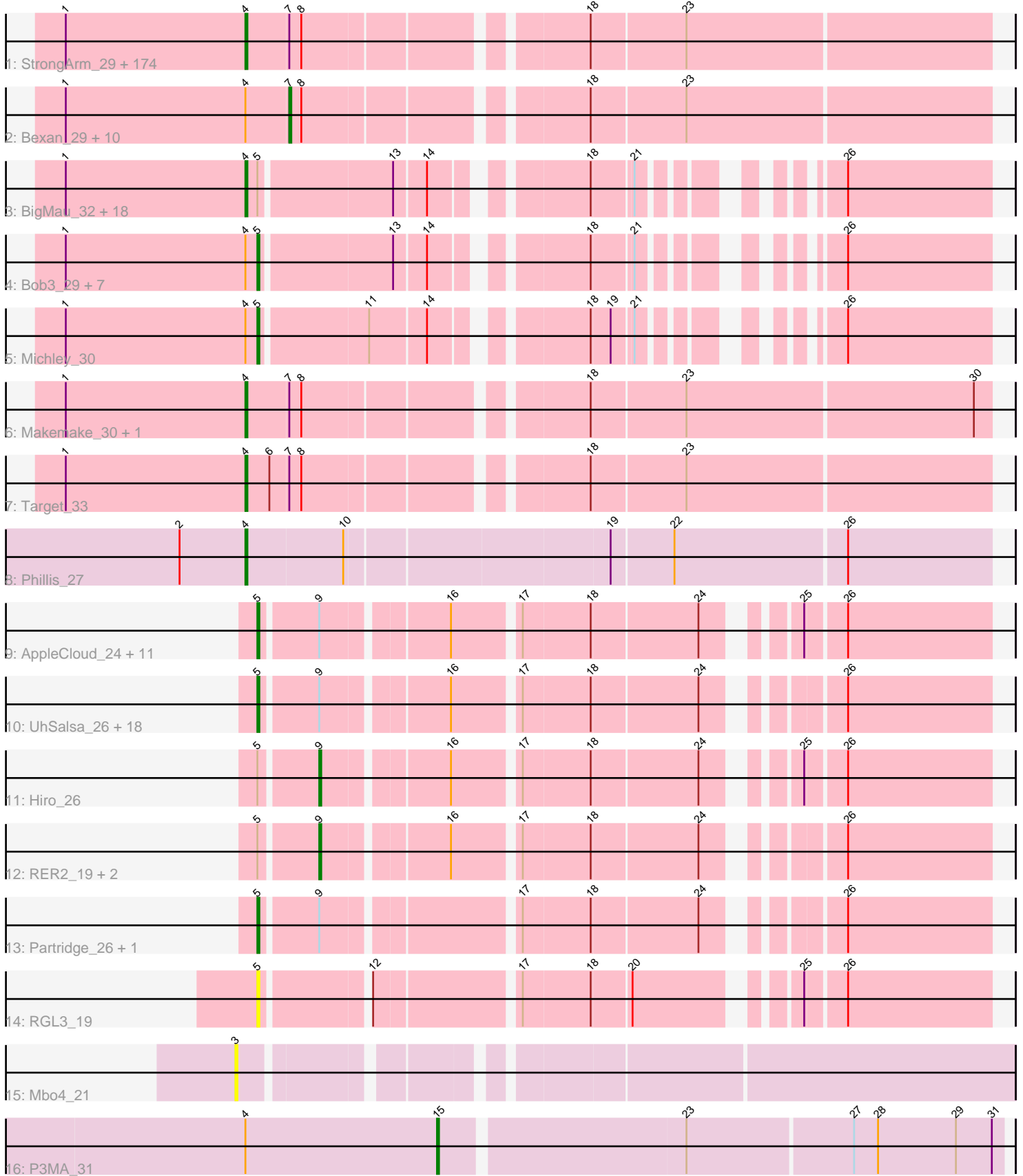


Pham 215788



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 215788 Report

This analysis was run 02/22/25 on database version 588.

Pham number 215788 has 258 members, 23 are drafts.

Phages represented in each track:

- Track 1 : StrongArm_29, Aeneas_32, PinkPlastic_29, Solon_30, BigPaolini_31, Blue_30, Rajelicia_30, BluSpix_31, Euphoria_30, Zeuska_31, PhrostyMug_30, Ringer_30, Museum_32, LilBib_31, Sorpresa_30, JC27_32, GageAP_32, Kugel_31, STLscum_31, Mryolo_29, Sunshine924_31, Zeeculate_30, GrecoEtereo_32, MetalQZJ_30, Ruotula_29, Big3_30, Thor_30, Eyeball_30, Tasp14_31, Norz_32, Alsfro_34, Pita2_32, PascalRango_31, Manatee_31, QTRlifeCrisis_30, Altman_32, Sandaddy_29, Acme_32, Lopton_31, Nhonho_30, Nerujay_31, Carlyle_32, ProMouse_29, Chanagan_29, Kenmech_33, Molly_31, Scowl_31, Pippin_32, SwissCheese_32, Greg_32, Arcanine_31, BK1_28, Watermelon_32, Fushigi_31, Magnito_29, EnzoK_30, TheloniousMonk_32, Naira_31, Jasper_31, HanShotFirst_30, Gandalf20_31, PherrisBueller_31, Inyanga_29, Marcell_30, Forsytheast_30, Gwendoluna_32, Pepe_31, ConceptII_32, Bruns_29, McGuire_31, Gyzlar_32, Parliament_29, PhineBark_30, BaconJack_33, Monet_32, Seanderson_31, Applejack_30, Turj99_29, JuliaChild_32, MaryBeth_30, TwoPeat_31, ILeeKay_32, A6_28, Marco3_30, Homines_30, Violet_29, BeesKnees_31, DrFeelGood_29, Mule_30, Rufus_31, Dulcie_29, Marge_31, PattyP_32, Lockley_30, Doom_31, Froghopper_31, Alvin_31, Sumter_29, Lamina13_30, Topgun_30, Teodoridan_28, Ciao_30, Iqorha_29, Abrogate_310, SpikeBT_32, Atkinbua_32, Barriga_30, Dexes_31, JackSparrow_31, BPBiebs31_31, Zephyr_30, Pari_31, Hermia_33, Arlo_29, Licorice_32, Ohno789_30, Crispicous1_29, Oogway_29, Petruccio_31, Sibs6_32, Ichabod_31, Ashballer_32, Dreamboat_31, Dynamix_31, Payneful_30, Rubeus_31, Slagathor_31, Pinto_33, Burton_31, Phlippers_29, Anglerfish_31, Bxb1_28, Pelly_31, Killigrew_28, Levia_29, PSullivan_32, Paraselene_29, Briton15_32, Hope4ever_30, NEHalo_30, Maroc7_29, SkiPole_32, HarryOW_31, MrGordo_30, Magnar_30, Rhynn_30, Trouble_31, Ajay_31, Niza_32, Tote_32, Abbyshoes_31, AFIS_30, Jorgensen_30, KyMonks1A_32, Tripl3t_31, Corvo_31, Sanya_29, BarrowTuph_29, McSinger_31, Swole_32, Sagefire_31, Lesedi_29, Bigchungu_30, Petp2012_32, GMonster_29, Mkhusele_31, Fajezeel_32, Moose_30, Papez_32, Kanely_31, BillKnuckles_31, Wheeler_30, Marchy_29, Beatrix_30, Switzer_31
- Track 2 : Bexan_29, Bethlehem_30, Hami1_32, IgnatiusPatJac_30, Kykar_30, StewieG_29, Buttons_32, KBG_31, Rutherferd_32, Raid_31, ShortQueendom_29
- Track 3 : BigMau_32, Marsha_30, Graduation_32, Snazzy_29, DreamCatcher_33, Jerm2_31, Fenn_31, Rohr_31, RidgeCB_30, Wilkins_30, Adahisdi_31, PacerPaul_30, Francis47_30, Paphu_29, Smairt_31, Cueylyss_30, Bigfoot_29, CactusRose_29, HermioneGrange_30

- Track 4 : Bob3_29, Edtherson_31, Bones_30, LunarLander_32, Traft412_32, Fascinus_29, Treddle_32, MPlant7149_29
- Track 5 : Michley_30
- Track 6 : Makemake_30, Espresso_30
- Track 7 : Target_33
- Track 8 : Phillis_27
- Track 9 : AppleCloud_24, Harlequin_26, Yogi_26, Bryce_26, Krishelle_26, PhailMary_25, Alpacados_25, Jester_26, Yoncess_26, Rasputin_26, Bonanza_26, BobbyDazzler_26
- Track 10 : UhSalsa_26, Naiad_26, Alatin_26, Erik_26, Bradshaw_26, Swann_26, CosmicSans_26, Rhodalysa_26, TWAMP_26, Takoda_26, Lillie_26, Espica_26, Phrankenstein_26, Shuman_26, Gollum_26, Belenaria_26, StCroix_26, Nancinator_26, Natosaleda_26
- Track 11 : Hiro_26
- Track 12 : RER2_19, AngryOrchard_25, RexFury_26
- Track 13 : Partridge_26, Dinger_26
- Track 14 : RGL3_19
- Track 15 : Mbo4_21
- Track 16 : P3MA_31

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

The start number called the most often in the published annotations is 4, it was called in 182 of the 235 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- A6_28, AFIS_30, Abbyshoes_31, Abrogate_310, Acme_32, Adahisdi_31, Aeneas_32, Ajay_31, Alsfro_34, Altman_32, Alvin_31, Anglerfish_31, Applejack_30, Arcanine_31, Arlo_29, Ashballer_32, Atkinbua_32, BK1_28, BPBiEbs31_31, BaconJack_33, Barriga_30, BarrowTuph_29, Beatrix_30, BeesKnees_31, Big3_30, BigMau_32, BigPaolini_31, Bigchungi_30, Bigfoot_29, BillKnuckles_31, BluSpix_31, Blue_30, Briton15_32, Bruns_29, Burton_31, Bxb1_28, CactusRose_29, Carlyle_32, Chanagan_29, Ciao_30, ConceptII_32, Corvo_31, Crispicous1_29, Cueyliss_30, Dexes_31, Doom_31, DrFeelGood_29, DreamCatcher_33, Dreamboat_31, Dulcie_29, Dynamix_31, EnzoK_30, Espresso_30, Euphoria_30, Eyeball_30, Fajezeel_32, Fenn_31, Forsytheast_30, Francis47_30, Froghopper_31, Fushigi_31, GMonster_29, GageAP_32, Gandalf20_31, Graduation_32, GrecoEtereo_32, Greg_32, Gwendoluna_32, Gyzlar_32, HanShotFirst_30, HarryOW_31, Hermia_33, HermioneGrange_30, Homines_30, Hope4ever_30, ILeeKay_32, Ichabod_31, Inyanga_29, Iqorha_29, JC27_32, JackSparrow_31, Jasper_31, Jerm2_31, Jorgensen_30, JuliaChild_32, Kanely_31, Kenmech_33, Killigrew_28, Kugel_31, KyMonks1A_32, Lamina13_30, Lesedi_29, Levia_29, Licorice_32, LilBib_31, Lockley_30, Lopton_31, Magnar_30, Magnito_29, Makemake_30, Manatee_31, Marcell_30, Marchy_29, Marco3_30, Marge_31, Maroc7_29, Marsha_30, MaryBeth_30, McGuire_31, McSinger_31, MetalQZJ_30, Mkhuseleli_31, Molly_31, Monet_32, Moose_30, MrGordo_30, Mryolo_29, Mule_30, Museum_32, NEHalo_30, Naira_31, Nerujay_31, Nhonho_30, Niza_32, Norz_32, Ohno789_30, Oogway_29, PSullivan_32, PacerPaul_30, Papez_32, Paphu_29, Paraselene_29, Pari_31, Parliament_29, PascalRango_31, PattyP_32, Payneful_30, Pelly_31, Pepe_31, Petp2012_32, Petruccio_31, PherrisBueller_31, Phillis_27, PhineBark_30,

