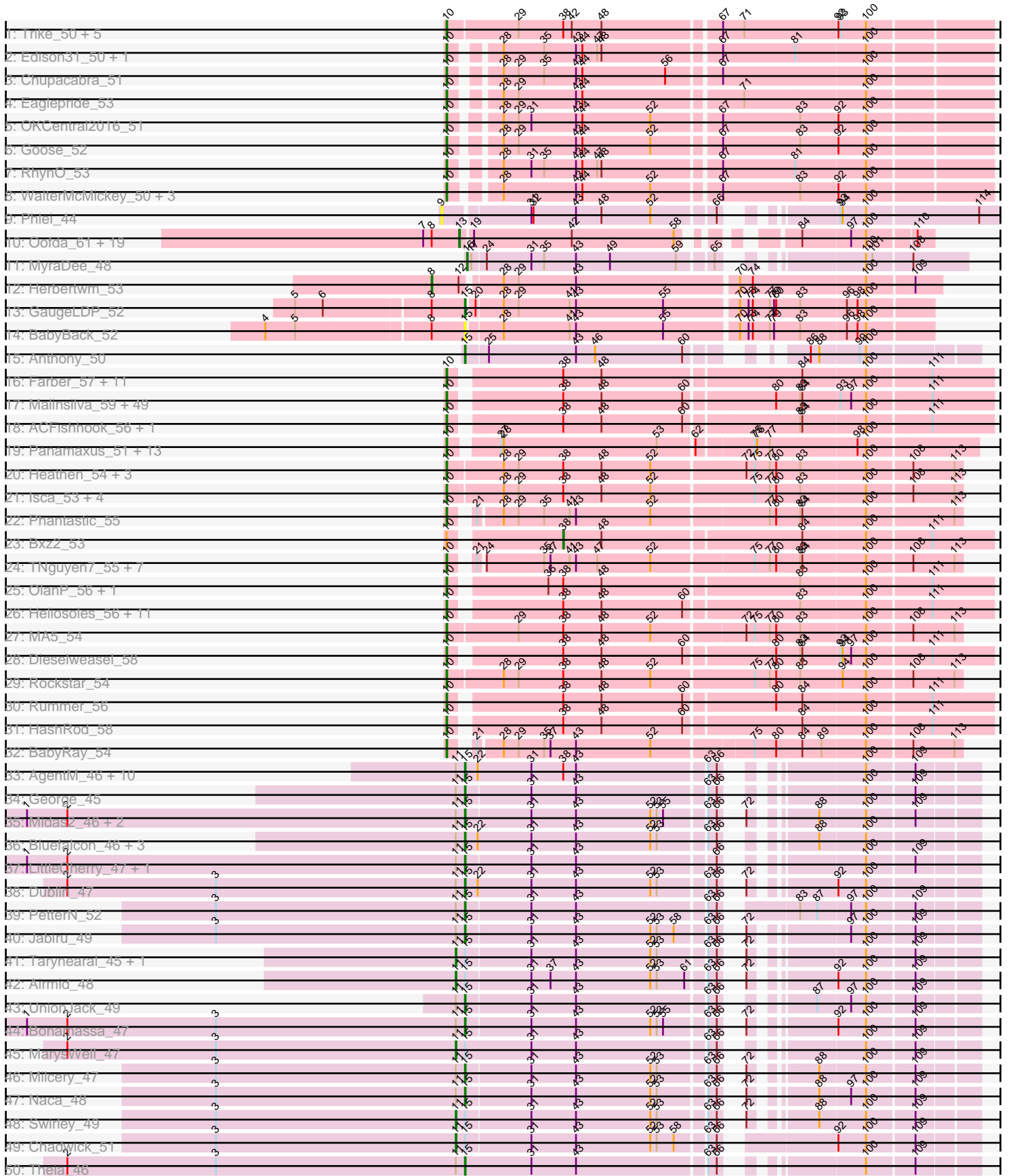
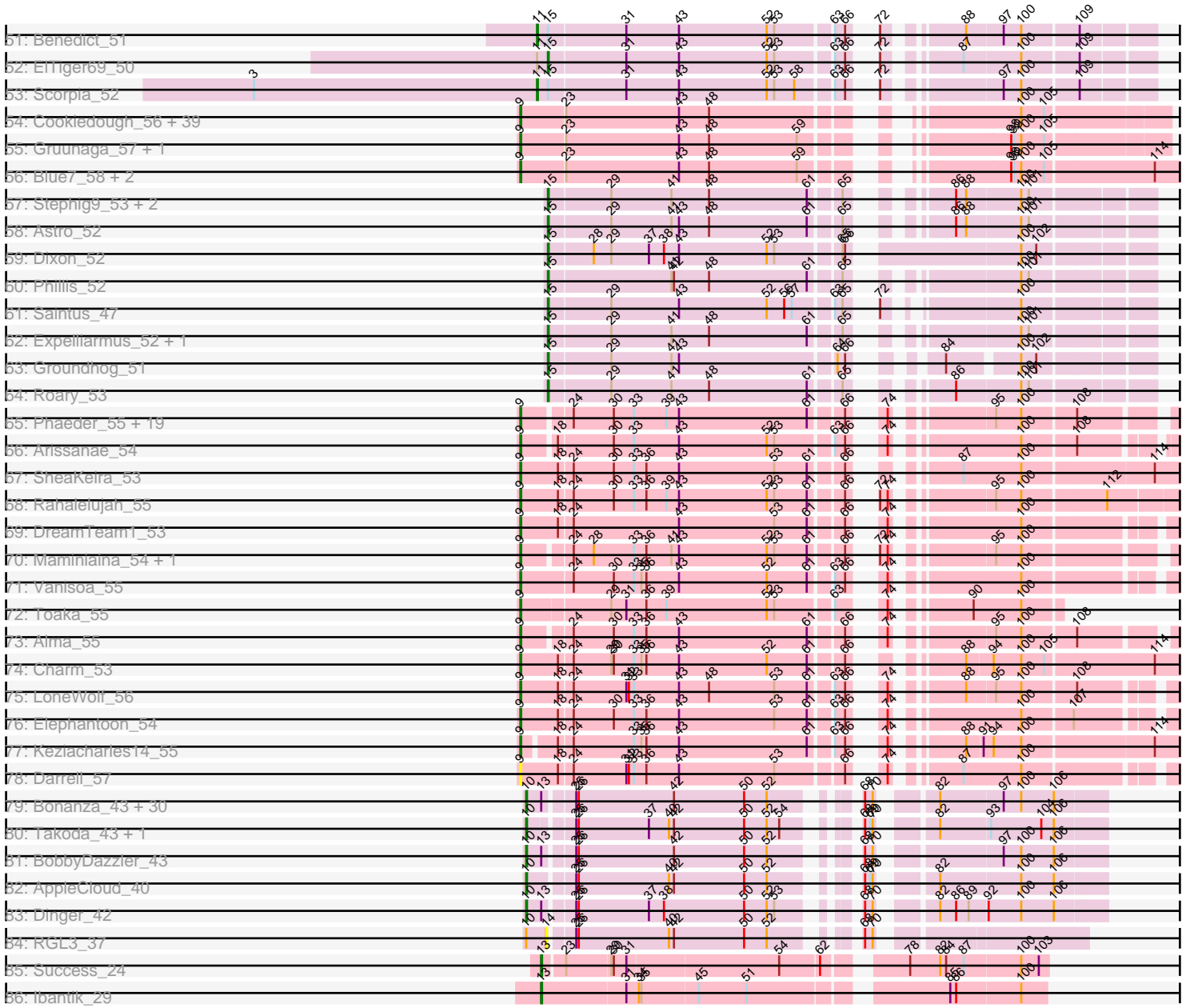


Pham 156039



Pham 156039



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 156039 Report

This analysis was run 04/12/24 on database version 558.

Pham number 156039 has 327 members, 22 are drafts.

Phages represented in each track:

- Track 1 : Trike_50, Drake94_50, PeaceMeal1_50, Poompha_51, KittenMittens_49, Severus_50
- Track 2 : Edison31_50, Topanga_50
- Track 3 : Chupacabra_51
- Track 4 : Eaglepride_53
- Track 5 : OKCentral2016_51
- Track 6 : Goose_52
- Track 7 : RhynO_53
- Track 8 : WalterMcMickey_50, Twister_50, Kristoff_52, Rebeuca_52
- Track 9 : Phlei_44
- Track 10 : Oofda_61, Waits_60, Boohoo_59, LastResort_58, Anaysia_59, JSwag_59, Rosalind_58, Strosahl_60, Battleship_61, Nebulosus_58, Epsocamisio_57, ShayRa_60, ReMo_58, KatherineG_60, Looper_59, Remus_60, Switzerland_59, Soups_60, DekHockey33_60, MinecraftSteve_60
- Track 11 : MyraDee_48
- Track 12 : Herbertwm_53
- Track 13 : GaugeLDP_52
- Track 14 : BabyBack_52
- Track 15 : Anthony_50
- Track 16 : Farber_57, Spike509_57, AgronaGT15_56, BuzzBuzz_55, Soshari_59, KADY_57, Methuselah_53, Phoxy_57, LarryKay_57, Daishi_56, Misomonster_58, Louie6_56
- Track 17 : Malinsilva_59, Wooldri_59, Hercules11_57, Aglet_58, Beauxregard13_57, SoilDragon_57, Phoebe_58, GingkoMaracino_57, PGHhamlin_59, Grum1_57, Jobu08_56, Sabia_57, Lilith_58, AugsMagnumOpus_60, Colbster_57, Microwolf_57, SoYo_57, Vix_57, Watson_57, DaHudson_57, LBerry_58, MadMarie_57, StepMih_57, Grub_57, Penny1_58, Fernando_57, BreSam8_57, JHC117_57, MoneyMay_57, GtownJaz_57, Tiffany_57, Marie_57, Snickers_57, Anubis_60, Stagni_57, LugYA_60, Ollie_57, EpicPhail_58, Grif_57, Zetzy_56, JenCasNa_58, MuchMore_60, Sabinator_56, Taurus_58, MarQuardt_57, Mainiac_57, P28Green_58, PotatoSplit_59, Cullens_57, Pembroke_57
- Track 18 : ACFishhook_56, Pawn_57
- Track 19 : Panamaxus_51, Hookmount_53, Margo_53, Lambert1_53, QuinnKiro_52, Caviar_53, Pocahontas_53, Norbert_52, Popcicle_53, Veracruz_52, Noella_53, ResDef_54, Todacoro_53, Texage_52
- Track 20 : Heathen_54, Scout_54, Fred313_54, HelDan_54
- Track 21 : Isca_53, JF2_52, MK4_54, JF4_52, B1_49

- Track 22 : Phantastic_55
- Track 23 : Bxz2_53
- Track 24 : TNguyen7_55, Giroux_55, SaturnRing_55, Bugatti_55, Puppy_56, Idleandcovert_55, BlueBird_56, Pistachio_56
- Track 25 : OlanP_56, Gemma_56
- Track 26 : Heliosoles_56, Reba_57, Marius_58, Groupthink_58, Kalb97_58, JeppNRM_58, Manu_57, PhishRPhriends_55, HaveUMetTed_58, PurpleHaze_57, Kalnoky_58, Phranny_58
- Track 27 : MA5_54
- Track 28 : Dieselweasel_58
- Track 29 : Rockstar_54
- Track 30 : Rummer_56
- Track 31 : HashRod_58
- Track 32 : BabyRay_54
- Track 33 : AgentM_46, Jovo_47, Tiger_46, Aragog_46, Conspiracy_47, Discoknowium_45, PickleBack_47, Lev2_47, Archetta_46, Phlorence_45, ForGetIt_47
- Track 34 : George_45
- Track 35 : Midas2_46, Coog_46, Micasa_47
- Track 36 : Bluefalcon_46, SydNat_50, Ghouboy_50, Zolita_49
- Track 37 : LittleCherry_47, HuhtaEnerson15_47
- Track 38 : Dublin_47
- Track 39 : PetterN_52
- Track 40 : Jabiru_49
- Track 41 : Tarynearal_45, Cuco_47
- Track 42 : Airmid_48
- Track 43 : UnionJack_49
- Track 44 : Bonamassa_47
- Track 45 : MarysWell_47
- Track 46 : Milcery_47
- Track 47 : Naca_48
- Track 48 : Swirley_49
- Track 49 : Chadwick_51
- Track 50 : Theia_46
- Track 51 : Benedict_51
- Track 52 : EITiger69_50
- Track 53 : Scorpio_52
- Track 54 : Cookiedough_56, Jordennis_56, Jeffabunny_57, Dorothea_55, Candra_56, Artemis2UCLA_57, Isiphiwo_54, SmellyB_56, Koko_58, Helmet_59, WunderPhul_57, Garak_59, SuperCallie99_55, JewelBug_57, Wiks_56, Chartreuse_55, GreedyLawyer_56, Kipper29_56, Indra_60, Kazan_57, Zaka_57, EricB_56, McFly_56, Tucker_57, Neeharika16_55, Newrala_56, CloudWang3_57, Hoot_51, VohminGhazi_56, Roksolana_58, Pmask_56, BABullseye_50, Zulu_58, DaVinci_55, Priamo_58, Blinn1_59, Yokurt_57, SuperAwesome_56, Hexamo_57, ToneTone_54
- Track 55 : Gruunaga_57, Gladiator_54
- Track 56 : Blue7_58, Rifter_57, Hammer_57
- Track 57 : Stephig9_53, NearlyHeadless_52, Danforth_52
- Track 58 : Astro_52
- Track 59 : Dixon_52
- Track 60 : Phillis_52
- Track 61 : Saintus_47
- Track 62 : Expelliarmus_52, Smeadley_53

- Track 63 : Groundhog_51
- Track 64 : Roary_53
- Track 65 : Phaeder_55, Pioneer_55, Myxus_55, Aliter_55, Spouty_53, Priya_55, ExplosioNervosa_55, Eidsmoe_55, EmyBug_52, Phonnegut_55, Beemo_55, Conquerage_55, Ugenie5_52, Qobbit_55, Scherzo_55, Fayely_55, Catalina_56, PackMan_54, HortumSL17_55, Tubs_55
- Track 66 : Arissanae_54
- Track 67 : SheaKeira_53
- Track 68 : Rahalelujah_55
- Track 69 : DreamTeam1_53
- Track 70 : Maminiaina_54, BogosyJay_54
- Track 71 : Vanisoa_55
- Track 72 : Toaka_55
- Track 73 : Alma_55
- Track 74 : Charm_53
- Track 75 : LoneWolf_56
- Track 76 : Elephantoon_54
- Track 77 : Keziacharles14_55
- Track 78 : Darrell_57
- Track 79 : Bonanza_43, Bryce_42, Gollum_43, Shuman_43, Natosaleda_42, CosmicSans_43, TWAMP_43, Hiro_43, Phrankenstien_43, Lillie_43, Nancinator_43, Swann_43, Rasputin_43, Jester_42, RER2_36, Rhodalysa_43, Yoncess_42, UhSalsa_43, Erik_43, Alpacados_42, RexFury_42, Harlequin_42, Belenaria_43, Alatin_42, Naiad_42, Espica_43, Bradshaw_43, Krishelle_43, PhailMary_42, Yogi_42, StCroix_42
- Track 80 : Takoda_43, AngryOrchard_41
- Track 81 : BobbyDazzler_43
- Track 82 : AppleCloud_40
- Track 83 : Dinger_42
- Track 84 : RGL3_37
- Track 85 : Success_24
- Track 86 : Ibantik_29

