

Dispersion Report

Workspace: 72438-4InvioGNL-12Rc

Study: Riempimento FSRU-ME4

Equipment Item: 12Rc Meteo avverso+ERS

72438-4InvioGNL-12Rc\Riempimento FSRU-ME4\12Rc Meteo avverso+ERS

Material	GAS NATURALE	
East	0	m
North	0	m

Scenario (User defined source) : 300mm-Q63,6

72438-4InvioGNL-12Rc\Riempimento FSRU-ME4\12Rc Meteo avverso+ERS\300mm-Q63,6

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	0,22	-0,365438	kg/s	0	0	23,9987
2	Continuous	14,8692	-7,20677	kg/s	0	0	28,7681
3	Continuous	22,0327	-9,14024	kg/s	0	0	23,6981

4	Continuous	28,0186	-10,4301	kg/s	0	0	19,4123
5	Continuous	33,5008	-11,4195	kg/s	0	0	15,9388
6	Continuous	38,7375	-12,1908	kg/s	0	0	13,1513
7	Continuous	47,0759	-12,2068	kg/s	0	0	10,3381
8	Continuous	62,5735	-12,2068	kg/s	0	0	6,8936
9	Continuous	94,8172	-12,2068	kg/s	0	0	3,40472
10	Continuous	245,604	-12,2068	kg/s	0	0	0,3485

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]	Downwind 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 ³]
1	0,22	-0,365438	0	1,00	0,00177245	0,794401	24,6396	0	0,605571	1,17396
1	0,32	-0,348141	0	919.240,24	0,489716	0,122663	-145,485	0	0,0890357	1,86053
1	0,42	-0,340616	0	948.076,73	0,768551	0,178438	-150,903	0	0,0667516	1,91868
1	0,52	-0,334323	0	958.241,37	1,02818	0,209237	-152,789	0	0,0602472	1,9403
1	0,62	-0,328424	0	963.200,65	1,27791	0,227468	-153,703	0	0,0582559	1,95104
1	0,72	-0,322608	0	965.932,69	1,51914	0,239391	-154,176	0	0,0581988	1,9565
1	0,82	-	0	967.47	1,75338	0,24772	-154,399	0	0,0591	1,9588

		0,31674		8,30		6		67	3	
		1								
1	0,92	-	0	968.31	1,98269	0,25390	-154,474	0	0,0607	1,9592
		0,31074		9,44		7			266	5
		9								
1	1,02	-	0	968.69	2,21335	0,25803	-154,451	0	0,0626	1,9584
		0,30458		6,52		5			809	3
1	1,12	-	0	968.75	2,44524	0,26090	-154,357	0	0,0649	1,9566
		0,29820		4,81		6			08	8
		2								
1	1,22	-	0	968.58	2,67783	0,26300	-154,211	0	0,0673	1,9542
		0,29159		1,56		3			364	5
1	1,32	-	0	968.23	2,91082	0,26461	-154,025	0	0,0699	1,9513
		0,28472		5,52		8			146	3
		7								
1	1,42	-	0	967.76	3,14404	0,26602	-153,81	0	0,0725	1,9480
		0,27760		3,62		4			92	2
		2								
1	1,52	-	0	967.19	3,37738	0,26734	-153,572	0	0,0753	1,9444
		0,27020		5,62		4			413	2
		6								
1	1,62	-	0	966.55	3,6108	0,26863	-153,316	0	0,0781	1,9406
		0,26253		2,64					436	
		2								
1	1,72	-	0	965.85	3,84428	0,26992	-153,046	0	0,0809	1,9366
		0,25457		1,67		5			82	3
		6								
1	1,82	-	0	965.10	4,07783	0,27128	-152,766	0	0,0838	1,9325
		0,24633		7,36					401	3
		5								
1	1,92	-	0	964.33	4,31146	0,27271	-152,477	0	0,0867	1,9283
		0,23780		0,32					065	4
		7								
1	2,02	-	0	963.52	4,54521	0,27419	-152,181	0	0,0895	1,9241
		0,22899		6,21		1			799	
		3								
1	2,12	-	0	962.70	4,7791	0,27572	-151,88	0	0,0924	1,9198
		0,21989		1,79		5			527	1
		1								



1	2,22	-	0	961.86	5,01313	0,27733	-151,576	0	0,0953	1,9155
		0,21050		4,02		2			152	1
		3								
1	2,34	-	0	960.84	5,29421	0,27934	-151,208	0	0,0987	1,9103
		0,19886		6,68		7			314	3
1	2,48	-	0	959.61	5,6319	0,28187	-150,763	0	0,1027	1,9041
	4	0,18434		6,41					95	4
		9								
1	2,65	-	0	958.13	6,03778	0,28500	-150,229	0	0,1076	1,8967
	68	0,16616		3,39		1			2	7
		9								
1	2,86	-	0	956.36	6,5259	0,28893	-149,589	0	0,1133	1,8880
	416	0,14326		0,90		4			15	3
		1								
1	3,11	-	0	954.26	7,11334	0,29388	-148,828	0	0,1199	1,8777
	299	0,11422		2,06		6			95	7
		9								
1	3,41	-	0	951.78	7,82091	0,29994	-147,926	0	0,1278	1,8657
	159	0,07722		8,38		3			1	7
		97								
1	3,76	-	0	948.89	8,67377	0,30721	-146,86	0	0,1369	1,8518
	991	0,02979		2,29		7			2	3
		86								
1	4,19	0,03135	0	945.53	9,70256	0,31586	-145,612	0	0,1474	1,8358
	989	19		6,10		8			64	3
1	4,71	0,11058	0	941.69	10,9446	0,32612	-144,161	0	0,1595	1,8176
	587	8		3,36		9			65	
1	5,33	0,21370	0	937.33	12,445	0,33811	-142,483	0	0,1733	1,7970
	504	3		2,26		3			84	2
1	6,07	0,34837	0	932.44	14,2584	0,35202	-140,558	0	0,1890	1,7740
	805	9		3,34		4			38	4
1	6,96	0,52484	0	926.99	16,4497	0,36771	-138,351	0	0,2067	1,7484
	966	8		1,31		5			22	7
1	8,03	0,75656	0	920.99	19,0965	0,38540	-135,84	0	0,2265	1,7203
	959	5		7,70		1			04	
1	9,32	1,06136	0	914.52	22,2922	0,40542	-133,017	0	0,2482	1,6897
	351			3,51					97	4
1	10,8	1,46255	0	907.54	26,1447	0,42723	-129,832	0	0,2722	1,6565
	642			3,08		1			81	9



1	12,7 131	1,99049	0	900.11 7,46	30,778	0,45080 5	-126,247	0	0,2983 97	1,6208
1	14,9 317	2,68422	0	892.29 0,50	36,3264	0,47576 8	-122,193	0	0,3266 55	1,5820 8
1	17,5 94	3,59476	0	884.13 2,91	42,9287	0,50164 4	-117,584	0	0,3569 26	1,5401 2
1	20,7 719	4,78691	0	875.68 5,99	50,7067	0,52746 4	-112,263	0	0,3891 35	1,4941 4
1	23,7 214	6,34596	0	865.76 0,31	59,7319	0,55237	-105,77	0	0,4238 71	1,4419 8
1	27,4 932	8,38857	0	843.15 8,11	69,9028	0,58374	-95,8744	0	0,4639 73	1,3758 5
1	32,2 402	11,0858	0	786.18 5,13	80,5825	0,63509 6	-78,1896	0	0,5138 53	1,2866 6
1	33,5 576	11,8405	0	758.50 7,89	82,9227	0,65303	-70,7744	0	0,5306 23	1,2566 8
1	33,5 576	11,8405	0	758.50 7,89	82,9227	0,65303	-70,7744	0	0,5306 23	1,2566 8
1	36,4 478	13,5604	0	664.30 7,63	85,2166	0,74171 4	-49,4218	0	0,5656 45	1,1908 2
1	36,4 478	13,5604	0	664.30 7,63	85,2166	0,74171 4	-49,4218	0	0,5656 45	1,1908 2
1	38,1 84	14,7499	0	551.57 5,46	85,851	0,93775	-29,9259	0	0,5815 68	1,1557 9
1	45,5 188	19,775	0	211.04 5,11	87,2217	2,28601	9,10918	0	0,7153 11	1,1486 7
1	54,6 85	27,1932	0	147.73 6,09	87,8343	2,90154	13,7594	0	0,8142 73	1,1565
1	65,9 619	36,6997	0	132.30 9,36	88,314	3,11563	14,9948	0	0,8463 85	1,1577 4
1	79,4 944	48,5921	0	116.22 2,20	88,907	3,38574	16,1744	0	0,8850 35	1,1594 6
1	95,7 571	63,5631	0	99.998, 47	89,6424	3,72556	17,264	0	0,9313 35	1,1615 9
1	115, 301	82,5361	0	84.083, 52	90,5602	4,15574	18,2423	0	0,9869 53	1,1640 5
1	138, 832	106,729	0	70.075, 80	91,712	4,65365	19,0509	0	1,0478 9	1,1664 2



1	167,035	137,384	0	59.662,16	93,1473	5,13515	20,467	0	1,10385	1,16529
1	200,914	176,205	0	50.085,64	94,9339	5,70421	21,6886	0	1,16663	1,16463
1	241,607	225,523	0	41.463,44	97,1632	6,37179	22,6422	0	1,23705	1,16461
1	290,482	288,363	0	33.835,33	99,9509	7,15882	23,364	0	1,31538	1,16507
1	349,187	368,667	0	27.203,78	103,444	8,08659	23,8939	0	1,40257	1,16585
1	402,093	445,39	0	22.769,19	106,723	8,91095	24,1957	0	1,47609	1,16658
1	419,664	471,559	0	21.541,09	107,83	9,18072	24,2716	0	1,49942	1,16681
1	504,153	603,71	0	16.793,98	113,344	10,4704	24,5329	0	1,60671	1,16783
1	605,8	773,831	0	12.889,65	120,286	11,9878	24,708	0	1,72508	1,16883
1	727,886	993,205	0	9.739,88	129,031	13,7683	24,8221	0	1,8551	1,16973
1	804,631	1139,61	0	8.297,71	134,762	14,8704	24,8659	0	1,93153	1,17018
1	824,786	1178,74	0	7.972,68	136,28	15,155	24,875	0	1,95082	1,17029
2	14,8692	-7,20677	0	1,00	0,00177245	0,794401	24,6396	0	0,605571	1,17396
2	14,9692	-7,17445	0	781.897,93	1,43113	0,0174937	-122,181	0	0,26091	1,67743
2	15,0692	-7,1494	0	822.494,94	1,99853	0,0296105	-129,696	0	0,242402	1,73215
2	15,1692	-7,12565	0	842.586,81	2,44869	0,0407639	-133,377	0	0,233135	1,76127
2	15,2692	-7,10265	0	855.644,57	2,83822	0,0512788	-135,758	0	0,227213	1,78102
2	15,3692	-7,08015	0	865.094,41	3,19232	0,0612191	-137,474	0	0,223082	1,79575
2	15,4	-	0	872.34	3,52314	0,07063	-138,788	0	0,2200	1,8072

	692	7,05799		2,82		85			95	8
2	15,5	-	0	878.13	3,83232	0,07966	-139,835	0	0,2179	1,8166
	692	7,03608		0,65		16			19	7
2	15,6	-	0	883.28	4,12464	0,08832	-140,772	0	0,2160	1,8252
	692	7,01438		5,03		7			62	6
2	15,7	-	0	888.12	4,40505	0,09662	-141,658	0	0,2143	1,8335
	692	6,99286		9,42		68			32	3
2	15,8	-6,9715	0	892.62	4,67615	0,10458	-142,481	0	0,2127	1,8413
	692			5,38		1			67	5
2	15,9	-	0	896.75	4,9392	0,11223	-143,238	0	0,2113	1,8486
	692	6,95029		8,35		2			87	3
2	16,0	-	0	900.45	5,19566	0,11959	-143,913	0	0,2102	1,8552
	692	6,92919		7,89		2			47	1
2	16,1	-	0	903.53	5,44657	0,12667	-144,471	0	0,2094	1,8606
	692	6,90819		6,48		9			77	8
2	16,2	-	0	906.10	5,69264	0,13352	-144,933	0	0,2090	1,8652
	692	6,88725		9,95					04	4
2	16,3	-	0	908.25	5,93465	0,14013	-145,314	0	0,2087	1,869
	692	6,86636		2,19		2			86	
2	16,4	-	0	910.03	6,1732	0,14653	-145,629	0	0,2087	1,8721
	692	6,84548		5,67		2			78	2
2	16,5	-6,8246	0	911.52	6,40877	0,15273	-145,889	0	0,2089	1,8747
	692			4,38		9			4	
2	16,6	-6,8037	0	912.77	6,64164	0,15877	-146,106	0	0,2092	1,8768
	692			4,70					37	5
2	16,7	-	0	913.82	6,8722	0,16463	-146,286	0	0,2096	1,8786
	692	6,78277		6,06		8			45	3
2	16,8	-	0	914.70	7,10068	0,17036	-146,428	0	0,2101	1,8799
	692	6,76178		8,29		4			48	7
2	16,9	-	0	915.58	7,37225	0,17707	-146,554	0	0,2108	1,8810
	892	6,73652		4,15		3			48	8
2	17,1	-	0	916.42	7,69473	0,18491	-146,649	0	0,2118	1,8817
	332	6,70609		2,01		4			01	3
2	17,3	-	0	917.18	8,07739	0,19404	-146,699	0	0,2130	1,8817
	06	6,66937		4,44		9			66	5
2	17,5	-	0	917.82	8,53117	0,20465	-146,687	0	0,2147	1,8809
	134	6,62502		7,97		3			15	1
2	17,7	-	0	918.30	9,06912	0,21691	-146,598	0	0,2168	1,879



	622	6,57133		6,67		2			23	
2	18,0 608	-6,5062	0	918.57 1,40	9,70749	0,23100	-146,413	0	0,2194 8	1,8757 9
2	18,4 191	- 6,42697	0	918.56 9,94	10,4755	0,24686	-146,112	0	0,2227 93	1,8710 3
2	18,8 491	- 6,33029	0	918.23 0,40	11,4219	0,26402	-145,66	0	0,2269 45	1,8642 9
2	19,3 651	- 6,21184	0	917.44 2,33	12,5924	0,28209	-144,998	0	0,2322 47	1,8548
2	19,9 842	- 6,06597	0	916.11 7,71	14,0325	0,30100	-144,075	0	0,2389 87	1,8419 8
2	20,7 273	-5,8853	0	914.20 2,93	15,8011	0,32076	-142,855	0	0,2473 85	1,8255 1
2	21,6 189	- 5,66017	0	911.65 6,25	17,9683	0,34147	-141,305	0	0,2576 45	1,8051 9
2	22,6 888	- 5,37793	0	908.45 4,35	20,6169	0,36336	-139,395	0	0,2699 44	1,7809 5
2	23,9 727	- 5,02199	0	904.57 3,50	23,8446	0,38658	-137,083	0	0,2844 73	1,7526 1
2	25,5 134	- 4,57069	0	900.04 7,68	27,7679	0,41146	-134,349	0	0,3012 69	1,7204 1
2	27,3 623	- 3,99607	0	894.96 3,39	32,5261	0,43840	-131,202	0	0,3202 07	1,6849 4
2	29,5 809	- 3,26194	0	889.34 2,96	38,275	0,46728	-127,598	0	0,3413 5	1,6462 2
2	32,2 432	- 2,32197	0	883.28 6,47	45,1922	0,49811	-123,52	0	0,3645 05	1,6045 9
2	35,4 38	- 1,11701	0	876.91 2,59	53,4677	0,53076	-118,929	0	0,3893 92	1,5602 3
2	39,2 718	0,42871	0	869.86 5,22	63,2766	0,56151	-113,567	0	0,4171 07	1,5115 7
2	43,8 723	2,45819	0	851.60 6,97	74,3449	0,55449	-103,717	0	0,4665 61	1,4349
2	49,3 929	5,18698	0	802.94 9,87	85,9487	0,57758	-87,1119	0	0,5191 88	1,3378 6
2	56,0 176	8,77465	0	693.54 1,73	97,0477	0,69532	-61,0883	0	0,5604 31	1,2388 6
2	62,0	12,2068	0	529.79	102,457	0,98951	-30,1101	0	0,5844	1,1685



	086			3,00		9			46	
2	62,0 086	12,2068	0	529.79 3,00	102,457	0,98951 9	-30,1101	0	0,5844 46	1,1685
2	63,9 673	13,3603	0	409.95 8,66	102,804	1,35307	-12,0206	0	0,5927 31	1,1474 3
2	73,5 069	19,896	0	174.08 7,73	104,213	2,63862	11,4145	0	0,7735 3	1,1554 7
2	84,9 545	29,1884	0	141.54 3,12	104,742	3,02057	13,9422	0	0,8323 24	1,1584 1
2	98,6 915	40,8886	0	124.10 7,65	105,331	3,28663	15,3312	0	0,8710 81	1,1597 3
2	115, 176	55,63	0	106.55 4,88	106,061	3,62166	16,6026	0	0,9174 35	1,1615 8
2	134, 957	74,3281	0	89.398, 02	106,972	4,04602	17,7343	0	0,9730 57	1,1638 6
2	158, 695	98,2201	0	73.211, 52	108,116	4,58753	18,7128	0	1,0399 9	1,1664 2
2	187, 18	128,713	0	61.892, 22	109,551	5,08971	19,7873	0	1,0987 4	1,1668 1
2	221, 362	167,376	0	51.900, 97	111,338	5,66663	21,197	0	1,1628 3	1,1655 9
2	262, 381	216,555	0	42.975, 17	113,568	6,34332	22,292	0	1,2341 3	1,1651 7
2	311, 603	279,278	0	35.118, 53	116,358	7,13848	23,1189	0	1,3134 1	1,1653 4
2	370, 67	359,49	0	28.312, 26	119,856	8,07439	23,7255	0	1,4014 5	1,1659 3
2	440, 437	460,664	0	22.665, 29	124,177	9,15957	24,1526	0	1,4976	1,1667 5
2	441, 55	462,332	0	22.572, 67	124,248	9,17672	24,1578	0	1,4990 8	1,1667 6
2	526, 607	594,774	0	17.629, 01	129,779	10,4797	24,4566	0	1,6074 7	1,1677 2
2	628, 674	764,98	0	13.616, 38	136,732	12,0061	24,6586	0	1,7264 6	1,1686 7
2	751, 155	984,539	0	10.377, 35	145,493	13,7957	24,7906	0	1,8570 3	1,1695 6
2	852,	1178,71	0	8.467,7	153,083	15,2495	24,8542	0	1,9571	1,1701



