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Annexure I

Numerical Modelling Results of ZoPVS

Table AI.1. Numerical modelling results of ZoPVS

Depth, m	Width, m	Extraction Ratio, %	σ_{hi_c}, MPa	$\frac{E_i}{E_c}$	σ_{c_c}, MPa	ZoPVS, %
100	15	0.44	3.41	1.51	2.04	71.11
100	30	0.27	3.41	1.51	2.04	46.67
100	60	0.15	3.41	1.51	2.04	23.33
100	90	0.10	3.41	1.51	2.04	15.83
250	30	0.27	4.90	1.51	2.04	100.00
250	40	0.21	4.90	1.51	2.04	87.50
250	50	0.17	4.90	1.51	2.04	73.33
250	60	0.15	4.90	1.51	2.04	60.14
250	70	0.13	4.90	1.51	2.04	51.19
250	90	0.10	4.90	1.51	2.04	39.44
250	120	0.01	4.90	1.51	2.04	29.65
350	30	0.27	5.89	1.51	2.04	100.00
350	40	0.21	5.89	1.51	2.04	87.50
350	50	0.17	5.89	1.51	2.04	72.67
350	60	0.15	5.89	1.51	2.04	60.56
350	70	0.13	5.89	1.51	2.04	51.43
350	90	0.10	5.89	1.51	2.04	39.91
350	120	0.01	5.89	1.51	2.04	29.72
100	15	0.44	3.41	4.25	3.87	66.67
100	30	0.27	3.41	4.25	3.87	43.33
100	60	0.15	3.41	4.25	3.87	22.64
100	90	0.10	3.41	4.25	3.87	15.56
250	30	0.27	4.90	4.25	3.87	98.89
250	40	0.21	4.90	4.25	3.87	81.25
250	50	0.17	4.90	4.25	3.87	58.67
250	60	0.15	4.90	4.25	3.87	46.94
250	70	0.13	4.90	4.25	3.87	40.12
250	90	0.10	4.90	4.25	3.87	30.93
250	120	0.01	4.90	4.25	3.87	22.99
350	30	0.27	5.89	4.25	3.87	100.00
350	40	0.21	5.89	4.25	3.87	87.92
350	50	0.17	5.89	4.25	3.87	68.00
350	60	0.15	5.89	4.25	3.87	54.17

350	70	0.13	5.89	4.25	3.87	46.43
350	90	0.10	5.89	4.25	3.87	34.72
350	120	0.01	5.89	4.25	3.87	26.53
100	15	0.44	3.41	6.69	6.32	60.00
100	30	0.27	3.41	6.69	6.32	40.56
100	60	0.15	3.41	6.69	6.32	23.06
100	90	0.10	3.41	6.69	6.32	15.56
250	30	0.27	4.90	6.69	6.32	69.52
250	40	0.21	4.90	6.69	6.32	54.04
250	50	0.17	4.90	6.69	6.32	44.40
250	60	0.15	4.90	6.69	6.32	37.94
250	90	0.10	4.90	6.69	6.32	26.50
250	120	0.01	4.90	6.69	6.32	17.46
350	30	0.27	5.89	6.69	6.32	97.22
350	40	0.21	5.89	6.69	6.32	77.71
350	50	0.17	5.89	6.69	6.32	56.67
350	60	0.15	5.89	6.69	6.32	46.11
350	70	0.13	5.89	6.69	6.32	39.64
350	90	0.10	5.89	6.69	6.32	25.19
350	120	0.01	5.89	6.69	6.32	16.39

Annexure II

Numerical Modelling Results of Seepage rate through Pillar Only

Table AII.1. Numerical modelling results of seepage rate through pillar only

D, m	w, m	e, %	$\frac{E_i}{E_c}$	σ_T, MPa	σ_C, MPa	σ_{hi}, MPa	K_p, m^2/pa.sec	H, m	Q, 10^{-3} m^3/s/km
100	15	0.44	4.25	10.12	1.05	3.69	9.90E-11	25	4.82
100	30	0.27	4.25	10.12	1.05	3.69	9.90E-11	25	2.40
100	60	0.15	4.25	10.12	1.05	3.69	9.90E-11	25	1.20
100	90	0.10	4.25	10.12	1.05	3.69	9.90E-11	25	0.80
250	60	0.15	4.25	10.12	1.05	5.22	9.90E-11	62.5	3.10
250	90	0.10	4.25	10.12	1.05	5.22	9.90E-11	62.5	2.03
250	120	0.08	4.25	10.12	1.05	5.22	9.90E-11	62.5	1.51
350	60	0.15	4.25	10.12	1.05	6.23	9.90E-11	87.5	4.38
350	90	0.10	4.25	10.12	1.05	6.23	9.90E-11	87.5	2.86
350	120	0.08	4.25	10.12	1.05	6.23	9.90E-11	87.5	2.12
100	15	0.44	4.25	10.12	1.05	3.69	9.90E-11	50	9.63
100	30	0.27	4.25	10.12	1.05	3.69	9.90E-11	50	4.80
100	60	0.15	4.25	10.12	1.05	3.69	9.90E-11	50	2.40
100	90	0.10	4.25	10.12	1.05	3.69	9.90E-11	50	1.60
250	60	0.15	4.25	10.12	1.05	5.22	9.90E-11	125	6.20
250	90	0.10	4.25	10.12	1.05	5.22	9.90E-11	125	4.06
250	120	0.08	4.25	10.12	1.05	5.22	9.90E-11	125	3.02
350	60	0.15	4.25	10.12	1.05	6.23	9.90E-11	175	8.76
350	90	0.10	4.25	10.12	1.05	6.23	9.90E-11	175	5.72
350	120	0.08	4.25	10.12	1.05	6.23	9.90E-11	175	4.24
100	15	0.44	4.25	10.12	1.05	3.69	9.90E-11	100	19.26
100	30	0.27	4.25	10.12	1.05	3.69	9.90E-11	100	9.61
100	60	0.15	4.25	10.12	1.05	3.69	9.90E-11	100	4.79
100	90	0.10	4.25	10.12	1.05	3.69	9.90E-11	100	3.19
250	60	0.15	4.25	10.12	1.05	5.22	9.90E-11	250	12.39
250	90	0.10	4.25	10.12	1.05	5.22	9.90E-11	250	8.12
250	120	0.08	4.25	10.12	1.05	5.22	9.90E-11	250	6.03
350	60	0.15	4.25	10.12	1.05	6.23	9.90E-11	350	17.52
350	90	0.10	4.25	10.12	1.05	6.23	9.90E-11	350	11.44
350	120	0.08	4.25	10.12	1.05	6.23	9.90E-11	350	8.49
100	15	0.44	4.25	10.12	1.05	3.69	2.97E-13	25	0.01
100	30	0.27	4.25	10.12	1.05	3.69	2.97E-13	25	0.01
100	60	0.15	4.25	10.12	1.05	3.69	2.97E-13	25	0.00
100	90	0.10	4.25	10.12	1.05	3.69	2.97E-13	25	0.00

250	30	0.27	4.25	10.12	1.05	5.22	2.97E-13	62.5	0.03
250	60	0.15	4.25	10.12	1.05	5.22	2.97E-13	62.5	0.01
250	90	0.10	4.25	10.12	1.05	5.22	2.97E-13	62.5	0.01
250	120	0.08	4.25	10.12	1.05	5.22	2.97E-13	62.5	0.00
350	60	0.15	4.25	10.12	1.05	6.23	2.97E-13	87.5	0.01
350	90	0.10	4.25	10.12	1.05	6.23	2.97E-13	87.5	0.01
350	120	0.08	4.25	10.12	1.05	6.23	2.97E-13	87.5	0.01
100	15	0.44	4.25	10.12	1.05	3.69	2.97E-13	50	0.03
100	30	0.27	4.25	10.12	1.05	3.69	2.97E-13	50	0.01
100	60	0.15	4.25	10.12	1.05	3.69	2.97E-13	50	0.01
100	90	0.10	4.25	10.12	1.05	3.69	2.97E-13	50	0.01
250	30	0.27	4.25	10.12	1.05	5.22	2.97E-13	125	0.07
250	60	0.15	4.25	10.12	1.05	5.22	2.97E-13	125	0.02
250	90	0.10	4.25	10.12	1.05	5.22	2.97E-13	125	0.01
250	120	0.08	4.25	10.12	1.05	5.22	2.97E-13	125	0.01
350	60	0.15	4.25	10.12	1.05	6.23	2.97E-13	175	0.03
350	90	0.10	4.25	10.12	1.05	6.23	2.97E-13	175	0.02
350	120	0.08	4.25	10.12	1.05	6.23	2.97E-13	175	0.01
100	15	0.44	4.25	10.12	1.05	3.69	2.97E-13	100	0.06
100	30	0.27	4.25	10.12	1.05	3.69	2.97E-13	100	0.03
100	60	0.15	4.25	10.12	1.05	3.69	2.97E-13	100	0.01
100	90	0.10	4.25	10.12	1.05	3.69	2.97E-13	100	0.01
250	30	0.27	4.25	10.12	1.05	5.22	2.97E-13	250	0.13
250	60	0.15	4.25	10.12	1.05	5.22	2.97E-13	250	0.04
250	90	0.10	4.25	10.12	1.05	5.22	2.97E-13	250	0.02
250	120	0.08	4.25	10.12	1.05	5.22	2.97E-13	250	0.02
350	60	0.15	4.25	10.12	1.05	6.23	2.97E-13	350	0.05
350	90	0.10	4.25	10.12	1.05	6.23	2.97E-13	350	0.03
350	120	0.08	4.25	10.12	1.05	6.23	2.97E-13	350	0.03
100	15	0.44	4.25	10.12	1.05	3.69	2.48E-11	25	1.21
100	30	0.27	4.25	10.12	1.05	3.69	2.48E-11	25	0.60
100	60	0.15	4.25	10.12	1.05	3.69	2.48E-11	25	0.30
100	90	0.10	4.25	10.12	1.05	3.69	2.48E-11	25	0.20
250	30	0.27	4.25	10.12	1.05	5.22	2.48E-11	62.5	2.73
250	60	0.15	4.25	10.12	1.05	5.22	2.48E-11	62.5	0.78
250	90	0.10	4.25	10.12	1.05	5.22	2.48E-11	62.5	0.51
250	120	0.08	4.25	10.12	1.05	5.22	2.48E-11	62.5	0.38
350	60	0.15	4.25	10.12	1.05	6.23	2.48E-11	87.5	1.10
350	90	0.10	4.25	10.12	1.05	6.23	2.48E-11	87.5	0.72
350	120	0.08	4.25	10.12	1.05	6.23	2.48E-11	87.5	0.53
100	15	0.44	4.25	10.12	1.05	3.69	2.48E-11	50	2.41
100	30	0.27	4.25	10.12	1.05	3.69	2.48E-11	50	1.20
100	60	0.15	4.25	10.12	1.05	3.69	2.48E-11	50	0.60

100	90	0.10	4.25	10.12	1.05	3.69	2.48E-11	50	0.40
250	30	0.27	4.25	10.12	1.05	5.22	2.48E-11	125	5.45
250	60	0.15	4.25	10.12	1.05	5.22	2.48E-11	125	1.55
250	90	0.10	4.25	10.12	1.05	5.22	2.48E-11	125	1.02
250	120	0.08	4.25	10.12	1.05	5.22	2.48E-11	125	0.76
350	60	0.15	4.25	10.12	1.05	6.23	2.48E-11	175	2.19
350	90	0.10	4.25	10.12	1.05	6.23	2.48E-11	175	1.43
350	120	0.08	4.25	10.12	1.05	6.23	2.48E-11	175	1.06
100	15	0.44	4.25	10.12	1.05	3.69	2.48E-11	100	4.83
100	30	0.27	4.25	10.12	1.05	3.69	2.48E-11	100	2.41
100	60	0.15	4.25	10.12	1.05	3.69	2.48E-11	100	1.20
100	90	0.10	4.25	10.12	1.05	3.69	2.48E-11	100	0.80
250	60	0.15	4.25	10.12	1.05	5.22	2.48E-11	250	3.10
250	90	0.10	4.25	10.12	1.05	5.22	2.48E-11	250	2.03
250	120	0.08	4.25	10.12	1.05	5.22	2.48E-11	250	1.51
350	60	0.15	4.25	10.12	1.05	6.23	2.48E-11	350	4.39
350	90	0.10	4.25	10.12	1.05	6.23	2.48E-11	350	2.87
350	120	0.08	4.25	10.12	1.05	6.23	2.48E-11	350	2.13
100	15	0.44	6.69	18.00	2.05	5.06	9.90E-11	25	4.81
100	30	0.27	6.69	18.00	2.05	5.06	9.90E-11	25	2.40
100	60	0.15	6.69	18.00	2.05	5.06	9.90E-11	25	1.20
100	90	0.10	6.69	18.00	2.05	5.06	9.90E-11	25	0.80
250	30	0.27	6.69	18.00	2.05	6.78	9.90E-11	62.5	5.93
250	60	0.15	6.69	18.00	2.05	6.78	9.90E-11	62.5	2.96
250	90	0.10	6.69	18.00	2.05	6.78	9.90E-11	62.5	1.97
250	120	0.08	6.69	18.00	2.05	6.78	9.90E-11	62.5	1.48
350	60	0.15	6.69	18.00	2.05	7.92	9.90E-11	87.5	4.32
350	90	0.10	6.69	18.00	2.05	7.92	9.90E-11	87.5	2.81
350	120	0.08	6.69	18.00	2.05	7.92	9.90E-11	87.5	2.08
100	15	0.44	6.69	18.00	2.05	5.06	9.90E-11	50	9.62
100	30	0.27	6.69	18.00	2.05	5.06	9.90E-11	50	4.80
100	60	0.15	6.69	18.00	2.05	5.06	9.90E-11	50	2.40
100	90	0.10	6.69	18.00	2.05	5.06	9.90E-11	50	1.59
250	30	0.27	6.69	18.00	2.05	6.78	9.90E-11	125	11.85
250	60	0.15	6.69	18.00	2.05	6.78	9.90E-11	125	5.93
250	90	0.10	6.69	18.00	2.05	6.78	9.90E-11	125	3.95
250	120	0.08	6.69	18.00	2.05	6.78	9.90E-11	125	2.96
350	60	0.15	6.69	18.00	2.05	7.92	9.90E-11	175	8.65
350	90	0.10	6.69	18.00	2.05	7.92	9.90E-11	175	5.61
350	120	0.08	6.69	18.00	2.05	7.92	9.90E-11	175	4.16
100	15	0.44	6.69	18.00	2.05	5.06	9.90E-11	100	19.24
100	30	0.27	6.69	18.00	2.05	5.06	9.90E-11	100	9.60
100	60	0.15	6.69	18.00	2.05	5.06	9.90E-11	100	4.79

100	90	0.10	6.69	18.00	2.05	5.06	9.90E-11	100	3.19
250	30	0.27	6.69	18.00	2.05	6.78	9.90E-11	250	23.70
250	60	0.15	6.69	18.00	2.05	6.78	9.90E-11	250	11.85
250	90	0.10	6.69	18.00	2.05	6.78	9.90E-11	250	7.90
250	120	0.08	6.69	18.00	2.05	6.78	9.90E-11	250	5.92
350	60	0.15	6.69	18.00	2.05	7.92	9.90E-11	350	17.30
350	90	0.10	6.69	18.00	2.05	7.92	9.90E-11	350	11.23
350	120	0.08	6.69	18.00	2.05	7.92	9.90E-11	350	8.33
100	15	0.44	6.69	18.00	2.05	5.06	2.97E-13	25	0.01
100	30	0.27	6.69	18.00	2.05	5.06	2.97E-13	25	0.01
100	60	0.15	6.69	18.00	2.05	5.06	2.97E-13	25	0.00
100	90	0.10	6.69	18.00	2.05	5.06	2.97E-13	25	0.00
250	30	0.27	6.69	18.00	2.05	6.78	2.97E-13	62.5	0.02
250	60	0.15	6.69	18.00	2.05	6.78	2.97E-13	62.5	0.01
250	90	0.10	6.69	18.00	2.05	6.78	2.97E-13	62.5	0.01
250	120	0.08	6.69	18.00	2.05	6.78	2.97E-13	62.5	0.00
350	30	0.27	6.69	18.00	2.05	7.92	2.97E-13	87.5	0.04
350	60	0.15	6.69	18.00	2.05	7.92	2.97E-13	87.5	0.01
350	90	0.10	6.69	18.00	2.05	7.92	2.97E-13	87.5	0.01
350	120	0.08	6.69	18.00	2.05	7.92	2.97E-13	87.5	0.01
100	15	0.44	6.69	18.00	2.05	5.06	2.97E-13	50	0.03
100	30	0.27	6.69	18.00	2.05	5.06	2.97E-13	50	0.01
100	60	0.15	6.69	18.00	2.05	5.06	2.97E-13	50	0.01
100	90	0.10	6.69	18.00	2.05	5.06	2.97E-13	50	0.01
250	30	0.27	6.69	18.00	2.05	6.78	2.97E-13	125	0.04
250	60	0.15	6.69	18.00	2.05	6.78	2.97E-13	125	0.02
250	90	0.10	6.69	18.00	2.05	6.78	2.97E-13	125	0.01
250	120	0.08	6.69	18.00	2.05	6.78	2.97E-13	125	0.01
350	30	0.27	6.69	18.00	2.05	7.92	2.97E-13	175	0.08
350	60	0.15	6.69	18.00	2.05	7.92	2.97E-13	175	0.03
350	90	0.10	6.69	18.00	2.05	7.92	2.97E-13	175	0.02
350	120	0.08	6.69	18.00	2.05	7.92	2.97E-13	175	0.01
100	15	0.44	6.69	18.00	2.05	5.06	2.97E-13	100	0.06
100	30	0.27	6.69	18.00	2.05	5.06	2.97E-13	100	0.03
100	60	0.15	6.69	18.00	2.05	5.06	2.97E-13	100	0.01
100	90	0.10	6.69	18.00	2.05	5.06	2.97E-13	100	0.01
250	30	0.27	6.69	18.00	2.05	6.78	2.97E-13	250	0.07
250	60	0.15	6.69	18.00	2.05	6.78	2.97E-13	250	0.04
250	90	0.10	6.69	18.00	2.05	6.78	2.97E-13	250	0.02
250	120	0.08	6.69	18.00	2.05	6.78	2.97E-13	250	0.02
350	30	0.27	6.69	18.00	2.05	7.92	2.97E-13	350	0.16
350	60	0.15	6.69	18.00	2.05	7.92	2.97E-13	350	0.05
350	90	0.10	6.69	18.00	2.05	7.92	2.97E-13	350	0.03

350	120	0.08	6.69	18.00	2.05	7.92	2.97E-13	350	0.03
100	15	0.44	6.69	18.00	2.05	5.06	2.48E-11	25	1.21
100	30	0.27	6.69	18.00	2.05	5.06	2.48E-11	25	0.60
100	60	0.15	6.69	18.00	2.05	5.06	2.48E-11	25	0.30
100	90	0.10	6.69	18.00	2.05	5.06	2.48E-11	25	0.20
250	30	0.27	6.69	18.00	2.05	6.78	2.48E-11	62.5	1.48
250	60	0.15	6.69	18.00	2.05	6.78	2.48E-11	62.5	0.74
250	90	0.10	6.69	18.00	2.05	6.78	2.48E-11	62.5	0.49
250	120	0.08	6.69	18.00	2.05	6.78	2.48E-11	62.5	0.37
350	30	0.27	6.69	18.00	2.05	7.92	2.48E-11	87.5	3.28
350	60	0.15	6.69	18.00	2.05	7.92	2.48E-11	87.5	1.08
350	90	0.10	6.69	18.00	2.05	7.92	2.48E-11	87.5	0.70
350	120	0.08	6.69	18.00	2.05	7.92	2.48E-11	87.5	0.52
100	15	0.44	6.69	18.00	2.05	5.06	2.48E-11	50	2.41
100	30	0.27	6.69	18.00	2.05	5.06	2.48E-11	50	1.20
100	60	0.15	6.69	18.00	2.05	5.06	2.48E-11	50	0.60
100	90	0.10	6.69	18.00	2.05	5.06	2.48E-11	50	0.40
250	30	0.27	6.69	18.00	2.05	6.78	2.48E-11	125	2.97
250	60	0.15	6.69	18.00	2.05	6.78	2.48E-11	125	1.48
250	90	0.10	6.69	18.00	2.05	6.78	2.48E-11	125	0.99
250	120	0.08	6.69	18.00	2.05	6.78	2.48E-11	125	0.74
350	30	0.27	6.69	18.00	2.05	7.92	2.48E-11	175	6.57
350	60	0.15	6.69	18.00	2.05	7.92	2.48E-11	175	2.16
350	90	0.10	6.69	18.00	2.05	7.92	2.48E-11	175	1.41
350	120	0.08	6.69	18.00	2.05	7.92	2.48E-11	175	1.04
100	15	0.44	6.69	18.00	2.05	5.06	2.48E-11	100	4.82
100	30	0.27	6.69	18.00	2.05	5.06	2.48E-11	100	2.40
100	60	0.15	6.69	18.00	2.05	5.06	2.48E-11	100	1.20
100	90	0.10	6.69	18.00	2.05	5.06	2.48E-11	100	0.80
250	30	0.27	6.69	18.00	2.05	6.78	2.48E-11	250	5.94
250	60	0.15	6.69	18.00	2.05	6.78	2.48E-11	250	2.97
250	90	0.10	6.69	18.00	2.05	6.78	2.48E-11	250	1.98
250	120	0.08	6.69	18.00	2.05	6.78	2.48E-11	250	1.48
350	60	0.15	6.69	18.00	2.05	7.92	2.48E-11	350	4.33
350	90	0.10	6.69	18.00	2.05	7.92	2.48E-11	350	2.81
350	120	0.08	6.69	18.00	2.05	7.92	2.48E-11	350	2.09
100	15	0.44	1.51	3.62	0.32	2.14	9.90E-11	25	4.83
100	30	0.27	1.51	3.62	0.32	2.14	9.90E-11	25	2.41
100	60	0.15	1.51	3.62	0.32	2.14	9.90E-11	25	1.20
100	90	0.10	1.51	3.62	0.32	2.14	9.90E-11	25	0.80
250	60	0.15	1.51	3.62	0.32	3.46	9.90E-11	62.5	3.25
250	90	0.10	1.51	3.62	0.32	3.46	9.90E-11	62.5	2.09
250	120	0.08	1.51	3.62	0.32	3.46	9.90E-11	62.5	1.54

350	60	0.15	1.51	3.62	0.32	4.33	9.90E-11	87.5	4.62
350	90	0.10	1.51	3.62	0.32	4.33	9.90E-11	87.5	2.94
350	120	0.08	1.51	3.62	0.32	4.33	9.90E-11	87.5	2.16
100	15	0.44	1.51	3.62	0.32	2.14	9.90E-11	50	9.66
100	30	0.27	1.51	3.62	0.32	2.14	9.90E-11	50	4.82
100	60	0.15	1.51	3.62	0.32	2.14	9.90E-11	50	2.40
100	90	0.10	1.51	3.62	0.32	2.14	9.90E-11	50	1.60
250	60	0.15	1.51	3.62	0.32	3.46	9.90E-11	125	6.50
250	90	0.10	1.51	3.62	0.32	3.46	9.90E-11	125	4.17
250	120	0.08	1.51	3.62	0.32	3.46	9.90E-11	125	3.08
350	60	0.15	1.51	3.62	0.32	4.33	9.90E-11	175	9.23
350	90	0.10	1.51	3.62	0.32	4.33	9.90E-11	175	5.88
350	120	0.08	1.51	3.62	0.32	4.33	9.90E-11	175	4.32
100	15	0.44	1.51	3.62	0.32	2.14	9.90E-11	100	19.33
100	30	0.27	1.51	3.62	0.32	2.14	9.90E-11	100	9.63
100	60	0.15	1.51	3.62	0.32	2.14	9.90E-11	100	4.80
100	90	0.10	1.51	3.62	0.32	2.14	9.90E-11	100	3.20
250	60	0.15	1.51	3.62	0.32	3.46	9.90E-11	250	13.00
250	90	0.10	1.51	3.62	0.32	3.46	9.90E-11	250	8.34
250	120	0.08	1.51	3.62	0.32	3.46	9.90E-11	250	6.17
350	60	0.15	1.51	3.62	0.32	4.33	9.90E-11	350	18.47
350	90	0.10	1.51	3.62	0.32	4.33	9.90E-11	350	11.75
350	120	0.08	1.51	3.62	0.32	4.33	9.90E-11	350	8.64
100	15	0.44	1.51	3.62	0.32	2.14	2.97E-13	25	0.01
100	30	0.27	1.51	3.62	0.32	2.14	2.97E-13	25	0.01
100	60	0.15	1.51	3.62	0.32	2.14	2.97E-13	25	0.00
100	90	0.10	1.51	3.62	0.32	2.14	2.97E-13	25	0.00
250	60	0.15	1.51	3.62	0.32	3.46	2.97E-13	62.5	0.01
250	90	0.10	1.51	3.62	0.32	3.46	2.97E-13	62.5	0.01
250	120	0.08	1.51	3.62	0.32	3.46	2.97E-13	62.5	0.00
350	60	0.15	1.51	3.62	0.32	4.33	2.97E-13	87.5	0.01
350	90	0.10	1.51	3.62	0.32	4.33	2.97E-13	87.5	0.01
350	120	0.08	1.51	3.62	0.32	4.33	2.97E-13	87.5	0.01
100	15	0.44	1.51	3.62	0.32	2.14	2.97E-13	50	0.03
100	30	0.27	1.51	3.62	0.32	2.14	2.97E-13	50	0.01
100	60	0.15	1.51	3.62	0.32	2.14	2.97E-13	50	0.01
100	90	0.10	1.51	3.62	0.32	2.14	2.97E-13	50	0.01
250	60	0.15	1.51	3.62	0.32	3.46	2.97E-13	125	0.02
250	90	0.10	1.51	3.62	0.32	3.46	2.97E-13	125	0.01
250	120	0.08	1.51	3.62	0.32	3.46	2.97E-13	125	0.01
350	60	0.15	1.51	3.62	0.32	4.33	2.97E-13	175	0.03
350	90	0.10	1.51	3.62	0.32	4.33	2.97E-13	175	0.02
350	120	0.08	1.51	3.62	0.32	4.33	2.97E-13	175	0.01

100	15	0.44	1.51	3.62	0.32	2.14	2.97E-13	100	0.06
100	30	0.27	1.51	3.62	0.32	2.14	2.97E-13	100	0.03
100	60	0.15	1.51	3.62	0.32	2.14	2.97E-13	100	0.01
100	90	0.10	1.51	3.62	0.32	2.14	2.97E-13	100	0.01
250	60	0.15	1.51	3.62	0.32	3.46	2.97E-13	250	0.04
250	90	0.10	1.51	3.62	0.32	3.46	2.97E-13	250	0.03
250	120	0.08	1.51	3.62	0.32	3.46	2.97E-13	250	0.02
350	60	0.15	1.51	3.62	0.32	4.33	2.97E-13	350	0.06
350	90	0.10	1.51	3.62	0.32	4.33	2.97E-13	350	0.04
350	120	0.08	1.51	3.62	0.32	4.33	2.97E-13	350	0.03
100	15	0.44	1.51	3.62	0.32	2.14	2.48E-11	25	1.21
100	30	0.27	1.51	3.62	0.32	2.14	2.48E-11	25	0.60
100	60	0.15	1.51	3.62	0.32	2.14	2.48E-11	25	0.30
100	90	0.10	1.51	3.62	0.32	2.14	2.48E-11	25	0.20
250	60	0.15	1.51	3.62	0.32	3.46	2.48E-11	62.5	0.81
250	90	0.10	1.51	3.62	0.32	3.46	2.48E-11	62.5	0.52
250	120	0.08	1.51	3.62	0.32	3.46	2.48E-11	62.5	0.39
350	60	0.15	1.51	3.62	0.32	4.33	2.48E-11	87.5	1.16
350	90	0.10	1.51	3.62	0.32	4.33	2.48E-11	87.5	0.74
350	120	0.08	1.51	3.62	0.32	4.33	2.48E-11	87.5	0.54
100	15	0.44	1.51	3.62	0.32	2.14	2.48E-11	50	2.42
100	30	0.27	1.51	3.62	0.32	2.14	2.48E-11	50	1.21
100	60	0.15	1.51	3.62	0.32	2.14	2.48E-11	50	0.60
100	90	0.10	1.51	3.62	0.32	2.14	2.48E-11	50	0.40
250	60	0.15	1.51	3.62	0.32	3.46	2.48E-11	125	1.63
250	90	0.10	1.51	3.62	0.32	3.46	2.48E-11	125	1.05
250	120	0.08	1.51	3.62	0.32	3.46	2.48E-11	125	0.77
350	60	0.15	1.51	3.62	0.32	4.33	2.48E-11	175	2.31
350	90	0.10	1.51	3.62	0.32	4.33	2.48E-11	175	1.47
350	120	0.08	1.51	3.62	0.32	4.33	2.48E-11	175	1.08
100	15	0.44	1.51	3.62	0.32	2.14	2.48E-11	100	4.84
100	30	0.27	1.51	3.62	0.32	2.14	2.48E-11	100	2.41
100	60	0.15	1.51	3.62	0.32	2.14	2.48E-11	100	1.20
100	90	0.10	1.51	3.62	0.32	2.14	2.48E-11	100	0.80
250	60	0.15	1.51	3.62	0.32	3.46	2.48E-11	250	3.26
250	90	0.10	1.51	3.62	0.32	3.46	2.48E-11	250	2.09
250	120	0.08	1.51	3.62	0.32	3.46	2.48E-11	250	1.54
350	60	0.15	1.51	3.62	0.32	4.33	2.48E-11	350	4.63
350	90	0.10	1.51	3.62	0.32	4.33	2.48E-11	350	2.94
350	120	0.08	1.51	3.62	0.32	4.33	2.48E-11	350	2.17

Annexure III

Numerical Modelling Results of Seepage rate through Roof Only

Table AIII.1. Numerical modelling results of seepage rate through roof only

D, m	w, m	e, %	$\frac{E_i}{E_c}$	σ_T, MPa	σ_C, MPa	K_p, m^2/pa.sec	σ_{hi}, MPa	H, m	Q, $10^{-3}m^3$/s/km
100	15	0.44	4.25	10.12	1.05	4.95E-10	3.69	25	29.86
100	30	0.27	4.25	10.12	1.05	4.95E-10	3.69	25	16.66
100	60	0.15	4.25	10.12	1.05	4.95E-10	3.69	25	7.54
100	90	0.10	4.25	10.12	1.05	4.95E-10	3.69	25	4.44
250	30	0.27	4.25	10.12	1.05	4.95E-10	5.22	62.5	41.88
250	60	0.15	4.25	10.12	1.05	4.95E-10	5.22	62.5	22.80
250	90	0.10	4.25	10.12	1.05	4.95E-10	5.22	62.5	14.75
250	120	0.08	4.25	10.12	1.05	4.95E-10	5.22	62.5	10.49
350	60	0.15	4.25	10.12	1.05	4.95E-10	6.23	87.5	32.68
350	90	0.10	4.25	10.12	1.05	4.95E-10	6.23	87.5	22.06
350	120	0.08	4.25	10.12	1.05	4.95E-10	6.23	87.5	15.98
100	15	0.44	4.25	10.12	1.05	4.95E-10	3.69	50	57.06
100	30	0.27	4.25	10.12	1.05	4.95E-10	3.69	50	33.40
100	60	0.15	4.25	10.12	1.05	4.95E-10	3.69	50	17.77
100	90	0.10	4.25	10.12	1.05	4.95E-10	3.69	50	11.21
250	30	0.27	4.25	10.12	1.05	4.95E-10	5.22	125	82.22
250	60	0.15	4.25	10.12	1.05	4.95E-10	5.22	125	45.09
250	90	0.10	4.25	10.12	1.05	4.95E-10	5.22	125	31.02
250	120	0.08	4.25	10.12	1.05	4.95E-10	5.22	125	23.53
350	60	0.15	4.25	10.12	1.05	4.95E-10	6.23	175	64.51
350	90	0.10	4.25	10.12	1.05	4.95E-10	6.23	175	44.64
350	120	0.08	4.25	10.12	1.05	4.95E-10	6.23	175	34.03
100	15	0.44	4.25	10.12	1.05	4.95E-10	3.69	100	111.45
100	30	0.27	4.25	10.12	1.05	4.95E-10	3.69	100	65.27
100	60	0.15	4.25	10.12	1.05	4.95E-10	3.69	100	35.66
100	90	0.10	4.25	10.12	1.05	4.95E-10	3.69	100	24.50
250	30	0.27	4.25	10.12	1.05	4.95E-10	5.22	250	162.79
250	60	0.15	4.25	10.12	1.05	4.95E-10	5.22	250	89.33
250	90	0.10	4.25	10.12	1.05	4.95E-10	5.22	250	61.45
250	120	0.08	4.25	10.12	1.05	4.95E-10	5.22	250	46.88
350	60	0.15	4.25	10.12	1.05	4.95E-10	6.23	350	128.14
350	90	0.10	4.25	10.12	1.05	4.95E-10	6.23	350	88.70
350	120	0.08	4.25	10.12	1.05	4.95E-10	6.23	350	67.60

100	15	0.44	4.25	10.12	1.05	9.90E-10	3.69	25	59.72
100	30	0.27	4.25	10.12	1.05	9.90E-10	3.69	25	33.31
100	60	0.15	4.25	10.12	1.05	9.90E-10	3.69	25	15.08
100	90	0.10	4.25	10.12	1.05	9.90E-10	3.69	25	8.89
250	30	0.27	4.25	10.12	1.05	9.90E-10	5.22	62.5	83.73
250	60	0.15	4.25	10.12	1.05	9.90E-10	5.22	62.5	45.59
250	90	0.10	4.25	10.12	1.05	9.90E-10	5.22	62.5	29.50
250	120	0.08	4.25	10.12	1.05	9.90E-10	5.22	62.5	23.53
350	60	0.15	4.25	10.12	1.05	9.90E-10	6.23	87.5	65.33
350	90	0.10	4.25	10.12	1.05	9.90E-10	6.23	87.5	44.11
350	120	0.08	4.25	10.12	1.05	9.90E-10	6.23	87.5	31.95
100	15	0.44	4.25	10.12	1.05	9.90E-10	3.69	50	114.09
100	30	0.27	4.25	10.12	1.05	9.90E-10	3.69	50	66.78
100	60	0.15	4.25	10.12	1.05	9.90E-10	3.69	50	35.53
100	90	0.10	4.25	10.12	1.05	9.90E-10	3.69	50	22.42
250	30	0.27	4.25	10.12	1.05	9.90E-10	5.22	125	164.37
250	60	0.15	4.25	10.12	1.05	9.90E-10	5.22	125	90.15
250	90	0.10	4.25	10.12	1.05	9.90E-10	5.22	125	62.05
250	120	0.08	4.25	10.12	1.05	9.90E-10	5.22	125	47.07
350	60	0.15	4.25	10.12	1.05	9.90E-10	6.23	175	128.96
350	90	0.10	4.25	10.12	1.05	9.90E-10	6.23	175	89.27
350	120	0.08	4.25	10.12	1.05	9.90E-10	6.23	175	68.04
100	15	0.44	4.25	10.12	1.05	9.90E-10	3.69	100	222.89
100	30	0.27	4.25	10.12	1.05	9.90E-10	3.69	100	130.47
100	60	0.15	4.25	10.12	1.05	9.90E-10	3.69	100	71.32
100	90	0.10	4.25	10.12	1.05	9.90E-10	3.69	100	49.00
250	30	0.27	4.25	10.12	1.05	9.90E-10	5.22	250	325.58
250	60	0.15	4.25	10.12	1.05	9.90E-10	5.22	250	178.61
250	90	0.10	4.25	10.12	1.05	9.90E-10	5.22	250	122.91
250	120	0.08	4.25	10.12	1.05	9.90E-10	5.22	250	93.74
350	60	0.15	4.25	10.12	1.05	9.90E-10	6.23	350	256.22
350	90	0.10	4.25	10.12	1.05	9.90E-10	6.23	350	177.35
350	120	0.08	4.25	10.12	1.05	9.90E-10	6.23	350	135.20
100	15	0.44	4.25	10.12	1.05	9.90E-12	3.69	25	0.60
100	30	0.27	4.25	10.12	1.05	9.90E-12	3.69	25	0.33
100	60	0.15	4.25	10.12	1.05	9.90E-12	3.69	25	0.15
100	90	0.10	4.25	10.12	1.05	9.90E-12	3.69	25	0.09
250	30	0.27	4.25	10.12	1.05	9.90E-12	5.22	62.5	0.84
250	60	0.15	4.25	10.12	1.05	9.90E-12	5.22	62.5	0.46
250	90	0.10	4.25	10.12	1.05	9.90E-12	5.22	62.5	0.29
250	120	0.08	4.25	10.12	1.05	9.90E-12	5.22	62.5	0.24

350	60	0.15	4.25	10.12	1.05	9.90E-12	6.23	87.5	0.65
350	90	0.10	4.25	10.12	1.05	9.90E-12	6.23	87.5	0.44
350	120	0.08	4.25	10.12	1.05	9.90E-12	6.23	87.5	0.32
100	15	0.44	4.25	10.12	1.05	9.90E-12	3.69	50	1.14
100	30	0.27	4.25	10.12	1.05	9.90E-12	3.69	50	0.67
100	60	0.15	4.25	10.12	1.05	9.90E-12	3.69	50	0.36
100	90	0.10	4.25	10.12	1.05	9.90E-12	3.69	50	0.22
250	30	0.27	4.25	10.12	1.05	9.90E-12	5.22	125	1.64
250	60	0.15	4.25	10.12	1.05	9.90E-12	5.22	125	0.90
250	90	0.10	4.25	10.12	1.05	9.90E-12	5.22	125	0.62
250	120	0.08	4.25	10.12	1.05	9.90E-12	5.22	125	0.47
350	60	0.15	4.25	10.12	1.05	9.90E-12	6.23	175	1.29
350	90	0.10	4.25	10.12	1.05	9.90E-12	6.23	175	0.89
350	120	0.08	4.25	10.12	1.05	9.90E-12	6.23	175	0.68
100	15	0.44	4.25	10.12	1.05	9.90E-12	3.69	100	2.23
100	30	0.27	4.25	10.12	1.05	9.90E-12	3.69	100	1.30
100	60	0.15	4.25	10.12	1.05	9.90E-12	3.69	100	0.71
100	90	0.10	4.25	10.12	1.05	9.90E-12	3.69	100	0.49
250	30	0.27	4.25	10.12	1.05	9.90E-12	5.22	250	3.26
250	60	0.15	4.25	10.12	1.05	9.90E-12	5.22	250	1.79
250	90	0.10	4.25	10.12	1.05	9.90E-12	5.22	250	1.23
250	120	0.08	4.25	10.12	1.05	9.90E-12	5.22	250	0.94
350	60	0.15	4.25	10.12	1.05	9.90E-12	6.23	350	2.56
350	90	0.10	4.25	10.12	1.05	9.90E-12	6.23	350	1.77
350	120	0.08	4.25	10.12	1.05	9.90E-12	6.23	350	1.35
100	15	0.44	6.685	18.00	2.05	4.95E-10	5.06	25	29.86
100	30	0.27	6.685	18.00	2.05	4.95E-10	5.06	25	16.66
100	60	0.15	6.685	18.00	2.05	4.95E-10	5.06	25	7.54
100	90	0.10	6.685	18.00	2.05	4.95E-10	5.06	25	4.44
250	30	0.27	6.685	18.00	2.05	4.95E-10	6.78	62.5	41.32
250	60	0.15	6.685	18.00	2.05	4.95E-10	6.78	62.5	22.47
250	90	0.10	6.685	18.00	2.05	4.95E-10	6.78	62.5	14.69
250	120	0.08	6.685	18.00	2.05	4.95E-10	6.78	62.5	10.48
350	30	0.27	6.685	18.00	2.05	4.95E-10	7.92	87.5	57.60
350	60	0.15	6.685	18.00	2.05	4.95E-10	7.92	87.5	31.49
350	90	0.10	6.685	18.00	2.05	4.95E-10	7.92	87.5	21.48
350	120	0.08	6.685	18.00	2.05	4.95E-10	7.92	87.5	15.72
100	15	0.44	6.685	18.00	2.05	4.95E-10	5.06	50	57.06
100	30	0.27	6.685	18.00	2.05	4.95E-10	5.06	50	33.40
100	60	0.15	6.685	18.00	2.05	4.95E-10	5.06	50	17.77
100	90	0.10	6.685	18.00	2.05	4.95E-10	5.06	50	11.21