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

The start number called the most often in the published annotations is 10, it was called in 161 of the 305 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ACFishhook_56, Aglet_58, AgronaGT15_56, Alatin_42, Alpacados_42, AngryOrchard_41, Anubis_60, AppleCloud_40, AugsMagnumOpus_60, B1_49, BabyRay_54, Beauxregard13_57, Belenaria_43, BlueBird_56, BobbyDazzler_43, Bonanza_43, Bradshaw_43, BreSam8_57, Bryce_42, Bugatti_55, BuzzBuzz_55, Caviar_53, Chupacabra_51, Colbster_57, CosmicSans_43, Cullens_57, DaHudson_57, Daishi_56, Dieselweasel_58, Dinger_42, Drake94_50, Eaglepride_53, Edison31_50, EpicPhail_58, Erik_43, Espica_43, Farber_57, Fernando_57, Fred313_54, Gemma_56, GingkoMaracino_57, Giroux_55, Gollum_43, Goose_52, Grif_57, Groupthink_58, Grub_57, Grum1_57, GtownJaz_57, Harlequin_42, HashRod_58, HaveUMetTed_58, Heathen_54, HelDan_54, Heliosoles_56, Hercules11_57, Hiro_43, Hookmount_53, Idleandcovert_55, Isca_53, JF2_52,

JF4_52, JHC117_57, JenCasNa_58, JeppNRM_58, Jester_42, Jobu08_56, KADY_57, Kalb97_58, Kalnoky_58, KittenMittens_49, Krishelle_43, Kristoff_52, LBerry_58, Lambert1_53, LarryKay_57, Lilith_58, Lillie_43, Louie6_56, LugYA_60, MA5_54, MK4_54, MadMarie_57, Mainiac_57, Malinsilva_59, Manu_57, MarQuardt_57, Margo_53, Marie_57, Marius_58, Methuselah_53, Microwolf_57, Misomonster_58, MoneyMay_57, MuchMore_60, Naiad_42, Nancinator_43, Natosaleda_42, Noella_53, Norbert_52, OKCentral2016_51, OlanP_56, Ollie_57, P28Green_58, PGHhamlin_59, Panamaxus_51, Pawn_57, PeaceMeal1_50, Pembroke_57, Penny1_58, PhailMary_42, Phantastic_55, PhishRPhriends_55, Phoebe_58, Phoxy_57, Phrankenstein_43, Phranny_58, Pistachio_56, Pocahontas_53, Poompha_51, Popcicle_53, PotatoSplit_59, Puppy_56, PurpleHaze_57, QuinnKiro_52, RER2_36, Rasputin_43, Reba_57, Rebeuca_52, ResDef_54, RexFury_42, Rhodalysa_43, RhynO_53, Rockstar_54, Rummer_56, Sabia_57, Sabinator_56, SaturnRing_55, Scout_54, Severus_50, Shuman_43, Snickers_57, SoYo_57, SoilDragon_57, Soshari_59, Spike509_57, StCroix_42, Stagni_57, StepMih_57, Swann_43, TNguyen7_55, TWAMP_43, Takoda_43, Taurus_58, Texage_52, Tiffany_57, Todacoro_53, Topanga_50, Trike_50, Twister_50, UhSalsa_43, Veracruz_52, Vix_57, WalterMcMickey_50, Watson_57, Wooldri_59, Yogi_42, Yoncess_42, Zetzy_56,

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

- Bxz2_53, RGL3_37,

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

- AgentM_46, Airmid_48, Aliter_55, Alma_55, Anaysia_59, Anthony_50, Aragog_46, Archetta_46, Arissanae_54, Artemis2UCLA_57, Astro_52, BABullseye_50, BabyBack_52, Battleship_61, Beemo_55, Benedict_51, Blinn1_59, Blue7_58, Bluefalcon_46, BogosyJay_54, Bonamassa_47, Boohoo_59, Candra_56, Catalina_56, Chadwick_51, Charm_53, Chartreuse_55, CloudWang3_57, Conquerage_55, Conspiracy_47, Coog_46, Cookiedough_56, Cuco_47, DaVinci_55, Danforth_52, Darrell_57, DekHockey33_60, Discoknowium_45, Dixon_52, Dorothea_55, DreamTeam1_53, Dublin_47, Eidsmoe_55, EITiger69_50, Elephantoon_54, EmyBug_52, Epsocamisio_57, EricB_56, Expelliarmus_52, ExplosioNervosa_55, Fayely_55, ForGetIt_47, Garak_59, GaugeLDP_52, George_45, Ghoulboy_50, Gladiator_54, GreedyLawyer_56, Groundhog_51, Gruunaga_57, Hammer_57, Helmet_59, Herbertwm_53, Hexamo_57, Hoot_51, HortumSL17_55, HuhtaEnerson15_47, Ibantik_29, Indra_60, Isiphiwo_54, JSwag_59, Jabiru_49, Jeffabunny_57, JewelBug_57, Jordennis_56, Jovo_47, KatherineG_60, Kazan_57, Keziacharles14_55, Kipper29_56, Koko_58, LastResort_58, Lev2_47, LittleCherry_47, LoneWolf_56, Looper_59, Maminina_54, MarysWell_47, McFly_56, Micasa_47, Midas2_46, Milcery_47, MinecraftSteve_60, MyraDee_48, Myxus_55, Naca_48, NearlyHeadless_52, Nebulosus_58, Neeharika16_55, Newrala_56, Oofda_61, PackMan_54, PetterN_52, Phaeder_55, Phillis_52, Phlei_44, Phlorence_45, Phonnegut_55, PickleBack_47, Pioneer_55, Pmask_56, Priamo_58, Priya_55, Qobbit_55, Rahalelujah_55, ReMo_58, Remus_60, Rifter_57, Roary_53, Roksolana_58, Rosalind_58, Saintus_47, Scherzo_55, Scorpia_52, ShayRa_60, SheaKeira_53, Smeadley_53, SmellyB_56, Soups_60, Spouty_53, Stephig9_53, Strosahl_60, Success_24, SuperAwesome_56, SuperCallie99_55, Swirley_49, Switzerland_59, SydNat_50, Tarynearal_45, Theia_46, Tiger_46, Toaka_55, ToneTone_54, Tubs_55, Tucker_57, Ugenie5_52, UnionJack_49, Vanisoa_55, VohminGhazi_56, Waits_60, Wiks_56, WunderPhul_57, Yokurt_57, Zaka_57, Zolita_49, Zulu_58,

Summary by start number:

Start 8:

- Found in 23 of 327 (7.0%) of genes in pham
- Manual Annotations of this start: 1 of 305
- Called 4.3% of time when present
- Phage (with cluster) where this start called: Herbertwm_53 (A2),

Start 9:

- Found in 80 of 327 (24.5%) of genes in pham
- Manual Annotations of this start: 70 of 305
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aliter_55 (A9), Alma_55 (A9), Arissanae_54 (A9), Artemis2UCLA_57 (A6), BABullseye_50 (A6), Beemo_55 (A9), Blinn1_59 (A6), Blue7_58 (A6), BogosyJay_54 (A9), Candra_56 (A6), Catalina_56 (A9), Charm_53 (A9), Chartreuse_55 (A6), CloudWang3_57 (A6), Conquerage_55 (A9), Cookiedough_56 (A6), DaVinci_55 (A6), Darrell_57 (A9), Dorothea_55 (A6), DreamTeam1_53 (A9), Eidsmoe_55 (A9), Elephantoon_54 (A9), EmyBug_52 (A9), EricB_56 (A6), ExplosioNervosa_55 (A9), Fayely_55 (A9), Garak_59 (A6), Gladiator_54 (A6), GreedyLawyer_56 (A6), Gruunaga_57 (A6), Hammer_57 (A6), Helmet_59 (A6), Hexamo_57 (A6), Hoot_51 (A6), HortumSL17_55 (A9), Indra_60 (A6), Isiphiwo_54 (A6), Jeffabunny_57 (A6), JewelBug_57 (A6), Jordennis_56 (A6), Kazan_57 (A6), Keziacharles14_55 (A9), Kipper29_56 (A6), Koko_58 (A6), LoneWolf_56 (A9), Maminiaina_54 (A9), McFly_56 (A6), Myxus_55 (A9), Neeharika16_55 (A6), Newrala_56 (A6), PackMan_54 (A9), Phaeder_55 (A9), Phlei_44 (A13), Phonnegut_55 (A9), Pioneer_55 (A9), Pmask_56 (A6), Priamo_58 (A6), Priya_55 (A9), Qobbit_55 (A9), Rahalelujah_55 (A9), Rifter_57 (A6), Roksolana_58 (A6), Scherzo_55 (A9), SheaKeira_53 (A9), SmellyB_56 (A6), Spouty_53 (A9), SuperAwesome_56 (A6), SuperCallie99_55 (A6), Toaka_55 (A9), ToneTone_54 (A6), Tubs_55 (A9), Tucker_57 (A6), Ugenie5_52 (A9), Vanisoa_55 (A9), VohminGhazi_56 (A6), Wiks_56 (A6), WunderPhul_57 (A6), Yokurt_57 (A6), Zaka_57 (A6), Zulu_58 (A6),

Start 10:

- Found in 171 of 327 (52.3%) of genes in pham
- Manual Annotations of this start: 161 of 305
- Called 98.8% of time when present
- Phage (with cluster) where this start called: ACFishhook_56 (A3), Aglet_58 (A3), AgronaGT15_56 (A3), Alatin_42 (CA), Alpacados_42 (CA), AngryOrchard_41 (CA), Anubis_60 (A3), AppleCloud_40 (CA), AugsMagnumOpus_60 (A3), B1_49 (A3), BabyRay_54 (A3), Beauxregard13_57 (A3), Belenaria_43 (CA), BlueBird_56 (A3), BobbyDazzler_43 (CA), Bonanza_43 (CA), Bradshaw_43 (CA), BreSam8_57 (A3), Bryce_42 (CA), Bugatti_55 (A3), BuzzBuzz_55 (A3), Caviar_53 (A3), Chupacabra_51 (A10), Colbster_57 (A3), CosmicSans_43 (CA), Cullens_57 (A3), DaHudson_57 (A3), Daishi_56 (A3), Dieselweasel_58 (A3), Dinger_42 (CA), Drake94_50 (A10), Eaglepride_53 (A10), Edison31_50 (A10), EpicPhail_58 (A3), Erik_43 (CA), Espica_43 (CA), Farber_57 (A3), Fernando_57 (A3), Fred313_54 (A3), Gemma_56 (A3), GingkoMaracino_57 (A3), Giroux_55 (A3), Gollum_43 (CA), Goose_52 (A10), Grif_57 (A3), Groupthink_58 (A3), Grub_57 (A3), Grum1_57 (A3), GtownJaz_57 (A3), Harlequin_42 (CA), HashRod_58 (A3), HaveUMetTed_58 (A3), Heathen_54 (A3), HelDan_54 (A3), Heliosoles_56 (A3), Hercules11_57 (A3), Hiro_43 (CA), Hookmount_53 (A3), Idleandcovert_55 (A3), Isca_53 (A3), JF2_52 (A3), JF4_52 (A3), JHC117_57 (A3), JenCasNa_58 (A3), JeppNRM_58 (A3), Jester_42 (CA),

Jobu08_56 (A3), KADY_57 (A3), Kalb97_58 (A3), Kalnoky_58 (A3), KittenMittens_49 (A10), Krishelle_43 (CA), Kristoff_52 (A10), LBerry_58 (A3), Lambert1_53 (A3), LarryKay_57 (A3), Lilith_58 (A3), Lillie_43 (CA), Louie6_56 (A3), LugYA_60 (A3), MA5_54 (A3), MK4_54 (A3), MadMarie_57 (A3), Mainiac_57 (A3), Malinsilva_59 (A3), Manu_57 (A3), MarQuardt_57 (A3), Margo_53 (A3), Marie_57 (A3), Marius_58 (A3), Methuselah_53 (A3), Microwolf_57 (A3), Misomonster_58 (A3), MoneyMay_57 (A3), MuchMore_60 (A3), Naiad_42 (CA), Nancinator_43 (CA), Natosaleda_42 (CA), Noella_53 (A3), Norbert_52 (A3), OKCentral2016_51 (A10), OlanP_56 (A3), Ollie_57 (A3), P28Green_58 (A3), PGHhamlin_59 (A3), Panamaxus_51 (A3), Pawn_57 (A3), PeaceMeal1_50 (A10), Pembroke_57 (A3), Penny1_58 (A3), PhailMary_42 (CA), Phantastic_55 (A3), PhishRPhriends_55 (A3), Phoebe_58 (A3), Phoxy_57 (A3), Phrankenstein_43 (CA), Phranny_58 (A3), Pistachio_56 (A3), Pocahontas_53 (A3), Poompha_51 (A10), Popcicle_53 (A3), PotatoSplit_59 (A3), Puppy_56 (A3), PurpleHaze_57 (A3), QuinnKiro_52 (A3), RER2_36 (CA), Rasputin_43 (CA), Reba_57 (A3), Rebeuca_52 (A10), ResDef_54 (A3), RexFury_42 (CA), Rhodalysa_43 (CA), RhynO_53 (A10), Rockstar_54 (A3), Rummer_56 (A3), Sabia_57 (A3), Sabinator_56 (A3), SaturnRing_55 (A3), Scout_54 (A3), Severus_50 (A10), Shuman_43 (CA), Snickers_57 (A3), SoYo_57 (A3), SoilDragon_57 (A3), Soshari_59 (A3), Spike509_57 (A3), StCroix_42 (CA), Stagni_57 (A3), StepMih_57 (A3), Swann_43 (CA), TNguyen7_55 (A3), TWAMP_43 (CA), Takoda_43 (CA), Taurus_58 (A3), Texage_52 (A3), Tiffany_57 (A3), Todacoro_53 (A3), Topanga_50 (A10), Trike_50 (A10), Twister_50 (A10), UhSalsa_43 (CA), Veracruz_52 (A3), Vix_57 (A3), WalterMcMickey_50 (A10), Watson_57 (A3), Wooldri_59 (A3), Yogi_42 (CA), Yoncess_42 (CA), Zetzy_56 (A3),

Start 11:

- Found in 38 of 327 (11.6%) of genes in pham
- Manual Annotations of this start: 8 of 305
- Called 21.1% of time when present
- Phage (with cluster) where this start called: Airmid_48 (A5), Benedict_51 (A5), Chadwick_51 (A5), Cuco_47 (A5), MarysWell_47 (A5), Scorpio_52 (A5), Swirley_49 (A5), Tarynearal_45 (A5),