	938			6					8	4
3	22,0 327	- 9,14024	0	1,00	0,00177 245	0,79440 1	24,6396	0	0,6055 71	1,1739 6
3	22,1 327	- 9,10533	0	750.34 3,48	1,56849	0,01465 79	-116,962	0	0,2930 13	1,6457 7
3	22,2 327	- 9,07676	0	785.68 7,67	2,18744	0,02519 09	-123,454	0	0,2800 4	1,6889 4
3	22,3 327	- 9,04916	0	805.31 5,65	2,67721	0,03496 52	-127,096	0	0,2721 72	1,7152 7
3	22,4 327	- 9,02224	0	819.03 4,22	3,09868	0,04419 72	-129,644	0	0,2666	1,7346 4
3	22,5 327	- 8,99579	0	829.42 8,33	3,47835	0,05296 01	-131,571	0	0,2624 61	1,7498
3	22,6 327	-8,9697 327	0	837.58 5,86	3,82626	0,06131 07	-133,08	0	0,2594 23	1,762
3	22,7 327	- 8,94387	0	844.21 1,50	4,14875	0,06933 88	-134,303	0	0,2571 38	1,7721
3	22,8 327	- 8,91824	0	849.76 2,10	4,45379	0,07706 44	-135,326	0	0,2553 53	1,7806 9
3	22,9 327	- 8,89277	0	854.59 3,52	4,74614	0,08449 74	-136,215	0	0,2538 88	1,7882 8
3	23,0 327	- 8,86745	0	859.21 1,29	5,02791	0,09165 94	-137,069	0	0,2524 67	1,7957 1
3	23,1 327	- 8,84228	0	863.66 5,21	5,3012	0,09855 92	-137,895	0	0,2510 81	1,8030 1
3	23,2 327	- 8,81723	0	867.92 3,31	5,56731	0,10520 9	-138,686	0	0,2497 64	1,8101
3	23,3 327	- 8,79231	0	871.95 5,72	5,82737	0,11162 4	-139,434	0	0,2485 45	1,8169
3	23,4 327	- 8,76751	0	875.75 4,57	6,08219	0,11781 9	-140,137	0	0,2474 36	1,8233 7
3	23,5 327	- 8,74281	0	879.32 4,27	6,33244	0,12380 8	-140,797	0	0,2464 39	1,8295
3	23,6 327	- 8,71821	0	882.65 4,40	6,57871	0,12960 5	-141,411	0	0,2455 65	1,8352 6
3	23,7 327	- 8,69368	0	885.65 9,52	6,82144	0,13522 5	-141,961	0	0,2448 67	1,8404 7

3	23,8 327	- 8,66921	0	888.33 8,80	7,06115	0,14067 7	-142,449	0	0,2443 5	1,8451 2
3	23,9 327	- 8,64478	0	890.67 5,21	7,29801	0,14597 9	-142,872	0	0,2440 25	1,8491 5
3	24,0 327	- 8,62039	0	892.68 0,42	7,53242	0,15113 7	-143,23	0	0,2438 87	1,8525 8
3	24,1 527	- 8,59113	0	894.73 0,53	7,81059	0,15715 9	-143,593	0	0,2439 19	1,8560 6
3	24,2 967	- 8,55602	0	896.76 0,36	8,14023	0,16418 2	-143,943	0	0,2441 92	1,8593 7
3	24,4 695	- 8,51379	0	898.75 4,35	8,53009	0,17237 7	-144,261	0	0,2447 47	1,8622 6
3	24,6 768	- 8,46295	0	900.64 5,78	8,99084	0,18192 7	-144,519	0	0,2456 62	1,8643 4
3	24,9 257	- 8,40165	0	902.36 5,28	9,53532	0,19301 6	-144,692	0	0,2470 24	1,8652 7
3	25,2 243	- 8,32759	0	903.84 1,72	10,1796	0,20580 9	-144,753	0	0,2489 32	1,8647 4
3	25,5 826	- 8,23792	0	905.01 2,28	10,9412	0,22053 9	-144,683	0	0,2514 75	1,8624 7
3	26,0 126	- 8,12906	0	905.81 7,24	11,8478	0,23730 6	-144,458	0	0,2547 55	1,8582
3	26,5 285	- 7,99654	0	906.19 0,24	12,9581	0,25567 9	-144,05	0	0,2589 22	1,8515 5
3	27,1 477	- 7,83459	0	906.04 4,47	14,333	0,27529 1	-143,408	0	0,2642 28	1,8419 4
3	27,8 907	- 7,63575	0	905.25 2,90	16,0323	0,29582 1	-142,455	0	0,2710 78	1,8284 3
3	28,7 823	- 7,39018	0	903.72 7,33	18,1236	0,31714 8	-141,125	0	0,2798 18	1,8103 6
3	29,8 523	- 7,08504	0	901.45 4,86	20,6889	0,33945 9	-139,39	0	0,2906 14	1,7876 6
3	31,1 362	- 6,70362	0	898.45 2,29	23,826	0,36304 1	-137,23	0	0,3035 63	1,7604 7
3	32,6 769	- 6,22424	0	894.76 2,02	27,6513	0,38823 5	-134,636	0	0,3186 92	1,7291 4
3	34,5 257	- 5,61885	0	890.41 2,56	32,2996	0,41517 8	-131,576	0	0,3360 69	1,6938



3	36,7 443	- 4,85134	0	885.48 1,71	37,9275 2	0,44402	-128,03	0	0,3556 11	1,6548 2
3	39,4 067	-3,8742	0	879.44 5,72	44,6971	0,47074 7	-123,781	0	0,3790 07	1,6108 8
3	42,6 015	- 2,59733	0	867.39 9,21	52,5201	0,46438 2	-116,789	0	0,4215 17	1,5459 9
3	46,9 289	- 0,88569 9	0	846.35 2,66	61,1903	0,46262 6	-106,781	0	0,4698 73	1,4663 2
3	52,3 529	1,38334	0	802.13 7,17	70,6324	0,49077 8	-92,2603	0	0,5143 1	1,3774 6
3	58,5 654	4,3246	0	723.06 9,74	80,5636	0,56844 6	-72,5641	0	0,5485 6	1,2914 3
3	65,5 925	8,04773	0	592.21 3,21	90,0007	0,74910 3	-46,0989	0	0,5730 92	1,2152 1
3	72,9 258	12,2068	0	377.03 2,07	94,0818	1,33141	-10,4239	0	0,5919 78	1,1565 5
3	72,9 258	12,2068	0	377.03 2,07	94,0818	1,33141	-10,4239	0	0,5919 78	1,1565 5
3	73,7 399	12,6862	0	338.60 9,84	94,2549	1,5041	-5,43116	0	0,5942 86	1,1532 8
3	83,5 686	19,3099	0	154.70 4,90	95,6501	2,66275	12,2727	0	0,7772 99	1,1605 3
3	95,2 137	28,6543	0	125.54 3,11	96,1918	3,05342	14,5982	0	0,8371 25	1,1628 6
3	109, 057	40,4191	0	110.32 5,31	96,7847	3,31982	15,8595	0	0,8757 17	1,1638
3	125, 653	55,2367	0	95.002, 34	97,5191	3,65626	17,0216	0	0,9220 48	1,1652 2
3	145, 555	74,0259	0	79.986, 08	98,4346	4,0824	18,0601	0	0,9776 61	1,1670 2
3	169, 419	98,0258	0	65.683, 70	99,5841	4,62385	18,9585	0	1,0442 6	1,1690 8
3	198, 06	128,673	0	55.312, 94	101,026	5,14406	20,1566	0	1,1043 9	1,1686
3	232, 418	167,543	0	46.478, 67	102,822	5,72202	21,4669	0	1,1688	1,1672 6
3	273,	216,962	0	38.557,	105,063	6,40132	22,4853	0	1,2400	1,1666

	617			40					7	9
3	323,035	279,976	0	31.566,22	107,866	7,19918	23,2534	0	1,31928	1,16669
3	382,306	360,533	0	25.084,20	111,378	8,13797	23,8174	0	1,40725	1,16715
3	409,67	400,215	0	22.569,30	113,083	8,57413	24,0013	0	1,44646	1,16734
3	453,455	463,87	0	19.651,69	115,789	9,245	24,219	0	1,50494	1,16775
3	538,569	596,518	0	14.728,09	121,33	10,5463	24,4976	0	1,61282	1,16853
3	640,878	767,288	0	10.922,82	128,305	12,0754	24,6847	0	1,73168	1,16933
3	763,622	987,495	0	8.279,61	137,089	13,8677	24,807	0	1,86211	1,17009
3	782,784	1024,05	0	7.946,39	138,528	14,1494	24,8205	0	1,88185	1,17019
4	28,0186	-10,4301	0	1,00	0,00177245	0,794401	24,6396	0	0,605571	1,17396
4	28,1186	-10,3934	0	726.513,30	1,61375	0,0132463	-113,022	0	0,31478	1,62344
4	28,2186	-10,3625	0	759.254,33	2,24604	0,0229518	-119,007	0	0,304721	1,6608
4	28,3186	-10,3324	0	777.915,60	2,74522	0,0320464	-122,494	0	0,298032	1,68449
4	28,4186	-10,3028	0	791.757,71	3,17686	0,0405646	-125,102	0	0,292873	1,70314
4	28,5186	-10,2737	0	802.575,20	3,56339	0,048664	-127,138	0	0,288875	1,71824
4	28,6186	-10,245	0	811.349,08	3,92032	0,0563844	-128,786	0	0,285725	1,73079
4	28,7186	-10,2166	0	818.670,68	4,25465	0,0637982	-130,157	0	0,283197	1,74147
4	28,8186	-10,1883	0	824.907,64	4,57143	0,0709454	-131,32	0	0,281144	1,75071
4	28,9186	-10,1603	0	830.306,47	4,87439	0,0778519	-132,325	0	0,279463	1,75881



4	29,0 186	- 10,1324	0	835.02 8,09	5,16631 1	0,08453	-133,201	0	0,2780 88	1,7659 7
4	29,1 186	- 10,1047	0	839.42 5,03	5,44936 63	0,09097	-134,018	0	0,2768 4	1,7727 5
4	29,2 186	- 10,0771	0	843.69 0,27	5,72529 15	0,09718	-134,814	0	0,2756 24	1,7794 7
4	29,3 186	- 10,0496	0	847.88 4,17	5,99529	0,10315	-135,599	0	0,2744 17	1,7861 9
4	29,4 186	- 10,0222	0	851.96 3,14	6,25987 2	0,10890	-136,364	0	0,2732 52	1,7928 3
4	29,5 186	- 9,99489	0	855.87 7,73	6,51924 9	0,11445	-137,097	0	0,2721 63	1,7992 8
4	29,6 186	- 9,96772	0	859.55 8,92	6,77329 9	0,11984	-137,784	0	0,2711 94	1,8053 8
4	29,7 186	- 9,94066	0	863.00 8,88	7,02267 1	0,12508	-138,425	0	0,2703 44	1,8111 3
4	29,8 186	- 9,91369	0	866.27 2,21	7,26865 1	0,13015	-139,03	0	0,2695 85	1,8166 1
4	29,9 186	- 9,88677	0	869.35 7,48	7,51174 6	0,13506	-139,601	0	0,2689 15	1,8218 3
4	30,0 186	- 9,85991	0	872.26 7,21	7,75231 4	0,13983	-140,138	0	0,2683 33	1,8267 7
4	30,1 386	- 9,82772	0	875.49 1,57	8,03763 4	0,14538	-140,73	0	0,2677 73	1,8322 7
4	30,2 826	- 9,78917	0	878.86 1,85	8,37511 3	0,15184	-141,344	0	0,2673 68	1,8380 1
4	30,4 554	- 9,74296	0	882.18 0,28	8,77329	0,15935	-141,94	0	0,2672 68	1,8435 9
4	30,6 628	- 9,68751	0	885.37 2,62	9,243 5	0,16806	-142,49	0	0,2675 52	1,8486 6
4	30,9 116	- 9,62084	0	888.36 5,56	9,79676 3	0,17819	-142,945	0	0,2683 05	1,8525 6
4	31,2 102	-9,5405	0	891.07 2,76	10,4498 2	0,18992	-143,273	0	0,2696 25	1,8548 4
4	31,5 685	- 9,44351	0	893.41 1,17	11,2196 6	0,20346	-143,447	0	0,2716 11	1,8551 4
4	31,9 985	- 9,32607	0	895.30 8,22	12,1278 7	0,21903	-143,44	0	0,2743 64	1,8531 4



4	32,5 145	- 9,18352	0	896.69 9,27	13,2136	0,23663 1	-143,228	0	0,2779 94	1,8485 3
4	33,1 336	- 9,00996	0	897.49 6,55	14,541	0,25581 3	-142,764	0	0,2827 17	1,8407 4
4	33,8 766	-8,7976	0	897.58 6,92	16,1815	0,2761	-141,973	0	0,2889 04	1,8288 6
4	34,7 683	- 8,53651	0	896.91 9,53	18,207	0,29740 6	-140,81	0	0,2967 87	1,8124 6
4	35,8 382	- 8,21375	0	895.46 0,70	20,6992	0,31979 9	-139,232	0	0,3065 98	1,7912 4
4	37,1 221	- 7,81245	0	893.21 4,39	23,7546	0,34347 7	-137,209	0	0,3184 86	1,7651 8
4	38,6 628	-7,3106	0	890.03 1,72	27,485	0,36767 1	-134,663	0	0,3330 51	1,7339 4
4	40,5 116	- 6,67244	0	882.82 9,85	31,9456	0,37516 3	-130,638	0	0,3596 22	1,6890 2
4	42,7 303	- 5,83274	0	872.36 2,61	37,0861	0,37133 9	-124,968	0	0,3971 68	1,6306
4	45,3 926	- 4,72033	0	859.20 5,55	42,949	0,37144 4	-117,903	0	0,4376 83	1,5644 1
4	48,9 326	- 3,25521	0	834.20 4,37	49,6057	0,38538 6	-108,133	0	0,4778 78	1,4883 9
4	53,7 267	- 1,35216	0	792.58 1,31	57,1403	0,41930 7	-95,4791	0	0,5126 58	1,4101 3
4	59,5 918	1,0745	0	729.72 7,98	65,54	0,48015 8	-79,7727	0	0,5402 92	1,3359 2
4	66,1 119	4,12071	0	638.37 2,38	74,5641	0,58663 3	-60,2387	0	0,5617 38	1,2681 6
4	73,2 936	7,90147	0	514.54 3,69	83,3254	0,78456 5	-36,4663	0	0,5785 34	1,2088 5
4	80,9 029	12,2068	0	338.82 3,07	87,5013	1,31628	-7,56352	0	0,5932 7	1,1627 8
4	80,9 029	12,2068	0	338.82 3,07	87,5013	1,31628	-7,56352	0	0,5932 7	1,1627 8
4	81,5 072	12,5627	0	316.50 3,18	87,6075	1,42178	-4,5833	0	0,5947 23	1,1604 6
4	91,0 566	18,9802	0	151.82 5,69	88,8543	2,47893	12,0078	0	0,7484 14	1,1630 5



4	102,38	28,0034	0	121.806,33	89,3856	2,86928	14,5401	0	0,809877	1,16492
4	115,827	39,393	0	106.720,01	89,9608	3,12623	15,8553	0	0,848426	1,16556
4	131,976	53,7596	0	91.606,44	90,6738	3,45251	17,0572	0	0,894601	1,16671
4	151,39	72,0041	0	76.882,18	91,5642	3,86638	18,1207	0	0,95004	1,16828
4	174,732	95,3466	0	62.232,30	92,6841	4,39342	19,032	0	1,01655	1,17015
4	202,774	125,181	0	48.475,60	94,0905	4,89102	20,2855	0	1,07573	1,16929
4	236,44	163,068	0	37.208,10	95,8444	5,45938	21,6052	0	1,14026	1,16783
4	276,897	211,327	0	28.165,89	98,0372	6,1279	22,6151	0	1,21187	1,16719
4	325,513	272,964	0	20.971,10	100,784	6,91443	23,3661	0	1,29153	1,16715
4	383,93	351,897	0	15.523,30	104,232	7,84141	23,9087	0	1,38002	1,16753
4	389,09	358,911	0	15.331,81	104,535	7,92024	23,9436	0	1,38731	1,16757
4	454,7	453,294	0	11.290,77	108,569	8,93585	24,2893	0	1,47825	1,16816
4	539,756	583,703	0	8.055,29	114,028	10,2247	24,5488	0	1,58678	1,16898
4	641,823	751,854	0	5.651,43	120,909	11,7417	24,7207	0	1,70639	1,16967
4	736,532	918,376	0	4.517,42	127,582	13,1222	24,8119	0	1,80891	1,17024
5	33,5008	-11,4195	0	1,00	0,00177245	0,794401	24,6396	0	0,605571	1,17396
5	33,6008	-11,3814	0	706.713,33	1,66516	0,0122541	-109,762	0	0,332097	1,60597
5	33,7008	-11,3487	0	737.374,33	2,31806	0,0213893	-115,339	0	0,324093	1,63903
5	33,8	-	0	754.56	2,8349	0,02998	-118,568	0	0,3185	1,6598



	008	11,3166		5,10		98			8	8
5	33,9 008	-11,285	0	768.23 1,75	3,27896	0,03806 27	-121,179	0	0,3138 28	1,6776 8
5	34,0 008	- 11,2538	0	779.27 2,71	3,67723	0,04571 57	-123,289	0	0,3099 8	1,6926
5	34,1 008	-11,223	0	788.43 4,50	4,04299	0,05303 09	-125,037	0	0,3068 52	1,7052 9
5	34,2 008	- 11,1924	0	796.18 4,61	4,38569	0,06003 57	-126,509	0	0,3042 97	1,7162 3
5	34,3 008	- 11,1621	0	802.84 2,18	4,71077	0,06676 6	-127,769	0	0,3021 99	1,7257 8
5	34,4 008	-11,132	0	808.63 2,54	5,02159	0,07325 58	-128,862	0	0,3004 73	1,7341 9
5	34,5 008	-11,102	0	813.72 1,41	5,32059	0,07953 17	-129,819	0	0,2990 5	1,7416 7
5	34,6 008	- 11,0722	0	818.27 0,60	5,6098	0,08560 83	-130,672	0	0,2978 58	1,7484 3
5	34,7 008	- 11,0424	0	822.45 9,53	5,89085	0,09149 14	-131,458	0	0,2968 12	1,7547 3
5	34,8 008	- 11,0128	0	826.54 1,50	6,16464	0,09717 84	-132,226	0	0,2957 88	1,7609 8
5	34,9 008	- 10,9833	0	830.55 7,93	6,43235	0,10267	-132,984	0	0,2947 69	1,7672 4
5	35,0 008	- 10,9539	0	834.46 9,68	6,69475	0,10797 6	-133,722	0	0,2937 84	1,7734 2
5	35,1 008	- 10,9245	0	838.26 1,22	6,95246	0,11310 7	-134,438	0	0,2928 47	1,7794 9
5	35,2 008	- 10,8953	0	841.91 3,00	7,20607	0,11807	-135,127	0	0,2919 7	1,7853 8
5	35,3 008	- 10,8661	0	845.40 6,16	7,45582	0,12288 1	-135,784	0	0,2911 68	1,7910 7
5	35,4 008	-10,837	0	848.73 8,51	7,70213	0,12754 7	-136,41	0	0,2904 42	1,7965 3
5	35,5 008	-10,808	0	851.90 8,60	7,94527	0,13207 9	-137,003	0	0,2897 94	1,8017 5
5	35,6 208	- 10,7733	0	855.51 4,11	8,23311	0,13735 4	-137,675	0	0,2891 12	1,8077 3
5	35,7	-	0	859.56	8,57345	0,14346	-138,428	0	0,2884	1,8144

