

# Dispersion Report

**Workspace: 72438-1RiempFSRU-13R**

**Study: Riempimento FSRU-ME4**

**Equipment Item: 13R Linee BOG a metaniera**

72438-1RiempFSRU-13R\Riempimento FSRU-ME4\13R Linee BOG a metaniera

Material	<b>GAS NATURALE</b>	
East	0	m
North	0	m

## Scenario (Leak) : 80mm

72438-1RiempFSRU-13R\Riempimento FSRU-ME4\13R Linee BOG a metaniera\80mm

Material to track	<b>GAS NATURALE</b>
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## Weather: Category 2/F

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

## 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	1,55722	0	1,55722
2	Continuous	289,721	0	kg/s	1,55722	0	1,55722

## 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/Line height [m]	C/Line conc [ppm]	Effective width [m]	Effective depth [m]	C/Line vapour temperature [degC]	C/Line liquid fraction	Centroid velocity [m/s]	C/Line cloud density [kg/m <sup>3</sup> ]
1	0	0	12,5	999.99 9,37	0,0566 01	0,0281 17	-134,87	0	300	1,6308 2
1	0,01	1,23388	12,5	345.98 4,96	0,2601 25	0,1301 91	-15,9097	0	76,784 2	1,1964 9
1	0,02	1,87332	12,49 99	254.31 0,76	0,3682 92	0,1843 09	-2,06056	0	54,998 2	1,1778 1
1	0,03	2,36892	12,49 99	210.46 8,07	0,4514 34	0,2259 03	3,2058	0	45,144 1	1,1746 5
1	0,04	2,78873	12,49 99	183.40 5,18	0,5218 31	0,2611 19	6,24871	0	39,232 2	1,1734 6
1	0,05	3,15977	12,49 98	164.53 5,11	0,5840 3	0,2922 31	8,22902	0	35,184 4	1,1731 5
1	0,06	3,49541	12,49 98	150.41 6,85	0,6403 29	0,3203 9	9,63964	0	32,194 9	1,1731 6
1	0,07	3,80481	12,49 98	139.31 1,45	0,6922 75	0,3463 7	10,7088	0	29,866 5	1,1733 2
1	0,08	4,09351	12,49 97	130.27 0,79	0,7408 01	0,3706 39	11,5539	0	27,985 8	1,1735 3
1	0,09	4,36524	12,49 97	122.72 1,96	0,7865 36	0,3935 1	12,2429	0	26,425 5	1,1737 6
1	0,1	4,62285	12,49 97	116.29 0,20	0,8299 57	0,4152 24	12,8183	0	25,103 2	1,174 2
1	0,11	4,86829	12,49 97	110.72 4,71	0,8713 94	0,4359 44	13,3078	0	23,964 3	1,1742 3
1	0,12	5,10297	12,49 96	105.84 9,51	0,9110 83	0,4557 9	13,7303	0	22,970 7	1,1744 5
1	0,13	5,328	12,49 96	101.53 5,12	0,9492 13	0,4748 56	14,0994	0	22,094 5	1,1746 7



