MODEL PARAMETER SENSITIVITY ANALYSIS

Volume 2 of 2

Appendixes A - B

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APPENDIX A

Tables of Absolute and Normalized
Element Study Results

TABLE A-1-1
ELEVATED VS. FLAT TERRAIN SENSITIVITY ANALYSIS
PARTICLE PHASE CONCENTRATION
UNITS = $\mu g/m^3/g/s$

Distance (Km)	Flat Terrain	Terrain Height = 10% of Stack Height	Terrain Height = 25% of Stack Height
0.10	0.02717	0.05043	0.13117
0.20	0.52539	0.72608	1.17679
0.30	0.93734	1.15806	1.56996
0.40	1.05378	1.22735	1.52534
0.50	1.02759	1.15554	1.36578
0.60	0.94724	1.04156	1.19293
0.70	0.85506	0.92617	1.03888
0.80	0.76683	0.82185	0.90843
0.90	0.68782	0.73148	0.79992
1.00	0.61889	0.65432	0.70970
1.25	0.48600	0.50972	0.54658
1.50	0.39450	0.41148	0.43770
1.75	0.32845	0.34116	0.36063
2.00	0.27896	0.28875	0.30366
2.25	0.24019	0.24794	0.25967
2.50	0.20954	0.21580	0.22524
3.00	0.16449	0.16876	0.17516
3.50	0.13358	0.13667	0.14127
4.00	0.11118	0.11351	0.11695
4.50	0.09440	0.09621	0.09887
5.00	0.08143	0.08287	0.08498
6.00	0.06286	0.06382	0.06522
7.00	0.05036	0.05104	0.05202
8.00	0.04150	0.04200	0.04272
9.00	0.03494	0.03533	0.03588
10.00	0.02994	0.03024	0.03068
15.00	0.01660	0.01672	0.01689
20.00	0.01092	0.01099	0.01107
25.00	0.00793	0.00796	0.00802
30.00	0.00610	0.00613	0.00616
35.00	0.00491	0.00493	0.00496
40.00	0.00407	0.00408	0.00411
45.00	0.00346	0.00347	0.00349
50.00	0.00297	0.00298	0.00299

Notes

Base Case Flat Terrain

Test Case 1. Terrain Height = 10% of Stack Height

Test Case 2. Terrain Height = 25% of Stack Height

TABLE A-1-2
ELEVATED VS. FLAT TERRAIN SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE CONCENTRATION

Distance (Km)	Flat Terrain	Terrain Height = 10% of Stack Height	Terrain Height = 25% of Stack Height
0.10	1.00000	1.85609	4.82775
0.20	1.00000	1.38198	2.23984
0.30	1.00000	1.23547	1.67491
0.40	1.00000	1.16471	1.44749
0.50	1.00000	1.12451	1.32911
0.60	1.00000	1.09957	1.25937
0.70	1.00000	1.08316	1.21498
0.80	1.00000	1.07175	1.18466
0.90	1.00000	1.06348	1.16298
1.00	1.00000	1.05725	1.14673
1.25	1.00000	1.04881	1.12465
1.50	1.00000	1.04304	1.10951
1.75	1.00000	1.03870	1.09798
2.00	1.00000	1.03509	1.08854
2.25	1.00000	1.03227	1.08110
2.50	1.00000	1.02987	1.07493
3.00	1.00000	1.02596	1.06487
3.50	1.00000	1.02313	1.05757
4.00	1.00000	1.02096	1.05190
4.50	1.00000	1.01917	1.04735
5.00	1.00000	1.01768	1.04360
6.00	1.00000	1.01527	1.03754
7.00	1.00000	1.01350	1.03296
8.00	1.00000	1.01205	1.02940
9.00	1.00000	1.01116	1.02690
10.00	1.00000	1.01002	1.02472
15.00	1.00000	1.00723	1.01747
20.00	1.00000	1.00641	1.01374
25.00	1.00000	1.00378	1.01135
30.00	1.00000	1.00492	1.00984
35.00	1.00000	1.00407	1.01018
40.00	1.00000	1.00246	1.00983
45.00	1.00000	1.00289	1.00867
50.00	1.00000	1.00337	1.00673

Notes:

Base Case: Flat Terrain

Test Case 1: Terrain Height = 10% of Stack Height

Test Case 2: Terrain Height = 25% of Stack Height

TABLE A-1-3
ELEVATED VS. FLAT TERRAIN SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE CONCENTRATION
UNITS = μg/m³/g/s

Distance (Km)	Flat Terrain	Terrain Height = 10% of Stack Height	Terrain Height = 25% of Stack Height
0.10	0.02736	0.05080	0.13216
0.20	0.53598	0.74123	1.20269
0.30	0.96577	1.19419	1.62113
0.40	1.09422	1.27560	1.58752
0.50	1.07412	1.20893	1.43080
0.60	0.99583	1.09590	1.25666
0.70	0.90336	0.97920	1.09947
0.80	0.81362	0.87253	0.96524
0.90	0.73255	0.77943	0.85287
1.00	0.66125	0.69937	0.75889
1.25	0.52241	0.54801	0.58774
1.50	0.42619	0.44457	0.47291
1.75	0.35637	0.37014	0.39124
2.00	0.30373	0.31437	0.33058
2.25	0.26236	0.27081	0.28361
2.50	0.22956	0.23641	0.24674
3.00	0.18121	0.18592	0.19296
3.50	0.14789	0.15133	0.15644
4.00	0.12365	0.12625	0.13010
4.50	0.10541	0.10745	0.11045
5.00	0.09127	0.09290	0.09530
6.00	0.07094	0.07204	0.07366
7.00	0.05719	0.05798	0.05913
8.00	0.04739	0.04798	0.04884
9.00	0.04011	0.04057	0.04124
10.00	0.03454	0.03490	0.03543
15.00	0.01953	0.01968	0.01990
20.00	0.01304	0.01313	0.01325
25.00	0.00958	0.00963	0.00971
30.00	0.00745	0.00749	0.00754
35.00	0.00605	0.00608	0.00612
40.00	0.00506	0.00508	0.00511
45.00	0.00433	0.00435	0.00437
50.00	0.00377	0.00378	0.00380

Notes
Base Case: Flat Terrain
Test Case 1: Terrain Height = 10% of Stack Height
Test Case 2: Terrain Height = 25% of Stack Height

TABLE A-1-4
ELEVATED VS. FLAT TERRAIN SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE CONCENTRATION

Distance (Km)	Flat Terrain	Terrain Height = 10% of Stack Height	Terrain Height = 25% of Stack Height
0.10	1.00000	1.85673	4.83041
0.20	1.00000	1.38294	2.24391
0.30	1.00000	1.23652	1.67859
0.40	1.00000	1.16576	1.45082
0.50	1.00000	1.12551	1.33207
0.60	1.00000	1.10049	1.26192
0.70	1.00000	1.08395	1.21709
0.80	1.00000	1.07240	1.18635
0.90	1.00000	1.06400	1.16425
1.00	1.00000	1.05765	1.14766
1.25	1.00000	1.04900	1.12506
1.50	1.00000	1.04313	1.10962
1.75	1.00000	1.03864	1.09785
2.00	1.00000	1.03503	1.08840
2.25	1.00000	1.03221	1.08100
2.50	1.00000	1.02984	1.07484
3.00	1.00000	1.02599	1.06484
3.50	1.00000	1.02326	1.05781
4.00	1.00000	1.02103	1.05216
4.50	1.00000	1.01935	1.04781
5.00	1.00000	1.01786	1.04415
6.00	1.00000	1.01551	1.03834
7.00	1.00000	1.01381	1.03392
8.00	1.00000	1.01245	1.03060
9.00	1.00000	1.01147	1.02817
10.00	1.00000	1.01042	1.02577
15.00	1.00000	1.00768	1.01895
20.00	1.00000	1.00690	1.01610
25.00	1.00000	1.00522	1.01357
30.00	1.00000	1.00537	1.01208
35.00	1.00000	1.00496	1.01157
40.00	1.00000	1.00395	1.00988
45.00	1.00000	1.00462	1.00924
50.00	1.00000	1.00265	1.00796

Notes

Base Case Flat Terrain

Test Case 1 Terrain Height = 10% of Stack Height

Test Case 2 Terrain Height = 25% of Stack Height

TABLE A-1-5
ELEVATED VS. FLAT TERRAIN SENSITIVITY ANALYSIS
VAPOR PHASE CONCENTRATION
UNITS = μg/m³/g/s

Distance (Km)	Flat Terrain	Terrain Height = 10% of Stack Height	Terrain Height = 25% of Stack Height
0.10	0.02743	0.05093	0.13261
0.20	0.53865	0.74502	1.20908
0.30	0.97222	1.20233	1.63255
0.40	1.10287	1.28586	1.60064
0.50	1.08367	1.21985	1.44405
0.60	1.00551	1.10670	1.26932
0.70	0.91278	0.98954	1.11129
0.80	0.82261	0.88227	0.97618
0.90	0.74103	0.78854	0.86296
1.00	0.66921	0.70786	0.76819
1.25	0.52914	0.55511	0.59541
1.50	0.43199	0.45065	0.47942
1.75	0.36145	0.37544	0.39689
2.00	0.30823	0.31905	0.33553
2.25	0.26638	0.27498	0.28801
2.50	0.23319	0.24016	0.25068
3.00	0.18424	0.18905	0.19625
3.50	0.15050	0.15401	0.15924
4.00	0.12594	0.12860	0.13255
4.50	0.10744	0.10953	0.11261
5.00	0.09309	0.09477	0.09724
6.00	0.07246	0.07360	0.07527
7.00	0.05849	0.05931	0.06050
8.00	0.04853	0.04914	0.05004
9.00	0.04113	0.04161	0.04230
10.00	0.03545	0.03583	0.03638
15.00	0.02015	0.02031	0.02054
20.00	0.01351	0.01360	0.01373
25.00	0.00996	0.01002	0.01010
30.00	0.00777	0.00781	0.00787
35.00	0.00634	0.00637	0.00641
40.00	0.00531	0.00533	0.00537
45.00	0.00456	0.00458	0.00460
50.00	0.00398	0.00399	0.00401

Notes

Base Case: Flat Terrain

Test Case 1. Terrain Height = 10% of Stack Height

Test Case 2. Terrain Height = 25% of Stack Height

TABLE A-1-6
ELEVATED VS. FLAT TERRAIN SENSITIVITY ANALYSIS
NORMALIZED VAPOR PHASE CONCENTRATION

Distance (Km)	Flat Terrain	Terrain Height = 10% of Stack Height	Terrain Height = 25% of Stack Height
0.10	1.00000	1.85673	4.83084
0.20	1.00000	1.38312	2.24465
0.30	1.00000	1.23669	1.67920
0.40	1.00000	1.16592	1.45134
0.50	1.00000	1.12567	1.33256
0.60	1.00000	1.10064	1.26236
0.70	1.00000	1.08409	1.21748
0.80	1.00000	1.07253	1.18669
0.90	1.00000	1.06411	1.16454
1.00	1.00000	1.05775	1.14791
1.25	1.00000	1.04908	1.12524
1.50	1.00000	1.04320	1.10979
1.75	1.00000	1.03871	1.09805
2.00	1.00000	1.03510	1.08857
2.25	1.00000	1.03228	1.08120
2.50	1.00000	1.02989	1.07500
3.00	1.00000	1.02611	1.06519
3.50	1.00000	1.02332	1.05807
4.00	1.00000	1.02112	1.05249
4.50	1.00000	1.01945	1.04812
5.00	1.00000	1.01805	1.04458
6.00	1.00000	1.01573	1.03878
7.00	1.00000	1.01402	1.03436
8.00	1.00000	1.01257	1.03111
9.00	1.00000	1.01167	1.02845
10.00	1.00000	1.01072	1.02623
15.00	1.00000	1.00794	1.01935
20.00	1.00000	1.00666	1.01628
25.00	1.00000	1.00602	1.01406
30.00	1.00000	1.00515	1.01287
35.00	1.00000	1.00473	1.01104
40.00	1.00000	1.00377	1.01130
45.00	1.00000	1.00439	1.00877
50.00	1.00000	1.00251	1.00754

Notes:

Base Case: Flat Terrain

Test Case 1: Terrain Height = 10% of Stack Height

Test Case 2: Terrain Height = 25% of Stack Height

TABLE A-1-7
ELEVATED VS. FLAT TERRAIN SENSITIVITY ANALYSIS
PARTICLE PHASE DRY DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Flat Terrain	Terrain Height = 10% of Stack Height	Terrain Height = 25% of Stack Height
0.10	0.08968	0.17672	0.50902
0.20	1.36840	1.92754	3.16673
0.30	2.24341	2.77321	3.73645
0.40	2.34887	2.71983	3.33595
0.50	2.15502	2.40165	2.79126
0.60	1.88344	2.04846	2.30150
0.70	1.62008	1.73337	1.90395
0.80	1.39045	1.47057	1.58981
0.90	1.19742	1.25574	1.34190
1.00	1.03767	1.08130	1.14540
1.25	0.75775	0.78265	0.81898
1.50	0.57660	0.59213	0.61465
1.75	0.45378	0.46421	0.47927
2.00	0.36724	0.37453	0.38504
2.25	0.30313	0.30843	0.31600
2.50	0.25450	0.25846	0.26411
3.00	0.18652	0.18867	0.19221
3.50	0.14307	0.14459	0.14673
4.00	0.11344	0.11449	0.11596
4.50	0.09227	0.09301	0.09404
5.00	0.07655	0.07709	0.07784
6.00	0.05517	0.05548	0.05591
7.00	0.04164	0.04183	0.04209
8.00	0.03253	0.03266	0.03283
9.00	0.02614	0.02622	0.02633
10.00	0.02148	0.02153	0.02161
15.00	0.01011	0.01012	0.01014
20.00	0.00588	0.00588	0.00588
25.00	0.00387	0.00387	0.00387
30.00	0.00274	0.00274	0.00274
35.00	0.00205	0.00205	0.00205
40.00	0.00159	0.00159	0.00159
45.00	0.00128	0.00128	0.00128
50.00	0.00100	0.00100	0.00100

Notes:

Base Case: Flat Terrain

Test Case 1: Terrain Height = 10% of Stack Height

Test Case 2: Terrain Height = 25% of Stack Height

TABLE A-1-8
ELEVATED VS. FLAT TERRAIN SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE DRY DEPOSITION

Distance (Km)	Flat Terrain	Terrain Height = 10% of Stack Height	Terrain Height = 25% of Stack Height
0.10	1.00000	1.97056	5.67596
0.20	1.00000	1.40861	2.31418
0.30	1.00000	1.23616	1.66552
0.40	1.00000	1.15793	1.42024
0.50	1.00000	1.11444	1.29524
0.60	1.00000	1.08762	1.22197
0.70	1.00000	1.06993	1.17522
0.80	1.00000	1.05762	1.14338
0.90	1.00000	1.04870	1.12086
1.00	1.00000	1.04205	1.10382
1.25	1.00000	1.03286	1.08081
1.50	1.00000	1.02693	1.06599
1.75	1.00000	1.02298	1.05617
2.00	1.00000	1.01985	1.04847
2.25	1.00000	1.01748	1.04246
2.50	1.00000	1.01556	1.03776
3.00	1.00000	1.01260	1.03051
3.50	1.00000	1.01062	1.02558
4.00	1.00000	1.00926	1.02221
4.50	1.00000	1.00802	1.01918
5.00	1.00000	1.00705	1.01685
6.00	1.00000	1.00562	1.01341
7.00	1.00000	1.00456	1.01081
8.00	1.00000	1.00400	1.00922
9.00	1.00000	1.00306	1.00727
10.00	1.00000	1.00233	1.00605
15.00	1.00000	1.00099	1.00297
20.00	1.00000	1.00000	1.00000
25.00	1.00000	1.00000	1.00000
30.00	1.00000	1.00000	1.00000
35.00	1.00000	1.00000	1.00000
40.00	1.00000	1.00000	1.00000
45.00	1.00000	1.00000	1.00000
50.00	1.00000	1.00000	1.00000

Notes

Base Case. Flat Terrain

Test Case 1. Terrain Height = 10% of Stack Height

Test Case 2. Terrain Height = 25% of Stack Height

TABLE A-1-9
ELEVATED VS. FLAT TERRAIN SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE DRY DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Flat Terrain	Terrain Height = 10% of Stack Height	Terrain Height = 25% of Stack Height
0.10	0.01555	0.03113	0.09151
0.20	0.23579	0.33345	0.54990
0.30	0.38738	0.47946	0.64659
0.40	0.40600	0.47042	0.57734
0.50	0.37312	0.41602	0.48380
0.60	0.32682	0.35563	0.39983
0.70	0.28184	0.30171	0.33165
0.80	0.24253	0.25665	0.27770
0.90	0.20944	0.21977	0.23507
1.00	0.18198	0.18976	0.20120
1.25	0.13371	0.13820	0.14477
1.50	0.10236	0.10520	0.10934
1.75	0.08104	0.08297	0.08577
2.00	0.06593	0.06730	0.06928
2.25	0.05470	0.05570	0.05715
2.50	0.04614	0.04690	0.04800
3.00	0.03414	0.03460	0.03527
3.50	0.02642	0.02673	0.02717
4.00	0.02112	0.02134	0.02165
4.50	0.01731	0.01747	0.01769
5.00	0.01446	0.01458	0.01475
6.00	0.01056	0.01063	0.01074
7.00	0.00807	0.00812	0.00818
8.00	0.00638	0.00642	0.00646
9.00	0.00519	0.00521	0.00524
10.00	0.00431	0.00432	0.00435
15.00	0.00212	0.00213	0.00213
20.00	0.00128	0.00128	0.00129
25.00	0.00087	0.00087	0.00087
30.00	0.00064	0.00064	0.00064
35.00	0.00049	0.00049	0.00049
40.00	0.00039	0.00039	0.00039
45.00	0.00032	0.00032	0.00032
50.00	0.00026	0.00026	0.00027

Notes:
Base Case: Flat Terrain
Test Case 1: Terrain Height = 10% of Stack Height
Test Case 2: Terrain Height = 25% of Stack Height

TABLE A-1-10
ELEVATED VS. FLAT TERRAIN SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE DRY DEPOSITION

Distance (Km)	Flat Terrain	Terrain Height = 10% of Stack Height	Terrain Height = 25% of Stack Height
0.10	1.00000	2.00193	5.86489
0.20	1.00000	1.41418	2.33216
0.30	1.00000	1.23770	1.66939
0.40	1.00000	1.15867	1.42202
0.50	1.00000	1.11498	1.29663
0.60	1.00000	1.08815	1.22340
0.70	1.00000	1.07050	1.17673
0.80	1.00000	1.05822	1.14601
0.90	1.00000	1.04932	1.12237
1.00	1.00000	1.04275	1.10562
1.25	1.00000	1.03358	1.08272
1.50	1.00000	1.02775	1.06819
1.75	1.00000	1.02382	1.05837
2.00	1.00000	1.02078	1.05081
2.25	1.00000	1.01828	1.04479
2.50	1.00000	1.01647	1.04031
3.00	1.00000	1.01347	1.03310
3.50	1.00000	1.01173	1.02839
4.00	1.00000	1.01042	1.02509
4.50	1.00000	1.00924	1.02195
5.00	1.00000	1.00830	1.02006
6.00	1.00000	1.00663	1.01705
7.00	1.00000	1.00620	1.01363
8.00	1.00000	1.00627	1.01254
9.00	1.00000	1.00385	1.00963
10.00	1.00000	1.00232	1.00928
15.00	1.00000	1.00472	1.00472
20.00	1.00000	1.00000	1.00781
25.00	1.00000	1.00000	1.00000
30.00	1.00000	1.00000	1.00000
35.00	1.00000	1.00000	1.00000
40.00	1.00000	1.00000	1.00000
45.00	1.00000	1.00000	1.00000
50.00	1.00000	1.00000	1.03846

Notes:
Base Case: Flat Terrain
Test Case 1: Terrain Height = 10% of Stack Height
Test Case 2: Terrain Height = 25% of Stack Height

TABLE A-1-11
ELEVATED VS. FLAT TERRAIN SENSITIVITY ANALYSIS
PARTICLE PHASE WET DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Flat Terrain	Terrain Height = 10% of Stack Height	Terrain Height = 25% of Stack Height
0.10	3.61053	3.61053	3.61050
0.20	1.68001	1.67979	1.67923
0.30	1.03968	1.03917	1.03814
0.40	0.72250	0.72184	0.72065
0.50	0.53703	0.53635	0.53520
0.60	0.41737	0.41674	0.41570
0.70	0.33499	0.33442	0.33350
0.80	0.27555	0.27505	0.27427
0.90	0.23112	0.23068	0.23002
1.00	0.19693	0.19656	0.19599
1.25	0.13919	0.13892	0.13852
1.50	0.10400	0.10381	0.10352
1.75	0.08088	0.08073	0.08051
2.00	0.06482	0.06471	0.06454
2.25	0.05319	0.05311	0.05299
2.50	0.04446	0.04440	0.04430
3.00	0.03244	0.03240	0.03233
3.50	0.02471	0.02468	0.02463
4.00	0.01945	0.01943	0.01940
4.50	0.01570	0.01569	0.01566
5.00	0.01293	0.01292	0.01290
6.00	0.00920	0.00919	0.00918
7.00	0.00686	0.00685	0.00685
8.00	0.00531	0.00530	0.00530
9.00	0.00422	0.00422	0.00421
10.00	0.00343	0.00343	0.00343
15.00	0.00153	0.00153	0.00152
20.00	0.00085	0.00085	0.00085
25.00	0.00053	0.00053	0.00053
30.00	0.00036	0.00036	0.00036
35.00	0.00026	0.00026	0.00026
40.00	0.00019	0.00019	0.00019
45.00	0.00015	0.00015	0.00015
50.00	0.00012	0.00012	0.00012

Notes

Base Case Flat Terrain

Test Case 1. Terrain Height = 10% of Stack Height

Test Case 2. Terrain Height = 25% of Stack Height

TABLE A-1-12
ELEVATED VS. FLAT TERRAIN SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE WET DEPOSITION

Distance (Km)	Flat Terrain	Terrain Height = 10% of Stack Height	Terrain Height = 25% of Stack Height
0.10	1.00000	1.00000	0.99999
0.20	1.00000	0.99987	0.99954
0.30	1.00000	0.99951	0.99852
0.40	1.00000	0.99909	0.99744
0.50	1.00000	0.99873	0.99659
0.60	1.00000	0.99849	0.99600
0.70	1.00000	0.99830	0.99555
0.80	1.00000	0.99819	0.99535
0.90	1.00000	0.99810	0.99524
1.00	1.00000	0.99812	0.99523
1.25	1.00000	0.99806	0.99519
1.50	1.00000	0.99817	0.99538
1.75	1.00000	0.99815	0.99543
2.00	1.00000	0.99830	0.99568
2.25	1.00000	0.99850	0.99624
2.50	1.00000	0.99865	0.99640
3.00	1.00000	0.99877	0.99661
3.50	1.00000	0.99879	0.99676
4.00	1.00000	0.99897	0.99743
4.50	1.00000	0.99936	0.99745
5.00	1.00000	0.99923	0.99768
6.00	1.00000	0.99891	0.99783
7.00	1.00000	1.00000	0.99854
8.00	1.00000	0.99812	0.99812
9.00	1.00000	1.00000	0.99763
10.00	1.00000	1.00000	1.00000
15.00	1.00000	1.00000	0.99346
20.00	1.00000	1.00000	1.00000
25.00	1.00000	1.00000	1.00000
30.00	1.00000	1.00000	1.00000
35.00	1.00000	1.00000	1.00000
40.00	1.00000	1.00000	1.00000
45.00	1.00000	1.00000	1.00000
50.00	1.00000	1.00000	1.00000

Notes.

Base Case Flat Terrain

Test Case 1. Terrain Height = 10% of Stack Height

Test Case 2 Terrain Height = 25% of Stack Height

TABLE A-1-13
ELEVATED VS. FLAT TERRAIN SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE WET DEPOSITION
UNITS = $g/m^2/g/s$

Distance (Km)	Flat Terrain	Terrain Height = 10% of Stack Height	Terrain Height = 25% of Stack Height
0.10	1.43996	1.43996	1.43996
0.20	0.70064	0.70060	0.70051
0.30	0.45262	0.45254	0.45238
0.40	0.32746	0.32736	0.32717
0.50	0.25273	0.25263	0.25245
0.60	0.20343	0.20333	0.20317
0.70	0.16869	0.16860	0.16846
0.80	0.14303	0.14296	0.14283
0.90	0.12339	0.12333	0.12322
1.00	0.10794	0.10788	0.10779
1.25	0.08085	0.08080	0.08074
1.50	0.06348	0.06345	0.06340
1.75	0.05152	0.05150	0.05146
2.00	0.04286	0.04284	0.04281
2.25	0.03634	0.03633	0.03631
2.50	0.03128	0.03127	0.03126
3.00	0.02401	0.02400	0.02399
3.50	0.01909	0.01908	0.01907
4.00	0.01558	0.01557	0.01557
4.50	0.01298	0.01298	0.01297
5.00	0.01099	0.01099	0.01099
6.00	0.00819	0.00819	0.00819
7.00	0.00635	0.00635	0.00635
8.00	0.00507	0.00507	0.00507
9.00	0.00414	0.00414	0.00414
10.00	0.00345	0.00345	0.00345
15.00	0.00167	0.00167	0.00167
20.00	0.00098	0.00098	0.00098
25.00	0.00064	0.00064	0.00064
30.00	0.00045	0.00045	0.00045
35.00	0.00033	0.00033	0.00033
40.00	0.00025	0.00025	0.00025
45.00	0.00020	0.00020	0.00020
50.00	0.00016	0.00016	0.00016

Notes

Base Case: Flat Terrain

Test Case 1: Terrain Height = 10% of Stack Height

Test Case 2: Terrain Height = 25% of Stack Height

TABLE A-1-14
ELEVATED VS. FLAT TERRAIN SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE WET DEPOSITION

Distance (Km)	Flat Terrain	Terrain Height = 10% of Stack Height	Terrain Height = 25% of Stack Height
0.10	1.00000	1.00000	1.00000
0.20	1.00000	0.99994	0.99981
0.30	1.00000	0.99982	0.99947
0.40	1.00000	0.99969	0.99911
0.50	1.00000	0.99960	0.99889
0.60	1.00000	0.99951	0.99872
0.70	1.00000	0.99947	0.99864
0.80	1.00000	0.99951	0.99860
0.90	1.00000	0.99951	0.99862
1.00	1.00000	0.99944	0.99861
1.25	1.00000	0.99938	0.99864
1.50	1.00000	0.99953	0.99874
1.75	1.00000	0.99961	0.99884
2.00	1.00000	0.99963	0.99883
2.25	1.00000	0.99972	0.99917
2.50	1.00000	0.99968	0.99936
3.00	1.00000	0.99958	0.99917
3.50	1.00000	0.99948	0.99895
4.00	1.00000	0.99936	0.99936
4.50	1.00000	1.00000	0.99923
5.00	1.00000	1.00000	1.00000
6.00	1.00000	1.00000	1.00000
7.00	1.00000	1.00000	1.00000
8.00	1.00000	1.00000	1.00000
9.00	1.00000	1.00000	1.00000
10.00	1.00000	1.00000	1.00000
15.00	1.00000	1.00000	1.00000
20.00	1.00000	1.00000	1.00000
25.00	1.00000	1.00000	1.00000
30.00	1.00000	1.00000	1.00000
35.00	1.00000	1.00000	1.00000
40.00	1.00000	1.00000	1.00000
45.00	1.00000	1.00000	1.00000
50.00	1.00000	1.00000	1.00000

Notes

Base Case Flat Terrain

Test Case 1 Terrain Height = 10% of Stack Height

Test Case 2 Terrain Height = 25% of Stack Height

TABLE A-1-15
ELEVATED VS. FLAT TERRAIN SENSITIVITY ANALYSIS
VAPOR PHASE WET DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Flat Terrain	Terrain Height = 10% of Stack Height	Terrain Height = 25% of Stack Height
0.10	2.15817	2.15817	2.15817
0.20	1.06510	1.06510	1.06510
0.30	0.69588	0.69588	0.69588
0.40	0.50780	0.50780	0.50780
0.50	0.39440	0.39440	0.39440
0.60	0.31885	0.31885	0.31885
0.70	0.26511	0.26511	0.26511
0.80	0.22506	0.22506	0.22506
0.90	0.19417	0.19417	0.19417
1.00	0.16968	0.16968	0.16968
1.25	0.12638	0.12638	0.12638
1.50	0.09837	0.09837	0.09837
1.75	0.07901	0.07901	0.07901
2.00	0.06499	0.06499	0.06499
2.25	0.05447	0.05447	0.05447
2.50	0.04635	0.04635	0.04635
3.00	0.03480	0.03480	0.03480
3.50	0.02713	0.02713	0.02713
4.00	0.02175	0.02175	0.02175
4.50	0.01784	0.01784	0.01784
5.00	0.01491	0.01491	0.01491
6.00	0.01086	0.01086	0.01086
7.00	0.00827	0.00827	0.00827
8.00	0.00651	0.00651	0.00651
9.00	0.00525	0.00525	0.00525
10.00	0.00432	0.00432	0.00432
15.00	0.00199	0.00199	0.00199
20.00	0.00112	0.00112	0.00112
25.00	0.00071	0.00071	0.00071
30.00	0.00049	0.00049	0.00049
35.00	0.00035	0.00035	0.00035
40.00	0.00027	0.00027	0.00027
45.00	0.00021	0.00021	0.00021
50.00	0.00017	0.00017	0.00017

Notes.
Base Case: Flat Terrain
Test Case 1: Terrain Height = 10% of Stack Height
Test Case 2: Terrain Height = 25% of Stack Height

TABLE A-1-16
ELEVATED VS. FLAT TERRAIN SENSITIVITY ANALYSIS
NORMALIZED VAPOR PHASE WET DEPOSITION

Distance (Km)	Flat Terrain	Terrain Height = 10% of Stack Height	Terrain Height = 25% of Stack Height
0.10	1.00000	1.00000	1.00000
0.20	1.00000	1.00000	1.00000
0.30	1.00000	1.00000	1.00000
0.40	1.00000	1.00000	1.00000
0.50	1.00000	1.00000	1.00000
0.60	1.00000	1.00000	1.00000
0.70	1.00000	1.00000	1.00000
0.80	1.00000	1.00000	1.00000
0.90	1.00000	1.00000	1.00000
1.00	1.00000	1.00000	1.00000
1.25	1.00000	1.00000	1.00000
1.50	1.00000	1.00000	1.00000
1.75	1.00000	1.00000	1.00000
2.00	1.00000	1.00000	1.00000
2.25	1.00000	1.00000	1.00000
2.50	1.00000	1.00000	1.00000
3.00	1.00000	1.00000	1.00000
3.50	1.00000	1.00000	1.00000
4.00	1.00000	1.00000	1.00000
4.50	1.00000	1.00000	1.00000
5.00	1.00000	1.00000	1.00000
6.00	1.00000	1.00000	1.00000
7.00	1.00000	1.00000	1.00000
8.00	1.00000	1.00000	1.00000
9.00	1.00000	1.00000	1.00000
10.00	1.00000	1.00000	1.00000
15.00	1.00000	1.00000	1.00000
20.00	1.00000	1.00000	1.00000
25.00	1.00000	1.00000	1.00000
30.00	1.00000	1.00000	1.00000
35.00	1.00000	1.00000	1.00000
40.00	1.00000	1.00000	1.00000
45.00	1.00000	1.00000	1.00000
50.00	1.00000	1.00000	1.00000

Notes

Base Case: Flat Terrain

Test Case 1: Terrain Height = 10% of Stack Height

Test Case 2: Terrain Height = 25% of Stack Height

TABLE A-2-1
URBAN VS. RURAL SENSITIVITY ANALYSIS
PARTICLE PHASE CONCENTRATION
UNITS = μg/m³/g/s

Distance (Km)	Rural	Urban
0.10	0.02717	3.18194
0.20	0.52539	2.90439
0.30	0.93734	1.90309
0.40	1.05378	1.34217
0.50	1.02759	1.00332
0.60	0.94724	0.78070
0.70	0.85506	0.62460
0.80	0.76683	0.51115
0.90	0.68782	0.42692
1.00	0.61889	0.36237
1.25	0.48600	0.25422
1.50	0.39450	0.18933
1.75	0.32845	0.14728
2.00	0.27896	0.11844
2.25	0.24019	0.09774
2.50	0.20954	0.08234
3.00	0.16449	0.06131
3.50	0.13358	0.04787
4.00	0.11118	0.03871
4.50	0.09440	0.03215
5.00	0.08143	0.02728
6.00	0.06286	0.02061
7.00	0.05036	0.01632
8.00	0.04150	0.01337
9.00	0.03494	0.01125
10.00	0.02994	0.00965
15.00	0.01660	0.00545
20.00	0.01092	0.00368
25.00	0.00793	0.00273
30.00	0.00610	0.00215
35.00	0.00491	0.00176
40.00	0.00407	0.00148
45.00	0.00346	0.00127
50.00	0.00297	0.00111

Notes

Base Case: Rural Dispersion Coefficients With Rural Met Data

Test Case 1: Urban Dispersion Coefficients With Urban Met Data

TABLE A-2-2
URBAN VS. RURAL SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE CONCENTRATION

Distance (Km)	Rural	Urban
0.10	1.00000	117.11226
0.20	1.00000	5.52806
0.30	1.00000	2.03031
0.40	1.00000	1.27367
0.50	1.00000	0.97638
0.60	1.00000	0.82418
0.70	1.00000	0.73048
0.80	1.00000	0.66658
0.90	1.00000	0.62069
1.00	1.00000	0.58552
1.25	1.00000	0.52309
1.50	1.00000	0.47992
1.75	1.00000	0.44841
2.00	1.00000	0.42458
2.25	1.00000	0.40693
2.50	1.00000	0.39296
3.00	1.00000	0.37273
3.50	1.00000	0.35836
4.00	1.00000	0.34817
4.50	1.00000	0.34057
5.00	1.00000	0.33501
6.00	1.00000	0.32787
7.00	1.00000	0.32407
8.00	1.00000	0.32217
9.00	1.00000	0.32198
10.00	1.00000	0.32231
15.00	1.00000	0.32831
20.00	1.00000	0.33700
25.00	1.00000	0.34426
30.00	1.00000	0.35246
35.00	1.00000	0.35845
40.00	1.00000	0.36364
45.00	1.00000	0.36705
50.00	1.00000	0.37374

Notes

Base Case: Rural Dispersion Coefficients With Rural Met Data

Test Case 1: Urban Dispersion Coefficients With Urban Met Data

TABLE A-2-3
URBAN VS. RURAL SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE CONCENTRATION
UNITS = $\mu g/m^3/g/s$

Distance (Km)	Rural	Urban
0.10	0.02736	3.21890
0.20	0.53598	2.95647
0.30	0.96577	1.94692
0.40	1.09422	1.38122
0.50	1.07412	1.03652
0.60	0.99583	0.80906
0.70	0.90336	0.65027
0.80	0.81362	0.53488
0.90	0.73255	0.44850
1.00	0.66125	0.38208
1.25	0.52241	0.27030
1.50	0.42619	0.20279
1.75	0.35637	0.15878
2.00	0.30373	0.12842
2.25	0.26236	0.10652
2.50	0.22956	0.09016
3.00	0.18121	0.06769
3.50	0.14789	0.05324
4.00	0.12365	0.04333
4.50	0.10541	0.03620
5.00	0.09127	0.03087
6.00	0.07094	0.02353
7.00	0.05719	0.01878
8.00	0.04739	0.01550
9.00	0.04011	0.01311
10.00	0.03454	0.01131
15.00	0.01953	0.00652
20.00	0.01304	0.00448
25.00	0.00958	0.00337
30.00	0.00745	0.00268
35.00	0.00605	0.00222
40.00	0.00506	0.00188
45.00	0.00433	0.00163
50.00	0.00377	0.00144

Notes.