Phlippers_29, PhrostyMug_30, PinkPlastic_29, Pinto_33, Pippin_32, Pita2_32, ProMouse_29, QTRlifeCrisis_30, Rajelicia_30, Rhynn_30, RidgeCB_30, Ringer_30, Rohr_31, Rubeus_31, Rufus_31, Ruotula_29, STLscum_31, Sagefire_31, Sandaddy_29, Sanya_29, Scowl_31, Seanderson_31, Sibs6_32, SkiPole_32, Slagathor_31, Smairt_31, Snazzy_29, Solon_30, Sorpresa_30, SpikeBT_32, StrongArm_29, Sumter_29, Sunshine924_31, SwissCheese_32, Switzer_31, Swole_32, Target_33, Tasp14_31, Teodoridan_28, TheloniousMonk_32, Thor_30, Topgun_30, Tote_32, Tripl3t_31, Trouble_31, Turj99_29, TwoPeat_31, Violet_29, Watermelon_32, Wheeler_30, Wilkins_30, Zeeculate_30, Zephyr_30, Zeuska_31,

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

- Bethlehem_30, Bexan_29, Bob3_29, Bones_30, Buttons_32, Edtherson_31, Fascinus_29, Hami1_32, IgnatiusPatJac_30, KBG_31, Kykar_30, LunarLander_32, MPlant7149_29, Michley_30, P3MA_31, Raid_31, Rutherford_32, ShortQueendom_29, StewieG_29, Traft412_32, Treddle_32,

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

- Alatin_26, Alpacados_25, AngryOrchard_25, AppleCloud_24, Belenaria_26, BobbyDazzler_26, Bonanza_26, Bradshaw_26, Bryce_26, CosmicSans_26, Dinger_26, Erik_26, Espica_26, Gollum_26, Harlequin_26, Hiro_26, Jester_26, Krishelle_26, Lillie_26, Mbo4_21, Naiad_26, Nancinator_26, Natosaleda_26, Partridge_26, PhailMary_25, Phrankenstein_26, RER2_19, RGL3_19, Rasputin_26, RexFury_26, Rhodalysa_26, Shuman_26, StCroix_26, Swann_26, TWAMP_26, Takoda_26, UhSalsa_26, Yogi_26, Yoncess_26,

Summary by start number:

Start 3:

- Found in 1 of 258 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mbo4_21 (singleton),

Start 4:

- Found in 219 of 258 (84.9%) of genes in pham
- Manual Annotations of this start: 182 of 235
- Called 90.4% of time when present
- Phage (with cluster) where this start called: A6_28 (A1), AFIS_30 (A1), Abbyshoes_31 (A1), Abrogate_310 (A1), Acme_32 (A1), Adahisdi_31 (A1), Aeneas_32 (A1), Ajay_31 (A1), Alsfro_34 (A1), Altman_32 (A1), Alvin_31 (A1), Anglerfish_31 (A1), Applejack_30 (A1), Arcanine_31 (A1), Arlo_29 (A1), Ashballer_32 (A1), Atkinbua_32 (A1), BK1_28 (A1), BPBiabs31_31 (A1), BaconJack_33 (A1), Barriga_30 (A1), BarrowTuph_29 (A1), Beatrix_30 (A1), BeesKnees_31 (A1), Big3_30 (A1), BigMau_32 (A1), BigPaolini_31 (A1), Bigchungi_30 (A1), Bigfoot_29 (A1), BillKnuckles_31 (A1), BluSpix_31 (A1), Blue_30 (A1), Briton15_32 (A1), Bruns_29 (A1), Burton_31 (A1), Bxb1_28 (A1), CactusRose_29 (A1), Carlyle_32 (A1), Chanagan_29 (A1), Ciao_30 (A1), ConceptII_32 (A1), Corvo_31 (A1), Crispicous1_29 (A1), Cueylyss_30 (A1), Dexes_31 (A1), Doom_31 (A1), DrFeelGood_29 (A1), DreamCatcher_33 (A1), Dreamboat_31 (A1), Dulcie_29 (A1), Dynamix_31 (A1), EnzoK_30 (A1), Espresso_30 (A1), Euphoria_30 (A1), Eyeball_30 (A1), Fajezeel_32 (A1), Fenn_31 (A1), Forsytheast_30 (A1), Francis47_30 (A1), FrogHopper_31 (A1), Fushigi_31 (A1), GMonster_29 (A1), GageAP_32 (A1), Gandalf20_31 (A1), Graduation_32 (A1), GrecoEtereo_32 (A1), Greg_32 (A1), Gwendoluna_32 (A1),

Gyzlar_32 (A1), HanShotFirst_30 (A1), HarryOW_31 (A1), Hermia_33 (A1), HermioneGrange_30 (A1), Homines_30 (A1), Hope4ever_30 (A1), ILeeKay_32 (A1), Ichabod_31 (A1), Inyanga_29 (A1), Iqorha_29 (A1), JC27_32 (A1), JackSparrow_31 (A1), Jasper_31 (A1), Jerm2_31 (A1), Jorgensen_30 (A1), JuliaChild_32 (A1), Kanely_31 (A1), Kenmech_33 (A1), Killigrew_28 (A1), Kugel_31 (A1), KyMonks1A_32 (A1), Lamina13_30 (A1), Lesedi_29 (A1), Levia_29 (A1), Licorice_32 (A1), LilBib_31 (A1), Lockley_30 (A1), Lopton_31 (A1), Magnar_30 (A1), Magnito_29 (A1), Makemake_30 (A1), Manatee_31 (A1), Marcell_30 (A1), Marchy_29 (A1), Marco3_30 (A1), Marge_31 (A1), Maroc7_29 (A1), Marsha_30 (A1), MaryBeth_30 (A1), McGuire_31 (A1), McSinger_31 (A1), MetalQZJ_30 (A1), Mkhuseleli_31 (A1), Molly_31 (A1), Monet_32 (A1), Moose_30 (A1), MrGordo_30 (A1), Mryolo_29 (A1), Mule_30 (A1), Museum_32 (A1), NEHalo_30 (A1), Naira_31 (A1), Nerujay_31 (A1), Nhonho_30 (A1), Niza_32 (A1), Norz_32 (A1), Ohno789_30 (A1), Oogway_29 (A1), PSullivan_32 (A1), PacerPaul_30 (A1), Papez_32 (A1), Paphu_29 (A1), Paraselene_29 (A1), Pari_31 (A1), Parliament_29 (A1), PascalRango_31 (A1), PattyP_32 (A1), Payneful_30 (A1), Pelly_31 (A1), Pepe_31 (A1), Petp2012_32 (A1), Petruccio_31 (A1), PherrisBueller_31 (A1), Phillis_27 (A8), PhineBark_30 (A1), Phlippers_29 (A1), PhrostyMug_30 (A1), PinkPlastic_29 (A1), Pinto_33 (A1), Pippin_32 (A1), Pita2_32 (A1), ProMouse_29 (A1), QTRlifeCrisis_30 (A1), Rajelicia_30 (A1), Rhynn_30 (A1), RidgeCB_30 (A1), Ringer_30 (A1), Rohr_31 (A1), Rubeus_31 (A1), Rufus_31 (A1), Ruotula_29 (A1), STLscum_31 (A1), Sagefire_31 (A1), Sandaddy_29 (A1), Sanya_29 (A1), Scowl_31 (A1), Seanderson_31 (A1), Sibs6_32 (A1), SkiPole_32 (A1), Slagathor_31 (A1), Smairt_31 (A1), Snazzy_29 (A1), Solon_30 (A1), Sorpresa_30 (A1), SpikeBT_32 (A1), StrongArm_29 (A1), Sumter_29 (A1), Sunshine924_31 (A1), SwissCheese_32 (A1), Switzer_31 (A1), Swole_32 (A1), Target_33 (A1), Tasp14_31 (A1), Teodoridan_28 (A1), TheloniousMonk_32 (A1), Thor_30 (A1), Topgun_30 (A1), Tote_32 (A1), Trip13t_31 (A1), Trouble_31 (A1), Turj99_29 (A1), TwoPeat_31 (A1), Violet_29 (A1), Watermelon_32 (A1), Wheeler_30 (A1), Wilkins_30 (A1), Zeeculate_30 (A1), Zephyr_30 (A1), Zeuska_31 (A1),

Start 5:

- Found in 66 of 258 (25.6%) of genes in pham
- Manual Annotations of this start: 41 of 235
- Called 65.2% of time when present
- Phage (with cluster) where this start called: Alatin_26 (CA), Alpacados_25 (CA), AppleCloud_24 (CA), Belenaria_26 (CA), Bob3_29 (A1), BobbyDazzler_26 (CA), Bonanza_26 (CA), Bones_30 (A1), Bradshaw_26 (CA), Bryce_26 (CA), CosmicSans_26 (CA), Dinger_26 (CA), Edtherson_31 (A1), Erik_26 (CA), Espica_26 (CA), Fascinus_29 (A1), Gollum_26 (CA), Harlequin_26 (CA), Jester_26 (CA), Krishelle_26 (CA), Lillie_26 (CA), LunarLander_32 (A1), MPlant7149_29 (A1), Michley_30 (A1), Naiad_26 (CA), Nancinator_26 (CA), Natosaleda_26 (CA), Partridge_26 (CA), PhailMary_25 (CA), Phrankensteen_26 (CA), RGL3_19 (CA), Rasputin_26 (CA), Rhodalysa_26 (CA), Shuman_26 (CA), StCroix_26 (CA), Swann_26 (CA), TWAMP_26 (CA), Takoda_26 (CA), Traft412_32 (A1), Treddle_32 (A1), UhSalsa_26 (CA), Yogi_26 (CA), Yoncess_26 (CA),

Start 7:

- Found in 189 of 258 (73.3%) of genes in pham
- Manual Annotations of this start: 8 of 235
- Called 5.8% of time when present
- Phage (with cluster) where this start called: Bethlehem_30 (A1), Bexan_29 (A1), Buttons_32 (A1), Hami1_32 (A1), IgnatiusPatJac_30 (A1), KBG_31 (A1), Kykar_30 (A1), Raid_31 (A1), Rutherferd_32 (A1), ShortQueendom_29 (A1), StewieG_29 (A1),

Start 9:

- Found in 37 of 258 (14.3%) of genes in pham
- Manual Annotations of this start: 3 of 235
- Called 10.8% of time when present
- Phage (with cluster) where this start called: AngryOrchard_25 (CA), Hiro_26 (CA), RER2_19 (CA), RexFury_26 (CA),

Start 15:

- Found in 1 of 258 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 235
- Called 100.0% of time when present
- Phage (with cluster) where this start called: P3MA_31 (singleton),

Summary by clusters:

There are 4 clusters represented in this pham: A1, A8, CA, singleton,

Info for manual annotations of cluster A1:

- Start number 4 was manually annotated 181 times for cluster A1.
- Start number 5 was manually annotated 8 times for cluster A1.
- Start number 7 was manually annotated 8 times for cluster A1.

Info for manual annotations of cluster A8:

- Start number 4 was manually annotated 1 time for cluster A8.

Info for manual annotations of cluster CA:

- Start number 5 was manually annotated 33 times for cluster CA.
- Start number 9 was manually annotated 3 times for cluster CA.

