

Dispersion Report

Workspace: 72341-1RiempimFSRU

Study: Riempimento FSRU-ME4-Water

Equipment Item: 1R Manichette GNL riempimento FSRU

72341-1RiempimFSRU\Riempimento FSRU-ME4-Water\1R Manichette GNL riempimento FSRU

Material	GAS NATURALE	
East	0	m
North	0	m

Scenario (User defined source) : 300mm-Q286,3 Disp D5

72341-1RiempimFSRU\Riempimento FSRU-ME4-Water\1R Manichette GNL riempimento FSRU\300mm-Q286,3 Disp D5

Material to track	GAS NATURALE
-------------------	--------------

Weather: Category 2/F

Wind speed [m/s]	2
Pasquill stability	F stable - night with moderate clouds and light/moderate wind
Atmospheric temperature [degC]	25
Relative humidity [fraction]	0,75
Solar radiation flux [kW/m2]	0,5
Mixing layer height [m]	100

Observer Release Data and Observer Mass Data

Observer number	Release type	Start time [s]	Start downwind distance [m]	Unit	Masses or mass rates		
					Release	Rainout	Final
1	Continuous	0	0	kg/s	46,8	0	46,8

2 Continuous 3600 0 kg/s 46,8 0 46,8

Time-varying Observer Dispersion Data (before along-wind-diffusion effects)

Dispersion data correspond to an averaging time of: 18,75 s

Observer number	Time [s]	Down wind distance [m]	C/Li ne height [m]	C/Lin e conc [ppm]	Effect ive width [m]	Effect ive depth [m]	C/Line vapour temperature [degC]	C/Li ne liquid fraction	Centr oid velocity [m/s]	C/Lin e cloud density [kg/m ³]
1	0	0	0	999.99 9,41	2,0552 8	0,9958 58	-160,955	0	11,965 5	1,9109 5
1	0,01	0,11895 8	0	996.61 6,33	2,0983 1	0,9960 49	-160,288	0	11,834 7	1,9029 3
1	0,02	0,23666 4	0	993.29 3,17	2,1412 2	0,9963 91	-159,632	0	11,706 8	1,8951 4
1	0,03	0,35312	0	990.02 8,48	2,1840 1	0,9968 68	-158,985	0	11,581 8	1,8875 8
1	0,04	0,46834 7	0	986.82 0,42	2,2266 8	0,9974 69	-158,349	0	11,459 5	1,8802 3
1	0,05	0,58237 3	0	983.66 7,13	2,2692 4	0,9981 83	-157,723	0	11,34	1,8730 9
1	0,06	0,69521 2	0	980.56 7,22	2,3116 9	0,9990 01	-157,106	0	11,223	1,8661 4
1	0,07	0,8069	0	977.51 8,55	2,3540 4	0,9999 15	-156,498	0	11,108 5	1,8593 8
1	0,08	0,91744 7	0	974.52 0,01	2,3962 8	1,0009 2	-155,9	0	10,996 5	1,8527 9
1	0,09	1,02693	0	971.56 8,08	2,4384 4	1,0020 1	-155,309	0	10,886 8	1,8463 7
1	0,1	1,13536	0	968.66 2,17	2,4805 1	1,0031 7	-154,727	0	10,779 3	1,8401 2
1	0,11	1,24271	0	965.80 1,97	2,5224 9	1,0044 1	-154,153	0	10,674 1	1,8340 2
1	0,12	1,349	0	962.98	2,5643	1,0057	-153,587	0	10,571	1,8280

				6,70	8	1			1	7
1	0,13	1,45434	0	960.21 1,99	2,6062	1,0070 8	-153,029	0	10,470 1	1,8222 6
1	0,14	1,55866	0	957.47 9,49	2,6479 4	1,0084 9	-152,478	0	10,371 1	1,8165 9
1	0,15	1,66196	0	954.78 8,62	2,6896	1,0099 6	-151,935	0	10,274 1	1,8110 5
1	0,16	1,76428	0	952.13 7,85	2,7311 8	1,0114 7	-151,399	0	10,179 1	1,8056 4
1	0,17	1,86573	0	949.52 3,05	2,7727	1,0130 3	-150,87	0	10,085 8	1,8003 5
1	0,18	1,96624	0	946.94 6,19	2,8141 5	1,0146 3	-150,347	0	9,9944 1	1,7951 8
1	0,19	2,0658	0	944.40 6,76	2,8555 3	1,0162 6	-149,831	0	9,9047 7	1,7901 2
1	0,2	2,16447	0	941.90 2,68	2,8968 5	1,0179 2	-149,322	0	9,8168 4	1,7851 7
1	0,212	2,28178	0	938.94 1,46	2,9463 5	1,0199 7	-148,719	0	9,7134 4	1,7793 7
1	0,226 4	2,42089	0	935.45 2,87	3,0056 3	1,0224 7	-148,008	0	9,5924 6	1,7726 1
1	0,243 68	2,5855	0	931.35 5,92	3,0766 1	1,0255 3	-147,17	0	9,4515 2	1,7647 5
1	0,264 416	2,77987	0	926.56 1,05	3,1615 7	1,0292 9	-146,188	0	9,2881 6	1,7556 8
1	0,289 299	3,00867	0	920.97 5,20	3,2632 2	1,0339	-145,04	0	9,1000 4	1,7452 7
1	0,319 159	3,27711	0	914.50 0,02	3,3847 9	1,0395 3	-143,705	0	8,8849 6	1,7334 2
1	0,354 991	3,59094	0	907.03 4,64	3,5301 4	1,0464	-142,16	0	8,6410 2	1,7200 3
1	0,397 989	3,95641	0	898.47 9,02	3,7038 5	1,0547 8	-140,381	0	8,3668 4	1,7050 3
1	0,449 587	4,38009	0	888.74 1,95	3,9113 7	1,0649 3	-138,347	0	8,0618 2	1,6883 9
1	0,511 504	4,86887	0	877.74 3,06	4,1591 6	1,0771 6	-136,037	0	7,7263 3	1,6701 1
1	0,585	5,4296	0	865.42	4,4548	1,0918	-133,432	0	7,3619	1,6502

