

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 F2

72341-1RiempimFSRU\Riempimento FSRU-ME4-Water\1R Manichette GNL riempimento FSRU\300mm-Q286,3 Disp F2

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	46,1	0	46,1

2 Continuous 3600 0 kg/s 46,1 0 46,1

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	2,0398 4	0,9883 85	-160,955	0	11,965 5	1,9109 5
1	0,01	0,11895 2	0	996.59 1,02	2,0827 1	0,9886 55	-160,283	0	11,833 7	1,9028 7
1	0,02	0,23664 3	0	993.24 3,42	2,1254 6	0,9890 73	-159,622	0	11,704 9	1,8950 3
1	0,03	0,35306 9	0	989.95 5,46	2,1680 8	0,9896 21	-158,971	0	11,579	1,8874 1
1	0,04	0,46825 8	0	986.72 4,95	2,2105 9	0,9902 9	-158,33	0	11,455 9	1,8800 2
1	0,05	0,58223 9	0	983.54 9,88	2,2529 8	0,9910 69	-157,7	0	11,335 6	1,8728 3
1	0,06	0,69503 7	0	980.42 8,55	2,2952 7	0,9919 51	-157,078	0	11,217 8	1,8658 3
1	0,07	0,80666 4	0	977.35 9,62	2,3374 6	0,9929 24	-156,467	0	11,102 6	1,8590 3
1	0,08	0,91719 2	0	974.33 9,84	2,3795 5	0,9939 89	-155,864	0	10,989 9	1,8524 9
1	0,09	1,02664	0	971.36 7,85	2,4215 6	0,9951 37	-155,269	0	10,879 5	1,8459 4
1	0,1	1,13499	0	968.44 3,53	2,4634 7	0,9963 58	-154,683	0	10,771 5	1,8396 5
1	0,11	1,24224	0	965.56 6,20	2,5052 9	0,9976 42	-154,106	0	10,665 7	1,8335 2
1	0,12	1,34851	0	962.73	2,5470	0,9989	-153,536	0	10,562	1,8275

				1,41	4	97				3
1	0,13	1,45375	0	959.94 0,25	2,5887	1,0004 1	-152,974	0	10,460 5	1,8216 9
1	0,14	1,55794	0	957.19 2,43	2,6302 9	1,0018 7	-152,42	0	10,361	1,816
1	0,15	1,6611	0	954.48 7,02	2,6717 9	1,0033 7	-151,874	0	10,263 6	1,8104 3
1	0,16	1,7634	0	951.81 8,50	2,7132 3	1,0049 3	-151,335	0	10,168 1	1,805
1	0,17	1,86473	0	949.18 9,37	2,7546	1,0065 3	-150,802	0	10,074 4	1,7996 8
1	0,18	1,96509	0	946.59 9,11	2,7959	1,0081 6	-150,277	0	9,9825 7	1,7944 9
1	0,19	2,06451	0	944.04 6,28	2,8371 3	1,0098 2	-149,758	0	9,8925 6	1,7894 1
1	0,2	2,16312	0	941.52 7,09	2,8783	1,0115 3	-149,246	0	9,8042	1,7844 4
1	0,212	2,28026	0	938.55 0,86	2,9276 2	1,0136 1	-148,64	0	9,7004	1,7786 2
1	0,226 4	2,41913	0	935.04 5,66	2,9866 9	1,0161 5	-147,925	0	9,5789 8	1,7718 3
1	0,243 68	2,58353	0	930.92 7,62	3,0574 2	1,0192 6	-147,083	0	9,4375	1,7639 4
1	0,264 416	2,77758	0	926.11 0,02	3,1420 8	1,0230 8	-146,096	0	9,2735 8	1,7548 4
1	0,289 299	3,00599	0	920.49 8,74	3,2433 7	1,0277 4	-144,942	0	9,0848 7	1,7444
1	0,319 159	3,27394	0	913.99 5,20	3,3645 3	1,0334 3	-143,601	0	8,8691 7	1,7325 1
1	0,354 991	3,58719	0	906.49 8,31	3,5093 8	1,0403 7	-142,049	0	8,6245 9	1,7190 9
1	0,397 989	3,95193	0	897.90 8,58	3,6824 9	1,0488 1	-140,263	0	8,3497 9	1,7040 5
1	0,449 587	4,37476	0	888.13 4,02	3,8893 1	1,0590 3	-138,221	0	8,0441 8	1,6873 7
1	0,511 504	4,86246	0	877.09 6,88	4,1362 7	1,0713 4	-135,901	0	7,7081 7	1,6690 7
1	0,585	5,42186	0	864.74	4,4309	1,0860	-133,288	0	7,3434	1,6492