Gene Information:

Gene: A6_28 Start: 23288, Stop: 23635, Start Num: 4

Candidate Starts for A6_28:

(1, 23198), (Start: 4 @23288 has 182 MA's), (Start: 7 @23309 has 8 MA's), (8, 23315), (18, 23441), (23, 23486),

Gene: AFIS_30 Start: 23831, Stop: 24178, Start Num: 4

Candidate Starts for AFIS_30:

(1, 23741), (Start: 4 @23831 has 182 MA's), (Start: 7 @23852 has 8 MA's), (8, 23858), (18, 23984), (23, 24029),

Gene: Abbysshoes_31 Start: 23946, Stop: 24293, Start Num: 4

Candidate Starts for Abbysshoes_31:

(1, 23856), (Start: 4 @23946 has 182 MA's), (Start: 7 @23967 has 8 MA's), (8, 23973), (18, 24099), (23, 24144),

Gene: Abrogate_310 Start: 24506, Stop: 24853, Start Num: 4

Candidate Starts for Abrogate_310:

(1, 24416), (Start: 4 @24506 has 182 MA's), (Start: 7 @24527 has 8 MA's), (8, 24533), (18, 24659), (23, 24704),

Gene: Acme_32 Start: 24047, Stop: 24394, Start Num: 4

Candidate Starts for Acme_32:

(1, 23957), (Start: 4 @24047 has 182 MA's), (Start: 7 @24068 has 8 MA's), (8, 24074), (18, 24200), (23, 24245),

Gene: Adahisdi_31 Start: 23954, Stop: 24253, Start Num: 4

Candidate Starts for Adahisdi_31:

(1, 23864), (Start: 4 @23954 has 182 MA's), (Start: 5 @23960 has 41 MA's), (13, 24023), (14, 24038), (18, 24101), (21, 24119), (26, 24182),

Gene: Aeneas_32 Start: 24083, Stop: 24430, Start Num: 4

Candidate Starts for Aeneas_32:

(1, 23993), (Start: 4 @24083 has 182 MA's), (Start: 7 @24104 has 8 MA's), (8, 24110), (18, 24236), (23, 24281),

Gene: Ajay_31 Start: 24259, Stop: 24606, Start Num: 4

Candidate Starts for Ajay_31:

(1, 24169), (Start: 4 @24259 has 182 MA's), (Start: 7 @24280 has 8 MA's), (8, 24286), (18, 24412), (23, 24457),

Gene: Alatin_26 Start: 18760, Stop: 19080, Start Num: 5

Candidate Starts for Alatin_26:

(Start: 5 @18760 has 41 MA's), (Start: 9 @18787 has 3 MA's), (16, 18844), (17, 18874), (18, 18907), (24, 18958), (26, 19009),

Gene: Alpacados_25 Start: 18696, Stop: 19016, Start Num: 5

Candidate Starts for Alpacados_25:

(Start: 5 @18696 has 41 MA's), (Start: 9 @18723 has 3 MA's), (16, 18780), (17, 18810), (18, 18843), (24, 18894), (25, 18927), (26, 18945),

Gene: Alsfro_34 Start: 24492, Stop: 24839, Start Num: 4

Candidate Starts for Alsfro_34:

(1, 24402), (Start: 4 @24492 has 182 MA's), (Start: 7 @24513 has 8 MA's), (8, 24519), (18, 24645), (23, 24690),

Gene: Altman_32 Start: 24550, Stop: 24897, Start Num: 4

Candidate Starts for Altman_32:

(1, 24460), (Start: 4 @24550 has 182 MA's), (Start: 7 @24571 has 8 MA's), (8, 24577), (18, 24703), (23, 24748),

Gene: Alvin_31 Start: 24319, Stop: 24666, Start Num: 4

Candidate Starts for Alvin_31:

(1, 24229), (Start: 4 @24319 has 182 MA's), (Start: 7 @24340 has 8 MA's), (8, 24346), (18, 24472), (23, 24517),

Gene: Anglerfish_31 Start: 24463, Stop: 24810, Start Num: 4

Candidate Starts for Anglerfish_31:

(1, 24373), (Start: 4 @24463 has 182 MA's), (Start: 7 @24484 has 8 MA's), (8, 24490), (18, 24616), (23, 24661),

Gene: AngryOrchard_25 Start: 18706, Stop: 18999, Start Num: 9

Candidate Starts for AngryOrchard_25:

(Start: 5 @18679 has 41 MA's), (Start: 9 @18706 has 3 MA's), (16, 18763), (17, 18793), (18, 18826), (24, 18877), (26, 18928),

Gene: AppleCloud_24 Start: 18725, Stop: 19045, Start Num: 5

Candidate Starts for AppleCloud_24:

(Start: 5 @18725 has 41 MA's), (Start: 9 @18752 has 3 MA's), (16, 18809), (17, 18839), (18, 18872), (24, 18923), (25, 18956), (26, 18974),

Gene: Applejack_30 Start: 23724, Stop: 24071, Start Num: 4

Candidate Starts for Applejack_30:

(1, 23634), (Start: 4 @23724 has 182 MA's), (Start: 7 @23745 has 8 MA's), (8, 23751), (18, 23877), (23, 23922),

Gene: Arcanine_31 Start: 23477, Stop: 23824, Start Num: 4

Candidate Starts for Arcanine_31:

(1, 23387), (Start: 4 @23477 has 182 MA's), (Start: 7 @23498 has 8 MA's), (8, 23504), (18, 23630), (23, 23675),

Gene: Arlo_29 Start: 23353, Stop: 23700, Start Num: 4

Candidate Starts for Arlo_29:

(1, 23263), (Start: 4 @23353 has 182 MA's), (Start: 7 @23374 has 8 MA's), (8, 23380), (18, 23506), (23, 23551),

Gene: Ashballer_32 Start: 24477, Stop: 24824, Start Num: 4

Candidate Starts for Ashballer_32:

(1, 24387), (Start: 4 @24477 has 182 MA's), (Start: 7 @24498 has 8 MA's), (8, 24504), (18, 24630), (23, 24675),

Gene: Atkinbua_32 Start: 24177, Stop: 24524, Start Num: 4

Candidate Starts for Atkinbua_32:

(1, 24087), (Start: 4 @24177 has 182 MA's), (Start: 7 @24198 has 8 MA's), (8, 24204), (18, 24330), (23, 24375),

Gene: BK1_28 Start: 23288, Stop: 23635, Start Num: 4

Candidate Starts for BK1_28:

(1, 23198), (Start: 4 @23288 has 182 MA's), (Start: 7 @23309 has 8 MA's), (8, 23315), (18, 23441), (23, 23486),

Gene: BPBiebs31_31 Start: 24048, Stop: 24395, Start Num: 4

Candidate Starts for BPBiebs31_31:

(1, 23958), (Start: 4 @24048 has 182 MA's), (Start: 7 @24069 has 8 MA's), (8, 24075), (18, 24201), (23, 24246),

Gene: BaconJack_33 Start: 24246, Stop: 24593, Start Num: 4

Candidate Starts for BaconJack_33:

(1, 24156), (Start: 4 @24246 has 182 MA's), (Start: 7 @24267 has 8 MA's), (8, 24273), (18, 24399), (23, 24444),

Gene: Barriga_30 Start: 23579, Stop: 23926, Start Num: 4

Candidate Starts for Barriga_30:

(1, 23489), (Start: 4 @23579 has 182 MA's), (Start: 7 @23600 has 8 MA's), (8, 23606), (18, 23732), (23, 23777),

Gene: BarrowTuph_29 Start: 23600, Stop: 23947, Start Num: 4

Candidate Starts for BarrowTuph_29:

(1, 23510), (Start: 4 @23600 has 182 MA's), (Start: 7 @23621 has 8 MA's), (8, 23627), (18, 23753), (23, 23798),

Gene: Beatrix_30 Start: 25161, Stop: 25508, Start Num: 4

Candidate Starts for Beatrix_30:

(1, 25071), (Start: 4 @25161 has 182 MA's), (Start: 7 @25182 has 8 MA's), (8, 25188), (18, 25314), (23, 25359),

Gene: BeesKnees_31 Start: 23778, Stop: 24125, Start Num: 4

Candidate Starts for BeesKnees_31:

(1, 23688), (Start: 4 @23778 has 182 MA's), (Start: 7 @23799 has 8 MA's), (8, 23805), (18, 23931), (23, 23976),

Gene: Belenaria_26 Start: 18760, Stop: 19080, Start Num: 5

Candidate Starts for Belenaria_26:

(Start: 5 @18760 has 41 MA's), (Start: 9 @18787 has 3 MA's), (16, 18844), (17, 18874), (18, 18907), (24, 18958), (26, 19009),

Gene: Bethlehem_30 Start: 25025, Stop: 25351, Start Num: 7

Candidate Starts for Bethlehem_30:

(1, 24914), (Start: 4 @25004 has 182 MA's), (Start: 7 @25025 has 8 MA's), (8, 25031), (18, 25157), (23, 25202),

Gene: Bexan_29 Start: 24749, Stop: 25075, Start Num: 7

Candidate Starts for Bexan_29:

(1, 24638), (Start: 4 @24728 has 182 MA's), (Start: 7 @24749 has 8 MA's), (8, 24755), (18, 24881), (23, 24926),

Gene: Big3_30 Start: 24359, Stop: 24706, Start Num: 4

Candidate Starts for Big3_30:

(1, 24269), (Start: 4 @24359 has 182 MA's), (Start: 7 @24380 has 8 MA's), (8, 24386), (18, 24512), (23, 24557),

Gene: BigMau_32 Start: 23960, Stop: 24259, Start Num: 4

Candidate Starts for BigMau_32:

(1, 23870), (Start: 4 @23960 has 182 MA's), (Start: 5 @23966 has 41 MA's), (13, 24029), (14, 24044), (18, 24107), (21, 24125), (26, 24188),

Gene: BigPaolini_31 Start: 24357, Stop: 24704, Start Num: 4

Candidate Starts for BigPaolini_31:

(1, 24267), (Start: 4 @24357 has 182 MA's), (Start: 7 @24378 has 8 MA's), (8, 24384), (18, 24510), (23, 24555),

Gene: Bigchungji_30 Start: 23730, Stop: 24077, Start Num: 4

Candidate Starts for Bigchungji_30:

(1, 23640), (Start: 4 @23730 has 182 MA's), (Start: 7 @23751 has 8 MA's), (8, 23757), (18, 23883), (23, 23928),

Gene: Bigfoot_29 Start: 23566, Stop: 23865, Start Num: 4

Candidate Starts for Bigfoot_29:

(1, 23476), (Start: 4 @23566 has 182 MA's), (Start: 5 @23572 has 41 MA's), (13, 23635), (14, 23650), (18, 23713), (21, 23731), (26, 23794),

Gene: BillKnuckles_31 Start: 24444, Stop: 24791, Start Num: 4

Candidate Starts for BillKnuckles_31:

(1, 24354), (Start: 4 @24444 has 182 MA's), (Start: 7 @24465 has 8 MA's), (8, 24471), (18, 24597), (23, 24642),

Gene: BluSpix_31 Start: 23974, Stop: 24321, Start Num: 4

Candidate Starts for BluSpix_31:

(1, 23884), (Start: 4 @23974 has 182 MA's), (Start: 7 @23995 has 8 MA's), (8, 24001), (18, 24127), (23, 24172),

Gene: Blue_30 Start: 24212, Stop: 24559, Start Num: 4

Candidate Starts for Blue_30:

(1, 24122), (Start: 4 @24212 has 182 MA's), (Start: 7 @24233 has 8 MA's), (8, 24239), (18, 24365), (23, 24410),

Gene: Bob3_29 Start: 23306, Stop: 23599, Start Num: 5

Candidate Starts for Bob3_29:

(1, 23210), (Start: 4 @23300 has 182 MA's), (Start: 5 @23306 has 41 MA's), (13, 23369), (14, 23384), (18, 23447), (21, 23465), (26, 23528),

Gene: BobbyDazzler_26 Start: 18805, Stop: 19125, Start Num: 5

Candidate Starts for BobbyDazzler_26:

(Start: 5 @18805 has 41 MA's), (Start: 9 @18832 has 3 MA's), (16, 18889), (17, 18919), (18, 18952), (24, 19003), (25, 19036), (26, 19054),

Gene: Bonanza_26 Start: 18734, Stop: 19054, Start Num: 5

Candidate Starts for Bonanza_26:

(Start: 5 @18734 has 41 MA's), (Start: 9 @18761 has 3 MA's), (16, 18818), (17, 18848), (18, 18881), (24, 18932), (25, 18965), (26, 18983),

Gene: Bones_30 Start: 23672, Stop: 23965, Start Num: 5

Candidate Starts for Bones_30:

(1, 23576), (Start: 4 @23666 has 182 MA's), (Start: 5 @23672 has 41 MA's), (13, 23735), (14, 23750), (18, 23813), (21, 23831), (26, 23894),

Gene: Bradshaw_26 Start: 18760, Stop: 19080, Start Num: 5

Candidate Starts for Bradshaw_26:

(Start: 5 @18760 has 41 MA's), (Start: 9 @18787 has 3 MA's), (16, 18844), (17, 18874), (18, 18907), (24, 18958), (26, 19009),

Gene: Briton15_32 Start: 24011, Stop: 24358, Start Num: 4

Candidate Starts for Briton15_32:

(1, 23921), (Start: 4 @24011 has 182 MA's), (Start: 7 @24032 has 8 MA's), (8, 24038), (18, 24164), (23, 24209),

Gene: Bruns_29 Start: 23641, Stop: 23988, Start Num: 4

Candidate Starts for Bruns_29:

(1, 23551), (Start: 4 @23641 has 182 MA's), (Start: 7 @23662 has 8 MA's), (8, 23668), (18, 23794), (23, 23839),

Gene: Bryce_26 Start: 18734, Stop: 19054, Start Num: 5
Candidate Starts for Bryce_26:
(Start: 5 @18734 has 41 MA's), (Start: 9 @18761 has 3 MA's), (16, 18818), (17, 18848), (18, 18881),
(24, 18932), (25, 18965), (26, 18983),

Gene: Burton_31 Start: 23861, Stop: 24208, Start Num: 4
Candidate Starts for Burton_31:
(1, 23771), (Start: 4 @23861 has 182 MA's), (Start: 7 @23882 has 8 MA's), (8, 23888), (18, 24014),
(23, 24059),