	648	10,7317		3,09		7			26	9
5	35,9 376	- 10,6819	0	863.97 3,64	8,97535	0,15052 5	-139,243	0	0,2878 22	1,8218 9
5	36,1 45	- 10,6223	0	868.57 0,97	9,44965	0,15864 3	-140,085	0	0,2874 41	1,8296
5	36,3 938	- 10,5508	0	873.09 5,02	10,0083	0,16801 3	-140,873	0	0,2874 73	1,8367 1
5	36,6 924	- 10,4649	0	877.33 0,14	10,6653	0,17886 3	-141,53	0	0,2880 79	1,8422 7
5	37,0 507	- 10,3614	0	881.09 2,24	11,4379	0,19142 7	-142,002	0	0,2894 08	1,8455 9
5	37,4 807	- 10,2365	0	884.26 7,10	12,3453	0,20589 1	-142,247	0	0,2916 1	1,8461 2
5	37,9 967	- 10,0852	0	886.73 3,76	13,413	0,22219 4	-142,225	0	0,2949 7	1,8433 5
5	38,6 159	- 9,90096	0	888.35 8,87	14,701	0,23972 2	-141,885	0	0,2998 32	1,8366 8
5	39,3 589	- 9,67514	0	888.08 4,87	16,2785	0,25397 2	-140,972	0	0,3090 68	1,8234 7
5	40,2 505	- 9,39216	0	884.85 1,20	18,177	0,26052 6	-139,13	0	0,3260 85	1,8000 5
5	41,3 204	- 9,03158	0	879.98 6,16	20,4343	0,26480 4	-136,522	0	0,3479 69	1,7683 8
5	42,6 043	- 8,56858	0	874.15 1,04	23,1037	0,26910 7	-133,236	0	0,3731 99	1,7300 8
5	44,1 45	- 7,97231	0	867.27 2,14	26,2532	0,27483 2	-129,245	0	0,4006 98	1,6859 5
5	45,9 939	- 7,20404	0	855.70 3,57	29,9575	0,28487 8	-123,911	0	0,4300 3	1,6331
5	48,3 112	- 6,21678	0	837.39 0,38	34,3206	0,30141 6	-117,015	0	0,4593 75	1,5734 5
5	51,4 253	- 4,95553	0	810.99 9,12	39,4644	0,32596 1	-108,517	0	0,4869 39	1,5104 5
5	55,2 79	- 3,35836	0	774.81 3,06	45,5077	0,36043 3	-98,3123	0	0,5115 67	1,4469 5
5	60,3 178	- 1,35397	0	726.28 7,91	52,5348	0,40814	-86,1264	0	0,5330 98	1,3846 5
5	66,3	1,14319	0	661.85	60,5478	0,47644	-71,4861	0	0,5517	1,3245



	345			4,73		6			16	3
5	72,9 267	4,23608	0	575.36 1,23	69,3578	0,58411 1	-53,4359	0	0,5678 52	1,2664 5
5	80,1 457	8,04654	0	464.55 8,84	78,2054	0,77083 2	-31,7968	0	0,5816 25	1,2127 9
5	87,4 986	12,2068	0	336.15 1,67	83,5955	1,13204	-9,32483	0	0,5934 07	1,1722 5
5	87,4 986	12,2068	0	336.15 1,67	83,5955	1,13204	-9,32483	0	0,5934 07	1,1722 5
5	88,3 438	12,7246	0	312.76 6,88	83,6928	1,23043	-5,78086	0	0,5952 39	1,1679 3
5	97,4 177	18,8226	0	156.50 0,50	84,7314	2,19954	11,2358	0	0,7026 79	1,1645 6
5	108, 121	27,3223	0	122.68 3,55	85,2456	2,58386	14,2219	0	0,7666 86	1,1659 8
5	120, 919	38,1193	0	106.78 6,38	85,7914	2,83031	15,6833	0	0,8051 78	1,1663 3
5	136, 336	51,7707	0	90.529, 50	86,4701	3,14061	16,9865	0	0,8510 79	1,1672 9
5	154, 95	69,1514	0	70.070, 38	87,3203	3,53512	18,1198	0	0,9062 22	1,1687 4
5	177, 432	91,4505	0	49.161, 16	88,3929	4,04051	19,076	0	0,9726 31	1,1705 3
5	205, 812	120,135	0	35.470, 51	89,7488	4,56076	20,4961	0	1,0369 4	1,1694
5	239, 994	156,697	0	25.869, 37	91,4461	5,11466	21,8141	0	1,1016 4	1,1679 2
5	281, 013	203,385	0	18.691, 65	93,5735	5,76881	22,8027	0	1,1738 9	1,1673 1
5	330, 235	263,169	0	13.311, 92	96,2455	6,54029	23,5219	0	1,2542 2	1,1673 3
5	374, 521	320,224	0	10.173, 14	98,7513	7,22487	23,9275	0	1,3217 7	1,1676 3
5	389, 302	339,957	0	9.518,8 6	99,6089	7,45238	24,0301	0	1,3435 4	1,1677 6
5	460, 182	438,748	0	6.803,3 3	103,847	8,52996	24,3796	0	1,4425 4	1,1684 2
5	545,	566,164	0	4.826,7	109,195	9,80265	24,6128	0	1,5520	1,1691

	238			2					1	7
5	647,306	730,819	0	3.347,56	115,951	11,3037	24,7642	0	1,67267	1,16993
5	699,354	819,392	0	2.940,72	119,525	12,0587	24,8126	0	1,73042	1,17025
6	38,7375	-12,1908	0	1,00	0,00177245	0,794401	24,6396	0	0,605571	1,17396
6	38,8375	-12,1512	0	682.396,68	1,66587	0,0113733	-105,738	0	0,351298	1,58538
6	38,9375	-12,1164	0	710.297,14	2,29792	0,0198962	-110,832	0	0,346663	1,61397
6	39,0375	-12,0816	0	718.554,10	2,73722	0,0277511	-112,47	0	0,349015	1,62418
6	39,1375	-12,0467	0	726.361,96	3,10867	0,0349379	-114,118	0	0,349623	1,63511
6	39,2375	-12,0117	0	733.422,79	3,44558	0,0415688	-115,619	0	0,349638	1,64531
6	39,3375	-11,9768	0	739.661,71	3,75712	0,0477813	-116,946	0	0,349554	1,65453
6	39,4375	-11,9418	0	745.114,02	4,05054	0,0536252	-118,107	0	0,349554	1,66274
6	39,5375	-11,9069	0	749.906,75	4,32965	0,0591602	-119,127	0	0,349671	1,67007
6	39,6375	-11,8719	0	754.128,95	4,59736	0,0644206	-120,028	0	0,349923	1,67665
6	39,7375	-11,8369	0	757.856,27	4,85616	0,0694283	-120,826	0	0,350303	1,68254
6	39,8375	-11,8018	0	761.148,77	5,10758	0,0742049	-121,533	0	0,35081	1,68784
6	39,9375	-11,7667	0	764.062,91	5,35297	0,0787675	-122,162	0	0,351431	1,69262
6	40,0375	-11,7315	0	766.651,97	5,59293	0,0831413	-122,725	0	0,352149	1,69695
6	40,1375	-11,6963	0	768.957,60	5,82767	0,0873505	-123,23	0	0,352952	1,70088
6	40,2375	-11,6609	0	771.020,61	6,05747	0,0914153	-123,686	0	0,353822	1,70447



6	40,3 375	- 11,6255	0	772.94 2,95	6,2832	0,09532 7	-124,115	0	0,3547 19	1,7078 8
6	40,4 375	-11,59 11,5187	0	774.79 3,00	6,50526	0,09909 12	-124,53	0	0,3556 13	1,7112 1
6	40,5 375	- 11,5544	0	776.67 1,94	6,72438	0,10268 8	-124,952	0	0,3564 71	1,7146 2
6	40,6 375	- 11,5187	0	778.54 7,51	6,9405	0,10614 2	-125,374	0	0,3573 07	1,7180 6
6	40,7 375	- 11,4829	0	780.42 6,05	7,15418	0,10944 6	-125,796	0	0,3581 25	1,7215 2
6	40,8 575	- 11,4399	0	782.64 4,33	7,40736	0,11323 7	-126,295	0	0,3591 04	1,7256 5
6	41,0 015	- 11,3881	0	785.23 2,76	7,70691	0,11756	-126,879	0	0,3602 85	1,7305 1
6	41,1 743	- 11,3257	0	788.22 8,87	8,0609	0,12245 1	-127,556	0	0,3617 12	1,7362 1
6	41,3 817	- 11,2505	0	791.61 5,91	8,47841	0,12793 6	-128,323	0	0,3634 77	1,7427 5
6	41,6 305	- 11,1598	0	795.35 3,84	8,97048	0,13405 1	-129,15	0	0,3656 79	1,7498 2
6	41,9 291	- 11,0502	0	799.36 2,61	9,54913	0,14087	-129,974	0	0,3684 41	1,7567
6	42,2 874	- 10,9175	0	803.52 0,79	10,2286	0,14843 6	-130,738	0	0,3719 29	1,7627 4
6	42,7 174	- 10,7567	0	807.71 1,18	11,0258	0,15681 1	-131,391	0	0,3762 77	1,7673 9
6	43,2 334	- 10,5611	0	811.71 2,74	11,96	0,16604 2	-131,863	0	0,3816 92	1,7699
6	43,8 526	- 10,3228	0	815.28 7,59	13,0546	0,17621 9	-132,081	0	0,3883 35	1,7694 6
6	44,5 956	- 10,0312	0	818.09 8,52	14,3661	0,18704	-131,946	0	0,3964 51	1,7651
6	45,4 872	- 9,67329	0	819.66 9,97	15,9818	0,19807 9	-131,289	0	0,4063 82	1,7551
6	46,5 571	- 9,23202	0	819.34 0,18	17,9502	0,20971 8	-129,909	0	0,4184 62	1,7377 1
6	47,8 41	- 8,68555	0	816.46 3,88	20,3402	0,22242 7	-127,626	0	0,4327 54	1,7118 1

6	49,6 178	- 8,00608	0	810.19 4,80	23,23	0,23690 4	-124,241	0	0,4491 26	1,6767 6
6	51,6 603	- 7,15871	0	799.47 9,68	26,7106	0,25404 2	-119,557	0	0,4672 09	1,6327 4
6	54,1 586	- 6,10042	0	783.04 1,47	30,8887	0,27502 7	-113,386	0	0,4863 18	1,5809 4
6	57,4 109	- 4,77919	0	759.24 8,65	35,882	0,30143	-105,528	0	0,5056 48	1,5231 9
6	61,4 065	- 3,13261	0	726.04 1,01	41,808	0,33556 5	-95,7571	0	0,5244 13	1,4617 3
6	66,5 201	- 1,08742	0	680.57 2,48	48,755	0,38147 9	-83,7576	0	0,5419 32	1,3988 2
6	72,5 353	1,44381	0	619.31 9,78	56,7397	0,44656 8	-69,0919	0	0,5578 71	1,3363 3
6	79,1 083	4,56415	0	536.17 3,02	65,5846	0,54956 5	-50,8514	0	0,5721 05	1,2749 8
6	86,3 263	8,39766	0	429.46 2,96	74,5957	0,72873 6	-29,0439	0	0,5845 02	1,2181 2
6	93,0 586	12,2068	0	320.87 0,42	80,4505	1,01565	-9,10577	0	0,5944 85	1,1789 8
6	93,0 586	12,2068	0	320.87 0,42	80,4505	1,01565	-9,10577	0	0,5944 85	1,1789 8
6	94,4 527	13,0935	0	295.48 7,87	80,815	1,11479	-4,86496	0	0,5968 83	1,1724 8
6	103, 184	18,9863	0	159.22 3,95	81,6514	1,9777	10,8336	0	0,6646 59	1,1660 9
6	113, 319	27,0351	0	123.43 1,40	82,1228	2,32574	13,9993	0	0,7254 7	1,1667 8
6	125, 466	37,2648	0	106.06 5,57	82,6407	2,56057	15,5957	0	0,7638 62	1,1668 8
6	140, 16	50,2329	0	76.612, 28	83,2864	2,85577	16,9892	0	0,8095 08	1,1676 7
6	158, 826	66,7883	0	52.115, 74	84,0977	3,23179	18,1785	0	0,8643 47	1,1690 4
6	182, 563	88,0894	0	35.096, 69	85,1246	3,71472	19,1641	0	0,9304 28	1,1708
6	211, 048	115,634	0	25.310, 57	86,4298	4,24269	20,7848	0	0,9980 96	1,1691 7



6	245,231	150,88	0	18.844,20	88,0703	4,78336	22,0767	0	1,0634	1,16778
6	286,249	196,01	0	13.883,83	90,1323	5,42233	23,0226	0	1,13612	1,16729
6	335,472	253,953	0	10.092,72	92,7292	6,17868	23,6953	0	1,21699	1,16742
6	361,417	286,057	0	8.745,66	94,1477	6,57233	23,9321	0	1,25753	1,16762
6	394,538	328,592	0	7.343,99	96,0072	7,07429	24,1596	0	1,3072	1,16793
6	465,419	424,821	0	5.196,24	100,147	8,13507	24,4723	0	1,407	1,16863
6	550,475	549,253	0	3.643,15	105,384	9,39115	24,6765	0	1,51741	1,16941
6	652,542	710,431	0	2.735,47	112,015	10,8758	24,8063	0	1,63911	1,17016
6	665,626	731,974	0	2.643,58	112,89	11,0644	24,8177	0	1,65397	1,17024
7	47,0759	-12,2068	0	1,00	0,00177245	0,794401	24,6396	0	0,605571	1,17396
7	47,1759	-12,1584	0	511.067,10	1,63822	0,00789894	-77,4593	0	0,455783	1,46751
7	47,2759	-12,113	0	541.158,65	2,29178	0,0139536	-83,549	0	0,453582	1,49432
7	47,3759	-12,0677	0	548.527,45	2,80431	0,020092	-84,8895	0	0,453983	1,49995
7	47,4759	-12,0222	0	550.991,06	3,24506	0,0262023	-85,3132	0	0,454709	1,50166
7	47,5759	-11,9768	0	554.843,81	3,63968	0,0320155	-86,1831	0	0,454524	1,50604
7	47,6759	-11,9313	0	560.440,24	4,00158	0,0374272	-87,5049	0	0,453702	1,51295
7	47,7759	-11,886	0	566.454,05	4,33891	0,0425081	-88,9303	0	0,452766	1,52055
7	47,8759	-11,8408	0	572.409,78	4,65683	0,0473142	-90,3398	0	0,451874	1,52818
7	47,9	-	0	578.13	4,9586	0,05189	-91,6907	0	0,4510	1,5356



	759	11,7956		1,32		28			73	
7	48,0	-	0	583.54	5,24701	0,05627	-92,9667	0	0,4503	1,5427
	759	11,7506		9,20		41			8	1
7	48,1	-	0	588.64	5,52428	0,06047	-94,1637	0	0,4497	1,5494
	759	11,7056		3,01		88			96	7
7	48,2	-	0	593.40	5,79232	0,06452	-95,2818	0	0,4493	1,5558
	759	11,6606		9,79		02			19	7
7	48,3	-	0	597.85	6,05247	0,06841	-96,3243	0	0,4489	1,5619
	759	11,6157		9,17		28			44	
7	48,4	-	0	602.00	6,30575	0,07216	-97,2958	0	0,4486	1,5676
	759	11,5708		7,99		92			64	
7	48,5	-11,526	0	605.87	6,55259	0,07580	-98,2019	0	0,4484	1,5729
	759			6,62		73			67	8
7	48,6	-	0	609.48	6,79375	0,07933	-99,0481	0	0,4483	1,5780
	759	11,4811		6,32		57			46	5
7	48,7	-	0	612.85	7,02984	0,08276	-99,8394	0	0,4482	1,5828
	759	11,4363		7,69		21			94	5
7	48,8	-	0	616.00	7,26147	0,08609	-100,58	0	0,4483	1,5873
	759	11,3915		5,82		13			05	9
7	48,9	-	0	618.95	7,48889	0,08933	-101,274	0	0,4483	1,5916
	759	11,3466		2,18		29			72	9
7	49,0	-	0	621.70	7,71262	0,09248	-101,926	0	0,4484	1,5957
	759	11,3018		8,45		94			9	7
7	49,1	-	0	624.78	7,97678	0,09617	-102,656	0	0,4486	1,6003
	959	11,2479		0,41					96	9
7	49,3	-	0	628.16	8,28814	0,10044	-103,464	0	0,4490	1,6055
	399	11,1833		1,08		4			25	7
7	49,5	-	0	631.84	8,65432	0,10539	-104,35	0	0,4495	1,6113
	127	11,1056		2,33					08	3
7	49,7	-	0	635.83	9,08386	0,11109	-105,32	0	0,4501	1,6177
	2	11,0124		7,14		1			74	4
7	49,9	-	0	640.33	9,58759	0,11755	-106,421	0	0,4510	1,6251
	689	10,9002		1,07					09	4
7	50,2	-	0	645.73	10,1779	0,12467	-107,75	0	0,4519	1,6342
	675	10,7654		1,84		4			54	4
7	50,6	-	0	652.13	10,869	0,13242	-109,317	0	0,4530	1,6451
	258	10,6033		6,51		9			65	5
7	51,0	-	0	659.46	11,6768	0,14084	-110,997	0	0,4544	1,6567