Start 13:

- Found in 55 of 327 (16.8%) of genes in pham
- Manual Annotations of this start: 21 of 305
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Anaysia_59 (A15), Battleship_61 (A15), Boohoo_59 (A15), DekHockey33_60 (A15), Epsocamisio_57 (A15), Ibantik_29 (singleton), JSwag_59 (A15), KatherineG_60 (A15), LastResort_58 (A15), Looper_59 (A15), MinecraftSteve_60 (A15), Nebulosus_58 (A15), Oofda_61 (A15), ReMo_58 (A15), Remus_60 (A15), Rosalind_58 (A15), ShayRa_60 (A15), Soups_60 (A15), Strosahl_60 (A15), Success_24 (singleton), Switzerland_59 (A15), Waits_60 (A15),

Start 14:

- Found in 1 of 327 (0.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: RGL3_37 (CA),

Start 15:

- Found in 52 of 327 (15.9%) of genes in pham
- Manual Annotations of this start: 42 of 305

- Called 84.6% of time when present
- Phage (with cluster) where this start called: AgentM_46 (A5), Anthony_50 (A20), Aragog_46 (A5), Archetta_46 (A5), Astro_52 (A8), BabyBack_52 (A2), Bluefalcon_46 (A5), Bonamassa_47 (A5), Conspiracy_47 (A5), Coog_46 (A5), Danforth_52 (A8), Discoknowium_45 (A5), Dixon_52 (A8), Dublin_47 (A5), EITiger69_50 (A5), Expelliarmus_52 (A8), ForGetIt_47 (A5), GaugeLDP_52 (A2), George_45 (A5), Ghouboy_50 (A5), Groundhog_51 (A8), HuhtaEnerson15_47 (A5), Jabiru_49 (A5), Jovo_47 (A5), Lev2_47 (A5), LittleCherry_47 (A5), Micasa_47 (A5), Midas2_46 (A5), Milcery_47 (A5), Naca_48 (A5), NearlyHeadless_52 (A8), PetterN_52 (A5), Phillis_52 (A8), Phlorence_45 (A5), PickleBack_47 (A5), Roary_53 (A8), Saintus_47 (A8), Smeadley_53 (A8), Stephig9_53 (A8), SydNat_50 (A5), Theia_46 (A5), Tiger_46 (A5), UnionJack_49 (A5), Zolita_49 (A5),

Start 16:

- Found in 1 of 327 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 305
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MyraDee_48 (A18),

Start 38:

- Found in 112 of 327 (34.3%) of genes in pham
- Manual Annotations of this start: 1 of 305
- Called 0.9% of time when present
- Phage (with cluster) where this start called: Bxz2_53 (A3),

Summary by clusters:

There are 13 clusters represented in this pham: A15, A20, singleton, A10, A13, CA, A18, A3, A2, A5, A6, A9, A8,

Info for manual annotations of cluster A10:

- Start number 10 was manually annotated 16 times for cluster A10.

Info for manual annotations of cluster A15:

- Start number 13 was manually annotated 19 times for cluster A15.

Info for manual annotations of cluster A18:

- Start number 16 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A2:

- Start number 8 was manually annotated 1 time for cluster A2.
- Start number 15 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A20:

- Start number 15 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A3:

- Start number 10 was manually annotated 110 times for cluster A3.
- Start number 38 was manually annotated 1 time for cluster A3.

Info for manual annotations of cluster A5:

- Start number 11 was manually annotated 8 times for cluster A5.

•Start number 15 was manually annotated 29 times for cluster A5.

Info for manual annotations of cluster A6:

•Start number 9 was manually annotated 39 times for cluster A6.

Info for manual annotations of cluster A8:

•Start number 15 was manually annotated 11 times for cluster A8.

Info for manual annotations of cluster A9:

•Start number 9 was manually annotated 31 times for cluster A9.

Info for manual annotations of cluster CA:

•Start number 10 was manually annotated 35 times for cluster CA.

Gene Information:

Gene: ACFishhook_56 Start: 36893, Stop: 36171, Start Num: 10

Candidate Starts for ACFishhook_56:

(Start: 10 @36893 has 161 MA's), (Start: 38 @36752 has 1 MA's), (48, 36698), (60, 36584), (83, 36434), (84, 36431), (100, 36344), (111, 36257),

Gene: AgentM_46 Start: 35277, Stop: 34651, Start Num: 15

Candidate Starts for AgentM_46:

(Start: 11 @35289 has 8 MA's), (Start: 15 @35277 has 42 MA's), (22, 35259), (31, 35184), (Start: 38 @35139 has 1 MA's), (43, 35121), (63, 34947), (66, 34935), (100, 34794), (109, 34731),

Gene: Aglet_58 Start: 36932, Stop: 36210, Start Num: 10

Candidate Starts for Aglet_58:

(Start: 10 @36932 has 161 MA's), (Start: 38 @36791 has 1 MA's), (48, 36737), (60, 36623), (80, 36506), (83, 36473), (84, 36470), (93, 36419), (97, 36404), (100, 36383), (111, 36296),

Gene: AgronaGT15_56 Start: 36780, Stop: 36058, Start Num: 10

Candidate Starts for AgronaGT15_56:

(Start: 10 @36780 has 161 MA's), (Start: 38 @36639 has 1 MA's), (48, 36585), (84, 36318), (100, 36231), (111, 36144),

Gene: Airmid_48 Start: 35448, Stop: 34813, Start Num: 11

Candidate Starts for Airmid_48:

(Start: 11 @35448 has 8 MA's), (Start: 15 @35436 has 42 MA's), (31, 35346), (37, 35319), (43, 35283), (52, 35178), (53, 35169), (61, 35130), (63, 35109), (66, 35097), (72, 35088), (92, 34995), (100, 34956), (109, 34893),

Gene: Alatin_42 Start: 32896, Stop: 32306, Start Num: 10

Candidate Starts for Alatin_42:

(Start: 10 @32896 has 161 MA's), (Start: 13 @32878 has 21 MA's), (25, 32848), (26, 32845), (42, 32731), (50, 32647), (52, 32620), (68, 32554), (70, 32545), (82, 32497), (97, 32425), (100, 32404), (106, 32365),

Gene: Aliter_55 Start: 36835, Stop: 36170, Start Num: 9

Candidate Starts for Aliter_55:

(Start: 9 @36835 has 70 MA's), (24, 36784), (30, 36736), (33, 36712), (39, 36673), (43, 36658), (61, 36505), (66, 36472), (74, 36454), (95, 36361), (100, 36331), (108, 36271),

Gene: Alma_55 Start: 37015, Stop: 36350, Start Num: 9

Candidate Starts for Alma_55:

(Start: 9 @37015 has 70 MA's), (24, 36964), (30, 36916), (33, 36892), (36, 36877), (43, 36838), (61, 36685), (66, 36652), (74, 36634), (95, 36541), (100, 36511), (108, 36451),

Gene: Alpacados_42 Start: 32801, Stop: 32211, Start Num: 10

Candidate Starts for Alpacados_42:

(Start: 10 @32801 has 161 MA's), (Start: 13 @32783 has 21 MA's), (25, 32753), (26, 32750), (42, 32636), (50, 32552), (52, 32525), (68, 32459), (70, 32450), (82, 32402), (97, 32330), (100, 32309), (106, 32270),

Gene: Anaysia_59 Start: 35907, Stop: 35335, Start Num: 13

Candidate Starts for Anaysia_59:

(7, 35958), (Start: 8 @35946 has 1 MA's), (Start: 13 @35907 has 21 MA's), (19, 35892), (42, 35754), (58, 35610), (84, 35508), (97, 35442), (100, 35421), (110, 35358),

Gene: AngryOrchard_41 Start: 32691, Stop: 32104, Start Num: 10

Candidate Starts for AngryOrchard_41:

(Start: 10 @32691 has 161 MA's), (25, 32646), (26, 32643), (37, 32559), (40, 32535), (42, 32529), (50, 32445), (52, 32418), (54, 32403), (68, 32352), (69, 32346), (70, 32343), (82, 32295), (93, 32238), (104, 32178), (106, 32163),

Gene: Anthony_50 Start: 34512, Stop: 33898, Start Num: 15

Candidate Starts for Anthony_50:

(Start: 15 @34512 has 42 MA's), (25, 34482), (43, 34359), (46, 34332), (60, 34209), (86, 34116), (88, 34104), (99, 34050), (100, 34041),

Gene: Anubis_60 Start: 36818, Stop: 36096, Start Num: 10

Candidate Starts for Anubis_60:

(Start: 10 @36818 has 161 MA's), (Start: 38 @36677 has 1 MA's), (48, 36623), (60, 36509), (80, 36392), (83, 36359), (84, 36356), (93, 36305), (97, 36290), (100, 36269), (111, 36182),

Gene: AppleCloud_40 Start: 32626, Stop: 32036, Start Num: 10

Candidate Starts for AppleCloud_40:

(Start: 10 @32626 has 161 MA's), (25, 32578), (26, 32575), (40, 32467), (42, 32461), (50, 32377), (52, 32350), (68, 32284), (69, 32278), (70, 32275), (82, 32227), (100, 32134), (106, 32095),

Gene: Aragog_46 Start: 35297, Stop: 34671, Start Num: 15

Candidate Starts for Aragog_46:

(Start: 11 @35309 has 8 MA's), (Start: 15 @35297 has 42 MA's), (22, 35279), (31, 35204), (Start: 38 @35159 has 1 MA's), (43, 35141), (63, 34967), (66, 34955), (100, 34814), (109, 34751),

Gene: Archetta_46 Start: 35707, Stop: 35081, Start Num: 15

Candidate Starts for Archetta_46:

(Start: 11 @35719 has 8 MA's), (Start: 15 @35707 has 42 MA's), (22, 35689), (31, 35614), (Start: 38 @35569 has 1 MA's), (43, 35551), (63, 35377), (66, 35365), (100, 35224), (109, 35161),

Gene: Arissanae_54 Start: 37527, Stop: 36862, Start Num: 9

Candidate Starts for Arissanae_54:

(Start: 9 @37527 has 70 MA's), (18, 37491), (30, 37428), (33, 37404), (43, 37350), (52, 37245), (53, 37236), (63, 37176), (66, 37164), (74, 37146), (100, 37020), (108, 36960),

Gene: Artemis2UCLA_57 Start: 35891, Stop: 35223, Start Num: 9

Candidate Starts for Artemis2UCLA_57:

(Start: 9 @35891 has 70 MA's), (23, 35840), (43, 35705), (48, 35669), (100, 35387), (105, 35360),

Gene: Astro_52 Start: 35198, Stop: 34575, Start Num: 15

Candidate Starts for Astro_52:

(Start: 15 @35198 has 42 MA's), (29, 35126), (41, 35054), (43, 35045), (48, 35009), (61, 34892), (65, 34862), (86, 34793), (88, 34781), (100, 34718), (101, 34709),

Gene: AugsMagnumOpus_60 Start: 36923, Stop: 36201, Start Num: 10

Candidate Starts for AugsMagnumOpus_60:

(Start: 10 @36923 has 161 MA's), (Start: 38 @36782 has 1 MA's), (48, 36728), (60, 36614), (80, 36497), (83, 36464), (84, 36461), (93, 36410), (97, 36395), (100, 36374), (111, 36287),

Gene: B1_49 Start: 34918, Stop: 34217, Start Num: 10

Candidate Starts for B1_49:

(Start: 10 @34918 has 161 MA's), (28, 34846), (29, 34825), (Start: 38 @34762 has 1 MA's), (48, 34708), (52, 34639), (75, 34498), (77, 34477), (80, 34468), (83, 34435), (100, 34345), (108, 34285), (113, 34228),

Gene: BABullseye_50 Start: 33473, Stop: 32805, Start Num: 9

Candidate Starts for BABullseye_50:

(Start: 9 @33473 has 70 MA's), (23, 33422), (43, 33287), (48, 33251), (100, 32969), (105, 32942),

Gene: BabyBack_52 Start: 37430, Stop: 36798, Start Num: 15

Candidate Starts for BabyBack_52:

(4, 37700), (5, 37658), (Start: 8 @37475 has 1 MA's), (Start: 15 @37430 has 42 MA's), (28, 37385), (41, 37292), (43, 37283), (55, 37160), (70, 37061), (73, 37049), (74, 37043), (77, 37019), (79, 37013), (83, 36977), (96, 36914), (98, 36899), (100, 36887),

Gene: BabyRay_54 Start: 36688, Stop: 36014, Start Num: 10

Candidate Starts for BabyRay_54:

(Start: 10 @36688 has 161 MA's), (21, 36667), (28, 36637), (29, 36616), (35, 36580), (37, 36571), (43, 36535), (52, 36430), (75, 36295), (80, 36265), (84, 36229), (89, 36202), (100, 36142), (108, 36082), (113, 36025),

Gene: Battleship_61 Start: 36113, Stop: 35541, Start Num: 13

Candidate Starts for Battleship_61:

(7, 36164), (Start: 8 @36152 has 1 MA's), (Start: 13 @36113 has 21 MA's), (19, 36098), (42, 35960), (58, 35816), (84, 35714), (97, 35648), (100, 35627), (110, 35564),

Gene: Beauxregard13_57 Start: 36935, Stop: 36213, Start Num: 10

Candidate Starts for Beauxregard13_57:

(Start: 10 @36935 has 161 MA's), (Start: 38 @36794 has 1 MA's), (48, 36740), (60, 36626), (80, 36509), (83, 36476), (84, 36473), (93, 36422), (97, 36407), (100, 36386), (111, 36299),

Gene: Beemo_55 Start: 37005, Stop: 36340, Start Num: 9

Candidate Starts for Beemo_55:

(Start: 9 @37005 has 70 MA's), (24, 36954), (30, 36906), (33, 36882), (39, 36843), (43, 36828), (61, 36675), (66, 36642), (74, 36624), (95, 36531), (100, 36501), (108, 36441),

Gene: Belenaria_43 Start: 32762, Stop: 32172, Start Num: 10

Candidate Starts for Belenaria_43:

(Start: 10 @32762 has 161 MA's), (Start: 13 @32744 has 21 MA's), (25, 32714), (26, 32711), (42, 32597), (50, 32513), (52, 32486), (68, 32420), (70, 32411), (82, 32363), (97, 32291), (100, 32270), (106, 32231),

Gene: Benedict_51 Start: 35675, Stop: 35040, Start Num: 11

Candidate Starts for Benedict_51:

(Start: 11 @35675 has 8 MA's), (Start: 15 @35663 has 42 MA's), (31, 35573), (43, 35510), (52, 35405), (53, 35396), (63, 35336), (66, 35324), (72, 35315), (88, 35246), (97, 35204), (100, 35183), (109, 35120),

Gene: Blinn1_59 Start: 35909, Stop: 35241, Start Num: 9

Candidate Starts for Blinn1_59:

(Start: 9 @35909 has 70 MA's), (23, 35858), (43, 35723), (48, 35687), (100, 35405), (105, 35378),

Gene: Blue7_58 Start: 35991, Stop: 35299, Start Num: 9

Candidate Starts for Blue7_58:

(Start: 9 @35991 has 70 MA's), (23, 35940), (43, 35805), (48, 35769), (59, 35664), (98, 35499), (99, 35496), (100, 35487), (105, 35460), (114, 35334),

Gene: BlueBird_56 Start: 36750, Stop: 36073, Start Num: 10

Candidate Starts for BlueBird_56:

(Start: 10 @36750 has 161 MA's), (21, 36729), (24, 36723), (35, 36642), (37, 36633), (41, 36606), (43, 36597), (47, 36567), (52, 36492), (75, 36354), (77, 36333), (80, 36324), (83, 36291), (84, 36288), (100, 36201), (108, 36141), (113, 36084),

Gene: Bluefalcon_46 Start: 35852, Stop: 35226, Start Num: 15

Candidate Starts for Bluefalcon_46:

(Start: 11 @35864 has 8 MA's), (Start: 15 @35852 has 42 MA's), (22, 35834), (31, 35759), (43, 35696), (52, 35591), (53, 35582), (63, 35522), (66, 35510), (88, 35432), (100, 35369),

Gene: BobbyDazzler_43 Start: 32875, Stop: 32285, Start Num: 10

Candidate Starts for BobbyDazzler_43:

(Start: 10 @32875 has 161 MA's), (Start: 13 @32857 has 21 MA's), (25, 32827), (26, 32824), (42, 32710), (50, 32626), (52, 32599), (68, 32533), (70, 32524), (97, 32404), (100, 32383), (106, 32344),

Gene: BogosyJay_54 Start: 36720, Stop: 36055, Start Num: 9

Candidate Starts for BogosyJay_54:

(Start: 9 @36720 has 70 MA's), (24, 36669), (28, 36645), (33, 36597), (36, 36582), (41, 36552), (43, 36543), (52, 36438), (53, 36429), (61, 36390), (66, 36357), (72, 36348), (74, 36339), (95, 36246), (100, 36216),

Gene: Bonamassa_47 Start: 35693, Stop: 35070, Start Num: 15

Candidate Starts for Bonamassa_47:

(1, 36311), (2, 36254), (3, 36044), (Start: 11 @35705 has 8 MA's), (Start: 15 @35693 has 42 MA's), (31, 35603), (43, 35540), (52, 35435), (53, 35426), (55, 35417), (63, 35366), (66, 35354), (72, 35345), (92, 35252), (100, 35213), (109, 35150),

Gene: Bonanza_43 Start: 32803, Stop: 32213, Start Num: 10

Candidate Starts for Bonanza_43:

(Start: 10 @32803 has 161 MA's), (Start: 13 @32785 has 21 MA's), (25, 32755), (26, 32752), (42, 32638), (50, 32554), (52, 32527), (68, 32461), (70, 32452), (82, 32404), (97, 32332), (100, 32311), (106, 32272),

Gene: Boohoo_59 Start: 35907, Stop: 35335, Start Num: 13

Candidate Starts for Boohoo_59:

(7, 35958), (Start: 8 @35946 has 1 MA's), (Start: 13 @35907 has 21 MA's), (19, 35892), (42, 35754), (58, 35610), (84, 35508), (97, 35442), (100, 35421), (110, 35358),

Gene: Bradshaw_43 Start: 32829, Stop: 32239, Start Num: 10

Candidate Starts for Bradshaw_43:

(Start: 10 @32829 has 161 MA's), (Start: 13 @32811 has 21 MA's), (25, 32781), (26, 32778), (42, 32664), (50, 32580), (52, 32553), (68, 32487), (70, 32478), (82, 32430), (97, 32358), (100, 32337), (106, 32298),

Gene: BreSam8_57 Start: 36925, Stop: 36203, Start Num: 10

Candidate Starts for BreSam8_57:

(Start: 10 @36925 has 161 MA's), (Start: 38 @36784 has 1 MA's), (48, 36730), (60, 36616), (80, 36499), (83, 36466), (84, 36463), (93, 36412), (97, 36397), (100, 36376), (111, 36289),

Gene: Bryce_42 Start: 32583, Stop: 31993, Start Num: 10

Candidate Starts for Bryce_42:

(Start: 10 @32583 has 161 MA's), (Start: 13 @32565 has 21 MA's), (25, 32535), (26, 32532), (42, 32418), (50, 32334), (52, 32307), (68, 32241), (70, 32232), (82, 32184), (97, 32112), (100, 32091), (106, 32052),

Gene: Bugatti_55 Start: 36750, Stop: 36073, Start Num: 10

Candidate Starts for Bugatti_55:

(Start: 10 @36750 has 161 MA's), (21, 36729), (24, 36723), (35, 36642), (37, 36633), (41, 36606), (43, 36597), (47, 36567), (52, 36492), (75, 36354), (77, 36333), (80, 36324), (83, 36291), (84, 36288), (100, 36201), (108, 36141), (113, 36084),

Gene: BuzzBuzz_55 Start: 36959, Stop: 36237, Start Num: 10

Candidate Starts for BuzzBuzz_55:

(Start: 10 @36959 has 161 MA's), (Start: 38 @36818 has 1 MA's), (48, 36764), (84, 36497), (100, 36410), (111, 36323),

Gene: Bxz2_53 Start: 36825, Stop: 36244, Start Num: 38

Candidate Starts for Bxz2_53:

(Start: 10 @36966 has 161 MA's), (Start: 38 @36825 has 1 MA's), (48, 36771), (84, 36504), (100, 36417), (111, 36330),

Gene: Candra_56 Start: 35831, Stop: 35163, Start Num: 9

Candidate Starts for Candra_56:

(Start: 9 @35831 has 70 MA's), (23, 35780), (43, 35645), (48, 35609), (100, 35327), (105, 35300),

Gene: Catalina_56 Start: 36908, Stop: 36243, Start Num: 9

Candidate Starts for Catalina_56:

(Start: 9 @36908 has 70 MA's), (24, 36857), (30, 36809), (33, 36785), (39, 36746), (43, 36731), (61, 36578), (66, 36545), (74, 36527), (95, 36434), (100, 36404), (108, 36344),

Gene: Caviar_53 Start: 36706, Stop: 36002, Start Num: 10

Candidate Starts for Caviar_53:

(Start: 10 @36706 has 161 MA's), (27, 36649), (28, 36646), (53, 36430), (62, 36382), (75, 36307), (76, 36304), (77, 36286), (98, 36166), (100, 36154),

Gene: Chadwick_51 Start: 35516, Stop: 34851, Start Num: 11

Candidate Starts for Chadwick_51:

(3, 35855), (Start: 11 @35516 has 8 MA's), (Start: 15 @35504 has 42 MA's), (31, 35414), (43, 35351), (52, 35246), (53, 35237), (58, 35213), (63, 35177), (66, 35165), (92, 35033), (100, 34994), (109, 34931),

Gene: Charm_53 Start: 36613, Stop: 35912, Start Num: 9

Candidate Starts for Charm_53:

(Start: 9 @36613 has 70 MA's), (18, 36568), (24, 36553), (29, 36508), (30, 36505), (33, 36481), (35, 36472), (36, 36466), (43, 36427), (52, 36322), (61, 36274), (66, 36241), (88, 36163), (94, 36133), (100, 36100), (105, 36073), (114, 35947),

Gene: Chartreuse_55 Start: 35191, Stop: 34523, Start Num: 9

Candidate Starts for Chartreuse_55:

(Start: 9 @35191 has 70 MA's), (23, 35140), (43, 35005), (48, 34969), (100, 34687), (105, 34660),

Gene: Chupacabra_51 Start: 36238, Stop: 35528, Start Num: 10

Candidate Starts for Chupacabra_51:

(Start: 10 @36238 has 161 MA's), (28, 36187), (29, 36166), (35, 36130), (43, 36085), (44, 36076), (56, 35959), (67, 35893), (100, 35695),

Gene: CloudWang3_57 Start: 35979, Stop: 35311, Start Num: 9

Candidate Starts for CloudWang3_57:

(Start: 9 @35979 has 70 MA's), (23, 35928), (43, 35793), (48, 35757), (100, 35475), (105, 35448),

Gene: Colbster_57 Start: 36935, Stop: 36213, Start Num: 10

Candidate Starts for Colbster_57:

(Start: 10 @36935 has 161 MA's), (Start: 38 @36794 has 1 MA's), (48, 36740), (60, 36626), (80, 36509), (83, 36476), (84, 36473), (93, 36422), (97, 36407), (100, 36386), (111, 36299),

Gene: Conquerage_55 Start: 36979, Stop: 36314, Start Num: 9

Candidate Starts for Conquerage_55:

(Start: 9 @36979 has 70 MA's), (24, 36928), (30, 36880), (33, 36856), (39, 36817), (43, 36802), (61, 36649), (66, 36616), (74, 36598), (95, 36505), (100, 36475), (108, 36415),

Gene: Conspiracy_47 Start: 35519, Stop: 34893, Start Num: 15

Candidate Starts for Conspiracy_47:

(Start: 11 @35531 has 8 MA's), (Start: 15 @35519 has 42 MA's), (22, 35501), (31, 35426), (Start: 38 @35381 has 1 MA's), (43, 35363), (63, 35189), (66, 35177), (100, 35036), (109, 34973),

Gene: Coog_46 Start: 35677, Stop: 35054, Start Num: 15

Candidate Starts for Coog_46:

(1, 36295), (2, 36238), (Start: 11 @35689 has 8 MA's), (Start: 15 @35677 has 42 MA's), (31, 35587), (43, 35524), (52, 35419), (53, 35410), (55, 35401), (63, 35350), (66, 35338), (72, 35329), (88, 35260), (100, 35197), (109, 35134),

Gene: Cookiedough_56 Start: 35810, Stop: 35142, Start Num: 9

Candidate Starts for Cookiedough_56:

(Start: 9 @35810 has 70 MA's), (23, 35759), (43, 35624), (48, 35588), (100, 35306), (105, 35279),

Gene: CosmicSans_43 Start: 32829, Stop: 32239, Start Num: 10

Candidate Starts for CosmicSans_43:

(Start: 10 @32829 has 161 MA's), (Start: 13 @32811 has 21 MA's), (25, 32781), (26, 32778), (42, 32664), (50, 32580), (52, 32553), (68, 32487), (70, 32478), (82, 32430), (97, 32358), (100, 32337), (106, 32298),

Gene: Cuco_47 Start: 35561, Stop: 34926, Start Num: 11

Candidate Starts for Cuco_47:

(Start: 11 @35561 has 8 MA's), (Start: 15 @35549 has 42 MA's), (31, 35459), (43, 35396), (52, 35291), (53, 35282), (63, 35222), (66, 35210), (72, 35201), (100, 35069), (109, 35006),

Gene: Cullens_57 Start: 36931, Stop: 36209, Start Num: 10

Candidate Starts for Cullens_57:

(Start: 10 @36931 has 161 MA's), (Start: 38 @36790 has 1 MA's), (48, 36736), (60, 36622), (80, 36505), (83, 36472), (84, 36469), (93, 36418), (97, 36403), (100, 36382), (111, 36295),

Gene: DaHudson_57 Start: 36924, Stop: 36202, Start Num: 10

Candidate Starts for DaHudson_57:

(Start: 10 @36924 has 161 MA's), (Start: 38 @36783 has 1 MA's), (48, 36729), (60, 36615), (80, 36498), (83, 36465), (84, 36462), (93, 36411), (97, 36396), (100, 36375), (111, 36288),

Gene: DaVinci_55 Start: 35245, Stop: 34577, Start Num: 9

Candidate Starts for DaVinci_55:

(Start: 9 @35245 has 70 MA's), (23, 35194), (43, 35059), (48, 35023), (100, 34741), (105, 34714),

Gene: Daishi_56 Start: 35800, Stop: 35078, Start Num: 10

Candidate Starts for Daishi_56:

(Start: 10 @35800 has 161 MA's), (Start: 38 @35659 has 1 MA's), (48, 35605), (84, 35338), (100, 35251), (111, 35164),

Gene: Danforth_52 Start: 35227, Stop: 34604, Start Num: 15

Candidate Starts for Danforth_52:

(Start: 15 @35227 has 42 MA's), (29, 35155), (41, 35083), (48, 35038), (61, 34921), (65, 34891), (86, 34822), (88, 34810), (100, 34747), (101, 34738),

Gene: Darrell_57 Start: 37605, Stop: 36931, Start Num: 9

Candidate Starts for Darrell_57:

(Start: 9 @37605 has 70 MA's), (18, 37560), (24, 37545), (31, 37482), (32, 37479), (33, 37473), (36, 37458), (43, 37419), (53, 37305), (66, 37233), (74, 37215), (87, 37158), (100, 37089),

Gene: DekHockey33_60 Start: 36199, Stop: 35627, Start Num: 13

Candidate Starts for DekHockey33_60:

(7, 36250), (Start: 8 @36238 has 1 MA's), (Start: 13 @36199 has 21 MA's), (19, 36184), (42, 36046), (58, 35902), (84, 35800), (97, 35734), (100, 35713), (110, 35650),

Gene: Dieselweasel_58 Start: 36934, Stop: 36212, Start Num: 10

Candidate Starts for Dieselweasel_58:

(Start: 10 @36934 has 161 MA's), (Start: 38 @36793 has 1 MA's), (48, 36739), (60, 36625), (80, 36508), (83, 36475), (84, 36472), (93, 36421), (94, 36418), (97, 36406), (100, 36385), (111, 36298),

Gene: Dinger_42 Start: 32698, Stop: 32108, Start Num: 10

Candidate Starts for Dinger_42:

(Start: 10 @32698 has 161 MA's), (Start: 13 @32680 has 21 MA's), (25, 32650), (26, 32647), (37, 32563), (Start: 38 @32545 has 1 MA's), (50, 32449), (52, 32422), (53, 32413), (68, 32356), (70, 32347), (82, 32299), (86, 32281), (89, 32266), (92, 32245), (100, 32206), (106, 32167),

Gene: Discoknowium_45 Start: 35186, Stop: 34560, Start Num: 15

Candidate Starts for Discoknowium_45:

(Start: 11 @35198 has 8 MA's), (Start: 15 @35186 has 42 MA's), (22, 35168), (31, 35093), (Start: 38 @35048 has 1 MA's), (43, 35030), (63, 34856), (66, 34844), (100, 34703), (109, 34640),

Gene: Dixon_52 Start: 35052, Stop: 34399, Start Num: 15

Candidate Starts for Dixon_52:

(Start: 15 @35052 has 42 MA's), (28, 35001), (29, 34980), (37, 34935), (Start: 38 @34917 has 1 MA's), (43, 34899), (52, 34794), (53, 34785), (65, 34716), (66, 34713), (100, 34542), (102, 34524),