Base Case: Rural Dispersion Coefficients With Rural Met Data

Test Case 1: Urban Dispersion Coefficients With Urban Met Data

TABLE A-2-4
URBAN VS. RURAL SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE CONCENTRATION

Distance (Km)	Rural	Urban
0.10	1.00000	117.64985
0.20	1.00000	5.51601
0.30	1.00000	2.01593
0.40	1.00000	1.26229
0.50	1.00000	0.96499
0.60	1.00000	0.81245
0.70	1.00000	0.71983
0.80	1.00000	0.65741
0.90	1.00000	0.61224
1.00	1.00000	0.57781
1.25	1.00000	0.51741
1.50	1.00000	0.47582
1.75	1.00000	0.44555
2.00	1.00000	0.42281
2.25	1.00000	0.40601
2.50	1.00000	0.39275
3.00	1.00000	0.37354
3.50	1.00000	0.36000
4.00	1.00000	0.35042
4.50	1.00000	0.34342
5.00	1.00000	0.33823
6.00	1.00000	0.33169
7.00	1.00000	0.32838
8.00	1.00000	0.32707
9.00	1.00000	0.32685
10.00	1.00000	0.32745
15.00	1.00000	0.33385
20.00	1.00000	0.34356
25.00	1.00000	0.35177
30.00	1.00000	0.35973
35.00	1.00000	0.36694
40.00	1.00000	0.37154
45.00	1.00000	0.37644
50.00	1.00000	0.38196

Notes:

Base Case: Rural Dispersion Coefficients With Rural Met Data

Test Case 1: Urban Dispersion Coefficients With Urban Met Data

TABLE A-2-5
URBAN VS. RURAL SENSITIVITY ANALYSIS
VAPOR PHASE CONCENTRATION
UNITS = µg/m³/g/s

Distance (Km)	Rural	Urban
0.10	0.02743	3.23188
0.20	0.53865	2.97083
0.30	0.97222	1.95782
0.40	1.10287	1.39044
0.50	1.08367	1.04413
0.60	1.00551	0.81544
0.70	0.91278	0.65591
0.80	0.82261	0.54002
0.90	0.74103	0.45312
1.00	0.66921	0.38626
1.25	0.52914	0.27366
1.50	0.43199	0.20557
1.75	0.36145	0.16114
2.00	0.30823	0.13045
2.25	0.26638	0.10831
2.50	0.23319	0.09175
3.00	0.18424	0.06898
3.50	0.15050	0.05432
4.00	0.12594	0.04426
4.50	0.10744	0.03701
5.00	0.09309	0.03159
6.00	0.07246	0.02411
7.00	0.05849	0.01926
8.00	0.04853	0.01591
9.00	0.04113	0.01348
10.00	0.03545	0.01164
15.00	0.02015	0.00674
20.00	0.01351	0.00464
25.00	0.00996	0.00350
30.00	0.00777	0.00279
35.00	0.00634	0.00231
40.00	0.00531	0.00197
45.00	0.00456	0.00171
50.00	0.00398	0.00150

Notes:
Base Case: Rural Dispersion Coefficients With Rural Met Data
Test Case 1: Urban Dispersion Coefficients With Urban Met Data

TABLE A-2-6
URBAN VS. RURAL SENSITIVITY ANALYSIS
NORMALIZED VAPOR PHASE CONCENTRATION

Distance (Km)	Rural	Urban
0.10	1.00000	117.82282
0.20	1.00000	5.51533
0.30	1.00000	2.01376
0.40	1.00000	1.26075
0.50	1.00000	0.96351
0.60	1.00000	0.81097
0.70	1.00000	0.71858
0.80	1.00000	0.65647
0.90	1.00000	0.61147
1.00	1.00000	0.57719
1.25	1.00000	0.51718
1.50	1.00000	0.47587
1.75	1.00000	0.44582
2.00	1.00000	0.42322
2.25	1.00000	0.40660
2.50	1.00000	0.39346
3.00	1.00000	0.37440
3.50	1.00000	0.36093
4.00	1.00000	0.35144
4.50	1.00000	0.34447
5.00	1.00000	0.33935
6.00	1.00000	0.33274
7.00	1.00000	0.32929
8.00	1.00000	0.32784
9.00	1.00000	0.32774
10.00	1.00000	0.32835
15.00	1.00000	0.33449
20.00	1.00000	0.34345
25.00	1.00000	0.35141
30.00	1.00000	0.35907
35.00	1.00000	0.36435
40.00	1.00000	0.37100
45.00	1.00000	0.37500
50.00	1.00000	0.37688

Notes:

Base Case Rural Dispersion Coefficients With Rural Met Data

Test Case 1 Urban Dispersion Coefficients With Urban Met Data

TABLE A-2-7
URBAN VS. RURAL SENSITIVITY ANALYSIS
PARTICLE PHASE DRY DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Rural	Urban
0.10	0.08968	33.64256
0.20	1.36840	12.94575
0.30	2.24341	7.41623
0.40	2.34887	4.70821
0.50	2.15502	3.24894
0.60	1.88344	2.38116
0.70	1.62008	1.81639
0.80	1.39045	1.43004
0.90	1.19742	1.15826
1.00	1.03767	0.95819
1.25	0.75775	0.63949
1.50	0.57660	0.45855
1.75	0.45378	0.34588
2.00	0.36724	0.27106
2.25	0.30313	0.21878
2.50	0.25450	0.18076
3.00	0.18652	0.13025
3.50	0.14307	0.09887
4.00	0.11344	0.07807
4.50	0.09227	0.06348
5.00	0.07655	0.05285
6.00	0.05517	0.03871
7.00	0.04164	0.02987
8.00	0.03253	0.02392
9.00	0.02614	0.0197
10.00	0.02148	0.0166
15.00	0.01011	0.00877
20.00	0.00586	0.00553
25.00	0.00387	0.00401
30.00	0.00274	0.00304
35.00	0.00205	0.00239
40.00	0.00159	0.00193
45.00	0.00128	0.0016
50.00	0.00100	0.00134

Notes
Base Case: Rural Dispersion Coefficients With Rural Met Data
Test Case 1: Urban Dispersion Coefficients With Urban Met Data

TABLE A-2-8
URBAN VS. RURAL SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE DRY DEPOSITION

Distance (Km)	Rural	Urban
0.10	1.00000	375.14005
0.20	1.00000	9.46050
0.30	1.00000	3.30578
0.40	1.00000	2.00446
0.50	1.00000	1.50761
0.60	1.00000	1.26426
0.70	1.00000	1.12117
0.80	1.00000	1.02847
0.90	1.00000	0.96730
1.00	1.00000	0.92341
1.25	1.00000	0.84393
1.50	1.00000	0.79527
1.75	1.00000	0.76222
2.00	1.00000	0.73810
2.25	1.00000	0.72174
2.50	1.00000	0.71026
3.00	1.00000	0.69832
3.50	1.00000	0.69106
4.00	1.00000	0.68821
4.50	1.00000	0.68798
5.00	1.00000	0.69040
6.00	1.00000	0.70165
7.00	1.00000	0.71734
8.00	1.00000	0.73532
9.00	1.00000	0.75363
10.00	1.00000	0.77281
15.00	1.00000	0.86746
20.00	1.00000	0.95748
25.00	1.00000	1.03618
30.00	1.00000	1.10949
35.00	1.00000	1.16685
40.00	1.00000	1.21384
45.00	1.00000	1.25000
50.00	1.00000	1.34000

Notes:
Base Case: Rural Dispersion Coefficients With Rural Met Data
Test Case 1. Urban Dispersion Coefficients With Urban Met Data

TABLE A-2-9
URBAN VS. RURAL SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE DRY DEPOSITION
UNITS = $g/m^2/g/s$

Distance (Km)	Rural	Urban
0.10	0.01555	6.41012
0.20	0.23579	2.42726
0.30	0.38738	1.38442
0.40	0.40600	0.87801
0.50	0.37312	0.60539
0.60	0.32682	0.44341
0.70	0.28184	0.33844
0.80	0.24253	0.26678
0.90	0.20944	0.21626
1.00	0.18198	0.17907
1.25	0.13371	0.11984
1.50	0.10236	0.08619
1.75	0.08104	0.06520
2.00	0.06593	0.05124
2.25	0.05470	0.04147
2.50	0.04614	0.03435
3.00	0.03414	0.02487
3.50	0.02642	0.01897
4.00	0.02112	0.01504
4.50	0.01731	0.01227
5.00	0.01446	0.01026
6.00	0.01056	0.00756
7.00	0.00807	0.00587
8.00	0.00638	0.00473
9.00	0.00519	0.00391
10.00	0.00431	0.00331
15.00	0.00212	0.00179
20.00	0.00128	0.00117
25.00	0.00087	0.00084
30.00	0.00064	0.00065
35.00	0.00049	0.00052
40.00	0.00039	0.00042
45.00	0.00032	0.00035
50.00	0.00026	0.00030

Notes.

Base Case. Rural Dispersion Coefficients With Rural Met Data

Test Case 1 Urban Dispersion Coefficients With Urban Met Data

TABLE A-2-10
URBAN VS. RURAL SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE DRY DEPOSITION

Distance (Km)	Rural	Urban
0.10	1.00000	412.22637
0.20	1.00000	10.29416
0.30	1.00000	3.57380
0.40	1.00000	2.16259
0.50	1.00000	1.62251
0.60	1.00000	1.35674
0.70	1.00000	1.20082
0.80	1.00000	1.09999
0.90	1.00000	1.03256
1.00	1.00000	0.98401
1.25	1.00000	0.89627
1.50	1.00000	0.84203
1.75	1.00000	0.80454
2.00	1.00000	0.77719
2.25	1.00000	0.75814
2.50	1.00000	0.74447
3.00	1.00000	0.72847
3.50	1.00000	0.71802
4.00	1.00000	0.71212
4.50	1.00000	0.70884
5.00	1.00000	0.70954
6.00	1.00000	0.71591
7.00	1.00000	0.72739
8.00	1.00000	0.74138
9.00	1.00000	0.75337
10.00	1.00000	0.76798
15.00	1.00000	0.84434
20.00	1.00000	0.91406
25.00	1.00000	0.96552
30.00	1.00000	1.01563
35.00	1.00000	1.06122
40.00	1.00000	1.07692
45.00	1.00000	1.09375
50.00	1.00000	1.15385

Notes.

Base Case Rural Dispersion Coefficients With Rural Met Data

Test Case 1. Urban Dispersion Coefficients With Urban Met Data

TABLE A-2-11
URBAN VS. RURAL SENSITIVITY ANALYSIS
PARTICLE PHASE WET DEPOSITION
UNITS = $g/m^2/g/s$

Distance (Km)	Rural	Urban
0.10	3 61053	2 91339
0 20	1 68001	1 33487
0 30	1 03968	0.82214
0.40	0.72250	0.57331
0.50	0.53703	0.42930
0.60	0.41737	0.33680
0.70	0 33499	0.27297
0.80	0 27555	0 22667
0 90	0 23112	0.19184
1.00	0.19693	0.16498
1.25	0.13919	0.11910
1.50	0 10400	0 09068
1.75	0 08088	0 07169
2.00	0 06482	0.05830
2.25	0.05319	0.04845
2.50	0.04446	0.04098
3.00	0.03244	0.03051
3.50	0.02471	0.02364
4.00	0.01945	0.01888
4.50	0.01570	0.01544
5.00	0.01293	0.01286
6.00	0.00920	0 00931
7.00	0.00686	0.00703
8 00	0.00531	0.00549
9 00	0.00422	0.00439
10 00	0.00343	0.00359
15 00	0.00153	0 00160
20 00	0.00085	0 00087
25 00	0.00053	0 00054
30 00	0.00036	0 00036
35 00	0.00026	0 00025
40 00	0.00019	0 00018
45 00	0.00015	0 00014
50.00	0.00012	0 00011

Notes
Base Case: Rural Dispersion Coefficients With Rural Met Data
Test Case 1: Urban Dispersion Coefficients With Urban Met Data

TABLE A-2-12
URBAN VS. RURAL SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE WET DEPOSITION

Distance (Km)	Rural	Urban
0.10	1.00000	0.80691
0.20	1.00000	0.79456
0.30	1.00000	0.79076
0.40	1.00000	0.79351
0.50	1.00000	0.79940
0.60	1.00000	0.80696
0.70	1.00000	0.81486
0.80	1.00000	0.82261
0.90	1.00000	0.83004
1.00	1.00000	0.83776
1.25	1.00000	0.85566
1.50	1.00000	0.87192
1.75	1.00000	0.88637
2.00	1.00000	0.89941
2.25	1.00000	0.91089
2.50	1.00000	0.92173
3.00	1.00000	0.94051
3.50	1.00000	0.95670
4.00	1.00000	0.97069
4.50	1.00000	0.98344
5.00	1.00000	0.99469
6.00	1.00000	1.01196
7.00	1.00000	1.02478
8.00	1.00000	1.03390
9.00	1.00000	1.04028
10.00	1.00000	1.04665
15.00	1.00000	1.04575
20.00	1.00000	1.02353
25.00	1.00000	1.01887
30.00	1.00000	1.00000
35.00	1.00000	0.96154
40.00	1.00000	0.94737
45.00	1.00000	0.93333
50.00	1.00000	0.91667

Notes:
Base Case: Rural Dispersion Coefficients With Rural Met Data
Test Case 1: Urban Dispersion Coefficients With Urban Met Data

TABLE A-2-13
URBAN VS. RURAL SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE WET DEPOSITION
UNITS = $g/m^2/g/s$

Distance (Km)	Rural	Urban
0.10	1.43996	1.16890
0.20	0.70064	0.56190
0.30	0.45262	0.36119
0.40	0.32746	0.26185
0.50	0.25273	0.20308
0.60	0.20343	0.16447
0.70	0.16869	0.13727
0.80	0.14303	0.11715
0.90	0.12339	0.10170
1.00	0.10794	0.08953
1.25	0.08085	0.06807
1.50	0.06348	0.05419
1.75	0.05152	0.04454
2.00	0.04286	0.03748
2.25	0.03634	0.03212
2.50	0.03128	0.02793
3.00	0.02401	0.02182
3.50	0.01909	0.01762
4.00	0.01558	0.01458
4.50	0.01298	0.01230
5.00	0.01099	0.01053
6.00	0.00819	0.00799
7.00	0.00635	0.00628
8.00	0.00507	0.00506
9.00	0.00414	0.00417
10.00	0.00345	0.00349
15.00	0.00167	0.00170
20.00	0.00098	0.00099
25.00	0.00064	0.00064
30.00	0.00045	0.00044
35.00	0.00033	0.00032
40.00	0.00025	0.00024
45.00	0.00020	0.00019
50.00	0.00016	0.00015

Notes

Base Case: Rural Dispersion Coefficients With Rural Met Data

Test Case 1: Urban Dispersion Coefficients With Urban Met Data

TABLE A-2-14
URBAN VS. RURAL SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE WET DEPOSITION

Distance (Km)	Rural	Urban
0.10	1.00000	0.81176
0.20	1.00000	0.80198
0.30	1.00000	0.79800
0.40	1.00000	0.79964
0.50	1.00000	0.80355
0.60	1.00000	0.80848
0.70	1.00000	0.81374
0.80	1.00000	0.81906
0.90	1.00000	0.82422
1.00	1.00000	0.82944
1.25	1.00000	0.84193
1.50	1.00000	0.85365
1.75	1.00000	0.86452
2.00	1.00000	0.87448
2.25	1.00000	0.88387
2.50	1.00000	0.89290
3.00	1.00000	0.90879
3.50	1.00000	0.92300
4.00	1.00000	0.93582
4.50	1.00000	0.94761
5.00	1.00000	0.95814
6.00	1.00000	0.97558
7.00	1.00000	0.98898
8.00	1.00000	0.99803
9.00	1.00000	1.00725
10.00	1.00000	1.01159
15.00	1.00000	1.01796
20.00	1.00000	1.01020
25.00	1.00000	1.00000
30.00	1.00000	0.97778
35.00	1.00000	0.96970
40.00	1.00000	0.96000
45.00	1.00000	0.95000
50.00	1.00000	0.93750

Notes:
Base Case: Rural Dispersion Coefficients With Rural Met Data
Test Case 1: Urban Dispersion Coefficients With Urban Met Data

TABLE A-2-15
URBAN VS. RURAL SENSITIVITY ANALYSIS
VAPOR PHASE WET DEPOSITION
UNITS = $g/m^2/g/s$

Distance (Km)	Rural	Urban
0.10	2.15817	1.76394
0.20	1.06510	0.86346
0.30	0.69588	0.56259
0.40	0.50780	0.41205
0.50	0.39440	0.32193
0.60	0.31865	0.26207
0.70	0.26511	0.21952
0.80	0.22506	0.18776
0.90	0.19417	0.16321
1.00	0.16968	0.14370
1.25	0.12538	0.10898
1.50	0.09837	0.08628
1.75	0.07901	0.07040
2.00	0.06499	0.05876
2.25	0.05447	0.04990
2.50	0.04635	0.04299
3.00	0.03480	0.03297
3.50	0.02713	0.02615
4.00	0.02175	0.02128
4.50	0.01784	0.01766
5.00	0.01491	0.01490
6.00	0.01086	0.01102
7.00	0.00827	0.00847
8.00	0.00651	0.00671
9.00	0.00525	0.00543
10.00	0.00432	0.00448
15.00	0.00199	0.00206
20.00	0.00112	0.00115
25.00	0.00071	0.00071
30.00	0.00049	0.00048
35.00	0.00035	0.00034
40.00	0.00027	0.00025
45.00	0.00021	0.00020
50.00	0.00017	0.00015

Notes
Base Case: Rural Dispersion Coefficients With Rural Met Data
Test Case 1: Urban Dispersion Coefficients With Urban Met Data

TABLE A-2-16
URBAN VS. RURAL SENSITIVITY ANALYSIS
NORMALIZED VAPOR PHASE WET DEPOSITION

Distance (Km)	Rural	Urban
0.10	1.00000	0.81733
0.20	1.00000	0.81068
0.30	1.00000	0.80846
0.40	1.00000	0.81144
0.50	1.00000	0.81625
0.60	1.00000	0.82192
0.70	1.00000	0.82803
0.80	1.00000	0.83427
0.90	1.00000	0.84055
1.00	1.00000	0.84689
1.25	1.00000	0.86232
1.50	1.00000	0.87710
1.75	1.00000	0.89103
2.00	1.00000	0.90414
2.25	1.00000	0.91610
2.50	1.00000	0.92751
3.00	1.00000	0.94741
3.50	1.00000	0.96388
4.00	1.00000	0.97839
4.50	1.00000	0.98981
5.00	1.00000	0.99933
6.00	1.00000	1.01473
7.00	1.00000	1.02418
8.00	1.00000	1.03072
9.00	1.00000	1.03429
10.00	1.00000	1.03704
15.00	1.00000	1.03518
20.00	1.00000	1.02679
25.00	1.00000	1.00000
30.00	1.00000	0.97959
35.00	1.00000	0.97143
40.00	1.00000	0.92593
45.00	1.00000	0.95238
50.00	1.00000	0.88235

Notes.
Base Case. Rural Dispersion Coefficients With Rural Met Data
Test Case 1 Urban Dispersion Coefficients With Urban Met Data

TABLE A-3-1
SURFACE ROUGHNESS AT APPLICATION SITE
PARTICLE PHASE CONCENTRATION
UNITS = μg/m³/g/s

Distance (Km)	Surface Roughness = 0.10	Surface Roughness = 1.3	Surface Roughness = 0.001
0.10	0.02717	0.02678	0.02749
0.20	0.52539	0.51377	0.53690
0.30	0.93734	0.90936	0.96529
0.40	1.05378	1.01837	1.09185
0.50	1.02759	0.99112	1.07017
0.60	0.94724	0.91225	0.99085
0.70	0.85506	0.82285	0.89778
0.80	0.76683	0.73750	0.80780
0.90	0.68782	0.66044	0.72664
1.00	0.61869	0.59362	0.65543
1.25	0.48600	0.46445	0.51720
1.50	0.39450	0.37579	0.42152
1.75	0.32845	0.31194	0.35209
2.00	0.27896	0.26406	0.29983
2.25	0.24019	0.22190	0.25877
2.50	0.20954	0.19261	0.22623
3.00	0.16449	0.14991	0.17826
3.50	0.13358	0.12093	0.14524
4.00	0.11118	0.10007	0.12122
4.50	0.09440	0.08332	0.10317
5.00	0.08143	0.07155	0.08918
6.00	0.06286	0.05486	0.06909
7.00	0.05036	0.04366	0.05552
8.00	0.04150	0.03578	0.04587
9.00	0.03494	0.03000	0.03871
10.00	0.02994	0.02562	0.03324
15.00	0.01660	0.01388	0.01855
20.00	0.01092	0.00909	0.01225
25.00	0.00793	0.00659	0.00891
30.00	0.00610	0.00507	0.00686
35.00	0.00491	0.00409	0.00553
40.00	0.00407	0.00339	0.00458
45.00	0.00346	0.00289	0.00389
50.00	0.00297	0.00250	0.00332

Notes:

Base Case: Surface Roughness at Application Site = 0.10

Test Case 1 Surface Roughness at Application Site = 1.3

Test Case 2 Surface Roughness at Application Site = 0.001

TABLE A-3-2
SURFACE ROUGHNESS AT APPLICATION SITE
NORMALIZED PARTICLE PHASE CONCENTRATION

Distance (Km)	Surface Roughness = 0.10	Surface Roughness = 1.3	Surface Roughness = 0.001
0.10	1.00000	0.98565	1.01178
0.20	1.00000	0.97788	1.02191
0.30	1.00000	0.97015	1.02982
0.40	1.00000	0.96640	1.03613
0.50	1.00000	0.96451	1.04144
0.60	1.00000	0.96306	1.04604
0.70	1.00000	0.96233	1.04996
0.80	1.00000	0.96175	1.05343
0.90	1.00000	0.96019	1.05644
1.00	1.00000	0.95917	1.05904
1.25	1.00000	0.95556	1.06420
1.50	1.00000	0.95257	1.06849
1.75	1.00000	0.94973	1.07197
2.00	1.00000	0.94659	1.07481
2.25	1.00000	0.92385	1.07736
2.50	1.00000	0.91920	1.07965
3.00	1.00000	0.91136	1.08371
3.50	1.00000	0.90530	1.08729
4.00	1.00000	0.90007	1.09030
4.50	1.00000	0.88263	1.09290
5.00	1.00000	0.87867	1.09517
6.00	1.00000	0.87273	1.09911
7.00	1.00000	0.86696	1.10246
8.00	1.00000	0.86217	1.10530
9.00	1.00000	0.85861	1.10790
10.00	1.00000	0.85571	1.11022
15.00	1.00000	0.83614	1.11747
20.00	1.00000	0.83242	1.12179
25.00	1.00000	0.83102	1.12358
30.00	1.00000	0.83115	1.12459
35.00	1.00000	0.83299	1.12627
40.00	1.00000	0.83292	1.12531
45.00	1.00000	0.83526	1.12428
50.00	1.00000	0.84175	1.11785

Notes:

Base Case: Surface Roughness at Application Site = 0.10

Test Case 1: Surface Roughness at Application Site = 1.3

Test Case 2: Surface Roughness at Application Site = 0.001

TABLE A-3-3
SURFACE ROUGHNESS AT APPLICATION SITE
PARTICLE-BOUND PHASE CONCENTRATION
UNITS = µg/m³/g/s

Distance (Km)	Surface Roughness = 0.10	Surface Roughness = 1.3	Surface Roughness = 0.001
0.10	0.02736	0.02726	0.02741
0.20	0.53598	0.53304	0.53779
0.30	0.96577	0.95871	0.97024
0.40	1.09422	1.08529	1.10033
0.50	1.07412	1.06490	1.08095
0.60	0.99583	0.98699	1.00282
0.70	0.90336	0.89522	0.91020
0.80	0.81362	0.80621	0.82018
0.90	0.73255	0.72568	0.73875
1.00	0.66125	0.65494	0.66709
1.25	0.52241	0.51713	0.52740
1.50	0.42619	0.42169	0.43051
1.75	0.35637	0.35245	0.36015
2.00	0.30373	0.30025	0.30707
2.25	0.26236	0.25830	0.26533
2.50	0.22956	0.22581	0.23223
3.00	0.18121	0.17800	0.18342
3.50	0.14789	0.14512	0.14977
4.00	0.12365	0.12122	0.12527
4.50	0.10541	0.10304	0.10683
5.00	0.09127	0.08915	0.09252
6.00	0.07094	0.06921	0.07195
7.00	0.05719	0.05574	0.05804
8.00	0.04739	0.04615	0.04811
9.00	0.04011	0.03904	0.04074
10.00	0.03454	0.03360	0.03508
15.00	0.01953	0.01892	0.01986
20.00	0.01304	0.01262	0.01327
25.00	0.00958	0.00926	0.00975
30.00	0.00745	0.00720	0.00759
35.00	0.00605	0.00585	0.00617
40.00	0.00506	0.00489	0.00515
45.00	0.00433	0.00418	0.00441
50.00	0.00377	0.00364	0.00383

Notes
Base Case: Surface Roughness at Application Site = 0.10
Test Case 1: Surface Roughness at Application Site = 1.3
Test Case 2: Surface Roughness at Application Site = 0.001

TABLE A-3-4
SURFACE ROUGHNESS AT APPLICATION SITE
NORMALIZED PARTICLE-BOUND PHASE CONCENTRATION

Distance (Km)	Surface Roughness = 0.10	Surface Roughness = 1.3	Surface Roughness = 0.001
0.10	1.00000	0.99635	1.00183
0.20	1.00000	0.99451	1.00338
0.30	1.00000	0.99269	1.00463
0.40	1.00000	0.99184	1.00558
0.50	1.00000	0.99142	1.00636
0.60	1.00000	0.99112	1.00702
0.70	1.00000	0.99099	1.00757
0.80	1.00000	0.99089	1.00806
0.90	1.00000	0.99062	1.00846
1.00	1.00000	0.99046	1.00883
1.25	1.00000	0.98989	1.00955
1.50	1.00000	0.98944	1.01014
1.75	1.00000	0.98900	1.01061
2.00	1.00000	0.98854	1.01100
2.25	1.00000	0.98453	1.01132
2.50	1.00000	0.98366	1.01163
3.00	1.00000	0.98229	1.01220
3.50	1.00000	0.98127	1.01271
4.00	1.00000	0.98035	1.01310
4.50	1.00000	0.97752	1.01347
5.00	1.00000	0.97677	1.01370
6.00	1.00000	0.97561	1.01424
7.00	1.00000	0.97465	1.01486
8.00	1.00000	0.97383	1.01519
9.00	1.00000	0.97332	1.01571
10.00	1.00000	0.97279	1.01563
15.00	1.00000	0.96877	1.01690
20.00	1.00000	0.96779	1.01764
25.00	1.00000	0.96660	1.01775
30.00	1.00000	0.96644	1.01879
35.00	1.00000	0.96694	1.01983
40.00	1.00000	0.96640	1.01779
45.00	1.00000	0.96536	1.01848
50.00	1.00000	0.96552	1.01592

Notes:

Base Case: Surface Roughness at Application Site = 0.10

Test Case 1 Surface Roughness at Application Site = 1.3

Test Case 2 Surface Roughness at Application Site = 0.001

TABLE A-3-5
SURFACE ROUGHNESS AT APPLICATION SITE
VAPOR PHASE CONCENTRATION
UNITS = µg/m³/g/s

Distance (Km)	Surface Roughness = 0.10	Surface Roughness = 1.3	Surface Roughness = 0.001
0.10	0 02743	0 02743	0 02743
0.20	0 53865	0 53865	0 53865
0 30	0 97222	0.97222	0.97222
0.40	1.10287	1.10287	1.10287
0.50	1.08367	1.08367	1.08367
0.60	1 00551	1.00551	1.00551
0.70	0.91278	0 91278	0.91278
0 80	0 82261	0 82261	0.82261
0 90	0 74103	0 74103	0 74103
1 00	0 66921	0 66921	0.66921
1 25	0 52914	0 52914	0.52914
1 50	0.43199	0.43199	0.43199
1 75	0.36145	0.36145	0.36145
2 00	0.30823	0.30823	0.30823
2 25	0.26638	0.26638	0 26638
2.50	0.23319	0.23319	0 23319
3.00	0.18424	0.18424	0 18424
3.50	0.15050	0.15050	0 15050
4.00	0.12594	0.12594	0 12594
4.50	0.10744	0.10744	0 10744
5.00	0.09309	0.09309	0 09309
6.00	0.07246	0.07246	0.07246
7.00	0.05849	0.05849	0.05849
8.00	0.04853	0.04853	0.04853
9.00	0.04113	0.04113	0.04113
10.00	0.03545	0.03545	0.03545
15.00	0.02015	0.02015	0.02015
20.00	0.01351	0.01351	0.01351
25.00	0.00996	0.00996	0.00996
30.00	0 00777	0.00777	0.00777
35.00	0.00634	0 00634	0.00634
40.00	0 00531	0 00531	0.00531
45 00	0 00456	0 00456	0.00456
50 00	0 00398	0 00398	0 00398

Notes:
Base Case Surface Roughness at Application Site = 0 10
Test Case 1 Surface Roughness at Application Site = 1 3
Test Case 2 Surface Roughness at Application Site = 0 001

TABLE A-3-6
SURFACE ROUGHNESS AT APPLICATION SITE
NORMALIZED VAPOR PHASE CONCENTRATION

Distance (Km)	Surface Roughness = 0.10	Surface Roughness = 1.3	Surface Roughness = 0.001
0.10	1.00000	1.00000	1.00000
0.20	1.00000	1.00000	1.00000
0.30	1.00000	1.00000	1.00000
0.40	1.00000	1.00000	1.00000
0.50	1.00000	1.00000	1.00000
0.60	1.00000	1.00000	1.00000
0.70	1.00000	1.00000	1.00000
0.80	1.00000	1.00000	1.00000
0.90	1.00000	1.00000	1.00000
1.00	1.00000	1.00000	1.00000
1.25	1.00000	1.00000	1.00000
1.50	1.00000	1.00000	1.00000
1.75	1.00000	1.00000	1.00000
2.00	1.00000	1.00000	1.00000
2.25	1.00000	1.00000	1.00000
2.50	1.00000	1.00000	1.00000
3.00	1.00000	1.00000	1.00000
3.50	1.00000	1.00000	1.00000
4.00	1.00000	1.00000	1.00000
4.50	1.00000	1.00000	1.00000
5.00	1.00000	1.00000	1.00000
6.00	1.00000	1.00000	1.00000
7.00	1.00000	1.00000	1.00000
8.00	1.00000	1.00000	1.00000
9.00	1.00000	1.00000	1.00000
10.00	1.00000	1.00000	1.00000
15.00	1.00000	1.00000	1.00000
20.00	1.00000	1.00000	1.00000
25.00	1.00000	1.00000	1.00000
30.00	1.00000	1.00000	1.00000
35.00	1.00000	1.00000	1.00000
40.00	1.00000	1.00000	1.00000
45.00	1.00000	1.00000	1.00000
50.00	1.00000	1.00000	1.00000

Notes.

