

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) : 60mm-Q36,6 Disp D5

72341-1RiempimFSRU\Riempimento FSRU-ME4-Water\1R Manichette GNL riempimento FSRU\60mm-Q36,6 Disp D5

Material to track	GAS NATURALE
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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	34,3	0	34,3

2 Continuous 3600 0 kg/s 34,3 0 34,3

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	1,7594 3	0,8525 98	-160,955	0	11,965 5	1,9109 5
1	0,01	0,11882 4	0	996.05 4,84	1,7991 4	0,8543 58	-160,177	0	11,813 1	1,9016 1
1	0,02	0,23621 1	0	992.19 1,09	1,8387 6	0,8561 95	-159,414	0	11,664 8	1,8925 8
1	0,03	0,35214 5	0	988.40 6,75	1,8782 9	0,8580 93	-158,664	0	11,520 5	1,8838 6
1	0,04	0,46665 7	0	984.69 9,09	1,9177 3	0,8600 44	-157,928	0	11,38	1,8754 3
1	0,05	0,57981 7	0	981.06 3,86	1,9570 8	0,8620 48	-157,206	0	11,243 1	1,8672 6
1	0,06	0,69162 1	0	977.49 9,94	1,9963 5	0,8640 92	-156,495	0	11,109 7	1,8593 5
1	0,07	0,80212 8	0	974.00 3,83	2,0355 4	0,8661 77	-155,797	0	10,979 8	1,8516 8
1	0,08	0,91134	0	970.57 4,24	2,0746 6	0,8682 93	-155,112	0	10,853 1	1,8442 5
1	0,09	1,0193	0	967.20 8,51	2,1137 1	0,8704 38	-154,437	0	10,729 5	1,8370 4
1	0,1	1,12605	0	963.90 3,98	2,1526 8	0,8726 1	-153,774	0	10,609	1,8300 3
1	0,11	1,23158	0	960.65 9,65	2,1915 9	0,8748 02	-153,121	0	10,491 4	1,8232 3
1	0,12	1,33598	0	957.47	2,2304	0,8770	-152,479	0	10,376	1,8166

				2,00	4	17			6	1
1	0,13	1,43921	0	954.34 1,17	2,2692 2	0,8792 44	-151,848	0	10,264 6	1,8101 8
1	0,14	1,54134	0	951.26 3,94	2,3079 4	0,8814 86	-151,226	0	10,155 1	1,8039 2
1	0,15	1,64238	0	948.23 9,23	2,3466	0,8837 4	-150,613	0	10,048 2	1,7978 3
1	0,16	1,74234	0	945.26 5,44	2,3852 1	0,8860 03	-150,01	0	9,9437 6	1,7918 9
1	0,17	1,84127	0	942.34 1,00	2,4237 6	0,8882 73	-149,416	0	9,8416 6	1,7861 1
1	0,18	1,93917	0	939.46 4,29	2,4622 6	0,8905 48	-148,831	0	9,7418 4	1,7804 7
1	0,19	2,03609	0	936.63 3,79	2,5007 1	0,8928 29	-148,254	0	9,6442 3	1,7749 7
1	0,2	2,13203	0	933.84 8,06	2,5391	0,8951 15	-147,686	0	9,5487 4	1,7696 1
1	0,212	2,24593	0	930.56 2,24	2,5851 1	0,8978 61	-147,014	0	9,4368 7	1,7633 4
1	0,226 4	2,38083	0	926.69 9,61	2,6402 4	0,9011 57	-146,223	0	9,3063 9	1,7560 4
1	0,243 68	2,54022	0	922.17 6,26	2,7062 6	0,9051 05	-145,295	0	9,1550 1	1,7476 1
1	0,264 416	2,72808	0	916.90 0,36	2,7853 1	0,9098 33	-144,209	0	8,9803 9	1,7379 2
1	0,289 299	2,94882	0	910.77 5,41	2,8799 3	0,9154 9	-142,945	0	8,7803 3	1,7268 5
1	0,319 159	3,20729	0	903.70 3,27	2,9931 6	0,9222 41	-141,48	0	8,5529	1,7143
1	0,354 991	3,5087	0	895.58 8,52	3,1285 8	0,9302 63	-139,792	0	8,2967 1	1,7002 2
1	0,397 989	3,85893	0	886.33 1,68	3,2904 9	0,9398 09	-137,857	0	8,0107	1,6845 3
1	0,449 587	4,26349	0	875.86 4,23	3,4839 7	0,9510 42	-135,658	0	7,6952 9	1,6672 7
1	0,511 504	4,72878	0	864.11 2,19	3,7150 6	0,9642 61	-133,174	0	7,3512 7	1,6484 5
1	0,585	5,26064	0	851.04	3,9908	0,9796	-130,392	0	6,9811	1,6281