Gene: Buttons_32 Start: 24723, Stop: 25049, Start Num: 7
Candidate Starts for Buttons_32:
(1, 24612), (Start: 4 @24702 has 182 MA's), (Start: 7 @24723 has 8 MA's), (8, 24729), (18, 24855),
(23, 24900),

Gene: Bxb1_28 Start: 23812, Stop: 24159, Start Num: 4
Candidate Starts for Bxb1_28:
(1, 23722), (Start: 4 @23812 has 182 MA's), (Start: 7 @23833 has 8 MA's), (8, 23839), (18, 23965),
(23, 24010),

Gene: CactusRose_29 Start: 23661, Stop: 23960, Start Num: 4
Candidate Starts for CactusRose_29:
(1, 23571), (Start: 4 @23661 has 182 MA's), (Start: 5 @23667 has 41 MA's), (13, 23730), (14, 23745),
(18, 23808), (21, 23826), (26, 23889),

Gene: Carlyle_32 Start: 24541, Stop: 24888, Start Num: 4
Candidate Starts for Carlyle_32:
(1, 24451), (Start: 4 @24541 has 182 MA's), (Start: 7 @24562 has 8 MA's), (8, 24568), (18, 24694),
(23, 24739),

Gene: Chanagan_29 Start: 23326, Stop: 23673, Start Num: 4
Candidate Starts for Chanagan_29:
(1, 23236), (Start: 4 @23326 has 182 MA's), (Start: 7 @23347 has 8 MA's), (8, 23353), (18, 23479),
(23, 23524),

Gene: Ciao_30 Start: 23669, Stop: 24016, Start Num: 4
Candidate Starts for Ciao_30:
(1, 23579), (Start: 4 @23669 has 182 MA's), (Start: 7 @23690 has 8 MA's), (8, 23696), (18, 23822),
(23, 23867),

Gene: ConceptII_32 Start: 24683, Stop: 25030, Start Num: 4
Candidate Starts for ConceptII_32:
(1, 24593), (Start: 4 @24683 has 182 MA's), (Start: 7 @24704 has 8 MA's), (8, 24710), (18, 24836),
(23, 24881),

Gene: Corvo_31 Start: 24678, Stop: 25025, Start Num: 4
Candidate Starts for Corvo_31:
(1, 24588), (Start: 4 @24678 has 182 MA's), (Start: 7 @24699 has 8 MA's), (8, 24705), (18, 24831),
(23, 24876),

Gene: CosmicSans_26 Start: 18760, Stop: 19080, Start Num: 5
Candidate Starts for CosmicSans_26:

(Start: 5 @18760 has 41 MA's), (Start: 9 @18787 has 3 MA's), (16, 18844), (17, 18874), (18, 18907), (24, 18958), (26, 19009),

Gene: Crispicous1_29 Start: 23255, Stop: 23602, Start Num: 4

Candidate Starts for Crispicous1_29:

(1, 23165), (Start: 4 @23255 has 182 MA's), (Start: 7 @23276 has 8 MA's), (8, 23282), (18, 23408), (23, 23453),

Gene: Cueyllyss_30 Start: 23899, Stop: 24198, Start Num: 4

Candidate Starts for Cueyllyss_30:

(1, 23809), (Start: 4 @23899 has 182 MA's), (Start: 5 @23905 has 41 MA's), (13, 23968), (14, 23983), (18, 24046), (21, 24064), (26, 24127),

Gene: Dexes_31 Start: 24407, Stop: 24754, Start Num: 4

Candidate Starts for Dexes_31:

(1, 24317), (Start: 4 @24407 has 182 MA's), (Start: 7 @24428 has 8 MA's), (8, 24434), (18, 24560), (23, 24605),

Gene: Dinger_26 Start: 18730, Stop: 19050, Start Num: 5

Candidate Starts for Dinger_26:

(Start: 5 @18730 has 41 MA's), (Start: 9 @18757 has 3 MA's), (17, 18844), (18, 18877), (24, 18928), (26, 18979),

Gene: Doom_31 Start: 24515, Stop: 24862, Start Num: 4

Candidate Starts for Doom_31:

(1, 24425), (Start: 4 @24515 has 182 MA's), (Start: 7 @24536 has 8 MA's), (8, 24542), (18, 24668), (23, 24713),

Gene: DrFeelGood_29 Start: 24118, Stop: 24465, Start Num: 4

Candidate Starts for DrFeelGood_29:

(1, 24028), (Start: 4 @24118 has 182 MA's), (Start: 7 @24139 has 8 MA's), (8, 24145), (18, 24271), (23, 24316),

Gene: DreamCatcher_33 Start: 25132, Stop: 25431, Start Num: 4

Candidate Starts for DreamCatcher_33:

(1, 25042), (Start: 4 @25132 has 182 MA's), (Start: 5 @25138 has 41 MA's), (13, 25201), (14, 25216), (18, 25279), (21, 25297), (26, 25360),

Gene: Dreamboat_31 Start: 23684, Stop: 24031, Start Num: 4

Candidate Starts for Dreamboat_31:

(1, 23594), (Start: 4 @23684 has 182 MA's), (Start: 7 @23705 has 8 MA's), (8, 23711), (18, 23837), (23, 23882),

Gene: Dulcie_29 Start: 23381, Stop: 23728, Start Num: 4

Candidate Starts for Dulcie_29:

(1, 23291), (Start: 4 @23381 has 182 MA's), (Start: 7 @23402 has 8 MA's), (8, 23408), (18, 23534), (23, 23579),

Gene: Dynamix_31 Start: 23763, Stop: 24110, Start Num: 4

Candidate Starts for Dynamix_31:

(1, 23673), (Start: 4 @23763 has 182 MA's), (Start: 7 @23784 has 8 MA's), (8, 23790), (18, 23916), (23, 23961),

Gene: Edtherson_31 Start: 24516, Stop: 24809, Start Num: 5

Candidate Starts for Edtherson_31:

(1, 24420), (Start: 4 @24510 has 182 MA's), (Start: 5 @24516 has 41 MA's), (13, 24579), (14, 24594), (18, 24657), (21, 24675), (26, 24738),

Gene: EnzoK_30 Start: 23935, Stop: 24282, Start Num: 4

Candidate Starts for EnzoK_30:

(1, 23845), (Start: 4 @23935 has 182 MA's), (Start: 7 @23956 has 8 MA's), (8, 23962), (18, 24088), (23, 24133),

Gene: Erik_26 Start: 18759, Stop: 19079, Start Num: 5

Candidate Starts for Erik_26:

(Start: 5 @18759 has 41 MA's), (Start: 9 @18786 has 3 MA's), (16, 18843), (17, 18873), (18, 18906), (24, 18957), (26, 19008),

Gene: Espica_26 Start: 18760, Stop: 19080, Start Num: 5

Candidate Starts for Espica_26:

(Start: 5 @18760 has 41 MA's), (Start: 9 @18787 has 3 MA's), (16, 18844), (17, 18874), (18, 18907), (24, 18958), (26, 19009),

Gene: Espresso_30 Start: 23827, Stop: 24174, Start Num: 4

Candidate Starts for Espresso_30:

(1, 23737), (Start: 4 @23827 has 182 MA's), (Start: 7 @23848 has 8 MA's), (8, 23854), (18, 23980), (23, 24025), (30, 24166),

Gene: Euphoria_30 Start: 23717, Stop: 24064, Start Num: 4

Candidate Starts for Euphoria_30:

(1, 23627), (Start: 4 @23717 has 182 MA's), (Start: 7 @23738 has 8 MA's), (8, 23744), (18, 23870), (23, 23915),

Gene: Eyeball_30 Start: 23522, Stop: 23869, Start Num: 4

Candidate Starts for Eyeball_30:

(1, 23432), (Start: 4 @23522 has 182 MA's), (Start: 7 @23543 has 8 MA's), (8, 23549), (18, 23675), (23, 23720),

Gene: Fajezeel_32 Start: 24032, Stop: 24379, Start Num: 4

Candidate Starts for Fajezeel_32:

(1, 23942), (Start: 4 @24032 has 182 MA's), (Start: 7 @24053 has 8 MA's), (8, 24059), (18, 24185), (23, 24230),

Gene: Fascinus_29 Start: 23592, Stop: 23885, Start Num: 5

Candidate Starts for Fascinus_29:

(1, 23496), (Start: 4 @23586 has 182 MA's), (Start: 5 @23592 has 41 MA's), (13, 23655), (14, 23670), (18, 23733), (21, 23751), (26, 23814),

Gene: Fenn_31 Start: 25397, Stop: 25696, Start Num: 4

Candidate Starts for Fenn_31:

(1, 25307), (Start: 4 @25397 has 182 MA's), (Start: 5 @25403 has 41 MA's), (13, 25466), (14, 25481), (18, 25544), (21, 25562), (26, 25625),

Gene: Forsytheast_30 Start: 23956, Stop: 24303, Start Num: 4

Candidate Starts for Forsytheast_30:

(1, 23866), (Start: 4 @23956 has 182 MA's), (Start: 7 @23977 has 8 MA's), (8, 23983), (18, 24109), (23, 24154),

Gene: Francis47_30 Start: 24269, Stop: 24568, Start Num: 4

Candidate Starts for Francis47_30:

(1, 24179), (Start: 4 @24269 has 182 MA's), (Start: 5 @24275 has 41 MA's), (13, 24338), (14, 24353), (18, 24416), (21, 24434), (26, 24497),

Gene: Froghopper_31 Start: 23684, Stop: 24031, Start Num: 4

Candidate Starts for Froghopper_31:

(1, 23594), (Start: 4 @23684 has 182 MA's), (Start: 7 @23705 has 8 MA's), (8, 23711), (18, 23837), (23, 23882),

Gene: Fushigi_31 Start: 24141, Stop: 24488, Start Num: 4

Candidate Starts for Fushigi_31:

(1, 24051), (Start: 4 @24141 has 182 MA's), (Start: 7 @24162 has 8 MA's), (8, 24168), (18, 24294), (23, 24339),

Gene: GMonster_29 Start: 23101, Stop: 23448, Start Num: 4

Candidate Starts for GMonster_29:

(1, 23011), (Start: 4 @23101 has 182 MA's), (Start: 7 @23122 has 8 MA's), (8, 23128), (18, 23254), (23, 23299),

Gene: GageAP_32 Start: 24455, Stop: 24802, Start Num: 4

Candidate Starts for GageAP_32:

(1, 24365), (Start: 4 @24455 has 182 MA's), (Start: 7 @24476 has 8 MA's), (8, 24482), (18, 24608), (23, 24653),

Gene: Gandalf20_31 Start: 24560, Stop: 24907, Start Num: 4

Candidate Starts for Gandalf20_31:

(1, 24470), (Start: 4 @24560 has 182 MA's), (Start: 7 @24581 has 8 MA's), (8, 24587), (18, 24713), (23, 24758),

Gene: Gollum_26 Start: 18760, Stop: 19080, Start Num: 5

Candidate Starts for Gollum_26:

(Start: 5 @18760 has 41 MA's), (Start: 9 @18787 has 3 MA's), (16, 18844), (17, 18874), (18, 18907), (24, 18958), (26, 19009),

Gene: Graduation_32 Start: 24486, Stop: 24785, Start Num: 4

Candidate Starts for Graduation_32:

(1, 24396), (Start: 4 @24486 has 182 MA's), (Start: 5 @24492 has 41 MA's), (13, 24555), (14, 24570), (18, 24633), (21, 24651), (26, 24714),

Gene: GrecoEtereo_32 Start: 24526, Stop: 24873, Start Num: 4

Candidate Starts for GrecoEtereo_32:

(1, 24436), (Start: 4 @24526 has 182 MA's), (Start: 7 @24547 has 8 MA's), (8, 24553), (18, 24679), (23, 24724),

Gene: Greg_32 Start: 24032, Stop: 24379, Start Num: 4

Candidate Starts for Greg_32:

(1, 23942), (Start: 4 @24032 has 182 MA's), (Start: 7 @24053 has 8 MA's), (8, 24059), (18, 24185), (23, 24230),

Gene: Gwendoluna_32 Start: 25674, Stop: 26021, Start Num: 4

Candidate Starts for Gwendoluna_32:

(1, 25584), (Start: 4 @25674 has 182 MA's), (Start: 7 @25695 has 8 MA's), (8, 25701), (18, 25827), (23, 25872),

