

Additional file 2. Discordances between optical map and TIGR rice sequence data*

Type of Discordance	Ch	Start	End	Note
False_cut_on_optical_map	1	19111466	19111466	
False_cut_on_optical_map	1	27084673	27084673	
False_cut_on_optical_map	1	27609399	27609399	
False_cut_on_optical_map	1	31596088	31596088	
False_cut_on_optical_map	2	33949207	33949207	
False_cut_on_optical_map	3	12677491	12677491	
False_cut_on_optical_map	3	22717316	22717316	
False_cut_on_optical_map	3	32386706	32386706	
False_cut_on_optical_map	3	32914737	32914737	
False_cut_on_optical_map	4	4877306	4877306	
False_cut_on_optical_map	4	7073707	7073707	
False_cut_on_optical_map	4	26665280	26665280	
False_cut_on_optical_map	4	32565511	32565511	
False_cut_on_optical_map	4	33221331	33221331	
False_cut_on_optical_map	4	11577636	11636731	
False_cut_on_optical_map	4	11637395	11656270	
False_cut_on_optical_map	5	3528990	3528990	
False_cut_on_optical_map	5	9029659	9029659	
False_cut_on_optical_map	5	12208557	12208557	
False_cut_on_optical_map	5	15314408	15314408	
False_cut_on_optical_map	6	599834	599834	
False_cut_on_optical_map	6	12046270	12046270	
False_cut_on_optical_map	6	16341917	16341917	
False_cut_on_optical_map	6	31044686	31044686	
False_cut_on_optical_map	7	4943846	4943846	
False_cut_on_optical_map	7	22011663	22011663	
False_cut_on_optical_map	7	22408406	22408406	
False_cut_on_optical_map	7	22733022	22733022	
False_cut_on_optical_map	7	23853442	23853442	
False_cut_on_optical_map	8	16419977	16419977	
False_cut_on_optical_map	8	24331818	24331818	
False_cut_on_optical_map	9	3990463	3990463	
False_cut_on_optical_map	9	7729237	7729237	
False_cut_on_optical_map	9	18734237	18734237	
False_cut_on_optical_map	9	17219676	17219676	
False_cut_on_optical_map	10	2880186	2880186	
False_cut_on_optical_map	10	13416687	13416687	
False_cut_on_optical_map	10	6230172	6230172	
False_cut_on_optical_map	10	16065563	16065563	
False_cut_on_optical_map	11	4994744	4994744	
False_cut_on_optical_map	11	8193737	8193737	
False_cut_on_optical_map	11	10038149	10038149	
False_cut_on_optical_map	11	10062170	10062170	
False_cut_on_optical_map	11	11166430	11166430	
False_cut_on_optical_map	11	18698098	18698098	
False_cut_on_optical_map	11	22736425	22736425	
False_cut_on_optical_map	12	17927826	17927826	
False_cut_on_optical_map	12	3786177	3786177	
Gap_calling	1	16887306	16900557	seq13.25kb_op15.17kb**
Gap_calling	1	17761353	17773092	seq11.20+0.54kb_op16.44kb
Gap_calling	1	30077089	30104124	seq27.04kb_op34.30kb
Gap_calling	1	32136709	32150932	seq14.22kb_op18.16kb
Gap_calling	1	35256442	35256442	16.21kb_fragment_inserted
Gap_calling	1	41457903	41457903	7.69kb_fragment_inserted
Gap_calling	2	18453727	18485835	seq32.11kb_op37.65kb
Gap_calling	2	11890828	11914528	seq23.70kb_op30.03kb
Gap_calling	3	13764564	13764564	7.17+22.79+20.15kb_fragment_inserted
Gap_calling	3	16915988	16964423	seq48.44kb_op56.36kbgap7.92kb
Gap_calling	3	26368898	26368898	seq11.14kb_op15.56kb_gap4.42kb
Gap_calling	3	35660390	35673615	seq13.22kb_op3.06+14.88kb_gap4.72kb