	805			1,27	7	74			4	7
1	0,674 966	5,86492	0	836.64 0,77	4,3198 4	0,9975 06	-127,304	0	6,5885	1,6066
1	0,781 959	6,5473	0	820.93 0,09	4,7118 5	1,0179 9	-123,906	0	6,178	1,5839
1	0,910 351	7,31298	0	803.96 5,47	5,1785 2	1,0413 2	-120,203	0	5,7552 9	1,5603 2
1	1,064 42	8,16646	0	785.84 2,06	5,7333 8	1,0676 4	-116,207	0	5,3268 1	1,5360 9
1	1,249 31	9,11137	0	766.69 2,86	6,3921	1,0969 9	-111,931	0	4,8995 4	1,5114 4
1	1,471 17	10,1503	0	746.67 9,07	7,1725 9	1,1294 6	-107,373	0	4,4804 7	1,4863 7
1	1,737 4	11,2867	0	725.95 8,82	8,0950 7	1,1654 1	-102,53	0	4,0750 1	1,4609 1
1	2,056 88	12,5239	0	704.70 4,54	9,1821	1,2052 1	-97,4092	0	3,6877 5	1,4351 1
1	2,440 26	13,8636	0	683.12 6,17	10,458 1	1,2488	-92,0192	0	3,3234 1	1,4090 6
1	2,900 31	15,3099	0	661.40 9,36	11,934 8	1,2966 5	-86,3598	0	2,9845 7	1,3827 4
1	3,452 37	16,8698	0	639.72 7,14	13,607 4	1,3497	-80,4217	0	2,6721 9	1,3561
1	4,114 84	18,5482	0	618.27 9,35	15,484 7	1,4086 7	-74,1973	0	2,3874 4	1,3290 9
1	4,909 81	20,3518	0	597.25 5,42	17,570 6	1,4748	-67,676	0	2,1304 5	1,3016 7
1	5,863 77	22,2851	0	576.87 8,00	19,858	1,5488 1	-60,9069	0	1,9017 2	1,2741 2
1	7,008 53	24,3591	0	557.31 6,30	22,330 3	1,6322 9	-54,1104	0	1,6995 2	1,2476 8
1	8,382 23	26,5938	0	538.67 0,95	24,949 6	1,7132 9	-47,4271	0	1,5362 7	1,2229 2
1	10,03 07	29,0215	0	520.96 6,13	27,6	1,8056 5	-40,8757	0	1,4015 6	1,1997 4
1	11,70 48	31,2868	0	505.28 1,65	29,514 6	1,9145	-35,2158	0	1,3084 9	1,1809 8
1	11,70	31,2868	0	505.28	29,514	1,9145	-35,2158	0	1,3084	1,1809

	48			1,65	6				9	8
1	12,00 88	31,6821	0	501.66 4,57	29,534 7	1,9530 7	-34,1215	0	1,2969 1	1,1778
1	14,38 26	34,6647	0	429.57 3,30	29,966 2	2,5290 2	-19,6198	0	1,2236 6	1,1515
1	17,23 11	38,1167	0	315.19 4,46	31,080 7	3,5841 8	-3,08711	0	1,2128 2	1,1404 3
1	20,64 93	42,3337	0	224.95 8,03	32,663 1	4,7818 9	6,23243	0	1,2598 2	1,1461 5
1	24,75 12	47,6551	0	163.30 0,38	34,538 8	6,0147 6	11,4689	0	1,3352 3	1,1537 1
1	24,75 12	47,6551	0	163.30 0,38	34,538 8	6,0147 6	11,4689	0	1,3352 3	1,1537 1
1	24,75 12	47,6551	0,02	163.30 0,03	34,538 8	5,9974 8	11,4742	0	1,3346 5	1,1536 9
1	29,67 34	54,224	1,594 22	122.15 8,23	36,483 4	5,5200 8	14,5484	0	1,4279	1,1597 3
1	34,94 89	61,4561	5,287 3	86.518, 66	38,349	4,2567 7	16,9288	0	1,7066 6	1,1655 3
1	34,94 89	61,4561	5,287 3	86.518, 66	38,349	4,2552 4	16,9288	0	1,7072	1,1655 3
1	35,58 01	62,4428	5,753 99	82.105, 99	38,598 9	4,3112 2	17,2049	0	1,7511 9	1,1663 1
1	42,66 81	75,5338	10,17 55	49.287, 40	41,227 5	5,5069 8	19,1835	0	2,1168 7	1,1721 3
1	51,01 87	93,9415	12,80 84	34.342, 18	43,547 8	6,9096 3	20,044	0	2,3084 1	1,1747 9
1	51,01 87	93,9415	12,80 84	34.342, 18	43,547 8	6,9096 4	20,044	0	2,3084 1	1,1747 9
1	51,17 37	94,2988	12,82 97	34.186, 96	43,580 5	6,9321 9	20,0528	0	2,3099 8	1,1748 2
1	61,38 05	117,888	11,98 68	26.982, 34	45,403 9	8,8213 3	20,6622	0	2,2870 1	1,1757
1	64,49 47	124,877	10,90 25	25.007, 65	46,061 4	9,9103 9	20,9867	0	2,2565	1,1755 1
1	64,49 47	124,877	10,90 25	25.007, 65	46,061 4	9,9103 9	20,9867	0	2,2565	1,1755 1
1	66,67	129,667	9,993	23.921,	49,596	10,079	21,1647	0	2,2123	1,1754