	805			0,64	8	3				1
1	0,674 966	6,05976	0	851.03 5,31	4,7824 7	1,1034 6	-130,369	0	6,9526 6	1,6279 1
1	0,781 959	6,78215	0	835.98 9,68	5,2013 5	1,1238 1	-127,138	0	6,5405 8	1,6053 5
1	0,910 351	7,59481	0	819.64 2,15	5,7001 4	1,1473 1	-123,596	0	6,1127 7	1,5817 5
1	1,064 42	8,50226	0	802.07 7,75	6,2934 7	1,1739 8	-119,753	0	5,6761 1	1,5573 8
1	1,249 31	9,50925	0	783.39 9,02	6,9983 3	1,2039 9	-115,622	0	5,2372 1	1,5324 8
1	1,471 17	10,6209	0	763.72 3,69	7,8344 8	1,2377 4	-111,21	0	4,8021 3	1,5072
1	1,737 4	11,8419	0	743.19 6,86	8,8244 9	1,2758 1	-106,506	0	4,3766 1	1,4815
1	2,056 88	13,1741	0	722.02 1,18	9,9936 5	1,3181 2	-101,517	0	3,9675 9	1,4554 5
1	2,440 26	14,6212	0	700.37 8,53	11,37	1,3650 9	-96,2515	0	3,5793 3	1,4291 3
1	2,900 31	16,1873	0	678.47 6,20	12,969 1	1,4170 4	-90,7165	0	3,2155 1	1,4025 8
1	3,452 37	17,8756	0	656.54 4,87	14,785 8	1,4737 9	-84,9169	0	2,8797 2	1,3758
1	4,114 84	19,6887	0	634.79 7,04	16,831	1,5355	-78,8486	0	2,5738 6	1,3487 5
1	4,909 81	21,632	0	613.41 3,94	19,111 1	1,6029 3	-72,4973	0	2,2982 3	1,3213 3
1	5,863 77	23,7231	0	592.47 1,03	21,631 6	1,6749 3	-65,8311	0	2,0559 4	1,2934 5
1	7,008 53	25,9801	0	572.09 0,01	24,384 7	1,7471 9	-58,9262	0	1,8513 4	1,2656 3
1	8,382 23	28,4265	0	552.36 6,44	27,348 2	1,825	-52,0109	0	1,6760 2	1,2391 6
1	10,03 07	31,0857	0	533.43 1,32	30,452 5	1,9136 3	-45,1678	0	1,5268 8	1,2142 4
1	12,00 88	33,9885	0	515.34 2,65	33,466 1	2,0238 6	-38,4764	0	1,4037 6	1,1910 6
1	13,03	35,4071	0	506.34	34,536	2,0950	-35,3362	0	1,3570	1,1809

	52			0,73	4	3			6	4
1	13,03 52	35,4071	0	506.34 0,73	34,536 4	2,0950 5	-35,3362	0	1,3570 5	1,1809 4
1	14,38 26	37,2059	0	485.19 4,86	34,661 7	2,3017 9	-29,9642	0	1,3133 5	1,1675 5
1	17,23 11	40,8542	0	376.33 2,62	35,518 3	3,2546	-11,1783	0	1,2617 4	1,1432 2
1	20,64 93	45,1954	0	265.01 2,95	37,094 8	4,5775 9	2,26159	0	1,2887 2	1,1431 1
1	24,75 12	50,6272	0	187.98 1,26	39,087 7	5,9777 5	9,44995	0	1,3618 4	1,1504 8
1	24,75 12	50,6272	0	187.98 1,26	39,087 7	5,9777 5	9,44995	0	1,3618 4	1,1504 8
1	24,75 12	50,6272	0,02	187.98 0,88	39,087 7	5,9603 7	9,45539	0	1,3612 7	1,1504 5
1	29,67 34	57,2843	1,853 37	137.61 9,69	41,185	5,2939 7	13,4161	0	1,4723 2	1,1572 9
1	33,88 26	63,0916	5,173 09	102.11 9,11	42,763 8	4,1648 3	15,8831	0	1,7501 4	1,1628 5
1	33,88 26	63,0916	5,173 09	102.11 9,11	42,763 8	4,1636 3	15,8831	0	1,7505 9	1,1628 5
1	35,58 01	65,8324	6,590 21	87.910, 03	43,465 2	4,3629 2	16,8019	0	1,8832 9	1,1652 7
1	42,66 81	79,7916	11,54 57	51.866, 02	46,245 9	5,7911 1	19,0179	0	2,2654 5	1,1715
1	51,17 37	99,8376	14,72 32	35.542, 95	48,799 7	7,3755 1	19,9733	0	2,4783 1	1,1743
1	52,30 37	102,636	14,91 3	34.396, 11	49,053 3	7,5507 3	20,0389	0	2,4909 4	1,1745
1	52,30 37	102,636	14,91 3	34.396, 11	49,053 3	7,5506 7	20,0389	0	2,4909 6	1,1745
1	61,38 05	125,295	14,44 84	28.271, 88	50,667 3	9,1025 9	20,424	0	2,4771 3	1,1756 9
1	67,40 67	139,838	12,27 05	24.598, 20	51,951 8	11,189	21,0327	0	2,4055 5	1,1753 3
1	67,40 67	139,838	12,27 05	24.598, 20	51,951 8	11,189	21,0327	0	2,4055 5	1,1753 3
1	68,82	143,153	11,59	23.921,	54,876	11,224	21,1434	0	2,3708	1,1753