Gene: Gyzlar_32 Start: 24980, Stop: 25327, Start Num: 4

Candidate Starts for Gyzlar_32:

(1, 24890), (Start: 4 @24980 has 182 MA's), (Start: 7 @25001 has 8 MA's), (8, 25007), (18, 25133), (23, 25178),

Gene: Hami1_32 Start: 24147, Stop: 24473, Start Num: 7

Candidate Starts for Hami1_32:

(1, 24036), (Start: 4 @24126 has 182 MA's), (Start: 7 @24147 has 8 MA's), (8, 24153), (18, 24279), (23, 24324),

Gene: HanShotFirst_30 Start: 23660, Stop: 24007, Start Num: 4

Candidate Starts for HanShotFirst_30:

(1, 23570), (Start: 4 @23660 has 182 MA's), (Start: 7 @23681 has 8 MA's), (8, 23687), (18, 23813), (23, 23858),

Gene: Harlequin_26 Start: 18710, Stop: 19030, Start Num: 5

Candidate Starts for Harlequin_26:

(Start: 5 @18710 has 41 MA's), (Start: 9 @18737 has 3 MA's), (16, 18794), (17, 18824), (18, 18857), (24, 18908), (25, 18941), (26, 18959),

Gene: HarryOW_31 Start: 24114, Stop: 24461, Start Num: 4

Candidate Starts for HarryOW_31:

(1, 24024), (Start: 4 @24114 has 182 MA's), (Start: 7 @24135 has 8 MA's), (8, 24141), (18, 24267), (23, 24312),

Gene: Hermia_33 Start: 25242, Stop: 25589, Start Num: 4

Candidate Starts for Hermia_33:

(1, 25152), (Start: 4 @25242 has 182 MA's), (Start: 7 @25263 has 8 MA's), (8, 25269), (18, 25395), (23, 25440),

Gene: HermioneGrange_30 Start: 23688, Stop: 23987, Start Num: 4

Candidate Starts for HermioneGrange_30:

(1, 23598), (Start: 4 @23688 has 182 MA's), (Start: 5 @23694 has 41 MA's), (13, 23757), (14, 23772), (18, 23835), (21, 23853), (26, 23916),

Gene: Hiro_26 Start: 19043, Stop: 19336, Start Num: 9

Candidate Starts for Hiro_26:

(Start: 5 @19016 has 41 MA's), (Start: 9 @19043 has 3 MA's), (16, 19100), (17, 19130), (18, 19163), (24, 19214), (25, 19247), (26, 19265),

Gene: Homines_30 Start: 24013, Stop: 24360, Start Num: 4

Candidate Starts for Homines_30:

(1, 23923), (Start: 4 @24013 has 182 MA's), (Start: 7 @24034 has 8 MA's), (8, 24040), (18, 24166), (23, 24211),

Gene: Hope4ever_30 Start: 24129, Stop: 24476, Start Num: 4

Candidate Starts for Hope4ever_30:

(1, 24039), (Start: 4 @24129 has 182 MA's), (Start: 7 @24150 has 8 MA's), (8, 24156), (18, 24282), (23, 24327),

Gene: ILeeKay_32 Start: 23893, Stop: 24240, Start Num: 4

Candidate Starts for ILeeKay_32:

(1, 23803), (Start: 4 @23893 has 182 MA's), (Start: 7 @23914 has 8 MA's), (8, 23920), (18, 24046), (23, 24091),

Gene: Ichabod_31 Start: 23917, Stop: 24264, Start Num: 4

Candidate Starts for Ichabod_31:

(1, 23827), (Start: 4 @23917 has 182 MA's), (Start: 7 @23938 has 8 MA's), (8, 23944), (18, 24070), (23, 24115),

Gene: IgnatiusPatJac_30 Start: 23996, Stop: 24322, Start Num: 7

Candidate Starts for IgnatiusPatJac_30:

(1, 23885), (Start: 4 @23975 has 182 MA's), (Start: 7 @23996 has 8 MA's), (8, 24002), (18, 24128), (23, 24173),

Gene: Inyanga_29 Start: 23496, Stop: 23843, Start Num: 4

Candidate Starts for Inyanga_29:

(1, 23406), (Start: 4 @23496 has 182 MA's), (Start: 7 @23517 has 8 MA's), (8, 23523), (18, 23649), (23, 23694),

Gene: Iqorha_29 Start: 23495, Stop: 23842, Start Num: 4

Candidate Starts for Iqorha_29:

(1, 23405), (Start: 4 @23495 has 182 MA's), (Start: 7 @23516 has 8 MA's), (8, 23522), (18, 23648), (23, 23693),

Gene: JC27_32 Start: 24629, Stop: 24976, Start Num: 4

Candidate Starts for JC27_32:

(1, 24539), (Start: 4 @24629 has 182 MA's), (Start: 7 @24650 has 8 MA's), (8, 24656), (18, 24782), (23, 24827),

Gene: JackSparrow_31 Start: 24091, Stop: 24438, Start Num: 4

Candidate Starts for JackSparrow_31:

(1, 24001), (Start: 4 @24091 has 182 MA's), (Start: 7 @24112 has 8 MA's), (8, 24118), (18, 24244), (23, 24289),

Gene: Jasper_31 Start: 23570, Stop: 23917, Start Num: 4

Candidate Starts for Jasper_31:

(1, 23480), (Start: 4 @23570 has 182 MA's), (Start: 7 @23591 has 8 MA's), (8, 23597), (18, 23723), (23, 23768),

Gene: Jerm2_31 Start: 23960, Stop: 24259, Start Num: 4

Candidate Starts for Jerm2_31:

(1, 23870), (Start: 4 @23960 has 182 MA's), (Start: 5 @23966 has 41 MA's), (13, 24029), (14, 24044), (18, 24107), (21, 24125), (26, 24188),

Gene: Jester_26 Start: 18704, Stop: 19024, Start Num: 5

Candidate Starts for Jester_26:

(Start: 5 @18704 has 41 MA's), (Start: 9 @18731 has 3 MA's), (16, 18788), (17, 18818), (18, 18851), (24, 18902), (25, 18935), (26, 18953),

Gene: Jorgensen_30 Start: 23624, Stop: 23971, Start Num: 4

Candidate Starts for Jorgensen_30:

(1, 23534), (Start: 4 @23624 has 182 MA's), (Start: 7 @23645 has 8 MA's), (8, 23651), (18, 23777), (23, 23822),

Gene: JuliaChild_32 Start: 24269, Stop: 24616, Start Num: 4

Candidate Starts for JuliaChild_32:

(1, 24179), (Start: 4 @24269 has 182 MA's), (Start: 7 @24290 has 8 MA's), (8, 24296), (18, 24422), (23, 24467),

Gene: KBG_31 Start: 24644, Stop: 24970, Start Num: 7

Candidate Starts for KBG_31:

(1, 24533), (Start: 4 @24623 has 182 MA's), (Start: 7 @24644 has 8 MA's), (8, 24650), (18, 24776), (23, 24821),

Gene: Kanely_31 Start: 24327, Stop: 24674, Start Num: 4

Candidate Starts for Kanely_31:

(1, 24237), (Start: 4 @24327 has 182 MA's), (Start: 7 @24348 has 8 MA's), (8, 24354), (18, 24480), (23, 24525),

Gene: Kenmech_33 Start: 25033, Stop: 25380, Start Num: 4

Candidate Starts for Kenmech_33:

(1, 24943), (Start: 4 @25033 has 182 MA's), (Start: 7 @25054 has 8 MA's), (8, 25060), (18, 25186), (23, 25231),

Gene: Killigrew_28 Start: 23239, Stop: 23586, Start Num: 4

Candidate Starts for Killigrew_28:

(1, 23149), (Start: 4 @23239 has 182 MA's), (Start: 7 @23260 has 8 MA's), (8, 23266), (18, 23392), (23, 23437),

Gene: Krishelle_26 Start: 19031, Stop: 19351, Start Num: 5

Candidate Starts for Krishelle_26:

(Start: 5 @19031 has 41 MA's), (Start: 9 @19058 has 3 MA's), (16, 19115), (17, 19145), (18, 19178), (24, 19229), (25, 19262), (26, 19280),

Gene: Kugel_31 Start: 23900, Stop: 24247, Start Num: 4

Candidate Starts for Kugel_31:

(1, 23810), (Start: 4 @23900 has 182 MA's), (Start: 7 @23921 has 8 MA's), (8, 23927), (18, 24053), (23, 24098),

Gene: KyMonks1A_32 Start: 24066, Stop: 24413, Start Num: 4

Candidate Starts for KyMonks1A_32:

(1, 23976), (Start: 4 @24066 has 182 MA's), (Start: 7 @24087 has 8 MA's), (8, 24093), (18, 24219), (23, 24264),

Gene: Kykar_30 Start: 23709, Stop: 24035, Start Num: 7

Candidate Starts for Kykar_30:

(1, 23598), (Start: 4 @23688 has 182 MA's), (Start: 7 @23709 has 8 MA's), (8, 23715), (18, 23841), (23, 23886),

Gene: Lamina13_30 Start: 23337, Stop: 23684, Start Num: 4

Candidate Starts for Lamina13_30:

(1, 23247), (Start: 4 @23337 has 182 MA's), (Start: 7 @23358 has 8 MA's), (8, 23364), (18, 23490), (23, 23535),

Gene: Lesedi_29 Start: 23495, Stop: 23842, Start Num: 4

Candidate Starts for Lesedi_29:

(1, 23405), (Start: 4 @23495 has 182 MA's), (Start: 7 @23516 has 8 MA's), (8, 23522), (18, 23648), (23, 23693),

Gene: Levia_29 Start: 24484, Stop: 24831, Start Num: 4

Candidate Starts for Levia_29:

(1, 24394), (Start: 4 @24484 has 182 MA's), (Start: 7 @24505 has 8 MA's), (8, 24511), (18, 24637), (23, 24682),

Gene: Licorice_32 Start: 24724, Stop: 25071, Start Num: 4

Candidate Starts for Licorice_32:

(1, 24634), (Start: 4 @24724 has 182 MA's), (Start: 7 @24745 has 8 MA's), (8, 24751), (18, 24877), (23, 24922),

Gene: LilBib_31 Start: 24937, Stop: 25284, Start Num: 4

Candidate Starts for LilBib_31:

(1, 24847), (Start: 4 @24937 has 182 MA's), (Start: 7 @24958 has 8 MA's), (8, 24964), (18, 25090), (23, 25135),

Gene: Lillie_26 Start: 18760, Stop: 19080, Start Num: 5

Candidate Starts for Lillie_26:

(Start: 5 @18760 has 41 MA's), (Start: 9 @18787 has 3 MA's), (16, 18844), (17, 18874), (18, 18907), (24, 18958), (26, 19009),

Gene: Lockley_30 Start: 23678, Stop: 24025, Start Num: 4

Candidate Starts for Lockley_30:

(1, 23588), (Start: 4 @23678 has 182 MA's), (Start: 7 @23699 has 8 MA's), (8, 23705), (18, 23831), (23, 23876),

Gene: Lopton_31 Start: 25139, Stop: 25486, Start Num: 4

Candidate Starts for Lopton_31:

(1, 25049), (Start: 4 @25139 has 182 MA's), (Start: 7 @25160 has 8 MA's), (8, 25166), (18, 25292), (23, 25337),

Gene: LunarLander_32 Start: 23893, Stop: 24186, Start Num: 5

Candidate Starts for LunarLander_32:

(1, 23797), (Start: 4 @23887 has 182 MA's), (Start: 5 @23893 has 41 MA's), (13, 23956), (14, 23971), (18, 24034), (21, 24052), (26, 24115),

Gene: MPlant7149_29 Start: 23320, Stop: 23613, Start Num: 5

Candidate Starts for MPlant7149_29:

(1, 23224), (Start: 4 @23314 has 182 MA's), (Start: 5 @23320 has 41 MA's), (13, 23383), (14, 23398), (18, 23461), (21, 23479), (26, 23542),

Gene: Magnar_30 Start: 23464, Stop: 23811, Start Num: 4

Candidate Starts for Magnar_30:

(1, 23374), (Start: 4 @23464 has 182 MA's), (Start: 7 @23485 has 8 MA's), (8, 23491), (18, 23617), (23, 23662),

Gene: Magnito_29 Start: 23216, Stop: 23563, Start Num: 4

Candidate Starts for Magnito_29:

(1, 23126), (Start: 4 @23216 has 182 MA's), (Start: 7 @23237 has 8 MA's), (8, 23243), (18, 23369), (23, 23414),

