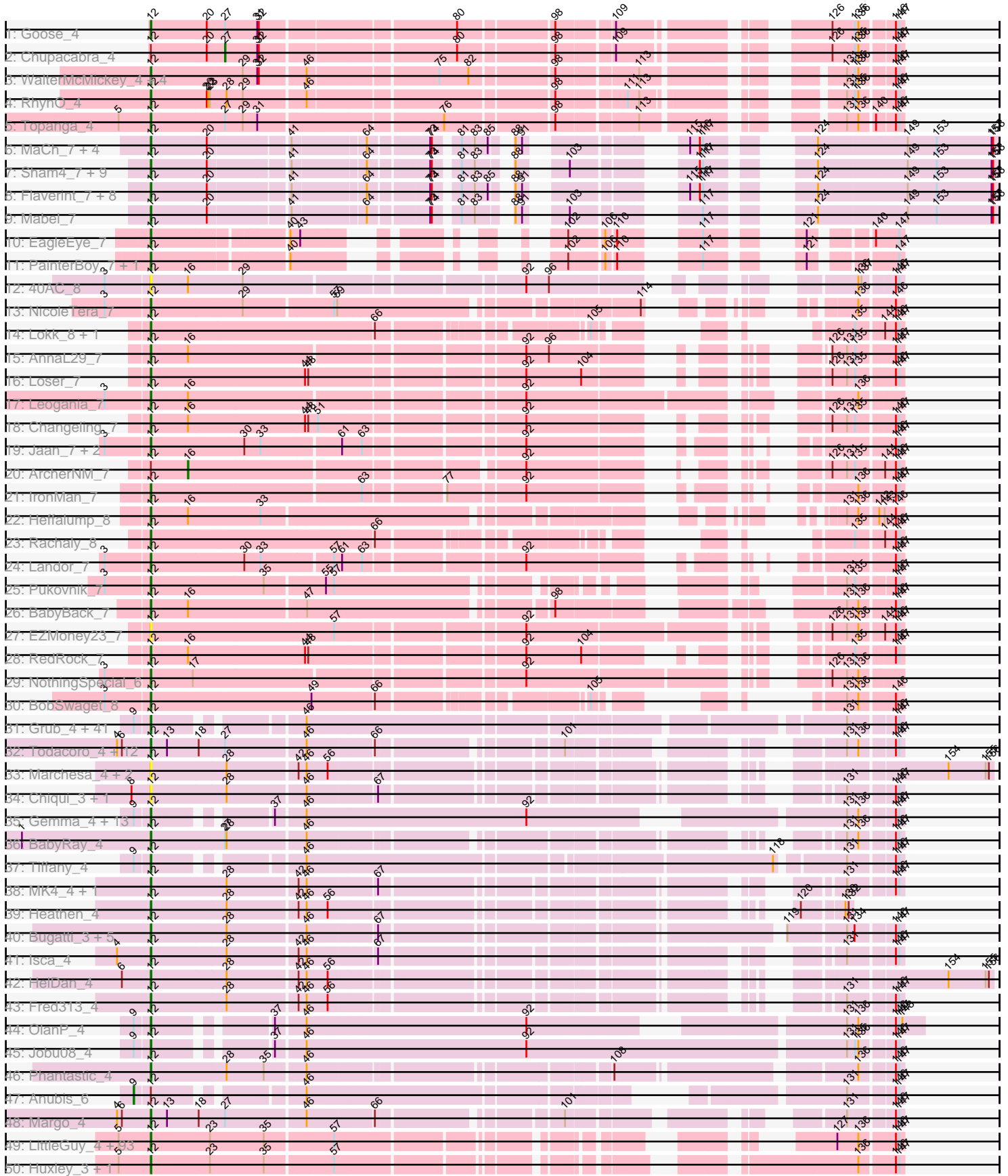
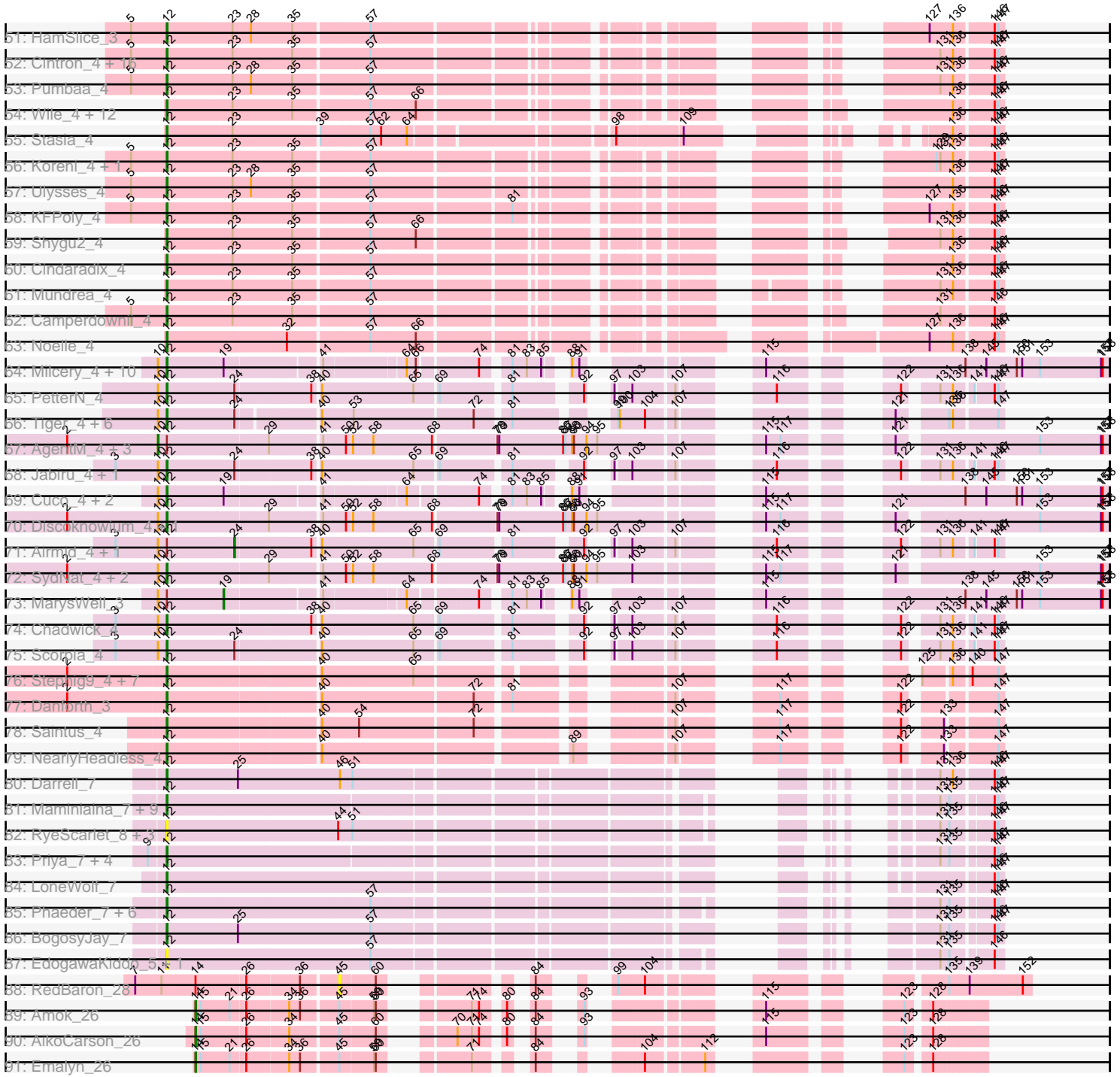


Pham 202591



Pham 202591



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 202591 Report

This analysis was run 01/18/25 on database version 583.

Pham number 202591 has 374 members, 27 are drafts.

Phages represented in each track:

- Track 1 : Goose_4
- Track 2 : Chupacabra_4
- Track 3 : WalterMcMickey_4, Twister_4, Rebeuca_5, Edison31_4, Kristoff_5
- Track 4 : RhynO_4
- Track 5 : Topanga_4
- Track 6 : MaCh_7, Ebony_7, Gilberta_7, TinyTimmy_7, Jabith_7
- Track 7 : Sham4_7, Et2Brutus_6, Fibonacci_7, Hutc2_7, Petersenfast_6, Bachome_7, Bud_7, Mulciber_7, Salz_7, Snape_7
- Track 8 : Flaverint_7, Aneem_7, Munch_7, Joselito_7, Lucivia_7, Bowtie_7, Insomnia_7, Orange_7, Timothy_7
- Track 9 : Mabel_7
- Track 10 : EagleEye_7
- Track 11 : PainterBoy_7, Lucyedi_7
- Track 12 : 40AC_8
- Track 13 : NicoleTera_7
- Track 14 : Lokk_8, Miko_8
- Track 15 : AnnaL29_7
- Track 16 : Loser_7
- Track 17 : Leogania_7
- Track 18 : Changeling_7
- Track 19 : Jaan_7, Phaded_7, Bactobuster_7
- Track 20 : ArcherNM_7
- Track 21 : IronMan_7
- Track 22 : Heffalump_8
- Track 23 : Rachaly_8
- Track 24 : Landor_7
- Track 25 : Pukovnik_7
- Track 26 : BabyBack_7
- Track 27 : EZMoney23_7
- Track 28 : RedRock_7
- Track 29 : NothingSpecial_6
- Track 30 : BobSwaget_8
- Track 31 : Grub_4, Grif_4, Phoxy_4, BreSam8_4, Snickers_4, GingkoMaracino_4, Louie6_4, Dieselweasel_4, MuchMore_6, TinyPebbles_4, AugsMagnumOpus_6, Soshari_6, Spike509_4, Methuselah_4, Vix_4, Sabia_4, Microwolf_4, Aglet_4, Stagni_4, StepMih_4, MadMarie_4, Ollie_4, Mainiac_4, LarryKay_4, DaHudson_4, Zetzy_4, PGHhamlin_6, MarQuardt_4, GtownJaz_4, Misomonster_6, SoYo_4,

Watson_4, Malinsilva_6, KADY_5, Bxz2_4, BuzzBuzz_3, Lilith_4, Pembroke_4, Farber_4, Rummer_4, Wooldri_6, HashRod_5

- Track 32 : Todacoro_4, Popcicle_4, Veracruz_3, Texage_3, QuinnKiro_3, Pocahontas_4, ResDef_4, Hookmount_4, Panamaxus_4, Noella_4, Caviar_4, Norbert_3, Lambert1_4
- Track 33 : Marchesa_4, DropBear_4, Kachowdy_4
- Track 34 : Chiqui_3, BabyJohn_3
- Track 35 : Gemma_4, Kalnoky_5, PurpleHaze_4, Manu_5, Pawn_4, Kalb97_5, JeppNRM_5, Groupthink_5, HaveUMetTed_5, Marius_5, Phranny_5, Calvinny_4, Heliosoles_4, ACFishhook_4
- Track 36 : BabyRay_4
- Track 37 : Tiffany_4
- Track 38 : MK4_4, Rockstar_4
- Track 39 : Heathen_4
- Track 40 : Bugatti_3, Idleandcovert_3, BlueBird_4, SaturnRing_3, Giroux_3, TNguyen7_4
- Track 41 : Isca_4
- Track 42 : HelDan_4
- Track 43 : Fred313_4
- Track 44 : OlanP_4
- Track 45 : Jobu08_4
- Track 46 : Phantastic_4
- Track 47 : Anubis_6
- Track 48 : Margo_4
- Track 49 : LittleGuy_4, Kampy_4, Lorenzo_4, TroyPia_4, Ohfah_4, Sabertooth_4, Clarenza_4, CentreCat_4, Ruin_4, Kratark_4, Maxo_4, Florean_4, Nyxis_4, JoongJeon_4, Phacado_4, Eros_4, Albee_4, Bombshell_4, Maverick_4, LittleB_4, BellusTerra_4, Phelipe_4, Peaches_4, ICleared_4, Taquarus_4, Avle17_4, TiroTheta9_4, Wizard007_4, MeeZee_4, Millski_4, Commander_4, JetBlade_4, Eagle_3, TygerBlood_4, Relief_4, Eapen_4, Gadost_4, NorthStar_4, Baby16_4, Wilbur_4, Kingmustik0402_4, Pipcraft_4, Iceman_4, Polymorphads_4, Medusa_4, Palestino_4, Melvin_4, Phontbonne_4, LeoAvram_4, YoSam321_4, Citius_4, Sparxx_4, Caelakin_4, Arturo_3, Kyee_4, Cocoaberry_4, TinaFeyge_4, Koan_3, Bartimeaus_4, LappelDuVide_4, Roosevelt_4, Spino_4, Funston_4, Dhanush_4, Bruiser_4, Blackmoor_4, SenorClean_3, Scamp_4, Connomayer_4, PeterPeter_4, Lunsford_4, Houdini22_4, Nemo27_4, Broseidon_4, BubbleTrouble_4, Jaykayelowell_4, Lemur_4, Romney_4, Nebs_4, NotAPhaseMom_4, Shaka_4, Skipitt_4, Eris_4, Chaph_4, Druantia_4, Flux_4, Eurydice_4, Thanksgivukkah_4, Morrow_4, Burger_3, Deano_4, Mazhar510_4, Abdiel_4, Wander_4
- Track 50 : Huxley_3, Annyong_4
- Track 51 : HamSlice_3
- Track 52 : Cintron_4, Cerulean_4, SheldonCooper_4, Phighter1804_4, Iracema64_4, Obama12_4, AvatarAhPeg_4, Stink_4, Rosa24_3, DirtyDunning_4, LochMonster_4, LHTSCC_4, ChampagnePapi_4, Tinybot_3, Miramae_4, Happiness_4, BangNhom_3
- Track 53 : Pumbaa_4
- Track 54 : Wile_4, Badger_4, PetiteSangsue_4, Cici_4, Katalie136_4, Perplexer_4, Xena_4, Datway_4, Morpher26_4, Achebe_4, Backyardigan_4, AbbysRanger_4, Bumblebee11_4
- Track 55 : Stasia_4
- Track 56 : Koreni_4, Alberto7_4
- Track 57 : Ulysses_4
- Track 58 : KFPoly_4

- Track 59 : Shygu2_4
- Track 60 : Cindaradix_4
- Track 61 : Mundrea_4
- Track 62 : Camperdownii_4
- Track 63 : Noelle_4
- Track 64 : Milcery_4, Tarynearal_3, George_3, Coog_4, Midas2_4, LittleCherry_4, Bonamassa_4, Twigg_4, Micasa_4, HuhtaEnerson15_4, Swirley_4
- Track 65 : PetterN_4
- Track 66 : Tiger_4, Lev2_4, PickleBack_4, Conspiracy_4, UnionJack_4, ForGetIt_4, Archetta_4
- Track 67 : AgentM_4, Aragog_4, Jovo_4, Phlorence_4
- Track 68 : Jabiru_4, ElTiger69_4
- Track 69 : Cuco_4, Theia_3, Dublin_3
- Track 70 : Discoknowium_4, Bluefalcon_3
- Track 71 : Airmid_4, Benedict_4
- Track 72 : SydNat_4, Zolita_3, Ghouboy_4
- Track 73 : MarysWell_3
- Track 74 : Chadwick_4
- Track 75 : Scorpia_4
- Track 76 : Stephig9_4, Expelliarmus_3, Phillis_4, Smeadley_4, Groundhog_3, Astro_4, Dixon_4, Roary_4
- Track 77 : Danforth_3
- Track 78 : Saintus_4
- Track 79 : NearlyHeadless_4
- Track 80 : Darrell_7
- Track 81 : Maminiaina_7, Ugenie5_5, ExplosioNervosa_7, Scherzo_7, Alma_7, EmyBug_7, Pioneer_7, Beemo_7, Phonnegut_7, Fayely_7
- Track 82 : RyeScarlet_8, Hanray_6, Jiawan_6, Halex_6
- Track 83 : Priya_7, Conquerage_7, Eidsmoe_7, Qobbit_7, Spouty_7
- Track 84 : LoneWolf_7
- Track 85 : Phaeder_7, HortumSL17_7, Tubs_7, Myxus_7, Catalina_7, Lilleskat_5, PackMan_7
- Track 86 : BogosyJay_7
- Track 87 : EdogawaKiddo_5, Sachima_5
- Track 88 : RedBaron_28
- Track 89 : Amok_26
- Track 90 : AikoCarson_26
- Track 91 : Emalyn_26

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

The start number called the most often in the published annotations is 12, it was called in 334 of the 347 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 40AC_8, ACFishhook_4, AbbysRanger_4, Abdiel_4, Achebe_4, Aglet_4, Albee_4, Alberto7_4, Alma_7, Aneem_7, AnnaL29_7, Annyong_4, Archetta_4, Arturo_3, Astro_4, AugsMagnumOpus_6, AvatarAhPeg_4, Avle17_4, Baby16_4, BabyBack_7, BabyJohn_3, BabyRay_4, Bachome_7, Backyardigan_4, Bactobuster_7, Badger_4, BangNhom_3, Bartimeaus_4, Beemo_7, BellusTerra_4, Blackmoor_4, BlueBird_4,

