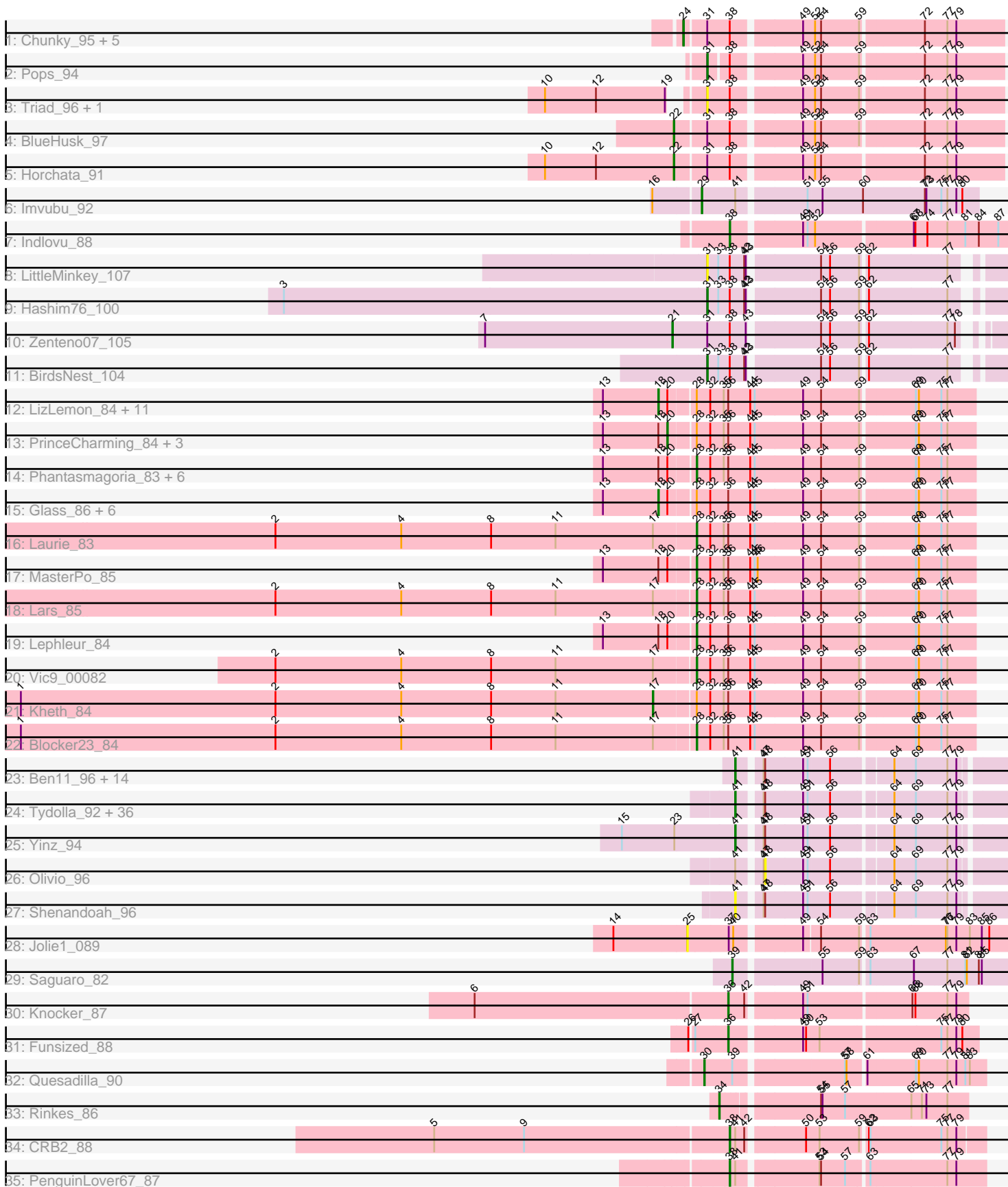


Pham 294565



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 294565 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294565 has 117 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Chunky_95, HSavage_94, Boehler_94, Vivaldi_97, ElvisPhasley_97, Gyarad_0095
- Track 2 : Pops_94
- Track 3 : Triad_96, Lehmann_97
- Track 4 : BlueHusk_97
- Track 5 : Horchata_91
- Track 6 : Imvubu_92
- Track 7 : Indlovu_88
- Track 8 : LittleMinkey_107
- Track 9 : Hashim76_100
- Track 10 : Zenteno07_105
- Track 11 : BirdsNest_104
- Track 12 : LizLemon_84, Sabella_84, Rhinoforte_84, Arbiter_81, Brownie5_84, Qyrzula_75, Opia_85, Ares_84, FrenchFry_85, Bananafish_85, Tinciduntolum_85, Hedgerow_84
- Track 13 : PrinceCharming_84, LilSmirk_84, West99_84, Tres_84
- Track 14 : Phantasmagoria_83, Kolhan_85, Boyle_84, Calamitous_85, Faze9_83, Coffee_83, Allegro_84
- Track 15 : Glass_86, Godines_84, Kaleb_84, Rosebush_82, ItsyBitsy1_81, TA17A_87, Holeinone_84
- Track 16 : Laurie_83
- Track 17 : MasterPo_85
- Track 18 : Lars_85
- Track 19 : Lephleur_84
- Track 20 : Vic9_00082
- Track 21 : Kheth_84
- Track 22 : Blocker23_84
- Track 23 : Ben11_96, Mortcellus_96, Marley1013_94, TinyTerror_97, Chandler_96, Kronus_96, LestyG_94, Chentzyk_98, Devonte_94, Yahalom_94, Glubnar_96, Bernardo_93, SwainyDoc_96, Casbah_96, Compostia_95
- Track 24 : Tydolla_92, Neos5_95, Gervas_97, SynergyX_97, OrangeOswald_95, Akoma_97, Philly_95, Mulaychimus_97, HarveySr_93, RagingRooster_96, Corofin_96, Phlyer_96, SlippinJimmy_99, Audrey_96, GlenHope_97, MmasiCarm_97, Rita1961_97, Baloo_95, Briakila_97, Phayeta_98, Deenasa_97, Chalmers_96, Heathcliff_96, Abinghost_96, Nozo_96, Obutu_98, Morty007_94, RomaT_96, Daisy_95, Phaedrus_91, Kamiyu_96, Halfpint_95, Pipefish_95, Jackstina_89, Marlia_96, ChaChing_96, Athena_98

- Track 25 : Yinz_94
- Track 26 : Olivio_96
- Track 27 : Shenandoah_96
- Track 28 : Jolie1_089
- Track 29 : Saguaro_82
- Track 30 : Knocker_87
- Track 31 : Funsized_88
- Track 32 : Quesadilla_90
- Track 33 : Rinkes_86
- Track 34 : CRB2_88
- Track 35 : PenguinLover67_87

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

The start number called the most often in the published annotations is 41, it was called in 49 of the 106 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abinghost_96, Akoma_97, Athena_98, Audrey_96, Baloo_95, Ben11_96, Bernardo_93, Briakila_97, Casbah_96, ChaChing_96, Chalmers_96, Chandler_96, Chentzyk_98, Compostia_95, Corofin_96, Daisy_95, Deenasa_97, Devonte_94, Gervas_97, GlenHope_97, Glubnar_96, Halfpint_95, HarveySr_93, Heathcliff_96, Jackstina_89, Kamiyu_96, Kronus_96, LestyG_94, Marley1013_94, Marlia_96, MmasiCarm_97, Mortcellus_96, Morty007_94, Mulaychimus_97, Neos5_95, Nozo_96, Obutu_98, OrangeOswald_95, Phaedrus_91, Phayeta_98, Philly_95, Phlyer_96, Pipefish_95, RagingRooster_96, Rita1961_97, RomaT_96, Shenandoah_96, SlippinJimmy_99, SwainyDoc_96, SynergyX_97, TinyTerror_97, Tydolla_92, Yahalom_94, Yinz_94,