	36		52	22		8			8	1
1	73,62 86	154,086	9,271 1	22.218, 60	62,212	11,987 7	21,4202	0	2,2911 1	1,1753 6
1	88,32 63	187,016	3,781 4	19.822, 50	73,465 5	15,513 5	21,797	0	2,2878	1,1758
1	103,3 67	221,924	0,01	18.693, 06	76,204 1	18,918 8	21,8697	0	2,383	1,1766 6
1	103,3 67	221,924	0	18.693, 08	76,204 1	18,942 6	21,8673	0	2,3812 5	1,1766 7
1	105,9 64	228,111	0	18.526, 42	76,481 3	19,027	21,9041	0	2,3838 4	1,1766 1
1	127,1 28	278,874	0	17.261, 01	78,729 2	19,694 6	22,1793	0	2,4050 7	1,1761 2
1	152,5 26	340,406	0	15.932, 54	81,410 9	20,450 6	22,4611	0	2,4306 8	1,1756 4
1	162,1 09	363,772	0	15.477, 22	82,420 1	20,724 9	22,5562	0	2,4402 5	1,1754 8
2	3600	0	0	999.99 9,41	2,0398 4	0,9883 85	-160,955	0	11,965 5	1,9109 5
2	3600, 01	0,11895 2	0	996.59 1,02	2,0827 1	0,9886 55	-160,283	0	11,833 7	1,9028 7
2	3600, 02	0,23664 3	0	993.24 3,42	2,1254 6	0,9890 73	-159,622	0	11,704 9	1,8950 3
2	3600, 03	0,35306 9	0	989.95 5,46	2,1680 8	0,9896 21	-158,971	0	11,579	1,8874 1
2	3600, 04	0,46825 8	0	986.72 4,95	2,2105 9	0,9902 9	-158,33	0	11,455 9	1,8800 2
2	3600, 05	0,58223 9	0	983.54 9,88	2,2529 8	0,9910 69	-157,7	0	11,335 6	1,8728 3
2	3600, 06	0,69503 7	0	980.42 8,55	2,2952 7	0,9919 51	-157,078	0	11,217 8	1,8658 3
2	3600, 07	0,80666 4	0	977.35 9,62	2,3374 6	0,9929 24	-156,467	0	11,102 6	1,8590 3
2	3600, 08	0,91719 2	0	974.33 9,84	2,3795 5	0,9939 89	-155,864	0	10,989 9	1,8524
2	3600, 09	1,02664	0	971.36 7,85	2,4215 6	0,9951 37	-155,269	0	10,879 5	1,8459 4

2	3600,1	1,13499	0	968.44 3,53	2,4634 7	0,9963 58	-154,683	0	10,771 5	1,8396 5
2	3600,11	1,24224	0	965.56 6,20	2,5052 9	0,9976 42	-154,106	0	10,665 7	1,8335 2
2	3600,12	1,34851	0	962.73 1,41	2,5470 4	0,9989 97	-153,536	0	10,562	1,8275 3
2	3600,13	1,45375	0	959.94 0,25	2,5887	1,0004 1	-152,974	0	10,460 5	1,8216 9
2	3600,14	1,55794	0	957.19 2,43	2,6302 9	1,0018 7	-152,42	0	10,361	1,816
2	3600,15	1,6611	0	954.48 7,02	2,6717 9	1,0033 7	-151,874	0	10,263 6	1,8104 3
2	3600,16	1,7634	0	951.81 8,50	2,7132 3	1,0049 3	-151,335	0	10,168 1	1,805
2	3600,17	1,86473	0	949.18 9,37	2,7546	1,0065 3	-150,802	0	10,074 4	1,7996 8
2	3600,18	1,96509	0	946.59 9,11	2,7959	1,0081 6	-150,277	0	9,9825 7	1,7944 9
2	3600,19	2,06451	0	944.04 6,28	2,8371 3	1,0098 2	-149,758	0	9,8925 6	1,7894 1
2	3600,2	2,16312	0	941.52 7,09	2,8783	1,0115 3	-149,246	0	9,8042	1,7844 4
2	3600,21	2,28026	0	938.55 0,86	2,9276 2	1,0136 1	-148,64	0	9,7004	1,7786 2
2	3600,23	2,41913	0	935.04 5,66	2,9866 9	1,0161 5	-147,925	0	9,5789 8	1,7718 3
2	3600,24	2,58353	0	930.92 7,62	3,0574 2	1,0192 6	-147,083	0	9,4375	1,7639 4
2	3600,26	2,77758	0	926.11 0,02	3,1420 8	1,0230 8	-146,096	0	9,2735 8	1,7548 4
2	3600,29	3,00599	0	920.49 8,74	3,2433 7	1,0277 4	-144,942	0	9,0848 7	1,7444
2	3600,32	3,27394	0	913.99 5,20	3,3645 3	1,0334 3	-143,601	0	8,8691 7	1,7325 1
2	3600,35	3,58719	0	906.49 8,31	3,5093 8	1,0403 7	-142,049	0	8,6245 9	1,7190 9
2	3600,4	3,95193	0	897.90 8,58	3,6824 9	1,0488 1	-140,263	0	8,3497 9	1,7040 5