Base Case Surface Roughness at Application Site = 0.10

Test Case 1 Surface Roughness at Application Site = 1.3

Test Case 2 Surface Roughness at Application Site = 0.001

TABLE A-3-7
SURFACE ROUGHNESS AT APPLICATION SITE
PARTICLE PHASE DRY DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Surface Roughness = 0.10	Surface Roughness = 1.3	Surface Roughness = 0.001
0.10	0.08968	86.86722	0.02439
0.20	1.36840	29.05750	0.43961
0.30	2.24341	15.14011	0.76746
0.40	2.34887	9.52851	0.83278
0.50	2.15502	6.65350	0.78474
0.60	1.88344	4.98185	0.70156
0.70	1.62008	3.92002	0.61561
0.80	1.39045	3.19125	0.53809
0.90	1.19742	2.65388	0.47117
1.00	1.03767	2.25024	0.41462
1.25	0.75775	1.59437	0.31242
1.50	0.57660	1.19226	0.24457
1.75	0.45378	0.92615	0.19724
2.00	0.36724	0.73987	0.16306
2.25	0.30313	0.55718	0.13722
2.50	0.25450	0.45790	0.11729
3.00	0.18652	0.32308	0.08885
3.50	0.14307	0.24051	0.07014
4.00	0.11344	0.18551	0.05699
4.50	0.09227	0.14003	0.04737
5.00	0.07655	0.11352	0.04010
6.00	0.05517	0.07868	0.02995
7.00	0.04164	0.05721	0.02333
8.00	0.03253	0.04319	0.01875
9.00	0.02614	0.03372	0.01544
10.00	0.02148	0.02705	0.01296
15.00	0.01011	0.01123	0.00664
20.00	0.00588	0.00610	0.00411
25.00	0.00387	0.00384	0.00283
30.00	0.00274	0.00263	0.00208
35.00	0.00205	0.00192	0.00160
40.00	0.00159	0.00145	0.00128
45.00	0.00128	0.00114	0.00105
50.00	0.00100	0.00092	0.00084

Notes

Base Case. Surface Roughness at Application Site = 0.10

Test Case 1 Surface Roughness at Application Site = 1.3

Test Case 2 Surface Roughness at Application Site = 0.001

TABLE A-3-8
SURFACE ROUGHNESS AT APPLICATION SITE
NORMALIZED PARTICLE PHASE DRY DEPOSITION

Distance (Km)	Surface Roughness = 0.10	Surface Roughness = 1.3	Surface Roughness = 0.001
0.10	1.00000	968.63537	0.27197
0.20	1.00000	21.23465	0.32126
0.30	1.00000	6.74870	0.34210
0.40	1.00000	4.05864	0.35454
0.50	1.00000	3.08744	0.36415
0.60	1.00000	2.64508	0.37249
0.70	1.00000	2.41965	0.37999
0.80	1.00000	2.29512	0.38699
0.90	1.00000	2.21633	0.39349
1.00	1.00000	2.16855	0.39957
1.25	1.00000	2.10408	0.41230
1.50	1.00000	2.06774	0.42416
1.75	1.00000	2.04097	0.43466
2.00	1.00000	2.01468	0.44401
2.25	1.00000	1.83809	0.45268
2.50	1.00000	1.79921	0.46086
3.00	1.00000	1.73215	0.47636
3.50	1.00000	1.68107	0.49025
4.00	1.00000	1.63531	0.50238
4.50	1.00000	1.51761	0.51338
5.00	1.00000	1.48295	0.52384
6.00	1.00000	1.42614	0.54287
7.00	1.00000	1.37392	0.56028
8.00	1.00000	1.32770	0.57639
9.00	1.00000	1.28998	0.59067
10.00	1.00000	1.25931	0.60335
15.00	1.00000	1.11078	0.65678
20.00	1.00000	1.03741	0.69898
25.00	1.00000	0.99225	0.73127
30.00	1.00000	0.95985	0.75912
35.00	1.00000	0.93659	0.78049
40.00	1.00000	0.91195	0.80503
45.00	1.00000	0.89063	0.82031
50.00	1.00000	0.92000	0.84000

Notes:

Base Case: Surface Roughness at Application Site = 0.10

Test Case 1: Surface Roughness at Application Site = 1.3

Test Case 2: Surface Roughness at Application Site = 0.001

TABLE A-3-9
SURFACE ROUGHNESS AT APPLICATION SITE
PARTICLE-BOUND PHASE DRY DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Surface Roughness = 0.10	Surface Roughness = 1.3	Surface Roughness = 0.001
0.10	0.01555	17.55363	0.00436
0.20	0.23579	5.81155	0.07855
0.30	0.38738	3.00736	0.13740
0.40	0.40600	1.88634	0.14974
0.50	0.37312	1.31603	0.14182
0.60	0.32682	0.98637	0.12743
0.70	0.28184	0.77758	0.11237
0.80	0.24253	0.63449	0.09868
0.90	0.20944	0.52928	0.08679
1.00	0.18198	0.45005	0.07668
1.25	0.13371	0.32113	0.05623
1.50	0.10236	0.24170	0.04591
1.75	0.08104	0.18887	0.03726
2.00	0.06593	0.15173	0.03097
2.25	0.05470	0.11642	0.02619
2.50	0.04614	0.09626	0.02249
3.00	0.03414	0.06877	0.01717
3.50	0.02642	0.05176	0.01365
4.00	0.02112	0.04033	0.01116
4.50	0.01731	0.03123	0.00933
5.00	0.01446	0.02555	0.00794
6.00	0.01056	0.01801	0.00599
7.00	0.00807	0.01333	0.00471
8.00	0.00638	0.01024	0.00381
9.00	0.00519	0.00812	0.00316
10.00	0.00431	0.00661	0.00268
15.00	0.00212	0.00297	0.00141
20.00	0.00128	0.00171	0.00090
25.00	0.00087	0.00113	0.00063
30.00	0.00064	0.00080	0.00047
35.00	0.00049	0.00061	0.00037
40.00	0.00039	0.00048	0.00030
45.00	0.00032	0.00039	0.00025
50.00	0.00026	0.00032	0.00021

Notes.

Base Case Surface Roughness at Application Site = 0.10

Test Case 1. Surface Roughness at Application Site = 1.3

Test Case 2. Surface Roughness at Application Site = 0.001

TABLE A-3-10
SURFACE ROUGHNESS AT APPLICATION SITE
NORMALIZED PARTICLE-BOUND PHASE DRY DEPOSITION

Distance (Km)	Surface Roughness = 0 10	Surface Roughness = 1 3	Surface Roughness = 0.001
0 10	1.00000	1128.85080	0.28039
0.20	1.00000	24.64714	0.33314
0.30	1.00000	7.76333	0 35469
0.40	1.00000	4 64616	0 36882
0.50	1.00000	3 52710	0 38009
0.60	1.00000	3.01808	0 38991
0.70	1 00000	2.75894	0.39870
0 80	1.00000	2.61613	0.40688
0.90	1.00000	2.52712	0.41439
1.00	1.00000	2.47307	0 42136
1.25	1.00000	2.40169	0 43549
1.50	1.00000	2.36127	0 44852
1.75	1.00000	2.33058	0 45977
2.00	1.00000	2.30138	0 46974
2.25	1.00000	2.12834	0 47879
2.50	1.00000	2.08626	0 48743
3.00	1.00000	2 01435	0 50293
3.50	1.00000	1.95912	0 51665
4.00	1 00000	1 90956	0 52841
4.50	1 00000	1 80416	0 53899
5.00	1 00000	1 76694	0 54910
6.00	1.00000	1.70549	0 56723
7.00	1.00000	1.65180	0 58364
8.00	1.00000	1.60502	0 59718
9.00	1.00000	1 56455	0 60886
10.00	1 00000	1 53364	0 62181
15.00	1 00000	1 40094	0 66509
20.00	1 00000	1 33594	0.70313
25.00	1 00000	1 29885	0.72414
30 00	1 00000	1 25000	0.73438
35 00	1 00000	1 24490	0.75510
40 00	1 00000	1 23077	0.76923
45 00	1 00000	1 21875	0.78125
50.00	1.00000	1 23077	0.80769

Notes.

Base Case Surface Roughness at Application Site = 0 10

Test Case 1: Surface Roughness at Application Site = 1.3

Test Case 2: Surface Roughness at Application Site = 0.001

TABLE A-3-11
SURFACE ROUGHNESS AT APPLICATION SITE
PARTICLE PHASE WET DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Surface Roughness = 0.10	Surface Roughness = 1.3	Surface Roughness = 0.001
0.10	3.61053	3.46923	3.61053
0.20	1.68001	1.56959	1.68025
0.30	1.03958	0.95009	1.04068
0.40	0.72250	0.64946	0.72440
0.50	0.53703	0.47678	0.53967
0.60	0.41737	0.36708	0.42053
0.70	0.33499	0.29243	0.33847
0.80	0.27555	0.23902	0.27918
0.90	0.23112	0.19942	0.23479
1.00	0.19693	0.16914	0.20059
1.25	0.13919	0.11838	0.14261
1.50	0.10400	0.08772	0.10713
1.75	0.08088	0.06773	0.08371
2.00	0.06482	0.05393	0.06735
2.25	0.05319	0.04403	0.05545
2.50	0.04446	0.03671	0.04650
3.00	0.03244	0.02667	0.03411
3.50	0.02471	0.02026	0.02611
4.00	0.01945	0.01590	0.02063
4.50	0.01570	0.01278	0.01671
5.00	0.01293	0.01052	0.01380
6.00	0.00920	0.00748	0.00987
7.00	0.00686	0.00557	0.00739
8.00	0.00531	0.00430	0.00574
9.00	0.00422	0.00342	0.00457
10.00	0.00343	0.00278	0.00373
15.00	0.00153	0.00124	0.00167
20.00	0.00085	0.00069	0.00093
25.00	0.00053	0.00044	0.00059
30.00	0.00036	0.00030	0.00040
35.00	0.00026	0.00021	0.00029
40.00	0.00019	0.00016	0.00021
45.00	0.00015	0.00012	0.00016
50.00	0.00012	0.00010	0.00013

Notes:
Base Case: Surface Roughness at Application Site = 0.10
Test Case 1: Surface Roughness at Application Site = 1.3
Test Case 2: Surface Roughness at Application Site = 0.001

TABLE A-3-12
SURFACE ROUGHNESS AT APPLICATION SITE
NORMALIZED PARTICLE PHASE WET DEPOSITION

Distance (Km)	Surface Roughness = 0.10	Surface Roughness = 1.3	Surface Roughness = 0.001
0.10	1.00000	0.96086	1.00000
0.20	1.00000	0.93427	1.00014
0.30	1.00000	0.91383	1.00096
0.40	1.00000	0.89891	1.00263
0.50	1.00000	0.88761	1.00492
0.60	1.00000	0.87951	1.00757
0.70	1.00000	0.87295	1.01039
0.80	1.00000	0.86743	1.01317
0.90	1.00000	0.86284	1.01588
1.00	1.00000	0.85888	1.01859
1.25	1.00000	0.85049	1.02457
1.50	1.00000	0.84346	1.03010
1.75	1.00000	0.83741	1.03499
2.00	1.00000	0.83200	1.03903
2.25	1.00000	0.82779	1.04249
2.50	1.00000	0.82569	1.04588
3.00	1.00000	0.82213	1.05148
3.50	1.00000	0.81991	1.05666
4.00	1.00000	0.81748	1.06067
4.50	1.00000	0.81401	1.06433
5.00	1.00000	0.81361	1.06729
6.00	1.00000	0.81304	1.07283
7.00	1.00000	0.81195	1.07726
8.00	1.00000	0.80979	1.08098
9.00	1.00000	0.81043	1.08294
10.00	1.00000	0.81050	1.08746
15.00	1.00000	0.81046	1.09150
20.00	1.00000	0.81176	1.09412
25.00	1.00000	0.83019	1.11321
30.00	1.00000	0.83333	1.11111
35.00	1.00000	0.80769	1.11538
40.00	1.00000	0.84211	1.10526
45.00	1.00000	0.80000	1.06667
50.00	1.00000	0.83333	1.08333

Notes.

Base Case. Surface Roughness at Application Site = 0.10

Test Case 1 Surface Roughness at Application Site = 1.3

Test Case 2 Surface Roughness at Application Site = 0.001

TABLE A-3-13
SURFACE ROUGHNESS AT APPLICATION SITE
PARTICLE-BOUND PHASE WET DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Surface Roughness = 0.10	Surface Roughness = 1.3	Surface Roughness = 0.001
0.10	1.43996	1.41552	1.43996
0.20	0.70064	0.68170	0.70068
0.30	0.45262	0.43718	0.45278
0.40	0.32746	0.31480	0.32776
0.50	0.25273	0.24221	0.25315
0.60	0.20343	0.19458	0.20394
0.70	0.16869	0.16114	0.16925
0.80	0.14303	0.13649	0.14361
0.90	0.12339	0.11767	0.12398
1.00	0.10794	0.10288	0.10852
1.25	0.08085	0.07700	0.08140
1.50	0.06348	0.06042	0.06398
1.75	0.05152	0.04902	0.05198
2.00	0.04286	0.04076	0.04327
2.25	0.03634	0.03456	0.03671
2.50	0.03128	0.02976	0.03162
3.00	0.02401	0.02285	0.02428
3.50	0.01909	0.01818	0.01932
4.00	0.01558	0.01484	0.01578
4.50	0.01298	0.01237	0.01315
5.00	0.01099	0.01048	0.01114
6.00	0.00819	0.00782	0.00831
7.00	0.00635	0.00606	0.00644
8.00	0.00507	0.00484	0.00514
9.00	0.00414	0.00396	0.00420
10.00	0.00345	0.00330	0.00350
15.00	0.00167	0.00160	0.00170
20.00	0.00098	0.00094	0.00100
25.00	0.00064	0.00061	0.00065
30.00	0.00045	0.00043	0.00046
35.00	0.00033	0.00032	0.00034
40.00	0.00025	0.00024	0.00026
45.00	0.00020	0.00019	0.00020
50.00	0.00016	0.00015	0.00016

Notes

Base Case. Surface Roughness at Application Site = 0.10

Test Case 1. Surface Roughness at Application Site = 1.3

Test Case 2: Surface Roughness at Application Site = 0.001

TABLE A-3-14
SURFACE ROUGHNESS AT APPLICATION SITE
NORMALIZED PARTICLE-BOUND PHASE WET DEPOSITION

Distance (Km)	Surface Roughness = 0.10	Surface Roughness = 1.3	Surface Roughness = 0.001
0.10	1.00000	0.98303	1.00000
0.20	1.00000	0.97297	1.00006
0.30	1.00000	0.96589	1.00035
0.40	1.00000	0.96134	1.00092
0.50	1.00000	0.95837	1.00166
0.60	1.00000	0.95650	1.00251
0.70	1.00000	0.95524	1.00332
0.80	1.00000	0.95428	1.00406
0.90	1.00000	0.95364	1.00478
1.00	1.00000	0.95312	1.00537
1.25	1.00000	0.95238	1.00680
1.50	1.00000	0.95180	1.00788
1.75	1.00000	0.95148	1.00893
2.00	1.00000	0.95100	1.00957
2.25	1.00000	0.95102	1.01018
2.50	1.00000	0.95141	1.01087
3.00	1.00000	0.95169	1.01125
3.50	1.00000	0.95233	1.01205
4.00	1.00000	0.95250	1.01284
4.50	1.00000	0.95300	1.01310
5.00	1.00000	0.95359	1.01365
6.00	1.00000	0.95482	1.01465
7.00	1.00000	0.95433	1.01417
8.00	1.00000	0.95464	1.01381
9.00	1.00000	0.95652	1.01449
10.00	1.00000	0.95652	1.01449
15.00	1.00000	0.95808	1.01796
20.00	1.00000	0.95918	1.02041
25.00	1.00000	0.95313	1.01563
30.00	1.00000	0.95556	1.02222
35.00	1.00000	0.96970	1.03030
40.00	1.00000	0.96000	1.04000
45.00	1.00000	0.95000	1.00000
50.00	1.00000	0.93750	1.00000

Notes.

Base Case. Surface Roughness at Application Site = 0.10

Test Case 1 Surface Roughness at Application Site = 1.3

Test Case 2. Surface Roughness at Application Site = 0.001

TABLE A-3-15
SURFACE ROUGHNESS AT APPLICATION SITE
VAPOR PHASE WET DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Surface Roughness = 0.10	Surface Roughness = 1.3	Surface Roughness = 0.001
0.10	2.15817	2.15817	2.15817
0.20	1.06510	1.06510	1.06510
0.30	0.69588	0.69588	0.69588
0.40	0.50780	0.50780	0.50780
0.50	0.39440	0.39440	0.39440
0.60	0.31885	0.31885	0.31885
0.70	0.26511	0.26511	0.26511
0.80	0.22506	0.22506	0.22506
0.90	0.19417	0.19417	0.19417
1.00	0.16968	0.16968	0.16968
1.25	0.12638	0.12638	0.12638
1.50	0.09837	0.09837	0.09837
1.75	0.07901	0.07901	0.07901
2.00	0.06499	0.06499	0.06499
2.25	0.05447	0.05447	0.05447
2.50	0.04635	0.04635	0.04635
3.00	0.03480	0.03480	0.03480
3.50	0.02713	0.02713	0.02713
4.00	0.02175	0.02175	0.02175
4.50	0.01784	0.01784	0.01784
5.00	0.01491	0.01491	0.01491
6.00	0.01086	0.01086	0.01086
7.00	0.00827	0.00827	0.00827
8.00	0.00651	0.00651	0.00651
9.00	0.00525	0.00525	0.00525
10.00	0.00432	0.00432	0.00432
15.00	0.00199	0.00199	0.00199
20.00	0.00112	0.00112	0.00112
25.00	0.00071	0.00071	0.00071
30.00	0.00049	0.00049	0.00049
35.00	0.00035	0.00035	0.00035
40.00	0.00027	0.00027	0.00027
45.00	0.00021	0.00021	0.00021
50.00	0.00017	0.00017	0.00017

Notes.

Base Case. Surface Roughness at Application Site = 0.10

Test Case 1. Surface Roughness at Application Site = 1.3

Test Case 2. Surface Roughness at Application Site = 0.001

TABLE A-3-16
SURFACE ROUGHNESS AT APPLICATION SITE
NORMALIZED VAPOR PHASE WET DEPOSITION

Distance (Km)	Surface Roughness = 0.10	Surface Roughness = 1.3	Surface Roughness = 0.001
0.10	1.00000	1.00000	1.00000
0.20	1.00000	1.00000	1.00000
0.30	1.00000	1.00000	1.00000
0.40	1.00000	1.00000	1.00000
0.50	1.00000	1.00000	1.00000
0.60	1.00000	1.00000	1.00000
0.70	1.00000	1.00000	1.00000
0.80	1.00000	1.00000	1.00000
0.90	1.00000	1.00000	1.00000
1.00	1.00000	1.00000	1.00000
1.25	1.00000	1.00000	1.00000
1.50	1.00000	1.00000	1.00000
1.75	1.00000	1.00000	1.00000
2.00	1.00000	1.00000	1.00000
2.25	1.00000	1.00000	1.00000
2.50	1.00000	1.00000	1.00000
3.00	1.00000	1.00000	1.00000
3.50	1.00000	1.00000	1.00000
4.00	1.00000	1.00000	1.00000
4.50	1.00000	1.00000	1.00000
5.00	1.00000	1.00000	1.00000
6.00	1.00000	1.00000	1.00000
7.00	1.00000	1.00000	1.00000
8.00	1.00000	1.00000	1.00000
9.00	1.00000	1.00000	1.00000
10.00	1.00000	1.00000	1.00000
15.00	1.00000	1.00000	1.00000
20.00	1.00000	1.00000	1.00000
25.00	1.00000	1.00000	1.00000
30.00	1.00000	1.00000	1.00000
35.00	1.00000	1.00000	1.00000
40.00	1.00000	1.00000	1.00000
45.00	1.00000	1.00000	1.00000
50.00	1.00000	1.00000	1.00000

Notes:

Base Case: Surface Roughness at Application Site = 0.10

Test Case 1: Surface Roughness at Application Site = 1.3

Test Case 2: Surface Roughness at Application Site = 0.001

TABLE A-4-1
ANEMOMETER HEIGHT SENSITIVITY ANALYSIS
PARTICLE PHASE CONCENTRATION
UNITS = µg/m³/g/s

Distance (Km)	6.1m in both Met and ISC	6.1m in Met, 10m in ISC	10m in both Met and ISC
0.10	0.02717	0.02287	0.02294
0.20	0.52539	0.47976	0.48258
0.30	0.93734	0.88163	0.88894
0.40	1.05378	1.01518	1.02558
0.50	1.02759	1.00678	1.01878
0.60	0.94724	0.93991	0.95250
0.70	0.85506	0.85698	0.86960
0.80	0.76683	0.77472	0.78706
0.90	0.68782	0.69948	0.71140
1.00	0.61889	0.63286	0.64430
1.25	0.48600	0.50166	0.51180
1.50	0.39450	0.41046	0.41953
1.75	0.32845	0.34415	0.35233
2.00	0.27896	0.29414	0.30156
2.25	0.24019	0.25462	0.26137
2.50	0.20954	0.22321	0.22939
3.00	0.16449	0.17673	0.18197
3.50	0.13356	0.14446	0.14900
4.00	0.11118	0.12088	0.12487
4.50	0.09440	0.1031	0.10663
5.00	0.08143	0.08927	0.09244
6.00	0.06286	0.06934	0.07194
7.00	0.05036	0.05582	0.05800
8.00	0.04150	0.04616	0.04803
9.00	0.03494	0.03899	0.04061
10.00	0.02994	0.03348	0.03491
15.00	0.01660	0.01869	0.01954
20.00	0.01092	0.01233	0.01291
25.00	0.00793	0.00896	0.00938
30.00	0.00610	0.0069	0.00722
35.00	0.00491	0.00555	0.00581
40.00	0.00407	0.0046	0.00481
45.00	0.00346	0.00391	0.00408
50.00	0.00297	0.00336	0.00350

Notes.

Base Case 6.1 meter anemometer height specified in both Met data and ISC

Test Case 1 6.1 meter anemometer height in Met data and 10 meter height in ISC

Test Case 2 10 meter anemometer height specified in both Met data and ISC

TABLE A-4-2
ANEMOMETER HEIGHT SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE CONCENTRATION

Distance (Km)	6.1m in both Met and ISC	6.1m in Met, 10m in ISC	10m in both Met and ISC
0.10	1.00000	0.84174	0.84431
0.20	1.00000	0.91315	0.91852
0.30	1.00000	0.94057	0.94836
0.40	1.00000	0.96337	0.97324
0.50	1.00000	0.97975	0.99143
0.60	1.00000	0.99226	1.00555
0.70	1.00000	1.00225	1.01700
0.80	1.00000	1.01029	1.02638
0.90	1.00000	1.01695	1.03428
1.00	1.00000	1.02257	1.04106
1.25	1.00000	1.03222	1.05309
1.50	1.00000	1.04046	1.06345
1.75	1.00000	1.04780	1.07271
2.00	1.00000	1.05442	1.08102
2.25	1.00000	1.06008	1.08818
2.50	1.00000	1.06524	1.09473
3.00	1.00000	1.07441	1.10627
3.50	1.00000	1.08145	1.11544
4.00	1.00000	1.08725	1.12313
4.50	1.00000	1.09216	1.12956
5.00	1.00000	1.09628	1.13521
6.00	1.00000	1.10309	1.14445
7.00	1.00000	1.10842	1.15171
8.00	1.00000	1.11229	1.15735
9.00	1.00000	1.11591	1.16228
10.00	1.00000	1.11824	1.16600
15.00	1.00000	1.12590	1.17711
20.00	1.00000	1.12912	1.18223
25.00	1.00000	1.12989	1.18285
30.00	1.00000	1.13115	1.18361
35.00	1.00000	1.13035	1.18330
40.00	1.00000	1.13022	1.18182
45.00	1.00000	1.13006	1.17919
50.00	1.00000	1.13131	1.17645

Notes.

Base Case: 6.1 meter anemometer height specified in both Met data and ISC

Test Case 1: 6.1 meter anemometer height in Met data and 10 meter height in ISC

Test Case 2: 10 meter anemometer height specified in both Met data and ISC

TABLE A-4-3
ANEMOMETER HEIGHT SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE CONCENTRATION
UNITS = $\mu g/m^3/g/s$

Distance (Km)	6.1m in both Met and ISC	6.1m in Met, 10m in ISC	10m in both Met and ISC
0.10	0.02736	0.02304	0.02306
0.20	0.53598	0.49004	0.49058
0.30	0.96577	0.90997	0.91136
0.40	1.09422	1.05640	1.05837
0.50	1.07412	1.05494	1.05720
0.60	0.99583	0.99073	0.99308
0.70	0.90336	0.90792	0.91026
0.80	0.81362	0.82438	0.82666
0.90	0.73255	0.74717	0.74937
1.00	0.66125	0.67826	0.68036
1.25	0.52241	0.54088	0.54273
1.50	0.42619	0.44471	0.44635
1.75	0.35637	0.37440	0.37587
2.00	0.30373	0.32106	0.32240
2.25	0.26236	0.27877	0.27998
2.50	0.22956	0.24506	0.24616
3.00	0.18121	0.19500	0.19594
3.50	0.14789	0.16014	0.16095
4.00	0.12365	0.13459	0.13530
4.50	0.10541	0.11524	0.11587
5.00	0.09127	0.10015	0.10071
6.00	0.07094	0.07832	0.07879
7.00	0.05719	0.06345	0.06384
8.00	0.04739	0.05277	0.05311
9.00	0.04011	0.04481	0.04511
10.00	0.03454	0.03868	0.03894
15.00	0.01953	0.02205	0.02222
20.00	0.01304	0.01479	0.01491
25.00	0.00958	0.01090	0.01098
30.00	0.00745	0.00849	0.00856
35.00	0.00605	0.00691	0.00697
40.00	0.00506	0.00578	0.00583
45.00	0.00433	0.00495	0.00499
50.00	0.00377	0.00431	0.00434

Notes.