Gap_calling	3	28797099	28812200	seq15.10kb_op18.79kb_gap3.69kb
Gap_calling	3	26213651	26233376	seq19.73kb_op23.87kb_gap4.14kb
Gap_calling	4	9086102	9170155	seq84.05kb_op113.54kb_gap29.49kb
Gap_calling	4	10406755	10461930	seq55.18kb_op62.23kb_gap7.05kb
Gap_calling	4	13602975	13646385	seq43.41kb_op47.90kb_gap4.49kb

Gap_calling	4	19987680	20004894	seq17.21kb_op19.91kb_gap2.70kb
Gap_calling	4	20052428	20066662	seq13.36+0.87kb_op19.19_gap4.96 kb
Gap_calling	4	20610119	20666674	seq56.55kb_op62.06kb_gap5.51kb
Gap_calling	4	20707657	20757050	seq49.39kb_op45.52+16.11kb_gap12.24kb
Gap_calling	4	25454419	25461282	seq6.86kb_op9.62kb_gap2.76kb**
Gap_calling	4	32682270	32701621	seq19.35kb_op27.73kb_gap8.38kb
Gap_calling	4	929500	929500	seq4.32+23.79kb_op4.70+25.46+8.14+3.71+13.22+7.59+0.52+9.45+6.89+3.40kb_gap54.97kb
Gap_calling	4	2351362	2351362	9.77kb_fragment_inserted
Gap_calling	4	2647843	2647843	4.25+4.89kb_fragments_inserted
Gap_calling	4	4825886	4825886	4.83+2.18kb_fragments_inserted
Gap_calling	4	8666034	8666034	4.52kb_fragment_inserted
Gap_calling	4	9323551	9323551	7.08+12.17+17.55kb_fragments_inserted
Gap_calling	4	10949645	11002516	seq35.72+17.15kb_op46.67+7.77+6.89+22.63kb31.09kb
Gap_calling	4	15532794	15532794	tandem_repeat_inserted_twice
Gap_calling	4	18269895	18269895	3.36kb_fragment_inserted
Gap_calling	4	19217146	19222852	seq5.71kb_op0.89+15.36_gap10.54kb
Gap_calling	4	20031039	20037766	seq6.73kb_op1.79+9.06kb_gap4.12kb
Gap_calling	4	21916561	21928819	seq12.26kb_op27.53+11.33+5.60+16.80+7.76+28.77+2.53+6.34kb111.2kb
Gap_calling	5	2914277	2936428	seq22.15kb_op25.21kb3.06kb
Gap_calling	5	16556808	16596307	seq39.50kb_op7.69+37.18kb5.37kb
Gap_calling	5	11569247	11569247	7.33kb_fragment_inserted
Gap_calling	5	13132619	13132619	8.98kb_fragment_inserted
Gap_calling	5	15319849	15319849	10.10kb_fragment_inserted
Gap_calling	5	27394605	27394605	7.05kb_fragment_inserted
Gap_calling	5	27696393	27696393	14.42kb_fragment_inserted
Gap_calling	5	29736539	29774872	seq38.33kb_op44.16kb5.83kb
Gap_calling	6	18427114	18443367	seq16.25kb_op10.78+3.09+8.08kb
Gap_calling	6	8435728	8435728	5.76kb_fragment_inserted
Gap_calling	6	24012394	24044274	seq31.88kb_op37.65kb
Gap_calling	7	3091860	3091860	9.32+3.09+25.16+1.29+5.11kb_fragments_inserted
Gap_calling	7	5446704	5513145	seq66.44kb_op44.51+34.66kb
Gap_calling	7	9434049	9434049	7.45kb_fragment_inserted
Gap_calling	7	11905298	11943758	seq38.46kb_op35.76+7.12kb
Gap_calling	7	15421446	15463178	seq41.73kb_op47.64kb
Gap_calling	7	17985577	17985577	23.33+10.36+24.37kb_fragments_inserted
Gap_calling	7	27346466	27346466	7.32kb_fragment_inserted
Gap_calling	7	28477298	28486714	seq9.42kb_op15.72kb
Gap_calling	8	12494258	12512179	seq11.30+6.62kb_op4.00+9.18+5.50kb
Gap_calling	8	12907443	12974754	seq67.31kb_op104.96kb
Gap_calling	8	3236228	3236228	0.41+30.07kb_fragments_inserted
Gap_calling	8	13074484	13074484	57.23+46.01kb_fragments_inserted
Gap_calling	8	16111726	16111726	15.28+6.15+5.93+3.85+9.04+9.03kb_fragments_inserted
Gap_calling	8	17158324	17158324	5.82kb_fragment_inserted