250	30	0.27	6.685	18.00	2.05	4.95E-10	6.78	125	81.08
250	60	0.15	6.685	18.00	2.05	4.95E-10	6.78	125	44.32
250	90	0.10	6.685	18.00	2.05	4.95E-10	6.78	125	30.49
250	120	0.08	6.685	18.00	2.05	4.95E-10	6.78	125	23.17
350	30	0.27	6.685	18.00	2.05	4.95E-10	7.92	175	113.65
350	60	0.15	6.685	18.00	2.05	4.95E-10	7.92	175	62.12
350	90	0.10	6.685	18.00	2.05	4.95E-10	7.92	175	42.76
350	120	0.08	6.685	18.00	2.05	4.95E-10	7.92	175	32.57
100	15	0.44	6.685	18.00	2.05	4.95E-10	5.06	100	111.45
100	30	0.27	6.685	18.00	2.05	4.95E-10	5.06	100	65.27
100	60	0.15	6.685	18.00	2.05	4.95E-10	5.06	100	35.66
100	90	0.10	6.685	18.00	2.05	4.95E-10	5.06	100	24.50
250	30	0.27	6.685	18.00	2.05	4.95E-10	6.78	250	160.59
250	60	0.15	6.685	18.00	2.05	4.95E-10	6.78	250	87.76
250	90	0.10	6.685	18.00	2.05	4.95E-10	6.78	250	60.40
250	120	0.08	6.685	18.00	2.05	4.95E-10	6.78	250	46.04
350	30	0.27	6.685	18.00	2.05	4.95E-10	7.92	350	225.73
350	60	0.15	6.685	18.00	2.05	4.95E-10	7.92	350	123.42
350	90	0.10	6.685	18.00	2.05	4.95E-10	7.92	350	84.92
350	120	0.08	6.685	18.00	2.05	4.95E-10	7.92	350	64.70
100	15	0.44	6.685	18.00	2.05	9.90E-12	5.06	25	0.60
100	30	0.27	6.685	18.00	2.05	9.90E-12	5.06	25	0.33
100	60	0.15	6.685	18.00	2.05	9.90E-12	5.06	25	0.15
100	90	0.10	6.685	18.00	2.05	9.90E-12	5.06	25	0.09
250	30	0.27	6.685	18.00	2.05	9.90E-12	6.78	62.5	0.83
250	60	0.15	6.685	18.00	2.05	9.90E-12	6.78	62.5	0.45
250	90	0.10	6.685	18.00	2.05	9.90E-12	6.78	62.5	0.29
250	120	0.08	6.685	18.00	2.05	9.90E-12	6.78	62.5	0.21
350	30	0.27	6.685	18.00	2.05	9.90E-12	7.92	87.5	1.15
350	60	0.15	6.685	18.00	2.05	9.90E-12	7.92	87.5	0.63
350	90	0.10	6.685	18.00	2.05	9.90E-12	7.92	87.5	0.43
350	120	0.08	6.685	18.00	2.05	9.90E-12	7.92	87.5	0.31
100	15	0.44	6.685	18.00	2.05	9.90E-12	5.06	50	1.14
100	30	0.27	6.685	18.00	2.05	9.90E-12	5.06	50	0.67
100	60	0.15	6.685	18.00	2.05	9.90E-12	5.06	50	0.36
100	90	0.10	6.685	18.00	2.05	9.90E-12	5.06	50	0.22
250	30	0.27	6.685	18.00	2.05	9.90E-12	6.78	125	1.62
250	60	0.15	6.685	18.00	2.05	9.90E-12	6.78	125	0.89
250	90	0.10	6.685	18.00	2.05	9.90E-12	6.78	125	0.61
250	120	0.08	6.685	18.00	2.05	9.90E-12	6.78	125	0.46
350	30	0.27	6.685	18.00	2.05	9.90E-12	7.92	175	2.27

350	60	0.15	6.685	18.00	2.05	9.90E-12	7.92	175	1.24
350	90	0.10	6.685	18.00	2.05	9.90E-12	7.92	175	0.86
350	120	0.08	6.685	18.00	2.05	9.90E-12	7.92	175	0.65
100	15	0.44	6.685	18.00	2.05	9.90E-12	5.06	100	2.23
100	30	0.27	6.685	18.00	2.05	9.90E-12	5.06	100	1.30
100	60	0.15	6.685	18.00	2.05	9.90E-12	5.06	100	0.71
100	90	0.10	6.685	18.00	2.05	9.90E-12	5.06	100	0.49
250	30	0.27	6.685	18.00	2.05	9.90E-12	6.78	250	3.21
250	60	0.15	6.685	18.00	2.05	9.90E-12	6.78	250	1.76
250	90	0.10	6.685	18.00	2.05	9.90E-12	6.78	250	1.21
250	120	0.08	6.685	18.00	2.05	9.90E-12	6.78	250	0.92
350	30	0.27	6.685	18.00	2.05	9.90E-12	7.92	350	4.51
350	60	0.15	6.685	18.00	2.05	9.90E-12	7.92	350	2.47
350	90	0.10	6.685	18.00	2.05	9.90E-12	7.92	350	1.70
350	120	0.08	6.685	18.00	2.05	9.90E-12	7.92	350	1.29
100	15	0.44	6.685	18.00	2.05	9.90E-10	5.06	25	59.72
100	30	0.27	6.685	18.00	2.05	9.90E-10	5.06	25	33.31
100	60	0.15	6.685	18.00	2.05	9.90E-10	5.06	25	15.08
100	90	0.10	6.685	18.00	2.05	9.90E-10	5.06	25	8.88
250	30	0.27	6.685	18.00	2.05	9.90E-10	6.78	62.5	82.66
250	60	0.15	6.685	18.00	2.05	9.90E-10	6.78	62.5	44.94
250	90	0.10	6.685	18.00	2.05	9.90E-10	6.78	62.5	29.37
250	120	0.08	6.685	18.00	2.05	9.90E-10	6.78	62.5	20.97
350	30	0.27	6.685	18.00	2.05	9.90E-10	7.92	87.5	115.23
350	60	0.15	6.685	18.00	2.05	9.90E-10	7.92	87.5	62.98
350	90	0.10	6.685	18.00	2.05	9.90E-10	7.92	87.5	42.95
350	120	0.08	6.685	18.00	2.05	9.90E-10	7.92	87.5	31.44
100	15	0.44	6.685	18.00	2.05	9.90E-10	5.06	50	114.09
100	30	0.27	6.685	18.00	2.05	9.90E-10	5.06	50	66.78
100	60	0.15	6.685	18.00	2.05	9.90E-10	5.06	50	35.54
100	90	0.10	6.685	18.00	2.05	9.90E-10	5.06	50	22.43
250	30	0.27	6.685	18.00	2.05	9.90E-10	6.78	125	162.16
250	60	0.15	6.685	18.00	2.05	9.90E-10	6.78	125	88.64
250	90	0.10	6.685	18.00	2.05	9.90E-10	6.78	125	60.99
250	120	0.08	6.685	18.00	2.05	9.90E-10	6.78	125	46.35
350	30	0.27	6.685	18.00	2.05	9.90E-10	7.92	175	227.24
350	60	0.15	6.685	18.00	2.05	9.90E-10	7.92	175	124.24
350	90	0.10	6.685	18.00	2.05	9.90E-10	7.92	175	85.55
350	120	0.08	6.685	18.00	2.05	9.90E-10	7.92	175	65.14
100	15	0.44	6.685	18.00	2.05	9.90E-10	5.06	100	222.89
100	30	0.27	6.685	18.00	2.05	9.90E-10	5.06	100	130.47

100	60	0.15	6.685	18.00	2.05	9.90E-10	5.06	100	71.32
100	90	0.10	6.685	18.00	2.05	9.90E-10	5.06	100	49.00
250	30	0.27	6.685	18.00	2.05	9.90E-10	6.78	250	321.17
250	60	0.15	6.685	18.00	2.05	9.90E-10	6.78	250	175.58
250	90	0.10	6.685	18.00	2.05	9.90E-10	6.78	250	120.83
250	120	0.08	6.685	18.00	2.05	9.90E-10	6.78	250	92.11
350	30	0.27	6.685	18.00	2.05	9.90E-10	7.92	350	451.40
350	60	0.15	6.685	18.00	2.05	9.90E-10	7.92	350	246.77
350	90	0.10	6.685	18.00	2.05	9.90E-10	7.92	350	169.85
350	120	0.08	6.685	18.00	2.05	9.90E-10	7.92	350	129.40
100	15	0.44	1.505	3.62	0.32	4.95E-10	2.14	25	30.07
100	30	0.27	1.505	3.62	0.32	4.95E-10	2.14	25	16.69
100	60	0.15	1.505	3.62	0.32	4.95E-10	2.14	25	7.55
100	90	0.10	1.505	3.62	0.32	4.95E-10	2.14	25	4.45
250	60	0.15	1.505	3.62	0.32	4.95E-10	3.46	62.5	22.88
250	90	0.10	1.505	3.62	0.32	4.95E-10	3.46	62.5	14.95
250	120	0.08	1.505	3.62	0.32	4.95E-10	3.46	62.5	10.67
350	60	0.15	1.505	3.62	0.32	4.95E-10	4.33	87.5	31.70
350	90	0.10	1.505	3.62	0.32	4.95E-10	4.33	87.5	21.62
350	120	0.08	1.505	3.62	0.32	4.95E-10	4.33	87.5	15.82
100	15	0.44	1.505	3.62	0.32	4.95E-10	2.14	50	57.46
100	30	0.27	1.505	3.62	0.32	4.95E-10	2.14	50	33.60
100	60	0.15	1.505	3.62	0.32	4.95E-10	2.14	50	17.82
100	90	0.10	1.505	3.62	0.32	4.95E-10	2.14	50	11.23
250	60	0.15	1.505	3.62	0.32	4.95E-10	3.46	125	45.15
250	90	0.10	1.505	3.62	0.32	4.95E-10	3.46	125	31.06
250	120	0.08	1.505	3.62	0.32	4.95E-10	3.46	125	23.60
350	60	0.15	1.505	3.62	0.32	4.95E-10	4.33	175	62.57
350	90	0.10	1.505	3.62	0.32	4.95E-10	4.33	175	43.07
350	120	0.08	1.505	3.62	0.32	4.95E-10	4.33	175	32.81
100	15	0.44	1.505	3.62	0.32	4.95E-10	2.14	100	112.27
100	30	0.27	1.505	3.62	0.32	4.95E-10	2.14	100	65.75
100	60	0.15	1.505	3.62	0.32	4.95E-10	2.14	100	35.93
100	90	0.10	1.505	3.62	0.32	4.95E-10	2.14	100	24.68
250	60	0.15	1.505	3.62	0.32	4.95E-10	3.46	250	89.41
250	90	0.10	1.505	3.62	0.32	4.95E-10	3.46	250	61.54
250	120	0.08	1.505	3.62	0.32	4.95E-10	3.46	250	46.91
350	60	0.15	1.505	3.62	0.32	4.95E-10	4.33	350	124.31
350	90	0.10	1.505	3.62	0.32	4.95E-10	4.33	350	85.54
350	120	0.08	1.505	3.62	0.32	4.95E-10	4.33	350	65.17
100	15	0.44	1.505	3.62	0.32	9.90E-10	2.14	25	60.14

100	30	0.27	1.505	3.62	0.32	9.90E-10	2.14	25	33.55
100	60	0.15	1.505	3.62	0.32	9.90E-10	2.14	25	15.19
100	90	0.10	1.505	3.62	0.32	9.90E-10	2.14	25	8.94
250	60	0.15	1.505	3.62	0.32	9.90E-10	3.46	62.5	45.73
250	90	0.10	1.505	3.62	0.32	9.90E-10	3.46	62.5	29.89
250	120	0.08	1.505	3.62	0.32	9.90E-10	3.46	62.5	21.33
350	60	0.15	1.505	3.62	0.32	9.90E-10	4.33	87.5	63.39
350	90	0.10	1.505	3.62	0.32	9.90E-10	4.33	87.5	43.24
350	120	0.08	1.505	3.62	0.32	9.90E-10	4.33	87.5	31.65
100	15	0.44	1.505	3.62	0.32	9.90E-10	2.14	50	114.91
100	30	0.27	1.505	3.62	0.32	9.90E-10	2.14	50	67.26
100	60	0.15	1.505	3.62	0.32	9.90E-10	2.14	50	35.79
100	90	0.10	1.505	3.62	0.32	9.90E-10	2.14	50	22.59
250	60	0.15	1.505	3.62	0.32	9.90E-10	3.46	125	90.29
250	90	0.10	1.505	3.62	0.32	9.90E-10	3.46	125	62.13
250	120	0.08	1.505	3.62	0.32	9.90E-10	3.46	125	47.21
350	60	0.15	1.505	3.62	0.32	9.90E-10	4.33	175	125.13
350	90	0.10	1.505	3.62	0.32	9.90E-10	4.33	175	86.17
350	120	0.08	1.505	3.62	0.32	9.90E-10	4.33	175	65.61
100	15	0.44	1.505	3.62	0.32	9.90E-10	2.14	100	224.53
100	30	0.27	1.505	3.62	0.32	9.90E-10	2.14	100	131.43
100	60	0.15	1.505	3.62	0.32	9.90E-10	2.14	100	71.84
100	90	0.10	1.505	3.62	0.32	9.90E-10	2.14	100	49.36
250	60	0.15	1.505	3.62	0.32	9.90E-10	3.46	250	178.89
250	90	0.10	1.505	3.62	0.32	9.90E-10	3.46	250	123.11
250	120	0.08	1.505	3.62	0.32	9.90E-10	3.46	250	93.84
350	60	0.15	1.505	3.62	0.32	9.90E-10	4.33	350	248.60
350	90	0.10	1.505	3.62	0.32	9.90E-10	4.33	350	171.10
350	120	0.08	1.505	3.62	0.32	9.90E-10	4.33	350	130.36
100	15	0.44	1.505	3.62	0.32	9.90E-12	2.14	25	0.60
100	30	0.27	1.505	3.62	0.32	9.90E-12	2.14	25	0.34
100	60	0.15	1.505	3.62	0.32	9.90E-12	2.14	25	0.15
100	90	0.10	1.505	3.62	0.32	9.90E-12	2.14	25	0.09
250	60	0.15	1.505	3.62	0.32	9.90E-12	3.46	62.5	0.46
250	90	0.10	1.505	3.62	0.32	9.90E-12	3.46	62.5	0.30
250	120	0.08	1.505	3.62	0.32	9.90E-12	3.46	62.5	0.21
350	60	0.15	1.505	3.62	0.32	9.90E-12	4.33	87.5	0.63
350	90	0.10	1.505	3.62	0.32	9.90E-12	4.33	87.5	0.43
350	120	0.08	1.505	3.62	0.32	9.90E-12	4.33	87.5	0.32
100	15	0.44	1.505	3.62	0.32	9.90E-12	2.14	50	1.15
100	30	0.27	1.505	3.62	0.32	9.90E-12	2.14	50	0.67

100	60	0.15	1.505	3.62	0.32	9.90E-12	2.14	50	0.36
100	90	0.10	1.505	3.62	0.32	9.90E-12	2.14	50	0.23
250	60	0.15	1.505	3.62	0.32	9.90E-12	3.46	125	0.90
250	90	0.10	1.505	3.62	0.32	9.90E-12	3.46	125	0.62
250	120	0.08	1.505	3.62	0.32	9.90E-12	3.46	125	0.47
350	60	0.15	1.505	3.62	0.32	9.90E-12	4.33	175	1.25
350	90	0.10	1.505	3.62	0.32	9.90E-12	4.33	175	0.86
350	120	0.08	1.505	3.62	0.32	9.90E-12	4.33	175	0.66
100	15	0.44	1.505	3.62	0.32	9.90E-12	2.14	100	2.25
100	30	0.27	1.505	3.62	0.32	9.90E-12	2.14	100	1.31
100	60	0.15	1.505	3.62	0.32	9.90E-12	2.14	100	0.72
100	90	0.10	1.505	3.62	0.32	9.90E-12	2.14	100	0.49
250	60	0.15	1.505	3.62	0.32	9.90E-12	3.46	250	1.79
250	90	0.10	1.505	3.62	0.32	9.90E-12	3.46	250	1.23
250	120	0.08	1.505	3.62	0.32	9.90E-12	3.46	250	0.94
350	60	0.15	1.505	3.62	0.32	9.90E-12	4.33	350	2.49
350	90	0.10	1.505	3.62	0.32	9.90E-12	4.33	350	1.71
350	120	0.08	1.505	3.62	0.32	9.90E-12	4.33	350	1.30

Annexure IV

Parametric Modelling Results of Seepage rate through Floor Only

Table AIV.1. Numerical modelling results of seepage rate through floor only

D, m	w, m	e, %	$\frac{E_i}{E_c}$	σ_T, MPa	σ_C, MPa	K_R, m^2/pa.sec	σ_{hi}, MPa	H, m	Q, 10^{-3} m^3/s/km
100	15	0.44	4.25	10.12	1.05	4.95E-10	3.69	25	24.87
100	30	0.27	4.25	10.12	1.05	4.95E-10	3.69	25	13.64
100	60	0.15	4.25	10.12	1.05	4.95E-10	3.69	25	7.47
100	90	0.10	4.25	10.12	1.05	4.95E-10	3.69	25	5.25
250	30	0.27	4.25	10.12	1.05	4.95E-10	5.22	62.5	35.49
250	60	0.15	4.25	10.12	1.05	4.95E-10	5.22	62.5	19.44
250	90	0.10	4.25	10.12	1.05	4.95E-10	5.22	62.5	13.65
250	120	0.08	4.25	10.12	1.05	4.95E-10	5.22	62.5	10.22
350	60	0.15	4.25	10.12	1.05	4.95E-10	6.23	87.5	27.41
350	90	0.10	4.25	10.12	1.05	4.95E-10	6.23	87.5	19.25
350	120	0.08	4.25	10.12	1.05	4.95E-10	6.23	87.5	14.41
100	15	0.44	4.25	10.12	1.05	4.95E-10	3.69	50	50.70
100	30	0.27	4.25	10.12	1.05	4.95E-10	3.69	50	27.82
100	60	0.15	4.25	10.12	1.05	4.95E-10	3.69	50	15.23
100	90	0.10	4.25	10.12	1.05	4.95E-10	3.69	50	10.70
250	30	0.27	4.25	10.12	1.05	4.95E-10	5.22	125	72.38
250	60	0.15	4.25	10.12	1.05	4.95E-10	5.22	125	39.64
250	90	0.10	4.25	10.12	1.05	4.95E-10	5.22	125	27.84
250	120	0.08	4.25	10.12	1.05	4.95E-10	5.22	125	20.83
350	60	0.15	4.25	10.12	1.05	4.95E-10	6.23	175	55.90
350	90	0.10	4.25	10.12	1.05	4.95E-10	6.23	175	39.26
350	120	0.08	4.25	10.12	1.05	4.95E-10	6.23	175	29.38
100	15	0.44	4.25	10.12	1.05	4.95E-10	3.69	100	103.39
100	30	0.27	4.25	10.12	1.05	4.95E-10	3.69	100	56.72
100	60	0.15	4.25	10.12	1.05	4.95E-10	3.69	100	31.06
100	90	0.10	4.25	10.12	1.05	4.95E-10	3.69	100	21.82
250	30	0.27	4.25	10.12	1.05	4.95E-10	5.22	250	147.58
250	60	0.15	4.25	10.12	1.05	4.95E-10	5.22	250	80.82
250	90	0.10	4.25	10.12	1.05	4.95E-10	5.22	250	56.77
250	120	0.08	4.25	10.12	1.05	4.95E-10	5.22	250	42.47
350	60	0.15	4.25	10.12	1.05	4.95E-10	6.23	350	113.98
350	90	0.10	4.25	10.12	1.05	4.95E-10	6.23	350	80.05
350	120	0.08	4.25	10.12	1.05	4.95E-10	6.23	350	59.90

100	15	0.44	4.25	10.12	1.05	9.90E-10	3.69	25	49.74
100	30	0.27	4.25	10.12	1.05	9.90E-10	3.69	25	27.29
100	60	0.15	4.25	10.12	1.05	9.90E-10	3.69	25	14.95
100	90	0.10	4.25	10.12	1.05	9.90E-10	3.69	25	10.50
250	30	0.27	4.25	10.12	1.05	9.90E-10	5.22	62.5	71.01
250	60	0.15	4.25	10.12	1.05	9.90E-10	5.22	62.5	38.89
250	90	0.10	4.25	10.12	1.05	9.90E-10	5.22	62.5	27.31
250	120	0.08	4.25	10.12	1.05	9.90E-10	5.22	62.5	20.44
350	60	0.15	4.25	10.12	1.05	9.90E-10	6.23	87.5	54.84
350	90	0.10	4.25	10.12	1.05	9.90E-10	6.23	87.5	38.52
350	120	0.08	4.25	10.12	1.05	9.90E-10	6.23	87.5	28.82
100	15	0.44	4.25	10.12	1.05	9.90E-10	3.69	50	101.43
100	30	0.27	4.25	10.12	1.05	9.90E-10	3.69	50	55.65
100	60	0.15	4.25	10.12	1.05	9.90E-10	3.69	50	30.47
100	90	0.10	4.25	10.12	1.05	9.90E-10	3.69	50	21.40
250	30	0.27	4.25	10.12	1.05	9.90E-10	5.22	125	144.79
250	60	0.15	4.25	10.12	1.05	9.90E-10	5.22	125	79.29
250	90	0.10	4.25	10.12	1.05	9.90E-10	5.22	125	55.69
250	120	0.08	4.25	10.12	1.05	9.90E-10	5.22	125	41.67
350	60	0.15	4.25	10.12	1.05	9.90E-10	6.23	175	111.82
350	90	0.10	4.25	10.12	1.05	9.90E-10	6.23	175	78.54
350	120	0.08	4.25	10.12	1.05	9.90E-10	6.23	175	58.77
100	15	0.44	4.25	10.12	1.05	9.90E-10	3.69	100	206.82
100	30	0.27	4.25	10.12	1.05	9.90E-10	3.69	100	113.46
100	60	0.15	4.25	10.12	1.05	9.90E-10	3.69	100	62.14
100	90	0.10	4.25	10.12	1.05	9.90E-10	3.69	100	43.65
250	30	0.27	4.25	10.12	1.05	9.90E-10	5.22	250	295.22
250	60	0.15	4.25	10.12	1.05	9.90E-10	5.22	250	161.68
250	90	0.10	4.25	10.12	1.05	9.90E-10	5.22	250	113.56
250	120	0.08	4.25	10.12	1.05	9.90E-10	5.22	250	84.97
350	60	0.15	4.25	10.12	1.05	9.90E-10	6.23	350	228.01
350	90	0.10	4.25	10.12	1.05	9.90E-10	6.23	350	160.15
350	120	0.08	4.25	10.12	1.05	9.90E-10	6.23	350	119.83
100	15	0.44	4.25	10.12	1.05	9.90E-12	3.69	25	0.50
100	30	0.27	4.25	10.12	1.05	9.90E-12	3.69	25	0.27
100	60	0.15	4.25	10.12	1.05	9.90E-12	3.69	25	0.15
100	90	0.10	4.25	10.12	1.05	9.90E-12	3.69	25	0.10
250	30	0.27	4.25	10.12	1.05	9.90E-12	5.22	62.5	0.71
250	60	0.15	4.25	10.12	1.05	9.90E-12	5.22	62.5	0.39
250	90	0.10	4.25	10.12	1.05	9.90E-12	5.22	62.5	0.27
250	120	0.08	4.25	10.12	1.05	9.90E-12	5.22	62.5	0.20

350	60	0.15	4.25	10.12	1.05	9.90E-12	6.23	87.5	0.55
350	90	0.10	4.25	10.12	1.05	9.90E-12	6.23	87.5	0.38
350	120	0.08	4.25	10.12	1.05	9.90E-12	6.23	87.5	0.29
100	15	0.44	4.25	10.12	1.05	9.90E-12	3.69	50	1.01
100	30	0.27	4.25	10.12	1.05	9.90E-12	3.69	50	0.56
100	60	0.15	4.25	10.12	1.05	9.90E-12	3.69	50	0.30
100	90	0.10	4.25	10.12	1.05	9.90E-12	3.69	50	0.21
250	30	0.27	4.25	10.12	1.05	9.90E-12	5.22	125	1.45
250	60	0.15	4.25	10.12	1.05	9.90E-12	5.22	125	0.79
250	90	0.10	4.25	10.12	1.05	9.90E-12	5.22	125	0.56
250	120	0.08	4.25	10.12	1.05	9.90E-12	5.22	125	0.42
350	60	0.15	4.25	10.12	1.05	9.90E-12	6.23	175	1.12
350	90	0.10	4.25	10.12	1.05	9.90E-12	6.23	175	0.78
350	120	0.08	4.25	10.12	1.05	9.90E-12	6.23	175	0.59
100	15	0.44	4.25	10.12	1.05	9.90E-12	3.69	100	2.07
100	30	0.27	4.25	10.12	1.05	9.90E-12	3.69	100	1.13
100	60	0.15	4.25	10.12	1.05	9.90E-12	3.69	100	0.62
100	90	0.10	4.25	10.12	1.05	9.90E-12	3.69	100	0.44
250	30	0.27	4.25	10.12	1.05	9.90E-12	5.22	250	2.95
250	60	0.15	4.25	10.12	1.05	9.90E-12	5.22	250	1.61
250	90	0.10	4.25	10.12	1.05	9.90E-12	5.22	250	1.13
250	120	0.08	4.25	10.12	1.05	9.90E-12	5.22	250	0.85
350	60	0.15	4.25	10.12	1.05	9.90E-12	6.23	350	2.28
350	90	0.10	4.25	10.12	1.05	9.90E-12	6.23	350	1.60
350	120	0.08	4.25	10.12	1.05	9.90E-12	6.23	350	1.20
100	15	0.44	6.69	18.00	2.05	4.95E-10	5.06	25	24.93
100	30	0.27	6.69	18.00	2.05	4.95E-10	5.06	25	13.68
100	60	0.15	6.69	18.00	2.05	4.95E-10	5.06	25	7.49
100	90	0.10	6.69	18.00	2.05	4.95E-10	5.06	25	5.26
250	30	0.27	6.69	18.00	2.05	4.95E-10	6.78	62.5	35.59
250	60	0.15	6.69	18.00	2.05	4.95E-10	6.78	62.5	19.49
250	90	0.10	6.69	18.00	2.05	4.95E-10	6.78	62.5	13.69
250	120	0.08	6.69	18.00	2.05	4.95E-10	6.78	62.5	10.24
350	30	0.27	6.69	18.00	2.05	4.95E-10	7.92	87.5	50.18
350	60	0.15	6.69	18.00	2.05	4.95E-10	7.92	87.5	27.48
350	90	0.10	6.69	18.00	2.05	4.95E-10	7.92	87.5	19.30
350	120	0.08	6.69	18.00	2.05	4.95E-10	7.92	87.5	14.44
100	15	0.44	6.69	18.00	2.05	4.95E-10	5.06	50	50.83
100	30	0.27	6.69	18.00	2.05	4.95E-10	5.06	50	27.89
100	60	0.15	6.69	18.00	2.05	4.95E-10	5.06	50	15.27
100	90	0.10	6.69	18.00	2.05	4.95E-10	5.06	50	10.73

250	30	0.27	6.69	18.00	2.05	4.95E-10	6.78	125	72.56
250	60	0.15	6.69	18.00	2.05	4.95E-10	6.78	125	39.74
250	90	0.10	6.69	18.00	2.05	4.95E-10	6.78	125	27.91
250	120	0.08	6.69	18.00	2.05	4.95E-10	6.78	125	20.88
350	30	0.27	6.69	18.00	2.05	4.95E-10	7.92	175	102.33
350	60	0.15	6.69	18.00	2.05	4.95E-10	7.92	175	56.04
350	90	0.10	6.69	18.00	2.05	4.95E-10	7.92	175	39.36
350	120	0.08	6.69	18.00	2.05	4.95E-10	7.92	175	29.45
100	15	0.44	6.69	18.00	2.05	4.95E-10	5.06	100	103.65
100	30	0.27	6.69	18.00	2.05	4.95E-10	5.06	100	56.86
100	60	0.15	6.69	18.00	2.05	4.95E-10	5.06	100	31.14
100	90	0.10	6.69	18.00	2.05	4.95E-10	5.06	100	21.87
250	30	0.27	6.69	18.00	2.05	4.95E-10	6.78	250	147.95
250	60	0.15	6.69	18.00	2.05	4.95E-10	6.78	250	81.03
250	90	0.10	6.69	18.00	2.05	4.95E-10	6.78	250	56.91
250	120	0.08	6.69	18.00	2.05	4.95E-10	6.78	250	42.58
350	30	0.27	6.69	18.00	2.05	4.95E-10	7.92	350	208.65
350	60	0.15	6.69	18.00	2.05	4.95E-10	7.92	350	114.27
350	90	0.10	6.69	18.00	2.05	4.95E-10	7.92	350	80.26
350	120	0.08	6.69	18.00	2.05	4.95E-10	7.92	350	60.05
100	15	0.44	6.69	18.00	2.05	9.90E-10	5.06	25	49.87
100	30	0.27	6.69	18.00	2.05	9.90E-10	5.06	25	27.36
100	60	0.15	6.69	18.00	2.05	9.90E-10	5.06	25	14.98
100	90	0.10	6.69	18.00	2.05	9.90E-10	5.06	25	10.52
250	30	0.27	6.69	18.00	2.05	9.90E-10	6.78	62.5	71.19
250	60	0.15	6.69	18.00	2.05	9.90E-10	6.78	62.5	38.99
250	90	0.10	6.69	18.00	2.05	9.90E-10	6.78	62.5	27.38
250	120	0.08	6.69	18.00	2.05	9.90E-10	6.78	62.5	20.49
350	30	0.27	6.69	18.00	2.05	9.90E-10	7.92	87.5	100.39
350	60	0.15	6.69	18.00	2.05	9.90E-10	7.92	87.5	54.98
350	90	0.10	6.69	18.00	2.05	9.90E-10	7.92	87.5	38.62
350	120	0.08	6.69	18.00	2.05	9.90E-10	7.92	87.5	28.89
100	15	0.44	6.69	18.00	2.05	9.90E-10	5.06	50	101.69
100	30	0.27	6.69	18.00	2.05	9.90E-10	5.06	50	55.79
100	60	0.15	6.69	18.00	2.05	9.90E-10	5.06	50	30.55
100	90	0.10	6.69	18.00	2.05	9.90E-10	5.06	50	21.46
250	30	0.27	6.69	18.00	2.05	9.90E-10	6.78	125	145.16
250	60	0.15	6.69	18.00	2.05	9.90E-10	6.78	125	79.50
250	90	0.10	6.69	18.00	2.05	9.90E-10	6.78	125	55.84
250	120	0.08	6.69	18.00	2.05	9.90E-10	6.78	125	41.78
350	30	0.27	6.69	18.00	2.05	9.90E-10	7.92	175	204.71

350	60	0.15	6.69	18.00	2.05	9.90E-10	7.92	175	112.11
350	90	0.10	6.69	18.00	2.05	9.90E-10	7.92	175	78.74
350	120	0.08	6.69	18.00	2.05	9.90E-10	7.92	175	58.92
100	15	0.44	6.69	18.00	2.05	9.90E-10	5.06	100	207.35
100	30	0.27	6.69	18.00	2.05	9.90E-10	5.06	100	113.76
100	60	0.15	6.69	18.00	2.05	9.90E-10	5.06	100	62.30
100	90	0.10	6.69	18.00	2.05	9.90E-10	5.06	100	43.76
250	30	0.27	6.69	18.00	2.05	9.90E-10	6.78	250	295.98
250	60	0.15	6.69	18.00	2.05	9.90E-10	6.78	250	162.10
250	90	0.10	6.69	18.00	2.05	9.90E-10	6.78	250	113.85
250	120	0.08	6.69	18.00	2.05	9.90E-10	6.78	250	85.19
350	30	0.27	6.69	18.00	2.05	9.90E-10	7.92	350	417.40
350	60	0.15	6.69	18.00	2.05	9.90E-10	7.92	350	228.59
350	90	0.10	6.69	18.00	2.05	9.90E-10	7.92	350	160.56
350	120	0.08	6.69	18.00	2.05	9.90E-10	7.92	350	120.13
100	15	0.44	6.69	18.00	2.05	9.90E-12	5.06	25	0.50
100	30	0.27	6.69	18.00	2.05	9.90E-12	5.06	25	0.27
100	60	0.15	6.69	18.00	2.05	9.90E-12	5.06	25	0.15
100	90	0.10	6.69	18.00	2.05	9.90E-12	5.06	25	0.11
250	30	0.27	6.69	18.00	2.05	9.90E-12	6.78	62.5	0.71
250	60	0.15	6.69	18.00	2.05	9.90E-12	6.78	62.5	0.39
250	90	0.10	6.69	18.00	2.05	9.90E-12	6.78	62.5	0.27
250	120	0.08	6.69	18.00	2.05	9.90E-12	6.78	62.5	0.20
350	30	0.27	6.69	18.00	2.05	9.90E-12	7.92	87.5	1.00
350	60	0.15	6.69	18.00	2.05	9.90E-12	7.92	87.5	0.55
350	90	0.10	6.69	18.00	2.05	9.90E-12	7.92	87.5	0.39
350	120	0.08	6.69	18.00	2.05	9.90E-12	7.92	87.5	0.29
100	15	0.44	6.69	18.00	2.05	9.90E-12	5.06	50	1.02
100	30	0.27	6.69	18.00	2.05	9.90E-12	5.06	50	0.56
100	60	0.15	6.69	18.00	2.05	9.90E-12	5.06	50	0.30
100	90	0.10	6.69	18.00	2.05	9.90E-12	5.06	50	0.21
250	30	0.27	6.69	18.00	2.05	9.90E-12	6.78	125	1.45
250	60	0.15	6.69	18.00	2.05	9.90E-12	6.78	125	0.79
250	90	0.10	6.69	18.00	2.05	9.90E-12	6.78	125	0.56
250	120	0.08	6.69	18.00	2.05	9.90E-12	6.78	125	0.42
350	30	0.27	6.69	18.00	2.05	9.90E-12	7.92	175	2.04
350	60	0.15	6.69	18.00	2.05	9.90E-12	7.92	175	1.12
350	90	0.10	6.69	18.00	2.05	9.90E-12	7.92	175	0.79
350	120	0.08	6.69	18.00	2.05	9.90E-12	7.92	175	0.59
100	15	0.44	6.69	18.00	2.05	9.90E-12	5.06	100	2.07
100	30	0.27	6.69	18.00	2.05	9.90E-12	5.06	100	1.14

100	60	0.15	6.69	18.00	2.05	9.90E-12	5.06	100	0.62
100	90	0.10	6.69	18.00	2.05	9.90E-12	5.06	100	0.44
250	30	0.27	6.69	18.00	2.05	9.90E-12	6.78	250	2.96
250	60	0.15	6.69	18.00	2.05	9.90E-12	6.78	250	1.62
250	90	0.10	6.69	18.00	2.05	9.90E-12	6.78	250	1.14
250	120	0.08	6.69	18.00	2.05	9.90E-12	6.78	250	0.85
350	30	0.27	6.69	18.00	2.05	9.90E-12	7.92	350	4.17
350	60	0.15	6.69	18.00	2.05	9.90E-12	7.92	350	2.28
350	90	0.10	6.69	18.00	2.05	9.90E-12	7.92	350	1.60
350	120	0.08	6.69	18.00	2.05	9.90E-12	7.92	350	1.20
100	15	0.44	1.51	3.62	0.32	4.95E-10	2.14	25	24.69
100	30	0.27	1.51	3.62	0.32	4.95E-10	2.14	25	13.54
100	60	0.15	1.51	3.62	0.32	4.95E-10	2.14	25	7.42
100	90	0.10	1.51	3.62	0.32	4.95E-10	2.14	25	5.21
250	60	0.15	1.51	3.62	0.32	4.95E-10	3.46	62.5	19.30
250	90	0.10	1.51	3.62	0.32	4.95E-10	3.46	62.5	13.55
250	120	0.08	1.51	3.62	0.32	4.95E-10	3.46	62.5	10.14
350	60	0.15	1.51	3.62	0.32	4.95E-10	4.33	87.5	27.21
350	90	0.10	1.51	3.62	0.32	4.95E-10	4.33	87.5	19.11
350	120	0.08	1.51	3.62	0.32	4.95E-10	4.33	87.5	14.30
100	15	0.44	1.51	3.62	0.32	4.95E-10	2.14	50	50.34
100	30	0.27	1.51	3.62	0.32	4.95E-10	2.14	50	27.61
100	60	0.15	1.51	3.62	0.32	4.95E-10	2.14	50	15.12
100	90	0.10	1.51	3.62	0.32	4.95E-10	2.14	50	10.62
250	60	0.15	1.51	3.62	0.32	4.95E-10	3.46	125	39.35
250	90	0.10	1.51	3.62	0.32	4.95E-10	3.46	125	27.64
250	120	0.08	1.51	3.62	0.32	4.95E-10	3.46	125	20.68
350	60	0.15	1.51	3.62	0.32	4.95E-10	4.33	175	55.49
350	90	0.10	1.51	3.62	0.32	4.95E-10	4.33	175	38.98
350	120	0.08	1.51	3.62	0.32	4.95E-10	4.33	175	29.16
100	15	0.44	1.51	3.62	0.32	4.95E-10	2.14	100	102.64
100	30	0.27	1.51	3.62	0.32	4.95E-10	2.14	100	56.31
100	60	0.15	1.51	3.62	0.32	4.95E-10	2.14	100	30.84
100	90	0.10	1.51	3.62	0.32	4.95E-10	2.14	100	21.66
250	60	0.15	1.51	3.62	0.32	4.95E-10	3.46	250	80.24
250	90	0.10	1.51	3.62	0.32	4.95E-10	3.46	250	56.36
250	120	0.08	1.51	3.62	0.32	4.95E-10	3.46	250	42.17
350	60	0.15	1.51	3.62	0.32	4.95E-10	4.33	350	113.15
350	90	0.10	1.51	3.62	0.32	4.95E-10	4.33	350	79.47
350	120	0.08	1.51	3.62	0.32	4.95E-10	4.33	350	59.47
100	15	0.44	1.51	3.62	0.32	9.90E-10	2.14	25	49.38

100	30	0.27	1.51	3.62	0.32	9.90E-10	2.14	25	27.09
100	60	0.15	1.51	3.62	0.32	9.90E-10	2.14	25	14.84
100	90	0.10	1.51	3.62	0.32	9.90E-10	2.14	25	10.42
250	60	0.15	1.51	3.62	0.32	9.90E-10	3.46	62.5	38.61
250	90	0.10	1.51	3.62	0.32	9.90E-10	3.46	62.5	27.12
250	120	0.08	1.51	3.62	0.32	9.90E-10	3.46	62.5	20.29
350	60	0.15	1.51	3.62	0.32	9.90E-10	4.33	87.5	54.44
350	90	0.10	1.51	3.62	0.32	9.90E-10	4.33	87.5	38.24
350	120	0.08	1.51	3.62	0.32	9.90E-10	4.33	87.5	28.61
100	15	0.44	1.51	3.62	0.32	9.90E-10	2.14	50	100.69
100	30	0.27	1.51	3.62	0.32	9.90E-10	2.14	50	55.24
100	60	0.15	1.51	3.62	0.32	9.90E-10	2.14	50	30.25
100	90	0.10	1.51	3.62	0.32	9.90E-10	2.14	50	21.25
250	60	0.15	1.51	3.62	0.32	9.90E-10	3.46	125	78.72
250	90	0.10	1.51	3.62	0.32	9.90E-10	3.46	125	55.29
250	120	0.08	1.51	3.62	0.32	9.90E-10	3.46	125	41.37
350	60	0.15	1.51	3.62	0.32	9.90E-10	4.33	175	111.01
350	90	0.10	1.51	3.62	0.32	9.90E-10	4.33	175	77.97
350	120	0.08	1.51	3.62	0.32	9.90E-10	4.33	175	58.34
100	15	0.44	1.51	3.62	0.32	9.90E-10	2.14	100	205.32
100	30	0.27	1.51	3.62	0.32	9.90E-10	2.14	100	112.64
100	60	0.15	1.51	3.62	0.32	9.90E-10	2.14	100	61.69
100	90	0.10	1.51	3.62	0.32	9.90E-10	2.14	100	43.33
250	60	0.15	1.51	3.62	0.32	9.90E-10	3.46	250	160.51
250	90	0.10	1.51	3.62	0.32	9.90E-10	3.46	250	112.74
250	120	0.08	1.51	3.62	0.32	9.90E-10	3.46	250	84.35
350	60	0.15	1.51	3.62	0.32	9.90E-10	4.33	350	226.36
350	90	0.10	1.51	3.62	0.32	9.90E-10	4.33	350	158.99
350	120	0.08	1.51	3.62	0.32	9.90E-10	4.33	350	118.96
100	15	0.44	1.51	3.62	0.32	9.90E-12	2.14	25	0.49
100	30	0.27	1.51	3.62	0.32	9.90E-12	2.14	25	0.27
100	60	0.15	1.51	3.62	0.32	9.90E-12	2.14	25	0.15
100	90	0.10	1.51	3.62	0.32	9.90E-12	2.14	25	0.10
250	60	0.15	1.51	3.62	0.32	9.90E-12	3.46	62.5	0.39
250	90	0.10	1.51	3.62	0.32	9.90E-12	3.46	62.5	0.27
250	120	0.08	1.51	3.62	0.32	9.90E-12	3.46	62.5	0.20
350	60	0.15	1.51	3.62	0.32	9.90E-12	4.33	87.5	0.54
350	90	0.10	1.51	3.62	0.32	9.90E-12	4.33	87.5	0.38
350	120	0.08	1.51	3.62	0.32	9.90E-12	4.33	87.5	0.29
100	15	0.44	1.51	3.62	0.32	9.90E-12	2.14	50	1.01
100	30	0.27	1.51	3.62	0.32	9.90E-12	2.14	50	0.55