	805			5,75	7				5	8
1	0,674 966	6,06913	0	851.75 8,52	4,8075 4	1,1091 8	-130,522	0	6,9714 4	1,629
1	0,781 959	6,79348	0	836.74 9,77	5,2278 3	1,1295	-127,3	0	6,5594 3	1,6064 5
1	0,910 351	7,60855	0	820.43 4,91	5,7283 1	1,1529 9	-123,767	0	6,1314 2	1,5828 6
1	1,064 42	8,51885	0	802.89 9,23	6,3236 5	1,1796 9	-119,932	0	5,6943 4	1,5584 7
1	1,249 31	9,52918	0	784.24 4,28	7,0309 3	1,2097 5	-115,808	0	5,2548 2	1,5335 6
1	1,471 17	10,6447	0	764.58 7,70	7,87	1,2435 7	-111,403	0	4,8189 5	1,5082 7
1	1,737 4	11,87	0	744.07 4,64	8,8635 4	1,2817 1	-106,707	0	4,3925 2	1,4825 6
1	2,056 88	13,2071	0	722.90 5,85	10,037	1,3241 3	-101,725	0	3,9824 4	1,4565
1	2,440 26	14,6597	0	701.26 3,22	11,418 6	1,3712 5	-96,4661	0	3,5930 2	1,4301 6
1	2,900 31	16,2322	0	679.35 2,17	13,024	1,4234	-90,9371	0	3,2279 2	1,4036
1	3,452 37	17,9274	0	657.40 4,75	14,848 3	1,4804 2	-85,1435	0	2,8908 3	1,3768 1
1	4,114 84	19,7462	0	635.65 7,42	16,901 4	1,5419 5	-79,0851	0	2,5843 3	1,3497 6
1	4,909 81	21,6965	0	614.25 6,58	19,191 3	1,6093 7	-72,742	0	2,3078	1,3223 4
1	5,863 77	23,7953	0	593.28 5,69	21,723 2	1,6802 9	-66,0834	0	2,0659 7	1,2944 6
1	7,008 53	26,0633	0	572.84 1,40	24,491 3	1,7527 9	-59,1717	0	1,8602 8	1,2665 7
1	8,382 23	28,5218	0	553.04 9,35	27,472 5	1,8307 9	-52,2369	0	1,6840 9	1,2399 7
1	10,03 07	31,1938	0	534.04 2,50	30,598 9	1,9195	-45,3809	0	1,5340 7	1,2149 8
1	12,00 88	34,1094	0	515.94 8,71	33,646 5	2,0287 6	-38,684	0	1,4101 9	1,1917 3
1	13,09	35,6223	0	506.13	34,788	2,1063	-35,3072	0	1,3602	1,1809