2	3600,45	4,37476	0	888.134,02	3,88931	1,05903	-138,221	0	8,04418	1,68737
2	3600,51	4,86246	0	877.096,88	4,13627	1,07134	-135,901	0	7,70817	1,66907
2	3600,59	5,42186	0	864.740,64	4,43098	1,08603	-133,288	0	7,3434	1,64921
2	3600,67	6,05976	0	851.035,31	4,78247	1,10346	-130,369	0	6,95266	1,62791
2	3600,78	6,78215	0	835.989,68	5,20135	1,12381	-127,138	0	6,54058	1,60535
2	3600,91	7,59481	0	819.642,15	5,70014	1,14731	-123,596	0	6,11277	1,58175
2	3601,06	8,50226	0	802.077,75	6,29347	1,17398	-119,753	0	5,67611	1,55738
2	3601,25	9,50925	0	783.399,02	6,99833	1,20399	-115,622	0	5,23721	1,53248
2	3601,47	10,6209	0	763.723,69	7,83448	1,23774	-111,21	0	4,80213	1,50723
2	3601,74	11,8419	0	743.196,86	8,82449	1,27581	-106,506	0	4,37661	1,48151
2	3602,06	13,1741	0	722.021,18	9,99365	1,31812	-101,517	0	3,96759	1,45545
2	3602,44	14,6212	0	700.378,53	11,37	1,36509	-96,2515	0	3,57933	1,42913
2	3602,9	16,1873	0	678.476,20	12,9691	1,41704	-90,7165	0	3,21551	1,40258
2	3603,45	17,8756	0	656.544,87	14,7858	1,47379	-84,9169	0	2,87972	1,37582
2	3604,11	19,6887	0	634.797,04	16,831	1,5355	-78,8486	0	2,57386	1,34875
2	3604,91	21,632	0	613.413,94	19,1111	1,60293	-72,4973	0	2,29823	1,32133
2	3605,86	23,7231	0	592.471,03	21,6316	1,67493	-65,8311	0	2,05594	1,29345
2	3607,01	25,9801	0	572.090,01	24,3847	1,74719	-58,9262	0	1,85134	1,26563
2	3608,38	28,4265	0	552.366,44	27,3482	1,825	-52,0109	0	1,67602	1,23916

2	3610,03	31,0857	0	533.431,32	30,4525	1,91363	-45,1678	0	1,52688	1,21424
2	3612,01	33,9885	0	515.342,65	33,4661	2,02386	-38,4764	0	1,40376	1,19106
2	3613,04	35,4071	0	506.340,73	34,5364	2,09503	-35,3362	0	1,35706	1,18094
2	3613,04	35,4071	0	506.340,73	34,5364	2,09505	-35,3362	0	1,35705	1,18094
2	3614,38	37,2059	0	485.194,86	34,6617	2,30179	-29,9642	0	1,31335	1,16755
2	3617,23	40,8542	0	376.332,62	35,5183	3,2546	-11,1783	0	1,26174	1,14322
2	3620,65	45,1954	0	265.012,95	37,0948	4,57759	2,26159	0	1,28872	1,14311
2	3624,75	50,6272	0	187.981,26	39,0877	5,97775	9,44995	0	1,36184	1,15048
2	3624,75	50,6272	0	187.981,26	39,0877	5,97775	9,44995	0	1,36184	1,15048
2	3624,75	50,6272	0,02	187.980,88	39,0877	5,96037	9,45539	0	1,36127	1,15045
2	3629,67	57,2843	1,85337	137.619,69	41,185	5,29397	13,4161	0	1,47232	1,15729
2	3633,88	63,0916	5,17309	102.119,11	42,7638	4,16483	15,8831	0	1,75014	1,16285
2	3633,88	63,0916	5,17309	102.119,11	42,7638	4,16363	15,8831	0	1,75059	1,16285
2	3635,58	65,8324	6,59021	87.910,03	43,4652	4,36292	16,8019	0	1,88329	1,16527
2	3642,67	79,7916	11,5457	51.866,02	46,2459	5,79111	19,0179	0	2,26545	1,1715
2	3651,17	99,8376	14,7232	35.542,95	48,7997	7,37551	19,9733	0	2,47831	1,17431
2	3652,3	102,636	14,913	34.396,11	49,0533	7,55073	20,0389	0	2,49094	1,1745
2	3652,3	102,636	14,913	34.396,11	49,0533	7,55067	20,0389	0	2,49096	1,1745
2	3661,38	125,295	14,4484	28.271,88	50,6673	9,10259	20,424	0	2,47713	1,17569