	73		22	22	9	2			4	5
1	73,62 86	144,458	7,124 01	21.688, 03	57,318 1	11,409 4	21,5294	0	2,1399	1,1754 8
1	88,32 63	175,695	2,638 04	19.604, 32	65,050 6	14,670 4	21,859	0	2,1761 5	1,1758 2
1	100,2 72	201,996	0,01	18.677, 88	66,703 3	17,141 5	21,9143	0	2,2483 3	1,1764 9
1	100,2 72	201,996	0	18.677, 90	66,703 3	17,148 8	21,9119	0	2,2486 6	1,1765
1	105,9 64	214,817	0	18.285, 49	67,280 7	17,327 7	21,9987	0	2,2547 1	1,1763 5
1	127,1 28	262,838	0	16.946, 03	69,418 8	17,969 3	22,2896	0	2,2772 8	1,1758 3
1	152,5 26	321,023	0	15.552, 55	71,974 1	18,694 3	22,5846	0	2,3041	1,1753 3
1	156,2 27	329,559	0	15.365, 67	72,345 9	18,796 7	22,6235	0	2,308	1,1752 6
2	3600	0	0	999.99 9,41	1,7594 3	0,8525 98	-160,955	0	11,965 5	1,9109 5
2	3600, 01	0,11882 4	0	996.05 4,84	1,7991 4	0,8543 58	-160,177	0	11,813 1	1,9016 1
2	3600, 02	0,23621 1	0	992.19 1,09	1,8387 6	0,8561 95	-159,414	0	11,664 8	1,8925 8
2	3600, 03	0,35214 5	0	988.40 6,75	1,8782 9	0,8580 93	-158,664	0	11,520 5	1,8838 6
2	3600, 04	0,46665 7	0	984.69 9,09	1,9177 3	0,8600 44	-157,928	0	11,38	1,8754 3
2	3600, 05	0,57981 7	0	981.06 3,86	1,9570 8	0,8620 48	-157,206	0	11,243 1	1,8672 6
2	3600, 06	0,69162 1	0	977.49 9,94	1,9963 5	0,8640 92	-156,495	0	11,109 7	1,8593 5
2	3600, 07	0,80212 8	0	974.00 3,83	2,0355 4	0,8661 77	-155,797	0	10,979 8	1,8516 8
2	3600, 08	0,91134	0	970.57 4,24	2,0746 6	0,8682 93	-155,112	0	10,853 1	1,8442 5
2	3600, 09	1,0193	0	967.20 8,51	2,1137 1	0,8704 38	-154,437	0	10,729 5	1,8370 4

2	3600,1	1,12605	0	963.903,98	2,15268	0,87261	-153,774	0	10,609	1,83003
2	3600,11	1,23158	0	960.659,65	2,19159	0,874802	-153,121	0	10,4914	1,82323
2	3600,12	1,33598	0	957.472,00	2,23044	0,877017	-152,479	0	10,3766	1,81661
2	3600,13	1,43921	0	954.341,17	2,26922	0,879244	-151,848	0	10,2646	1,81018
2	3600,14	1,54134	0	951.263,94	2,30794	0,881486	-151,226	0	10,1551	1,80392
2	3600,15	1,64238	0	948.239,23	2,3466	0,88374	-150,613	0	10,0482	1,79783
2	3600,16	1,74234	0	945.265,44	2,38521	0,886003	-150,01	0	9,94376	1,79189
2	3600,17	1,84127	0	942.341,00	2,42376	0,888273	-149,416	0	9,84166	1,78611
2	3600,18	1,93917	0	939.464,29	2,46226	0,890548	-148,831	0	9,74184	1,78047
2	3600,19	2,03609	0	936.633,79	2,50071	0,892829	-148,254	0	9,64423	1,77497
2	3600,2	2,13203	0	933.848,06	2,5391	0,895115	-147,686	0	9,54874	1,76961
2	3600,21	2,24593	0	930.562,24	2,58511	0,897861	-147,014	0	9,43687	1,76334
2	3600,23	2,38083	0	926.699,61	2,64024	0,901157	-146,223	0	9,30639	1,75604
2	3600,24	2,54022	0	922.176,26	2,70626	0,905105	-145,295	0	9,15501	1,74761
2	3600,26	2,72808	0	916.900,36	2,78531	0,909833	-144,209	0	8,98039	1,73792
2	3600,29	2,94882	0	910.775,41	2,87993	0,91549	-142,945	0	8,78033	1,72685
2	3600,32	3,20729	0	903.703,27	2,99316	0,922241	-141,48	0	8,5529	1,7143
2	3600,35	3,5087	0	895.588,52	3,12858	0,930263	-139,792	0	8,29671	1,70022
2	3600,4	3,85893	0	886.331,68	3,29049	0,939809	-137,857	0	8,0107	1,68453