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

- CRB2_88, Imvubu_92, Olivio_96, PenguinLover67_87,

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

- Allegro_84, Arbiter_81, Ares_84, Bananafish_85, BirdsNest_104, Blocker23_84, BlueHusk_97, Boehler_94, Boyle_84, Brownie5_84, Calamitous_85, Chunky_95, Coffee_83, ElvisPhasley_97, Faze9_83, FrenchFry_85, Funsized_88, Glass_86, Godines_84, Gyarad_0095, HSavage_94, Hashim76_100, Hedgerow_84, Holeinone_84, Horchata_91, Indlovu_88, ItsyBitsy1_81, Jolie1_089, Kaleb_84, Kheth_84, Knocker_87, Kolhan_85, Lars_85, Laurie_83, Lehmann_97, Lephleur_84, LilSmirk_84, LittleMinkey_107, LizLemon_84, MasterPo_85, Opia_85, Phantasmagoria_83, Pops_94, PrinceCharming_84, Quesadilla_90, Qyrzula_75, Rhinoforte_84, Rinkes_86, Rosebush_82, Sabella_84, Saguaro_82, TA17A_87, Tinciduntolum_85, Tres_84, Triad_96, Vic9_00082, Vivaldi_97, West99_84, Zenteno07_105,

Summary by start number:

Start 17:

- Found in 5 of 117 (4.3%) of genes in pham
- Manual Annotations of this start: 1 of 106

- Called 20.0% of time when present
- Phage (with cluster) where this start called: Kheth_84 (B2),

Start 18:

- Found in 32 of 117 (27.4%) of genes in pham
- Manual Annotations of this start: 19 of 106
- Called 59.4% of time when present
- Phage (with cluster) where this start called: Arbiter_81 (B2), Ares_84 (B2), Bananafish_85 (B2), Brownie5_84 (B2), FrenchFry_85 (B2), Glass_86 (B2), Godines_84 (B2), Hedgerow_84 (B2), Holeinone_84 (B2), ItsyBitsy1_81 (B2), Kaleb_84 (B2), LizLemon_84 (B2), Opia_85 (B2), Qyrzula_75 (B2), Rhinoforte_84 (B2), Rosebush_82 (B2), Sabella_84 (B2), TA17A_87 (B2), Tinciduntolum_85 (B2),

Start 20:

- Found in 32 of 117 (27.4%) of genes in pham
- Manual Annotations of this start: 3 of 106
- Called 12.5% of time when present
- Phage (with cluster) where this start called: LilSmirk_84 (B2), PrinceCharming_84 (B2), Tres_84 (B2), West99_84 (B2),

Start 21:

- Found in 1 of 117 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Zenteno07_105 (B13),

Start 22:

- Found in 2 of 117 (1.7%) of genes in pham
- Manual Annotations of this start: 2 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlueHusk_97 (B1), Horchata_91 (B1),

Start 24:

- Found in 6 of 117 (5.1%) of genes in pham
- Manual Annotations of this start: 6 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Boehler_94 (B1), Chunky_95 (B1), ElvisPhasley_97 (B1), Gyarad_0095 (B1), HSavage_94 (B1), Vivaldi_97 (B1),

Start 25:

- Found in 1 of 117 (0.9%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jolie1_089 (B6),

Start 28:

- Found in 37 of 117 (31.6%) of genes in pham
- Manual Annotations of this start: 13 of 106
- Called 35.1% of time when present
- Phage (with cluster) where this start called: Allegro_84 (B2), Blocker23_84 (B2), Boyle_84 (B2), Calamitous_85 (B2), Coffee_83 (B2), Faze9_83 (B2), Kolhan_85 (B2), Lars_85 (B2), Laurie_83 (B2), Lephieur_84 (B2), MasterPo_85 (B2), Phantasmagoria_83 (B2), Vic9_00082 (B2),

Start 29:

- Found in 1 of 117 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Imvubu_92 (B10),

Start 30:

- Found in 1 of 117 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Quesadilla_90 (B9),

Start 31:

- Found in 15 of 117 (12.8%) of genes in pham
- Manual Annotations of this start: 3 of 106
- Called 40.0% of time when present
- Phage (with cluster) where this start called: BirdsNest_104 (B13), Hashim76_100 (B13), Lehmann_97 (B1), LittleMinkey_107 (B13), Pops_94 (B1), Triad_96 (B1),

Start 34:

- Found in 1 of 117 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rinkes_86 (B9),

Start 36:

- Found in 39 of 117 (33.3%) of genes in pham
- Manual Annotations of this start: 2 of 106
- Called 5.1% of time when present
- Phage (with cluster) where this start called: Funsized_88 (B9), Knocker_87 (B9),

Start 38:

- Found in 18 of 117 (15.4%) of genes in pham
- Manual Annotations of this start: 3 of 106
- Called 16.7% of time when present
- Phage (with cluster) where this start called: CRB2_88 (B9), Indlovu_88 (B11), PenguinLover67_87 (B9),

Start 39:

- Found in 2 of 117 (1.7%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Saguaro_82 (B7),

Start 41:

- Found in 58 of 117 (49.6%) of genes in pham
- Manual Annotations of this start: 49 of 106
- Called 93.1% of time when present
- Phage (with cluster) where this start called: Abinghost_96 (B3), Akoma_97 (B3), Athena_98 (B3), Audrey_96 (B3), Baloo_95 (B3), Ben11_96 (B3), Bernardo_93 (B3), Briakila_97 (B3), Casbah_96 (B3), ChaChing_96 (B3), Chalmers_96 (B3), Chandler_96 (B3), Chentzyk_98 (B3), Compostia_95 (B3), Corofin_96 (B3), Daisy_95

(B3), Deenasa_97 (B3), Devonte_94 (B3), Gervas_97 (B3), GlenHope_97 (B3), Glubnar_96 (B3), Halfpint_95 (B3), HarveySr_93 (B3), Heathcliff_96 (B3), Jackstina_89 (B3), Kamiyu_96 (B3), Kronus_96 (B3), LestyG_94 (B3), Marley1013_94 (B3), Marlia_96 (B3), MmasiCarm_97 (B3), Mortcellus_96 (B3), Morty007_94 (B3), Mulaychimus_97 (B3), Neos5_95 (B3), Nozo_96 (B3), Obutu_98 (B3), OrangeOswald_95 (B3), Phaedrus_91 (B3), Phayeta_98 (B3), Philly_95 (B3), Phlyer_96 (B3), Pipefish_95 (B3), RagingRooster_96 (B3), Rita1961_97 (B3), RomaT_96 (B3), Shenandoah_96 (B3), SlippinJimmy_99 (B3), SwainyDoc_96 (B3), SynergyX_97 (B3), TinyTerror_97 (B3), Tydolla_92 (B3), Yahalom_94 (B3), Yinz_94 (B3),

Start 48:

- Found in 55 of 117 (47.0%) of genes in pham
- No Manual Annotations of this start.
- Called 1.8% of time when present
- Phage (with cluster) where this start called: Olivio_96 (B3),

Summary by clusters:

There are 9 clusters represented in this pham: B10, B11, B6, B7, B13, B2, B3, B9, B1,

Info for manual annotations of cluster B1:

- Start number 22 was manually annotated 2 times for cluster B1.
- Start number 24 was manually annotated 6 times for cluster B1.
- Start number 31 was manually annotated 1 time for cluster B1.

Info for manual annotations of cluster B10:

- Start number 29 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B11:

- Start number 38 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B13:

- Start number 21 was manually annotated 1 time for cluster B13.
- Start number 31 was manually annotated 2 times for cluster B13.

Info for manual annotations of cluster B2:

- Start number 17 was manually annotated 1 time for cluster B2.
- Start number 18 was manually annotated 19 times for cluster B2.
- Start number 20 was manually annotated 3 times for cluster B2.
- Start number 28 was manually annotated 13 times for cluster B2.

Info for manual annotations of cluster B3:

- Start number 41 was manually annotated 49 times for cluster B3.