	558	10,4082		8,63		9			88	2
7	51,5 717	- 10,1732	0	667.46 0,80	12,6197	0,14997 5	-112,66	0	0,4564 44	1,6678 4
7	52,1 909	- 9,88971	0	675.69 6,46	13,719	0,15992 4	-114,165	0	0,4591 36	1,6773
7	52,9 339	- 9,54722	0	683.80 6,66	14,9995	0,17085 6	-115,395	0	0,4627	1,6840 4
7	53,8 255	- 9,13255	0	691.28 1,92	16,51	0,18268 9	-116,206	0	0,4673 97	1,6867 8
7	54,8 955	- 8,62918	0	697.40 8,05	18,3494	0,19505 3	-116,381	0	0,4735 44	1,6836 1
7	56,1 794	- 8,01622	0	701.31 3,11	20,6085	0,20815 8	-115,637	0	0,4813 55	1,6721 7
7	57,7 201	- 7,26712	0	701.68 3,59	23,3682	0,22262 5	-113,621	0	0,4911 23	1,6501
7	59,8 516	- 6,34844	0	697.24 4,42	26,711	0,23959	-110,052	0	0,5026 41	1,6165 1
7	62,6 074	- 5,21875	0	686.48 3,87	30,7431	0,26028 4	-104,682	0	0,5155 37	1,572
7	65,9 983	- 3,82771	0	667.62 1,62	35,5826	0,28646 3	-97,2898	0	0,5291 74	1,5184 6
7	70,2 309	- 2,11441	0	638.46 2,29	41,3448	0,32067	-87,6557	0	0,5429 28	1,4587 2
7	75,3 672	- 0,00652 567	0	596.46 7,87	48,1203	0,36720 2	-75,5463	0	0,5561 53	1,3959 3
7	81,2 111	2,58183	0	538.36 2,00	55,9185	0,4343	-60,5905	0	0,5684 55	1,3326 8
7	87,6 243	5,7525	0	459.24 1,33	64,5504	0,54195 7	-42,0605	0	0,5797 34	1,2702 9
7	94,7 804	9,62863	0	360.59 7,92	73,2636	0,72695 5	-20,8792	0	0,5898 01	1,2145 7
7	99,3 371	12,2068	0	295.48 1,83	77,4882	0,90057 5	-8,37097	0	0,5957 54	1,1884
7	99,3 371	12,2068	0	295.48 1,83	77,4882	0,90057 5	-8,37097	0	0,5957 54	1,1884
7	102, 609	14,361	0	242.26 4,62	79,2725	1,10237	0,122389	0	0,6002 4	1,1752 5



7	110,908	20,1346	0	152.218,82	79,9445	1,75574	10,8749	0	0,624768	1,16868
7	120,298	27,6251	0	122.822,65	80,3514	2,01911	13,7946	0	0,673536	1,16801
7	131,594	37,1382	0	90.773,25	80,8325	2,2368	15,556	0	0,711427	1,16768
7	147,383	49,2388	0	64.748,95	81,4354	2,51264	17,0598	0	0,756691	1,16824
7	167,164	64,7453	0	46.470,30	82,1964	2,86514	18,3111	0	0,811131	1,16948
7	190,902	84,7781	0	33.719,25	83,1641	3,31933	19,322	0	0,876809	1,17119
7	219,387	110,842	0	24.632,21	84,4024	3,84889	21,2244	0	0,948034	1,16876
7	253,569	144,385	0	18.506,22	85,9683	4,3694	22,4522	0	1,01379	1,16756
7	294,588	187,492	0	13.781,47	87,9441	4,98756	23,3227	0	1,08715	1,16726
7	343,81	243,039	0	10.115,07	90,442	5,72148	23,9222	0	1,16882	1,16754
7	346,31	245,967	0	9.998,18	90,5723	5,75858	23,9446	0	1,17281	1,16757
7	402,877	314,838	0	7.355,04	93,6063	6,59505	24,3236	0	1,25976	1,16816
7	473,757	407,745	0	5.209,76	97,6168	7,63292	24,5856	0	1,36059	1,16893
7	558,813	528,283	0	3.933,72	102,708	8,86597	24,7517	0	1,47217	1,16972
7	625,625	629,397	0	3.228,18	106,899	9,82525	24,8265	0	1,55389	1,17022
8	62,5735	-12,2068	0	1,00	0,00177245	0,794401	24,6396	0	0,605571	1,17396
8	62,6735	-12,1536	0	365.949,95	1,71458	0,00647905	-53,4754	0	0,516054	1,39345
8	62,7735	-12,102	0	391.427,51	2,4147	0,0115269	-59,5672	0	0,51531	1,41763
8	62,8	-	0	397.77	2,95947	0,01670	-60,935	0	0,5155	1,4228

	735	12,0505		6,32		3			96	6
8	62,9	-	0	399.89	3,42542	0,02189	-61,3714	0	0,5160	1,4244
	735	11,9989		1,85		36			12	9
8	63,0	-	0	400.50	3,84054	0,02707	-61,4992	0	0,5164	1,4249
	735	11,9473		1,16		95			57	8
8	63,1	-	0	400.49	4,21893	0,03225	-61,5111	0	0,5168	1,4250
	735	11,8956		4,75		48			9	6
8	63,2	-	0	401.05	4,57082	0,03728	-61,7181	0	0,5171	1,4261
	735	11,8439		5,88		95			05	1
8	63,3	-	0	403.10	4,90229	0,04201	-62,3645	0	0,5169	1,4292
	735	11,7922		1,47		68			47	4
8	63,4	-	0	405.99	5,21638	0,04647	-63,2537	0	0,5166	1,4335
	735	11,7405		9,21		05			28	1
8	63,5	-	0	409.30	5,51603	0,05069	-64,2547	0	0,5162	1,4383
	735	11,6889		6,01		19			61	3
8	63,6	-	0	412.79	5,80341	0,05471	-65,302	0	0,5158	1,4434
	735	11,6373		5,57		26			91	2
8	63,7	-	0	416.33	6,08042	0,05855	-66,3588	0	0,5155	1,4485
	735	11,5857		8,32		41			44	9
8	63,8	-	0	419.86	6,34848	0,06223	-67,4051	0	0,5152	1,4537
	735	11,5342		1,02		5			29	5
8	63,9	-	0	423.32	6,60876	0,06577	-68,4291	0	0,5149	1,4588
	735	11,4827		0,17		04			52	5
8	64,0	-	0	426.68	6,86207	0,06917	-69,4245	0	0,5147	1,4638
	735	11,4312		9,66		54			11	5
8	64,1	-	0	429.95	7,10892	0,07246	-70,388	0	0,5145	1,4687
	735	11,3797		5,85		57			06	4
8	64,2	-	0	433.10	7,35002	0,07564	-71,3178	0	0,5143	1,4735
	735	11,3283		9,95		99			36	
8	64,3	-	0	436.14	7,58596	0,07873	-72,2134	0	0,5141	1,4781
	735	11,2768		8,69		59			98	3
8	64,4	-	0	439.07	7,81732	0,08172	-73,0751	0	0,5140	1,4826
	735	11,2254		1,38		98			93	3
8	64,5	-11,174	0	441.87	8,04473	0,08463	-73,903	0	0,5140	1,4869
	735			7,69		44			18	9
8	64,6	-	0	445.09	8,3124	0,08801	-74,8547	0	0,5139	1,4920
	935	11,1123		8,43		84			64	5
8	64,8	-	0	448.75	8,62735	0,09193	-75,9377	0	0,5139	1,4978

	375	11,0383		5,25		62			49	8
8	65,0	-	0	452.86	8,99676	0,09645	-77,1588	0	0,5139	1,5045
	103	10,9495		1,47		74			95	4
8	65,2	-	0	457.40	9,42948	0,10164	-78,5185	0	0,5141	1,5120
	177	10,8429		6,49		6			31	9
8	65,4	-10,715	0	462.35	9,93526	0,10757	-80,0132	0	0,5143	1,5205
	665			6,62		1			95	4
8	65,7	-	0	467.64	10,5258	0,11429	-81,6319	0	0,5148	1,5299
	651	10,5613		4,48		9			37	
8	66,1	-	0	473.18	11,2147	0,12189	-83,3597	0	0,5155	1,5401
	234	10,3767		1,73		5			03	5
8	66,5	-	0	478.92	12,0167	0,13044	-85,1854	0	0,5164	1,5512
	534	10,1549		8,89		4			07	6
8	67,0	-	0	485.20	12,9495	0,13987	-87,1167	0	0,5175	1,5631
	694	9,88814		9,11		9			13	3
8	67,6	-	0	492.70	14,035	0,14991	-89,2129	0	0,5187	1,5758
	885	9,56732		8,58		8			51	2
8	68,4	-	0	501.48	15,298	0,16042	-91,3977	0	0,5202	1,5886
	315	9,18129		3,00		4			39	8
8	69,3	-	0	510.89	16,7646	0,17153	-93,4529	0	0,5222	1,6002
	232	8,71653		7,07		5			5	3
8	70,3	-	0	520.09	18,4844	0,18337	-95,109	0	0,5250	1,6085
	931	8,15632		6,97		5			3	6
8	71,6	-	0	528.01	20,5767	0,19571	-96,0076	0	0,5288	1,6109
	77	7,47986		8,17		1			37	7
8	73,2	-	0	533.42	23,157	0,20901	-95,7086	0	0,5337	1,6041
	177	6,66134		5,93		7			91	9
8	75,0	-	0	534.75	26,319	0,22450	-93,7381	0	0,5399	1,5853
	666	5,66878		0,20		1			66	
8	77,2	-4,4626	0	530.06	30,1589	0,24367	-89,676	0	0,5473	1,5529
	852			5,18		3			52	9
8	79,9	-	0	517.34	34,7893	0,26847	-83,2207	0	0,5556	1,5082
	475	2,99425		1,75					21	7
8	84,0	-	0	494.85	40,3307	0,30188	-74,2262	0	0,5640	1,4541
	699	1,20508		5,12					69	4
8	89,2	0,97454	0	460.23	46,8866	0,34806	-62,5114	0	0,5725	1,3942
	055	5		0,73		3			91	
8	94,9	3,62791	0	410.98	54,475	0,41611	-47,8581	0	0,5807	1,3318



	502			5,66		2			06	1
8	101,284	6,85576	0	344.466,87	62,9258	0,525565	-30,0574	0	0,588409	1,26997
8	108,436	10,7784	0	265.526,48	71,6104	0,704058	-11,4254	0	0,59556	1,21818
8	110,96	12,2068	0	237.929,75	74,2361	0,783311	-5,61511	0	0,598134	1,20436
8	110,96	12,2068	0	237.929,75	74,2361	0,783311	-5,61511	0	0,598134	1,20436
8	113,758	14,0488	0	201.324,13	76,5639	0,90615	0,963518	0	0,601339	1,19082
8	113,758	14,0488	0	201.324,13	76,5639	0,90615	0,963518	0	0,601339	1,19082
8	115,944	15,5516	0	175.337,33	78,3792	1,02372	4,93985	0	0,602789	1,18427
8	124,01	21,3139	0	115.676,20	82,223	1,47089	12,2166	0	0,604763	1,17654
8	132,741	28,3156	0	86.837,38	83,6301	1,76093	14,9291	0	0,626941	1,17457
8	146,396	37,185	0	67.877,56	84,0779	1,96361	16,5428	0	0,6643	1,17346
8	162,88	48,5049	0	53.505,84	84,642	2,22153	17,8966	0	0,709119	1,17325
8	182,662	63,0658	0	41.541,83	85,3575	2,55237	19,0014	0	0,763111	1,17373
8	206,399	81,9569	0	31.397,29	86,2718	2,98456	20,5711	0	0,828994	1,17225
8	234,884	106,688	0	23.391,28	87,4494	3,51825	22,1865	0	0,904094	1,17008
8	269,067	138,728	0	18.173,73	88,9491	4,0186	23,1522	0	0,969956	1,16905
8	295,899	165,415	0	15.173,22	90,1798	4,41071	23,6275	0	1,01884	1,16881
8	310,085	180,058	0	14.044,49	90,8488	4,61751	23,8154	0	1,04379	1,16889
8	359,308	233,486	0	10.984,82	93,2586	5,33134	24,2579	0	1,12607	1,16903
8	418,	302,739	0	8.479,1	96,3207	6,18336	24,5452	0	1,2176	1,1695



	374			7					7	2
8	489,255	392,701	0	6.457,55	100,216	7,20027	24,7273	0	1,31941	1,17011
8	512,16	423,281	0	5.955,75	101,523	7,52762	24,7656	0	1,35067	1,17028
9	94,8172	-12,2068	0	1,00	0,00177245	0,794401	24,6396	0	0,605571	1,17396
9	94,9172	-12,1496	0	198.119,41	1,77517	0,0055495	-25,6654	0	0,565139	1,32637
9	95,0172	-12,0931	0	214.182,29	2,50877	0,00992546	-31,1346	0	0,565001	1,34774
9	95,1172	-12,0366	0	218.174,55	3,07767	0,0144292	-32,4248	0	0,565159	1,35288
9	95,2172	-11,9801	0	219.527,48	3,56119	0,0189655	-32,8782	0	0,565341	1,35462
9	95,3172	-11,9235	0	219.943,30	3,99093	0,0235065	-33,0538	0	0,565528	1,35538
9	95,4172	-11,867	0	219.935,69	4,38237	0,0280456	-33,1101	0	0,565715	1,35571
9	95,5172	-11,8104	0	219.708,65	4,74485	0,0325797	-33,1069	0	0,565901	1,35582
9	95,6172	-11,7538	0	219.357,68	5,08438	0,0371083	-33,0708	0	0,566085	1,35581
9	95,7172	-11,6972	0	218.939,06	5,40539	0,0416294	-33,0166	0	0,566263	1,35573
9	95,8172	-11,6405	0	218.539,85	5,71118	0,0461258	-32,9742	0	0,566424	1,35571
9	95,9172	-11,5839	0	218.550,13	6,00409	0,0504789	-33,0964	0	0,566506	1,356406
9	96,0172	-11,5272	0	219.063,01	6,28598	0,0546256	-33,4201	0	0,566499	1,35796
9	96,1172	-11,4706	0	219.957,82	6,5583	0,05857	-33,8952	0	0,566436	1,36018
9	96,2172	-11,4139	0	221.095,24	6,82218	0,062338	-34,4645	0	0,566348	1,36281
9	96,3172	-11,3573	0	222.391,58	7,07844	0,0659494	-35,0947	0	0,566251	1,36571



9	96,4 172	- 11,3007	0	223.79 7,43	7,32783	0,06941 82	-35,7666	0	0,5661 51	1,3688 1
9	96,5 172	- 11,2441	0	225.27 2,98	7,57111	0,07275 6	-36,4645	0	0,5660 52	1,3720 4
9	96,6 172	- 11,1875	0	226.79 1,84	7,80897	0,07597 15	-37,1781	0	0,5659 6	1,3753 5
9	96,7 172	- 11,1309	0	228.33 6,94	8,04183	0,07907 44	-37,901	0	0,5658 73	1,3787 3
9	96,8 172	- 11,0743	0	229.89 3,78	8,27018	0,08207 2	-38,6276	0	0,5657 93	1,3821 4
9	96,9 372	- 11,0064	0	231.76 2,61	8,53872	0,08554 09	-39,4989	0	0,5657 08	1,3862 5
9	97,0 812	- 10,9249	0	233.98 8,65	8,85364	0,08953 69	-40,537	0	0,5656 2	1,3911 9
9	97,2 54	- 10,8272	0	236.61 5,23	9,2222	0,09411 21	-41,7638	0	0,5655 35	1,3970 9
9	97,4 613	- 10,7099	0	239.68 0,18	9,65267	0,09931 7	-43,2005	0	0,5654 63	1,4040 9
9	97,7 102	- 10,5693	0	243.20 9,56	10,1549	0,10519 3	-44,8646	0	0,5654 18	1,4123 1
9	98,0 088	- 10,4004	0	247.21 1,66	10,7397	0,11178 5	-46,7689	0	0,5654 16	1,4218 9
9	98,3 671	- 10,1978	0	251.67 0,13	11,4197	0,11913 1	-48,9187	0	0,5654 82	1,4329 4
9	98,7 971	- 9,95464	0	256.53 6,94	12,2096	0,12726 4	-51,3101	0	0,5656 44	1,4455 4
9	99,3 131	- 9,66271	0	261.72 5,90	13,1271	0,13620 9	-53,9254	0	0,5659 35	1,4597 2
9	99,9 322	- 9,31216	0	267.09 6,18	14,1912	0,14609 3	-56,6272	0	0,5663 95	1,4747 3
9	100, 675	- 8,89108	0	272.46 4,33	15,4238	0,15714	-59,1818	0	0,5670 62	1,4890 9
9	101, 567	- 8,38512	0	278.09 7,04	16,8521	0,16912 3	-61,5938	0	0,5679 16	1,5026 2
9	102, 637	- 7,77696	0	284.65 8,77	18,508	0,18126	-64,0994	0	0,5689 15	1,5165 6
9	103, 921	- 7,04568	0	291.82 0,24	20,4512	0,19332 9	-66,515	0	0,5701 92	1,5297 9



9	105,461	-6,16586	0	298.365,78	22,866	0,205069	-68,2073	0	0,571998	1,53826
9	107,31	-5,10606	0	302.682,71	25,8507	0,21789	-68,4473	0	0,574514	1,53727
9	109,529	-3,82801	0	303.394,49	29,5062	0,233821	-66,6044	0	0,577588	1,523
9	112,191	-2,2856	0	298.833,94	33,9428	0,255355	-62,1843	0	0,581099	1,49376
9	115,386	-0,422873	0	287.354,69	39,2912	0,285309	-54,9399	0	0,584964	1,45088
9	119,22	1,82775	0	267.305,26	45,6712	0,328105	-44,7799	0	0,589045	1,39768
9	123,82	4,54743	0	237.352,78	53,1349	0,391808	-31,8652	0	0,593104	1,33899
9	129,341	7,83293	0	197.092,67	61,5952	0,492633	-16,9442	0	0,59697	1,28102
9	135,966	11,8011	0	149.441,72	70,7301	0,649396	-2,4156	0	0,601011	1,23308
9	136,64	12,2068	0	144.672,85	71,5853	0,667262	-1,08726	0	0,601487	1,22897
9	136,64	12,2068	0	144.672,85	71,5853	0,667262	-1,08726	0	0,601487	1,22897
9	143,915	16,6648	0	100.379,88	77,5496	0,891012	9,17584	0	0,604533	1,20062
9	151,181	21,1229	0	72.426,71	83,3145	1,1492	13,8564	0	0,605223	1,19082
9	151,181	21,1229	0	72.426,71	83,3145	1,1492	13,8564	0	0,605223	1,19082
9	153,455	22,4996	0	66.133,44	85,3629	1,23104	14,764	0	0,605312	1,18922
9	164,902	29,4303	0	46.529,24	93,5194	1,60237	17,3764	0	0,605495	1,18514
9	178,64	38,0048	0	35.803,02	98,8024	1,85943	18,7493	0	0,645506	1,18321
9	195,124	49,0242	0	29.021,23	99,8929	2,1143	19,6008	0	0,690816	1,18195
9	214,	63,2267	0	23.131,	100,596	2,4405	21,1672	0	0,7453	1,1780



