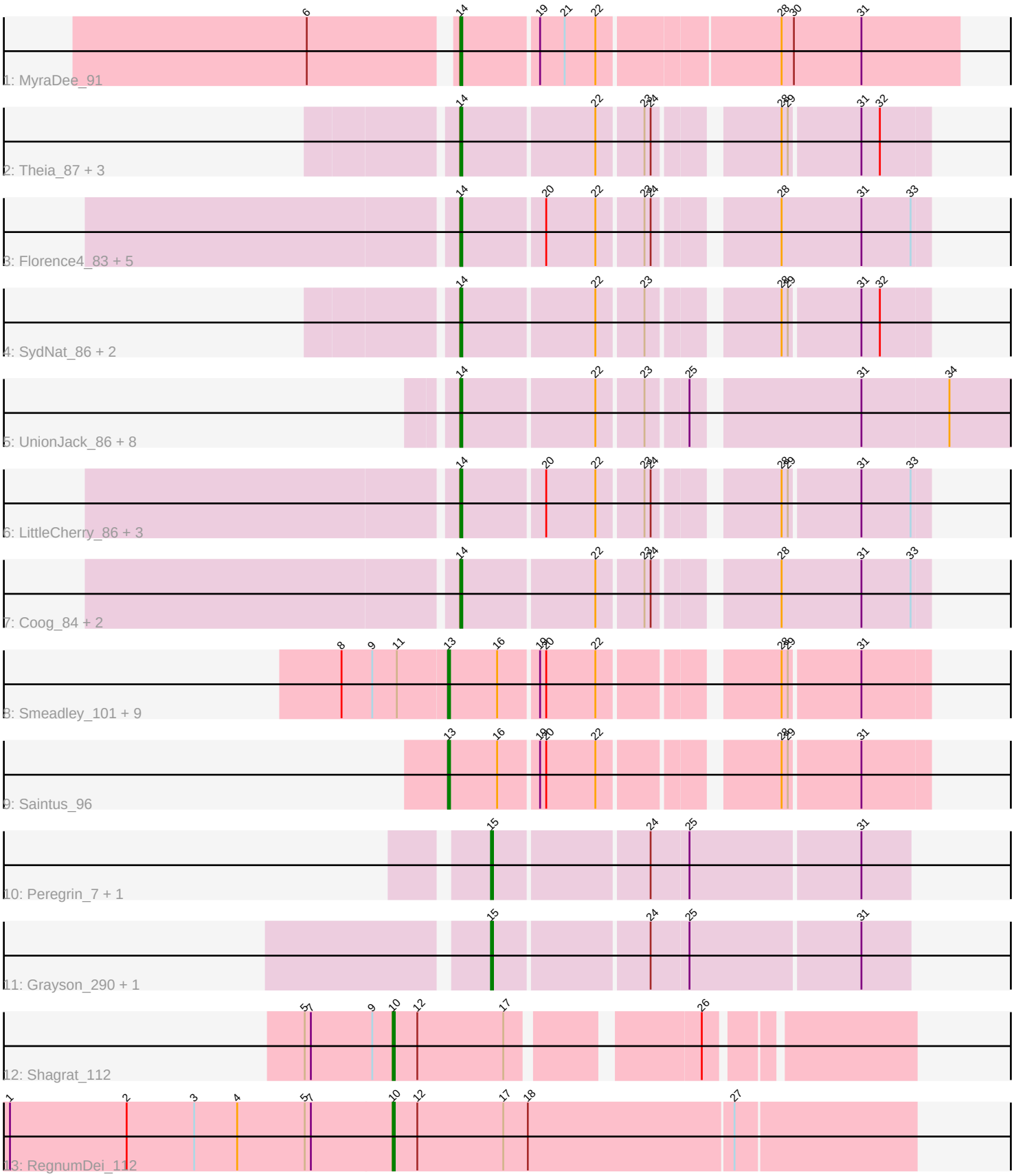
Pham 347745


1: MyraDee_91
2: Theia_87 + 3
3: Florence4_83 + 5
4: SydNat_86 + 2
5: UnionJack_86 + 8
6: LittleCherry_86 + 3
7: Coog_84 + 2
8: Smeadley_101 + 9
9: Saintus_96
10: Peregrin_7 + 1
11: Grayson_290 + 1
12: Shagrat_112
13: RegnumDei_112

Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 347745 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347745 has 47 members, 2 are drafts.