1	0,14	5,54455	12,49	97.679,	0,9859	0,4932	14,4255	0	21,314	1,1748
			96	83	78	38				7
1	0,15	5,75378	12,49	94.203,	1,0215	0,5110	14,7166	0	20,612	1,1750
			95	21	6	3			1	6
1	0,16	5,9565	12,49	91.045,	1,0561	0,5282	14,9786	0	19,976	1,1752
			95	53		98			2	5
1	0,17	6,15322	12,49	88.161,	1,0896	0,5450	15,2159	0	19,396	1,1754
			95	35	8	86			7	2
1	0,18	6,34444	12,49	85.513,	1,1223	0,5614	15,4322	0	18,865	1,1755
			94	48	8	33			8	9
1	0,19	6,53057	12,49	83.071,	1,1542	0,5773	15,6302	0	18,377	1,1757
			94	30	7	76			1	4
1	0,2	6,712	12,49	80.809,	1,1854	0,5929	15,8125	0	17,925	1,1758
			93	53	1	44			4	9
1	0,212	6,92392	12,49	78.304,	1,2218	0,6111	16,013	0	17,425	1,1760
			93	43	6	68			9	6
1	0,226	7,17062	12,49	75.558,	1,2644	0,6324	16,2313	0	16,879	1,1762
	4		92	56	1	36			5	5
1	0,243	7,45681	12,49	72.581,	1,3139	0,6571	16,4661	0	16,288	1,1764
	68		91	80	1	83			4	6
1	0,264	7,78724	12,49	69.394,	1,3712	0,6858	16,7155	0	15,657	1,1766
	416		9	44	8	62				9
1	0,289	8,16695	12,49	66.024,	1,4375	0,7189	16,9769	0	14,991	1,1769
	299		88	05	2	7				4
1	0,319	8,60191	12,49	62.500,	1,5138	0,7570	17,2477	0	14,296	1,1772
	159		86	56		97			6	2
1	0,354	9,09922	12,49	58.855,	1,6015	0,8009	17,5252	0	13,580	1,1775
	991		83	45	3	44			1	1
1	0,397	9,66507	12,49	55.132,	1,7020	0,8511	17,8059	0	12,850	1,1778
	989		78	27	7	93			3	1
1	0,449	10,3074	12,49	51.369,	1,8171	0,9086	18,0869	0	12,114	1,1781
	587		72	26	3	96			8	3
1	0,511	11,0335	12,49	47.610,	1,9484	0,9743	18,3648	0	11,382	1,1784
	504		63	12	7	3				5
1	0,585	11,8513	12,49	43.894,	2,0981	1,0491	18,637	0	10,659	1,1787
	805		5	07	3	1			6	8
1	0,674	12,77	12,49	40.255,	2,2685	1,1342	18,9009	0	9,9541	1,1791
	966		32	25		4			9	1



1	0,781 959	13,7988	12,49 05	36.724, 37	2,4623 1	1,2310 8	19,1548	0	9,2714 1	1,1794 3
1	0,910 351	14,9468	12,48 66	33.327, 64	2,6826 4	1,3411 6	19,3968	0	8,6161 3	1,1797 5
1	1,064 42	16,2249	12,48 09	30.083, 43	2,9333 1	1,4664	19,6261	0	7,9916 4	1,1800 7
1	1,249 31	17,6449	12,47 26	27.004, 75	3,2189	1,6090 7	19,8419	0	7,4001 2	1,1803 7
1	1,471 17	19,2215	12,46 06	24.098, 41	3,5467 3	1,7728 4	20,3324	0	6,8425 4	1,1796 3
1	1,594 45	20,0486	12,45 3	22.750, 14	3,723	1,8608 9	20,5947	0	6,5840 8	1,1791 7
1	1,737 4	20,964	12,44 34	21.369, 84	3,9227 8	1,9606 8	20,8635	0	6,3195 5	1,1786 9
1	2,056 88	22,8652	12,41 92	18.822, 24	4,3550 9	2,1766 3	21,3601	0	5,8313 8	1,1778 1
1	2,440 26	24,9941	12,38 74	16.456, 62	4,8539 3	2,4258 1	21,822	0	5,3779 3	1,177
1	2,900 31	27,3744	12,34 61	14.276, 07	5,4309 8	2,7140 4	22,2483	0	4,9594	1,1762 5
1	3,452 37	30,0191	12,29 3	12.276, 85	6,102	3,0492 3	22,6397	0	4,5746 6	1,1755 7
1	4,114 84	32,9478	12,22 54	10.468, 02	6,8805 2	3,4381 1	22,9942	0	4,2249 4	1,1749 5
1	4,909 81	36,1962	12,14 01	8.888,5 7	7,7588 3	3,8768 7	23,3041	0	3,9171 6	1,1744 2
1	5,863 77	39,8096	12,03 38	7.525,7 0	8,7414 9	4,3677 7	23,5717	0	3,6484	1,1739 6
1	7,008 53	43,846	11,90 2	6.349,3 7	9,8458	4,9194 7	23,8029	0	3,4127 8	1,1735 7
1	8,382 23	48,3733	11,73 97	5.331,5 8	11,099 4	5,5458	24,003	0	3,2057 4	1,1732 4
1	10,03 07	53,5007	11,54 19	4.448,7 1	12,544 1	6,2676 3	24,1767	0	3,0249 7	1,1729 7
1	10,58 31	55,1615	11,47 53	4.208,8 8	13,019 2	6,5050 3	24,2239	0	2,9763 6	1,1728 9
2	289,7 0		12,5	999.99	0,0566	0,0281	-134,87	0	300	1,6308