	905			19					57	6
9	219,739	66,8619	0	21.931,69	100,773	2,52335	21,5173	0	0,758995	1,17719
9	238,643	81,7094	0	17.968,21	101,49	2,86548	22,5575	0	0,81124	1,17481
9	267,128	105,926	0	13.834,76	102,644	3,3759	23,4644	0	0,884652	1,17306
9	301,31	137,302	0	11.072,88	104,113	3,86746	24,0045	0	0,950514	1,17215
9	335,536	170,904	0	9.081,16	105,662	4,35806	24,3222	0	1,0124	1,17179
10	245,604	-12,2068	0	1,00	0,00177245	0,794401	24,6396	0	0,605571	1,17396
10	245,704	-12,1466	0	21.685,39	1,80162	0,00476191	-1,05964	0	0,601912	1,28962
10	245,804	-12,0864	0	23.145,91	2,57225	0,00865246	-3,96849	0	0,601954	1,30379
10	245,904	-12,0262	0	23.465,55	3,16083	0,0126792	-4,74594	0	0,601977	1,30763
10	246,004	-11,966	0	23.562,20	3,65981	0,0167346	-5,06476	0	0,601992	1,30922
10	246,104	-11,9058	0	23.582,00	4,10125	0,0208005	-5,22605	0	0,602007	1,31004
10	246,204	-11,8456	0	23.569,71	4,50198	0,0248685	-5,31825	0	0,60202	1,31052
10	246,304	-11,7854	0	23.541,14	4,8724	0,0289354	-5,37509	0	0,602032	1,31083
10	246,404	-11,7252	0	23.503,86	5,21851	0,0330034	-5,41189	0	0,602045	1,31104
10	246,504	-11,665	0	23.461,72	5,54459	0,0370751	-5,43644	0	0,602056	1,31119
10	246,604	-11,6048	0	23.416,65	5,85431	0,0411474	-5,45304	0	0,602068	1,31136
10	246,704	-11,5446	0	23.369,69	6,15016	0,0452179	-5,46425	0	0,602079	1,31138
10	246,804	-11,4844	0	23.321,35	6,43469	0,0492791	-5,47167	0	0,60209	1,31144



10	246,904	-11,4241	0	23.271,81	6,709767	0,053327	-5,47629	0	0,602101	1,31149
10	247,004	-11,3639	0	23.221,14	6,97628	0,0573652	-5,47881	0	0,602112	1,31153
10	247,104	-11,3037	0	23.178,44	7,23518	0,0613663	-5,49554	0	0,602122	1,31164
10	247,204	-11,2435	0	23.167,40	7,48612	0,065261	-5,56849	0	0,602128	1,31202
10	247,304	-11,1833	0	23.187,24	7,72994	0,0690319	-5,69657	0	0,60213	1,31267
10	247,404	-11,1231	0	23.238,36	7,96729	0,0726601	-5,88114	0	0,602128	1,3136
10	247,504	-11,0629	0	23.313,65	8,19912	0,0761522	-6,10989	0	0,602124	1,31474
10	247,604	-11,0027	0	23.404,79	8,42608	0,0795279	-6,3683	0	0,602118	1,31604
10	247,724	-10,9304	0	23.527,32	8,69295	0,0834421	-6,7042	0	0,602112	1,31771
10	247,868	-10,8437	0	23.689,03	9,00561	0,0879575	-7,13802	0	0,602104	1,31988
10	248,041	-10,7397	0	23.899,04	9,37104	0,0931282	-7,69534	0	0,602095	1,32268
10	248,249	-10,6148	0	24.165,75	9,79725	0,0990042	-8,40393	0	0,602085	1,32624
10	248,497	-10,465	0	24.497,45	10,2927	0,10564	-9,29506	0	0,602075	1,33073
10	248,796	-10,2852	0	24.902,38	10,8669	0,113083	-10,4055	0	0,602066	1,33636
10	249,154	-10,0695	0	25.387,02	11,5311	0,121352	-11,7762	0	0,602058	1,34335
10	249,584	-9,81061	0	25.956,54	12,2989	0,130446	-13,4538	0	0,602054	1,35199
10	250,1	-9,49997	0	26.613,15	13,1862	0,140328	-15,4894	0	0,602057	1,3626
10	250,72	-9,12719	0	27.353,59	14,2136	0,150909	-17,9342	0	0,602068	1,37554
10	251,463	-8,67984	0	28.167,50	15,4055	0,162131	-20,759	0	0,602094	1,39076



10	252,354	-8,14298	0	29.030,60	16,7855	0,174232	-23,6648	0	0,602138	1,4067
10	253,424	-7,4987	0	29.902,27	18,3827	0,187525	-26,3939	0	0,602206	1,42193
10	254,708	-6,72546	0	30.747,04	20,2279	0,202191	-28,8634	0	0,602299	1,43596
10	256,249	-5,79741	0	31.707,25	22,4408	0,216036	-31,3924	0	0,602411	1,45054
10	258,098	-4,68351	0	32.695,91	25,2185	0,228293	-33,5996	0	0,602565	1,46342
10	260,316	-3,34641	0	33.464,92	28,6868	0,240894	-34,6439	0	0,602785	1,46942
10	262,978	-1,74121	0	33.693,39	32,963	0,256959	-33,6106	0	0,603077	1,46292
10	266,173	0,186059	0	33.068,00	38,1753	0,280005	-29,9442	0	0,603425	1,4411
10	270,007	2,5002	0	31.296,54	44,4597	0,314491	-23,5136	0	0,603812	1,40461
10	274,608	5,27901	0	28.188,57	51,9386	0,366511	-14,8493	0	0,604222	1,35832
10	280,128	8,61589	0	23.737,84	60,6822	0,445115	-5,16634	0	0,604647	1,30966
10	286,065	12,2068	0	18.572,48	69,6511	0,553208	3,73375	0	0,605091	1,26688
10	286,065	12,2068	0	18.572,48	69,6511	0,553208	3,73375	0	0,605091	1,26688
10	286,065	12,2069	0	18.572,28	69,6513	0,553213	3,7341	0	0,605091	1,26688
10	286,753	12,6245	0	17.898,28	70,1877	0,568475	4,89406	0	0,605161	1,26139
10	294,703	17,589	0	12.026,56	76,8257	0,759011	12,917	0	0,605492	1,224
10	304,242	23,6142	0	8.064,61	85,023	1,00729	16,8016	0	0,605555	1,20623
10	315,69	30,8916	0	5.483,13	94,9476	1,31036	18,8644	0	0,605567	1,19688
10	317,503	32,0334	0	5.194,21	96,4965	1,35788	19,0733	0	0,605568	1,19594



10	329,427	39,6512	0	3.781,40	106,895	1,65794	20,0397	0	0,607655	1,19161
10	332,453	41,5894	0	3.512,94	109,527	1,7084	20,218	0	0,617198	1,19082
10	332,453	41,5894	0	3.512,94	109,527	1,70814	20,218	0	0,617293	1,19082
10	345,911	50,2129	0	2.573,24	122,231	1,96845	22,0228	0	0,665285	1,18394
10	365,693	64,1109	0	1.759,55	133,154	2,40405	23,339	0	0,739369	1,17903
10	389,43	82,6084	0	1.287,65	137,649	2,89511	24,0079	0	0,815676	1,17658
10	417,915	106,946	0	995,50	138,729	3,41401	24,3759	0	0,889879	1,17525
10	452,098	138,502	0	803,26	140,207	3,90796	24,5934	0	0,955765	1,17448
10	486,221	172,177	0	664,13	141,759	4,39865	24,7212	0	1,01739	1,17403

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	0,22	-0,365401	kg/s	0	0	3,43393
2	Continuous	14,7816	-7,17128	kg/s	0	0	36,5278
3	Continuous	21,8764	-9,0851	kg/s	0	0	44,504
4	Continuous	27,8103	-10,3647	kg/s	0	0	48,575
5	Continuous	33,2309	-11,3366	kg/s	0	0	44,2161
6	Continuous	38,3964	-12,0976	kg/s	0	0	30,6091
7	Continuous	46,3092	-12,1329	kg/s	0	0	19,8511
8	Continuous	60,8465	-12,1329	kg/s	0	0	11,5741
9	Continuous	90,904	-12,1329	kg/s	0	0	5,11721
10	Continuous	234,654	-12,1329	kg/s	0	0	0,405679

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]	Downwind 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/
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										m3]
1	0,22	-	0	1,00	0,00177	0,1543	24,6396	0	3,1164	1,1739
		0,36540			245	65			3	6
		1								
1	0,32	-	0	911.74	0,58276	0,0875	-144,752	0	0,5753	1,8567
		0,29399		9,56	6	749			7	5
1	0,42	-	0	908.76	0,88024	0,1328	-144,16	0	0,6125	1,8506
		0,23484		0,20	2	9			82	6
		7								
1	0,52	-	0	904.15	1,14215	0,1680	-143,374	0	0,6539	1,8433
		0,17143		3,72		27			29	1
		6								
1	0,62	-	0	899.71	1,38649	0,1964	-142,641	0	0,6929	1,8367
		0,10407		7,90		58			97	1
1	0,72	-	0	895.34	1,61829	0,2206	-141,809	0	0,7304	1,8286
		0,03289		4,66		5			98	6
		09								
1	0,82	0,04199	0	890.93	1,84095	0,2417	-140,853	0	0,7672	1,8189
		92		2,88					08	5
1	0,92	0,12051	0	886.51	2,05649	0,2604	-139,822	0	0,8030	1,8083
		6		8,29		95			24	3
1	1,02	0,20260	0	881.98	2,27455	0,2762	-138,718	0	0,8387	1,7969
		6		9,24		91			42	9
1	1,12	0,28829	0	877.23	2,49692	0,2894	-137,513	0	0,8750	1,7846
		1		7,87		38			57	6
1	1,22	0,37765	0	872.19	2,72206	0,3005	-136,197	0	0,9123	1,7713
		4		8,55		53			73	5
1	1,32	0,47080	0	866.83	2,94893	0,3100	-134,773	0	0,9509	1,7571
		8		4,47		62				7
1	1,42	0,56787	0	861.14	3,17675	0,3183	-133,237	0	0,9905	1,7421
		3		5,74		96			96	7
1	1,52	0,66896	0	855.11	3,40493	0,3258	-131,59	0	1,0315	1,7264
		7		8,66		04				3
1	1,62	0,77421	0	848.72	3,63295	0,3324	-129,832	0	1,0737	1,7100
		7		9,64		38				4
1	1,72	0,88375	0	841.95	3,86036	0,3384	-127,958	0	1,1172	1,6930
		5		6,23		38			5	3
1	1,82	0,99772	0	834.77	4,08677	0,3439	-125,961	0	1,1622	1,6754



				1,85		06			4	
1	1,92	1,11627	0	827.12 7,17	4,31177	0,3488 81	-123,827	0	1,2088 5	1,6571 2
1	2,02	1,23959	0	818.93 8,70	4,53497	0,3533 51	-121,537	0	1,2573 9	1,6381 3
1	2,12	1,36788	0	810.14 3,02	4,756	0,3573 26	-119,074	0	1,3081 1	1,6183 9
1	2,22	1,5014	0	800.59 8,35	4,97433	0,3607 31	-116,393	0	1,3615 9	1,5976 7
1	2,34	1,66891	0	787.97 3,19	5,23214	0,3639 88	-112,837	0	1,4301 1	1,5713 2
1	2,484	1,88132	0	770.51 5,88	5,53395	0,3662 85	-107,899	0	1,5211 2	1,5367 4
1	2,656 8	2,15507	0	744.03 2,12	5,8813	0,3648 87	-100,322	0	1,6524 7	1,4876 2
1	2,707 45	2,24006	0	733.59 8,31	5,97843	0,3618 34	-97,2515	0	1,7028 4	1,4688
1	2,707 45	2,24006	0	733.59 8,31	5,97843	0,3618 34	-97,2515	0	1,7028 4	1,4688
1	2,864 16	2,52076	0	694.63 7,16	6,26075	0,3521 06	-86,0166	0	1,8794 7	1,4061 2
1	3,112 99	3,02137	0	629.08 4,66	6,65623	0,3520 6	-68,2602	0	2,14	1,3245 2
1	3,411 59	3,69976	0	553.78 6,24	7,04057	0,3698 28	-49,1157	0	2,3935	1,2545 5
1	3,769 91	4,59888	0	474.54 9,12	7,36984	0,4092 36	-30,601	0	2,6109 9	1,2012 4
1	4,199 89	5,76037	0	396.40 8,34	7,55936	0,4778 62	-14,97	0	2,7788 1	1,1675 8
1	4,286 14	6,00115	0	381.59 7,48	7,58207	0,4952 04	-12,4459	0	2,8047 8	1,1635 1
1	4,286 14	6,00115	0	381.59 7,48	7,58207	0,4952 04	-12,4459	0	2,8047 8	1,1635 1
1	4,715 87	7,22925	0	314.20 7,91	7,70794	0,5932 88	-2,70682	0	2,9043 8	1,1528 4
1	5,335 04	9,05516	0	243.99 6,69	7,89558	0,7479 56	5,06917	0	2,9845 8	1,1515
1	6,078	11,2925	0	189.45	8,12546	0,9391	10,0885	0	3,0333	1,1542



	05			0,91		49			1	5
1	6,969 66	14,0115	0	146.74 7,84	8,40363	1,1716	13,3914	0	3,0633 2	1,1584 2
1	8,039 59	17,3003	0	113.51 6,05	8,73857	1,4533 3	15,6643	0	3,0821	1,1626 8
1	9,323 51	21,2979	0	87.502, 96	9,14357	1,7576 8	17,2957	0	3,1669 4	1,1666 1
1	10,86 42	26,2793	0	66.304, 11	9,64524	2,1124 6	18,5272	0	3,2975 8	1,1702
1	12,71 31	32,5059	0	49.356, 81	10,2681	2,5563 4	19,4972	0	3,4351 3	1,1731 6
1	14,93 17	40,2941	0	36.112, 13	11,0411	3,1198 4	21,2156	0	3,5822 6	1,1721 3
1	17,59 4	50,0427	0	25.969, 66	12,0005	3,8247 2	22,4421	0	3,7375 7	1,1717 4
1	19,07 28	55,6287	0	22.030, 76	12,5465	4,2284 2	22,8973	0	3,8161 8	1,1717
1	20,78 88	62,2686	0	18.349, 92	13,1919	4,7145 9	23,3009	0	3,9031 1	1,1717 3
1	24,62 26	77,5739	0	12.783, 74	14,6684	5,8222 1	23,887	0	4,0768 5	1,1718 9
1	27,09 63	87,7835	0	10.367, 62	15,6449	6,5607 5	24,1274	0	4,1784 8	1,1720 1
1	29,22 31	96,7577	0	8.771,9 6	16,4982	7,2089	24,281	0	4,2603 1	1,1721 2
1	34,74 37	120,774	0	6.183,0 8	18,76	8,6428 6	24,522	0	4,4223 9	1,1723 2
1	41,36 84	150,627	0	4.325,0 5	21,5364	10,333 6	24,6846	0	4,5878 1	1,1725 1
1	49,31 81	187,792	0	3.014,5 1	24,9448	12,347 9	24,7937	0	4,7588 2	1,1726 7
1	58,85 77	234,057	0	2.074,8 4	29,1255	14,743 9	24,8661	0	4,9354 3	1,1728 1
1	59,04 99	235,005	0	2.060,7 1	29,2106	14,791 9	24,8672	0	4,9387 2	1,1728 1
2	14,78 16	- 7,17128	0	1,00	0,00177 245	0,1543 65	24,6396	0	3,1164 3	1,1739 6



2	14,88 16	- 6,96943	0	616.76 6,04	2,7474	0,0222 09	-98,4688	0	1,9845 2	1,5672 3
2	14,98 16	- 6,77073	0	616.65 8,41	3,88008	0,0436 83	-98,3764	0	1,9897 5	1,5664 6
2	15,08 16	- 6,57146	0	615.36 6,84	4,7594	0,0649 319	-98,1485	0	1,9956 6	1,5653 5
2	15,18 16	-6,3716	0	613.85 7,79	5,50533	0,0860 056	-97,9	0	2,0016	1,5642 2
2	15,28 16	- 6,17114	0	612.27 7,90	6,16826	0,1068 64	-97,6456	0	2,0075 1	1,5630 9
2	15,38 16	-5,9701	0	610.65 6,33	6,77177	0,1275 23	-97,3872	0	2,0134 5	1,5619 6
2	15,48 16	- 5,76846	0	609.01 3,10	7,32946	0,1480 09	-97,1267	0	2,0193 9	1,5608 3
2	15,58 16	- 5,56622	0	607.34 4,83	7,85059	0,1683 21	-96,863	0	2,0253 6	1,5596 9
2	15,68 16	- 5,36338	0	605.65 3,06	8,34172	0,1884 58	-96,596	0	2,0313 9	1,5585 5
2	15,78 16	- 5,15994	0	603.97 7,76	8,80814	0,2084 08	-96,3341	0	2,0373 5	1,5574 4
2	15,88 16	- 4,95598	0	602.74 6,68	9,25323	0,2279 91	-96,1764	0	2,0423	1,5569 4
2	15,98 16	- 4,75157	0	602.01 2,45	9,68033	0,2471 07	-96,1343	0	2,0461 5	1,5571 1
2	16,08 16	- 4,54681	0	601.77 5,41	10,092	0,2656 74	-96,2072	0	2,0489 2	1,5579 4
2	16,18 16	- 4,34177	0	601.89 7,32	10,4899	0,2837 07	-96,3616	0	2,0509 7	1,5592 3
2	16,28 16	- 4,13654	0	602.28 3,93	10,8755	0,3012 15	-96,5749	0	2,0525 2	1,5608 7
2	16,38 16	- 3,93117	0	602.83 5,82	11,2499	0,3182 32	-96,8238	0	2,0538	1,5627
2	16,48 16	-3,7257	0	603.48 1,07	11,6138	0,3347 96	-97,0915	0	2,0549 6	1,5646 4
2	16,58 16	- 3,52014	0	604.17 8,72	11,9682	0,3509 29	-97,3689	0	2,0561	1,5666 4
2	16,68 16	- 3,31447	0	604.89 7,67	12,3137	0,3666 62	-97,6491	0	2,0572 7	1,5686 5



2	16,78	-	0	605.61	12,651	0,3820	-97,9274	0	2,0585	1,5706
	16	3,10869		8,81		1			1	5
2	16,90	-	0	606.46	13,0458	0,4000	-98,2324	0	2,0601	1,5728
	16	2,86158		6,21		02			2	1
2	17,04	-	0	607.42	13,506	0,4210	-98,5345	0	2,0622	1,5748
	56	2,56477		7,57		72			8	7
2	17,21	-	0	608.46	14,0407	0,4456	-98,7984	0	2,0652	1,5765
	84	2,20815		3,16		99			8	2
2	17,42	-	0	609.50	14,6591	0,4743	-98,9924	0	2,0694	1,5775
	58	1,77947		5,68		74			9	2
2	17,67	-	0	610.43	15,3709	0,5076	-99,068	0	2,0754	1,5775
	46	1,26379		6,87		51			7	2
2	17,97	-	0	611.06	16,1916	0,5459	-98,9508	0	2,0839	1,5759
	32	0,64282		4,58		63			9	6
		1								
2	18,33	0,10606	0	611.05	17,1688	0,5887	-98,5213	0	2,0963	1,5720
	15	2		1,35		21			4	2
2	18,76	1,01127	0	609.79	18,374	0,6346	-97,5715	0	2,1146	1,5642
	15			9,69		83			4	7
2	19,27	2,10925	0	606.33	19,8613	0,6835	-95,7693	0	2,1421	1,5506
	75			3,50		07			7	3
2	19,89	3,44798	0	599.18	21,6747	0,7356	-92,6382	0	2,1834	1,5284
	67			4,56		41			4	4
2	20,63	5,09239	0	585.99	23,8627	0,7918	-87,4435	0	2,2450	1,4942
	97			6,13		01			3	9
2	21,53	7,1344	0	562.21	26,4486	0,8535	-78,7911	0	2,3386	1,4428
	13			8,74		29			7	9
2	22,39	9,21531	0	525.17	28,8422	0,9079	-65,9972	0	2,4658	1,3763
	91			9,55		49			3	1
2	22,39	9,21531	0	525.17	28,8422	0,9079	-65,9972	0	2,4658	1,3763
	91			9,55		49			3	1
2	22,60	9,71889	0	512.08	29,3564	0,9187	-61,5435	0	2,5080	1,3552
	12			2,57		61			3	3
2	23,88	13,0895	0	424.52	32,1862	1,0432	-35,2346	0	2,7309	1,2527
	51			2,36		3			3	5
2	25,42	17,4308	0	333.30	34,4194	1,2761	-13,5825	0	2,8904	1,1928
	58			7,49		4			7	
2	25,51	17,6966	0	328.83	34,5131	1,2913	-12,6838	0	2,8970	1,1908