Phages represented in each track:
• Track 1 : MyraDee_91
• Track 2 : Theia_87, Cuco_86, MarysWell_88, Dublin_87
• Track 3 : Florence4_83, Bonamassa_89, Prinashe11_89, Swirley_87, Twigg_89, Florence1_85
• Track 4 : SydNat_86, Zolita_85, Ghoulboy_86
• Track 5 : UnionJack_86, Chadwick_89, ElTiger69_93, Scorpia_86, Jabiru_87, Airmid_90, Naca_88, Benedict_91, PetterN_94
• Track 6 : LittleCherry_86, Milcery_86, Tarynearal_89, George_83
• Track 7 : Coog_84, Midas2_84, HuhtaEnerson15_85
• Track 8 : Smeadley_101, Caitlin_98, Stephig9_102, Danforth_100, Roary_101, Groundhog_96, Expelliarmus_96, Astro_100, Dixon_100, NearlyHeadless_102
• Track 9 : Saintus_96
• Track 10 : Peregrin_7, Peregrin_286
• Track 11 : Grayson_290, Grayson_7
• Track 12 : Shagrat_112
• Track 13 : RegnumDei_112

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 14, it was called in 28 of the 45 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Airmid_90, Benedict_91, Bonamassa_89, Chadwick_89, Coog_84, Cuco_86, Dublin_87, ElTiger69_93, Florence1_85, Florence4_83, George_83, Ghoulboy_86, HuhtaEnerson15_85, Jabiru_87, LittleCherry_86, MarysWell_88, Midas2_84, Milcery_86, MyraDee_91, Naca_88, PetterN_94, Prinashe11_89, Scorpia_86, Swirley_87, SydNat_86, Tarynearal_89, Theia_87, Twigg_89, UnionJack_86, Zolita_85,

Genes that have the "Most Annotated" start but do not call it:
•

Genes that do not have the "Most Annotated" start:

• Astro_100, Caitlin_98, Danforth_100, Dixon_100, Expelliarmus_96, Grayson_290, Grayson_7, Groundhog_96, NearlyHeadless_102, Peregrin_286, Peregrin_7, RegnumDei_112, Roary_101, Saintus_96, Shagrat_112, Smeadley_101, Stephig9_102,

Summary by start number:

Start 10:
• Found in 2 of 47 (4.3%) of genes in pham
• Manual Annotations of this start: 2 of 45
• Called 100.0% of time when present
• Phage (with cluster) where this start called: RegnumDei_112 (CF), Shagrat_112 (CF),

Start 13:
• Found in 11 of 47 (23.4%) of genes in pham
• Manual Annotations of this start: 11 of 45
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Astro_100 (A8), Caitlin_98 (A8), Danforth_100 (A8), Dixon_100 (A8), Expelliarmus_96 (A8), Groundhog_96 (A8), NearlyHeadless_102 (A8), Roary_101 (A8), Saintus_96 (A8), Smeadley_101 (A8), Stephig9_102 (A8),