	91			7,02	6	7			9	2
1	13,09 91	35,6223	0	506.13 7,02	34,788 6	2,1063 7	-35,3072	0	1,3602 9	1,1809 2
1	14,38 26	37,3393	0	486.44 8,81	34,903 5	2,3004 4	-30,2714	0	1,3190 2	1,1682 8
1	17,23 11	41,0013	0	378.83 3,60	35,745 4	3,2440 1	-11,5675	0	1,2658 1	1,1435 8
1	20,64 93	45,3547	0	266.96 2,67	37,317 3	4,5699 4	2,04562	0	1,2913 2	1,1430 5
1	24,75 12	50,7947	0	189.21 0,50	39,315 2	5,9788 8	9,33869	0	1,3639 7	1,1503 6
1	24,75 12	50,7947	0	189.21 0,50	39,315 2	5,9788 8	9,33869	0	1,3639 7	1,1503 6
1	24,75 12	50,7947	0,02	189.21 0,11	39,315 2	5,9614 5	9,34414	0	1,3634 1	1,1503 3
1	29,67 34	57,4604	1,863 31	138.41 4,16	41,419 2	5,2893 6	13,3521	0	1,4751 2	1,1571 9
1	33,85 15	63,2301	5,174 05	102.84 8,50	42,990 6	4,1656	15,8297	0	1,7529 3	1,1627 4
1	33,85 15	63,2301	5,174 05	102.84 8,50	42,990 6	4,1640 8	15,8297	0	1,7535	1,1627 4
1	35,58 01	66,026	6,624 05	88.275, 77	43,706 2	4,3687 1	16,7741	0	1,8891 7	1,1652 2
1	42,66 81	80,0219	11,60 46	52.062, 69	46,494	5,8051 4	19,0042	0	2,2720 3	1,1714 6
1	51,17 37	100,13	14,81 2	35.647, 19	49,059	7,3956 6	19,9663	0	2,4870 5	1,1742 7
1	52,36 85	103,102	15,01 46	34.428, 24	49,328 4	7,5845 7	20,0361	0	2,4997 7	1,1744 9
1	52,36 85	103,102	15,01 46	34.428, 24	49,328 4	7,5850 8	20,0361	0	2,4996	1,1744 9
1	61,38 05	125,678	14,56 7	28.361, 36	50,930 1	9,1200 2	20,4061	0	2,4863 2	1,1757
1	67,53 95	140,592	12,33 75	24.608, 84	52,244 2	11,252	21,0283	0	2,4127 7	1,1753 4
1	67,53 95	140,592	12,33 75	24.608, 84	52,244 2	11,252	21,0283	0	2,4127 7	1,1753 4
1	68,98	143,979	11,64	23.921,	55,260	11,284	21,1408	0	2,3771	1,1753

	33		42	22	7	5			6	2
1	73,62 86	154,58	9,379 4	22.269, 42	62,464 9	12,013 6	21,4094	0	2,2987 2	1,1753 6
1	88,32 63	187,589	3,830 54	19.851, 44	73,949 1	15,551 3	21,7897	0	2,2930 7	1,1758
1	103,4 47	222,761	0,01	18.716, 88	76,745 3	18,996 6	21,8626	0	2,3885 7	1,1766 8
1	103,4 47	222,761	0	18.716, 90	76,745 3	19,017 1	21,8603	0	2,3872 3	1,1766 9
1	105,9 64	228,773	0	18.555, 75	77,014 5	19,099	21,8959	0	2,3897 4	1,1766 3
1	127,1 28	279,672	0	17.292, 51	79,267 1	19,768 1	22,1706	0	2,4109 1	1,1761 4
1	152,5 26	341,332	0	15.967, 04	81,954 9	20,524 8	22,4522	0	2,4363 8	1,1756 6
1	162,5 71	365,868	0	15.491, 65	83,015 3	20,812 2	22,5518	0	2,4463 2	1,1754 9
2	3600	0	0	999.99 9,41	2,0552 8	0,9958 58	-160,955	0	11,965 5	1,9109 5
2	3600, 01	0,11895 8	0	996.61 6,33	2,0983 1	0,9960 49	-160,288	0	11,834 7	1,9029 3
2	3600, 02	0,23666 4	0	993.29 3,17	2,1412 2	0,9963 91	-159,632	0	11,706 8	1,8951 4
2	3600, 03	0,35312	0	990.02 8,48	2,1840 1	0,9968 68	-158,985	0	11,581 8	1,8875 8
2	3600, 04	0,46834 7	0	986.82 0,42	2,2266 8	0,9974 69	-158,349	0	11,459 5	1,8802 3
2	3600, 05	0,58237 3	0	983.66 7,13	2,2692 4	0,9981 83	-157,723	0	11,34	1,8730 9
2	3600, 06	0,69521 2	0	980.56 7,22	2,3116 9	0,9990 01	-157,106	0	11,223	1,8661 4
2	3600, 07	0,8069	0	977.51 8,55	2,3540 4	0,9999 15	-156,498	0	11,108 5	1,8593 8
2	3600, 08	0,91744 7	0	974.52 0,01	2,3962 8	1,0009 2	-155,9	0	10,996 5	1,8527 9
2	3600, 09	1,02693	0	971.56 8,08	2,4384 4	1,0020 1	-155,309	0	10,886 8	1,8463 7