100	60	0.15	1.51	3.62	0.32	9.90E-12	2.14	50	0.30
100	90	0.10	1.51	3.62	0.32	9.90E-12	2.14	50	0.21
250	60	0.15	1.51	3.62	0.32	9.90E-12	3.46	125	0.79
250	90	0.10	1.51	3.62	0.32	9.90E-12	3.46	125	0.55
250	120	0.08	1.51	3.62	0.32	9.90E-12	3.46	125	0.41
350	60	0.15	1.51	3.62	0.32	9.90E-12	4.33	175	1.11
350	90	0.10	1.51	3.62	0.32	9.90E-12	4.33	175	0.78
350	120	0.08	1.51	3.62	0.32	9.90E-12	4.33	175	0.58
100	15	0.44	1.51	3.62	0.32	9.90E-12	2.14	100	2.05
100	30	0.27	1.51	3.62	0.32	9.90E-12	2.14	100	1.12
100	60	0.15	1.51	3.62	0.32	9.90E-12	2.14	100	0.63
100	90	0.10	1.51	3.62	0.32	9.90E-12	2.14	100	0.44
250	60	0.15	1.51	3.62	0.32	9.90E-12	3.46	250	1.60
250	90	0.10	1.51	3.62	0.32	9.90E-12	3.46	250	1.10
250	120	0.08	1.51	3.62	0.32	9.90E-12	3.46	250	0.84
350	60	0.15	1.51	3.62	0.32	9.90E-12	4.33	350	2.24
350	90	0.10	1.51	3.62	0.32	9.90E-12	4.33	350	1.54
350	120	0.08	1.51	3.62	0.32	9.90E-12	4.33	350	1.17

Annexure V

Parametric Modelling Results of Seepage rate through Pillar and Roof

Table AV.1. Numerical modelling results of seepage rate through pillar and roof

D, m	w, m	e, %	$\frac{E_i}{E_c}$	σ_T, MPa	σ_C, MPa	K_R, m^2/pa.sec	σ_{hi}, MPa	H, m	Q, 10^{-3} m^3/s/km
100	15	0.44	4.25	1.05	10.12	6.70E-12	3.69	25	0.83
100	30	0.27	4.25	1.05	10.12	6.70E-12	3.69	25	0.47
100	60	0.15	4.25	1.05	10.12	6.70E-12	3.69	25	0.24
100	90	0.1	4.25	1.05	10.12	6.70E-12	3.69	25	0.17
250	30	0.27	4.25	1.05	10.12	6.70E-12	5.22	62.5	1.14
250	60	0.15	4.25	1.05	10.12	6.70E-12	5.22	62.5	0.62
250	90	0.1	4.25	1.05	10.12	6.70E-12	5.22	62.5	0.42
250	120	0.08	4.25	1.05	10.12	6.70E-12	5.22	62.5	0.32
350	60	0.15	4.25	1.05	10.12	6.70E-12	6.23	87.5	0.86
350	90	0.1	4.25	1.05	10.12	6.70E-12	6.23	87.5	0.59
350	120	0.08	4.25	1.05	10.12	6.70E-12	6.23	87.5	0.44
100	15	0.44	4.25	1.05	10.12	6.70E-12	3.69	50	1.66
100	30	0.27	4.25	1.05	10.12	6.70E-12	3.69	50	0.93
100	60	0.15	4.25	1.05	10.12	6.70E-12	3.69	50	0.49
100	90	0.1	4.25	1.05	10.12	6.70E-12	3.69	50	0.33
250	30	0.27	4.25	1.05	10.12	6.70E-12	5.22	125	2.28
250	60	0.15	4.25	1.05	10.12	6.70E-12	5.22	125	1.23
250	90	0.1	4.25	1.05	10.12	6.70E-12	5.22	125	0.83
250	120	0.08	4.25	1.05	10.12	6.70E-12	5.22	125	0.63
350	60	0.15	4.25	1.05	10.12	6.70E-12	6.23	175	1.71
350	90	0.1	4.25	1.05	10.12	6.70E-12	6.23	175	1.17
350	120	0.08	4.25	1.05	10.12	6.70E-12	6.23	175	0.88
100	15	0.44	4.25	1.05	10.12	6.70E-12	3.69	100	3.32
100	30	0.27	4.25	1.05	10.12	6.70E-12	3.69	100	1.87
100	60	0.15	4.25	1.05	10.12	6.70E-12	3.69	100	0.98
100	90	0.1	4.25	1.05	10.12	6.70E-12	3.69	100	0.67
250	30	0.27	4.25	1.05	10.12	6.70E-12	5.22	250	4.56
250	60	0.15	4.25	1.05	10.12	6.70E-12	5.22	250	2.47
250	90	0.1	4.25	1.05	10.12	6.70E-12	5.22	250	1.67
250	120	0.08	4.25	1.05	10.12	6.70E-12	5.22	250	1.26
350	60	0.15	4.25	1.05	10.12	6.70E-12	6.23	350	3.43
350	90	0.1	4.25	1.05	10.12	6.70E-12	6.23	350	2.34
350	120	0.08	4.25	1.05	10.12	6.70E-12	6.23	350	1.77

100	15	0.44	4.25	1.05	10.12	3.30E-10	3.69	25	40.72
100	30	0.27	4.25	1.05	10.12	3.30E-10	3.69	25	23.01
100	60	0.15	4.25	1.05	10.12	3.30E-10	3.69	25	11.98
100	90	0.1	4.25	1.05	10.12	3.30E-10	3.69	25	8.08
250	30	0.27	4.25	1.05	10.12	3.30E-10	5.22	62.5	56.02
250	60	0.15	4.25	1.05	10.12	3.30E-10	5.22	62.5	30.56
250	90	0.1	4.25	1.05	10.12	3.30E-10	5.22	62.5	20.60
250	120	0.08	4.25	1.05	10.12	3.30E-10	5.22	62.5	15.55
350	60	0.15	4.25	1.05	10.12	3.30E-10	6.23	87.5	42.32
350	90	0.1	4.25	1.05	10.12	3.30E-10	6.23	87.5	28.80
350	120	0.08	4.25	1.05	10.12	3.30E-10	6.23	87.5	21.77
100	15	0.44	4.25	1.05	10.12	3.30E-10	3.69	50	81.45
100	30	0.27	4.25	1.05	10.12	3.30E-10	3.69	50	46.02
100	60	0.15	4.25	1.05	10.12	3.30E-10	3.69	50	23.97
100	90	0.1	4.25	1.05	10.12	3.30E-10	3.69	50	16.15
250	30	0.27	4.25	1.05	10.12	3.30E-10	5.22	125	112.04
250	60	0.15	4.25	1.05	10.12	3.30E-10	5.22	125	61.11
250	90	0.1	4.25	1.05	10.12	3.30E-10	5.22	125	41.20
250	120	0.08	4.25	1.05	10.12	3.30E-10	5.22	125	31.10
350	60	0.15	4.25	1.05	10.12	3.30E-10	6.23	175	84.63
350	90	0.1	4.25	1.05	10.12	3.30E-10	6.23	175	57.61
350	120	0.08	4.25	1.05	10.12	3.30E-10	6.23	175	43.55
100	15	0.44	4.25	1.05	10.12	3.30E-10	3.69	100	162.89
100	30	0.27	4.25	1.05	10.12	3.30E-10	3.69	100	92.03
100	60	0.15	4.25	1.05	10.12	3.30E-10	3.69	100	47.93
100	90	0.1	4.25	1.05	10.12	3.30E-10	3.69	100	32.31
250	30	0.27	4.25	1.05	10.12	3.30E-10	5.22	250	224.08
250	60	0.15	4.25	1.05	10.12	3.30E-10	5.22	250	122.22
250	90	0.1	4.25	1.05	10.12	3.30E-10	5.22	250	82.40
250	120	0.08	4.25	1.05	10.12	3.30E-10	5.22	250	62.19
350	60	0.15	4.25	1.05	10.12	3.30E-10	6.23	350	169.27
350	90	0.1	4.25	1.05	10.12	3.30E-10	6.23	350	115.21
350	120	0.08	4.25	1.05	10.12	3.30E-10	6.23	350	87.09
100	15	0.44	4.25	1.05	10.12	6.60E-10	3.69	25	81.27
100	30	0.27	4.25	1.05	10.12	6.60E-10	3.69	25	44.65
100	60	0.15	4.25	1.05	10.12	6.60E-10	3.69	25	24.00
100	90	0.1	4.25	1.05	10.12	6.60E-10	3.69	25	16.49
250	30	0.27	4.25	1.05	10.12	6.60E-10	5.22	62.5	112.53
250	60	0.15	4.25	1.05	10.12	6.60E-10	5.22	62.5	60.50
250	90	0.1	4.25	1.05	10.12	6.60E-10	5.22	62.5	40.76
250	120	0.08	4.25	1.05	10.12	6.60E-10	5.22	62.5	31.50

350	60	0.15	4.25	1.05	10.12	6.60E-10	6.23	87.5	86.00
350	90	0.1	4.25	1.05	10.12	6.60E-10	6.23	87.5	57.09
350	120	0.08	4.25	1.05	10.12	6.60E-10	6.23	87.5	43.16
100	15	0.44	4.25	1.05	10.12	6.60E-10	3.69	50	162.54
100	30	0.27	4.25	1.05	10.12	6.60E-10	3.69	50	89.30
100	60	0.15	4.25	1.05	10.12	6.60E-10	3.69	50	48.01
100	90	0.1	4.25	1.05	10.12	6.60E-10	3.69	50	32.97
250	30	0.27	4.25	1.05	10.12	6.60E-10	5.22	125	225.07
250	60	0.15	4.25	1.05	10.12	6.60E-10	5.22	125	120.99
250	90	0.1	4.25	1.05	10.12	6.60E-10	5.22	125	81.52
250	120	0.08	4.25	1.05	10.12	6.60E-10	5.22	125	63.00
350	60	0.15	4.25	1.05	10.12	6.60E-10	6.23	175	171.99
350	90	0.1	4.25	1.05	10.12	6.60E-10	6.23	175	114.17
350	120	0.08	4.25	1.05	10.12	6.60E-10	6.23	175	86.31
100	15	0.44	4.25	1.05	10.12	6.60E-10	3.69	100	325.08
100	30	0.27	4.25	1.05	10.12	6.60E-10	3.69	100	178.61
100	60	0.15	4.25	1.05	10.12	6.60E-10	3.69	100	96.01
100	90	0.1	4.25	1.05	10.12	6.60E-10	3.69	100	65.95
250	30	0.27	4.25	1.05	10.12	6.60E-10	5.22	250	450.14
250	60	0.15	4.25	1.05	10.12	6.60E-10	5.22	250	241.98
250	90	0.1	4.25	1.05	10.12	6.60E-10	5.22	250	163.04
250	120	0.08	4.25	1.05	10.12	6.60E-10	5.22	250	126.00
350	60	0.15	4.25	1.05	10.12	6.60E-10	6.23	350	343.98
350	90	0.1	4.25	1.05	10.12	6.60E-10	6.23	350	228.34
350	120	0.08	4.25	1.05	10.12	6.60E-10	6.23	350	172.62
100	15	0.44	4.25	1.05	10.12	1.49E-11	3.69	25	2.06
100	30	0.27	4.25	1.05	10.12	1.49E-11	3.69	25	1.07
100	60	0.15	4.25	1.05	10.12	1.49E-11	3.69	25	0.54
100	90	0.1	4.25	1.05	10.12	1.49E-11	3.69	25	0.36
250	30	0.27	4.25	1.05	10.12	1.49E-11	5.22	62.5	3.72
250	60	0.15	4.25	1.05	10.12	1.49E-11	5.22	62.5	1.40
250	90	0.1	4.25	1.05	10.12	1.49E-11	5.22	62.5	0.93
250	120	0.08	4.25	1.05	10.12	1.49E-11	5.22	62.5	0.69
350	60	0.15	4.25	1.05	10.12	1.49E-11	6.23	87.5	1.98
350	90	0.1	4.25	1.05	10.12	1.49E-11	6.23	87.5	1.30
350	120	0.08	4.25	1.05	10.12	1.49E-11	6.23	87.5	0.98
100	15	0.44	4.25	1.05	10.12	1.49E-11	3.69	50	4.12
100	30	0.27	4.25	1.05	10.12	1.49E-11	3.69	50	2.14
100	60	0.15	4.25	1.05	10.12	1.49E-11	3.69	50	1.09
100	90	0.1	4.25	1.05	10.12	1.49E-11	3.69	50	0.73
250	30	0.27	4.25	1.05	10.12	1.49E-11	5.22	125	7.43

250	60	0.15	4.25	1.05	10.12	1.49E-11	5.22	125	2.79
250	90	0.1	4.25	1.05	10.12	1.49E-11	5.22	125	1.85
250	120	0.08	4.25	1.05	10.12	1.49E-11	5.22	125	1.39
350	60	0.15	4.25	1.05	10.12	1.49E-11	6.23	175	3.96
350	90	0.1	4.25	1.05	10.12	1.49E-11	6.23	175	2.60
350	120	0.08	4.25	1.05	10.12	1.49E-11	6.23	175	1.95
100	15	0.44	4.25	1.05	10.12	1.49E-11	3.69	100	8.24
100	30	0.27	4.25	1.05	10.12	1.49E-11	3.69	100	4.28
100	60	0.15	4.25	1.05	10.12	1.49E-11	3.69	100	2.18
100	90	0.1	4.25	1.05	10.12	1.49E-11	3.69	100	1.46
250	30	0.27	4.25	1.05	10.12	1.49E-11	5.22	250	14.87
250	60	0.15	4.25	1.05	10.12	1.49E-11	5.22	250	5.59
250	90	0.1	4.25	1.05	10.12	1.49E-11	5.22	250	3.71
250	120	0.08	4.25	1.05	10.12	1.49E-11	5.22	250	2.77
350	60	0.15	4.25	1.05	10.12	1.49E-11	6.23	350	7.92
350	90	0.1	4.25	1.05	10.12	1.49E-11	6.23	350	5.19
350	120	0.08	4.25	1.05	10.12	1.49E-11	6.23	350	3.91
100	15	0.44	4.25	1.05	10.12	3.38E-10	3.69	25	42.11
100	30	0.27	4.25	1.05	10.12	3.38E-10	3.69	25	23.62
100	60	0.15	4.25	1.05	10.12	3.38E-10	3.69	25	12.32
100	90	0.1	4.25	1.05	10.12	3.38E-10	3.69	25	8.44
250	30	0.27	4.25	1.05	10.12	3.38E-10	5.22	62.5	57.90
250	60	0.15	4.25	1.05	10.12	3.38E-10	5.22	62.5	31.06
250	90	0.1	4.25	1.05	10.12	3.38E-10	5.22	62.5	21.07
250	120	0.08	4.25	1.05	10.12	3.38E-10	5.22	62.5	15.91
350	60	0.15	4.25	1.05	10.12	3.38E-10	6.23	87.5	43.28
350	90	0.1	4.25	1.05	10.12	3.38E-10	6.23	87.5	29.55
350	120	0.08	4.25	1.05	10.12	3.38E-10	6.23	87.5	22.30
100	15	0.44	4.25	1.05	10.12	3.38E-10	3.69	50	84.22
100	30	0.27	4.25	1.05	10.12	3.38E-10	3.69	50	47.24
100	60	0.15	4.25	1.05	10.12	3.38E-10	3.69	50	24.64
100	90	0.1	4.25	1.05	10.12	3.38E-10	3.69	50	16.88
250	30	0.27	4.25	1.05	10.12	3.38E-10	5.22	125	115.79
250	60	0.15	4.25	1.05	10.12	3.38E-10	5.22	125	62.12
250	90	0.1	4.25	1.05	10.12	3.38E-10	5.22	125	42.15
250	120	0.08	4.25	1.05	10.12	3.38E-10	5.22	125	31.82
350	60	0.15	4.25	1.05	10.12	3.38E-10	6.23	175	86.56
350	90	0.1	4.25	1.05	10.12	3.38E-10	6.23	175	59.09
350	120	0.08	4.25	1.05	10.12	3.38E-10	6.23	175	44.60
100	15	0.44	4.25	1.05	10.12	3.38E-10	3.69	100	168.44
100	30	0.27	4.25	1.05	10.12	3.38E-10	3.69	100	94.47

100	60	0.15	4.25	1.05	10.12	3.38E-10	3.69	100	49.28
100	90	0.1	4.25	1.05	10.12	3.38E-10	3.69	100	33.76
250	30	0.27	4.25	1.05	10.12	3.38E-10	5.22	250	231.59
250	60	0.15	4.25	1.05	10.12	3.38E-10	5.22	250	124.24
250	90	0.1	4.25	1.05	10.12	3.38E-10	5.22	250	84.29
250	120	0.08	4.25	1.05	10.12	3.38E-10	5.22	250	63.63
350	60	0.15	4.25	1.05	10.12	3.38E-10	6.23	350	173.12
350	90	0.1	4.25	1.05	10.12	3.38E-10	6.23	350	118.19
350	120	0.08	4.25	1.05	10.12	3.38E-10	6.23	350	89.21
100	15	0.44	4.25	1.05	10.12	6.68E-10	3.69	25	82.79
100	30	0.27	4.25	1.05	10.12	6.68E-10	3.69	25	46.61
100	60	0.15	4.25	1.05	10.12	6.68E-10	3.69	25	24.26
100	90	0.1	4.25	1.05	10.12	6.68E-10	3.69	25	16.38
250	30	0.27	4.25	1.05	10.12	6.68E-10	5.22	62.5	113.43
250	60	0.15	4.25	1.05	10.12	6.68E-10	5.22	62.5	61.43
250	90	0.1	4.25	1.05	10.12	6.68E-10	5.22	62.5	41.64
250	120	0.08	4.25	1.05	10.12	6.68E-10	5.22	62.5	31.53
350	60	0.15	4.25	1.05	10.12	6.68E-10	6.23	87.5	85.68
350	90	0.1	4.25	1.05	10.12	6.68E-10	6.23	87.5	58.34
350	120	0.08	4.25	1.05	10.12	6.68E-10	6.23	87.5	44.10
100	15	0.44	4.25	1.05	10.12	6.68E-10	3.69	50	165.59
100	30	0.27	4.25	1.05	10.12	6.68E-10	3.69	50	93.21
100	60	0.15	4.25	1.05	10.12	6.68E-10	3.69	50	48.51
100	90	0.1	4.25	1.05	10.12	6.68E-10	3.69	50	32.76
250	30	0.27	4.25	1.05	10.12	6.68E-10	5.22	125	226.86
250	60	0.15	4.25	1.05	10.12	6.68E-10	5.22	125	122.85
250	90	0.1	4.25	1.05	10.12	6.68E-10	5.22	125	83.29
250	120	0.08	4.25	1.05	10.12	6.68E-10	5.22	125	63.06
350	60	0.15	4.25	1.05	10.12	6.68E-10	6.23	175	171.36
350	90	0.1	4.25	1.05	10.12	6.68E-10	6.23	175	116.68
350	120	0.08	4.25	1.05	10.12	6.68E-10	6.23	175	88.20
100	15	0.44	4.25	1.05	10.12	6.68E-10	3.69	100	331.18
100	30	0.27	4.25	1.05	10.12	6.68E-10	3.69	100	186.43
100	60	0.15	4.25	1.05	10.12	6.68E-10	3.69	100	97.02
100	90	0.1	4.25	1.05	10.12	6.68E-10	3.69	100	65.52
250	30	0.27	4.25	1.05	10.12	6.68E-10	5.22	250	453.73
250	60	0.15	4.25	1.05	10.12	6.68E-10	5.22	250	245.70
250	90	0.1	4.25	1.05	10.12	6.68E-10	5.22	250	166.57
250	120	0.08	4.25	1.05	10.12	6.68E-10	5.22	250	126.13
350	60	0.15	4.25	1.05	10.12	6.68E-10	6.23	350	342.72
350	90	0.1	4.25	1.05	10.12	6.68E-10	6.23	350	233.35

350	120	0.08	4.25	1.05	10.12	6.68E-10	6.23	350	176.40
100	15	0.44	4.25	1.05	10.12	3.96E-11	3.69	25	5.68
100	30	0.27	4.25	1.05	10.12	3.96E-11	3.69	25	2.88
100	60	0.15	4.25	1.05	10.12	3.96E-11	3.69	25	1.44
100	90	0.1	4.25	1.05	10.12	3.96E-11	3.69	25	0.96
250	30	0.27	4.25	1.05	10.12	3.96E-11	5.22	62.5	11.17
250	60	0.15	4.25	1.05	10.12	3.96E-11	5.22	62.5	3.72
250	90	0.1	4.25	1.05	10.12	3.96E-11	5.22	62.5	2.45
250	120	0.08	4.25	1.05	10.12	3.96E-11	5.22	62.5	1.83
350	60	0.15	4.25	1.05	10.12	3.96E-11	6.23	87.5	5.29
350	90	0.1	4.25	1.05	10.12	3.96E-11	6.23	87.5	3.43
350	120	0.08	4.25	1.05	10.12	3.96E-11	6.23	87.5	2.56
100	15	0.44	4.25	1.05	10.12	3.96E-11	3.69	50	11.35
100	30	0.27	4.25	1.05	10.12	3.96E-11	3.69	50	5.75
100	60	0.15	4.25	1.05	10.12	3.96E-11	3.69	50	2.89
100	90	0.1	4.25	1.05	10.12	3.96E-11	3.69	50	1.93
250	30	0.27	4.25	1.05	10.12	3.96E-11	5.22	125	22.33
250	60	0.15	4.25	1.05	10.12	3.96E-11	5.22	125	7.45
250	90	0.1	4.25	1.05	10.12	3.96E-11	5.22	125	4.91
250	120	0.08	4.25	1.05	10.12	3.96E-11	5.22	125	3.66
350	60	0.15	4.25	1.05	10.12	3.96E-11	6.23	175	10.58
350	90	0.1	4.25	1.05	10.12	3.96E-11	6.23	175	6.86
350	120	0.08	4.25	1.05	10.12	3.96E-11	6.23	175	5.12
100	15	0.44	4.25	1.05	10.12	3.96E-11	3.69	100	22.71
100	30	0.27	4.25	1.05	10.12	3.96E-11	3.69	100	11.50
100	60	0.15	4.25	1.05	10.12	3.96E-11	3.69	100	5.77
100	90	0.1	4.25	1.05	10.12	3.96E-11	3.69	100	3.85
250	30	0.27	4.25	1.05	10.12	3.96E-11	5.22	250	44.67
250	60	0.15	4.25	1.05	10.12	3.96E-11	5.22	250	14.89
250	90	0.1	4.25	1.05	10.12	3.96E-11	5.22	250	9.81
250	120	0.08	4.25	1.05	10.12	3.96E-11	5.22	250	7.31
350	60	0.15	4.25	1.05	10.12	3.96E-11	6.23	350	21.16
350	90	0.1	4.25	1.05	10.12	3.96E-11	6.23	350	13.72
350	120	0.08	4.25	1.05	10.12	3.96E-11	6.23	350	10.24
100	15	0.44	4.25	1.05	10.12	3.63E-10	3.69	25	46.12
100	30	0.27	4.25	1.05	10.12	3.63E-10	3.69	25	25.44
100	60	0.15	4.25	1.05	10.12	3.63E-10	3.69	25	13.14
100	90	0.1	4.25	1.05	10.12	3.63E-10	3.69	25	8.83
250	30	0.27	4.25	1.05	10.12	3.63E-10	5.22	62.5	68.48
250	60	0.15	4.25	1.05	10.12	3.63E-10	5.22	62.5	33.55
250	90	0.1	4.25	1.05	10.12	3.63E-10	5.22	62.5	22.61

250	120	0.08	4.25	1.05	10.12	3.63E-10	5.22	62.5	17.03
350	60	0.15	4.25	1.05	10.12	3.63E-10	6.23	87.5	47.26
350	90	0.1	4.25	1.05	10.12	3.63E-10	6.23	87.5	31.73
350	120	0.08	4.25	1.05	10.12	3.63E-10	6.23	87.5	23.98
100	15	0.44	4.25	1.05	10.12	3.63E-10	3.69	50	92.24
100	30	0.27	4.25	1.05	10.12	3.63E-10	3.69	50	50.88
100	60	0.15	4.25	1.05	10.12	3.63E-10	3.69	50	26.28
100	90	0.1	4.25	1.05	10.12	3.63E-10	3.69	50	17.67
250	30	0.27	4.25	1.05	10.12	3.63E-10	5.22	125	136.96
250	60	0.15	4.25	1.05	10.12	3.63E-10	5.22	125	67.11
250	90	0.1	4.25	1.05	10.12	3.63E-10	5.22	125	45.22
250	120	0.08	4.25	1.05	10.12	3.63E-10	5.22	125	34.06
350	60	0.15	4.25	1.05	10.12	3.63E-10	6.23	175	94.51
350	90	0.1	4.25	1.05	10.12	3.63E-10	6.23	175	63.47
350	120	0.08	4.25	1.05	10.12	3.63E-10	6.23	175	47.97
100	15	0.44	4.25	1.05	10.12	3.63E-10	3.69	100	184.49
100	30	0.27	4.25	1.05	10.12	3.63E-10	3.69	100	101.76
100	60	0.15	4.25	1.05	10.12	3.63E-10	3.69	100	52.57
100	90	0.1	4.25	1.05	10.12	3.63E-10	3.69	100	35.33
250	30	0.27	4.25	1.05	10.12	3.63E-10	5.22	250	273.92
250	60	0.15	4.25	1.05	10.12	3.63E-10	5.22	250	134.22
250	90	0.1	4.25	1.05	10.12	3.63E-10	5.22	250	90.44
250	120	0.08	4.25	1.05	10.12	3.63E-10	5.22	250	68.12
350	60	0.15	4.25	1.05	10.12	3.63E-10	6.23	350	189.03
350	90	0.1	4.25	1.05	10.12	3.63E-10	6.23	350	126.93
350	120	0.08	4.25	1.05	10.12	3.63E-10	6.23	350	95.94
100	15	0.44	4.25	1.05	10.12	6.93E-10	3.69	25	86.88
100	30	0.27	4.25	1.05	10.12	6.93E-10	3.69	25	48.44
100	60	0.15	4.25	1.05	10.12	6.93E-10	3.69	25	25.11
100	90	0.1	4.25	1.05	10.12	6.93E-10	3.69	25	16.91
250	30	0.27	4.25	1.05	10.12	6.93E-10	5.22	62.5	125.06
250	60	0.15	4.25	1.05	10.12	6.93E-10	5.22	62.5	63.88
250	90	0.1	4.25	1.05	10.12	6.93E-10	5.22	62.5	43.14
250	120	0.08	4.25	1.05	10.12	6.93E-10	5.22	62.5	32.54
350	60	0.15	4.25	1.05	10.12	6.93E-10	6.23	87.5	89.65
350	90	0.1	4.25	1.05	10.12	6.93E-10	6.23	87.5	60.55
350	120	0.08	4.25	1.05	10.12	6.93E-10	6.23	87.5	45.74
100	15	0.44	4.25	1.05	10.12	6.93E-10	3.69	50	173.75
100	30	0.27	4.25	1.05	10.12	6.93E-10	3.69	50	96.88
100	60	0.15	4.25	1.05	10.12	6.93E-10	3.69	50	50.22
100	90	0.1	4.25	1.05	10.12	6.93E-10	3.69	50	33.82

250	30	0.27	4.25	1.05	10.12	6.93E-10	5.22	125	250.11
250	60	0.15	4.25	1.05	10.12	6.93E-10	5.22	125	127.76
250	90	0.1	4.25	1.05	10.12	6.93E-10	5.22	125	86.28
250	120	0.08	4.25	1.05	10.12	6.93E-10	5.22	125	65.08
350	60	0.15	4.25	1.05	10.12	6.93E-10	6.23	175	179.30
350	90	0.1	4.25	1.05	10.12	6.93E-10	6.23	175	121.10
350	120	0.08	4.25	1.05	10.12	6.93E-10	6.23	175	91.48
100	15	0.44	4.25	1.05	10.12	6.93E-10	3.69	100	347.51
100	30	0.27	4.25	1.05	10.12	6.93E-10	3.69	100	193.76
100	60	0.15	4.25	1.05	10.12	6.93E-10	3.69	100	100.45
100	90	0.1	4.25	1.05	10.12	6.93E-10	3.69	100	67.64
250	30	0.27	4.25	1.05	10.12	6.93E-10	5.22	250	500.22
250	60	0.15	4.25	1.05	10.12	6.93E-10	5.22	250	255.53
250	90	0.1	4.25	1.05	10.12	6.93E-10	5.22	250	172.57
250	120	0.08	4.25	1.05	10.12	6.93E-10	5.22	250	130.16
350	60	0.15	4.25	1.05	10.12	6.93E-10	6.23	350	358.60
350	90	0.1	4.25	1.05	10.12	6.93E-10	6.23	350	242.20
350	120	0.08	4.25	1.05	10.12	6.93E-10	6.23	350	182.95
100	15	0.44	6.69	2.05	18.00	6.70E-12	5.06	25	0.83
100	30	0.27	6.69	2.05	18.00	6.70E-12	5.06	25	0.47
100	60	0.15	6.69	2.05	18.00	6.70E-12	5.06	25	0.24
100	90	0.1	6.69	2.05	18.00	6.70E-12	5.06	25	0.16
250	30	0.27	6.69	2.05	18.00	6.70E-12	6.78	62.5	1.14
250	60	0.15	6.69	2.05	18.00	6.70E-12	6.78	62.5	0.61
250	90	0.1	6.69	2.05	18.00	6.70E-12	6.78	62.5	0.42
250	120	0.08	6.69	2.05	18.00	6.70E-12	6.78	62.5	0.32
350	30	0.27	6.69	2.05	18.00	6.70E-12	7.92	87.5	1.60
350	60	0.15	6.69	2.05	18.00	6.70E-12	7.92	87.5	0.86
350	90	0.1	6.69	2.05	18.00	6.70E-12	7.92	87.5	0.58
350	120	0.08	6.69	2.05	18.00	6.70E-12	7.92	87.5	0.44
100	15	0.44	6.69	2.05	18.00	6.70E-12	5.06	50	1.66
100	30	0.27	6.69	2.05	18.00	6.70E-12	5.06	50	0.93
100	60	0.15	6.69	2.05	18.00	6.70E-12	5.06	50	0.49
100	90	0.1	6.69	2.05	18.00	6.70E-12	5.06	50	0.33
250	30	0.27	6.69	2.05	18.00	6.70E-12	6.78	125	2.27
250	60	0.15	6.69	2.05	18.00	6.70E-12	6.78	125	1.23
250	90	0.1	6.69	2.05	18.00	6.70E-12	6.78	125	0.83
250	120	0.08	6.69	2.05	18.00	6.70E-12	6.78	125	0.63
350	30	0.27	6.69	2.05	18.00	6.70E-12	7.92	175	3.21
350	60	0.15	6.69	2.05	18.00	6.70E-12	7.92	175	1.71
350	90	0.1	6.69	2.05	18.00	6.70E-12	7.92	175	1.17

350	120	0.08	6.69	2.05	18.00	6.70E-12	7.92	175	0.88
100	15	0.44	6.69	2.05	18.00	6.70E-12	5.06	100	3.32
100	30	0.27	6.69	2.05	18.00	6.70E-12	5.06	100	1.87
100	60	0.15	6.69	2.05	18.00	6.70E-12	5.06	100	0.97
100	90	0.1	6.69	2.05	18.00	6.70E-12	5.06	100	0.66
250	30	0.27	6.69	2.05	18.00	6.70E-12	6.78	250	4.55
250	60	0.15	6.69	2.05	18.00	6.70E-12	6.78	250	2.46
250	90	0.1	6.69	2.05	18.00	6.70E-12	6.78	250	1.67
250	120	0.08	6.69	2.05	18.00	6.70E-12	6.78	250	1.26
350	30	0.27	6.69	2.05	18.00	6.70E-12	7.92	350	6.42
350	60	0.15	6.69	2.05	18.00	6.70E-12	7.92	350	3.42
350	90	0.1	6.69	2.05	18.00	6.70E-12	7.92	350	2.34
350	120	0.08	6.69	2.05	18.00	6.70E-12	7.92	350	1.77
100	15	0.44	6.69	2.05	18.00	3.30E-10	5.06	25	40.72
100	30	0.27	6.69	2.05	18.00	3.30E-10	5.06	25	23.00
100	60	0.15	6.69	2.05	18.00	3.30E-10	5.06	25	11.98
100	90	0.1	6.69	2.05	18.00	3.30E-10	5.06	25	8.08
250	30	0.27	6.69	2.05	18.00	3.30E-10	6.78	62.5	55.90
250	60	0.15	6.69	2.05	18.00	3.30E-10	6.78	62.5	30.29
250	90	0.1	6.69	2.05	18.00	3.30E-10	6.78	62.5	20.56
250	120	0.08	6.69	2.05	18.00	3.30E-10	6.78	62.5	15.53
350	30	0.27	6.69	2.05	18.00	3.30E-10	7.92	87.5	77.49
350	60	0.15	6.69	2.05	18.00	3.30E-10	7.92	87.5	42.08
350	90	0.1	6.69	2.05	18.00	3.30E-10	7.92	87.5	28.78
350	120	0.08	6.69	2.05	18.00	3.30E-10	7.92	87.5	21.77
100	15	0.44	6.69	2.05	18.00	3.30E-10	5.06	50	81.45
100	30	0.27	6.69	2.05	18.00	3.30E-10	5.06	50	46.00
100	60	0.15	6.69	2.05	18.00	3.30E-10	5.06	50	23.97
100	90	0.1	6.69	2.05	18.00	3.30E-10	5.06	50	16.15
250	30	0.27	6.69	2.05	18.00	3.30E-10	6.78	125	111.80
250	60	0.15	6.69	2.05	18.00	3.30E-10	6.78	125	60.58
250	90	0.1	6.69	2.05	18.00	3.30E-10	6.78	125	41.11
250	120	0.08	6.69	2.05	18.00	3.30E-10	6.78	125	31.06
350	30	0.27	6.69	2.05	18.00	3.30E-10	7.92	175	154.98
350	60	0.15	6.69	2.05	18.00	3.30E-10	7.92	175	84.17
350	90	0.1	6.69	2.05	18.00	3.30E-10	7.92	175	57.56
350	120	0.08	6.69	2.05	18.00	3.30E-10	7.92	175	43.55
100	15	0.44	6.69	2.05	18.00	3.30E-10	5.06	100	162.89
100	30	0.27	6.69	2.05	18.00	3.30E-10	5.06	100	92.01
100	60	0.15	6.69	2.05	18.00	3.30E-10	5.06	100	47.93
100	90	0.1	6.69	2.05	18.00	3.30E-10	5.06	100	32.31

250	30	0.27	6.69	2.05	18.00	3.30E-10	6.78	250	223.60
250	60	0.15	6.69	2.05	18.00	3.30E-10	6.78	250	121.16
250	90	0.1	6.69	2.05	18.00	3.30E-10	6.78	250	82.23
250	120	0.08	6.69	2.05	18.00	3.30E-10	6.78	250	62.12
350	30	0.27	6.69	2.05	18.00	3.30E-10	7.92	350	309.96
350	60	0.15	6.69	2.05	18.00	3.30E-10	7.92	350	168.34
350	90	0.1	6.69	2.05	18.00	3.30E-10	7.92	350	115.11
350	120	0.08	6.69	2.05	18.00	3.30E-10	7.92	350	87.09
100	15	0.44	6.69	2.05	18.00	6.60E-10	5.06	25	76.15
100	30	0.27	6.69	2.05	18.00	6.60E-10	5.06	25	44.18
100	60	0.15	6.69	2.05	18.00	6.60E-10	5.06	25	24.00
100	90	0.1	6.69	2.05	18.00	6.60E-10	5.06	25	16.47
250	30	0.27	6.69	2.05	18.00	6.60E-10	6.78	62.5	108.72
250	60	0.15	6.69	2.05	18.00	6.60E-10	6.78	62.5	59.09
250	90	0.1	6.69	2.05	18.00	6.60E-10	6.78	62.5	40.57
250	120	0.08	6.69	2.05	18.00	6.60E-10	6.78	62.5	30.89
350	30	0.27	6.69	2.05	18.00	6.60E-10	7.92	87.5	151.92
350	60	0.15	6.69	2.05	18.00	6.60E-10	7.92	87.5	82.48
350	90	0.1	6.69	2.05	18.00	6.60E-10	7.92	87.5	56.62
350	120	0.08	6.69	2.05	18.00	6.60E-10	7.92	87.5	43.11
100	15	0.44	6.69	2.05	18.00	6.60E-10	5.06	50	152.30
100	30	0.27	6.69	2.05	18.00	6.60E-10	5.06	50	88.36
100	60	0.15	6.69	2.05	18.00	6.60E-10	5.06	50	48.01
100	90	0.1	6.69	2.05	18.00	6.60E-10	5.06	50	32.95
250	30	0.27	6.69	2.05	18.00	6.60E-10	6.78	125	217.44
250	60	0.15	6.69	2.05	18.00	6.60E-10	6.78	125	118.19
250	90	0.1	6.69	2.05	18.00	6.60E-10	6.78	125	81.14
250	120	0.08	6.69	2.05	18.00	6.60E-10	6.78	125	61.77
350	30	0.27	6.69	2.05	18.00	6.60E-10	7.92	175	303.85
350	60	0.15	6.69	2.05	18.00	6.60E-10	7.92	175	164.97
350	90	0.1	6.69	2.05	18.00	6.60E-10	7.92	175	113.24
350	120	0.08	6.69	2.05	18.00	6.60E-10	7.92	175	86.22
100	15	0.44	6.69	2.05	18.00	6.60E-10	5.06	100	304.61
100	30	0.27	6.69	2.05	18.00	6.60E-10	5.06	100	176.72
100	60	0.15	6.69	2.05	18.00	6.60E-10	5.06	100	96.01
100	90	0.1	6.69	2.05	18.00	6.60E-10	5.06	100	65.90
250	30	0.27	6.69	2.05	18.00	6.60E-10	6.78	250	434.89
250	60	0.15	6.69	2.05	18.00	6.60E-10	6.78	250	236.38
250	90	0.1	6.69	2.05	18.00	6.60E-10	6.78	250	162.29
250	120	0.08	6.69	2.05	18.00	6.60E-10	6.78	250	123.54
350	30	0.27	6.69	2.05	18.00	6.60E-10	7.92	350	607.70

