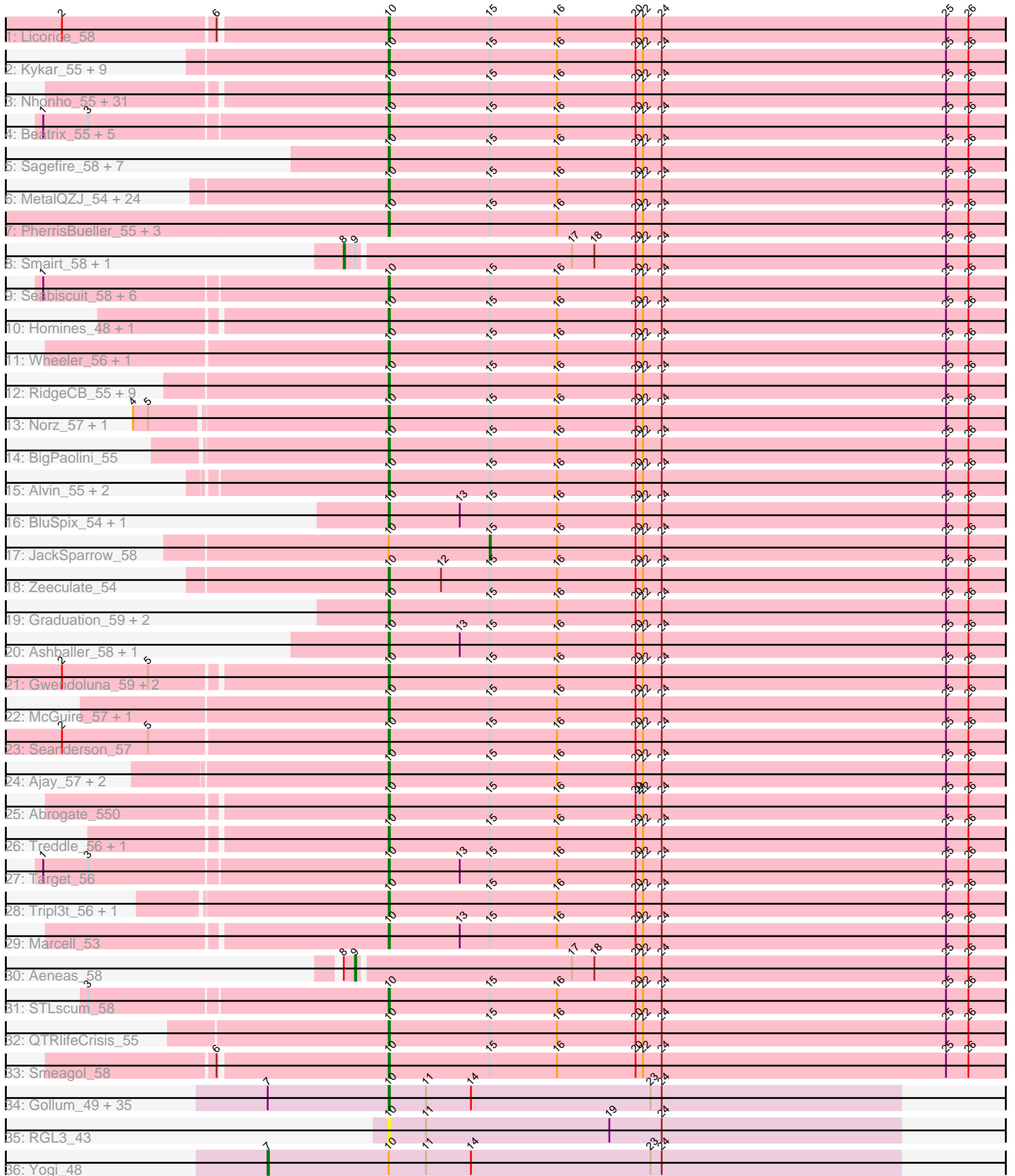


Pham 193767



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 193767 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193767 has 182 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Licorice_58
- Track 2 : Kykar_55, SarFire_53, Gyzlar_52, lLeeKay_59, Crispicous1_53, Pinto_56, Scowl_56, DrFeelGood_53, Sorpresa_54, Thor_53
- Track 3 : Nhonho_55, Greg_57, Hermia_56, Ciao_55, Buttons_54, GrecoEtereo_56, Perseus_56, Fajezeel_57, Rhynn_54, Rutherford_57, Blue_55, Solon_54, Dexes_56, Lesedi_52, Adahisdi_56, Violet_54, Pippin_57, Eyeball_57, Altman_59, Kanely_58, Edtherson_55, Nerujay_58, Petruchio_55, Trouble_58, Bruns_55, Wilkins_55, Topgun_55, Oogway_55, PascalRango_56, Marsha_55, Bxb1_51, Acme_57
- Track 4 : Beatrix_55, SkiPole_60, Bexan_53, Parliament_55, Pepe_52, StrongArm_54
- Track 5 : Sagefire_58, Kugel_56, Forsytheast_55, SwissCheese_57, HarryOW_55, KyMonks1A_58, Moose_55, LilBib_56
- Track 6 : MetalQZJ_54, Corvo_56, MaryBeth_55, DreamCatcher_59, Zephyr_56, PinkPlastic_56, BPBiabs31_57, TheloniousMonk_56, Magnito_54, Bob3_54, Alsfro_60, Hope4ever_57, Applejack_50, Molly_57, MPlant7149_54, Paraselene_53, Barriga_56, Makemake_56, Papez_58, DD5_55, Sumter_52, Dynamix_57, Rubeus_56, Lockley_54, Sunshine924_57
- Track 7 : PherrisBueller_55, Jasper_57, Doom_54, Dreamboat_57
- Track 8 : Smairt_58, Mule_53
- Track 9 : Seabiscuit_58, Paphu_54, Hami1_49, Marchy_50, Lamina13_56, Tasp14_57, Payneful_55
- Track 10 : Homines_48, Rufus_57
- Track 11 : Wheeler_56, Snazzy_55
- Track 12 : RidgeCB_55, Ichabod_59, Pari_58, Fenn_58, CactusRose_53, Squee_56, Francis47_54, PacerPaul_55, U2_55, Naira_58
- Track 13 : Norz_57, Carlyle_54
- Track 14 : BigPaolini_55
- Track 15 : Alvin_55, Gompeii16_54, Bircsak_54
- Track 16 : BluSpix_54, IgnatiusPatJac_56
- Track 17 : JackSparrow_58
- Track 18 : Zeeculate_54
- Track 19 : Graduation_59, Briton15_59, Cueyllyss_57
- Track 20 : Ashballer_58, JC27_58
- Track 21 : Gwendoluna_59, Pelly_56, Dulcie_56
- Track 22 : McGuire_57, Traft412_58
- Track 23 : Seanderson_57
- Track 24 : Ajay_57, BeesKnees_58, Zeuska_54

- Track 25 : Abrogate_550
- Track 26 : Treddle_56, Monet_58
- Track 27 : Target_56
- Track 28 : Tripl3t_56, Kenmech_59
- Track 29 : Marcell_53
- Track 30 : Aeneas_58
- Track 31 : STLscum_58
- Track 32 : QTRlifeCrisis_55
- Track 33 : Smeagol_58
- Track 34 : Gollum_49, Dinger_48, Shuman_49, CosmicSans_49, Takoda_49, TWAMP_49, StCroix_48, Phrankenstein_49, BobbyDazzler_49, Lillie_49, Natosaleda_48, AngryOrchard_47, Hiro_49, Nancinator_49, Swann_49, Partridge_48, Alatin_48, Jester_48, Rasputin_49, Bryce_48, Naiad_48, Belenaria_49, Erik_49, Alpacados_48, Yoncess_48, Bonanza_49, Krishelle_49, AppleCloud_46, RER2_42, Espica_49, Bradshaw_49, Harlequin_48, PhailMary_48, Rhodalysa_49, UhSalsa_49, RexFury_48
- Track 35 : RGL3_43
- Track 36 : Yogi_48

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 175 of the 180 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abrogate_550, Acme_57, Adahisdi_56, Ajay_57, Alatin_48, Alpacados_48, Alsfro_60, Altman_59, Alvin_55, AngryOrchard_47, AppleCloud_46, Applejack_50, Ashballer_58, BPBiabs31_57, Barriga_56, Beatrix_55, BeesKnees_58, Belenaria_49, Bexan_53, BigPaolini_55, Bircsak_54, BluSpix_54, Blue_55, Bob3_54, BobbyDazzler_49, Bonanza_49, Bradshaw_49, Briton15_59, Bruns_55, Bryce_48, Buttons_54, Bxb1_51, CactusRose_53, Carlyle_54, Ciao_55, Corvo_56, CosmicSans_49, Crispicus1_53, Cueylyss_57, DD5_55, Dexes_56, Dinger_48, Doom_54, DrFeelGood_53, DreamCatcher_59, Dreamboat_57, Dulcie_56, Dynamix_57, Edtherson_55, Erik_49, Espica_49, Eyeball_57, Fajezeel_57, Fenn_58, Forsytheast_55, Francis47_54, Gollum_49, Gompeii16_54, Graduation_59, GrecoEtereo_56, Greg_57, Gwendoluna_59, Gyzlar_52, Hami1_49, Harlequin_48, HarryOW_55, Hermia_56, Hiro_49, Homines_48, Hope4ever_57, ILeeKay_59, Ichabod_59, IgnatiusPatJac_56, JC27_58, Jasper_57, Jester_48, Kanely_58, Kenmech_59, Krishelle_49, Kugel_56, KyMonks1A_58, Kykar_55, Lamina13_56, Lesedi_52, Licorice_58, LilBib_56, Lillie_49, Lockley_54, MPlant7149_54, Magnito_54, Makemake_56, Marcell_53, Marchy_50, Marsha_55, MaryBeth_55, McGuire_57, MetalQZJ_54, Molly_57, Monet_58, Moose_55, Naiad_48, Naira_58, Nancinator_49, Natosaleda_48, Nerujay_58, Nhonho_55, Norz_57, Oogway_55, PacerPaul_55, Papez_58, Paphu_54, Paraselene_53, Pari_58, Parliament_55, Partridge_48, PascalRango_56, Payneful_55, Pelly_56, Pepe_52, Perseus_56, Petruccio_55, PhailMary_48, PherrisBueller_55, Phrankenstein_49, PinkPlastic_56, Pinto_56, Pippin_57, QTRlifeCrisis_55, RER2_42, RGL3_43, Rasputin_49, RexFury_48, Rhodalysa_49, Rhynn_54, RidgeCB_55, Rubeus_56, Rufus_57, Rutherford_57, STLscum_58, Sagefire_58, SarFire_53, Scowl_56, Seabiscuit_58, Seanderson_57, Shuman_49, SkiPole_60, Smeagol_58, Snazzy_55, Solon_54,