Gene: Dorothea_55 Start: 35814, Stop: 35146, Start Num: 9

Candidate Starts for Dorothea_55:

(Start: 9 @35814 has 70 MA's), (23, 35763), (43, 35628), (48, 35592), (100, 35310), (105, 35283),

Gene: Drake94_50 Start: 35473, Stop: 34739, Start Num: 10

Candidate Starts for Drake94_50:

(Start: 10 @35473 has 161 MA's), (29, 35377), (Start: 38 @35314 has 1 MA's), (42, 35302), (48, 35260), (67, 35104), (71, 35074), (92, 34945), (93, 34942), (100, 34906),

Gene: DreamTeam1_53 Start: 36445, Stop: 35768, Start Num: 9

Candidate Starts for DreamTeam1_53:

(Start: 9 @36445 has 70 MA's), (18, 36400), (24, 36385), (43, 36259), (53, 36145), (61, 36106), (66, 36073), (74, 36055), (100, 35929),

Gene: Dublin_47 Start: 35688, Stop: 35062, Start Num: 15

Candidate Starts for Dublin_47:

(2, 36249), (3, 36039), (Start: 11 @35700 has 8 MA's), (Start: 15 @35688 has 42 MA's), (22, 35670), (31, 35595), (43, 35532), (52, 35427), (53, 35418), (63, 35358), (66, 35346), (72, 35337), (92, 35244), (100, 35205),

Gene: Eaglepride_53 Start: 36302, Stop: 35592, Start Num: 10

Candidate Starts for Eaglepride_53:

(Start: 10 @36302 has 161 MA's), (28, 36251), (29, 36230), (43, 36149), (44, 36140), (71, 35927), (100, 35759),

Gene: Edison31_50 Start: 36241, Stop: 35531, Start Num: 10

Candidate Starts for Edison31_50:

(Start: 10 @36241 has 161 MA's), (28, 36190), (35, 36133), (43, 36088), (44, 36079), (47, 36058), (48, 36052), (67, 35896), (81, 35794), (100, 35698),

Gene: Eidsmoe_55 Start: 36971, Stop: 36306, Start Num: 9

Candidate Starts for Eidsmoe_55:

(Start: 9 @36971 has 70 MA's), (24, 36920), (30, 36872), (33, 36848), (39, 36809), (43, 36794), (61, 36641), (66, 36608), (74, 36590), (95, 36497), (100, 36467), (108, 36407),

Gene: EITiger69_50 Start: 35645, Stop: 35022, Start Num: 15

Candidate Starts for EITiger69_50:

(Start: 11 @35657 has 8 MA's), (Start: 15 @35645 has 42 MA's), (31, 35555), (43, 35492), (52, 35387), (53, 35378), (63, 35318), (66, 35306), (72, 35297), (87, 35231), (100, 35165), (109, 35102),

Gene: Elephantoon_54 Start: 36347, Stop: 35676, Start Num: 9

Candidate Starts for Elephantoon_54:

(Start: 9 @36347 has 70 MA's), (18, 36302), (24, 36287), (30, 36239), (33, 36215), (36, 36200), (43, 36161), (53, 36047), (61, 36008), (63, 35987), (66, 35975), (74, 35957), (100, 35834), (107, 35777),

Gene: EmyBug_52 Start: 36973, Stop: 36308, Start Num: 9

Candidate Starts for EmyBug_52:

(Start: 9 @36973 has 70 MA's), (24, 36922), (30, 36874), (33, 36850), (39, 36811), (43, 36796), (61, 36643), (66, 36610), (74, 36592), (95, 36499), (100, 36469), (108, 36409),

Gene: EpicPhail_58 Start: 36935, Stop: 36213, Start Num: 10

Candidate Starts for EpicPhail_58:

(Start: 10 @36935 has 161 MA's), (Start: 38 @36794 has 1 MA's), (48, 36740), (60, 36626), (80, 36509), (83, 36476), (84, 36473), (93, 36422), (97, 36407), (100, 36386), (111, 36299),

Gene: Epsocamisio_57 Start: 35442, Stop: 34870, Start Num: 13

Candidate Starts for Epsocamisio_57:

(7, 35493), (Start: 8 @35481 has 1 MA's), (Start: 13 @35442 has 21 MA's), (19, 35427), (42, 35289), (58, 35145), (84, 35043), (97, 34977), (100, 34956), (110, 34893),

Gene: EricB_56 Start: 35788, Stop: 35120, Start Num: 9

Candidate Starts for EricB_56:

(Start: 9 @35788 has 70 MA's), (23, 35737), (43, 35602), (48, 35566), (100, 35284), (105, 35257),

Gene: Erik_43 Start: 32761, Stop: 32171, Start Num: 10

Candidate Starts for Erik_43:

(Start: 10 @32761 has 161 MA's), (Start: 13 @32743 has 21 MA's), (25, 32713), (26, 32710), (42, 32596), (50, 32512), (52, 32485), (68, 32419), (70, 32410), (82, 32362), (97, 32290), (100, 32269), (106, 32230),

Gene: Espica_43 Start: 32762, Stop: 32172, Start Num: 10

Candidate Starts for Espica_43:

(Start: 10 @32762 has 161 MA's), (Start: 13 @32744 has 21 MA's), (25, 32714), (26, 32711), (42, 32597), (50, 32513), (52, 32486), (68, 32420), (70, 32411), (82, 32363), (97, 32291), (100, 32270), (106, 32231),

Gene: Expelliarmus_52 Start: 35256, Stop: 34633, Start Num: 15

Candidate Starts for Expelliarmus_52:

(Start: 15 @35256 has 42 MA's), (29, 35184), (41, 35112), (48, 35067), (61, 34950), (65, 34920), (100, 34776), (101, 34767),

Gene: ExplosioNervosa_55 Start: 37039, Stop: 36374, Start Num: 9

Candidate Starts for ExplosioNervosa_55:

(Start: 9 @37039 has 70 MA's), (24, 36988), (30, 36940), (33, 36916), (39, 36877), (43, 36862), (61, 36709), (66, 36676), (74, 36658), (95, 36565), (100, 36535), (108, 36475),

Gene: Farber_57 Start: 36921, Stop: 36199, Start Num: 10

Candidate Starts for Farber_57:

(Start: 10 @36921 has 161 MA's), (Start: 38 @36780 has 1 MA's), (48, 36726), (84, 36459), (100, 36372), (111, 36285),

Gene: Fayely_55 Start: 36940, Stop: 36275, Start Num: 9

Candidate Starts for Fayely_55:

(Start: 9 @36940 has 70 MA's), (24, 36889), (30, 36841), (33, 36817), (39, 36778), (43, 36763), (61, 36610), (66, 36577), (74, 36559), (95, 36466), (100, 36436), (108, 36376),

Gene: Fernando_57 Start: 36931, Stop: 36209, Start Num: 10

Candidate Starts for Fernando_57:

(Start: 10 @36931 has 161 MA's), (Start: 38 @36790 has 1 MA's), (48, 36736), (60, 36622), (80, 36505), (83, 36472), (84, 36469), (93, 36418), (97, 36403), (100, 36382), (111, 36295),

Gene: ForGetIt_47 Start: 35544, Stop: 34918, Start Num: 15

Candidate Starts for ForGetIt_47:

(Start: 11 @35556 has 8 MA's), (Start: 15 @35544 has 42 MA's), (22, 35526), (31, 35451), (Start: 38 @35406 has 1 MA's), (43, 35388), (63, 35214), (66, 35202), (100, 35061), (109, 34998),

Gene: Fred313_54 Start: 36337, Stop: 35636, Start Num: 10

Candidate Starts for Fred313_54:

(Start: 10 @36337 has 161 MA's), (28, 36265), (29, 36244), (Start: 38 @36181 has 1 MA's), (48, 36127), (52, 36058), (72, 35929), (75, 35917), (77, 35896), (80, 35887), (83, 35854), (100, 35764), (108, 35704), (113, 35647),

Gene: Garak_59 Start: 36258, Stop: 35590, Start Num: 9

Candidate Starts for Garak_59:

(Start: 9 @36258 has 70 MA's), (23, 36207), (43, 36072), (48, 36036), (100, 35754), (105, 35727),

Gene: GaugeLDP_52 Start: 37028, Stop: 36396, Start Num: 15

Candidate Starts for GaugeLDP_52:

(5, 37256), (6, 37217), (Start: 8 @37073 has 1 MA's), (Start: 15 @37028 has 42 MA's), (20, 37019), (28, 36983), (29, 36962), (41, 36890), (43, 36881), (55, 36758), (70, 36659), (73, 36647), (74, 36641), (77, 36617), (79, 36611), (80, 36608), (83, 36575), (96, 36512), (98, 36497), (100, 36485),

Gene: Gemma_56 Start: 36817, Stop: 36095, Start Num: 10

Candidate Starts for Gemma_56:

(Start: 10 @36817 has 161 MA's), (36, 36697), (Start: 38 @36676 has 1 MA's), (48, 36622), (83, 36358), (100, 36268), (111, 36181),

Gene: George_45 Start: 35596, Stop: 34973, Start Num: 15

Candidate Starts for George_45:

(Start: 11 @35608 has 8 MA's), (Start: 15 @35596 has 42 MA's), (31, 35506), (43, 35443), (63, 35269), (66, 35257), (100, 35116), (109, 35053),

Gene: Ghoulboy_50 Start: 36423, Stop: 35797, Start Num: 15

Candidate Starts for Ghoulboy_50:

(Start: 11 @36435 has 8 MA's), (Start: 15 @36423 has 42 MA's), (22, 36405), (31, 36330), (43, 36267), (52, 36162), (53, 36153), (63, 36093), (66, 36081), (88, 36003), (100, 35940),

Gene: GingkoMaracino_57 Start: 36817, Stop: 36095, Start Num: 10

Candidate Starts for GingkoMaracino_57:

(Start: 10 @36817 has 161 MA's), (Start: 38 @36676 has 1 MA's), (48, 36622), (60, 36508), (80, 36391), (83, 36358), (84, 36355), (93, 36304), (97, 36289), (100, 36268), (111, 36181),

Gene: Giroux_55 Start: 36749, Stop: 36072, Start Num: 10

Candidate Starts for Giroux_55:

(Start: 10 @36749 has 161 MA's), (21, 36728), (24, 36722), (35, 36641), (37, 36632), (41, 36605), (43, 36596), (47, 36566), (52, 36491), (75, 36353), (77, 36332), (80, 36323), (83, 36290), (84, 36287), (100, 36200), (108, 36140), (113, 36083),

Gene: Gladiator_54 Start: 35489, Stop: 34821, Start Num: 9

Candidate Starts for Gladiator_54:

(Start: 9 @35489 has 70 MA's), (23, 35438), (43, 35303), (48, 35267), (59, 35162), (98, 34997), (99, 34994), (100, 34985), (105, 34958),

Gene: Gollum_43 Start: 32827, Stop: 32237, Start Num: 10

Candidate Starts for Gollum_43:

(Start: 10 @32827 has 161 MA's), (Start: 13 @32809 has 21 MA's), (25, 32779), (26, 32776), (42, 32662), (50, 32578), (52, 32551), (68, 32485), (70, 32476), (82, 32428), (97, 32356), (100, 32335), (106, 32296),

Gene: Goose_52 Start: 36054, Stop: 35341, Start Num: 10

Candidate Starts for Goose_52:

(Start: 10 @36054 has 161 MA's), (28, 36000), (29, 35979), (43, 35898), (44, 35889), (52, 35793), (67, 35706), (83, 35598), (92, 35547), (100, 35508),

Gene: GreedyLawyer_56 Start: 35795, Stop: 35127, Start Num: 9

Candidate Starts for GreedyLawyer_56:

(Start: 9 @35795 has 70 MA's), (23, 35744), (43, 35609), (48, 35573), (100, 35291), (105, 35264),

Gene: Grif_57 Start: 37006, Stop: 36284, Start Num: 10

Candidate Starts for Grif_57:

(Start: 10 @37006 has 161 MA's), (Start: 38 @36865 has 1 MA's), (48, 36811), (60, 36697), (80, 36580), (83, 36547), (84, 36544), (93, 36493), (97, 36478), (100, 36457), (111, 36370),

Gene: Groundhog_51 Start: 35142, Stop: 34531, Start Num: 15

Candidate Starts for Groundhog_51:

(Start: 15 @35142 has 42 MA's), (29, 35070), (41, 34998), (43, 34989), (64, 34812), (66, 34803), (84, 34749), (100, 34674), (102, 34656),

Gene: Groupthink_58 Start: 36821, Stop: 36099, Start Num: 10

Candidate Starts for Groupthink_58:

(Start: 10 @36821 has 161 MA's), (Start: 38 @36680 has 1 MA's), (48, 36626), (60, 36512), (83, 36362), (100, 36272), (111, 36185),

Gene: Grub_57 Start: 36923, Stop: 36201, Start Num: 10

Candidate Starts for Grub_57:

(Start: 10 @36923 has 161 MA's), (Start: 38 @36782 has 1 MA's), (48, 36728), (60, 36614), (80, 36497), (83, 36464), (84, 36461), (93, 36410), (97, 36395), (100, 36374), (111, 36287),

Gene: Grum1_57 Start: 36931, Stop: 36209, Start Num: 10

Candidate Starts for Grum1_57:

(Start: 10 @36931 has 161 MA's), (Start: 38 @36790 has 1 MA's), (48, 36736), (60, 36622), (80, 36505), (83, 36472), (84, 36469), (93, 36418), (97, 36403), (100, 36382), (111, 36295),

Gene: Gruunaga_57 Start: 36188, Stop: 35520, Start Num: 9

Candidate Starts for Gruunaga_57:

(Start: 9 @36188 has 70 MA's), (23, 36137), (43, 36002), (48, 35966), (59, 35861), (98, 35696), (99, 35693), (100, 35684), (105, 35657),

Gene: GtownJaz_57 Start: 36933, Stop: 36211, Start Num: 10

Candidate Starts for GtownJaz_57:

(Start: 10 @36933 has 161 MA's), (Start: 38 @36792 has 1 MA's), (48, 36738), (60, 36624), (80, 36507), (83, 36474), (84, 36471), (93, 36420), (97, 36405), (100, 36384), (111, 36297),

Gene: Hammer_57 Start: 35795, Stop: 35103, Start Num: 9

Candidate Starts for Hammer_57:

(Start: 9 @35795 has 70 MA's), (23, 35744), (43, 35609), (48, 35573), (59, 35468), (98, 35303), (99, 35300), (100, 35291), (105, 35264), (114, 35138),

Gene: Harlequin_42 Start: 32613, Stop: 32023, Start Num: 10

Candidate Starts for Harlequin_42:

(Start: 10 @32613 has 161 MA's), (Start: 13 @32595 has 21 MA's), (25, 32565), (26, 32562), (42, 32448), (50, 32364), (52, 32337), (68, 32271), (70, 32262), (82, 32214), (97, 32142), (100, 32121), (106, 32082),

