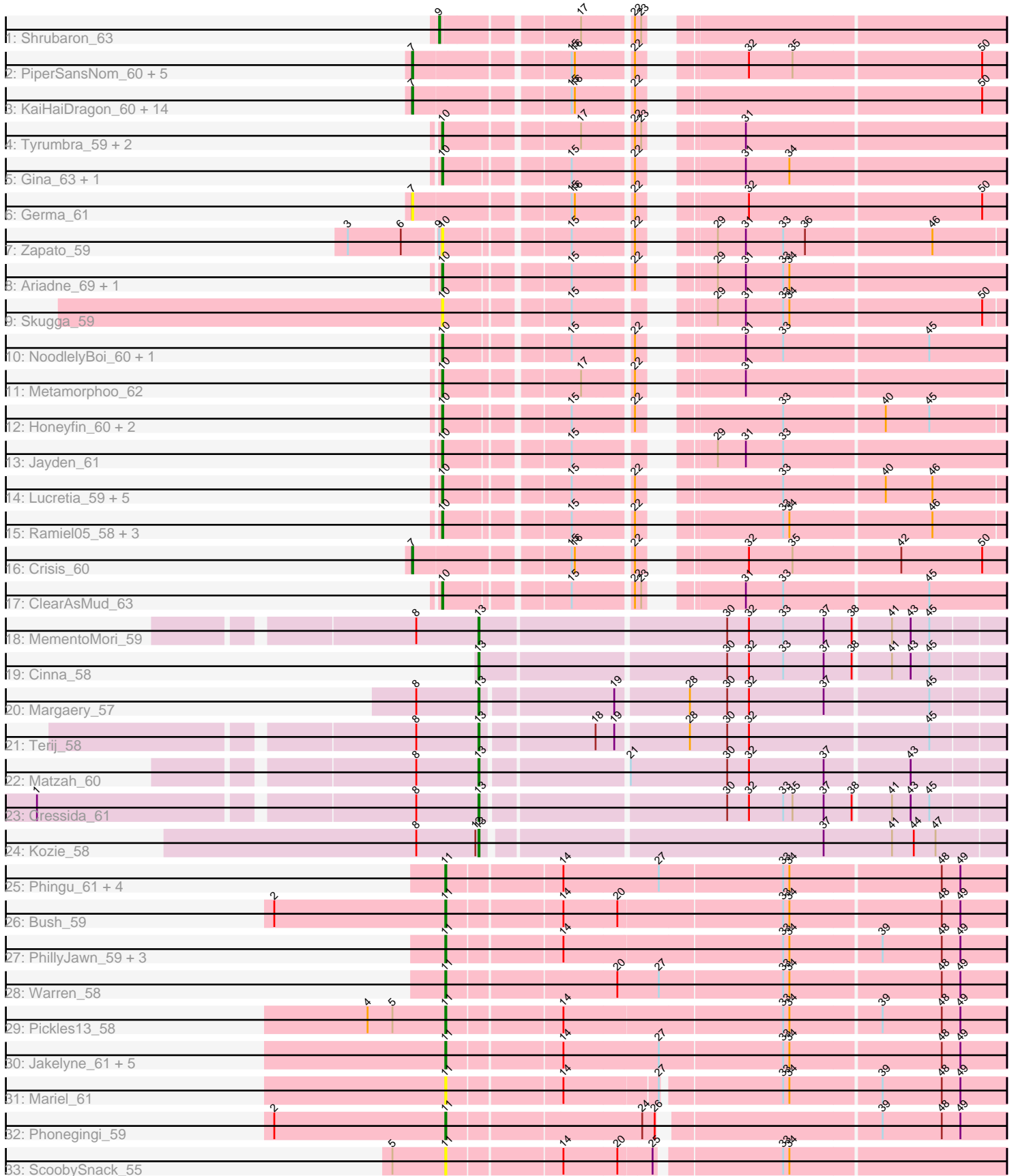


Pham 303303



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 303303 Report

This analysis was run 06/08/26 on database version 649.

Pham number 303303 has 79 members, 17 are drafts.