2	3600,45	4,26349	0	875.864,23	3,48397	0,951042	-135,658	0	7,69529	1,66727
2	3600,51	4,72878	0	864.112,19	3,71506	0,964261	-133,174	0	7,35127	1,64845
2	3600,59	5,26064	0	851.041,27	3,99087	0,979674	-130,392	0	6,98114	1,62817
2	3600,67	5,86492	0	836.640,77	4,31984	0,997506	-127,304	0	6,5885	1,6066
2	3600,78	6,5473	0	820.930,09	4,71185	1,01799	-123,906	0	6,178	1,5839
2	3600,91	7,31298	0	803.965,47	5,17852	1,04132	-120,203	0	5,75529	1,56032
2	3601,06	8,16646	0	785.842,06	5,73338	1,06764	-116,207	0	5,32681	1,53609
2	3601,25	9,11137	0	766.692,86	6,3921	1,09699	-111,931	0	4,89954	1,51144
2	3601,47	10,1503	0	746.679,07	7,17259	1,12946	-107,373	0	4,48047	1,48637
2	3601,74	11,2867	0	725.958,82	8,09507	1,16541	-102,53	0	4,07501	1,46091
2	3602,06	12,5239	0	704.704,54	9,1821	1,20521	-97,4092	0	3,68775	1,43511
2	3602,44	13,8636	0	683.126,17	10,4581	1,2488	-92,0192	0	3,32341	1,40906
2	3602,9	15,3099	0	661.409,36	11,9348	1,29665	-86,3598	0	2,98457	1,38274
2	3603,45	16,8698	0	639.727,14	13,6074	1,3497	-80,4217	0	2,67219	1,3561
2	3604,11	18,5482	0	618.279,35	15,4847	1,40867	-74,1973	0	2,38744	1,32909
2	3604,91	20,3518	0	597.255,42	17,5706	1,4748	-67,676	0	2,13045	1,30167
2	3605,86	22,2851	0	576.878,00	19,858	1,54881	-60,9069	0	1,90172	1,27412
2	3607,01	24,3591	0	557.316,30	22,3303	1,63229	-54,1104	0	1,69952	1,24768
2	3608,38	26,5938	0	538.670,95	24,9496	1,71329	-47,4271	0	1,53627	1,22292

2	3610,03	29,0215	0	520.966,13	27,6	1,80565	-40,8757	0	1,40156	1,19974
2	3611,7	31,2868	0	505.281,65	29,5146	1,9145	-35,2158	0	1,30849	1,18098
2	3611,7	31,2868	0	505.281,65	29,5146	1,9145	-35,2158	0	1,30849	1,18098
2	3612,01	31,6821	0	501.664,57	29,5347	1,95307	-34,1215	0	1,29691	1,1778
2	3614,38	34,6647	0	429.573,30	29,9662	2,52902	-19,6198	0	1,22366	1,1515
2	3617,23	38,1167	0	315.194,46	31,0807	3,58418	-3,08711	0	1,21282	1,14043
2	3620,65	42,3337	0	224.958,03	32,6631	4,78189	6,23243	0	1,25982	1,14615
2	3624,75	47,6551	0	163.300,38	34,5388	6,01476	11,4689	0	1,33523	1,15371
2	3624,75	47,6551	0	163.300,38	34,5388	6,01476	11,4689	0	1,33523	1,15371
2	3624,75	47,6551	0,02	163.300,03	34,5388	5,99748	11,4742	0	1,33465	1,15369
2	3629,67	54,224	1,59422	122.158,23	36,4834	5,52008	14,5484	0	1,4279	1,15973
2	3634,95	61,4561	5,2873	86.518,66	38,349	4,25677	16,9288	0	1,70666	1,16553
2	3634,95	61,4561	5,2873	86.518,66	38,349	4,25524	16,9288	0	1,7072	1,16553
2	3635,58	62,4428	5,75399	82.105,99	38,5989	4,31122	17,2049	0	1,75119	1,16631
2	3642,67	75,5338	10,1755	49.287,40	41,2275	5,50698	19,1835	0	2,11687	1,17213
2	3651,02	93,9415	12,8084	34.342,18	43,5478	6,90963	20,044	0	2,30841	1,17479
2	3651,02	93,9415	12,8084	34.342,18	43,5478	6,90964	20,044	0	2,30841	1,17479
2	3651,17	94,2988	12,8297	34.186,96	43,5805	6,93219	20,0528	0	2,30998	1,17482
2	3661,38	117,888	11,9868	26.982,34	45,4039	8,82133	20,6622	0	2,28701	1,1757