Gene: HashRod_58 Start: 36959, Stop: 36237, Start Num: 10

Candidate Starts for HashRod_58:

(Start: 10 @36959 has 161 MA's), (Start: 38 @36818 has 1 MA's), (48, 36764), (60, 36650), (84, 36497), (100, 36410), (111, 36323),

Gene: HaveUMetTed_58 Start: 36806, Stop: 36084, Start Num: 10

Candidate Starts for HaveUMetTed_58:

(Start: 10 @36806 has 161 MA's), (Start: 38 @36665 has 1 MA's), (48, 36611), (60, 36497), (83, 36347), (100, 36257), (111, 36170),

Gene: Heathen_54 Start: 36435, Stop: 35734, Start Num: 10

Candidate Starts for Heathen_54:

(Start: 10 @36435 has 161 MA's), (28, 36363), (29, 36342), (Start: 38 @36279 has 1 MA's), (48, 36225), (52, 36156), (72, 36027), (75, 36015), (77, 35994), (80, 35985), (83, 35952), (100, 35862), (108, 35802), (113, 35745),

Gene: HelDan_54 Start: 36651, Stop: 35950, Start Num: 10

Candidate Starts for HelDan_54:

(Start: 10 @36651 has 161 MA's), (28, 36579), (29, 36558), (Start: 38 @36495 has 1 MA's), (48, 36441), (52, 36372), (72, 36243), (75, 36231), (77, 36210), (80, 36201), (83, 36168), (100, 36078), (108, 36018), (113, 35961),

Gene: Heliosoles_56 Start: 36824, Stop: 36102, Start Num: 10

Candidate Starts for Heliosoles_56:

(Start: 10 @36824 has 161 MA's), (Start: 38 @36683 has 1 MA's), (48, 36629), (60, 36515), (83, 36365), (100, 36275), (111, 36188),

Gene: Helmet_59 Start: 36258, Stop: 35590, Start Num: 9

Candidate Starts for Helmet_59:

(Start: 9 @36258 has 70 MA's), (23, 36207), (43, 36072), (48, 36036), (100, 35754), (105, 35727),

Gene: Herbertwm_53 Start: 36479, Stop: 35799, Start Num: 8

Candidate Starts for Herbertwm_53:

(Start: 8 @36479 has 1 MA's), (12, 36443), (28, 36395), (29, 36374), (43, 36293), (70, 36071), (74, 36053), (100, 35897), (109, 35834),

Gene: Hercules11_57 Start: 36940, Stop: 36218, Start Num: 10

Candidate Starts for Hercules11_57:

(Start: 10 @36940 has 161 MA's), (Start: 38 @36799 has 1 MA's), (48, 36745), (60, 36631), (80, 36514), (83, 36481), (84, 36478), (93, 36427), (97, 36412), (100, 36391), (111, 36304),

Gene: Hexamo_57 Start: 35888, Stop: 35220, Start Num: 9

Candidate Starts for Hexamo_57:

(Start: 9 @35888 has 70 MA's), (23, 35837), (43, 35702), (48, 35666), (100, 35384), (105, 35357),

Gene: Hiro_43 Start: 33089, Stop: 32499, Start Num: 10

Candidate Starts for Hiro_43:

(Start: 10 @33089 has 161 MA's), (Start: 13 @33071 has 21 MA's), (25, 33041), (26, 33038), (42, 32924), (50, 32840), (52, 32813), (68, 32747), (70, 32738), (82, 32690), (97, 32618), (100, 32597), (106, 32558),

Gene: Hookmount_53 Start: 36707, Stop: 36003, Start Num: 10

Candidate Starts for Hookmount_53:

(Start: 10 @36707 has 161 MA's), (27, 36650), (28, 36647), (53, 36431), (62, 36383), (75, 36308), (76, 36305), (77, 36287), (98, 36167), (100, 36155),

Gene: Hoot_51 Start: 33646, Stop: 32978, Start Num: 9

Candidate Starts for Hoot_51:

(Start: 9 @33646 has 70 MA's), (23, 33595), (43, 33460), (48, 33424), (100, 33142), (105, 33115),

Gene: HortumSL17_55 Start: 36907, Stop: 36242, Start Num: 9

Candidate Starts for HortumSL17_55:

(Start: 9 @36907 has 70 MA's), (24, 36856), (30, 36808), (33, 36784), (39, 36745), (43, 36730), (61, 36577), (66, 36544), (74, 36526), (95, 36433), (100, 36403), (108, 36343),

Gene: HuhtaEnerson15_47 Start: 35587, Stop: 34964, Start Num: 15

Candidate Starts for HuhtaEnerson15_47:

(1, 36205), (2, 36148), (Start: 11 @35599 has 8 MA's), (Start: 15 @35587 has 42 MA's), (31, 35497), (43, 35434), (66, 35248), (100, 35107), (109, 35044),

Gene: Ibantik_29 Start: 14780, Stop: 14223, Start Num: 13

Candidate Starts for Ibantik_29:

(Start: 13 @14780 has 21 MA's), (31, 14681), (34, 14666), (35, 14663), (45, 14597), (51, 14540), (85, 14333), (86, 14327), (100, 14252),

Gene: Idleandcovert_55 Start: 36750, Stop: 36073, Start Num: 10

Candidate Starts for Idleandcovert_55:

(Start: 10 @36750 has 161 MA's), (21, 36729), (24, 36723), (35, 36642), (37, 36633), (41, 36606), (43, 36597), (47, 36567), (52, 36492), (75, 36354), (77, 36333), (80, 36324), (83, 36291), (84, 36288), (100, 36201), (108, 36141), (113, 36084),

Gene: Indra_60 Start: 36259, Stop: 35591, Start Num: 9

Candidate Starts for Indra_60:

(Start: 9 @36259 has 70 MA's), (23, 36208), (43, 36073), (48, 36037), (100, 35755), (105, 35728),

Gene: Isca_53 Start: 36217, Stop: 35516, Start Num: 10

Candidate Starts for Isca_53:

(Start: 10 @36217 has 161 MA's), (28, 36145), (29, 36124), (Start: 38 @36061 has 1 MA's), (48, 36007), (52, 35938), (75, 35797), (77, 35776), (80, 35767), (83, 35734), (100, 35644), (108, 35584),

(113, 35527),

Gene: Isiphiwo_54 Start: 35371, Stop: 34703, Start Num: 9

Candidate Starts for Isiphiwo_54:

(Start: 9 @35371 has 70 MA's), (23, 35320), (43, 35185), (48, 35149), (100, 34867), (105, 34840),

Gene: JF2_52 Start: 34918, Stop: 34217, Start Num: 10

Candidate Starts for JF2_52:

(Start: 10 @34918 has 161 MA's), (28, 34846), (29, 34825), (Start: 38 @34762 has 1 MA's), (48, 34708), (52, 34639), (75, 34498), (77, 34477), (80, 34468), (83, 34435), (100, 34345), (108, 34285), (113, 34228),

Gene: JF4_52 Start: 34918, Stop: 34217, Start Num: 10

Candidate Starts for JF4_52:

(Start: 10 @34918 has 161 MA's), (28, 34846), (29, 34825), (Start: 38 @34762 has 1 MA's), (48, 34708), (52, 34639), (75, 34498), (77, 34477), (80, 34468), (83, 34435), (100, 34345), (108, 34285), (113, 34228),

Gene: JHC117_57 Start: 36930, Stop: 36208, Start Num: 10

Candidate Starts for JHC117_57:

(Start: 10 @36930 has 161 MA's), (Start: 38 @36789 has 1 MA's), (48, 36735), (60, 36621), (80, 36504), (83, 36471), (84, 36468), (93, 36417), (97, 36402), (100, 36381), (111, 36294),

Gene: JSwag_59 Start: 35631, Stop: 35059, Start Num: 13

Candidate Starts for JSwag_59:

(7, 35682), (Start: 8 @35670 has 1 MA's), (Start: 13 @35631 has 21 MA's), (19, 35616), (42, 35478), (58, 35334), (84, 35232), (97, 35166), (100, 35145), (110, 35082),

Gene: Jabiru_49 Start: 35518, Stop: 34895, Start Num: 15

Candidate Starts for Jabiru_49:

(3, 35869), (Start: 11 @35530 has 8 MA's), (Start: 15 @35518 has 42 MA's), (31, 35428), (43, 35365), (52, 35260), (53, 35251), (58, 35227), (63, 35191), (66, 35179), (72, 35170), (97, 35059), (100, 35038), (109, 34975),

Gene: Jeffabunny_57 Start: 35885, Stop: 35217, Start Num: 9

Candidate Starts for Jeffabunny_57:

(Start: 9 @35885 has 70 MA's), (23, 35834), (43, 35699), (48, 35663), (100, 35381), (105, 35354),

Gene: JenCasNa_58 Start: 36931, Stop: 36209, Start Num: 10

Candidate Starts for JenCasNa_58:

(Start: 10 @36931 has 161 MA's), (Start: 38 @36790 has 1 MA's), (48, 36736), (60, 36622), (80, 36505), (83, 36472), (84, 36469), (93, 36418), (97, 36403), (100, 36382), (111, 36295),

Gene: JeppNRM_58 Start: 36822, Stop: 36100, Start Num: 10

Candidate Starts for JeppNRM_58:

(Start: 10 @36822 has 161 MA's), (Start: 38 @36681 has 1 MA's), (48, 36627), (60, 36513), (83, 36363), (100, 36273), (111, 36186),

Gene: Jester_42 Start: 32544, Stop: 31954, Start Num: 10

Candidate Starts for Jester_42:

(Start: 10 @32544 has 161 MA's), (Start: 13 @32526 has 21 MA's), (25, 32496), (26, 32493), (42, 32379), (50, 32295), (52, 32268), (68, 32202), (70, 32193), (82, 32145), (97, 32073), (100, 32052), (106, 32013),

Gene: JewelBug_57 Start: 36001, Stop: 35333, Start Num: 9

Candidate Starts for JewelBug_57:

(Start: 9 @36001 has 70 MA's), (23, 35950), (43, 35815), (48, 35779), (100, 35497), (105, 35470),

Gene: Jobu08_56 Start: 36763, Stop: 36041, Start Num: 10

Candidate Starts for Jobu08_56:

(Start: 10 @36763 has 161 MA's), (Start: 38 @36622 has 1 MA's), (48, 36568), (60, 36454), (80, 36337), (83, 36304), (84, 36301), (93, 36250), (97, 36235), (100, 36214), (111, 36127),

Gene: Jordennis_56 Start: 35491, Stop: 34823, Start Num: 9

Candidate Starts for Jordennis_56:

(Start: 9 @35491 has 70 MA's), (23, 35440), (43, 35305), (48, 35269), (100, 34987), (105, 34960),

Gene: Jovo_47 Start: 35800, Stop: 35174, Start Num: 15

Candidate Starts for Jovo_47:

(Start: 11 @35812 has 8 MA's), (Start: 15 @35800 has 42 MA's), (22, 35782), (31, 35707), (Start: 38 @35662 has 1 MA's), (43, 35644), (63, 35470), (66, 35458), (100, 35317), (109, 35254),

Gene: KADY_57 Start: 36959, Stop: 36237, Start Num: 10

Candidate Starts for KADY_57:

(Start: 10 @36959 has 161 MA's), (Start: 38 @36818 has 1 MA's), (48, 36764), (84, 36497), (100, 36410), (111, 36323),

Gene: Kalb97_58 Start: 36820, Stop: 36098, Start Num: 10

Candidate Starts for Kalb97_58:

(Start: 10 @36820 has 161 MA's), (Start: 38 @36679 has 1 MA's), (48, 36625), (60, 36511), (83, 36361), (100, 36271), (111, 36184),

Gene: Kalnoky_58 Start: 36818, Stop: 36096, Start Num: 10

Candidate Starts for Kalnoky_58:

(Start: 10 @36818 has 161 MA's), (Start: 38 @36677 has 1 MA's), (48, 36623), (60, 36509), (83, 36359), (100, 36269), (111, 36182),

Gene: KatherineG_60 Start: 36104, Stop: 35532, Start Num: 13

Candidate Starts for KatherineG_60:

(7, 36155), (Start: 8 @36143 has 1 MA's), (Start: 13 @36104 has 21 MA's), (19, 36089), (42, 35951), (58, 35807), (84, 35705), (97, 35639), (100, 35618), (110, 35555),

Gene: Kazan_57 Start: 35801, Stop: 35133, Start Num: 9

Candidate Starts for Kazan_57:

(Start: 9 @35801 has 70 MA's), (23, 35750), (43, 35615), (48, 35579), (100, 35297), (105, 35270),

Gene: Keziacharles14_55 Start: 38049, Stop: 37360, Start Num: 9

Candidate Starts for Keziacharles14_55:

(Start: 9 @38049 has 70 MA's), (18, 38013), (24, 37998), (33, 37926), (35, 37917), (36, 37911), (43, 37872), (61, 37719), (63, 37698), (66, 37686), (74, 37668), (88, 37608), (91, 37590), (94, 37578), (100, 37545), (114, 37395),

Gene: Kipper29_56 Start: 35814, Stop: 35146, Start Num: 9

Candidate Starts for Kipper29_56:

(Start: 9 @35814 has 70 MA's), (23, 35763), (43, 35628), (48, 35592), (100, 35310), (105, 35283),

Gene: KittenMittens_49 Start: 35481, Stop: 34747, Start Num: 10

Candidate Starts for KittenMittens_49:

(Start: 10 @35481 has 161 MA's), (29, 35385), (Start: 38 @35322 has 1 MA's), (42, 35310), (48, 35268), (67, 35112), (71, 35082), (92, 34953), (93, 34950), (100, 34914),

Gene: Koko_58 Start: 36319, Stop: 35651, Start Num: 9

Candidate Starts for Koko_58:

(Start: 9 @36319 has 70 MA's), (23, 36268), (43, 36133), (48, 36097), (100, 35815), (105, 35788),

Gene: Krishelle_43 Start: 33189, Stop: 32599, Start Num: 10

Candidate Starts for Krishelle_43:

(Start: 10 @33189 has 161 MA's), (Start: 13 @33171 has 21 MA's), (25, 33141), (26, 33138), (42, 33024), (50, 32940), (52, 32913), (68, 32847), (70, 32838), (82, 32790), (97, 32718), (100, 32697), (106, 32658),

Gene: Kristoff_52 Start: 36602, Stop: 35889, Start Num: 10

Candidate Starts for Kristoff_52:

(Start: 10 @36602 has 161 MA's), (28, 36548), (43, 36446), (44, 36437), (52, 36341), (67, 36254), (83, 36146), (92, 36095), (100, 36056),

Gene: LBerry_58 Start: 36935, Stop: 36213, Start Num: 10

Candidate Starts for LBerry_58:

(Start: 10 @36935 has 161 MA's), (Start: 38 @36794 has 1 MA's), (48, 36740), (60, 36626), (80, 36509), (83, 36476), (84, 36473), (93, 36422), (97, 36407), (100, 36386), (111, 36299),