Phages represented in each track:

- Track 1 : Shrubaron_63
- Track 2 : PiperSansNom_60, BeagleBug_58, Phrancesco_59, Hermeonysus_59, Shotgun_59, Rockwell_58
- Track 3 : KaiHaiDragon_60, EarickHC_60, Paschalis_59, Busephilis_58, Antares_59, Ganandorf_58, Onika_58, Scumberland_61, Quhwah_63, Jefe_59, PhedwardCullen_58, LittleFortune_61, Cranjis_60, CrazyRich_58, Savannah_58
- Track 4 : Tyumbra_59, RobsFeet_63, Fireman_62
- Track 5 : Gina_63, Teamocil_63
- Track 6 : Germa_61
- Track 7 : Zapato_59
- Track 8 : Ariadne_69, Smarties_69
- Track 9 : Skugga_59
- Track 10 : NoodlelyBoi_60, SirFrank_59
- Track 11 : Metamorphoo_62
- Track 12 : Honeyfin_60, Glorp_60, PierreOrion_59
- Track 13 : Jayden_61
- Track 14 : Lucretia_59, Piperis_60, Selwyn23_60, Yeti_61, Pulchra_61, Phorgeous_59
- Track 15 : Ramiel05_58, Kowalski_58, BrazzalePHS_58, Jollipop_60
- Track 16 : Crisis_60
- Track 17 : ClearAsMud_63
- Track 18 : MementoMori_59
- Track 19 : Cinna_58
- Track 20 : Margaery_57
- Track 21 : Terij_58
- Track 22 : Matzah_60
- Track 23 : Cressida_61
- Track 24 : Kozie_58
- Track 25 : Phingu_61, MenE_60, NCRodriguez_60, Blett_58, Guzman_58
- Track 26 : Bush_59
- Track 27 : PhillyJawn_59, Dropshot_58, Appa_58, Winchester007_5
- Track 28 : Warren_58
- Track 29 : Pickles13_58
- Track 30 : Jakelyne_61, Antuna_60, Violeta_60, Losacky_60, CookieDog_58, Carrillo_60
- Track 31 : Mariel_61
- Track 32 : Phonegingi_59

- Track 33 : ScoobySnack_55

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

The start number called the most often in the published annotations is 10, it was called in 23 of the 62 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ariadne_69, BrazzalePHS_58, ClearAsMud_63, Fireman_62, Gina_63, Glorp_60, Honeyfin_60, Jayden_61, Jollipop_60, Kowalski_58, Lucretia_59, Metamorphoo_62, NoodlelyBoi_60, Phorgeous_59, PierreOrion_59, Piperis_60, Pulchra_61, Ramiel05_58, RobsFeet_63, Selwyn23_60, SirFrank_59, Skugga_59, Smarties_69, Teamocil_63, Tyumbra_59, Yeti_61, Zapato_59,

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

-

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

- Antares_59, Antuna_60, Appa_58, BeagleBug_58, Blett_58, Busephilis_58, Bush_59, Carrillo_60, Cinna_58, CookieDog_58, Cranjjs_60, CrazyRich_58, Cressida_61, Crisis_60, Dropshot_58, EarickHC_60, Ganandorf_58, Germa_61, Guzman_58, Hermeonysus_59, Jakelyne_61, Jefe_59, KaiHaiDragon_60, Kozi_58, LittleFortune_61, Losacky_60, Margaery_57, Mariel_61, Matzah_60, MementoMori_59, MenE_60, NCRodriguez_60, Onika_58, Paschalis_59, PhedwardCullen_58, PhillyJawn_59, Phingu_61, Phonegingi_59, Phrancesco_59, Pickles13_58, PiperSansNom_60, Quhwah_63, Rockwell_58, Savannah_58, ScoobySnack_55, Scumberland_61, Shotgun_59, Shrubaron_63, Terij_58, Violeta_60, Warren_58, Winchester007_5,

Summary by start number:

Start 7:

- Found in 23 of 79 (29.1%) of genes in pham
- Manual Annotations of this start: 20 of 62
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antares_59 (EC), BeagleBug_58 (EC), Busephilis_58 (EC), Cranjjs_60 (EC), CrazyRich_58 (EC), Crisis_60 (EC), EarickHC_60 (EC), Ganandorf_58 (EC), Germa_61 (EC), Hermeonysus_59 (EC), Jefe_59 (EC), KaiHaiDragon_60 (EC), LittleFortune_61 (EC), Onika_58 (EC), Paschalis_59 (EC), PhedwardCullen_58 (EC), Phrancesco_59 (EC), PiperSansNom_60 (EC), Quhwah_63 (EC), Rockwell_58 (EC), Savannah_58 (EC), Scumberland_61 (EC), Shotgun_59 (EC),

Start 9:

- Found in 2 of 79 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 62
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Shrubaron_63 (EC),

Start 10:

- Found in 27 of 79 (34.2%) of genes in pham
- Manual Annotations of this start: 23 of 62
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ariadne_69 (EC), BrazzalePHS_58 (EC), ClearAsMud_63 (EC), Fireman_62 (EC), Gina_63 (EC), Glorp_60 (EC), Honeyfin_60 (EC), Jayden_61 (EC), Jollipop_60 (EC), Kowalski_58 (EC), Lucretia_59 (EC), Metamorphoo_62 (EC), NoodlelyBoi_60 (EC), Phorgeous_59 (EC), PierreOrion_59 (EC), Piperis_60 (EC), Pulchra_61 (EC), Ramiel05_58 (EC), RobsFeet_63 (EC), Selwyn23_60 (EC), SirFrank_59 (EC), Skugga_59 (EC), Smarties_69 (EC), Teamocil_63 (EC), Tyrumbra_59 (EC), Yeti_61 (EC), Zapato_59 (EC),

Start 11:

- Found in 21 of 79 (26.6%) of genes in pham
- Manual Annotations of this start: 11 of 62
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antuna_60 (GA), Appa_58 (GA), Blett_58 (GA), Bush_59 (GA), Carrillo_60 (GA), CookieDog_58 (GA), Dropshot_58 (GA), Guzman_58 (GA), Jakelyne_61 (GA), Losacky_60 (GA), Mariel_61 (GA), MenE_60 (GA), NCRodriguez_60 (GA), PhillyJawn_59 (GA), Phingu_61 (GA), Phonegingi_59 (GA), Pickles13_58 (GA), ScoobySnack_55 (GA), Violeta_60 (GA), Warren_58 (GA), Winchester007_5 (GA),

Start 13:

- Found in 7 of 79 (8.9%) of genes in pham
- Manual Annotations of this start: 7 of 62
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cinna_58 (EI), Cressida_61 (EI), Kozie_58 (EI), Margaery_57 (EI), Matzah_60 (EI), MementoMori_59 (EI), Terij_58 (EI),

Summary by clusters:

There are 3 clusters represented in this pham: EI, EC, GA,

Info for manual annotations of cluster EC:

- Start number 7 was manually annotated 20 times for cluster EC.
- Start number 9 was manually annotated 1 time for cluster EC.
- Start number 10 was manually annotated 23 times for cluster EC.

Info for manual annotations of cluster EI:

- Start number 13 was manually annotated 7 times for cluster EI.

Info for manual annotations of cluster GA:

- Start number 11 was manually annotated 11 times for cluster GA.

Gene Information:

Gene: Antares_59 Start: 38683, Stop: 39186, Start Num: 7

Candidate Starts for Antares_59:

(Start: 7 @38683 has 20 MA's), (15, 38818), (16, 38821), (22, 38869), (50, 39163),

Gene: Antuna_60 Start: 34595, Stop: 35113, Start Num: 11

Candidate Starts for Antuna_60:

(Start: 11 @34595 has 11 MA's), (14, 34697), (27, 34787), (33, 34904), (34, 34910), (48, 35051), (49, 35069),

Gene: Appa_58 Start: 34360, Stop: 34875, Start Num: 11

Candidate Starts for Appa_58:

(Start: 11 @34360 has 11 MA's), (14, 34462), (33, 34666), (34, 34672), (39, 34756), (48, 34813), (49, 34831),

Gene: Ariadne_69 Start: 40305, Stop: 40778, Start Num: 10

Candidate Starts for Ariadne_69:

(Start: 10 @40305 has 23 MA's), (15, 40410), (22, 40461), (29, 40506), (31, 40533), (33, 40569), (34, 40575),