2	3667,41	139,838	12,2705	24.598,20	51,9518	11,189	21,0327	0	2,40555	1,17533
2	3667,41	139,838	12,2705	24.598,20	51,9518	11,189	21,0327	0	2,40555	1,17533
2	3668,82	143,153	11,5952	23.921,22	54,876	11,2248	21,1434	0	2,37088	1,17531
2	3673,63	154,086	9,2711	22.218,60	62,212	11,9877	21,4202	0	2,29111	1,17536
2	3688,33	187,016	3,7814	19.822,50	73,4655	15,5135	21,797	0	2,2878	1,1758
2	3703,37	221,924	0,01	18.693,06	76,2041	18,9188	21,8697	0	2,383	1,17666
2	3703,37	221,924	0	18.693,08	76,2041	18,9426	21,8673	0	2,38125	1,17667
2	3705,96	228,111	0	18.526,42	76,4813	19,027	21,9041	0	2,38384	1,17661
2	3727,13	278,874	0	17.261,01	78,7292	19,6946	22,1793	0	2,40507	1,17612
2	3752,53	340,406	0	15.932,54	81,4109	20,4506	22,4611	0	2,43068	1,17564
2	3762,11	363,772	0	15.477,22	82,4201	20,7249	22,5562	0	2,44025	1,17548

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	46,1	0	46,1
2	Continuous	3600	0	kg/s	46,1	0	46,1

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	2,0397 4	0,9884 33	-160,955	0	11,965 5	1,9109 5
1	0,01	0,11932 2	0	997.33 1,54	2,0825 7	0,9816 42	-160,344	0	11,902 9	1,9030 5
1	0,02	0,23804	0	994.68 9,65	2,1251	0,9753 28	-159,735	0	11,841	1,8952 8

1	0,03	0,35614 5	0	992.07 3,09	2,1673 4	0,9694 57	-159,13	0	11,779 6	1,8876 5
1	0,04	0,47364 1	0	989.48 0,87	2,2093 1	0,9639 99	-158,528	0	11,718 9	1,8801 4
1	0,05	0,59053 4	0	986.91 2,24	2,2510 2	0,9589 25	-157,929	0	11,658 8	1,8727 5
1	0,06	0,70683 2	0	984.36 6,48	2,2924 7	0,9542 08	-157,333	0	11,599 3	1,8654 7
1	0,07	0,82253 5	0	981.84 3,23	2,3336 8	0,9498 26	-156,74	0	11,540 4	1,8583 1
1	0,08	0,93766 5	0	979.34 0,95	2,3746 7	0,9457 51	-156,15	0	11,482 1	1,8512 6
1	0,09	1,05222	0	976.85 9,57	2,4154 3	0,9419 67	-155,562	0	11,424 3	1,8443 2
1	0,1	1,1662	0	974.39 8,99	2,4559 8	0,9384 58	-154,978	0	11,367 1	1,8374 8
1	0,11	1,2796	0	971.95 8,82	2,4963 1	0,9352 08	-154,395	0	11,310 4	1,8307 4
1	0,12	1,39246	0	969.53 7,82	2,5364 5	0,9321 93	-153,816	0	11,254 3	1,8241
1	0,13	1,50475	0	967.13 6,45	2,5763 8	0,9294 07	-153,239	0	11,198 8	1,8175 6
1	0,14	1,61648	0	964.75 4,50	2,6161 2	0,9268 38	-152,665	0	11,143 8	1,8111 1
1	0,15	1,72766	0	962.39 1,27	2,6556 7	0,9244 71	-152,093	0	11,089 3	1,8047 5
1	0,16	1,83832	0	960.04 5,94	2,6950 5	0,9222 87	-151,523	0	11,035 3	1,7984 8
1	0,17	1,94843	0	957.71 8,87	2,7342 6	0,9202 85	-150,957	0	10,981 9	1,7923
1	0,18	2,058	0	955.40 9,88	2,7732 8	0,9184 56	-150,392	0	10,929	1,7862
1	0,19	2,16705	0	953.11 8,23	2,8121 5	0,9167 83	-149,83	0	10,876 6	1,7801 9
1	0,2	2,27559	0	950.84 3,70	2,8508 7	0,9152 59	-149,271	0	10,824 8	1,7742 6
1	0,212	2,40515	0	948.13 6,93	2,8971 3	0,9136 2	-148,602	0	10,763 2	1,7672 5