Gene: Lambert1_53 Start: 36706, Stop: 36002, Start Num: 10

Candidate Starts for Lambert1_53:

(Start: 10 @36706 has 161 MA's), (27, 36649), (28, 36646), (53, 36430), (62, 36382), (75, 36307), (76, 36304), (77, 36286), (98, 36166), (100, 36154),

Gene: LarryKay_57 Start: 36961, Stop: 36239, Start Num: 10

Candidate Starts for LarryKay_57:

(Start: 10 @36961 has 161 MA's), (Start: 38 @36820 has 1 MA's), (48, 36766), (84, 36499), (100, 36412), (111, 36325),

Gene: LastResort_58 Start: 35683, Stop: 35111, Start Num: 13

Candidate Starts for LastResort_58:

(7, 35734), (Start: 8 @35722 has 1 MA's), (Start: 13 @35683 has 21 MA's), (19, 35668), (42, 35530), (58, 35386), (84, 35284), (97, 35218), (100, 35197), (110, 35134),

Gene: Lev2_47 Start: 35432, Stop: 34806, Start Num: 15

Candidate Starts for Lev2_47:

(Start: 11 @35444 has 8 MA's), (Start: 15 @35432 has 42 MA's), (22, 35414), (31, 35339), (Start: 38 @35294 has 1 MA's), (43, 35276), (63, 35102), (66, 35090), (100, 34949), (109, 34886),

Gene: Lilith_58 Start: 36924, Stop: 36202, Start Num: 10

Candidate Starts for Lilith_58:

(Start: 10 @36924 has 161 MA's), (Start: 38 @36783 has 1 MA's), (48, 36729), (60, 36615), (80, 36498), (83, 36465), (84, 36462), (93, 36411), (97, 36396), (100, 36375), (111, 36288),

Gene: Lillie_43 Start: 32829, Stop: 32239, Start Num: 10

Candidate Starts for Lillie_43:

(Start: 10 @32829 has 161 MA's), (Start: 13 @32811 has 21 MA's), (25, 32781), (26, 32778), (42, 32664), (50, 32580), (52, 32553), (68, 32487), (70, 32478), (82, 32430), (97, 32358), (100, 32337), (106, 32298),

Gene: LittleCherry_47 Start: 35607, Stop: 34984, Start Num: 15

Candidate Starts for LittleCherry_47:

(1, 36225), (2, 36168), (Start: 11 @35619 has 8 MA's), (Start: 15 @35607 has 42 MA's), (31, 35517), (43, 35454), (66, 35268), (100, 35127), (109, 35064),

Gene: LoneWolf_56 Start: 36941, Stop: 36270, Start Num: 9

Candidate Starts for LoneWolf_56:

(Start: 9 @36941 has 70 MA's), (18, 36896), (24, 36881), (31, 36818), (32, 36815), (33, 36809), (43, 36755), (48, 36719), (53, 36641), (61, 36602), (63, 36581), (66, 36569), (74, 36551), (88, 36491), (95, 36458), (100, 36428), (108, 36368),

Gene: Looper_59 Start: 35595, Stop: 35023, Start Num: 13

Candidate Starts for Looper_59:

(7, 35646), (Start: 8 @35634 has 1 MA's), (Start: 13 @35595 has 21 MA's), (19, 35580), (42, 35442), (58, 35298), (84, 35196), (97, 35130), (100, 35109), (110, 35046),

Gene: Louie6_56 Start: 36960, Stop: 36238, Start Num: 10

Candidate Starts for Louie6_56:

(Start: 10 @36960 has 161 MA's), (Start: 38 @36819 has 1 MA's), (48, 36765), (84, 36498), (100, 36411), (111, 36324),

Gene: LugYA_60 Start: 36932, Stop: 36210, Start Num: 10

Candidate Starts for LugYA_60:

(Start: 10 @36932 has 161 MA's), (Start: 38 @36791 has 1 MA's), (48, 36737), (60, 36623), (80, 36506), (83, 36473), (84, 36470), (93, 36419), (97, 36404), (100, 36383), (111, 36296),

Gene: MA5_54 Start: 36100, Stop: 35402, Start Num: 10

Candidate Starts for MA5_54:

(Start: 10 @36100 has 161 MA's), (29, 36007), (Start: 38 @35944 has 1 MA's), (48, 35890), (52, 35821), (72, 35695), (75, 35683), (77, 35662), (80, 35653), (83, 35620), (100, 35530), (108, 35470), (113, 35413),

Gene: MK4_54 Start: 36202, Stop: 35501, Start Num: 10

Candidate Starts for MK4_54:

(Start: 10 @36202 has 161 MA's), (28, 36130), (29, 36109), (Start: 38 @36046 has 1 MA's), (48, 35992), (52, 35923), (75, 35782), (77, 35761), (80, 35752), (83, 35719), (100, 35629), (108, 35569), (113, 35512),

Gene: MadMarie_57 Start: 36933, Stop: 36211, Start Num: 10

Candidate Starts for MadMarie_57:

(Start: 10 @36933 has 161 MA's), (Start: 38 @36792 has 1 MA's), (48, 36738), (60, 36624), (80, 36507), (83, 36474), (84, 36471), (93, 36420), (97, 36405), (100, 36384), (111, 36297),

Gene: Mainiac_57 Start: 36925, Stop: 36203, Start Num: 10

Candidate Starts for Mainiac_57:

(Start: 10 @36925 has 161 MA's), (Start: 38 @36784 has 1 MA's), (48, 36730), (60, 36616), (80, 36499), (83, 36466), (84, 36463), (93, 36412), (97, 36397), (100, 36376), (111, 36289),

Gene: Malinsilva_59 Start: 36923, Stop: 36201, Start Num: 10

Candidate Starts for Malinsilva_59:

(Start: 10 @36923 has 161 MA's), (Start: 38 @36782 has 1 MA's), (48, 36728), (60, 36614), (80, 36497), (83, 36464), (84, 36461), (93, 36410), (97, 36395), (100, 36374), (111, 36287),

Gene: Maminiaina_54 Start: 36702, Stop: 36037, Start Num: 9

Candidate Starts for Maminiaina_54:

(Start: 9 @36702 has 70 MA's), (24, 36651), (28, 36627), (33, 36579), (36, 36564), (41, 36534), (43, 36525), (52, 36420), (53, 36411), (61, 36372), (66, 36339), (72, 36330), (74, 36321), (95, 36228), (100, 36198),

Gene: Manu_57 Start: 36821, Stop: 36099, Start Num: 10

Candidate Starts for Manu_57:

(Start: 10 @36821 has 161 MA's), (Start: 38 @36680 has 1 MA's), (48, 36626), (60, 36512), (83, 36362), (100, 36272), (111, 36185),

Gene: MarQuardt_57 Start: 36933, Stop: 36211, Start Num: 10

Candidate Starts for MarQuardt_57:

(Start: 10 @36933 has 161 MA's), (Start: 38 @36792 has 1 MA's), (48, 36738), (60, 36624), (80, 36507), (83, 36474), (84, 36471), (93, 36420), (97, 36405), (100, 36384), (111, 36297),

Gene: Margo_53 Start: 36732, Stop: 36028, Start Num: 10

Candidate Starts for Margo_53:

(Start: 10 @36732 has 161 MA's), (27, 36675), (28, 36672), (53, 36456), (62, 36408), (75, 36333), (76, 36330), (77, 36312), (98, 36192), (100, 36180),

Gene: Marie_57 Start: 36931, Stop: 36209, Start Num: 10

Candidate Starts for Marie_57:

(Start: 10 @36931 has 161 MA's), (Start: 38 @36790 has 1 MA's), (48, 36736), (60, 36622), (80, 36505), (83, 36472), (84, 36469), (93, 36418), (97, 36403), (100, 36382), (111, 36295),

Gene: Marius_58 Start: 36818, Stop: 36096, Start Num: 10

Candidate Starts for Marius_58:

(Start: 10 @36818 has 161 MA's), (Start: 38 @36677 has 1 MA's), (48, 36623), (60, 36509), (83, 36359), (100, 36269), (111, 36182),

Gene: MarysWell_47 Start: 35943, Stop: 35305, Start Num: 11

Candidate Starts for MarysWell_47:

(2, 36492), (3, 36282), (Start: 11 @35943 has 8 MA's), (Start: 15 @35931 has 42 MA's), (31, 35838), (43, 35775), (63, 35601), (66, 35589), (100, 35448), (109, 35385),

Gene: McFly_56 Start: 35795, Stop: 35127, Start Num: 9

Candidate Starts for McFly_56:

(Start: 9 @35795 has 70 MA's), (23, 35744), (43, 35609), (48, 35573), (100, 35291), (105, 35264),

Gene: Methuselah_53 Start: 36955, Stop: 36233, Start Num: 10

Candidate Starts for Methuselah_53:

(Start: 10 @36955 has 161 MA's), (Start: 38 @36814 has 1 MA's), (48, 36760), (84, 36493), (100, 36406), (111, 36319),

Gene: Micasa_47 Start: 35775, Stop: 35152, Start Num: 15

Candidate Starts for Micasa_47:

(1, 36393), (2, 36336), (Start: 11 @35787 has 8 MA's), (Start: 15 @35775 has 42 MA's), (31, 35685), (43, 35622), (52, 35517), (53, 35508), (55, 35499), (63, 35448), (66, 35436), (72, 35427), (88, 35358),

(100, 35295), (109, 35232),

Gene: Microwolf_57 Start: 36947, Stop: 36225, Start Num: 10

Candidate Starts for Microwolf_57:

(Start: 10 @36947 has 161 MA's), (Start: 38 @36806 has 1 MA's), (48, 36752), (60, 36638), (80, 36521), (83, 36488), (84, 36485), (93, 36434), (97, 36419), (100, 36398), (111, 36311),

Gene: Midas2_46 Start: 35677, Stop: 35054, Start Num: 15

Candidate Starts for Midas2_46:

(1, 36295), (2, 36238), (Start: 11 @35689 has 8 MA's), (Start: 15 @35677 has 42 MA's), (31, 35587), (43, 35524), (52, 35419), (53, 35410), (55, 35401), (63, 35350), (66, 35338), (72, 35329), (88, 35260), (100, 35197), (109, 35134),

Gene: Milcery_47 Start: 35564, Stop: 34941, Start Num: 15

Candidate Starts for Milcery_47:

(3, 35915), (Start: 11 @35576 has 8 MA's), (Start: 15 @35564 has 42 MA's), (31, 35474), (43, 35411), (52, 35306), (53, 35297), (63, 35237), (66, 35225), (72, 35216), (88, 35147), (100, 35084), (109, 35021),

Gene: MinecraftSteve_60 Start: 35904, Stop: 35332, Start Num: 13

Candidate Starts for MinecraftSteve_60:

(7, 35955), (Start: 8 @35943 has 1 MA's), (Start: 13 @35904 has 21 MA's), (19, 35889), (42, 35751), (58, 35607), (84, 35505), (97, 35439), (100, 35418), (110, 35355),

Gene: Misomonster_58 Start: 36958, Stop: 36236, Start Num: 10

Candidate Starts for Misomonster_58:

(Start: 10 @36958 has 161 MA's), (Start: 38 @36817 has 1 MA's), (48, 36763), (84, 36496), (100, 36409), (111, 36322),

Gene: MoneyMay_57 Start: 36931, Stop: 36209, Start Num: 10

Candidate Starts for MoneyMay_57:

(Start: 10 @36931 has 161 MA's), (Start: 38 @36790 has 1 MA's), (48, 36736), (60, 36622), (80, 36505), (83, 36472), (84, 36469), (93, 36418), (97, 36403), (100, 36382), (111, 36295),

Gene: MuchMore_60 Start: 36923, Stop: 36201, Start Num: 10

Candidate Starts for MuchMore_60:

(Start: 10 @36923 has 161 MA's), (Start: 38 @36782 has 1 MA's), (48, 36728), (60, 36614), (80, 36497), (83, 36464), (84, 36461), (93, 36410), (97, 36395), (100, 36374), (111, 36287),

Gene: MyraDee_48 Start: 33093, Stop: 32479, Start Num: 16

Candidate Starts for MyraDee_48:

(Start: 16 @33093 has 1 MA's), (17, 33087), (24, 33069), (31, 33006), (35, 32988), (43, 32943), (49, 32895), (59, 32802), (65, 32760), (100, 32616), (101, 32607), (108, 32556),

Gene: Myxus_55 Start: 36907, Stop: 36242, Start Num: 9

Candidate Starts for Myxus_55:

(Start: 9 @36907 has 70 MA's), (24, 36856), (30, 36808), (33, 36784), (39, 36745), (43, 36730), (61, 36577), (66, 36544), (74, 36526), (95, 36433), (100, 36403), (108, 36343),

Gene: Naca_48 Start: 36054, Stop: 35431, Start Num: 15

Candidate Starts for Naca_48:

(3, 36405), (Start: 11 @36066 has 8 MA's), (Start: 15 @36054 has 42 MA's), (31, 35964), (43, 35901), (52, 35796), (53, 35787), (63, 35727), (66, 35715), (72, 35706), (88, 35637), (97, 35595), (100,

35574), (109, 35511),

Gene: Naiad_42 Start: 32842, Stop: 32252, Start Num: 10

Candidate Starts for Naiad_42:

(Start: 10 @32842 has 161 MA's), (Start: 13 @32824 has 21 MA's), (25, 32794), (26, 32791), (42, 32677), (50, 32593), (52, 32566), (68, 32500), (70, 32491), (82, 32443), (97, 32371), (100, 32350), (106, 32311),

Gene: Nancinator_43 Start: 32762, Stop: 32172, Start Num: 10

Candidate Starts for Nancinator_43:

(Start: 10 @32762 has 161 MA's), (Start: 13 @32744 has 21 MA's), (25, 32714), (26, 32711), (42, 32597), (50, 32513), (52, 32486), (68, 32420), (70, 32411), (82, 32363), (97, 32291), (100, 32270), (106, 32231),

Gene: Natosaleda_42 Start: 32761, Stop: 32171, Start Num: 10

Candidate Starts for Natosaleda_42:

(Start: 10 @32761 has 161 MA's), (Start: 13 @32743 has 21 MA's), (25, 32713), (26, 32710), (42, 32596), (50, 32512), (52, 32485), (68, 32419), (70, 32410), (82, 32362), (97, 32290), (100, 32269), (106, 32230),

Gene: NearlyHeadless_52 Start: 34993, Stop: 34370, Start Num: 15

Candidate Starts for NearlyHeadless_52:

(Start: 15 @34993 has 42 MA's), (29, 34921), (41, 34849), (48, 34804), (61, 34687), (65, 34657), (86, 34588), (88, 34576), (100, 34513), (101, 34504),

Gene: Nebulosus_58 Start: 35679, Stop: 35107, Start Num: 13

Candidate Starts for Nebulosus_58:

(7, 35730), (Start: 8 @35718 has 1 MA's), (Start: 13 @35679 has 21 MA's), (19, 35664), (42, 35526), (58, 35382), (84, 35280), (97, 35214), (100, 35193), (110, 35130),