Base Case 6.1 meter anemometer height specified in both Met data and ISC

Test Case 1. 6.1 meter anemometer height in Met data and 10 meter height in ISC

Test Case 2. 10 meter anemometer height specified in both Met data and ISC

TABLE A-4-4
ANEMOMETER HEIGHT SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE CONCENTRATION

Distance (Km)	6.1m in both Met and ISC	6.1m in Met, 10m in ISC	10m in both Met and ISC
0.10	1.00000	0.84211	0.84284
0.20	1.00000	0.91429	0.91530
0.30	1.00000	0.94222	0.94366
0.40	1.00000	0.96544	0.96724
0.50	1.00000	0.98214	0.98425
0.60	1.00000	0.99488	0.99724
0.70	1.00000	1.00505	1.00764
0.80	1.00000	1.01322	1.01603
0.90	1.00000	1.01996	1.02296
1.00	1.00000	1.02572	1.02890
1.25	1.00000	1.03536	1.03890
1.50	1.00000	1.04345	1.04730
1.75	1.00000	1.05059	1.05472
2.00	1.00000	1.05706	1.06147
2.25	1.00000	1.06255	1.06716
2.50	1.00000	1.06752	1.07231
3.00	1.00000	1.07610	1.08129
3.50	1.00000	1.08283	1.08831
4.00	1.00000	1.08848	1.09422
4.50	1.00000	1.09325	1.09923
5.00	1.00000	1.09729	1.10343
6.00	1.00000	1.10403	1.11066
7.00	1.00000	1.10946	1.11628
8.00	1.00000	1.11353	1.12070
9.00	1.00000	1.11718	1.12466
10.00	1.00000	1.11986	1.12739
15.00	1.00000	1.12903	1.13774
20.00	1.00000	1.13420	1.14340
25.00	1.00000	1.13779	1.14614
30.00	1.00000	1.13960	1.14899
35.00	1.00000	1.14215	1.15207
40.00	1.00000	1.14229	1.15217
45.00	1.00000	1.14319	1.15242
50.00	1.00000	1.14324	1.15119

Notes
Base Case: 6.1 meter anemometer height specified in both Met data and ISC
Test Case 1: 6.1 meter anemometer height in Met data and 10 meter height in ISC
Test Case 2: 10 meter anemometer height specified in both Met data and ISC

TABLE A-4-5
ANEMOMETER HEIGHT SENSITIVITY ANALYSIS
VAPOR PHASE CONCENTRATION
UNITS = $\mu g/m^3/g/s$

Distance (Km)	6.1m in both Met and ISC	6.1m in Met, 10m in ISC	10m in both Met and ISC
0.10	0.02743	0.02310	0.02310
0.20	0.53865	0.49261	0.49261
0.30	0.97222	0.91638	0.91638
0.40	1.10287	1.06519	1.06519
0.50	1.08367	1.06480	1.06480
0.60	1.00551	1.00084	1.00084
0.70	0.91278	0.91785	0.91785
0.80	0.82261	0.83391	0.83391
0.90	0.74103	0.75621	0.75621
1.00	0.66921	0.68679	0.68679
1.25	0.52914	0.54814	0.54814
1.50	0.43199	0.45099	0.45099
1.75	0.36145	0.37993	0.37993
2.00	0.30823	0.32599	0.32599
2.25	0.26638	0.28319	0.28319
2.50	0.23319	0.24906	0.24906
3.00	0.18424	0.19838	0.19838
3.50	0.15050	0.16306	0.16306
4.00	0.12594	0.13716	0.13716
4.50	0.10744	0.11753	0.11753
5.00	0.09309	0.10222	0.10222
6.00	0.07246	0.08006	0.08006
7.00	0.05849	0.06496	0.06496
8.00	0.04853	0.05410	0.05410
9.00	0.04113	0.04600	0.04600
10.00	0.03545	0.03976	0.03976
15.00	0.02015	0.02280	0.02280
20.00	0.01351	0.01537	0.01537
25.00	0.00996	0.01137	0.01137
30.00	0.00777	0.00890	0.00890
35.00	0.00634	0.00727	0.00727
40.00	0.00531	0.00610	0.00610
45.00	0.00456	0.00524	0.00524
50.00	0.00398	0.00458	0.00458

Notes

Base Case: 6.1 meter anemometer height specified in both Met data and ISC

Test Case 1: 6.1 meter anemometer height in Met data and 10 meter height in ISC

Test Case 2: 10 meter anemometer height specified in both Met data and ISC

TABLE A-4-5
ANEMOMETER HEIGHT SENSITIVITY ANALYSIS
NORMALIZED VAPOR PHASE CONCENTRATION

Distance (Km)	6.1m in both Met and ISC	6.1m in Met, 10m in ISC	10m in both Met and ISC
0.10	1.00000	0.84214	0.84214
0.20	1.00000	0.91453	0.91453
0.30	1.00000	0.94256	0.94256
0.40	1.00000	0.96583	0.96583
0.50	1.00000	0.98259	0.98259
0.60	1.00000	0.99536	0.99536
0.70	1.00000	1.00555	1.00555
0.80	1.00000	1.01374	1.01374
0.90	1.00000	1.02049	1.02049
1.00	1.00000	1.02627	1.02627
1.25	1.00000	1.03591	1.03591
1.50	1.00000	1.04398	1.04398
1.75	1.00000	1.05113	1.05113
2.00	1.00000	1.05762	1.05762
2.25	1.00000	1.06311	1.06311
2.50	1.00000	1.06806	1.06806
3.00	1.00000	1.07675	1.07675
3.50	1.00000	1.08346	1.08346
4.00	1.00000	1.08909	1.08909
4.50	1.00000	1.09391	1.09391
5.00	1.00000	1.09808	1.09808
6.00	1.00000	1.10489	1.10489
7.00	1.00000	1.11062	1.11062
8.00	1.00000	1.11477	1.11477
9.00	1.00000	1.11841	1.11841
10.00	1.00000	1.12158	1.12158
15.00	1.00000	1.13151	1.13151
20.00	1.00000	1.13768	1.13768
25.00	1.00000	1.14157	1.14157
30.00	1.00000	1.14543	1.14543
35.00	1.00000	1.14669	1.14669
40.00	1.00000	1.14878	1.14878
45.00	1.00000	1.14912	1.14912
50.00	1.00000	1.15075	1.15075

Notes.

Base Case 6.1 meter anemometer height specified in both Met data and ISC

Test Case 1. 6.1 meter anemometer height in Met data and 10 meter height in ISC

Test Case 2. 10 meter anemometer height specified in both Met data and ISC

TABLE A-4-7
ANEMOMETER HEIGHT SENSITIVITY ANALYSIS
PARTICLE PHASE DRY DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	6.1m in both Met and ISC	6.1m in Met 10m in ISC	10m in both Met and ISC
0.10	0.08968	0.07533	0.06597
0.20	1.36840	1.24434	1.07530
0.30	2.24341	2.11597	1.81517
0.40	2.34887	2.27471	1.94410
0.50	2.15502	2.12425	1.81187
0.60	1.88344	1.87976	1.60167
0.70	1.62008	1.63202	1.38986
0.80	1.39045	1.41047	1.20095
0.90	1.19742	1.22128	1.03983
1.00	1.03767	1.06267	0.90486
1.25	0.75775	0.78115	0.66550
1.50	0.57660	0.59729	0.50933
1.75	0.45378	0.47150	0.40253
2.00	0.36724	0.38251	0.32698
2.25	0.30313	0.31642	0.27090
2.50	0.25450	0.26616	0.22822
3.00	0.18652	0.19573	0.16835
3.50	0.14307	0.15048	0.12987
4.00	0.11344	0.11940	0.10339
4.50	0.09227	0.09720	0.08444
5.00	0.07655	0.08068	0.07032
6.00	0.05517	0.05818	0.05103
7.00	0.04164	0.04394	0.03876
8.00	0.03253	0.03434	0.03045
9.00	0.02614	0.02757	0.02457
10.00	0.02148	0.02263	0.02026
15.00	0.01011	0.01060	0.00968
20.00	0.00588	0.00613	0.00568
25.00	0.00387	0.00400	0.00376
30.00	0.00274	0.00281	0.00267
35.00	0.00205	0.00209	0.00200
40.00	0.00159	0.00162	0.00156
45.00	0.00128	0.00129	0.00125
50.00	0.00100	0.00100	0.00097

Notes

Base Case: 6.1 meter anemometer height specified in both Met data and ISC

Test Case 1: 6.1 meter anemometer height in Met data and 10 meter height in ISC

Test Case 2: 10 meter anemometer height specified in both Met data and ISC

TABLE A-4-8
ANEMOMETER HEIGHT SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE DRY DEPOSITION

Distance (Km)	6.1m in both Met and ISC	6.1m in Met 10m in ISC	10m in both Met and ISC
0.10	1.00000	0.83999	0.73562
0.20	1.00000	0.90934	0.78581
0.30	1.00000	0.94319	0.80911
0.40	1.00000	0.96843	0.82767
0.50	1.00000	0.98572	0.84077
0.60	1.00000	0.99805	0.85040
0.70	1.00000	1.00737	0.85790
0.80	1.00000	1.01440	0.86371
0.90	1.00000	1.01993	0.86839
1.00	1.00000	1.02409	0.87201
1.25	1.00000	1.03088	0.87826
1.50	1.00000	1.03588	0.88333
1.75	1.00000	1.03905	0.88706
2.00	1.00000	1.04158	0.89037
2.25	1.00000	1.04384	0.89368
2.50	1.00000	1.04582	0.89674
3.00	1.00000	1.04938	0.90258
3.50	1.00000	1.05179	0.90774
4.00	1.00000	1.05264	0.91141
4.50	1.00000	1.05343	0.91514
5.00	1.00000	1.05395	0.91862
6.00	1.00000	1.05456	0.92496
7.00	1.00000	1.05524	0.93084
8.00	1.00000	1.05564	0.93606
9.00	1.00000	1.05471	0.93994
10.00	1.00000	1.05354	0.94320
15.00	1.00000	1.04847	0.95747
20.00	1.00000	1.04252	0.96599
25.00	1.00000	1.03359	0.97158
30.00	1.00000	1.02555	0.97445
35.00	1.00000	1.01951	0.97561
40.00	1.00000	1.01887	0.98113
45.00	1.00000	1.00781	0.97656
50.00	1.00000	1.00000	0.97000

Notes:

Base Case. 6.1 meter anemometer height specified in both Met data and ISC

Test Case 1. 6.1 meter anemometer height in Met data and 10 meter height in ISC

Test Case 2. 10 meter anemometer height specified in both Met data and ISC

TABLE A-4-9
ANEMOMETER HEIGHT SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE DRY DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	6.1m in both Met and ISC	6.1m in Met, 10m in ISC	10m in both Met and ISC
0.10	0.01555	0.01309	0.01117
0.20	0.23579	0.21468	0.18078
0.30	0.38738	0.36612	0.30606
0.40	0.40600	0.39405	0.32855
0.50	0.37312	0.36863	0.30709
0.60	0.32682	0.32693	0.27237
0.70	0.28184	0.28455	0.23718
0.80	0.24253	0.24658	0.20568
0.90	0.20944	0.21409	0.17873
1.00	0.18198	0.18679	0.15608
1.25	0.13371	0.13816	0.11567
1.50	0.10236	0.10629	0.08918
1.75	0.08104	0.08442	0.07098
2.00	0.06593	0.06888	0.05803
2.25	0.05470	0.05728	0.04836
2.50	0.04614	0.04842	0.04096
3.00	0.03414	0.03596	0.03054
3.50	0.02642	0.02790	0.02379
4.00	0.02112	0.02234	0.01911
4.50	0.01731	0.01833	0.01574
5.00	0.01446	0.01533	0.01321
6.00	0.01056	0.01122	0.00972
7.00	0.00807	0.00859	0.00746
8.00	0.00638	0.00680	0.00595
9.00	0.00519	0.00553	0.00486
10.00	0.00431	0.00459	0.00405
15.00	0.00212	0.00226	0.00203
20.00	0.00128	0.00136	0.00124
25.00	0.00087	0.00093	0.00085
30.00	0.00064	0.00067	0.00062
35.00	0.00049	0.00052	0.00048
40.00	0.00039	0.00041	0.00039
45.00	0.00032	0.00034	0.00032
50.00	0.00026	0.00028	0.00026

Notes:

Base Case 6.1 meter anemometer height specified in both Met data and ISC

Test Case 1 6.1 meter anemometer height in Met data and 10 meter height in ISC

Test Case 2 10 meter anemometer height specified in both Met data and ISC

TABLE A-4-10
ANEMOMETER HEIGHT SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE DRY DEPOSITION

Distance (Km)	6.1m in both Met and ISC	6.1m in Met, 10m in ISC	10m in both Met and ISC
0.10	1.00000	0.84180	0.71833
0.20	1.00000	0.91047	0.76670
0.30	1.00000	0.94512	0.79008
0.40	1.00000	0.97057	0.80924
0.50	1.00000	0.98797	0.82303
0.60	1.00000	1.00034	0.83339
0.70	1.00000	1.00962	0.84154
0.80	1.00000	1.01670	0.84806
0.90	1.00000	1.02220	0.85337
1.00	1.00000	1.02643	0.85768
1.25	1.00000	1.03328	0.86508
1.50	1.00000	1.03839	0.87124
1.75	1.00000	1.04171	0.87586
2.00	1.00000	1.04474	0.88018
2.25	1.00000	1.04717	0.88410
2.50	1.00000	1.04941	0.88773
3.00	1.00000	1.05331	0.89455
3.50	1.00000	1.05602	0.90045
4.00	1.00000	1.05777	0.90483
4.50	1.00000	1.05893	0.90930
5.00	1.00000	1.06017	0.91355
6.00	1.00000	1.06250	0.92045
7.00	1.00000	1.06444	0.92689
8.00	1.00000	1.06583	0.93260
9.00	1.00000	1.06551	0.93642
10.00	1.00000	1.06497	0.93968
15.00	1.00000	1.06604	0.95755
20.00	1.00000	1.06250	0.96875
25.00	1.00000	1.06897	0.97701
30.00	1.00000	1.04688	0.96875
35.00	1.00000	1.06122	0.97959
40.00	1.00000	1.05128	1.00000
45.00	1.00000	1.06250	1.00000
50.00	1.00000	1.07692	1.00000

Notes.

Base Case. 6.1 meter anemometer height specified in both Met data and ISC

Test Case 1 6.1 meter anemometer height in Met data and 10 meter height in ISC

Test Case 2 10 meter anemometer height specified in both Met data and ISC

TABLE A-4-11
ANEMOMETER HEIGHT SENSITIVITY ANALYSIS
PARTICLE PHASE WET DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	6.1m in both Met and ISC	6.1m in Met, 10m in ISC	10m in both Met and ISC
0.10	3.61053	3.85598	3.85598
0.20	1.68001	1.78674	1.78678
0.30	1.03968	1.10154	1.10174
0.40	0.72250	0.76314	0.76355
0.50	0.53703	0.56565	0.56624
0.60	0.41737	0.43857	0.43930
0.70	0.33499	0.35129	0.35212
0.80	0.27555	0.28844	0.28932
0.90	0.23112	0.24155	0.24245
1.00	0.19693	0.20555	0.20645
1.25	0.13919	0.14487	0.14572
1.50	0.10400	0.10800	0.10879
1.75	0.08088	0.08383	0.08455
2.00	0.06482	0.06704	0.06769
2.25	0.05319	0.05490	0.05549
2.50	0.04446	0.04583	0.04636
3.00	0.03244	0.03334	0.03378
3.50	0.02471	0.02533	0.02570
4.00	0.01945	0.01989	0.02020
4.50	0.01570	0.01602	0.01628
5.00	0.01293	0.01317	0.01340
6.00	0.00920	0.00934	0.00952
7.00	0.00686	0.00695	0.00709
8.00	0.00531	0.00536	0.00548
9.00	0.00422	0.00425	0.00435
10.00	0.00343	0.00345	0.00353
15.00	0.00153	0.00153	0.00157
20.00	0.00085	0.00084	0.00087
25.00	0.00053	0.00053	0.00054
30.00	0.00036	0.00036	0.00037
35.00	0.00026	0.00026	0.00026
40.00	0.00019	0.00019	0.00020
45.00	0.00015	0.00015	0.00015
50.00	0.00012	0.00012	0.00012

Notes

Base Case: 6.1 meter anemometer height specified in both Met data and ISC

Test Case 1: 6.1 meter anemometer height in Met data and 10 meter height in ISC

Test Case 2: 10 meter anemometer height specified in both Met data and ISC

TABLE A-4-12
ANEMOMETER HEIGHT SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE WET DEPOSITION

Distance (Km)	6.1m in both Met and ISC	6.1m in Met, 10m in ISC	10m in both Met and ISC
0.10	1.00000	1.06798	1.06798
0.20	1.00000	1.06353	1.06355
0.30	1.00000	1.05950	1.05969
0.40	1.00000	1.05625	1.05682
0.50	1.00000	1.05329	1.05439
0.60	1.00000	1.05079	1.05254
0.70	1.00000	1.04866	1.05114
0.80	1.00000	1.04676	1.04997
0.90	1.00000	1.04513	1.04902
1.00	1.00000	1.04377	1.04834
1.25	1.00000	1.04081	1.04691
1.50	1.00000	1.03846	1.04606
1.75	1.00000	1.03647	1.04538
2.00	1.00000	1.03425	1.04428
2.25	1.00000	1.03215	1.04324
2.50	1.00000	1.03081	1.04274
3.00	1.00000	1.02774	1.04131
3.50	1.00000	1.02509	1.04006
4.00	1.00000	1.02262	1.03856
4.50	1.00000	1.02038	1.03694
5.00	1.00000	1.01856	1.03635
6.00	1.00000	1.01522	1.03478
7.00	1.00000	1.01312	1.03353
8.00	1.00000	1.00942	1.03202
9.00	1.00000	1.00711	1.03081
10.00	1.00000	1.00583	1.02915
15.00	1.00000	1.00000	1.02614
20.00	1.00000	0.98824	1.02353
25.00	1.00000	1.00000	1.01887
30.00	1.00000	1.00000	1.02778
35.00	1.00000	1.00000	1.00000
40.00	1.00000	1.00000	1.05263
45.00	1.00000	1.00000	1.00000
50.00	1.00000	1.00000	1.00000

Notes

Base Case. 6.1 meter anemometer height specified in both Met data and ISC

Test Case 1. 6.1 meter anemometer height in Met data and 10 meter height in ISC

Test Case 2: 10 meter anemometer height specified in both Met data and ISC

TABLE A-4-13
ANEMOMETER HEIGHT SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE WET DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	6.1m in both Met and ISC	6.1m in Met, 10m in ISC	10m in both Met and ISC
0.10	1.43996	1.54280	1.54280
0.20	0.70064	0.74953	0.74954
0.30	0.45262	0.48347	0.48351
0.40	0.32746	0.34932	0.34940
0.50	0.25273	0.26921	0.26932
0.60	0.20343	0.21641	0.21655
0.70	0.16868	0.17924	0.17939
0.80	0.14303	0.15180	0.15196
0.90	0.12339	0.13082	0.13098
1.00	0.10794	0.11432	0.11448
1.25	0.08085	0.08544	0.08560
1.50	0.06348	0.06695	0.06710
1.75	0.05152	0.05424	0.05438
2.00	0.04286	0.04505	0.04517
2.25	0.03634	0.03813	0.03824
2.50	0.03128	0.03278	0.03288
3.00	0.02401	0.02509	0.02517
3.50	0.01909	0.01989	0.01996
4.00	0.01558	0.01620	0.01626
4.50	0.01298	0.01347	0.01352
5.00	0.01099	0.01139	0.01143
6.00	0.00819	0.00846	0.00850
7.00	0.00635	0.00654	0.00657
8.00	0.00507	0.00521	0.00523
9.00	0.00414	0.00425	0.00427
10.00	0.00345	0.00353	0.00355
15.00	0.00167	0.00170	0.00171
20.00	0.00098	0.00099	0.00100
25.00	0.00064	0.00065	0.00065
30.00	0.00045	0.00045	0.00046
35.00	0.00033	0.00033	0.00034
40.00	0.00025	0.00025	0.00026
45.00	0.00020	0.00020	0.00020
50.00	0.00016	0.00016	0.00016

Notes

Base Case: 6.1 meter anemometer height specified in both Met data and ISC

Test Case 1: 6.1 meter anemometer height in Met data and 10 meter height in ISC

Test Case 2: 10 meter anemometer height specified in both Met data and ISC

TABLE A-4-14
ANEMOMETER HEIGHT SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE WET DEPOSITION

Distance (Km)	6.1m in both Met and ISC	6.1m in Met, 10m in ISC	10m in both Met and ISC
0.10	1.00000	1.07142	1.07142
0.20	1.00000	1.06978	1.06979
0.30	1.00000	1.06816	1.06825
0.40	1.00000	1.06676	1.06700
0.50	1.00000	1.06521	1.06564
0.60	1.00000	1.06381	1.06449
0.70	1.00000	1.06254	1.06343
0.80	1.00000	1.06132	1.06243
0.90	1.00000	1.06022	1.06151
1.00	1.00000	1.05911	1.06059
1.25	1.00000	1.05677	1.05875
1.50	1.00000	1.05466	1.05703
1.75	1.00000	1.05280	1.05551
2.00	1.00000	1.05110	1.05390
2.25	1.00000	1.04926	1.05228
2.50	1.00000	1.04795	1.05115
3.00	1.00000	1.04498	1.04831
3.50	1.00000	1.04191	1.04557
4.00	1.00000	1.03979	1.04365
4.50	1.00000	1.03775	1.04160
5.00	1.00000	1.03640	1.04004
6.00	1.00000	1.03297	1.03785
7.00	1.00000	1.02992	1.03465
8.00	1.00000	1.02761	1.03156
9.00	1.00000	1.02657	1.03140
10.00	1.00000	1.02319	1.02899
15.00	1.00000	1.01796	1.02395
20.00	1.00000	1.01020	1.02041
25.00	1.00000	1.01563	1.01563
30.00	1.00000	1.00000	1.02222
35.00	1.00000	1.00000	1.03030
40.00	1.00000	1.00000	1.04000
45.00	1.00000	1.00000	1.00000
50.00	1.00000	1.00000	1.00000

Notes.

Base Case: 6.1 meter anemometer height specified in both Met data and ISC

Test Case 1. 6.1 meter anemometer height in Met data and 10 meter height in ISC

Test Case 2 10 meter anemometer height specified in both Met data and ISC

TABLE A-4-15
ANEMOMETER HEIGHT SENSITIVITY ANALYSIS
VAPOR PHASE WET DEPOSITION
UNITS = $g/m^2/g/s$

Distance (Km)	6.1m in both Met and ISC	6.1m in Met. 10m in ISC	10m in both Met and ISC
0.10	2.15817	2.31485	2.31485
0.20	1.06510	1.14129	1.14129
0.30	0.69588	0.74462	0.74462
0.40	0.50780	0.54253	0.54253
0.50	0.39440	0.42057	0.42057
0.60	0.31885	0.33935	0.33935
0.70	0.26511	0.28162	0.28162
0.80	0.22506	0.23864	0.23864
0.90	0.19417	0.20551	0.20551
1.00	0.16966	0.17929	0.17929
1.25	0.12638	0.13302	0.13302
1.50	0.09837	0.10319	0.10319
1.75	0.07901	0.08264	0.08264
2.00	0.06499	0.06780	0.06780
2.25	0.05447	0.05669	0.05669
2.50	0.04635	0.04815	0.04815
3.00	0.03480	0.03603	0.03603
3.50	0.02713	0.02801	0.02801
4.00	0.02175	0.02242	0.02242
4.50	0.01784	0.01836	0.01836
5.00	0.01491	0.01531	0.01531
6.00	0.01086	0.01113	0.01113
7.00	0.00827	0.00846	0.00846
8.00	0.00651	0.00664	0.00664
9.00	0.00525	0.00535	0.00535
10.00	0.00432	0.00439	0.00439
15.00	0.00199	0.00201	0.00201
20.00	0.00112	0.00113	0.00113
25.00	0.00071	0.00071	0.00071
30.00	0.00049	0.00048	0.00048
35.00	0.00035	0.00035	0.00035
40.00	0.00027	0.00026	0.00026
45.00	0.00021	0.00020	0.00020
50.00	0.00017	0.00016	0.00016

Notes:

Base Case: 6.1 meter anemometer height specified in both Met data and ISC

Test Case 1: 6.1 meter anemometer height in Met data and 10 meter height in ISC

Test Case 2: 10 meter anemometer height specified in both Met data and ISC

TABLE A-4-16
ANEMOMETER HEIGHT SENSITIVITY ANALYSIS
NORMALIZED VAPOR PHASE WET DEPOSITION

Distance (Km)	6.1m in both Met and ISC	6.1m in Met, 10m in ISC	10m in both Met and ISC
0.10	1.00000	1.07260	1.07260
0.20	1.00000	1.07153	1.07153
0.30	1.00000	1.07004	1.07004
0.40	1.00000	1.06839	1.06839
0.50	1.00000	1.06635	1.06635
0.60	1.00000	1.06429	1.06429
0.70	1.00000	1.06228	1.06228
0.80	1.00000	1.06034	1.06034
0.90	1.00000	1.05840	1.05840
1.00	1.00000	1.05664	1.05664
1.25	1.00000	1.05254	1.05254
1.50	1.00000	1.04900	1.04900
1.75	1.00000	1.04594	1.04594
2.00	1.00000	1.04324	1.04324
2.25	1.00000	1.04076	1.04076
2.50	1.00000	1.03883	1.03883
3.00	1.00000	1.03534	1.03534
3.50	1.00000	1.03244	1.03244
4.00	1.00000	1.03080	1.03080
4.50	1.00000	1.02915	1.02915
5.00	1.00000	1.02683	1.02683
6.00	1.00000	1.02486	1.02486
7.00	1.00000	1.02297	1.02297
8.00	1.00000	1.01997	1.01997
9.00	1.00000	1.01905	1.01905
10.00	1.00000	1.01620	1.01620
15.00	1.00000	1.01005	1.01005
20.00	1.00000	1.00893	1.00893
25.00	1.00000	1.00000	1.00000
30.00	1.00000	0.97959	0.97959
35.00	1.00000	1.00000	1.00000
40.00	1.00000	0.96296	0.96296
45.00	1.00000	0.95238	0.95238
50.00	1.00000	0.94118	0.94118

Notes:

Base Case: 6.1 meter anemometer height specified in both Met data and ISC

Test Case 1: 6.1 meter anemometer height in Met data and 10 meter height in ISC

Test Case 2: 10 meter anemometer height specified in both Met data and ISC

TABLE A-5-1
NUMBER OF PARTICLE SIZE CATEGORIES SENSITIVITY ANALYSIS
PARTICLE PHASE CONCENTRATION
UNITS = $\mu g/m^3$

Distance (Km)	Base Case	6 Categories	3 Categories
0.10	0.027	0.027	0.027
0.20	0.525	0.526	0.524
0.30	0.937	0.938	0.935
0.40	1.054	1.055	1.051
0.50	1.028	1.030	1.024
0.60	0.947	0.950	0.944
0.70	0.855	0.857	0.852
0.80	0.767	0.769	0.764
0.90	0.688	0.690	0.685
1.00	0.619	0.621	0.616
1.25	0.486	0.488	0.483
1.50	0.395	0.396	0.392
1.75	0.328	0.330	0.326
2.00	0.279	0.281	0.277
2.25	0.240	0.242	0.239
2.50	0.210	0.211	0.208
3.00	0.164	0.166	0.163
3.50	0.134	0.135	0.133
4.00	0.111	0.112	0.110
4.50	0.094	0.095	0.094
5.00	0.081	0.082	0.081
6.00	0.063	0.064	0.062
7.00	0.050	0.051	0.050
8.00	0.042	0.042	0.041
9.00	0.035	0.035	0.035
10.00	0.030	0.030	0.030
15.00	0.017	0.017	0.016
20.00	0.011	0.011	0.011
25.00	0.008	0.008	0.008
30.00	0.006	0.006	0.006
35.00	0.005	0.005	0.005
40.00	0.004	0.004	0.004
45.00	0.003	0.004	0.003
50.00	0.003	0.003	0.003

Notes
Base Case. 9 Particle Size Categories (from Protocol)
Test Case 1. 6 Particle Size Categories
Test Case 2: 3 Particle Size Categories

TABLE A-5-2
NUMBER OF PARTICLE SIZE CATEGORIES SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE CONCENTRATION

Distance (Km)	Base Case	6 Categories	3 Categories
0.10	1.000	0.999	0.999
0.20	1.000	1.000	0.998
0.30	1.000	1.001	0.998
0.40	1.000	1.001	0.997
0.50	1.000	1.002	0.997
0.60	1.000	1.002	0.997
0.70	1.000	1.003	0.996
0.80	1.000	1.003	0.996
0.90	1.000	1.003	0.995
1.00	1.000	1.004	0.995
1.25	1.000	1.004	0.994
1.50	1.000	1.005	0.994
1.75	1.000	1.005	0.994
2.00	1.000	1.006	0.994
2.25	1.000	1.006	0.993
2.50	1.000	1.006	0.993
3.00	1.000	1.007	0.993
3.50	1.000	1.008	0.992
4.00	1.000	1.008	0.992
4.50	1.000	1.009	0.992
5.00	1.000	1.009	0.992
6.00	1.000	1.010	0.991
7.00	1.000	1.011	0.991
8.00	1.000	1.012	0.990
9.00	1.000	1.013	0.990
10.00	1.000	1.013	0.990
15.00	1.000	1.016	0.988
20.00	1.000	1.017	0.987
25.00	1.000	1.018	0.985
30.00	1.000	1.020	0.984
35.00	1.000	1.020	0.984
40.00	1.000	1.022	0.983
45.00	1.000	1.020	0.983
50.00	1.000	1.024	0.983

Notes
Base Case. 9 Particle Size Categories (from Protocol)
Test Case 1. 6 Particle Size Categories
Test Case 2. 3 Particle Size Categories

TABLE A-5-3
NUMBER OF PARTICLE SIZE CATEGORIES SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE CONCENTRATIONS
UNITS = $\mu g/m^3$

Distance (Km)	Base Case	6 Categories	3 Categories
0.10	0.027	0.027	0.027
0.20	0.536	0.537	0.536
0.30	0.966	0.967	0.966
0.40	1.094	1.096	1.094
0.50	1.074	1.076	1.074
0.60	0.996	0.997	0.995
0.70	0.903	0.905	0.903
0.80	0.814	0.815	0.813
0.90	0.733	0.734	0.732
1.00	0.661	0.663	0.661
1.25	0.522	0.523	0.522
1.50	0.426	0.427	0.426
1.75	0.356	0.357	0.356
2.00	0.304	0.304	0.303
2.25	0.262	0.263	0.262
2.50	0.230	0.230	0.229
3.00	0.181	0.182	0.181
3.50	0.148	0.148	0.148
4.00	0.124	0.124	0.124
4.50	0.105	0.106	0.105
5.00	0.091	0.092	0.091
6.00	0.071	0.071	0.071
7.00	0.057	0.057	0.057
8.00	0.047	0.048	0.047
9.00	0.040	0.040	0.040
10.00	0.035	0.035	0.035
15.00	0.020	0.020	0.020
20.00	0.013	0.013	0.013
25.00	0.010	0.010	0.010
30.00	0.007	0.007	0.007
35.00	0.006	0.006	0.006
40.00	0.005	0.005	0.005
45.00	0.004	0.004	0.004
50.00	0.004	0.004	0.004

Notes:
Base Case: 9 Particle Size Categories (from Protocol)
Test Case 1: 6 Particle Size Categories
Test Case 2: 3 Particle Size Categories

TABLE A-5-4
NUMBER OF PARTICLE SIZE CATEGORIES SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE CONCENTRATIONS

Distance (Km)	Base Case	6 Categories	3 Categories
0.10	1.000	1.001	1.000
0.20	1.000	1.001	1.000
0.30	1.000	1.001	1.000
0.40	1.000	1.001	1.000
0.50	1.000	1.002	1.000
0.60	1.000	1.002	1.000
0.70	1.000	1.002	0.999
0.80	1.000	1.002	0.999
0.90	1.000	1.002	0.999
1.00	1.000	1.002	0.999
1.25	1.000	1.002	0.999
1.50	1.000	1.002	0.999
1.75	1.000	1.002	0.999
2.00	1.000	1.002	0.999
2.25	1.000	1.003	0.999
2.50	1.000	1.003	0.999
3.00	1.000	1.003	0.999
3.50	1.000	1.003	0.999
4.00	1.000	1.003	0.999
4.50	1.000	1.003	0.999
5.00	1.000	1.003	0.999
6.00	1.000	1.004	0.999
7.00	1.000	1.004	0.999
8.00	1.000	1.004	0.999
9.00	1.000	1.004	0.999
10.00	1.000	1.004	0.999
15.00	1.000	1.005	0.999
20.00	1.000	1.005	0.998
25.00	1.000	1.005	0.998
30.00	1.000	1.005	0.998
35.00	1.000	1.007	0.998
40.00	1.000	1.006	0.998
45.00	1.000	1.007	0.998
50.00	1.000	1.005	0.997

Notes:
Base Case: 9 Particle Size Categories (from Protocol)
Test Case 1: 6 Particle Size Categories
Test Case 2: 3 Particle Size Categories

TABLE A-5-5
NUMBER OF PARTICLE SIZE CATEGORIES SENSITIVITY ANALYSIS
PARTICLE PHASE DRY DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Base Case	6 Categories	3 Categories
0.10	0.090	0.085	0.093
0.20	1.368	1.288	1.411
0.30	2.243	2.113	2.306
0.40	2.349	2.210	2.417
0.50	2.155	2.026	2.221
0.60	1.883	1.770	1.943
0.70	1.620	1.521	1.673
0.80	1.390	1.304	1.437
0.90	1.197	1.123	1.238
1.00	1.038	0.972	1.073
1.25	0.758	0.709	0.783
1.50	0.577	0.539	0.596
1.75	0.454	0.424	0.469
2.00	0.367	0.343	0.380
2.25	0.303	0.283	0.313
2.50	0.255	0.238	0.263
3.00	0.187	0.174	0.193
3.50	0.143	0.134	0.148
4.00	0.113	0.106	0.117
4.50	0.092	0.086	0.095
5.00	0.077	0.072	0.079
6.00	0.055	0.052	0.057
7.00	0.042	0.039	0.043
8.00	0.033	0.031	0.034
9.00	0.026	0.025	0.027
10.00	0.021	0.020	0.022
15.00	0.010	0.010	0.010
20.00	0.006	0.006	0.006
25.00	0.004	0.004	0.004
30.00	0.003	0.003	0.003
35.00	0.002	0.002	0.002
40.00	0.002	0.002	0.002
45.00	0.001	0.001	0.001
50.00	0.001	0.001	0.001