Gene: BeagleBug_58 Start: 38463, Stop: 38966, Start Num: 7

Candidate Starts for BeagleBug_58:

(Start: 7 @38463 has 20 MA's), (15, 38598), (16, 38601), (22, 38649), (32, 38724), (35, 38766), (50, 38943),

Gene: Blett_58 Start: 34545, Stop: 35063, Start Num: 11

Candidate Starts for Blett_58:

(Start: 11 @34545 has 11 MA's), (14, 34647), (27, 34737), (33, 34854), (34, 34860), (48, 35001), (49, 35019),

Gene: BrazzalePHS_58 Start: 38478, Stop: 38948, Start Num: 10

Candidate Starts for BrazzalePHS_58:

(Start: 10 @38478 has 23 MA's), (15, 38583), (22, 38634), (33, 38742), (34, 38748), (46, 38880),

Gene: Busephilis_58 Start: 38390, Stop: 38893, Start Num: 7

Candidate Starts for Busephilis_58:

(Start: 7 @38390 has 20 MA's), (15, 38525), (16, 38528), (22, 38576), (50, 38870),

Gene: Bush_59 Start: 34494, Stop: 35009, Start Num: 11

Candidate Starts for Bush_59:

(2, 34329), (Start: 11 @34494 has 11 MA's), (14, 34596), (20, 34647), (33, 34800), (34, 34806), (48, 34947), (49, 34965),

Gene: Carrillo_60 Start: 34468, Stop: 34986, Start Num: 11

Candidate Starts for Carrillo_60:

(Start: 11 @34468 has 11 MA's), (14, 34570), (27, 34660), (33, 34777), (34, 34783), (48, 34924), (49, 34942),

Gene: Cinna_58 Start: 40223, Stop: 40708, Start Num: 13

Candidate Starts for Cinna_58:

(Start: 13 @40223 has 7 MA's), (30, 40451), (32, 40472), (33, 40505), (37, 40544), (38, 40571), (41, 40604), (43, 40622), (45, 40640),

Gene: ClearAsMud_63 Start: 38961, Stop: 39434, Start Num: 10

Candidate Starts for ClearAsMud_63:

(Start: 10 @38961 has 23 MA's), (15, 39066), (22, 39117), (23, 39123), (31, 39189), (33, 39225), (45, 39360),

Gene: CookieDog_58 Start: 34468, Stop: 34986, Start Num: 11

Candidate Starts for CookieDog_58:

(Start: 11 @34468 has 11 MA's), (14, 34570), (27, 34660), (33, 34777), (34, 34783), (48, 34924), (49, 34942),

Gene: Cranjjs_60 Start: 38638, Stop: 39141, Start Num: 7

Candidate Starts for Cranjjs_60:

(Start: 7 @38638 has 20 MA's), (15, 38773), (16, 38776), (22, 38824), (50, 39118),

Gene: CrazyRich_58 Start: 38447, Stop: 38950, Start Num: 7

Candidate Starts for CrazyRich_58:

(Start: 7 @38447 has 20 MA's), (15, 38582), (16, 38585), (22, 38633), (50, 38927),

Gene: Cressida_61 Start: 39855, Stop: 40334, Start Num: 13

Candidate Starts for Cressida_61:

(1, 39453), (8, 39795), (Start: 13 @39855 has 7 MA's), (30, 40077), (32, 40098), (33, 40131), (35, 40140), (37, 40170), (38, 40197), (41, 40230), (43, 40248), (45, 40266),

Gene: Crisis_60 Start: 38438, Stop: 38941, Start Num: 7

Candidate Starts for Crisis_60:

(Start: 7 @38438 has 20 MA's), (15, 38573), (16, 38576), (22, 38624), (32, 38699), (35, 38741), (42, 38840), (50, 38918),

Gene: Dropshot_58 Start: 34195, Stop: 34710, Start Num: 11

Candidate Starts for Dropshot_58:

(Start: 11 @34195 has 11 MA's), (14, 34297), (33, 34501), (34, 34507), (39, 34591), (48, 34648), (49, 34666),

Gene: EarickHC_60 Start: 38360, Stop: 38863, Start Num: 7

Candidate Starts for EarickHC_60:

(Start: 7 @38360 has 20 MA's), (15, 38495), (16, 38498), (22, 38546), (50, 38840),

Gene: Fireman_62 Start: 40381, Stop: 40857, Start Num: 10

Candidate Starts for Fireman_62:

(Start: 10 @40381 has 23 MA's), (17, 40498), (22, 40540), (23, 40546), (31, 40612),

Gene: Ganandorf_58 Start: 38471, Stop: 38974, Start Num: 7

Candidate Starts for Ganandorf_58:

(Start: 7 @38471 has 20 MA's), (15, 38606), (16, 38609), (22, 38657), (50, 38951),

Gene: Germa_61 Start: 38301, Stop: 38804, Start Num: 7

Candidate Starts for Germa_61:

(Start: 7 @38301 has 20 MA's), (15, 38436), (16, 38439), (22, 38487), (32, 38562), (50, 38781),

Gene: Gina_63 Start: 38467, Stop: 38940, Start Num: 10

Candidate Starts for Gina_63:

(Start: 10 @38467 has 23 MA's), (15, 38572), (22, 38623), (31, 38695), (34, 38737),

Gene: Glorp_60 Start: 38471, Stop: 38941, Start Num: 10

Candidate Starts for Glorp_60:

(Start: 10 @38471 has 23 MA's), (15, 38576), (22, 38627), (33, 38735), (40, 38828), (45, 38870),

Gene: Guzman_58 Start: 34415, Stop: 34933, Start Num: 11
Candidate Starts for Guzman_58:
(Start: 11 @34415 has 11 MA's), (14, 34517), (27, 34607), (33, 34724), (34, 34730), (48, 34871), (49, 34889),

Gene: Hermeonysus_59 Start: 38366, Stop: 38869, Start Num: 7
Candidate Starts for Hermeonysus_59:
(Start: 7 @38366 has 20 MA's), (15, 38501), (16, 38504), (22, 38552), (32, 38627), (35, 38669), (50, 38846),

Gene: Honeyfin_60 Start: 38659, Stop: 39129, Start Num: 10
Candidate Starts for Honeyfin_60:
(Start: 10 @38659 has 23 MA's), (15, 38764), (22, 38815), (33, 38923), (40, 39016), (45, 39058),

Gene: Jakelyne_61 Start: 34561, Stop: 35079, Start Num: 11
Candidate Starts for Jakelyne_61:
(Start: 11 @34561 has 11 MA's), (14, 34663), (27, 34753), (33, 34870), (34, 34876), (48, 35017), (49, 35035),

Gene: Jayden_61 Start: 39140, Stop: 39613, Start Num: 10
Candidate Starts for Jayden_61:
(Start: 10 @39140 has 23 MA's), (15, 39245), (29, 39341), (31, 39368), (33, 39404),

Gene: Jefe_59 Start: 38424, Stop: 38927, Start Num: 7
Candidate Starts for Jefe_59:
(Start: 7 @38424 has 20 MA's), (15, 38559), (16, 38562), (22, 38610), (50, 38904),

Gene: Jollipop_60 Start: 38839, Stop: 39309, Start Num: 10
Candidate Starts for Jollipop_60:
(Start: 10 @38839 has 23 MA's), (15, 38944), (22, 38995), (33, 39103), (34, 39109), (46, 39241),

Gene: KaiHaiDragon_60 Start: 38360, Stop: 38863, Start Num: 7
Candidate Starts for KaiHaiDragon_60:
(Start: 7 @38360 has 20 MA's), (15, 38495), (16, 38498), (22, 38546), (50, 38840),

Gene: Kowalski_58 Start: 38473, Stop: 38943, Start Num: 10
Candidate Starts for Kowalski_58:
(Start: 10 @38473 has 23 MA's), (15, 38578), (22, 38629), (33, 38737), (34, 38743), (46, 38875),

Gene: Kozie_58 Start: 39608, Stop: 40093, Start Num: 13
Candidate Starts for Kozie_58:
(8, 39548), (12, 39605), (Start: 13 @39608 has 7 MA's), (37, 39920), (41, 39986), (44, 40007), (47, 40028),

