

APPENDIX C. Individual blood lead concentrations in microswine.

The table below correlates the animal numbering system used in the study to the numbering system used to label the blood collection data.

Group Designation	Test Soil	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number
A	AEC 3-3	101	1043	102	1071	103	987	104	984	105	1012		
B	AEC 9-3	201	1033	202	986	203	1003	204	1094	205	1027		
C	Pb Acetate	301	981	302	1064	303	1041	304	996	305	992		
D	AEC 10-1	401	965	402	1052	403	972	404	1024	405	973		
E	PLW	101	185	102	175	103	1255	104	1212	105	144	106	1251
G	EC1	301	1191	302	1241	303	1242	304	1246	305	145	306	196
H	FM	101	452	102	404	103	453	104	442	105	423		
I	Pb Acetate	201	405	202	456	203	422	204	381	205	454		
J	PLW1	301	394	302	455	303	443	304	451	305	401		

Individual blood lead concentrations ($\mu\text{g/mL}$) in microswine

		GROUP: A				TEST SUBSTANCE: AEC 3-3	
Collection Time (hrs)	Animal 1043	Animal 1071	Animal 987	Animal 1012		Mean	S.D.
0	0.005	0.010	0.007	0.067		0.02	0.03
0.5	0.099	0.158	0.231	0.450		0.23	0.15
1	0.227	0.120	0.386	0.511		0.31	0.17
2	0.301	0.823	0.431	0.488a		0.51	0.22
4	0.553a	0.382	0.603	0.407		0.49	0.11
8	0.206b	0.053	0.312a	0.242a		0.20	0.11
12	0.210	0.134	0.322c	0.199		0.22	0.08
24	0.605	0.302	0.375a	0.395		0.42	0.13
48	0.348	0.533	0.286	0.167		0.33	0.15
72	0.143	0.057	0.156a	0.214		0.14	0.07
96	0.106	0.102	0.196	0.093		0.12	0.05
120	0.058	0.086	0.080a	0.045		0.07	0.02
144	0.141	0.073a	0.092	0.182		0.12	0.05
192	0.076	0.057	0.087	0.051		0.07	0.02
240	0.055	0.050	0.058	0.054		0.05	0.00

		GROUP: B				TEST SUBSTANCE: AEC 9-3	
Collection Time (hrs)	Animal 1033	Animal 986	Animal 1003	Animal 1027		Mean	S.D.
0	0.011	0.005	0.005	0.008		0.01	0.00
0.5	0.083	0.007b	0.051	0.167		0.08	0.07
1	0.145	0.017b	0.122	0.227		0.13	0.09
2	0.346	0.697c	0.400	0.296a		0.43	0.18
4	0.286	0.100	0.454	0.386		0.31	0.15
8	0.344	0.160	0.289	0.470		0.32	0.13
12	0.173	0.237	0.278	0.357		0.26	0.08
24	0.094b	0.240	0.193	0.283		0.20	0.08
48	0.088	0.148	0.159	0.121		0.13	0.03
72	0.085	0.091	0.095	0.190		0.12	0.05
96	0.054	0.099	0.074a	0.127		0.09	0.03
120	0.070	0.067	0.073	0.115		0.08	0.02
144	0.108	0.093	0.111	0.179		0.12	0.04
192	0.078	0.020	0.017	0.053		0.04	0.03
240	0.047	0.036	0.045	0.111		0.06	0.04

^a Analysis repeated; results from repeated analysis replace results from original analysis.

^b Analysis repeated; results from repeated analysis not used.

^c Analysis repeated twice; results from first repeated analysis replace results from original analysis.

Individual blood lead concentrations ($\mu\text{g/mL}$) in micsowine (continued).