Gene: Makemake_30 Start: 24932, Stop: 25279, Start Num: 4

Candidate Starts for Makemake_30:

(1, 24842), (Start: 4 @24932 has 182 MA's), (Start: 7 @24953 has 8 MA's), (8, 24959), (18, 25085), (23, 25130), (30, 25271),

Gene: Manatee_31 Start: 23462, Stop: 23809, Start Num: 4

Candidate Starts for Manatee_31:

(1, 23372), (Start: 4 @23462 has 182 MA's), (Start: 7 @23483 has 8 MA's), (8, 23489), (18, 23615), (23, 23660),

Gene: Marcell_30 Start: 23952, Stop: 24299, Start Num: 4

Candidate Starts for Marcell_30:

(1, 23862), (Start: 4 @23952 has 182 MA's), (Start: 7 @23973 has 8 MA's), (8, 23979), (18, 24105), (23, 24150),

Gene: Marchy_29 Start: 23257, Stop: 23604, Start Num: 4

Candidate Starts for Marchy_29:

(1, 23167), (Start: 4 @23257 has 182 MA's), (Start: 7 @23278 has 8 MA's), (8, 23284), (18, 23410), (23, 23455),

Gene: Marco3_30 Start: 23852, Stop: 24199, Start Num: 4

Candidate Starts for Marco3_30:

(1, 23762), (Start: 4 @23852 has 182 MA's), (Start: 7 @23873 has 8 MA's), (8, 23879), (18, 24005), (23, 24050),

Gene: Marge_31 Start: 24352, Stop: 24699, Start Num: 4

Candidate Starts for Marge_31:

(1, 24262), (Start: 4 @24352 has 182 MA's), (Start: 7 @24373 has 8 MA's), (8, 24379), (18, 24505), (23, 24550),

Gene: Maroc7_29 Start: 23456, Stop: 23803, Start Num: 4

Candidate Starts for Maroc7_29:

(1, 23366), (Start: 4 @23456 has 182 MA's), (Start: 7 @23477 has 8 MA's), (8, 23483), (18, 23609), (23, 23654),

Gene: Marsha_30 Start: 24578, Stop: 24877, Start Num: 4

Candidate Starts for Marsha_30:

(1, 24488), (Start: 4 @24578 has 182 MA's), (Start: 5 @24584 has 41 MA's), (13, 24647), (14, 24662), (18, 24725), (21, 24743), (26, 24806),

Gene: MaryBeth_30 Start: 23884, Stop: 24231, Start Num: 4

Candidate Starts for MaryBeth_30:

(1, 23794), (Start: 4 @23884 has 182 MA's), (Start: 7 @23905 has 8 MA's), (8, 23911), (18, 24037), (23, 24082),

Gene: Mbo4_21 Start: 19372, Stop: 19725, Start Num: 3

Candidate Starts for Mbo4_21:

(3, 19372),

Gene: McGuire_31 Start: 23754, Stop: 24101, Start Num: 4

Candidate Starts for McGuire_31:

(1, 23664), (Start: 4 @23754 has 182 MA's), (Start: 7 @23775 has 8 MA's), (8, 23781), (18, 23907), (23, 23952),

Gene: McSinger_31 Start: 24146, Stop: 24493, Start Num: 4

Candidate Starts for McSinger_31:

(1, 24056), (Start: 4 @24146 has 182 MA's), (Start: 7 @24167 has 8 MA's), (8, 24173), (18, 24299), (23, 24344),

Gene: MetalQZJ_30 Start: 23884, Stop: 24231, Start Num: 4

Candidate Starts for MetalQZJ_30:

(1, 23794), (Start: 4 @23884 has 182 MA's), (Start: 7 @23905 has 8 MA's), (8, 23911), (18, 24037), (23, 24082),

Gene: Michley_30 Start: 23635, Stop: 23928, Start Num: 5

Candidate Starts for Michley_30:

(1, 23539), (Start: 4 @23629 has 182 MA's), (Start: 5 @23635 has 41 MA's), (11, 23686), (14, 23713), (18, 23776), (19, 23785), (21, 23794), (26, 23857),

Gene: Mkhuseleli_31 Start: 23779, Stop: 24126, Start Num: 4

Candidate Starts for Mkhuseleli_31:

(1, 23689), (Start: 4 @23779 has 182 MA's), (Start: 7 @23800 has 8 MA's), (8, 23806), (18, 23932), (23, 23977),

Gene: Molly_31 Start: 23552, Stop: 23899, Start Num: 4

Candidate Starts for Molly_31:

(1, 23462), (Start: 4 @23552 has 182 MA's), (Start: 7 @23573 has 8 MA's), (8, 23579), (18, 23705), (23, 23750),

Gene: Monet_32 Start: 24980, Stop: 25327, Start Num: 4

Candidate Starts for Monet_32:

(1, 24890), (Start: 4 @24980 has 182 MA's), (Start: 7 @25001 has 8 MA's), (8, 25007), (18, 25133), (23, 25178),

Gene: Moose_30 Start: 23956, Stop: 24303, Start Num: 4

Candidate Starts for Moose_30:

(1, 23866), (Start: 4 @23956 has 182 MA's), (Start: 7 @23977 has 8 MA's), (8, 23983), (18, 24109), (23, 24154),

Gene: MrGordo_30 Start: 23444, Stop: 23791, Start Num: 4

Candidate Starts for MrGordo_30:

(1, 23354), (Start: 4 @23444 has 182 MA's), (Start: 7 @23465 has 8 MA's), (8, 23471), (18, 23597), (23, 23642),

Gene: Mryolo_29 Start: 23481, Stop: 23828, Start Num: 4

Candidate Starts for Mryolo_29:

(1, 23391), (Start: 4 @23481 has 182 MA's), (Start: 7 @23502 has 8 MA's), (8, 23508), (18, 23634), (23, 23679),

Gene: Mule_30 Start: 23790, Stop: 24137, Start Num: 4

Candidate Starts for Mule_30:

(1, 23700), (Start: 4 @23790 has 182 MA's), (Start: 7 @23811 has 8 MA's), (8, 23817), (18, 23943), (23, 23988),

Gene: Museum_32 Start: 23800, Stop: 24147, Start Num: 4

Candidate Starts for Museum_32:

(1, 23710), (Start: 4 @23800 has 182 MA's), (Start: 7 @23821 has 8 MA's), (8, 23827), (18, 23953), (23, 23998),

Gene: NEHalo_30 Start: 23538, Stop: 23885, Start Num: 4

Candidate Starts for NEHalo_30:

(1, 23448), (Start: 4 @23538 has 182 MA's), (Start: 7 @23559 has 8 MA's), (8, 23565), (18, 23691), (23, 23736),

Gene: Naiad_26 Start: 18760, Stop: 19080, Start Num: 5

Candidate Starts for Naiad_26:

(Start: 5 @18760 has 41 MA's), (Start: 9 @18787 has 3 MA's), (16, 18844), (17, 18874), (18, 18907), (24, 18958), (26, 19009),

Gene: Naira_31 Start: 25397, Stop: 25744, Start Num: 4

Candidate Starts for Naira_31:

(1, 25307), (Start: 4 @25397 has 182 MA's), (Start: 7 @25418 has 8 MA's), (8, 25424), (18, 25550), (23, 25595),

Gene: Nancinator_26 Start: 18760, Stop: 19080, Start Num: 5

Candidate Starts for Nancinator_26:

(Start: 5 @18760 has 41 MA's), (Start: 9 @18787 has 3 MA's), (16, 18844), (17, 18874), (18, 18907), (24, 18958), (26, 19009),

Gene: Natosaleda_26 Start: 18760, Stop: 19080, Start Num: 5

Candidate Starts for Natosaleda_26:

(Start: 5 @18760 has 41 MA's), (Start: 9 @18787 has 3 MA's), (16, 18844), (17, 18874), (18, 18907), (24, 18958), (26, 19009),

Gene: Nerujay_31 Start: 24206, Stop: 24553, Start Num: 4

Candidate Starts for Nerujay_31:

(1, 24116), (Start: 4 @24206 has 182 MA's), (Start: 7 @24227 has 8 MA's), (8, 24233), (18, 24359), (23, 24404),

Gene: Nhonho_30 Start: 23957, Stop: 24304, Start Num: 4

Candidate Starts for Nhonho_30:

(1, 23867), (Start: 4 @23957 has 182 MA's), (Start: 7 @23978 has 8 MA's), (8, 23984), (18, 24110), (23, 24155),

Gene: Niza_32 Start: 24834, Stop: 25181, Start Num: 4

Candidate Starts for Niza_32:

(1, 24744), (Start: 4 @24834 has 182 MA's), (Start: 7 @24855 has 8 MA's), (8, 24861), (18, 24987), (23, 25032),

Gene: Norz_32 Start: 24613, Stop: 24960, Start Num: 4

Candidate Starts for Norz_32:

(1, 24523), (Start: 4 @24613 has 182 MA's), (Start: 7 @24634 has 8 MA's), (8, 24640), (18, 24766), (23, 24811),

Gene: Ohno789_30 Start: 23599, Stop: 23946, Start Num: 4

Candidate Starts for Ohno789_30:

(1, 23509), (Start: 4 @23599 has 182 MA's), (Start: 7 @23620 has 8 MA's), (8, 23626), (18, 23752), (23, 23797),

Gene: Oogway_29 Start: 23721, Stop: 24068, Start Num: 4

Candidate Starts for Oogway_29:

(1, 23631), (Start: 4 @23721 has 182 MA's), (Start: 7 @23742 has 8 MA's), (8, 23748), (18, 23874), (23, 23919),

Gene: P3MA_31 Start: 25082, Stop: 25354, Start Num: 15

Candidate Starts for P3MA_31:

(Start: 4 @24986 has 182 MA's), (Start: 15 @25082 has 1 MA's), (23, 25199), (27, 25280), (28, 25292), (29, 25331), (31, 25349),

Gene: PSullivan_32 Start: 24269, Stop: 24616, Start Num: 4

Candidate Starts for PSullivan_32:

(1, 24179), (Start: 4 @24269 has 182 MA's), (Start: 7 @24290 has 8 MA's), (8, 24296), (18, 24422), (23, 24467),

Gene: PacerPaul_30 Start: 24000, Stop: 24299, Start Num: 4

Candidate Starts for PacerPaul_30:

(1, 23910), (Start: 4 @24000 has 182 MA's), (Start: 5 @24006 has 41 MA's), (13, 24069), (14, 24084), (18, 24147), (21, 24165), (26, 24228),

Gene: Papez_32 Start: 25437, Stop: 25784, Start Num: 4

Candidate Starts for Papez_32:

(1, 25347), (Start: 4 @25437 has 182 MA's), (Start: 7 @25458 has 8 MA's), (8, 25464), (18, 25590), (23, 25635),

Gene: Paphu_29 Start: 23513, Stop: 23812, Start Num: 4

Candidate Starts for Paphu_29:

(1, 23423), (Start: 4 @23513 has 182 MA's), (Start: 5 @23519 has 41 MA's), (13, 23582), (14, 23597), (18, 23660), (21, 23678), (26, 23741),

Gene: Paraselene_29 Start: 23941, Stop: 24288, Start Num: 4

Candidate Starts for Paraselene_29:

(1, 23851), (Start: 4 @23941 has 182 MA's), (Start: 7 @23962 has 8 MA's), (8, 23968), (18, 24094), (23, 24139),

Gene: Pari_31 Start: 23473, Stop: 23820, Start Num: 4

Candidate Starts for Pari_31:

(1, 23383), (Start: 4 @23473 has 182 MA's), (Start: 7 @23494 has 8 MA's), (8, 23500), (18, 23626), (23, 23671),

Gene: Parliament_29 Start: 23808, Stop: 24155, Start Num: 4

Candidate Starts for Parliament_29:

(1, 23718), (Start: 4 @23808 has 182 MA's), (Start: 7 @23829 has 8 MA's), (8, 23835), (18, 23961), (23, 24006),

Gene: Partridge_26 Start: 18793, Stop: 19113, Start Num: 5

Candidate Starts for Partridge_26:

(Start: 5 @18793 has 41 MA's), (Start: 9 @18820 has 3 MA's), (17, 18907), (18, 18940), (24, 18991), (26, 19042),

Gene: PascalRango_31 Start: 23776, Stop: 24123, Start Num: 4

Candidate Starts for PascalRango_31:

(1, 23686), (Start: 4 @23776 has 182 MA's), (Start: 7 @23797 has 8 MA's), (8, 23803), (18, 23929), (23, 23974),