Gene: LittleFortune_61 Start: 38731, Stop: 39234, Start Num: 7
Candidate Starts for LittleFortune_61:
(Start: 7 @38731 has 20 MA's), (15, 38866), (16, 38869), (22, 38917), (50, 39211),

Gene: Losacky_60 Start: 34726, Stop: 35244, Start Num: 11
Candidate Starts for Losacky_60:
(Start: 11 @34726 has 11 MA's), (14, 34828), (27, 34918), (33, 35035), (34, 35041), (48, 35182), (49, 35200),

Gene: Lucretia_59 Start: 38389, Stop: 38859, Start Num: 10

Candidate Starts for Lucretia_59:

(Start: 10 @38389 has 23 MA's), (15, 38494), (22, 38545), (33, 38653), (40, 38746), (46, 38791),

Gene: Margaery_57 Start: 39484, Stop: 39963, Start Num: 13

Candidate Starts for Margaery_57:

(8, 39424), (Start: 13 @39484 has 7 MA's), (19, 39604), (28, 39670), (30, 39706), (32, 39727), (37, 39799), (45, 39895),

Gene: Mariel_61 Start: 34944, Stop: 35447, Start Num: 11

Candidate Starts for Mariel_61:

(Start: 11 @34944 has 11 MA's), (14, 35046), (27, 35130), (33, 35238), (34, 35244), (39, 35328), (48, 35385), (49, 35403),

Gene: Matzah_60 Start: 40308, Stop: 40787, Start Num: 13

Candidate Starts for Matzah_60:

(8, 40248), (Start: 13 @40308 has 7 MA's), (21, 40437), (30, 40530), (32, 40551), (37, 40623), (43, 40701),

Gene: MementoMori_59 Start: 39882, Stop: 40367, Start Num: 13

Candidate Starts for MementoMori_59:

(8, 39822), (Start: 13 @39882 has 7 MA's), (30, 40110), (32, 40131), (33, 40164), (37, 40203), (38, 40230), (41, 40263), (43, 40281), (45, 40299),

Gene: MenE_60 Start: 34617, Stop: 35135, Start Num: 11

Candidate Starts for MenE_60:

(Start: 11 @34617 has 11 MA's), (14, 34719), (27, 34809), (33, 34926), (34, 34932), (48, 35073), (49, 35091),

Gene: Metamorphoo_62 Start: 39675, Stop: 40148, Start Num: 10

Candidate Starts for Metamorphoo_62:

(Start: 10 @39675 has 23 MA's), (17, 39792), (22, 39834), (31, 39906),

Gene: NCRodriguez_60 Start: 34686, Stop: 35189, Start Num: 11

Candidate Starts for NCRodriguez_60:

(Start: 11 @34686 has 11 MA's), (14, 34788), (27, 34872), (33, 34980), (34, 34986), (48, 35127), (49, 35145),

Gene: NoodlelyBoi_60 Start: 39252, Stop: 39725, Start Num: 10

Candidate Starts for NoodlelyBoi_60:

(Start: 10 @39252 has 23 MA's), (15, 39357), (22, 39408), (31, 39480), (33, 39516), (45, 39651),

Gene: Onika_58 Start: 38449, Stop: 38952, Start Num: 7

Candidate Starts for Onika_58:

(Start: 7 @38449 has 20 MA's), (15, 38584), (16, 38587), (22, 38635), (50, 38929),

Gene: Paschalis_59 Start: 38456, Stop: 38959, Start Num: 7

Candidate Starts for Paschalis_59:

(Start: 7 @38456 has 20 MA's), (15, 38591), (16, 38594), (22, 38642), (50, 38936),

Gene: PhedwardCullen_58 Start: 38206, Stop: 38697, Start Num: 7

Candidate Starts for PhedwardCullen_58:

(Start: 7 @38206 has 20 MA's), (15, 38341), (16, 38344), (22, 38392), (50, 38674),

Gene: PhillyJawn_59 Start: 34357, Stop: 34872, Start Num: 11
Candidate Starts for PhillyJawn_59:
(Start: 11 @34357 has 11 MA's), (14, 34459), (33, 34663), (34, 34669), (39, 34753), (48, 34810), (49, 34828),