	21			9,37	01	17				2
2	289,7 31	1,23388	12,5	345.98 4,96	0,2601 25	0,1301 91	-15,9097	0	76,784 2	1,1964 9
2	289,7 41	1,87332	12,49 99	254.31 0,76	0,3682 92	0,1843 09	-2,06056	0	54,998 2	1,1778 1
2	289,7 51	2,36892	12,49 99	210.46 8,07	0,4514 34	0,2259 03	3,2058	0	45,144 1	1,1746 5
2	289,7 61	2,78873	12,49 99	183.40 5,18	0,5218 31	0,2611 19	6,24871	0	39,232 2	1,1734 6
2	289,7 71	3,15977	12,49 98	164.53 5,11	0,5840 3	0,2922 31	8,22902	0	35,184 4	1,1731 5
2	289,7 81	3,49541	12,49 98	150.41 6,85	0,6403 29	0,3203 9	9,63964	0	32,194 9	1,1731 6
2	289,7 91	3,80481	12,49 98	139.31 1,45	0,6922 75	0,3463 7	10,7088	0	29,866 5	1,1733 2
2	289,8 01	4,09351	12,49 97	130.27 0,79	0,7408 01	0,3706 39	11,5539	0	27,985 8	1,1735 3
2	289,8 11	4,36524	12,49 97	122.72 1,96	0,7865 36	0,3935 1	12,2429	0	26,425 5	1,1737 6
2	289,8 21	4,62285	12,49 97	116.29 0,20	0,8299 57	0,4152 24	12,8183	0	25,103 2	1,174
2	289,8 31	4,86829	12,49 97	110.72 4,71	0,8713 94	0,4359 44	13,3078	0	23,964 3	1,1742 3
2	289,8 41	5,10297	12,49 96	105.84 9,51	0,9110 83	0,4557 9	13,7303	0	22,970 7	1,1744 5
2	289,8 51	5,328	12,49 96	101.53 5,12	0,9492 13	0,4748 56	14,0994	0	22,094 5	1,1746 7
2	289,8 61	5,54455	12,49 96	97.679, 83	0,9859 78	0,4932 38	14,4255	0	21,314 7	1,1748 7
2	289,8 71	5,75378	12,49 95	94.203, 21	1,0215 6	0,5110 3	14,7166	0	20,612 1	1,1750 6
2	289,8 81	5,9565	12,49 95	91.045, 53	1,0561	0,5282 98	14,9786	0	19,976 2	1,1752 5
2	289,8 91	6,15322	12,49 95	88.161, 35	1,0896 8	0,5450 86	15,2159	0	19,396 7	1,1754 2
2	289,9 01	6,34444	12,49 94	85.513, 48	1,1223 8	0,5614 33	15,4322	0	18,865 8	1,1755 9
2	289,9	6,53057	12,49	83.071,	1,1542	0,5773	15,6302	0	18,377	1,1757