GROUP: C						TEST SUBSTANCE: Lead Acetate	
Collection Time (hrs)	Animal 981	Animal 1064	Animal 1041	Animal 996	Animal 992	Mean	S.D.
0	0.008	0.005	0.005	0.011	0.005b	0.01	0.00
0.5	2.460	12.400b	2.700	1.030	0.138b	3.75	4.95
1	1.800	11.430b	4.330	0.218b	0.088a	3.57	4.71
2	2.370	3.660	2.670	0.430b	0.175b	1.86	1.50
4	0.538	1.990b	1.270b	0.326	0.205b	0.87	0.75
8	0.784	0.821	1.760b	0.569	0.809a	0.95	0.47
12	0.640	1.060	1.050	0.305	0.180b	0.65	0.41
24	0.497	0.946	0.795	0.349	0.133b	0.54	0.33
48	0.214	0.680	0.518	0.119	0.107a	0.33	0.26
72	0.329	0.512	0.359	0.134	0.129a	0.29	0.16
96	0.372	0.479	0.297	0.160	0.128a	0.29	0.15
120	0.266	0.388	0.283	0.124	0.066b	0.23	0.13
144	0.224	0.259	0.189	0.121	0.091a	0.18	0.07
192	0.181	0.272	0.231	0.076	0.043b	0.16	0.10
240	0.131	0.298	0.159	0.092	0.021b	0.14	0.10

GROUP: D						TEST SUBSTANCE: AEC 10-1	
Collection Time (hrs)	Animal 965	Animal 1052	Animal 972	Animal 1024	Animal 973	Mean	S.D.
0	0.005	0.005	0.042	0.005	0.005	0.01	0.02
0.5	0.041	0.005	0.008	0.111	0.128	0.06	0.06
1	0.075	0.005	0.074	0.173	0.251	0.12	0.10
2	0.114	0.005	0.095	0.338	0.205	0.15	0.13
4	0.282	0.095	0.283	0.804	0.624	0.42	0.29
8	0.161	0.328	0.260	0.403	0.191	0.27	0.10
12	0.182	0.300	0.160	0.338	0.196	0.24	0.08
24	0.160	0.391	0.241	0.264	0.263	0.26	0.08
48	0.144	0.193	0.199	0.193	0.210	0.19	0.03
72	0.088	0.170	0.148	0.209	0.173	0.16	0.05
96	0.094	0.136	0.126	0.169	0.122	0.13	0.03
120	0.055	0.093	0.076	0.136	0.063	0.08	0.03
144	0.022	0.076	0.055	0.111	0.062	0.07	0.03
192	0.047	0.054	0.041	0.078	0.075	0.06	0.02
240	0.051	0.055	0.037	0.059	0.050	0.05	0.01

^a Analysis repeated; results from repeated analysis replace results from original analysis.

^b Analysis repeated; results from repeated analysis not used.

^c Analysis repeated twice; results from first repeated analysis replace results from original analysis.

Individual blood lead concentrations ($\mu\text{g/mL}$) in micsowine (continued).

		GROUP: E					TEST SUBSTANCE: PLW	
Collection Time (hrs)	Animal 185	Animal 175	Animal 1255	Animal 1212	Animal 144	Animal 1251	Mean	S.D.
0	0.005	0.007	0.005	0.005	0.005	0.011	0.01	0.00
0.5	0.008	0.005	0.005	0.005	0.005	0.005	0.01	0.00
1	0.005	0.005	0.005	0.005	0.011	0.005	0.01	0.00
2	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.00
4	0.075	0.013	0.012	0.019	0.040	0.119	0.05	0.04
8	0.131	0.097	0.043	0.069	0.056	0.063	0.08	0.03
12	0.088	0.077	0.047	0.068	0.062	0.037	0.06	0.02
24	0.069	0.118	0.048	0.081	0.067	0.041	0.07	0.03
48	0.022	0.040	0.021	0.032	0.018	0.013	0.02	0.01
72	0.055	0.044	0.028	0.061	0.031	0.024	0.04	0.02
96	0.028	0.039	0.025	0.037	0.031	0.014	0.03	0.01
120	0.035	0.037	0.013	0.028	0.019	0.016	0.02	0.01
144	0.014	0.026	0.010	0.021	0.015	0.011	0.02	0.01
192	0.005	0.032	0.011	0.032	0.008	0.026	0.02	0.01
240	0.032	0.018	0.017	0.033	0.020	0.017	0.02	0.01