Start 14:
• Found in 30 of 47 (63.8%) of genes in pham
• Manual Annotations of this start: 28 of 45
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Airmid_90 (A5), Benedict_91 (A5), Bonamassa_89 (A5), Chadwick_89 (A5), Coog_84 (A5), Cuco_86 (A5), Dublin_87 (A5), ElTiger69_93 (A5), Florence1_85 (A5), Florence4_83 (A5), George_83 (A5), Ghoulboy_86 (A5), HuhtaEnerson15_85 (A5), Jabiru_87 (A5), LittleCherry_86 (A5), MarysWell_88 (A5), Midas2_84 (A5), Milcery_86 (A5), MyraDee_91 (A18), Naca_88 (A5), PetterN_94 (A5), Prinashe11_89 (A5), Scorpia_86 (A5), Swirley_87 (A5), SydNat_86 (A5), Tarynearal_89 (A5), Theia_87 (A5), Twigg_89 (A5), UnionJack_86 (A5), Zolita_85 (A5),

Start 15:
• Found in 4 of 47 (8.5%) of genes in pham
• Manual Annotations of this start: 4 of 45
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Grayson_290 (CB), Grayson_7 (CB), Peregrin_286 (CB), Peregrin_7 (CB),

Summary by clusters:

There are 5 clusters represented in this pham: A8, A18, A5, CF, CB,

Info for manual annotations of cluster A18:
•Start number 14 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A5:
•Start number 14 was manually annotated 27 times for cluster A5.

Info for manual annotations of cluster A8:
•Start number 13 was manually annotated 11 times for cluster A8.

Info for manual annotations of cluster CB:
•Start number 15 was manually annotated 4 times for cluster CB.

Info for manual annotations of cluster CF:
•Start number 10 was manually annotated 2 times for cluster CF.

Gene Information:

Gene: Airmid_90 Start: 49856, Stop: 49605, Start Num: 14
Candidate Starts for Airmid_90:
(Start: 14 @49856 has 28 MA's), (22, 49793), (23, 49772), (25, 49754), (31, 49679), (34, 49637),

Gene: Astro_100 Start: 51065, Stop: 50853, Start Num: 13
Candidate Starts for Astro_100:
(8, 51116), (9, 51101), (11, 51089), (Start: 13 @51065 has 11 MA's), (16, 51041), (19, 51023), (20, 51020), (22, 50996), (28, 50921), (29, 50918), (31, 50885),

Gene: Benedict_91 Start: 49699, Stop: 49448, Start Num: 14
Candidate Starts for Benedict_91:
(Start: 14 @49699 has 28 MA's), (22, 49636), (23, 49615), (25, 49597), (31, 49522), (34, 49480),

Gene: Bonamassa_89 Start: 49586, Stop: 49377, Start Num: 14
Candidate Starts for Bonamassa_89:
(Start: 14 @49586 has 28 MA's), (20, 49547), (22, 49523), (23, 49502), (24, 49499), (28, 49448), (31, 49409), (33, 49385),

Gene: Caitlin_98 Start: 50763, Stop: 50551, Start Num: 13
Candidate Starts for Caitlin_98:
(8, 50814), (9, 50799), (11, 50787), (Start: 13 @50763 has 11 MA's), (16, 50739), (19, 50721), (20, 50718), (22, 50694), (28, 50619), (29, 50616), (31, 50583),

Gene: Chadwick_89 Start: 48037, Stop: 47786, Start Num: 14
Candidate Starts for Chadwick_89:
(Start: 14 @48037 has 28 MA's), (22, 47974), (23, 47953), (25, 47935), (31, 47860), (34, 47818),

Gene: Coog_84 Start: 49619, Stop: 49410, Start Num: 14
Candidate Starts for Coog_84:
(Start: 14 @49619 has 28 MA's), (22, 49556), (23, 49535), (24, 49532), (28, 49481), (31, 49442), (33, 49418),

Gene: Cuco_86 Start: 49369, Stop: 49163, Start Num: 14
Candidate Starts for Cuco_86:
(Start: 14 @49369 has 28 MA's), (22, 49306), (23, 49285), (24, 49282), (28, 49231), (29, 49228), (31, 49195), (32, 49186),

Gene: Danforth_100 Start: 51225, Stop: 51013, Start Num: 13
Candidate Starts for Danforth_100:

(8, 51276), (9, 51261), (11, 51249), (Start: 13 @51225 has 11 MA's), (16, 51201), (19, 51183), (20, 51180), (22, 51156), (28, 51081), (29, 51078), (31, 51045),

Gene: Dixon_100 Start: 50630, Stop: 50418, Start Num: 13
Candidate Starts for Dixon_100:
(8, 50681), (9, 50666), (11, 50654), (Start: 13 @50630 has 11 MA's), (16, 50606), (19, 50588), (20, 50585), (22, 50561), (28, 50486), (29, 50483), (31, 50450),

Gene: Dublin_87 Start: 48678, Stop: 48472, Start Num: 14
Candidate Starts for Dublin_87:
(Start: 14 @48678 has 28 MA's), (22, 48615), (23, 48594), (24, 48591), (28, 48540), (29, 48537), (31, 48504), (32, 48495),

Gene: ElTiger69_93 Start: 50120, Stop: 49869, Start Num: 14
Candidate Starts for ElTiger69_93:
(Start: 14 @50120 has 28 MA's), (22, 50057), (23, 50036), (25, 50018), (31, 49943), (34, 49901),

Gene: Expelliarmus_96 Start: 50844, Stop: 50632, Start Num: 13
Candidate Starts for Expelliarmus_96:
(8, 50895), (9, 50880), (11, 50868), (Start: 13 @50844 has 11 MA's), (16, 50820), (19, 50802), (20, 50799), (22, 50775), (28, 50700), (29, 50697), (31, 50664),

Gene: Florence1_85 Start: 48431, Stop: 48222, Start Num: 14
Candidate Starts for Florence1_85:
(Start: 14 @48431 has 28 MA's), (20, 48392), (22, 48368), (23, 48347), (24, 48344), (28, 48293), (31, 48254), (33, 48230),

Gene: Florence4_83 Start: 47496, Stop: 47287, Start Num: 14
Candidate Starts for Florence4_83:
(Start: 14 @47496 has 28 MA's), (20, 47457), (22, 47433), (23, 47412), (24, 47409), (28, 47358), (31, 47319), (33, 47295),

Gene: George_83 Start: 49989, Stop: 49783, Start Num: 14
Candidate Starts for George_83:
(Start: 14 @49989 has 28 MA's), (20, 49950), (22, 49926), (23, 49905), (24, 49902), (28, 49851), (29, 49848), (31, 49815), (33, 49791),

Gene: Ghoulboy_86 Start: 49594, Stop: 49388, Start Num: 14
Candidate Starts for Ghoulboy_86:
(Start: 14 @49594 has 28 MA's), (22, 49531), (23, 49510), (28, 49456), (29, 49453), (31, 49420), (32, 49411),

Gene: Grayson_290 Start: 131298, Stop: 131104, Start Num: 15
Candidate Starts for Grayson_290:
(Start: 15 @131298 has 4 MA's), (24, 131226), (25, 131208), (31, 131127),

Gene: Grayson_7 Start: 2397, Stop: 2203, Start Num: 15
Candidate Starts for Grayson_7:
(Start: 15 @2397 has 4 MA's), (24, 2325), (25, 2307), (31, 2226),

Gene: Groundhog_96 Start: 50900, Stop: 50688, Start Num: 13
Candidate Starts for Groundhog_96:

(8, 50951), (9, 50936), (11, 50924), (Start: 13 @50900 has 11 MA's), (16, 50876), (19, 50858), (20, 50855), (22, 50831), (28, 50756), (29, 50753), (31, 50720),

Gene: HuhtaEnerson15_85 Start: 49512, Stop: 49303, Start Num: 14
Candidate Starts for HuhtaEnerson15_85:
(Start: 14 @49512 has 28 MA's), (22, 49449), (23, 49428), (24, 49425), (28, 49374), (31, 49335), (33, 49311),