Sorpresa_54, Squee_56, StCroix_48, StrongArm_54, Sumter_52, Sunshine924_57, Swann_49, SwissCheese_57, TWAMP_49, Takoda_49, Target_56, Tasp14_57, TheloniousMonk_56, Thor_53, Topgun_55, Traft412_58, Treddle_56, Tripl3t_56, Trouble_58, U2_55, UhSalsa_49, Violet_54, Wheeler_56, Wilkins_55, Yoncess_48, Zeeculate_54, Zephyr_56, Zeuska_54,

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

- JackSparrow_58, Yogi_48,

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

- Aeneas_58, Mule_53, Smairt_58,

Summary by start number:

Start 7:

- Found in 37 of 182 (20.3%) of genes in pham
- Manual Annotations of this start: 1 of 180
- Called 2.7% of time when present
- Phage (with cluster) where this start called: Yogi_48 (CA),

Start 8:

- Found in 3 of 182 (1.6%) of genes in pham
- Manual Annotations of this start: 2 of 180
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Mule_53 (A1), Smairt_58 (A1),

Start 9:

- Found in 3 of 182 (1.6%) of genes in pham
- Manual Annotations of this start: 1 of 180
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Aeneas_58 (A1),

Start 10:

- Found in 179 of 182 (98.4%) of genes in pham
- Manual Annotations of this start: 175 of 180
- Called 98.9% of time when present
- Phage (with cluster) where this start called: Abrogate_550 (A1), Acme_57 (A1), Adahisdi_56 (A1), Ajay_57 (A1), Alatin_48 (CA), Alpacados_48 (CA), Alsfro_60 (A1), Altman_59 (A1), Alvin_55 (A1), AngryOrchard_47 (CA), AppleCloud_46 (CA), Applejack_50 (A1), Ashballer_58 (A1), BPBiebs31_57 (A1), Barriga_56 (A1), Beatrix_55 (A1), BeesKnees_58 (A1), Belenaria_49 (CA), Bexan_53 (A1), BigPaolini_55 (A1), Bircsak_54 (A1), BluSpix_54 (A1), Blue_55 (A1), Bob3_54 (A1), BobbyDazzler_49 (CA), Bonanza_49 (CA), Bradshaw_49 (CA), Briton15_59 (A1), Bruns_55 (A1), Bryce_48 (CA), Buttons_54 (A1), Bxb1_51 (A1), CactusRose_53 (A1), Carlyle_54 (A1), Ciao_55 (A1), Corvo_56 (A1), CosmicSans_49 (CA), Crispicious1_53 (A1), Cueyliss_57 (A1), DD5_55 (A1), Dexes_56 (A1), Dinger_48 (CA), Doom_54 (A1), DrFeelGood_53 (A1), DreamCatcher_59 (A1), Dreamboat_57 (A1), Dulcie_56 (A1), Dynamix_57 (A1), Edtherson_55 (A1), Erik_49 (CA), Espica_49 (CA), Eyeball_57 (A1), Fajezeel_57 (A1), Fenn_58 (A1), Forsytheast_55 (A1), Francis47_54 (A1), Gollum_49 (CA), Gompeii16_54 (A1), Graduation_59 (A1), GrecoEtereo_56 (A1), Greg_57 (A1), Gwendoluna_59 (A1), Gyzlar_52 (A1), Hami1_49 (A1), Harlequin_48 (CA), HarryOW_55 (A1), Hermia_56 (A1), Hiro_49 (CA), Homines_48 (A1), Hope4ever_57 (A1), ILeeKay_59 (A1), Ichabod_59 (A1),

IgnatiusPatJac_56 (A1), JC27_58 (A1), Jasper_57 (A1), Jester_48 (CA), Kanely_58 (A1), Kenmech_59 (A1), Krishelle_49 (CA), Kugel_56 (A1), KyMonks1A_58 (A1), Kykar_55 (A1), Lamina13_56 (A1), Lesedi_52 (A1), Licorice_58 (A1), LilBib_56 (A1), Lillie_49 (CA), Lockley_54 (A1), MPlant7149_54 (A1), Magnito_54 (A1), Makemake_56 (A1), Marcell_53 (A1), Marchy_50 (A1), Marsha_55 (A1), MaryBeth_55 (A1), McGuire_57 (A1), MetalQZJ_54 (A1), Molly_57 (A1), Monet_58 (A1), Moose_55 (A1), Naiad_48 (CA), Naira_58 (A1), Nancinator_49 (CA), Natosaleda_48 (CA), Nerujay_58 (A1), Nhonho_55 (A1), Norz_57 (A1), Oogway_55 (A1), PacerPaul_55 (A1), Papez_58 (A1), Paphu_54 (A1), Paraselene_53 (A1), Pari_58 (A1), Parliament_55 (A1), Partridge_48 (CA), PascalRango_56 (A1), Payneful_55 (A1), Pelly_56 (A1), Pepe_52 (A1), Perseus_56 (A1), Petruchio_55 (A1), PhailMary_48 (CA), PherrisBueller_55 (A1), Phrankenstein_49 (CA), PinkPlastic_56 (A1), Pinto_56 (A1), Pippin_57 (A1), QTRlifeCrisis_55 (A1), RER2_42 (CA), RGL3_43 (CA), Rasputin_49 (CA), RexFury_48 (CA), Rhodalysa_49 (CA), Rhynn_54 (A1), RidgeCB_55 (A1), Rubeus_56 (A1), Rufus_57 (A1), Rutherford_57 (A1), STLscum_58 (A1), Sagefire_58 (A1), SarFire_53 (A1), Scowl_56 (A1), Seabiscuit_58 (A1), Seanderson_57 (A1), Shuman_49 (CA), SkiPole_60 (A1), Smeagol_58 (A1), Snazzy_55 (A1), Solon_54 (A1), Sorpresa_54 (A1), Squee_56 (A1), StCroix_48 (CA), StrongArm_54 (A1), Sumter_52 (A1), Sunshine924_57 (A1), Swann_49 (CA), SwissCheese_57 (A1), TWAMP_49 (CA), Takoda_49 (CA), Target_56 (A1), Tasp14_57 (A1), TheloniousMonk_56 (A1), Thor_53 (A1), Topgun_55 (A1), Traft412_58 (A1), Treddle_56 (A1), Tripl3t_56 (A1), Trouble_58 (A1), U2_55 (A1), UhSalsa_49 (CA), Violet_54 (A1), Wheeler_56 (A1), Wilkins_55 (A1), Yoncess_48 (CA), Zeeculate_54 (A1), Zephyr_56 (A1), Zeuska_54 (A1),

Start 15:

- Found in 141 of 182 (77.5%) of genes in pham
- Manual Annotations of this start: 1 of 180
- Called 0.7% of time when present
- Phage (with cluster) where this start called: JackSparrow_58 (A1),

Summary by clusters:

There are 2 clusters represented in this pham: A1, CA,

Info for manual annotations of cluster A1:

- Start number 8 was manually annotated 2 times for cluster A1.
- Start number 9 was manually annotated 1 time for cluster A1.
- Start number 10 was manually annotated 140 times for cluster A1.
- Start number 15 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster CA:

- Start number 7 was manually annotated 1 time for cluster CA.
- Start number 10 was manually annotated 35 times for cluster CA.