Bluefalcon_3, BobSwaget_8, BogosyJay_7, Bombshell_4, Bonamassa_4, Bowtie_7, BreSam8_4, Broseidon_4, Bruiser_4, BubbleTrouble_4, Bud_7, Bugatti_3, Bumblebee11_4, Burger_3, BuzzBuzz_3, Bxz2_4, Caelakin_4, Calvinny_4, Camperdownii_4, Catalina_7, Caviar_4, CentreCat_4, Cerulean_4, Chadwick_4, ChampagnePapi_4, Changeling_7, Chaph_4, Chiqui_3, Cici_4, Cindaradix_4, Cintron_4, Citius_4, Clarenza_4, Cocoaberry_4, Commander_4, Connomayer_4, Conquerage_7, Conspiracy_4, Coog_4, Cuco_4, DaHudson_4, Danforth_3, Darrell_7, Datway_4, Deano_4, Dhanush_4, Dieselweasel_4, DirtyDunning_4, Discoknowium_4, Dixon_4, DropBear_4, Druantia_4, Dublin_3, EZMoney23_7, EagleEye_7, Eagle_3, Eapen_4, Ebony_7, Edison31_4, EdogawaKiddo_5, Eidsmoe_7, EITiger69_4, EmyBug_7, Eris_4, Eros_4, Et2Brutus_6, Eurydice_4, Expelliarmus_3, ExplosioNervosa_7, Farber_4, Fayely_7, Fibonacci_7, Flaverint_7, Florean_4, Flux_4, ForGetIt_4, Fred313_4, Funston_4, Gadost_4, Gemma_4, George_3, Ghoulyboy_4, Gilberta_7, GingkoMaracino_4, Giroux_3, Goose_4, Grif_4, Groundhog_3, Groupthink_5, Grub_4, GtownJaz_4, HamSlice_3, Hanray_6, Happiness_4, HashRod_5, HaveUMetTed_5, Heathen_4, Heffalump_8, HelDan_4, Heliosoles_4, Holes_6, Hookmount_4, HortumSL17_7, Houdini22_4, HuhtaEnerson15_4, Hutc2_7, Huxley_3, ICleared_4, Iceman_4, Idleandcovert_3, Insomnia_7, Iracema64_4, IronMan_7, Isca_4, Jaan_7, Jabiru_4, Jabith_7, Jaykayelowell_4, JeppNRM_5, JetBlade_4, Jiawan_6, Jobu08_4, JoongJeon_4, Joselito_7, KADY_5, KFPoly_4, Kachowdy_4, Kalb97_5, Kalnoky_5, Kampy_4, Katalie136_4, Kingmustik0402_4, Koan_3, Koreni_4, Kratark_4, Kristoff_5, Kyee_4, LHTSCC_4, Lambert1_4, Landor_7, LappelDuVide_4, LarryKay_4, Lemur_4, LeoAvram_4, Leogania_7, Lev2_4, Lilith_4, Lilleskat_5, LittleB_4, LittleCherry_4, LittleGuy_4, LochMonster_4, Loka_8, LoneWolf_7, Lorenzo_4, Loser_7, Louie6_4, Lucivia_7, Lucyedi_7, Lunsford_4, MK4_4, MaCh_7, Mabel_7, MadMarie_4, Mainiac_4, Malinsilva_6, Maminiaina_7, Manu_5, MarQuardt_4, Marchesa_4, Margo_4, Marius_5, Maverick_4, Maxo_4, Mazhar510_4, Medusa_4, MeeZee_4, Melvin_4, Methuselah_4, Micasa_4, Microwolf_4, Midas2_4, Miko_8, Milcery_4, Millski_4, Miramae_4, Misomonster_6, Morpher26_4, Morrow_4, MuchMore_6, Mulciber_7, Munch_7, Mundrea_4, Myxus_7, NearlyHeadless_4, Nebs_4, Nemo27_4, NicoleTera_7, Noella_4, Noelle_4, Norbert_3, NorthStar_4, NotAPhaseMom_4, NothingSpecial_6, Nyxis_4, Obama12_4, Ohfah_4, OlanP_4, Ollie_4, Orange_7, PGHhamlin_6, PackMan_7, PainterBoy_7, Palestino_4, Panamaxus_4, Pawn_4, Peaches_4, Pembroke_4, Perplexer_4, PeterPeter_4, Petersenfast_6, PetiteSangsue_4, PetterN_4, Phacado_4, Phaded_7, Phaeder_7, Phantastic_4, Phelipe_4, Phighter1804_4, Phillis_4, Phonnegut_7, Phontbonne_4, Phoxy_4, Phranny_5, PickleBack_4, Pioneer_7, Pipcraft_4, Pocahontas_4, Polymorphads_4, Popcicle_4, Priya_7, Pukovnik_7, Pumbaa_4, PurpleHaze_4, Qobbit_7, QuinnKiro_3, Rachaly_8, Rebeuca_5, RedRock_7, Relief_4, ResDef_4, RhynO_4, Roary_4, Rockstar_4, Romney_4, Roosevelt_4, Rosa24_3, Ruin_4, Rummer_4, RyeScarlet_8, Sabertooth_4, Sabia_4, Sachima_5, Saintus_4, Salz_7, SaturnRing_3, Scamp_4, Scherzo_7, Scorpia_4, SenorClean_3, Shaka_4, Sham4_7, SheldonCooper_4, Shygu2_4, Skipitt_4, Smeadley_4, Snape_7, Snickers_4, SoYo_4, Soshari_6, Sparxx_4, Spike509_4, Spino_4, Spouty_7, Stagni_4, Stasia_4, StepMih_4, Stephig9_4, Stink_4, Swirley_4, SydNat_4, TNguyen7_4, Taquarus_4, Tarynearal_3, Texage_3, Thanksgivukkah_4, Theia_3, Tiffany_4, Tiger_4, Timothy_7, TinaFeyge_4, TinyPebbles_4, TinyTimmy_7, Tinybot_3, TiroTheta9_4, Todacoro_4, Topanga_4, TroyPia_4, Tubs_7, Twigg_4, Twister_4, TygerBlood_4, Ugenie5_5, Ulysses_4, UnionJack_4, Veracruz_3, Vix_4, WalterMcMickey_4, Wander_4, Watson_4, Wilbur_4, Wile_4, Wizard007_4, Wooldri_6, Xena_4, YoSam321_4, Zetzy_4, Zolita_3,

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

- AgentM_4, Airmid_4, Anubis_6, Aragog_4, ArcherNM_7, Benedict_4, Chupacabra_4, Jovo_4, MarysWell_3, Phlorence_4,

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

- AikoCarson_26, Amok_26, Emalyn_26, RedBaron_28,

Summary by start number:

Start 9:

- Found in 65 of 374 (17.4%) of genes in pham
- Manual Annotations of this start: 1 of 347
- Called 1.5% of time when present
- Phage (with cluster) where this start called: Anubis_6 (A3),

Start 10:

- Found in 38 of 374 (10.2%) of genes in pham
- Manual Annotations of this start: 4 of 347
- Called 10.5% of time when present
- Phage (with cluster) where this start called: AgentM_4 (A5), Aragog_4 (A5), Jovo_4 (A5), Phlorence_4 (A5),

Start 12:

- Found in 370 of 374 (98.9%) of genes in pham
- Manual Annotations of this start: 334 of 347
- Called 97.3% of time when present
- Phage (with cluster) where this start called: 40AC_8 (A17), ACFishhook_4 (A3), AbbysRanger_4 (A4), Abdiel_4 (A4), Achebe_4 (A4), Aglet_4 (A3), Albee_4 (A4), Alberto7_4 (A4), Alma_7 (A9), Aneem_7 (A11), AnnaL29_7 (A2), Annyong_4 (A4), Archetta_4 (A5), Arturo_3 (A4), Astro_4 (A8), AugsMagnumOpus_6 (A3), AvatarAhPeg_4 (A4), Avle17_4 (A4), Baby16_4 (A4), BabyBack_7 (A2), BabyJohn_3 (A3), BabyRay_4 (A3), Bachome_7 (A11), Backyardigan_4 (A4), Bactobuster_7 (A2), Badger_4 (A4), BangNhom_3 (A4), Bartimeaus_4 (A4), Beemo_7 (A9), BellusTerra_4 (A4), Blackmoor_4 (A4), BlueBird_4 (A3), Bluefalcon_3 (A5), BobSwaget_8 (A2), BogosyJay_7 (A9), Bombshell_4 (A4), Bonamassa_4 (A5), Bowtie_7 (A11), BreSam8_4 (A3), Broseidon_4 (A4), Bruiser_4 (A4), BubbleTrouble_4 (A4), Bud_7 (A11), Bugatti_3 (A3), Bumblebee11_4 (A4), Burger_3 (A4), BuzzBuzz_3 (A3), Bxz2_4 (A3), Caelakin_4 (A4), Calvinny_4 (A3), Camperdownii_4 (A4), Catalina_7 (A9), Caviar_4 (A3), CentreCat_4 (A4), Cerulean_4 (A4), Chadwick_4 (A5), ChampagnePapi_4 (A4), Changeling_7 (A2), Chaph_4 (A4), Chiqui_3 (A3), Cici_4 (A4), Cindaradix_4 (A4), Cintron_4 (A4), Citius_4 (A4), Clarenza_4 (A4), Cocoaberry_4 (A4), Commander_4 (A4), Connomayer_4 (A4), Conquerage_7 (A9), Conspiracy_4 (A5), Coog_4 (A5), Cuco_4 (A5), DaHudson_4 (A3), Danforth_3 (A8), Darrell_7 (A9), Datway_4 (A4), Deano_4 (A4), Dhanush_4 (A4), Dieselweasel_4 (A3), DirtyDunning_4 (A4), Discoknowium_4 (A5), Dixon_4 (A8), DropBear_4 (A3), Druantia_4 (A4), Dublin_3 (A5), EZMoney23_7 (A2), EagleEye_7 (A16), Eagle_3 (A4), Eapen_4 (A4), Ebony_7 (A11), Edison31_4 (A10), EdogawaKiddo_5 (A9), Eidsmoe_7 (A9), ElTiger69_4 (A5), EmyBug_7 (A9), Eris_4 (A4), Eros_4 (A4), Et2Brutus_6 (A11), Eurydice_4 (A4), Expelliarmus_3 (A8), ExplosioNervosa_7 (A9), Farber_4 (A3), Fayely_7 (A9), Fibonacci_7 (A11), Flaverint_7 (A11), Floean_4 (A4), Flux_4 (A4), ForGetIt_4 (A5), Fred313_4 (A3), Funston_4 (A4), Gadost_4 (A4), Gemma_4 (A3), George_3 (A5), Ghoulboy_4 (A5), Gilberta_7 (A11), GingkoMaracino_4 (A3), Giroux_3 (A3), Goose_4 (A10), Grif_4 (A3), Groundhog_3

(A8), Groupthink_5 (A3), Grub_4 (A3), GtownJaz_4 (A3), HamSlice_3 (A4), Hanray_6 (A9), Happiness_4 (A4), HashRod_5 (A3), HaveUMetTed_5 (A3), Heathen_4 (A3), Heffalump_8 (A2), HelDan_4 (A3), Heliosoles_4 (A3), Horex_6 (A9), Hookmount_4 (A3), HortumSL17_7 (A9), Houdini22_4 (A4), HuhtaEnerson15_4 (A5), Hutc2_7 (A11), Huxley_3 (A4), ICleared_4 (A4), Iceman_4 (A4), Idleandcovert_3 (A3), Insomnia_7 (A11), Iracema64_4 (A4), IronMan_7 (A2), Isca_4 (A3), Jaan_7 (A2), Jabiru_4 (A5), Jabith_7 (A11), Jaykayelowell_4 (A4), JeppNRM_5 (A3), JetBlade_4 (A4), Jiawan_6 (A9), Jobu08_4 (A3), JoongJeon_4 (A4), Joselito_7 (A11), KADY_5 (A3), KFPoly_4 (A4), Kachowdy_4 (A3), Kalb97_5 (A3), Kalnoky_5 (A3), Kampy_4 (A4), Katalie136_4 (A4), Kingmustik0402_4 (A4), Koan_3 (A4), Koreni_4 (A4), Kratark_4 (A4), Kristoff_5 (A10), Kye_4 (A4), LHTSCC_4 (A4), Lambert1_4 (A3), Landor_7 (A2), LappelDuVide_4 (A4), LarryKay_4 (A3), Lemur_4 (A4), LeoAvram_4 (A4), Leogania_7 (A2), Lev2_4 (A5), Lilith_4 (A3), Lilleskat_5 (A9), LittleB_4 (A4), LittleCherry_4 (A5), LittleGuy_4 (A4), LochMonster_4 (A4), Lokk_8 (A2), LoneWolf_7 (A9), Lorenzo_4 (A4), Loser_7 (A2), Louie6_4 (A3), Lucivia_7 (A11), Lucyedi_7 (A16), Lunsford_4 (A4), MK4_4 (A3), MaCh_7 (A11), Mabel_7 (A11), MadMarie_4 (A3), Mainiac_4 (A3), Malinsilva_6 (A3), Maminiaina_7 (A9), Manu_5 (A3), MarQuardt_4 (A3), Marchesa_4 (A3), Margo_4 (A3), Marius_5 (A3), Maverick_4 (A4), Maxo_4 (A4), Mazhar510_4 (A4), Medusa_4 (A4), MeeZee_4 (A4), Melvin_4 (A4), Methuselah_4 (A3), Micasa_4 (A5), Microwolf_4 (A3), Midas2_4 (A5), Miko_8 (A2), Milcery_4 (A5), Millski_4 (A4), Miramae_4 (A4), Misomonster_6 (A3), Morpher26_4 (A4), Morrow_4 (A4), MuchMore_6 (A3), Mulciber_7 (A11), Munch_7 (A11), Mundrea_4 (A4), Myxus_7 (A9), NearlyHeadless_4 (A8), Nebs_4 (A4), Nemo27_4 (A4), NicoleTera_7 (A2), Noella_4 (A3), Noelle_4 (A4), Norbert_3 (A3), NorthStar_4 (A4), NotAPhaseMom_4 (A4), NothingSpecial_6 (A2), Nyxis_4 (A4), Obama12_4 (A4), Ohfah_4 (A4), OlanP_4 (A3), Ollie_4 (A3), Orange_7 (A11), PGHhamlin_6 (A3), PackMan_7 (A9), PainterBoy_7 (A16), Palestino_4 (A4), Panamaxus_4 (A3), Pawn_4 (A3), Peaches_4 (A4), Pembroke_4 (A3), Perplexer_4 (A4), PeterPeter_4 (A4), Petersenfast_6 (A11), PetiteSangsue_4 (A4), PetterN_4 (A5), Phacado_4 (A4), Phaded_7 (A2), Phaeder_7 (A9), Phantastic_4 (A3), Felipe_4 (A4), Phighter1804_4 (A4), Phillis_4 (A8), Phonnegut_7 (A9), Phontbonne_4 (A4), Phoxy_4 (A3), Phranny_5 (A3), PickleBack_4 (A5), Pioneer_7 (A9), Pipcraft_4 (A4), Pocahontas_4 (A3), Polymorphads_4 (A4), Popcicle_4 (A3), Priya_7 (A9), Pukovnik_7 (A2), Pumbaa_4 (A4), PurpleHaze_4 (A3), Qobbit_7 (A9), QuinnKiro_3 (A3), Rachaly_8 (A2), Rebeuca_5 (A10), RedRock_7 (A2), Relief_4 (A4), ResDef_4 (A3), RhynO_4 (A10), Roary_4 (A8), Rockstar_4 (A3), Romney_4 (A4), Roosevelt_4 (A4), Rosa24_3 (A4), Ruin_4 (A4), Rummer_4 (A3), RyeScarlet_8 (A9), Sabertooth_4 (A4), Sabia_4 (A3), Sachima_5 (A9), Saintus_4 (A8), Salz_7 (A11), SaturnRing_3 (A3), Scamp_4 (A4), Scherzo_7 (A9), Scorpia_4 (A5), SenorClean_3 (A4), Shaka_4 (A4), Sham4_7 (A11), SheldonCooper_4 (A4), Shygu2_4 (A4), Skipitt_4 (A4), Smeadley_4 (A8), Snape_7 (A11), Snickers_4 (A3), SoYo_4 (A3), Soshari_6 (A3), Sparxx_4 (A4), Spike509_4 (A3), Spino_4 (A4), Spouty_7 (A9), Stagni_4 (A3), Stasia_4 (A4), StepMih_4 (A3), Stephig9_4 (A8), Stink_4 (A4), Swirley_4 (A5), SydNat_4 (A5), TNguyen7_4 (A3), Taquarus_4 (A4), Tarynearal_3 (A5), Texage_3 (A3), Thanksgivukkah_4 (A4), Theia_3 (A5), Tiffany_4 (A3), Tiger_4 (A5), Timothy_7 (A11), TinaFeyge_4 (A4), TinyPebbles_4 (A3), TinyTimmy_7 (A11), Tinybot_3 (A4), TiroTheta9_4 (A4), Todacoro_4 (A3), Topanga_4 (A10), TroyPia_4 (A4), Tubs_7 (A9), Twigg_4 (A5), Twister_4 (A10), TygerBlood_4 (A4), Ugenie5_5 (A9), Ulysses_4 (A4), UnionJack_4 (A5), Veracruz_3 (A3), Vix_4 (A3), WalterMcMickey_4 (A10), Wander_4 (A4), Watson_4 (A3), Wilbur_4 (A4), Wile_4 (A4), Wizard007_4 (A4), Wooldri_6 (A3), Xena_4 (A4), YoSam321_4 (A4), Zetzy_4 (A3), Zolita_3 (A5),

Start 14:

- Found in 4 of 374 (1.1%) of genes in pham
- Manual Annotations of this start: 3 of 347
- Called 75.0% of time when present
- Phage (with cluster) where this start called: AikoCarson_26 (CT), Amok_26 (CT), Emalyn_26 (CT),

Start 16:

- Found in 8 of 374 (2.1%) of genes in pham
- Manual Annotations of this start: 1 of 347
- Called 12.5% of time when present
- Phage (with cluster) where this start called: ArcherNM_7 (A2),

Start 19:

- Found in 15 of 374 (4.0%) of genes in pham
- Manual Annotations of this start: 1 of 347
- Called 6.7% of time when present
- Phage (with cluster) where this start called: MarysWell_3 (A5),

Start 24:

- Found in 13 of 374 (3.5%) of genes in pham
- Manual Annotations of this start: 2 of 347
- Called 15.4% of time when present
- Phage (with cluster) where this start called: Airmid_4 (A5), Benedict_4 (A5),

Start 27:

- Found in 18 of 374 (4.8%) of genes in pham
- Manual Annotations of this start: 1 of 347
- Called 5.6% of time when present
- Phage (with cluster) where this start called: Chupacabra_4 (A10),

Start 45:

- Found in 4 of 374 (1.1%) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: RedBaron_28 (CT),

Summary by clusters:

There are 11 clusters represented in this pham: A17, A16, A11, A10, A3, A2, A5, A4, A9, A8, CT,

Info for manual annotations of cluster A10:

- Start number 12 was manually annotated 8 times for cluster A10.
- Start number 27 was manually annotated 1 time for cluster A10.