2	3600,1	1,13536	0	968.66 2,17	2,4805 1	1,0031 7	-154,727	0	10,779 3	1,8401 2
2	3600,11	1,24271	0	965.80 1,97	2,5224 9	1,0044 1	-154,153	0	10,674 1	1,8340 2
2	3600,12	1,349	0	962.98 6,70	2,5643 8	1,0057 1	-153,587	0	10,571 1	1,8280 7
2	3600,13	1,45434	0	960.21 1,99	2,6062	1,0070 8	-153,029	0	10,470 1	1,8222 6
2	3600,14	1,55866	0	957.47 9,49	2,6479 4	1,0084 9	-152,478	0	10,371 1	1,8165 9
2	3600,15	1,66196	0	954.78 8,62	2,6896	1,0099 6	-151,935	0	10,274 1	1,8110 5
2	3600,16	1,76428	0	952.13 7,85	2,7311 8	1,0114 7	-151,399	0	10,179 1	1,8056 4
2	3600,17	1,86573	0	949.52 3,05	2,7727	1,0130 3	-150,87	0	10,085 8	1,8003 5
2	3600,18	1,96624	0	946.94 6,19	2,8141 5	1,0146 3	-150,347	0	9,9944 1	1,7951 8
2	3600,19	2,0658	0	944.40 6,76	2,8555 3	1,0162 6	-149,831	0	9,9047 7	1,7901 2
2	3600,2	2,16447	0	941.90 2,68	2,8968 5	1,0179 2	-149,322	0	9,8168 4	1,7851 7
2	3600,21	2,28178	0	938.94 1,46	2,9463 5	1,0199 7	-148,719	0	9,7134 4	1,7793 7
2	3600,23	2,42089	0	935.45 2,87	3,0056 3	1,0224 7	-148,008	0	9,5924 6	1,7726 1
2	3600,24	2,5855	0	931.35 5,92	3,0766 1	1,0255 3	-147,17	0	9,4515 2	1,7647 5
2	3600,26	2,77987	0	926.56 1,05	3,1615 7	1,0292 9	-146,188	0	9,2881 6	1,7556 8
2	3600,29	3,00867	0	920.97 5,20	3,2632 2	1,0339	-145,04	0	9,1000 4	1,7452 7
2	3600,32	3,27711	0	914.50 0,02	3,3847 9	1,0395 3	-143,705	0	8,8849 6	1,7334 2
2	3600,35	3,59094	0	907.03 4,64	3,5301 4	1,0464	-142,16	0	8,6410 2	1,7200 3
2	3600,4	3,95641	0	898.47 9,02	3,7038 5	1,0547 8	-140,381	0	8,3668 4	1,7050 3

2	3600,45	4,38009	0	888.741,95	3,91137	1,06493	-138,347	0	8,06182	1,68839
2	3600,51	4,86887	0	877.743,06	4,15916	1,07716	-136,037	0	7,72633	1,67011
2	3600,59	5,4296	0	865.425,75	4,45487	1,0918	-133,432	0	7,36195	1,65028
2	3600,67	6,06913	0	851.758,52	4,80754	1,10918	-130,522	0	6,97144	1,629
2	3600,78	6,79348	0	836.749,77	5,22783	1,1295	-127,3	0	6,55943	1,60645
2	3600,91	7,60855	0	820.434,91	5,72831	1,15299	-123,767	0	6,13142	1,58286
2	3601,06	8,51885	0	802.899,23	6,32365	1,17969	-119,932	0	5,69434	1,55847
2	3601,25	9,52918	0	784.244,28	7,03093	1,20975	-115,808	0	5,25482	1,53356
2	3601,47	10,6447	0	764.587,70	7,87	1,24357	-111,403	0	4,81895	1,50827
2	3601,74	11,87	0	744.074,64	8,86354	1,28171	-106,707	0	4,39252	1,48256
2	3602,06	13,2071	0	722.905,85	10,037	1,32413	-101,725	0	3,98244	1,4565
2	3602,44	14,6597	0	701.263,22	11,4186	1,37125	-96,4661	0	3,59302	1,43016
2	3602,9	16,2322	0	679.352,17	13,024	1,4234	-90,9371	0	3,22792	1,4036
2	3603,45	17,9274	0	657.404,75	14,8483	1,48042	-85,1435	0	2,89083	1,37681
2	3604,11	19,7462	0	635.657,42	16,9014	1,54195	-79,0851	0	2,58433	1,34976
2	3604,91	21,6965	0	614.256,58	19,1913	1,60937	-72,742	0	2,30784	1,32234
2	3605,86	23,7953	0	593.285,69	21,7232	1,68029	-66,0834	0	2,06597	1,29446
2	3607,01	26,0633	0	572.841,40	24,4913	1,75279	-59,1717	0	1,86028	1,26657
2	3608,38	28,5218	0	553.049,35	27,4725	1,83079	-52,2369	0	1,68409	1,23997

2	3610,03	31,1938	0	534.042,50	30,5989	1,9195	-45,3809	0	1,53407	1,21498
2	3612,01	34,1094	0	515.948,71	33,6465	2,02876	-38,684	0	1,41019	1,19173
2	3613,1	35,6223	0	506.137,02	34,7886	2,10637	-35,3072	0	1,36029	1,18092
2	3613,1	35,6223	0	506.137,02	34,7886	2,10637	-35,3072	0	1,36029	1,18092
2	3614,38	37,3393	0	486.448,81	34,9035	2,30044	-30,2714	0	1,31902	1,16828
2	3617,23	41,0013	0	378.833,60	35,7454	3,24401	-11,5675	0	1,26581	1,14358
2	3620,65	45,3547	0	266.962,67	37,3173	4,56994	2,04562	0	1,29132	1,14305
2	3624,75	50,7947	0	189.210,50	39,3152	5,97888	9,33869	0	1,36397	1,15036
2	3624,75	50,7947	0	189.210,50	39,3152	5,97888	9,33869	0	1,36397	1,15036
2	3624,75	50,7947	0,02	189.210,11	39,3152	5,96145	9,34414	0	1,36341	1,15033
2	3629,67	57,4604	1,86331	138.414,16	41,4192	5,28936	13,3521	0	1,47512	1,15719
2	3633,85	63,2301	5,17405	102.848,50	42,9906	4,1656	15,8297	0	1,75293	1,16274
2	3633,85	63,2301	5,17405	102.848,50	42,9906	4,16408	15,8297	0	1,7535	1,16274
2	3635,58	66,026	6,62405	88.275,77	43,7062	4,36871	16,7741	0	1,88917	1,16522
2	3642,67	80,0219	11,6046	52.062,69	46,494	5,80514	19,0042	0	2,27203	1,17146
2	3651,17	100,13	14,812	35.647,19	49,059	7,39566	19,9663	0	2,48705	1,17427
2	3652,37	103,102	15,0146	34.428,24	49,3284	7,58457	20,0361	0	2,49977	1,17449
2	3652,37	103,102	15,0146	34.428,24	49,3284	7,58508	20,0361	0	2,4996	1,17449
2	3661,38	125,678	14,567	28.361,36	50,9301	9,12002	20,4061	0	2,48632	1,1757