350	60	0.15	6.69	2.05	18.00	6.60E-10	7.92	350	329.93
350	90	0.1	6.69	2.05	18.00	6.60E-10	7.92	350	226.49
350	120	0.08	6.69	2.05	18.00	6.60E-10	7.92	350	172.43
100	15	0.44	6.69	2.05	18.00	1.49E-11	5.06	25	2.06
100	30	0.27	6.69	2.05	18.00	1.49E-11	5.06	25	1.06
100	60	0.15	6.69	2.05	18.00	1.49E-11	5.06	25	0.54
100	90	0.1	6.69	2.05	18.00	1.49E-11	5.06	25	0.36
250	30	0.27	6.69	2.05	18.00	1.49E-11	6.78	62.5	2.65
250	60	0.15	6.69	2.05	18.00	1.49E-11	6.78	62.5	1.35
250	90	0.1	6.69	2.05	18.00	1.49E-11	6.78	62.5	0.91
250	120	0.08	6.69	2.05	18.00	1.49E-11	6.78	62.5	0.68
350	30	0.27	6.69	2.05	18.00	1.49E-11	7.92	87.5	5.03
350	60	0.15	6.69	2.05	18.00	1.49E-11	7.92	87.5	1.93
350	90	0.1	6.69	2.05	18.00	1.49E-11	7.92	87.5	1.28
350	120	0.08	6.69	2.05	18.00	1.49E-11	7.92	87.5	0.96
100	15	0.44	6.69	2.05	18.00	1.49E-11	5.06	50	4.12
100	30	0.27	6.69	2.05	18.00	1.49E-11	5.06	50	2.12
100	60	0.15	6.69	2.05	18.00	1.49E-11	5.06	50	1.07
100	90	0.1	6.69	2.05	18.00	1.49E-11	5.06	50	0.72
250	30	0.27	6.69	2.05	18.00	1.49E-11	6.78	125	5.29
250	60	0.15	6.69	2.05	18.00	1.49E-11	6.78	125	2.71
250	90	0.1	6.69	2.05	18.00	1.49E-11	6.78	125	1.81
250	120	0.08	6.69	2.05	18.00	1.49E-11	6.78	125	1.36
350	30	0.27	6.69	2.05	18.00	1.49E-11	7.92	175	10.05
350	60	0.15	6.69	2.05	18.00	1.49E-11	7.92	175	3.86
350	90	0.1	6.69	2.05	18.00	1.49E-11	7.92	175	2.56
350	120	0.08	6.69	2.05	18.00	1.49E-11	7.92	175	1.92
100	15	0.44	6.69	2.05	18.00	1.49E-11	5.06	100	8.24
100	30	0.27	6.69	2.05	18.00	1.49E-11	5.06	100	4.25
100	60	0.15	6.69	2.05	18.00	1.49E-11	5.06	100	2.14
100	90	0.1	6.69	2.05	18.00	1.49E-11	5.06	100	1.43
250	30	0.27	6.69	2.05	18.00	1.49E-11	6.78	250	10.59
250	60	0.15	6.69	2.05	18.00	1.49E-11	6.78	250	5.41
250	90	0.1	6.69	2.05	18.00	1.49E-11	6.78	250	3.62
250	120	0.08	6.69	2.05	18.00	1.49E-11	6.78	250	2.72
350	30	0.27	6.69	2.05	18.00	1.49E-11	7.92	350	20.11
350	60	0.15	6.69	2.05	18.00	1.49E-11	7.92	350	7.72
350	90	0.1	6.69	2.05	18.00	1.49E-11	7.92	350	5.12
350	120	0.08	6.69	2.05	18.00	1.49E-11	7.92	350	3.83
100	15	0.44	6.69	2.05	18.00	3.38E-10	5.06	25	42.09
100	30	0.27	6.69	2.05	18.00	3.38E-10	5.06	25	23.61

100	60	0.15	6.69	2.05	18.00	3.38E-10	5.06	25	12.27
100	90	0.1	6.69	2.05	18.00	3.38E-10	5.06	25	8.27
250	30	0.27	6.69	2.05	18.00	3.38E-10	6.78	62.5	57.53
250	60	0.15	6.69	2.05	18.00	3.38E-10	6.78	62.5	31.05
250	90	0.1	6.69	2.05	18.00	3.38E-10	6.78	62.5	21.05
250	120	0.08	6.69	2.05	18.00	3.38E-10	6.78	62.5	15.89
350	30	0.27	6.69	2.05	18.00	3.38E-10	7.92	87.5	82.03
350	60	0.15	6.69	2.05	18.00	3.38E-10	7.92	87.5	43.27
350	90	0.1	6.69	2.05	18.00	3.38E-10	7.92	87.5	29.50
350	120	0.08	6.69	2.05	18.00	3.38E-10	7.92	87.5	22.30
100	15	0.44	6.69	2.05	18.00	3.38E-10	5.06	50	84.18
100	30	0.27	6.69	2.05	18.00	3.38E-10	5.06	50	47.22
100	60	0.15	6.69	2.05	18.00	3.38E-10	5.06	50	24.53
100	90	0.1	6.69	2.05	18.00	3.38E-10	5.06	50	16.53
250	30	0.27	6.69	2.05	18.00	3.38E-10	6.78	125	115.06
250	60	0.15	6.69	2.05	18.00	3.38E-10	6.78	125	62.11
250	90	0.1	6.69	2.05	18.00	3.38E-10	6.78	125	42.10
250	120	0.08	6.69	2.05	18.00	3.38E-10	6.78	125	31.79
350	30	0.27	6.69	2.05	18.00	3.38E-10	7.92	175	164.05
350	60	0.15	6.69	2.05	18.00	3.38E-10	7.92	175	86.55
350	90	0.1	6.69	2.05	18.00	3.38E-10	7.92	175	59.01
350	120	0.08	6.69	2.05	18.00	3.38E-10	7.92	175	44.59
100	15	0.44	6.69	2.05	18.00	3.38E-10	5.06	100	168.36
100	30	0.27	6.69	2.05	18.00	3.38E-10	5.06	100	94.45
100	60	0.15	6.69	2.05	18.00	3.38E-10	5.06	100	49.06
100	90	0.1	6.69	2.05	18.00	3.38E-10	5.06	100	33.06
250	30	0.27	6.69	2.05	18.00	3.38E-10	6.78	250	230.13
250	60	0.15	6.69	2.05	18.00	3.38E-10	6.78	250	124.21
250	90	0.1	6.69	2.05	18.00	3.38E-10	6.78	250	84.19
250	120	0.08	6.69	2.05	18.00	3.38E-10	6.78	250	63.58
350	30	0.27	6.69	2.05	18.00	3.38E-10	7.92	350	328.10
350	60	0.15	6.69	2.05	18.00	3.38E-10	7.92	350	173.10
350	90	0.1	6.69	2.05	18.00	3.38E-10	7.92	350	118.01
350	120	0.08	6.69	2.05	18.00	3.38E-10	7.92	350	89.18
100	15	0.44	6.69	2.05	18.00	6.68E-10	5.06	25	82.78
100	30	0.27	6.69	2.05	18.00	6.68E-10	5.06	25	46.60
100	60	0.15	6.69	2.05	18.00	6.68E-10	5.06	25	24.25
100	90	0.1	6.69	2.05	18.00	6.68E-10	5.06	25	16.34
250	30	0.27	6.69	2.05	18.00	6.68E-10	6.78	62.5	113.40
250	60	0.15	6.69	2.05	18.00	6.68E-10	6.78	62.5	61.34
250	90	0.1	6.69	2.05	18.00	6.68E-10	6.78	62.5	41.60

250	120	0.08	6.69	2.05	18.00	6.68E-10	6.78	62.5	31.42
350	30	0.27	6.69	2.05	18.00	6.68E-10	7.92	87.5	159.58
350	60	0.15	6.69	2.05	18.00	6.68E-10	7.92	87.5	85.37
350	90	0.1	6.69	2.05	18.00	6.68E-10	7.92	87.5	58.28
350	120	0.08	6.69	2.05	18.00	6.68E-10	7.92	87.5	44.06
100	15	0.44	6.69	2.05	18.00	6.68E-10	5.06	50	165.56
100	30	0.27	6.69	2.05	18.00	6.68E-10	5.06	50	93.20
100	60	0.15	6.69	2.05	18.00	6.68E-10	5.06	50	48.50
100	90	0.1	6.69	2.05	18.00	6.68E-10	5.06	50	32.67
250	30	0.27	6.69	2.05	18.00	6.68E-10	6.78	125	226.80
250	60	0.15	6.69	2.05	18.00	6.68E-10	6.78	125	122.67
250	90	0.1	6.69	2.05	18.00	6.68E-10	6.78	125	83.20
250	120	0.08	6.69	2.05	18.00	6.68E-10	6.78	125	62.84
350	30	0.27	6.69	2.05	18.00	6.68E-10	7.92	175	319.16
350	60	0.15	6.69	2.05	18.00	6.68E-10	7.92	175	170.73
350	90	0.1	6.69	2.05	18.00	6.68E-10	7.92	175	116.56
350	120	0.08	6.69	2.05	18.00	6.68E-10	7.92	175	88.12
100	15	0.44	6.69	2.05	18.00	6.68E-10	5.06	100	331.13
100	30	0.27	6.69	2.05	18.00	6.68E-10	5.06	100	186.40
100	60	0.15	6.69	2.05	18.00	6.68E-10	5.06	100	96.99
100	90	0.1	6.69	2.05	18.00	6.68E-10	5.06	100	65.34
250	30	0.27	6.69	2.05	18.00	6.68E-10	6.78	250	453.60
250	60	0.15	6.69	2.05	18.00	6.68E-10	6.78	250	245.35
250	90	0.1	6.69	2.05	18.00	6.68E-10	6.78	250	166.40
250	120	0.08	6.69	2.05	18.00	6.68E-10	6.78	250	125.67
350	30	0.27	6.69	2.05	18.00	6.68E-10	7.92	350	638.32
350	60	0.15	6.69	2.05	18.00	6.68E-10	7.92	350	341.46
350	90	0.1	6.69	2.05	18.00	6.68E-10	7.92	350	233.13
350	120	0.08	6.69	2.05	18.00	6.68E-10	7.92	350	176.25
100	15	0.44	6.69	2.05	18.00	3.96E-11	5.06	25	5.67
100	30	0.27	6.69	2.05	18.00	3.96E-11	5.06	25	2.86
100	60	0.15	6.69	2.05	18.00	3.96E-11	5.06	25	1.43
100	90	0.1	6.69	2.05	18.00	3.96E-11	5.06	25	0.95
250	30	0.27	6.69	2.05	18.00	3.96E-11	6.78	62.5	7.10
250	60	0.15	6.69	2.05	18.00	3.96E-11	6.78	62.5	3.57
250	90	0.1	6.69	2.05	18.00	3.96E-11	6.78	62.5	2.38
250	120	0.08	6.69	2.05	18.00	3.96E-11	6.78	62.5	1.79
350	30	0.27	6.69	2.05	18.00	3.96E-11	7.92	87.5	14.88
350	60	0.15	6.69	2.05	18.00	3.96E-11	7.92	87.5	5.12
350	90	0.1	6.69	2.05	18.00	3.96E-11	7.92	87.5	3.37
350	120	0.08	6.69	2.05	18.00	3.96E-11	7.92	87.5	2.52

100	15	0.44	6.69	2.05	18.00	3.96E-11	5.06	50	11.35
100	30	0.27	6.69	2.05	18.00	3.96E-11	5.06	50	5.72
100	60	0.15	6.69	2.05	18.00	3.96E-11	5.06	50	2.86
100	90	0.1	6.69	2.05	18.00	3.96E-11	5.06	50	1.91
250	30	0.27	6.69	2.05	18.00	3.96E-11	6.78	125	14.20
250	60	0.15	6.69	2.05	18.00	3.96E-11	6.78	125	7.15
250	90	0.1	6.69	2.05	18.00	3.96E-11	6.78	125	4.77
250	120	0.08	6.69	2.05	18.00	3.96E-11	6.78	125	3.58
350	30	0.27	6.69	2.05	18.00	3.96E-11	7.92	175	29.76
350	60	0.15	6.69	2.05	18.00	3.96E-11	7.92	175	10.23
350	90	0.1	6.69	2.05	18.00	3.96E-11	7.92	175	6.75
350	120	0.08	6.69	2.05	18.00	3.96E-11	7.92	175	5.03
100	15	0.44	6.69	2.05	18.00	3.96E-11	5.06	100	22.70
100	30	0.27	6.69	2.05	18.00	3.96E-11	5.06	100	11.45
100	60	0.15	6.69	2.05	18.00	3.96E-11	5.06	100	5.73
100	90	0.1	6.69	2.05	18.00	3.96E-11	5.06	100	3.82
250	30	0.27	6.69	2.05	18.00	3.96E-11	6.78	250	28.40
250	60	0.15	6.69	2.05	18.00	3.96E-11	6.78	250	14.29
250	90	0.1	6.69	2.05	18.00	3.96E-11	6.78	250	9.54
250	120	0.08	6.69	2.05	18.00	3.96E-11	6.78	250	7.16
350	30	0.27	6.69	2.05	18.00	3.96E-11	7.92	350	59.52
350	60	0.15	6.69	2.05	18.00	3.96E-11	7.92	350	20.47
350	90	0.1	6.69	2.05	18.00	3.96E-11	7.92	350	13.49
350	120	0.08	6.69	2.05	18.00	3.96E-11	7.92	350	10.07
100	15	0.44	6.69	2.05	18.00	3.63E-10	5.06	25	46.12
100	30	0.27	6.69	2.05	18.00	3.63E-10	5.06	25	25.43
100	60	0.15	6.69	2.05	18.00	3.63E-10	5.06	25	13.14
100	90	0.1	6.69	2.05	18.00	3.63E-10	5.06	25	8.83
250	30	0.27	6.69	2.05	18.00	3.63E-10	6.78	62.5	62.38
250	60	0.15	6.69	2.05	18.00	3.63E-10	6.78	62.5	33.34
250	90	0.1	6.69	2.05	18.00	3.63E-10	6.78	62.5	22.54
250	120	0.08	6.69	2.05	18.00	3.63E-10	6.78	62.5	17.00
350	30	0.27	6.69	2.05	18.00	3.63E-10	7.92	87.5	94.31
350	60	0.15	6.69	2.05	18.00	3.63E-10	7.92	87.5	46.77
350	90	0.1	6.69	2.05	18.00	3.63E-10	7.92	87.5	31.66
350	120	0.08	6.69	2.05	18.00	3.63E-10	7.92	87.5	23.88
100	15	0.44	6.69	2.05	18.00	3.63E-10	5.06	50	92.23
100	30	0.27	6.69	2.05	18.00	3.63E-10	5.06	50	50.87
100	60	0.15	6.69	2.05	18.00	3.63E-10	5.06	50	26.28
100	90	0.1	6.69	2.05	18.00	3.63E-10	5.06	50	17.67
250	30	0.27	6.69	2.05	18.00	3.63E-10	6.78	125	124.77

250	60	0.15	6.69	2.05	18.00	3.63E-10	6.78	125	66.68
250	90	0.1	6.69	2.05	18.00	3.63E-10	6.78	125	45.07
250	120	0.08	6.69	2.05	18.00	3.63E-10	6.78	125	33.99
350	30	0.27	6.69	2.05	18.00	3.63E-10	7.92	175	188.62
350	60	0.15	6.69	2.05	18.00	3.63E-10	7.92	175	93.54
350	90	0.1	6.69	2.05	18.00	3.63E-10	7.92	175	63.32
350	120	0.08	6.69	2.05	18.00	3.63E-10	7.92	175	47.77
100	15	0.44	6.69	2.05	18.00	3.63E-10	5.06	100	184.46
100	30	0.27	6.69	2.05	18.00	3.63E-10	5.06	100	101.73
100	60	0.15	6.69	2.05	18.00	3.63E-10	5.06	100	52.57
100	90	0.1	6.69	2.05	18.00	3.63E-10	5.06	100	35.33
250	30	0.27	6.69	2.05	18.00	3.63E-10	6.78	250	249.53
250	60	0.15	6.69	2.05	18.00	3.63E-10	6.78	250	133.36
250	90	0.1	6.69	2.05	18.00	3.63E-10	6.78	250	90.14
250	120	0.08	6.69	2.05	18.00	3.63E-10	6.78	250	67.99
350	30	0.27	6.69	2.05	18.00	3.63E-10	7.92	350	377.24
350	60	0.15	6.69	2.05	18.00	3.63E-10	7.92	350	187.08
350	90	0.1	6.69	2.05	18.00	3.63E-10	7.92	350	126.63
350	120	0.08	6.69	2.05	18.00	3.63E-10	7.92	350	95.53
100	15	0.44	6.69	2.05	18.00	6.93E-10	5.06	25	86.88
100	30	0.27	6.69	2.05	18.00	6.93E-10	5.06	25	48.44
100	60	0.15	6.69	2.05	18.00	6.93E-10	5.06	25	25.11
100	90	0.1	6.69	2.05	18.00	6.93E-10	5.06	25	16.91
250	30	0.27	6.69	2.05	18.00	6.93E-10	6.78	62.5	118.31
250	60	0.15	6.69	2.05	18.00	6.93E-10	6.78	62.5	63.63
250	90	0.1	6.69	2.05	18.00	6.93E-10	6.78	62.5	43.09
250	120	0.08	6.69	2.05	18.00	6.93E-10	6.78	62.5	32.53
350	30	0.27	6.69	2.05	18.00	6.93E-10	7.92	87.5	172.62
350	60	0.15	6.69	2.05	18.00	6.93E-10	7.92	87.5	88.89
350	90	0.1	6.69	2.05	18.00	6.93E-10	7.92	87.5	60.45
350	120	0.08	6.69	2.05	18.00	6.93E-10	7.92	87.5	45.66
100	15	0.44	6.69	2.05	18.00	6.93E-10	5.06	50	173.75
100	30	0.27	6.69	2.05	18.00	6.93E-10	5.06	50	96.88
100	60	0.15	6.69	2.05	18.00	6.93E-10	5.06	50	50.22
100	90	0.1	6.69	2.05	18.00	6.93E-10	5.06	50	33.82
250	30	0.27	6.69	2.05	18.00	6.93E-10	6.78	125	236.63
250	60	0.15	6.69	2.05	18.00	6.93E-10	6.78	125	127.26
250	90	0.1	6.69	2.05	18.00	6.93E-10	6.78	125	86.18
250	120	0.08	6.69	2.05	18.00	6.93E-10	6.78	125	65.05
350	30	0.27	6.69	2.05	18.00	6.93E-10	7.92	175	345.24
350	60	0.15	6.69	2.05	18.00	6.93E-10	7.92	175	177.79

350	90	0.1	6.69	2.05	18.00	6.93E-10	7.92	175	120.90
350	120	0.08	6.69	2.05	18.00	6.93E-10	7.92	175	91.31
100	15	0.44	6.69	2.05	18.00	6.93E-10	5.06	100	347.51
100	30	0.27	6.69	2.05	18.00	6.93E-10	5.06	100	193.76
100	60	0.15	6.69	2.05	18.00	6.93E-10	5.06	100	100.45
100	90	0.1	6.69	2.05	18.00	6.93E-10	5.06	100	67.64
250	30	0.27	6.69	2.05	18.00	6.93E-10	6.78	250	473.26
250	60	0.15	6.69	2.05	18.00	6.93E-10	6.78	250	254.52
250	90	0.1	6.69	2.05	18.00	6.93E-10	6.78	250	172.37
250	120	0.08	6.69	2.05	18.00	6.93E-10	6.78	250	130.11
350	30	0.27	6.69	2.05	18.00	6.93E-10	7.92	350	690.48
350	60	0.15	6.69	2.05	18.00	6.93E-10	7.92	350	355.57
350	90	0.1	6.69	2.05	18.00	6.93E-10	7.92	350	241.79
350	120	0.08	6.69	2.05	18.00	6.93E-10	7.92	350	182.62
100	15	0.44	1.51	0.32	3.62	6.70E-12	2.14	25	0.83
100	30	0.27	1.51	0.32	3.62	6.70E-12	2.14	25	0.47
100	60	0.15	1.51	0.32	3.62	6.70E-12	2.14	25	0.24
100	90	0.1	1.51	0.32	3.62	6.70E-12	2.14	25	0.17
250	60	0.15	1.51	0.32	3.62	6.70E-12	3.46	62.5	0.64
250	90	0.1	1.51	0.32	3.62	6.70E-12	3.46	62.5	0.43
250	120	0.08	1.51	0.32	3.62	6.70E-12	3.46	62.5	0.32
350	60	0.15	1.51	0.32	3.62	6.70E-12	4.33	87.5	0.89
350	90	0.1	1.51	0.32	3.62	6.70E-12	4.33	87.5	0.60
350	120	0.08	1.51	0.32	3.62	6.70E-12	4.33	87.5	0.45
100	15	0.44	1.51	0.32	3.62	6.70E-12	2.14	50	1.66
100	30	0.27	1.51	0.32	3.62	6.70E-12	2.14	50	0.94
100	60	0.15	1.51	0.32	3.62	6.70E-12	2.14	50	0.49
100	90	0.1	1.51	0.32	3.62	6.70E-12	2.14	50	0.34
250	60	0.15	1.51	0.32	3.62	6.70E-12	3.46	125	1.28
250	90	0.1	1.51	0.32	3.62	6.70E-12	3.46	125	0.85
250	120	0.08	1.51	0.32	3.62	6.70E-12	3.46	125	0.64
350	60	0.15	1.51	0.32	3.62	6.70E-12	4.33	175	1.77
350	90	0.1	1.51	0.32	3.62	6.70E-12	4.33	175	1.20
350	120	0.08	1.51	0.32	3.62	6.70E-12	4.33	175	0.89
100	15	0.44	1.51	0.32	3.62	6.70E-12	2.14	100	3.33
100	30	0.27	1.51	0.32	3.62	6.70E-12	2.14	100	1.87
100	60	0.15	1.51	0.32	3.62	6.70E-12	2.14	100	0.98
100	90	0.1	1.51	0.32	3.62	6.70E-12	2.14	100	0.68
250	60	0.15	1.51	0.32	3.62	6.70E-12	3.46	250	2.56
250	90	0.1	1.51	0.32	3.62	6.70E-12	3.46	250	1.71
250	120	0.08	1.51	0.32	3.62	6.70E-12	3.46	250	1.28

350	60	0.15	1.51	0.32	3.62	6.70E-12	4.33	350	3.54
350	90	0.1	1.51	0.32	3.62	6.70E-12	4.33	350	2.39
350	120	0.08	1.51	0.32	3.62	6.70E-12	4.33	350	1.78
100	15	0.44	1.51	0.32	3.62	3.30E-10	2.14	25	40.75
100	30	0.27	1.51	0.32	3.62	3.30E-10	2.14	25	23.01
100	60	0.15	1.51	0.32	3.62	3.30E-10	2.14	25	11.99
100	90	0.1	1.51	0.32	3.62	3.30E-10	2.14	25	8.08
250	60	0.15	1.51	0.32	3.62	3.30E-10	3.46	62.5	31.54
250	90	0.1	1.51	0.32	3.62	3.30E-10	3.46	62.5	21.05
250	120	0.08	1.51	0.32	3.62	3.30E-10	3.46	62.5	15.74
350	60	0.15	1.51	0.32	3.62	3.30E-10	4.33	87.5	43.57
350	90	0.1	1.51	0.32	3.62	3.30E-10	4.33	87.5	29.28
350	120	0.08	1.51	0.32	3.62	3.30E-10	4.33	87.5	21.91
100	15	0.44	1.51	0.32	3.62	3.30E-10	2.14	50	81.50
100	30	0.27	1.51	0.32	3.62	3.30E-10	2.14	50	46.03
100	60	0.15	1.51	0.32	3.62	3.30E-10	2.14	50	23.97
100	90	0.1	1.51	0.32	3.62	3.30E-10	2.14	50	16.17
250	60	0.15	1.51	0.32	3.62	3.30E-10	3.46	125	63.09
250	90	0.1	1.51	0.32	3.62	3.30E-10	3.46	125	42.10
250	120	0.08	1.51	0.32	3.62	3.30E-10	3.46	125	31.47
350	60	0.15	1.51	0.32	3.62	3.30E-10	4.33	175	87.14
350	90	0.1	1.51	0.32	3.62	3.30E-10	4.33	175	58.56
350	120	0.08	1.51	0.32	3.62	3.30E-10	4.33	175	43.82
100	15	0.44	1.51	0.32	3.62	3.30E-10	2.14	100	162.99
100	30	0.27	1.51	0.32	3.62	3.30E-10	2.14	100	92.06
100	60	0.15	1.51	0.32	3.62	3.30E-10	2.14	100	47.94
100	90	0.1	1.51	0.32	3.62	3.30E-10	2.14	100	32.33
250	60	0.15	1.51	0.32	3.62	3.30E-10	3.46	250	126.18
250	90	0.1	1.51	0.32	3.62	3.30E-10	3.46	250	84.19
250	120	0.08	1.51	0.32	3.62	3.30E-10	3.46	250	62.95
350	60	0.15	1.51	0.32	3.62	3.30E-10	4.33	350	174.28
350	90	0.1	1.51	0.32	3.62	3.30E-10	4.33	350	117.13
350	120	0.08	1.51	0.32	3.62	3.30E-10	4.33	350	87.65
100	15	0.44	1.51	0.32	3.62	6.60E-10	2.14	25	81.46
100	30	0.27	1.51	0.32	3.62	6.60E-10	2.14	25	45.93
100	60	0.15	1.51	0.32	3.62	6.60E-10	2.14	25	24.02
100	90	0.1	1.51	0.32	3.62	6.60E-10	2.14	25	17.01
250	60	0.15	1.51	0.32	3.62	6.60E-10	3.46	62.5	62.56
250	90	0.1	1.51	0.32	3.62	6.60E-10	3.46	62.5	41.04
250	120	0.08	1.51	0.32	3.62	6.60E-10	3.46	62.5	32.45
350	60	0.15	1.51	0.32	3.62	6.60E-10	4.33	87.5	86.56

350	90	0.1	1.51	0.32	3.62	6.60E-10	4.33	87.5	57.33
350	120	0.08	1.51	0.32	3.62	6.60E-10	4.33	87.5	43.34
100	15	0.44	1.51	0.32	3.62	6.60E-10	2.14	50	162.92
100	30	0.27	1.51	0.32	3.62	6.60E-10	2.14	50	91.85
100	60	0.15	1.51	0.32	3.62	6.60E-10	2.14	50	48.04
100	90	0.1	1.51	0.32	3.62	6.60E-10	2.14	50	34.02
250	60	0.15	1.51	0.32	3.62	6.60E-10	3.46	125	125.12
250	90	0.1	1.51	0.32	3.62	6.60E-10	3.46	125	82.09
250	120	0.08	1.51	0.32	3.62	6.60E-10	3.46	125	64.89
350	60	0.15	1.51	0.32	3.62	6.60E-10	4.33	175	173.12
350	90	0.1	1.51	0.32	3.62	6.60E-10	4.33	175	114.66
350	120	0.08	1.51	0.32	3.62	6.60E-10	4.33	175	86.69
100	15	0.44	1.51	0.32	3.62	6.60E-10	2.14	100	325.84
100	30	0.27	1.51	0.32	3.62	6.60E-10	2.14	100	183.71
100	60	0.15	1.51	0.32	3.62	6.60E-10	2.14	100	96.09
100	90	0.1	1.51	0.32	3.62	6.60E-10	2.14	100	68.04
250	60	0.15	1.51	0.32	3.62	6.60E-10	3.46	250	250.24
250	90	0.1	1.51	0.32	3.62	6.60E-10	3.46	250	164.18
250	120	0.08	1.51	0.32	3.62	6.60E-10	3.46	250	129.78
350	60	0.15	1.51	0.32	3.62	6.60E-10	4.33	350	346.25
350	90	0.1	1.51	0.32	3.62	6.60E-10	4.33	350	229.32
350	120	0.08	1.51	0.32	3.62	6.60E-10	4.33	350	173.38
100	15	0.44	1.51	0.32	3.62	1.49E-11	2.14	25	2.06
100	30	0.27	1.51	0.32	3.62	1.49E-11	2.14	25	1.07
100	60	0.15	1.51	0.32	3.62	1.49E-11	2.14	25	0.55
100	90	0.1	1.51	0.32	3.62	1.49E-11	2.14	25	0.37
250	60	0.15	1.51	0.32	3.62	1.49E-11	3.46	62.5	1.45
250	90	0.1	1.51	0.32	3.62	1.49E-11	3.46	62.5	0.94
250	120	0.08	1.51	0.32	3.62	1.49E-11	3.46	62.5	0.70
350	60	0.15	1.51	0.32	3.62	1.49E-11	4.33	87.5	2.04
350	90	0.1	1.51	0.32	3.62	1.49E-11	4.33	87.5	1.32
350	120	0.08	1.51	0.32	3.62	1.49E-11	4.33	87.5	0.98
100	15	0.44	1.51	0.32	3.62	1.49E-11	2.14	50	4.13
100	30	0.27	1.51	0.32	3.62	1.49E-11	2.14	50	2.14
100	60	0.15	1.51	0.32	3.62	1.49E-11	2.14	50	1.11
100	90	0.1	1.51	0.32	3.62	1.49E-11	2.14	50	0.73
250	60	0.15	1.51	0.32	3.62	1.49E-11	3.46	125	2.89
250	90	0.1	1.51	0.32	3.62	1.49E-11	3.46	125	1.88
250	120	0.08	1.51	0.32	3.62	1.49E-11	3.46	125	1.40
350	60	0.15	1.51	0.32	3.62	1.49E-11	4.33	175	4.08
350	90	0.1	1.51	0.32	3.62	1.49E-11	4.33	175	2.65

350	120	0.08	1.51	0.32	3.62	1.49E-11	4.33	175	1.96
100	15	0.44	1.51	0.32	3.62	1.49E-11	2.14	100	8.26
100	30	0.27	1.51	0.32	3.62	1.49E-11	2.14	100	4.28
100	60	0.15	1.51	0.32	3.62	1.49E-11	2.14	100	2.22
100	90	0.1	1.51	0.32	3.62	1.49E-11	2.14	100	1.46
250	60	0.15	1.51	0.32	3.62	1.49E-11	3.46	250	5.79
250	90	0.1	1.51	0.32	3.62	1.49E-11	3.46	250	3.77
250	120	0.08	1.51	0.32	3.62	1.49E-11	3.46	250	2.80
350	60	0.15	1.51	0.32	3.62	1.49E-11	4.33	350	8.17
350	90	0.1	1.51	0.32	3.62	1.49E-11	4.33	350	5.30
350	120	0.08	1.51	0.32	3.62	1.49E-11	4.33	350	3.93
100	15	0.44	1.51	0.32	3.62	3.38E-10	2.14	25	42.12
100	30	0.27	1.51	0.32	3.62	3.38E-10	2.14	25	23.63
100	60	0.15	1.51	0.32	3.62	3.38E-10	2.14	25	12.32
100	90	0.1	1.51	0.32	3.62	3.38E-10	2.14	25	8.44
250	60	0.15	1.51	0.32	3.62	3.38E-10	3.46	62.5	32.35
250	90	0.1	1.51	0.32	3.62	3.38E-10	3.46	62.5	21.56
250	120	0.08	1.51	0.32	3.62	3.38E-10	3.46	62.5	16.13
350	60	0.15	1.51	0.32	3.62	3.38E-10	4.33	87.5	44.76
350	90	0.1	1.51	0.32	3.62	3.38E-10	4.33	87.5	29.99
350	120	0.08	1.51	0.32	3.62	3.38E-10	4.33	87.5	22.48
100	15	0.44	1.51	0.32	3.62	3.38E-10	2.14	50	84.24
100	30	0.27	1.51	0.32	3.62	3.38E-10	2.14	50	47.25
100	60	0.15	1.51	0.32	3.62	3.38E-10	2.14	50	24.65
100	90	0.1	1.51	0.32	3.62	3.38E-10	2.14	50	16.88
250	60	0.15	1.51	0.32	3.62	3.38E-10	3.46	125	64.70
250	90	0.1	1.51	0.32	3.62	3.38E-10	3.46	125	43.13
250	120	0.08	1.51	0.32	3.62	3.38E-10	3.46	125	32.26
350	60	0.15	1.51	0.32	3.62	3.38E-10	4.33	175	89.51
350	90	0.1	1.51	0.32	3.62	3.38E-10	4.33	175	59.98
350	120	0.08	1.51	0.32	3.62	3.38E-10	4.33	175	44.96
100	15	0.44	1.51	0.32	3.62	3.38E-10	2.14	100	168.49
100	30	0.27	1.51	0.32	3.62	3.38E-10	2.14	100	94.50
100	60	0.15	1.51	0.32	3.62	3.38E-10	2.14	100	49.29
100	90	0.1	1.51	0.32	3.62	3.38E-10	2.14	100	33.77
250	60	0.15	1.51	0.32	3.62	3.38E-10	3.46	250	129.40
250	90	0.1	1.51	0.32	3.62	3.38E-10	3.46	250	86.26
250	120	0.08	1.51	0.32	3.62	3.38E-10	3.46	250	64.51
350	60	0.15	1.51	0.32	3.62	3.38E-10	4.33	350	179.02
350	90	0.1	1.51	0.32	3.62	3.38E-10	4.33	350	119.95
350	120	0.08	1.51	0.32	3.62	3.38E-10	4.33	350	89.91

100	15	0.44	1.51	0.32	3.62	6.68E-10	2.14	25	82.81
100	30	0.27	1.51	0.32	3.62	6.68E-10	2.14	25	46.62
100	60	0.15	1.51	0.32	3.62	6.68E-10	2.14	25	24.55
100	90	0.1	1.51	0.32	3.62	6.68E-10	2.14	25	16.61
250	60	0.15	1.51	0.32	3.62	6.68E-10	3.46	62.5	64.26
250	90	0.1	1.51	0.32	3.62	6.68E-10	3.46	62.5	43.00
250	120	0.08	1.51	0.32	3.62	6.68E-10	3.46	62.5	32.26
350	60	0.15	1.51	0.32	3.62	6.68E-10	4.33	87.5	88.23
350	90	0.1	1.51	0.32	3.62	6.68E-10	4.33	87.5	59.47
350	120	0.08	1.51	0.32	3.62	6.68E-10	4.33	87.5	44.70
100	15	0.44	1.51	0.32	3.62	6.68E-10	2.14	50	165.63
100	30	0.27	1.51	0.32	3.62	6.68E-10	2.14	50	93.24
100	60	0.15	1.51	0.32	3.62	6.68E-10	2.14	50	49.10
100	90	0.1	1.51	0.32	3.62	6.68E-10	2.14	50	33.21
250	60	0.15	1.51	0.32	3.62	6.68E-10	3.46	125	128.52
250	90	0.1	1.51	0.32	3.62	6.68E-10	3.46	125	86.00
250	120	0.08	1.51	0.32	3.62	6.68E-10	3.46	125	64.51
350	60	0.15	1.51	0.32	3.62	6.68E-10	4.33	175	176.46
350	90	0.1	1.51	0.32	3.62	6.68E-10	4.33	175	118.94
350	120	0.08	1.51	0.32	3.62	6.68E-10	4.33	175	89.40
100	15	0.44	1.51	0.32	3.62	6.68E-10	2.14	100	331.25
100	30	0.27	1.51	0.32	3.62	6.68E-10	2.14	100	186.48
100	60	0.15	1.51	0.32	3.62	6.68E-10	2.14	100	98.20
100	90	0.1	1.51	0.32	3.62	6.68E-10	2.14	100	66.43
250	60	0.15	1.51	0.32	3.62	6.68E-10	3.46	250	257.04
250	90	0.1	1.51	0.32	3.62	6.68E-10	3.46	250	171.99
250	120	0.08	1.51	0.32	3.62	6.68E-10	3.46	250	129.02
350	60	0.15	1.51	0.32	3.62	6.68E-10	4.33	350	352.93
350	90	0.1	1.51	0.32	3.62	6.68E-10	4.33	350	237.89
350	120	0.08	1.51	0.32	3.62	6.68E-10	4.33	350	178.79
100	15	0.44	1.51	0.32	3.62	3.96E-11	2.14	25	5.68
100	30	0.27	1.51	0.32	3.62	3.96E-11	2.14	25	2.88
100	60	0.15	1.51	0.32	3.62	3.96E-11	2.14	25	1.45
100	90	0.1	1.51	0.32	3.62	3.96E-11	2.14	25	0.96
250	60	0.15	1.51	0.32	3.62	3.96E-11	3.46	62.5	3.89
250	90	0.1	1.51	0.32	3.62	3.96E-11	3.46	62.5	2.52
250	120	0.08	1.51	0.32	3.62	3.96E-11	3.46	62.5	1.83
350	60	0.15	1.51	0.32	3.62	3.96E-11	4.33	87.5	5.51
350	90	0.1	1.51	0.32	3.62	3.96E-11	4.33	87.5	3.54
350	120	0.08	1.51	0.32	3.62	3.96E-11	4.33	87.5	2.61
100	15	0.44	1.51	0.32	3.62	3.96E-11	2.14	50	11.37

100	30	0.27	1.51	0.32	3.62	3.96E-11	2.14	50	5.76
100	60	0.15	1.51	0.32	3.62	3.96E-11	2.14	50	2.89
100	90	0.1	1.51	0.32	3.62	3.96E-11	2.14	50	1.93
250	60	0.15	1.51	0.32	3.62	3.96E-11	3.46	125	7.79
250	90	0.1	1.51	0.32	3.62	3.96E-11	3.46	125	5.04
250	120	0.08	1.51	0.32	3.62	3.96E-11	3.46	125	3.67
350	60	0.15	1.51	0.32	3.62	3.96E-11	4.33	175	11.01
350	90	0.1	1.51	0.32	3.62	3.96E-11	4.33	175	7.07
350	120	0.08	1.51	0.32	3.62	3.96E-11	4.33	175	5.21
100	15	0.44	1.51	0.32	3.62	3.96E-11	2.14	100	22.73
100	30	0.27	1.51	0.32	3.62	3.96E-11	2.14	100	11.52
100	60	0.15	1.51	0.32	3.62	3.96E-11	2.14	100	5.78
100	90	0.1	1.51	0.32	3.62	3.96E-11	2.14	100	3.85
250	60	0.15	1.51	0.32	3.62	3.96E-11	3.46	250	15.57
250	90	0.1	1.51	0.32	3.62	3.96E-11	3.46	250	10.07
250	120	0.08	1.51	0.32	3.62	3.96E-11	3.46	250	7.33
350	60	0.15	1.51	0.32	3.62	3.96E-11	4.33	350	22.02
350	90	0.1	1.51	0.32	3.62	3.96E-11	4.33	350	14.15
350	120	0.08	1.51	0.32	3.62	3.96E-11	4.33	350	10.43
100	15	0.44	1.51	0.32	3.62	3.63E-10	2.14	25	46.16
100	30	0.27	1.51	0.32	3.62	3.63E-10	2.14	25	25.45
100	60	0.15	1.51	0.32	3.62	3.63E-10	2.14	25	13.15
100	90	0.1	1.51	0.32	3.62	3.63E-10	2.14	25	8.84
250	60	0.15	1.51	0.32	3.62	3.63E-10	3.46	62.5	34.81
250	90	0.1	1.51	0.32	3.62	3.63E-10	3.46	62.5	23.11
250	120	0.08	1.51	0.32	3.62	3.63E-10	3.46	62.5	17.27
350	60	0.15	1.51	0.32	3.62	3.63E-10	4.33	87.5	48.33
350	90	0.1	1.51	0.32	3.62	3.63E-10	4.33	87.5	32.22
350	120	0.08	1.51	0.32	3.62	3.63E-10	4.33	87.5	24.11
100	15	0.44	1.51	0.32	3.62	3.63E-10	2.14	50	92.32
100	30	0.27	1.51	0.32	3.62	3.63E-10	2.14	50	50.89
100	60	0.15	1.51	0.32	3.62	3.63E-10	2.14	50	26.30
100	90	0.1	1.51	0.32	3.62	3.63E-10	2.14	50	17.68
250	60	0.15	1.51	0.32	3.62	3.63E-10	3.46	125	69.62
250	90	0.1	1.51	0.32	3.62	3.63E-10	3.46	125	46.23
250	120	0.08	1.51	0.32	3.62	3.63E-10	3.46	125	34.55
350	60	0.15	1.51	0.32	3.62	3.63E-10	4.33	175	96.65
350	90	0.1	1.51	0.32	3.62	3.63E-10	4.33	175	64.44
350	120	0.08	1.51	0.32	3.62	3.63E-10	4.33	175	48.22
100	15	0.44	1.51	0.32	3.62	3.63E-10	2.14	100	184.64
100	30	0.27	1.51	0.32	3.62	3.63E-10	2.14	100	101.78