	11		94	30	7	76			1	4
2	289,9 21	6,712	12,49 93	80.809, 53	1,1854 1	0,5929 44	15,8125	0	17,925 4	1,1758 9
2	289,9 33	6,92392	12,49 93	78.304, 43	1,2218 6	0,6111 68	16,013	0	17,425 9	1,1760 6
2	289,9 48	7,17062	12,49 92	75.558, 56	1,2644 1	0,6324 36	16,2313	0	16,879 5	1,1762 5
2	289,9 65	7,45681	12,49 91	72.581, 80	1,3139 1	0,6571 83	16,4661	0	16,288 4	1,1764 6
2	289,9 86	7,78724	12,49 9	69.394, 44	1,3712 8	0,6858 62	16,7155	0	15,657	1,1766 9
2	290,0 11	8,16695	12,49 88	66.024, 05	1,4375 2	0,7189 7	16,9769	0	14,991	1,1769 4
2	290,0 41	8,60191	12,49 86	62.500, 56	1,5138	0,7570 97	17,2477	0	14,296 6	1,1772 2
2	290,0 76	9,09922	12,49 83	58.855, 45	1,6015 3	0,8009 44	17,5252	0	13,580 1	1,1775 1
2	290,1 19	9,66507	12,49 78	55.132, 27	1,7020 7	0,8511 93	17,8059	0	12,850 3	1,1778 1
2	290,1 71	10,3074	12,49 72	51.369, 26	1,8171 3	0,9086 96	18,0869	0	12,114 8	1,1781 3
2	290,2 33	11,0335	12,49 63	47.610, 12	1,9484 7	0,9743 3	18,3648	0	11,382	1,1784 5
2	290,3 07	11,8513	12,49 5	43.894, 07	2,0981 3	1,0491 1	18,637	0	10,659 6	1,1787 8
2	290,3 96	12,77	12,49 32	40.255, 25	2,2685	1,1342 4	18,9009	0	9,9541 9	1,1791 1
2	290,5 03	13,7988	12,49 05	36.724, 37	2,4623 1	1,2310 8	19,1548	0	9,2714 1	1,1794 3
2	290,6 32	14,9468	12,48 66	33.327, 64	2,6826 4	1,3411 6	19,3968	0	8,6161 3	1,1797 5
2	290,7 86	16,2249	12,48 09	30.083, 43	2,9333 1	1,4664	19,6261	0	7,9916 4	1,1800 7
2	290,9 71	17,6449	12,47 26	27.004, 75	3,2189	1,6090 7	19,8419	0	7,4001 2	1,1803 7
2	291,1 93	19,2215	12,46 06	24.098, 41	3,5467 3	1,7728 4	20,3324	0	6,8425 4	1,1796 3
2	291,3	20,0486	12,45	22.750,	3,723	1,8608	20,5947	0	6,5840	1,1791



	16		3	14		9			8	7
2	291,459	20,964	12,4434	21.369,84	3,92278	1,96068	20,8635	0	6,31955	1,17869
2	291,778	22,8652	12,4192	18.822,24	4,35509	2,17663	21,3601	0	5,83138	1,17781
2	292,162	24,9941	12,3874	16.456,62	4,85393	2,42581	21,822	0	5,37793	1,177
2	292,622	27,3744	12,3461	14.276,07	5,43098	2,71404	22,2483	0	4,9594	1,17625
2	293,174	30,0191	12,293	12.276,85	6,102	3,04923	22,6397	0	4,57466	1,17557
2	293,836	32,9478	12,2254	10.468,02	6,88052	3,43811	22,9942	0	4,22494	1,17495
2	294,631	36,1962	12,1401	8.888,57	7,75883	3,87687	23,3041	0	3,91716	1,17442
2	295,585	39,8096	12,0338	7.525,70	8,74149	4,36777	23,5717	0	3,6484	1,17396
2	296,73	43,846	11,902	6.349,37	9,8458	4,91947	23,8029	0	3,41278	1,17357
2	298,104	48,3733	11,7397	5.331,58	11,0994	5,5458	24,003	0	3,20574	1,17324
2	299,752	53,5007	11,5419	4.448,71	12,5441	6,26763	24,1767	0	3,02497	1,17297
2	300,304	55,1615	11,4753	4.208,88	13,0192	6,50503	24,2239	0	2,97636	1,17289

### 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	1,55722	0	1,55722
2	Continuous	289,721	0	kg/s	1,55722	0	1,55722