2	3667,54	140,592	12,3375	24.608,84	52,2442	11,252	21,0283	0	2,41277	1,17534
2	3667,54	140,592	12,3375	24.608,84	52,2442	11,252	21,0283	0	2,41277	1,17534
2	3668,98	143,979	11,6442	23.921,22	55,2607	11,2845	21,1408	0	2,37716	1,17532
2	3673,63	154,58	9,3794	22.269,42	62,4649	12,0136	21,4094	0	2,29872	1,17536
2	3688,33	187,589	3,83054	19.851,44	73,9491	15,5513	21,7897	0	2,29307	1,1758
2	3703,45	222,761	0,01	18.716,88	76,7453	18,9966	21,8626	0	2,38857	1,17668
2	3703,45	222,761	0	18.716,90	76,7453	19,0171	21,8603	0	2,38723	1,17669
2	3705,96	228,773	0	18.555,75	77,0145	19,099	21,8959	0	2,38974	1,17663
2	3727,13	279,672	0	17.292,51	79,2671	19,7681	22,1706	0	2,41091	1,17614
2	3752,53	341,332	0	15.967,04	81,9549	20,5248	22,4522	0	2,43638	1,17566
2	3762,57	365,868	0	15.491,65	83,0153	20,8122	22,5518	0	2,44632	1,17549

Weather: Category 5/D

Wind speed [m/s]	5
Pasquill stability	D neutral - little sun and high wind or overcast/windy night
Atmospheric temperature [degC]	25
Relative humidity [fraction]	0,75
Solar radiation flux [kW/m2]	0,5
Mixing layer height [m]	800

Observer Release Data and Observer Mass Data

Observer number	Release type	Start time [s]	Start downwind distance [m]	Unit	Masses or mass rates		
					Release	Rainout	Final
1	Continuous	0	0	kg/s	46,8	0	46,8
2	Continuous	3600	0	kg/s	46,8	0	46,8

Time-varying Observer Dispersion Data (before along-wind-diffusion effects)

Dispersion data correspond to an averaging time of: 18,75 s

Observer number	Time [s]	Down wind distance [m]	C/Li ne height [m]	C/Li ne conc [ppm]	Effect ive width [m]	Effect ive depth [m]	C/Li ne vapour temperature [degC]	C/Li ne liquid fraction	Centr oid velocity [m/s]	C/Li ne cloud density [kg/m3]
1	0	0	0	999.99 9,41	2,0551 7	0,9959 1	-160,955	0	11,965 5	1,9109 5
1	0,01	0,11932 5	0	997.35 1,46	2,0981 6	0,9890 38	-160,348	0	11,903 4	1,9031 1
1	0,02	0,23805	0	994.72 9,10	2,1408 6	0,9826 46	-159,744	0	11,841 9	1,8954

1	0,03	0,35616 6	0	992.13 1,69	2,1832 7	0,9767	-159,144	0	11,781	1,8878 2
1	0,04	0,47367 8	0	989.55 8,25	2,2254	0,9711 69	-158,546	0	11,720 7	1,8803 6
1	0,05	0,59059 1	0	987.00 8,06	2,2672 8	0,9660 23	-157,951	0	11,661 1	1,8730 2
1	0,06	0,70691 3	0	984.48 0,37	2,3089	0,9612 37	-157,36	0	11,602	1,8657 9
1	0,07	0,82264 4	0	981.97 4,90	2,3502 6	0,9567 89	-156,771	0	11,543 4	1,8586 8
1	0,08	0,93780 7	0	979.48 9,99	2,3914 2	0,9526 49	-156,185	0	11,485 5	1,8516 8
1	0,09	1,0524	0	977.02 5,73	2,4323 4	0,9488 03	-155,602	0	11,428 1	1,8447 8
1	0,1	1,16641	0	974.58 1,98	2,4730 4	0,9452 33	-155,021	0	11,371 3	1,8379 8
1	0,11	1,27986	0	972.15 8,26	2,5135 3	0,9419 23	-154,443	0	11,315	1,8312 8
1	0,12	1,39276	0	969.75 3,48	2,5538 3	0,9388 51	-153,867	0	11,259 2	1,8246 8
1	0,13	1,50511	0	967.36 8,05	2,5939 2	0,9360 1	-153,294	0	11,204	1,8181 8
1	0,14	1,61689	0	965.00 1,78	2,6338 1	0,9333 88	-152,724	0	11,149 3	1,8117 6
1	0,15	1,72813	0	962.65 3,81	2,6735 2	0,9309 67	-152,156	0	11,095 2	1,8054 4
1	0,16	1,83885	0	960.32 3,56	2,7130 6	0,9287 34	-151,59	0	11,041 6	1,7992 1
1	0,17	1,94902	0	958.01 1,33	2,7524 2	0,9266 83	-151,027	0	10,988 5	1,7930 6
1	0,18	2,05865	0	955.71 6,92	2,7916	0,9248 06	-150,466	0	10,935 9	1,787
1	0,19	2,16778	0	953.43 9,47	2,8306 3	0,9230 86	-149,908	0	10,883 8	1,7810 2
1	0,2	2,27639	0	951.17 8,98	2,8695	0,9215 17	-149,352	0	10,832 2	1,7751 2
1	0,212	2,40603	0	948.48 8,74	2,9159 3	0,9198 27	-148,688	0	10,771	1,7681 4