100	60	0.15	1.51	0.32	3.62	3.63E-10	2.14	100	52.59
100	90	0.1	1.51	0.32	3.62	3.63E-10	2.14	100	35.36
250	60	0.15	1.51	0.32	3.62	3.63E-10	3.46	250	139.23
250	90	0.1	1.51	0.32	3.62	3.63E-10	3.46	250	92.46
250	120	0.08	1.51	0.32	3.62	3.63E-10	3.46	250	69.10
350	60	0.15	1.51	0.32	3.62	3.63E-10	4.33	350	193.31
350	90	0.1	1.51	0.32	3.62	3.63E-10	4.33	350	128.87
350	120	0.08	1.51	0.32	3.62	3.63E-10	4.33	350	96.44
100	15	0.44	1.51	0.32	3.62	6.93E-10	2.14	25	86.94
100	30	0.27	1.51	0.32	3.62	6.93E-10	2.14	25	48.45
100	60	0.15	1.51	0.32	3.62	6.93E-10	2.14	25	25.12
100	90	0.1	1.51	0.32	3.62	6.93E-10	2.14	25	16.92
250	60	0.15	1.51	0.32	3.62	6.93E-10	3.46	62.5	66.34
250	90	0.1	1.51	0.32	3.62	6.93E-10	3.46	62.5	44.16
250	120	0.08	1.51	0.32	3.62	6.93E-10	3.46	62.5	33.02
350	60	0.15	1.51	0.32	3.62	6.93E-10	4.33	87.5	91.92
350	90	0.1	1.51	0.32	3.62	6.93E-10	4.33	87.5	61.46
350	120	0.08	1.51	0.32	3.62	6.93E-10	4.33	87.5	46.04
100	15	0.44	1.51	0.32	3.62	6.93E-10	2.14	50	173.88
100	30	0.27	1.51	0.32	3.62	6.93E-10	2.14	50	96.89
100	60	0.15	1.51	0.32	3.62	6.93E-10	2.14	50	50.24
100	90	0.1	1.51	0.32	3.62	6.93E-10	2.14	50	33.83
250	60	0.15	1.51	0.32	3.62	6.93E-10	3.46	125	132.68
250	90	0.1	1.51	0.32	3.62	6.93E-10	3.46	125	88.33
250	120	0.08	1.51	0.32	3.62	6.93E-10	3.46	125	66.05
350	60	0.15	1.51	0.32	3.62	6.93E-10	4.33	175	183.83
350	90	0.1	1.51	0.32	3.62	6.93E-10	4.33	175	122.93
350	120	0.08	1.51	0.32	3.62	6.93E-10	4.33	175	92.08
100	15	0.44	1.51	0.32	3.62	6.93E-10	2.14	100	347.76
100	30	0.27	1.51	0.32	3.62	6.93E-10	2.14	100	193.79
100	60	0.15	1.51	0.32	3.62	6.93E-10	2.14	100	100.47
100	90	0.1	1.51	0.32	3.62	6.93E-10	2.14	100	67.66
250	60	0.15	1.51	0.32	3.62	6.93E-10	3.46	250	265.36
250	90	0.1	1.51	0.32	3.62	6.93E-10	3.46	250	176.65
250	120	0.08	1.51	0.32	3.62	6.93E-10	3.46	250	132.10
350	60	0.15	1.51	0.32	3.62	6.93E-10	4.33	350	367.67
350	90	0.1	1.51	0.32	3.62	6.93E-10	4.33	350	245.85
350	120	0.08	1.51	0.32	3.62	6.93E-10	4.33	350	184.16

Annexure VI

Parametric Modelling Results of Seepage rate through Pillar and Floor

Table AVI.1. Numerical modelling results of seepage rate through pillar and floor

D, m	w, m	e, %	$\frac{E_i}{E_c}$	σ_T, MPa	σ_C, MPa	K_{PF}, m^2/pa.sec	σ_{hi}, MPa	H, m	Q, 10^{-3} m^3/s/km
100	15	0.44	4.25	1.05	10.12	6.70E-12	3.69	25	0.66
100	30	0.27	4.25	1.05	10.12	6.70E-12	3.69	25	0.38
100	60	0.15	4.25	1.05	10.12	6.70E-12	3.69	25	0.20
100	90	0.10	4.25	1.05	10.12	6.70E-12	3.69	25	0.14
250	30	0.27	4.25	1.05	10.12	6.70E-12	5.22	62.5	1.03
250	60	0.15	4.25	1.05	10.12	6.70E-12	5.22	62.5	0.54
250	90	0.10	4.25	1.05	10.12	6.70E-12	5.22	62.5	0.37
250	120	0.08	4.25	1.05	10.12	6.70E-12	5.22	62.5	0.28
350	60	0.15	4.25	1.05	10.12	6.70E-12	6.23	87.5	0.76
350	90	0.10	4.25	1.05	10.12	6.70E-12	6.23	87.5	0.52
350	120	0.08	4.25	1.05	10.12	6.70E-12	6.23	87.5	0.39
100	15	0.44	4.25	1.05	10.12	6.70E-12	3.69	50	1.38
100	30	0.27	4.25	1.05	10.12	6.70E-12	3.69	50	0.79
100	60	0.15	4.25	1.05	10.12	6.70E-12	3.69	50	0.43
100	90	0.10	4.25	1.05	10.12	6.70E-12	3.69	50	0.29
250	30	0.27	4.25	1.05	10.12	6.70E-12	5.22	125	2.09
250	60	0.15	4.25	1.05	10.12	6.70E-12	5.22	125	1.09
250	90	0.10	4.25	1.05	10.12	6.70E-12	5.22	125	0.75
250	120	0.08	4.25	1.05	10.12	6.70E-12	5.22	125	0.57
350	60	0.15	4.25	1.05	10.12	6.70E-12	6.23	175	1.54
350	90	0.10	4.25	1.05	10.12	6.70E-12	6.23	175	1.05
350	120	0.08	4.25	1.05	10.12	6.70E-12	6.23	175	0.80
100	15	0.44	4.25	1.05	10.12	6.70E-12	3.69	100	2.82
100	30	0.27	4.25	1.05	10.12	6.70E-12	3.69	100	1.61
100	60	0.15	4.25	1.05	10.12	6.70E-12	3.69	100	0.87
100	90	0.10	4.25	1.05	10.12	6.70E-12	3.69	100	0.60
250	30	0.27	4.25	1.05	10.12	6.70E-12	5.22	250	4.20
250	60	0.15	4.25	1.05	10.12	6.70E-12	5.22	250	2.20
250	90	0.10	4.25	1.05	10.12	6.70E-12	5.22	250	1.51
250	120	0.08	4.25	1.05	10.12	6.70E-12	5.22	250	1.14
350	60	0.15	4.25	1.05	10.12	6.70E-12	6.23	350	3.10
350	90	0.10	4.25	1.05	10.12	6.70E-12	6.23	350	2.12
350	120	0.08	4.25	1.05	10.12	6.70E-12	6.23	350	1.61

100	15	0.44	4.25	1.05	10.12	3.30E-10	3.69	25	32.25
100	30	0.27	4.25	1.05	10.12	3.30E-10	3.69	25	18.50
100	60	0.15	4.25	1.05	10.12	3.30E-10	3.69	25	9.99
100	90	0.10	4.25	1.05	10.12	3.30E-10	3.69	25	6.84
250	30	0.27	4.25	1.05	10.12	3.30E-10	5.22	62.5	48.82
250	60	0.15	4.25	1.05	10.12	3.30E-10	5.22	62.5	26.31
250	90	0.10	4.25	1.05	10.12	3.30E-10	5.22	62.5	18.02
250	120	0.08	4.25	1.05	10.12	3.30E-10	5.22	62.5	13.70
350	60	0.15	4.25	1.05	10.12	3.30E-10	6.23	87.5	37.23
350	90	0.10	4.25	1.05	10.12	3.30E-10	6.23	87.5	25.48
350	120	0.08	4.25	1.05	10.12	3.30E-10	6.23	87.5	19.36
100	15	0.44	4.25	1.05	10.12	3.30E-10	3.69	50	67.47
100	30	0.27	4.25	1.05	10.12	3.30E-10	3.69	50	38.72
100	60	0.15	4.25	1.05	10.12	3.30E-10	3.69	50	20.90
100	90	0.10	4.25	1.05	10.12	3.30E-10	3.69	50	14.31
250	30	0.27	4.25	1.05	10.12	3.30E-10	5.22	125	99.35
250	60	0.15	4.25	1.05	10.12	3.30E-10	5.22	125	53.55
250	90	0.10	4.25	1.05	10.12	3.30E-10	5.22	125	36.67
250	120	0.08	4.25	1.05	10.12	3.30E-10	5.22	125	27.88
350	60	0.15	4.25	1.05	10.12	3.30E-10	6.23	175	75.35
350	90	0.10	4.25	1.05	10.12	3.30E-10	6.23	175	51.58
350	120	0.08	4.25	1.05	10.12	3.30E-10	6.23	175	39.20
100	15	0.44	4.25	1.05	10.12	3.30E-10	3.69	100	137.97
100	30	0.27	4.25	1.05	10.12	3.30E-10	3.69	100	79.19
100	60	0.15	4.25	1.05	10.12	3.30E-10	3.69	100	42.73
100	90	0.10	4.25	1.05	10.12	3.30E-10	3.69	100	29.26
250	30	0.27	4.25	1.05	10.12	3.30E-10	5.22	250	200.40
250	60	0.15	4.25	1.05	10.12	3.30E-10	5.22	250	108.05
250	90	0.10	4.25	1.05	10.12	3.30E-10	5.22	250	73.96
250	120	0.08	4.25	1.05	10.12	3.30E-10	5.22	250	56.24
350	60	0.15	4.25	1.05	10.12	3.30E-10	6.23	350	151.64
350	90	0.10	4.25	1.05	10.12	3.30E-10	6.23	350	103.76
350	120	0.08	4.25	1.05	10.12	3.30E-10	6.23	350	78.88
100	15	0.44	4.25	1.05	10.12	6.60E-10	3.69	25	64.51
100	30	0.27	4.25	1.05	10.12	6.60E-10	3.69	25	36.99
100	60	0.15	4.25	1.05	10.12	6.60E-10	3.69	25	19.97
100	90	0.10	4.25	1.05	10.12	6.60E-10	3.69	25	13.68
250	30	0.27	4.25	1.05	10.12	6.60E-10	5.22	62.5	97.59
250	60	0.15	4.25	1.05	10.12	6.60E-10	5.22	62.5	52.61
250	90	0.10	4.25	1.05	10.12	6.60E-10	5.22	62.5	36.02
250	120	0.08	4.25	1.05	10.12	6.60E-10	5.22	62.5	27.39

350	60	0.15	4.25	1.05	10.12	6.60E-10	6.23	87.5	74.40
350	90	0.10	4.25	1.05	10.12	6.60E-10	6.23	87.5	50.94
350	120	0.08	4.25	1.05	10.12	6.60E-10	6.23	87.5	38.71
100	15	0.44	4.25	1.05	10.12	6.60E-10	3.69	50	134.95
100	30	0.27	4.25	1.05	10.12	6.60E-10	3.69	50	77.43
100	60	0.15	4.25	1.05	10.12	6.60E-10	3.69	50	41.79
100	90	0.10	4.25	1.05	10.12	6.60E-10	3.69	50	28.62
250	30	0.27	4.25	1.05	10.12	6.60E-10	5.22	125	198.58
250	60	0.15	4.25	1.05	10.12	6.60E-10	5.22	125	107.10
250	90	0.10	4.25	1.05	10.12	6.60E-10	5.22	125	73.33
250	120	0.08	4.25	1.05	10.12	6.60E-10	5.22	125	55.74
350	60	0.15	4.25	1.05	10.12	6.60E-10	6.23	175	150.70
350	90	0.10	4.25	1.05	10.12	6.60E-10	6.23	175	103.13
350	120	0.08	4.25	1.05	10.12	6.60E-10	6.23	175	78.37
100	15	0.44	4.25	1.05	10.12	6.60E-10	3.69	100	275.94
100	30	0.27	4.25	1.05	10.12	6.60E-10	3.69	100	158.32
100	60	0.15	4.25	1.05	10.12	6.60E-10	3.69	100	85.43
100	90	0.10	4.25	1.05	10.12	6.60E-10	3.69	100	58.51
250	30	0.27	4.25	1.05	10.12	6.60E-10	5.22	250	400.62
250	60	0.15	4.25	1.05	10.12	6.60E-10	5.22	250	216.03
250	90	0.10	4.25	1.05	10.12	6.60E-10	5.22	250	147.92
250	120	0.08	4.25	1.05	10.12	6.60E-10	5.22	250	112.46
350	60	0.15	4.25	1.05	10.12	6.60E-10	6.23	350	303.28
350	90	0.10	4.25	1.05	10.12	6.60E-10	6.23	350	207.52
350	120	0.08	4.25	1.05	10.12	6.60E-10	6.23	350	157.75
100	15	0.44	4.25	1.05	10.12	1.49E-11	3.69	25	1.91
100	30	0.27	4.25	1.05	10.12	1.49E-11	3.69	25	1.00
100	60	0.15	4.25	1.05	10.12	1.49E-11	3.69	25	0.51
100	90	0.10	4.25	1.05	10.12	1.49E-11	3.69	25	0.35
250	30	0.27	4.25	1.05	10.12	1.49E-11	5.22	62.5	3.86
250	60	0.15	4.25	1.05	10.12	1.49E-11	5.22	62.5	1.34
250	90	0.10	4.25	1.05	10.12	1.49E-11	5.22	62.5	0.89
250	120	0.08	4.25	1.05	10.12	1.49E-11	5.22	62.5	0.66
350	60	0.15	4.25	1.05	10.12	1.49E-11	6.23	87.5	1.90
350	90	0.10	4.25	1.05	10.12	1.49E-11	6.23	87.5	1.25
350	120	0.08	4.25	1.05	10.12	1.49E-11	6.23	87.5	0.94
100	15	0.44	4.25	1.05	10.12	1.49E-11	3.69	50	3.82
100	30	0.27	4.25	1.05	10.12	1.49E-11	3.69	50	2.01
100	60	0.15	4.25	1.05	10.12	1.49E-11	3.69	50	1.03
100	90	0.10	4.25	1.05	10.12	1.49E-11	3.69	50	0.69
250	30	0.27	4.25	1.05	10.12	1.49E-11	5.22	125	7.71

250	60	0.15	4.25	1.05	10.12	1.49E-11	5.22	125	2.67
250	90	0.10	4.25	1.05	10.12	1.49E-11	5.22	125	1.77
250	120	0.08	4.25	1.05	10.12	1.49E-11	5.22	125	1.33
350	60	0.15	4.25	1.05	10.12	1.49E-11	6.23	175	3.79
350	90	0.10	4.25	1.05	10.12	1.49E-11	6.23	175	2.50
350	120	0.08	4.25	1.05	10.12	1.49E-11	6.23	175	1.87
100	15	0.44	4.25	1.05	10.12	1.49E-11	3.69	100	7.70
100	30	0.27	4.25	1.05	10.12	1.49E-11	3.69	100	4.05
100	60	0.15	4.25	1.05	10.12	1.49E-11	3.69	100	2.08
100	90	0.10	4.25	1.05	10.12	1.49E-11	3.69	100	1.40
250	30	0.27	4.25	1.05	10.12	1.49E-11	5.22	250	15.42
250	60	0.15	4.25	1.05	10.12	1.49E-11	5.22	250	5.36
250	90	0.10	4.25	1.05	10.12	1.49E-11	5.22	250	3.56
250	120	0.08	4.25	1.05	10.12	1.49E-11	5.22	250	2.67
350	60	0.15	4.25	1.05	10.12	1.49E-11	6.23	350	7.59
350	90	0.10	4.25	1.05	10.12	1.49E-11	6.23	350	5.01
350	120	0.08	4.25	1.05	10.12	1.49E-11	6.23	350	3.75
100	15	0.44	4.25	1.05	10.12	3.38E-10	3.69	25	33.53
100	30	0.27	4.25	1.05	10.12	3.38E-10	3.69	25	19.14
100	60	0.15	4.25	1.05	10.12	3.38E-10	3.69	25	10.30
100	90	0.10	4.25	1.05	10.12	3.38E-10	3.69	25	7.04
250	30	0.27	4.25	1.05	10.12	3.38E-10	5.22	62.5	52.81
250	60	0.15	4.25	1.05	10.12	3.38E-10	5.22	62.5	27.18
250	90	0.10	4.25	1.05	10.12	3.38E-10	5.22	62.5	18.57
250	120	0.08	4.25	1.05	10.12	3.38E-10	5.22	62.5	14.11
350	60	0.15	4.25	1.05	10.12	3.38E-10	6.23	87.5	38.57
350	90	0.10	4.25	1.05	10.12	3.38E-10	6.23	87.5	26.31
350	120	0.08	4.25	1.05	10.12	3.38E-10	6.23	87.5	19.97
100	15	0.44	4.25	1.05	10.12	3.38E-10	3.69	50	70.12
100	30	0.27	4.25	1.05	10.12	3.38E-10	3.69	50	40.01
100	60	0.15	4.25	1.05	10.12	3.38E-10	3.69	50	21.53
100	90	0.10	4.25	1.05	10.12	3.38E-10	3.69	50	14.72
250	30	0.27	4.25	1.05	10.12	3.38E-10	5.22	125	107.29
250	60	0.15	4.25	1.05	10.12	3.38E-10	5.22	125	55.30
250	90	0.10	4.25	1.05	10.12	3.38E-10	5.22	125	37.78
250	120	0.08	4.25	1.05	10.12	3.38E-10	5.22	125	28.69
350	60	0.15	4.25	1.05	10.12	3.38E-10	6.23	175	78.06
350	90	0.10	4.25	1.05	10.12	3.38E-10	6.23	175	53.24
350	120	0.08	4.25	1.05	10.12	3.38E-10	6.23	175	40.41
100	15	0.44	4.25	1.05	10.12	3.38E-10	3.69	100	143.20
100	30	0.27	4.25	1.05	10.12	3.38E-10	3.69	100	81.77

100	60	0.15	4.25	1.05	10.12	3.38E-10	3.69	100	43.99
100	90	0.10	4.25	1.05	10.12	3.38E-10	3.69	100	30.09
250	30	0.27	4.25	1.05	10.12	3.38E-10	5.22	250	216.22
250	60	0.15	4.25	1.05	10.12	3.38E-10	5.22	250	111.51
250	90	0.10	4.25	1.05	10.12	3.38E-10	5.22	250	76.17
250	120	0.08	4.25	1.05	10.12	3.38E-10	5.22	250	57.86
350	60	0.15	4.25	1.05	10.12	3.38E-10	6.23	350	157.00
350	90	0.10	4.25	1.05	10.12	3.38E-10	6.23	350	107.10
350	120	0.08	4.25	1.05	10.12	3.38E-10	6.23	350	81.27
100	15	0.44	4.25	1.05	10.12	6.68E-10	3.69	25	65.77
100	30	0.27	4.25	1.05	10.12	6.68E-10	3.69	25	37.64
100	60	0.15	4.25	1.05	10.12	6.68E-10	3.69	25	20.28
100	90	0.10	4.25	1.05	10.12	6.68E-10	3.69	25	13.89
250	30	0.27	4.25	1.05	10.12	6.68E-10	5.22	62.5	101.81
250	60	0.15	4.25	1.05	10.12	6.68E-10	5.22	62.5	53.49
250	90	0.10	4.25	1.05	10.12	6.68E-10	5.22	62.5	36.58
250	120	0.08	4.25	1.05	10.12	6.68E-10	5.22	62.5	27.80
350	60	0.15	4.25	1.05	10.12	6.68E-10	6.23	87.5	75.79
350	90	0.10	4.25	1.05	10.12	6.68E-10	6.23	87.5	51.78
350	120	0.08	4.25	1.05	10.12	6.68E-10	6.23	87.5	39.33
100	15	0.44	4.25	1.05	10.12	6.68E-10	3.69	50	137.59
100	30	0.27	4.25	1.05	10.12	6.68E-10	3.69	50	78.69
100	60	0.15	4.25	1.05	10.12	6.68E-10	3.69	50	42.42
100	90	0.10	4.25	1.05	10.12	6.68E-10	3.69	50	29.04
250	30	0.27	4.25	1.05	10.12	6.68E-10	5.22	125	207.02
250	60	0.15	4.25	1.05	10.12	6.68E-10	5.22	125	108.86
250	90	0.10	4.25	1.05	10.12	6.68E-10	5.22	125	74.47
250	120	0.08	4.25	1.05	10.12	6.68E-10	5.22	125	56.56
350	60	0.15	4.25	1.05	10.12	6.68E-10	6.23	175	153.41
350	90	0.10	4.25	1.05	10.12	6.68E-10	6.23	175	104.83
350	120	0.08	4.25	1.05	10.12	6.68E-10	6.23	175	79.63
100	15	0.44	4.25	1.05	10.12	6.68E-10	3.69	100	281.17
100	30	0.27	4.25	1.05	10.12	6.68E-10	3.69	100	160.90
100	60	0.15	4.25	1.05	10.12	6.68E-10	3.69	100	86.69
100	90	0.10	4.25	1.05	10.12	6.68E-10	3.69	100	59.34
250	30	0.27	4.25	1.05	10.12	6.68E-10	5.22	250	417.38
250	60	0.15	4.25	1.05	10.12	6.68E-10	5.22	250	219.56
250	90	0.10	4.25	1.05	10.12	6.68E-10	5.22	250	150.13
250	120	0.08	4.25	1.05	10.12	6.68E-10	5.22	250	114.09
350	60	0.15	4.25	1.05	10.12	6.68E-10	6.23	350	308.70
350	90	0.10	4.25	1.05	10.12	6.68E-10	6.23	350	210.86

350	120	0.08	4.25	1.05	10.12	6.68E-10	6.23	350	160.15
100	15	0.44	4.25	1.05	10.12	3.96E-11	3.69	25	5.49
100	30	0.27	4.25	1.05	10.12	3.96E-11	3.69	25	2.79
100	60	0.15	4.25	1.05	10.12	3.96E-11	3.69	25	1.40
100	90	0.10	4.25	1.05	10.12	3.96E-11	3.69	25	0.94
250	30	0.27	4.25	1.05	10.12	3.96E-11	5.22	62.5	11.99
250	60	0.15	4.25	1.05	10.12	3.96E-11	5.22	62.5	3.66
250	90	0.10	4.25	1.05	10.12	3.96E-11	5.22	62.5	2.40
250	120	0.08	4.25	1.05	10.12	3.96E-11	5.22	62.5	1.79
350	60	0.15	4.25	1.05	10.12	3.96E-11	6.23	87.5	5.19
350	90	0.10	4.25	1.05	10.12	3.96E-11	6.23	87.5	3.39
350	120	0.08	4.25	1.05	10.12	3.96E-11	6.23	87.5	2.52
100	15	0.44	4.25	1.05	10.12	3.96E-11	3.69	50	11.05
100	30	0.27	4.25	1.05	10.12	3.96E-11	3.69	50	5.61
100	60	0.15	4.25	1.05	10.12	3.96E-11	3.69	50	2.83
100	90	0.10	4.25	1.05	10.12	3.96E-11	3.69	50	1.89
250	30	0.27	4.25	1.05	10.12	3.96E-11	5.22	125	24.04
250	60	0.15	4.25	1.05	10.12	3.96E-11	5.22	125	7.33
250	90	0.10	4.25	1.05	10.12	3.96E-11	5.22	125	4.83
250	120	0.08	4.25	1.05	10.12	3.96E-11	5.22	125	3.60
350	60	0.15	4.25	1.05	10.12	3.96E-11	6.23	175	10.38
350	90	0.10	4.25	1.05	10.12	3.96E-11	6.23	175	6.79
350	120	0.08	4.25	1.05	10.12	3.96E-11	6.23	175	5.06
100	15	0.44	4.25	1.05	10.12	3.96E-11	3.69	100	22.16
100	30	0.27	4.25	1.05	10.12	3.96E-11	3.69	100	11.26
100	60	0.15	4.25	1.05	10.12	3.96E-11	3.69	100	5.68
100	90	0.10	4.25	1.05	10.12	3.96E-11	3.69	100	3.80
250	30	0.27	4.25	1.05	10.12	3.96E-11	5.22	250	48.16
250	60	0.15	4.25	1.05	10.12	3.96E-11	5.22	250	14.67
250	90	0.10	4.25	1.05	10.12	3.96E-11	5.22	250	9.66
250	120	0.08	4.25	1.05	10.12	3.96E-11	5.22	250	7.21
350	60	0.15	4.25	1.05	10.12	3.96E-11	6.23	350	20.78
350	90	0.10	4.25	1.05	10.12	3.96E-11	6.23	350	13.58
350	120	0.08	4.25	1.05	10.12	3.96E-11	6.23	350	10.12
100	15	0.44	4.25	1.05	10.12	3.63E-10	3.69	25	37.37
100	30	0.27	4.25	1.05	10.12	3.63E-10	3.69	25	21.05
100	60	0.15	4.25	1.05	10.12	3.63E-10	3.69	25	11.23
100	90	0.10	4.25	1.05	10.12	3.63E-10	3.69	25	7.67
250	30	0.27	4.25	1.05	10.12	3.63E-10	5.22	62.5	62.65
250	60	0.15	4.25	1.05	10.12	3.63E-10	5.22	62.5	29.76
250	90	0.10	4.25	1.05	10.12	3.63E-10	5.22	62.5	20.22

250	120	0.08	4.25	1.05	10.12	3.63E-10	5.22	62.5	15.32
350	60	0.15	4.25	1.05	10.12	3.63E-10	6.23	87.5	42.35
350	90	0.10	4.25	1.05	10.12	3.63E-10	6.23	87.5	28.69
350	120	0.08	4.25	1.05	10.12	3.63E-10	6.23	87.5	21.74
100	15	0.44	4.25	1.05	10.12	3.63E-10	3.69	50	77.81
100	30	0.27	4.25	1.05	10.12	3.63E-10	3.69	50	43.85
100	60	0.15	4.25	1.05	10.12	3.63E-10	3.69	50	23.40
100	90	0.10	4.25	1.05	10.12	3.63E-10	3.69	50	15.96
250	30	0.27	4.25	1.05	10.12	3.63E-10	5.22	125	126.95
250	60	0.15	4.25	1.05	10.12	3.63E-10	5.22	125	60.43
250	90	0.10	4.25	1.05	10.12	3.63E-10	5.22	125	41.07
250	120	0.08	4.25	1.05	10.12	3.63E-10	5.22	125	31.10
350	60	0.15	4.25	1.05	10.12	3.63E-10	6.23	175	85.55
350	90	0.10	4.25	1.05	10.12	3.63E-10	6.23	175	57.98
350	120	0.08	4.25	1.05	10.12	3.63E-10	6.23	175	43.88
100	15	0.44	4.25	1.05	10.12	3.63E-10	3.69	100	158.76
100	30	0.27	4.25	1.05	10.12	3.63E-10	3.69	100	89.46
100	60	0.15	4.25	1.05	10.12	3.63E-10	3.69	100	47.75
100	90	0.10	4.25	1.05	10.12	3.63E-10	3.69	100	32.56
250	30	0.27	4.25	1.05	10.12	3.63E-10	5.22	250	255.53
250	60	0.15	4.25	1.05	10.12	3.63E-10	5.22	250	121.78
250	90	0.10	4.25	1.05	10.12	3.63E-10	5.22	250	82.72
250	120	0.08	4.25	1.05	10.12	3.63E-10	5.22	250	62.67
350	60	0.15	4.25	1.05	10.12	3.63E-10	6.23	350	172.05
350	90	0.10	4.25	1.05	10.12	3.63E-10	6.23	350	116.55
350	120	0.08	4.25	1.05	10.12	3.63E-10	6.23	350	88.20
100	15	0.44	4.25	1.05	10.12	6.93E-10	3.69	25	69.62
100	30	0.27	4.25	1.05	10.12	6.93E-10	3.69	25	39.56
100	60	0.15	4.25	1.05	10.12	6.93E-10	3.69	25	21.22
100	90	0.10	4.25	1.05	10.12	6.93E-10	3.69	25	14.51
250	30	0.27	4.25	1.05	10.12	6.93E-10	5.22	62.5	112.58
250	60	0.15	4.25	1.05	10.12	6.93E-10	5.22	62.5	56.11
250	90	0.10	4.25	1.05	10.12	6.93E-10	5.22	62.5	38.26
250	120	0.08	4.25	1.05	10.12	6.93E-10	5.22	62.5	29.02
350	60	0.15	4.25	1.05	10.12	6.93E-10	6.23	87.5	79.70
350	90	0.10	4.25	1.05	10.12	6.93E-10	6.23	87.5	54.24
350	120	0.08	4.25	1.05	10.12	6.93E-10	6.23	87.5	41.15
100	15	0.44	4.25	1.05	10.12	6.93E-10	3.69	50	145.40
100	30	0.27	4.25	1.05	10.12	6.93E-10	3.69	50	82.59
100	60	0.15	4.25	1.05	10.12	6.93E-10	3.69	50	44.31
100	90	0.10	4.25	1.05	10.12	6.93E-10	3.69	50	30.28

250	30	0.27	4.25	1.05	10.12	6.93E-10	5.22	125	228.38
250	60	0.15	4.25	1.05	10.12	6.93E-10	5.22	125	114.03
250	90	0.10	4.25	1.05	10.12	6.93E-10	5.22	125	77.74
250	120	0.08	4.25	1.05	10.12	6.93E-10	5.22	125	58.99
350	60	0.15	4.25	1.05	10.12	6.93E-10	6.23	175	161.28
350	90	0.10	4.25	1.05	10.12	6.93E-10	6.23	175	109.68
350	120	0.08	4.25	1.05	10.12	6.93E-10	6.23	175	83.16
100	15	0.44	4.25	1.05	10.12	6.93E-10	3.69	100	296.86
100	30	0.27	4.25	1.05	10.12	6.93E-10	3.69	100	168.65
100	60	0.15	4.25	1.05	10.12	6.93E-10	3.69	100	90.47
100	90	0.10	4.25	1.05	10.12	6.93E-10	3.69	100	61.83
250	30	0.27	4.25	1.05	10.12	6.93E-10	5.22	250	459.96
250	60	0.15	4.25	1.05	10.12	6.93E-10	5.22	250	229.95
250	90	0.10	4.25	1.05	10.12	6.93E-10	5.22	250	156.81
250	120	0.08	4.25	1.05	10.12	6.93E-10	5.22	250	118.94
350	60	0.15	4.25	1.05	10.12	6.93E-10	6.23	350	324.32
350	90	0.10	4.25	1.05	10.12	6.93E-10	6.23	350	220.63
350	120	0.08	4.25	1.05	10.12	6.93E-10	6.23	350	167.27
100	15	0.44	6.69	2.05	18.00	6.70E-12	5.06	25	0.66
100	30	0.27	6.69	2.05	18.00	6.70E-12	5.06	25	0.38
100	60	0.15	6.69	2.05	18.00	6.70E-12	5.06	25	0.20
100	90	0.10	6.69	2.05	18.00	6.70E-12	5.06	25	0.14
250	30	0.27	6.69	2.05	18.00	6.70E-12	6.78	62.5	0.99
250	60	0.15	6.69	2.05	18.00	6.70E-12	6.78	62.5	0.54
250	90	0.10	6.69	2.05	18.00	6.70E-12	6.78	62.5	0.37
250	120	0.08	6.69	2.05	18.00	6.70E-12	6.78	62.5	0.28
350	30	0.27	6.69	2.05	18.00	6.70E-12	7.92	87.5	1.44
350	60	0.15	6.69	2.05	18.00	6.70E-12	7.92	87.5	0.76
350	90	0.10	6.69	2.05	18.00	6.70E-12	7.92	87.5	0.52
350	120	0.08	6.69	2.05	18.00	6.70E-12	7.92	87.5	0.39
100	15	0.44	6.69	2.05	18.00	6.70E-12	5.06	50	1.38
100	30	0.27	6.69	2.05	18.00	6.70E-12	5.06	50	0.79
100	60	0.15	6.69	2.05	18.00	6.70E-12	5.06	50	0.43
100	90	0.10	6.69	2.05	18.00	6.70E-12	5.06	50	0.29
250	30	0.27	6.69	2.05	18.00	6.70E-12	6.78	125	2.02
250	60	0.15	6.69	2.05	18.00	6.70E-12	6.78	125	1.09
250	90	0.10	6.69	2.05	18.00	6.70E-12	6.78	125	0.75
250	120	0.08	6.69	2.05	18.00	6.70E-12	6.78	125	0.57
350	30	0.27	6.69	2.05	18.00	6.70E-12	7.92	175	2.92
350	60	0.15	6.69	2.05	18.00	6.70E-12	7.92	175	1.54
350	90	0.10	6.69	2.05	18.00	6.70E-12	7.92	175	1.05

350	120	0.08	6.69	2.05	18.00	6.70E-12	7.92	175	0.80
100	15	0.44	6.69	2.05	18.00	6.70E-12	5.06	100	2.82
100	30	0.27	6.69	2.05	18.00	6.70E-12	5.06	100	1.61
100	60	0.15	6.69	2.05	18.00	6.70E-12	5.06	100	0.87
100	90	0.10	6.69	2.05	18.00	6.70E-12	5.06	100	0.60
250	30	0.27	6.69	2.05	18.00	6.70E-12	6.78	250	4.08
250	60	0.15	6.69	2.05	18.00	6.70E-12	6.78	250	2.20
250	90	0.10	6.69	2.05	18.00	6.70E-12	6.78	250	1.50
250	120	0.08	6.69	2.05	18.00	6.70E-12	6.78	250	1.14
350	30	0.27	6.69	2.05	18.00	6.70E-12	7.92	350	5.88
350	60	0.15	6.69	2.05	18.00	6.70E-12	7.92	350	3.10
350	90	0.10	6.69	2.05	18.00	6.70E-12	7.92	350	2.11
350	120	0.08	6.69	2.05	18.00	6.70E-12	7.92	350	1.61
100	15	0.44	6.69	2.05	18.00	3.30E-10	5.06	25	32.26
100	30	0.27	6.69	2.05	18.00	3.30E-10	5.06	25	18.50
100	60	0.15	6.69	2.05	18.00	3.30E-10	5.06	25	9.99
100	90	0.10	6.69	2.05	18.00	3.30E-10	5.06	25	6.84
250	30	0.27	6.69	2.05	18.00	3.30E-10	6.78	62.5	48.77
250	60	0.15	6.69	2.05	18.00	3.30E-10	6.78	62.5	26.33
250	90	0.10	6.69	2.05	18.00	3.30E-10	6.78	62.5	18.03
250	120	0.08	6.69	2.05	18.00	3.30E-10	6.78	62.5	13.71
350	30	0.27	6.69	2.05	18.00	3.30E-10	7.92	87.5	68.99
350	60	0.15	6.69	2.05	18.00	3.30E-10	7.92	87.5	37.24
350	90	0.10	6.69	2.05	18.00	3.30E-10	7.92	87.5	25.48
350	120	0.08	6.69	2.05	18.00	3.30E-10	7.92	87.5	19.37
100	15	0.44	6.69	2.05	18.00	3.30E-10	5.06	50	64.51
100	30	0.27	6.69	2.05	18.00	3.30E-10	5.06	50	37.01
100	60	0.15	6.69	2.05	18.00	3.30E-10	5.06	50	19.97
100	90	0.10	6.69	2.05	18.00	3.30E-10	5.06	50	13.68
250	30	0.27	6.69	2.05	18.00	3.30E-10	6.78	125	97.55
250	60	0.15	6.69	2.05	18.00	3.30E-10	6.78	125	52.66
250	90	0.10	6.69	2.05	18.00	3.30E-10	6.78	125	36.06
250	120	0.08	6.69	2.05	18.00	3.30E-10	6.78	125	27.42
350	30	0.27	6.69	2.05	18.00	3.30E-10	7.92	175	137.97
350	60	0.15	6.69	2.05	18.00	3.30E-10	7.92	175	74.48
350	90	0.10	6.69	2.05	18.00	3.30E-10	7.92	175	50.95
350	120	0.08	6.69	2.05	18.00	3.30E-10	7.92	175	38.73
100	15	0.44	6.69	2.05	18.00	3.30E-10	5.06	100	129.02
100	30	0.27	6.69	2.05	18.00	3.30E-10	5.06	100	74.01
100	60	0.15	6.69	2.05	18.00	3.30E-10	5.06	100	39.94
100	90	0.10	6.69	2.05	18.00	3.30E-10	5.06	100	27.37

250	30	0.27	6.69	2.05	18.00	3.30E-10	6.78	250	195.10
250	60	0.15	6.69	2.05	18.00	3.30E-10	6.78	250	105.31
250	90	0.10	6.69	2.05	18.00	3.30E-10	6.78	250	72.12
250	120	0.08	6.69	2.05	18.00	3.30E-10	6.78	250	54.84
350	30	0.27	6.69	2.05	18.00	3.30E-10	7.92	350	275.94
350	60	0.15	6.69	2.05	18.00	3.30E-10	7.92	350	148.96
350	90	0.10	6.69	2.05	18.00	3.30E-10	7.92	350	101.91
350	120	0.08	6.69	2.05	18.00	3.30E-10	7.92	350	77.46
100	15	0.44	6.69	2.05	18.00	6.60E-10	5.06	25	64.51
100	30	0.27	6.69	2.05	18.00	6.60E-10	5.06	25	37.00
100	60	0.15	6.69	2.05	18.00	6.60E-10	5.06	25	19.97
100	90	0.10	6.69	2.05	18.00	6.60E-10	5.06	25	13.68
250	30	0.27	6.69	2.05	18.00	6.60E-10	6.78	62.5	97.52
250	60	0.15	6.69	2.05	18.00	6.60E-10	6.78	62.5	52.64
250	90	0.10	6.69	2.05	18.00	6.60E-10	6.78	62.5	36.05
250	120	0.08	6.69	2.05	18.00	6.60E-10	6.78	62.5	27.41
350	30	0.27	6.69	2.05	18.00	6.60E-10	7.92	87.5	137.97
350	60	0.15	6.69	2.05	18.00	6.60E-10	7.92	87.5	74.47
350	90	0.10	6.69	2.05	18.00	6.60E-10	7.92	87.5	50.95
350	120	0.08	6.69	2.05	18.00	6.60E-10	7.92	87.5	38.73
100	15	0.44	6.69	2.05	18.00	6.60E-10	5.06	50	135.01
100	30	0.27	6.69	2.05	18.00	6.60E-10	5.06	50	77.43
100	60	0.15	6.69	2.05	18.00	6.60E-10	5.06	50	41.80
100	90	0.10	6.69	2.05	18.00	6.60E-10	5.06	50	28.63
250	30	0.27	6.69	2.05	18.00	6.60E-10	6.78	125	198.51
250	60	0.15	6.69	2.05	18.00	6.60E-10	6.78	125	107.16
250	90	0.10	6.69	2.05	18.00	6.60E-10	6.78	125	73.40
250	120	0.08	6.69	2.05	18.00	6.60E-10	6.78	125	55.79
350	30	0.27	6.69	2.05	18.00	6.60E-10	7.92	175	279.34
350	60	0.15	6.69	2.05	18.00	6.60E-10	7.92	175	150.76
350	90	0.10	6.69	2.05	18.00	6.60E-10	7.92	175	103.13
350	120	0.08	6.69	2.05	18.00	6.60E-10	7.92	175	78.44
100	15	0.44	6.69	2.05	18.00	6.60E-10	5.06	100	275.94
100	30	0.27	6.69	2.05	18.00	6.60E-10	5.06	100	158.32
100	60	0.15	6.69	2.05	18.00	6.60E-10	5.06	100	85.49
100	90	0.10	6.69	2.05	18.00	6.60E-10	5.06	100	58.53
250	30	0.27	6.69	2.05	18.00	6.60E-10	6.78	250	400.43
250	60	0.15	6.69	2.05	18.00	6.60E-10	6.78	250	216.15
250	90	0.10	6.69	2.05	18.00	6.60E-10	6.78	250	148.05
250	120	0.08	6.69	2.05	18.00	6.60E-10	6.78	250	112.52
350	30	0.27	6.69	2.05	18.00	6.60E-10	7.92	350	562.15