Gap_calling	8	24474098	24474098	4.07+1.50kb_fragments_inserted
Gap_calling	8	721172	733521	seq12.35kb_op16.81kb
Gap_calling	8	14358562	14373667	seq15.11kb_op23.88kb
Gap_calling	9	10688578	10689720	seq1.14kb_op6.29kb
Gap_calling	9	13551933	13655403	seq62.18+41.29kb_op58.78+1.84+8.89+39.22kb
Gap_calling	9	14269944	14290928	seq20.98kb_op26.82kb
Gap_calling	9	18512287	18555204	seq1.50+41.41kb_op49.88kb
Gap_calling	9	18708089	18759105	seq51.02kb_op28.18+26.90kb
Gap_calling	9	19204691	19214294	seq9.60kb_op6.29+6.65kb
Gap_calling	10	2903339	2949577	seq46.24kb_op62.71kb
Gap_calling	10	18238334	18286267	seq47.93kb_op66.94kb
Gap_calling	10	4948736	4948736	10.63kb_fragment_inserted
Gap_calling	10	5169825	5169825	4.99kb_fragment_inserted
Gap_calling	10	5904051	5904051	16.10kb_fragment_inserted
Gap_calling	10	9805325	9805325	8.66kb_fragment_inserted
Gap_calling	11	4201773	4242234	seq40.46kb_op5.77+42.03kb
Gap_calling	11	10100411	10157893	seq18.63+38.86kb_op22.30+5.55+20.49+5.84+14.09kb
Gap_calling	11	15261000	15277256	seq16.26kb_op18.77kb
Gap_calling	11	15988714	16037713	seq8.61+19.85+10.88+1.15+8.52kb_op3.40+10.84+20.46+8.94+12.04+12.20+12.38+12.44+12.52kb
Gap_calling	11	21947646	21967063	seq19.42kb_op25.10kb
Gap_calling	11	28383682	28439525	seq55.84kb_op62.15kb
Gap_calling	11	17846350	17846350	18.55kb_fragment_inserted
Gap_calling	11	21749470	21765104	seq15.63kb_op18.44+1.36kb
Gap_calling	11	25417296	25417296	5.85kb_fragment_inserted

Gap_calling	11	25726068	25726068	7.22kb_fragment_inserted
Gap_calling	11	28017212	28017212	33.63+6.35+2.05+34.65+6.33+3.65kb_fragments_inserted
Gap_calling	12	6111200	6122948	seq11.75kb_op14.84kb
Gap_calling	12	8239188	8239188	6.35+7.28+5.27kb_fragments_inserted
Gap_calling	12	15608510	15620300	seq11.79kb_op15.14kb
Gap_calling	12	15742362	15742362	8.02kb_fragment_inserted
Gap_calling	12	16175507	16191483	seq15.98kb_op20.83kb
Gap_calling	12	16612024	16612024	21.29+21.02+20.94kb_fragments_inserted
Gap_calling	12	17147224	17179791	seq2.66+10.35+1.81+12.96+4.79kb_op1.79+13.83+3.05+10.59kb
Gap_calling	12	17735482	17735482	21.90+0.61kb_fragments_inserted
Gap_calling	12	20513019	20513019	17.26+13.98+9.35+30.40+17.12+78.34+1.66+7.25+18.55kb_fragments_inserted
Gap_calling	12	21322149	21322149	8.07kb_fragment_inserted
Gap_calling	12	21369767	21369767	9.45kb_fragment_inserted
Gap_calling	12	23707251	23707251	22.08kb_fragment_inserted
Gap_filling	1	10056152	10056152	12.22kb_fragment_inserted
Gap_filling	1	15297549	15326905	seq29.36kb_op34.17kb_gap underestimated
Gap_filling	1	11467076	11513183	seq46.11kb_op34.91+13.73+24.42kb_gap underestimated
Gap_filling	1	25796179	25809647	seq13.47kb_op15.46kb_gap underestimated
Gap_filling	1	40616303	40633213	seq16.91kb_op24.23kb_gap underestimated
Gap_filling	1	14973255	14974255	seq8.00kb_op17.00kb_gap underestimated
Gap_filling	1	15317640	15318640	seq8.00kb_op17.00kb_gap underestimated
Gap_filling	2	5933788	5980450	seq46.66kb_op36.15+22.32kb_gap underestimated
Gap_filling	2	18782009	18798475	seq0.51+15.96kb_op10.41+12.30kb_gap underestimated