	77			1,56		3			3	2
2	25,51 77	17,6966	0	328.83 1,56	34,5131	1,2913 3	-12,6838	0	2,8970 3	1,1908 2
2	27,27 47	22,8778	0	255.38 0,05	35,478	1,6261 6	-0,468938	0	3,0091 3	1,1703 3
2	29,49 33	29,8185	0	184.39 3,65	36,1812	2,1081 6	7,94611	0	3,2388 1	1,1653 5
2	32,15 56	38,7382	0	131.51 2,08	37,0673	2,7443 5	12,9369	0	3,4539 3	1,1667
2	35,35 04	50,1154	0	93.595, 71	38,1878	3,5565 7	15,9635	0	3,6620 9	1,1698
2	39,18 42	64,5619	0	66.411, 91	39,5945	4,5884 3	17,889	0	3,8694 1	1,1729 6
2	43,78 47	82,8578	0	46.995, 87	41,3549	5,8952	19,1532	0	4,0800 4	1,1756 8
2	49,30 53	105,981	0	33.605, 23	43,5511	7,4591 2	20,6126	0	4,2856 6	1,1755
2	55,93	135,002	0	24.752, 16	46,2694	9,1455 9	21,974	0	4,4709 5	1,1740 3
2	59,04 91	149,066	0	21.817, 48	47,5736	9,9358 2	22,4085	0	4,5483 2	1,1736 4
2	63,87 97	171,368	0	18.136, 42	49,624	11,169 7	22,9228	0	4,6597 4	1,1732 3
2	73,41 93	216,76	0	13.232, 54	53,749	13,567 8	23,5803	0	4,8504 3	1,1728 3
2	77,15 58	235,003	0	11.871, 90	55,3896	14,500 7	23,7578	0	4,9173 7	1,1727 6
3	21,87 64	-9,0851	0	1,00	0,00177 245	0,1543 65	24,6396	0	3,1164 3	1,1739 6
3	21,97 64	- 8,86798	0	564.99 2,14	3,14812	0,0203 235	-90,8627	0	2,1446 1	1,538
3	22,07 64	- 8,65332	0	564.88 3,95	4,44814	0,0401 134	-90,7801	0	2,1488 4	1,5373 7
3	22,17 64	- 8,43821	0	563.84 7,98	5,45037	0,0598 175	-90,5976	0	2,1531 7	1,5365 6
3	22,27 64	- 8,22268	0	562.62 7,83	6,30146	0,0793 711	-90,3979	0	2,1575 2	1,5357 3



3	22,37 64	- 8,00671	0	561.32 5,06	7,05621	0,0987 714	-90,1895	0	2,1619 3	1,5348 9
3	22,47 64	- 7,79029	0	559.98 5,20	7,7408	0,1180 6	-89,9775	0	2,1663 7	1,5340 5
3	22,57 64	- 7,57343	0	558.61 8,36	8,37142	0,1372 48	-89,7624	0	2,1708 4	1,5332
3	22,67 64	- 7,35612	0	557.22 3,01	8,95913	0,1563 29	-89,5434	0	2,1753 6	1,5323 4
3	22,77 64	- 7,13836	0	555.81 6,91	9,51176	0,1753 1	-89,3233	0	2,1799	1,5314 9
3	22,87 64	- 6,92015	0	554.41 2,75	10,0351	0,1941 96	-89,104	0	2,1843 9	1,5306 4
3	22,97 64	- 6,70149	0	553.00 7,90	10,5344	0,2129 62	-88,8849	0	2,1888 6	1,5297 9
3	23,07 64	- 6,48242	0	551.76 9,60	11,0132	0,2315 14	-88,7067	0	2,1929 7	1,5291 8
3	23,17 64	- 6,26298	0	550.82 4,59	11,4744	0,2497 44	-88,6004	0	2,1964 9	1,5289 6
3	23,27 64	- 6,04325	0	550.33 1,05	11,9197	0,2675 22	-88,6045	0	2,1991 1	1,5293 4
3	23,37 64	- 5,82325	0	550.19 9,64	12,3507	0,2848 46	-88,6965	0	2,2010 3	1,5302 1
3	23,47 64	- 5,60304	0	550.38 0,86	12,7688	0,3017	-88,8638	0	2,2023 6	1,5315
3	23,57 64	-5,3827	0	550.77 5,19	13,1749	0,3181 19	-89,0811	0	2,2033 5	1,5330 5
3	23,67 64	- 5,16227	0	551.31 5,86	13,5701	0,3341 29	-89,3317	0	2,2041 1	1,5347 9
3	23,77 64	- 4,94179	0	551.95 8,00	13,9552	0,3497 46	-89,6045	0	2,2047 6	1,5366 4
3	23,87 64	- 4,72127	0	552.66 2,13	14,331	0,3649 94	-89,8903	0	2,2053 5	1,5385 7
3	23,99 64	- 4,45655	0	553.55 6,02	14,7703	0,3828 47	-90,2429	0	2,2060 5	1,5409 5
3	24,14 04	- 4,13877	0	554.65 5,09	15,2821	0,4036 61	-90,6698	0	2,2069 5	1,5438 2
3	24,31 32	- 3,75724	0	555.95 6,45	15,8761	0,4279 01	-91,1419	0	2,2082 2	1,5469 5



3	24,5206	-3,29913	0	557.431,26	16,5631	0,456047	-91,6239	0	2,21012	1,55005
3	24,7694	-2,74882	0	559.012,27	17,3539	0,488702	-92,0583	0	2,21301	1,55269
3	25,068	-2,08738	0	560.572,79	18,2594	0,526526	-92,3761	0	2,21743	1,55432
3	25,4263	-1,29168	0	561.904,85	19,29	0,570275	-92,49	0	2,22414	1,55435
3	25,8563	-0,333257	0	562.671,10	20,4875	0,619864	-92,2776	0	2,23428	1,55193
3	26,3723	0,823479	0	562.242,54	21,9415	0,673999	-91,5174	0	2,24988	1,54564
3	26,9915	2,22376	0	559.595,61	23,7427	0,731711	-89,8568	0	2,27405	1,53335
3	27,7345	3,92678	0	553.078,42	25,9601	0,793412	-86,743	0	2,31147	1,51188
3	28,6261	6,01233	0	540.052,80	28,6431	0,860929	-81,3276	0	2,36881	1,47752
3	29,696	8,59262	0	515.453,29	31,8136	0,937528	-72,0121	0	2,45793	1,42438
3	30,6066	10,8751	0	482.017,14	34,3813	1,00055	-60,0362	0	2,56344	1,36427
3	30,6066	10,8751	0	482.017,14	34,3813	1,00055	-60,0362	0	2,56344	1,36427
3	30,9799	11,8455	0	461.460,33	35,3504	1,02676	-52,9007	0	2,62311	1,33206
3	32,5206	16,0473	0	374.417,08	38,6861	1,20379	-26,806	0	2,81654	1,23658
3	34,1735	20,8106	0	297.821,36	41,0299	1,46616	-9,21241	0	2,93519	1,19082
3	34,1735	20,8106	0	297.821,36	41,0299	1,46616	-9,21241	0	2,93519	1,19082
3	34,3695	21,3869	0	290.397,73	41,2249	1,49977	-7,80132	0	2,94483	1,18795
3	36,5881	28,1294	0	219.866,84	42,3842	1,88159	2,99757	0	3,13672	1,17222
3	39,25	36,7957	0	156.76	43,2492	2,4680	10,1914	0	3,3660	1,1685



	04			6,64		2			7	2
3	42,44 52	47,9179	0	109.88 3,44	44,3466	3,2586 4	14,4369	0	3,5902 3	1,1700 9
3	46,27 9	62,1169	0	77.019, 25	45,7321	4,2732 8	16,9914	0	3,8099 8	1,1728 2
3	50,87 95	80,1665	0	54.026, 52	47,4719	5,5626 1	18,5992	0	4,0298 9	1,1754 4
3	56,40 01	103,045	0	38.030, 17	49,6484	7,1692 7	19,6676	0	4,2500 8	1,1774 9
3	63,02 48	131,853	0	28.016, 21	52,3508	8,8556 6	21,3319	0	4,4406 2	1,1752 7
3	69,10 53	159,318	0	22.037, 61	54,8939	10,391 8	22,2622	0	4,5904 1	1,1742 2
3	70,97 45	167,953	0	20.585, 61	55,6869	10,864 9	22,4794	0	4,6329 1	1,174
3	80,51 41	213,13	0	15.067, 21	59,7968	13,263 9	23,2744	0	4,8277	1,1733
3	88,27 8	251,146	0	12.111, 75	63,2091	15,197 3	23,6787	0	4,965	1,1730 2
4	27,81 03	- 10,3647	0	1,00	0,00177 245	0,1543 65	24,6396	0	3,1164 3	1,1739 6
4	27,91 03	- 10,1383	0	530.35 2,97	3,38073	0,0192 941	-85,8257	0	2,2414 5	1,5203 8
4	28,01 03	- 9,91396	0	530.33 9,22	4,7746	0,0381 841	-85,7646	0	2,2448 1	1,5198 9
4	28,11 03	- 9,68929	0	529.40 1,42	5,85196	0,0569 57	-85,5994	0	2,2485 1	1,5191 9
4	28,21 03	- 9,46425	0	528.29 1,73	6,76214	0,0756 576	-85,4184	0	2,2522 2	1,5184 8
4	28,31 03	- 9,23885	0	527.13 1,01	7,56795	0,0942 497	-85,2336	0	2,2558 9	1,5177 8
4	28,41 03	- 9,01307	0	525.93 7,25	8,29942	0,1127 38	-85,0456	0	2,2595 8	1,5170 8
4	28,51 03	- 8,78693	0	524.72 6,28	8,9733	0,1311 46	-84,856	0	2,2632 8	1,5163 8
4	28,61 03	- 8,56042	0	523.50 8,86	9,6021	0,1494 67	-84,6662	0	2,2669 6	1,5156 8



4	28,71 03	- 8,33354	0	522.28 5,92	10,1947	0,1676 88	-84,476	0	2,2706 3	1,5149 9
4	28,81 03	- 8,10629	0	521.05 6,14	10,7572	0,1858 08	-84,2849	0	2,2743 1	1,5142 9
4	28,91 03	- 7,87868	0	519.82 0,74	11,2938	0,2038 34	-84,0932	0	2,2779 9	1,5136
4	29,01 03	- 7,65069	0	518.57 9,14	11,8079	0,2217 68	-83,9007	0	2,2816 8	1,5129
4	29,11 03	- 7,42236	0	517.40 1,68	12,3016	0,2395 81	-83,725	0	2,2852 4	1,5123
4	29,21 03	- 7,19372	0	516.47 0,21	12,7776	0,2571 41	-83,6122	0	2,2883 3	1,5120 4
4	29,31 03	- 6,96479	0	515.88 3,00	13,2378	0,2743 39	-83,5874	0	2,2907 6	1,5122 5
4	29,41 03	- 6,73561	0	515.68 5,82	13,684	0,2910 9	-83,662	0	2,2924 8	1,5129 9
4	29,51 03	- 6,50622	0	515.78 9,07	14,1174	0,3074 05	-83,8121	0	2,2936 6	1,5141 3
4	29,61 03	- 6,27674	0	516.09 8,46	14,5389	0,3233 19	-84,0123	0	2,2945 2	1,5155 4
4	29,71 03	- 6,04722	0	516.56 5,77	14,9495	0,3388 41	-84,2501	0	2,2951 6	1,5171 5
4	29,81 03	- 5,81766	0	517.13 9,34	15,3502	0,3539 95	-84,5126	0	2,2956 7	1,5188 9
4	29,93 03	- 5,54215	0	517.91 9,44	15,8188	0,3717 32	-84,8482	0	2,2962 9	1,5210 9
4	30,07 43	- 5,21146	0	518.93 3,41	16,3647	0,3924 11	-85,2676	0	2,2968 1	1,5238 2
4	30,24 71	- 4,81451	0	520.19 9,02	16,9981	0,4164 23	-85,7798	0	2,2976 6	1,5271 6
4	30,45 44	- 4,33796	0	521.71 1,65	17,7294	0,4441 87	-86,3815	0	2,2987 6	1,5310 8
4	30,70 33	- 3,76571	0	523.44 9,55	18,5686	0,4763 86	-86,9984	0	2,3005 2	1,535
4	31,00 19	- 3,07833	0	525.30 7,02	19,5293	0,5136 87	-87,5369	0	2,3033 4	1,5382
4	31,36 02	-2,2522	0	527.11 1,18	20,6239	0,5568	-87,9208	0	2,3078 5	1,5401 5



4	31,79 02	- 1,25841	0	528.59 6,57	21,863	0,6065 8	-88,0475	0	2,3149 3	1,5401 6
4	32,30 61	- 0,06126 63	0	529.33 7,97	23,3071	0,6626 47	-87,7616	0	2,3258 8	1,5372 2
4	32,92 53	1,38402	0	528.50 1,34	25,0764	0,7233 35	-86,7634	0	2,3431 5	1,5294 6
4	33,66 83	3,13478	0	524.71 2,67	27,2779	0,7879 66	-84,5693	0	2,3706 1	1,5140 5
4	34,55 99	5,26681	0	515.85 3,10	29,9779	0,8581 55	-80,471	0	2,4135 3	1,4874 7
4	35,62 99	7,88322	0	498.40 6,86	33,2135	0,9374 84	-73,3343	0	2,4797 7	1,4452 2
4	36,91 38	11,1324	0	464.09 7,66	36,9682	1,0317 8	-60,4531	0	2,5876 2	1,3781 6
4	37,22 79	11,9508	0	451.61 7,56	37,8389	1,0547 3	-55,9038	0	2,6237 6	1,3566 7
4	37,22 79	11,9508	0	451.61 7,56	37,8389	1,0547 3	-55,9038	0	2,6237 6	1,3566 7
4	38,45 45	15,2649	0	391.10 4,02	40,8564	1,1693 6	-35,3504	0	2,7749 3	1,2726 3
4	40,30 33	20,5436	0	305.53 5,39	44,1487	1,4450 5	-12,7095	0	2,9210 1	1,2043 4
4	41,12 39	22,9597	0	275.69 7,10	45,1699	1,5797 2	-6,66102	0	2,9632 8	1,1908 2
4	41,12 39	22,9597	0	275.69 7,10	45,1699	1,5794 9	-6,66102	0	2,9637 1	1,1908 2
4	42,52 19	27,1935	0	233.64 9,22	46,3431	1,7895 4	0,200327	0	3,0912 3	1,1794 4
4	45,18 43	35,7139	0	171.69 8,24	47,4148	2,2934	8,28587	0	3,3074 8	1,1713 6
4	48,37 91	46,6561	0	120.24 1,22	48,4982	3,0460 1	13,3848	0	3,537 7	1,1710 7
4	52,21 28	60,6703	0	83.373, 46	49,8681	4,0473 6	16,4223	0	3,7661 1	1,1732 2
4	56,81 33	78,5339	0	58.031, 28	51,5917	5,3235 1	18,2712	0	3,9928 9	1,1756 3
4	62,33	101,225	0	40.582, 53,7524	53,7524	6,9250	19,4394	0	4,2194	1,1777



	4			50		5			4	1
4	68,95 87	129,843	0	29.810, 16	56,4355	8,6019 2	20,9575	0	4,4142 7	1,1761 8
4	76,28 9	162,874	0	22.413, 01	59,4928	10,448 8	22,1547	0	4,5957 3	1,1746 5
4	76,90 84	165,726	0	21.916, 66	59,7548	10,604 8	22,2309	0	4,6098 2	1,1745 6
4	86,44 8	210,745	0	16.010, 29	63,8523	13,007 2	23,107	0	4,8083 5	1,1736 5
4	95,85 11	256,743	0	12.342, 72	67,9794	15,343 4	23,6245	0	4,9747 9	1,1732 2
5	33,23 09	- 11,3366	0	1,00	0,00177 245	0,1543 65	24,6396	0	3,1164 3	1,1739 6
5	33,33 09	- 11,1032	0	502.53 6,20	3,56402	0,0185 792	-81,8064	0	2,3138 8	1,5071 9
5	33,43 09	- 10,8717	0	502.52 8,42	5,03545	0,0367 98	-81,7512	0	2,3168 6	1,5067 6
5	33,53 09	- 10,6398	0	501.65 6,19	6,16877	0,0549 502	-81,5982	0	2,3201 2	1,5061 4
5	33,63 09	- 10,4076	0	500.64 0,66	7,12777	0,0730 217	-81,4331	0	2,3233 3	1,5055 3
5	33,73 09	- 10,1752	0	499.56 2,85	7,97554	0,0910 091	-81,262	0	2,3265 6	1,5049 1
5	33,83 09	- 9,94234	0	498.46 0,48	8,74282	0,1089 36	-81,0889	0	2,3297 9	1,5042 9
5	33,93 09	- 9,70919	0	497.34 9,05	9,45036	0,1267 82	-80,9156	0	2,333 8	1,5036 8
5	34,03 09	- 9,47573	0	496.22 8,06	10,1111	0,1445 4	-80,7414	0	2,3362 2	1,5030 8
5	34,13 09	- 9,24195	0	495.09 9,50	10,7334	0,1622 18	-80,5664	0	2,3394 3	1,5024 7
5	34,23 09	- 9,00785	0	493.96 3,62	11,3228	0,1798 27	-80,3905	0	2,3426 6	1,5018 6
5	34,33 09	- 8,77342	0	492.82 2,69	11,8842	0,1973 69	-80,2139	0	2,3458 8	1,5012 5
5	34,43 09	- 8,53867	0	491.67 7,99	12,4214	0,2148 42	-80,037	0	2,3491 1	1,5006 4