1	0,226 4	2,55963	0	944.92 0,92	2,9523 4	0,9119 12	-147,805	0	10,690 3	1,7589 8
1	0,243 68	2,74364	0	941.10 6,85	3,0182	0,9101 97	-146,855	0	10,604 1	1,7492 7
1	0,264 416	2,96249	0	936.59 3,81	3,0966 9	0,9085 84	-145,724	0	10,502 6	1,7379 1
1	0,289 299	3,22235	0	931.26 7,79	3,1901 4	0,9072 26	-144,38	0	10,383 5	1,7246 6
1	0,319 159	3,53031	0	925.00 2,17	3,3012 8	0,9063 25	-142,786	0	10,244 4	1,7093 1
1	0,354 991	3,89445	0	917.65 8,13	3,4333 2	0,9061 43	-140,9	0	10,082 9	1,6916 4
1	0,397 989	4,32393	0	909.08 8,12	3,5900 2	0,9070 12	-138,675	0	9,8964 4	1,6714 2
1	0,449 587	4,82899	0	899.14 0,05	3,7757 4	0,9093 22	-136,06	0	9,6830 2	1,6484 8
1	0,511 504	5,42097	0	887.66 5,95	3,9955	0,9135 5	-132,999	0	9,4408 9	1,6227 1
1	0,585 805	6,11224	0	874.53 1,34	4,2549 7	0,9202 4	-129,435	0	9,1690 5	1,5940 4
1	0,674 966	6,91649	0	859.62 6,96	4,5606	0,9299 71	-125,312	0	8,8675 2	1,5625 3
1	0,781 959	7,84793	0	842.88 0,73	4,9195 2	0,9433 53	-120,574	0	8,5376 9	1,5283 2
1	0,910 351	8,9214	0	824.27 7,99	5,3392 1	0,9610 23	-115,175	0	8,1824 8	1,4916 7
1	1,064 42	10,1526	0	803.87 4,22	5,8270 4	0,9836 42	-109,079	0	7,8063 6	1,4529 4
1	1,249 31	11,5585	0	781.80 7,22	6,3893 3	1,0119	-102,267	0	7,4153 4	1,4126 2
1	1,471 17	13,1576	0	758.29 6,84	7,0296 7	1,0466 2	-94,7442	0	7,0164 4	1,3712 8
1	1,737 4	14,9683	0	733.64 2,97	7,7458 9	1,0890 1	-86,5384	0	6,6172 7	1,3295 1
1	2,056 88	17,0153	0	708.21 8,66	8,5261 7	1,1406 9	-77,7194	0	6,2256 2	1,2880 1
1	2,440 26	19,3226	0	680.40 8,18	9,3391 4	1,2125 6	-68,0522	0	5,8388 7	1,2468 2

1	2,900 31	21,9152	0	646.41 1,34	10,105	1,3310 4	-57,0741	0	5,4491 2	1,2063 3
1	3,452 37	24,8186	0	607.99 8,87	10,596 3	1,5234 6	-45,4881	0	5,0831 3	1,1696 2
1	4,114 84	28,0823	0	547.58 7,18	10,916 8	1,8476 4	-31,3776	0	4,7958 4	1,1377 6
1	4,909 81	31,8032	0	472.30 8,52	11,312 2	2,2921	-17,3463	0	4,5783 3	1,1177 9
1	5,863 77	36,0946	0	395.62 0,47	11,861 7	2,8188 3	-6,2342	0	4,4287 5	1,1117 9
1	7,008 53	41,1064	0	325.29 6,98	12,575 1	3,4003 6	1,3486	0	4,3402 6	1,1163 4
1	8,382 23	47,0361	0	264.64 5,28	13,446 6	4,0321 6	6,8387	0	4,3008 2	1,1238
1	10,03 07	54,1208	0	213.69 8,32	14,482 4	4,7137 2	10,7175	0	4,2976 6	1,1323 9
1	12,00 88	62,6456	0	171.77 2,43	15,686 8	5,4477 9	13,5014	0	4,3208 3	1,1407 1
1	14,38 26	72,953	0	137.70 3,90	17,066 1	6,2388 9	15,5308	0	4,3635 1	1,1481 4
1	17,23 11	85,4615	0	110.28 9,81	18,624 4	7,0917 9	17,0284	0	4,4204 2	1,1545 2
1	17,84 35	88,1723	0	105.66 8,98	18,945 9	7,2639 6	17,27	0	4,4326 1	1,1556 2
1	17,84 35	88,1723	0	105.66 8,98	18,945 9	7,2637 5	17,27	0	4,4327 3	1,1556 2
1	20,64 93	100,687	0	88.447, 65	20,347 4	8,0120 5	18,1459	0	4,4877 4	1,1598 1
1	24,75 12	119,25	0	71.047, 39	22,236 2	9,0104 7	18,9908	0	4,5629	1,1641 6
1	29,67 34	141,918	0	56.750, 23	24,396 7	10,127	19,6516	0	4,6463	1,1678 3
1	35,58 01	169,647	0	44.511, 61	26,979 6	11,464 4	20,1875	0	4,7433 5	1,1710 7
1	42,66 81	203,692	0	33.901, 91	30,093 2	13,212 8	21,2545	0	4,8635 5	1,1717 7
1	51,17 37	245,63	0	25.374, 43	33,867 3	15,325 2	22,3544	0	4,9971 3	1,1715 2