Gap_filling	2	24772110	24828889	seq56.78kb_op36.72+19.59)
Gap_filling	3	4813731	4854252	seq40.52kb_op34.92+16.72+22.32kb_gap underestimated
Gap_filling	3	13448303	13448303	38_fragments_totalling_247.5kb_inserted_gap underestimated
Gap_filling	3	16346784	16346784	7_fragments_totalling_107.25kb_gap underestimated
Gap_filling	3	31046887	31066253	seq19.37kb_op36.77+8.95+6.94+13.98+4.90+11.84+22.94+12.40kb_gap underestimated
Gap_filling	4	22031714	22064508	seq32.79kb_op36.43kb_gap underestimated
Gap_filling	4	8357701	8422251	seq64.55kb_op59.03+1.24+13.35+23.54kb_gap underestimated
Gap_filling	4	21856494	21862795	10.44+13.75kb_fragment_inserted_gap underestimated
Gap_filling	5	7317327	7344341	seq27.01kb_op22.45+2.36+9.87kb_gap underestimated
Gap_filling	5	17054988	17074781	seq19.79kb_op21.19kb_gap underestimated
Gap_filling	5	21455273	21515479	seq60.21kb_op13.04+1.48+49.49kb_gap underestimated
Gap_filling	5	27077168	27098510	seq21.34kb_op26.33+2.19+11.87+14.88+2.11+7.33kb_gap underestimated
Gap_filling	6	10547383	10590317	seq42.93kb_op43.85kb_gap overestimated
Gap_filling	7	11607358	11617617	seq10.26kb_op18.86+13.61kb
Gap_filling	8	2726085	2828128	seq102.04kb_op101.75kb_gap underestimated
Gap_filling	9	13551933	13655403	seq62.18+41.29kb_op58.78+1.84+8.89+39.22kb_gap underestimated
Gap_filling	9	11426110	11426110	3.83+12.72kb_fragments_inserted_gap underestimated
Gap_filling	9	20282123	20282123	6.82+2.49kb_fragments_inserted_gap underestimated
Gap_filling	9	20416503	20416503	22.19kb_fragment_inserted_gap underestimated
Gap_filling	10	14139752	14192377	seq52.62kb_op48.36kb_gap overestimated
Gap_filling	10	3973514	4065008	seq91.49kb_op23_fragments_totalling_420.22kb_gap underestimated
Gap_filling	10	6934080	6945345	seq11.27kb_op7.30+3.43+3.86+3.21+7.16kb_gap underestimated
Gap_filling	10	7530230	7530230	8.81+9.83+7.49+3.03+7.42+31.68kb_fragments_inserted_gap underestimated
Gap_filling	10	9535498	9567386	seq31.89kb_op43.84+21.45kb_gap underestimated
Gap_filling	10	11861219	11876822	seq12.37+3.24kb_op15.59+10.34+9.29+4.48+2.18+21.09+3.03kb_gap underestimated
Gap_filling	11	7302337	7315940	seq13.60kb_op44.81kb_gap underestimated
Gap_filling	11	8930864	8930864	9.92+8.95+8.60+23.21kb_fragments_inserted_gap underestimated
Gap_filling	11	12917098	12917098	8.74+8.42+5.12+7.04+10.68+4.49+8.95+9.65+21.07kb_fragments_inserted_gap underestimated
Gap_filling	11	19309786	19326941	seq17.16kb_op11.65kb_gap underestimated
Gap_filling	11	27515267	27536085	seq1.92+2.02+16.87kb_op2.65+47.26+21.10kb_gap underestimated
Misassembly	1	20563723	20567374	possible_inversion_seq1.54+2.11kb_op2.50+1.62kb_gap underestimated
Misassembly	1	29574927	29582102	seq3.50+2.03+1.65kb_op4.66+2.63kb
Misassembly	1	14965172	15297549	-332 kb extra_sequence included
Misassembly	2	2414507	2423458	8.95kb_extra_sequence
Misassembly	2	29145541	29150418	possible_inversion_seq1.74+3.13kb_op3.29+1.39kb
Misassembly	3	18925165	18932668	extraSeq7.5 kb_extra_sequence
Misassembly	4	32270439	32395356	seq11.94+112.98kb_op23.86+101.13kb