Info for manual annotations of cluster B7:

- Start number 39 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B9:

- Start number 30 was manually annotated 1 time for cluster B9.
- Start number 34 was manually annotated 1 time for cluster B9.
- Start number 36 was manually annotated 2 times for cluster B9.

- Start number 38 was manually annotated 2 times for cluster B9.

Gene Information:

Gene: Abinghost_96 Start: 65736, Stop: 65248, Start Num: 41

Candidate Starts for Abinghost_96:

(Start: 41 @65736 has 49 MA's), (47, 65697), (48, 65694), (49, 65619), (51, 65610), (56, 65568), (64, 65460), (69, 65418), (77, 65355), (79, 65337),

Gene: Akoma_97 Start: 65813, Stop: 65325, Start Num: 41

Candidate Starts for Akoma_97:

(Start: 41 @65813 has 49 MA's), (47, 65774), (48, 65771), (49, 65696), (51, 65687), (56, 65645), (64, 65537), (69, 65495), (77, 65432), (79, 65414),

Gene: Allegro_84 Start: 63711, Stop: 63181, Start Num: 28

Candidate Starts for Allegro_84:

(13, 63888), (Start: 18 @63777 has 19 MA's), (Start: 20 @63759 has 3 MA's), (Start: 28 @63711 has 13 MA's), (32, 63684), (35, 63657), (Start: 36 @63648 has 2 MA's), (44, 63606), (45, 63597), (49, 63501), (54, 63465), (59, 63393), (69, 63297), (70, 63291), (75, 63249), (77, 63237),

Gene: Arbiter_81 Start: 63817, Stop: 63221, Start Num: 18

Candidate Starts for Arbiter_81:

(13, 63928), (Start: 18 @63817 has 19 MA's), (Start: 20 @63799 has 3 MA's), (Start: 28 @63751 has 13 MA's), (32, 63724), (35, 63697), (Start: 36 @63688 has 2 MA's), (44, 63646), (45, 63637), (49, 63541), (54, 63505), (59, 63433), (69, 63337), (70, 63331), (75, 63289), (77, 63277),

Gene: Ares_84 Start: 63776, Stop: 63180, Start Num: 18

Candidate Starts for Ares_84:

(13, 63887), (Start: 18 @63776 has 19 MA's), (Start: 20 @63758 has 3 MA's), (Start: 28 @63710 has 13 MA's), (32, 63683), (35, 63656), (Start: 36 @63647 has 2 MA's), (44, 63605), (45, 63596), (49, 63500), (54, 63464), (59, 63392), (69, 63296), (70, 63290), (75, 63248), (77, 63236),

Gene: Athena_98 Start: 66509, Stop: 66021, Start Num: 41

Candidate Starts for Athena_98:

(Start: 41 @66509 has 49 MA's), (47, 66470), (48, 66467), (49, 66392), (51, 66383), (56, 66341), (64, 66233), (69, 66191), (77, 66128), (79, 66110),

Gene: Audrey_96 Start: 65763, Stop: 65275, Start Num: 41

Candidate Starts for Audrey_96:

(Start: 41 @65763 has 49 MA's), (47, 65724), (48, 65721), (49, 65646), (51, 65637), (56, 65595), (64, 65487), (69, 65445), (77, 65382), (79, 65364),

Gene: Baloo_95 Start: 65616, Stop: 65128, Start Num: 41

Candidate Starts for Baloo_95:

(Start: 41 @65616 has 49 MA's), (47, 65577), (48, 65574), (49, 65499), (51, 65490), (56, 65448), (64, 65340), (69, 65298), (77, 65235), (79, 65217),

Gene: Bananafish_85 Start: 63713, Stop: 63117, Start Num: 18

Candidate Starts for Bananafish_85:

(13, 63824), (Start: 18 @63713 has 19 MA's), (Start: 20 @63695 has 3 MA's), (Start: 28 @63647 has 13 MA's), (32, 63620), (35, 63593), (Start: 36 @63584 has 2 MA's), (44, 63542), (45, 63533), (49,

63437), (54, 63401), (59, 63329), (69, 63233), (70, 63227), (75, 63185), (77, 63173),

Gene: Ben11_96 Start: 65993, Stop: 65505, Start Num: 41

Candidate Starts for Ben11_96:

(Start: 41 @65993 has 49 MA's), (47, 65954), (48, 65951), (49, 65876), (51, 65867), (56, 65825), (64, 65717), (69, 65675), (77, 65612), (79, 65594),

Gene: Bernardo_93 Start: 65287, Stop: 64799, Start Num: 41

Candidate Starts for Bernardo_93:

(Start: 41 @65287 has 49 MA's), (47, 65248), (48, 65245), (49, 65170), (51, 65161), (56, 65119), (64, 65011), (69, 64969), (77, 64906), (79, 64888),

Gene: BirdsNest_104 Start: 70091, Stop: 69573, Start Num: 31

Candidate Starts for BirdsNest_104:

(Start: 31 @70091 has 3 MA's), (33, 70070), (Start: 38 @70049 has 3 MA's), (42, 70022), (43, 70019), (54, 69890), (56, 69872), (59, 69815), (62, 69806), (77, 69656),

Gene: Blocker23_84 Start: 63711, Stop: 63181, Start Num: 28

Candidate Starts for Blocker23_84:

(1, 65055), (2, 64545), (4, 64293), (8, 64113), (11, 63984), (Start: 17 @63789 has 1 MA's), (Start: 28 @63711 has 13 MA's), (32, 63684), (35, 63657), (Start: 36 @63648 has 2 MA's), (44, 63606), (45, 63597), (49, 63501), (54, 63465), (59, 63393), (69, 63297), (70, 63291), (75, 63249), (77, 63237),

Gene: BlueHusk_97 Start: 66586, Stop: 65990, Start Num: 22

Candidate Starts for BlueHusk_97:

(Start: 22 @66586 has 2 MA's), (Start: 31 @66529 has 3 MA's), (Start: 38 @66487 has 3 MA's), (49, 66361), (52, 66340), (54, 66328), (59, 66256), (72, 66142), (77, 66103), (79, 66085),

Gene: Boehler_94 Start: 66718, Stop: 66140, Start Num: 24

Candidate Starts for Boehler_94:

(Start: 24 @66718 has 6 MA's), (Start: 31 @66679 has 3 MA's), (Start: 38 @66637 has 3 MA's), (49, 66511), (52, 66490), (54, 66478), (59, 66406), (72, 66292), (77, 66253), (79, 66235),

Gene: Boyle_84 Start: 63759, Stop: 63229, Start Num: 28

Candidate Starts for Boyle_84:

(13, 63936), (Start: 18 @63825 has 19 MA's), (Start: 20 @63807 has 3 MA's), (Start: 28 @63759 has 13 MA's), (32, 63732), (35, 63705), (Start: 36 @63696 has 2 MA's), (44, 63654), (45, 63645), (49, 63549), (54, 63513), (59, 63441), (69, 63345), (70, 63339), (75, 63297), (77, 63285),

Gene: Briakila_97 Start: 66267, Stop: 65779, Start Num: 41

Candidate Starts for Briakila_97:

(Start: 41 @66267 has 49 MA's), (47, 66228), (48, 66225), (49, 66150), (51, 66141), (56, 66099), (64, 65991), (69, 65949), (77, 65886), (79, 65868),

Gene: Brownie5_84 Start: 63825, Stop: 63229, Start Num: 18

Candidate Starts for Brownie5_84:

(13, 63936), (Start: 18 @63825 has 19 MA's), (Start: 20 @63807 has 3 MA's), (Start: 28 @63759 has 13 MA's), (32, 63732), (35, 63705), (Start: 36 @63696 has 2 MA's), (44, 63654), (45, 63645), (49, 63549), (54, 63513), (59, 63441), (69, 63345), (70, 63339), (75, 63297), (77, 63285),

Gene: CRB2_88 Start: 67867, Stop: 67412, Start Num: 38

Candidate Starts for CRB2_88:

(5, 68446), (9, 68266), (Start: 38 @67867 has 3 MA's), (Start: 41 @67858 has 49 MA's), (42, 67840), (50, 67735), (53, 67708), (59, 67633), (62, 67624), (63, 67621), (75, 67492), (77, 67480), (79, 67462),

Gene: Calamitous_85 Start: 63642, Stop: 63112, Start Num: 28

Candidate Starts for Calamitous_85:

(13, 63819), (Start: 18 @63708 has 19 MA's), (Start: 20 @63690 has 3 MA's), (Start: 28 @63642 has 13 MA's), (32, 63615), (35, 63588), (Start: 36 @63579 has 2 MA's), (44, 63537), (45, 63528), (49, 63432), (54, 63396), (59, 63324), (69, 63228), (70, 63222), (75, 63180), (77, 63168),

Gene: Casbah_96 Start: 66078, Stop: 65590, Start Num: 41

Candidate Starts for Casbah_96:

(Start: 41 @66078 has 49 MA's), (47, 66039), (48, 66036), (49, 65961), (51, 65952), (56, 65910), (64, 65802), (69, 65760), (77, 65697), (79, 65679),

Gene: ChaChing_96 Start: 65776, Stop: 65288, Start Num: 41

Candidate Starts for ChaChing_96:

(Start: 41 @65776 has 49 MA's), (47, 65737), (48, 65734), (49, 65659), (51, 65650), (56, 65608), (64, 65500), (69, 65458), (77, 65395), (79, 65377),

Gene: Chalmers_96 Start: 66514, Stop: 66026, Start Num: 41

Candidate Starts for Chalmers_96:

(Start: 41 @66514 has 49 MA's), (47, 66475), (48, 66472), (49, 66397), (51, 66388), (56, 66346), (64, 66238), (69, 66196), (77, 66133), (79, 66115),

Gene: Chandler_96 Start: 66552, Stop: 66064, Start Num: 41

Candidate Starts for Chandler_96:

(Start: 41 @66552 has 49 MA's), (47, 66513), (48, 66510), (49, 66435), (51, 66426), (56, 66384), (64, 66276), (69, 66234), (77, 66171), (79, 66153),

Gene: Chentzyk_98 Start: 66708, Stop: 66220, Start Num: 41

Candidate Starts for Chentzyk_98:

(Start: 41 @66708 has 49 MA's), (47, 66669), (48, 66666), (49, 66591), (51, 66582), (56, 66540), (64, 66432), (69, 66390), (77, 66327), (79, 66309),

Gene: Chunky_95 Start: 66380, Stop: 65802, Start Num: 24

Candidate Starts for Chunky_95:

(Start: 24 @66380 has 6 MA's), (Start: 31 @66341 has 3 MA's), (Start: 38 @66299 has 3 MA's), (49, 66173), (52, 66152), (54, 66140), (59, 66068), (72, 65954), (77, 65915), (79, 65897),

Gene: Coffee_83 Start: 63752, Stop: 63222, Start Num: 28

Candidate Starts for Coffee_83:

(13, 63929), (Start: 18 @63818 has 19 MA's), (Start: 20 @63800 has 3 MA's), (Start: 28 @63752 has 13 MA's), (32, 63725), (35, 63698), (Start: 36 @63689 has 2 MA's), (44, 63647), (45, 63638), (49, 63542), (54, 63506), (59, 63434), (69, 63338), (70, 63332), (75, 63290), (77, 63278),

Gene: Compostia_95 Start: 66230, Stop: 65742, Start Num: 41

Candidate Starts for Compostia_95:

(Start: 41 @66230 has 49 MA's), (47, 66191), (48, 66188), (49, 66113), (51, 66104), (56, 66062), (64, 65954), (69, 65912), (77, 65849), (79, 65831),

Gene: Corofin_96 Start: 65787, Stop: 65299, Start Num: 41

Candidate Starts for Corofin_96:

(Start: 41 @65787 has 49 MA's), (47, 65748), (48, 65745), (49, 65670), (51, 65661), (56, 65619), (64, 65511), (69, 65469), (77, 65406), (79, 65388),

Gene: Daisy_95 Start: 65336, Stop: 64848, Start Num: 41

Candidate Starts for Daisy_95:

(Start: 41 @65336 has 49 MA's), (47, 65297), (48, 65294), (49, 65219), (51, 65210), (56, 65168), (64, 65060), (69, 65018), (77, 64955), (79, 64937),

Gene: Deenasa_97 Start: 66990, Stop: 66502, Start Num: 41

Candidate Starts for Deenasa_97:

(Start: 41 @66990 has 49 MA's), (47, 66951), (48, 66948), (49, 66873), (51, 66864), (56, 66822), (64, 66714), (69, 66672), (77, 66609), (79, 66591),

Gene: Devonte_94 Start: 65402, Stop: 64914, Start Num: 41

Candidate Starts for Devonte_94:

(Start: 41 @65402 has 49 MA's), (47, 65363), (48, 65360), (49, 65285), (51, 65276), (56, 65234), (64, 65126), (69, 65084), (77, 65021), (79, 65003),

Gene: ElvisPhasley_97 Start: 67655, Stop: 67077, Start Num: 24

Candidate Starts for ElvisPhasley_97:

(Start: 24 @67655 has 6 MA's), (Start: 31 @67616 has 3 MA's), (Start: 38 @67574 has 3 MA's), (49, 67448), (52, 67427), (54, 67415), (59, 67343), (72, 67229), (77, 67190), (79, 67172),

Gene: Faze9_83 Start: 63774, Stop: 63244, Start Num: 28

Candidate Starts for Faze9_83:

(13, 63951), (Start: 18 @63840 has 19 MA's), (Start: 20 @63822 has 3 MA's), (Start: 28 @63774 has 13 MA's), (32, 63747), (35, 63720), (Start: 36 @63711 has 2 MA's), (44, 63669), (45, 63660), (49, 63564), (54, 63528), (59, 63456), (69, 63360), (70, 63354), (75, 63312), (77, 63300),

Gene: FrenchFry_85 Start: 63827, Stop: 63231, Start Num: 18

Candidate Starts for FrenchFry_85:

(13, 63938), (Start: 18 @63827 has 19 MA's), (Start: 20 @63809 has 3 MA's), (Start: 28 @63761 has 13 MA's), (32, 63734), (35, 63707), (Start: 36 @63698 has 2 MA's), (44, 63656), (45, 63647), (49, 63551), (54, 63515), (59, 63443), (69, 63347), (70, 63341), (75, 63299), (77, 63287),

Gene: Funsized_88 Start: 68273, Stop: 67824, Start Num: 36

Candidate Starts for Funsized_88:

(26, 68339), (27, 68333), (Start: 36 @68273 has 2 MA's), (49, 68144), (50, 68138), (53, 68114), (75, 67898), (77, 67886), (79, 67868), (80, 67856),

Gene: Gervas_97 Start: 66231, Stop: 65743, Start Num: 41

Candidate Starts for Gervas_97:

(Start: 41 @66231 has 49 MA's), (47, 66192), (48, 66189), (49, 66114), (51, 66105), (56, 66063), (64, 65955), (69, 65913), (77, 65850), (79, 65832),

Gene: Glass_86 Start: 63834, Stop: 63238, Start Num: 18

Candidate Starts for Glass_86:

(13, 63945), (Start: 18 @63834 has 19 MA's), (Start: 20 @63816 has 3 MA's), (Start: 28 @63768 has 13 MA's), (32, 63741), (Start: 36 @63705 has 2 MA's), (44, 63663), (45, 63654), (49, 63558), (54, 63522), (59, 63450), (69, 63354), (70, 63348), (75, 63306), (77, 63294),

Gene: GlenHope_97 Start: 65806, Stop: 65318, Start Num: 41

Candidate Starts for GlenHope_97:

(Start: 41 @65806 has 49 MA's), (47, 65767), (48, 65764), (49, 65689), (51, 65680), (56, 65638), (64, 65530), (69, 65488), (77, 65425), (79, 65407),

Gene: Glubnar_96 Start: 65722, Stop: 65234, Start Num: 41

Candidate Starts for Glubnar_96:

(Start: 41 @65722 has 49 MA's), (47, 65683), (48, 65680), (49, 65605), (51, 65596), (56, 65554), (64, 65446), (69, 65404), (77, 65341), (79, 65323),

Gene: Godines_84 Start: 63740, Stop: 63144, Start Num: 18

Candidate Starts for Godines_84:

(13, 63851), (Start: 18 @63740 has 19 MA's), (Start: 20 @63722 has 3 MA's), (Start: 28 @63674 has 13 MA's), (32, 63647), (Start: 36 @63611 has 2 MA's), (44, 63569), (45, 63560), (49, 63464), (54, 63428), (59, 63356), (69, 63260), (70, 63254), (75, 63212), (77, 63200),

Gene: Gyarad_0095 Start: 66382, Stop: 65804, Start Num: 24

Candidate Starts for Gyarad_0095:

(Start: 24 @66382 has 6 MA's), (Start: 31 @66343 has 3 MA's), (Start: 38 @66301 has 3 MA's), (49, 66175), (52, 66154), (54, 66142), (59, 66070), (72, 65956), (77, 65917), (79, 65899),

Gene: HSavage_94 Start: 66365, Stop: 65787, Start Num: 24

Candidate Starts for HSavage_94:

(Start: 24 @66365 has 6 MA's), (Start: 31 @66326 has 3 MA's), (Start: 38 @66284 has 3 MA's), (49, 66158), (52, 66137), (54, 66125), (59, 66053), (72, 65939), (77, 65900), (79, 65882),

Gene: Halfpint_95 Start: 65551, Stop: 65063, Start Num: 41

Candidate Starts for Halfpint_95:

(Start: 41 @65551 has 49 MA's), (47, 65512), (48, 65509), (49, 65434), (51, 65425), (56, 65383), (64, 65275), (69, 65233), (77, 65170), (79, 65152),

Gene: HarveySr_93 Start: 64875, Stop: 64387, Start Num: 41

Candidate Starts for HarveySr_93:

(Start: 41 @64875 has 49 MA's), (47, 64836), (48, 64833), (49, 64758), (51, 64749), (56, 64707), (64, 64599), (69, 64557), (77, 64494), (79, 64476),

Gene: Hashim76_100 Start: 69243, Stop: 68725, Start Num: 31

Candidate Starts for Hashim76_100:

(3, 70089), (Start: 31 @69243 has 3 MA's), (33, 69222), (Start: 38 @69201 has 3 MA's), (42, 69174), (43, 69171), (54, 69042), (56, 69024), (59, 68967), (62, 68958), (77, 68808),

Gene: Heathcliff_96 Start: 65730, Stop: 65242, Start Num: 41

Candidate Starts for Heathcliff_96:

(Start: 41 @65730 has 49 MA's), (47, 65691), (48, 65688), (49, 65613), (51, 65604), (56, 65562), (64, 65454), (69, 65412), (77, 65349), (79, 65331),

Gene: Hedgerow_84 Start: 63791, Stop: 63195, Start Num: 18

Candidate Starts for Hedgerow_84:

(13, 63902), (Start: 18 @63791 has 19 MA's), (Start: 20 @63773 has 3 MA's), (Start: 28 @63725 has 13 MA's), (32, 63698), (35, 63671), (Start: 36 @63662 has 2 MA's), (44, 63620), (45, 63611), (49, 63515), (54, 63479), (59, 63407), (69, 63311), (70, 63305), (75, 63263), (77, 63251),

Gene: Holeinone_84 Start: 63681, Stop: 63085, Start Num: 18

Candidate Starts for Holeinone_84:

(13, 63792), (Start: 18 @63681 has 19 MA's), (Start: 20 @63663 has 3 MA's), (Start: 28 @63615 has 13 MA's), (32, 63588), (Start: 36 @63552 has 2 MA's), (44, 63510), (45, 63501), (49, 63405), (54, 63369), (59, 63297), (69, 63201), (70, 63195), (75, 63153), (77, 63141),

Gene: Horchata_91 Start: 66558, Stop: 65962, Start Num: 22

Candidate Starts for Horchata_91:

(10, 66816), (12, 66714), (Start: 22 @66558 has 2 MA's), (Start: 31 @66501 has 3 MA's), (Start: 38 @66459 has 3 MA's), (49, 66333), (52, 66312), (54, 66300), (72, 66114), (77, 66075), (79, 66057),

Gene: Imvubu_92 Start: 66340, Stop: 65831, Start Num: 29

Candidate Starts for Imvubu_92:

(16, 66430), (Start: 29 @66340 has 1 MA's), (Start: 41 @66280 has 49 MA's), (51, 66154), (55, 66127), (60, 66049), (72, 65932), (73, 65929), (75, 65905), (77, 65893), (79, 65875), (80, 65863),

Gene: Indlovu_88 Start: 67222, Stop: 66713, Start Num: 38

Candidate Starts for Indlovu_88:

(Start: 38 @67222 has 3 MA's), (49, 67096), (51, 67087), (52, 67075), (67, 66898), (68, 66895), (74, 66874), (77, 66838), (81, 66802), (84, 66775), (87, 66736),

Gene: ItsyBitsy1_81 Start: 63908, Stop: 63312, Start Num: 18

Candidate Starts for ItsyBitsy1_81:

(13, 64019), (Start: 18 @63908 has 19 MA's), (Start: 20 @63890 has 3 MA's), (Start: 28 @63842 has 13 MA's), (32, 63815), (Start: 36 @63779 has 2 MA's), (44, 63737), (45, 63728), (49, 63632), (54, 63596), (59, 63524), (69, 63428), (70, 63422), (75, 63380), (77, 63368),

Gene: Jackstina_89 Start: 65647, Stop: 65159, Start Num: 41

Candidate Starts for Jackstina_89:

(Start: 41 @65647 has 49 MA's), (47, 65608), (48, 65605), (49, 65530), (51, 65521), (56, 65479), (64, 65371), (69, 65329), (77, 65266), (79, 65248),

Gene: Jolie1_089 Start: 66284, Stop: 65610, Start Num: 25

Candidate Starts for Jolie1_089:

(14, 66428), (25, 66284), (37, 66203), (40, 66194), (49, 66074), (54, 66044), (59, 65972), (63, 65960), (76, 65819), (77, 65816), (79, 65798), (83, 65771), (85, 65747), (86, 65732),

Gene: Kaleb_84 Start: 63837, Stop: 63241, Start Num: 18

Candidate Starts for Kaleb_84:

(13, 63948), (Start: 18 @63837 has 19 MA's), (Start: 20 @63819 has 3 MA's), (Start: 28 @63771 has 13 MA's), (32, 63744), (Start: 36 @63708 has 2 MA's), (44, 63666), (45, 63657), (49, 63561), (54, 63525), (59, 63453), (69, 63357), (70, 63351), (75, 63309), (77, 63297),

Gene: Kamiyu_96 Start: 65734, Stop: 65246, Start Num: 41

Candidate Starts for Kamiyu_96:

(Start: 41 @65734 has 49 MA's), (47, 65695), (48, 65692), (49, 65617), (51, 65608), (56, 65566), (64, 65458), (69, 65416), (77, 65353), (79, 65335),

Gene: Kheth_84 Start: 63754, Stop: 63146, Start Num: 17

Candidate Starts for Kheth_84:

(1, 65020), (2, 64510), (4, 64258), (8, 64078), (11, 63949), (Start: 17 @63754 has 1 MA's), (Start: 28 @63676 has 13 MA's), (32, 63649), (35, 63622), (Start: 36 @63613 has 2 MA's), (44, 63571), (45, 63562), (49, 63466), (54, 63430), (59, 63358), (69, 63262), (70, 63256), (75, 63214), (77, 63202),