		GROUP: G					TEST SUBSTANCE: EC1	
Collection Time (hrs)	Animal 1191	Animal 1241	Animal 1242	Animal 1246	Animal 145	Animal 196	Mean	S.D.
0	0.045	0.048	0.038	0.034	0.040	0.033	0.04	0.01
0.5	0.042	0.046	0.052	0.052	0.067	0.026	0.05	0.01
1	0.044	0.021	0.048	0.050	0.055	0.060	0.05	0.01
2	0.046	0.054	0.055	0.048	0.031	0.050	0.05	0.01
4	0.051	0.053	0.039	0.057	0.070	0.062	0.06	0.01
8	0.058	0.097	0.049	0.060	0.046	0.052	0.06	0.02
12	0.102	0.120	0.107	0.087	0.077	0.079	0.10	0.02
24	0.083	0.191	0.187	0.176	0.128	0.155	0.15	0.04
48	0.112	0.106	0.124	0.098	0.067	0.082	0.10	0.02
72	0.061	0.067	0.082	0.102	0.055	0.061	0.07	0.02
96	0.061	0.061	0.063	0.094	0.059	0.081	0.07	0.01
120	0.042	0.079	0.074	0.097	0.077	0.069	0.07	0.02
144	0.042	0.056	0.065	0.082	0.026	0.055	0.05	0.02
192	0.033	0.057	0.063	0.065	0.061	0.054	0.06	0.01
240	0.054	0.049	0.076	0.064	0.084	0.066	0.07	0.01

Individual blood lead concentrations ($\mu\text{g/mL}$) in micsowine (continued).

		GROUP: H					TEST SUBSTANCE: FM	
Collection Time (hrs)	Animal 452	Animal 404	Animal 453	Animal 442	Animal 423		Mean	S.D.
0	0.005	0.011	0.005	0.005	0.005		0.01	0.00
0.5	0.009	0.010	0.010	0.008	0.011		0.01	0.00
1	0.027	0.009	0.020	0.005	0.033		0.02	0.01
2	0.060	0.005	0.034	0.005	0.059		0.03	0.03
4	0.247	0.029	0.130	0.043	0.174		0.12	0.09
8	0.130	0.070	0.113	0.045	0.156		0.10	0.05
12	0.175	0.086	0.089	0.091	0.103		0.11	0.04
24	0.152	0.068	0.072	0.064	0.068		0.08	0.04
48	0.080	0.035	0.028	0.030	0.045		0.04	0.02
72	0.055	0.015	0.021	0.013	0.018		0.02	0.02
96	0.061	0.015	0.028	0.013	0.022		0.03	0.02
120	0.045	0.014	0.017	0.021	0.017		0.02	0.01
144	0.048	0.011	0.024	0.021	0.026		0.03	0.01
192	0.035	0.008	0.021	0.015	0.007		0.02	0.01
240	0.021a	0.015a	0.038a	0.015a	0.027a		0.02	0.01

		GROUP: I					TEST SUBSTANCE: Lead Acetate	
Collection Time (hrs)	Animal 405	Animal 456	Animal 422	Animal 381	Animal 454		Mean	S.D.
0	0.013	0.014	0.010	0.013	0.006		0.01	0.00
0.5	0.441	0.037	0.162	0.529	0.223		0.28	0.20
1	0.529	0.075	0.133	0.469	0.166		0.27	0.21
2	0.509	0.177	0.258	0.336	0.344		0.32	0.12
4	0.167	0.046	0.127	0.302	0.225		0.17	0.10
8	0.209	0.052	0.152	0.232	0.190		0.17	0.07
12	0.224	0.035	0.112	0.148	0.139		0.13	0.07
24	0.164	0.060	0.093	0.098	0.142		0.11	0.04
48	0.113	0.037	0.074	0.083	0.108		0.08	0.03
72	0.096	0.042	0.059	0.108	0.112		0.08	0.03
96	0.074	0.041	0.045	0.070	0.072		0.06	0.02
120	0.064	0.027	0.058	0.043	0.052		0.05	0.01
144	0.056	0.016	0.041	0.064	0.034		0.04	0.02
192	0.040	0.026	0.044	0.041	0.046		0.04	0.01
240	0.070	0.024	0.053	0.035	0.050		0.05	0.02

^a Analysis repeated; results from repeated analysis replace results from original analysis.

Individual blood lead concentrations ($\mu\text{g/mL}$) in micsowine (continued).