Gene Information:

Gene: Abrogate_550 Start: 40397, Stop: 39882, Start Num: 10

Candidate Starts for Abrogate_550:

(Start: 10 @40397 has 175 MA's), (Start: 15 @40316 has 1 MA's), (16, 40262), (20, 40199), (21, 40196), (22, 40193), (24, 40178), (25, 39950), (26, 39932),

Gene: Acme_57 Start: 38994, Stop: 38479, Start Num: 10

Candidate Starts for Acme_57:

(Start: 10 @38994 has 175 MA's), (Start: 15 @38913 has 1 MA's), (16, 38859), (20, 38796), (22, 38790), (24, 38775), (25, 38547), (26, 38529),

Gene: Adahisdi_56 Start: 40127, Stop: 39612, Start Num: 10

Candidate Starts for Adahisdi_56:

(Start: 10 @40127 has 175 MA's), (Start: 15 @40046 has 1 MA's), (16, 39992), (20, 39929), (22, 39923), (24, 39908), (25, 39680), (26, 39662),

Gene: Aeneas_58 Start: 40365, Stop: 39829, Start Num: 9

Candidate Starts for Aeneas_58:

(Start: 8 @40374 has 2 MA's), (Start: 9 @40365 has 1 MA's), (17, 40197), (18, 40179), (20, 40146), (22, 40140), (24, 40125), (25, 39897), (26, 39879),

Gene: Ajay_57 Start: 40122, Stop: 39607, Start Num: 10

Candidate Starts for Ajay_57:

(Start: 10 @40122 has 175 MA's), (Start: 15 @40041 has 1 MA's), (16, 39987), (20, 39924), (22, 39918), (24, 39903), (25, 39675), (26, 39657),

Gene: Alatin_48 Start: 35573, Stop: 35163, Start Num: 10

Candidate Starts for Alatin_48:

(Start: 7 @35669 has 1 MA's), (Start: 10 @35573 has 175 MA's), (11, 35543), (14, 35507), (23, 35363), (24, 35354),

Gene: Alpacados_48 Start: 35475, Stop: 35065, Start Num: 10

Candidate Starts for Alpacados_48:

(Start: 7 @35571 has 1 MA's), (Start: 10 @35475 has 175 MA's), (11, 35445), (14, 35409), (23, 35265), (24, 35256),

Gene: Alsfro_60 Start: 39698, Stop: 39183, Start Num: 10

Candidate Starts for Alsfro_60:

(Start: 10 @39698 has 175 MA's), (Start: 15 @39617 has 1 MA's), (16, 39563), (20, 39500), (22, 39494), (24, 39479), (25, 39251), (26, 39233),

Gene: Altman_59 Start: 40314, Stop: 39799, Start Num: 10

Candidate Starts for Altman_59:

(Start: 10 @40314 has 175 MA's), (Start: 15 @40233 has 1 MA's), (16, 40179), (20, 40116), (22, 40110), (24, 40095), (25, 39867), (26, 39849),

Gene: Alvin_55 Start: 39447, Stop: 38932, Start Num: 10

Candidate Starts for Alvin_55:

(Start: 10 @39447 has 175 MA's), (Start: 15 @39366 has 1 MA's), (16, 39312), (20, 39249), (22, 39243), (24, 39228), (25, 39000), (26, 38982),

Gene: AngryOrchard_47 Start: 35635, Stop: 35225, Start Num: 10

Candidate Starts for AngryOrchard_47:

(Start: 7 @35731 has 1 MA's), (Start: 10 @35635 has 175 MA's), (11, 35605), (14, 35569), (23, 35425), (24, 35416),

Gene: AppleCloud_46 Start: 35300, Stop: 34890, Start Num: 10

Candidate Starts for AppleCloud_46:

(Start: 7 @35396 has 1 MA's), (Start: 10 @35300 has 175 MA's), (11, 35270), (14, 35234), (23, 35090), (24, 35081),

Gene: Applejack_50 Start: 36284, Stop: 35769, Start Num: 10

Candidate Starts for Applejack_50:

(Start: 10 @36284 has 175 MA's), (Start: 15 @36203 has 1 MA's), (16, 36149), (20, 36086), (22, 36080), (24, 36065), (25, 35837), (26, 35819),

Gene: Ashballer_58 Start: 40207, Stop: 39692, Start Num: 10

Candidate Starts for Ashballer_58:

(Start: 10 @40207 has 175 MA's), (13, 40150), (Start: 15 @40126 has 1 MA's), (16, 40072), (20, 40009), (22, 40003), (24, 39988), (25, 39760), (26, 39742),

Gene: BPBiebs31_57 Start: 40409, Stop: 39894, Start Num: 10

Candidate Starts for BPBiebs31_57:

(Start: 10 @40409 has 175 MA's), (Start: 15 @40328 has 1 MA's), (16, 40274), (20, 40211), (22, 40205), (24, 40190), (25, 39962), (26, 39944),

Gene: Barriga_56 Start: 38634, Stop: 38119, Start Num: 10

Candidate Starts for Barriga_56:

(Start: 10 @38634 has 175 MA's), (Start: 15 @38553 has 1 MA's), (16, 38499), (20, 38436), (22, 38430), (24, 38415), (25, 38187), (26, 38169),

Gene: Beatrix_55 Start: 40340, Stop: 39798, Start Num: 10

Candidate Starts for Beatrix_55:

(1, 40610), (3, 40574), (Start: 10 @40340 has 175 MA's), (Start: 15 @40259 has 1 MA's), (16, 40205), (20, 40142), (22, 40136), (24, 40121), (25, 39893), (26, 39875),

Gene: BeesKnees_58 Start: 39493, Stop: 38978, Start Num: 10

Candidate Starts for BeesKnees_58:

(Start: 10 @39493 has 175 MA's), (Start: 15 @39412 has 1 MA's), (16, 39358), (20, 39295), (22, 39289), (24, 39274), (25, 39046), (26, 39028),

Gene: Belenaria_49 Start: 35448, Stop: 35038, Start Num: 10

Candidate Starts for Belenaria_49:

(Start: 7 @35544 has 1 MA's), (Start: 10 @35448 has 175 MA's), (11, 35418), (14, 35382), (23, 35238), (24, 35229),

Gene: Bexan_53 Start: 40119, Stop: 39604, Start Num: 10

Candidate Starts for Bexan_53:

(1, 40389), (3, 40353), (Start: 10 @40119 has 175 MA's), (Start: 15 @40038 has 1 MA's), (16, 39984), (20, 39921), (22, 39915), (24, 39900), (25, 39672), (26, 39654),

Gene: BigPaolini_55 Start: 37719, Stop: 37204, Start Num: 10

Candidate Starts for BigPaolini_55:

(Start: 10 @37719 has 175 MA's), (Start: 15 @37638 has 1 MA's), (16, 37584), (20, 37521), (22, 37515), (24, 37500), (25, 37272), (26, 37254),

Gene: Bircsak_54 Start: 40238, Stop: 39723, Start Num: 10

Candidate Starts for Bircsak_54:

(Start: 10 @40238 has 175 MA's), (Start: 15 @40157 has 1 MA's), (16, 40103), (20, 40040), (22, 40034), (24, 40019), (25, 39791), (26, 39773),

Gene: BluSpix_54 Start: 35500, Stop: 34985, Start Num: 10

Candidate Starts for BluSpix_54:

(Start: 10 @35500 has 175 MA's), (13, 35443), (Start: 15 @35419 has 1 MA's), (16, 35365), (20, 35302), (22, 35296), (24, 35281), (25, 35053), (26, 35035),

Gene: Blue_55 Start: 40154, Stop: 39639, Start Num: 10

Candidate Starts for Blue_55:

(Start: 10 @40154 has 175 MA's), (Start: 15 @40073 has 1 MA's), (16, 40019), (20, 39956), (22, 39950), (24, 39935), (25, 39707), (26, 39689),

Gene: Bob3_54 Start: 38128, Stop: 37613, Start Num: 10

Candidate Starts for Bob3_54:

(Start: 10 @38128 has 175 MA's), (Start: 15 @38047 has 1 MA's), (16, 37993), (20, 37930), (22, 37924), (24, 37909), (25, 37681), (26, 37663),

Gene: BobbyDazzler_49 Start: 35552, Stop: 35142, Start Num: 10

Candidate Starts for BobbyDazzler_49:

(Start: 7 @35648 has 1 MA's), (Start: 10 @35552 has 175 MA's), (11, 35522), (14, 35486), (23, 35342), (24, 35333),

Gene: Bonanza_49 Start: 35477, Stop: 35067, Start Num: 10

Candidate Starts for Bonanza_49:

(Start: 7 @35573 has 1 MA's), (Start: 10 @35477 has 175 MA's), (11, 35447), (14, 35411), (23, 35267), (24, 35258),

Gene: Bradshaw_49 Start: 35506, Stop: 35096, Start Num: 10

Candidate Starts for Bradshaw_49:

(Start: 7 @35602 has 1 MA's), (Start: 10 @35506 has 175 MA's), (11, 35476), (14, 35440), (23, 35296), (24, 35287),

Gene: Briton15_59 Start: 39815, Stop: 39300, Start Num: 10

Candidate Starts for Briton15_59:

(Start: 10 @39815 has 175 MA's), (Start: 15 @39734 has 1 MA's), (16, 39680), (20, 39617), (22, 39611), (24, 39596), (25, 39368), (26, 39350),

Gene: Bruns_55 Start: 38696, Stop: 38181, Start Num: 10

Candidate Starts for Bruns_55:

(Start: 10 @38696 has 175 MA's), (Start: 15 @38615 has 1 MA's), (16, 38561), (20, 38498), (22, 38492), (24, 38477), (25, 38249), (26, 38231),

Gene: Bryce_48 Start: 35260, Stop: 34850, Start Num: 10

Candidate Starts for Bryce_48:

(Start: 7 @35356 has 1 MA's), (Start: 10 @35260 has 175 MA's), (11, 35230), (14, 35194), (23, 35050), (24, 35041),

Gene: Buttons_54 Start: 37645, Stop: 37130, Start Num: 10

Candidate Starts for Buttons_54:

(Start: 10 @37645 has 175 MA's), (Start: 15 @37564 has 1 MA's), (16, 37510), (20, 37447), (22, 37441), (24, 37426), (25, 37198), (26, 37180),

Gene: Bxb1_51 Start: 38396, Stop: 37881, Start Num: 10

Candidate Starts for Bxb1_51:

(Start: 10 @38396 has 175 MA's), (Start: 15 @38315 has 1 MA's), (16, 38261), (20, 38198), (22, 38192), (24, 38177), (25, 37949), (26, 37931),

Gene: CactusRose_53 Start: 38930, Stop: 38415, Start Num: 10

Candidate Starts for CactusRose_53:

(Start: 10 @38930 has 175 MA's), (Start: 15 @38849 has 1 MA's), (16, 38795), (20, 38732), (22, 38726), (24, 38711), (25, 38483), (26, 38465),

Gene: Carlyle_54 Start: 36932, Stop: 36417, Start Num: 10

Candidate Starts for Carlyle_54:

(4, 37130), (5, 37118), (Start: 10 @36932 has 175 MA's), (Start: 15 @36851 has 1 MA's), (16, 36797), (20, 36734), (22, 36728), (24, 36713), (25, 36485), (26, 36467),

Gene: Ciao_55 Start: 39103, Stop: 38588, Start Num: 10

Candidate Starts for Ciao_55:

(Start: 10 @39103 has 175 MA's), (Start: 15 @39022 has 1 MA's), (16, 38968), (20, 38905), (22, 38899), (24, 38884), (25, 38656), (26, 38638),

Gene: Corvo_56 Start: 40548, Stop: 40033, Start Num: 10

Candidate Starts for Corvo_56:

(Start: 10 @40548 has 175 MA's), (Start: 15 @40467 has 1 MA's), (16, 40413), (20, 40350), (22, 40344), (24, 40329), (25, 40101), (26, 40083),

Gene: CosmicSans_49 Start: 35506, Stop: 35096, Start Num: 10

Candidate Starts for CosmicSans_49:

(Start: 7 @35602 has 1 MA's), (Start: 10 @35506 has 175 MA's), (11, 35476), (14, 35440), (23, 35296), (24, 35287),

Gene: Crispicous1_53 Start: 38055, Stop: 37540, Start Num: 10

Candidate Starts for Crispicous1_53:

(Start: 10 @38055 has 175 MA's), (Start: 15 @37974 has 1 MA's), (16, 37920), (20, 37857), (22, 37851), (24, 37836), (25, 37608), (26, 37590),

Gene: Cueyllyss_57 Start: 40734, Stop: 40219, Start Num: 10

Candidate Starts for Cueyllyss_57:

(Start: 10 @40734 has 175 MA's), (Start: 15 @40653 has 1 MA's), (16, 40599), (20, 40536), (22, 40530), (24, 40515), (25, 40287), (26, 40269),

Gene: DD5_55 Start: 39884, Stop: 39342, Start Num: 10

Candidate Starts for DD5_55:

(Start: 10 @39884 has 175 MA's), (Start: 15 @39803 has 1 MA's), (16, 39749), (20, 39686), (22, 39680), (24, 39665), (25, 39437), (26, 39419),

Gene: Dexes_56 Start: 40007, Stop: 39492, Start Num: 10

Candidate Starts for Dexes_56:

(Start: 10 @40007 has 175 MA's), (Start: 15 @39926 has 1 MA's), (16, 39872), (20, 39809), (22, 39803), (24, 39788), (25, 39560), (26, 39542),

Gene: Dinger_48 Start: 35648, Stop: 35238, Start Num: 10

Candidate Starts for Dinger_48:

(Start: 7 @35744 has 1 MA's), (Start: 10 @35648 has 175 MA's), (11, 35618), (14, 35582), (23, 35438), (24, 35429),

Gene: Doom_54 Start: 39416, Stop: 38901, Start Num: 10

Candidate Starts for Doom_54:

(Start: 10 @39416 has 175 MA's), (Start: 15 @39335 has 1 MA's), (16, 39281), (20, 39218), (22, 39212), (24, 39197), (25, 38969), (26, 38951),

Gene: DrFeelGood_53 Start: 38895, Stop: 38380, Start Num: 10

Candidate Starts for DrFeelGood_53:

(Start: 10 @38895 has 175 MA's), (Start: 15 @38814 has 1 MA's), (16, 38760), (20, 38697), (22, 38691), (24, 38676), (25, 38448), (26, 38430),

Gene: DreamCatcher_59 Start: 40552, Stop: 40037, Start Num: 10

Candidate Starts for DreamCatcher_59:

(Start: 10 @40552 has 175 MA's), (Start: 15 @40471 has 1 MA's), (16, 40417), (20, 40354), (22, 40348), (24, 40333), (25, 40105), (26, 40087),

Gene: Dreamboat_57 Start: 38705, Stop: 38163, Start Num: 10

Candidate Starts for Dreamboat_57:

(Start: 10 @38705 has 175 MA's), (Start: 15 @38624 has 1 MA's), (16, 38570), (20, 38507), (22, 38501), (24, 38486), (25, 38258), (26, 38240),

Gene: Dulcie_56 Start: 39317, Stop: 38802, Start Num: 10

Candidate Starts for Dulcie_56:

(2, 39569), (5, 39500), (Start: 10 @39317 has 175 MA's), (Start: 15 @39236 has 1 MA's), (16, 39182), (20, 39119), (22, 39113), (24, 39098), (25, 38870), (26, 38852),

Gene: Dynamix_57 Start: 39291, Stop: 38776, Start Num: 10

Candidate Starts for Dynamix_57:

(Start: 10 @39291 has 175 MA's), (Start: 15 @39210 has 1 MA's), (16, 39156), (20, 39093), (22, 39087), (24, 39072), (25, 38844), (26, 38826),

Gene: Edtherson_55 Start: 39386, Stop: 38871, Start Num: 10

Candidate Starts for Edtherson_55:

(Start: 10 @39386 has 175 MA's), (Start: 15 @39305 has 1 MA's), (16, 39251), (20, 39188), (22, 39182), (24, 39167), (25, 38939), (26, 38921),

Gene: Erik_49 Start: 35438, Stop: 35028, Start Num: 10

Candidate Starts for Erik_49:

(Start: 7 @35534 has 1 MA's), (Start: 10 @35438 has 175 MA's), (11, 35408), (14, 35372), (23, 35228), (24, 35219),

Gene: Espica_49 Start: 35448, Stop: 35038, Start Num: 10

Candidate Starts for Espica_49:

(Start: 7 @35544 has 1 MA's), (Start: 10 @35448 has 175 MA's), (11, 35418), (14, 35382), (23, 35238), (24, 35229),

Gene: Eyeball_57 Start: 39481, Stop: 38966, Start Num: 10

Candidate Starts for Eyeball_57:

(Start: 10 @39481 has 175 MA's), (Start: 15 @39400 has 1 MA's), (16, 39346), (20, 39283), (22, 39277), (24, 39262), (25, 39034), (26, 39016),

Gene: Fajezeel_57 Start: 39452, Stop: 38937, Start Num: 10

Candidate Starts for Fajezeel_57:

(Start: 10 @39452 has 175 MA's), (Start: 15 @39371 has 1 MA's), (16, 39317), (20, 39254), (22, 39248), (24, 39233), (25, 39005), (26, 38987),

Gene: Fenn_58 Start: 41237, Stop: 40722, Start Num: 10

Candidate Starts for Fenn_58:

(Start: 10 @41237 has 175 MA's), (Start: 15 @41156 has 1 MA's), (16, 41102), (20, 41039), (22, 41033), (24, 41018), (25, 40790), (26, 40772),

Gene: Forsytheast_55 Start: 38864, Stop: 38349, Start Num: 10

Candidate Starts for Forsytheast_55:

(Start: 10 @38864 has 175 MA's), (Start: 15 @38783 has 1 MA's), (16, 38729), (20, 38666), (22, 38660), (24, 38645), (25, 38417), (26, 38399),

Gene: Francis47_54 Start: 40506, Stop: 39991, Start Num: 10

Candidate Starts for Francis47_54:

(Start: 10 @40506 has 175 MA's), (Start: 15 @40425 has 1 MA's), (16, 40371), (20, 40308), (22, 40302), (24, 40287), (25, 40059), (26, 40041),

Gene: Gollum_49 Start: 35504, Stop: 35094, Start Num: 10

Candidate Starts for Gollum_49:

(Start: 7 @35600 has 1 MA's), (Start: 10 @35504 has 175 MA's), (11, 35474), (14, 35438), (23, 35294), (24, 35285),

Gene: Gompeii16_54 Start: 40239, Stop: 39724, Start Num: 10

Candidate Starts for Gompeii16_54:

(Start: 10 @40239 has 175 MA's), (Start: 15 @40158 has 1 MA's), (16, 40104), (20, 40041), (22, 40035), (24, 40020), (25, 39792), (26, 39774),

Gene: Graduation_59 Start: 40806, Stop: 40291, Start Num: 10

Candidate Starts for Graduation_59:

(Start: 10 @40806 has 175 MA's), (Start: 15 @40725 has 1 MA's), (16, 40671), (20, 40608), (22, 40602), (24, 40587), (25, 40359), (26, 40341),

Gene: GrecoEtereo_56 Start: 39211, Stop: 38696, Start Num: 10

Candidate Starts for GrecoEtereo_56:

(Start: 10 @39211 has 175 MA's), (Start: 15 @39130 has 1 MA's), (16, 39076), (20, 39013), (22, 39007), (24, 38992), (25, 38764), (26, 38746),

Gene: Greg_57 Start: 39452, Stop: 38937, Start Num: 10

Candidate Starts for Greg_57:

(Start: 10 @39452 has 175 MA's), (Start: 15 @39371 has 1 MA's), (16, 39317), (20, 39254), (22, 39248), (24, 39233), (25, 39005), (26, 38987),

Gene: Gwendoluna_59 Start: 41455, Stop: 40940, Start Num: 10

Candidate Starts for Gwendoluna_59:

(2, 41707), (5, 41638), (Start: 10 @41455 has 175 MA's), (Start: 15 @41374 has 1 MA's), (16, 41320), (20, 41257), (22, 41251), (24, 41236), (25, 41008), (26, 40990),