Gene: Knocker_87 Start: 67165, Stop: 66737, Start Num: 36

Candidate Starts for Knocker_87:

(6, 67660), (Start: 36 @67165 has 2 MA's), (42, 67135), (49, 67036), (51, 67027), (66, 66841), (68, 66835), (77, 66778), (79, 66760),

Gene: Kolhan_85 Start: 63664, Stop: 63134, Start Num: 28

Candidate Starts for Kolhan_85:

(13, 63841), (Start: 18 @63730 has 19 MA's), (Start: 20 @63712 has 3 MA's), (Start: 28 @63664 has 13 MA's), (32, 63637), (35, 63610), (Start: 36 @63601 has 2 MA's), (44, 63559), (45, 63550), (49, 63454), (54, 63418), (59, 63346), (69, 63250), (70, 63244), (75, 63202), (77, 63190),

Gene: Kronus_96 Start: 66819, Stop: 66331, Start Num: 41

Candidate Starts for Kronus_96:

(Start: 41 @66819 has 49 MA's), (47, 66780), (48, 66777), (49, 66702), (51, 66693), (56, 66651), (64, 66543), (69, 66501), (77, 66438), (79, 66420),

Gene: Lars_85 Start: 63740, Stop: 63210, Start Num: 28

Candidate Starts for Lars_85:

(2, 64574), (4, 64322), (8, 64142), (11, 64013), (Start: 17 @63818 has 1 MA's), (Start: 28 @63740 has 13 MA's), (32, 63713), (35, 63686), (Start: 36 @63677 has 2 MA's), (44, 63635), (45, 63626), (49, 63530), (54, 63494), (59, 63422), (69, 63326), (70, 63320), (75, 63278), (77, 63266),

Gene: Laurie_83 Start: 63078, Stop: 62548, Start Num: 28

Candidate Starts for Laurie_83:

(2, 63918), (4, 63666), (8, 63486), (11, 63357), (Start: 17 @63162 has 1 MA's), (Start: 28 @63078 has 13 MA's), (32, 63051), (35, 63024), (Start: 36 @63015 has 2 MA's), (44, 62973), (45, 62964), (49, 62868), (54, 62832), (59, 62760), (69, 62664), (70, 62658), (75, 62616), (77, 62604),

Gene: Lehmann_97 Start: 66916, Stop: 66377, Start Num: 31

Candidate Starts for Lehmann_97:

(10, 67195), (12, 67093), (19, 66955), (Start: 31 @66916 has 3 MA's), (Start: 38 @66874 has 3 MA's), (49, 66748), (52, 66727), (54, 66715), (59, 66643), (72, 66529), (77, 66490), (79, 66472),

Gene: Lephleur_84 Start: 63596, Stop: 63066, Start Num: 28

Candidate Starts for Lephleur_84:

(13, 63773), (Start: 18 @63662 has 19 MA's), (Start: 20 @63644 has 3 MA's), (Start: 28 @63596 has 13 MA's), (32, 63569), (Start: 36 @63533 has 2 MA's), (44, 63491), (45, 63482), (49, 63386), (54, 63350), (59, 63278), (69, 63182), (70, 63176), (75, 63134), (77, 63122),

Gene: LestyG_94 Start: 65305, Stop: 64817, Start Num: 41

Candidate Starts for LestyG_94:

(Start: 41 @65305 has 49 MA's), (47, 65266), (48, 65263), (49, 65188), (51, 65179), (56, 65137), (64, 65029), (69, 64987), (77, 64924), (79, 64906),

Gene: LilSmirk_84 Start: 63683, Stop: 63105, Start Num: 20

Candidate Starts for LilSmirk_84:

(13, 63812), (Start: 18 @63701 has 19 MA's), (Start: 20 @63683 has 3 MA's), (Start: 28 @63635 has 13 MA's), (32, 63608), (35, 63581), (Start: 36 @63572 has 2 MA's), (44, 63530), (45, 63521), (49, 63425), (54, 63389), (59, 63317), (69, 63221), (70, 63215), (75, 63173), (77, 63161),

Gene: LittleMinkey_107 Start: 69748, Stop: 69230, Start Num: 31

Candidate Starts for LittleMinkey_107:

(Start: 31 @69748 has 3 MA's), (33, 69727), (Start: 38 @69706 has 3 MA's), (42, 69679), (43, 69676), (54, 69547), (56, 69529), (59, 69472), (62, 69463), (77, 69313),

Gene: LizLemon_84 Start: 63833, Stop: 63237, Start Num: 18

Candidate Starts for LizLemon_84:

(13, 63944), (Start: 18 @63833 has 19 MA's), (Start: 20 @63815 has 3 MA's), (Start: 28 @63767 has 13 MA's), (32, 63740), (35, 63713), (Start: 36 @63704 has 2 MA's), (44, 63662), (45, 63653), (49, 63557), (54, 63521), (59, 63449), (69, 63353), (70, 63347), (75, 63305), (77, 63293),

Gene: Marley1013_94 Start: 66265, Stop: 65777, Start Num: 41

Candidate Starts for Marley1013_94:

(Start: 41 @66265 has 49 MA's), (47, 66226), (48, 66223), (49, 66148), (51, 66139), (56, 66097), (64, 65989), (69, 65947), (77, 65884), (79, 65866),

Gene: Marlia_96 Start: 65827, Stop: 65339, Start Num: 41

Candidate Starts for Marlia_96:

(Start: 41 @65827 has 49 MA's), (47, 65788), (48, 65785), (49, 65710), (51, 65701), (56, 65659), (64, 65551), (69, 65509), (77, 65446), (79, 65428),

Gene: MasterPo_85 Start: 63636, Stop: 63106, Start Num: 28

Candidate Starts for MasterPo_85:

(13, 63813), (Start: 18 @63702 has 19 MA's), (Start: 20 @63684 has 3 MA's), (Start: 28 @63636 has 13 MA's), (32, 63609), (35, 63582), (Start: 36 @63573 has 2 MA's), (44, 63531), (45, 63522), (46, 63516), (49, 63426), (54, 63390), (59, 63318), (69, 63222), (70, 63216), (75, 63174), (77, 63162),

Gene: MmasiCarm_97 Start: 66162, Stop: 65674, Start Num: 41

Candidate Starts for MmasiCarm_97:

(Start: 41 @66162 has 49 MA's), (47, 66123), (48, 66120), (49, 66045), (51, 66036), (56, 65994), (64, 65886), (69, 65844), (77, 65781), (79, 65763),

Gene: Mortcellus_96 Start: 66900, Stop: 66412, Start Num: 41

Candidate Starts for Mortcellus_96:

(Start: 41 @66900 has 49 MA's), (47, 66861), (48, 66858), (49, 66783), (51, 66774), (56, 66732), (64, 66624), (69, 66582), (77, 66519), (79, 66501),

Gene: Morty007_94 Start: 66532, Stop: 66044, Start Num: 41

Candidate Starts for Morty007_94:

(Start: 41 @66532 has 49 MA's), (47, 66493), (48, 66490), (49, 66415), (51, 66406), (56, 66364), (64, 66256), (69, 66214), (77, 66151), (79, 66133),

Gene: Mulaychimus_97 Start: 66341, Stop: 65853, Start Num: 41

Candidate Starts for Mulaychimus_97:

(Start: 41 @66341 has 49 MA's), (47, 66302), (48, 66299), (49, 66224), (51, 66215), (56, 66173), (64, 66065), (69, 66023), (77, 65960), (79, 65942),

Gene: Neos5_95 Start: 65988, Stop: 65500, Start Num: 41

Candidate Starts for Neos5_95:

(Start: 41 @65988 has 49 MA's), (47, 65949), (48, 65946), (49, 65871), (51, 65862), (56, 65820), (64, 65712), (69, 65670), (77, 65607), (79, 65589),

Gene: Nozo_96 Start: 66541, Stop: 66053, Start Num: 41

Candidate Starts for Nozo_96:

(Start: 41 @66541 has 49 MA's), (47, 66502), (48, 66499), (49, 66424), (51, 66415), (56, 66373), (64, 66265), (69, 66223), (77, 66160), (79, 66142),

Gene: Obutu_98 Start: 66345, Stop: 65857, Start Num: 41

Candidate Starts for Obutu_98:

(Start: 41 @66345 has 49 MA's), (47, 66306), (48, 66303), (49, 66228), (51, 66219), (56, 66177), (64, 66069), (69, 66027), (77, 65964), (79, 65946),

Gene: Olivio_96 Start: 65939, Stop: 65493, Start Num: 48

Candidate Starts for Olivio_96:

(Start: 41 @65981 has 49 MA's), (47, 65942), (48, 65939), (49, 65864), (51, 65855), (56, 65813), (64, 65705), (69, 65663), (77, 65600), (79, 65582),

Gene: Opia_85 Start: 63726, Stop: 63130, Start Num: 18

Candidate Starts for Opia_85:

(13, 63837), (Start: 18 @63726 has 19 MA's), (Start: 20 @63708 has 3 MA's), (Start: 28 @63660 has 13 MA's), (32, 63633), (35, 63606), (Start: 36 @63597 has 2 MA's), (44, 63555), (45, 63546), (49, 63450), (54, 63414), (59, 63342), (69, 63246), (70, 63240), (75, 63198), (77, 63186),

Gene: OrangeOswald_95 Start: 65776, Stop: 65288, Start Num: 41

Candidate Starts for OrangeOswald_95:

(Start: 41 @65776 has 49 MA's), (47, 65737), (48, 65734), (49, 65659), (51, 65650), (56, 65608), (64, 65500), (69, 65458), (77, 65395), (79, 65377),

Gene: PenguinLover67_87 Start: 65234, Stop: 64770, Start Num: 38

Candidate Starts for PenguinLover67_87:

(Start: 38 @65234 has 3 MA's), (Start: 41 @65225 has 49 MA's), (53, 65075), (54, 65072), (57, 65024), (63, 64988), (77, 64847), (79, 64829),

Gene: Phaedrus_91 Start: 65191, Stop: 64703, Start Num: 41

Candidate Starts for Phaedrus_91:

(Start: 41 @65191 has 49 MA's), (47, 65152), (48, 65149), (49, 65074), (51, 65065), (56, 65023), (64, 64915), (69, 64873), (77, 64810), (79, 64792),

Gene: Phantasmagoria_83 Start: 63643, Stop: 63113, Start Num: 28

Candidate Starts for Phantasmagoria_83:

(13, 63820), (Start: 18 @63709 has 19 MA's), (Start: 20 @63691 has 3 MA's), (Start: 28 @63643 has 13 MA's), (32, 63616), (35, 63589), (Start: 36 @63580 has 2 MA's), (44, 63538), (45, 63529), (49, 63433), (54, 63397), (59, 63325), (69, 63229), (70, 63223), (75, 63181), (77, 63169),

Gene: Phayeta_98 Start: 66026, Stop: 65538, Start Num: 41

Candidate Starts for Phayeta_98:

(Start: 41 @66026 has 49 MA's), (47, 65987), (48, 65984), (49, 65909), (51, 65900), (56, 65858), (64, 65750), (69, 65708), (77, 65645), (79, 65627),

Gene: Philly_95 Start: 65624, Stop: 65136, Start Num: 41

Candidate Starts for Philly_95:

(Start: 41 @65624 has 49 MA's), (47, 65585), (48, 65582), (49, 65507), (51, 65498), (56, 65456), (64, 65348), (69, 65306), (77, 65243), (79, 65225),

Gene: Phlyer_96 Start: 66486, Stop: 65998, Start Num: 41

Candidate Starts for Phlyer_96:

(Start: 41 @66486 has 49 MA's), (47, 66447), (48, 66444), (49, 66369), (51, 66360), (56, 66318), (64, 66210), (69, 66168), (77, 66105), (79, 66087),

Gene: Pipefish_95 Start: 66160, Stop: 65672, Start Num: 41

Candidate Starts for Pipefish_95:

(Start: 41 @66160 has 49 MA's), (47, 66121), (48, 66118), (49, 66043), (51, 66034), (56, 65992), (64, 65884), (69, 65842), (77, 65779), (79, 65761),

Gene: Pops_94 Start: 66731, Stop: 66201, Start Num: 31

Candidate Starts for Pops_94:

(Start: 31 @66731 has 3 MA's), (Start: 38 @66698 has 3 MA's), (49, 66572), (52, 66551), (54, 66539), (59, 66467), (72, 66353), (77, 66314), (79, 66296),

Gene: PrinceCharming_84 Start: 63736, Stop: 63158, Start Num: 20

Candidate Starts for PrinceCharming_84:

(13, 63865), (Start: 18 @63754 has 19 MA's), (Start: 20 @63736 has 3 MA's), (Start: 28 @63688 has 13 MA's), (32, 63661), (35, 63634), (Start: 36 @63625 has 2 MA's), (44, 63583), (45, 63574), (49, 63478), (54, 63442), (59, 63370), (69, 63274), (70, 63268), (75, 63226), (77, 63214),

Gene: Quesadilla_90 Start: 66835, Stop: 66329, Start Num: 30

Candidate Starts for Quesadilla_90:

(Start: 30 @66835 has 1 MA's), (Start: 39 @66787 has 1 MA's), (57, 66583), (58, 66580), (61, 66553), (69, 66463), (70, 66457), (77, 66406), (79, 66388), (81, 66370), (83, 66361),

Gene: Qyrzula_75 Start: 63848, Stop: 63252, Start Num: 18

Candidate Starts for Qyrzula_75:

(13, 63959), (Start: 18 @63848 has 19 MA's), (Start: 20 @63830 has 3 MA's), (Start: 28 @63782 has 13 MA's), (32, 63755), (35, 63728), (Start: 36 @63719 has 2 MA's), (44, 63677), (45, 63668), (49, 63572), (54, 63536), (59, 63464), (69, 63368), (70, 63362), (75, 63320), (77, 63308),

Gene: RagingRooster_96 Start: 65772, Stop: 65284, Start Num: 41

Candidate Starts for RagingRooster_96:

(Start: 41 @65772 has 49 MA's), (47, 65733), (48, 65730), (49, 65655), (51, 65646), (56, 65604), (64, 65496), (69, 65454), (77, 65391), (79, 65373),

Gene: Rhinoforte_84 Start: 63745, Stop: 63149, Start Num: 18

Candidate Starts for Rhinoforte_84:

(13, 63856), (Start: 18 @63745 has 19 MA's), (Start: 20 @63727 has 3 MA's), (Start: 28 @63679 has 13 MA's), (32, 63652), (35, 63625), (Start: 36 @63616 has 2 MA's), (44, 63574), (45, 63565), (49, 63469), (54, 63433), (59, 63361), (69, 63265), (70, 63259), (75, 63217), (77, 63205),

Gene: Rinkes_86 Start: 67114, Stop: 66665, Start Num: 34

Candidate Starts for Rinkes_86:

(Start: 34 @67114 has 1 MA's), (54, 66943), (55, 66940), (57, 66895), (65, 66772), (71, 66751), (73, 66742), (77, 66706),

Gene: Rita1961_97 Start: 66117, Stop: 65629, Start Num: 41

Candidate Starts for Rita1961_97:

(Start: 41 @66117 has 49 MA's), (47, 66078), (48, 66075), (49, 66000), (51, 65991), (56, 65949), (64, 65841), (69, 65799), (77, 65736), (79, 65718),

Gene: RomaT_96 Start: 66340, Stop: 65852, Start Num: 41

Candidate Starts for RomaT_96:

(Start: 41 @66340 has 49 MA's), (47, 66301), (48, 66298), (49, 66223), (51, 66214), (56, 66172), (64, 66064), (69, 66022), (77, 65959), (79, 65941),