350	60	0.15	6.69	2.05	18.00	6.60E-10	7.92	350	303.47
350	90	0.10	6.69	2.05	18.00	6.60E-10	7.92	350	207.59
350	120	0.08	6.69	2.05	18.00	6.60E-10	7.92	350	157.82
100	15	0.44	6.69	2.05	18.00	1.49E-11	5.06	25	1.87
100	30	0.27	6.69	2.05	18.00	1.49E-11	5.06	25	0.98
100	60	0.15	6.69	2.05	18.00	1.49E-11	5.06	25	0.50
100	90	0.10	6.69	2.05	18.00	1.49E-11	5.06	25	0.34
250	30	0.27	6.69	2.05	18.00	1.49E-11	6.78	62.5	2.49
250	60	0.15	6.69	2.05	18.00	1.49E-11	6.78	62.5	1.28
250	90	0.10	6.69	2.05	18.00	1.49E-11	6.78	62.5	0.86
250	120	0.08	6.69	2.05	18.00	1.49E-11	6.78	62.5	0.65
350	30	0.27	6.69	2.05	18.00	1.49E-11	7.92	87.5	5.02
350	60	0.15	6.69	2.05	18.00	1.49E-11	7.92	87.5	1.87
350	90	0.10	6.69	2.05	18.00	1.49E-11	7.92	87.5	1.23
350	120	0.08	6.69	2.05	18.00	1.49E-11	7.92	87.5	0.93
100	15	0.44	6.69	2.05	18.00	1.49E-11	5.06	50	3.82
100	30	0.27	6.69	2.05	18.00	1.49E-11	5.06	50	2.00
100	60	0.15	6.69	2.05	18.00	1.49E-11	5.06	50	1.03
100	90	0.10	6.69	2.05	18.00	1.49E-11	5.06	50	0.69
250	30	0.27	6.69	2.05	18.00	1.49E-11	6.78	125	5.02
250	60	0.15	6.69	2.05	18.00	1.49E-11	6.78	125	2.58
250	90	0.10	6.69	2.05	18.00	1.49E-11	6.78	125	1.74
250	120	0.08	6.69	2.05	18.00	1.49E-11	6.78	125	1.31
350	30	0.27	6.69	2.05	18.00	1.49E-11	7.92	175	10.05
350	60	0.15	6.69	2.05	18.00	1.49E-11	7.92	175	3.76
350	90	0.10	6.69	2.05	18.00	1.49E-11	7.92	175	2.47
350	120	0.08	6.69	2.05	18.00	1.49E-11	7.92	175	1.86
100	15	0.44	6.69	2.05	18.00	1.49E-11	5.06	100	7.70
100	30	0.27	6.69	2.05	18.00	1.49E-11	5.06	100	4.04
100	60	0.15	6.69	2.05	18.00	1.49E-11	5.06	100	2.08
100	90	0.10	6.69	2.05	18.00	1.49E-11	5.06	100	1.40
250	30	0.27	6.69	2.05	18.00	1.49E-11	6.78	250	10.08
250	60	0.15	6.69	2.05	18.00	1.49E-11	6.78	250	5.18
250	90	0.10	6.69	2.05	18.00	1.49E-11	6.78	250	3.48
250	120	0.08	6.69	2.05	18.00	1.49E-11	6.78	250	2.62
350	30	0.27	6.69	2.05	18.00	1.49E-11	7.92	350	20.15
350	60	0.15	6.69	2.05	18.00	1.49E-11	7.92	350	7.53
350	90	0.10	6.69	2.05	18.00	1.49E-11	7.92	350	4.94
350	120	0.08	6.69	2.05	18.00	1.49E-11	7.92	350	3.73
100	15	0.44	6.69	2.05	18.00	3.38E-10	5.06	25	33.54
100	30	0.27	6.69	2.05	18.00	3.38E-10	5.06	25	19.14

100	60	0.15	6.69	2.05	18.00	3.38E-10	5.06	25	10.30
100	90	0.10	6.69	2.05	18.00	3.38E-10	5.06	25	7.05
250	30	0.27	6.69	2.05	18.00	3.38E-10	6.78	62.5	50.36
250	60	0.15	6.69	2.05	18.00	3.38E-10	6.78	62.5	27.10
250	90	0.10	6.69	2.05	18.00	3.38E-10	6.78	62.5	18.54
250	120	0.08	6.69	2.05	18.00	3.38E-10	6.78	62.5	14.09
350	30	0.27	6.69	2.05	18.00	3.38E-10	7.92	87.5	74.15
350	60	0.15	6.69	2.05	18.00	3.38E-10	7.92	87.5	38.50
350	90	0.10	6.69	2.05	18.00	3.38E-10	7.92	87.5	26.25
350	120	0.08	6.69	2.05	18.00	3.38E-10	7.92	87.5	19.95
100	15	0.44	6.69	2.05	18.00	3.38E-10	5.06	50	70.12
100	30	0.27	6.69	2.05	18.00	3.38E-10	5.06	50	40.02
100	60	0.15	6.69	2.05	18.00	3.38E-10	5.06	50	21.53
100	90	0.10	6.69	2.05	18.00	3.38E-10	5.06	50	14.73
250	30	0.27	6.69	2.05	18.00	3.38E-10	6.78	125	102.44
250	60	0.15	6.69	2.05	18.00	3.38E-10	6.78	125	55.13
250	90	0.10	6.69	2.05	18.00	3.38E-10	6.78	125	37.71
250	120	0.08	6.69	2.05	18.00	3.38E-10	6.78	125	28.66
350	30	0.27	6.69	2.05	18.00	3.38E-10	7.92	175	150.07
350	60	0.15	6.69	2.05	18.00	3.38E-10	7.92	175	77.93
350	90	0.10	6.69	2.05	18.00	3.38E-10	7.92	175	53.13
350	120	0.08	6.69	2.05	18.00	3.38E-10	7.92	175	40.36
100	15	0.44	6.69	2.05	18.00	3.38E-10	5.06	100	143.26
100	30	0.27	6.69	2.05	18.00	3.38E-10	5.06	100	81.77
100	60	0.15	6.69	2.05	18.00	3.38E-10	5.06	100	43.99
100	90	0.10	6.69	2.05	18.00	3.38E-10	5.06	100	30.10
250	30	0.27	6.69	2.05	18.00	3.38E-10	6.78	250	206.64
250	60	0.15	6.69	2.05	18.00	3.38E-10	6.78	250	111.20
250	90	0.10	6.69	2.05	18.00	3.38E-10	6.78	250	76.04
250	120	0.08	6.69	2.05	18.00	3.38E-10	6.78	250	57.80
350	30	0.27	6.69	2.05	18.00	3.38E-10	7.92	350	301.77
350	60	0.15	6.69	2.05	18.00	3.38E-10	7.92	350	156.74
350	90	0.10	6.69	2.05	18.00	3.38E-10	7.92	350	106.91
350	120	0.08	6.69	2.05	18.00	3.38E-10	7.92	350	81.21
100	15	0.44	6.69	2.05	18.00	6.68E-10	5.06	25	65.77
100	30	0.27	6.69	2.05	18.00	6.68E-10	5.06	25	37.64
100	60	0.15	6.69	2.05	18.00	6.68E-10	5.06	25	20.29
100	90	0.10	6.69	2.05	18.00	6.68E-10	5.06	25	13.89
250	30	0.27	6.69	2.05	18.00	6.68E-10	6.78	62.5	100.83
250	60	0.15	6.69	2.05	18.00	6.68E-10	6.78	62.5	54.34
250	90	0.10	6.69	2.05	18.00	6.68E-10	6.78	62.5	37.20

250	120	0.08	6.69	2.05	18.00	6.68E-10	6.78	62.5	27.79
350	30	0.27	6.69	2.05	18.00	6.68E-10	7.92	87.5	143.39
350	60	0.15	6.69	2.05	18.00	6.68E-10	7.92	87.5	75.73
350	90	0.10	6.69	2.05	18.00	6.68E-10	7.92	87.5	51.72
350	120	0.08	6.69	2.05	18.00	6.68E-10	7.92	87.5	39.31
100	15	0.44	6.69	2.05	18.00	6.68E-10	5.06	50	137.59
100	30	0.27	6.69	2.05	18.00	6.68E-10	5.06	50	78.75
100	60	0.15	6.69	2.05	18.00	6.68E-10	5.06	50	42.43
100	90	0.10	6.69	2.05	18.00	6.68E-10	5.06	50	29.04
250	30	0.27	6.69	2.05	18.00	6.68E-10	6.78	125	201.66
250	60	0.15	6.69	2.05	18.00	6.68E-10	6.78	125	108.68
250	90	0.10	6.69	2.05	18.00	6.68E-10	6.78	125	74.40
250	120	0.08	6.69	2.05	18.00	6.68E-10	6.78	125	56.55
350	30	0.27	6.69	2.05	18.00	6.68E-10	7.92	175	290.18
350	60	0.15	6.69	2.05	18.00	6.68E-10	7.92	175	153.34
350	90	0.10	6.69	2.05	18.00	6.68E-10	7.92	175	104.71
350	120	0.08	6.69	2.05	18.00	6.68E-10	7.92	175	79.57
100	15	0.44	6.69	2.05	18.00	6.68E-10	5.06	100	281.17
100	30	0.27	6.69	2.05	18.00	6.68E-10	5.06	100	160.90
100	60	0.15	6.69	2.05	18.00	6.68E-10	5.06	100	86.69
100	90	0.10	6.69	2.05	18.00	6.68E-10	5.06	100	59.35
250	30	0.27	6.69	2.05	18.00	6.68E-10	6.78	250	406.79
250	60	0.15	6.69	2.05	18.00	6.68E-10	6.78	250	219.24
250	90	0.10	6.69	2.05	18.00	6.68E-10	6.78	250	150.07
250	120	0.08	6.69	2.05	18.00	6.68E-10	6.78	250	114.09
350	30	0.27	6.69	2.05	18.00	6.68E-10	7.92	350	583.76
350	60	0.15	6.69	2.05	18.00	6.68E-10	7.92	350	308.51
350	90	0.10	6.69	2.05	18.00	6.68E-10	7.92	350	210.67
350	120	0.08	6.69	2.05	18.00	6.68E-10	7.92	350	160.15
100	15	0.44	6.69	2.05	18.00	3.96E-11	5.06	25	5.48
100	30	0.27	6.69	2.05	18.00	3.96E-11	5.06	25	2.78
100	60	0.15	6.69	2.05	18.00	3.96E-11	5.06	25	1.40
100	90	0.10	6.69	2.05	18.00	3.96E-11	5.06	25	0.94
250	30	0.27	6.69	2.05	18.00	3.96E-11	6.78	62.5	6.94
250	60	0.15	6.69	2.05	18.00	3.96E-11	6.78	62.5	3.50
250	90	0.10	6.69	2.05	18.00	3.96E-11	6.78	62.5	2.34
250	120	0.08	6.69	2.05	18.00	3.96E-11	6.78	62.5	1.76
350	30	0.27	6.69	2.05	18.00	3.96E-11	7.92	87.5	7.91
350	60	0.15	6.69	2.05	18.00	3.96E-11	7.92	87.5	2.38
350	90	0.10	6.69	2.05	18.00	3.96E-11	7.92	87.5	3.33
350	120	0.08	6.69	2.05	18.00	3.96E-11	7.92	87.5	2.50

100	15	0.44	6.69	2.05	18.00	3.96E-11	5.06	50	11.04
100	30	0.27	6.69	2.05	18.00	3.96E-11	5.06	50	5.61
100	60	0.15	6.69	2.05	18.00	3.96E-11	5.06	50	2.83
100	90	0.10	6.69	2.05	18.00	3.96E-11	5.06	50	1.89
250	30	0.27	6.69	2.05	18.00	3.96E-11	6.78	125	13.92
250	60	0.15	6.69	2.05	18.00	3.96E-11	6.78	125	7.02
250	90	0.10	6.69	2.05	18.00	3.96E-11	6.78	125	4.70
250	120	0.08	6.69	2.05	18.00	3.96E-11	6.78	125	3.53
350	30	0.27	6.69	2.05	18.00	3.96E-11	7.92	175	30.59
350	60	0.15	6.69	2.05	18.00	3.96E-11	7.92	175	10.27
350	90	0.10	6.69	2.05	18.00	3.96E-11	7.92	175	6.67
350	120	0.08	6.69	2.05	18.00	3.96E-11	7.92	175	5.02
100	15	0.44	6.69	2.05	18.00	3.96E-11	5.06	100	22.14
100	30	0.27	6.69	2.05	18.00	3.96E-11	5.06	100	11.26
100	60	0.15	6.69	2.05	18.00	3.96E-11	5.06	100	5.68
100	90	0.10	6.69	2.05	18.00	3.96E-11	5.06	100	3.79
250	30	0.27	6.69	2.05	18.00	3.96E-11	6.78	250	27.83
250	60	0.15	6.69	2.05	18.00	3.96E-11	6.78	250	14.07
250	90	0.10	6.69	2.05	18.00	3.96E-11	6.78	250	9.41
250	120	0.08	6.69	2.05	18.00	3.96E-11	6.78	250	7.07
350	30	0.27	6.69	2.05	18.00	3.96E-11	7.92	350	61.29
350	60	0.15	6.69	2.05	18.00	3.96E-11	7.92	350	20.55
350	90	0.10	6.69	2.05	18.00	3.96E-11	7.92	350	13.37
350	120	0.08	6.69	2.05	18.00	3.96E-11	7.92	350	10.05
100	15	0.44	6.69	2.05	18.00	3.63E-10	5.06	25	37.37
100	30	0.27	6.69	2.05	18.00	3.63E-10	5.06	25	21.05
100	60	0.15	6.69	2.05	18.00	3.63E-10	5.06	25	11.24
100	90	0.10	6.69	2.05	18.00	3.63E-10	5.06	25	7.67
250	30	0.27	6.69	2.05	18.00	3.63E-10	6.78	62.5	55.11
250	60	0.15	6.69	2.05	18.00	3.63E-10	6.78	62.5	29.43
250	90	0.10	6.69	2.05	18.00	3.63E-10	6.78	62.5	20.07
250	120	0.08	6.69	2.05	18.00	3.63E-10	6.78	62.5	15.47
350	30	0.27	6.69	2.05	18.00	3.63E-10	7.92	87.5	87.89
350	60	0.15	6.69	2.05	18.00	3.63E-10	7.92	87.5	42.62
350	90	0.10	6.69	2.05	18.00	3.63E-10	7.92	87.5	28.83
350	120	0.08	6.69	2.05	18.00	3.63E-10	7.92	87.5	21.87
100	15	0.44	6.69	2.05	18.00	3.63E-10	5.06	50	77.81
100	30	0.27	6.69	2.05	18.00	3.63E-10	5.06	50	43.85
100	60	0.15	6.69	2.05	18.00	3.63E-10	5.06	50	23.41
100	90	0.10	6.69	2.05	18.00	3.63E-10	5.06	50	15.96
250	30	0.27	6.69	2.05	18.00	3.63E-10	6.78	125	111.95

250	60	0.15	6.69	2.05	18.00	3.63E-10	6.78	125	59.78
250	90	0.10	6.69	2.05	18.00	3.63E-10	6.78	125	40.77
250	120	0.08	6.69	2.05	18.00	3.63E-10	6.78	125	30.94
350	30	0.27	6.69	2.05	18.00	3.63E-10	7.92	175	175.77
350	60	0.15	6.69	2.05	18.00	3.63E-10	7.92	175	85.24
350	90	0.10	6.69	2.05	18.00	3.63E-10	7.92	175	57.66
350	120	0.08	6.69	2.05	18.00	3.63E-10	7.92	175	43.75
100	15	0.44	6.69	2.05	18.00	3.63E-10	5.06	100	158.76
100	30	0.27	6.69	2.05	18.00	3.63E-10	5.06	100	89.46
100	60	0.15	6.69	2.05	18.00	3.63E-10	5.06	100	47.75
100	90	0.10	6.69	2.05	18.00	3.63E-10	5.06	100	32.57
250	30	0.27	6.69	2.05	18.00	3.63E-10	6.78	250	225.67
250	60	0.15	6.69	2.05	18.00	3.63E-10	6.78	250	120.52
250	90	0.10	6.69	2.05	18.00	3.63E-10	6.78	250	82.22
250	120	0.08	6.69	2.05	18.00	3.63E-10	6.78	250	62.36
350	30	0.27	6.69	2.05	18.00	3.63E-10	7.92	350	353.12
350	60	0.15	6.69	2.05	18.00	3.63E-10	7.92	350	171.36
350	90	0.10	6.69	2.05	18.00	3.63E-10	7.92	350	115.92
350	120	0.08	6.69	2.05	18.00	3.63E-10	7.92	350	87.95
100	15	0.44	6.69	2.05	18.00	6.93E-10	5.06	25	69.62
100	30	0.27	6.69	2.05	18.00	6.93E-10	5.06	25	39.56
100	60	0.15	6.69	2.05	18.00	6.93E-10	5.06	25	21.22
100	90	0.10	6.69	2.05	18.00	6.93E-10	5.06	25	14.51
250	30	0.27	6.69	2.05	18.00	6.93E-10	6.78	62.5	103.89
250	60	0.15	6.69	2.05	18.00	6.93E-10	6.78	62.5	55.76
250	90	0.10	6.69	2.05	18.00	6.93E-10	6.78	62.5	38.10
250	120	0.08	6.69	2.05	18.00	6.93E-10	6.78	62.5	28.94
350	30	0.27	6.69	2.05	18.00	6.93E-10	7.92	87.5	157.37
350	60	0.15	6.69	2.05	18.00	6.93E-10	7.92	87.5	79.51
350	90	0.10	6.69	2.05	18.00	6.93E-10	7.92	87.5	54.03
350	120	0.08	6.69	2.05	18.00	6.93E-10	7.92	87.5	41.03
100	15	0.44	6.69	2.05	18.00	6.93E-10	5.06	50	145.40
100	30	0.27	6.69	2.05	18.00	6.93E-10	5.06	50	82.59
100	60	0.15	6.69	2.05	18.00	6.93E-10	5.06	50	44.32
100	90	0.10	6.69	2.05	18.00	6.93E-10	5.06	50	30.28
250	30	0.27	6.69	2.05	18.00	6.93E-10	6.78	125	211.30
250	60	0.15	6.69	2.05	18.00	6.93E-10	6.78	125	113.40
250	90	0.10	6.69	2.05	18.00	6.93E-10	6.78	125	77.49
250	120	0.08	6.69	2.05	18.00	6.93E-10	6.78	125	58.84
350	30	0.27	6.69	2.05	18.00	6.93E-10	7.92	175	318.21
350	60	0.15	6.69	2.05	18.00	6.93E-10	7.92	175	160.78

350	90	0.10	6.69	2.05	18.00	6.93E-10	7.92	175	109.31
350	120	0.08	6.69	2.05	18.00	6.93E-10	7.92	175	83.03
100	15	0.44	6.69	2.05	18.00	6.93E-10	5.06	100	296.86
100	30	0.27	6.69	2.05	18.00	6.93E-10	5.06	100	168.65
100	60	0.15	6.69	2.05	18.00	6.93E-10	5.06	100	90.53
100	90	0.10	6.69	2.05	18.00	6.93E-10	5.06	100	61.84
250	30	0.27	6.69	2.05	18.00	6.93E-10	6.78	250	426.01
250	60	0.15	6.69	2.05	18.00	6.93E-10	6.78	250	228.63
250	90	0.10	6.69	2.05	18.00	6.93E-10	6.78	250	156.24
250	120	0.08	6.69	2.05	18.00	6.93E-10	6.78	250	118.63
350	30	0.27	6.69	2.05	18.00	6.93E-10	7.92	350	639.45
350	60	0.15	6.69	2.05	18.00	6.93E-10	7.92	350	323.44
350	90	0.10	6.69	2.05	18.00	6.93E-10	7.92	350	219.87
350	120	0.08	6.69	2.05	18.00	6.93E-10	7.92	350	166.95
100	15	0.44	1.51	0.32	3.62	6.70E-12	2.14	25	0.66
100	30	0.27	1.51	0.32	3.62	6.70E-12	2.14	25	0.38
100	60	0.15	1.51	0.32	3.62	6.70E-12	2.14	25	0.20
100	90	0.10	1.51	0.32	3.62	6.70E-12	2.14	25	0.14
250	60	0.15	1.51	0.32	3.62	6.70E-12	3.46	62.5	0.54
250	90	0.10	1.51	0.32	3.62	6.70E-12	3.46	62.5	0.37
250	120	0.08	1.51	0.32	3.62	6.70E-12	3.46	62.5	0.28
350	60	0.15	1.51	0.32	3.62	6.70E-12	4.33	87.5	0.76
350	90	0.10	1.51	0.32	3.62	6.70E-12	4.33	87.5	0.52
350	120	0.08	1.51	0.32	3.62	6.70E-12	4.33	87.5	0.39
100	15	0.44	1.51	0.32	3.62	6.70E-12	2.14	50	1.38
100	30	0.27	1.51	0.32	3.62	6.70E-12	2.14	50	0.79
100	60	0.15	1.51	0.32	3.62	6.70E-12	2.14	50	0.43
100	90	0.10	1.51	0.32	3.62	6.70E-12	2.14	50	0.29
250	60	0.15	1.51	0.32	3.62	6.70E-12	3.46	125	1.09
250	90	0.10	1.51	0.32	3.62	6.70E-12	3.46	125	0.75
250	120	0.08	1.51	0.32	3.62	6.70E-12	3.46	125	0.57
350	60	0.15	1.51	0.32	3.62	6.70E-12	4.33	175	1.53
350	90	0.10	1.51	0.32	3.62	6.70E-12	4.33	175	1.05
350	120	0.08	1.51	0.32	3.62	6.70E-12	4.33	175	0.79
100	15	0.44	1.51	0.32	3.62	6.70E-12	2.14	100	2.82
100	30	0.27	1.51	0.32	3.62	6.70E-12	2.14	100	1.61
100	60	0.15	1.51	0.32	3.62	6.70E-12	2.14	100	0.87
100	90	0.10	1.51	0.32	3.62	6.70E-12	2.14	100	0.59
250	60	0.15	1.51	0.32	3.62	6.70E-12	3.46	250	2.20
250	90	0.10	1.51	0.32	3.62	6.70E-12	3.46	250	1.50
250	120	0.08	1.51	0.32	3.62	6.70E-12	3.46	250	1.14

350	60	0.15	1.51	0.32	3.62	6.70E-12	4.33	350	3.08
350	90	0.10	1.51	0.32	3.62	6.70E-12	4.33	350	2.10
350	120	0.08	1.51	0.32	3.62	6.70E-12	4.33	350	1.60
100	15	0.44	1.51	0.32	3.62	3.30E-10	2.14	25	32.27
100	30	0.27	1.51	0.32	3.62	3.30E-10	2.14	25	18.50
100	60	0.15	1.51	0.32	3.62	3.30E-10	2.14	25	9.99
100	90	0.10	1.51	0.32	3.62	3.30E-10	2.14	25	6.84
250	60	0.15	1.51	0.32	3.62	3.30E-10	3.46	62.5	26.26
250	90	0.10	1.51	0.32	3.62	3.30E-10	3.46	62.5	17.97
250	120	0.08	1.51	0.32	3.62	3.30E-10	3.46	62.5	13.66
350	60	0.15	1.51	0.32	3.62	3.30E-10	4.33	87.5	36.95
350	90	0.10	1.51	0.32	3.62	3.30E-10	4.33	87.5	25.29
350	120	0.08	1.51	0.32	3.62	3.30E-10	4.33	87.5	19.23
100	15	0.44	1.51	0.32	3.62	3.30E-10	2.14	50	67.54
100	30	0.27	1.51	0.32	3.62	3.30E-10	2.14	50	38.73
100	60	0.15	1.51	0.32	3.62	3.30E-10	2.14	50	20.90
100	90	0.10	1.51	0.32	3.62	3.30E-10	2.14	50	14.31
250	60	0.15	1.51	0.32	3.62	3.30E-10	3.46	125	53.42
250	90	0.10	1.51	0.32	3.62	3.30E-10	3.46	125	36.56
250	120	0.08	1.51	0.32	3.62	3.30E-10	3.46	125	27.79
350	60	0.15	1.51	0.32	3.62	3.30E-10	4.33	175	74.78
350	90	0.10	1.51	0.32	3.62	3.30E-10	4.33	175	51.21
350	120	0.08	1.51	0.32	3.62	3.30E-10	4.33	175	38.92
100	15	0.44	1.51	0.32	3.62	3.30E-10	2.14	100	138.10
100	30	0.27	1.51	0.32	3.62	3.30E-10	2.14	100	79.19
100	60	0.15	1.51	0.32	3.62	3.30E-10	2.14	100	42.73
100	90	0.10	1.51	0.32	3.62	3.30E-10	2.14	100	29.26
250	60	0.15	1.51	0.32	3.62	3.30E-10	3.46	250	107.79
250	90	0.10	1.51	0.32	3.62	3.30E-10	3.46	250	73.71
250	120	0.08	1.51	0.32	3.62	3.30E-10	3.46	250	56.05
350	60	0.15	1.51	0.32	3.62	3.30E-10	4.33	350	150.51
350	90	0.10	1.51	0.32	3.62	3.30E-10	4.33	350	103.01
350	120	0.08	1.51	0.32	3.62	3.30E-10	4.33	350	78.31
100	15	0.44	1.51	0.32	3.62	6.60E-10	2.14	25	64.51
100	30	0.27	1.51	0.32	3.62	6.60E-10	2.14	25	37.00
100	60	0.15	1.51	0.32	3.62	6.60E-10	2.14	25	19.96
100	90	0.10	1.51	0.32	3.62	6.60E-10	2.14	25	13.67
250	60	0.15	1.51	0.32	3.62	6.60E-10	3.46	62.5	52.50
250	90	0.10	1.51	0.32	3.62	6.60E-10	3.46	62.5	35.93
250	120	0.08	1.51	0.32	3.62	6.60E-10	3.46	62.5	27.30
350	60	0.15	1.51	0.32	3.62	6.60E-10	4.33	87.5	73.90

350	90	0.10	1.51	0.32	3.62	6.60E-10	4.33	87.5	50.58
350	120	0.08	1.51	0.32	3.62	6.60E-10	4.33	87.5	38.44
100	15	0.44	1.51	0.32	3.62	6.60E-10	2.14	50	135.07
100	30	0.27	1.51	0.32	3.62	6.60E-10	2.14	50	77.43
100	60	0.15	1.51	0.32	3.62	6.60E-10	2.14	50	41.79
100	90	0.10	1.51	0.32	3.62	6.60E-10	2.14	50	28.61
250	60	0.15	1.51	0.32	3.62	6.60E-10	3.46	125	106.85
250	90	0.10	1.51	0.32	3.62	6.60E-10	3.46	125	73.08
250	120	0.08	1.51	0.32	3.62	6.60E-10	3.46	125	55.57
350	60	0.15	1.51	0.32	3.62	6.60E-10	4.33	175	149.56
350	90	0.10	1.51	0.32	3.62	6.60E-10	4.33	175	102.38
350	120	0.08	1.51	0.32	3.62	6.60E-10	4.33	175	77.81
100	15	0.44	1.51	0.32	3.62	6.60E-10	2.14	100	276.13
100	30	0.27	1.51	0.32	3.62	6.60E-10	2.14	100	158.32
100	60	0.15	1.51	0.32	3.62	6.60E-10	2.14	100	85.43
100	90	0.10	1.51	0.32	3.62	6.60E-10	2.14	100	58.50
250	60	0.15	1.51	0.32	3.62	6.60E-10	3.46	250	215.46
250	90	0.10	1.51	0.32	3.62	6.60E-10	3.46	250	147.48
250	120	0.08	1.51	0.32	3.62	6.60E-10	3.46	250	112.08
350	60	0.15	1.51	0.32	3.62	6.60E-10	4.33	350	300.95
350	90	0.10	1.51	0.32	3.62	6.60E-10	4.33	350	206.01
350	120	0.08	1.51	0.32	3.62	6.60E-10	4.33	350	156.62
100	15	0.44	1.51	0.32	3.62	1.49E-11	2.14	25	1.88
100	30	0.27	1.51	0.32	3.62	1.49E-11	2.14	25	0.99
100	60	0.15	1.51	0.32	3.62	1.49E-11	2.14	25	0.51
100	90	0.10	1.51	0.32	3.62	1.49E-11	2.14	25	0.34
250	60	0.15	1.51	0.32	3.62	1.49E-11	3.46	62.5	1.37
250	90	0.10	1.51	0.32	3.62	1.49E-11	3.46	62.5	0.90
250	120	0.08	1.51	0.32	3.62	1.49E-11	3.46	62.5	0.67
350	60	0.15	1.51	0.32	3.62	1.49E-11	4.33	87.5	1.95
350	90	0.10	1.51	0.32	3.62	1.49E-11	4.33	87.5	1.27
350	120	0.08	1.51	0.32	3.62	1.49E-11	4.33	87.5	0.94
100	15	0.44	1.51	0.32	3.62	1.49E-11	2.14	50	3.83
100	30	0.27	1.51	0.32	3.62	1.49E-11	2.14	50	2.01
100	60	0.15	1.51	0.32	3.62	1.49E-11	2.14	50	1.03
100	90	0.10	1.51	0.32	3.62	1.49E-11	2.14	50	0.69
250	60	0.15	1.51	0.32	3.62	1.49E-11	3.46	125	2.76
250	90	0.10	1.51	0.32	3.62	1.49E-11	3.46	125	1.81
250	120	0.08	1.51	0.32	3.62	1.49E-11	3.46	125	1.35
350	60	0.15	1.51	0.32	3.62	1.49E-11	4.33	175	3.91
350	90	0.10	1.51	0.32	3.62	1.49E-11	4.33	175	2.54

350	120	0.08	1.51	0.32	3.62	1.49E-11	4.33	175	1.89
100	15	0.44	1.51	0.32	3.62	1.49E-11	2.14	100	7.72
100	30	0.27	1.51	0.32	3.62	1.49E-11	2.14	100	4.05
100	60	0.15	1.51	0.32	3.62	1.49E-11	2.14	100	2.08
100	90	0.10	1.51	0.32	3.62	1.49E-11	2.14	100	1.40
250	60	0.15	1.51	0.32	3.62	1.49E-11	3.46	250	5.53
250	90	0.10	1.51	0.32	3.62	1.49E-11	3.46	250	3.62
250	120	0.08	1.51	0.32	3.62	1.49E-11	3.46	250	2.70
350	60	0.15	1.51	0.32	3.62	1.49E-11	4.33	350	7.83
350	90	0.10	1.51	0.32	3.62	1.49E-11	4.33	350	5.09
350	120	0.08	1.51	0.32	3.62	1.49E-11	4.33	350	3.79
100	15	0.44	1.51	0.32	3.62	3.38E-10	2.14	25	33.57
100	30	0.27	1.51	0.32	3.62	3.38E-10	2.14	25	19.15
100	60	0.15	1.51	0.32	3.62	3.38E-10	2.14	25	10.30
100	90	0.10	1.51	0.32	3.62	3.38E-10	2.14	25	7.04
250	60	0.15	1.51	0.32	3.62	3.38E-10	3.46	62.5	27.25
250	90	0.10	1.51	0.32	3.62	3.38E-10	3.46	62.5	18.58
250	120	0.08	1.51	0.32	3.62	3.38E-10	3.46	62.5	14.09
350	60	0.15	1.51	0.32	3.62	3.38E-10	4.33	87.5	38.39
350	90	0.10	1.51	0.32	3.62	3.38E-10	4.33	87.5	26.17
350	120	0.08	1.51	0.32	3.62	3.38E-10	4.33	87.5	19.86
100	15	0.44	1.51	0.32	3.62	3.38E-10	2.14	50	70.18
100	30	0.27	1.51	0.32	3.62	3.38E-10	2.14	50	40.02
100	60	0.15	1.51	0.32	3.62	3.38E-10	2.14	50	21.53
100	90	0.10	1.51	0.32	3.62	3.38E-10	2.14	50	14.72
250	60	0.15	1.51	0.32	3.62	3.38E-10	3.46	125	55.41
250	90	0.10	1.51	0.32	3.62	3.38E-10	3.46	125	37.76
250	120	0.08	1.51	0.32	3.62	3.38E-10	3.46	125	28.65
350	60	0.15	1.51	0.32	3.62	3.38E-10	4.33	175	77.68
350	90	0.10	1.51	0.32	3.62	3.38E-10	4.33	175	52.95
350	120	0.08	1.51	0.32	3.62	3.38E-10	4.33	175	40.16
100	15	0.44	1.51	0.32	3.62	3.38E-10	2.14	100	143.33
100	30	0.27	1.51	0.32	3.62	3.38E-10	2.14	100	81.77
100	60	0.15	1.51	0.32	3.62	3.38E-10	2.14	100	43.98
100	90	0.10	1.51	0.32	3.62	3.38E-10	2.14	100	30.08
250	60	0.15	1.51	0.32	3.62	3.38E-10	3.46	250	111.70
250	90	0.10	1.51	0.32	3.62	3.38E-10	3.46	250	76.10
250	120	0.08	1.51	0.32	3.62	3.38E-10	3.46	250	57.76
350	60	0.15	1.51	0.32	3.62	3.38E-10	4.33	350	156.18
350	90	0.10	1.51	0.32	3.62	3.38E-10	4.33	350	106.47
350	120	0.08	1.51	0.32	3.62	3.38E-10	4.33	350	80.77

100	15	0.44	1.51	0.32	3.62	6.68E-10	2.14	25	65.84
100	30	0.27	1.51	0.32	3.62	6.68E-10	2.14	25	37.64
100	60	0.15	1.51	0.32	3.62	6.68E-10	2.14	25	20.28
100	90	0.10	1.51	0.32	3.62	6.68E-10	2.14	25	13.88
250	60	0.15	1.51	0.32	3.62	6.68E-10	3.46	62.5	53.51
250	90	0.10	1.51	0.32	3.62	6.68E-10	3.46	62.5	36.55
250	120	0.08	1.51	0.32	3.62	6.68E-10	3.46	62.5	27.75
350	60	0.15	1.51	0.32	3.62	6.68E-10	4.33	87.5	75.35
350	90	0.10	1.51	0.32	3.62	6.68E-10	4.33	87.5	51.46
350	120	0.08	1.51	0.32	3.62	6.68E-10	4.33	87.5	39.08
100	15	0.44	1.51	0.32	3.62	6.68E-10	2.14	50	137.66
100	30	0.27	1.51	0.32	3.62	6.68E-10	2.14	50	78.75
100	60	0.15	1.51	0.32	3.62	6.68E-10	2.14	50	42.42
100	90	0.10	1.51	0.32	3.62	6.68E-10	2.14	50	29.03
250	60	0.15	1.51	0.32	3.62	6.68E-10	3.46	125	108.86
250	90	0.10	1.51	0.32	3.62	6.68E-10	3.46	125	74.34
250	120	0.08	1.51	0.32	3.62	6.68E-10	3.46	125	56.43
350	60	0.15	1.51	0.32	3.62	6.68E-10	4.33	175	152.46
350	90	0.10	1.51	0.32	3.62	6.68E-10	4.33	175	104.14
350	120	0.08	1.51	0.32	3.62	6.68E-10	4.33	175	79.07
100	15	0.44	1.51	0.32	3.62	6.68E-10	2.14	100	281.36
100	30	0.27	1.51	0.32	3.62	6.68E-10	2.14	100	160.90
100	60	0.15	1.51	0.32	3.62	6.68E-10	2.14	100	86.69
100	90	0.10	1.51	0.32	3.62	6.68E-10	2.14	100	59.33
250	60	0.15	1.51	0.32	3.62	6.68E-10	3.46	250	219.49
250	90	0.10	1.51	0.32	3.62	6.68E-10	3.46	250	149.88
250	120	0.08	1.51	0.32	3.62	6.68E-10	3.46	250	113.78
350	60	0.15	1.51	0.32	3.62	6.68E-10	4.33	350	306.75
350	90	0.10	1.51	0.32	3.62	6.68E-10	4.33	350	209.54
350	120	0.08	1.51	0.32	3.62	6.68E-10	4.33	350	159.08
100	15	0.44	1.51	0.32	3.62	3.96E-11	2.14	25	5.51
100	30	0.27	1.51	0.32	3.62	3.96E-11	2.14	25	2.79
100	60	0.15	1.51	0.32	3.62	3.96E-11	2.14	25	1.41
100	90	0.10	1.51	0.32	3.62	3.96E-11	2.14	25	0.94
250	60	0.15	1.51	0.32	3.62	3.96E-11	3.46	62.5	3.81
250	90	0.10	1.51	0.32	3.62	3.96E-11	3.46	62.5	2.46
250	120	0.08	1.51	0.32	3.62	3.96E-11	3.46	62.5	1.83
350	60	0.15	1.51	0.32	3.62	3.96E-11	4.33	87.5	5.43
350	90	0.10	1.51	0.32	3.62	3.96E-11	4.33	87.5	3.47
350	120	0.08	1.51	0.32	3.62	3.96E-11	4.33	87.5	2.56
100	15	0.44	1.51	0.32	3.62	3.96E-11	2.14	50	11.02

100	30	0.27	1.51	0.32	3.62	3.96E-11	2.14	50	5.59
100	60	0.15	1.51	0.32	3.62	3.96E-11	2.14	50	2.81
100	90	0.10	1.51	0.32	3.62	3.96E-11	2.14	50	1.88
250	60	0.15	1.51	0.32	3.62	3.96E-11	3.46	125	7.63
250	90	0.10	1.51	0.32	3.62	3.96E-11	3.46	125	4.93
250	120	0.08	1.51	0.32	3.62	3.96E-11	3.46	125	3.66
350	60	0.15	1.51	0.32	3.62	3.96E-11	4.33	175	10.85
350	90	0.10	1.51	0.32	3.62	3.96E-11	4.33	175	6.95
350	120	0.08	1.51	0.32	3.62	3.96E-11	4.33	175	5.13
100	15	0.44	1.51	0.32	3.62	3.96E-11	2.14	100	22.24
100	30	0.27	1.51	0.32	3.62	3.96E-11	2.14	100	11.29
100	60	0.15	1.51	0.32	3.62	3.96E-11	2.14	100	5.69
100	90	0.10	1.51	0.32	3.62	3.96E-11	2.14	100	3.80
250	60	0.15	1.51	0.32	3.62	3.96E-11	3.46	250	15.30
250	90	0.10	1.51	0.32	3.62	3.96E-11	3.46	250	9.88
250	120	0.08	1.51	0.32	3.62	3.96E-11	3.46	250	7.35
350	60	0.15	1.51	0.32	3.62	3.96E-11	4.33	350	21.72
350	90	0.10	1.51	0.32	3.62	3.96E-11	4.33	350	13.92
350	120	0.08	1.51	0.32	3.62	3.96E-11	4.33	350	10.28
100	15	0.44	1.51	0.32	3.62	3.63E-10	2.14	25	37.42
100	30	0.27	1.51	0.32	3.62	3.63E-10	2.14	25	21.06
100	60	0.15	1.51	0.32	3.62	3.63E-10	2.14	25	11.24
100	90	0.10	1.51	0.32	3.62	3.63E-10	2.14	25	7.67
250	60	0.15	1.51	0.32	3.62	3.63E-10	3.46	62.5	30.08
250	90	0.10	1.51	0.32	3.62	3.63E-10	3.46	62.5	20.33
250	120	0.08	1.51	0.32	3.62	3.63E-10	3.46	62.5	15.36
350	60	0.15	1.51	0.32	3.62	3.63E-10	4.33	87.5	42.41
350	90	0.10	1.51	0.32	3.62	3.63E-10	4.33	87.5	28.66
350	120	0.08	1.51	0.32	3.62	3.63E-10	4.33	87.5	21.65
100	15	0.44	1.51	0.32	3.62	3.63E-10	2.14	50	77.93
100	30	0.27	1.51	0.32	3.62	3.63E-10	2.14	50	43.87
100	60	0.15	1.51	0.32	3.62	3.63E-10	2.14	50	23.41
100	90	0.10	1.51	0.32	3.62	3.63E-10	2.14	50	15.96
250	60	0.15	1.51	0.32	3.62	3.63E-10	3.46	125	61.00
250	90	0.10	1.51	0.32	3.62	3.63E-10	3.46	125	41.23
250	120	0.08	1.51	0.32	3.62	3.63E-10	3.46	125	31.16
350	60	0.15	1.51	0.32	3.62	3.63E-10	4.33	175	85.68
350	90	0.10	1.51	0.32	3.62	3.63E-10	4.33	175	57.88
350	120	0.08	1.51	0.32	3.62	3.63E-10	4.33	175	43.72
100	15	0.44	1.51	0.32	3.62	3.63E-10	2.14	100	158.95
100	30	0.27	1.51	0.32	3.62	3.63E-10	2.14	100	89.46