1	0,226 4	2,56063	0	945.29 2,07	2,9713 6	0,9180 58	-147,896	0	10,698 4	1,7599 2
1	0,243 68	2,74479	0	941.50 0,56	3,0374 8	0,9162 74	-146,952	0	10,612 7	1,7502 5
1	0,264 416	2,96382	0	937.01 3,68	3,1162 8	0,9145 84	-145,827	0	10,511 7	1,7389 3
1	0,289 299	3,22391	0	931.71 7,75	3,2101	0,9131 37	-144,492	0	10,393 2	1,7257 5
1	0,319 159	3,53217	0	925.48 6,48	3,3216 7	0,9121 39	-142,907	0	10,254 8	1,7104 6
1	0,354 991	3,8967	0	918.18 1,18	3,4542 3	0,9118 49	-141,032	0	10,093 9	1,6928 5
1	0,397 989	4,32666	0	909.65 4,48	3,6115 4	0,9126 03	-138,82	0	9,9082 3	1,6727
1	0,449 587	4,83235	0	899.75 3,99	3,798	0,9147 93	-136,219	0	9,6956	1,6498 4
1	0,511 504	5,42515	0	888.33 1,29	4,0186 2	0,9188 96	-133,174	0	9,4542 6	1,6241 3
1	0,585 805	6,11744	0	875.25 1,26	4,2791 1	0,9254 65	-129,628	0	9,1831 7	1,5955 4
1	0,674 966	6,923	0	860.40 2,91	4,5859 8	0,9350 76	-125,523	0	8,8823 3	1,5640 9
1	0,781 959	7,85603	0	843.71 2,55	4,9463 7	0,9483 49	-120,806	0	8,5530 8	1,5299 2
1	0,910 351	8,93149	0	825.16 3,11	5,3678 5	0,9659 21	-115,428	0	8,1982 8	1,4933
1	1,064 42	10,1651	0	804.80 7,60	5,8578 6	0,9884 61	-109,352	0	7,8223 8	1,4546
1	1,249 31	11,574	0	782.78 1,21	6,4228 9	1,0166 5	-102,561	0	7,4313 3	1,4142 8
1	1,471 17	13,1765	0	759.30 1,14	7,0666 5	1,0513 3	-95,0587	0	7,0321 5	1,3729 2
1	1,737 4	14,9913	0	734.66 4,92	7,7872 4	1,0936 8	-86,8706	0	6,6324 4	1,3311 1
1	2,056 88	17,0432	0	709.25 3,08	8,5732 1	1,1452 8	-78,0675	0	6,2400 8	1,2895 5
1	2,440 26	19,356	0	681.53 5,21	9,3938 2	1,2166 6	-68,4269	0	5,8528 2	1,2483 1