Gene: Gyzlar_52 Start: 37454, Stop: 36939, Start Num: 10

Candidate Starts for Gyzlar_52:

(Start: 10 @37454 has 175 MA's), (Start: 15 @37373 has 1 MA's), (16, 37319), (20, 37256), (22, 37250), (24, 37235), (25, 37007), (26, 36989),

Gene: Hami1_49 Start: 34289, Stop: 33774, Start Num: 10

Candidate Starts for Hami1_49:

(1, 34559), (Start: 10 @34289 has 175 MA's), (Start: 15 @34208 has 1 MA's), (16, 34154), (20, 34091), (22, 34085), (24, 34070), (25, 33842), (26, 33824),

Gene: Harlequin_48 Start: 35290, Stop: 34880, Start Num: 10

Candidate Starts for Harlequin_48:

(Start: 7 @35386 has 1 MA's), (Start: 10 @35290 has 175 MA's), (11, 35260), (14, 35224), (23, 35080), (24, 35071),

Gene: HarryOW_55 Start: 38709, Stop: 38194, Start Num: 10

Candidate Starts for HarryOW_55:

(Start: 10 @38709 has 175 MA's), (Start: 15 @38628 has 1 MA's), (16, 38574), (20, 38511), (22, 38505), (24, 38490), (25, 38262), (26, 38244),

Gene: Hermia_56 Start: 39884, Stop: 39369, Start Num: 10

Candidate Starts for Hermia_56:

(Start: 10 @39884 has 175 MA's), (Start: 15 @39803 has 1 MA's), (16, 39749), (20, 39686), (22, 39680), (24, 39665), (25, 39437), (26, 39419),

Gene: Hiro_49 Start: 35766, Stop: 35356, Start Num: 10

Candidate Starts for Hiro_49:

(Start: 7 @35862 has 1 MA's), (Start: 10 @35766 has 175 MA's), (11, 35736), (14, 35700), (23, 35556), (24, 35547),

Gene: Homines_48 Start: 35393, Stop: 34878, Start Num: 10

Candidate Starts for Homines_48:

(Start: 10 @35393 has 175 MA's), (Start: 15 @35312 has 1 MA's), (16, 35258), (20, 35195), (22, 35189), (24, 35174), (25, 34946), (26, 34928),

Gene: Hope4ever_57 Start: 40116, Stop: 39601, Start Num: 10

Candidate Starts for Hope4ever_57:

(Start: 10 @40116 has 175 MA's), (Start: 15 @40035 has 1 MA's), (16, 39981), (20, 39918), (22, 39912), (24, 39897), (25, 39669), (26, 39651),

Gene: ILeeKay_59 Start: 39980, Stop: 39465, Start Num: 10

Candidate Starts for ILeeKay_59:

(Start: 10 @39980 has 175 MA's), (Start: 15 @39899 has 1 MA's), (16, 39845), (20, 39782), (22, 39776), (24, 39761), (25, 39533), (26, 39515),

Gene: Ichabod_59 Start: 40793, Stop: 40278, Start Num: 10

Candidate Starts for Ichabod_59:

(Start: 10 @40793 has 175 MA's), (Start: 15 @40712 has 1 MA's), (16, 40658), (20, 40595), (22, 40589), (24, 40574), (25, 40346), (26, 40328),

Gene: IgnatiusPatJac_56 Start: 39445, Stop: 38930, Start Num: 10

Candidate Starts for IgnatiusPatJac_56:

(Start: 10 @39445 has 175 MA's), (13, 39388), (Start: 15 @39364 has 1 MA's), (16, 39310), (20, 39247), (22, 39241), (24, 39226), (25, 38998), (26, 38980),

Gene: JC27_58 Start: 39896, Stop: 39381, Start Num: 10

Candidate Starts for JC27_58:

(Start: 10 @39896 has 175 MA's), (13, 39839), (Start: 15 @39815 has 1 MA's), (16, 39761), (20, 39698), (22, 39692), (24, 39677), (25, 39449), (26, 39431),

Gene: JackSparrow_58 Start: 39879, Stop: 39445, Start Num: 15

Candidate Starts for JackSparrow_58:

(Start: 10 @39960 has 175 MA's), (Start: 15 @39879 has 1 MA's), (16, 39825), (20, 39762), (22, 39756), (24, 39741), (25, 39513), (26, 39495),

Gene: Jasper_57 Start: 38591, Stop: 38049, Start Num: 10

Candidate Starts for Jasper_57:

(Start: 10 @38591 has 175 MA's), (Start: 15 @38510 has 1 MA's), (16, 38456), (20, 38393), (22, 38387), (24, 38372), (25, 38144), (26, 38126),

Gene: Jester_48 Start: 35221, Stop: 34811, Start Num: 10

Candidate Starts for Jester_48:

(Start: 7 @35317 has 1 MA's), (Start: 10 @35221 has 175 MA's), (11, 35191), (14, 35155), (23, 35011), (24, 35002),

Gene: Kanely_58 Start: 40091, Stop: 39576, Start Num: 10

Candidate Starts for Kanely_58:

(Start: 10 @40091 has 175 MA's), (Start: 15 @40010 has 1 MA's), (16, 39956), (20, 39893), (22, 39887), (24, 39872), (25, 39644), (26, 39626),

Gene: Kenmech_59 Start: 41217, Stop: 40675, Start Num: 10

Candidate Starts for Kenmech_59:

(Start: 10 @41217 has 175 MA's), (Start: 15 @41136 has 1 MA's), (16, 41082), (20, 41019), (22, 41013), (24, 40998), (25, 40770), (26, 40752),

Gene: Krishelle_49 Start: 35866, Stop: 35456, Start Num: 10

Candidate Starts for Krishelle_49:

(Start: 7 @35962 has 1 MA's), (Start: 10 @35866 has 175 MA's), (11, 35836), (14, 35800), (23, 35656), (24, 35647),

Gene: Kugel_56 Start: 40339, Stop: 39824, Start Num: 10

Candidate Starts for Kugel_56:

(Start: 10 @40339 has 175 MA's), (Start: 15 @40258 has 1 MA's), (16, 40204), (20, 40141), (22, 40135), (24, 40120), (25, 39892), (26, 39874),

Gene: KyMonks1A_58 Start: 39652, Stop: 39137, Start Num: 10

Candidate Starts for KyMonks1A_58:

(Start: 10 @39652 has 175 MA's), (Start: 15 @39571 has 1 MA's), (16, 39517), (20, 39454), (22, 39448), (24, 39433), (25, 39205), (26, 39187),

Gene: Kykar_55 Start: 39098, Stop: 38583, Start Num: 10

Candidate Starts for Kykar_55:

(Start: 10 @39098 has 175 MA's), (Start: 15 @39017 has 1 MA's), (16, 38963), (20, 38900), (22, 38894), (24, 38879), (25, 38651), (26, 38633),

Gene: Lamina13_56 Start: 39126, Stop: 38584, Start Num: 10

Candidate Starts for Lamina13_56:

(1, 39396), (Start: 10 @39126 has 175 MA's), (Start: 15 @39045 has 1 MA's), (16, 38991), (20, 38928), (22, 38922), (24, 38907), (25, 38679), (26, 38661),

Gene: Lesedi_52 Start: 38076, Stop: 37561, Start Num: 10

Candidate Starts for Lesedi_52:

(Start: 10 @38076 has 175 MA's), (Start: 15 @37995 has 1 MA's), (16, 37941), (20, 37878), (22, 37872), (24, 37857), (25, 37629), (26, 37611),

Gene: Licorice_58 Start: 41440, Stop: 40925, Start Num: 10

Candidate Starts for Licorice_58:

(2, 41692), (6, 41572), (Start: 10 @41440 has 175 MA's), (Start: 15 @41359 has 1 MA's), (16, 41305), (20, 41242), (22, 41236), (24, 41221), (25, 40993), (26, 40975),

Gene: LilBib_56 Start: 40854, Stop: 40312, Start Num: 10

Candidate Starts for LilBib_56:

(Start: 10 @40854 has 175 MA's), (Start: 15 @40773 has 1 MA's), (16, 40719), (20, 40656), (22, 40650), (24, 40635), (25, 40407), (26, 40389),

Gene: Lillie_49 Start: 35506, Stop: 35096, Start Num: 10

Candidate Starts for Lillie_49:

(Start: 7 @35602 has 1 MA's), (Start: 10 @35506 has 175 MA's), (11, 35476), (14, 35440), (23, 35296), (24, 35287),

Gene: Lockley_54 Start: 39046, Stop: 38504, Start Num: 10

Candidate Starts for Lockley_54:

(Start: 10 @39046 has 175 MA's), (Start: 15 @38965 has 1 MA's), (16, 38911), (20, 38848), (22, 38842), (24, 38827), (25, 38599), (26, 38581),

Gene: MPlant7149_54 Start: 38172, Stop: 37657, Start Num: 10

Candidate Starts for MPlant7149_54:

(Start: 10 @38172 has 175 MA's), (Start: 15 @38091 has 1 MA's), (16, 38037), (20, 37974), (22, 37968), (24, 37953), (25, 37725), (26, 37707),

Gene: Magnito_54 Start: 39339, Stop: 38824, Start Num: 10

Candidate Starts for Magnito_54:

(Start: 10 @39339 has 175 MA's), (Start: 15 @39258 has 1 MA's), (16, 39204), (20, 39141), (22, 39135), (24, 39120), (25, 38892), (26, 38874),

Gene: Makemake_56 Start: 40005, Stop: 39490, Start Num: 10

Candidate Starts for Makemake_56:

(Start: 10 @40005 has 175 MA's), (Start: 15 @39924 has 1 MA's), (16, 39870), (20, 39807), (22, 39801), (24, 39786), (25, 39558), (26, 39540),