100	60	0.15	1.51	0.32	3.62	3.63E-10	2.14	100	47.75
100	90	0.10	1.51	0.32	3.62	3.63E-10	2.14	100	32.56
250	60	0.15	1.51	0.32	3.62	3.63E-10	3.46	250	122.85
250	90	0.10	1.51	0.32	3.62	3.63E-10	3.46	250	83.03
250	120	0.08	1.51	0.32	3.62	3.63E-10	3.46	250	62.77
350	60	0.15	1.51	0.32	3.62	3.63E-10	4.33	350	172.18
350	90	0.10	1.51	0.32	3.62	3.63E-10	4.33	350	116.30
350	120	0.08	1.51	0.32	3.62	3.63E-10	4.33	350	87.89
100	15	0.44	1.51	0.32	3.62	6.93E-10	2.14	25	69.74
100	30	0.27	1.51	0.32	3.62	6.93E-10	2.14	25	39.57
100	60	0.15	1.51	0.32	3.62	6.93E-10	2.14	25	21.22
100	90	0.10	1.51	0.32	3.62	6.93E-10	2.14	25	14.51
250	60	0.15	1.51	0.32	3.62	6.93E-10	3.46	62.5	56.41
250	90	0.10	1.51	0.32	3.62	6.93E-10	3.46	62.5	38.35
250	120	0.08	1.51	0.32	3.62	6.93E-10	3.46	62.5	29.04
350	60	0.15	1.51	0.32	3.62	6.93E-10	4.33	87.5	79.51
350	90	0.10	1.51	0.32	3.62	6.93E-10	4.33	87.5	54.04
350	120	0.08	1.51	0.32	3.62	6.93E-10	4.33	87.5	40.96
100	15	0.44	1.51	0.32	3.62	6.93E-10	2.14	50	145.53
100	30	0.27	1.51	0.32	3.62	6.93E-10	2.14	50	82.59
100	60	0.15	1.51	0.32	3.62	6.93E-10	2.14	50	44.31
100	90	0.10	1.51	0.32	3.62	6.93E-10	2.14	50	30.27
250	60	0.15	1.51	0.32	3.62	6.93E-10	3.46	125	114.66
250	90	0.10	1.51	0.32	3.62	6.93E-10	3.46	125	77.87
250	120	0.08	1.51	0.32	3.62	6.93E-10	3.46	125	58.99
350	60	0.15	1.51	0.32	3.62	6.93E-10	4.33	175	160.84
350	90	0.10	1.51	0.32	3.62	6.93E-10	4.33	175	109.24
350	120	0.08	1.51	0.32	3.62	6.93E-10	4.33	175	82.72
100	15	0.44	1.51	0.32	3.62	6.93E-10	2.14	100	297.17
100	30	0.27	1.51	0.32	3.62	6.93E-10	2.14	100	297.17
100	60	0.15	1.51	0.32	3.62	6.93E-10	2.14	100	168.71
100	90	0.10	1.51	0.32	3.62	6.93E-10	2.14	100	60.54
250	60	0.15	1.51	0.32	3.62	6.93E-10	3.46	250	229.32
250	90	0.10	1.51	0.32	3.62	6.93E-10	3.46	250	155.74
250	120	0.08	1.51	0.32	3.62	6.93E-10	3.46	250	117.97
350	60	0.15	1.51	0.32	3.62	6.93E-10	4.33	350	321.68
350	90	0.10	1.51	0.32	3.62	6.93E-10	4.33	350	218.48
350	120	0.08	1.51	0.32	3.62	6.93E-10	4.33	350	165.44

Annexure VII

Parametric Modelling Results of Seepage rate through Pillar System

Table AVII.1. Numerical modelling results of seepage rate through pillar system

D, m	w, m	e, %	$\frac{E_i}{E_c}$	σ_T, MPa	σ_C, MPa	K_R, m^2/pa.sec	σ_{hi}, MPa	H, m	Q, 10^{-3} m^3/s/km
100	15	0.44	4.25	1.05	10.12	7.98E-12	3.69	25	1.48
100	30	0.27	4.25	1.05	10.12	7.98E-12	3.69	25	0.83
100	90	0.1	4.25	1.05	10.12	3.96E-10	3.69	25	14.90
250	30	0.27	4.25	1.05	10.12	3.96E-10	5.22	62.5	104.83
250	60	0.15	4.25	1.05	10.12	3.96E-10	5.22	62.5	56.58
250	90	0.1	4.25	1.05	10.12	3.96E-10	5.22	62.5	38.53
250	120	0.08	4.25	1.05	10.12	3.96E-10	5.22	62.5	29.19
350	60	0.15	4.25	1.05	10.12	3.96E-10	6.23	87.5	79.44
350	90	0.1	4.25	1.05	10.12	3.96E-10	6.23	87.5	54.24
350	120	0.08	4.25	1.05	10.12	3.96E-10	6.23	87.5	41.12
100	15	0.44	4.25	1.05	10.12	3.96E-10	3.69	50	145.91
100	30	0.27	4.25	1.05	10.12	3.96E-10	3.69	50	82.96
100	60	0.15	4.25	1.05	10.12	3.96E-10	3.69	50	43.91
100	90	0.1	4.25	1.05	10.12	3.96E-10	3.69	50	29.80
250	30	0.27	4.25	1.05	10.12	3.96E-10	5.22	125	209.66
250	60	0.15	4.25	1.05	10.12	3.96E-10	5.22	125	113.16
250	90	0.1	4.25	1.05	10.12	3.96E-10	5.22	125	77.06
250	120	0.08	4.25	1.05	10.12	3.96E-10	5.22	125	58.39
350	60	0.15	4.25	1.05	10.12	3.96E-10	6.23	175	158.89
350	90	0.1	4.25	1.05	10.12	3.96E-10	6.23	175	108.47
350	120	0.08	4.25	1.05	10.12	3.96E-10	6.23	175	82.24
100	15	0.44	4.25	1.05	10.12	3.96E-10	3.69	100	291.82
100	30	0.27	4.25	1.05	10.12	3.96E-10	3.69	100	165.92
100	60	0.15	4.25	1.05	10.12	3.96E-10	3.69	100	87.82
100	90	0.1	4.25	1.05	10.12	3.96E-10	3.69	100	59.60
250	30	0.27	4.25	1.05	10.12	3.96E-10	5.22	250	419.33
250	60	0.15	4.25	1.05	10.12	3.96E-10	5.22	250	226.32
250	90	0.1	4.25	1.05	10.12	3.96E-10	5.22	250	154.12
250	120	0.08	4.25	1.05	10.12	3.96E-10	5.22	250	116.78
350	60	0.15	4.25	1.05	10.12	3.96E-10	6.23	350	317.77
350	90	0.1	4.25	1.05	10.12	3.96E-10	6.23	350	216.95
350	120	0.08	4.25	1.05	10.12	3.96E-10	6.23	350	164.48
100	15	0.44	4.25	1.05	10.12	7.92E-10	3.69	25	145.91

100	30	0.27	4.25	1.05	10.12	7.92E-10	3.69	25	82.97
100	60	0.15	4.25	1.05	10.12	7.92E-10	3.69	25	43.91
100	90	0.1	4.25	1.05	10.12	7.92E-10	3.69	25	29.81
250	30	0.27	4.25	1.05	10.12	7.92E-10	5.22	62.5	209.54
250	60	0.15	4.25	1.05	10.12	7.92E-10	5.22	62.5	113.15
250	90	0.1	4.25	1.05	10.12	7.92E-10	5.22	62.5	77.05
250	120	0.08	4.25	1.05	10.12	7.92E-10	5.22	62.5	58.39
350	60	0.15	4.25	1.05	10.12	7.92E-10	6.23	87.5	158.95
350	90	0.1	4.25	1.05	10.12	7.92E-10	6.23	87.5	108.49
350	120	0.08	4.25	1.05	10.12	7.92E-10	6.23	87.5	82.22
100	15	0.44	4.25	1.05	10.12	7.92E-10	3.69	50	290.75
100	30	0.27	4.25	1.05	10.12	7.92E-10	3.69	50	167.77
100	60	0.15	4.25	1.05	10.12	7.92E-10	3.69	50	90.34
100	90	0.1	4.25	1.05	10.12	7.92E-10	3.69	50	61.47
250	30	0.27	4.25	1.05	10.12	7.92E-10	5.22	125	418.51
250	60	0.15	4.25	1.05	10.12	7.92E-10	5.22	125	226.49
250	90	0.1	4.25	1.05	10.12	7.92E-10	5.22	125	155.23
250	120	0.08	4.25	1.05	10.12	7.92E-10	5.22	125	118.00
350	60	0.15	4.25	1.05	10.12	7.92E-10	6.23	175	317.52
350	90	0.1	4.25	1.05	10.12	7.92E-10	6.23	175	217.48
350	120	0.08	4.25	1.05	10.12	7.92E-10	6.23	175	165.38
100	15	0.44	4.25	1.05	10.12	7.92E-10	3.69	100	580.42
100	30	0.27	4.25	1.05	10.12	7.92E-10	3.69	100	334.91
100	60	0.15	4.25	1.05	10.12	7.92E-10	3.69	100	181.44
100	90	0.1	4.25	1.05	10.12	7.92E-10	3.69	100	124.36
250	30	0.27	4.25	1.05	10.12	7.92E-10	5.22	250	836.64
250	60	0.15	4.25	1.05	10.12	7.92E-10	5.22	250	452.66
250	90	0.1	4.25	1.05	10.12	7.92E-10	5.22	250	310.28
250	120	0.08	4.25	1.05	10.12	7.92E-10	5.22	250	236.00
350	60	0.15	4.25	1.05	10.12	7.92E-10	6.23	350	634.41
350	90	0.1	4.25	1.05	10.12	7.92E-10	6.23	350	434.76
350	120	0.08	4.25	1.05	10.12	7.92E-10	6.23	350	330.62
100	15	0.44	4.25	1.05	10.12	1.29E-11	3.69	25	2.73
100	30	0.27	4.25	1.05	10.12	1.29E-11	3.69	25	1.47
100	60	0.15	4.25	1.05	10.12	1.29E-11	3.69	25	0.76
100	90	0.1	4.25	1.05	10.12	1.29E-11	3.69	25	0.51
250	30	0.27	4.25	1.05	10.12	1.29E-11	5.22	62.5	4.94
250	60	0.15	4.25	1.05	10.12	1.29E-11	5.22	62.5	1.95
250	90	0.1	4.25	1.05	10.12	1.29E-11	5.22	62.5	1.30
250	120	0.08	4.25	1.05	10.12	1.29E-11	5.22	62.5	0.98
350	60	0.15	4.25	1.05	10.12	1.29E-11	6.23	87.5	2.76

350	90	0.1	4.25	1.05	10.12	1.29E-11	6.23	87.5	1.83
350	120	0.08	4.25	1.05	10.12	1.29E-11	6.23	87.5	1.38
100	15	0.44	4.25	1.05	10.12	1.29E-11	3.69	50	5.45
100	30	0.27	4.25	1.05	10.12	1.29E-11	3.69	50	2.93
100	60	0.15	4.25	1.05	10.12	1.29E-11	3.69	50	1.51
100	90	0.1	4.25	1.05	10.12	1.29E-11	3.69	50	1.02
250	30	0.27	4.25	1.05	10.12	1.29E-11	5.22	125	9.87
250	60	0.15	4.25	1.05	10.12	1.29E-11	5.22	125	3.90
250	90	0.1	4.25	1.05	10.12	1.29E-11	5.22	125	2.60
250	120	0.08	4.25	1.05	10.12	1.29E-11	5.22	125	1.95
350	60	0.15	4.25	1.05	10.12	1.29E-11	6.23	175	5.52
350	90	0.1	4.25	1.05	10.12	1.29E-11	6.23	175	3.66
350	120	0.08	4.25	1.05	10.12	1.29E-11	6.23	175	2.75
100	15	0.44	4.25	1.05	10.12	1.29E-11	3.69	100	10.89
100	30	0.27	4.25	1.05	10.12	1.29E-11	3.69	100	5.87
100	60	0.15	4.25	1.05	10.12	1.29E-11	3.69	100	3.05
100	90	0.1	4.25	1.05	10.12	1.29E-11	3.69	100	2.06
250	30	0.27	4.25	1.05	10.12	1.29E-11	5.22	250	19.77
250	60	0.15	4.25	1.05	10.12	1.29E-11	5.22	250	7.80
250	90	0.1	4.25	1.05	10.12	1.29E-11	5.22	250	5.22
250	120	0.08	4.25	1.05	10.12	1.29E-11	5.22	250	3.92
350	60	0.15	4.25	1.05	10.12	1.29E-11	6.23	350	11.04
350	90	0.1	4.25	1.05	10.12	1.29E-11	6.23	350	7.33
350	120	0.08	4.25	1.05	10.12	1.29E-11	6.23	350	5.51
100	15	0.44	4.25	1.05	10.12	4.01E-10	3.69	25	74.34
100	30	0.27	4.25	1.05	10.12	4.01E-10	3.69	25	41.91
100	60	0.15	4.25	1.05	10.12	4.01E-10	3.69	25	22.04
100	90	0.1	4.25	1.05	10.12	4.01E-10	3.69	25	14.94
250	30	0.27	4.25	1.05	10.12	4.01E-10	5.22	62.5	109.12
250	60	0.15	4.25	1.05	10.12	4.01E-10	5.22	62.5	57.37
250	90	0.1	4.25	1.05	10.12	4.01E-10	5.22	62.5	38.98
250	120	0.08	4.25	1.05	10.12	4.01E-10	5.22	62.5	29.50
350	60	0.15	4.25	1.05	10.12	4.01E-10	6.23	87.5	80.89
350	90	0.1	4.25	1.05	10.12	4.01E-10	6.23	87.5	54.99
350	120	0.08	4.25	1.05	10.12	4.01E-10	6.23	87.5	41.65
100	15	0.44	4.25	1.05	10.12	4.01E-10	3.69	50	148.18
100	30	0.27	4.25	1.05	10.12	4.01E-10	3.69	50	85.30
100	60	0.15	4.25	1.05	10.12	4.01E-10	3.69	50	45.66
100	90	0.1	4.25	1.05	10.12	4.01E-10	3.69	50	31.02
250	30	0.27	4.25	1.05	10.12	4.01E-10	5.22	125	218.04
250	60	0.15	4.25	1.05	10.12	4.01E-10	5.22	125	115.10

250	90	0.1	4.25	1.05	10.12	4.01E-10	5.22	125	78.75
250	120	0.08	4.25	1.05	10.12	4.01E-10	5.22	125	59.76
350	60	0.15	4.25	1.05	10.12	4.01E-10	6.23	175	161.66
350	90	0.1	4.25	1.05	10.12	4.01E-10	6.23	175	110.44
350	120	0.08	4.25	1.05	10.12	4.01E-10	6.23	175	83.92
100	15	0.44	4.25	1.05	10.12	4.01E-10	3.69	100	295.79
100	30	0.27	4.25	1.05	10.12	4.01E-10	3.69	100	170.23
100	60	0.15	4.25	1.05	10.12	4.01E-10	3.69	100	92.04
100	90	0.1	4.25	1.05	10.12	4.01E-10	3.69	100	62.99
250	30	0.27	4.25	1.05	10.12	4.01E-10	5.22	250	435.71
250	60	0.15	4.25	1.05	10.12	4.01E-10	5.22	250	230.01
250	90	0.1	4.25	1.05	10.12	4.01E-10	5.22	250	157.44
250	120	0.08	4.25	1.05	10.12	4.01E-10	5.22	250	119.70
350	60	0.15	4.25	1.05	10.12	4.01E-10	6.23	350	323.13
350	90	0.1	4.25	1.05	10.12	4.01E-10	6.23	350	220.75
350	120	0.08	4.25	1.05	10.12	4.01E-10	6.23	350	167.77
100	15	0.44	4.25	1.05	10.12	7.97E-10	3.69	25	146.76
100	30	0.27	4.25	1.05	10.12	7.97E-10	3.69	25	84.58
100	60	0.15	4.25	1.05	10.12	7.97E-10	3.69	25	45.39
100	90	0.1	4.25	1.05	10.12	7.97E-10	3.69	25	30.84
250	30	0.27	4.25	1.05	10.12	7.97E-10	5.22	62.5	213.89
250	60	0.15	4.25	1.05	10.12	7.97E-10	5.22	62.5	114.19
250	90	0.1	4.25	1.05	10.12	7.97E-10	5.22	62.5	78.18
250	120	0.08	4.25	1.05	10.12	7.97E-10	5.22	62.5	59.38
350	60	0.15	4.25	1.05	10.12	7.97E-10	6.23	87.5	160.24
350	90	0.1	4.25	1.05	10.12	7.97E-10	6.23	87.5	109.59
350	120	0.08	4.25	1.05	10.12	7.97E-10	6.23	87.5	83.32
100	15	0.44	4.25	1.05	10.12	7.97E-10	3.69	50	293.52
100	30	0.27	4.25	1.05	10.12	7.97E-10	3.69	50	169.16
100	60	0.15	4.25	1.05	10.12	7.97E-10	3.69	50	90.78
100	90	0.1	4.25	1.05	10.12	7.97E-10	3.69	50	61.68
250	30	0.27	4.25	1.05	10.12	7.97E-10	5.22	125	427.77
250	60	0.15	4.25	1.05	10.12	7.97E-10	5.22	125	228.38
250	90	0.1	4.25	1.05	10.12	7.97E-10	5.22	125	156.37
250	120	0.08	4.25	1.05	10.12	7.97E-10	5.22	125	118.76
350	60	0.15	4.25	1.05	10.12	7.97E-10	6.23	175	320.48
350	90	0.1	4.25	1.05	10.12	7.97E-10	6.23	175	219.18
350	120	0.08	4.25	1.05	10.12	7.97E-10	6.23	175	166.64
100	15	0.44	4.25	1.05	10.12	7.97E-10	3.69	100	585.96
100	30	0.27	4.25	1.05	10.12	7.97E-10	3.69	100	337.68
100	60	0.15	4.25	1.05	10.12	7.97E-10	3.69	100	182.76

100	90	0.1	4.25	1.05	10.12	7.97E-10	3.69	100	125.18
250	30	0.27	4.25	1.05	10.12	7.97E-10	5.22	250	854.91
250	60	0.15	4.25	1.05	10.12	7.97E-10	5.22	250	456.31
250	90	0.1	4.25	1.05	10.12	7.97E-10	5.22	250	312.54
250	120	0.08	4.25	1.05	10.12	7.97E-10	5.22	250	237.70
350	60	0.15	4.25	1.05	10.12	7.97E-10	6.23	350	640.71
350	90	0.1	4.25	1.05	10.12	7.97E-10	6.23	350	438.17
350	120	0.08	4.25	1.05	10.12	7.97E-10	6.23	350	333.14
100	15	0.44	4.25	1.05	10.12	2.77E-11	3.69	25	6.35
100	30	0.27	4.25	1.05	10.12	2.77E-11	3.69	25	3.25
100	60	0.15	4.25	1.05	10.12	2.77E-11	3.69	25	1.64
100	90	0.1	4.25	1.05	10.12	2.77E-11	3.69	25	1.09
250	30	0.27	4.25	1.05	10.12	2.77E-11	5.22	62.5	12.76
250	60	0.15	4.25	1.05	10.12	2.77E-11	5.22	62.5	4.28
250	90	0.1	4.25	1.05	10.12	2.77E-11	5.22	62.5	2.82
250	120	0.08	4.25	1.05	10.12	2.77E-11	5.22	62.5	2.10
350	60	0.15	4.25	1.05	10.12	2.77E-11	6.23	87.5	6.06
350	90	0.1	4.25	1.05	10.12	2.77E-11	6.23	87.5	3.97
350	120	0.08	4.25	1.05	10.12	2.77E-11	6.23	87.5	2.96
100	15	0.44	4.25	1.05	10.12	2.77E-11	3.69	50	12.72
100	30	0.27	4.25	1.05	10.12	2.77E-11	3.69	50	6.56
100	60	0.15	4.25	1.05	10.12	2.77E-11	3.69	50	3.31
100	90	0.1	4.25	1.05	10.12	2.77E-11	3.69	50	2.22
250	30	0.27	4.25	1.05	10.12	2.77E-11	5.22	125	25.53
250	60	0.15	4.25	1.05	10.12	2.77E-11	5.22	125	8.58
250	90	0.1	4.25	1.05	10.12	2.77E-11	5.22	125	5.66
250	120	0.08	4.25	1.05	10.12	2.77E-11	5.22	125	4.23
350	60	0.15	4.25	1.05	10.12	2.77E-11	6.23	175	12.14
350	90	0.1	4.25	1.05	10.12	2.77E-11	6.23	175	7.96
350	120	0.08	4.25	1.05	10.12	2.77E-11	6.23	175	5.95
100	15	0.44	4.25	1.05	10.12	2.77E-11	3.69	100	25.43
100	30	0.27	4.25	1.05	10.12	2.77E-11	3.69	100	13.12
100	60	0.15	4.25	1.05	10.12	2.77E-11	3.69	100	6.66
100	90	0.1	4.25	1.05	10.12	2.77E-11	3.69	100	4.46
250	30	0.27	4.25	1.05	10.12	2.77E-11	5.22	250	51.03
250	60	0.15	4.25	1.05	10.12	2.77E-11	5.22	250	17.16
250	90	0.1	4.25	1.05	10.12	2.77E-11	5.22	250	11.34
250	120	0.08	4.25	1.05	10.12	2.77E-11	5.22	250	8.47
350	60	0.15	4.25	1.05	10.12	2.77E-11	6.23	350	24.27
350	90	0.1	4.25	1.05	10.12	2.77E-11	6.23	350	15.91
350	120	0.08	4.25	1.05	10.12	2.77E-11	6.23	350	11.88

100	15	0.44	4.25	1.05	10.12	4.16E-10	3.69	25	78.44
100	30	0.27	4.25	1.05	10.12	4.16E-10	3.69	25	43.62
100	60	0.15	4.25	1.05	10.12	4.16E-10	3.69	25	22.86
100	90	0.1	4.25	1.05	10.12	4.16E-10	3.69	25	15.48
250	30	0.27	4.25	1.05	10.12	4.16E-10	5.22	62.5	119.57
250	60	0.15	4.25	1.05	10.12	4.16E-10	5.22	62.5	59.92
250	90	0.1	4.25	1.05	10.12	4.16E-10	5.22	62.5	40.58
250	120	0.08	4.25	1.05	10.12	4.16E-10	5.22	62.5	30.66
350	60	0.15	4.25	1.05	10.12	4.16E-10	6.23	87.5	84.86
350	90	0.1	4.25	1.05	10.12	4.16E-10	6.23	87.5	57.36
350	120	0.08	4.25	1.05	10.12	4.16E-10	6.23	87.5	43.36
100	15	0.44	4.25	1.05	10.12	4.16E-10	3.69	50	156.43
100	30	0.27	4.25	1.05	10.12	4.16E-10	3.69	50	89.27
100	60	0.15	4.25	1.05	10.12	4.16E-10	3.69	50	47.47
100	90	0.1	4.25	1.05	10.12	4.16E-10	3.69	50	32.19
250	30	0.27	4.25	1.05	10.12	4.16E-10	5.22	125	239.15
250	60	0.15	4.25	1.05	10.12	4.16E-10	5.22	125	120.46
250	90	0.1	4.25	1.05	10.12	4.16E-10	5.22	125	82.09
250	120	0.08	4.25	1.05	10.12	4.16E-10	5.22	125	62.16
350	60	0.15	4.25	1.05	10.12	4.16E-10	6.23	175	169.66
350	90	0.1	4.25	1.05	10.12	4.16E-10	6.23	175	115.29
350	120	0.08	4.25	1.05	10.12	4.16E-10	6.23	175	87.44
100	15	0.44	4.25	1.05	10.12	4.16E-10	3.69	100	312.29
100	30	0.27	4.25	1.05	10.12	4.16E-10	3.69	100	178.23
100	60	0.15	4.25	1.05	10.12	4.16E-10	3.69	100	95.89
100	90	0.1	4.25	1.05	10.12	4.16E-10	3.69	100	65.46
250	30	0.27	4.25	1.05	10.12	4.16E-10	5.22	250	477.92
250	60	0.15	4.25	1.05	10.12	4.16E-10	5.22	250	240.66
250	90	0.1	4.25	1.05	10.12	4.16E-10	5.22	250	164.18
250	120	0.08	4.25	1.05	10.12	4.16E-10	5.22	250	124.61
350	60	0.15	4.25	1.05	10.12	4.16E-10	6.23	350	339.19
350	90	0.1	4.25	1.05	10.12	4.16E-10	6.23	350	230.45
350	120	0.08	4.25	1.05	10.12	4.16E-10	6.23	350	174.89
100	15	0.44	4.25	1.05	10.12	8.12E-10	3.69	25	151.45
100	30	0.27	4.25	1.05	10.12	8.12E-10	3.69	25	84.86
100	60	0.15	4.25	1.05	10.12	8.12E-10	3.69	25	44.59
100	90	0.1	4.25	1.05	10.12	8.12E-10	3.69	25	30.21
250	30	0.27	4.25	1.05	10.12	8.12E-10	5.22	62.5	225.73
250	60	0.15	4.25	1.05	10.12	8.12E-10	5.22	62.5	116.30
250	90	0.1	4.25	1.05	10.12	8.12E-10	5.22	62.5	79.00
250	120	0.08	4.25	1.05	10.12	8.12E-10	5.22	62.5	59.77

350	60	0.15	4.25	1.05	10.12	8.12E-10	6.23	87.5	164.49
350	90	0.1	4.25	1.05	10.12	8.12E-10	6.23	87.5	111.57
350	120	0.08	4.25	1.05	10.12	8.12E-10	6.23	87.5	84.42
100	15	0.44	4.25	1.05	10.12	8.12E-10	3.69	50	301.90
100	30	0.27	4.25	1.05	10.12	8.12E-10	3.69	50	173.25
100	60	0.15	4.25	1.05	10.12	8.12E-10	3.69	50	92.48
100	90	0.1	4.25	1.05	10.12	8.12E-10	3.69	50	62.80
250	30	0.27	4.25	1.05	10.12	8.12E-10	5.22	125	451.08
250	60	0.15	4.25	1.05	10.12	8.12E-10	5.22	125	233.79
250	90	0.1	4.25	1.05	10.12	8.12E-10	5.22	125	159.77
250	120	0.08	4.25	1.05	10.12	8.12E-10	5.22	125	121.15
350	60	0.15	4.25	1.05	10.12	8.12E-10	6.23	175	328.86
350	90	0.1	4.25	1.05	10.12	8.12E-10	6.23	175	224.15
350	120	0.08	4.25	1.05	10.12	8.12E-10	6.23	175	170.23
100	15	0.44	4.25	1.05	10.12	8.12E-10	3.69	100	602.72
100	30	0.27	4.25	1.05	10.12	8.12E-10	3.69	100	345.81
100	60	0.15	4.25	1.05	10.12	8.12E-10	3.69	100	186.67
100	90	0.1	4.25	1.05	10.12	8.12E-10	3.69	100	127.64
250	30	0.27	4.25	1.05	10.12	8.12E-10	5.22	250	901.53
250	60	0.15	4.25	1.05	10.12	8.12E-10	5.22	250	467.21
250	90	0.1	4.25	1.05	10.12	8.12E-10	5.22	250	319.41
250	120	0.08	4.25	1.05	10.12	8.12E-10	5.22	250	242.68
350	60	0.15	4.25	1.05	10.12	8.12E-10	6.23	350	657.09
350	90	0.1	4.25	1.05	10.12	8.12E-10	6.23	350	448.06
350	120	0.08	4.25	1.05	10.12	8.12E-10	6.23	350	340.39
100	15	0.44	6.69	2.05	18.00	7.98E-12	5.06	25	1.48
100	30	0.27	6.69	2.05	18.00	7.98E-12	5.06	25	0.83
100	60	0.15	6.69	2.05	18.00	7.98E-12	5.06	25	0.44
100	90	0.1	6.69	2.05	18.00	7.98E-12	5.06	25	0.30
250	30	0.27	6.69	2.05	18.00	7.98E-12	6.78	62.5	2.11
250	60	0.15	6.69	2.05	18.00	7.98E-12	6.78	62.5	1.14
250	90	0.1	6.69	2.05	18.00	7.98E-12	6.78	62.5	0.78
250	120	0.08	6.69	2.05	18.00	7.98E-12	6.78	62.5	0.59
350	30	0.27	6.69	2.05	18.00	7.98E-12	7.92	87.5	3.00
350	60	0.15	6.69	2.05	18.00	7.98E-12	7.92	87.5	1.60
350	90	0.1	6.69	2.05	18.00	7.98E-12	7.92	87.5	1.09
350	120	0.08	6.69	2.05	18.00	7.98E-12	7.92	87.5	0.83
100	15	0.44	6.69	2.05	18.00	7.98E-12	5.06	50	2.94
100	30	0.27	6.69	2.05	18.00	7.98E-12	5.06	50	1.69
100	60	0.15	6.69	2.05	18.00	7.98E-12	5.06	50	0.91
100	90	0.1	6.69	2.05	18.00	7.98E-12	5.06	50	0.62

250	30	0.27	6.69	2.05	18.00	7.98E-12	6.78	125	4.22
250	60	0.15	6.69	2.05	18.00	7.98E-12	6.78	125	2.28
250	90	0.1	6.69	2.05	18.00	7.98E-12	6.78	125	1.57
250	120	0.08	6.69	2.05	18.00	7.98E-12	6.78	125	1.19
350	30	0.27	6.69	2.05	18.00	7.98E-12	7.92	175	5.99
350	60	0.15	6.69	2.05	18.00	7.98E-12	7.92	175	3.20
350	90	0.1	6.69	2.05	18.00	7.98E-12	7.92	175	2.19
350	120	0.08	6.69	2.05	18.00	7.98E-12	7.92	175	1.67
100	15	0.44	6.69	2.05	18.00	7.98E-12	5.06	100	5.87
100	30	0.27	6.69	2.05	18.00	7.98E-12	5.06	100	3.38
100	60	0.15	6.69	2.05	18.00	7.98E-12	5.06	100	1.83
100	90	0.1	6.69	2.05	18.00	7.98E-12	5.06	100	1.25
250	30	0.27	6.69	2.05	18.00	7.98E-12	6.78	250	8.44
250	60	0.15	6.69	2.05	18.00	7.98E-12	6.78	250	4.56
250	90	0.1	6.69	2.05	18.00	7.98E-12	6.78	250	3.13
250	120	0.08	6.69	2.05	18.00	7.98E-12	6.78	250	2.38
350	30	0.27	6.69	2.05	18.00	7.98E-12	7.92	350	11.96
350	60	0.15	6.69	2.05	18.00	7.98E-12	7.92	350	6.39
350	90	0.1	6.69	2.05	18.00	7.98E-12	7.92	350	4.38
350	120	0.08	6.69	2.05	18.00	7.98E-12	7.92	350	3.33
100	15	0.44	6.69	2.05	18.00	3.96E-10	5.06	25	72.95
100	30	0.27	6.69	2.05	18.00	3.96E-10	5.06	25	41.49
100	60	0.15	6.69	2.05	18.00	3.96E-10	5.06	25	21.96
100	90	0.1	6.69	2.05	18.00	3.96E-10	5.06	25	14.91
250	30	0.27	6.69	2.05	18.00	3.96E-10	6.78	62.5	104.64
250	60	0.15	6.69	2.05	18.00	3.96E-10	6.78	62.5	56.61
250	90	0.1	6.69	2.05	18.00	3.96E-10	6.78	62.5	38.57
250	120	0.08	6.69	2.05	18.00	3.96E-10	6.78	62.5	29.23
350	30	0.27	6.69	2.05	18.00	3.96E-10	7.92	87.5	146.48
350	60	0.15	6.69	2.05	18.00	3.96E-10	7.92	87.5	79.25
350	90	0.1	6.69	2.05	18.00	3.96E-10	7.92	87.5	54.25
350	120	0.08	6.69	2.05	18.00	3.96E-10	7.92	87.5	41.13
100	15	0.44	6.69	2.05	18.00	3.96E-10	5.06	50	145.40
100	30	0.27	6.69	2.05	18.00	3.96E-10	5.06	50	83.92
100	60	0.15	6.69	2.05	18.00	3.96E-10	5.06	50	45.18
100	90	0.1	6.69	2.05	18.00	3.96E-10	5.06	50	30.74
250	30	0.27	6.69	2.05	18.00	3.96E-10	6.78	125	208.97
250	60	0.15	6.69	2.05	18.00	3.96E-10	6.78	125	113.21
250	90	0.1	6.69	2.05	18.00	3.96E-10	6.78	125	77.62
250	120	0.08	6.69	2.05	18.00	3.96E-10	6.78	125	59.03
350	30	0.27	6.69	2.05	18.00	3.96E-10	7.92	175	292.64

350	60	0.15	6.69	2.05	18.00	3.96E-10	7.92	175	158.38
350	90	0.1	6.69	2.05	18.00	3.96E-10	7.92	175	108.61
350	120	0.08	6.69	2.05	18.00	3.96E-10	7.92	175	82.59
100	15	0.44	6.69	2.05	18.00	3.96E-10	5.06	100	290.30
100	30	0.27	6.69	2.05	18.00	3.96E-10	5.06	100	167.52
100	60	0.15	6.69	2.05	18.00	3.96E-10	5.06	100	90.72
100	90	0.1	6.69	2.05	18.00	3.96E-10	5.06	100	62.20
250	30	0.27	6.69	2.05	18.00	3.96E-10	6.78	250	417.63
250	60	0.15	6.69	2.05	18.00	3.96E-10	6.78	250	226.23
250	90	0.1	6.69	2.05	18.00	3.96E-10	6.78	250	155.17
250	120	0.08	6.69	2.05	18.00	3.96E-10	6.78	250	118.06
350	30	0.27	6.69	2.05	18.00	3.96E-10	7.92	350	584.96
350	60	0.15	6.69	2.05	18.00	3.96E-10	7.92	350	316.58
350	90	0.1	6.69	2.05	18.00	3.96E-10	7.92	350	217.04
350	120	0.08	6.69	2.05	18.00	3.96E-10	7.92	350	165.12
100	15	0.44	6.69	2.05	18.00	7.92E-10	5.06	25	145.91
100	30	0.27	6.69	2.05	18.00	7.92E-10	5.06	25	82.97
100	60	0.15	6.69	2.05	18.00	7.92E-10	5.06	25	43.92
100	90	0.1	6.69	2.05	18.00	7.92E-10	5.06	25	29.81
250	30	0.27	6.69	2.05	18.00	7.92E-10	6.78	62.5	209.29
250	60	0.15	6.69	2.05	18.00	7.92E-10	6.78	62.5	113.21
250	90	0.1	6.69	2.05	18.00	7.92E-10	6.78	62.5	77.18
250	120	0.08	6.69	2.05	18.00	7.92E-10	6.78	62.5	58.46
350	30	0.27	6.69	2.05	18.00	7.92E-10	7.92	87.5	292.89
350	60	0.15	6.69	2.05	18.00	7.92E-10	7.92	87.5	158.57
350	90	0.1	6.69	2.05	18.00	7.92E-10	7.92	87.5	108.49
350	120	0.08	6.69	2.05	18.00	7.92E-10	7.92	87.5	82.28
100	15	0.44	6.69	2.05	18.00	7.92E-10	5.06	50	290.81
100	30	0.27	6.69	2.05	18.00	7.92E-10	5.06	50	167.83
100	60	0.15	6.69	2.05	18.00	7.92E-10	5.06	50	90.34
100	90	0.1	6.69	2.05	18.00	7.92E-10	5.06	50	61.48
250	30	0.27	6.69	2.05	18.00	7.92E-10	6.78	125	417.94
250	60	0.15	6.69	2.05	18.00	7.92E-10	6.78	125	226.42
250	90	0.1	6.69	2.05	18.00	7.92E-10	6.78	125	155.30
250	120	0.08	6.69	2.05	18.00	7.92E-10	6.78	125	118.06
350	30	0.27	6.69	2.05	18.00	7.92E-10	7.92	175	585.14
350	60	0.15	6.69	2.05	18.00	7.92E-10	7.92	175	316.70
350	90	0.1	6.69	2.05	18.00	7.92E-10	7.92	175	217.16
350	120	0.08	6.69	2.05	18.00	7.92E-10	7.92	175	165.19
100	15	0.44	6.69	2.05	18.00	7.92E-10	5.06	100	580.55
100	30	0.27	6.69	2.05	18.00	7.92E-10	5.06	100	334.97

100	60	0.15	6.69	2.05	18.00	7.92E-10	5.06	100	181.50
100	90	0.1	6.69	2.05	18.00	7.92E-10	5.06	100	124.36
250	30	0.27	6.69	2.05	18.00	7.92E-10	6.78	250	835.38
250	60	0.15	6.69	2.05	18.00	7.92E-10	6.78	250	452.47
250	90	0.1	6.69	2.05	18.00	7.92E-10	6.78	250	310.28
250	120	0.08	6.69	2.05	18.00	7.92E-10	6.78	250	236.12
350	30	0.27	6.69	2.05	18.00	7.92E-10	7.92	350	1169.91
350	60	0.15	6.69	2.05	18.00	7.92E-10	7.92	350	633.15
350	90	0.1	6.69	2.05	18.00	7.92E-10	7.92	350	434.07
350	120	0.08	6.69	2.05	18.00	7.92E-10	7.92	350	330.25
100	15	0.44	6.69	2.05	18.00	1.29E-11	5.06	25	2.72
100	30	0.27	6.69	2.05	18.00	1.29E-11	5.06	25	1.44
100	60	0.15	6.69	2.05	18.00	1.29E-11	5.06	25	0.74
100	90	0.1	6.69	2.05	18.00	1.29E-11	5.06	25	0.50
250	30	0.27	6.69	2.05	18.00	1.29E-11	6.78	62.5	3.65
250	60	0.15	6.69	2.05	18.00	1.29E-11	6.78	62.5	1.89
250	90	0.1	6.69	2.05	18.00	1.29E-11	6.78	62.5	1.27
250	120	0.08	6.69	2.05	18.00	1.29E-11	6.78	62.5	0.96
350	30	0.27	6.69	2.05	18.00	1.29E-11	7.92	87.5	6.58
350	60	0.15	6.69	2.05	18.00	1.29E-11	7.92	87.5	2.71
350	90	0.1	6.69	2.05	18.00	1.29E-11	7.92	87.5	1.81
350	120	0.08	6.69	2.05	18.00	1.29E-11	7.92	87.5	1.35
100	15	0.44	6.69	2.05	18.00	1.29E-11	5.06	50	5.45
100	30	0.27	6.69	2.05	18.00	1.29E-11	5.06	50	2.93
100	60	0.15	6.69	2.05	18.00	1.29E-11	5.06	50	1.51
100	90	0.1	6.69	2.05	18.00	1.29E-11	5.06	50	1.02
250	30	0.27	6.69	2.05	18.00	1.29E-11	6.78	125	7.28
250	60	0.15	6.69	2.05	18.00	1.29E-11	6.78	125	3.79
250	90	0.1	6.69	2.05	18.00	1.29E-11	6.78	125	2.56
250	120	0.08	6.69	2.05	18.00	1.29E-11	6.78	125	1.93
350	30	0.27	6.69	2.05	18.00	1.29E-11	7.92	175	13.18
350	60	0.15	6.69	2.05	18.00	1.29E-11	7.92	175	5.44
350	90	0.1	6.69	2.05	18.00	1.29E-11	7.92	175	3.63
350	120	0.08	6.69	2.05	18.00	1.29E-11	7.92	175	2.72
100	15	0.44	6.69	2.05	18.00	1.29E-11	5.06	100	10.90
100	30	0.27	6.69	2.05	18.00	1.29E-11	5.06	100	5.87
100	60	0.15	6.69	2.05	18.00	1.29E-11	5.06	100	3.02
100	90	0.1	6.69	2.05	18.00	1.29E-11	5.06	100	2.03
250	30	0.27	6.69	2.05	18.00	1.29E-11	6.78	250	14.57
250	60	0.15	6.69	2.05	18.00	1.29E-11	6.78	250	7.59
250	90	0.1	6.69	2.05	18.00	1.29E-11	6.78	250	5.12

250	120	0.08	6.69	2.05	18.00	1.29E-11	6.78	250	3.86
350	30	0.27	6.69	2.05	18.00	1.29E-11	7.92	350	26.36
350	60	0.15	6.69	2.05	18.00	1.29E-11	7.92	350	10.88
350	90	0.1	6.69	2.05	18.00	1.29E-11	7.92	350	7.26
350	120	0.08	6.69	2.05	18.00	1.29E-11	7.92	350	5.45
100	15	0.44	6.69	2.05	18.00	4.01E-10	5.06	25	74.40
100	30	0.27	6.69	2.05	18.00	4.01E-10	5.06	25	41.91
100	60	0.15	6.69	2.05	18.00	4.01E-10	5.06	25	22.05
100	90	0.1	6.69	2.05	18.00	4.01E-10	5.06	25	14.94
250	30	0.27	6.69	2.05	18.00	4.01E-10	6.78	62.5	106.34
250	60	0.15	6.69	2.05	18.00	4.01E-10	6.78	62.5	57.30
250	90	0.1	6.69	2.05	18.00	4.01E-10	6.78	62.5	38.98
250	120	0.08	6.69	2.05	18.00	4.01E-10	6.78	62.5	29.52
350	30	0.27	6.69	2.05	18.00	4.01E-10	7.92	87.5	151.96
350	60	0.15	6.69	2.05	18.00	4.01E-10	7.92	87.5	80.58
350	90	0.1	6.69	2.05	18.00	4.01E-10	7.92	87.5	54.95
350	120	0.08	6.69	2.05	18.00	4.01E-10	7.92	87.5	41.62
100	15	0.44	6.69	2.05	18.00	4.01E-10	5.06	50	148.24
100	30	0.27	6.69	2.05	18.00	4.01E-10	5.06	50	85.30
100	60	0.15	6.69	2.05	18.00	4.01E-10	5.06	50	45.66
100	90	0.1	6.69	2.05	18.00	4.01E-10	5.06	50	31.03
250	30	0.27	6.69	2.05	18.00	4.01E-10	6.78	125	212.37
250	60	0.15	6.69	2.05	18.00	4.01E-10	6.78	125	114.85
250	90	0.1	6.69	2.05	18.00	4.01E-10	6.78	125	78.69
250	120	0.08	6.69	2.05	18.00	4.01E-10	6.78	125	59.77
350	30	0.27	6.69	2.05	18.00	4.01E-10	7.92	175	303.47
350	60	0.15	6.69	2.05	18.00	4.01E-10	7.92	175	160.97
350	90	0.1	6.69	2.05	18.00	4.01E-10	7.92	175	110.19
350	120	0.08	6.69	2.05	18.00	4.01E-10	7.92	175	83.79
100	15	0.44	6.69	2.05	18.00	4.01E-10	5.06	100	295.85
100	30	0.27	6.69	2.05	18.00	4.01E-10	5.06	100	170.23
100	60	0.15	6.69	2.05	18.00	4.01E-10	5.06	100	92.04
100	90	0.1	6.69	2.05	18.00	4.01E-10	5.06	100	63.00
250	30	0.27	6.69	2.05	18.00	4.01E-10	6.78	250	424.31
250	60	0.15	6.69	2.05	18.00	4.01E-10	6.78	250	229.45
250	90	0.1	6.69	2.05	18.00	4.01E-10	6.78	250	157.25
250	120	0.08	6.69	2.05	18.00	4.01E-10	6.78	250	119.57
350	30	0.27	6.69	2.05	18.00	4.01E-10	7.92	350	606.56
350	60	0.15	6.69	2.05	18.00	4.01E-10	7.92	350	321.68
350	90	0.1	6.69	2.05	18.00	4.01E-10	7.92	350	220.25
350	120	0.08	6.69	2.05	18.00	4.01E-10	7.92	350	167.39