Gene: Rosebush_82 Start: 63817, Stop: 63221, Start Num: 18

Candidate Starts for Rosebush_82:

(13, 63928), (Start: 18 @63817 has 19 MA's), (Start: 20 @63799 has 3 MA's), (Start: 28 @63751 has 13 MA's), (32, 63724), (Start: 36 @63688 has 2 MA's), (44, 63646), (45, 63637), (49, 63541), (54, 63505), (59, 63433), (69, 63337), (70, 63331), (75, 63289), (77, 63277),

Gene: Sabella_84 Start: 63653, Stop: 63057, Start Num: 18

Candidate Starts for Sabella_84:

(13, 63764), (Start: 18 @63653 has 19 MA's), (Start: 20 @63635 has 3 MA's), (Start: 28 @63587 has 13 MA's), (32, 63560), (35, 63533), (Start: 36 @63524 has 2 MA's), (44, 63482), (45, 63473), (49, 63377), (54, 63341), (59, 63269), (69, 63173), (70, 63167), (75, 63125), (77, 63113),

Gene: Saguaro_82 Start: 64421, Stop: 63921, Start Num: 39

Candidate Starts for Saguaro_82:

(Start: 39 @64421 has 1 MA's), (55, 64265), (59, 64196), (63, 64184), (67, 64103), (77, 64043), (81, 64007), (82, 64004), (84, 63980), (85, 63974),

Gene: Shenandoah_96 Start: 65692, Stop: 65204, Start Num: 41

Candidate Starts for Shenandoah_96:

(Start: 41 @65692 has 49 MA's), (47, 65653), (48, 65650), (49, 65575), (51, 65566), (56, 65524), (64, 65416), (69, 65374), (77, 65311), (79, 65293),

Gene: SlippinJimmy_99 Start: 67140, Stop: 66652, Start Num: 41

Candidate Starts for SlippinJimmy_99:

(Start: 41 @67140 has 49 MA's), (47, 67101), (48, 67098), (49, 67023), (51, 67014), (56, 66972), (64, 66864), (69, 66822), (77, 66759), (79, 66741),

Gene: SwainyDoc_96 Start: 66206, Stop: 65718, Start Num: 41

Candidate Starts for SwainyDoc_96:

(Start: 41 @66206 has 49 MA's), (47, 66167), (48, 66164), (49, 66089), (51, 66080), (56, 66038), (64, 65930), (69, 65888), (77, 65825), (79, 65807),

Gene: SynergyX_97 Start: 66082, Stop: 65594, Start Num: 41

Candidate Starts for SynergyX_97:

(Start: 41 @66082 has 49 MA's), (47, 66043), (48, 66040), (49, 65965), (51, 65956), (56, 65914), (64, 65806), (69, 65764), (77, 65701), (79, 65683),

Gene: TA17A_87 Start: 63660, Stop: 63064, Start Num: 18

Candidate Starts for TA17A_87:

(13, 63771), (Start: 18 @63660 has 19 MA's), (Start: 20 @63642 has 3 MA's), (Start: 28 @63594 has 13 MA's), (32, 63567), (Start: 36 @63531 has 2 MA's), (44, 63489), (45, 63480), (49, 63384), (54, 63348), (59, 63276), (69, 63180), (70, 63174), (75, 63132), (77, 63120),

Gene: Tinciduntolum_85 Start: 63824, Stop: 63228, Start Num: 18

Candidate Starts for Tinciduntolum_85:

(13, 63935), (Start: 18 @63824 has 19 MA's), (Start: 20 @63806 has 3 MA's), (Start: 28 @63758 has 13 MA's), (32, 63731), (35, 63704), (Start: 36 @63695 has 2 MA's), (44, 63653), (45, 63644), (49, 63548), (54, 63512), (59, 63440), (69, 63344), (70, 63338), (75, 63296), (77, 63284),

Gene: TinyTerror_97 Start: 66203, Stop: 65715, Start Num: 41

Candidate Starts for TinyTerror_97:

(Start: 41 @66203 has 49 MA's), (47, 66164), (48, 66161), (49, 66086), (51, 66077), (56, 66035), (64, 65927), (69, 65885), (77, 65822), (79, 65804),

Gene: Tres_84 Start: 63660, Stop: 63079, Start Num: 20

Candidate Starts for Tres_84:

(13, 63789), (Start: 18 @63678 has 19 MA's), (Start: 20 @63660 has 3 MA's), (Start: 28 @63609 has 13 MA's), (32, 63582), (35, 63555), (Start: 36 @63546 has 2 MA's), (44, 63504), (45, 63495), (49, 63399), (54, 63363), (59, 63291), (69, 63195), (70, 63189), (75, 63147), (77, 63135),

Gene: Triad_96 Start: 66221, Stop: 65682, Start Num: 31

Candidate Starts for Triad_96:

(10, 66500), (12, 66398), (19, 66260), (Start: 31 @66221 has 3 MA's), (Start: 38 @66179 has 3 MA's), (49, 66053), (52, 66032), (54, 66020), (59, 65948), (72, 65834), (77, 65795), (79, 65777),

Gene: Tydolla_92 Start: 65758, Stop: 65270, Start Num: 41

Candidate Starts for Tydolla_92:

(Start: 41 @65758 has 49 MA's), (47, 65719), (48, 65716), (49, 65641), (51, 65632), (56, 65590), (64, 65482), (69, 65440), (77, 65377), (79, 65359),

Gene: Vic9_00082 Start: 64144, Stop: 63614, Start Num: 28

Candidate Starts for Vic9_00082:

(2, 64978), (4, 64726), (8, 64546), (11, 64417), (Start: 17 @64222 has 1 MA's), (Start: 28 @64144 has 13 MA's), (32, 64117), (35, 64090), (Start: 36 @64081 has 2 MA's), (44, 64039), (45, 64030), (49, 63934), (54, 63898), (59, 63826), (69, 63730), (70, 63724), (75, 63682), (77, 63670),

Gene: Vivaldi_97 Start: 67032, Stop: 66454, Start Num: 24

Candidate Starts for Vivaldi_97:

(Start: 24 @67032 has 6 MA's), (Start: 31 @66993 has 3 MA's), (Start: 38 @66951 has 3 MA's), (49, 66825), (52, 66804), (54, 66792), (59, 66720), (72, 66606), (77, 66567), (79, 66549),

Gene: West99_84 Start: 63829, Stop: 63251, Start Num: 20

Candidate Starts for West99_84:

(13, 63958), (Start: 18 @63847 has 19 MA's), (Start: 20 @63829 has 3 MA's), (Start: 28 @63781 has 13 MA's), (32, 63754), (35, 63727), (Start: 36 @63718 has 2 MA's), (44, 63676), (45, 63667), (49, 63571), (54, 63535), (59, 63463), (69, 63367), (70, 63361), (75, 63319), (77, 63307),

Gene: Yahalom_94 Start: 65583, Stop: 65095, Start Num: 41

Candidate Starts for Yahalom_94:

(Start: 41 @65583 has 49 MA's), (47, 65544), (48, 65541), (49, 65466), (51, 65457), (56, 65415), (64, 65307), (69, 65265), (77, 65202), (79, 65184),

Gene: Yinz_94 Start: 65180, Stop: 64692, Start Num: 41

Candidate Starts for Yinz_94:

(15, 65402), (23, 65300), (Start: 41 @65180 has 49 MA's), (47, 65141), (48, 65138), (49, 65063), (51, 65054), (56, 65012), (64, 64904), (69, 64862), (77, 64799), (79, 64781),

Gene: Zenteno07_105 Start: 69900, Stop: 69328, Start Num: 21

Candidate Starts for Zenteno07_105:

(7, 70275), (Start: 21 @69900 has 1 MA's), (Start: 31 @69834 has 3 MA's), (Start: 38 @69792 has 3 MA's), (43, 69762), (54, 69633), (56, 69615), (59, 69558), (62, 69549), (77, 69399), (78, 69384),