2	3664,49	124,877	10,9025	25.007,65	46,0614	9,91039	20,9867	0	2,2565	1,17551
2	3664,49	124,877	10,9025	25.007,65	46,0614	9,91039	20,9867	0	2,2565	1,17551
2	3666,68	129,667	9,99322	23.921,22	49,5969	10,0792	21,1647	0	2,21234	1,17545
2	3673,63	144,458	7,12401	21.688,03	57,3181	11,4094	21,5294	0	2,1399	1,17548
2	3688,33	175,695	2,63804	19.604,32	65,0506	14,6704	21,859	0	2,17615	1,17582
2	3700,27	201,996	0,01	18.677,88	66,7033	17,1415	21,9143	0	2,24833	1,17649
2	3700,27	201,996	0	18.677,90	66,7033	17,1488	21,9119	0	2,24866	1,17656
2	3705,96	214,817	0	18.285,49	67,2807	17,3277	21,9987	0	2,25471	1,17635
2	3727,13	262,838	0	16.946,03	69,4188	17,9693	22,2896	0	2,27728	1,17583
2	3752,53	321,023	0	15.552,55	71,9741	18,6943	22,5846	0	2,3041	1,17533
2	3756,23	329,559	0	15.365,67	72,3459	18,7967	22,6235	0	2,308	1,17526

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	34,3	0	34,3
2	Continuous	3600	0	kg/s	34,3	0	34,3

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	999.999,41	1,75943	0,852597	-160,955	0	11,9655	1,91095
1	0,01	0,119262	0	996.909,28	1,79909	0,847318	-160,247	0	11,893	1,90181
1	0,02	0,237833	0	993.853,98	1,83847	0,842467	-159,543	0	11,8215	1,89285

1	0,03	0,35569 4	0	990.83 2,75	1,8775 9	0,8380 13	-158,843	0	11,750 8	1,8840 6
1	0,04	0,47285 9	0	987.84 4,15	1,9164 4	0,8339 25	-158,148	0	11,681	1,8754 5
1	0,05	0,58933 3	0	984.88 7,23	1,9550 6	0,8301 76	-157,458	0	11,612	1,867
1	0,06	0,70512 2	0	981.96 1,22	1,9934 3	0,8267 42	-156,771	0	11,543 8	1,8587
1	0,07	0,82023 7	0	979.06 5,12	2,0315 8	0,8236	-156,089	0	11,476 5	1,8505 6
1	0,08	0,93467 7	0	976.19 8,53	2,0695 1	0,8207 32	-155,411	0	11,41	1,8425 7
1	0,09	1,04846	0	973.36 0,08	2,1072 3	0,8181 17	-154,737	0	11,344 2	1,8347 1
1	0,1	1,16159	0	970.54 9,76	2,1447 4	0,8157 39	-154,066	0	11,279 3	1,827
1	0,11	1,27407	0	967.76 6,22	2,1820 6	0,8135 81	-153,4	0	11,215 1	1,8194 2
1	0,12	1,38592	0	965.00 9,54	2,2191 9	0,8116 3	-152,737	0	11,151 7	1,8119 7
1	0,13	1,49713	0	962.27 8,86	2,2561 3	0,8098 73	-152,078	0	11,089	1,8046 4
1	0,14	1,60771	0	959.57 3,76	2,2929	0,8082 97	-151,422	0	11,027	1,7974 4
1	0,15	1,71768	0	956.89 3,76	2,3295	0,8068 91	-150,77	0	10,965 8	1,7903 5
1	0,16	1,82704	0	954.23 8,36	2,3659 3	0,8056 45	-150,122	0	10,905 3	1,7833 9
1	0,17	1,93579	0	951.60 7,12	2,4022	0,8045 48	-149,477	0	10,845 5	1,7765 3
1	0,18	2,04395	0	948.99 9,61	2,4383 2	0,8035 92	-148,836	0	10,786 4	1,7697 9
1	0,19	2,15152	0	946.41 5,35	2,4742 9	0,8027 69	-148,198	0	10,728	1,7631 5
1	0,2	2,2585	0	943.85 3,89	2,5101 2	0,8020 69	-147,564	0	10,670 3	1,7566 2
1	0,212	2,38613	0	940.80 9,83	2,5529 3	0,8013 83	-146,807	0	10,601 9	1,7489 1