100	15	0.44	6.69	2.05	18.00	7.97E-10	5.06	25	147.36
100	30	0.27	6.69	2.05	18.00	7.97E-10	5.06	25	83.35
100	60	0.15	6.69	2.05	18.00	7.97E-10	5.06	25	43.90
100	90	0.1	6.69	2.05	18.00	7.97E-10	5.06	25	29.76
250	30	0.27	6.69	2.05	18.00	7.97E-10	6.78	62.5	210.99
250	60	0.15	6.69	2.05	18.00	7.97E-10	6.78	62.5	113.90
250	90	0.1	6.69	2.05	18.00	7.97E-10	6.78	62.5	77.49
250	120	0.08	6.69	2.05	18.00	7.97E-10	6.78	62.5	58.69
350	30	0.27	6.69	2.05	18.00	7.97E-10	7.92	87.5	298.56
350	60	0.15	6.69	2.05	18.00	7.97E-10	7.92	87.5	159.83
350	90	0.1	6.69	2.05	18.00	7.97E-10	7.92	87.5	109.18
350	120	0.08	6.69	2.05	18.00	7.97E-10	7.92	87.5	82.72
100	15	0.44	6.69	2.05	18.00	7.97E-10	5.06	50	293.58
100	30	0.27	6.69	2.05	18.00	7.97E-10	5.06	50	169.22
100	60	0.15	6.69	2.05	18.00	7.97E-10	5.06	50	90.78
100	90	0.1	6.69	2.05	18.00	7.97E-10	5.06	50	61.70
250	30	0.27	6.69	2.05	18.00	7.97E-10	6.78	125	421.28
250	60	0.15	6.69	2.05	18.00	7.97E-10	6.78	125	228.06
250	90	0.1	6.69	2.05	18.00	7.97E-10	6.78	125	156.30
250	120	0.08	6.69	2.05	18.00	7.97E-10	6.78	125	118.76
350	30	0.27	6.69	2.05	18.00	7.97E-10	7.92	175	596.42
350	60	0.15	6.69	2.05	18.00	7.97E-10	7.92	175	319.28
350	90	0.1	6.69	2.05	18.00	7.97E-10	7.92	175	218.74
350	120	0.08	6.69	2.05	18.00	7.97E-10	7.92	175	166.38
100	15	0.44	6.69	2.05	18.00	7.97E-10	5.06	100	586.15
100	30	0.27	6.69	2.05	18.00	7.97E-10	5.06	100	337.74
100	60	0.15	6.69	2.05	18.00	7.97E-10	5.06	100	182.83
100	90	0.1	6.69	2.05	18.00	7.97E-10	5.06	100	125.18
250	30	0.27	6.69	2.05	18.00	7.97E-10	6.78	250	841.68
250	60	0.15	6.69	2.05	18.00	7.97E-10	6.78	250	455.68
250	90	0.1	6.69	2.05	18.00	7.97E-10	6.78	250	312.35
250	120	0.08	6.69	2.05	18.00	7.97E-10	6.78	250	237.64
350	30	0.27	6.69	2.05	18.00	7.97E-10	7.92	350	1191.96
350	60	0.15	6.69	2.05	18.00	7.97E-10	7.92	350	638.19
350	90	0.1	6.69	2.05	18.00	7.97E-10	7.92	350	437.22
350	120	0.08	6.69	2.05	18.00	7.97E-10	7.92	350	332.51
100	15	0.44	6.69	2.05	18.00	2.77E-11	5.06	25	6.36
100	30	0.27	6.69	2.05	18.00	2.77E-11	5.06	25	3.28
100	60	0.15	6.69	2.05	18.00	2.77E-11	5.06	25	1.66
100	90	0.1	6.69	2.05	18.00	2.77E-11	5.06	25	1.11
250	30	0.27	6.69	2.05	18.00	2.77E-11	6.78	62.5	8.11

250	60	0.15	6.69	2.05	18.00	2.77E-11	6.78	62.5	4.13
250	90	0.1	6.69	2.05	18.00	2.77E-11	6.78	62.5	2.76
250	120	0.08	6.69	2.05	18.00	2.77E-11	6.78	62.5	2.08
350	30	0.27	6.69	2.05	18.00	2.77E-11	7.92	87.5	16.53
350	60	0.15	6.69	2.05	18.00	2.77E-11	7.92	87.5	5.95
350	90	0.1	6.69	2.05	18.00	2.77E-11	7.92	87.5	3.93
350	120	0.08	6.69	2.05	18.00	2.77E-11	7.92	87.5	2.93
100	15	0.44	6.69	2.05	18.00	2.77E-11	5.06	50	12.71
100	30	0.27	6.69	2.05	18.00	2.77E-11	5.06	50	6.55
100	60	0.15	6.69	2.05	18.00	2.77E-11	5.06	50	3.31
100	90	0.1	6.69	2.05	18.00	2.77E-11	5.06	50	2.22
250	30	0.27	6.69	2.05	18.00	2.77E-11	6.78	125	16.22
250	60	0.15	6.69	2.05	18.00	2.77E-11	6.78	125	8.25
250	90	0.1	6.69	2.05	18.00	2.77E-11	6.78	125	5.53
250	120	0.08	6.69	2.05	18.00	2.77E-11	6.78	125	4.15
350	30	0.27	6.69	2.05	18.00	2.77E-11	7.92	175	33.06
350	60	0.15	6.69	2.05	18.00	2.77E-11	7.92	175	11.90
350	90	0.1	6.69	2.05	18.00	2.77E-11	7.92	175	7.86
350	120	0.08	6.69	2.05	18.00	2.77E-11	7.92	175	5.86
100	15	0.44	6.69	2.05	18.00	2.77E-11	5.06	100	25.41
100	30	0.27	6.69	2.05	18.00	2.77E-11	5.06	100	13.11
100	60	0.15	6.69	2.05	18.00	2.77E-11	5.06	100	6.66
100	90	0.1	6.69	2.05	18.00	2.77E-11	5.06	100	4.46
250	30	0.27	6.69	2.05	18.00	2.77E-11	6.78	250	32.43
250	60	0.15	6.69	2.05	18.00	2.77E-11	6.78	250	16.50
250	90	0.1	6.69	2.05	18.00	2.77E-11	6.78	250	11.06
250	120	0.08	6.69	2.05	18.00	2.77E-11	6.78	250	8.32
350	30	0.27	6.69	2.05	18.00	2.77E-11	7.92	350	66.21
350	60	0.15	6.69	2.05	18.00	2.77E-11	7.92	350	23.78
350	90	0.1	6.69	2.05	18.00	2.77E-11	7.92	350	15.76
350	120	0.08	6.69	2.05	18.00	2.77E-11	7.92	350	11.74
100	15	0.44	6.69	2.05	18.00	4.16E-10	5.06	25	78.44
100	30	0.27	6.69	2.05	18.00	4.16E-10	5.06	25	43.63
100	60	0.15	6.69	2.05	18.00	4.16E-10	5.06	25	22.86
100	90	0.1	6.69	2.05	18.00	4.16E-10	5.06	25	15.49
250	30	0.27	6.69	2.05	18.00	4.16E-10	6.78	62.5	111.32
250	60	0.15	6.69	2.05	18.00	4.16E-10	6.78	62.5	59.59
250	90	0.1	6.69	2.05	18.00	4.16E-10	6.78	62.5	40.46
250	120	0.08	6.69	2.05	18.00	4.16E-10	6.78	62.5	30.60
350	30	0.27	6.69	2.05	18.00	4.16E-10	7.92	87.5	165.69
350	60	0.15	6.69	2.05	18.00	4.16E-10	7.92	87.5	84.23

350	90	0.1	6.69	2.05	18.00	4.16E-10	7.92	87.5	57.21
350	120	0.08	6.69	2.05	18.00	4.16E-10	7.92	87.5	43.25
100	15	0.44	6.69	2.05	18.00	4.16E-10	5.06	50	156.43
100	30	0.27	6.69	2.05	18.00	4.16E-10	5.06	50	89.33
100	60	0.15	6.69	2.05	18.00	4.16E-10	5.06	50	47.48
100	90	0.1	6.69	2.05	18.00	4.16E-10	5.06	50	32.20
250	30	0.27	6.69	2.05	18.00	4.16E-10	6.78	125	222.26
250	60	0.15	6.69	2.05	18.00	4.16E-10	6.78	125	119.57
250	90	0.1	6.69	2.05	18.00	4.16E-10	6.78	125	81.77
250	120	0.08	6.69	2.05	18.00	4.16E-10	6.78	125	62.03
350	30	0.27	6.69	2.05	18.00	4.16E-10	7.92	175	331.00
350	60	0.15	6.69	2.05	18.00	4.16E-10	7.92	175	168.40
350	90	0.1	6.69	2.05	18.00	4.16E-10	7.92	175	114.85
350	120	0.08	6.69	2.05	18.00	4.16E-10	7.92	175	87.13
100	15	0.44	6.69	2.05	18.00	4.16E-10	5.06	100	312.29
100	30	0.27	6.69	2.05	18.00	4.16E-10	5.06	100	178.29
100	60	0.15	6.69	2.05	18.00	4.16E-10	5.06	100	95.89
100	90	0.1	6.69	2.05	18.00	4.16E-10	5.06	100	65.46
250	30	0.27	6.69	2.05	18.00	4.16E-10	6.78	250	444.15
250	60	0.15	6.69	2.05	18.00	4.16E-10	6.78	250	239.02
250	90	0.1	6.69	2.05	18.00	4.16E-10	6.78	250	163.49
250	120	0.08	6.69	2.05	18.00	4.16E-10	6.78	250	124.24
350	30	0.27	6.69	2.05	18.00	4.16E-10	7.92	350	661.50
350	60	0.15	6.69	2.05	18.00	4.16E-10	7.92	350	336.55
350	90	0.1	6.69	2.05	18.00	4.16E-10	7.92	350	229.57
350	120	0.08	6.69	2.05	18.00	4.16E-10	7.92	350	174.20
100	15	0.44	6.69	2.05	18.00	8.12E-10	5.06	25	151.52
100	30	0.27	6.69	2.05	18.00	8.12E-10	5.06	25	84.92
100	60	0.15	6.69	2.05	18.00	8.12E-10	5.06	25	44.60
100	90	0.1	6.69	2.05	18.00	8.12E-10	5.06	25	30.22
250	30	0.27	6.69	2.05	18.00	8.12E-10	6.78	62.5	216.03
250	60	0.15	6.69	2.05	18.00	8.12E-10	6.78	62.5	116.11
250	90	0.1	6.69	2.05	18.00	8.12E-10	6.78	62.5	78.94
250	120	0.08	6.69	2.05	18.00	8.12E-10	6.78	62.5	59.74
350	30	0.27	6.69	2.05	18.00	8.12E-10	7.92	87.5	313.61
350	60	0.15	6.69	2.05	18.00	8.12E-10	7.92	87.5	163.61
350	90	0.1	6.69	2.05	18.00	8.12E-10	7.92	87.5	111.38
350	120	0.08	6.69	2.05	18.00	8.12E-10	7.92	87.5	84.29
100	15	0.44	6.69	2.05	18.00	8.12E-10	5.06	50	301.96
100	30	0.27	6.69	2.05	18.00	8.12E-10	5.06	50	173.31
100	60	0.15	6.69	2.05	18.00	8.12E-10	5.06	50	92.55

100	90	0.1	6.69	2.05	18.00	8.12E-10	5.06	50	62.82
250	30	0.27	6.69	2.05	18.00	8.12E-10	6.78	125	431.36
250	60	0.15	6.69	2.05	18.00	8.12E-10	6.78	125	232.85
250	90	0.1	6.69	2.05	18.00	8.12E-10	6.78	125	159.45
250	120	0.08	6.69	2.05	18.00	8.12E-10	6.78	125	121.02
350	30	0.27	6.69	2.05	18.00	8.12E-10	7.92	175	626.41
350	60	0.15	6.69	2.05	18.00	8.12E-10	7.92	175	326.91
350	90	0.1	6.69	2.05	18.00	8.12E-10	7.92	175	223.52
350	120	0.08	6.69	2.05	18.00	8.12E-10	7.92	175	169.79
100	15	0.44	6.69	2.05	18.00	8.12E-10	5.06	100	602.78
100	30	0.27	6.69	2.05	18.00	8.12E-10	5.06	100	345.87
100	60	0.15	6.69	2.05	18.00	8.12E-10	5.06	100	186.67
100	90	0.1	6.69	2.05	18.00	8.12E-10	5.06	100	127.64
250	30	0.27	6.69	2.05	18.00	8.12E-10	6.78	250	861.84
250	60	0.15	6.69	2.05	18.00	8.12E-10	6.78	250	465.32
250	90	0.1	6.69	2.05	18.00	8.12E-10	6.78	250	318.65
250	120	0.08	6.69	2.05	18.00	8.12E-10	6.78	250	242.30
350	30	0.27	6.69	2.05	18.00	8.12E-10	7.92	350	1251.81
350	60	0.15	6.69	2.05	18.00	8.12E-10	7.92	350	653.31
350	90	0.1	6.69	2.05	18.00	8.12E-10	7.92	350	446.73
350	120	0.08	6.69	2.05	18.00	8.12E-10	7.92	350	339.38
100	15	0.44	1.51	0.32	3.62	7.98E-12	2.14	25	1.48
100	30	0.27	1.51	0.32	3.62	7.98E-12	2.14	25	0.83
100	60	0.15	1.51	0.32	3.62	7.98E-12	2.14	25	0.44
100	90	0.1	1.51	0.32	3.62	7.98E-12	2.14	25	0.30
250	60	0.15	1.51	0.32	3.62	7.98E-12	3.46	62.5	1.16
250	90	0.1	1.51	0.32	3.62	7.98E-12	3.46	62.5	0.78
250	120	0.08	1.51	0.32	3.62	7.98E-12	3.46	62.5	0.59
350	60	0.15	1.51	0.32	3.62	7.98E-12	4.33	87.5	1.63
350	90	0.1	1.51	0.32	3.62	7.98E-12	4.33	87.5	1.10
350	120	0.08	1.51	0.32	3.62	7.98E-12	4.33	87.5	0.83
100	15	0.44	1.51	0.32	3.62	7.98E-12	2.14	50	2.94
100	30	0.27	1.51	0.32	3.62	7.98E-12	2.14	50	1.69
100	60	0.15	1.51	0.32	3.62	7.98E-12	2.14	50	0.91
100	90	0.1	1.51	0.32	3.62	7.98E-12	2.14	50	0.62
250	60	0.15	1.51	0.32	3.62	7.98E-12	3.46	125	2.35
250	90	0.1	1.51	0.32	3.62	7.98E-12	3.46	125	1.59
250	120	0.08	1.51	0.32	3.62	7.98E-12	3.46	125	1.20
350	60	0.15	1.51	0.32	3.62	7.98E-12	4.33	175	3.27
350	90	0.1	1.51	0.32	3.62	7.98E-12	4.33	175	2.22
350	120	0.08	1.51	0.32	3.62	7.98E-12	4.33	175	1.68

100	15	0.44	1.51	0.32	3.62	7.98E-12	2.14	100	5.88
100	30	0.27	1.51	0.32	3.62	7.98E-12	2.14	100	3.38
100	60	0.15	1.51	0.32	3.62	7.98E-12	2.14	100	1.83
100	90	0.1	1.51	0.32	3.62	7.98E-12	2.14	100	1.25
250	60	0.15	1.51	0.32	3.62	7.98E-12	3.46	250	4.71
250	90	0.1	1.51	0.32	3.62	7.98E-12	3.46	250	3.20
250	120	0.08	1.51	0.32	3.62	7.98E-12	3.46	250	2.41
350	60	0.15	1.51	0.32	3.62	7.98E-12	4.33	350	6.55
350	90	0.1	1.51	0.32	3.62	7.98E-12	4.33	350	4.44
350	120	0.08	1.51	0.32	3.62	7.98E-12	4.33	350	3.37
100	15	0.44	1.51	0.32	3.62	3.96E-10	2.14	25	73.02
100	30	0.27	1.51	0.32	3.62	3.96E-10	2.14	25	41.46
100	60	0.15	1.51	0.32	3.62	3.96E-10	2.14	25	21.94
100	90	0.1	1.51	0.32	3.62	3.96E-10	2.14	25	14.89
250	60	0.15	1.51	0.32	3.62	3.96E-10	3.46	62.5	57.56
250	90	0.1	1.51	0.32	3.62	3.96E-10	3.46	62.5	38.96
250	120	0.08	1.51	0.32	3.62	3.96E-10	3.46	62.5	29.31
350	60	0.15	1.51	0.32	3.62	3.96E-10	4.33	87.5	80.51
350	90	0.1	1.51	0.32	3.62	3.96E-10	4.33	87.5	54.60
350	120	0.08	1.51	0.32	3.62	3.96E-10	4.33	87.5	41.16
100	15	0.44	1.51	0.32	3.62	3.96E-10	2.14	50	145.53
100	30	0.27	1.51	0.32	3.62	3.96E-10	2.14	50	83.92
100	60	0.15	1.51	0.32	3.62	3.96E-10	2.14	50	45.14
100	90	0.1	1.51	0.32	3.62	3.96E-10	2.14	50	30.71
250	60	0.15	1.51	0.32	3.62	3.96E-10	3.46	125	116.42
250	90	0.1	1.51	0.32	3.62	3.96E-10	3.46	125	78.94
250	120	0.08	1.51	0.32	3.62	3.96E-10	3.46	125	59.43
350	60	0.15	1.51	0.32	3.62	3.96E-10	4.33	175	161.78
350	90	0.1	1.51	0.32	3.62	3.96E-10	4.33	175	110.00
350	120	0.08	1.51	0.32	3.62	3.96E-10	4.33	175	83.10
100	15	0.44	1.51	0.32	3.62	3.96E-10	2.14	100	290.49
100	30	0.27	1.51	0.32	3.62	3.96E-10	2.14	100	167.52
100	60	0.15	1.51	0.32	3.62	3.96E-10	2.14	100	90.72
100	90	0.1	1.51	0.32	3.62	3.96E-10	2.14	100	62.16
250	60	0.15	1.51	0.32	3.62	3.96E-10	3.46	250	232.97
250	90	0.1	1.51	0.32	3.62	3.96E-10	3.46	250	158.57
250	120	0.08	1.51	0.32	3.62	3.96E-10	3.46	250	119.51
350	60	0.15	1.51	0.32	3.62	3.96E-10	4.33	350	323.69
350	90	0.1	1.51	0.32	3.62	3.96E-10	4.33	350	220.31
350	120	0.08	1.51	0.32	3.62	3.96E-10	4.33	350	166.76
100	15	0.44	1.51	0.32	3.62	7.92E-10	2.14	25	146.03

100	30	0.27	1.51	0.32	3.62	7.92E-10	2.14	25	82.91
100	60	0.15	1.51	0.32	3.62	7.92E-10	2.14	25	43.88
100	90	0.1	1.51	0.32	3.62	7.92E-10	2.14	25	29.79
250	60	0.15	1.51	0.32	3.62	7.92E-10	3.46	62.5	115.10
250	90	0.1	1.51	0.32	3.62	7.92E-10	3.46	62.5	77.93
250	120	0.08	1.51	0.32	3.62	7.92E-10	3.46	62.5	58.62
350	60	0.15	1.51	0.32	3.62	7.92E-10	4.33	87.5	160.97
350	90	0.1	1.51	0.32	3.62	7.92E-10	4.33	87.5	109.18
350	120	0.08	1.51	0.32	3.62	7.92E-10	4.33	87.5	82.34
100	15	0.44	1.51	0.32	3.62	7.92E-10	2.14	50	291.00
100	30	0.27	1.51	0.32	3.62	7.92E-10	2.14	50	167.77
100	60	0.15	1.51	0.32	3.62	7.92E-10	2.14	50	90.28
100	90	0.1	1.51	0.32	3.62	7.92E-10	2.14	50	61.43
250	60	0.15	1.51	0.32	3.62	7.92E-10	3.46	125	232.79
250	90	0.1	1.51	0.32	3.62	7.92E-10	3.46	125	157.82
250	120	0.08	1.51	0.32	3.62	7.92E-10	3.46	125	118.88
350	60	0.15	1.51	0.32	3.62	7.92E-10	4.33	175	323.51
350	90	0.1	1.51	0.32	3.62	7.92E-10	4.33	175	219.93
350	120	0.08	1.51	0.32	3.62	7.92E-10	4.33	175	166.13
100	15	0.44	1.51	0.32	3.62	7.92E-10	2.14	100	580.92
100	30	0.27	1.51	0.32	3.62	7.92E-10	2.14	100	334.97
100	60	0.15	1.51	0.32	3.62	7.92E-10	2.14	100	180.56
100	90	0.1	1.51	0.32	3.62	7.92E-10	2.14	100	124.30
250	60	0.15	1.51	0.32	3.62	7.92E-10	3.46	250	465.95
250	90	0.1	1.51	0.32	3.62	7.92E-10	3.46	250	317.08
250	120	0.08	1.51	0.32	3.62	7.92E-10	3.46	250	239.02
350	60	0.15	1.51	0.32	3.62	7.92E-10	4.33	350	647.64
350	90	0.1	1.51	0.32	3.62	7.92E-10	4.33	350	440.62
350	120	0.08	1.51	0.32	3.62	7.92E-10	4.33	350	333.46
100	15	0.44	1.51	0.32	3.62	1.29E-11	2.14	25	2.73
100	30	0.27	1.51	0.32	3.62	1.29E-11	2.14	25	1.44
100	60	0.15	1.51	0.32	3.62	1.29E-11	2.14	25	0.74
100	90	0.1	1.51	0.32	3.62	1.29E-11	2.14	25	0.50
250	60	0.15	1.51	0.32	3.62	1.29E-11	3.46	62.5	2.00
250	90	0.1	1.51	0.32	3.62	1.29E-11	3.46	62.5	1.31
250	120	0.08	1.51	0.32	3.62	1.29E-11	3.46	62.5	0.98
350	60	0.15	1.51	0.32	3.62	1.29E-11	4.33	87.5	2.82
350	90	0.1	1.51	0.32	3.62	1.29E-11	4.33	87.5	1.85
350	120	0.08	1.51	0.32	3.62	1.29E-11	4.33	87.5	1.38
100	15	0.44	1.51	0.32	3.62	1.29E-11	2.14	50	5.45
100	30	0.27	1.51	0.32	3.62	1.29E-11	2.14	50	2.88

100	60	0.15	1.51	0.32	3.62	1.29E-11	2.14	50	1.47
100	90	0.1	1.51	0.32	3.62	1.29E-11	2.14	50	0.99
250	60	0.15	1.51	0.32	3.62	1.29E-11	3.46	125	4.00
250	90	0.1	1.51	0.32	3.62	1.29E-11	3.46	125	2.62
250	120	0.08	1.51	0.32	3.62	1.29E-11	3.46	125	1.96
350	60	0.15	1.51	0.32	3.62	1.29E-11	4.33	175	5.65
350	90	0.1	1.51	0.32	3.62	1.29E-11	4.33	175	3.71
350	120	0.08	1.51	0.32	3.62	1.29E-11	4.33	175	2.76
100	15	0.44	1.51	0.32	3.62	1.29E-11	2.14	100	10.91
100	30	0.27	1.51	0.32	3.62	1.29E-11	2.14	100	5.87
100	60	0.15	1.51	0.32	3.62	1.29E-11	2.14	100	3.05
100	90	0.1	1.51	0.32	3.62	1.29E-11	2.14	100	2.06
250	60	0.15	1.51	0.32	3.62	1.29E-11	3.46	250	8.06
250	90	0.1	1.51	0.32	3.62	1.29E-11	3.46	250	5.32
250	120	0.08	1.51	0.32	3.62	1.29E-11	3.46	250	3.97
350	60	0.15	1.51	0.32	3.62	1.29E-11	4.33	350	11.35
350	90	0.1	1.51	0.32	3.62	1.29E-11	4.33	350	7.46
350	120	0.08	1.51	0.32	3.62	1.29E-11	4.33	350	5.56
100	15	0.44	1.51	0.32	3.62	4.01E-10	2.14	25	74.40
100	30	0.27	1.51	0.32	3.62	4.01E-10	2.14	25	41.89
100	60	0.15	1.51	0.32	3.62	4.01E-10	2.14	25	22.04
100	90	0.1	1.51	0.32	3.62	4.01E-10	2.14	25	14.93
250	60	0.15	1.51	0.32	3.62	4.01E-10	3.46	62.5	58.50
250	90	0.1	1.51	0.32	3.62	4.01E-10	3.46	62.5	39.48
250	120	0.08	1.51	0.32	3.62	4.01E-10	3.46	62.5	29.69
350	60	0.15	1.51	0.32	3.62	4.01E-10	4.33	87.5	81.90
350	90	0.1	1.51	0.32	3.62	4.01E-10	4.33	87.5	55.39
350	120	0.08	1.51	0.32	3.62	4.01E-10	4.33	87.5	41.75
100	15	0.44	1.51	0.32	3.62	4.01E-10	2.14	50	148.30
100	30	0.27	1.51	0.32	3.62	4.01E-10	2.14	50	85.30
100	60	0.15	1.51	0.32	3.62	4.01E-10	2.14	50	45.63
100	90	0.1	1.51	0.32	3.62	4.01E-10	2.14	50	31.00
250	60	0.15	1.51	0.32	3.62	4.01E-10	3.46	125	118.38
250	90	0.1	1.51	0.32	3.62	4.01E-10	3.46	125	80.20
250	120	0.08	1.51	0.32	3.62	4.01E-10	3.46	125	60.32
350	60	0.15	1.51	0.32	3.62	4.01E-10	4.33	175	164.75
350	90	0.1	1.51	0.32	3.62	4.01E-10	4.33	175	111.76
350	120	0.08	1.51	0.32	3.62	4.01E-10	4.33	175	84.36
100	15	0.44	1.51	0.32	3.62	4.01E-10	2.14	100	296.10
100	30	0.27	1.51	0.32	3.62	4.01E-10	2.14	100	170.23
100	60	0.15	1.51	0.32	3.62	4.01E-10	2.14	100	92.04

100	90	0.1	1.51	0.32	3.62	4.01E-10	2.14	100	62.96
250	60	0.15	1.51	0.32	3.62	4.01E-10	3.46	250	237.13
250	90	0.1	1.51	0.32	3.62	4.01E-10	3.46	250	161.03
250	120	0.08	1.51	0.32	3.62	4.01E-10	3.46	250	121.34
350	60	0.15	1.51	0.32	3.62	4.01E-10	4.33	350	329.62
350	90	0.1	1.51	0.32	3.62	4.01E-10	4.33	350	223.90
350	120	0.08	1.51	0.32	3.62	4.01E-10	4.33	350	169.22
100	15	0.44	1.51	0.32	3.62	7.97E-10	2.14	25	147.42
100	30	0.27	1.51	0.32	3.62	7.97E-10	2.14	25	83.29
100	60	0.15	1.51	0.32	3.62	7.97E-10	2.14	25	43.87
100	90	0.1	1.51	0.32	3.62	7.97E-10	2.14	25	29.74
250	60	0.15	1.51	0.32	3.62	7.97E-10	3.46	62.5	116.05
250	90	0.1	1.51	0.32	3.62	7.97E-10	3.46	62.5	78.37
250	120	0.08	1.51	0.32	3.62	7.97E-10	3.46	62.5	58.97
350	60	0.15	1.51	0.32	3.62	7.97E-10	4.33	87.5	162.41
350	90	0.1	1.51	0.32	3.62	7.97E-10	4.33	87.5	109.94
350	120	0.08	1.51	0.32	3.62	7.97E-10	4.33	87.5	82.91
100	15	0.44	1.51	0.32	3.62	7.97E-10	2.14	50	293.77
100	30	0.27	1.51	0.32	3.62	7.97E-10	2.14	50	169.22
100	60	0.15	1.51	0.32	3.62	7.97E-10	2.14	50	90.72
100	90	0.1	1.51	0.32	3.62	7.97E-10	2.14	50	61.65
250	60	0.15	1.51	0.32	3.62	7.97E-10	3.46	125	234.74
250	90	0.1	1.51	0.32	3.62	7.97E-10	3.46	125	159.01
250	120	0.08	1.51	0.32	3.62	7.97E-10	3.46	125	119.76
350	60	0.15	1.51	0.32	3.62	7.97E-10	4.33	175	326.53
350	90	0.1	1.51	0.32	3.62	7.97E-10	4.33	175	221.76
350	120	0.08	1.51	0.32	3.62	7.97E-10	4.33	175	167.45
100	15	0.44	1.51	0.32	3.62	7.97E-10	2.14	100	586.53
100	30	0.27	1.51	0.32	3.62	7.97E-10	2.14	100	337.68
100	60	0.15	1.51	0.32	3.62	7.97E-10	2.14	100	182.70
100	90	0.1	1.51	0.32	3.62	7.97E-10	2.14	100	125.12
250	60	0.15	1.51	0.32	3.62	7.97E-10	3.46	250	470.17
250	90	0.1	1.51	0.32	3.62	7.97E-10	3.46	250	319.66
250	120	0.08	1.51	0.32	3.62	7.97E-10	3.46	250	240.91
350	60	0.15	1.51	0.32	3.62	7.97E-10	4.33	350	653.31
350	90	0.1	1.51	0.32	3.62	7.97E-10	4.33	350	444.34
350	120	0.08	1.51	0.32	3.62	7.97E-10	4.33	350	335.92
100	15	0.44	1.51	0.32	3.62	2.77E-11	2.14	25	6.37
100	30	0.27	1.51	0.32	3.62	2.77E-11	2.14	25	3.25
100	60	0.15	1.51	0.32	3.62	2.77E-11	2.14	25	1.64
100	90	0.1	1.51	0.32	3.62	2.77E-11	2.14	25	1.09

250	60	0.15	1.51	0.32	3.62	2.77E-11	3.46	62.5	4.44
250	90	0.1	1.51	0.32	3.62	2.77E-11	3.46	62.5	2.88
250	120	0.08	1.51	0.32	3.62	2.77E-11	3.46	62.5	2.13
350	60	0.15	1.51	0.32	3.62	2.77E-11	4.33	87.5	6.32
350	90	0.1	1.51	0.32	3.62	2.77E-11	4.33	87.5	4.06
350	120	0.08	1.51	0.32	3.62	2.77E-11	4.33	87.5	3.00
100	15	0.44	1.51	0.32	3.62	2.77E-11	2.14	50	12.76
100	30	0.27	1.51	0.32	3.62	2.77E-11	2.14	50	6.56
100	60	0.15	1.51	0.32	3.62	2.77E-11	2.14	50	3.32
100	90	0.1	1.51	0.32	3.62	2.77E-11	2.14	50	2.22
250	60	0.15	1.51	0.32	3.62	2.77E-11	3.46	125	8.91
250	90	0.1	1.51	0.32	3.62	2.77E-11	3.46	125	5.79
250	120	0.08	1.51	0.32	3.62	2.77E-11	3.46	125	4.29
350	60	0.15	1.51	0.32	3.62	2.77E-11	4.33	175	12.64
350	90	0.1	1.51	0.32	3.62	2.77E-11	4.33	175	8.15
350	120	0.08	1.51	0.32	3.62	2.77E-11	4.33	175	6.04
100	15	0.44	1.51	0.32	3.62	2.77E-11	2.14	100	25.52
100	30	0.27	1.51	0.32	3.62	2.77E-11	2.14	100	13.13
100	60	0.15	1.51	0.32	3.62	2.77E-11	2.14	100	6.64
100	90	0.1	1.51	0.32	3.62	2.77E-11	2.14	100	4.44
250	60	0.15	1.51	0.32	3.62	2.77E-11	3.46	250	17.82
250	90	0.1	1.51	0.32	3.62	2.77E-11	3.46	250	11.58
250	120	0.08	1.51	0.32	3.62	2.77E-11	3.46	250	8.59
350	60	0.15	1.51	0.32	3.62	2.77E-11	4.33	350	25.29
350	90	0.1	1.51	0.32	3.62	2.77E-11	4.33	350	16.30
350	120	0.08	1.51	0.32	3.62	2.77E-11	4.33	350	12.07
100	15	0.44	1.51	0.32	3.62	4.16E-10	2.14	25	78.56
100	30	0.27	1.51	0.32	3.62	4.16E-10	2.14	25	43.61
100	60	0.15	1.51	0.32	3.62	4.16E-10	2.14	25	22.85
100	90	0.1	1.51	0.32	3.62	4.16E-10	2.14	25	15.47
250	60	0.15	1.51	0.32	3.62	4.16E-10	3.46	62.5	61.28
250	90	0.1	1.51	0.32	3.62	4.16E-10	3.46	62.5	41.16
250	120	0.08	1.51	0.32	3.62	4.16E-10	3.46	62.5	30.91
350	60	0.15	1.51	0.32	3.62	4.16E-10	4.33	87.5	85.93
350	90	0.1	1.51	0.32	3.62	4.16E-10	4.33	87.5	57.83
350	120	0.08	1.51	0.32	3.62	4.16E-10	4.33	87.5	43.50
100	15	0.44	1.51	0.32	3.62	4.16E-10	2.14	50	156.62
100	30	0.27	1.51	0.32	3.62	4.16E-10	2.14	50	89.33
100	60	0.15	1.51	0.32	3.62	4.16E-10	2.14	50	47.45
100	90	0.1	1.51	0.32	3.62	4.16E-10	2.14	50	32.18
250	60	0.15	1.51	0.32	3.62	4.16E-10	3.46	125	123.98

250	90	0.1	1.51	0.32	3.62	4.16E-10	3.46	125	83.54
250	120	0.08	1.51	0.32	3.62	4.16E-10	3.46	125	62.80
350	60	0.15	1.51	0.32	3.62	4.16E-10	4.33	175	172.81
350	90	0.1	1.51	0.32	3.62	4.16E-10	4.33	175	116.68
350	120	0.08	1.51	0.32	3.62	4.16E-10	4.33	175	87.89
100	15	0.44	1.51	0.32	3.62	4.16E-10	2.14	100	312.61
100	30	0.27	1.51	0.32	3.62	4.16E-10	2.14	100	178.29
100	60	0.15	1.51	0.32	3.62	4.16E-10	2.14	100	95.89
100	90	0.1	1.51	0.32	3.62	4.16E-10	2.14	100	65.46
250	60	0.15	1.51	0.32	3.62	4.16E-10	3.46	250	248.35
250	90	0.1	1.51	0.32	3.62	4.16E-10	3.46	250	167.96
250	120	0.08	1.51	0.32	3.62	4.16E-10	3.46	250	126.38
350	60	0.15	1.51	0.32	3.62	4.16E-10	4.33	350	345.81
350	90	0.1	1.51	0.32	3.62	4.16E-10	4.33	350	233.79
350	120	0.08	1.51	0.32	3.62	4.16E-10	4.33	350	176.34
100	15	0.44	1.51	0.32	3.62	8.12E-10	2.14	25	151.64
100	30	0.27	1.51	0.32	3.62	8.12E-10	2.14	25	84.86
100	60	0.15	1.51	0.32	3.62	8.12E-10	2.14	25	44.56
100	90	0.1	1.51	0.32	3.62	8.12E-10	2.14	25	30.20
250	60	0.15	1.51	0.32	3.62	8.12E-10	3.46	62.5	118.88
250	90	0.1	1.51	0.32	3.62	8.12E-10	3.46	62.5	80.07
250	120	0.08	1.51	0.32	3.62	8.12E-10	3.46	62.5	60.20
350	60	0.15	1.51	0.32	3.62	8.12E-10	4.33	87.5	166.57
350	90	0.1	1.51	0.32	3.62	8.12E-10	4.33	87.5	112.46
350	120	0.08	1.51	0.32	3.62	8.12E-10	4.33	87.5	84.67
100	15	0.44	1.51	0.32	3.62	8.12E-10	2.14	50	303.28
100	30	0.27	1.51	0.32	3.62	8.12E-10	2.14	50	169.72
100	60	0.15	1.51	0.32	3.62	8.12E-10	2.14	50	89.12
100	90	0.1	1.51	0.32	3.62	8.12E-10	2.14	50	60.39
250	60	0.15	1.51	0.32	3.62	8.12E-10	3.46	125	237.76
250	90	0.1	1.51	0.32	3.62	8.12E-10	3.46	125	160.15
250	120	0.08	1.51	0.32	3.62	8.12E-10	3.46	125	120.41
350	60	0.15	1.51	0.32	3.62	8.12E-10	4.33	175	333.14
350	90	0.1	1.51	0.32	3.62	8.12E-10	4.33	175	224.91
350	120	0.08	1.51	0.32	3.62	8.12E-10	4.33	175	169.34
100	15	0.44	1.51	0.32	3.62	8.12E-10	2.14	100	603.29
100	30	0.27	1.51	0.32	3.62	8.12E-10	2.14	100	345.87
100	60	0.15	1.51	0.32	3.62	8.12E-10	2.14	100	186.61
100	90	0.1	1.51	0.32	3.62	8.12E-10	2.14	100	127.58
250	60	0.15	1.51	0.32	3.62	8.12E-10	3.46	250	481.95
250	90	0.1	1.51	0.32	3.62	8.12E-10	3.46	250	326.84

250	120	0.08	1.51	0.32	3.62	8.12E-10	3.46	250	246.08
350	60	0.15	1.51	0.32	3.62	8.12E-10	4.33	350	670.32
350	90	0.1	1.51	0.32	3.62	8.12E-10	4.33	350	454.61
350	120	0.08	1.51	0.32	3.62	8.12E-10	4.33	350	343.22

Annexure VIII

Achievements

List of Publications

1. Galav Ankush, Singh G S P & Sharma Sanjay K. (2023). Hydro-Mechanically Coupled Numerical Modelling of Protective Water Barrier Pillars in Underground Coal Mines in India. Mine Water and the Environment. 10.1007/s10230-023-00946-2.
2. Galav, Ankush, Singh, G S P & Sharma, Sanjay K. (2022). A Numerical Modeling Approach for Assessment of Seepage Characteristics and Performance of Protective Water Barrier Pillars in Underground Coal Mines. Mining, Metallurgy & Exploration. 39. 1-17. 10.1007/s42461-022-00672-3.
3. Galav, Ankush, Singh, G S P & Sharma, Sanjay K. (2021). Design and Performance of Protective Water Barrier Pillars for Underground Coal Mines in India—A Review. Journal of The Institution of Engineers (India): Series D. 102. 10.1007/s40033-021-00286-x.
4. Galav, Ankush, Singh, G S P & Sharma, Sanjay K. (2019). Numerical Simulation of Water Flow through a Protective Barrier Pillar in Underground Coal Mines. In: Proceedings of 5th ISRM Young Scholars' Symposium on Rock Mechanics and International Symposium on Rock Engineering for Innovative Future, Okinawa. December 1–4, 2019. Paper Number: ISRM-YSRM-2019-023

Award

The Institution of Engineers (India) awarded “The Institution Prize” for the paper entitled “Design and Performance of Protective Water Barrier Pillars for Underground Coal Mines in India- A Review”