Gene: Jabiru_87 Start: 49146, Stop: 48898, Start Num: 14
Candidate Starts for Jabiru_87:
(Start: 14 @49146 has 28 MA's), (22, 49083), (23, 49065), (25, 49047), (31, 48972), (34, 48930),

Gene: LittleCherry_86 Start: 49099, Stop: 48893, Start Num: 14
Candidate Starts for LittleCherry_86:
(Start: 14 @49099 has 28 MA's), (20, 49060), (22, 49036), (23, 49015), (24, 49012), (28, 48961), (29, 48958), (31, 48925), (33, 48901),

Gene: MarysWell_88 Start: 49867, Stop: 49661, Start Num: 14
Candidate Starts for MarysWell_88:
(Start: 14 @49867 has 28 MA's), (22, 49804), (23, 49783), (24, 49780), (28, 49729), (29, 49726), (31, 49693), (32, 49684),

Gene: Midas2_84 Start: 49619, Stop: 49410, Start Num: 14
Candidate Starts for Midas2_84:
(Start: 14 @49619 has 28 MA's), (22, 49556), (23, 49535), (24, 49532), (28, 49481), (31, 49442), (33, 49418),

Gene: Milcery_86 Start: 49395, Stop: 49189, Start Num: 14
Candidate Starts for Milcery_86:
(Start: 14 @49395 has 28 MA's), (20, 49356), (22, 49332), (23, 49311), (24, 49308), (28, 49257), (29, 49254), (31, 49221), (33, 49197),

Gene: MyraDee_91 Start: 48649, Stop: 48416, Start Num: 14
Candidate Starts for MyraDee_91:
(6, 48715), (Start: 14 @48649 has 28 MA's), (19, 48613), (21, 48601), (22, 48586), (28, 48502), (30, 48496), (31, 48463),

Gene: Naca_88 Start: 50210, Stop: 49959, Start Num: 14
Candidate Starts for Naca_88:
(Start: 14 @50210 has 28 MA's), (22, 50147), (23, 50126), (25, 50108), (31, 50033), (34, 49991),

Gene: NearlyHeadless_102 Start: 50962, Stop: 50750, Start Num: 13
Candidate Starts for NearlyHeadless_102:
(8, 51013), (9, 50998), (11, 50986), (Start: 13 @50962 has 11 MA's), (16, 50938), (19, 50920), (20, 50917), (22, 50893), (28, 50818), (29, 50815), (31, 50782),

Gene: Peregrin_7 Start: 2426, Stop: 2232, Start Num: 15
Candidate Starts for Peregrin_7:
(Start: 15 @2426 has 4 MA's), (24, 2354), (25, 2336), (31, 2255),

Gene: Peregrin_286 Start: 132495, Stop: 132301, Start Num: 15
Candidate Starts for Peregrin_286:
(Start: 15 @132495 has 4 MA's), (24, 132423), (25, 132405), (31, 132324),

Gene: PetterN_94 Start: 49736, Stop: 49485, Start Num: 14
Candidate Starts for PetterN_94:
(Start: 14 @49736 has 28 MA's), (22, 49673), (23, 49652), (25, 49634), (31, 49559), (34, 49517),

Gene: Prinashe11_89 Start: 49665, Stop: 49456, Start Num: 14
Candidate Starts for Prinashe11_89:
(Start: 14 @49665 has 28 MA's), (20, 49626), (22, 49602), (23, 49581), (24, 49578), (28, 49527), (31, 49488), (33, 49464),

Gene: RegnumDei_112 Start: 62470, Stop: 62219, Start Num: 10
Candidate Starts for RegnumDei_112:
(1, 62644), (2, 62587), (3, 62554), (4, 62533), (5, 62500), (7, 62497), (Start: 10 @62470 has 2 MA's), (12, 62458), (17, 62416), (18, 62404), (27, 62305),