Info for manual annotations of cluster A11:

- Start number 12 was manually annotated 24 times for cluster A11.

Info for manual annotations of cluster A16:

- Start number 12 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A2:

- Start number 12 was manually annotated 19 times for cluster A2.
- Start number 16 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A3:

- Start number 9 was manually annotated 1 time for cluster A3.
- Start number 12 was manually annotated 81 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 12 was manually annotated 134 times for cluster A4.

Info for manual annotations of cluster A5:

- Start number 10 was manually annotated 4 times for cluster A5.
- Start number 12 was manually annotated 30 times for cluster A5.
- Start number 19 was manually annotated 1 time for cluster A5.
- Start number 24 was manually annotated 2 times for cluster A5.

Info for manual annotations of cluster A8:

- Start number 12 was manually annotated 11 times for cluster A8.

Info for manual annotations of cluster A9:

- Start number 12 was manually annotated 24 times for cluster A9.

Info for manual annotations of cluster CT:

- Start number 14 was manually annotated 3 times for cluster CT.

Gene Information:

Gene: 40AC_8 Start: 4152, Stop: 5285, Start Num: 12

Candidate Starts for 40AC_8:

(3, 4071), (Start: 12 @4152 has 334 MA's), (Start: 16 @4221 has 1 MA's), (29, 4320), (92, 4791), (96, 4833), (136, 5217), (137, 5223), (146, 5271), (147, 5277),

Gene: ACFishhook_4 Start: 1685, Stop: 2965, Start Num: 12

Candidate Starts for ACFishhook_4:

(Start: 9 @1658 has 1 MA's), (Start: 12 @1685 has 334 MA's), (37, 1865), (46, 1913), (92, 2309), (131, 2879), (136, 2897), (146, 2951), (147, 2957),

Gene: AbbysRanger_4 Start: 1644, Stop: 2729, Start Num: 12

Candidate Starts for AbbysRanger_4:

(Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (66, 2034), (136, 2658), (146, 2715), (147, 2721),

Gene: Abdiel_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Abdiel_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Achebe_4 Start: 1644, Stop: 2729, Start Num: 12

Candidate Starts for Achebe_4:

(Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (66, 2034), (136, 2658), (146, 2715), (147, 2721),

Gene: AgentM_4 Start: 2343, Stop: 3680, Start Num: 10

Candidate Starts for AgentM_4:

(2, 2196), (Start: 10 @2343 has 4 MA's), (Start: 12 @2355 has 334 MA's), (29, 2520), (41, 2601), (50, 2637), (52, 2649), (58, 2682), (68, 2778), (78, 2874), (79, 2877), (86, 2982), (87, 2985), (88, 2997), (90, 3000), (94, 3021), (95, 3039), (115, 3234), (117, 3258), (121, 3357), (153, 3567), (157, 3669), (158, 3672),

Gene: Aglet_4 Start: 1681, Stop: 2895, Start Num: 12

Candidate Starts for Aglet_4:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2809), (146, 2881), (147, 2887),

Gene: AikoCarson_26 Start: 21241, Stop: 22128, Start Num: 14

Candidate Starts for AikoCarson_26:

(Start: 14 @21241 has 3 MA's), (15, 21250), (26, 21322), (34, 21388), (45, 21460), (60, 21517), (70, 21589), (71, 21613), (74, 21625), (80, 21652), (84, 21670), (93, 21706), (115, 21880), (123, 22018), (128, 22048),

Gene: Airmid_4 Start: 2465, Stop: 3403, Start Num: 24

Candidate Starts for Airmid_4:

(3, 2276), (Start: 10 @2342 has 4 MA's), (Start: 12 @2354 has 334 MA's), (Start: 24 @2465 has 2 MA's), (38, 2585), (40, 2591), (65, 2738), (69, 2774), (81, 2879), (92, 2972), (97, 2981), (103, 3005), (107, 3065), (116, 3161), (122, 3275), (131, 3317), (136, 3335), (141, 3362), (146, 3389), (147, 3395),

Gene: Albee_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Albee_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Alberto7_4 Start: 1646, Stop: 2719, Start Num: 12

Candidate Starts for Alberto7_4:

(5, 1586), (Start: 12 @1646 has 334 MA's), (23, 1754), (35, 1850), (57, 1964), (129, 2624), (131, 2630), (136, 2648), (146, 2705), (147, 2711),

Gene: Alma_7 Start: 4190, Stop: 5221, Start Num: 12

Candidate Starts for Alma_7:

(Start: 12 @4190 has 334 MA's), (131, 5138), (135, 5150), (146, 5207), (147, 5213),

Gene: Amok_26 Start: 21201, Stop: 22088, Start Num: 14

Candidate Starts for Amok_26:

(Start: 14 @21201 has 3 MA's), (15, 21210), (21, 21258), (26, 21282), (34, 21348), (36, 21366), (45, 21420), (59, 21474), (60, 21477), (71, 21573), (74, 21585), (80, 21612), (84, 21630), (93, 21666), (115, 21840), (123, 21978), (128, 22008),

Gene: Aneem_7 Start: 4196, Stop: 5410, Start Num: 12

Candidate Starts for Aneem_7:

(Start: 12 @4196 has 334 MA's), (20, 4298), (41, 4430), (64, 4556), (73, 4649), (74, 4652), (81, 4688), (83, 4706), (85, 4730), (88, 4748), (91, 4760), (115, 4943), (116, 4961), (117, 4967), (124, 5087), (149, 5243), (153, 5297), (157, 5399), (158, 5402),

Gene: AnnaL29_7 Start: 4133, Stop: 5236, Start Num: 12

Candidate Starts for AnnaL29_7:

(Start: 12 @4133 has 334 MA's), (Start: 16 @4202 has 1 MA's), (92, 4772), (96, 4814), (126, 5126), (131, 5153), (135, 5165), (146, 5222), (147, 5228),

Gene: Annyong_4 Start: 1646, Stop: 2719, Start Num: 12

Candidate Starts for Annyong_4:

(5, 1586), (Start: 12 @1646 has 334 MA's), (23, 1754), (35, 1850), (57, 1964), (136, 2648), (146, 2705), (147, 2711),

Gene: Anubis_6 Start: 1654, Stop: 2805, Start Num: 9

Candidate Starts for Anubis_6:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2719), (146, 2791), (147, 2797),

Gene: Aragog_4 Start: 2373, Stop: 3710, Start Num: 10

Candidate Starts for Aragog_4:

(2, 2226), (Start: 10 @2373 has 4 MA's), (Start: 12 @2385 has 334 MA's), (29, 2550), (41, 2631), (50, 2667), (52, 2679), (58, 2712), (68, 2808), (78, 2904), (79, 2907), (86, 3012), (87, 3015), (88, 3027), (90, 3030), (94, 3051), (95, 3069), (115, 3264), (117, 3288), (121, 3387), (153, 3597), (157, 3699), (158, 3702),

Gene: ArcherNM_7 Start: 4221, Stop: 5246, Start Num: 16

Candidate Starts for ArcherNM_7:

(Start: 12 @4152 has 334 MA's), (Start: 16 @4221 has 1 MA's), (92, 4782), (126, 5136), (131, 5163), (135, 5175), (144, 5214), (146, 5232), (147, 5238),

Gene: Archetta_4 Start: 2385, Stop: 3440, Start Num: 12

Candidate Starts for Archetta_4:

(Start: 10 @2373 has 4 MA's), (Start: 12 @2385 has 334 MA's), (Start: 24 @2496 has 2 MA's), (40, 2613), (53, 2661), (72, 2853), (81, 2901), (99, 3015), (100, 3018), (104, 3057), (107, 3099), (121, 3300), (135, 3363), (136, 3369), (147, 3432),

Gene: Arturo_3 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Arturo_3:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Astro_4 Start: 2306, Stop: 3343, Start Num: 12

Candidate Starts for Astro_4:

(2, 2147), (Start: 12 @2306 has 334 MA's), (40, 2543), (65, 2690), (125, 3236), (136, 3275), (140, 3299), (147, 3335),

Gene: AugsMagnumOpus_6 Start: 1681, Stop: 2886, Start Num: 12

Candidate Starts for AugsMagnumOpus_6:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2800), (146, 2872), (147, 2878),

Gene: AvatarAhPeg_4 Start: 1638, Stop: 2714, Start Num: 12

Candidate Starts for AvatarAhPeg_4:

(5, 1578), (Start: 12 @1638 has 334 MA's), (23, 1746), (35, 1842), (57, 1956), (131, 2625), (136, 2643), (146, 2700), (147, 2706),

Gene: Avle17_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Avle17_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Baby16_4 Start: 1645, Stop: 2727, Start Num: 12

Candidate Starts for Baby16_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2620), (136, 2656), (146, 2713), (147, 2719),

Gene: BabyBack_7 Start: 3957, Stop: 5108, Start Num: 12

Candidate Starts for BabyBack_7:

(Start: 12 @3957 has 334 MA's), (Start: 16 @4026 has 1 MA's), (47, 4233), (98, 4629), (131, 5019), (136, 5037), (146, 5094), (147, 5100),

Gene: BabyJohn_3 Start: 1627, Stop: 2763, Start Num: 12

Candidate Starts for BabyJohn_3:

(8, 1591), (Start: 12 @1627 has 334 MA's), (28, 1762), (46, 1900), (67, 2014), (131, 2677), (146, 2749), (147, 2755),

Gene: BabyRay_4 Start: 1650, Stop: 2777, Start Num: 12

Candidate Starts for BabyRay_4:

(1, 1410), (Start: 12 @1650 has 334 MA's), (Start: 27 @1782 has 1 MA's), (28, 1785), (46, 1923), (131, 2691), (136, 2709), (146, 2763), (147, 2769),

Gene: Bachome_7 Start: 4193, Stop: 5407, Start Num: 12

Candidate Starts for Bachome_7:

(Start: 12 @4193 has 334 MA's), (20, 4295), (41, 4427), (64, 4553), (73, 4646), (74, 4649), (81, 4685), (83, 4703), (88, 4745), (103, 4802), (116, 4958), (117, 4964), (124, 5084), (149, 5240), (153, 5294), (157, 5396), (158, 5399),

Gene: Backyardigan_4 Start: 1644, Stop: 2729, Start Num: 12

Candidate Starts for Backyardigan_4:

(Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (66, 2034), (136, 2658), (146, 2715), (147, 2721),

Gene: Bactobuster_7 Start: 3964, Stop: 5064, Start Num: 12

Candidate Starts for Bactobuster_7:

(3, 3883), (Start: 12 @3964 has 334 MA's), (30, 4135), (33, 4165), (61, 4306), (63, 4339), (92, 4603), (146, 5050), (147, 5056),

Gene: Badger_4 Start: 1645, Stop: 2730, Start Num: 12

Candidate Starts for Badger_4:

(Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (66, 2035), (136, 2659), (146, 2716), (147, 2722),

Gene: BangNhom_3 Start: 1642, Stop: 2718, Start Num: 12

Candidate Starts for BangNhom_3:

(5, 1582), (Start: 12 @1642 has 334 MA's), (23, 1750), (35, 1846), (57, 1960), (131, 2629), (136, 2647), (146, 2704), (147, 2710),

Gene: Bartimeaus_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Bartimeaus_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Beemo_7 Start: 4193, Stop: 5224, Start Num: 12

Candidate Starts for Beemo_7:

(Start: 12 @4193 has 334 MA's), (131, 5141), (135, 5153), (146, 5210), (147, 5216),

Gene: BellusTerra_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for BellusTerra_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Benedict_4 Start: 2467, Stop: 3405, Start Num: 24

Candidate Starts for Benedict_4:

(3, 2278), (Start: 10 @2344 has 4 MA's), (Start: 12 @2356 has 334 MA's), (Start: 24 @2467 has 2 MA's), (38, 2587), (40, 2593), (65, 2740), (69, 2776), (81, 2881), (92, 2974), (97, 2983), (103, 3007), (107, 3067), (116, 3163), (122, 3277), (131, 3319), (136, 3337), (141, 3364), (146, 3391), (147, 3397),

Gene: Blackmoor_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Blackmoor_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: BlueBird_4 Start: 1612, Stop: 2826, Start Num: 12

Candidate Starts for BlueBird_4:

(Start: 12 @1612 has 334 MA's), (28, 1747), (46, 1885), (67, 1999), (119, 2641), (131, 2743), (134, 2755), (146, 2812), (147, 2818),

Gene: Bluefalcon_3 Start: 2352, Stop: 3677, Start Num: 12

Candidate Starts for Bluefalcon_3:

(2, 2193), (Start: 10 @2340 has 4 MA's), (Start: 12 @2352 has 334 MA's), (29, 2517), (41, 2598), (50, 2634), (52, 2646), (58, 2679), (68, 2775), (78, 2871), (79, 2874), (86, 2979), (87, 2982), (88, 2994), (90, 2997), (94, 3018), (95, 3036), (115, 3231), (117, 3255), (121, 3354), (153, 3564), (157, 3666), (158, 3669),

Gene: BobSwaget_8 Start: 4394, Stop: 5380, Start Num: 12

Candidate Starts for BobSwaget_8:

(3, 4313), (Start: 12 @4394 has 334 MA's), (49, 4688), (66, 4793), (105, 5111), (131, 5294), (136, 5312), (146, 5366),

Gene: BogosyJay_7 Start: 3953, Stop: 5005, Start Num: 12

Candidate Starts for BogosyJay_7:

(Start: 12 @3953 has 334 MA's), (25, 4070), (57, 4286), (131, 4922), (135, 4934), (146, 4991), (147, 4997),

Gene: Bombshell_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Bombshell_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Bonamassa_4 Start: 2386, Stop: 3603, Start Num: 12

Candidate Starts for Bonamassa_4:

(Start: 10 @2374 has 4 MA's), (Start: 12 @2386 has 334 MA's), (Start: 19 @2479 has 1 MA's), (41, 2620), (64, 2746), (66, 2758), (74, 2842), (81, 2878), (83, 2896), (85, 2920), (88, 2938), (91, 2950), (115, 3133), (138, 3367), (145, 3400), (150, 3448), (151, 3457), (153, 3487), (157, 3589), (158, 3592),

Gene: Bowtie_7 Start: 4196, Stop: 5410, Start Num: 12

Candidate Starts for Bowtie_7:

(Start: 12 @4196 has 334 MA's), (20, 4298), (41, 4430), (64, 4556), (73, 4649), (74, 4652), (81, 4688), (83, 4706), (85, 4730), (88, 4748), (91, 4760), (115, 4943), (116, 4961), (117, 4967), (124, 5087), (149, 5243), (153, 5297), (157, 5399), (158, 5402),

Gene: BreSam8_4 Start: 1682, Stop: 2887, Start Num: 12

Candidate Starts for BreSam8_4:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2801), (146, 2873), (147, 2879),

Gene: Broseidon_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Broseidon_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Bruiser_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Bruiser_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: BubbleTrouble_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for BubbleTrouble_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Bud_7 Start: 4202, Stop: 5416, Start Num: 12

Candidate Starts for Bud_7:

(Start: 12 @4202 has 334 MA's), (20, 4304), (41, 4436), (64, 4562), (73, 4655), (74, 4658), (81, 4694), (83, 4712), (88, 4754), (103, 4811), (116, 4967), (117, 4973), (124, 5093), (149, 5249), (153, 5303), (157, 5405), (158, 5408),

Gene: Bugatti_3 Start: 1612, Stop: 2826, Start Num: 12

Candidate Starts for Bugatti_3:

(Start: 12 @1612 has 334 MA's), (28, 1747), (46, 1885), (67, 1999), (119, 2641), (131, 2743), (134, 2755), (146, 2812), (147, 2818),

Gene: Bumblebee11_4 Start: 1644, Stop: 2729, Start Num: 12

Candidate Starts for Bumblebee11_4:

(Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (66, 2034), (136, 2658), (146, 2715), (147, 2721),

Gene: Burger_3 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Burger_3:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: BuzzBuzz_3 Start: 1682, Stop: 2716, Start Num: 12

Candidate Starts for BuzzBuzz_3:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2630), (146, 2702), (147, 2708),

Gene: Bxz2_4 Start: 1692, Stop: 2726, Start Num: 12

Candidate Starts for Bxz2_4:

(Start: 9 @1665 has 1 MA's), (Start: 12 @1692 has 334 MA's), (46, 1920), (131, 2640), (146, 2712), (147, 2718),

Gene: Caelakin_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Caelakin_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Calvinny_4 Start: 1685, Stop: 2884, Start Num: 12

Candidate Starts for Calvinny_4:

(Start: 9 @1658 has 1 MA's), (Start: 12 @1685 has 334 MA's), (37, 1865), (46, 1913), (92, 2309), (131, 2798), (136, 2816), (146, 2870), (147, 2876),

Gene: Camperdownii_4 Start: 1646, Stop: 2725, Start Num: 12

Candidate Starts for Camperdownii_4:

(5, 1586), (Start: 12 @1646 has 334 MA's), (23, 1754), (35, 1850), (57, 1964), (131, 2639), (146, 2711),

Gene: Catalina_7 Start: 4193, Stop: 5236, Start Num: 12

Candidate Starts for Catalina_7:

(Start: 12 @4193 has 334 MA's), (57, 4526), (131, 5153), (135, 5165), (146, 5222), (147, 5228),

Gene: Caviar_4 Start: 1633, Stop: 2760, Start Num: 12

Candidate Starts for Caviar_4:

(4, 1570), (6, 1579), (Start: 12 @1633 has 334 MA's), (13, 1663), (18, 1720), (Start: 27 @1765 has 1 MA's), (46, 1906), (66, 2014), (101, 2302), (131, 2674), (136, 2692), (146, 2746), (147, 2752),

Gene: CentreCat_4 Start: 1646, Stop: 2719, Start Num: 12

Candidate Starts for CentreCat_4:

(5, 1586), (Start: 12 @1646 has 334 MA's), (23, 1754), (35, 1850), (57, 1964), (127, 2612), (136, 2648), (146, 2705), (147, 2711),

Gene: Cerulean_4 Start: 1643, Stop: 2719, Start Num: 12

Candidate Starts for Cerulean_4:

(5, 1583), (Start: 12 @1643 has 334 MA's), (23, 1751), (35, 1847), (57, 1961), (131, 2630), (136, 2648), (146, 2705), (147, 2711),

Gene: Chadwick_4 Start: 2353, Stop: 3402, Start Num: 12

Candidate Starts for Chadwick_4:

(3, 2275), (Start: 10 @2341 has 4 MA's), (Start: 12 @2353 has 334 MA's), (38, 2584), (40, 2590), (65, 2737), (69, 2773), (81, 2878), (92, 2971), (97, 2980), (103, 3004), (107, 3064), (116, 3160), (122, 3274), (131, 3316), (136, 3334), (141, 3361), (146, 3388), (147, 3394),

Gene: ChampagnePapi_4 Start: 1642, Stop: 2718, Start Num: 12

Candidate Starts for ChampagnePapi_4:

(5, 1582), (Start: 12 @1642 has 334 MA's), (23, 1750), (35, 1846), (57, 1960), (131, 2629), (136, 2647), (146, 2704), (147, 2710),

Gene: Changeling_7 Start: 4153, Stop: 5271, Start Num: 12

Candidate Starts for Changeling_7:

(Start: 12 @4153 has 334 MA's), (Start: 16 @4222 has 1 MA's), (44, 4435), (48, 4441), (51, 4456), (92, 4798), (126, 5161), (131, 5188), (135, 5200), (146, 5257), (147, 5263),

Gene: Chaph_4 Start: 1645, Stop: 2727, Start Num: 12

Candidate Starts for Chaph_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2620), (136, 2656), (146, 2713), (147, 2719),

Gene: Chiqui_3 Start: 1627, Stop: 2763, Start Num: 12

Candidate Starts for Chiqui_3:

(8, 1591), (Start: 12 @1627 has 334 MA's), (28, 1762), (46, 1900), (67, 2014), (131, 2677), (146, 2749), (147, 2755),

Gene: Chupacabra_4 Start: 1765, Stop: 2814, Start Num: 27

Candidate Starts for Chupacabra_4:

(Start: 12 @1633 has 334 MA's), (20, 1735), (Start: 27 @1765 has 1 MA's), (31, 1825), (32, 1828), (80, 2158), (98, 2314), (109, 2407), (126, 2704), (135, 2743), (136, 2749), (146, 2800), (147, 2806),

Gene: Cici_4 Start: 1644, Stop: 2729, Start Num: 12

Candidate Starts for Cici_4:

(Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (66, 2034), (136, 2658), (146, 2715), (147, 2721),

Gene: Cindaradix_4 Start: 1642, Stop: 2718, Start Num: 12

Candidate Starts for Cindaradix_4:

(Start: 12 @1642 has 334 MA's), (23, 1750), (35, 1846), (57, 1960), (136, 2647), (146, 2704), (147, 2710),

Gene: Cintron_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Cintron_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (131, 2629), (136, 2647), (146, 2704), (147, 2710),

Gene: Citius_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Citius_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Clarenza_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Clarenza_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Cocoaberry_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Cocoaberry_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Commander_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Commander_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Connomayer_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Connomayer_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Conquerage_7 Start: 4189, Stop: 5220, Start Num: 12

Candidate Starts for Conquerage_7:

(Start: 9 @4162 has 1 MA's), (Start: 12 @4189 has 334 MA's), (131, 5137), (135, 5149), (146, 5206), (147, 5212),

Gene: Conspiracy_4 Start: 2386, Stop: 3441, Start Num: 12

Candidate Starts for Conspiracy_4:

(Start: 10 @2374 has 4 MA's), (Start: 12 @2386 has 334 MA's), (Start: 24 @2497 has 2 MA's), (40, 2614), (53, 2662), (72, 2854), (81, 2902), (99, 3016), (100, 3019), (104, 3058), (107, 3100), (121, 3301), (135, 3364), (136, 3370), (147, 3433),

Gene: Coog_4 Start: 2354, Stop: 3571, Start Num: 12

Candidate Starts for Coog_4:

(Start: 10 @2342 has 4 MA's), (Start: 12 @2354 has 334 MA's), (Start: 19 @2447 has 1 MA's), (41, 2588), (64, 2714), (66, 2726), (74, 2810), (81, 2846), (83, 2864), (85, 2888), (88, 2906), (91, 2918), (115, 3101), (138, 3335), (145, 3368), (150, 3416), (151, 3425), (153, 3455), (157, 3557), (158, 3560),

Gene: Cuco_4 Start: 2385, Stop: 3602, Start Num: 12

Candidate Starts for Cuco_4:

(Start: 10 @2373 has 4 MA's), (Start: 12 @2385 has 334 MA's), (Start: 19 @2478 has 1 MA's), (41, 2619), (64, 2745), (74, 2841), (81, 2877), (83, 2895), (85, 2919), (88, 2937), (91, 2949), (115, 3132), (138, 3366), (145, 3399), (150, 3447), (151, 3456), (153, 3486), (157, 3588), (158, 3591),

Gene: DaHudson_4 Start: 1681, Stop: 2886, Start Num: 12

Candidate Starts for DaHudson_4:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2800), (146, 2872), (147, 2878),

Gene: Danforth_3 Start: 2306, Stop: 3358, Start Num: 12

Candidate Starts for Danforth_3:

(2, 2147), (Start: 12 @2306 has 334 MA's), (40, 2543), (72, 2783), (81, 2831), (107, 3029), (117, 3131), (122, 3239), (147, 3350),

Gene: Darrell_7 Start: 4069, Stop: 5115, Start Num: 12

Candidate Starts for Darrell_7:

(Start: 12 @4069 has 334 MA's), (25, 4186), (46, 4354), (51, 4372), (131, 5029), (136, 5047), (146, 5101), (147, 5107),

Gene: Datway_4 Start: 1644, Stop: 2729, Start Num: 12

Candidate Starts for Datway_4:

(Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (66, 2034), (136, 2658), (146, 2715), (147, 2721),

Gene: Deano_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Deano_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Dhanush_4 Start: 1644, Stop: 2717, Start Num: 12

Candidate Starts for Dhanush_4:

(5, 1584), (Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (127, 2610), (136, 2646), (146, 2703), (147, 2709),

Gene: Dieselweasel_4 Start: 1681, Stop: 2895, Start Num: 12

Candidate Starts for Dieselweasel_4:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2809), (146, 2881), (147, 2887),

Gene: DirtyDunning_4 Start: 1643, Stop: 2716, Start Num: 12

Candidate Starts for DirtyDunning_4:

(5, 1583), (Start: 12 @1643 has 334 MA's), (23, 1751), (35, 1847), (57, 1961), (131, 2627), (136, 2645), (146, 2702), (147, 2708),

Gene: Discoknowium_4 Start: 2385, Stop: 3710, Start Num: 12

Candidate Starts for Discoknowium_4:

(2, 2226), (Start: 10 @2373 has 4 MA's), (Start: 12 @2385 has 334 MA's), (29, 2550), (41, 2631), (50, 2667), (52, 2679), (58, 2712), (68, 2808), (78, 2904), (79, 2907), (86, 3012), (87, 3015), (88, 3027), (90, 3030), (94, 3051), (95, 3069), (115, 3264), (117, 3288), (121, 3387), (153, 3597), (157, 3699), (158, 3702),

Gene: Dixon_4 Start: 2307, Stop: 3344, Start Num: 12

Candidate Starts for Dixon_4:

(2, 2148), (Start: 12 @2307 has 334 MA's), (40, 2544), (65, 2691), (125, 3237), (136, 3276), (140, 3300), (147, 3336),

Gene: DropBear_4 Start: 1605, Stop: 2909, Start Num: 12

Candidate Starts for DropBear_4:

(Start: 12 @1605 has 334 MA's), (28, 1740), (42, 1863), (46, 1878), (56, 1911), (154, 2826), (155, 2895), (156, 2901),

Gene: Druantia_4 Start: 1646, Stop: 2719, Start Num: 12

Candidate Starts for Druantia_4:

(5, 1586), (Start: 12 @1646 has 334 MA's), (23, 1754), (35, 1850), (57, 1964), (127, 2612), (136, 2648), (146, 2705), (147, 2711),

Gene: Dublin_3 Start: 2354, Stop: 3571, Start Num: 12

Candidate Starts for Dublin_3:

(Start: 10 @2342 has 4 MA's), (Start: 12 @2354 has 334 MA's), (Start: 19 @2447 has 1 MA's), (41, 2588), (64, 2714), (74, 2810), (81, 2846), (83, 2864), (85, 2888), (88, 2906), (91, 2918), (115, 3101), (138, 3335), (145, 3368), (150, 3416), (151, 3425), (153, 3455), (157, 3557), (158, 3560),

Gene: EZMoney23_7 Start: 4151, Stop: 5341, Start Num: 12

Candidate Starts for EZMoney23_7:

(Start: 12 @4151 has 334 MA's), (57, 4484), (92, 4796), (126, 5231), (131, 5258), (136, 5276), (144, 5309), (146, 5327), (147, 5333),

Gene: Eagle_3 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Eagle_3:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: EagleEye_7 Start: 3969, Stop: 4871, Start Num: 12

Candidate Starts for EagleEye_7:

(Start: 12 @3969 has 334 MA's), (40, 4197), (43, 4212), (102, 4479), (106, 4536), (110, 4551), (117, 4644), (121, 4743), (140, 4827), (147, 4863),

Gene: Eapen_4 Start: 1647, Stop: 2720, Start Num: 12

Candidate Starts for Eapen_4:

(5, 1587), (Start: 12 @1647 has 334 MA's), (23, 1755), (35, 1851), (57, 1965), (127, 2613), (136, 2649), (146, 2706), (147, 2712),

Gene: Ebony_7 Start: 4202, Stop: 5416, Start Num: 12

Candidate Starts for Ebony_7:

(Start: 12 @4202 has 334 MA's), (20, 4304), (41, 4436), (64, 4562), (73, 4655), (74, 4658), (81, 4694), (83, 4712), (85, 4736), (88, 4754), (91, 4766), (115, 4949), (116, 4967), (117, 4973), (124, 5093), (149, 5249), (153, 5303), (157, 5405), (158, 5408),

Gene: Edison31_4 Start: 1662, Stop: 2834, Start Num: 12

Candidate Starts for Edison31_4:

(Start: 12 @1662 has 334 MA's), (29, 1827), (31, 1854), (32, 1857), (46, 1935), (75, 2154), (82, 2208), (98, 2343), (113, 2478), (131, 2751), (135, 2763), (136, 2769), (146, 2820), (147, 2826),

Gene: EdogawaKiddo_5 Start: 4192, Stop: 5235, Start Num: 12

Candidate Starts for EdogawaKiddo_5:

(Start: 12 @4192 has 334 MA's), (57, 4525), (131, 5152), (135, 5164), (146, 5221),

Gene: Eidsmoe_7 Start: 4189, Stop: 5220, Start Num: 12

Candidate Starts for Eidsmoe_7:

(Start: 9 @4162 has 1 MA's), (Start: 12 @4189 has 334 MA's), (131, 5137), (135, 5149), (146, 5206), (147, 5212),

Gene: EITiger69_4 Start: 2354, Stop: 3403, Start Num: 12

Candidate Starts for EITiger69_4:

(3, 2276), (Start: 10 @2342 has 4 MA's), (Start: 12 @2354 has 334 MA's), (Start: 24 @2465 has 2 MA's), (38, 2585), (40, 2591), (65, 2738), (69, 2774), (81, 2879), (92, 2972), (97, 2981), (103, 3005), (107, 3065), (116, 3161), (122, 3275), (131, 3317), (136, 3335), (141, 3362), (146, 3389), (147, 3395),

Gene: Emalyn_26 Start: 21242, Stop: 22129, Start Num: 14

Candidate Starts for Emalyn_26:

(Start: 14 @21242 has 3 MA's), (15, 21251), (21, 21299), (26, 21323), (34, 21389), (36, 21407), (45, 21461), (59, 21515), (60, 21518), (71, 21614), (84, 21671), (104, 21761), (112, 21845), (123, 22019), (128, 22049),

Gene: EmyBug_7 Start: 4189, Stop: 5220, Start Num: 12

Candidate Starts for EmyBug_7:

(Start: 12 @4189 has 334 MA's), (131, 5137), (135, 5149), (146, 5206), (147, 5212),

Gene: Eris_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Eris_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Eros_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Eros_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Et2Brutus_6 Start: 4199, Stop: 5413, Start Num: 12

Candidate Starts for Et2Brutus_6:

(Start: 12 @4199 has 334 MA's), (20, 4301), (41, 4433), (64, 4559), (73, 4652), (74, 4655), (81, 4691), (83, 4709), (88, 4751), (103, 4808), (116, 4964), (117, 4970), (124, 5090), (149, 5246), (153, 5300), (157, 5402), (158, 5405),

Gene: Eurydice_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Eurydice_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Expelliarmus_3 Start: 2307, Stop: 3344, Start Num: 12

Candidate Starts for Expelliarmus_3:

(2, 2148), (Start: 12 @2307 has 334 MA's), (40, 2544), (65, 2691), (125, 3237), (136, 3276), (140, 3300), (147, 3336),

Gene: ExplosioNervosa_7 Start: 4192, Stop: 5223, Start Num: 12

Candidate Starts for ExplosioNervosa_7:

(Start: 12 @4192 has 334 MA's), (131, 5140), (135, 5152), (146, 5209), (147, 5215),

Gene: Farber_4 Start: 1682, Stop: 2887, Start Num: 12

Candidate Starts for Farber_4:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2801), (146, 2873), (147, 2879),

Gene: Fayely_7 Start: 4192, Stop: 5223, Start Num: 12

Candidate Starts for Fayely_7:

(Start: 12 @4192 has 334 MA's), (131, 5140), (135, 5152), (146, 5209), (147, 5215),

Gene: Fibonacci_7 Start: 4199, Stop: 5413, Start Num: 12

Candidate Starts for Fibonacci_7:

(Start: 12 @4199 has 334 MA's), (20, 4301), (41, 4433), (64, 4559), (73, 4652), (74, 4655), (81, 4691), (83, 4709), (88, 4751), (103, 4808), (116, 4964), (117, 4970), (124, 5090), (149, 5246), (153, 5300), (157, 5402), (158, 5405),

Gene: Flaverint_7 Start: 4196, Stop: 5410, Start Num: 12

Candidate Starts for Flaverint_7:

(Start: 12 @4196 has 334 MA's), (20, 4298), (41, 4430), (64, 4556), (73, 4649), (74, 4652), (81, 4688), (83, 4706), (85, 4730), (88, 4748), (91, 4760), (115, 4943), (116, 4961), (117, 4967), (124, 5087), (149, 5243), (153, 5297), (157, 5399), (158, 5402),

Gene: Florean_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Florean_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Flux_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Flux_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: ForGetIt_4 Start: 2412, Stop: 3467, Start Num: 12

Candidate Starts for ForGetIt_4:

(Start: 10 @2400 has 4 MA's), (Start: 12 @2412 has 334 MA's), (Start: 24 @2523 has 2 MA's), (40, 2640), (53, 2688), (72, 2880), (81, 2928), (99, 3042), (100, 3045), (104, 3084), (107, 3126), (121, 3327), (135, 3390), (136, 3396), (147, 3459),

Gene: Fred313_4 Start: 1605, Stop: 2732, Start Num: 12

Candidate Starts for Fred313_4:

(Start: 12 @1605 has 334 MA's), (28, 1740), (42, 1863), (46, 1878), (56, 1911), (131, 2646), (146, 2718), (147, 2724),

Gene: Funston_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Funston_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Gadost_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Gadost_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Gemma_4 Start: 1685, Stop: 2884, Start Num: 12

Candidate Starts for Gemma_4:

(Start: 9 @1658 has 1 MA's), (Start: 12 @1685 has 334 MA's), (37, 1865), (46, 1913), (92, 2309), (131, 2798), (136, 2816), (146, 2870), (147, 2876),

Gene: George_3 Start: 2385, Stop: 3602, Start Num: 12

Candidate Starts for George_3:

(Start: 10 @2373 has 4 MA's), (Start: 12 @2385 has 334 MA's), (Start: 19 @2478 has 1 MA's), (41, 2619), (64, 2745), (66, 2757), (74, 2841), (81, 2877), (83, 2895), (85, 2919), (88, 2937), (91, 2949), (115, 3132), (138, 3366), (145, 3399), (150, 3447), (151, 3456), (153, 3486), (157, 3588), (158, 3591),

Gene: Ghouboy_4 Start: 2354, Stop: 3679, Start Num: 12

Candidate Starts for Ghouboy_4:

(2, 2195), (Start: 10 @2342 has 4 MA's), (Start: 12 @2354 has 334 MA's), (29, 2519), (41, 2600), (50, 2636), (52, 2648), (58, 2681), (68, 2777), (78, 2873), (79, 2876), (86, 2981), (87, 2984), (88, 2996), (90, 2999), (94, 3020), (95, 3038), (103, 3095), (115, 3233), (117, 3257), (121, 3356), (153, 3566), (157, 3668), (158, 3671),

Gene: Gilberta_7 Start: 4193, Stop: 5407, Start Num: 12

Candidate Starts for Gilberta_7:

(Start: 12 @4193 has 334 MA's), (20, 4295), (41, 4427), (64, 4553), (73, 4646), (74, 4649), (81, 4685), (83, 4703), (85, 4727), (88, 4745), (91, 4757), (115, 4940), (116, 4958), (117, 4964), (124, 5084), (149, 5240), (153, 5294), (157, 5396), (158, 5399),

Gene: GingkoMaracino_4 Start: 1681, Stop: 2805, Start Num: 12

Candidate Starts for GingkoMaracino_4:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2719), (146, 2791), (147, 2797),

Gene: Giroux_3 Start: 1612, Stop: 2826, Start Num: 12

Candidate Starts for Giroux_3:

(Start: 12 @1612 has 334 MA's), (28, 1747), (46, 1885), (67, 1999), (119, 2641), (131, 2743), (134, 2755), (146, 2812), (147, 2818),

Gene: Goose_4 Start: 1635, Stop: 2816, Start Num: 12

Candidate Starts for Goose_4:

(Start: 12 @1635 has 334 MA's), (20, 1737), (Start: 27 @1767 has 1 MA's), (31, 1827), (32, 1830), (80, 2160), (98, 2316), (109, 2409), (126, 2706), (135, 2745), (136, 2751), (146, 2802), (147, 2808),

Gene: Grif_4 Start: 1681, Stop: 2715, Start Num: 12

Candidate Starts for Grif_4:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2629), (146, 2701), (147, 2707),

Gene: Groundhog_3 Start: 2308, Stop: 3345, Start Num: 12

Candidate Starts for Groundhog_3:

(2, 2149), (Start: 12 @2308 has 334 MA's), (40, 2545), (65, 2692), (125, 3238), (136, 3277), (140, 3301), (147, 3337),

Gene: Groupthink_5 Start: 1685, Stop: 2884, Start Num: 12

Candidate Starts for Groupthink_5:

(Start: 9 @1658 has 1 MA's), (Start: 12 @1685 has 334 MA's), (37, 1865), (46, 1913), (92, 2309), (131, 2798), (136, 2816), (146, 2870), (147, 2876),

Gene: Grub_4 Start: 1681, Stop: 2886, Start Num: 12

Candidate Starts for Grub_4:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2800), (146, 2872), (147, 2878),

Gene: GtownJaz_4 Start: 1681, Stop: 2895, Start Num: 12

Candidate Starts for GtownJaz_4:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2809), (146, 2881), (147, 2887),

Gene: HamSlice_3 Start: 1646, Stop: 2719, Start Num: 12

Candidate Starts for HamSlice_3:

(5, 1586), (Start: 12 @1646 has 334 MA's), (23, 1754), (28, 1781), (35, 1850), (57, 1964), (127, 2612), (136, 2648), (146, 2705), (147, 2711),

Gene: Hanray_6 Start: 4192, Stop: 5226, Start Num: 12

Candidate Starts for Hanray_6:

(Start: 12 @4192 has 334 MA's), (44, 4474), (51, 4495), (131, 5143), (135, 5155), (146, 5212), (147, 5218),

Gene: Happiness_4 Start: 1644, Stop: 2720, Start Num: 12

Candidate Starts for Happiness_4:

(5, 1584), (Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (131, 2631), (136, 2649), (146, 2706), (147, 2712),

Gene: HashRod_5 Start: 1682, Stop: 2716, Start Num: 12

Candidate Starts for HashRod_5:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2630), (146, 2702), (147, 2708),

Gene: HaveUMetTed_5 Start: 1685, Stop: 2884, Start Num: 12

Candidate Starts for HaveUMetTed_5:

(Start: 9 @1658 has 1 MA's), (Start: 12 @1685 has 334 MA's), (37, 1865), (46, 1913), (92, 2309), (131, 2798), (136, 2816), (146, 2870), (147, 2876),

Gene: Heathen_4 Start: 1605, Stop: 2657, Start Num: 12

Candidate Starts for Heathen_4:

(Start: 12 @1605 has 334 MA's), (28, 1740), (42, 1863), (46, 1878), (56, 1911), (120, 2574), (130, 2643), (132, 2649),

Gene: Heffalump_8 Start: 4531, Stop: 5598, Start Num: 12

Candidate Starts for Heffalump_8:

(Start: 12 @4531 has 334 MA's), (Start: 16 @4600 has 1 MA's), (33, 4732), (131, 5512), (136, 5530), (142, 5560), (143, 5566), (146, 5584),

Gene: HelDan_4 Start: 1605, Stop: 2909, Start Num: 12

Candidate Starts for HelDan_4:

(6, 1551), (Start: 12 @1605 has 334 MA's), (28, 1740), (42, 1863), (46, 1878), (56, 1911), (154, 2826), (155, 2895), (156, 2901),

Gene: Heliosoles_4 Start: 1685, Stop: 2884, Start Num: 12

Candidate Starts for Heliosoles_4:

(Start: 9 @1658 has 1 MA's), (Start: 12 @1685 has 334 MA's), (37, 1865), (46, 1913), (92, 2309), (131, 2798), (136, 2816), (146, 2870), (147, 2876),

Gene: Horex_6 Start: 4192, Stop: 5226, Start Num: 12

Candidate Starts for Horex_6:

(Start: 12 @4192 has 334 MA's), (44, 4474), (51, 4495), (131, 5143), (135, 5155), (146, 5212), (147, 5218),

Gene: Hookmount_4 Start: 1633, Stop: 2760, Start Num: 12

Candidate Starts for Hookmount_4:

(4, 1570), (6, 1579), (Start: 12 @1633 has 334 MA's), (13, 1663), (18, 1720), (Start: 27 @1765 has 1 MA's), (46, 1906), (66, 2014), (101, 2302), (131, 2674), (136, 2692), (146, 2746), (147, 2752),

Gene: HortumSL17_7 Start: 4192, Stop: 5235, Start Num: 12

Candidate Starts for HortumSL17_7:

(Start: 12 @4192 has 334 MA's), (57, 4525), (131, 5152), (135, 5164), (146, 5221), (147, 5227),

Gene: Houdini22_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Houdini22_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: HuhtaEnerson15_4 Start: 2386, Stop: 3603, Start Num: 12

Candidate Starts for HuhtaEnerson15_4:

(Start: 10 @2374 has 4 MA's), (Start: 12 @2386 has 334 MA's), (Start: 19 @2479 has 1 MA's), (41, 2620), (64, 2746), (66, 2758), (74, 2842), (81, 2878), (83, 2896), (85, 2920), (88, 2938), (91, 2950), (115, 3133), (138, 3367), (145, 3400), (150, 3448), (151, 3457), (153, 3487), (157, 3589), (158, 3592),

Gene: Hutc2_7 Start: 4199, Stop: 5413, Start Num: 12

Candidate Starts for Hutc2_7:

(Start: 12 @4199 has 334 MA's), (20, 4301), (41, 4433), (64, 4559), (73, 4652), (74, 4655), (81, 4691), (83, 4709), (88, 4751), (103, 4808), (116, 4964), (117, 4970), (124, 5090), (149, 5246), (153, 5300), (157, 5402), (158, 5405),

Gene: Huxley_3 Start: 1645, Stop: 2802, Start Num: 12

Candidate Starts for Huxley_3:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (136, 2731), (146, 2788), (147, 2794),

Gene: ICleared_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for ICleared_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Iceman_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Iceman_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Idleandcovert_3 Start: 1612, Stop: 2826, Start Num: 12

Candidate Starts for Idleandcovert_3:

(Start: 12 @1612 has 334 MA's), (28, 1747), (46, 1885), (67, 1999), (119, 2641), (131, 2743), (134, 2755), (146, 2812), (147, 2818),

Gene: Insomnia_7 Start: 4196, Stop: 5410, Start Num: 12

Candidate Starts for Insomnia_7:

(Start: 12 @4196 has 334 MA's), (20, 4298), (41, 4430), (64, 4556), (73, 4649), (74, 4652), (81, 4688), (83, 4706), (85, 4730), (88, 4748), (91, 4760), (115, 4943), (116, 4961), (117, 4967), (124, 5087), (149, 5243), (153, 5297), (157, 5399), (158, 5402),

Gene: Iracema64_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Iracema64_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (131, 2629), (136, 2647), (146, 2704), (147, 2710),

Gene: IronMan_7 Start: 3972, Stop: 5072, Start Num: 12

Candidate Starts for IronMan_7:

(Start: 12 @3972 has 334 MA's), (63, 4347), (77, 4482), (92, 4611), (136, 5001), (146, 5058), (147, 5064),

Gene: Isca_4 Start: 1610, Stop: 2746, Start Num: 12

Candidate Starts for Isca_4:

(4, 1547), (Start: 12 @1610 has 334 MA's), (28, 1745), (42, 1868), (46, 1883), (67, 1997), (131, 2660), (146, 2732), (147, 2738),

Gene: Jaan_7 Start: 3968, Stop: 5068, Start Num: 12

Candidate Starts for Jaan_7:

(3, 3887), (Start: 12 @3968 has 334 MA's), (30, 4139), (33, 4169), (61, 4310), (63, 4343), (92, 4607), (146, 5054), (147, 5060),

Gene: Jabiru_4 Start: 2354, Stop: 3403, Start Num: 12

Candidate Starts for Jabiru_4:

(3, 2276), (Start: 10 @2342 has 4 MA's), (Start: 12 @2354 has 334 MA's), (Start: 24 @2465 has 2 MA's), (38, 2585), (40, 2591), (65, 2738), (69, 2774), (81, 2879), (92, 2972), (97, 2981), (103, 3005), (107, 3065), (116, 3161), (122, 3275), (131, 3317), (136, 3335), (141, 3362), (146, 3389), (147, 3395),

Gene: Jabith_7 Start: 4196, Stop: 5410, Start Num: 12

Candidate Starts for Jabith_7:

(Start: 12 @4196 has 334 MA's), (20, 4298), (41, 4430), (64, 4556), (73, 4649), (74, 4652), (81, 4688), (83, 4706), (85, 4730), (88, 4748), (91, 4760), (115, 4943), (116, 4961), (117, 4967), (124, 5087), (149, 5243), (153, 5297), (157, 5399), (158, 5402),

Gene: Jaykayelowell_4 Start: 1644, Stop: 2717, Start Num: 12

Candidate Starts for Jaykayelowell_4:

(5, 1584), (Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (127, 2610), (136, 2646), (146, 2703), (147, 2709),

Gene: JeppNRM_5 Start: 1685, Stop: 2884, Start Num: 12

Candidate Starts for JeppNRM_5:

(Start: 9 @1658 has 1 MA's), (Start: 12 @1685 has 334 MA's), (37, 1865), (46, 1913), (92, 2309), (131, 2798), (136, 2816), (146, 2870), (147, 2876),

Gene: JetBlade_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for JetBlade_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Jiawan_6 Start: 4192, Stop: 5226, Start Num: 12

Candidate Starts for Jiawan_6:

(Start: 12 @4192 has 334 MA's), (44, 4474), (51, 4495), (131, 5143), (135, 5155), (146, 5212), (147, 5218),

Gene: Jobu08_4 Start: 1681, Stop: 2958, Start Num: 12

Candidate Starts for Jobu08_4:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (37, 1861), (46, 1909), (92, 2305), (131, 2875), (135, 2887), (136, 2893), (146, 2944), (147, 2950),

Gene: JoongJeon_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for JoongJeon_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Joselito_7 Start: 4196, Stop: 5410, Start Num: 12

Candidate Starts for Joselito_7:

(Start: 12 @4196 has 334 MA's), (20, 4298), (41, 4430), (64, 4556), (73, 4649), (74, 4652), (81, 4688), (83, 4706), (85, 4730), (88, 4748), (91, 4760), (115, 4943), (116, 4961), (117, 4967), (124, 5087), (149, 5243), (153, 5297), (157, 5399), (158, 5402),

Gene: Jovo_4 Start: 2374, Stop: 3711, Start Num: 10

Candidate Starts for Jovo_4:

(2, 2227), (Start: 10 @2374 has 4 MA's), (Start: 12 @2386 has 334 MA's), (29, 2551), (41, 2632), (50, 2668), (52, 2680), (58, 2713), (68, 2809), (78, 2905), (79, 2908), (86, 3013), (87, 3016), (88, 3028), (90, 3031), (94, 3052), (95, 3070), (115, 3265), (117, 3289), (121, 3388), (153, 3598), (157, 3700), (158, 3703),

Gene: KADY_5 Start: 1682, Stop: 2716, Start Num: 12

Candidate Starts for KADY_5:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2630), (146, 2702), (147, 2708),

Gene: KFPoly_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for KFPoly_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (81, 2176), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Kachowdy_4 Start: 1605, Stop: 2909, Start Num: 12

Candidate Starts for Kachowdy_4:

(Start: 12 @1605 has 334 MA's), (28, 1740), (42, 1863), (46, 1878), (56, 1911), (154, 2826), (155, 2895), (156, 2901),

Gene: Kalb97_5 Start: 1683, Stop: 2882, Start Num: 12

Candidate Starts for Kalb97_5:

(Start: 9 @1656 has 1 MA's), (Start: 12 @1683 has 334 MA's), (37, 1863), (46, 1911), (92, 2307), (131, 2796), (136, 2814), (146, 2868), (147, 2874),

Gene: Kalnoky_5 Start: 1685, Stop: 2884, Start Num: 12

Candidate Starts for Kalnoky_5:

(Start: 9 @1658 has 1 MA's), (Start: 12 @1685 has 334 MA's), (37, 1865), (46, 1913), (92, 2309), (131, 2798), (136, 2816), (146, 2870), (147, 2876),

Gene: Kampy_4 Start: 1646, Stop: 2719, Start Num: 12

Candidate Starts for Kampy_4:

(5, 1586), (Start: 12 @1646 has 334 MA's), (23, 1754), (35, 1850), (57, 1964), (127, 2612), (136, 2648), (146, 2705), (147, 2711),

Gene: Katalie136_4 Start: 1644, Stop: 2729, Start Num: 12

Candidate Starts for Katalie136_4:

(Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (66, 2034), (136, 2658), (146, 2715), (147, 2721),

Gene: Kingmustik0402_4 Start: 1646, Stop: 2710, Start Num: 12

Candidate Starts for Kingmustik0402_4:

(5, 1586), (Start: 12 @1646 has 334 MA's), (23, 1754), (35, 1850), (57, 1964), (127, 2603), (136, 2639), (146, 2696), (147, 2702),

Gene: Koan_3 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Koan_3:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Koreni_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Koreni_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (129, 2623), (131, 2629), (136, 2647), (146, 2704), (147, 2710),

Gene: Kratark_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Kratark_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Kristoff_5 Start: 1827, Stop: 2999, Start Num: 12

Candidate Starts for Kristoff_5:

(Start: 12 @1827 has 334 MA's), (29, 1992), (31, 2019), (32, 2022), (46, 2100), (75, 2319), (82, 2373), (98, 2508), (113, 2643), (131, 2916), (135, 2928), (136, 2934), (146, 2985), (147, 2991),

Gene: Kyee_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Kyee_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: LHTSCC_4 Start: 1642, Stop: 2718, Start Num: 12

Candidate Starts for LHTSCC_4:

(5, 1582), (Start: 12 @1642 has 334 MA's), (23, 1750), (35, 1846), (57, 1960), (131, 2629), (136, 2647), (146, 2704), (147, 2710),

Gene: Lambert1_4 Start: 1633, Stop: 2760, Start Num: 12

Candidate Starts for Lambert1_4:

(4, 1570), (6, 1579), (Start: 12 @1633 has 334 MA's), (13, 1663), (18, 1720), (Start: 27 @1765 has 1 MA's), (46, 1906), (66, 2014), (101, 2302), (131, 2674), (136, 2692), (146, 2746), (147, 2752),

Gene: Landor_7 Start: 3970, Stop: 5070, Start Num: 12

Candidate Starts for Landor_7:

(3, 3889), (Start: 12 @3970 has 334 MA's), (30, 4141), (33, 4171), (57, 4297), (61, 4312), (63, 4345), (92, 4609), (146, 5056), (147, 5062),

Gene: LappelDuVide_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for LappelDuVide_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: LarryKay_4 Start: 1682, Stop: 2716, Start Num: 12

Candidate Starts for LarryKay_4:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2630), (146, 2702), (147, 2708),

Gene: Lemur_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Lemur_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: LeoAvram_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for LeoAvram_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Leogania_7 Start: 4183, Stop: 5397, Start Num: 12

Candidate Starts for Leogania_7:

(3, 4102), (Start: 12 @4183 has 334 MA's), (Start: 16 @4252 has 1 MA's), (92, 4822), (136, 5329),

Gene: Lev2_4 Start: 2385, Stop: 3440, Start Num: 12

Candidate Starts for Lev2_4:

(Start: 10 @2373 has 4 MA's), (Start: 12 @2385 has 334 MA's), (Start: 24 @2496 has 2 MA's), (40, 2613), (53, 2661), (72, 2853), (81, 2901), (99, 3015), (100, 3018), (104, 3057), (107, 3099), (121, 3300), (135, 3363), (136, 3369), (147, 3432),

Gene: Lilit_4 Start: 1682, Stop: 2887, Start Num: 12

Candidate Starts for Lilit_4:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2801), (146, 2873), (147, 2879),

Gene: Lilleskat_5 Start: 4192, Stop: 5235, Start Num: 12

Candidate Starts for Lilleskat_5:

(Start: 12 @4192 has 334 MA's), (57, 4525), (131, 5152), (135, 5164), (146, 5221), (147, 5227),

Gene: LittleB_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for LittleB_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: LittleCherry_4 Start: 2387, Stop: 3604, Start Num: 12

Candidate Starts for LittleCherry_4:

(Start: 10 @2375 has 4 MA's), (Start: 12 @2387 has 334 MA's), (Start: 19 @2480 has 1 MA's), (41, 2621), (64, 2747), (66, 2759), (74, 2843), (81, 2879), (83, 2897), (85, 2921), (88, 2939), (91, 2951), (115, 3134), (138, 3368), (145, 3401), (150, 3449), (151, 3458), (153, 3488), (157, 3590), (158, 3593),

Gene: LittleGuy_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for LittleGuy_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: LochMonster_4 Start: 1643, Stop: 2716, Start Num: 12

Candidate Starts for LochMonster_4:

(5, 1583), (Start: 12 @1643 has 334 MA's), (23, 1751), (35, 1847), (57, 1961), (131, 2627), (136, 2645), (146, 2702), (147, 2708),

Gene: Lokk_8 Start: 4396, Stop: 5382, Start Num: 12

Candidate Starts for Lokk_8:

(Start: 12 @4396 has 334 MA's), (66, 4795), (105, 5113), (135, 5308), (144, 5350), (146, 5368), (147, 5374),

Gene: LoneWolf_7 Start: 3950, Stop: 4993, Start Num: 12

Candidate Starts for LoneWolf_7:

(Start: 12 @3950 has 334 MA's), (146, 4979), (147, 4985),

Gene: Lorenzo_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Lorenzo_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Loser_7 Start: 4131, Stop: 5249, Start Num: 12

Candidate Starts for Loser_7:

(Start: 12 @4131 has 334 MA's), (44, 4413), (48, 4419), (92, 4776), (104, 4878), (126, 5139), (131, 5166), (135, 5178), (146, 5235), (147, 5241),

Gene: Louie6_4 Start: 1682, Stop: 2716, Start Num: 12

Candidate Starts for Louie6_4:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2630), (146, 2702), (147, 2708),

Gene: Lucivia_7 Start: 4193, Stop: 5407, Start Num: 12

Candidate Starts for Lucivia_7:

(Start: 12 @4193 has 334 MA's), (20, 4295), (41, 4427), (64, 4553), (73, 4646), (74, 4649), (81, 4685), (83, 4703), (85, 4727), (88, 4745), (91, 4757), (115, 4940), (116, 4958), (117, 4964), (124, 5084), (149, 5240), (153, 5294), (157, 5396), (158, 5399),

Gene: Lucyedi_7 Start: 3969, Stop: 4871, Start Num: 12

Candidate Starts for Lucyedi_7:

(Start: 12 @3969 has 334 MA's), (40, 4197), (102, 4479), (106, 4536), (110, 4551), (117, 4644), (121, 4743), (147, 4863),

Gene: Lunsford_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Lunsford_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: MK4_4 Start: 1608, Stop: 2744, Start Num: 12

Candidate Starts for MK4_4:

(Start: 12 @1608 has 334 MA's), (28, 1743), (42, 1866), (46, 1881), (67, 1995), (131, 2658), (146, 2730), (147, 2736),

Gene: MaCh_7 Start: 4193, Stop: 5407, Start Num: 12

Candidate Starts for MaCh_7:

(Start: 12 @4193 has 334 MA's), (20, 4295), (41, 4427), (64, 4553), (73, 4646), (74, 4649), (81, 4685), (83, 4703), (85, 4727), (88, 4745), (91, 4757), (115, 4940), (116, 4958), (117, 4964), (124, 5084), (149, 5240), (153, 5294), (157, 5396), (158, 5399),

Gene: Mabel_7 Start: 4208, Stop: 5422, Start Num: 12

Candidate Starts for Mabel_7:

(Start: 12 @4208 has 334 MA's), (20, 4310), (41, 4442), (64, 4568), (73, 4661), (74, 4664), (81, 4700), (83, 4718), (88, 4760), (91, 4772), (103, 4817), (117, 4979), (124, 5099), (149, 5255), (153, 5309), (157, 5411), (158, 5414),

Gene: MadMarie_4 Start: 1682, Stop: 2896, Start Num: 12

Candidate Starts for MadMarie_4:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2810), (146, 2882), (147, 2888),

Gene: Mainiac_4 Start: 1682, Stop: 2887, Start Num: 12

Candidate Starts for Mainiac_4:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2801), (146, 2873), (147, 2879),

Gene: Malinsilva_6 Start: 1681, Stop: 2886, Start Num: 12

Candidate Starts for Malinsilva_6:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2800), (146, 2872), (147, 2878),

Gene: Maminiaina_7 Start: 3953, Stop: 4984, Start Num: 12

Candidate Starts for Maminiaina_7:

(Start: 12 @3953 has 334 MA's), (131, 4901), (135, 4913), (146, 4970), (147, 4976),

Gene: Manu_5 Start: 1685, Stop: 2884, Start Num: 12

Candidate Starts for Manu_5:

(Start: 9 @1658 has 1 MA's), (Start: 12 @1685 has 334 MA's), (37, 1865), (46, 1913), (92, 2309), (131, 2798), (136, 2816), (146, 2870), (147, 2876),

Gene: MarQuardt_4 Start: 1681, Stop: 2895, Start Num: 12

Candidate Starts for MarQuardt_4:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2809), (146, 2881), (147, 2887),

Gene: Marchesa_4 Start: 1605, Stop: 2909, Start Num: 12

Candidate Starts for Marchesa_4:

(Start: 12 @1605 has 334 MA's), (28, 1740), (42, 1863), (46, 1878), (56, 1911), (154, 2826), (155, 2895), (156, 2901),

Gene: Margo_4 Start: 1633, Stop: 2760, Start Num: 12

Candidate Starts for Margo_4:

(4, 1570), (6, 1579), (Start: 12 @1633 has 334 MA's), (13, 1663), (18, 1720), (Start: 27 @1765 has 1 MA's), (46, 1906), (66, 2014), (101, 2302), (131, 2674), (146, 2746), (147, 2752),

Gene: Marius_5 Start: 1685, Stop: 2884, Start Num: 12

Candidate Starts for Marius_5:

(Start: 9 @1658 has 1 MA's), (Start: 12 @1685 has 334 MA's), (37, 1865), (46, 1913), (92, 2309), (131, 2798), (136, 2816), (146, 2870), (147, 2876),

Gene: MarysWell_3 Start: 2448, Stop: 3572, Start Num: 19

Candidate Starts for MarysWell_3:

(Start: 10 @2343 has 4 MA's), (Start: 12 @2355 has 334 MA's), (Start: 19 @2448 has 1 MA's), (41, 2589), (64, 2715), (74, 2811), (81, 2847), (83, 2865), (85, 2889), (88, 2907), (91, 2919), (115, 3102), (138, 3336), (145, 3369), (150, 3417), (151, 3426), (153, 3456), (157, 3558), (158, 3561),

Gene: Maverick_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Maverick_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Maxo_4 Start: 1646, Stop: 2719, Start Num: 12

Candidate Starts for Maxo_4:

(5, 1586), (Start: 12 @1646 has 334 MA's), (23, 1754), (35, 1850), (57, 1964), (127, 2612), (136, 2648), (146, 2705), (147, 2711),

Gene: Mazhar510_4 Start: 1646, Stop: 2719, Start Num: 12

Candidate Starts for Mazhar510_4:

(5, 1586), (Start: 12 @1646 has 334 MA's), (23, 1754), (35, 1850), (57, 1964), (127, 2612), (136, 2648), (146, 2705), (147, 2711),

Gene: Medusa_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Medusa_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: MeeZee_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for MeeZee_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Melvin_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Melvin_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Methuselah_4 Start: 1682, Stop: 2716, Start Num: 12

Candidate Starts for Methuselah_4:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2630), (146, 2702), (147, 2708),

Gene: Micasa_4 Start: 2355, Stop: 3572, Start Num: 12

Candidate Starts for Micasa_4:

(Start: 10 @2343 has 4 MA's), (Start: 12 @2355 has 334 MA's), (Start: 19 @2448 has 1 MA's), (41, 2589), (64, 2715), (66, 2727), (74, 2811), (81, 2847), (83, 2865), (85, 2889), (88, 2907), (91, 2919), (115, 3102), (138, 3336), (145, 3369), (150, 3417), (151, 3426), (153, 3456), (157, 3558), (158, 3561),

Gene: Microwolf_4 Start: 1681, Stop: 2895, Start Num: 12

Candidate Starts for Microwolf_4:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2809), (146, 2881), (147, 2887),

Gene: Midas2_4 Start: 2354, Stop: 3571, Start Num: 12

Candidate Starts for Midas2_4:

(Start: 10 @2342 has 4 MA's), (Start: 12 @2354 has 334 MA's), (Start: 19 @2447 has 1 MA's), (41, 2588), (64, 2714), (66, 2726), (74, 2810), (81, 2846), (83, 2864), (85, 2888), (88, 2906), (91, 2918), (115, 3101), (138, 3335), (145, 3368), (150, 3416), (151, 3425), (153, 3455), (157, 3557), (158, 3560),

Gene: Miko_8 Start: 4374, Stop: 5360, Start Num: 12

Candidate Starts for Miko_8:

(Start: 12 @4374 has 334 MA's), (66, 4773), (105, 5091), (135, 5286), (144, 5328), (146, 5346), (147, 5352),

Gene: Milcery_4 Start: 2385, Stop: 3602, Start Num: 12

Candidate Starts for Milcery_4:

(Start: 10 @2373 has 4 MA's), (Start: 12 @2385 has 334 MA's), (Start: 19 @2478 has 1 MA's), (41, 2619), (64, 2745), (66, 2757), (74, 2841), (81, 2877), (83, 2895), (85, 2919), (88, 2937), (91, 2949), (115, 3132), (138, 3366), (145, 3399), (150, 3447), (151, 3456), (153, 3486), (157, 3588), (158, 3591),

Gene: Millski_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Millski_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Miramae_4 Start: 1638, Stop: 2714, Start Num: 12

Candidate Starts for Miramae_4:

(5, 1578), (Start: 12 @1638 has 334 MA's), (23, 1746), (35, 1842), (57, 1956), (131, 2625), (136, 2643), (146, 2700), (147, 2706),

Gene: Misomonster_6 Start: 1681, Stop: 2715, Start Num: 12

Candidate Starts for Misomonster_6:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2629), (146, 2701), (147, 2707),

Gene: Morpher26_4 Start: 1644, Stop: 2729, Start Num: 12

Candidate Starts for Morpher26_4:

(Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (66, 2034), (136, 2658), (146, 2715), (147, 2721),

Gene: Morrow_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Morrow_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: MuchMore_6 Start: 1681, Stop: 2886, Start Num: 12

Candidate Starts for MuchMore_6:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2800), (146, 2872), (147, 2878),

Gene: Mulciber_7 Start: 4199, Stop: 5413, Start Num: 12

Candidate Starts for Mulciber_7:

(Start: 12 @4199 has 334 MA's), (20, 4301), (41, 4433), (64, 4559), (73, 4652), (74, 4655), (81, 4691), (83, 4709), (88, 4751), (103, 4808), (116, 4964), (117, 4970), (124, 5090), (149, 5246), (153, 5300), (157, 5402), (158, 5405),

Gene: Munch_7 Start: 4196, Stop: 5410, Start Num: 12

Candidate Starts for Munch_7:

(Start: 12 @4196 has 334 MA's), (20, 4298), (41, 4430), (64, 4556), (73, 4649), (74, 4652), (81, 4688), (83, 4706), (85, 4730), (88, 4748), (91, 4760), (115, 4943), (116, 4961), (117, 4967), (124, 5087), (149, 5243), (153, 5297), (157, 5399), (158, 5402),

Gene: Mundrea_4 Start: 1642, Stop: 2709, Start Num: 12

Candidate Starts for Mundrea_4:

(Start: 12 @1642 has 334 MA's), (23, 1750), (35, 1846), (57, 1960), (131, 2620), (136, 2638), (146, 2695), (147, 2701),

Gene: Myxus_7 Start: 4192, Stop: 5235, Start Num: 12

Candidate Starts for Myxus_7:

(Start: 12 @4192 has 334 MA's), (57, 4525), (131, 5152), (135, 5164), (146, 5221), (147, 5227),

Gene: NearlyHeadless_4 Start: 2306, Stop: 3358, Start Num: 12

Candidate Starts for NearlyHeadless_4:

(Start: 12 @2306 has 334 MA's), (40, 2543), (89, 2912), (107, 3029), (117, 3131), (122, 3239), (133, 3284), (147, 3350),

Gene: Nebs_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Nebs_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Nemo27_4 Start: 1644, Stop: 2717, Start Num: 12

Candidate Starts for Nemo27_4:

(5, 1584), (Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (127, 2610), (136, 2646), (146, 2703), (147, 2709),

Gene: NicoleTera_7 Start: 4172, Stop: 5248, Start Num: 12

Candidate Starts for NicoleTera_7:

(3, 4091), (Start: 12 @4172 has 334 MA's), (29, 4340), (57, 4496), (59, 4502), (114, 4988), (136, 5180), (146, 5234),

Gene: Noella_4 Start: 1633, Stop: 2760, Start Num: 12

Candidate Starts for Noella_4:

(4, 1570), (6, 1579), (Start: 12 @1633 has 334 MA's), (13, 1663), (18, 1720), (Start: 27 @1765 has 1 MA's), (46, 1906), (66, 2014), (101, 2302), (131, 2674), (136, 2692), (146, 2746), (147, 2752),

Gene: Noelle_4 Start: 1629, Stop: 2783, Start Num: 12

Candidate Starts for Noelle_4:

(Start: 12 @1629 has 334 MA's), (32, 1824), (57, 1947), (66, 2016), (127, 2676), (136, 2712), (146, 2769), (147, 2775),

Gene: Norbert_3 Start: 1633, Stop: 2760, Start Num: 12

Candidate Starts for Norbert_3:

(4, 1570), (6, 1579), (Start: 12 @1633 has 334 MA's), (13, 1663), (18, 1720), (Start: 27 @1765 has 1 MA's), (46, 1906), (66, 2014), (101, 2302), (131, 2674), (136, 2692), (146, 2746), (147, 2752),

Gene: NorthStar_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for NorthStar_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: NotAPhaseMom_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for NotAPhaseMom_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: NothingSpecial_6 Start: 4006, Stop: 5202, Start Num: 12

Candidate Starts for NothingSpecial_6:

(3, 3925), (Start: 12 @4006 has 334 MA's), (17, 4084), (92, 4645), (126, 5089), (131, 5116), (136, 5134),

Gene: Nyxis_4 Start: 1648, Stop: 2721, Start Num: 12

Candidate Starts for Nyxis_4:

(5, 1588), (Start: 12 @1648 has 334 MA's), (23, 1756), (35, 1852), (57, 1966), (127, 2614), (136, 2650), (146, 2707), (147, 2713),

Gene: Obama12_4 Start: 1644, Stop: 2720, Start Num: 12

Candidate Starts for Obama12_4:

(5, 1584), (Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (131, 2631), (136, 2649), (146, 2706), (147, 2712),

