1216	2	DE	-0.2	25.3	11.3	26.3	-0.1	23.3
1216	1	NO2	-0.5	14.6	4.3	18.4	17.0	18.7
1216	3	zFA	203.8	31.0	71.4	30.7	-0.2	34.1
1656	2	DE	84.3	14.8	1.5	14.9	-0.4	17.2
1656	3	NO2	34.9	16.3	3.9	14.9	3.9	16.7
1656	1	zFA	39.0	18.3	4.0	18.7	12.1	15.4
2525	3	DE	16.2	12.3	1.6	9.2	71.5	13.0
2525	2	NO2	7.0	13.0	0.9	12.5	7.9	13.4
2525	1	zFA	20.0	11.1	2.7	12.6	88.0	16.7
2602	1	DE	122.9	13.6	3.9	12.5	8.2	15.3
2602	3	NO2	24.7	8.5	1.2	7.1	16.5	7.7
2602	2	zFA	20.2	14.9	-0.2	10.5	60.2	12.5
2606	1	DE	9.5	136.7	1.6	124.9	-0.3	148.8
2606	2	NO2	96.4	168.6	6.7	151.6	-0.2	138.5
2606	3	zFA	.	.	26.5	102.4	62.8	103.7
2628	2	DE	.	.	4.1	29.0	6.6	27.9
2628	3	NO2	2.6	28.9	6.0	32.6	3.1	40.2
2628	1	zFA	0.7	29.4	0.9	29.8	5.4	25.2
2641	3	DE	10.4	153.1	17.9	167.0	12.9	138.9
2641	1	NO2	9.6	167.8	1.1	158.6	2.7	145.0
2641	2	zFA	0.3	127.0	0.4	148.4	0.7	153.5
2642	2	DE	0.1	9.1	0.1	10.6	1.0	13.3
2642	1	NO2	14.0	18.6	2.1	15.8	1.4	17.1
2642	3	zFA	0.3	14.3	0.4	15.8	0.9	16.6
2643	3	DE	19.6	13.5	0.8	15.8	7.1	18.1
2643	1	NO2	100.2	14.0	2.3	14.5	2.6	10.9
2643	2	zFA	103.8	14.5	38.8	14.7	8.5	12.2
2644	1	DE	91.4	3.4	9.3	4.0	1.4	3.2
2644	2	NO2	3.9	3.2	1.0	3.4	10.2	3.4
2644	3	zFA	5.1	2.7	1.3	2.8	20.3	3.1
2651	3	DE	4.3	21.5	11.3	21.2	-0.2	18.3
2651	2	NO2	31.2	45.3	10.5	41.9	37.8	55.3
2651	1	zFA	1.0	21.5	0.6	20.0	0.5	19.7
2666	2	DE	15.2	34.1	1.6	36.6	1.8	34.4
2666	3	NO2	32.9	53.1	23.7	51.7	37.2	46.1
2666	1	zFA	0.0	59.1	67.6	62.0	146.6	65.0
2669	2	DE	2.6	109.7	3.8	110.1	0.9	125.7
2669	1	NO2	32.2	121.2	-0.1	142.7	9.9	131.5
2669	3	zFA	11.1	77.0	1.2	91.0	18.7	80.1
2702	1	DE	85.5	12.2	2.7	11.3	200.6	12.0
2702	3	NO2	276.6	17.6	32.7	12.6	271.0	20.0
2702	2	zFA	172.7	12.7	8.5	12.7	232.0	14.1
2703	1	DE	8.5	81.1	0.0	79.7	16.7	101.1
2703	2	NO2	95.5	114.6	-0.1	102.4	110.9	103.2
2703	3	zFA	65.1	63.3	6.3	58.0	71.4	68.2

Table C23. Individual Data: Exhaled Nitric Oxide (50 ml/sec Nominal Flow) and Concurrent Ambient Nitric Oxide (ppb), Phase 2

			Pre		Post		Day 2	
ID	Exp	Atm	ambient	exhaled	ambient	exhaled	ambient	exhaled
Ph 2 Asthmatic								
2325	2	DE	107.4	75.2	1.5	53.0	0.9	70.3
2325	1	NO2	229.1	117.3	25.9	97.3	184.1	118.0
2325	3	zFA	35.5	50.2	0.6	47.8	1.3	81.2
2551	2	DE	140.2	70.6	31.6	59.0	237.9	69.4
2551	3	NO2	158.5	59.7	-0.4	49.3	126.0	60.1
2551	1	zFA	.	.	0.0	46.0	87.7	55.0
2602	1	DE	32.3	16.7	0.0	16.0	49.9	22.0
2602	2	NO2	1.1	13.0	0.8	13.2	13.9	16.9
2602	3	zFA	.	.	.	.	9.5	14.9
2628	1	DE	27.8	36.1	7.5	39.6	2.1	54.4
2628	3	NO2	2.4	29.7	3.3	34.6	28.2	32.8
2628	2	zFA	74.8	53.1	15.7	36.2	125.2	55.5
2651	2	DE	0.1	55.1	2.8	54.1	39.4	47.5
2651	1	NO2	141.4	55.2	43.2	54.7	58.1	64.8
2651	3	zFA	39.6	65.2	-0.4	52.9	148.1	40.2
2701	3	DE	75.3	32.8	14.4	30.1	-1.2	37.4
2701	1	NO2	18.7	23.3	3.8	23.6	-0.1	22.8
2701	2	zFA	137.9	36.1	4.2	29.5	105.9	39.2
2704	2	DE	120.6	81.1	27.2	79.5	114.2	105.1
2704	3	NO2	127.8	82.0	60.3	75.9	86.1	91.3
2704	1	zFA	0.0	37.4	21.5	36.6	6.4	34.2
2780	1	DE	0.9	8.3	-0.1	8.8	0.2	7.1
2780	3	NO2	2.0	7.0	9.9	5.1	0.7	7.6
2780	2	zFA	46.7	10.4	6.1	7.5	0.7	10.7
2847	3	DE	62.5	48.5	18.3	46.8	159.0	48.4
2847	1	NO2	152.7	49.5	110.4	43.8	165.9	43.0
2847	2	zFA	45.6	55.6	45.2	59.8	241.8	61.5
2871	3	DE	17.1	34.2	35.2	45.0	1.4	45.4
2871	1	NO2	0.2	36.5	0.5	41.0	18.3	49.7
2871	2	zFA	20.4	25.6	31.0	40.4	40.5	51.7
2876	1	DE	4.6	78.3	5.5	87.2	10.9	78.2
2876	2	NO2	36.8	81.3	7.3	85.9	41.5	95.4
2876	3	zFA	29.5	64.6	2.3	74.0	38.6	84.7
2878	1	DE	15.6	15.8	2.7	19.0	-0.1	12.3
2878	3	NO2	0.7	11.0	1.3	11.7	1.1	15.3
2878	2	zFA	0.9	15.4	2.0	12.6	0.2	11.4
2879	1	DE	1.3	37.3	0.7	38.3	0.3	38.9
2879	2	NO2	3.4	28.8	3.7	22.4	20.8	45.3
2879	3	zFA	13.7	34.8	30.9	40.0	2.7	29.8
2883	1	DE	11.5	106.1	4.3	99.6	35.1	137.6
2883	3	NO2	81.6	86.9	7.4	74.1	208.2	143.6
2883	2	zFA	0.0	76.6	5.2	80.4	16.3	91.6
2886	1	DE	11.3	12.1	4.3	13.2	33.9	14.4
2886	3	NO2	120.5	23.0	17.7	20.9	17.8	19.6
2886	2	zFA	0.1	13.5	1.0	15.0	1.0	15.1