Gene: Roary_101 Start: 51099, Stop: 50887, Start Num: 13
Candidate Starts for Roary_101:
(8, 51150), (9, 51135), (11, 51123), (Start: 13 @51099 has 11 MA's), (16, 51075), (19, 51057), (20, 51054), (22, 51030), (28, 50955), (29, 50952), (31, 50919),

Gene: Saintus_96 Start: 47806, Stop: 47594, Start Num: 13
Candidate Starts for Saintus_96:
(Start: 13 @47806 has 11 MA's), (16, 47782), (19, 47764), (20, 47761), (22, 47737), (28, 47662), (29, 47659), (31, 47626),

Gene: Scorpia_86 Start: 49308, Stop: 49057, Start Num: 14
Candidate Starts for Scorpia_86:
(Start: 14 @49308 has 28 MA's), (22, 49245), (23, 49224), (25, 49206), (31, 49131), (34, 49089),

Gene: Shagrat_112 Start: 60338, Stop: 60111, Start Num: 10
Candidate Starts for Shagrat_112:
(5, 60380), (7, 60377), (9, 60347), (Start: 10 @60338 has 2 MA's), (12, 60326), (17, 60284), (26, 60203),

Gene: Smeadley_101 Start: 50966, Stop: 50754, Start Num: 13
Candidate Starts for Smeadley_101:
(8, 51017), (9, 51002), (11, 50990), (Start: 13 @50966 has 11 MA's), (16, 50942), (19, 50924), (20, 50921), (22, 50897), (28, 50822), (29, 50819), (31, 50786),

Gene: Stephig9_102 Start: 51292, Stop: 51080, Start Num: 13
Candidate Starts for Stephig9_102:
(8, 51343), (9, 51328), (11, 51316), (Start: 13 @51292 has 11 MA's), (16, 51268), (19, 51250), (20, 51247), (22, 51223), (28, 51148), (29, 51145), (31, 51112),

Gene: Swirley_87 Start: 48120, Stop: 47911, Start Num: 14
Candidate Starts for Swirley_87:
(Start: 14 @48120 has 28 MA's), (20, 48081), (22, 48057), (23, 48036), (24, 48033), (28, 47982), (31, 47943), (33, 47919),

Gene: SydNat_86 Start: 49603, Stop: 49397, Start Num: 14
Candidate Starts for SydNat_86:
(Start: 14 @49603 has 28 MA's), (22, 49540), (23, 49519), (28, 49465), (29, 49462), (31, 49429), (32, 49420),

Gene: Tarynearal_89 Start: 49555, Stop: 49349, Start Num: 14
Candidate Starts for Tarynearal_89:
(Start: 14 @49555 has 28 MA's), (20, 49516), (22, 49492), (23, 49471), (24, 49468), (28, 49417), (29, 49414), (31, 49381), (33, 49357),

Gene: Theia_87 Start: 49946, Stop: 49740, Start Num: 14
Candidate Starts for Theia_87:
(Start: 14 @49946 has 28 MA's), (22, 49883), (23, 49862), (24, 49859), (28, 49808), (29, 49805), (31, 49772), (32, 49763),

Gene: Twigg_89 Start: 49524, Stop: 49315, Start Num: 14
Candidate Starts for Twigg_89:
(Start: 14 @49524 has 28 MA's), (20, 49485), (22, 49461), (23, 49440), (24, 49437), (28, 49386), (31, 49347), (33, 49323),

Gene: UnionJack_86 Start: 47773, Stop: 47522, Start Num: 14
Candidate Starts for UnionJack_86:
(Start: 14 @47773 has 28 MA's), (22, 47710), (23, 47689), (25, 47671), (31, 47596), (34, 47554),

Gene: Zolita_85 Start: 49586, Stop: 49380, Start Num: 14
Candidate Starts for Zolita_85:
(Start: 14 @49586 has 28 MA's), (22, 49523), (23, 49502), (28, 49448), (29, 49445), (31, 49412), (32, 49403),