		GROUP: J			TEST SUBSTANCE: PLW1		
Collection Time (hrs)	Animal 394	Animal 455	Animal 443	Animal 451	Animal 401	Mean	S.D.
0	0.005	0.005	0.005	0.005	0.005	0.01	0.00
0.5	0.019	0.780	0.195	0.088	0.443	0.31	0.31
1	0.029	1.758	0.123	0.064	1.167	0.63	0.79
2	0.132	1.439	0.308	0.597	0.979	0.69	0.53
4	0.079	0.493	0.296	0.288	0.547	0.34	0.19
8	0.214	0.366	0.282	0.685	0.375	0.38	0.18
12	0.154	0.412	0.219	0.357	0.328	0.29	0.11
24	0.251	0.614	0.328	0.459	0.388	0.41	0.14
48	0.340	0.421	0.641	0.418	0.861	0.54	0.21
72	0.159	0.200	0.083	0.135	0.096	0.13	0.05
96	0.043	0.071	0.056	0.043	0.070	0.06	0.01
120	0.036	0.054	0.041	0.034	0.038	0.04	0.01
144	0.039	0.069	0.054	0.025	0.071	0.05	0.02
192	0.017	0.065	0.047	0.030	0.048	0.04	0.02
240	0.007	0.067	0.040	0.023	0.061	0.04	0.03

APPENDIX D. Individual body weights (g) of microswine.

The table below correlates the animal numbering system used in the study to the numbering system used to label the blood collection data.

Group Designation	Test Soil	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number
A	AEC 3-3	101	1043	102	1071	103	987	104	984	105	1012	106	1251
B	AEC 9-3	201	1033	202	986	203	1003	204	1094	205	1027		
C	Pb Acetate	301	981	302	1064	303	1041	304	996	305	992		
D	AEC 10-1	401	965	402	1052	403	972	404	1024	405	973		
E	PLW	101	185	102	175	103	1255	104	1212	105	144		
G	EC1	301	1191	302	1241	303	1242	304	1246	305	145		
H	FM	101	452	102	404	103	453	104	442	105	423		
I	Pb Acetate	201	405	202	456	203	422	204	381	205	454		
J	PLW1	301	394	302	455	303	443	304	451	305	401	306	196

Individual body weights (g) of microswine.

		GROUP: A		TEST SUBSTANCE: AEC 3-3	
Days on Test:		1	3	7	11
Animal Number					
1043		4801.0	5047.0	5688.0	6409.0
1071		6074.0	6212.0	6576.0	7535.0
987		7264.0	7367.0	7947.0	9129.0
984		8031.0	Sacrificed in extremis (DAY 2)		
1012		5206.0	5358.0	5873.0	6551.0

		GROUP: B		TEST SUBSTANCE: AEC 9-3	
Days on Test:	1	4	6	10	11
Animal Number					
1033	6285.0	6700.0	7020.0	7370.0	7557.0
986	7132.0	7645.0	8034.0	8648.0	9005.0
1003	9532.0	9868.0	10460.0	10870.0	11220.0
1094	5781.0	Accidentally Killed (DAY 1)			
1027	6051.0	6333.0	6824.0	7274.0	7500.0

		GROUP: C		TEST SUBSTANCE: Lead Acetate	
Days on Test:		1	9	11	
Animal Number					
981		9768.0	11422.0	11662.0	
1064		5191.0	6717.0	7050.0	
1041		6580.0	8195.0	8491.0	
996		7879.0	9471.0	9768.0	
992		8250.0	9852.0	10143.0	

Individual body weights (g) of microswine (continued).

		GROUP: D		TEST SUBSTANCE: AEC 10-1	
Days on Test:	1	6	8	11	
Animal Number					
965	7954.0	8799.0	8933.0	9727.0	
1052	3628.0	4816.0	5292.0	5863.0	
972	9833.0	10394.0	10798.0	11217.0	
1024	6849.0	7798.0	8025.0	8709.0	
973	7593.0	8257.0	8443.0	8963.0	

		GROUP: E		TEST SUBSTANCE: PLW	
Days on Test:	1	4	8	11	
Animal Number					
185	6169.0	6704.0	7465.0	7734.0	
175	7256.0	7611.0	8289.0	8792.0	
1255	6055.0	6336.0	6953.0	7210.0	
1212	6175.0	6564.0	7124.0	7486.0	
144	7904.0	8333.0	8934.0	9371.0	
1251	5882.0	6159.0	6689.0	6914.0	