Gene: Phingu_61 Start: 34581, Stop: 35099, Start Num: 11
Candidate Starts for Phingu_61:
(Start: 11 @34581 has 11 MA's), (14, 34683), (27, 34773), (33, 34890), (34, 34896), (48, 35037), (49, 35055),

Gene: Phonegingi_59 Start: 34677, Stop: 35180, Start Num: 11
Candidate Starts for Phonegingi_59:
(2, 34512), (Start: 11 @34677 has 11 MA's), (24, 34854), (26, 34866), (39, 35061), (48, 35118), (49, 35136),

Gene: Phorgeous_59 Start: 38290, Stop: 38760, Start Num: 10
Candidate Starts for Phorgeous_59:
(Start: 10 @38290 has 23 MA's), (15, 38395), (22, 38446), (33, 38554), (40, 38647), (46, 38692),

Gene: Phrancesco_59 Start: 38580, Stop: 39083, Start Num: 7
Candidate Starts for Phrancesco_59:
(Start: 7 @38580 has 20 MA's), (15, 38715), (16, 38718), (22, 38766), (32, 38841), (35, 38883), (50, 39060),

Gene: Pickles13_58 Start: 35036, Stop: 35551, Start Num: 11
Candidate Starts for Pickles13_58:
(4, 34961), (5, 34985), (Start: 11 @35036 has 11 MA's), (14, 35138), (33, 35342), (34, 35348), (39, 35432), (48, 35489), (49, 35507),

Gene: PierreOrion_59 Start: 38698, Stop: 39168, Start Num: 10
Candidate Starts for PierreOrion_59:
(Start: 10 @38698 has 23 MA's), (15, 38803), (22, 38854), (33, 38962), (40, 39055), (45, 39097),

Gene: PiperSansNom_60 Start: 38762, Stop: 39265, Start Num: 7
Candidate Starts for PiperSansNom_60:
(Start: 7 @38762 has 20 MA's), (15, 38897), (16, 38900), (22, 38948), (32, 39023), (35, 39065), (50, 39242),

Gene: Piperis_60 Start: 38415, Stop: 38885, Start Num: 10
Candidate Starts for Piperis_60:
(Start: 10 @38415 has 23 MA's), (15, 38520), (22, 38571), (33, 38679), (40, 38772), (46, 38817),

Gene: Pulchra_61 Start: 38811, Stop: 39281, Start Num: 10
Candidate Starts for Pulchra_61:
(Start: 10 @38811 has 23 MA's), (15, 38916), (22, 38967), (33, 39075), (40, 39168), (46, 39213),

Gene: Quhwah_63 Start: 39070, Stop: 39573, Start Num: 7
Candidate Starts for Quhwah_63:
(Start: 7 @39070 has 20 MA's), (15, 39205), (16, 39208), (22, 39256), (50, 39550),

Gene: Ramiel05_58 Start: 38473, Stop: 38943, Start Num: 10
Candidate Starts for Ramiel05_58:

(Start: 10 @38473 has 23 MA's), (15, 38578), (22, 38629), (33, 38737), (34, 38743), (46, 38875),

Gene: RobsFeet_63 Start: 39942, Stop: 40418, Start Num: 10

Candidate Starts for RobsFeet_63:

(Start: 10 @39942 has 23 MA's), (17, 40059), (22, 40101), (23, 40107), (31, 40173),

Gene: Rockwell_58 Start: 38473, Stop: 38976, Start Num: 7

Candidate Starts for Rockwell_58:

(Start: 7 @38473 has 20 MA's), (15, 38608), (16, 38611), (22, 38659), (32, 38734), (35, 38776), (50, 38953),

Gene: Savannah_58 Start: 38500, Stop: 39003, Start Num: 7

Candidate Starts for Savannah_58:

(Start: 7 @38500 has 20 MA's), (15, 38635), (16, 38638), (22, 38686), (50, 38980),

Gene: ScoobySnack_55 Start: 34331, Stop: 34834, Start Num: 11

Candidate Starts for ScoobySnack_55:

(5, 34280), (Start: 11 @34331 has 11 MA's), (14, 34433), (20, 34484), (25, 34514), (33, 34625), (34, 34631),