Notes:
Base Case. 9 Particle Size Categories (from Protocol)
Test Case 1. 6 Particle Size Categories
Test Case 2. 3 Particle Size Categories

TABLE A-5-6
NUMBER OF PARTICLE SIZE CATEGORIES SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE DRY DEPOSITION

Distance (Km)	Base Case	6 Categories	3 Categories
0.10	1.000	0.943	1.039
0.20	1.000	0.941	1.031
0.30	1.000	0.942	1.028
0.40	1.000	0.941	1.029
0.50	1.000	0.940	1.030
0.60	1.000	0.940	1.032
0.70	1.000	0.939	1.033
0.80	1.000	0.938	1.033
0.90	1.000	0.937	1.034
1.00	1.000	0.937	1.034
1.25	1.000	0.935	1.034
1.50	1.000	0.935	1.034
1.75	1.000	0.934	1.034
2.00	1.000	0.934	1.034
2.25	1.000	0.934	1.033
2.50	1.000	0.934	1.034
3.00	1.000	0.934	1.035
3.50	1.000	0.935	1.034
4.00	1.000	0.935	1.034
4.50	1.000	0.936	1.034
5.00	1.000	0.937	1.034
6.00	1.000	0.939	1.034
7.00	1.000	0.940	1.034
8.00	1.000	0.942	1.034
9.00	1.000	0.944	1.033
10.00	1.000	0.945	1.033
15.00	1.000	0.954	1.033
20.00	1.000	0.961	1.032
25.00	1.000	0.966	1.031
30.00	1.000	0.974	1.029
35.00	1.000	0.980	1.034
40.00	1.000	0.987	1.031
45.00	1.000	0.992	1.031
50.00	1.000	1.040	1.070

Notes:
Base Case. 9 Particle Size Categories (from Protocol)
Test Case 1: 6 Particle Size Categories
Test Case 2: 3 Particle Size Categories

TABLE A-5-7
NUMBER OF PARTICLE SIZE CATEGORIES SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE DRY DEPOSITION
UNITS = $g/m^2/g/s$

Distance (Km)	Base Case	6 Categories	3 Categories
0.10	0.016	0.015	0.017
0.20	0.236	0.227	0.252
0.30	0.387	0.372	0.412
0.40	0.406	0.389	0.431
0.50	0.373	0.358	0.397
0.60	0.327	0.313	0.348
0.70	0.282	0.270	0.300
0.80	0.243	0.232	0.258
0.90	0.209	0.200	0.223
1.00	0.182	0.174	0.194
1.25	0.134	0.128	0.143
1.50	0.102	0.098	0.109
1.75	0.081	0.077	0.086
2.00	0.066	0.063	0.070
2.25	0.055	0.052	0.058
2.50	0.046	0.044	0.049
3.00	0.034	0.033	0.036
3.50	0.026	0.025	0.028
4.00	0.021	0.020	0.023
4.50	0.017	0.017	0.018
5.00	0.014	0.014	0.015
6.00	0.011	0.010	0.011
7.00	0.008	0.008	0.009
8.00	0.006	0.006	0.007
9.00	0.005	0.005	0.005
10.00	0.004	0.004	0.005
15.00	0.002	0.002	0.002
20.00	0.001	0.001	0.001
25.00	0.001	0.001	0.001
30.00	0.001	0.001	0.001
35.00	0.000	0.000	0.001
40.00	0.000	0.000	0.000
45.00	0.000	0.000	0.000
50.00	0.000	0.000	0.000

Notes:
Base Case: 9 Particle Size Categories (from Protocol)
Test Case 1: 6 Particle Size Categories
Test Case 2: 3 Particle Size Categories

TABLE A-5-8
NUMBER OF PARTICLE SIZE CATEGORIES SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE DRY DEPOSITION

Distance (Km)	Base Case	6 Categories	3 Categories
0.10	1.000	0.965	1.089
0.20	1.000	0.961	1.070
0.30	1.000	0.961	1.063
0.40	1.000	0.959	1.062
0.50	1.000	0.958	1.063
0.60	1.000	0.957	1.064
0.70	1.000	0.957	1.065
0.80	1.000	0.956	1.066
0.90	1.000	0.956	1.066
1.00	1.000	0.955	1.067
1.25	1.000	0.954	1.067
1.50	1.000	0.953	1.068
1.75	1.000	0.953	1.067
2.00	1.000	0.953	1.067
2.25	1.000	0.953	1.067
2.50	1.000	0.953	1.067
3.00	1.000	0.953	1.067
3.50	1.000	0.953	1.066
4.00	1.000	0.954	1.065
4.50	1.000	0.954	1.065
5.00	1.000	0.955	1.064
6.00	1.000	0.956	1.063
7.00	1.000	0.958	1.062
8.00	1.000	0.959	1.060
9.00	1.000	0.958	1.058
10.00	1.000	0.958	1.056
15.00	1.000	0.962	1.052
20.00	1.000	0.969	1.047
25.00	1.000	0.977	1.046
30.00	1.000	0.969	1.031
35.00	1.000	0.980	1.041
40.00	1.000	0.974	1.026
45.00	1.000	1.000	1.031
50.00	1.000	1.000	1.038

Notes:
Base Case: 9 Particle Size Categories (from Protocol)
Test Case 1: 6 Particle Size Categories
Test Case 2: 3 Particle Size Categories

TABLE A-5-9
NUMBER OF PARTICLE SIZE CATEGORIES SENSITIVITY ANALYSIS
PARTICLE PHASE WET DEPOSITION
UNITS = g/m^2/g/s

Distance (Km)	Base Case	6 Categories	3 Categories
0.10	3.611	3.569	3.761
0.20	1.680	1.661	1.741
0.30	1.040	1.028	1.073
0.40	0.723	0.715	0.742
0.50	0.537	0.531	0.550
0.60	0.417	0.413	0.426
0.70	0.335	0.332	0.341
0.80	0.276	0.273	0.280
0.90	0.231	0.229	0.234
1.00	0.197	0.195	0.199
1.25	0.139	0.138	0.140
1.50	0.104	0.103	0.104
1.75	0.081	0.080	0.081
2.00	0.065	0.064	0.065
2.25	0.053	0.053	0.053
2.50	0.044	0.044	0.044
3.00	0.032	0.032	0.032
3.50	0.025	0.024	0.024
4.00	0.019	0.019	0.019
4.50	0.016	0.016	0.015
5.00	0.013	0.013	0.013
6.00	0.009	0.009	0.009
7.00	0.007	0.007	0.007
8.00	0.005	0.005	0.005
9.00	0.004	0.004	0.004
10.00	0.003	0.003	0.003
15.00	0.002	0.002	0.001
20.00	0.001	0.001	0.001
25.00	0.001	0.001	0.001
30.00	0.000	0.000	0.000
35.00	0.000	0.000	0.000
40.00	0.000	0.000	0.000
45.00	0.000	0.000	0.000
50.00	0.000	0.000	0.000

Notes.
Base Case 9 Particle Size Categories (from Protocol)
Test Case 1: 6 Particle Size Categories
Test Case 2: 3 Particle Size Categories

TABLE A-5-10
NUMBER OF PARTICLE SIZE CATEGORIES SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE WET DEPOSITION

Distance (Km)	Base Case	6 Categories	3 Categories
0.10	1.000	0.989	1.042
0.20	1.000	0.989	1.042
0.30	1.000	0.989	1.042
0.40	1.000	0.989	1.042
0.50	1.000	0.989	1.042
0.60	1.000	0.989	1.042
0.70	1.000	0.989	1.042
0.80	1.000	0.989	1.042
0.90	1.000	0.989	1.042
1.00	1.000	0.989	1.042
1.25	1.000	0.989	1.042
1.50	1.000	0.989	1.042
1.75	1.000	0.989	1.042
2.00	1.000	0.989	1.042
2.25	1.000	0.989	1.042
2.50	1.000	0.989	1.042
3.00	1.000	0.989	1.042
3.50	1.000	0.989	1.042
4.00	1.000	0.989	1.042
4.50	1.000	0.989	1.042
5.00	1.000	0.989	1.042
6.00	1.000	0.989	1.042
7.00	1.000	0.989	1.042
8.00	1.000	0.989	1.042
9.00	1.000	0.989	1.042
10.00	1.000	0.989	1.042
15.00	1.000	0.989	1.042
20.00	1.000	0.989	1.042
25.00	1.000	0.989	1.042
30.00	1.000	0.989	1.042
35.00	1.000	0.989	1.042
40.00	1.000	0.989	1.042
45.00	1.000	0.989	1.042
50.00	1.000	0.989	1.042

Notes
Base Case 9 Particle Size Categories (from Protocol)
Test Case 1: 6 Particle Size Categories
Test Case 2: 3 Particle Size Categories

TABLE A-5-11
NUMBER OF PARTICLE SIZE CATEGORIES SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE WET DEPOSITION
UNITS = $g/m^2/g/s$

Distance (Km)	Base Case	6 Categories	3 Categories
0.10	1.440	1.346	1.443
0.20	0.701	0.653	0.697
0.30	0.453	0.421	0.447
0.40	0.327	0.304	0.321
0.50	0.253	0.234	0.247
0.60	0.203	0.188	0.197
0.70	0.169	0.156	0.163
0.80	0.143	0.132	0.138
0.90	0.123	0.114	0.118
1.00	0.108	0.099	0.103
1.25	0.081	0.074	0.077
1.50	0.063	0.058	0.060
1.75	0.052	0.047	0.048
2.00	0.043	0.039	0.040
2.25	0.036	0.033	0.034
2.50	0.031	0.029	0.029
3.00	0.024	0.022	0.022
3.50	0.019	0.018	0.018
4.00	0.016	0.014	0.014
4.50	0.013	0.012	0.012
5.00	0.011	0.010	0.010
6.00	0.008	0.008	0.008
7.00	0.006	0.006	0.006
8.00	0.005	0.005	0.005
9.00	0.004	0.004	0.004
10.00	0.003	0.003	0.003
15.00	0.002	0.002	0.002
20.00	0.001	0.001	0.001
25.00	0.001	0.001	0.001
30.00	0.000	0.000	0.000
35.00	0.000	0.000	0.000
40.00	0.000	0.000	0.000
45.00	0.000	0.000	0.000
50.00	0.000	0.000	0.000

Notes.
Base Case 9 Particle Size Categories (from Protocol)
Test Case 1. 6 Particle Size Categories
Test Case 2. 3 Particle Size Categories

TABLE A-5-12
NUMBER OF PARTICLE SIZE CATEGORIES SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE WET DEPOSITION

Distance (Km)	Base Case	6 Categories	3 Categories
0.10	1.000	0.935	1.002
0.20	1.000	0.933	0.994
0.30	1.000	0.930	0.988
0.40	1.000	0.929	0.981
0.50	1.000	0.927	0.976
0.60	1.000	0.925	0.971
0.70	1.000	0.924	0.966
0.80	1.000	0.923	0.962
0.90	1.000	0.922	0.958
1.00	1.000	0.921	0.955
1.25	1.000	0.919	0.948
1.50	1.000	0.917	0.942
1.75	1.000	0.917	0.938
2.00	1.000	0.916	0.935
2.25	1.000	0.917	0.932
2.50	1.000	0.917	0.930
3.00	1.000	0.918	0.928
3.50	1.000	0.920	0.928
4.00	1.000	0.923	0.928
4.50	1.000	0.925	0.929
5.00	1.000	0.928	0.931
6.00	1.000	0.933	0.934
7.00	1.000	0.937	0.937
8.00	1.000	0.941	0.939
9.00	1.000	0.944	0.942
10.00	1.000	0.948	0.942
15.00	1.000	0.958	0.952
20.00	1.000	0.959	0.949
25.00	1.000	0.969	0.953
30.00	1.000	0.978	0.956
35.00	1.000	1.000	0.970
40.00	1.000	1.000	1.000
45.00	1.000	1.000	1.000
50.00	1.000	1.000	1.000

Notes:
Base Case: 9 Particle Size Categories (from Protocol)
Test Case 1: 6 Particle Size Categories
Test Case 2: 3 Particle Size Categories

TABLE A-6-1
PARTICLE SIZE RESOLUTION SENSITIVITY ANALYSIS
PARTICLE PHASE CONCENTRATIONS
UNITS = µg/m³

Distance (Km)	Base Case	High Resolution for Small Particles	High Resolution for Large Particles
0.10	0.027	0.027	0.027
0.20	0.525	0.527	0.527
0.30	0.937	0.942	0.940
0.40	1.054	1.062	1.057
0.50	1.028	1.037	1.031
0.60	0.947	0.958	0.951
0.70	0.855	0.867	0.859
0.80	0.767	0.778	0.770
0.90	0.688	0.699	0.691
1.00	0.619	0.630	0.622
1.25	0.486	0.496	0.488
1.50	0.395	0.403	0.396
1.75	0.328	0.336	0.330
2.00	0.279	0.286	0.280
2.25	0.240	0.247	0.241
2.50	0.210	0.216	0.211
3.00	0.164	0.170	0.165
3.50	0.134	0.138	0.134
4.00	0.111	0.115	0.112
4.50	0.094	0.098	0.095
5.00	0.081	0.085	0.082
6.00	0.063	0.066	0.063
7.00	0.050	0.053	0.051
8.00	0.042	0.044	0.042
9.00	0.035	0.037	0.035
10.00	0.030	0.032	0.030
15.00	0.017	0.018	0.017
20.00	0.011	0.012	0.011
25.00	0.008	0.009	0.008
30.00	0.006	0.007	0.006
35.00	0.005	0.005	0.005
40.00	0.004	0.004	0.004
45.00	0.003	0.004	0.003
50.00	0.003	0.003	0.003

Notes

Base Case. Used Default Values from Protocol

Test Case 1. High Resolution for Small Particles, Low Resolution for Large Particles

Test Case 2. High Resolution for Large Particles, Low Resolution for Small Particles

TABLE A-6-2
PARTICLE SIZE RESOLUTION SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE CONCENTRATION

Distance (Km)	Base Case	High Resolution for Small Particles	High Resolution for Large Particles
0.10	1.000	1.000	1.003
0.20	1.000	1.003	1.003
0.30	1.000	1.005	1.003
0.40	1.000	1.007	1.003
0.50	1.000	1.010	1.004
0.60	1.000	1.012	1.004
0.70	1.000	1.013	1.004
0.80	1.000	1.015	1.004
0.90	1.000	1.017	1.004
1.00	1.000	1.018	1.004
1.25	1.000	1.020	1.005
1.50	1.000	1.022	1.005
1.75	1.000	1.024	1.005
2.00	1.000	1.026	1.005
2.25	1.000	1.028	1.005
2.50	1.000	1.029	1.005
3.00	1.000	1.032	1.005
3.50	1.000	1.034	1.005
4.00	1.000	1.036	1.005
4.50	1.000	1.038	1.005
5.00	1.000	1.040	1.005
6.00	1.000	1.044	1.004
7.00	1.000	1.047	1.004
8.00	1.000	1.050	1.004
9.00	1.000	1.053	1.004
10.00	1.000	1.055	1.004
15.00	1.000	1.066	1.004
20.00	1.000	1.073	1.004
25.00	1.000	1.078	1.003
30.00	1.000	1.084	1.003
35.00	1.000	1.088	1.004
40.00	1.000	1.091	1.005
45.00	1.000	1.092	1.006
50.00	1.000	1.104	1.010

Notes

Base Case: Used Default Values from Protocol

Test Case 1: High Resolution for Small Particles, Low Resolution for Large Particles

Test Case 2: High Resolution for Large Particles, Low Resolution for Small Particles

TABLE A-6-3
PARTICLE SIZE RESOLUTION ANALYSIS
PARTICLE-BOUND PHASE CONCENTRATION
UNITS = $\mu g/m^3$

Distance (Km)	Base Case	High Resolution for Small Particles	High Resolution for Large Particles
0.10	0.027	0.027	0.027
0.20	0.536	0.536	0.536
0.30	0.966	0.967	0.966
0.40	1.094	1.096	1.094
0.50	1.074	1.077	1.074
0.60	0.996	0.998	0.995
0.70	0.903	0.906	0.903
0.80	0.814	0.816	0.813
0.90	0.733	0.735	0.732
1.00	0.661	0.663	0.661
1.25	0.522	0.524	0.522
1.50	0.426	0.428	0.426
1.75	0.356	0.358	0.356
2.00	0.304	0.305	0.303
2.25	0.262	0.263	0.262
2.50	0.230	0.230	0.229
3.00	0.181	0.182	0.181
3.50	0.148	0.148	0.148
4.00	0.124	0.124	0.123
4.50	0.105	0.106	0.105
5.00	0.091	0.092	0.091
6.00	0.071	0.071	0.071
7.00	0.057	0.057	0.057
8.00	0.047	0.048	0.047
9.00	0.040	0.040	0.040
10.00	0.035	0.035	0.034
15.00	0.020	0.020	0.019
20.00	0.013	0.013	0.013
25.00	0.010	0.010	0.010
30.00	0.007	0.007	0.007
35.00	0.006	0.006	0.006
40.00	0.005	0.005	0.005
45.00	0.004	0.004	0.004
50.00	0.004	0.004	0.004

Notes

Base Case: Used Default Values from Protocol

Test Case 1: High Resolution for Small Particles, Low Resolution for Large Particles

Test Case 2: High Resolution for Large Particles, Low Resolution for Small Particles

TABLE A-8-4
PARTICLE SIZE RESOLUTION ANALYSIS
NORMALIZED PARTICLE BOUND PHASE CONCENTRATION

Distance (Km)	Base Case	High Resolution for Small Particles	High Resolution for Large Particles
0.10	1.000	1.000	1.001
0.20	1.000	1.001	1.001
0.30	1.000	1.002	1.000
0.40	1.000	1.002	1.000
0.50	1.000	1.002	1.000
0.60	1.000	1.003	0.999
0.70	1.000	1.003	0.999
0.80	1.000	1.003	0.999
0.90	1.000	1.003	0.999
1.00	1.000	1.003	0.999
1.25	1.000	1.003	0.999
1.50	1.000	1.003	0.999
1.75	1.000	1.004	0.999
2.00	1.000	1.004	0.998
2.25	1.000	1.004	0.998
2.50	1.000	1.004	0.998
3.00	1.000	1.004	0.998
3.50	1.000	1.004	0.998
4.00	1.000	1.004	0.998
4.50	1.000	1.004	0.998
5.00	1.000	1.004	0.998
6.00	1.000	1.004	0.997
7.00	1.000	1.004	0.997
8.00	1.000	1.004	0.997
9.00	1.000	1.004	0.997
10.00	1.000	1.004	0.997
15.00	1.000	1.005	0.996
20.00	1.000	1.005	0.996
25.00	1.000	1.004	0.996
30.00	1.000	1.004	0.996
35.00	1.000	1.005	0.997
40.00	1.000	1.004	0.996
45.00	1.000	1.005	0.995
50.00	1.000	1.003	0.995

Notes.

Base Case: Used Default Values from Protocol

Test Case 1 High Resolution for Small Particles. Low Resolution for Large Particles

Test Case 2 High Resolution for Large Particles Low Resolution for Small Particles

TABLE A-6-5
PARTICLE SIZE RESOLUTION SENSITIVITY ANALYSIS
PARTICLE PHASE DRY DEPOSITION
UNITS = $g/m^2/g/s$

Distance (Km)	Base Case	High Resolution for Small Particles	High Resolution for Large Particles
0.10	0.090	0.070	0.090
0.20	1.368	1.081	1.368
0.30	2.243	1.787	2.240
0.40	2.349	1.863	2.344
0.50	2.155	1.699	2.151
0.60	1.883	1.476	1.880
0.70	1.620	1.263	1.618
0.80	1.390	1.079	1.389
0.90	1.197	0.925	1.197
1.00	1.038	0.799	1.037
1.25	0.758	0.580	0.758
1.50	0.577	0.439	0.577
1.75	0.454	0.345	0.454
2.00	0.367	0.279	0.368
2.25	0.303	0.230	0.304
2.50	0.255	0.193	0.255
3.00	0.187	0.141	0.187
3.50	0.143	0.108	0.143
4.00	0.113	0.086	0.114
4.50	0.092	0.070	0.092
5.00	0.077	0.059	0.076
6.00	0.055	0.042	0.055
7.00	0.042	0.032	0.041
8.00	0.033	0.025	0.032
9.00	0.026	0.020	0.026
10.00	0.021	0.017	0.021
15.00	0.010	0.008	0.010
20.00	0.006	0.005	0.006
25.00	0.004	0.003	0.004
30.00	0.003	0.002	0.003
35.00	0.002	0.002	0.002
40.00	0.002	0.001	0.002
45.00	0.001	0.001	0.001
50.00	0.001	0.001	0.001

Notes:
Base Case: Used Default Values from Protocol
Test Case 1: High Resolution for Small Particles, Low Resolution for Large Particles
Test Case 2: High Resolution for Large Particles, Low Resolution for Small Particles

TABLE A-6-6
PARTICLE SIZE RESOLUTION SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE DRY DEPOSITION

Distance (Km)	Base Case	High Resolution for Small Particles	High Resolution for Large Particles
0.10	1.000	0.780	1.002
0.20	1.000	0.790	1.000
0.30	1.000	0.797	0.998
0.40	1.000	0.793	0.998
0.50	1.000	0.788	0.998
0.60	1.000	0.784	0.998
0.70	1.000	0.780	0.999
0.80	1.000	0.776	0.999
0.90	1.000	0.773	0.999
1.00	1.000	0.770	0.999
1.25	1.000	0.766	1.000
1.50	1.000	0.762	1.001
1.75	1.000	0.760	1.001
2.00	1.000	0.759	1.001
2.25	1.000	0.758	1.001
2.50	1.000	0.757	1.001
3.00	1.000	0.757	1.001
3.50	1.000	0.758	1.001
4.00	1.000	0.760	1.001
4.50	1.000	0.763	1.000
5.00	1.000	0.765	0.999
6.00	1.000	0.769	0.997
7.00	1.000	0.774	0.996
8.00	1.000	0.779	0.994
9.00	1.000	0.784	0.992
10.00	1.000	0.789	0.990
15.00	1.000	0.814	0.981
20.00	1.000	0.837	0.973
25.00	1.000	0.858	0.961
30.00	1.000	0.880	0.953
35.00	1.000	0.902	0.946
40.00	1.000	0.925	0.943
45.00	1.000	0.938	0.938
50.00	1.000	1.000	0.970

Notes.

Base Case. Used Default Values from Protocol

Test Case 1 High Resolution for Small Particles. Low Resolution for Large Particles

Test Case 2 High Resolution for Large Particles Low Resolution for Small Particles

TABLE A-6-7
PARTICLE SIZE RESOLUTION ANALYSIS
PARTICLE-BOUND PHASE DRY DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Base Case	High Resolution for Small Particles	High Resolution for Large Particles
0.10	0.016	0.010	0.019
0.20	0.236	0.149	0.291
0.30	0.387	0.248	0.476
0.40	0.406	0.261	0.497
0.50	0.373	0.242	0.456
0.60	0.327	0.213	0.398
0.70	0.282	0.184	0.343
0.80	0.243	0.159	0.295
0.90	0.209	0.138	0.254
1.00	0.182	0.120	0.221
1.25	0.134	0.089	0.162
1.50	0.102	0.069	0.124
1.75	0.081	0.055	0.098
2.00	0.066	0.045	0.080
2.25	0.055	0.037	0.066
2.50	0.046	0.032	0.056
3.00	0.034	0.024	0.041
3.50	0.026	0.019	0.032
4.00	0.021	0.015	0.025
4.50	0.017	0.012	0.021
5.00	0.014	0.010	0.017
6.00	0.011	0.008	0.013
7.00	0.008	0.006	0.010
8.00	0.006	0.005	0.008
9.00	0.005	0.004	0.006
10.00	0.004	0.003	0.005
15.00	0.002	0.002	0.003
20.00	0.001	0.001	0.002
25.00	0.001	0.001	0.001
30.00	0.001	0.001	0.001
35.00	0.000	0.000	0.001
40.00	0.000	0.000	0.000
45.00	0.000	0.000	0.000
50.00	0.000	0.000	0.000

Notes:

Base Case Used Default Values from Protocol

Test Case 1: High Resolution for Small Particles Low Resolution for Large Particles

Test Case 2: High Resolution for Large Particles Low Resolution for Small Particles

TABLE A-6-8
PARTICLE SIZE RESOLUTION SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE DRY DEPOSITION

Distance (Km)	Base Case	High Resolution for Small Particles	High Resolution for Large Particles
0.10	1.000	0.616	1.241
0.20	1.000	0.630	1.233
0.30	1.000	0.639	1.230
0.40	1.000	0.644	1.225
0.50	1.000	0.647	1.222
0.60	1.000	0.650	1.219
0.70	1.000	0.653	1.217
0.80	1.000	0.656	1.215
0.90	1.000	0.658	1.214
1.00	1.000	0.661	1.212
1.25	1.000	0.666	1.210
1.50	1.000	0.670	1.209
1.75	1.000	0.675	1.207
2.00	1.000	0.679	1.206
2.25	1.000	0.684	1.205
2.50	1.000	0.687	1.204
3.00	1.000	0.695	1.202
3.50	1.000	0.702	1.201
4.00	1.000	0.709	1.200
4.50	1.000	0.716	1.198
5.00	1.000	0.722	1.197
6.00	1.000	0.734	1.195
7.00	1.000	0.745	1.193
8.00	1.000	0.754	1.191
9.00	1.000	0.763	1.189
10.00	1.000	0.773	1.186
15.00	1.000	0.811	1.179
20.00	1.000	0.844	1.172
25.00	1.000	0.874	1.161
30.00	1.000	0.891	1.156
35.00	1.000	0.918	1.163
40.00	1.000	0.949	1.154
45.00	1.000	0.969	1.156
50.00	1.000	1.000	1.192

Notes

Base Case: Used Default Values from Protocol

Test Case 1: High Resolution for Small Particles, Low Resolution for Large Particles

Test Case 2: High Resolution for Large Particles, Low Resolution for Small Particles

TABLE A-6-9
PARTICLE SIZE RESOLUTION SENSITIVITY ANALYSIS
PARTICLE PHASE WET DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Base Case	High Resolution for Small Particles	High Resolution for Large Particles
0.10	3.611	3.276	3.747
0.20	1.680	1.541	1.744
0.30	1.040	0.962	1.080
0.40	0.723	0.674	0.750
0.50	0.537	0.504	0.558
0.60	0.417	0.394	0.433
0.70	0.335	0.318	0.348
0.80	0.276	0.262	0.286
0.90	0.231	0.221	0.240
1.00	0.197	0.189	0.204
1.25	0.139	0.134	0.144
1.50	0.104	0.101	0.107
1.75	0.081	0.079	0.083
2.00	0.065	0.063	0.067
2.25	0.053	0.052	0.055
2.50	0.044	0.044	0.046
3.00	0.032	0.032	0.033
3.50	0.025	0.025	0.025
4.00	0.019	0.019	0.020
4.50	0.016	0.016	0.016
5.00	0.013	0.013	0.013
6.00	0.009	0.009	0.009
7.00	0.007	0.007	0.007
8.00	0.005	0.005	0.005
9.00	0.004	0.004	0.004
10.00	0.003	0.003	0.003
15.00	0.002	0.002	0.002
20.00	0.001	0.001	0.001
25.00	0.001	0.001	0.001
30.00	0.000	0.000	0.000
35.00	0.000	0.000	0.000
40.00	0.000	0.000	0.000
45.00	0.000	0.000	0.000
50.00	0.000	0.000	0.000

Notes:
Base Case: Used Default Values from Protocol
Test Case 1: High Resolution for Small Particles, Low Resolution for Large Particles
Test Case 2: High Resolution for Large Particles, Low Resolution for Small Particles

TABLE A-6-10
PARTICLE SIZE RESOLUTION SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE WET DEPOSITION

Distance (Km)	Base Case	High Resolution for Small Particles	High Resolution for Large Particles
0.10	1.000	0.907	1.038
0.20	1.000	0.917	1.038
0.30	1.000	0.925	1.039
0.40	1.000	0.932	1.039
0.50	1.000	0.938	1.039
0.60	1.000	0.944	1.038
0.70	1.000	0.948	1.038
0.80	1.000	0.952	1.037
0.90	1.000	0.955	1.037
1.00	1.000	0.959	1.036
1.25	1.000	0.965	1.034
1.50	1.000	0.970	1.032
1.75	1.000	0.974	1.030
2.00	1.000	0.977	1.028
2.25	1.000	0.980	1.026
2.50	1.000	0.984	1.025
3.00	1.000	0.989	1.022
3.50	1.000	0.993	1.019
4.00	1.000	0.997	1.017
4.50	1.000	1.001	1.016
5.00	1.000	1.003	1.015
6.00	1.000	1.008	1.013
7.00	1.000	1.012	1.012
8.00	1.000	1.013	1.009
9.00	1.000	1.017	1.007
10.00	1.000	1.017	1.006
15.00	1.000	1.020	0.993
20.00	1.000	1.024	0.988
25.00	1.000	1.038	1.000
30.00	1.000	1.028	1.000
35.00	1.000	1.038	1.000
40.00	1.000	1.053	1.000
45.00	1.000	1.000	1.000
50.00	1.000	1.000	1.000

Notes:

Base Case: Used Default Values from Protocol

Test Case 1: High Resolution for Small Particles, Low Resolution for Large Particles

Test Case 2: High Resolution for Large Particles, Low Resolution for Small Particles

TABLE A-6-11
PARTICLE SIZE RESOLUTION ANALYSIS
PARTICLE-BOUND PHASE WET DEPOSITION
UNITS = g/m^2/g/s

Distance (Km)	Base Case	High Resolution for Small Particles	High Resolution for Large Particles
0.10	1.440	1.572	1.638
0.20	0.701	0.772	0.791
0.30	0.453	0.503	0.507
0.40	0.327	0.366	0.364
0.50	0.253	0.284	0.279
0.60	0.203	0.229	0.223
0.70	0.169	0.191	0.184
0.80	0.143	0.162	0.155
0.90	0.123	0.140	0.133
1.00	0.108	0.122	0.116
1.25	0.081	0.092	0.086
1.50	0.063	0.072	0.067
1.75	0.052	0.058	0.054
2.00	0.043	0.048	0.045
2.25	0.036	0.041	0.038
2.50	0.031	0.035	0.032
3.00	0.024	0.027	0.025
3.50	0.019	0.021	0.019
4.00	0.016	0.017	0.016
4.50	0.013	0.014	0.013
5.00	0.011	0.012	0.011
6.00	0.008	0.009	0.008
7.00	0.006	0.007	0.006
8.00	0.005	0.005	0.005
9.00	0.004	0.004	0.004
10.00	0.003	0.004	0.003
15.00	0.002	0.002	0.002
20.00	0.001	0.001	0.001
25.00	0.001	0.001	0.001
30.00	0.000	0.000	0.000
35.00	0.000	0.000	0.000
40.00	0.000	0.000	0.000
45.00	0.000	0.000	0.000
50.00	0.000	0.000	0.000

Notes.