1	0,226 4	2,53821	0	937.19 9,17	2,6040 5	0,8007 67	-145,905	0	10,521 1	1,7398 5
1	0,243 68	2,71918	0	932.92 5,36	2,6650 4	0,8002 99	-144,832	0	10,426	1,7292 3
1	0,264 416	2,93421	0	927.88 0,67	2,7377 4	0,8000 96	-143,557	0	10,314 3	1,7168 6
1	0,289 299	3,1892	0	921.94 5,46	2,8243	0,8003 14	-142,046	0	10,183 8	1,7025
1	0,319 159	3,49098	0	914.98 8,18	2,9272 4	0,8011 53	-140,259	0	10,032 2	1,6859 5
1	0,354 991	3,84724	0	906.86 7,78	3,0495 3	0,8028 66	-138,151	0	9,8569 6	1,6669 8
1	0,397 989	4,26666	0	897.43 6,01	3,1946 5	0,8057 54	-135,674	0	9,6561	1,6454 3
1	0,449 587	4,75888	0	886.54 8,03	3,3665 9	0,8101 86	-132,775	0	9,4277 7	1,6211 5
1	0,511 504	5,33449	0	874.06 8,44	3,5699 2	0,8165 85	-129,398	0	9,1708 2	1,5940 7
1	0,585 805	6,00492	0	859.88 2,37	3,8097 8	0,8254 25	-125,488	0	8,8849 4	1,5642
1	0,674 966	6,78259	0	843.90 8,69	4,0919 6	0,8371 94	-120,99	0	8,5711	1,5316 3
1	0,781 959	7,6808	0	826.11 3,22	4,4226 3	0,8524 13	-115,856	0	8,2316 1	1,4965 9
1	0,910 351	8,71356	0	806.52 7,68	4,8079 7	0,8716 46	-110,048	0	7,8702 4	1,4594
1	1,064 42	9,89559	0	785.25 4,51	5,2534 9	0,8955 18	-103,541	0	7,4921 7	1,4204 6
1	1,249 31	11,2428	0	762.48 0,06	5,7629 6	0,9247 52	-96,3303	0	7,1037 3	1,3803
1	1,471 17	12,7733	0	738.46 9,96	6,3365 8	0,9602 31	-88,4378	0	6,7121 4	1,3395
1	1,737 4	14,507	0	713.55 2,48	6,9676 3	1,0033 2	-79,9139	0	6,3247 7	1,2986 9
1	2,056 88	16,4641	0	686.91 4,29	7,6364 5	1,0603 5	-70,6395	0	5,9429 3	1,2580 9
1	2,440 26	18,6653	0	654.52 1,59	8,2937 2	1,1529 4	-60,0553	0	5,5554 2	1,2176 4

1	2,900 31	21,1326	0	618.27 9,40	8,8065 9	1,2950 4	-48,8146	0	5,1883 2	1,1802 2
1	3,452 37	23,8906	0	568.10 6,75	9,0966 3	1,5536 5	-35,9207	0	4,8165 8	1,1469 7
1	4,114 84	26,9935	0	498.94 9,14	9,4113 4	1,9073 5	-21,9458	0	4,5728	1,1230 5
1	4,909 81	30,5544	0	424.81 6,09	9,8307 6	2,3371	-10,0338	0	4,3993 9	1,1123 2
1	5,863 77	34,6854	0	353.64 6,95	10,391 8	2,8210 1	-1,33187	0	4,2865 6	1,1130 7
1	7,008 53	39,5521	0	290.78 2,10	11,085 9	3,3425 6	4,67791	0	4,2242 7	1,1198 4
1	8,382 23	45,3361	0	236.78 0,11	11,920 2	3,9072 3	9,10828	0	4,2018 9	1,1279 6
1	10,03 07	52,2672	0	191.49 1,55	12,899 8	4,5157 6	12,3004	0	4,2092 3	1,1363 9
1	12,00 88	60,6203	0	154.13 6,37	14,030 7	5,1723 9	14,6315	0	4,2389 4	1,1442 4
1	14,38 26	70,7371	0	123.73 4,98	15,317 2	5,8817 6	16,3561	0	4,2851 7	1,1511 4
1	16,47 44	79,7476	0	104.83 0,90	16,389 5	6,4519 8	17,3583	0	4,3280 8	1,1556 2
1	16,47 44	79,7476	0	104.83 0,90	16,389 5	6,4518	17,3583	0	4,3281 9	1,1556 2
1	17,23 11	83,0305	0	99.228, 45	16,761 7	6,6490 6	17,6451	0	4,3438 4	1,1569 8
1	20,64 93	98,0225	0	79.389, 91	18,354 3	7,5012 9	18,6241	0	4,4139 9	1,1619 1
1	24,75 12	116,287	0	63.510, 50	20,149 8	8,4239	19,371	0	4,4904 7	1,1659 5
1	29,67 34	138,605	0	50.112, 70	22,268 9	9,5007 7	19,9686	0	4,5781 6	1,1694 7
1	35,58 01	165,969	0	38.415, 70	24,812 4	10,895 3	20,6849	0	4,6876 3	1,1718 6
1	42,66 81	199,654	0	28.753, 73	27,887 1	12,660 5	21,9549	0	4,8166 1	1,1714 7
1	47,66 41	223,927	0	23.921, 22	30,079 5	13,898	22,5554	0	4,8999 5	1,1714 2