1	2,900 31	21,9553	0	647.68 7,62	10,171	1,3341 6	-57,4748	0	5,4622 5	1,2077 1
1	3,452 37	24,8642	0	609.13 5,60	10,698	1,5234 2	-45,8486	0	5,0939	1,1707 4
1	4,114 84	28,1333	0	549.62 3,86	11,02	1,8439 4	-31,82	0	4,8060 7	1,1386 2
1	4,909 81	31,8594	0	474.24 2,68	11,412 4	2,2894 8	-17,6976	0	4,5871 3	1,1182 4
1	5,863 77	36,1549	0	397.23 1,84	11,960 3	2,819	-6,47477	0	4,4364 1	1,1119 5
1	7,008 53	41,1725	0	326.55 2,67	12,674 4	3,4041 6	1,18554	0	4,3471 8	1,1163 9
1	8,382 23	47,1084	0	265.64 3,67	13,548 8	4,0396 6	6,7227	0	4,3069 2	1,1237 9
1	10,03 07	54,1993	0	214.54 0,44	14,586 9	4,7248 2	10,6302	0	4,3030 3	1,1323 6
1	12,00 88	62,7292	0	172.45 4,71	15,794 7	5,4630 1	13,4334	0	4,3259 8	1,1406 7
1	14,38 26	73,0454	0	138.27 1,16	17,176 9	6,2584 4	15,4768	0	4,3684 9	1,1481 1
1	17,23 11	85,5693	0	110.78 3,36	18,737 6	7,1153 7	16,9868	0	4,4250 9	1,1544 7
1	17,87 3	88,4145	0	105.93 5,37	19,075	7,2964 4	17,2419	0	4,4378 7	1,1556 2
1	17,87 3	88,4145	0	105.93 5,37	19,075	7,2964 4	17,2419	0	4,4378 7	1,1556 2
1	20,64 93	100,811	0	88.870, 35	20,464 6	8,0397 8	18,1135	0	4,4921	1,1597 6
1	24,75 12	119,392	0	71.412, 81	22,356 9	9,0420 9	18,9648	0	4,5670 8	1,1641
1	29,67 34	142,079	0	57.072, 24	24,52	10,161 8	19,6304	0	4,6502 5	1,1677 7
1	35,58 01	169,831	0	44.801, 00	27,105 1	11,500 3	20,1701	0	4,7469	1,1710 2
1	42,66 81	203,899	0	34.158, 24	30,220 5	13,246 7	21,2117	0	4,8664 9	1,1718 2
1	51,17 37	245,86	0	25.587, 58	33,996 4	15,36	22,3218	0	4,9997 3	1,1715 4

1	53,32 1	256,627	0	23.921, 22	34,957 5	15,889 5	22,5285	0	5,0312 7	1,1715 3
1	61,38 05	297,732	0	18.840, 92	38,596	17,905 4	23,1339	0	5,1451 5	1,1715 7
1	73,62 86	361,76	0	13.723, 05	44,193 9	20,89	23,7119	0	5,2984 5	1,1717 4
1	80,41 33	397,967	0	11.730, 59	47,325 8	22,513	23,9269	0	5,3749 6	1,1718 5
2	3600	0	0	999.99 9,41	2,0551 7	0,9959 1	-160,955	0	11,965 5	1,9109 5
2	3600, 01	0,11932 5	0	997.35 1,46	2,0981 6	0,9890 38	-160,348	0	11,903 4	1,9031 1
2	3600, 02	0,23805	0	994.72 9,10	2,1408 6	0,9826 46	-159,744	0	11,841 9	1,8954
2	3600, 03	0,35616 6	0	992.13 1,69	2,1832 7	0,9767	-159,144	0	11,781	1,8878 2
2	3600, 04	0,47367 8	0	989.55 8,25	2,2254	0,9711 69	-158,546	0	11,720 7	1,8803 6
2	3600, 05	0,59059 1	0	987.00 8,06	2,2672 8	0,9660 23	-157,951	0	11,661 1	1,8730 2
2	3600, 06	0,70691 3	0	984.48 0,37	2,3089	0,9612 37	-157,36	0	11,602	1,8657 9
2	3600, 07	0,82264 4	0	981.97 4,90	2,3502 6	0,9567 89	-156,771	0	11,543 4	1,8586 8
2	3600, 08	0,93780 7	0	979.48 9,99	2,3914 2	0,9526 49	-156,185	0	11,485 5	1,8516 8
2	3600, 09	1,0524	0	977.02 5,73	2,4323 4	0,9488 03	-155,602	0	11,428 1	1,8447 8
2	3600, 1	1,16641	0	974.58 1,98	2,4730 4	0,9452 33	-155,021	0	11,371 3	1,8379 8
2	3600, 11	1,27986	0	972.15 8,26	2,5135 3	0,9419 23	-154,443	0	11,315	1,8312 8
2	3600, 12	1,39276	0	969.75 3,48	2,5538 3	0,9388 51	-153,867	0	11,259 2	1,8246 8
2	3600, 13	1,50511	0	967.36 8,05	2,5939 2	0,9360 1	-153,294	0	11,204	1,8181 8
2	3600,	1,61689	0	965.00	2,6338	0,9333	-152,724	0	11,149	1,8117