		GROUP: G		TEST SUBSTANCE: EC1	
Days on Test:	1	4	7	11	
Animal Number					
1191	7987.0	8351.0	8704.0	9290.0	
1241	8341.0	8608.0	9199.0	9483.0	
1242	6391.0	6694.0	7126.0	7597.0	
1246	7400.0	7831.0	8322.0	9023.0	
145	9279.0	9543.0	9903.0	10395.0	
196	6818.0	7285.0	7797.0	8408.0	

Individual body weights (g) of microswine (continued).

		GROUP: H		TEST SUBSTANCE: FM	
Days on Test:	1	3	7	11	
Animal Number					
452	7089.0	7438.0	7933.0	8610.0	
404	5958.0	6405.0	6929.0	7313.0	
453	5823.0	6198.0	6660.0	7384.0	
442	6566.0	6838.0	7189.0	7847.0	
423	5189.0	5525.0	6102.0	6711.0	

		GROUP: I		TEST SUBSTANCE: Lead Acetate	
Days on Test:	1	4	8	11	
Animal Number					
405	6867.0	7257.0	8086.0	8483.0	
456	6558.0	6993.0	7612.0	8029.0	
422	6288.0	6653.0	7428.0	7998.0	
381	6189.0	6490.0	7232.0	7830.0	
454	7100.0	7379.0	7988.0	8252.0	

		GROUP: J		TEST SUBSTANCE: PLW1	
Days on Test:	1	4	7	11	
Animal Number					
394	4464.0	5107.0	5629.0	6330.0	
455	6869.0	7397.0	7841.0	8502.0	
443	7586.0	7966.0	8244.0	8720.0	
451	6867.0	7182.0	7529.0	8162.0	
401	6420.0	6886.0	7290.0	7870.0	

APPENDIX E. Individual clinical observations in microswine.

The table below correlates the animal numbering system used in the study to the numbering system used to label the blood collection data.

Group Designation	Test Soil	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number
A	AEC 3-3	101	1043	102	1071	103	987	104	984	105	1012		
B	AEC 9-3	201	1033	202	986	203	1003	204	1094	205	1027		
C	Pb Acetate	301	981	302	1064	303	1041	304	996	305	992		
D	AEC 10-1	401	965	402	1052	403	972	404	1024	405	973		
E	PLW	101	185	102	175	103	1255	104	1212	105	144		
G	EC1	301	1191	302	1241	303	1242	304	1246	305	145	106	1251
H	FM	101	452	102	404	103	453	104	442	105	423	306	196
I	Pb Acetate	201	405	202	456	203	422	204	381	205	454		
J	PLW1	301	394	302	455	303	443	304	451	305	401		

Individual clinical observations in microswine.

GROUP: A TEST SUBSTANCE: AEC 3-3

Animal Number	Observation	First Day Observed	Last Day Observed
1043	No Abnormalities Detected Sacrificed by Design Test Day 11		
1071	No Abnormalities Detected Sacrificed by Design Test Day 11		
987	No Abnormalities Detected Sacrificed by Design Test Day 11		
984	No Abnormalities Detected Sacrificed <i>in extremis</i> Test Day 2		
1012	No Abnormalities Detected Sacrificed by Design Test Day 11		

GROUP: B TEST SUBSTANCE: AEC 9-3

Animal Number	Observation	First Day Observed	Last Day Observed
1033	No Abnormalities Detected Sacrificed by Design Test Day 11		
986	No Abnormalities Detected Sacrificed by Design Test Day 11		
1003	No Abnormalities Detected Sacrificed by Design Test Day 11		
1094	No Abnormalities Detected Accidentally Killed Test Day 1		
1027	No Abnormalities Detected Sacrificed by Design Test Day 11		

Individual clinical observations in microswine (continued).