Gene: Marcell_53 Start: 38698, Stop: 38183, Start Num: 10

Candidate Starts for Marcell_53:

(Start: 10 @38698 has 175 MA's), (13, 38641), (Start: 15 @38617 has 1 MA's), (16, 38563), (20, 38500), (22, 38494), (24, 38479), (25, 38251), (26, 38233),

Gene: Marchy_50 Start: 36607, Stop: 36092, Start Num: 10

Candidate Starts for Marchy_50:

(1, 36877), (Start: 10 @36607 has 175 MA's), (Start: 15 @36526 has 1 MA's), (16, 36472), (20, 36409), (22, 36403), (24, 36388), (25, 36160), (26, 36142),

Gene: Marsha_55 Start: 40128, Stop: 39613, Start Num: 10

Candidate Starts for Marsha_55:

(Start: 10 @40128 has 175 MA's), (Start: 15 @40047 has 1 MA's), (16, 39993), (20, 39930), (22, 39924), (24, 39909), (25, 39681), (26, 39663),

Gene: MaryBeth_55 Start: 39925, Stop: 39410, Start Num: 10

Candidate Starts for MaryBeth_55:

(Start: 10 @39925 has 175 MA's), (Start: 15 @39844 has 1 MA's), (16, 39790), (20, 39727), (22, 39721), (24, 39706), (25, 39478), (26, 39460),

Gene: McGuire_57 Start: 39169, Stop: 38654, Start Num: 10

Candidate Starts for McGuire_57:

(Start: 10 @39169 has 175 MA's), (Start: 15 @39088 has 1 MA's), (16, 39034), (20, 38971), (22, 38965), (24, 38950), (25, 38722), (26, 38704),

Gene: MetalQZJ_54 Start: 39925, Stop: 39410, Start Num: 10

Candidate Starts for MetalQZJ_54:

(Start: 10 @39925 has 175 MA's), (Start: 15 @39844 has 1 MA's), (16, 39790), (20, 39727), (22, 39721), (24, 39706), (25, 39478), (26, 39460),

Gene: Molly_57 Start: 38590, Stop: 38075, Start Num: 10

Candidate Starts for Molly_57:

(Start: 10 @38590 has 175 MA's), (Start: 15 @38509 has 1 MA's), (16, 38455), (20, 38392), (22, 38386), (24, 38371), (25, 38143), (26, 38125),

Gene: Monet_58 Start: 40345, Stop: 39830, Start Num: 10

Candidate Starts for Monet_58:

(Start: 10 @40345 has 175 MA's), (Start: 15 @40264 has 1 MA's), (16, 40210), (20, 40147), (22, 40141), (24, 40126), (25, 39898), (26, 39880),

Gene: Moose_55 Start: 38864, Stop: 38349, Start Num: 10

Candidate Starts for Moose_55:

(Start: 10 @38864 has 175 MA's), (Start: 15 @38783 has 1 MA's), (16, 38729), (20, 38666), (22, 38660), (24, 38645), (25, 38417), (26, 38399),

Gene: Mule_53 Start: 37660, Stop: 37115, Start Num: 8

Candidate Starts for Mule_53:

(Start: 8 @37660 has 2 MA's), (Start: 9 @37651 has 1 MA's), (17, 37483), (18, 37465), (20, 37432), (22, 37426), (24, 37411), (25, 37183), (26, 37165),

Gene: Naiad_48 Start: 35519, Stop: 35109, Start Num: 10

Candidate Starts for Naiad_48:

(Start: 7 @35615 has 1 MA's), (Start: 10 @35519 has 175 MA's), (11, 35489), (14, 35453), (23, 35309), (24, 35300),

Gene: Naira_58 Start: 41284, Stop: 40769, Start Num: 10

Candidate Starts for Naira_58:

(Start: 10 @41284 has 175 MA's), (Start: 15 @41203 has 1 MA's), (16, 41149), (20, 41086), (22, 41080), (24, 41065), (25, 40837), (26, 40819),

Gene: Nancinator_49 Start: 35448, Stop: 35038, Start Num: 10

Candidate Starts for Nancinator_49:

(Start: 7 @35544 has 1 MA's), (Start: 10 @35448 has 175 MA's), (11, 35418), (14, 35382), (23, 35238), (24, 35229),

Gene: Natosaleda_48 Start: 35447, Stop: 35037, Start Num: 10

Candidate Starts for Natosaleda_48:

(Start: 7 @35543 has 1 MA's), (Start: 10 @35447 has 175 MA's), (11, 35417), (14, 35381), (23, 35237), (24, 35228),

Gene: Nerujay_58 Start: 40166, Stop: 39651, Start Num: 10

Candidate Starts for Nerujay_58:

(Start: 10 @40166 has 175 MA's), (Start: 15 @40085 has 1 MA's), (16, 40031), (20, 39968), (22, 39962), (24, 39947), (25, 39719), (26, 39701),

Gene: Nhonho_55 Start: 40512, Stop: 39997, Start Num: 10

Candidate Starts for Nhonho_55:

(Start: 10 @40512 has 175 MA's), (Start: 15 @40431 has 1 MA's), (16, 40377), (20, 40314), (22, 40308), (24, 40293), (25, 40065), (26, 40047),

Gene: Norz_57 Start: 40837, Stop: 40322, Start Num: 10

Candidate Starts for Norz_57:

(4, 41035), (5, 41023), (Start: 10 @40837 has 175 MA's), (Start: 15 @40756 has 1 MA's), (16, 40702), (20, 40639), (22, 40633), (24, 40618), (25, 40390), (26, 40372),

Gene: Oogway_55 Start: 39522, Stop: 39007, Start Num: 10

Candidate Starts for Oogway_55:

(Start: 10 @39522 has 175 MA's), (Start: 15 @39441 has 1 MA's), (16, 39387), (20, 39324), (22, 39318), (24, 39303), (25, 39075), (26, 39057),

Gene: PacerPaul_55 Start: 39873, Stop: 39358, Start Num: 10

Candidate Starts for PacerPaul_55:

(Start: 10 @39873 has 175 MA's), (Start: 15 @39792 has 1 MA's), (16, 39738), (20, 39675), (22, 39669), (24, 39654), (25, 39426), (26, 39408),

Gene: Papez_58 Start: 41467, Stop: 40952, Start Num: 10

Candidate Starts for Papez_58:

(Start: 10 @41467 has 175 MA's), (Start: 15 @41386 has 1 MA's), (16, 41332), (20, 41269), (22, 41263), (24, 41248), (25, 41020), (26, 41002),

Gene: Paphu_54 Start: 38877, Stop: 38362, Start Num: 10

Candidate Starts for Paphu_54:

(1, 39147), (Start: 10 @38877 has 175 MA's), (Start: 15 @38796 has 1 MA's), (16, 38742), (20, 38679), (22, 38673), (24, 38658), (25, 38430), (26, 38412),

Gene: Paraselene_53 Start: 39982, Stop: 39467, Start Num: 10

Candidate Starts for Paraselene_53:

(Start: 10 @39982 has 175 MA's), (Start: 15 @39901 has 1 MA's), (16, 39847), (20, 39784), (22, 39778), (24, 39763), (25, 39535), (26, 39517),

Gene: Pari_58 Start: 39301, Stop: 38786, Start Num: 10

Candidate Starts for Pari_58:

(Start: 10 @39301 has 175 MA's), (Start: 15 @39220 has 1 MA's), (16, 39166), (20, 39103), (22, 39097), (24, 39082), (25, 38854), (26, 38836),

Gene: Parliament_55 Start: 39602, Stop: 39087, Start Num: 10

Candidate Starts for Parliament_55:

(1, 39872), (3, 39836), (Start: 10 @39602 has 175 MA's), (Start: 15 @39521 has 1 MA's), (16, 39467), (20, 39404), (22, 39398), (24, 39383), (25, 39155), (26, 39137),

Gene: Partridge_48 Start: 35804, Stop: 35394, Start Num: 10

Candidate Starts for Partridge_48:

(Start: 7 @35900 has 1 MA's), (Start: 10 @35804 has 175 MA's), (11, 35774), (14, 35738), (23, 35594), (24, 35585),

Gene: PascalRango_56 Start: 39820, Stop: 39305, Start Num: 10

Candidate Starts for PascalRango_56:

(Start: 10 @39820 has 175 MA's), (Start: 15 @39739 has 1 MA's), (16, 39685), (20, 39622), (22, 39616), (24, 39601), (25, 39373), (26, 39355),

Gene: Payneful_55 Start: 39324, Stop: 38809, Start Num: 10

Candidate Starts for Payneful_55:

(1, 39594), (Start: 10 @39324 has 175 MA's), (Start: 15 @39243 has 1 MA's), (16, 39189), (20, 39126), (22, 39120), (24, 39105), (25, 38877), (26, 38859),

Gene: Pelly_56 Start: 39604, Stop: 39089, Start Num: 10

Candidate Starts for Pelly_56:

(2, 39856), (5, 39787), (Start: 10 @39604 has 175 MA's), (Start: 15 @39523 has 1 MA's), (16, 39469), (20, 39406), (22, 39400), (24, 39385), (25, 39157), (26, 39139),

Gene: Pepe_52 Start: 38093, Stop: 37551, Start Num: 10

Candidate Starts for Pepe_52:

(1, 38363), (3, 38327), (Start: 10 @38093 has 175 MA's), (Start: 15 @38012 has 1 MA's), (16, 37958), (20, 37895), (22, 37889), (24, 37874), (25, 37646), (26, 37628),