Gene: Scumberland_61 Start: 38695, Stop: 39198, Start Num: 7

Candidate Starts for Scumberland_61:

(Start: 7 @38695 has 20 MA's), (15, 38830), (16, 38833), (22, 38881), (50, 39175),

Gene: Selwyn23_60 Start: 38645, Stop: 39115, Start Num: 10

Candidate Starts for Selwyn23_60:

(Start: 10 @38645 has 23 MA's), (15, 38750), (22, 38801), (33, 38909), (40, 39002), (46, 39047),

Gene: Shotgun_59 Start: 38376, Stop: 38879, Start Num: 7

Candidate Starts for Shotgun_59:

(Start: 7 @38376 has 20 MA's), (15, 38511), (16, 38514), (22, 38562), (32, 38637), (35, 38679), (50, 38856),

Gene: Shrubaron_63 Start: 39555, Stop: 40031, Start Num: 9

Candidate Starts for Shrubaron_63:

(Start: 9 @39555 has 1 MA's), (17, 39672), (22, 39714), (23, 39720),

Gene: SirFrank_59 Start: 38656, Stop: 39129, Start Num: 10

Candidate Starts for SirFrank_59:

(Start: 10 @38656 has 23 MA's), (15, 38761), (22, 38812), (31, 38884), (33, 38920), (45, 39055),

Gene: Skugga_59 Start: 38845, Stop: 39315, Start Num: 10

Candidate Starts for Skugga_59:

(Start: 10 @38845 has 23 MA's), (15, 38950), (29, 39046), (31, 39073), (33, 39109), (34, 39115), (50, 39295),

Gene: Smarties_69 Start: 40305, Stop: 40778, Start Num: 10

Candidate Starts for Smarties_69:

(Start: 10 @40305 has 23 MA's), (15, 40410), (22, 40461), (29, 40506), (31, 40533), (33, 40569), (34, 40575),

Gene: Teamocil_63 Start: 38560, Stop: 39033, Start Num: 10

Candidate Starts for Teamocil_63:

(Start: 10 @38560 has 23 MA's), (15, 38665), (22, 38716), (31, 38788), (34, 38830),

Gene: Terij_58 Start: 38927, Stop: 39406, Start Num: 13

Candidate Starts for Terij_58:

(8, 38867), (Start: 13 @38927 has 7 MA's), (18, 39029), (19, 39047), (28, 39113), (30, 39149), (32, 39170), (45, 39338),

Gene: Tyrumbra_59 Start: 39801, Stop: 40277, Start Num: 10

Candidate Starts for Tyrumbra_59:

(Start: 10 @39801 has 23 MA's), (17, 39918), (22, 39960), (23, 39966), (31, 40032),

Gene: Violeta_60 Start: 34459, Stop: 34977, Start Num: 11

Candidate Starts for Violeta_60:

(Start: 11 @34459 has 11 MA's), (14, 34561), (27, 34651), (33, 34768), (34, 34774), (48, 34915), (49, 34933),

Gene: Warren_58 Start: 34417, Stop: 34935, Start Num: 11

Candidate Starts for Warren_58:

(Start: 11 @34417 has 11 MA's), (20, 34570), (27, 34609), (33, 34726), (34, 34732), (48, 34873), (49, 34891),

Gene: Winchester007_5 Start: 1631, Stop: 2146, Start Num: 11

Candidate Starts for Winchester007_5:

(Start: 11 @1631 has 11 MA's), (14, 1733), (33, 1937), (34, 1943), (39, 2027), (48, 2084), (49, 2102),

Gene: Yeti_61 Start: 38447, Stop: 38917, Start Num: 10

Candidate Starts for Yeti_61:

(Start: 10 @38447 has 23 MA's), (15, 38552), (22, 38603), (33, 38711), (40, 38804), (46, 38849),

Gene: Zapato_59 Start: 39133, Stop: 39603, Start Num: 10

Candidate Starts for Zapato_59:

(3, 39046), (6, 39097), (Start: 9 @39130 has 1 MA's), (Start: 10 @39133 has 23 MA's), (15, 39238), (22, 39289), (29, 39334), (31, 39361), (33, 39397), (36, 39418), (46, 39535),