5	34,53 09	-8,3036	0	490.56 1,48	12,9377	0,2322 2	-79,8678	0	2,3522 7	1,5000 7
5	34,63 09	- 8,06823	0	489.52 7,42	13,4355	0,2494 58	-79,7208	0	2,3552 9	1,4996 2
5	34,73 09	- 7,83258	0	488.65 8,42	13,917	0,2664 8	-79,6176	0	2,3580 1	1,4994 1
5	34,83 09	- 7,59668	0	488.08 7,65	14,3836	0,2831 63	-79,5929	0	2,3601 9	1,4996
5	34,93 09	- 7,36058	0	487.84 6,65	14,8365	0,2994 44	-79,655	0	2,3617 9	1,5002 6
5	35,03 09	- 7,12428	0	487.81 4,58	15,277	0,3153 7	-79,7714	0	2,3630 5	1,5011 9
5	35,13 09	- 6,88785	0	488.00 6,24	15,7057	0,3309 1	-79,9457	0	2,3639 5	1,5024 3
5	35,23 09	- 6,65135	0	488.35 2,66	16,1234	0,3460 92	-80,1584	0	2,3646 3	1,5038 7
5	35,35 09	- 6,36752	0	488.95 2,04	16,6115	0,3638 25	-80,4592	0	2,3652	1,5058 4
5	35,49 49	- 6,02683	0	489.81 4,92	17,1799	0,3844 93	-80,8547	0	2,3657 3	1,5083 8
5	35,66 77	- 5,61793	0	490.97 8,52	17,8394	0,4084 63	-81,3586	0	2,3663	1,5116
5	35,87 5	- 5,12716	0	492.44 1,08	18,6015	0,4361 43	-81,9758	0	2,3670 7	1,5155 3
5	36,12 38	- 4,53801	0	494.17 4,91	19,4781	0,4680 35	-82,6778	0	2,3682 9	1,5199 9
5	36,42 24	- 3,83056	0	496.10 2,16	20,4809	0,5048 69	-83,3561	0	2,3703 2	1,5241 5
5	36,78 08	- 2,98054	0	498.03 9,12	21,6228	0,5474 16	-83,8922	0	2,3738	1,5271 8
5	37,21 07	- 1,95858	0	499.78 8,09	22,9124	0,5966 04	-84,2092	0	2,3793 9	1,5285 5
5	37,72 67	- 0,72841	0	500.89 5,28	24,3761	0,6529 43	-84,1505	0	2,3884 5	1,5273
5	38,34 59	0,75513 5	0	500.51 0,31	26,1435	0,7143 22	-83,435	0	2,4035 2	1,5217 2
5	39,08	2,55079	0	495.77	28,3272	0,7769	-81,3364	0	2,4336	1,5081



	89			9,07		19		7	1	
5	39,98 05	4,74542	0	481.58 6,81	30,9855	0,8380 33	-76,5598	0	2,4928 6	1,4805 6
5	41,05 04	7,45593	0	457.18 2,70	34,1445	0,9095 75	-68,389	0	2,5753 4	1,4366 1
5	42,33 44	10,8317	0	417.99 4,96	37,7891	1,0058 2	-54,8702	0	2,6844 3	1,3706 8
5	42,81 51	12,1329	0	398.96 6,67	39,0784	1,0472 3	-48,0052	0	2,7319 5	1,3398
5	42,81 51	12,1329	0	398.96 6,67	39,0784	1,0472 3	-48,0052	0	2,7319 5	1,3398
5	43,87 51	15,0871	0	351.08 4,54	41,6116	1,1635 3	-30,7788	0	2,8390 3	1,2710 7
5	45,72 39	20,4557	0	274.49 2,70	44,938	1,4469	-9,82571	0	2,958	1,2074 4
5	46,95 72	24,1412	0	236.27 4,01	46,5216	1,6378 2	-2,23918	0	3,0292 7	1,1908 2
5	46,95 72	24,1412	0	236.27 4,01	46,5216	1,6378 1	-2,23918	0	3,0292 8	1,1908 2
5	47,94 25	27,1656	0	210.93 8,15	47,4861	1,7822	1,78884	0	3,1087 1	1,1842 8
5	50,60 49	35,7066	0	156.83 5,37	49,0887	2,2471 9	9,0508	0	3,3041 8	1,1758 1
5	53,79 97	46,6095	0	111.39 9,80	50,2343	2,9480 2	13,7104	0	3,5187 5	1,1743 3
5	57,63 34	60,5555	0	76.446, 90	51,5902	3,9447 1	16,6665	0	3,7494 3	1,1755 8
5	62,23 39	78,3503	0	52.687, 77	53,3101	5,2178 9	18,45	0	3,9785 4	1,1773 4
5	67,75 45	100,968	0	36.552, 75	55,464	6,8175 2	19,5677	0	4,2072 3	1,1789 4
5	74,37 93	129,515	0	26.718, 25	58,145	8,4943 2	21,1521	0	4,4035 2	1,1767 5
5	78,76 17	149,062	0	22.360, 97	59,9598	9,5951 8	21,9053	0	4,5162 1	1,1756 4
5	82,32 9	165,357	0	19.543, 80	61,4602	10,497 4	22,369	0	4,6007 3	1,1750 1
5	91,86	210,222	0	14.352,	65,5464	12,884	23,2028	0	4,7992	1,174



	86			22					7	
5	96,98 12	234,996	0	12.403, 18	67,7767	14,154 9	23,4984	0	4,8931 8	1,1736 9
6	38,39 64	- 12,0976	0	1,00	0,00177 245	0,1543 65	24,6396	0	3,1164 3	1,1739 6
6	38,49 64	- 11,8576	0	474.25 3,58	3,69747	0,0179 326	-77,738	0	2,3831 1	1,4945 6
6	38,59 64	- 11,6191	0	473.88 8,07	5,22209	0,0355 361	-77,6317	0	2,3867 9	1,4939 9
6	38,69 64	- 11,3802	0	472.75 9,69	6,39224	0,0530 932	-77,4415	0	2,3905 1	1,4932 8
6	38,79 64	- 11,1408	0	470.25 9,73	7,3664	0,0705 005	-77,0321	0	2,3982 1	1,4918 1
6	38,89 64	- 10,9003	0	464.98 4,89	8,19908	0,0874 661	-76,1712	0	2,4142 4	1,4887 6
6	38,99 64	- 10,6581	0	459.77 3,12	8,94785	0,1042 08	-75,3437	0	2,4289 4	1,4859 5
6	39,09 64	- 10,4146	0	455.05 0,06	9,63843	0,1207 88	-74,6085	0	2,4415 5	1,4835 4
6	39,19 64	- 10,1699	0	450.73 3,35	10,2872	0,1371 57	-73,9455	0	2,4526 5	1,4814 2
6	39,29 64	- 9,92415	0	446.71 5,16	10,8992	0,1533 8	-73,3332	0	2,4627 3	1,4794 9
6	39,39 64	- 9,67743	0	442.95 7,03	11,4799	0,1694 84	-72,7639	0	2,4719 8	1,4777 3
6	39,49 64	-9,4298	0	439.39 8,57	12,0331	0,1854 89	-72,2268	0	2,4806 2	1,4760 9
6	39,59 64	- 9,18133	0	436.01 5,63	12,5628	0,2013 98	-71,7176	0	2,4887 4	1,4745 4
6	39,69 64	- 8,93206	0	432.77 9,54	13,0719	0,2172 14	-71,2314	0	2,4964 4	1,4730 8
6	39,79 64	- 8,68204	0	429.66 3,11	13,5627	0,2329 3	-70,7637	0	2,5037 9	1,4716 9
6	39,89 64	-8,4313	0	426.64 5,86	14,0372	0,2485 47	-70,3111	0	2,5108 7	1,4703 4
6	39,99 64	- 8,17988	0	423.71 7,32	14,4973	0,2640 49	-69,8727	0	2,5177 1	1,4690 5



6	40,09 64	-7,9278	0	420.96 7,84	14,9432	0,2793 87	-69,4749	0	2,5241 7	1,4679 5
6	40,19 64	-7,6751	0	418.40 4,27	15,3764	0,2945 21	-69,1212	0	2,5302 6	1,4670 4
6	40,29 64	- 7,42184	0	416.09 9,06	15,7975	0,3093 56	-68,8337	0	2,5358 9	1,4664 6
6	40,39 64	- 7,16803	0	414.04 9,47	16,2077	0,3238 58	-68,6126	0	2,5410 6	1,4661 9
6	40,51 64	- 6,86279	0	411.92 9,12	16,6867	0,3407 67	-68,4362	0	2,5466 8	1,4662 9
6	40,66 04	- 6,49557	0	409.76 7,01	17,2437	0,3603 93	-68,3234	0	2,5528 7	1,4668 7
6	40,83 32	- 6,05374	0	407.55 6,77	17,8884	0,3830 96	-68,2832	0	2,5595 4	1,4680 1
6	41,04 06	- 5,52215	0	405.21 4,82	18,631	0,4093 1	-68,3034	0	2,5672 8	1,4696 8
6	41,28 94	- 4,88225	0	402.71 8,90	19,4825	0,4393 86	-68,3901	0	2,5759 5	1,4719 3
6	41,58 8	- 4,11159	0	399.99 2,59	20,4546	0,4738 07	-68,4836	0	2,5860 9	1,4743 7
6	41,94 63	- 3,18282	0	396.88 4,40	21,5549	0,5134 15	-68,4473	0	2,5980 6	1,4761 3
6	42,37 63	- 2,06261	0	393.15 3,57	22,7899	0,5592 06	-68,1318	0	2,6124 1	1,4762 5
6	42,89 23	- 0,71011 5	0	388.44 1,62	24,1662	0,6122 91	-67,3778	0	2,6299 3	1,4738 3
6	43,51 15	0,92503 4	0	382.15 9,98	25,7777	0,6720 82	-65,925	0	2,6517 8	1,4674 4
6	44,25 45	2,90581	0	373.17 2,71	27,7631	0,7377 93	-63,2841	0	2,6801 3	1,4545 1
6	45,14 61	5,31206	0	359.67 0,35	30,2024	0,8120 93	-58,6792	0	2,7180 6	1,4314 2
6	46,21 6	8,2474	0	338.70 9,06	33,133	0,9018 72	-50,864	0	2,7699 4	1,3933 4
6	47,49 99	11,8502	0	303.96 0,06	36,5149	1,0221 3	-37,1028	0	2,8458 2	1,3311 7
6	47,59	12,1329	0	300.53	36,763	1,0325	-35,714	0	2,8529	1,3252



	92			9,90		6			1	5
6	47,59 92	12,1329	0	300.53 9,90	36,763	1,0325 6	-35,714	0	2,8529 1	1,3252 5
6	49,04 06	16,32	0	247.36 4,35	39,97	1,2162 1	-15,759	0	2,9503 4	1,2494 1
6	50,88 95	21,8469	0	192.03 2,07	43,1426	1,5061 3	-1,48593	0	3,0205 3	1,2084 2
6	53,10 81	28,6806	0	147.73 5,95	46,1497	1,8123 6	6,491	0	3,1539	1,1919
6	53,35 51	29,4614	0	143.72 8,60	46,4469	1,8458	7,11034	0	3,1692 1	1,1908 2
6	53,35 51	29,4614	0	143.72 8,60	46,4469	1,8458 6	7,11034	0	3,1691 1	1,1908 2
6	55,77 04	37,2878	0	111.26 4,32	48,8731	2,2080 6	11,6437	0	3,3105 3	1,1842 7
6	58,96 52	48,1529	0	80.317, 84	51,1237	2,7973 4	15,1442	0	3,4906 9	1,1812 9
6	62,79 9	61,9518	0	54.992, 14	52,8435	3,7140 8	17,5475	0	3,7087 3	1,1806 9
6	67,39 95	79,5714	0	37.053, 88	54,5332	4,9759	19,0606	0	3,9432 6	1,1810 6
6	72,92 01	102,006	0	25.275, 47	56,669	6,5571 6	20,3456	0	4,1757 8	1,1803 7
6	75,76 4	114,012	0	21.780, 60	57,8006	7,2742 6	21,1065	0	4,2663 7	1,1788 3
6	79,54 48	130,396	0	18.188, 36	59,3327	8,2275 4	21,8579	0	4,3762 3	1,1773 9
6	87,49 45	166,012	0	13.316, 68	62,6265	10,214 3	22,8686	0	4,5758 6	1,1755 9
6	90,48 56	179,794	0	12.001, 00	63,8887	10,959 1	23,1271	0	4,6426 8	1,1751 7
7	46,30 92	- 12,1329	0	1,00	0,00177 245	0,1543 65	24,6396	0	3,1164 3	1,1739 6
7	46,40 92	- 11,8598	0	303.65 3,02	3,85637	0,0151 493	-53,484	0	2,7232 8	1,4313 1
7	46,50 92	- 11,5873	0	303.13 8,71	5,44492	0,0301 224	-53,392	0	2,7257 5	1,4310 2



7	46,60	-	0	302.08	6,66086	0,0450	-53,2239	0	2,7282	1,4305
	92	11,3146		5,21		804				5
7	46,70	-	0	300.91	7,68178	0,0600	-53,0421	0	2,7306	1,4300
	92	11,0417		8,52		266			6	7
7	46,80	-	0	299.72	8,57847	0,0749	-52,8575	0	2,7331	1,4295
	92	10,7685		1,71		481				9
7	46,90	-	0	298.50	9,38746	0,0898	-52,6708	0	2,7355	1,4291
	92	10,4951		6,07		356			4	1
7	47,00	-	0	297.27	10,1283	0,1047	-52,4824	0	2,7379	1,4286
	92	10,2214		7,01		08			9	2
7	47,10	-	0	296.04	10,8147	0,1195	-52,2934	0	2,7404	1,4281
	92	9,94747		1,28		65			4	4
7	47,20	-	0	294.80	11,4574	0,1343	-52,1038	0	2,7428	1,4276
	92	9,67331		0,23		96			9	6
7	47,30	-	0	293.55	12,0636	0,1491	-51,9133	0	2,7453	1,4271
	92	9,39889		3,10		95			4	7
7	47,40	-	0	292.30	12,6384	0,1639	-51,7222	0	2,7478	1,4266
	92	9,12424		1,50		67				9
7	47,50	-	0	291.04	13,1857	0,1787	-51,5313	0	2,7502	1,4262
	92	8,84934		9,94		17			4	1
7	47,60	-	0	289.80	13,7083	0,1934	-51,3413	0	2,7526	1,4257
	92	8,57419		3,32		53			7	3
7	47,70	-8,2988	0	288.56	14,2092	0,2081	-51,1526	0	2,7550	1,4252
	92			4,30		74			7	5
7	47,80	-	0	287.33	14,6904	0,2228	-50,9653	0	2,7574	1,4247
	92	8,02318		3,07		81			4	8
7	47,90	-	0	286.10	15,1539	0,2375	-50,779	0	2,7597	1,4243
	92	7,74731		7,80		72			9	2
7	48,00	-	0	284.88	15,6016	0,2522	-50,5933	0	2,7621	1,4238
	92	7,47121		6,06		43			3	5
7	48,10	-	0	283.66	16,0347	0,2668	-50,4079	0	2,7644	1,4233
	92	7,19488		6,27		93			7	9
7	48,20	-	0	282.44	16,4544	0,2815	-50,2226	0	2,7667	1,4229
	92	6,91831		7,36		2			9	3
7	48,30	-	0	281.22	16,8615	0,2961	-50,0372	0	2,7691	1,4224
	92	6,64151		7,93		29			2	7
7	48,42	-	0	279.79	17,3348	0,3135	-49,8253	0	2,7718	1,4219
	92	6,30905		1,92		87			7	7



7	48,57	-	0	278.15	17,8825	0,3343	-49,6045	0	2,7750	1,4215
	32	5,90968		5,44		41			7	4
7	48,74	-	0	276.36	18,5126	0,3588	-49,4086	0	2,7786	1,4213
	6	5,42986		9,34		35			8	5
7	48,95	-	0	274.60	19,2333	0,3873	-49,3194	0	2,7825	1,4218
	33	4,85328		2,93		01			6	4
7	49,20	-	0	272.94	20,0524	0,4200	-49,3929	0	2,7867	1,4233
	22	4,16032		3,36		26				
7	49,50	-	0	271.45	20,9771	0,4573	-49,6242	0	2,7911	1,4256
	08	3,32741		5,52		51			5	7
7	49,85	-2,3263	0	270.00	22,0136	0,5002	-49,8225	0	2,7963	1,4278
	91			6,74		4				1
7	50,28	-	0	268.33	23,1635	0,5499	-49,8032	0	2,8027	1,4286
	91	1,12257		1,27		56				8
7	50,80	0,32565	0	266.08	24,4311	0,6077	-49,3965	0	2,8110	1,4274
	51	5		5,01		15			2	1
7	51,42	2,06963	0	262.67	25,9227	0,6726	-48,329	0	2,8224	1,4226
	42			4,82		43			1	2
7	52,16	4,17279	0	256.98	27,7826	0,7444	-46,0201	0	2,8387	1,4114
	72			1,38		5			9	3
7	53,05	6,7145	0	247.39	30,0614	0,8272	-41,6588	0	2,8626	1,3902
	89			7,88					6	3
7	54,12	9,79599	0	230.80	32,8072	0,9290	-33,7585	0	2,8987	1,3533
	88			1,87		91			3	3
7	54,93	12,1329	0	212.86	34,7906	1,0140	-25,1658	0	2,9343	1,3156
	03			5,04		2			4	9
7	54,93	12,1329	0	212.86	34,7906	1,0140	-25,1658	0	2,9343	1,3156
	03			5,04		2			4	9
7	55,41	13,5566	0	198.49	35,9009	1,0732	-18,5106	0	2,9613	1,2884
	27			0,70		7			6	1
7	56,95	18,1699	0	158.05	39,0322	1,2893	-3,8987	0	3,0222	1,2362
	34			4,24		6				6
7	58,80	23,7975	0	122.78	42,2111	1,5702	4,83878	0	3,0608	1,2112
	22			9,66		9			4	3
7	61,02	30,7422	0	94.571,	45,5305	1,8542	10,3605	0	3,1917	1,198
	09			76		6			6	
7	63,68	39,4147	0	72.113,	49,1259	2,1968	13,9477	0	3,3195	1,1909
	32			67					3	3