Gene: Perseus_56 Start: 40525, Stop: 40010, Start Num: 10

Candidate Starts for Perseus_56:

(Start: 10 @40525 has 175 MA's), (Start: 15 @40444 has 1 MA's), (16, 40390), (20, 40327), (22, 40321), (24, 40306), (25, 40078), (26, 40060),

Gene: Petruccio_55 Start: 38969, Stop: 38454, Start Num: 10

Candidate Starts for Petruccio_55:

(Start: 10 @38969 has 175 MA's), (Start: 15 @38888 has 1 MA's), (16, 38834), (20, 38771), (22, 38765), (24, 38750), (25, 38522), (26, 38504),

Gene: PhailMary_48 Start: 35828, Stop: 35418, Start Num: 10

Candidate Starts for PhailMary_48:

(Start: 7 @35924 has 1 MA's), (Start: 10 @35828 has 175 MA's), (11, 35798), (14, 35762), (23, 35618), (24, 35609),

Gene: PherrisBueller_55 Start: 38242, Stop: 37700, Start Num: 10

Candidate Starts for PherrisBueller_55:

(Start: 10 @38242 has 175 MA's), (Start: 15 @38161 has 1 MA's), (16, 38107), (20, 38044), (22, 38038), (24, 38023), (25, 37795), (26, 37777),

Gene: Phrankenstein_49 Start: 35452, Stop: 35042, Start Num: 10

Candidate Starts for Phrankenstein_49:

(Start: 7 @35548 has 1 MA's), (Start: 10 @35452 has 175 MA's), (11, 35422), (14, 35386), (23, 35242), (24, 35233),

Gene: PinkPlastic_56 Start: 39204, Stop: 38689, Start Num: 10

Candidate Starts for PinkPlastic_56:

(Start: 10 @39204 has 175 MA's), (Start: 15 @39123 has 1 MA's), (16, 39069), (20, 39006), (22, 39000), (24, 38985), (25, 38757), (26, 38739),

Gene: Pinto_56 Start: 39808, Stop: 39293, Start Num: 10

Candidate Starts for Pinto_56:

(Start: 10 @39808 has 175 MA's), (Start: 15 @39727 has 1 MA's), (16, 39673), (20, 39610), (22, 39604), (24, 39589), (25, 39361), (26, 39343),

Gene: Pippin_57 Start: 39496, Stop: 38981, Start Num: 10

Candidate Starts for Pippin_57:

(Start: 10 @39496 has 175 MA's), (Start: 15 @39415 has 1 MA's), (16, 39361), (20, 39298), (22, 39292), (24, 39277), (25, 39049), (26, 39031),

Gene: QTRlifeCrisis_55 Start: 39872, Stop: 39357, Start Num: 10

Candidate Starts for QTRlifeCrisis_55:

(Start: 10 @39872 has 175 MA's), (Start: 15 @39791 has 1 MA's), (16, 39737), (20, 39674), (22, 39668), (24, 39653), (25, 39425), (26, 39407),

Gene: RER2_42 Start: 32378, Stop: 31968, Start Num: 10

Candidate Starts for RER2_42:

(Start: 7 @32474 has 1 MA's), (Start: 10 @32378 has 175 MA's), (11, 32348), (14, 32312), (23, 32168), (24, 32159),

Gene: RGL3_43 Start: 33332, Stop: 32922, Start Num: 10

Candidate Starts for RGL3_43:

(Start: 10 @33332 has 175 MA's), (11, 33302), (19, 33155), (24, 33113),

Gene: Rasputin_49 Start: 35476, Stop: 35066, Start Num: 10

Candidate Starts for Rasputin_49:

(Start: 7 @35572 has 1 MA's), (Start: 10 @35476 has 175 MA's), (11, 35446), (14, 35410), (23, 35266), (24, 35257),

Gene: RexFury_48 Start: 35537, Stop: 35127, Start Num: 10

Candidate Starts for RexFury_48:

(Start: 7 @35633 has 1 MA's), (Start: 10 @35537 has 175 MA's), (11, 35507), (14, 35471), (23, 35327), (24, 35318),

Gene: Rhodalysa_49 Start: 35506, Stop: 35096, Start Num: 10

Candidate Starts for Rhodalysa_49:

(Start: 7 @35602 has 1 MA's), (Start: 10 @35506 has 175 MA's), (11, 35476), (14, 35440), (23, 35296), (24, 35287),

Gene: Rhynn_54 Start: 38612, Stop: 38097, Start Num: 10

Candidate Starts for Rhynn_54:

(Start: 10 @38612 has 175 MA's), (Start: 15 @38531 has 1 MA's), (16, 38477), (20, 38414), (22, 38408), (24, 38393), (25, 38165), (26, 38147),

Gene: RidgeCB_55 Start: 39712, Stop: 39197, Start Num: 10

Candidate Starts for RidgeCB_55:

(Start: 10 @39712 has 175 MA's), (Start: 15 @39631 has 1 MA's), (16, 39577), (20, 39514), (22, 39508), (24, 39493), (25, 39265), (26, 39247),

Gene: Rubeus_56 Start: 37595, Stop: 37080, Start Num: 10

Candidate Starts for Rubeus_56:

(Start: 10 @37595 has 175 MA's), (Start: 15 @37514 has 1 MA's), (16, 37460), (20, 37397), (22, 37391), (24, 37376), (25, 37148), (26, 37130),

Gene: Rufus_57 Start: 39200, Stop: 38685, Start Num: 10

Candidate Starts for Rufus_57:

(Start: 10 @39200 has 175 MA's), (Start: 15 @39119 has 1 MA's), (16, 39065), (20, 39002), (22, 38996), (24, 38981), (25, 38753), (26, 38735),

Gene: Rutherferd_57 Start: 39831, Stop: 39316, Start Num: 10

Candidate Starts for Rutherferd_57:

(Start: 10 @39831 has 175 MA's), (Start: 15 @39750 has 1 MA's), (16, 39696), (20, 39633), (22, 39627), (24, 39612), (25, 39384), (26, 39366),

Gene: STLscum_58 Start: 40467, Stop: 39952, Start Num: 10

Candidate Starts for STLscum_58:

(3, 40701), (Start: 10 @40467 has 175 MA's), (Start: 15 @40386 has 1 MA's), (16, 40332), (20, 40269), (22, 40263), (24, 40248), (25, 40020), (26, 40002),

Gene: Sagefire_58 Start: 40408, Stop: 39893, Start Num: 10

Candidate Starts for Sagefire_58:

(Start: 10 @40408 has 175 MA's), (Start: 15 @40327 has 1 MA's), (16, 40273), (20, 40210), (22, 40204), (24, 40189), (25, 39961), (26, 39943),

Gene: SarFire_53 Start: 38723, Stop: 38181, Start Num: 10

Candidate Starts for SarFire_53:

(Start: 10 @38723 has 175 MA's), (Start: 15 @38642 has 1 MA's), (16, 38588), (20, 38525), (22, 38519), (24, 38504), (25, 38276), (26, 38258),

Gene: Scowl_56 Start: 39552, Stop: 39010, Start Num: 10

Candidate Starts for Scowl_56:

(Start: 10 @39552 has 175 MA's), (Start: 15 @39471 has 1 MA's), (16, 39417), (20, 39354), (22, 39348), (24, 39333), (25, 39105), (26, 39087),

Gene: Seabiscuit_58 Start: 39337, Stop: 38822, Start Num: 10

Candidate Starts for Seabiscuit_58:

(1, 39607), (Start: 10 @39337 has 175 MA's), (Start: 15 @39256 has 1 MA's), (16, 39202), (20, 39139), (22, 39133), (24, 39118), (25, 38890), (26, 38872),

Gene: Seanderson_57 Start: 40932, Stop: 40417, Start Num: 10

Candidate Starts for Seanderson_57:

(2, 41190), (5, 41121), (Start: 10 @40932 has 175 MA's), (Start: 15 @40851 has 1 MA's), (16, 40797), (20, 40734), (22, 40728), (24, 40713), (25, 40485), (26, 40467),

Gene: Shuman_49 Start: 35460, Stop: 35050, Start Num: 10

Candidate Starts for Shuman_49:

(Start: 7 @35556 has 1 MA's), (Start: 10 @35460 has 175 MA's), (11, 35430), (14, 35394), (23, 35250), (24, 35241),

Gene: SkiPole_60 Start: 40137, Stop: 39622, Start Num: 10

Candidate Starts for SkiPole_60:

(1, 40407), (3, 40371), (Start: 10 @40137 has 175 MA's), (Start: 15 @40056 has 1 MA's), (16, 40002), (20, 39939), (22, 39933), (24, 39918), (25, 39690), (26, 39672),

Gene: Smairt_58 Start: 40827, Stop: 40282, Start Num: 8

Candidate Starts for Smairt_58:

(Start: 8 @40827 has 2 MA's), (Start: 9 @40818 has 1 MA's), (17, 40650), (18, 40632), (20, 40599), (22, 40593), (24, 40578), (25, 40350), (26, 40332),

Gene: Smeagol_58 Start: 40791, Stop: 40276, Start Num: 10

Candidate Starts for Smeagol_58:

(6, 40923), (Start: 10 @40791 has 175 MA's), (Start: 15 @40710 has 1 MA's), (16, 40656), (20, 40593), (22, 40587), (24, 40572), (25, 40344), (26, 40326),

Gene: Snazzy_55 Start: 39170, Stop: 38655, Start Num: 10

Candidate Starts for Snazzy_55:

(Start: 10 @39170 has 175 MA's), (Start: 15 @39089 has 1 MA's), (16, 39035), (20, 38972), (22, 38966), (24, 38951), (25, 38723), (26, 38705),