Base Case Used Default Values from Protocol

Test Case 1: High Resolution for Small Particles, Low Resolution for Large Particles

Test Case 2: High Resolution for Large Particles, Low Resolution for Small Particles

TABLE A-6-12
PARTICLE SIZE RESOLUTION ANALYSIS
NORMALIZED PARTICLE BOUND PHASE WET DEPOSITION

Distance (Km)	Base Case	High Resolution for Small Particles	High Resolution for Large Particles
0.10	1.000	1.092	1.137
0.20	1.000	1.102	1.129
0.30	1.000	1.111	1.120
0.40	1.000	1.117	1.112
0.50	1.000	1.123	1.105
0.60	1.000	1.127	1.098
0.70	1.000	1.130	1.091
0.80	1.000	1.132	1.086
0.90	1.000	1.133	1.080
1.00	1.000	1.133	1.075
1.25	1.000	1.133	1.064
1.50	1.000	1.130	1.055
1.75	1.000	1.127	1.047
2.00	1.000	1.122	1.041
2.25	1.000	1.118	1.035
2.50	1.000	1.113	1.031
3.00	1.000	1.105	1.024
3.50	1.000	1.096	1.018
4.00	1.000	1.090	1.015
4.50	1.000	1.085	1.012
5.00	1.000	1.080	1.009
6.00	1.000	1.073	1.005
7.00	1.000	1.068	1.002
8.00	1.000	1.063	1.000
9.00	1.000	1.060	0.998
10.00	1.000	1.055	0.994
15.00	1.000	1.042	0.988
20.00	1.000	1.031	0.980
25.00	1.000	1.016	0.984
30.00	1.000	1.000	0.978
35.00	1.000	1.000	1.000
40.00	1.000	1.000	1.000
45.00	1.000	1.000	1.000
50.00	1.000	1.000	1.000

Notes:

Base Case Used Default Values from Protocol

Test Case 1 High Resolution for Small Particles Low Resolution for Large Particles

Test Case 2 High Resolution for Large Particles Low Resolution for Small Particles

TABLE A-7-1
PARTICLE MASS DISTRIBUTION SENSITIVITY ANALYSIS
PARTICLE PHASE CONCENTRATION
UNITS = μg/m³

Distance (Km)	Base Case	80% < 3.6 μ	80% > 3.6 μ
0.10	0.027	0.027	0.027
0.20	0.525	0.532	0.518
0.30	0.937	0.956	0.918
0.40	1.054	1.079	1.026
0.50	1.028	1.056	0.996
0.60	0.947	0.977	0.914
0.70	0.855	0.885	0.822
0.80	0.767	0.795	0.735
0.90	0.688	0.715	0.658
1.00	0.619	0.645	0.590
1.25	0.486	0.508	0.461
1.50	0.395	0.414	0.373
1.75	0.328	0.345	0.310
2.00	0.279	0.294	0.262
2.25	0.240	0.254	0.225
2.50	0.210	0.222	0.196
3.00	0.164	0.175	0.153
3.50	0.134	0.142	0.124
4.00	0.111	0.119	0.103
4.50	0.094	0.101	0.087
5.00	0.081	0.087	0.075
6.00	0.063	0.068	0.057
7.00	0.050	0.054	0.046
8.00	0.042	0.045	0.038
9.00	0.035	0.038	0.031
10.00	0.030	0.033	0.027
15.00	0.017	0.018	0.015
20.00	0.011	0.012	0.010
25.00	0.008	0.009	0.007
30.00	0.006	0.007	0.005
35.00	0.005	0.006	0.004
40.00	0.004	0.005	0.003
45.00	0.003	0.004	0.003
50.00	0.003	0.003	0.002

Notes.

Base Case: Used Default Values from Protocol

Test Case 1: 80% of Total Mass Distributed within Small Particle Range (Cats 1 - 5)

Test Case 2: 80% of Total Mass Distributed within Large Particle Range (Cats 5 - 9)

TABLE A-7-2
PARTICLE MASS DISTRIBUTION SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE CONCENTRATION

Distance (Km)	Base Case	80% < 3.6 μ	80% > 3.6 μ
0.10	1.000	1.005	0.994
0.20	1.000	1.013	0.986
0.30	1.000	1.019	0.979
0.40	1.000	1.024	0.974
0.50	1.000	1.028	0.969
0.60	1.000	1.031	0.965
0.70	1.000	1.035	0.962
0.80	1.000	1.037	0.959
0.90	1.000	1.040	0.956
1.00	1.000	1.042	0.954
1.25	1.000	1.045	0.949
1.50	1.000	1.049	0.946
1.75	1.000	1.051	0.943
2.00	1.000	1.054	0.940
2.25	1.000	1.056	0.938
2.50	1.000	1.058	0.936
3.00	1.000	1.061	0.932
3.50	1.000	1.064	0.928
4.00	1.000	1.067	0.925
4.50	1.000	1.070	0.922
5.00	1.000	1.072	0.919
6.00	1.000	1.077	0.914
7.00	1.000	1.081	0.909
8.00	1.000	1.085	0.905
9.00	1.000	1.089	0.901
10.00	1.000	1.092	0.897
15.00	1.000	1.105	0.883
20.00	1.000	1.116	0.871
25.00	1.000	1.124	0.860
30.00	1.000	1.131	0.852
35.00	1.000	1.138	0.845
40.00	1.000	1.145	0.838
45.00	1.000	1.150	0.832
50.00	1.000	1.158	0.822

Notes.

Base Case. Used Default Values from Protocol

Test Case 1. 80% of Total Mass Distributed within Small Particle Range (Cats 1 - 5)

Test Case 2. 80% of Total Mass Distributed within Large Particle Range (Cats 5 - 9)

TABLE A-7-3
PARTICLE MASS DISTRIBUTION SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE CONCENTRATION
UNITS = μg/m³

Distance (Km)	Base Case	80% < 3.6 μ	80% > 3.6 μ
0.10	0.02736	0.02741	0.02731
0.20	0.53598	0.53779	0.53276
0.30	0.96577	0.97009	0.95672
0.40	1.09422	1.10003	1.08118
0.50	1.07412	1.08057	1.05904
0.60	0.99583	1.00239	0.98003
0.70	0.90336	0.90977	0.88762
0.80	0.81362	0.81975	0.79836
0.90	0.73255	0.73834	0.71795
1.00	0.66125	0.66669	0.64741
1.25	0.52241	0.52702	0.5105
1.50	0.42619	0.43017	0.41581
1.75	0.35637	0.35984	0.34722
2.00	0.30373	0.3068	0.29562
2.25	0.26236	0.26509	0.2551
2.50	0.22956	0.23202	0.223
3.00	0.18121	0.18324	0.17573
3.50	0.14789	0.14962	0.1432
4.00	0.12365	0.12515	0.11957
4.50	0.10541	0.10673	0.10181
5.00	0.09127	0.09244	0.08805
6.00	0.07094	0.0719	0.06829
7.00	0.05719	0.058	0.05496
8.00	0.04739	0.04808	0.04546
9.00	0.04011	0.04072	0.03842
10.00	0.03454	0.03507	0.03303
15.00	0.01953	0.01987	0.01857
20.00	0.01304	0.01329	0.01235
25.00	0.00958	0.00977	0.00904
30.00	0.00745	0.0076	0.00701
35.00	0.00605	0.00618	0.00568
40.00	0.00506	0.00517	0.00474
45.00	0.00433	0.00443	0.00404
50.00	0.00377	0.00386	0.00351

Notes:

Base Case: Used Default Values from Protocol

Test Case 1: 80% of Total Mass Distributed within Small Particle Range (Cats 1 - 5)

Test Case 2: 80% of Total Mass Distributed within Large Particle Range (Cats 5 - 9)

TABLE A-7-4
PARTICLE MASS DISTRIBUTION SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE CONCENTRATION

Distance (Km)	Base Case	80% < 3.6 μ	80% > 3.6 μ
0.10	1.000	1.002	0.998
0.20	1.000	1.003	0.994
0.30	1.000	1.004	0.991
0.40	1.000	1.005	0.988
0.50	1.000	1.006	0.986
0.60	1.000	1.007	0.984
0.70	1.000	1.007	0.983
0.80	1.000	1.008	0.981
0.90	1.000	1.008	0.980
1.00	1.000	1.008	0.979
1.25	1.000	1.009	0.977
1.50	1.000	1.009	0.976
1.75	1.000	1.010	0.974
2.00	1.000	1.010	0.973
2.25	1.000	1.010	0.972
2.50	1.000	1.011	0.971
3.00	1.000	1.011	0.970
3.50	1.000	1.012	0.968
4.00	1.000	1.012	0.967
4.50	1.000	1.013	0.966
5.00	1.000	1.013	0.965
6.00	1.000	1.014	0.963
7.00	1.000	1.014	0.961
8.00	1.000	1.015	0.959
9.00	1.000	1.015	0.958
10.00	1.000	1.015	0.956
15.00	1.000	1.017	0.951
20.00	1.000	1.019	0.947
25.00	1.000	1.020	0.944
30.00	1.000	1.020	0.941
35.00	1.000	1.021	0.939
40.00	1.000	1.022	0.937
45.00	1.000	1.023	0.933
50.00	1.000	1.024	0.931

Notes

Base Case: Used Default Values from Protocol

Test Case 1: 80% of Total Mass Distributed within Small Particle Range (Cats 1 - 5)

Test Case 2: 80% of Total Mass Distributed within Large Particle Range (Cats 5 - 9)

TABLE A-7-5
PARTICLE MASS DISTRIBUTION SENSITIVITY ANALYSIS
PARTICLE PHASE DRY DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Base Case	80% < 3.6 μ	80% > 3.6 μ
0.10	0.08968	0.04572	0.13901
0.20	1.3684	0.69233	2.12316
0.30	2.24341	1.13341	3.48072
0.40	2.34887	1.18614	3.64348
0.50	2.15502	1.0884	3.34182
0.60	1.88344	0.95167	2.91981
0.70	1.62008	0.8191	2.51079
0.80	1.39045	0.70348	2.15432
0.90	1.19742	0.60626	1.85474
1.00	1.03767	0.52576	1.60687
1.25	0.75775	0.38456	1.1728
1.50	0.5766	0.29311	0.89199
1.75	0.45378	0.23104	0.70167
2.00	0.36724	0.18723	0.56762
2.25	0.30313	0.15475	0.46836
2.50	0.2545	0.13008	0.39308
3.00	0.18652	0.09557	0.28789
3.50	0.14307	0.07347	0.22068
4.00	0.11344	0.05838	0.17489
4.50	0.09227	0.04757	0.14217
5.00	0.07655	0.03953	0.11789
6.00	0.05517	0.02859	0.08488
7.00	0.04164	0.02165	0.06401
8.00	0.03253	0.01697	0.04997
9.00	0.02614	0.01367	0.04012
10.00	0.02148	0.01126	0.03294
15.00	0.01011	0.00536	0.01545
20.00	0.00588	0.00315	0.00896
25.00	0.00387	0.00209	0.00588
30.00	0.00274	0.00149	0.00415
35.00	0.00205	0.00113	0.0031
40.00	0.00159	0.00088	0.0024
45.00	0.00128	0.00071	0.00192
50.00	0.001	0.00057	0.00151

Notes

Base Case. Used Default Values from Protocol

Test Case 1. 80% of Total Mass Distributed within Small Particle Range (Cats 1 - 5)

Test Case 2. 80% of Total Mass Distributed within Large Particle Range (Cats 5 - 9)

TABLE A-7-6
PARTICLE MASS DISTRIBUTION SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE DRY DEPOSITION

Distance (Km)	Base Case	80% < 3.6 μ	80% > 3.6 μ
0.10	1.000	0.510	1.550
0.20	1.000	0.506	1.552
0.30	1.000	0.505	1.552
0.40	1.000	0.505	1.551
0.50	1.000	0.505	1.551
0.60	1.000	0.505	1.550
0.70	1.000	0.506	1.550
0.80	1.000	0.506	1.549
0.90	1.000	0.506	1.549
1.00	1.000	0.507	1.549
1.25	1.000	0.508	1.548
1.50	1.000	0.508	1.547
1.75	1.000	0.509	1.546
2.00	1.000	0.510	1.546
2.25	1.000	0.511	1.545
2.50	1.000	0.511	1.545
3.00	1.000	0.512	1.543
3.50	1.000	0.514	1.542
4.00	1.000	0.515	1.542
4.50	1.000	0.516	1.541
5.00	1.000	0.516	1.540
6.00	1.000	0.518	1.539
7.00	1.000	0.520	1.537
8.00	1.000	0.522	1.536
9.00	1.000	0.523	1.535
10.00	1.000	0.524	1.534
15.00	1.000	0.530	1.528
20.00	1.000	0.536	1.524
25.00	1.000	0.540	1.519
30.00	1.000	0.544	1.515
35.00	1.000	0.551	1.512
40.00	1.000	0.553	1.509
45.00	1.000	0.555	1.500
50.00	1.000	0.570	1.510

Notes

Base Case: Used Default Values from Protocol

Test Case 1: 80% of Total Mass Distributed within Small Particle Range (Cats 1 - 5)

Test Case 2: 80% of Total Mass Distributed within Large Particle Range (Cats 5 - 9)

TABLE A-7-7
PARTICLE MASS DISTRIBUTION SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE DRY DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Base Case	80% < 3.6 μ	80% > 3.6 μ
0.10	0.016	0.007	0.041
0.20	0.236	0.110	0.623
0.30	0.387	0.180	1.022
0.40	0.406	0.189	1.068
0.50	0.373	0.175	0.978
0.60	0.327	0.154	0.854
0.70	0.282	0.133	0.734
0.80	0.243	0.115	0.630
0.90	0.209	0.100	0.543
1.00	0.182	0.087	0.470
1.25	0.134	0.065	0.344
1.50	0.102	0.050	0.262
1.75	0.081	0.040	0.206
2.00	0.066	0.033	0.167
2.25	0.055	0.027	0.138
2.50	0.046	0.023	0.116
3.00	0.034	0.017	0.086
3.50	0.026	0.014	0.066
4.00	0.021	0.011	0.052
4.50	0.017	0.009	0.043
5.00	0.014	0.008	0.036
6.00	0.011	0.006	0.026
7.00	0.008	0.004	0.020
8.00	0.006	0.003	0.015
9.00	0.005	0.003	0.012
10.00	0.004	0.002	0.010
15.00	0.002	0.001	0.005
20.00	0.001	0.001	0.003
25.00	0.001	0.001	0.002
30.00	0.001	0.000	0.001
35.00	0.000	0.000	0.001
40.00	0.000	0.000	0.001
45.00	0.000	0.000	0.001
50.00	0.000	0.000	0.001

Notes.

Base Case: Used Default Values from Protocol

Test Case 1 80% of Total Mass Distributed within Small Particle Range (Cats 1 - 5)

Test Case 2 80% of Total Mass Distributed within Large Particle Range (Cats 5 - 9)

TABLE A-7-8
PARTICLE MASS DISTRIBUTION SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE DRY DEPOSITION

Distance (Km)	Base Case	80% < 3.6 μ	80% > 3.6 μ
0.10	1.000	0.473	2.637
0.20	1.000	0.465	2.643
0.30	1.000	0.464	2.639
0.40	1.000	0.466	2.630
0.50	1.000	0.468	2.622
0.60	1.000	0.470	2.613
0.70	1.000	0.473	2.605
0.80	1.000	0.475	2.597
0.90	1.000	0.478	2.590
1.00	1.000	0.480	2.584
1.25	1.000	0.485	2.570
1.50	1.000	0.489	2.558
1.75	1.000	0.493	2.547
2.00	1.000	0.496	2.538
2.25	1.000	0.499	2.529
2.50	1.000	0.502	2.521
3.00	1.000	0.508	2.505
3.50	1.000	0.513	2.491
4.00	1.000	0.518	2.480
4.50	1.000	0.522	2.469
5.00	1.000	0.526	2.459
6.00	1.000	0.532	2.440
7.00	1.000	0.539	2.424
8.00	1.000	0.545	2.408
9.00	1.000	0.549	2.389
10.00	1.000	0.555	2.376
15.00	1.000	0.575	2.321
20.00	1.000	0.594	2.281
25.00	1.000	0.609	2.241
30.00	1.000	0.609	2.188
35.00	1.000	0.633	2.163
40.00	1.000	0.641	2.154
45.00	1.000	0.656	2.125
50.00	1.000	0.692	2.115

Notes
Base Case: Used Default Values from Protocol
Test Case 1: 80% of Total Mass Distributed within Small Particle Range (Cats 1 - 5)
Test Case 2: 80% of Total Mass Distributed within Large Particle Range (Cats 5 - 9)

TABLE A-7-9
PARTICLE MASS DISTRIBUTION SENSITIVITY ANALYSIS
PARTICLE PHASE WET DEPOSITION
UNITS = $g/m^2/g/s$

Distance (Km)	Base Case	80% < 3.6 μ	80% > 3.6 μ
0.10	3.611	2.476	5.069
0.20	1.680	1.174	2.338
0.30	1.040	0.739	1.434
0.40	0.723	0.523	0.988
0.50	0.537	0.395	0.728
0.60	0.417	0.311	0.561
0.70	0.335	0.253	0.446
0.80	0.276	0.211	0.364
0.90	0.231	0.179	0.303
1.00	0.197	0.154	0.256
1.25	0.139	0.112	0.178
1.50	0.104	0.085	0.131
1.75	0.081	0.068	0.100
2.00	0.065	0.055	0.079
2.25	0.053	0.046	0.064
2.50	0.044	0.039	0.053
3.00	0.032	0.029	0.038
3.50	0.025	0.023	0.028
4.00	0.019	0.018	0.022
4.50	0.016	0.015	0.017
5.00	0.013	0.012	0.014
6.00	0.009	0.009	0.010
7.00	0.007	0.007	0.007
8.00	0.005	0.005	0.005
9.00	0.004	0.004	0.004
10.00	0.003	0.004	0.003
15.00	0.002	0.002	0.001
20.00	0.001	0.001	0.001
25.00	0.001	0.001	0.000
30.00	0.000	0.000	0.000
35.00	0.000	0.000	0.000
40.00	0.000	0.000	0.000
45.00	0.000	0.000	0.000
50.00	0.000	0.000	0.000

Notes

Base Case: Used Default Values from Protocol

Test Case 1: 80% of Total Mass Distributed within Small Particle Range (Cats 1 - 5)

Test Case 2: 80% of Total Mass Distributed within Large Particle Range (Cats 5 - 9)

TABLE A-7-10
PARTICLE MASS DISTRIBUTION SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE WET DEPOSITION

Distance (Km)	Base Case	80% < 3.6 μ	80% > 3.6 μ
0.10	1.000	0.686	1.404
0.20	1.000	0.699	1.392
0.30	1.000	0.711	1.379
0.40	1.000	0.723	1.367
0.50	1.000	0.735	1.355
0.60	1.000	0.746	1.343
0.70	1.000	0.756	1.332
0.80	1.000	0.766	1.322
0.90	1.000	0.776	1.311
1.00	1.000	0.784	1.301
1.25	1.000	0.804	1.279
1.50	1.000	0.822	1.258
1.75	1.000	0.837	1.240
2.00	1.000	0.851	1.223
2.25	1.000	0.863	1.208
2.50	1.000	0.874	1.194
3.00	1.000	0.894	1.169
3.50	1.000	0.911	1.148
4.00	1.000	0.926	1.129
4.50	1.000	0.940	1.111
5.00	1.000	0.952	1.096
6.00	1.000	0.974	1.068
7.00	1.000	0.993	1.045
8.00	1.000	1.008	1.024
9.00	1.000	1.021	1.007
10.00	1.000	1.032	0.991
15.00	1.000	1.072	0.928
20.00	1.000	1.106	0.882
25.00	1.000	1.132	0.849
30.00	1.000	1.157	0.833
35.00	1.000	1.154	0.808
40.00	1.000	1.211	0.789
45.00	1.000	1.200	0.733
50.00	1.000	1.167	0.750

Notes.

Base Case. Used Default Values from Protocol

Test Case 1 80% of Total Mass Distributed within Small Particle Range (Cats 1 - 5)

Test Case 2 80% of Total Mass Distributed within Large Particle Range (Cats 5 - 9)

TABLE A-7-11
PARTICLE MASS DISTRIBUTION SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE WET DEPOSITION
UNITS = $g/m^2/g/s$

Distance (Km)	Base Case	80% < 3.6 μ	80% > 3.6 μ
0.10	1.440	1.196	2.387
0.20	0.701	0.590	1.134
0.30	0.453	0.387	0.716
0.40	0.327	0.283	0.507
0.50	0.253	0.221	0.384
0.60	0.203	0.179	0.303
0.70	0.169	0.150	0.247
0.80	0.143	0.128	0.206
0.90	0.123	0.111	0.175
1.00	0.108	0.098	0.151
1.25	0.081	0.074	0.110
1.50	0.063	0.059	0.084
1.75	0.052	0.048	0.066
2.00	0.043	0.040	0.054
2.25	0.036	0.035	0.045
2.50	0.031	0.030	0.038
3.00	0.024	0.023	0.029
3.50	0.019	0.018	0.022
4.00	0.016	0.015	0.018
4.50	0.013	0.013	0.015
5.00	0.011	0.011	0.012
6.00	0.008	0.008	0.009
7.00	0.006	0.006	0.007
8.00	0.005	0.005	0.005
9.00	0.004	0.004	0.004
10.00	0.003	0.003	0.004
15.00	0.002	0.002	0.002
20.00	0.001	0.001	0.001
25.00	0.001	0.001	0.001
30.00	0.000	0.000	0.000
35.00	0.000	0.000	0.000
40.00	0.000	0.000	0.000
45.00	0.000	0.000	0.000
50.00	0.000	0.000	0.000

Notes

Base Case: Used Default Values from Protocol

Test Case 1: 80% of Total Mass Distributed within Small Particle Range (Cals 1 - 5)

Test Case 2: 80% of Total Mass Distributed within Large Particle Range (Cals 5 - 9)

TABLE A-7-12
PARTICLE MASS DISTRIBUTION SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE WET DEPOSITION

Distance (Km)	Base Case	80% < 3.6 μ	80% > 3.6 μ
0.10	1.000	0.830	1.658
0.20	1.000	0.843	1.619
0.30	1.000	0.854	1.582
0.40	1.000	0.864	1.549
0.50	1.000	0.874	1.518
0.60	1.000	0.882	1.490
0.70	1.000	0.889	1.464
0.80	1.000	0.896	1.440
0.90	1.000	0.902	1.419
1.00	1.000	0.908	1.399
1.25	1.000	0.920	1.355
1.50	1.000	0.929	1.319
1.75	1.000	0.937	1.289
2.00	1.000	0.944	1.264
2.25	1.000	0.949	1.242
2.50	1.000	0.954	1.223
3.00	1.000	0.962	1.191
3.50	1.000	0.968	1.164
4.00	1.000	0.974	1.144
4.50	1.000	0.978	1.126
5.00	1.000	0.982	1.111
6.00	1.000	0.988	1.087
7.00	1.000	0.992	1.066
8.00	1.000	0.996	1.049
9.00	1.000	1.000	1.036
10.00	1.000	1.003	1.026
15.00	1.000	1.012	0.982
20.00	1.000	1.020	0.959
25.00	1.000	1.016	0.938
30.00	1.000	1.022	0.933
35.00	1.000	1.030	0.909
40.00	1.000	1.040	0.920
45.00	1.000	1.050	0.900
50.00	1.000	1.063	0.875

Notes:

Base Case: Used Default Values from Protocol

Test Case 1 80% of Total Mass Distributed within Small Particle Range (Cats 1 - 5)

Test Case 2 80% of Total Mass Distributed within Large Particle Range (Cats 5 - 9)

TABLE A-8-1
PARTICLE DENSITY SENSITIVITY ANALYSIS
PARTICLE PHASE CONCENTRATION
UNITS = ug/m³/g/s

Distance (Km)	Base Case	0.5 g/cm³	1.5 g/cm³	2.0 g/cm³
0.10	0.027	0.027	0.027	0.027
0.20	0.525	0.529	0.525	0.526
0.30	0.937	0.947	0.934	0.933
0.40	1.054	1.068	1.048	1.046
0.50	1.028	1.045	1.021	1.017
0.60	0.947	0.965	0.939	0.936
0.70	0.855	0.873	0.847	0.843
0.80	0.767	0.785	0.759	0.754
0.90	0.688	0.705	0.680	0.676
1.00	0.619	0.635	0.611	0.607
1.25	0.486	0.500	0.479	0.475
1.50	0.395	0.407	0.388	0.385
1.75	0.328	0.340	0.323	0.320
2.00	0.279	0.289	0.274	0.271
2.25	0.240	0.249	0.236	0.233
2.50	0.210	0.218	0.205	0.203
3.00	0.164	0.171	0.161	0.159
3.50	0.134	0.140	0.130	0.128
4.00	0.111	0.116	0.108	0.107
4.50	0.094	0.099	0.092	0.090
5.00	0.081	0.086	0.079	0.078
6.00	0.063	0.066	0.061	0.060
7.00	0.050	0.053	0.049	0.048
8.00	0.042	0.044	0.040	0.039
9.00	0.035	0.037	0.034	0.033
10.00	0.030	0.032	0.029	0.028
15.00	0.017	0.018	0.016	0.015
20.00	0.011	0.012	0.010	0.010
25.00	0.008	0.009	0.007	0.007
30.00	0.006	0.007	0.006	0.005
35.00	0.005	0.005	0.005	0.004
40.00	0.004	0.005	0.004	0.004
45.00	0.003	0.004	0.003	0.003
50.00	0.003	0.003	0.003	0.003

Notes.
Base Case. Density = 1.0 g/cm³ (Protocol Default)
Test Case 1: Density = 0.5 g/cm³
Test Case 2: Density = 1.5 g/cm³
Test Case 3. Density = 2.0 g/cm³

TABLE A-8-2
PARTICLE DENSITY SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE CONCENTRATION

Distance (Km)	Base Case	0.5 g/cm^3	1.5 g/cm^3	2.0 g/cm^3
0.10	1.000	1.001	1.001	1.005
0.20	1.000	1.007	0.999	0.999
0.30	1.000	1.010	0.996	0.996
0.40	1.000	1.014	0.995	0.993
0.50	1.000	1.016	0.993	0.990
0.60	1.000	1.019	0.992	0.988
0.70	1.000	1.021	0.991	0.986
0.80	1.000	1.023	0.989	0.984
0.90	1.000	1.025	0.989	0.982
1.00	1.000	1.026	0.988	0.981
1.25	1.000	1.029	0.986	0.978
1.50	1.000	1.031	0.985	0.976
1.75	1.000	1.034	0.983	0.973
2.00	1.000	1.035	0.982	0.971
2.25	1.000	1.037	0.981	0.969
2.50	1.000	1.039	0.980	0.968
3.00	1.000	1.042	0.978	0.964
3.50	1.000	1.044	0.976	0.961
4.00	1.000	1.047	0.975	0.958
4.50	1.000	1.049	0.973	0.956
5.00	1.000	1.051	0.972	0.953
6.00	1.000	1.055	0.969	0.948
7.00	1.000	1.059	0.967	0.944
8.00	1.000	1.062	0.965	0.939
9.00	1.000	1.065	0.963	0.936
10.00	1.000	1.068	0.961	0.933
15.00	1.000	1.080	0.954	0.919
20.00	1.000	1.088	0.949	0.909
25.00	1.000	1.093	0.943	0.902
30.00	1.000	1.100	0.939	0.895
35.00	1.000	1.106	0.937	0.892
40.00	1.000	1.111	0.934	0.889
45.00	1.000	1.113	0.931	0.887
50.00	1.000	1.125	0.936	0.892

Notes.
Base Case Density = 1.0 g/cm^3 (Protocol Default)
Test Case 1. Density = 0.5 g/cm^3
Test Case 2. Density = 1.5 g/cm^3
Test Case 3. Density = 2.0 g/cm^3

TABLE A-8-3
PARTICLE DENSITY SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE CONCENTRATION
UNITS = ug/m^3/g/s

Distance (Km)	Base Case	0.5 g/cm^3	1.5 g/cm^3	2.0 g/cm^3
0.10	0.027	0.027	0.027	0.027
0.20	0.536	0.537	0.536	0.535
0.30	0.966	0.968	0.965	0.964
0.40	1.094	1.097	1.092	1.091
0.50	1.074	1.077	1.072	1.071
0.60	0.996	0.999	0.994	0.992
0.70	0.903	0.907	0.901	0.900
0.80	0.814	0.817	0.811	0.810
0.90	0.733	0.736	0.730	0.729
1.00	0.661	0.664	0.659	0.658
1.25	0.522	0.525	0.521	0.519
1.50	0.426	0.428	0.425	0.424
1.75	0.356	0.358	0.355	0.354
2.00	0.304	0.306	0.303	0.302
2.25	0.262	0.264	0.261	0.260
2.50	0.230	0.231	0.229	0.228
3.00	0.181	0.182	0.180	0.180
3.50	0.148	0.149	0.147	0.147
4.00	0.124	0.125	0.123	0.123
4.50	0.105	0.106	0.105	0.104
5.00	0.091	0.092	0.091	0.090
6.00	0.071	0.072	0.071	0.070
7.00	0.057	0.058	0.057	0.057
8.00	0.047	0.048	0.047	0.047
9.00	0.040	0.041	0.040	0.040
10.00	0.035	0.035	0.034	0.034
15.00	0.020	0.020	0.019	0.019
20.00	0.013	0.013	0.013	0.013
25.00	0.010	0.010	0.009	0.009
30.00	0.007	0.008	0.007	0.007
35.00	0.006	0.006	0.006	0.006
40.00	0.005	0.005	0.005	0.005
45.00	0.004	0.004	0.004	0.004
50.00	0.004	0.004	0.004	0.004

Notes.
Base Case Density = 1.0 g/cm^3 (Protocol Default)
Test Case 1: Density = 0.5 g/cm^3
Test Case 2: Density = 1.5 g/cm^3
Test Case 3: Density = 2.0 g/cm^3

TABLE A-8-4
PARTICLE DENSITY SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE CONCENTRATION

Distance (Km)	Base Case	0.5 g/cm^3	1.5 g/cm^3	2.0 g/cm^3
0.10	1.000	1.000	1.000	1.000
0.20	1.000	1.001	0.999	0.999
0.30	1.000	1.002	0.999	0.998
0.40	1.000	1.003	0.998	0.997
0.50	1.000	1.003	0.998	0.997
0.60	1.000	1.003	0.998	0.996
0.70	1.000	1.004	0.998	0.996
0.80	1.000	1.004	0.997	0.995
0.90	1.000	1.004	0.997	0.995
1.00	1.000	1.005	0.997	0.995
1.25	1.000	1.005	0.997	0.994
1.50	1.000	1.005	0.996	0.994
1.75	1.000	1.006	0.996	0.993
2.00	1.000	1.006	0.996	0.993
2.25	1.000	1.006	0.996	0.993
2.50	1.000	1.006	0.996	0.992
3.00	1.000	1.007	0.995	0.992
3.50	1.000	1.007	0.995	0.991
4.00	1.000	1.008	0.995	0.991
4.50	1.000	1.008	0.995	0.990
5.00	1.000	1.008	0.994	0.990
6.00	1.000	1.009	0.994	0.989
7.00	1.000	1.009	0.994	0.988
8.00	1.000	1.009	0.993	0.988
9.00	1.000	1.010	0.993	0.987
10.00	1.000	1.010	0.993	0.987
15.00	1.000	1.012	0.992	0.985
20.00	1.000	1.013	0.991	0.983
25.00	1.000	1.014	0.990	0.981
30.00	1.000	1.015	0.989	0.981
35.00	1.000	1.017	0.990	0.980
40.00	1.000	1.016	0.988	0.980
45.00	1.000	1.016	0.988	0.979
50.00	1.000	1.016	0.987	0.979

Notes
Base Case: Density = 1.0 g/cm^3 (Protocol Default)
Test Case 1: Density = 0.5 g/cm^3
Test Case 2: Density = 1.5 g/cm^3
Test Case 3: Density = 2.0 g/cm^3