1	51,17 37	241,257	0	21.173, 47	31,633 3	14,777 2	22,8839	0	4,9563 9	1,1714 4
1	61,38 05	292,721	0	15.364, 90	36,202 9	17,307 7	23,5483	0	5,1072 6	1,1716
1	71,92 95	347,325	0	11.541, 76	40,989 7	19,850 9	23,9611	0	5,2432 2	1,1718
2	3600	0	0	999.99 9,41	1,7594 3	0,8525 97	-160,955	0	11,965 5	1,9109 5
2	3600, 01	0,11926 2	0	996.90 9,28	1,7990 9	0,8473 18	-160,247	0	11,893	1,9018 1
2	3600, 02	0,23783 3	0	993.85 3,98	1,8384 7	0,8424 67	-159,543	0	11,821 5	1,8928 5
2	3600, 03	0,35569 4	0	990.83 2,75	1,8775 9	0,8380 13	-158,843	0	11,750 8	1,8840 6
2	3600, 04	0,47285 9	0	987.84 4,15	1,9164 4	0,8339 25	-158,148	0	11,681	1,8754 5
2	3600, 05	0,58933 3	0	984.88 7,23	1,9550 6	0,8301 76	-157,458	0	11,612	1,867
2	3600, 06	0,70512 2	0	981.96 1,22	1,9934 3	0,8267 42	-156,771	0	11,543 8	1,8587
2	3600, 07	0,82023 7	0	979.06 5,12	2,0315 8	0,8236	-156,089	0	11,476 5	1,8505 6
2	3600, 08	0,93467 7	0	976.19 8,53	2,0695 1	0,8207 32	-155,411	0	11,41	1,8425 7
2	3600, 09	1,04846	0	973.36 0,08	2,1072 3	0,8181 17	-154,737	0	11,344 2	1,8347 1
2	3600, 1	1,16159	0	970.54 9,76	2,1447 4	0,8157 39	-154,066	0	11,279 3	1,827
2	3600, 11	1,27407	0	967.76 6,22	2,1820 6	0,8135 81	-153,4	0	11,215 1	1,8194 2
2	3600, 12	1,38592	0	965.00 9,54	2,2191 9	0,8116 3	-152,737	0	11,151 7	1,8119 7
2	3600, 13	1,49713	0	962.27 8,86	2,2561 3	0,8098 73	-152,078	0	11,089	1,8046 4
2	3600, 14	1,60771	0	959.57 3,76	2,2929	0,8082 97	-151,422	0	11,027	1,7974 4
2	3600,	1,71768	0	956.89	2,3295	0,8068	-150,77	0	10,965	1,7903