1	53,04 55	255,006	0	23.921, 22	34,704 5	15,786 7	22,5341	0	5,0247 3	1,1715
1	61,38 05	297,485	0	18.665, 15	38,465 3	17,873	23,1585	0	5,1430 4	1,1715 6
1	73,62 86	361,493	0	13.584, 16	44,061 8	20,858 4	23,7299	0	5,2967 3	1,1717 4
1	79,99 79	395,458	0	11.716, 80	47,000 5	22,382 1	23,9308	0	5,3687 7	1,1718 4
2	3600	0	0	999.99 9,41	2,0397 4	0,9884 33	-160,955	0	11,965 5	1,9109 5
2	3600, 01	0,11932 2	0	997.33 1,54	2,0825 7	0,9816 42	-160,344	0	11,902 9	1,9030 5
2	3600, 02	0,23804	0	994.68 9,65	2,1251	0,9753 28	-159,735	0	11,841	1,8952 8
2	3600, 03	0,35614 5	0	992.07 3,09	2,1673 4	0,9694 57	-159,13	0	11,779 6	1,8876 5
2	3600, 04	0,47364 1	0	989.48 0,87	2,2093 1	0,9639 99	-158,528	0	11,718 9	1,8801 4
2	3600, 05	0,59053 4	0	986.91 2,24	2,2510 2	0,9589 25	-157,929	0	11,658 8	1,8727 5
2	3600, 06	0,70683 2	0	984.36 6,48	2,2924 7	0,9542 08	-157,333	0	11,599 3	1,8654 7
2	3600, 07	0,82253 5	0	981.84 3,23	2,3336 8	0,9498 26	-156,74	0	11,540 4	1,8583 1
2	3600, 08	0,93766 5	0	979.34 0,95	2,3746 7	0,9457 51	-156,15	0	11,482 1	1,8512 6
2	3600, 09	1,05222	0	976.85 9,57	2,4154 3	0,9419 67	-155,562	0	11,424 3	1,8443 2
2	3600, 1	1,1662	0	974.39 8,99	2,4559 8	0,9384 58	-154,978	0	11,367 1	1,8374 8
2	3600, 11	1,2796	0	971.95 8,82	2,4963 1	0,9352 08	-154,395	0	11,310 4	1,8307 4
2	3600, 12	1,39246	0	969.53 7,82	2,5364 5	0,9321 93	-153,816	0	11,254 3	1,8241
2	3600, 13	1,50475	0	967.13 6,45	2,5763 8	0,9294 07	-153,239	0	11,198 8	1,8175 6
2	3600,	1,61648	0	964.75	2,6161	0,9268	-152,665	0	11,143	1,8111

	14			4,50	2	38			8	1
2	3600, 15	1,72766	0	962.39 1,27	2,6556 7	0,9244 71	-152,093	0	11,089 3	1,8047 5
2	3600, 16	1,83832	0	960.04 5,94	2,6950 5	0,9222 87	-151,523	0	11,035 3	1,7984 8
2	3600, 17	1,94843	0	957.71 8,87	2,7342 6	0,9202 85	-150,957	0	10,981 9	1,7923
2	3600, 18	2,058	0	955.40 9,88	2,7732 8	0,9184 56	-150,392	0	10,929	1,7862
2	3600, 19	2,16705	0	953.11 8,23	2,8121 5	0,9167 83	-149,83	0	10,876 6	1,7801 9
2	3600, 2	2,27559	0	950.84 3,70	2,8508 7	0,9152 59	-149,271	0	10,824 8	1,7742 6
2	3600, 21	2,40515	0	948.13 6,93	2,8971 3	0,9136 2	-148,602	0	10,763 2	1,7672 5
2	3600, 23	2,55963	0	944.92 0,92	2,9523 4	0,9119 12	-147,805	0	10,690 3	1,7589 8
2	3600, 24	2,74364	0	941.10 6,85	3,0182	0,9101 97	-146,855	0	10,604 1	1,7492 7
2	3600, 26	2,96249	0	936.59 3,81	3,0966 9	0,9085 84	-145,724	0	10,502 6	1,7379 1
2	3600, 29	3,22235	0	931.26 7,79	3,1901 4	0,9072 26	-144,38	0	10,383 5	1,7246 6
2	3600, 32	3,53031	0	925.00 2,17	3,3012 8	0,9063 25	-142,786	0	10,244 4	1,7093 1
2	3600, 35	3,89445	0	917.65 8,13	3,4333 2	0,9061 43	-140,9	0	10,082 9	1,6916 4
2	3600, 4	4,32393	0	909.08 8,12	3,5900 2	0,9070 12	-138,675	0	9,8964 4	1,6714 2
2	3600, 45	4,82899	0	899.14 0,05	3,7757 4	0,9093 22	-136,06	0	9,6830 2	1,6484 8
2	3600, 51	5,42097	0	887.66 5,95	3,9955	0,9135 5	-132,999	0	9,4408 9	1,6227 1
2	3600, 59	6,11224	0	874.53 1,34	4,2549 7	0,9202 4	-129,435	0	9,1690 5	1,5940 4
2	3600, 67	6,91649	0	859.62 6,96	4,5606	0,9299 71	-125,312	0	8,8675 2	1,5625 3
2	3600, 7,84793		0	842.88	4,9195	0,9433	-120,574	0	8,5376	1,5283