### 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/Line height [m]	C/Line conc [ppm]	Effective width [m]	Effective depth [m]	C/Line vapour temperature [degC]	C/Line liquid fraction	Centroid velocity [m/s]	C/Line cloud density [kg/m3]
1	0	0	12,5	999.99 9,37	0,0566 306	0,0281 022	-134,87	0	300	1,6308 2
1	0,01	1,24699	12,5	342.56 4,65	0,2592 72	0,1296 39	-15,6205	0	78,232 5	1,1968 5
1	0,02	1,90086	12,49 99	249.54 6,21	0,3674 87	0,1837 44	-1,69519	0	56,428 7	1,1784 1
1	0,03	2,41066	12,49	204.96	0,4510	0,2255	3,61065	0	46,552	1,1753





			99	3,09	44	22			5	7
1	0,04	2,84443	12,49 99	177.40 1,32	0,5220 95	0,2610 48	6,66881	0	40,620 9	1,1743 1
1	0,05	3,22928	12,49 98	158.15 9,75	0,5851 42	0,2925 71	8,6593	0	36,555 9	1,1740 8
1	0,06	3,57855	12,49 98	143.74 7,91	0,6424 51	0,3212 26	10,0776	0	33,551 2	1,1741 7
1	0,07	3,90144	12,49 98	132.40 3,99	0,6955 34	0,3477 67	11,1527	0	31,209 7	1,1743 9
1	0,08	4,20351	12,49 97	123.16 4,14	0,7453 07	0,3726 54	12,0027	0	29,317 7	1,1746 5
1	0,09	4,4885	12,49 97	115.44 5,89	0,7923 86	0,3961 93	12,6956	0	27,747 6	1,1749 2
1	0,1	4,75927	12,49 97	108.86 7,99	0,8372 35	0,4186 18	13,2743	0	26,416 9	1,1751 9
1	0,11	5,01782	12,49 97	103.17 4,19	0,8801 83	0,4400 92	13,7666	0	25,270 4	1,1754 6
1	0,12	5,26534	12,49 96	98.187, 65	0,9214 37	0,4607 19	14,1914	0	24,270 4	1,1757 1
1	0,13	5,50306	12,49 96	93.774, 10	0,9611 96	0,4805 98	14,5625	0	23,388 6	1,1759 5
1	0,14	5,73219	12,49 96	89.829, 31	0,9996 54	0,4998 28	14,8903	0	22,602 9	1,1761 8
1	0,15	5,95383	12,49 95	86.273, 30	1,0369 8	0,5184 89	15,1829	0	21,896 6	1,1763 9
1	0,16	6,16914	12,49 95	83.041, 07	1,0733 3	0,5366 68	15,4463	0	21,256 3	1,1765 9
1	0,17	6,378	12,49 95	80.093, 16	1,1087 3	0,5543 67	15,6845	0	20,673 8	1,1767 9
1	0,18	6,58144	12,49 94	77.385, 46	1,1433 2	0,5716 6	15,9017	0	20,139 8	1,1769 7
1	0,19	6,77997	12,49 94	74.886, 54	1,1771 7	0,5885 84	16,1007	0	19,648 7	1,1771 4
1	0,2	6,97335	12,49 93	72.575, 72	1,2102 7	0,6051 34	16,2836	0	19,194 7	1,1773 3
1	0,212	7,19962	12,49 93	70.015, 95	1,2491 3	0,6245 68	16,4848	0	18,692 1	1,1774 8
1	0,226	7,46366	12,49	67.209,	1,2946	0,6473	16,7039	0	18,142	1,1776