GROUP: C		TEST SUBSTANCE: Lead Acetate	
Animal Number	Observation	First Day Observed	Last Day Observed
981	No Abnormalities Detected Sacrificed by Design Test Day 11		
1064	No Abnormalities Detected Sacrificed by Design Test Day 11		
1041	No Abnormalities Detected Sacrificed by Design Test Day 11		
996	No Abnormalities Detected Sacrificed by Design Test Day 11		
992	No Abnormalities Detected Sacrificed by Design Test Day 11		

GROUP: D		TEST SUBSTANCE: AEC 10-1	
Animal Number	Observation	First Day Observed	Last Day Observed
965	No Abnormalities Detected Sacrificed by Design Test Day 11		
1052	Diarrhea Sacrificed by Design Test Day 11	8	8
972	No Abnormalities Detected Sacrificed by Design Test Day 11		
1024	No Abnormalities Detected Sacrificed by Design Test Day 11		
973	No Abnormalities Detected Sacrificed by Design Test Day 11		

Individual clinical observations in microswine (continued).

GROUP: E		TEST SUBSTANCE: PLW	
Animal Number	Observation	First Day Observed	Last Day Observed
185	No Abnormalities Detected Sacrificed by Design Test Day 11		
175	No Abnormalities Detected Sacrificed by Design Test Day 11		
1255	No Abnormalities Detected Sacrificed by Design Test Day 11		
1212	No Abnormalities Detected Sacrificed by Design Test Day 11		
144	No Abnormalities Detected Sacrificed by Design Test Day 11		
1251	No Abnormalities Detected Sacrificed by Design Test Day 11		

GROUP: G		TEST SUBSTANCE: EC1	
Animal Number	Observation	First Day Observed	Last Day Observed
1191	No Abnormalities Detected Sacrificed by Design Test Day 11		
1241	No Abnormalities Detected Sacrificed by Design Test Day 11		
1242	No Abnormalities Detected Sacrificed by Design Test Day 11		
1246	No Abnormalities Detected Sacrificed by Design Test Day 11		
145	No Abnormalities Detected Sacrificed by Design Test Day 11		
196	No Abnormalities Detected Sacrificed by Design Test Day 11		

Individual clinical observations in microswine (continued).**GROUP: H TEST SUBSTANCE: FM**

Animal Number	Observation	First Day Observed	Last Day Observed
452	No Abnormalities Detected Sacrificed by Design Test Day 11		
404	Bent Right Front Paw(s) Sacrificed by Design Test Day 11	1	11 NR
453	No Abnormalities Detected Sacrificed by Design Test Day 11		
442	No Abnormalities Detected Sacrificed by Design Test Day 11		
423	No Abnormalities Detected Sacrificed by Design Test Day 11		

GROUP: I TEST SUBSTANCE: Lead Acetate

Animal Number	Observation	First Day Observed	Last Day Observed
405	No Abnormalities Detected Sacrificed by Design Test Day 11		
456	No Abnormalities Detected Sacrificed by Design Test Day 11		
422	No Abnormalities Detected Sacrificed by Design Test Day 11		
381	No Abnormalities Detected Sacrificed by Design Test Day 11		
454	No Abnormalities Detected Sacrificed by Design Test Day 11		

Individual clinical observations in microswine (continued).

GROUP: J TEST SUBSTANCE: PLW1

Animal Number	Observation	First Day Observed	Last Day Observed
394	No Abnormalities Detected Sacrificed by Design Test Day 11		
455	No Abnormalities Detected Sacrificed by Design Test Day 11		
443	No Abnormalities Detected Sacrificed by Design Test Day 11		
451	No Abnormalities Detected Sacrificed by Design Test Day 11		
401	No Abnormalities Detected Sacrificed by Design Test Day 11		

APPENDIX F Sample calculations

1. Sample calculation for the amount of lead in the dose.

Formula:

Concentration of Lead (ppm) x Gavage Sample (g) x Dilution Factor = Lead in Sample (mg)

Example: Soil PLW

Mean lead analyzed = 244.5 ppm

Gavage sample = 21.17 g soil + 30 g water = 51.17 g

Dilution factor = 0.75

Concentration of lead derived from analysis during the study.

Soil weight (21.17 g) was calculated in order to give each animal 17 mg of lead. This soil lead concentration is 803 ppm (information obtained from the study sponsor). The dose was prepared for 10 animals.