TABLE A-8-5
PARTICLE DENSITY SENSITIVITY ANALYSIS
PARTICLE PHASE DRY DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Base Case	0.5 g/cm³	1.5 g/cm³	2.0 g/cm³
0.10	0.090	0.060	0.108	0.123
0.20	1.368	0.913	1.654	1.876
0.30	2.243	1.503	2.707	3.068
0.40	2.349	1.568	2.838	3.221
0.50	2.155	1.433	2.608	2.964
0.60	1.883	1.248	2.284	2.598
0.70	1.620	1.070	1.968	2.241
0.80	1.390	0.916	1.691	1.927
0.90	1.197	0.787	1.458	1.663
1.00	1.038	0.680	1.265	1.443
1.25	0.758	0.495	0.925	1.056
1.50	0.577	0.376	0.705	0.805
1.75	0.454	0.295	0.555	0.634
2.00	0.367	0.239	0.449	0.513
2.25	0.303	0.197	0.371	0.424
2.50	0.255	0.165	0.311	0.356
3.00	0.187	0.121	0.228	0.260
3.50	0.143	0.093	0.175	0.199
4.00	0.113	0.074	0.138	0.158
4.50	0.092	0.060	0.112	0.128
5.00	0.077	0.050	0.093	0.106
6.00	0.055	0.036	0.067	0.076
7.00	0.042	0.028	0.050	0.057
8.00	0.033	0.022	0.039	0.044
9.00	0.026	0.018	0.031	0.035
10.00	0.021	0.015	0.026	0.029
15.00	0.010	0.007	0.012	0.013
20.00	0.006	0.004	0.007	0.007
25.00	0.004	0.003	0.004	0.005
30.00	0.003	0.002	0.003	0.003
35.00	0.002	0.002	0.002	0.002
40.00	0.002	0.001	0.002	0.002
45.00	0.001	0.001	0.001	0.001
50.00	0.001	0.001	0.001	0.001

Notes:
Base Case. Density = 1.0 g/cm³ (Protocol Default)
Test Case 1: Density = 0.5 g/cm³
Test Case 2. Density = 1.5 g/cm³
Test Case 3: Density = 2.0 g/cm³

TABLE A-8-5
PARTICLE DENSITY SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE DRY DEPOSITION

Distance (Km)	Base Case	0.5 g/cm^3	1.5 g/cm^3	2.0 g/cm^3
0.10	1.000	0.666	1.209	1.371
0.20	1.000	0.667	1.209	1.371
0.30	1.000	0.670	1.207	1.368
0.40	1.000	0.668	1.208	1.371
0.50	1.000	0.665	1.210	1.375
0.60	1.000	0.663	1.212	1.379
0.70	1.000	0.661	1.215	1.383
0.80	1.000	0.659	1.216	1.386
0.90	1.000	0.657	1.218	1.388
1.00	1.000	0.656	1.219	1.390
1.25	1.000	0.653	1.221	1.394
1.50	1.000	0.652	1.223	1.397
1.75	1.000	0.651	1.224	1.398
2.00	1.000	0.650	1.224	1.398
2.25	1.000	0.650	1.224	1.399
2.50	1.000	0.650	1.223	1.398
3.00	1.000	0.650	1.222	1.396
3.50	1.000	0.652	1.221	1.393
4.00	1.000	0.654	1.219	1.389
4.50	1.000	0.656	1.217	1.384
5.00	1.000	0.657	1.215	1.380
6.00	1.000	0.661	1.210	1.370
7.00	1.000	0.665	1.206	1.360
8.00	1.000	0.670	1.202	1.350
9.00	1.000	0.673	1.197	1.339
10.00	1.000	0.677	1.192	1.328
15.00	1.000	0.695	1.170	1.280
20.00	1.000	0.713	1.150	1.235
25.00	1.000	0.726	1.129	1.189
30.00	1.000	0.741	1.106	1.150
35.00	1.000	0.756	1.088	1.117
40.00	1.000	0.774	1.075	1.088
45.00	1.000	0.781	1.055	1.063
50.00	1.000	0.830	1.060	1.090

Notes.
Base Case: Density = 1.0 g/cm^3 (Protocol Default)
Test Case 1: Density = 0.5 g/cm^3
Test Case 2: Density = 1.5 g/cm^3
Test Case 3: Density = 2.0 g/cm^3

TABLE A-8-7
PARTICLE DENSITY SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE DRY DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Base Case	0.5 g/cm³	1.5 g/cm³	2.0 g/cm³
0.10	0.016	0.010	0.020	0.024
0.20	0.236	0.147	0.302	0.359
0.30	0.387	0.243	0.496	0.588
0.40	0.406	0.255	0.519	0.616
0.50	0.373	0.234	0.477	0.567
0.60	0.327	0.205	0.418	0.497
0.70	0.282	0.177	0.361	0.429
0.80	0.243	0.152	0.311	0.369
0.90	0.209	0.132	0.268	0.318
1.00	0.182	0.115	0.233	0.277
1.25	0.134	0.084	0.171	0.203
1.50	0.102	0.065	0.131	0.155
1.75	0.081	0.051	0.104	0.123
2.00	0.066	0.042	0.084	0.100
2.25	0.055	0.035	0.070	0.083
2.50	0.046	0.029	0.059	0.070
3.00	0.034	0.022	0.043	0.051
3.50	0.026	0.017	0.034	0.040
4.00	0.021	0.014	0.027	0.032
4.50	0.017	0.011	0.022	0.026
5.00	0.014	0.009	0.018	0.021
6.00	0.011	0.007	0.013	0.016
7.00	0.008	0.005	0.010	0.012
8.00	0.006	0.004	0.008	0.009
9.00	0.005	0.004	0.006	0.007
10.00	0.004	0.003	0.005	0.006
15.00	0.002	0.001	0.003	0.003
20.00	0.001	0.001	0.002	0.002
25.00	0.001	0.001	0.001	0.001
30.00	0.001	0.000	0.001	0.001
35.00	0.000	0.000	0.001	0.001
40.00	0.000	0.000	0.000	0.000
45.00	0.000	0.000	0.000	0.000
50.00	0.000	0.000	0.000	0.000

Notes
Base Case. Density = 1.0 g/cm³ (Protocol Default)
Test Case 1: Density = 0.5 g/cm³
Test Case 2. Density = 1.5 g/cm³
Test Case 3: Density = 2.0 g/cm³

TABLE A-8-8
PARTICLE DENSITY SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE DRY DEPOSITION

Distance (Km)	Base Case	0.5 g/cm^3	1.5 g/cm^3	2.0 g/cm^3
0.10	1.000	0.623	1.281	1.521
0.20	1.000	0.625	1.281	1.521
0.30	1.000	0.626	1.279	1.518
0.40	1.000	0.626	1.279	1.518
0.50	1.000	0.626	1.279	1.519
0.60	1.000	0.628	1.280	1.520
0.70	1.000	0.628	1.280	1.520
0.80	1.000	0.629	1.280	1.521
0.90	1.000	0.629	1.281	1.521
1.00	1.000	0.629	1.280	1.520
1.25	1.000	0.630	1.280	1.519
1.50	1.000	0.632	1.279	1.518
1.75	1.000	0.633	1.278	1.516
2.00	1.000	0.635	1.277	1.513
2.25	1.000	0.636	1.276	1.511
2.50	1.000	0.638	1.274	1.508
3.00	1.000	0.641	1.271	1.503
3.50	1.000	0.645	1.268	1.498
4.00	1.000	0.648	1.266	1.491
4.50	1.000	0.651	1.262	1.486
5.00	1.000	0.654	1.260	1.480
6.00	1.000	0.660	1.255	1.470
7.00	1.000	0.665	1.250	1.458
8.00	1.000	0.671	1.246	1.448
9.00	1.000	0.674	1.239	1.437
10.00	1.000	0.680	1.234	1.427
15.00	1.000	0.698	1.217	1.387
20.00	1.000	0.719	1.203	1.352
25.00	1.000	0.736	1.184	1.322
30.00	1.000	0.734	1.156	1.281
35.00	1.000	0.755	1.163	1.265
40.00	1.000	0.769	1.154	1.256
45.00	1.000	0.781	1.156	1.250
50.00	1.000	0.808	1.154	1.269

Notes:
Base Case. Density = 1.0 g/cm^3 (Protocol Default)
Test Case 1: Density = 0.5 g/cm^3
Test Case 2: Density = 1.5 g/cm^3
Test Case 3: Density = 2.0 g/cm^3

TABLE A-8-9
PARTICLE DENSITY SENSITIVITY ANALYSIS
PARTICLE PHASE WET DEPOSITION
UNITS = $g/m^2/g/s$

Distance (Km)	Base Case	0.5 g/cm^3	1.5 g/cm^3	2.0 g/cm^3
0.10	3.611	3.611	3.611	3.611
0.20	1.680	1.680	1.680	1.680
0.30	1.040	1.040	1.039	1.039
0.40	0.723	0.723	0.722	0.722
0.50	0.537	0.538	0.532	0.532
0.60	0.417	0.419	0.416	0.416
0.70	0.335	0.337	0.334	0.333
0.80	0.276	0.277	0.274	0.273
0.90	0.231	0.233	0.230	0.229
1.00	0.197	0.199	0.196	0.195
1.25	0.139	0.141	0.138	0.137
1.50	0.104	0.106	0.103	0.102
1.75	0.081	0.083	0.080	0.079
2.00	0.065	0.066	0.064	0.063
2.25	0.053	0.055	0.052	0.052
2.50	0.044	0.046	0.044	0.043
3.00	0.032	0.033	0.032	0.031
3.50	0.025	0.026	0.024	0.024
4.00	0.019	0.020	0.019	0.019
4.50	0.016	0.016	0.015	0.015
5.00	0.013	0.013	0.013	0.012
6.00	0.009	0.010	0.009	0.009
7.00	0.007	0.007	0.007	0.006
8.00	0.005	0.006	0.005	0.005
9.00	0.004	0.004	0.004	0.004
10.00	0.003	0.004	0.003	0.003
15.00	0.002	0.002	0.001	0.001
20.00	0.001	0.001	0.001	0.001
25.00	0.001	0.001	0.001	0.000
30.00	0.000	0.000	0.000	0.000
35.00	0.000	0.000	0.000	0.000
40.00	0.000	0.000	0.000	0.000
45.00	0.000	0.000	0.000	0.000
50.00	0.000	0.000	0.000	0.000

Notes:
Base Case: Density = 1.0 g/cm^3 (Protocol Default)
Test Case 1: Density = 0.5 g/cm^3
Test Case 2: Density = 1.5 g/cm^3
Test Case 3: Density = 2.0 g/cm^3

TABLE A-8-10
PARTICLE DENSITY SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE WET DEPOSITION

Distance (Km)	Base Case	0.5 g/cm^3	1.5 g/cm^3	2.0 g/cm^3
0.10	1.000	1.000	1.000	1.000
0.20	1.000	1.000	1.000	1.000
0.30	1.000	1.000	1.000	1.000
0.40	1.000	1.001	0.999	0.999
0.50	1.000	1.002	0.999	0.997
0.60	1.000	1.004	0.998	0.996
0.70	1.000	1.005	0.997	0.994
0.80	1.000	1.007	0.996	0.992
0.90	1.000	1.009	0.995	0.990
1.00	1.000	1.010	0.994	0.989
1.25	1.000	1.014	0.991	0.984
1.50	1.000	1.017	0.989	0.980
1.75	1.000	1.020	0.987	0.977
2.00	1.000	1.023	0.985	0.973
2.25	1.000	1.026	0.984	0.971
2.50	1.000	1.028	0.982	0.968
3.00	1.000	1.031	0.980	0.964
3.50	1.000	1.035	0.978	0.960
4.00	1.000	1.038	0.976	0.957
4.50	1.000	1.040	0.975	0.954
5.00	1.000	1.043	0.973	0.952
6.00	1.000	1.046	0.971	0.948
7.00	1.000	1.050	0.969	0.945
8.00	1.000	1.051	0.968	0.942
9.00	1.000	1.055	0.967	0.941
10.00	1.000	1.055	0.965	0.939
15.00	1.000	1.059	0.961	0.928
20.00	1.000	1.059	0.953	0.929
25.00	1.000	1.075	0.962	0.925
30.00	1.000	1.083	0.972	0.917
35.00	1.000	1.077	0.962	0.923
40.00	1.000	1.105	0.947	0.947
45.00	1.000	1.067	0.933	0.933
50.00	1.000	1.083	0.917	0.917

Notes:
Base Case. Density = 1.0 g/cm^3 (Protocol Default)
Test Case 1: Density = 0.5 g/cm^3
Test Case 2: Density = 1.5 g/cm^3
Test Case 3: Density = 2.0 g/cm^3

TABLE A-8-11
PARTICLE DENSITY SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE WET DEPOSITION
UNITS = g/m²/g/s

Distance (Km)	Base Case	0.5 g/cm³	1.5 g/cm³	2.0 g/cm³
0.10	1.43996	1.43996	1.43996	1.43996
0.20	0.70064	0.70066	0.70063	0.70062
0.30	0.45262	0.4527	0.45257	0.45252
0.40	0.32746	0.32762	0.32735	0.32726
0.50	0.25273	0.25296	0.25257	0.25244
0.60	0.20343	0.20372	0.20323	0.20307
0.70	0.16869	0.16902	0.16847	0.16829
0.80	0.14303	0.14338	0.14279	0.14259
0.90	0.12339	0.12375	0.12314	0.12294
1.00	0.10794	0.10829	0.10768	0.105
1.25	0.08085	0.08119	0.0806	0.0804
1.50	0.06348	0.0638	0.06325	0.06305
1.75	0.05152	0.05181	0.05131	0.05113
2.00	0.04286	0.04313	0.04266	0.0425
2.25	0.03634	0.03658	0.03616	0.03601
2.50	0.03128	0.0315	0.03112	0.03098
3.00	0.02401	0.02419	0.02387	0.02376
3.50	0.01909	0.01924	0.01897	0.01887
4.00	0.01558	0.01571	0.01548	0.0154
4.50	0.01298	0.01309	0.01289	0.01282
5.00	0.01099	0.01109	0.01092	0.01085
6.00	0.00819	0.00827	0.00813	0.00808
7.00	0.00635	0.00641	0.0063	0.00626
8.00	0.00507	0.00512	0.00503	0.005
9.00	0.00414	0.00419	0.00411	0.00408
10.00	0.00345	0.00349	0.00342	0.0034
15.00	0.00167	0.00169	0.00165	0.00164
20.00	0.00098	0.00099	0.00097	0.00096
25.00	0.00064	0.00065	0.00064	0.00063
30.00	0.00045	0.00046	0.00045	0.00044
35.00	0.00033	0.00034	0.00033	0.00033
40.00	0.00025	0.00026	0.00025	0.00025
45.00	0.0002	0.0002	0.0002	0.0002
50.00	0.00016	0.00016	0.00016	0.00016

Notes:
Base Case. Density = 1.0 g/cm³ (Protocol Default)
Test Case 1: Density = 0.5 g/cm³
Test Case 2. Density = 1.5 g/cm³
Test Case 3: Density = 2.0 g/cm³

TABLE A-8-12
PARTICLE DENSITY SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE WET DEPOSITION

Distance (Km)	Base Case	0.5 g/cm^3	1.5 g/cm^3	2.0 g/cm^3
0.10	1.000	1.000	1.000	1.000
0.20	1.000	1.000	1.000	1.000
0.30	1.000	1.000	1.000	1.000
0.40	1.000	1.000	1.000	0.999
0.50	1.000	1.001	0.999	0.999
0.60	1.000	1.001	0.999	0.998
0.70	1.000	1.002	0.999	0.998
0.80	1.000	1.002	0.998	0.997
0.90	1.000	1.003	0.998	0.996
1.00	1.000	1.003	0.998	0.996
1.25	1.000	1.004	0.997	0.994
1.50	1.000	1.005	0.996	0.993
1.75	1.000	1.006	0.996	0.992
2.00	1.000	1.006	0.995	0.992
2.25	1.000	1.007	0.995	0.991
2.50	1.000	1.007	0.995	0.990
3.00	1.000	1.007	0.994	0.990
3.50	1.000	1.008	0.994	0.988
4.00	1.000	1.008	0.994	0.988
4.50	1.000	1.008	0.993	0.988
5.00	1.000	1.009	0.994	0.987
6.00	1.000	1.010	0.993	0.987
7.00	1.000	1.009	0.992	0.986
8.00	1.000	1.010	0.992	0.986
9.00	1.000	1.012	0.993	0.986
10.00	1.000	1.012	0.991	0.986
15.00	1.000	1.012	0.988	0.982
20.00	1.000	1.010	0.990	0.980
25.00	1.000	1.016	1.000	0.984
30.00	1.000	1.022	1.000	0.978
35.00	1.000	1.030	1.000	1.000
40.00	1.000	1.040	1.000	1.000
45.00	1.000	1.000	1.000	1.000
50.00	1.000	1.000	1.000	1.000

Notes:
Base Case: Density = 1.0 g/cm^3 (Protocol Default)
Test Case 1: Density = 0.5 g/cm^3
Test Case 2: Density = 1.5 g/cm^3
Test Case 3: Density = 2.0 g/cm^3

TABLE A-9-1
TERRAIN GRID SENSITIVITY ANALYSIS
PARTICLE PHASE CONCENTRATION
UNITS = μg/m³/g/s

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
0.0	0.00000	0.00000	0.00000	0.00000
0.5	0.89850	0.89853	0.89827	0.89863
1.0	0.52509	0.52505	0.52533	0.52545
1.5	0.31092	0.31026	0.31040	0.31036
2.0	0.25764	0.25778	0.25781	0.25784
2.5	0.21012	0.21051	0.21047	0.21050
3.0	0.14823	0.14795	0.14803	0.14799
3.5	0.19356	0.19405	0.19418	0.19418
4.0	0.10553	0.10537	0.10538	0.10538
4.5	0.13452	0.13451	0.13449	0.13450
5.0	0.11111	0.11143	0.11139	0.11140
5.5	0.10055	0.10045	0.10047	0.10047
6.0	0.08758	0.08759	0.08760	0.08759
6.5	0.07850	0.07830	0.07830	0.07831
7.0	0.06667	0.06670	0.06672	0.06672
7.5	0.04222	0.04238	0.04238	0.04238
8.0	0.03718	0.03734	0.03735	0.03734
8.5	0.03715	0.03722	0.03723	0.03723
9.0	0.03487	0.03492	0.03492	0.03492
9.5	0.02841	0.02851	0.02851	0.02851
10.0	0.02593	0.02604	0.02604	0.02605
10.5	0.02471	0.02475	0.02475	0.02475
11.0	0.02280	0.02282	0.02283	0.02283
11.5	0.02130	0.02132	0.02133	0.02132
12.0	0.02092	0.02093	0.02094	0.02094
12.5	0.01902	0.01903	0.01904	0.01904
13.0	0.01755	0.01754	0.01753	0.01753
13.5	0.01631	0.01631	0.01631	0.01630
14.0	0.01562	0.01558	0.01558	0.01558
14.5	0.01517	0.01510	0.01509	0.01508
15.0	0.01417	0.01414	0.01414	0.01414
15.5	0.01457	0.01450	0.01450	0.01452
16.0	0.01463	0.01457	0.01457	0.01457
16.5	0.01219	0.01219	0.01219	0.01219
17.0	0.01163	0.01163	0.01164	0.01163
17.5	0.01083	0.01084	0.01085	0.01084
18.0	0.01073	0.01072	0.01072	0.01072
18.5	0.01010	0.01009	0.01009	0.01009
19.0	0.00995	0.00992	0.00992	0.00992
19.5	0.00919	0.00918	0.00919	0.00919
20.0	0.00865	0.00867	0.00868	0.00868
20.5	0.00869	0.00867	0.00867	0.00868
21.0	0.00824	0.00822	0.00822	0.00822

TABLE A-9-1
TERRAIN GRID SENSITIVITY ANALYSIS
PARTICLE PHASE CONCENTRATION
UNITS = μg/m³/g/s

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
21.5	0.00821	0.00818	0.00818	0.00818
22.0	0.00795	0.00794	0.00794	0.00794
22.5	0.00740	0.00740	0.00740	0.00740
23.0	0.00732	0.00731	0.00732	0.00732
23.5	0.00689	0.00689	0.00690	0.00690
24.0	0.00650	0.00650	0.00650	0.00650
24.5	0.00650	0.00650	0.00650	0.00650
25.0	0.00626	0.00626	0.00626	0.00626
25.5	0.00616	0.00616	0.00616	0.00616
26.0	0.00585	0.00585	0.00586	0.00585
26.5	0.00556	0.00556	0.00556	0.00556
27.0	0.00564	0.00564	0.00564	0.00563
27.5	0.00546	0.00546	0.00546	0.00546
28.0	0.00513	0.00513	0.00513	0.00513
28.5	0.00492	0.00492	0.00492	0.00492
29.0	0.00490	0.00490	0.00490	0.00490
29.5	0.00494	0.00494	0.00494	0.00494
30.0	0.00474	0.00474	0.00474	0.00474
30.5	0.00460	0.00460	0.00460	0.00460
31.0	0.00454	0.00454	0.00454	0.00454
31.5	0.00437	0.00437	0.00437	0.00437
32.0	0.00417	0.00417	0.00417	0.00417
32.5	0.00413	0.00413	0.00413	0.00413
33.0	0.00407	0.00407	0.00407	0.00407
33.5	0.00405	0.00405	0.00404	0.00404
34.0	0.00380	0.00380	0.00380	0.00379
34.5	0.00380	0.00380	0.00380	0.00380
35.0	0.00368	0.00369	0.00369	0.00369
35.5	0.00358	0.00358	0.00358	0.00358
36.0	0.00362	0.00362	0.00362	0.00362
36.5	0.00356	0.00356	0.00356	0.00356
37.0	0.00339	0.00338	0.00338	0.00338
37.5	0.00325	0.00325	0.00325	0.00325
38.0	0.00333	0.00333	0.00333	0.00332
38.5	0.00324	0.00324	0.00324	0.00324
39.0	0.00313	0.00312	0.00312	0.00312
39.5	0.00313	0.00313	0.00313	0.00313
40.0	0.00313	0.00313	0.00313	0.00313
40.5	0.00300	0.00300	0.00300	0.00300
41.0	0.00296	0.00296	0.00296	0.00296
41.5	0.00296	0.00296	0.00296	0.00296
42.0	0.00281	0.00282	0.00282	0.00282
42.5	0.00275	0.00276	0.00276	0.00276

TABLE A-9-1
TERRAIN GRID SENSITIVITY ANALYSIS
PARTICLE PHASE CONCENTRATION
UNITS = μg/m³/g/s

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
43.0	0.00277	0.00277	0.00277	0.00277
43.5	0.00268	0.00268	0.00268	0.00268
44.0	0.00256	0.00256	0.00256	0.00256
44.5	0.00251	0.00251	0.00251	0.00251
45.0	0.00261	0.00262	0.00262	0.00262
45.5	0.00255	0.00256	0.00256	0.00256
46.0	0.00254	0.00255	0.00255	0.00255
46.5	0.00246	0.00247	0.00247	0.00247
47.0	0.00240	0.00240	0.00240	0.00240
47.5	0.00239	0.00239	0.00240	0.00239
48.0	0.00230	0.00231	0.00231	0.00231
48.5	0.00227	0.00227	0.00227	0.00227
49.0	0.00218	0.00218	0.00218	0.00218
49.5	0.00213	0.00213	0.00213	0.00213
50.0	0.00216	0.00216	0.00217	0.00217

Notes:

Base Case: 500 meter spaced receptor grid, no terrain grid

Test Case 1: 500 meter spaced receptor grid, 500 meter spaced terrain grid.

Test Case 2: 500 meter spaced receptor grid, 250 meter spaced terrain grid

Test Case 3: 500 meter spaced receptor grid, 100 meter spaced terrain grid

TABLE A-9-2
TERRAIN GRID SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE DRY DEPOSITION

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
22.0	1.00000	0.99237	0.99491	0.99237
22.5	1.00000	0.99728	0.99728	0.99728
23.0	1.00000	0.99720	0.99720	0.99720
23.5	1.00000	0.99703	1.00000	0.99703
24.0	1.00000	0.99686	1.00000	1.00000
24.5	1.00000	0.99679	0.99679	0.99679
25.0	1.00000	0.99666	0.99666	0.99666
25.5	1.00000	0.99655	1.00000	1.00000
26.0	1.00000	0.99638	1.00000	1.00000
26.5	1.00000	0.99620	0.99620	0.99620
27.0	1.00000	1.00000	1.00000	1.00000
27.5	1.00000	0.99602	0.99602	0.99602
28.0	1.00000	1.00000	1.00000	1.00000
28.5	1.00000	1.00000	1.00000	1.00000
29.0	1.00000	0.99552	0.99552	0.99552
29.5	1.00000	1.00000	1.00000	1.00000
30.0	1.00000	1.00000	1.00000	1.00000
30.5	1.00000	0.99510	1.00000	1.00000
31.0	1.00000	1.00000	1.00000	1.00000
31.5	1.00000	1.00000	1.00000	1.00000
32.0	1.00000	0.99457	0.99457	0.99457
32.5	1.00000	1.00000	0.99444	0.99444
33.0	1.00000	0.99432	0.99432	0.98864
33.5	1.00000	1.00000	0.99419	0.99419
34.0	1.00000	0.99390	0.99390	0.98780
34.5	1.00000	1.00000	1.00000	1.00000
35.0	1.00000	1.00000	1.00000	1.00000
35.5	1.00000	1.00000	1.00000	1.00000
36.0	1.00000	0.99333	0.99333	0.99333
36.5	1.00000	0.98639	0.98639	0.98639
37.0	1.00000	0.99286	0.99286	0.99286
37.5	1.00000	0.99259	1.00000	0.99259
38.0	1.00000	0.99259	1.00000	0.99259
38.5	1.00000	0.99237	0.99237	0.99237
39.0	1.00000	0.99213	0.98425	0.98425
39.5	1.00000	1.00000	1.00000	1.00000
40.0	1.00000	1.00000	1.00000	1.00000
40.5	1.00000	1.00000	1.00000	1.00000
41.0	1.00000	1.00000	1.00000	1.00000
41.5	1.00000	1.00000	1.00000	1.00000
42.0	1.00000	1.00000	1.00000	1.00000
42.5	1.00000	1.00000	1.00000	1.00000
43.0	1.00000	1.00000	1.00000	1.00000
43.5	1.00000	1.00000	1.00000	1.00000

TABLE A-9-2
TERRAIN GRID SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE DRY DEPOSITION

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
0.0	1.00000	1.00000	1.00000	1.00000
0.5	1.00000	1.00011	0.99900	1.00054
1.0	1.00000	0.99958	1.00163	1.00281
1.5	1.00000	0.99016	0.99318	0.99259
2.0	1.00000	1.00117	1.00191	1.00293
2.5	1.00000	1.00689	1.00533	1.00650
3.0	1.00000	0.99150	0.99448	0.99323
3.5	1.00000	1.00879	1.01149	1.01183
4.0	1.00000	0.99401	0.99451	0.99501
4.5	1.00000	0.99931	0.99793	0.99836
5.0	1.00000	1.01047	1.00782	1.00819
5.5	1.00000	0.99702	0.99702	0.99751
6.0	1.00000	1.00015	1.00000	1.00015
6.5	1.00000	0.99017	0.99000	0.99117
7.0	1.00000	1.00112	1.00202	1.00224
7.5	1.00000	1.01323	1.01356	1.01323
8.0	1.00000	1.01479	1.01517	1.01517
8.5	1.00000	1.00604	1.00644	1.00644
9.0	1.00000	1.00396	1.00396	1.00396
9.5	1.00000	1.01154	1.01154	1.01154
10.0	1.00000	1.01520	1.01520	1.01520
10.5	1.00000	1.00627	1.00627	1.00564
11.0	1.00000	1.00550	1.00619	1.00619
11.5	1.00000	1.00448	1.00522	1.00448
12.0	1.00000	1.00158	1.00236	1.00236
12.5	1.00000	1.00086	1.00173	1.00259
13.0	1.00000	1.00095	1.00095	1.00095
13.5	1.00000	1.00206	1.00206	1.00206
14.0	1.00000	0.99781	0.99781	0.99781
14.5	1.00000	0.98630	0.98630	0.98516
15.0	1.00000	0.99506	0.99506	0.99506
15.5	1.00000	0.98500	0.98500	0.98750
16.0	1.00000	0.98465	0.98465	0.98465
16.5	1.00000	0.99851	1.00149	1.00149
17.0	1.00000	1.00000	1.00315	1.00158
17.5	1.00000	1.00170	1.00509	1.00509
18.0	1.00000	0.99650	0.99825	0.99825
18.5	1.00000	0.99813	0.99813	1.00000
19.0	1.00000	0.99038	0.99038	0.99038
19.5	1.00000	1.00000	1.00208	1.00000
20.0	1.00000	1.00665	1.00665	1.00665
20.5	1.00000	0.99549	0.99549	0.99549
21.0	1.00000	0.99523	0.99523	0.99523
21.5	1.00000	0.99267	0.99267	0.99267

TABLE A-9-2
TERRAIN GRID SENSITIVITY ANALYSIS
NORMALIZED PARTICLE PHASE DRY DEPOSITION

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
44.0	1.00000	1.00000	1.00000	1.00000
44.5	1.00000	1.00000	1.00000	1.00000
45.0	1.00000	1.00000	1.00000	1.00000
45.5	1.00000	1.01042	1.01042	1.01042
46.0	1.00000	1.00000	1.00000	1.00000
46.5	1.00000	1.00000	1.00000	1.00000
47.0	1.00000	1.00000	1.01124	1.01124
47.5	1.00000	1.00000	1.00000	1.00000
48.0	1.00000	1.00000	1.00000	1.00000
48.5	1.00000	1.00000	1.00000	1.00000
49.0	1.00000	1.00000	1.00000	1.00000
49.5	1.00000	1.00000	1.00000	1.00000
50.0	1.00000	1.00000	1.01299	1.01299

Notes:

Base Case. 500 meter spaced receptor grid, no terrain grid

Test Case 1. 500 meter spaced receptor grid, 500 meter spaced terrain grid

Test Case 2: 500 meter spaced receptor grid, 250 meter spaced terrain grid

Test Case 3: 500 meter spaced receptor grid, 100 meter spaced terrain grid.