	4		92	32	8	4			8	9
1	0,243 68	7,77123	12,49 91	64.163, 54	1,3479 6	0,6739 82	16,9398	0	17,548 1	1,1779 2
1	0,264 416	8,1273	12,49 9	60.903, 16	1,4100 3	0,7050 15	17,1902	0	16,913	1,1781 7
1	0,289 299	8,53869	12,49 88	57.452, 08	1,4822 2	0,7411 1	17,4529	0	16,242 4	1,1784 4
1	0,319 159	9,01222	12,49 85	53.844, 96	1,5659 8	0,7829 9	17,725	0	15,543 4	1,1787 4
1	0,354 991	9,55441	12,49 82	50.126, 01	1,6628 5	0,8314 27	18,0028	0	14,824 7	1,1790 5
1	0,397 989	10,1741	12,49 77	46.335, 46	1,7748	0,8874 04	18,2833	0	14,094 2	1,1793 7
1	0,449 587	10,881	12,49 71	42.516, 54	1,9041	0,9520 52	18,5631	0	13,360 3	1,1797 1
1	0,511 504	11,6854	12,49 61	38.714, 54	2,0533 1	1,0266 6	18,8389	0	12,631 7	1,1800 5
1	0,585 805	12,5973	12,49 48	34.975, 35	2,2253 4	1,1126 7	19,1077	0	11,917 1	1,1804
1	0,674 966	13,6299	12,49 29	31.337, 10	2,4238 1	1,2119 1	19,3667	0	11,223 7	1,1807 4
1	0,781 959	14,7944	12,49 01	27.837, 92	2,6527 7	1,3263 9	19,6136	0	10,558 4	1,1810 8
1	0,910 351	16,1069	12,48 61	24.505, 62	2,9184 6	1,4592 4	20,0824	0	9,9262 9	1,1805 6
1	0,991 687	16,8998	12,48 33	22.750, 14	3,0828	1,5414 1	20,4235	0	9,5938 4	1,1799 6
1	1,064 42	17,5879	12,48 05	21.361, 42	3,2274	1,6137 1	20,6937	0	9,3310 9	1,1794 8
1	1,249 31	19,2625	12,47 3	18.424, 83	3,5867 8	1,7933 9	21,2657	0	8,7761 7	1,1784 7
1	1,471 17	21,1556	12,46 3	15.713, 65	4,0059 1	2,0029 6	21,7947	0	8,2645 5	1,1775 3
1	1,737 4	23,3041	12,45 03	13.238, 32	4,4967 8	2,2483 9	22,2785	0	7,7978 8	1,1766 8
1	2,056 88	25,7377	12,43 43	11.009, 11	5,0732 8	2,5366 4	22,7149	0	7,3777 9	1,1759 1
1	2,440	28,5025	12,41	9.027,9	5,7535	2,8767	23,1033	0	7,0043	1,1752



	26		46	4	4	8			4	3
1	2,762 38	30,7245	12,39 8	7.756,2 1	6,3191 3	3,1595 7	23,3529	0	6,7644	1,1747 9
2	289,7 21	0	12,5	999.99 9,37	0,0566 306	0,0281 022	-134,87	0	300	1,6308 2
2	289,7 31	1,24699	12,5	342.56 4,65	0,2592 72	0,1296 39	-15,6205	0	78,232 5	1,1968 5
2	289,7 41	1,90086	12,49 99	249.54 6,21	0,3674 87	0,1837 44	-1,69519	0	56,428 7	1,1784 1
2	289,7 51	2,41066	12,49 99	204.96 3,09	0,4510 44	0,2255 22	3,61065	0	46,552 5	1,1753 7
2	289,7 61	2,84443	12,49 99	177.40 1,32	0,5220 95	0,2610 48	6,66881	0	40,620 9	1,1743 1
2	289,7 71	3,22928	12,49 98	158.15 9,75	0,5851 42	0,2925 71	8,6593	0	36,555 9	1,1740 8
2	289,7 81	3,57855	12,49 98	143.74 7,91	0,6424 51	0,3212 26	10,0776	0	33,551 2	1,1741 7
2	289,7 91	3,90144	12,49 98	132.40 3,99	0,6955 34	0,3477 67	11,1527	0	31,209 7	1,1743 9
2	289,8 01	4,20351	12,49 97	123.16 4,14	0,7453 07	0,3726 54	12,0027	0	29,317 7	1,1746 5
2	289,8 11	4,4885	12,49 97	115.44 5,89	0,7923 86	0,3961 93	12,6956	0	27,747 6	1,1749 2
2	289,8 21	4,75927	12,49 97	108.86 7,99	0,8372 35	0,4186 18	13,2743	0	26,416 9	1,1751 9
2	289,8 31	5,01782	12,49 97	103.17 4,19	0,8801 83	0,4400 92	13,7666	0	25,270 4	1,1754 6
2	289,8 41	5,26534	12,49 96	98.187, 65	0,9214 37	0,4607 19	14,1914	0	24,270 4	1,1757 1
2	289,8 51	5,50306	12,49 96	93.774, 10	0,9611 96	0,4805 98	14,5625	0	23,388 6	1,1759 5
2	289,8 61	5,73219	12,49 96	89.829, 31	0,9996 54	0,4998 28	14,8903	0	22,602 9	1,1761 8
2	289,8 71	5,95383	12,49 95	86.273, 30	1,0369 8	0,5184 89	15,1829	0	21,896 6	1,1763 9
2	289,8 81	6,16914	12,49 95	83.041, 07	1,0733 3	0,5366 68	15,4463	0	21,256 3	1,1765 9