211.7 g soil was weighed and mixed with 300 mL water; 30 mL of the mixture was given to each animal. In some cases, the soil did not mix well, so the amount of water was increased to 400 or 500 mL. This additional water is the reason for the dilution factor used in the calculations.

$$\begin{aligned} 244.5 \text{ ppm} \times 51.17 \text{ g} \times 0.75 &= \text{lead in sample (mg)} \\ 0.2445 \text{ mg/g} \times 51.17 \text{ g} \times 0.75 &= \text{lead in sample (mg)} \\ 9.383 \text{ mg} &= \text{lead in sample} \end{aligned}$$

2. Sample calculation for area under the curve (AUC).

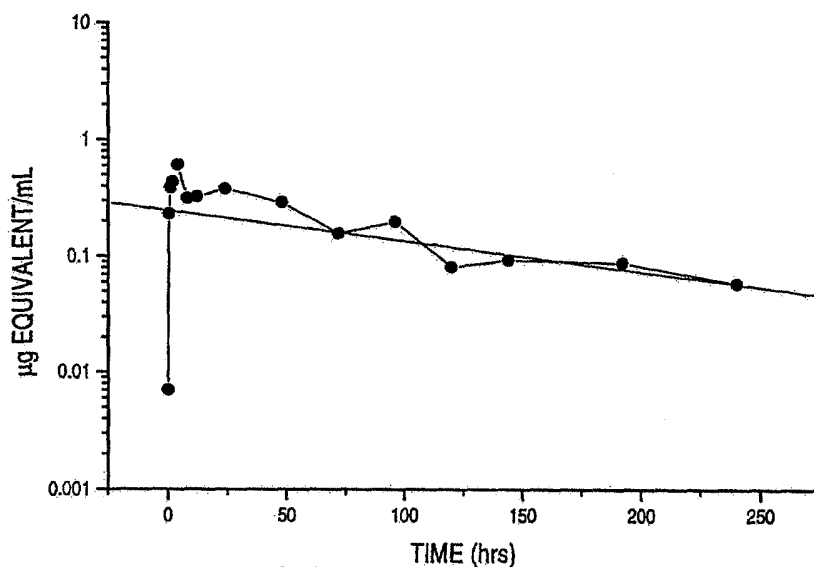
Formulas:

$$\text{Slope} = -\beta / 2.303$$

$$\text{Area } \infty = \text{Value of Last Time Point} / \beta$$

$$\text{Total AUC} = \text{Area} + \text{Area } \infty$$

Example: Plasma Data from Animal #987, Group A (AEC 3-3)



$$\text{Area} = 39.54825$$

$$B (\text{slope} \pm \text{std.dev.}) = -0.00264 \pm 0.00121$$

$$\text{Concentration at Last Time Point} = 0.058 \mu\text{g/mL}$$

$$\text{Slope} = -\beta / 2.303$$

$$-0.00264 = -\beta / 2.303$$

$$-0.00264 \times 2.303 = -\beta$$

$$0.0060799 = \beta$$

$$\text{Area } \infty = 0.058 / \beta$$

$$\text{Area } \infty = 0.058 / 0.0060799$$

$$\text{Area } \infty = 9.5396306$$

$$\text{Total AUC} = \text{Area} + \text{Area } \infty$$

$$\text{Total AUC} = 39.54825 + 9.5396306$$

$$\text{Total AUC} = 49.087881 \mu\text{g}(\text{hr})/\text{mL}$$

APPENDIX G. Lead analyses reports.

The table below correlates the animal numbering system used in the study to the numbering system used to label the blood collection data.

Group Designation	Test Soil	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number	Blood Sample Label	Animal Number
A	AEC 3-3	101	1043	102	1071	103	987	104	984	105	1012		
B	AEC 9-3	201	1033	202	986	203	1003	204	1094	205	1027		
C	Pb Acetate	301	981	302	1064	303	1041	304	996	305	992		
D	AEC 10-1	401	965	402	1052	403	972	404	1024	405	973		
E	PLW	101	185	102	175	103	1255	104	1212	105	144	106	1251
G	EC1	301	1191	302	1241	303	1242	304	1246	305	145	306	196
H	FM	101	452	102	404	103	453	104	442	105	423		
I	Pb Acetate	201	405	202	456	203	422	204	381	205	454		
J	PLW1	301	394	302	455	303	443	304	451	305	401		