	15			3,76		91			8	5
2	3600, 16	1,82704	0	954.23 8,36	2,3659 3	0,8056 45	-150,122	0	10,905 3	1,7833 9
2	3600, 17	1,93579	0	951.60 7,12	2,4022	0,8045 48	-149,477	0	10,845 5	1,7765 3
2	3600, 18	2,04395	0	948.99 9,61	2,4383 2	0,8035 92	-148,836	0	10,786 4	1,7697 9
2	3600, 19	2,15152	0	946.41 5,35	2,4742 9	0,8027 69	-148,198	0	10,728	1,7631 5
2	3600, 2	2,2585	0	943.85 3,89	2,5101 2	0,8020 69	-147,564	0	10,670 3	1,7566 2
2	3600, 21	2,38613	0	940.80 9,83	2,5529 3	0,8013 83	-146,807	0	10,601 9	1,7489 1
2	3600, 23	2,53821	0	937.19 9,17	2,6040 5	0,8007 67	-145,905	0	10,521 1	1,7398 5
2	3600, 24	2,71918	0	932.92 5,36	2,6650 4	0,8002 99	-144,832	0	10,426	1,7292 3
2	3600, 26	2,93421	0	927.88 0,67	2,7377 4	0,8000 96	-143,557	0	10,314 3	1,7168 6
2	3600, 29	3,1892	0	921.94 5,46	2,8243	0,8003 14	-142,046	0	10,183 8	1,7025
2	3600, 32	3,49098	0	914.98 8,18	2,9272 4	0,8011 53	-140,259	0	10,032 2	1,6859 5
2	3600, 35	3,84724	0	906.86 7,78	3,0495 3	0,8028 66	-138,151	0	9,8569 6	1,6669 8
2	3600, 4	4,26666	0	897.43 6,01	3,1946 5	0,8057 54	-135,674	0	9,6561	1,6454 3
2	3600, 45	4,75888	0	886.54 8,03	3,3665 9	0,8101 86	-132,775	0	9,4277 7	1,6211 5
2	3600, 51	5,33449	0	874.06 8,44	3,5699 2	0,8165 85	-129,398	0	9,1708 2	1,5940 7
2	3600, 59	6,00492	0	859.88 2,37	3,8097 8	0,8254 25	-125,488	0	8,8849 4	1,5642
2	3600, 67	6,78259	0	843.90 8,69	4,0919 6	0,8371 94	-120,99	0	8,5711	1,5316 3
2	3600, 78	7,6808	0	826.11 3,22	4,4226 3	0,8524 13	-115,856	0	8,2316 1	1,4965 9
2	3600,	8,71356	0	806.52	4,8079	0,8716	-110,048	0	7,8702	1,4594

	91			7,68	7	46			4	
2	3601,06	9,89559	0	785.254,51	5,25349	0,895518	-103,541	0	7,49217	1,42046
2	3601,25	11,2428	0	762.480,06	5,76296	0,924752	-96,3303	0	7,10373	1,3803
2	3601,47	12,7733	0	738.469,96	6,33658	0,960231	-88,4378	0	6,71214	1,3395
2	3601,74	14,507	0	713.552,48	6,96763	1,00332	-79,9139	0	6,32477	1,29869
2	3602,06	16,4641	0	686.914,29	7,63645	1,06035	-70,6395	0	5,94293	1,25809
2	3602,44	18,6653	0	654.521,59	8,29372	1,15294	-60,0553	0	5,55542	1,21764
2	3602,9	21,1326	0	618.279,40	8,80659	1,29504	-48,8146	0	5,18832	1,18022
2	3603,45	23,8906	0	568.106,75	9,09663	1,55365	-35,9207	0	4,81658	1,14697
2	3604,11	26,9935	0	498.949,14	9,41134	1,90735	-21,9458	0	4,5728	1,12305
2	3604,91	30,5544	0	424.816,09	9,83076	2,3371	-10,0338	0	4,39939	1,11232
2	3605,86	34,6854	0	353.646,95	10,3918	2,82101	-1,33187	0	4,28656	1,11307
2	3607,01	39,5521	0	290.782,10	11,0859	3,34256	4,67791	0	4,22427	1,11984
2	3608,38	45,3361	0	236.780,11	11,9202	3,90723	9,10828	0	4,20189	1,12796
2	3610,03	52,2672	0	191.491,55	12,8998	4,51576	12,3004	0	4,20923	1,13639
2	3612,01	60,6203	0	154.136,37	14,0307	5,17239	14,6315	0	4,23894	1,14424
2	3614,38	70,7371	0	123.734,98	15,3172	5,88176	16,3561	0	4,28517	1,15114
2	3616,47	79,7476	0	104.830,90	16,3895	6,45198	17,3583	0	4,32808	1,15562
2	3616,47	79,7476	0	104.830,90	16,3895	6,4518	17,3583	0	4,32819	1,15562
2	3617,	83,0305	0	99.228,	16,761	6,6490	17,6451	0	4,3438	1,1569

	23			45	7	6			4	8
2	3620,65	98,0225	0	79.389,91	18,3543	7,50129	18,6241	0	4,41399	1,16191
2	3624,75	116,287	0	63.510,50	20,1498	8,4239	19,371	0	4,49047	1,16595
2	3629,67	138,605	0	50.112,70	22,2689	9,50077	19,9686	0	4,57816	1,16947
2	3635,58	165,969	0	38.415,70	24,8124	10,8953	20,6849	0	4,68763	1,17186
2	3642,67	199,654	0	28.753,73	27,8871	12,6605	21,9549	0	4,81661	1,17147
2	3647,66	223,927	0	23.921,22	30,0795	13,898	22,5554	0	4,89995	1,17142
2	3651,17	241,257	0	21.173,47	31,6333	14,7772	22,8839	0	4,95639	1,17144
2	3661,38	292,721	0	15.364,90	36,2029	17,3077	23,5483	0	5,10726	1,1716
2	3671,93	347,325	0	11.541,76	40,9897	19,8509	23,9611	0	5,24322	1,1718