7	63,74 34	39,6145	0	71.700, 39	49,2042	2,2045 2	14,0073	0	3,3221 5	1,1908 2
7	63,74 34	39,6145	0	71.700, 39	49,2042	2,2045	14,0073	0	3,3221 8	1,1908 2
7	66,87 8	50,2425	0	53.734, 10	52,8155	2,6516 5	16,4392	0	3,4591 6	1,187
7	70,71 17	63,8328	0	38.290, 40	56,1446	3,3377 1	18,2445	0	3,6318 4	1,1849 2
7	75,31 23	81,043	0	25.872, 25	58,6395	4,4335	19,5241	0	3,8530 3	1,1839 9
7	77,18 11	88,3266	0	22.292, 75	59,3536	4,9511	19,8676	0	3,9420 5	1,1838 4
7	80,83 29	103,016	0	17.328, 57	60,7478	5,9597 7	21,1608	0	4,0959 6	1,1807 5
7	87,45 76	130,864	0	12.469, 68	63,3608	7,5874 6	22,4683	0	4,3049 8	1,1777
7	89,41 06	139,325	0	11.448, 47	64,1479	8,0672 7	22,7267	0	4,3596 8	1,1771 2
8	60,84 65	- 12,1329	0	1,00	0,00177 245	0,1543 65	24,6396	0	3,1164 3	1,1739 6
8	60,94 65	- 11,8433	0	191.80 2,39	3,97053	0,0139 466	-37,761	0	2,8924 2	1,3986 9
8	61,04 65	- 11,5539	0	191.52 9,19	5,60346	0,0277 885	-37,7402	0	2,8936 5	1,3987 2
8	61,14 65	- 11,2645	0	190.89 5,51	6,84978	0,0416 475	-37,6458	0	2,8949 2	1,3985
8	61,24 65	-10,975	0	190.19 3,24	7,89605	0,0555 031	-37,5396	0	2,8961 4	1,3982 8
8	61,34 65	- 10,6853	0	189.48 1,02	8,81293	0,0693 667	-37,4322	0	2,8973 5	1,3980 5
8	61,44 65	- 10,3955	0	188.77 7,91	9,63683	0,0832 428	-37,3264	0	2,8985 1	1,3978 1
8	61,54 65	- 10,1056	0	188.07 7,65	10,3914	0,0971 124	-37,2212	0	2,8996 7	1,3975 9
8	61,64 65	- 9,81557	0	187.37 6,00	11,0907	0,1109 8	-37,1157	0	2,9008 2	1,3973 6
8	61,74	-	0	186.67	11,7436	0,1248	-37,0096	0	2,9019	1,3971



	65	9,52543		1,20		57			8	2
8	61,84	-	0	185.96	12,3571	0,1387	-36,9033	0	2,9031	1,3968
	65	9,23517		4,32		46			5	9
8	61,94	-8,9448	0	185.25	12,9369	0,1526	-36,7968	0	2,9043	1,3966
	65			6,28		46			1	6
8	62,04	-	0	184.54	13,4879	0,1665	-36,6901	0	2,9054	1,3964
	65	8,65431		6,84		5			7	3
8	62,14	-8,3637	0	183.83	14,0135	0,1804	-36,583	0	2,9066	1,3962
	65			4,91		54			4	
8	62,24	-	0	183.12	14,5168	0,1943	-36,4755	0	2,9078	1,3959
	65	8,07298		0,44		56			1	6
8	62,34	-	0	182.40	14,9998	0,2082	-36,3678	0	2,9089	1,3957
	65	7,78214		3,95		6			8	3
8	62,44	-	0	181.68	15,464	0,2221	-36,2596	0	2,9101	1,3955
	65	7,49118		5,13		73			6	
8	62,54	-	0	180.96	15,9113	0,2360	-36,151	0	2,9113	1,3952
	65	7,20011		3,26		9			4	6
8	62,64	-	0	180.23	16,3422	0,2500	-36,042	0	2,9125	1,3950
	65	6,90892		8,52		25			2	2
8	62,74	-6,6176	0	179.51	16,7588	0,2639	-35,9325	0	2,9137	1,3947
	65			1,01		65			1	9
8	62,84	-	0	178.78	17,1616	0,2779	-35,8227	0	2,9149	1,3945
	65	6,32617		0,82		21				5
8	62,96	-5,9763	0	177.90	17,6284	0,2946	-35,6902	0	2,9163	1,3942
	65			0,84		78			4	7
8	63,11	-	0	176.83	18,1666	0,3148	-35,5305	0	2,9180	1,3939
	05	5,55622		9,55		03			7	2
8	63,28	-5,0518	0	175.55	18,7838	0,3389	-35,3376	0	2,9201	1,3935
	33			7,17		69			6	1
8	63,49	-	0	174.00	19,4874	0,3679	-35,1039	0	2,9226	1,393
	06	4,44602		4,62		89			8	
8	63,73	-	0	172.37	20,2827	0,4021	-34,9516	0	2,9254	1,3930
	95	3,71842		4,40		05			7	3
8	64,03	-	0	170.78	21,1749	0,4416	-34,9084	0	2,9284	1,3936
	81	2,84444		9,16		79			3	6
8	64,39	-	0	169.30	22,1657	0,4873	-34,8835	0	2,9316	1,3943
	64	1,79452		7,39		26			3	5
8	64,82	-	0	167.79	23,2539	0,5401	-34,753	0	2,9353	1,3944



	64	0,53310		5,71		22			7	3
		7								
8	65,34	0,98274	0	166.02	24,441	0,6013	-34,3436	0	2,9401	1,3930
	24	1		6,27		45			2	2
8	65,96	2,8052	0	163.53	25,8437	0,6702	-33,3461	0	2,9466	1,3885
	15			0,50		52			8	8
8	66,70	4,99815	0	159.47	27,5953	0,7472	-31,181	0	2,9563	1,3783
	45			1,69		81			1	2
8	67,59	7,6406	0	152.56	29,7423	0,8372	-27,0492	0	2,9709	1,3587
	61			1,45		39				5
8	68,66	10,8311	0	140.28	32,3255	0,9496	-19,5667	0	2,9941	1,3246
	61			6,88		33			6	3
8	69,1	12,1329	0	133.22	33,3427	0,9996	-15,3781	0	3,0069	1,3063
				1,50		95				4
8	69,1	12,1329	0	133.22	33,3427	0,9996	-15,3781	0	3,0069	1,3063
				1,50		95				4
8	69,95	14,7011	0	116.72	35,2153	1,1085	-6,63282	0	3,0346	1,2703
				9,08					2	1
8	71,49	19,4028	0	92.285,	38,2604	1,3264	2,80394	0	3,0665	1,2357
	07			37					1	
8	73,33	25,096	0	71.649,	41,5422	1,5971	8,98597	0	3,0973	1,2154
	95			28					4	1
8	75,55	32,1005	0	55.149,	45,1471	1,8707	12,9758	0	3,2126	1,2035
	82			57		6			3	5
8	78,22	40,8109	0	42.037,	49,1925	2,1977	15,6732	0	3,3285	1,1962
	05			05		8			6	3
8	81,41	51,638	0	31.765,	53,8425	2,5850	17,535	0	3,446	1,1916
	53			52		6				
8	82,20	54,3632	0	29.815,	54,9729	2,6793	17,8638	0	3,4721	1,1908
	31			74		3			6	2
8	82,20	54,3632	0	29.815,	54,9729	2,6793	17,8638	0	3,4721	1,1908
	31			74		3			6	2
8	85,24	65,0943	0	23.581,	59,0103	3,0784	18,8692	0	3,5746	1,1885
	9			01		6			1	7
8	85,71	66,7551	0	22.768,	59,5696	3,1457	18,9935	0	3,5907	1,1883
	26			86		8			5	1
8	89,84	81,9468	0	16.733,	63,8934	3,8426	19,8676	0	3,7428	1,1865
	96			86		6			3	9



8	95,37 02	103,208	0	11.406, 89	67,7208	5,0583 7	21,692	0	3,9603 9	1,1814 3
8	95,90 36	105,326	0	11.049, 42	67,9632	5,1794 9	21,8254	0	3,9804 7	1,1810 5
9	90,90 4	- 12,1329	0	1,00	0,00177 245	0,1543 65	24,6396	0	3,1164 3	1,1739 6
9	91,00 4	-11,831	0	92.123, 51	4,05355	0,0131 098	-24,0508	0	3,0175 5	1,3748 2
9	91,10 4	- 11,5292	0	91.991, 01	5,72201	0,0261 355	-24,088	0	3,0180 6	1,3751
9	91,20 4	- 11,2274	0	91.713, 54	6,98885	0,0392 292	-24,0588	0	3,0185 3	1,3750 8
9	91,30 4	- 10,9255	0	91.410, 76	8,0534	0,0523 19	-24,0191	0	3,0189 9	1,3750 3
9	91,40 4	- 10,6236	0	91.087, 72	8,98531	0,0654 225	-23,9742	0	3,0194 6	1,3749 5
9	91,50 4	- 10,3216	0	90.758, 37	9,82106	0,0785 478	-23,9278	0	3,0199 4	1,3748 7
9	91,60 4	- 10,0196	0	90.421, 97	10,5862	0,0916 619	-23,88	0	3,0204 3	1,3747 8
9	91,70 4	- 9,71754	0	90.082, 46	11,293	0,1048 01	-23,8315	0	3,0209 1	1,3747
9	91,80 4	- 9,41542	0	89.741, 86	11,9512	0,1179 73	-23,7828	0	3,0214	1,3746 1
9	91,90 4	- 9,11326	0	89.401, 34	12,5682	0,1311 85	-23,7341	0	3,0218 8	1,3745 2
9	92,00 4	- 8,81104	0	89.060, 86	13,1504	0,1444 29	-23,6853	0	3,0223 7	1,3744 3
9	92,10 4	- 8,50878	0	88.720, 00	13,7023	0,1577 01	-23,6364	0	3,0228 5	1,3743 4
9	92,20 4	- 8,20647	0	88.378, 10	14,2283	0,1709 81	-23,5874	0	3,0233 4	1,3742 5
9	92,30 4	- 7,90412	0	88.034, 26	14,7318	0,1842 64	-23,5382	0	3,0238 3	1,3741 6
9	92,40 4	- 7,60171	0	87.688, 12	15,215	0,1975 48	-23,4885	0	3,0243 2	1,3740 7
9	92,50	-	0	87.339, 15,6785	15,6785	0,2108	-23,4385	0	3,0248	1,3739



	4	7,29925		48		58			2	8
9	92,60	-	0	86.988,	16,1241	0,2241	-23,3882	0	3,0253	1,3738
	4	6,99675		66		92			1	9
9	92,70	-	0	86.635,	16,5533	0,2375	-23,3375	0	3,0258	1,3738
	4	6,69419		61		46			2	
9	92,80	-	0	86.280,	16,9672	0,2509	-23,2866	0	3,0263	1,3737
	4	6,39158		75		25			2	1
9	92,90	-	0	85.923,	17,3673	0,2643	-23,2352	0	3,0268	1,3736
	4	6,08893		14		14			3	1
9	93,02	-	0	85.491,	17,8295	0,2804	-23,1734	0	3,0274	1,3735
	4	5,72567		92		22			5	
9	93,16	-	0	84.970,	18,3612	0,2997	-23,0986	0	3,0281	1,3733
	8	5,28966		60		91			9	7
9	93,34	-	0	84.340,	18,9687	0,3231	-23,0083	0	3,0290	1,3732
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9	93,54	-	0	83.577,	19,6578	0,3511	-22,8989	0	3,0301	1,373
	82	4,13809		73		84			7	
9	93,79	-	0	82.652,	20,4331	0,3850	-22,7663	0	3,0314	1,3727
	7	3,38392		98		41			9	7
9	94,09	-	0	81.595,	21,2975	0,4255	-22,6013	0	3,0330	1,3724
	56	2,47849		58		6			3	2
9	94,45	-1,3914	0	80.499,	22,2519	0,4732	-22,3927	0	3,0347	1,3718
	39			85		37			3	5
9	94,88	-	0	79.425,	23,2919	0,5284	-22,0996	0	3,0366	1,3708
	39	0,08612		15		91			1	
		16								
9	95,39	1,48127	0	78.260,	24,418	0,5926	-21,596	0	3,0388	1,3686
	99			28		99			8	4
9	96,01	3,36383	0	76.743,	25,761	0,6651	-20,5845	0	3,0419	1,3638
	91			78		93			2	9
9	96,76	5,62562	0	74.486,	27,426	0,7468	-18,6398	0	3,0463	1,3544
	21			72		24			2	8
9	97,65	8,34465	0	70.765,	29,4785	0,8421	-15,0695	0	3,0531	1,3372
	37			41		02			1	9
9	98,72	11,6171	0	63.944,	31,94	0,9624	-8,58895	0	3,0646	1,3069
	36			13		1			7	5
9	98,89	12,1329	0	62.514,	32,3191	0,9828	-7,30013	0	3,0670	1,3010
	19			65		07			2	6



9	98,89 19	12,1329	0	62.514, 65	32,3191	0,9828 07	-7,30013	0	3,0670 2	1,3010 6
9	100,0 08	15,564	0	52.088, 41	34,7204	1,1276	0,742271	0	3,0829 7	1,2654 7
9	101,5 48	20,3244	0	41.101, 63	37,7756	1,3433 5	7,46396	0	3,0959 1	1,2374 2
9	103,3 97	26,0598	0	31.884, 41	41,1778	1,6053 1	11,9156	0	3,1192 8	1,2196 9
9	105,6 16	33,0967	0	24.500, 93	45,0064	1,8723 3	14,9083	0	3,2235 2	1,2081 7
9	106,2 95	35,2963	0	22.759, 06	46,1377	1,9536 3	15,551	0	3,2528 1	1,2057 5
9	108,2 78	41,8326	0	18.626, 50	49,3614	2,1908 5	16,9875	0	3,3324 6	1,2004
9	111,4 73	52,6611	0	14.043, 59	54,411	2,5660 1	18,4468	0	3,4443 1	1,1950 9
9	112,3 56	55,7154	0	13.079, 42	55,7872	2,6684 9	18,7361	0	3,4724 6	1,1940 5
10	234,6 54	- 12,1329	0	1,00	0,00177 245	0,1543 63	24,6367	0	3,1164 3	1,1739 7
10	234,7 54	- 11,8221	0	7.919,0 8	4,10891	0,0124 217	-13,6707	0	3,1085 1	1,3625 2
10	234,8 54	- 11,5112	0	7.878,2 4	5,79808	0,0248 765	-13,7502	0	3,1085 6	1,3629 7
10	234,9 54	- 11,2004	0	7.845,8 7	7,08769	0,0373 437	-13,7648	0	3,1086 7	1,3630 7
10	235,0 54	- 10,8895	0	7.815,1 5	8,162	0,0498 623	-13,7684	0	3,1086 3	1,3631 3
10	235,1 54	- 10,5787	0	7.785,2 3	9,10354	0,0623 803	-13,7686	0	3,1086 7	1,3631 2
10	235,2 54	- 10,2678	0	7.755,2 7	9,94866	0,0749 166	-13,7673	0	3,1087 1	1,3631 3
10	235,3 54	- 9,95691	0	7.725,4 8	10,7183	0,0874 976	-13,7653	0	3,1087 4	1,3631 3
10	235,4 54	- 9,64603	0	7.695,8 9	11,4281	0,1001 23	-13,7629	0	3,1087 8	1,3631 4
10	235,5	-	0	7.666,3	12,0898	0,1127	-13,7603	0	3,1088	1,3631

	54	9,33515		7		72			2	4
10	235,6	-	0	7.636,7	12,711	0,1254	-13,7575	0	3,1088	1,3631
	54	9,02427		8		42			5	4
10	235,7	-	0	7.607,0	13,2982	0,1381	-13,7545	0	3,1088	1,3631
	54	8,71338		1		22			9	4
10	235,8	-	0	7.577,0	13,8555	0,1508	-13,7515	0	3,1089	1,3631
	54	8,40249		0		16			3	4
10	235,9	-8,0916	0	7.546,7	14,3849	0,1635	-13,7483	0	3,1089	1,3631
	54			0		39			7	4
10	236,0	-7,7807	0	7.516,2	14,8893	0,1763	-13,7452	0	3,1090	1,3631
	54			6					1	3
10	236,1	-7,4698	0	7.485,7	15,3713	0,1890	-13,7419	0	3,1090	1,3631
	54			1		94			5	3
10	236,2	-	0	7.455,0	15,8332	0,2019	-13,7386	0	3,1090	1,3631
	54	7,15889		6		22			8	3
10	236,3	-	0	7.424,3	16,2765	0,2147	-13,7353	0	3,1091	1,3631
	54	6,84798		4		88			2	3
10	236,4	-	0	7.393,5	16,7028	0,2276	-13,732	0	3,1091	1,3631
	54	6,53707		2		89			6	3
10	236,5	-	0	7.362,6	17,1135	0,2406	-13,7286	0	3,1092	1,3631
	54	6,22615		1		26				2
10	236,6	-	0	7.331,5	17,5098	0,2535	-13,7252	0	3,1092	1,3631
	54	5,91522		8		95			4	2
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	74	5,54211		5		92			9	2
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	18	5,09437		9		58			5	2
10	237,0	-	0	7.194,0	19,0966	0,3105	-13,7101	0	3,1094	1,3631
	9	4,55707		6		49			2	1
10	237,2	-	0	7.127,4	19,7783	0,3377	-13,7027	0	3,1095	1,3631
	98	3,91229		6		82				1
10	237,5	-	0	7.046,4	20,5418	0,3706	-13,6936	0	3,1096	1,3631
	47	3,13854		2		93			1	
10	237,8	-	0	6.947,2	21,3901	0,4105	-13,6227	0	3,1097	1,3627
	45	2,20999		9		51			3	7
10	238,2	-	0	6.832,3	22,3206	0,4586	-13,3916	0	3,1098	1,3615
	04	1,09569		8		68			8	8
10	238,6	0,24153	0	6.717,6	23,3244	0,5150	-13,0826	0	3,1100	1,3599

	34	6		4		8			5	8
10	239,15	1,8463	0	6.596,99	24,4062	0,580793	-12,6188	0	3,11024	1,35755
10	239,769	3,77216	0	6.449,97	25,6735	0,655284	-11,7934	0	3,11049	1,35321
10	240,512	6,08341	0	6.233,66	27,2878	0,73827	-10,195	0	3,11087	1,34482
10	241,403	8,85734	0	5.876,19	29,295	0,835471	-7,2195	0	3,11145	1,32934
10	242,456	12,1329	0	5.223,47	31,6604	0,957847	-1,81369	0	3,11248	1,30165
10	242,456	12,1329	0	5.223,47	31,6604	0,957847	-1,81369	0	3,11248	1,30165
10	242,456	12,1331	0	5.223,44	31,6605	0,957852	-1,8134	0	3,11248	1,30164
10	242,473	12,1869	0	5.207,60	31,6989	0,960081	-1,68515	0	3,1125	1,30099
10	243,757	16,1841	0	4.187,90	34,443	1,12982	5,44913	0	3,11393	1,26523
10	244,712	19,1582	0	3.602,38	36,3792	1,26047	8,86999	0	3,1146	1,24831
10	245,298	20,9826	0	3.298,43	37,5279	1,34294	10,4514	0	3,11489	1,24051
10	247,147	26,7477	0	2.557,30	41,033	1,60028	13,8693	0	3,12704	1,22363
10	249,365	33,8001	0	1.959,53	45,0277	1,86254	16,2406	0	3,22694	1,21189
10	252,028	42,5328	0	1.486,20	49,6054	2,17444	17,9102	0	3,33122	1,20359
10	255,222	53,3532	0	1.116,99	54,9158	2,54326	19,095	0	3,4403	1,19768
10	255,907	55,716	0	1.056,21	56,0379	2,62143	19,2804	0	3,46186	1,19675