Gene: Ohfah_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Ohfah_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: OlanP_4 Start: 1864, Stop: 3102, Start Num: 12

Candidate Starts for OlanP_4:

(Start: 9 @1837 has 1 MA's), (Start: 12 @1864 has 334 MA's), (37, 2044), (46, 2092), (92, 2488), (131, 2977), (136, 2995), (146, 3049), (147, 3055), (148, 3061),

Gene: Ollie_4 Start: 1681, Stop: 2805, Start Num: 12

Candidate Starts for Ollie_4:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2719), (146, 2791), (147, 2797),

Gene: Orange_7 Start: 4196, Stop: 5410, Start Num: 12

Candidate Starts for Orange_7:

(Start: 12 @4196 has 334 MA's), (20, 4298), (41, 4430), (64, 4556), (73, 4649), (74, 4652), (81, 4688), (83, 4706), (85, 4730), (88, 4748), (91, 4760), (115, 4943), (116, 4961), (117, 4967), (124, 5087), (149, 5243), (153, 5297), (157, 5399), (158, 5402),

Gene: PGHhamlin_6 Start: 1681, Stop: 2886, Start Num: 12

Candidate Starts for PGHhamlin_6:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2800), (146, 2872), (147, 2878),

Gene: PackMan_7 Start: 4192, Stop: 5235, Start Num: 12

Candidate Starts for PackMan_7:

(Start: 12 @4192 has 334 MA's), (57, 4525), (131, 5152), (135, 5164), (146, 5221), (147, 5227),

Gene: PainterBoy_7 Start: 3969, Stop: 4871, Start Num: 12

Candidate Starts for PainterBoy_7:

(Start: 12 @3969 has 334 MA's), (40, 4197), (102, 4479), (106, 4536), (110, 4551), (117, 4644), (121, 4743), (147, 4863),

Gene: Palestino_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Palestino_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Panamaxus_4 Start: 1633, Stop: 2760, Start Num: 12

Candidate Starts for Panamaxus_4:

(4, 1570), (6, 1579), (Start: 12 @1633 has 334 MA's), (13, 1663), (18, 1720), (Start: 27 @1765 has 1 MA's), (46, 1906), (66, 2014), (101, 2302), (131, 2674), (136, 2692), (146, 2746), (147, 2752),

Gene: Pawn_4 Start: 1685, Stop: 2884, Start Num: 12

Candidate Starts for Pawn_4:

(Start: 9 @1658 has 1 MA's), (Start: 12 @1685 has 334 MA's), (37, 1865), (46, 1913), (92, 2309), (131, 2798), (136, 2816), (146, 2870), (147, 2876),

Gene: Peaches_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Peaches_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Pembroke_4 Start: 1681, Stop: 2886, Start Num: 12

Candidate Starts for Pembroke_4:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2800), (146, 2872), (147, 2878),

Gene: Perplexer_4 Start: 1644, Stop: 2729, Start Num: 12

Candidate Starts for Perplexer_4:

(Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (66, 2034), (136, 2658), (146, 2715), (147, 2721),

Gene: PeterPeter_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for PeterPeter_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Petersenfast_6 Start: 4199, Stop: 5413, Start Num: 12

Candidate Starts for Petersenfast_6:

(Start: 12 @4199 has 334 MA's), (20, 4301), (41, 4433), (64, 4559), (73, 4652), (74, 4655), (81, 4691), (83, 4709), (88, 4751), (103, 4808), (116, 4964), (117, 4970), (124, 5090), (149, 5246), (153, 5300), (157, 5402), (158, 5405),

Gene: PetiteSangsue_4 Start: 1644, Stop: 2729, Start Num: 12

Candidate Starts for PetiteSangsue_4:

(Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (66, 2034), (136, 2658), (146, 2715), (147, 2721),

Gene: PetterN_4 Start: 2354, Stop: 3403, Start Num: 12

Candidate Starts for PetterN_4:

(Start: 10 @2342 has 4 MA's), (Start: 12 @2354 has 334 MA's), (Start: 24 @2465 has 2 MA's), (38, 2585), (40, 2591), (65, 2738), (69, 2774), (81, 2879), (92, 2972), (97, 2981), (103, 3005), (107, 3065), (116, 3161), (122, 3275), (131, 3317), (136, 3335), (141, 3362), (146, 3389), (147, 3395),

Gene: Phacado_4 Start: 1644, Stop: 2717, Start Num: 12

Candidate Starts for Phacado_4:

(5, 1584), (Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (127, 2610), (136, 2646), (146, 2703), (147, 2709),

Gene: Phaded_7 Start: 3967, Stop: 5067, Start Num: 12

Candidate Starts for Phaded_7:

(3, 3886), (Start: 12 @3967 has 334 MA's), (30, 4138), (33, 4168), (61, 4309), (63, 4342), (92, 4606), (146, 5053), (147, 5059),

Gene: Phaeder_7 Start: 4192, Stop: 5235, Start Num: 12

Candidate Starts for Phaeder_7:

(Start: 12 @4192 has 334 MA's), (57, 4525), (131, 5152), (135, 5164), (146, 5221), (147, 5227),

Gene: Phantastic_4 Start: 1617, Stop: 2831, Start Num: 12

Candidate Starts for Phantastic_4:

(Start: 12 @1617 has 334 MA's), (28, 1752), (35, 1821), (46, 1890), (108, 2376), (136, 2766), (146, 2817), (147, 2823),

Gene: Phelipe_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Phelipe_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Phighter1804_4 Start: 1644, Stop: 2717, Start Num: 12

Candidate Starts for Phighter1804_4:

(5, 1584), (Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (131, 2628), (136, 2646), (146, 2703), (147, 2709),

Gene: Phillis_4 Start: 2306, Stop: 3343, Start Num: 12

Candidate Starts for Phillis_4:

(2, 2147), (Start: 12 @2306 has 334 MA's), (40, 2543), (65, 2690), (125, 3236), (136, 3275), (140, 3299), (147, 3335),

Gene: Phlorence_4 Start: 2373, Stop: 3710, Start Num: 10

Candidate Starts for Phlorence_4:

(2, 2226), (Start: 10 @2373 has 4 MA's), (Start: 12 @2385 has 334 MA's), (29, 2550), (41, 2631), (50, 2667), (52, 2679), (58, 2712), (68, 2808), (78, 2904), (79, 2907), (86, 3012), (87, 3015), (88, 3027), (90, 3030), (94, 3051), (95, 3069), (115, 3264), (117, 3288), (121, 3387), (153, 3597), (157, 3699), (158, 3702),

Gene: Phonnegut_7 Start: 4192, Stop: 5223, Start Num: 12

Candidate Starts for Phonnegut_7:

(Start: 12 @4192 has 334 MA's), (131, 5140), (135, 5152), (146, 5209), (147, 5215),

Gene: Phontbonne_4 Start: 1643, Stop: 2716, Start Num: 12

Candidate Starts for Phontbonne_4:

(5, 1583), (Start: 12 @1643 has 334 MA's), (23, 1751), (35, 1847), (57, 1961), (127, 2609), (136, 2645), (146, 2702), (147, 2708),

Gene: Phoxy_4 Start: 1682, Stop: 2716, Start Num: 12

Candidate Starts for Phoxy_4:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2630), (146, 2702), (147, 2708),

Gene: Phranny_5 Start: 1685, Stop: 2884, Start Num: 12

Candidate Starts for Phranny_5:

(Start: 9 @1658 has 1 MA's), (Start: 12 @1685 has 334 MA's), (37, 1865), (46, 1913), (92, 2309), (131, 2798), (136, 2816), (146, 2870), (147, 2876),

Gene: PickleBack_4 Start: 2386, Stop: 3441, Start Num: 12

Candidate Starts for PickleBack_4:

(Start: 10 @2374 has 4 MA's), (Start: 12 @2386 has 334 MA's), (Start: 24 @2497 has 2 MA's), (40, 2614), (53, 2662), (72, 2854), (81, 2902), (99, 3016), (100, 3019), (104, 3058), (107, 3100), (121, 3301), (135, 3364), (136, 3370), (147, 3433),

Gene: Pioneer_7 Start: 4192, Stop: 5223, Start Num: 12

Candidate Starts for Pioneer_7:

(Start: 12 @4192 has 334 MA's), (131, 5140), (135, 5152), (146, 5209), (147, 5215),

Gene: Pipcraft_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Pipcraft_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Pocahontas_4 Start: 1633, Stop: 2760, Start Num: 12

Candidate Starts for Pocahontas_4:

(4, 1570), (6, 1579), (Start: 12 @1633 has 334 MA's), (13, 1663), (18, 1720), (Start: 27 @1765 has 1 MA's), (46, 1906), (66, 2014), (101, 2302), (131, 2674), (136, 2692), (146, 2746), (147, 2752),

Gene: Polymorphads_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Polymorphads_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Popcicle_4 Start: 1633, Stop: 2760, Start Num: 12

Candidate Starts for Popcicle_4:

(4, 1570), (6, 1579), (Start: 12 @1633 has 334 MA's), (13, 1663), (18, 1720), (Start: 27 @1765 has 1 MA's), (46, 1906), (66, 2014), (101, 2302), (131, 2674), (136, 2692), (146, 2746), (147, 2752),

Gene: Priya_7 Start: 4190, Stop: 5221, Start Num: 12

Candidate Starts for Priya_7:

(Start: 9 @4163 has 1 MA's), (Start: 12 @4190 has 334 MA's), (131, 5138), (135, 5150), (146, 5207), (147, 5213),

Gene: Pukovnik_7 Start: 3940, Stop: 5010, Start Num: 12

Candidate Starts for Pukovnik_7:

(3, 3859), (Start: 12 @3940 has 334 MA's), (35, 4147), (55, 4246), (57, 4261), (131, 4927), (135, 4939), (146, 4996), (147, 5002),

Gene: Pumbaa_4 Start: 1643, Stop: 2716, Start Num: 12

Candidate Starts for Pumbaa_4:

(5, 1583), (Start: 12 @1643 has 334 MA's), (23, 1751), (28, 1778), (35, 1847), (57, 1961), (131, 2627), (136, 2645), (146, 2702), (147, 2708),

Gene: PurpleHaze_4 Start: 1684, Stop: 2883, Start Num: 12

Candidate Starts for PurpleHaze_4:

(Start: 9 @1657 has 1 MA's), (Start: 12 @1684 has 334 MA's), (37, 1864), (46, 1912), (92, 2308), (131, 2797), (136, 2815), (146, 2869), (147, 2875),

Gene: Qobbit_7 Start: 4189, Stop: 5220, Start Num: 12

Candidate Starts for Qobbit_7:

(Start: 9 @4162 has 1 MA's), (Start: 12 @4189 has 334 MA's), (131, 5137), (135, 5149), (146, 5206), (147, 5212),

Gene: QuinnKiro_3 Start: 1633, Stop: 2760, Start Num: 12

Candidate Starts for QuinnKiro_3:

(4, 1570), (6, 1579), (Start: 12 @1633 has 334 MA's), (13, 1663), (18, 1720), (Start: 27 @1765 has 1 MA's), (46, 1906), (66, 2014), (101, 2302), (131, 2674), (136, 2692), (146, 2746), (147, 2752),

Gene: Rachaly_8 Start: 4394, Stop: 5380, Start Num: 12

Candidate Starts for Rachaly_8:

(Start: 12 @4394 has 334 MA's), (66, 4793), (135, 5306), (144, 5348), (146, 5366), (147, 5372),

Gene: Rebeuca_5 Start: 1828, Stop: 3000, Start Num: 12

Candidate Starts for Rebeuca_5:

(Start: 12 @1828 has 334 MA's), (29, 1993), (31, 2020), (32, 2023), (46, 2101), (75, 2320), (82, 2374), (98, 2509), (113, 2644), (131, 2917), (135, 2929), (136, 2935), (146, 2986), (147, 2992),

Gene: RedBaron_28 Start: 22229, Stop: 22975, Start Num: 45

Candidate Starts for RedBaron_28:

(7, 21911), (11, 21953), (Start: 14 @22010 has 3 MA's), (26, 22091), (36, 22175), (45, 22229), (60, 22286), (84, 22439), (99, 22487), (104, 22529), (135, 22844), (139, 22877), (152, 22961),

Gene: RedRock_7 Start: 4133, Stop: 5242, Start Num: 12

Candidate Starts for RedRock_7:

(Start: 12 @4133 has 334 MA's), (Start: 16 @4202 has 1 MA's), (44, 4415), (48, 4421), (92, 4778), (104, 4880), (135, 5171), (146, 5228), (147, 5234),

Gene: Relief_4 Start: 1646, Stop: 2719, Start Num: 12

Candidate Starts for Relief_4:

(5, 1586), (Start: 12 @1646 has 334 MA's), (23, 1754), (35, 1850), (57, 1964), (127, 2612), (136, 2648), (146, 2705), (147, 2711),

Gene: ResDef_4 Start: 1633, Stop: 2760, Start Num: 12

Candidate Starts for ResDef_4:

(4, 1570), (6, 1579), (Start: 12 @1633 has 334 MA's), (13, 1663), (18, 1720), (Start: 27 @1765 has 1 MA's), (46, 1906), (66, 2014), (101, 2302), (131, 2674), (136, 2692), (146, 2746), (147, 2752),

Gene: RhynO_4 Start: 1673, Stop: 2839, Start Num: 12

Candidate Starts for RhynO_4:

(Start: 12 @1673 has 334 MA's), (20, 1775), (22, 1778), (23, 1781), (28, 1811), (29, 1841), (46, 1949), (98, 2357), (111, 2471), (113, 2492), (131, 2756), (135, 2768), (136, 2774), (146, 2825), (147, 2831),

Gene: Roary_4 Start: 2306, Stop: 3343, Start Num: 12

Candidate Starts for Roary_4:

(2, 2147), (Start: 12 @2306 has 334 MA's), (40, 2543), (65, 2690), (125, 3236), (136, 3275), (140, 3299), (147, 3335),

Gene: Rockstar_4 Start: 1608, Stop: 2744, Start Num: 12

Candidate Starts for Rockstar_4:

(Start: 12 @1608 has 334 MA's), (28, 1743), (42, 1866), (46, 1881), (67, 1995), (131, 2658), (146, 2730), (147, 2736),

Gene: Romney_4 Start: 1644, Stop: 2717, Start Num: 12

Candidate Starts for Romney_4:

(5, 1584), (Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (127, 2610), (136, 2646), (146, 2703), (147, 2709),

Gene: Roosevelt_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Roosevelt_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Rosa24_3 Start: 1643, Stop: 2716, Start Num: 12

Candidate Starts for Rosa24_3:

(5, 1583), (Start: 12 @1643 has 334 MA's), (23, 1751), (35, 1847), (57, 1961), (131, 2627), (136, 2645), (146, 2702), (147, 2708),

Gene: Ruin_4 Start: 1644, Stop: 2717, Start Num: 12

Candidate Starts for Ruin_4:

(5, 1584), (Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (127, 2610), (136, 2646), (146, 2703), (147, 2709),

Gene: Rummer_4 Start: 1682, Stop: 2716, Start Num: 12

Candidate Starts for Rummer_4:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2630), (146, 2702), (147, 2708),

Gene: RyeScarlet_8 Start: 4192, Stop: 5226, Start Num: 12

Candidate Starts for RyeScarlet_8:

(Start: 12 @4192 has 334 MA's), (44, 4474), (51, 4495), (131, 5143), (135, 5155), (146, 5212), (147, 5218),

Gene: Sabertooth_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Sabertooth_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Sabia_4 Start: 1682, Stop: 2887, Start Num: 12

Candidate Starts for Sabia_4:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2801), (146, 2873), (147, 2879),

Gene: Sachima_5 Start: 4192, Stop: 5235, Start Num: 12

Candidate Starts for Sachima_5:

(Start: 12 @4192 has 334 MA's), (57, 4525), (131, 5152), (135, 5164), (146, 5221),

Gene: Saintus_4 Start: 2306, Stop: 3358, Start Num: 12

Candidate Starts for Saintus_4:

(Start: 12 @2306 has 334 MA's), (40, 2543), (54, 2600), (72, 2783), (107, 3029), (117, 3131), (122, 3239), (133, 3284), (147, 3350),

Gene: Salz_7 Start: 4196, Stop: 5410, Start Num: 12

Candidate Starts for Salz_7:

(Start: 12 @4196 has 334 MA's), (20, 4298), (41, 4430), (64, 4556), (73, 4649), (74, 4652), (81, 4688), (83, 4706), (88, 4748), (103, 4805), (116, 4961), (117, 4967), (124, 5087), (149, 5243), (153, 5297), (157, 5399), (158, 5402),

Gene: SaturnRing_3 Start: 1612, Stop: 2826, Start Num: 12

Candidate Starts for SaturnRing_3:

(Start: 12 @1612 has 334 MA's), (28, 1747), (46, 1885), (67, 1999), (119, 2641), (131, 2743), (134, 2755), (146, 2812), (147, 2818),

Gene: Scamp_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Scamp_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Scherzo_7 Start: 4192, Stop: 5223, Start Num: 12

Candidate Starts for Scherzo_7:

(Start: 12 @4192 has 334 MA's), (131, 5140), (135, 5152), (146, 5209), (147, 5215),

Gene: Scorpia_4 Start: 2355, Stop: 3404, Start Num: 12

Candidate Starts for Scorpia_4:

(3, 2277), (Start: 10 @2343 has 4 MA's), (Start: 12 @2355 has 334 MA's), (Start: 24 @2466 has 2 MA's), (40, 2592), (65, 2739), (69, 2775), (81, 2880), (92, 2973), (97, 2982), (103, 3006), (107, 3066),

(116, 3162), (122, 3276), (131, 3318), (136, 3336), (141, 3363), (146, 3390), (147, 3396),

Gene: SenorClean_3 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for SenorClean_3:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Shaka_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Shaka_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Sham4_7 Start: 4199, Stop: 5413, Start Num: 12

Candidate Starts for Sham4_7:

(Start: 12 @4199 has 334 MA's), (20, 4301), (41, 4433), (64, 4559), (73, 4652), (74, 4655), (81, 4691), (83, 4709), (88, 4751), (103, 4808), (116, 4964), (117, 4970), (124, 5090), (149, 5246), (153, 5300), (157, 5402), (158, 5405),

Gene: SheldonCooper_4 Start: 1643, Stop: 2719, Start Num: 12

Candidate Starts for SheldonCooper_4:

(5, 1583), (Start: 12 @1643 has 334 MA's), (23, 1751), (35, 1847), (57, 1961), (131, 2630), (136, 2648), (146, 2705), (147, 2711),

Gene: Shygu2_4 Start: 1644, Stop: 2720, Start Num: 12

Candidate Starts for Shygu2_4:

(Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (66, 2034), (131, 2631), (136, 2649), (146, 2706), (147, 2712),

Gene: Skipitt_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Skipitt_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Smeadley_4 Start: 2306, Stop: 3343, Start Num: 12

Candidate Starts for Smeadley_4:

(2, 2147), (Start: 12 @2306 has 334 MA's), (40, 2543), (65, 2690), (125, 3236), (136, 3275), (140, 3299), (147, 3335),

Gene: Snape_7 Start: 4202, Stop: 5416, Start Num: 12

Candidate Starts for Snape_7:

(Start: 12 @4202 has 334 MA's), (20, 4304), (41, 4436), (64, 4562), (73, 4655), (74, 4658), (81, 4694), (83, 4712), (88, 4754), (103, 4811), (116, 4967), (117, 4973), (124, 5093), (149, 5249), (153, 5303), (157, 5405), (158, 5408),

Gene: Snickers_4 Start: 1681, Stop: 2868, Start Num: 12

Candidate Starts for Snickers_4:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2782), (146, 2854), (147, 2860),

Gene: SoYo_4 Start: 1681, Stop: 2805, Start Num: 12

Candidate Starts for SoYo_4:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2719), (146, 2791), (147, 2797),

Gene: Soshari_6 Start: 1682, Stop: 2716, Start Num: 12

Candidate Starts for Soshari_6:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2630), (146, 2702), (147, 2708),

Gene: Sparxx_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Sparxx_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Spike509_4 Start: 1682, Stop: 2716, Start Num: 12

Candidate Starts for Spike509_4:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2630), (146, 2702), (147, 2708),

Gene: Spino_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Spino_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Spouty_7 Start: 4189, Stop: 5220, Start Num: 12

Candidate Starts for Spouty_7:

(Start: 9 @4162 has 1 MA's), (Start: 12 @4189 has 334 MA's), (131, 5137), (135, 5149), (146, 5206), (147, 5212),

Gene: Stagni_4 Start: 1682, Stop: 2887, Start Num: 12

Candidate Starts for Stagni_4:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2801), (146, 2873), (147, 2879),

Gene: Stasia_4 Start: 1647, Stop: 2741, Start Num: 12

Candidate Starts for Stasia_4:

(Start: 12 @1647 has 334 MA's), (23, 1755), (39, 1890), (57, 1968), (62, 1986), (64, 2025), (98, 2316), (109, 2418), (136, 2670), (146, 2727), (147, 2733),

Gene: StepMih_4 Start: 1682, Stop: 2887, Start Num: 12

Candidate Starts for StepMih_4:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2801), (146, 2873), (147, 2879),

Gene: StepHig9_4 Start: 2307, Stop: 3344, Start Num: 12

Candidate Starts for StepHig9_4:

(2, 2148), (Start: 12 @2307 has 334 MA's), (40, 2544), (65, 2691), (125, 3237), (136, 3276), (140, 3300), (147, 3336),

Gene: Stink_4 Start: 1639, Stop: 2715, Start Num: 12

Candidate Starts for Stink_4:

(5, 1579), (Start: 12 @1639 has 334 MA's), (23, 1747), (35, 1843), (57, 1957), (131, 2626), (136, 2644), (146, 2701), (147, 2707),

Gene: Swirley_4 Start: 2354, Stop: 3571, Start Num: 12

Candidate Starts for Swirley_4:

(Start: 10 @2342 has 4 MA's), (Start: 12 @2354 has 334 MA's), (Start: 19 @2447 has 1 MA's), (41, 2588), (64, 2714), (66, 2726), (74, 2810), (81, 2846), (83, 2864), (85, 2888), (88, 2906), (91, 2918), (115, 3101), (138, 3335), (145, 3368), (150, 3416), (151, 3425), (153, 3455), (157, 3557), (158, 3560),

Gene: SydNat_4 Start: 2354, Stop: 3679, Start Num: 12

Candidate Starts for SydNat_4:

(2, 2195), (Start: 10 @2342 has 4 MA's), (Start: 12 @2354 has 334 MA's), (29, 2519), (41, 2600), (50, 2636), (52, 2648), (58, 2681), (68, 2777), (78, 2873), (79, 2876), (86, 2981), (87, 2984), (88, 2996), (90, 2999), (94, 3020), (95, 3038), (103, 3095), (115, 3233), (117, 3257), (121, 3356), (153, 3566), (157, 3668), (158, 3671),

Gene: TNguyen7_4 Start: 1610, Stop: 2824, Start Num: 12

Candidate Starts for TNguyen7_4:

(Start: 12 @1610 has 334 MA's), (28, 1745), (46, 1883), (67, 1997), (119, 2639), (131, 2741), (134, 2753), (146, 2810), (147, 2816),

Gene: Taquarus_4 Start: 1648, Stop: 2721, Start Num: 12

Candidate Starts for Taquarus_4:

(5, 1588), (Start: 12 @1648 has 334 MA's), (23, 1756), (35, 1852), (57, 1966), (127, 2614), (136, 2650), (146, 2707), (147, 2713),

Gene: Tarynearal_3 Start: 2383, Stop: 3600, Start Num: 12

Candidate Starts for Tarynearal_3:

(Start: 10 @2371 has 4 MA's), (Start: 12 @2383 has 334 MA's), (Start: 19 @2476 has 1 MA's), (41, 2617), (64, 2743), (66, 2755), (74, 2839), (81, 2875), (83, 2893), (85, 2917), (88, 2935), (91, 2947), (115, 3130), (138, 3364), (145, 3397), (150, 3445), (151, 3454), (153, 3484), (157, 3586), (158, 3589),

Gene: Texage_3 Start: 1633, Stop: 2760, Start Num: 12

Candidate Starts for Texage_3:

(4, 1570), (6, 1579), (Start: 12 @1633 has 334 MA's), (13, 1663), (18, 1720), (Start: 27 @1765 has 1 MA's), (46, 1906), (66, 2014), (101, 2302), (131, 2674), (136, 2692), (146, 2746), (147, 2752),

Gene: Thanksgivukkah_4 Start: 1646, Stop: 2719, Start Num: 12

Candidate Starts for Thanksgivukkah_4:

(5, 1586), (Start: 12 @1646 has 334 MA's), (23, 1754), (35, 1850), (57, 1964), (127, 2612), (136, 2648), (146, 2705), (147, 2711),

Gene: Theia_3 Start: 2355, Stop: 3572, Start Num: 12

Candidate Starts for Theia_3:

(Start: 10 @2343 has 4 MA's), (Start: 12 @2355 has 334 MA's), (Start: 19 @2448 has 1 MA's), (41, 2589), (64, 2715), (74, 2811), (81, 2847), (83, 2865), (85, 2889), (88, 2907), (91, 2919), (115, 3102), (138, 3336), (145, 3369), (150, 3417), (151, 3426), (153, 3456), (157, 3558), (158, 3561),

Gene: Tiffany_4 Start: 1682, Stop: 2896, Start Num: 12

Candidate Starts for Tiffany_4:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (118, 2699), (131, 2810), (146, 2882), (147, 2888),

Gene: Tiger_4 Start: 2385, Stop: 3440, Start Num: 12

Candidate Starts for Tiger_4:

(Start: 10 @2373 has 4 MA's), (Start: 12 @2385 has 334 MA's), (Start: 24 @2496 has 2 MA's), (40, 2613), (53, 2661), (72, 2853), (81, 2901), (99, 3015), (100, 3018), (104, 3057), (107, 3099), (121, 3300), (135, 3363), (136, 3369), (147, 3432),

Gene: Timothy_7 Start: 4196, Stop: 5410, Start Num: 12

Candidate Starts for Timothy_7:

(Start: 12 @4196 has 334 MA's), (20, 4298), (41, 4430), (64, 4556), (73, 4649), (74, 4652), (81, 4688), (83, 4706), (85, 4730), (88, 4748), (91, 4760), (115, 4943), (116, 4961), (117, 4967), (124, 5087), (149, 5243), (153, 5297), (157, 5399), (158, 5402),

Gene: TinaFeyge_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for TinaFeyge_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: TinyPebbles_4 Start: 1682, Stop: 2716, Start Num: 12

Candidate Starts for TinyPebbles_4:

(Start: 9 @1655 has 1 MA's), (Start: 12 @1682 has 334 MA's), (46, 1910), (131, 2630), (146, 2702), (147, 2708),

Gene: TinyTimmy_7 Start: 4196, Stop: 5410, Start Num: 12

Candidate Starts for TinyTimmy_7:

(Start: 12 @4196 has 334 MA's), (20, 4298), (41, 4430), (64, 4556), (73, 4649), (74, 4652), (81, 4688), (83, 4706), (85, 4730), (88, 4748), (91, 4760), (115, 4943), (116, 4961), (117, 4967), (124, 5087), (149, 5243), (153, 5297), (157, 5399), (158, 5402),

Gene: Tinybot_3 Start: 1645, Stop: 2721, Start Num: 12

Candidate Starts for Tinybot_3:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (131, 2632), (136, 2650), (146, 2707), (147, 2713),

Gene: TiroTheta9_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for TiroTheta9_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Todacoro_4 Start: 1633, Stop: 2760, Start Num: 12

Candidate Starts for Todacoro_4:

(4, 1570), (6, 1579), (Start: 12 @1633 has 334 MA's), (13, 1663), (18, 1720), (Start: 27 @1765 has 1 MA's), (46, 1906), (66, 2014), (101, 2302), (131, 2674), (136, 2692), (146, 2746), (147, 2752),

Gene: Topanga_4 Start: 1711, Stop: 2889, Start Num: 12

Candidate Starts for Topanga_4:

(5, 1651), (Start: 12 @1711 has 334 MA's), (Start: 27 @1843 has 1 MA's), (29, 1876), (31, 1903), (76, 2218), (98, 2398), (113, 2533), (131, 2806), (136, 2824), (140, 2848), (146, 2875), (147, 2881),

Gene: TroyPia_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for TroyPia_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Tubs_7 Start: 4192, Stop: 5235, Start Num: 12

Candidate Starts for Tubs_7:

(Start: 12 @4192 has 334 MA's), (57, 4525), (131, 5152), (135, 5164), (146, 5221), (147, 5227),

Gene: Twigg_4 Start: 2354, Stop: 3571, Start Num: 12

Candidate Starts for Twigg_4:

(Start: 10 @2342 has 4 MA's), (Start: 12 @2354 has 334 MA's), (Start: 19 @2447 has 1 MA's), (41, 2588), (64, 2714), (66, 2726), (74, 2810), (81, 2846), (83, 2864), (85, 2888), (88, 2906), (91, 2918), (115, 3101), (138, 3335), (145, 3368), (150, 3416), (151, 3425), (153, 3455), (157, 3557), (158, 3560),

Gene: Twister_4 Start: 1661, Stop: 2833, Start Num: 12

Candidate Starts for Twister_4:

(Start: 12 @1661 has 334 MA's), (29, 1826), (31, 1853), (32, 1856), (46, 1934), (75, 2153), (82, 2207), (98, 2342), (113, 2477), (131, 2750), (135, 2762), (136, 2768), (146, 2819), (147, 2825),

Gene: TygerBlood_4 Start: 1647, Stop: 2720, Start Num: 12

Candidate Starts for TygerBlood_4:

(5, 1587), (Start: 12 @1647 has 334 MA's), (23, 1755), (35, 1851), (57, 1965), (127, 2613), (136, 2649), (146, 2706), (147, 2712),

Gene: Ugenie5_5 Start: 4192, Stop: 5223, Start Num: 12

Candidate Starts for Ugenie5_5:

(Start: 12 @4192 has 334 MA's), (131, 5140), (135, 5152), (146, 5209), (147, 5215),

Gene: Ulysses_4 Start: 1646, Stop: 2719, Start Num: 12

Candidate Starts for Ulysses_4:

(5, 1586), (Start: 12 @1646 has 334 MA's), (23, 1754), (28, 1781), (35, 1850), (57, 1964), (136, 2648), (146, 2705), (147, 2711),

Gene: UnionJack_4 Start: 2352, Stop: 3407, Start Num: 12

Candidate Starts for UnionJack_4:

(Start: 10 @2340 has 4 MA's), (Start: 12 @2352 has 334 MA's), (Start: 24 @2463 has 2 MA's), (40, 2580), (53, 2628), (72, 2820), (81, 2868), (99, 2982), (100, 2985), (104, 3024), (107, 3066), (121, 3267), (135, 3330), (136, 3336), (147, 3399),

Gene: Veracruz_3 Start: 1633, Stop: 2760, Start Num: 12

Candidate Starts for Veracruz_3:

(4, 1570), (6, 1579), (Start: 12 @1633 has 334 MA's), (13, 1663), (18, 1720), (Start: 27 @1765 has 1 MA's), (46, 1906), (66, 2014), (101, 2302), (131, 2674), (136, 2692), (146, 2746), (147, 2752),

Gene: Vix_4 Start: 1681, Stop: 2715, Start Num: 12

Candidate Starts for Vix_4:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2629), (146, 2701), (147, 2707),

Gene: WalterMcMickey_4 Start: 1661, Stop: 2833, Start Num: 12

Candidate Starts for WalterMcMickey_4:

(Start: 12 @1661 has 334 MA's), (29, 1826), (31, 1853), (32, 1856), (46, 1934), (75, 2153), (82, 2207), (98, 2342), (113, 2477), (131, 2750), (135, 2762), (136, 2768), (146, 2819), (147, 2825),

Gene: Wander_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for Wander_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Watson_4 Start: 1681, Stop: 2886, Start Num: 12

Candidate Starts for Watson_4:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2800), (146, 2872), (147, 2878),

Gene: Wilbur_4 Start: 1644, Stop: 2717, Start Num: 12

Candidate Starts for Wilbur_4:

(5, 1584), (Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (127, 2610), (136, 2646), (146, 2703), (147, 2709),

Gene: Wile_4 Start: 1645, Stop: 2730, Start Num: 12

Candidate Starts for Wile_4:

(Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (66, 2035), (136, 2659), (146, 2716), (147, 2722),

Gene: Wizard007_4 Start: 1647, Stop: 2720, Start Num: 12

Candidate Starts for Wizard007_4:

(5, 1587), (Start: 12 @1647 has 334 MA's), (23, 1755), (35, 1851), (57, 1965), (127, 2613), (136, 2649), (146, 2706), (147, 2712),

Gene: Wooldri_6 Start: 1681, Stop: 2805, Start Num: 12

Candidate Starts for Wooldri_6:

(Start: 9 @1654 has 1 MA's), (Start: 12 @1681 has 334 MA's), (46, 1909), (131, 2719), (146, 2791), (147, 2797),

Gene: Xena_4 Start: 1644, Stop: 2729, Start Num: 12

Candidate Starts for Xena_4:

(Start: 12 @1644 has 334 MA's), (23, 1752), (35, 1848), (57, 1962), (66, 2034), (136, 2658), (146, 2715), (147, 2721),

Gene: YoSam321_4 Start: 1645, Stop: 2718, Start Num: 12

Candidate Starts for YoSam321_4:

(5, 1585), (Start: 12 @1645 has 334 MA's), (23, 1753), (35, 1849), (57, 1963), (127, 2611), (136, 2647), (146, 2704), (147, 2710),

Gene: Zetzy_4 Start: 1683, Stop: 2717, Start Num: 12

Candidate Starts for Zetzy_4:

(Start: 9 @1656 has 1 MA's), (Start: 12 @1683 has 334 MA's), (46, 1911), (131, 2631), (146, 2703), (147, 2709),

Gene: Zolita_3 Start: 2354, Stop: 3679, Start Num: 12

Candidate Starts for Zolita_3:

(2, 2195), (Start: 10 @2342 has 4 MA's), (Start: 12 @2354 has 334 MA's), (29, 2519), (41, 2600), (50, 2636), (52, 2648), (58, 2681), (68, 2777), (78, 2873), (79, 2876), (86, 2981), (87, 2984), (88, 2996), (90, 2999), (94, 3020), (95, 3038), (103, 3095), (115, 3233), (117, 3257), (121, 3356), (153, 3566), (157, 3668), (158, 3671),