Misassembly	4	11914726	11987680	possible_inversion_47.621kb
Misassembly	4	14355676	14412965	possible_inversion37.206kb
Misassembly	4	11825094	11868629	seq43.54kb_op39.02kb_extra_sequence
Misassembly	4	15086927	15246346	seq95.47+2.70+4.70+56.56kb_op89.21+41.61+4.66+2.74+16.35+7.11kb
Misassembly	4	25428497	25440909	seq12.41kb_op9.84kb_extra_sequence
Misassembly	4	3339414	3380472	41.058kb_extra_sequence
Misassembly	4	9506357	9534070	seq27.71kb_op24.06kb_extra_sequence

Misassembly	4	16539675	16605084	probable_inverted
Misassembly	5	1316931	1345408	probable_inverted
Misassembly	5	9738900	9760041	seq8.90+1.86+10.38kb_op1.85+11.94+8.41kb
Misassembly	5	29799734	29874159	seq27.20+7.68+23.96+10.17+5.41kb_op8.72+31.41+7.71+37.27kb
Misassembly	5	1934306	1987240	seq52.93kb_op47.37kb_extra_sequence
Misassembly	5	12243720	12326760	84.04 kb frank misassemblies
Misassembly	6	47968	89682	5.34 kb extra_sequence included
Misassembly	6	22847416	22901876	seq54.46kb_op36.91+4.95+4.88kb
Misassembly	7	22783380	22802607	seq19.23kb_op16.82kb**
Misassembly	7	23772413	23777846	5.43 kb extra_sequence included
Misassembly	8	12494258	12512179	seq11.30+6.62kb_op4.00+9.18+5.50kb
Misassembly	8	26519107	26569213	seq12.86+17.37+8.12+11.76kb_op11.24+8.31+12.98+17.22kb
Misassembly	9	10681193	10689720	seq7.38+1.14kb_op6.10+6.29kb
Misassembly	9	22956314	23005298	seq13.67+35.31kb_op35.89+14.12kb_inverted
Misassembly	10	4859261	4868163	8.90 kb extra_sequence included
Misassembly	11	6753300	6792097	seq2.48+13.80+11.47+7.18+3.86kb_op6.28+6.96+11.61+15.88kb
Misassembly	11	11044666	11062927	seq18.26kb_op16.05kb**
Misassembly	11	11194620	11196755	three Swal sites are missing in seq
Misassembly	11	11199731	11332405	seq:49.12+10.77+25.15+0.44+7.40+10.83+7.37+22.03 op:22.51+6.80+6.82+12.68+9.18+8.71+14.25+6.88+9.32+6.01+2.91+18.97
Misassembly	11	12022965	12036003	seq13.04kb_op10.81kb**
Misassembly	11	19298056	19326941	seq4.91+8.65+3.08+17.16_op11.65_extra sequence included
Misassembly	12	17147224	17179791	seq2.66+10.35+1.81+12.96+4.79kb_op1.79+13.83+3.05+10.59kb
Misassembly	12	13633431	13651311	seq17.88kb_op15.29kb**
Misassembly	12	15532357	15547947	seq15.59kb_op12.87kb**
Missing_cut_on_optical_map	1	1792940	1792940	
Missing_cut_on_optical_map	1	5475837	5475837	
Missing_cut_on_optical_map	1	7598120	7598120	
Missing_cut_on_optical_map	1	11051054	11051054	
Missing_cut_on_optical_map	1	11357184	11357184	
Missing_cut_on_optical_map	1	11420431	11420431	
Missing_cut_on_optical_map	1	11940772	11940772	
Missing_cut_on_optical_map	1	12051943	12051943	
Missing_cut_on_optical_map	1	12057773	12057773	
Missing_cut_on_optical_map	1	12433828	12433828	
Missing_cut_on_optical_map	1	13213128	13213128	
Missing_cut_on_optical_map	1	13403136	13403136	
Missing_cut_on_optical_map	1	14103558	14103558	
Missing_cut_on_optical_map	1	14393486	14393486	
Missing_cut_on_optical_map	1	14502511	14502511	
Missing_cut_on_optical_map	1	14532810	14532810	
Missing_cut_on_optical_map	1	17715005	17715005	
Missing_cut_on_optical_map	1	18248974	18248974	