Gene: PattyP_32 Start: 24009, Stop: 24356, Start Num: 4

Candidate Starts for PattyP_32:

(1, 23919), (Start: 4 @24009 has 182 MA's), (Start: 7 @24030 has 8 MA's), (8, 24036), (18, 24162), (23, 24207),

Gene: Payneful_30 Start: 23257, Stop: 23604, Start Num: 4

Candidate Starts for Payneful_30:

(1, 23167), (Start: 4 @23257 has 182 MA's), (Start: 7 @23278 has 8 MA's), (8, 23284), (18, 23410), (23, 23455),

Gene: Pelly_31 Start: 24428, Stop: 24775, Start Num: 4

Candidate Starts for Pelly_31:

(1, 24338), (Start: 4 @24428 has 182 MA's), (Start: 7 @24449 has 8 MA's), (8, 24455), (18, 24581), (23, 24626),

Gene: Pepe_31 Start: 24610, Stop: 24957, Start Num: 4

Candidate Starts for Pepe_31:

(1, 24520), (Start: 4 @24610 has 182 MA's), (Start: 7 @24631 has 8 MA's), (8, 24637), (18, 24763), (23, 24808),

Gene: Petp2012_32 Start: 24680, Stop: 25027, Start Num: 4

Candidate Starts for Petp2012_32:

(1, 24590), (Start: 4 @24680 has 182 MA's), (Start: 7 @24701 has 8 MA's), (8, 24707), (18, 24833), (23, 24878),

Gene: Petruccio_31 Start: 24138, Stop: 24485, Start Num: 4

Candidate Starts for Petruccio_31:

(1, 24048), (Start: 4 @24138 has 182 MA's), (Start: 7 @24159 has 8 MA's), (8, 24165), (18, 24291), (23, 24336),

Gene: PhailMary_25 Start: 19082, Stop: 19402, Start Num: 5

Candidate Starts for PhailMary_25:

(Start: 5 @19082 has 41 MA's), (Start: 9 @19109 has 3 MA's), (16, 19166), (17, 19196), (18, 19229), (24, 19280), (25, 19313), (26, 19331),

Gene: PherrisBueller_31 Start: 23593, Stop: 23940, Start Num: 4

Candidate Starts for PherrisBueller_31:

(1, 23503), (Start: 4 @23593 has 182 MA's), (Start: 7 @23614 has 8 MA's), (8, 23620), (18, 23746), (23, 23791),

Gene: Phillis_27 Start: 21206, Stop: 21565, Start Num: 4

Candidate Starts for Phillis_27:

(2, 21173), (Start: 4 @21206 has 182 MA's), (10, 21254), (19, 21380), (22, 21410), (26, 21494),

Gene: PhineBark_30 Start: 24484, Stop: 24831, Start Num: 4

Candidate Starts for PhineBark_30:

(1, 24394), (Start: 4 @24484 has 182 MA's), (Start: 7 @24505 has 8 MA's), (8, 24511), (18, 24637), (23, 24682),

Gene: Phlippers_29 Start: 24809, Stop: 25156, Start Num: 4

Candidate Starts for Phlippers_29:

(1, 24719), (Start: 4 @24809 has 182 MA's), (Start: 7 @24830 has 8 MA's), (8, 24836), (18, 24962), (23, 25007),

Gene: Phrankenstein_26 Start: 18760, Stop: 19080, Start Num: 5

Candidate Starts for Phrankenstein_26:

(Start: 5 @18760 has 41 MA's), (Start: 9 @18787 has 3 MA's), (16, 18844), (17, 18874), (18, 18907), (24, 18958), (26, 19009),

Gene: PhrostyMug_30 Start: 23787, Stop: 24134, Start Num: 4

Candidate Starts for PhrostyMug_30:

(1, 23697), (Start: 4 @23787 has 182 MA's), (Start: 7 @23808 has 8 MA's), (8, 23814), (18, 23940), (23, 23985),

Gene: PinkPlastic_29 Start: 23527, Stop: 23874, Start Num: 4

Candidate Starts for PinkPlastic_29:

(1, 23437), (Start: 4 @23527 has 182 MA's), (Start: 7 @23548 has 8 MA's), (8, 23554), (18, 23680), (23, 23725),

Gene: Pinto_33 Start: 24340, Stop: 24687, Start Num: 4

Candidate Starts for Pinto_33:

(1, 24250), (Start: 4 @24340 has 182 MA's), (Start: 7 @24361 has 8 MA's), (8, 24367), (18, 24493), (23, 24538),

Gene: Pippin_32 Start: 24091, Stop: 24438, Start Num: 4

Candidate Starts for Pippin_32:

(1, 24001), (Start: 4 @24091 has 182 MA's), (Start: 7 @24112 has 8 MA's), (8, 24118), (18, 24244), (23, 24289),

Gene: Pita2_32 Start: 24269, Stop: 24616, Start Num: 4

Candidate Starts for Pita2_32:

(1, 24179), (Start: 4 @24269 has 182 MA's), (Start: 7 @24290 has 8 MA's), (8, 24296), (18, 24422), (23, 24467),

Gene: ProMouse_29 Start: 24232, Stop: 24579, Start Num: 4

Candidate Starts for ProMouse_29:

(1, 24142), (Start: 4 @24232 has 182 MA's), (Start: 7 @24253 has 8 MA's), (8, 24259), (18, 24385), (23, 24430),

Gene: QTRlifeCrisis_30 Start: 24347, Stop: 24694, Start Num: 4

Candidate Starts for QTRlifeCrisis_30:

(1, 24257), (Start: 4 @24347 has 182 MA's), (Start: 7 @24368 has 8 MA's), (8, 24374), (18, 24500), (23, 24545),

Gene: RER2_19 Start: 15659, Stop: 15952, Start Num: 9

Candidate Starts for RER2_19:

(Start: 5 @15632 has 41 MA's), (Start: 9 @15659 has 3 MA's), (16, 15716), (17, 15746), (18, 15779), (24, 15830), (26, 15881),

Gene: RGL3_19 Start: 15780, Stop: 16100, Start Num: 5

Candidate Starts for RGL3_19:

(Start: 5 @15780 has 41 MA's), (12, 15828), (17, 15894), (18, 15927), (20, 15945), (25, 16011), (26, 16029),

Gene: Raid_31 Start: 23817, Stop: 24143, Start Num: 7

Candidate Starts for Raid_31:

(1, 23706), (Start: 4 @23796 has 182 MA's), (Start: 7 @23817 has 8 MA's), (8, 23823), (18, 23949), (23, 23994),

Gene: Rajelicia_30 Start: 23506, Stop: 23853, Start Num: 4

Candidate Starts for Rajelicia_30:

(1, 23416), (Start: 4 @23506 has 182 MA's), (Start: 7 @23527 has 8 MA's), (8, 23533), (18, 23659), (23, 23704),

Gene: Rasputin_26 Start: 18728, Stop: 19048, Start Num: 5

Candidate Starts for Rasputin_26:

(Start: 5 @18728 has 41 MA's), (Start: 9 @18755 has 3 MA's), (16, 18812), (17, 18842), (18, 18875), (24, 18926), (25, 18959), (26, 18977),

Gene: RexFury_26 Start: 18818, Stop: 19111, Start Num: 9

Candidate Starts for RexFury_26:

(Start: 5 @18791 has 41 MA's), (Start: 9 @18818 has 3 MA's), (16, 18875), (17, 18905), (18, 18938), (24, 18989), (26, 19040),

Gene: Rhodalysa_26 Start: 18760, Stop: 19080, Start Num: 5

Candidate Starts for Rhodalysa_26:

(Start: 5 @18760 has 41 MA's), (Start: 9 @18787 has 3 MA's), (16, 18844), (17, 18874), (18, 18907), (24, 18958), (26, 19009),

Gene: Rhynn_30 Start: 23796, Stop: 24143, Start Num: 4

Candidate Starts for Rhynn_30:

(1, 23706), (Start: 4 @23796 has 182 MA's), (Start: 7 @23817 has 8 MA's), (8, 23823), (18, 23949), (23, 23994),

Gene: RidgeCB_30 Start: 23571, Stop: 23870, Start Num: 4

Candidate Starts for RidgeCB_30:

(1, 23481), (Start: 4 @23571 has 182 MA's), (Start: 5 @23577 has 41 MA's), (13, 23640), (14, 23655), (18, 23718), (21, 23736), (26, 23799),

Gene: Ringer_30 Start: 24448, Stop: 24795, Start Num: 4

Candidate Starts for Ringer_30:

(1, 24358), (Start: 4 @24448 has 182 MA's), (Start: 7 @24469 has 8 MA's), (8, 24475), (18, 24601), (23, 24646),

Gene: Rohr_31 Start: 23993, Stop: 24292, Start Num: 4

Candidate Starts for Rohr_31:

(1, 23903), (Start: 4 @23993 has 182 MA's), (Start: 5 @23999 has 41 MA's), (13, 24062), (14, 24077), (18, 24140), (21, 24158), (26, 24221),

Gene: Rubeus_31 Start: 23831, Stop: 24178, Start Num: 4

Candidate Starts for Rubeus_31:

(1, 23741), (Start: 4 @23831 has 182 MA's), (Start: 7 @23852 has 8 MA's), (8, 23858), (18, 23984), (23, 24029),

Gene: Rufus_31 Start: 24133, Stop: 24480, Start Num: 4

Candidate Starts for Rufus_31:

(1, 24043), (Start: 4 @24133 has 182 MA's), (Start: 7 @24154 has 8 MA's), (8, 24160), (18, 24286), (23, 24331),

Gene: Ruotula_29 Start: 24337, Stop: 24684, Start Num: 4

Candidate Starts for Ruotula_29:

(1, 24247), (Start: 4 @24337 has 182 MA's), (Start: 7 @24358 has 8 MA's), (8, 24364), (18, 24490), (23, 24535),

Gene: Rutherferd_32 Start: 24423, Stop: 24749, Start Num: 7

Candidate Starts for Rutherferd_32:

(1, 24312), (Start: 4 @24402 has 182 MA's), (Start: 7 @24423 has 8 MA's), (8, 24429), (18, 24555), (23, 24600),

Gene: STLscum_31 Start: 24540, Stop: 24887, Start Num: 4

Candidate Starts for STLscum_31:

(1, 24450), (Start: 4 @24540 has 182 MA's), (Start: 7 @24561 has 8 MA's), (8, 24567), (18, 24693), (23, 24738),

Gene: Sagefire_31 Start: 24573, Stop: 24920, Start Num: 4

Candidate Starts for Sagefire_31:

(1, 24483), (Start: 4 @24573 has 182 MA's), (Start: 7 @24594 has 8 MA's), (8, 24600), (18, 24726), (23, 24771),

Gene: Sandaddy_29 Start: 23686, Stop: 24033, Start Num: 4

Candidate Starts for Sandaddy_29:

(1, 23596), (Start: 4 @23686 has 182 MA's), (Start: 7 @23707 has 8 MA's), (8, 23713), (18, 23839), (23, 23884),

Gene: Sanya_29 Start: 24370, Stop: 24717, Start Num: 4

Candidate Starts for Sanya_29:

(1, 24280), (Start: 4 @24370 has 182 MA's), (Start: 7 @24391 has 8 MA's), (8, 24397), (18, 24523), (23, 24568),

Gene: Scowl_31 Start: 24430, Stop: 24777, Start Num: 4

Candidate Starts for Scowl_31:

(1, 24340), (Start: 4 @24430 has 182 MA's), (Start: 7 @24451 has 8 MA's), (8, 24457), (18, 24583), (23, 24628),

Gene: Seanderson_31 Start: 24228, Stop: 24575, Start Num: 4

Candidate Starts for Seanderson_31:

(1, 24138), (Start: 4 @24228 has 182 MA's), (Start: 7 @24249 has 8 MA's), (8, 24255), (18, 24381), (23, 24426),

Gene: ShortQueendom_29 Start: 23689, Stop: 24015, Start Num: 7

Candidate Starts for ShortQueendom_29:

(1, 23578), (Start: 4 @23668 has 182 MA's), (Start: 7 @23689 has 8 MA's), (8, 23695), (18, 23821), (23, 23866),

Gene: Shuman_26 Start: 18760, Stop: 19080, Start Num: 5
Candidate Starts for Shuman_26:
(Start: 5 @18760 has 41 MA's), (Start: 9 @18787 has 3 MA's), (16, 18844), (17, 18874), (18, 18907),
(24, 18958), (26, 19009),