	14			1,78	1	88			3	6
2	3600, 15	1,72813	0	962.65 3,81	2,6735 2	0,9309 67	-152,156	0	11,095 2	1,8054 4
2	3600, 16	1,83885	0	960.32 3,56	2,7130 6	0,9287 34	-151,59	0	11,041 6	1,7992 1
2	3600, 17	1,94902	0	958.01 1,33	2,7524 2	0,9266 83	-151,027	0	10,988 5	1,7930 6
2	3600, 18	2,05865	0	955.71 6,92	2,7916	0,9248 06	-150,466	0	10,935 9	1,787
2	3600, 19	2,16778	0	953.43 9,47	2,8306 3	0,9230 86	-149,908	0	10,883 8	1,7810 2
2	3600, 2	2,27639	0	951.17 8,98	2,8695	0,9215 17	-149,352	0	10,832 2	1,7751 2
2	3600, 21	2,40603	0	948.48 8,74	2,9159 3	0,9198 27	-148,688	0	10,771	1,7681 4
2	3600, 23	2,56063	0	945.29 2,07	2,9713 6	0,9180 58	-147,896	0	10,698 4	1,7599 2
2	3600, 24	2,74479	0	941.50 0,56	3,0374 8	0,9162 74	-146,952	0	10,612 7	1,7502 5
2	3600, 26	2,96382	0	937.01 3,68	3,1162 8	0,9145 84	-145,827	0	10,511 7	1,7389 3
2	3600, 29	3,22391	0	931.71 7,75	3,2101	0,9131 37	-144,492	0	10,393 2	1,7257 5
2	3600, 32	3,53217	0	925.48 6,48	3,3216 7	0,9121 39	-142,907	0	10,254 8	1,7104 6
2	3600, 35	3,8967	0	918.18 1,18	3,4542 3	0,9118 49	-141,032	0	10,093 9	1,6928 5
2	3600, 4	4,32666	0	909.65 4,48	3,6115 4	0,9126 03	-138,82	0	9,9082 3	1,6727
2	3600, 45	4,83235	0	899.75 3,99	3,798	0,9147 93	-136,219	0	9,6956	1,6498 4
2	3600, 51	5,42515	0	888.33 1,29	4,0186 2	0,9188 96	-133,174	0	9,4542 6	1,6241 3
2	3600, 59	6,11744	0	875.25 1,26	4,2791 1	0,9254 65	-129,628	0	9,1831 7	1,5955 4
2	3600, 67	6,923	0	860.40 2,91	4,5859 8	0,9350 76	-125,523	0	8,8823 3	1,5640 9
2	3600,	7,85603	0	843.71	4,9463	0,9483	-120,806	0	8,5530	1,5299

	78			2,55	7	49			8	2
2	3600,91	8,93149	0	825.163,11	5,36785	0,965921	-115,428	0	8,19828	1,4933
2	3601,06	10,1651	0	804.807,60	5,85786	0,988461	-109,352	0	7,82238	1,4546
2	3601,25	11,574	0	782.781,21	6,42289	1,01665	-102,561	0	7,43133	1,41428
2	3601,47	13,1765	0	759.301,14	7,06665	1,05133	-95,0587	0	7,03215	1,37292
2	3601,74	14,9913	0	734.664,92	7,78724	1,09368	-86,8706	0	6,63244	1,33111
2	3602,06	17,0432	0	709.253,08	8,57321	1,14528	-78,0675	0	6,24008	1,28955
2	3602,44	19,356	0	681.535,21	9,39382	1,21666	-68,4269	0	5,85282	1,24831
2	3602,9	21,9553	0	647.687,62	10,171	1,33416	-57,4748	0	5,46225	1,20771
2	3603,45	24,8642	0	609.135,60	10,698	1,52342	-45,8486	0	5,0939	1,17074
2	3604,11	28,1333	0	549.623,86	11,02	1,84394	-31,82	0	4,80607	1,13862
2	3604,91	31,8594	0	474.242,68	11,4124	2,28948	-17,6976	0	4,58713	1,11824
2	3605,86	36,1549	0	397.231,84	11,9603	2,819	-6,47477	0	4,43641	1,11195
2	3607,01	41,1725	0	326.552,67	12,6744	3,40416	1,18554	0	4,34718	1,11639
2	3608,38	47,1084	0	265.643,67	13,5488	4,03966	6,7227	0	4,30692	1,12379
2	3610,03	54,1993	0	214.540,44	14,5869	4,72482	10,6302	0	4,30303	1,13236
2	3612,01	62,7292	0	172.454,71	15,7947	5,46301	13,4334	0	4,32598	1,14067
2	3614,38	73,0454	0	138.271,16	17,1769	6,25844	15,4768	0	4,36849	1,14811
2	3617,23	85,5693	0	110.783,36	18,7376	7,11537	16,9868	0	4,42509	1,15447
2	3617,	88,4145	0	105.93	19,075	7,2964	17,2419	0	4,4378	1,1556

	87			5,37	4			7	2
2	3617,87	88,4145	0	105.935,37	19,0754	7,2964	17,2419	0	4,43781,15562
2	3620,65	100,811	0	88.870,35	20,4646	8,03978	18,1135	0	4,49211,15976
2	3624,75	119,392	0	71.412,81	22,3569	9,04209	18,9648	0	4,567081,1641
2	3629,67	142,079	0	57.072,24	24,52	10,1618	19,6304	0	4,650251,16777
2	3635,58	169,831	0	44.801,00	27,1051	11,5003	20,1701	0	4,746921,17102
2	3642,67	203,899	0	34.158,24	30,2205	13,2467	21,2117	0	4,866491,17182
2	3651,17	245,86	0	25.587,58	33,9964	15,36	22,3218	0	4,999731,17154
2	3653,32	256,627	0	23.921,22	34,9575	15,8895	22,5285	0	5,031271,17153
2	3661,38	297,732	0	18.840,92	38,596	17,9054	23,1339	0	5,145151,17157
2	3673,63	361,76	0	13.723,05	44,1939	20,89	23,7119	0	5,298451,17174
2	3680,41	397,967	0	11.730,59	47,3258	22,513	23,9269	0	5,374961,17185