TABLE A-9-3
TERRAIN GRID SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE CONCENTRATION
UNITS = μg/m³/g/s

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
0.0	0.00000	0.00000	0.00000	0.00000
0.5	0.94236	0.94237	0.94232	0.94239
1.0	0.56055	0.56054	0.56060	0.56062
1.5	0.33428	0.33416	0.33418	0.33418
2.0	0.27757	0.27759	0.27760	0.27760
2.5	0.22727	0.22734	0.22733	0.22734
3.0	0.16105	0.16100	0.16101	0.16100
3.5	0.21077	0.21087	0.21089	0.21089
4.0	0.11560	0.11556	0.11557	0.11557
4.5	0.14777	0.14777	0.14777	0.14777
5.0	0.12228	0.12235	0.12234	0.12235
5.5	0.11130	0.11128	0.11128	0.11129
6.0	0.09717	0.09717	0.09717	0.09717
6.5	0.08747	0.08743	0.08743	0.08743
7.0	0.07434	0.07434	0.07435	0.07435
7.5	0.04829	0.04833	0.04833	0.04833
8.0	0.04278	0.04282	0.04282	0.04282
8.5	0.04246	0.04248	0.04248	0.04248
9.0	0.03990	0.03991	0.03991	0.03991
9.5	0.03295	0.03298	0.03298	0.03298
10.0	0.03020	0.03022	0.03022	0.03022
10.5	0.02876	0.02876	0.02877	0.02877
11.0	0.02662	0.02662	0.02663	0.02662
11.5	0.02493	0.02493	0.02493	0.02493
12.0	0.02442	0.02442	0.02442	0.02442
12.5	0.02233	0.02233	0.02233	0.02233
13.0	0.02070	0.02070	0.02070	0.02070
13.5	0.01933	0.01932	0.01932	0.01932
14.0	0.01852	0.01850	0.01850	0.01850
14.5	0.01794	0.01793	0.01793	0.01792
15.0	0.01685	0.01684	0.01683	0.01684
15.5	0.01719	0.01718	0.01718	0.01718
16.0	0.01723	0.01722	0.01722	0.01722
16.5	0.01458	0.01458	0.01458	0.01458
17.0	0.01394	0.01394	0.01394	0.01394
17.5	0.01303	0.01303	0.01303	0.01303
18.0	0.01290	0.01289	0.01289	0.01289
18.5	0.01217	0.01217	0.01217	0.01217
19.0	0.01199	0.01197	0.01197	0.01197
19.5	0.01112	0.01112	0.01112	0.01112
20.0	0.01050	0.01050	0.01050	0.01051
20.5	0.01054	0.01053	0.01053	0.01053
21.0	0.01001	0.01001	0.01001	0.01001

TABLE A-9-3
TERRAIN GRID SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE CONCENTRATION
UNITS = µg/m³/g/s

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
21.5	0.00996	0.00995	0.00995	0.00995
22.0	0.00967	0.00966	0.00966	0.00966
22.5	0.00904	0.00904	0.00904	0.00904
23.0	0.00894	0.00893	0.00893	0.00893
23.5	0.00844	0.00844	0.00844	0.00844
24.0	0.00797	0.00797	0.00797	0.00797
24.5	0.00798	0.00798	0.00797	0.00797
25.0	0.00770	0.00770	0.00769	0.00769
25.5	0.00758	0.00757	0.00757	0.00757
26.0	0.00721	0.00721	0.00721	0.00721
26.5	0.00687	0.00687	0.00687	0.00687
27.0	0.00696	0.00695	0.00695	0.00695
27.5	0.00675	0.00674	0.00675	0.00675
28.0	0.00635	0.00635	0.00635	0.00635
28.5	0.00610	0.00610	0.00610	0.00610
29.0	0.00608	0.00608	0.00608	0.00608
29.5	0.00613	0.00613	0.00613	0.00613
30.0	0.00588	0.00588	0.00588	0.00588
30.5	0.00572	0.00572	0.00572	0.00572
31.0	0.00565	0.00565	0.00565	0.00565
31.5	0.00545	0.00545	0.00545	0.00545
32.0	0.00520	0.00520	0.00520	0.00520
32.5	0.00516	0.00516	0.00516	0.00516
33.0	0.00509	0.00509	0.00509	0.00509
33.5	0.00506	0.00506	0.00506	0.00506
34.0	0.00476	0.00476	0.00476	0.00476
34.5	0.00476	0.00476	0.00476	0.00476
35.0	0.00462	0.00463	0.00462	0.00462
35.5	0.00450	0.00450	0.00450	0.00450
36.0	0.00455	0.00455	0.00455	0.00455
36.5	0.00448	0.00448	0.00448	0.00448
37.0	0.00427	0.00426	0.00426	0.00426
37.5	0.00410	0.00410	0.00410	0.00410
38.0	0.00420	0.00420	0.00420	0.00420
38.5	0.00409	0.00409	0.00409	0.00409
39.0	0.00395	0.00395	0.00395	0.00395
39.5	0.00395	0.00395	0.00395	0.00395
40.0	0.00395	0.00395	0.00395	0.00395
40.5	0.00380	0.00380	0.00380	0.00380
41.0	0.00376	0.00376	0.00376	0.00376
41.5	0.00375	0.00375	0.00375	0.00375
42.0	0.00357	0.00357	0.00357	0.00357
42.5	0.00350	0.00350	0.00350	0.00350

TABLE A-9-3
TERRAIN GRID SENSITIVITY ANALYSIS
PARTICLE-BOUND PHASE CONCENTRATION
UNITS = µg/m³/g/s

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
43.0	0.00352	0.00352	0.00352	0.00352
43.5	0.00341	0.00341	0.00341	0.00341
44.0	0.00326	0.00326	0.00326	0.00326
44.5	0.00320	0.00320	0.00320	0.00320
45.0	0.00333	0.00333	0.00333	0.00333
45.5	0.00326	0.00326	0.00326	0.00326
46.0	0.00324	0.00325	0.00325	0.00325
46.5	0.00315	0.00315	0.00315	0.00315
47.0	0.00306	0.00307	0.00307	0.00307
47.5	0.00306	0.00306	0.00306	0.00306
48.0	0.00296	0.00296	0.00296	0.00296
48.5	0.00291	0.00292	0.00292	0.00292
49.0	0.00281	0.00281	0.00281	0.00281
49.5	0.00274	0.00274	0.00274	0.00274
50.0	0.00278	0.00278	0.00278	0.00279

Notes

Base Case. 500 meter spaced receptor grid, no terrain grid.

Test Case 1: 500 meter spaced receptor grid, 500 meter spaced terrain grid

Test Case 2: 500 meter spaced receptor grid, 250 meter spaced terrain grid

Test Case 3: 500 meter spaced receptor grid, 100 meter spaced terrain grid

TABLE A-9-4
TERRAIN GRID SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE CONCENTRATION

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
0.0	1.00000	1.00000	1.00000	1.00000
0.5	1.00000	1.00001	0.99996	1.00003
1.0	1.00000	0.99998	1.00009	1.00012
1.5	1.00000	0.99964	0.99970	0.99970
2.0	1.00000	1.00007	1.00011	1.00011
2.5	1.00000	1.00031	1.00026	1.00031
3.0	1.00000	0.99969	0.99975	0.99969
3.5	1.00000	1.00047	1.00057	1.00057
4.0	1.00000	0.99965	0.99974	0.99974
4.5	1.00000	1.00000	1.00000	1.00000
5.0	1.00000	1.00057	1.00049	1.00057
5.5	1.00000	0.99982	0.99982	0.99991
6.0	1.00000	1.00000	1.00000	1.00000
6.5	1.00000	0.99954	0.99954	0.99954
7.0	1.00000	1.00000	1.00013	1.00013
7.5	1.00000	1.00083	1.00083	1.00083
8.0	1.00000	1.00094	1.00094	1.00094
8.5	1.00000	1.00047	1.00047	1.00047
9.0	1.00000	1.00025	1.00025	1.00025
9.5	1.00000	1.00091	1.00091	1.00091
10.0	1.00000	1.00066	1.00066	1.00066
10.5	1.00000	1.00000	1.00035	1.00035
11.0	1.00000	1.00000	1.00038	1.00000
11.5	1.00000	1.00000	1.00000	1.00000
12.0	1.00000	1.00000	1.00000	1.00000
12.5	1.00000	1.00000	1.00000	1.00000
13.0	1.00000	1.00000	1.00000	1.00000
13.5	1.00000	0.99948	0.99948	0.99948
14.0	1.00000	0.99892	0.99892	0.99892
14.5	1.00000	0.99944	0.99944	0.99889
15.0	1.00000	0.99941	0.99881	0.99941
15.5	1.00000	0.99942	0.99942	0.99942
16.0	1.00000	0.99942	0.99942	0.99942
16.5	1.00000	1.00000	1.00000	1.00000
17.0	1.00000	1.00000	1.00000	1.00000
17.5	1.00000	1.00000	1.00000	1.00000
18.0	1.00000	0.99922	0.99922	0.99922
18.5	1.00000	1.00000	1.00000	1.00000
19.0	1.00000	0.99833	0.99833	0.99833
19.5	1.00000	1.00000	1.00000	1.00000
20.0	1.00000	1.00000	1.00000	1.00095
20.5	1.00000	0.99905	0.99905	0.99905
21.0	1.00000	1.00000	1.00000	1.00000
21.5	1.00000	0.99900	0.99900	0.99900

TABLE A-9-4
TERRAIN GRID SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE CONCENTRATION

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
22.0	1.00000	0.99897	0.99897	0.99897
22.5	1.00000	1.00000	1.00000	1.00000
23.0	1.00000	0.99888	0.99888	0.99888
23.5	1.00000	1.00000	1.00000	1.00000
24.0	1.00000	1.00000	1.00000	1.00000
24.5	1.00000	1.00000	0.99875	0.99875
25.0	1.00000	1.00000	0.99870	0.99870
25.5	1.00000	0.99868	0.99868	0.99868
26.0	1.00000	1.00000	1.00000	1.00000
26.5	1.00000	1.00000	1.00000	1.00000
27.0	1.00000	0.99856	0.99856	0.99856
27.5	1.00000	0.99852	1.00000	1.00000
28.0	1.00000	1.00000	1.00000	1.00000
28.5	1.00000	1.00000	1.00000	1.00000
29.0	1.00000	1.00000	1.00000	1.00000
29.5	1.00000	1.00000	1.00000	1.00000
30.0	1.00000	1.00000	1.00000	1.00000
30.5	1.00000	1.00000	1.00000	1.00000
31.0	1.00000	1.00000	1.00000	1.00000
31.5	1.00000	1.00000	1.00000	1.00000
32.0	1.00000	1.00000	1.00000	1.00000
32.5	1.00000	1.00000	1.00000	1.00000
33.0	1.00000	1.00000	1.00000	1.00000
33.5	1.00000	1.00000	1.00000	1.00000
34.0	1.00000	1.00000	1.00000	1.00000
34.5	1.00000	1.00000	1.00000	1.00000
35.0	1.00000	1.00216	1.00000	1.00000
35.5	1.00000	1.00000	1.00000	1.00000
36.0	1.00000	1.00000	1.00000	1.00000
36.5	1.00000	1.00000	1.00000	1.00000
37.0	1.00000	0.99766	0.99766	0.99766
37.5	1.00000	1.00000	1.00000	1.00000
38.0	1.00000	1.00000	1.00000	1.00000
38.5	1.00000	1.00000	1.00000	1.00000
39.0	1.00000	1.00000	1.00000	1.00000
39.5	1.00000	1.00000	1.00000	1.00000
40.0	1.00000	1.00000	1.00000	1.00000
40.5	1.00000	1.00000	1.00000	1.00000
41.0	1.00000	1.00000	1.00000	1.00000
41.5	1.00000	1.00000	1.00000	1.00000
42.0	1.00000	1.00000	1.00000	1.00000
42.5	1.00000	1.00000	1.00000	1.00000
43.0	1.00000	1.00000	1.00000	1.00000
43.5	1.00000	1.00000	1.00000	1.00000

TABLE A-9-4
TERRAIN GRID SENSITIVITY ANALYSIS
NORMALIZED PARTICLE-BOUND PHASE CONCENTRATION

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
44.0	1.00000	1.00000	1.00000	1.00000
44.5	1.00000	1.00000	1.00000	1.00000
45.0	1.00000	1.00000	1.00000	1.00000
45.5	1.00000	1.00000	1.00000	1.00000
46.0	1.00000	1.00309	1.00309	1.00309
46.5	1.00000	1.00000	1.00000	1.00000
47.0	1.00000	1.00327	1.00327	1.00327
47.5	1.00000	1.00000	1.00000	1.00000
48.0	1.00000	1.00000	1.00000	1.00000
48.5	1.00000	1.00344	1.00344	1.00344
49.0	1.00000	1.00000	1.00000	1.00000
49.5	1.00000	1.00000	1.00000	1.00000
50.0	1.00000	1.00000	1.00000	1.00360

Notes:

Base Case: 500 meter spaced receptor grid, no terrain grid

Test Case 1: 500 meter spaced receptor grid, 500 meter spaced terrain grid

Test Case 2: 500 meter spaced receptor grid, 250 meter spaced terrain grid

Test Case 3: 500 meter spaced receptor grid, 100 meter spaced terrain grid.

TABLE A-9-5
TERRAIN GRID SENSITIVITY ANALYSIS
VAPOR PHASE CONCENTRATION
UNITS = $\mu g/m^3/g/s$

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
0.0	0.00000	0.00000	0.00000	0.00000
0.5	0.95179	0.95179	0.95179	0.95179
1.0	0.56774	0.56774	0.56774	0.56774
1.5	0.33901	0.33901	0.33901	0.33901
2.0	0.28176	0.28176	0.28176	0.28176
2.5	0.23100	0.23100	0.23100	0.23100
3.0	0.16382	0.16382	0.16382	0.16382
3.5	0.21468	0.21468	0.21468	0.21468
4.0	0.11784	0.11784	0.11784	0.11784
4.5	0.15083	0.15083	0.15083	0.15083
5.0	0.12493	0.12493	0.12493	0.12493
5.5	0.11382	0.11382	0.11382	0.11382
6.0	0.09943	0.09943	0.09943	0.09943
6.5	0.08960	0.08960	0.08960	0.08960
7.0	0.07621	0.07621	0.07621	0.07621
7.5	0.04975	0.04975	0.04975	0.04975
8.0	0.04412	0.04412	0.04412	0.04412
8.5	0.04376	0.04376	0.04376	0.04376
9.0	0.04113	0.04113	0.04113	0.04113
9.5	0.03406	0.03406	0.03406	0.03406
10.0	0.03124	0.03124	0.03124	0.03124
10.5	0.02975	0.02975	0.02975	0.02975
11.0	0.02756	0.02756	0.02756	0.02756
11.5	0.02583	0.02583	0.02583	0.02583
12.0	0.02530	0.02530	0.02530	0.02530
12.5	0.02315	0.02315	0.02315	0.02315
13.0	0.02150	0.02150	0.02150	0.02150
13.5	0.02009	0.02009	0.02009	0.02009
14.0	0.01925	0.01925	0.01925	0.01925
14.5	0.01865	0.01865	0.01865	0.01865
15.0	0.01753	0.01753	0.01753	0.01753
15.5	0.01787	0.01787	0.01787	0.01787
16.0	0.01791	0.01791	0.01791	0.01791
16.5	0.01520	0.01520	0.01520	0.01520
17.0	0.01454	0.01454	0.01454	0.01454
17.5	0.01360	0.01360	0.01360	0.01360
18.0	0.01346	0.01346	0.01346	0.01346
18.5	0.01272	0.01272	0.01272	0.01272
19.0	0.01253	0.01253	0.01253	0.01253
19.5	0.01164	0.01164	0.01164	0.01164
20.0	0.01099	0.01099	0.01099	0.01099
20.5	0.01103	0.01103	0.01103	0.01103
21.0	0.01049	0.01049	0.01049	0.01049

TABLE A-9-5
TERRAIN GRID SENSITIVITY ANALYSIS
VAPOR PHASE CONCENTRATION
UNITS = $\mu g/m^3/g/s$

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
21.5	0.01044	0.01044	0.01044	0.01044
22.0	0.01013	0.01013	0.01013	0.01013
22.5	0.00948	0.00948	0.00948	0.00948
23.0	0.00937	0.00937	0.00937	0.00937
23.5	0.00886	0.00886	0.00886	0.00886
24.0	0.00838	0.00838	0.00838	0.00838
24.5	0.00838	0.00838	0.00838	0.00838
25.0	0.00809	0.00809	0.00809	0.00809
25.5	0.00797	0.00797	0.00797	0.00797
26.0	0.00759	0.00759	0.00759	0.00759
26.5	0.00723	0.00723	0.00723	0.00723
27.0	0.00732	0.00732	0.00732	0.00732
27.5	0.00711	0.00711	0.00711	0.00711
28.0	0.00670	0.00670	0.00670	0.00670
28.5	0.00644	0.00644	0.00644	0.00644
29.0	0.00641	0.00641	0.00641	0.00641
29.5	0.00646	0.00646	0.00646	0.00646
30.0	0.00621	0.00621	0.00621	0.00621
30.5	0.00604	0.00604	0.00604	0.00604
31.0	0.00597	0.00597	0.00597	0.00597
31.5	0.00576	0.00576	0.00576	0.00576
32.0	0.00550	0.00550	0.00550	0.00550
32.5	0.00545	0.00545	0.00545	0.00545
33.0	0.00538	0.00538	0.00538	0.00538
33.5	0.00535	0.00535	0.00535	0.00535
34.0	0.00504	0.00504	0.00504	0.00504
34.5	0.00504	0.00504	0.00504	0.00504
35.0	0.00490	0.00490	0.00490	0.00490
35.5	0.00477	0.00477	0.00477	0.00477
36.0	0.00482	0.00482	0.00482	0.00482
36.5	0.00475	0.00475	0.00475	0.00475
37.0	0.00452	0.00452	0.00452	0.00452
37.5	0.00435	0.00435	0.00435	0.00435
38.0	0.00445	0.00445	0.00445	0.00445
38.5	0.00434	0.00434	0.00434	0.00434
39.0	0.00419	0.00419	0.00419	0.00419
39.5	0.00420	0.00420	0.00420	0.00420
40.0	0.00420	0.00420	0.00420	0.00420
40.5	0.00404	0.00404	0.00404	0.00404
41.0	0.00400	0.00400	0.00400	0.00400
41.5	0.00399	0.00399	0.00399	0.00399
42.0	0.00380	0.00380	0.00380	0.00380
42.5	0.00372	0.00372	0.00372	0.00372

TABLE A-9-5
TERRAIN GRID SENSITIVITY ANALYSIS
VAPOR PHASE CONCENTRATION
UNITS = µg/m³/g/s

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
43.0	0.00374	0.00374	0.00374	0.00374
43.5	0.00363	0.00363	0.00363	0.00363
44.0	0.00347	0.00347	0.00347	0.00347
44.5	0.00341	0.00341	0.00341	0.00341
45.0	0.00355	0.00355	0.00355	0.00355
45.5	0.00347	0.00347	0.00347	0.00347
46.0	0.00346	0.00346	0.00346	0.00346
46.5	0.00336	0.00336	0.00336	0.00336
47.0	0.00327	0.00327	0.00327	0.00327
47.5	0.00327	0.00327	0.00327	0.00327
48.0	0.00316	0.00316	0.00316	0.00316
48.5	0.00311	0.00311	0.00311	0.00311
49.0	0.00300	0.00300	0.00300	0.00300
49.5	0.00293	0.00293	0.00293	0.00293
50.0	0.00298	0.00298	0.00298	0.00298

Notes:

Base Case: 500 meter spaced receptor grid, no terrain grid

Test Case 1: 500 meter spaced receptor grid, 500 meter spaced terrain grid

Test Case 2: 500 meter spaced receptor grid, 250 meter spaced terrain grid

Test Case 3: 500 meter spaced receptor grid, 100 meter spaced terrain grid

TABLE A-9-6
TERRAIN GRID SENSITIVITY ANALYSIS
NORMALIZED VAPOR PHASE WET DEPOSITION

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
0.0	1.00000	1.00000	1.00000	1.00000
0.5	1.00000	1.00000	1.00000	1.00000
1.0	1.00000	1.00000	1.00000	1.00000
1.5	1.00000	1.00000	1.00000	1.00000
2.0	1.00000	1.00000	1.00000	1.00000
2.5	1.00000	1.00000	1.00000	1.00000
3.0	1.00000	1.00000	1.00000	1.00000
3.5	1.00000	1.00000	1.00000	1.00000
4.0	1.00000	1.00000	1.00000	1.00000
4.5	1.00000	1.00000	1.00000	1.00000
5.0	1.00000	1.00000	1.00000	1.00000
5.5	1.00000	1.00000	1.00000	1.00000
6.0	1.00000	1.00000	1.00000	1.00000
6.5	1.00000	1.00000	1.00000	1.00000
7.0	1.00000	1.00000	1.00000	1.00000
7.5	1.00000	1.00000	1.00000	1.00000
8.0	1.00000	1.00000	1.00000	1.00000
8.5	1.00000	1.00000	1.00000	1.00000
9.0	1.00000	1.00000	1.00000	1.00000
9.5	1.00000	1.00000	1.00000	1.00000
10.0	1.00000	1.00000	1.00000	1.00000
10.5	1.00000	1.00000	1.00000	1.00000
11.0	1.00000	1.00000	1.00000	1.00000
11.5	1.00000	1.00000	1.00000	1.00000
12.0	1.00000	1.00000	1.00000	1.00000
12.5	1.00000	1.00000	1.00000	1.00000
13.0	1.00000	1.00000	1.00000	1.00000
13.5	1.00000	1.00000	1.00000	1.00000
14.0	1.00000	1.00000	1.00000	1.00000
14.5	1.00000	1.00000	1.00000	1.00000
15.0	1.00000	1.00000	1.00000	1.00000
15.5	1.00000	1.00000	1.00000	1.00000
16.0	1.00000	1.00000	1.00000	1.00000
16.5	1.00000	1.00000	1.00000	1.00000
17.0	1.00000	1.00000	1.00000	1.00000
17.5	1.00000	1.00000	1.00000	1.00000
18.0	1.00000	1.00000	1.00000	1.00000
18.5	1.00000	1.00000	1.00000	1.00000
19.0	1.00000	1.00000	1.00000	1.00000
19.5	1.00000	1.00000	1.00000	1.00000
20.0	1.00000	1.00000	1.00000	1.00000
20.5	1.00000	1.00000	1.00000	1.00000
21.0	1.00000	1.00000	1.00000	1.00000
21.5	1.00000	1.00000	1.00000	1.00000

TABLE A-9-6
TERRAIN GRID SENSITIVITY ANALYSIS
NORMALIZED VAPOR PHASE WET DEPOSITION

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
22.0	1.00000	1.00000	1.00000	1.00000
22.5	1.00000	1.00000	1.00000	1.00000
23.0	1.00000	1.00000	1.00000	1.00000
23.5	1.00000	1.00000	1.00000	1.00000
24.0	1.00000	1.00000	1.00000	1.00000
24.5	1.00000	1.00000	1.00000	1.00000
25.0	1.00000	1.00000	1.00000	1.00000
25.5	1.00000	1.00000	1.00000	1.00000
26.0	1.00000	1.00000	1.00000	1.00000
26.5	1.00000	1.00000	1.00000	1.00000
27.0	1.00000	1.00000	1.00000	1.00000
27.5	1.00000	1.00000	1.00000	1.00000
28.0	1.00000	1.00000	1.00000	1.00000
28.5	1.00000	1.00000	1.00000	1.00000
29.0	1.00000	1.00000	1.00000	1.00000
29.5	1.00000	1.00000	1.00000	1.00000
30.0	1.00000	1.00000	1.00000	1.00000
30.5	1.00000	1.00000	1.00000	1.00000
31.0	1.00000	1.00000	1.00000	1.00000
31.5	1.00000	1.00000	1.00000	1.00000
32.0	1.00000	1.00000	1.00000	1.00000
32.5	1.00000	1.00000	1.00000	1.00000
33.0	1.00000	1.00000	1.00000	1.00000
33.5	1.00000	1.00000	1.00000	1.00000
34.0	1.00000	1.00000	1.00000	1.00000
34.5	1.00000	1.00000	1.00000	1.00000
35.0	1.00000	1.00000	1.00000	1.00000
35.5	1.00000	1.00000	1.00000	1.00000
36.0	1.00000	1.00000	1.00000	1.00000
36.5	1.00000	1.00000	1.00000	1.00000
37.0	1.00000	1.00000	1.00000	1.00000
37.5	1.00000	1.00000	1.00000	1.00000
38.0	1.00000	1.00000	1.00000	1.00000
38.5	1.00000	1.00000	1.00000	1.00000
39.0	1.00000	1.00000	1.00000	1.00000
39.5	1.00000	1.00000	1.00000	1.00000
40.0	1.00000	1.00000	1.00000	1.00000
40.5	1.00000	1.00000	1.00000	1.00000
41.0	1.00000	1.00000	1.00000	1.00000
41.5	1.00000	1.00000	1.00000	1.00000
42.0	1.00000	1.00000	1.00000	1.00000
42.5	1.00000	1.00000	1.00000	1.00000
43.0	1.00000	1.00000	1.00000	1.00000
43.5	1.00000	1.00000	1.00000	1.00000

TABLE A-9-6
TERRAIN GRID SENSITIVITY ANALYSIS
NORMALIZED VAPOR PHASE WET DEPOSITION

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
44.0	1.00000	1.00000	1.00000	1.00000
44.5	1.00000	1.00000	1.00000	1.00000
45.0	1.00000	1.00000	1.00000	1.00000
45.5	1.00000	1.00000	1.00000	1.00000
46.0	1.00000	1.00000	1.00000	1.00000
46.5	1.00000	1.00000	1.00000	1.00000
47.0	1.00000	1.00000	1.00000	1.00000
47.5	1.00000	1.00000	1.00000	1.00000
48.0	1.00000	1.00000	1.00000	1.00000
48.5	1.00000	1.00000	1.00000	1.00000
49.0	1.00000	1.00000	1.00000	1.00000
49.5	1.00000	1.00000	1.00000	1.00000
50.0	1.00000	1.00000	1.00000	1.00000

Notes:

Base Case: 500 meter spaced receptor grid, no terrain grid.

Test Case 1: 500 meter spaced receptor grid, 500 meter spaced terrain grid

Test Case 2: 500 meter spaced receptor grid, 250 meter spaced terrain grid.

Test Case 3: 500 meter spaced receptor grid, 100 meter spaced terrain grid.

TABLE A-9-7
TERRAIN GRID SENSITIVITY ANALYSIS
PARTICLE PHASE DRY DEPOSITION
UNITS = g/m²/g/s

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
0.0	0.00000	0.00000	0.00000	0.00000
0.5	2.08634	2.08656	2.08425	2.08747
1.0	0.91562	0.91524	0.91711	0.91819
1.5	0.47370	0.46904	0.47047	0.47019
2.0	0.32415	0.32453	0.32477	0.32510
2.5	0.23090	0.23249	0.23213	0.23240
3.0	0.16109	0.15972	0.16020	0.16000
3.5	0.17412	0.17565	0.17612	0.17618
4.0	0.10014	0.09954	0.09959	0.09964
4.5	0.11575	0.11567	0.11551	0.11556
5.0	0.08307	0.08394	0.08372	0.08375
5.5	0.08041	0.08017	0.08017	0.08021
6.0	0.06543	0.06544	0.06543	0.06544
6.5	0.06001	0.05942	0.05941	0.05948
7.0	0.04461	0.04466	0.04470	0.04471
7.5	0.03023	0.03063	0.03064	0.03063
8.0	0.02637	0.02676	0.02677	0.02677
8.5	0.02484	0.02499	0.02500	0.02500
9.0	0.02273	0.02282	0.02282	0.02282
9.5	0.01906	0.01928	0.01928	0.01928
10.0	0.01711	0.01737	0.01737	0.01737
10.5	0.01596	0.01606	0.01606	0.01605
11.0	0.01455	0.01463	0.01464	0.01464
11.5	0.01340	0.01346	0.01347	0.01346
12.0	0.01269	0.01271	0.01272	0.01272
12.5	0.01157	0.01158	0.01159	0.01160
13.0	0.01055	0.01056	0.01056	0.01056
13.5	0.00971	0.00973	0.00973	0.00973
14.0	0.00914	0.00912	0.00912	0.00912
14.5	0.00876	0.00864	0.00864	0.00863
15.0	0.00809	0.00805	0.00805	0.00805
15.5	0.00800	0.00788	0.00788	0.00790
16.0	0.00782	0.00770	0.00770	0.00770
16.5	0.00672	0.00671	0.00673	0.00673
17.0	0.00634	0.00634	0.00636	0.00635
17.5	0.00589	0.00590	0.00592	0.00592
18.0	0.00572	0.00570	0.00571	0.00571
18.5	0.00536	0.00535	0.00535	0.00536
19.0	0.00520	0.00515	0.00515	0.00515
19.5	0.00480	0.00480	0.00481	0.00480
20.0	0.00451	0.00454	0.00454	0.00454
20.5	0.00443	0.00441	0.00441	0.00441
21.0	0.00419	0.00417	0.00417	0.00417

TABLE A-9-7
TERRAIN GRID SENSITIVITY ANALYSIS
PARTICLE PHASE DRY DEPOSITION
UNITS = g/m²/g/s

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
21.5	0.00409	0.00406	0.00406	0.00406
22.0	0.00393	0.00390	0.00391	0.00390
22.5	0.00367	0.00366	0.00366	0.00366
23.0	0.00357	0.00356	0.00356	0.00356
23.5	0.00337	0.00336	0.00337	0.00336
24.0	0.00318	0.00317	0.00318	0.00318
24.5	0.00312	0.00311	0.00311	0.00311
25.0	0.00299	0.00298	0.00298	0.00298
25.5	0.00290	0.00289	0.00290	0.00290
26.0	0.00276	0.00275	0.00276	0.00276
26.5	0.00263	0.00262	0.00262	0.00262
27.0	0.00260	0.00260	0.00260	0.00260
27.5	0.00251	0.00250	0.00250	0.00250
28.0	0.00237	0.00237	0.00237	0.00237
28.5	0.00227	0.00227	0.00227	0.00227
29.0	0.00223	0.00222	0.00222	0.00222
29.5	0.00220	0.00220	0.00220	0.00220
30.0	0.00211	0.00211	0.00211	0.00211
30.5	0.00204	0.00203	0.00204	0.00204
31.0	0.00199	0.00199	0.00199	0.00199
31.5	0.00192	0.00192	0.00192	0.00192
32.0	0.00184	0.00183	0.00183	0.00183
32.5	0.00180	0.00180	0.00179	0.00179
33.0	0.00176	0.00175	0.00175	0.00174
33.5	0.00172	0.00172	0.00171	0.00171
34.0	0.00164	0.00163	0.00163	0.00162
34.5	0.00161	0.00161	0.00161	0.00161
35.0	0.00156	0.00156	0.00156	0.00156
35.5	0.00151	0.00151	0.00151	0.00151
36.0	0.00150	0.00149	0.00149	0.00149
36.5	0.00147	0.00145	0.00145	0.00145
37.0	0.00140	0.00139	0.00139	0.00139
37.5	0.00135	0.00134	0.00135	0.00134
38.0	0.00135	0.00134	0.00135	0.00134
38.5	0.00131	0.00130	0.00130	0.00130
39.0	0.00127	0.00126	0.00125	0.00125
39.5	0.00125	0.00125	0.00125	0.00125
40.0	0.00124	0.00124	0.00124	0.00124
40.5	0.00119	0.00119	0.00119	0.00119
41.0	0.00117	0.00117	0.00117	0.00117
41.5	0.00115	0.00115	0.00115	0.00115
42.0	0.00111	0.00111	0.00111	0.00111
42.5	0.00108	0.00108	0.00108	0.00108

TABLE A-9-7
TERRAIN GRID SENSITIVITY ANALYSIS
PARTICLE PHASE DRY DEPOSITION
UNITS = g/m²/g/s

Distance (Kilometers)	Base Case	500 Meter Spaced Terrain Grid	250 Meter Spaced Terrain Grid	100 Meter Spaced Terrain Grid
43.0	0.00107	0.00107	0.00107	0.00107
43.5	0.00104	0.00104	0.00104	0.00104
44.0	0.00100	0.00100	0.00100	0.00100
44.5	0.00098	0.00098	0.00098	0.00098
45.0	0.00099	0.00099	0.00099	0.00099
45.5	0.00096	0.00097	0.00097	0.00097
46.0	0.00095	0.00095	0.00095	0.00095
46.5	0.00092	0.00092	0.00092	0.00092
47.0	0.00089	0.00089	0.00090	0.00090
47.5	0.00088	0.00088	0.00088	0.00088
48.0	0.00085	0.00085	0.00085	0.00085
48.5	0.00083	0.00083	0.00083	0.00083
49.0	0.00080	0.00080	0.00080	0.00080
49.5	0.00078	0.00078	0.00078	0.00078
50.0	0.00077	0.00077	0.00078	0.00078

Notes.

Base Case: 500 meter spaced receptor grid, no terrain grid.

Test Case 1: 500 meter spaced receptor grid, 500 meter spaced terrain grid

Test Case 2: 500 meter spaced receptor grid, 250 meter spaced terrain grid

Test Case 3: 500 meter spaced receptor grid, 100 meter spaced terrain grid