Gene: Sibs6_32 Start: 24313, Stop: 24660, Start Num: 4
Candidate Starts for Sibs6_32:
(1, 24223), (Start: 4 @24313 has 182 MA's), (Start: 7 @24334 has 8 MA's), (8, 24340), (18, 24466),
(23, 24511),

Gene: SkiPole_32 Start: 24052, Stop: 24399, Start Num: 4
Candidate Starts for SkiPole_32:
(1, 23962), (Start: 4 @24052 has 182 MA's), (Start: 7 @24073 has 8 MA's), (8, 24079), (18, 24205),
(23, 24250),

Gene: Slagathor_31 Start: 23713, Stop: 24060, Start Num: 4
Candidate Starts for Slagathor_31:
(1, 23623), (Start: 4 @23713 has 182 MA's), (Start: 7 @23734 has 8 MA's), (8, 23740), (18, 23866),
(23, 23911),

Gene: Smairt_31 Start: 24488, Stop: 24787, Start Num: 4
Candidate Starts for Smairt_31:
(1, 24398), (Start: 4 @24488 has 182 MA's), (Start: 5 @24494 has 41 MA's), (13, 24557), (14, 24572),
(18, 24635), (21, 24653), (26, 24716),

Gene: Snazzy_29 Start: 23674, Stop: 23973, Start Num: 4
Candidate Starts for Snazzy_29:
(1, 23584), (Start: 4 @23674 has 182 MA's), (Start: 5 @23680 has 41 MA's), (13, 23743), (14, 23758),
(18, 23821), (21, 23839), (26, 23902),

Gene: Solon_30 Start: 24339, Stop: 24686, Start Num: 4
Candidate Starts for Solon_30:
(1, 24249), (Start: 4 @24339 has 182 MA's), (Start: 7 @24360 has 8 MA's), (8, 24366), (18, 24492),
(23, 24537),

Gene: Sorpresa_30 Start: 23686, Stop: 24033, Start Num: 4
Candidate Starts for Sorpresa_30:
(1, 23596), (Start: 4 @23686 has 182 MA's), (Start: 7 @23707 has 8 MA's), (8, 23713), (18, 23839),
(23, 23884),

Gene: SpikeBT_32 Start: 24644, Stop: 24991, Start Num: 4
Candidate Starts for SpikeBT_32:
(1, 24554), (Start: 4 @24644 has 182 MA's), (Start: 7 @24665 has 8 MA's), (8, 24671), (18, 24797),
(23, 24842),

Gene: StCroix_26 Start: 18760, Stop: 19080, Start Num: 5
Candidate Starts for StCroix_26:
(Start: 5 @18760 has 41 MA's), (Start: 9 @18787 has 3 MA's), (16, 18844), (17, 18874), (18, 18907),
(24, 18958), (26, 19009),

Gene: StewieG_29 Start: 23550, Stop: 23876, Start Num: 7
Candidate Starts for StewieG_29:

(1, 23439), (Start: 4 @23529 has 182 MA's), (Start: 7 @23550 has 8 MA's), (8, 23556), (18, 23682), (23, 23727),

Gene: StrongArm_29 Start: 24728, Stop: 25075, Start Num: 4

Candidate Starts for StrongArm_29:

(1, 24638), (Start: 4 @24728 has 182 MA's), (Start: 7 @24749 has 8 MA's), (8, 24755), (18, 24881), (23, 24926),

Gene: Sumter_29 Start: 23277, Stop: 23624, Start Num: 4

Candidate Starts for Sumter_29:

(1, 23187), (Start: 4 @23277 has 182 MA's), (Start: 7 @23298 has 8 MA's), (8, 23304), (18, 23430), (23, 23475),

Gene: Sunshine924_31 Start: 23558, Stop: 23905, Start Num: 4

Candidate Starts for Sunshine924_31:

(1, 23468), (Start: 4 @23558 has 182 MA's), (Start: 7 @23579 has 8 MA's), (8, 23585), (18, 23711), (23, 23756),

Gene: Swann_26 Start: 18760, Stop: 19080, Start Num: 5

Candidate Starts for Swann_26:

(Start: 5 @18760 has 41 MA's), (Start: 9 @18787 has 3 MA's), (16, 18844), (17, 18874), (18, 18907), (24, 18958), (26, 19009),

Gene: SwissCheese_32 Start: 24456, Stop: 24803, Start Num: 4

Candidate Starts for SwissCheese_32:

(1, 24366), (Start: 4 @24456 has 182 MA's), (Start: 7 @24477 has 8 MA's), (8, 24483), (18, 24609), (23, 24654),

Gene: Switzer_31 Start: 23860, Stop: 24207, Start Num: 4

Candidate Starts for Switzer_31:

(1, 23770), (Start: 4 @23860 has 182 MA's), (Start: 7 @23881 has 8 MA's), (8, 23887), (18, 24013), (23, 24058),

Gene: Swole_32 Start: 24269, Stop: 24616, Start Num: 4

Candidate Starts for Swole_32:

(1, 24179), (Start: 4 @24269 has 182 MA's), (Start: 7 @24290 has 8 MA's), (8, 24296), (18, 24422), (23, 24467),

Gene: TWAMP_26 Start: 18760, Stop: 19080, Start Num: 5

Candidate Starts for TWAMP_26:

(Start: 5 @18760 has 41 MA's), (Start: 9 @18787 has 3 MA's), (16, 18844), (17, 18874), (18, 18907), (24, 18958), (26, 19009),

Gene: Takoda_26 Start: 18720, Stop: 19040, Start Num: 5

Candidate Starts for Takoda_26:

(Start: 5 @18720 has 41 MA's), (Start: 9 @18747 has 3 MA's), (16, 18804), (17, 18834), (18, 18867), (24, 18918), (26, 18969),

Gene: Target_33 Start: 25243, Stop: 25590, Start Num: 4

Candidate Starts for Target_33:

(1, 25153), (Start: 4 @25243 has 182 MA's), (6, 25255), (Start: 7 @25264 has 8 MA's), (8, 25270), (18, 25396), (23, 25441),

Gene: Tasp14_31 Start: 23973, Stop: 24320, Start Num: 4

Candidate Starts for Tasp14_31:

(1, 23883), (Start: 4 @23973 has 182 MA's), (Start: 7 @23994 has 8 MA's), (8, 24000), (18, 24126), (23, 24171),

Gene: Teodoridan_28 Start: 23094, Stop: 23441, Start Num: 4

Candidate Starts for Teodoridan_28:

(1, 23004), (Start: 4 @23094 has 182 MA's), (Start: 7 @23115 has 8 MA's), (8, 23121), (18, 23247), (23, 23292),

Gene: TheloniousMonk_32 Start: 25387, Stop: 25734, Start Num: 4

Candidate Starts for TheloniousMonk_32:

(1, 25297), (Start: 4 @25387 has 182 MA's), (Start: 7 @25408 has 8 MA's), (8, 25414), (18, 25540), (23, 25585),

Gene: Thor_30 Start: 23848, Stop: 24195, Start Num: 4

Candidate Starts for Thor_30:

(1, 23758), (Start: 4 @23848 has 182 MA's), (Start: 7 @23869 has 8 MA's), (8, 23875), (18, 24001), (23, 24046),

Gene: Topgun_30 Start: 23601, Stop: 23948, Start Num: 4

Candidate Starts for Topgun_30:

(1, 23511), (Start: 4 @23601 has 182 MA's), (Start: 7 @23622 has 8 MA's), (8, 23628), (18, 23754), (23, 23799),

Gene: Tote_32 Start: 24269, Stop: 24616, Start Num: 4

Candidate Starts for Tote_32:

(1, 24179), (Start: 4 @24269 has 182 MA's), (Start: 7 @24290 has 8 MA's), (8, 24296), (18, 24422), (23, 24467),

Gene: Traft412_32 Start: 24697, Stop: 24990, Start Num: 5

Candidate Starts for Traft412_32:

(1, 24601), (Start: 4 @24691 has 182 MA's), (Start: 5 @24697 has 41 MA's), (13, 24760), (14, 24775), (18, 24838), (21, 24856), (26, 24919),

Gene: Treddle_32 Start: 24987, Stop: 25280, Start Num: 5

Candidate Starts for Treddle_32:

(1, 24891), (Start: 4 @24981 has 182 MA's), (Start: 5 @24987 has 41 MA's), (13, 25050), (14, 25065), (18, 25128), (21, 25146), (26, 25209),

Gene: Tripl3t_31 Start: 24600, Stop: 24947, Start Num: 4

Candidate Starts for Tripl3t_31:

(1, 24510), (Start: 4 @24600 has 182 MA's), (Start: 7 @24621 has 8 MA's), (8, 24627), (18, 24753), (23, 24798),

Gene: Trouble_31 Start: 24547, Stop: 24894, Start Num: 4

Candidate Starts for Trouble_31:

(1, 24457), (Start: 4 @24547 has 182 MA's), (Start: 7 @24568 has 8 MA's), (8, 24574), (18, 24700), (23, 24745),

Gene: Turj99_29 Start: 23487, Stop: 23834, Start Num: 4

Candidate Starts for Turj99_29:

(1, 23397), (Start: 4 @23487 has 182 MA's), (Start: 7 @23508 has 8 MA's), (8, 23514), (18, 23640), (23, 23685),

Gene: TwoPeat_31 Start: 24068, Stop: 24415, Start Num: 4

Candidate Starts for TwoPeat_31:

(1, 23978), (Start: 4 @24068 has 182 MA's), (Start: 7 @24089 has 8 MA's), (8, 24095), (18, 24221), (23, 24266),

Gene: UhSalsa_26 Start: 18760, Stop: 19080, Start Num: 5

Candidate Starts for UhSalsa_26:

(Start: 5 @18760 has 41 MA's), (Start: 9 @18787 has 3 MA's), (16, 18844), (17, 18874), (18, 18907), (24, 18958), (26, 19009),

Gene: Violet_29 Start: 24273, Stop: 24620, Start Num: 4

Candidate Starts for Violet_29:

(1, 24183), (Start: 4 @24273 has 182 MA's), (Start: 7 @24294 has 8 MA's), (8, 24300), (18, 24426), (23, 24471),

Gene: Watermelon_32 Start: 24609, Stop: 24956, Start Num: 4

Candidate Starts for Watermelon_32:

(1, 24519), (Start: 4 @24609 has 182 MA's), (Start: 7 @24630 has 8 MA's), (8, 24636), (18, 24762), (23, 24807),

Gene: Wheeler_30 Start: 24041, Stop: 24388, Start Num: 4

Candidate Starts for Wheeler_30:

(1, 23951), (Start: 4 @24041 has 182 MA's), (Start: 7 @24062 has 8 MA's), (8, 24068), (18, 24194), (23, 24239),

Gene: Wilkins_30 Start: 23579, Stop: 23878, Start Num: 4

Candidate Starts for Wilkins_30:

(1, 23489), (Start: 4 @23579 has 182 MA's), (Start: 5 @23585 has 41 MA's), (13, 23648), (14, 23663), (18, 23726), (21, 23744), (26, 23807),

Gene: Yogi_26 Start: 18734, Stop: 19054, Start Num: 5

Candidate Starts for Yogi_26:

(Start: 5 @18734 has 41 MA's), (Start: 9 @18761 has 3 MA's), (16, 18818), (17, 18848), (18, 18881), (24, 18932), (25, 18965), (26, 18983),

Gene: Yoncess_26 Start: 18734, Stop: 19054, Start Num: 5

Candidate Starts for Yoncess_26:

(Start: 5 @18734 has 41 MA's), (Start: 9 @18761 has 3 MA's), (16, 18818), (17, 18848), (18, 18881), (24, 18932), (25, 18965), (26, 18983),

Gene: Zeeculate_30 Start: 24480, Stop: 24827, Start Num: 4

Candidate Starts for Zeeculate_30:

(1, 24390), (Start: 4 @24480 has 182 MA's), (Start: 7 @24501 has 8 MA's), (8, 24507), (18, 24633), (23, 24678),

Gene: Zephyr_30 Start: 23842, Stop: 24189, Start Num: 4

Candidate Starts for Zephyr_30:

(1, 23752), (Start: 4 @23842 has 182 MA's), (Start: 7 @23863 has 8 MA's), (8, 23869), (18, 23995), (23, 24040),

Gene: Zeuska_31 Start: 24276, Stop: 24623, Start Num: 4

Candidate Starts for Zeuska_31:

(1, 24186), (Start: 4 @24276 has 182 MA's), (Start: 7 @24297 has 8 MA's), (8, 24303), (18, 24429),
(23, 24474),