2	289,891	6,378	12,4995	80.093,16	1,10873	0,554367	15,6845	0	20,6738	1,17679
2	289,901	6,58144	12,4994	77.385,46	1,14332	0,57166	15,9017	0	20,1398	1,17697
2	289,911	6,77997	12,4994	74.886,54	1,17717	0,588584	16,1007	0	19,648	1,17714
2	289,921	6,97335	12,4993	72.575,72	1,21027	0,605134	16,2836	0	19,194	1,1773
2	289,933	7,19962	12,4993	70.015,95	1,24913	0,624568	16,4848	0	18,6921	1,17748
2	289,948	7,46366	12,4992	67.209,32	1,29468	0,64734	16,7039	0	18,1428	1,17769
2	289,965	7,77123	12,4991	64.163,54	1,34796	0,673982	16,9398	0	17,5481	1,17792
2	289,986	8,1273	12,499	60.903,16	1,41003	0,705015	17,1902	0	16,913	1,17817
2	290,011	8,53869	12,4988	57.452,08	1,48222	0,74111	17,4529	0	16,2424	1,17844
2	290,041	9,01222	12,4985	53.844,96	1,56598	0,78299	17,725	0	15,5434	1,17874
2	290,076	9,55441	12,4982	50.126,01	1,66285	0,831427	18,0028	0	14,8247	1,17905
2	290,119	10,1741	12,4977	46.335,46	1,7748	0,887404	18,2833	0	14,0942	1,17937
2	290,171	10,881	12,4971	42.516,54	1,9041	0,952052	18,5631	0	13,3603	1,17971
2	290,233	11,6854	12,4961	38.714,54	2,05331	1,02666	18,8389	0	12,6317	1,18005
2	290,307	12,5973	12,4948	34.975,35	2,22534	1,11267	19,1077	0	11,9171	1,18041
2	290,396	13,6299	12,4929	31.337,10	2,42381	1,21191	19,3667	0	11,2237	1,18074
2	290,503	14,7944	12,4901	27.837,92	2,65277	1,32639	19,6136	0	10,5584	1,18108
2	290,632	16,1069	12,4861	24.505,62	2,91846	1,45924	20,0824	0	9,92629	1,18056
2	290,713	16,8998	12,4833	22.750,14	3,0828	1,54141	20,4235	0	9,59384	1,17996



2	290,786	17,5879	12,4805	21.361,42	3,2274	1,61371	20,6937	0	9,33109	1,17948
2	290,971	19,2625	12,473	18.424,83	3,58678	1,79339	21,2657	0	8,77617	1,17847
2	291,193	21,1556	12,463	15.713,65	4,00591	2,00296	21,7947	0	8,26455	1,17753
2	291,459	23,3041	12,4503	13.238,32	4,49678	2,24839	22,2785	0	7,79788	1,17668
2	291,778	25,7377	12,4343	11.009,11	5,07328	2,53664	22,7149	0	7,37779	1,17591
2	292,162	28,5025	12,4146	9.027,94	5,75354	2,87678	23,1033	0	7,00434	1,17523
2	292,484	30,7245	12,398	7.756,21	6,31913	3,15957	23,3529	0	6,7644	1,17479