Missing_cut_on_optical_map	1	19200376	19200376	
Missing_cut_on_optical_map	1	20066298	20066298	
Missing_cut_on_optical_map	1	20148981	20148981	
Missing_cut_on_optical_map	1	20539134	20539134	
Missing_cut_on_optical_map	1	21654005	21654005	
Missing_cut_on_optical_map	1	22392417	22392417	
Missing_cut_on_optical_map	1	22650807	22650807	
Missing_cut_on_optical_map	1	22656608	22656608	
Missing_cut_on_optical_map	1	22661646	22661646	
Missing_cut_on_optical_map	1	24500606	24500606	
Missing_cut_on_optical_map	1	24965405	24965405	
Missing_cut_on_optical_map	1	28925873	28925873	
Missing_cut_on_optical_map	1	29057021	29057021	
Missing_cut_on_optical_map	1	30653463	30653463	
Missing_cut_on_optical_map	1	33317555	33317555	
Missing_cut_on_optical_map	1	35040090	35040090	
Missing_cut_on_optical_map	1	39001492	39001492	
Missing_cut_on_optical_map	1	41614525	41614525	
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Missing_cut_on_optical_map	11	3815065	3815065
Missing_cut_on_optical_map	11	12414648	12414648
Missing_cut_on_optical_map	11	18455799	18455799
Missing_cut_on_optical_map	12	1440483	1440483
Missing_cut_on_optical_map	12	2789257	2789257
Missing_cut_on_optical_map	12	3603128	3603128
Missing_cut_on_optical_map	12	3698295	3698295
Missing_cut_on_optical_map	12	4821587	4821587
Missing_cut_on_optical_map	12	4824052	4824052
Missing_cut_on_optical_map	12	5501773	5501773
Missing_cut_on_optical_map	12	6250968	6250968
Missing_cut_on_optical_map	12	7589692	7589692
Missing_cut_on_optical_map	12	8499183	8499183
Missing_cut_on_optical_map	12	8676201	8676201
Missing_cut_on_optical_map	12	10590355	10590355
Missing_cut_on_optical_map	12	11441868	11441868
Missing_cut_on_optical_map	12	12660950	12660950
Missing_cut_on_optical_map	12	12725708	12725708
Missing_cut_on_optical_map	12	12751358	12751358
Missing_cut_on_optical_map	12	12795563	12795563
Missing_cut_on_optical_map	12	12806648	12806648
Missing_cut_on_optical_map	12	13290176	13290176
Missing_cut_on_optical_map	12	16081896	16081896
Missing_cut_on_optical_map	12	16084031	16084031
Missing_cut_on_optical_map	12	18697388	18697388
Missing_cut_on_optical_map	12	18701350	18701350
Missing_cut_on_optical_map	12	18958819	18958819
Missing_cut_on_optical_map	12	19426102	19426102
Missing_cut_on_optical_map	12	20333004	20333004

Missing_cut_on_optical_map	12	20749097	20749097
Missing_cut_on_optical_map	12	21320047	21320047
Missing_cut_on_optical_map	12	21653119	21653119
Missing_cut_on_optical_map	12	22243903	22243903
Missing_cut_on_optical_map	12	23619351	23619351
Missing_cut_on_optical_map	12	26908367	26908367
Missing_cut_on_optical_map	12	26911498	26911498
Missing_cut_on_optical_map	12	20211541	20211541
Missing_cut_on_optical_map	12	19849949	19849949
Missing_cut_on_optical_map	12	14314907	14314907
Missing_cut_on_optical_map	12	14373954	14373954
Missing_cut_on_optical_map	12	8195085	8195085

*Start=start position based on sequence; End= end position based on sequence; seq=sequence; op=optical map; Ch=chromosome. ** with less confidence