	78			0,73	2	53			9	2
2	3600,91	8,9214	0	824.277,99	5,33921	0,961023	-115,175	0	8,18248	1,49167
2	3601,06	10,1526	0	803.874,22	5,82704	0,983642	-109,079	0	7,80636	1,45294
2	3601,25	11,5585	0	781.807,22	6,38933	1,0119	-102,267	0	7,41534	1,41262
2	3601,47	13,1576	0	758.296,84	7,02967	1,04662	-94,7442	0	7,01644	1,37128
2	3601,74	14,9683	0	733.642,97	7,74589	1,08901	-86,5384	0	6,61727	1,32951
2	3602,06	17,0153	0	708.218,66	8,52617	1,14069	-77,7194	0	6,22562	1,28801
2	3602,44	19,3226	0	680.408,18	9,33914	1,21256	-68,0522	0	5,83887	1,24682
2	3602,9	21,9152	0	646.411,34	10,105	1,33104	-57,0741	0	5,44912	1,20633
2	3603,45	24,8186	0	607.998,87	10,5963	1,52346	-45,4881	0	5,08313	1,16962
2	3604,11	28,0823	0	547.587,18	10,9168	1,84764	-31,3776	0	4,79584	1,13776
2	3604,91	31,8032	0	472.308,52	11,3122	2,2921	-17,3463	0	4,57833	1,11779
2	3605,86	36,0946	0	395.620,47	11,8617	2,81883	-6,2342	0	4,42875	1,11179
2	3607,01	41,1064	0	325.296,98	12,5751	3,40036	1,3486	0	4,34026	1,11634
2	3608,38	47,0361	0	264.645,28	13,4466	4,03216	6,8387	0	4,30082	1,1238
2	3610,03	54,1208	0	213.698,32	14,4824	4,71372	10,7175	0	4,29766	1,13239
2	3612,01	62,6456	0	171.772,43	15,6868	5,44779	13,5014	0	4,32083	1,14071
2	3614,38	72,953	0	137.703,90	17,0661	6,23889	15,5308	0	4,36351	1,14814
2	3617,23	85,4615	0	110.289,81	18,6244	7,09179	17,0284	0	4,42042	1,15452
2	3617,	88,1723	0	105.66	18,945	7,2639	17,27	0	4,4326	1,1556

	84			8,98	9	6			1	2
2	3617,84	88,1723	0	105.668,98	18,9459	7,26375	17,27	0	4,43273	1,15562
2	3620,65	100,687	0	88.447,65	20,3474	8,01205	18,1459	0	4,48774	1,15981
2	3624,75	119,25	0	71.047,39	22,2362	9,01047	18,9908	0	4,5629	1,16416
2	3629,67	141,918	0	56.750,23	24,3967	10,127	19,6516	0	4,6463	1,16783
2	3635,58	169,647	0	44.511,61	26,9796	11,4644	20,1875	0	4,74335	1,17107
2	3642,67	203,692	0	33.901,91	30,0932	13,2128	21,2545	0	4,86355	1,17177
2	3651,17	245,63	0	25.374,43	33,8673	15,3252	22,3544	0	4,99713	1,17152
2	3653,05	255,006	0	23.921,22	34,7045	15,7867	22,5341	0	5,02473	1,1715
2	3661,38	297,485	0	18.665,15	38,4653	17,873	23,1585	0	5,14304	1,17156
2	3673,63	361,493	0	13.584,16	44,0618	20,8584	23,7299	0	5,29673	1,17174
2	3680	395,458	0	11.716,80	47,0005	22,3821	23,9308	0	5,36877	1,17184