Gene: Solon_54 Start: 39048, Stop: 38533, Start Num: 10

Candidate Starts for Solon_54:

(Start: 10 @39048 has 175 MA's), (Start: 15 @38967 has 1 MA's), (16, 38913), (20, 38850), (22, 38844), (24, 38829), (25, 38601), (26, 38583),

Gene: Sorpresa_54 Start: 39163, Stop: 38648, Start Num: 10

Candidate Starts for Sorpresa_54:

(Start: 10 @39163 has 175 MA's), (Start: 15 @39082 has 1 MA's), (16, 39028), (20, 38965), (22, 38959), (24, 38944), (25, 38716), (26, 38698),

Gene: Squee_56 Start: 39751, Stop: 39236, Start Num: 10

Candidate Starts for Squee_56:

(Start: 10 @39751 has 175 MA's), (Start: 15 @39670 has 1 MA's), (16, 39616), (20, 39553), (22, 39547), (24, 39532), (25, 39304), (26, 39286),

Gene: StCroix_48 Start: 35519, Stop: 35109, Start Num: 10

Candidate Starts for StCroix_48:

(Start: 7 @35615 has 1 MA's), (Start: 10 @35519 has 175 MA's), (11, 35489), (14, 35453), (23, 35309), (24, 35300),

Gene: StrongArm_54 Start: 40247, Stop: 39732, Start Num: 10

Candidate Starts for StrongArm_54:

(1, 40517), (3, 40481), (Start: 10 @40247 has 175 MA's), (Start: 15 @40166 has 1 MA's), (16, 40112), (20, 40049), (22, 40043), (24, 40028), (25, 39800), (26, 39782),

Gene: Sumter_52 Start: 39707, Stop: 39192, Start Num: 10

Candidate Starts for Sumter_52:

(Start: 10 @39707 has 175 MA's), (Start: 15 @39626 has 1 MA's), (16, 39572), (20, 39509), (22, 39503), (24, 39488), (25, 39260), (26, 39242),

Gene: Sunshine924_57 Start: 38845, Stop: 38330, Start Num: 10

Candidate Starts for Sunshine924_57:

(Start: 10 @38845 has 175 MA's), (Start: 15 @38764 has 1 MA's), (16, 38710), (20, 38647), (22, 38641), (24, 38626), (25, 38398), (26, 38380),

Gene: Swann_49 Start: 35504, Stop: 35094, Start Num: 10

Candidate Starts for Swann_49:

(Start: 7 @35600 has 1 MA's), (Start: 10 @35504 has 175 MA's), (11, 35474), (14, 35438), (23, 35294), (24, 35285),

Gene: SwissCheese_57 Start: 39364, Stop: 38849, Start Num: 10

Candidate Starts for SwissCheese_57:

(Start: 10 @39364 has 175 MA's), (Start: 15 @39283 has 1 MA's), (16, 39229), (20, 39166), (22, 39160), (24, 39145), (25, 38917), (26, 38899),

Gene: TWAMP_49 Start: 35506, Stop: 35096, Start Num: 10

Candidate Starts for TWAMP_49:

(Start: 7 @35602 has 1 MA's), (Start: 10 @35506 has 175 MA's), (11, 35476), (14, 35440), (23, 35296), (24, 35287),

Gene: Takoda_49 Start: 35689, Stop: 35279, Start Num: 10

Candidate Starts for Takoda_49:

(Start: 7 @35785 has 1 MA's), (Start: 10 @35689 has 175 MA's), (11, 35659), (14, 35623), (23, 35479), (24, 35470),

Gene: Target_56 Start: 37955, Stop: 37440, Start Num: 10

Candidate Starts for Target_56:

(1, 38225), (3, 38189), (Start: 10 @37955 has 175 MA's), (13, 37898), (Start: 15 @37874 has 1 MA's), (16, 37820), (20, 37757), (22, 37751), (24, 37736), (25, 37508), (26, 37490),

Gene: Tasp14_57 Start: 39750, Stop: 39208, Start Num: 10

Candidate Starts for Tasp14_57:

(1, 40020), (Start: 10 @39750 has 175 MA's), (Start: 15 @39669 has 1 MA's), (16, 39615), (20, 39552), (22, 39546), (24, 39531), (25, 39303), (26, 39285),

Gene: TheloniousMonk_56 Start: 41420, Stop: 40905, Start Num: 10

Candidate Starts for TheloniousMonk_56:

(Start: 10 @41420 has 175 MA's), (Start: 15 @41339 has 1 MA's), (16, 41285), (20, 41222), (22, 41216), (24, 41201), (25, 40973), (26, 40955),

Gene: Thor_53 Start: 38081, Stop: 37539, Start Num: 10

Candidate Starts for Thor_53:

(Start: 10 @38081 has 175 MA's), (Start: 15 @38000 has 1 MA's), (16, 37946), (20, 37883), (22, 37877), (24, 37862), (25, 37634), (26, 37616),

Gene: Topgun_55 Start: 38934, Stop: 38419, Start Num: 10

Candidate Starts for Topgun_55:

(Start: 10 @38934 has 175 MA's), (Start: 15 @38853 has 1 MA's), (16, 38799), (20, 38736), (22, 38730), (24, 38715), (25, 38487), (26, 38469),

Gene: Traft412_58 Start: 40325, Stop: 39810, Start Num: 10

Candidate Starts for Traft412_58:

(Start: 10 @40325 has 175 MA's), (Start: 15 @40244 has 1 MA's), (16, 40190), (20, 40127), (22, 40121), (24, 40106), (25, 39878), (26, 39860),

Gene: Treddle_56 Start: 39857, Stop: 39342, Start Num: 10

Candidate Starts for Treddle_56:

(Start: 10 @39857 has 175 MA's), (Start: 15 @39776 has 1 MA's), (16, 39722), (20, 39659), (22, 39653), (24, 39638), (25, 39410), (26, 39392),

Gene: Tripl3t_56 Start: 40715, Stop: 40200, Start Num: 10

Candidate Starts for Tripl3t_56:

(Start: 10 @40715 has 175 MA's), (Start: 15 @40634 has 1 MA's), (16, 40580), (20, 40517), (22, 40511), (24, 40496), (25, 40268), (26, 40250),

Gene: Trouble_58 Start: 40588, Stop: 40073, Start Num: 10

Candidate Starts for Trouble_58:

(Start: 10 @40588 has 175 MA's), (Start: 15 @40507 has 1 MA's), (16, 40453), (20, 40390), (22, 40384), (24, 40369), (25, 40141), (26, 40123),

Gene: U2_55 Start: 40259, Stop: 39744, Start Num: 10

Candidate Starts for U2_55:

(Start: 10 @40259 has 175 MA's), (Start: 15 @40178 has 1 MA's), (16, 40124), (20, 40061), (22, 40055), (24, 40040), (25, 39812), (26, 39794),

Gene: UhSalsa_49 Start: 35448, Stop: 35038, Start Num: 10

Candidate Starts for UhSalsa_49:

(Start: 7 @35544 has 1 MA's), (Start: 10 @35448 has 175 MA's), (11, 35418), (14, 35382), (23, 35238), (24, 35229),

Gene: Violet_54 Start: 40191, Stop: 39676, Start Num: 10

Candidate Starts for Violet_54:

(Start: 10 @40191 has 175 MA's), (Start: 15 @40110 has 1 MA's), (16, 40056), (20, 39993), (22, 39987), (24, 39972), (25, 39744), (26, 39726),

Gene: Wheeler_56 Start: 39350, Stop: 38835, Start Num: 10

Candidate Starts for Wheeler_56:

(Start: 10 @39350 has 175 MA's), (Start: 15 @39269 has 1 MA's), (16, 39215), (20, 39152), (22, 39146), (24, 39131), (25, 38903), (26, 38885),

Gene: Wilkins_55 Start: 38864, Stop: 38349, Start Num: 10

Candidate Starts for Wilkins_55:

(Start: 10 @38864 has 175 MA's), (Start: 15 @38783 has 1 MA's), (16, 38729), (20, 38666), (22, 38660), (24, 38645), (25, 38417), (26, 38399),

Gene: Yogi_48 Start: 35573, Stop: 35067, Start Num: 7

Candidate Starts for Yogi_48:

(Start: 7 @35573 has 1 MA's), (Start: 10 @35477 has 175 MA's), (11, 35447), (14, 35411), (23, 35267), (24, 35258),

Gene: Yoncess_48 Start: 35260, Stop: 34850, Start Num: 10

Candidate Starts for Yoncess_48:

(Start: 7 @35356 has 1 MA's), (Start: 10 @35260 has 175 MA's), (11, 35230), (14, 35194), (23, 35050), (24, 35041),

Gene: Zeeculate_54 Start: 40230, Stop: 39688, Start Num: 10

Candidate Starts for Zeeculate_54:

(Start: 10 @40230 has 175 MA's), (12, 40188), (Start: 15 @40149 has 1 MA's), (16, 40095), (20, 40032), (22, 40026), (24, 40011), (25, 39783), (26, 39765),

Gene: Zephyr_56 Start: 39230, Stop: 38715, Start Num: 10

Candidate Starts for Zephyr_56:

(Start: 10 @39230 has 175 MA's), (Start: 15 @39149 has 1 MA's), (16, 39095), (20, 39032), (22, 39026), (24, 39011), (25, 38783), (26, 38765),

Gene: Zeuska_54 Start: 39841, Stop: 39326, Start Num: 10

Candidate Starts for Zeuska_54:

(Start: 10 @39841 has 175 MA's), (Start: 15 @39760 has 1 MA's), (16, 39706), (20, 39643), (22, 39637), (24, 39622), (25, 39394), (26, 39376),