Gene: Neeharika16_55 Start: 35255, Stop: 34587, Start Num: 9

Candidate Starts for Neeharika16_55:

(Start: 9 @35255 has 70 MA's), (23, 35204), (43, 35069), (48, 35033), (100, 34751), (105, 34724),

Gene: Newrala_56 Start: 35797, Stop: 35129, Start Num: 9

Candidate Starts for Newrala_56:

(Start: 9 @35797 has 70 MA's), (23, 35746), (43, 35611), (48, 35575), (100, 35293), (105, 35266),

Gene: Noella_53 Start: 36707, Stop: 36003, Start Num: 10

Candidate Starts for Noella_53:

(Start: 10 @36707 has 161 MA's), (27, 36650), (28, 36647), (53, 36431), (62, 36383), (75, 36308), (76, 36305), (77, 36287), (98, 36167), (100, 36155),

Gene: Norbert_52 Start: 36706, Stop: 36002, Start Num: 10

Candidate Starts for Norbert_52:

(Start: 10 @36706 has 161 MA's), (27, 36649), (28, 36646), (53, 36430), (62, 36382), (75, 36307), (76, 36304), (77, 36286), (98, 36166), (100, 36154),

Gene: OKCentral2016_51 Start: 35957, Stop: 35244, Start Num: 10

Candidate Starts for OKCentral2016_51:

(Start: 10 @35957 has 161 MA's), (28, 35903), (29, 35882), (31, 35864), (43, 35801), (44, 35792), (52, 35696), (67, 35609), (83, 35501), (92, 35450), (100, 35411),

Gene: OlanP_56 Start: 36994, Stop: 36272, Start Num: 10

Candidate Starts for OlanP_56:

(Start: 10 @36994 has 161 MA's), (36, 36874), (Start: 38 @36853 has 1 MA's), (48, 36799), (83, 36535), (100, 36445), (111, 36358),

Gene: Ollie_57 Start: 36802, Stop: 36080, Start Num: 10

Candidate Starts for Ollie_57:

(Start: 10 @36802 has 161 MA's), (Start: 38 @36661 has 1 MA's), (48, 36607), (60, 36493), (80, 36376), (83, 36343), (84, 36340), (93, 36289), (97, 36274), (100, 36253), (111, 36166),

Gene: Oofda_61 Start: 35897, Stop: 35325, Start Num: 13

Candidate Starts for Oofda_61:

(7, 35948), (Start: 8 @35936 has 1 MA's), (Start: 13 @35897 has 21 MA's), (19, 35882), (42, 35744), (58, 35600), (84, 35498), (97, 35432), (100, 35411), (110, 35348),

Gene: P28Green_58 Start: 36934, Stop: 36212, Start Num: 10

Candidate Starts for P28Green_58:

(Start: 10 @36934 has 161 MA's), (Start: 38 @36793 has 1 MA's), (48, 36739), (60, 36625), (80, 36508), (83, 36475), (84, 36472), (93, 36421), (97, 36406), (100, 36385), (111, 36298),

Gene: PGHhamlin_59 Start: 36923, Stop: 36201, Start Num: 10

Candidate Starts for PGHhamlin_59:

(Start: 10 @36923 has 161 MA's), (Start: 38 @36782 has 1 MA's), (48, 36728), (60, 36614), (80, 36497), (83, 36464), (84, 36461), (93, 36410), (97, 36395), (100, 36374), (111, 36287),

Gene: PackMan_54 Start: 36907, Stop: 36242, Start Num: 9

Candidate Starts for PackMan_54:

(Start: 9 @36907 has 70 MA's), (24, 36856), (30, 36808), (33, 36784), (39, 36745), (43, 36730), (61, 36577), (66, 36544), (74, 36526), (95, 36433), (100, 36403), (108, 36343),

Gene: Panamaxus_51 Start: 36706, Stop: 36002, Start Num: 10

Candidate Starts for Panamaxus_51:

(Start: 10 @36706 has 161 MA's), (27, 36649), (28, 36646), (53, 36430), (62, 36382), (75, 36307), (76, 36304), (77, 36286), (98, 36166), (100, 36154),

Gene: Pawn_57 Start: 36825, Stop: 36103, Start Num: 10

Candidate Starts for Pawn_57:

(Start: 10 @36825 has 161 MA's), (Start: 38 @36684 has 1 MA's), (48, 36630), (60, 36516), (83, 36366), (84, 36363), (100, 36276), (111, 36189),

Gene: PeaceMeal1_50 Start: 35482, Stop: 34748, Start Num: 10

Candidate Starts for PeaceMeal1_50:

(Start: 10 @35482 has 161 MA's), (29, 35386), (Start: 38 @35323 has 1 MA's), (42, 35311), (48, 35269), (67, 35113), (71, 35083), (92, 34954), (93, 34951), (100, 34915),

Gene: Pembroke_57 Start: 36932, Stop: 36210, Start Num: 10

Candidate Starts for Pembroke_57:

(Start: 10 @36932 has 161 MA's), (Start: 38 @36791 has 1 MA's), (48, 36737), (60, 36623), (80, 36506), (83, 36473), (84, 36470), (93, 36419), (97, 36404), (100, 36383), (111, 36296),

Gene: Penny1_58 Start: 36935, Stop: 36213, Start Num: 10

Candidate Starts for Penny1_58:

(Start: 10 @36935 has 161 MA's), (Start: 38 @36794 has 1 MA's), (48, 36740), (60, 36626), (80, 36509), (83, 36476), (84, 36473), (93, 36422), (97, 36407), (100, 36386), (111, 36299),

Gene: PetterN_52 Start: 35672, Stop: 35019, Start Num: 15

Candidate Starts for PetterN_52:

(3, 36023), (Start: 11 @35684 has 8 MA's), (Start: 15 @35672 has 42 MA's), (31, 35582), (43, 35519), (63, 35345), (66, 35333), (83, 35252), (87, 35228), (97, 35183), (100, 35162), (109, 35099),

Gene: Phaeder_55 Start: 36907, Stop: 36242, Start Num: 9

Candidate Starts for Phaeder_55:

(Start: 9 @36907 has 70 MA's), (24, 36856), (30, 36808), (33, 36784), (39, 36745), (43, 36730), (61, 36577), (66, 36544), (74, 36526), (95, 36433), (100, 36403), (108, 36343),

Gene: PhailMary_42 Start: 33151, Stop: 32561, Start Num: 10

Candidate Starts for PhailMary_42:

(Start: 10 @33151 has 161 MA's), (Start: 13 @33133 has 21 MA's), (25, 33103), (26, 33100), (42, 32986), (50, 32902), (52, 32875), (68, 32809), (70, 32800), (82, 32752), (97, 32680), (100, 32659), (106, 32620),

Gene: Phantastic_55 Start: 36379, Stop: 35702, Start Num: 10

Candidate Starts for Phantastic_55:

(Start: 10 @36379 has 161 MA's), (21, 36358), (28, 36328), (29, 36307), (35, 36271), (41, 36235), (43, 36226), (52, 36121), (77, 35962), (80, 35953), (83, 35920), (84, 35917), (100, 35830), (113, 35713),

Gene: Phillis_52 Start: 35195, Stop: 34572, Start Num: 15

Candidate Starts for Phillis_52:

(Start: 15 @35195 has 42 MA's), (41, 35051), (42, 35048), (48, 35006), (61, 34889), (65, 34859), (100, 34715), (101, 34706),

Gene: PhishRPhriends_55 Start: 36002, Stop: 35280, Start Num: 10

Candidate Starts for PhishRPhriends_55:

(Start: 10 @36002 has 161 MA's), (Start: 38 @35861 has 1 MA's), (48, 35807), (60, 35693), (83, 35543), (100, 35453), (111, 35366),

Gene: Phlei_44 Start: 36400, Stop: 35708, Start Num: 9

Candidate Starts for Phlei_44:

(Start: 9 @36400 has 70 MA's), (31, 36286), (32, 36283), (43, 36223), (48, 36187), (52, 36118), (66, 36037), (93, 35932), (94, 35929), (100, 35896), (114, 35743),

Gene: Phlorence_45 Start: 35177, Stop: 34551, Start Num: 15

Candidate Starts for Phlorence_45:

(Start: 11 @35189 has 8 MA's), (Start: 15 @35177 has 42 MA's), (22, 35159), (31, 35084), (Start: 38 @35039 has 1 MA's), (43, 35021), (63, 34847), (66, 34835), (100, 34694), (109, 34631),

Gene: Phoebe_58 Start: 36924, Stop: 36202, Start Num: 10

Candidate Starts for Phoebe_58:

(Start: 10 @36924 has 161 MA's), (Start: 38 @36783 has 1 MA's), (48, 36729), (60, 36615), (80, 36498), (83, 36465), (84, 36462), (93, 36411), (97, 36396), (100, 36375), (111, 36288),

Gene: Phonnegut_55 Start: 37004, Stop: 36339, Start Num: 9

Candidate Starts for Phonnegut_55:

(Start: 9 @37004 has 70 MA's), (24, 36953), (30, 36905), (33, 36881), (39, 36842), (43, 36827), (61, 36674), (66, 36641), (74, 36623), (95, 36530), (100, 36500), (108, 36440),

Gene: Phoxy_57 Start: 36956, Stop: 36234, Start Num: 10

Candidate Starts for Phoxy_57:

(Start: 10 @36956 has 161 MA's), (Start: 38 @36815 has 1 MA's), (48, 36761), (84, 36494), (100, 36407), (111, 36320),

Gene: Phrankenstein_43 Start: 32775, Stop: 32185, Start Num: 10

Candidate Starts for Phrankenstein_43:

(Start: 10 @32775 has 161 MA's), (Start: 13 @32757 has 21 MA's), (25, 32727), (26, 32724), (42, 32610), (50, 32526), (52, 32499), (68, 32433), (70, 32424), (82, 32376), (97, 32304), (100, 32283), (106, 32244),

Gene: Phranny_58 Start: 36807, Stop: 36085, Start Num: 10

Candidate Starts for Phranny_58:

(Start: 10 @36807 has 161 MA's), (Start: 38 @36666 has 1 MA's), (48, 36612), (60, 36498), (83, 36348), (100, 36258), (111, 36171),

Gene: PickleBack_47 Start: 35424, Stop: 34798, Start Num: 15

Candidate Starts for PickleBack_47:

(Start: 11 @35436 has 8 MA's), (Start: 15 @35424 has 42 MA's), (22, 35406), (31, 35331), (Start: 38 @35286 has 1 MA's), (43, 35268), (63, 35094), (66, 35082), (100, 34941), (109, 34878),

Gene: Pioneer_55 Start: 37004, Stop: 36339, Start Num: 9

Candidate Starts for Pioneer_55:

(Start: 9 @37004 has 70 MA's), (24, 36953), (30, 36905), (33, 36881), (39, 36842), (43, 36827), (61, 36674), (66, 36641), (74, 36623), (95, 36530), (100, 36500), (108, 36440),

Gene: Pistachio_56 Start: 36297, Stop: 35620, Start Num: 10

Candidate Starts for Pistachio_56:

(Start: 10 @36297 has 161 MA's), (21, 36276), (24, 36270), (35, 36189), (37, 36180), (41, 36153), (43, 36144), (47, 36114), (52, 36039), (75, 35901), (77, 35880), (80, 35871), (83, 35838), (84, 35835), (100, 35748), (108, 35688), (113, 35631),

Gene: Pmask_56 Start: 35798, Stop: 35130, Start Num: 9

Candidate Starts for Pmask_56:

(Start: 9 @35798 has 70 MA's), (23, 35747), (43, 35612), (48, 35576), (100, 35294), (105, 35267),

Gene: Pocahontas_53 Start: 36703, Stop: 35999, Start Num: 10

Candidate Starts for Pocahontas_53:

(Start: 10 @36703 has 161 MA's), (27, 36646), (28, 36643), (53, 36427), (62, 36379), (75, 36304), (76, 36301), (77, 36283), (98, 36163), (100, 36151),

Gene: Poompha_51 Start: 35480, Stop: 34746, Start Num: 10

Candidate Starts for Poompha_51:

(Start: 10 @35480 has 161 MA's), (29, 35384), (Start: 38 @35321 has 1 MA's), (42, 35309), (48, 35267), (67, 35111), (71, 35081), (92, 34952), (93, 34949), (100, 34913),

Gene: Popcicle_53 Start: 36703, Stop: 35999, Start Num: 10

Candidate Starts for Popcicle_53:

(Start: 10 @36703 has 161 MA's), (27, 36646), (28, 36643), (53, 36427), (62, 36379), (75, 36304), (76, 36301), (77, 36283), (98, 36163), (100, 36151),

Gene: PotatoSplit_59 Start: 36935, Stop: 36213, Start Num: 10

Candidate Starts for PotatoSplit_59:

(Start: 10 @36935 has 161 MA's), (Start: 38 @36794 has 1 MA's), (48, 36740), (60, 36626), (80, 36509), (83, 36476), (84, 36473), (93, 36422), (97, 36407), (100, 36386), (111, 36299),

Gene: Priamo_58 Start: 35557, Stop: 34889, Start Num: 9

Candidate Starts for Priamo_58:

(Start: 9 @35557 has 70 MA's), (23, 35506), (43, 35371), (48, 35335), (100, 35053), (105, 35026),

Gene: Priya_55 Start: 36974, Stop: 36309, Start Num: 9

Candidate Starts for Priya_55:

(Start: 9 @36974 has 70 MA's), (24, 36923), (30, 36875), (33, 36851), (39, 36812), (43, 36797), (61, 36644), (66, 36611), (74, 36593), (95, 36500), (100, 36470), (108, 36410),

Gene: Puppy_56 Start: 36369, Stop: 35692, Start Num: 10

Candidate Starts for Puppy_56:

(Start: 10 @36369 has 161 MA's), (21, 36348), (24, 36342), (35, 36261), (37, 36252), (41, 36225), (43, 36216), (47, 36186), (52, 36111), (75, 35973), (77, 35952), (80, 35943), (83, 35910), (84, 35907), (100, 35820), (108, 35760), (113, 35703),

Gene: PurpleHaze_57 Start: 36820, Stop: 36098, Start Num: 10

Candidate Starts for PurpleHaze_57:

(Start: 10 @36820 has 161 MA's), (Start: 38 @36679 has 1 MA's), (48, 36625), (60, 36511), (83, 36361), (100, 36271), (111, 36184),

Gene: Qobbit_55 Start: 36936, Stop: 36271, Start Num: 9

Candidate Starts for Qobbit_55:

(Start: 9 @36936 has 70 MA's), (24, 36885), (30, 36837), (33, 36813), (39, 36774), (43, 36759), (61, 36606), (66, 36573), (74, 36555), (95, 36462), (100, 36432), (108, 36372),

Gene: QuinnKiro_52 Start: 36706, Stop: 36002, Start Num: 10

Candidate Starts for QuinnKiro_52:

(Start: 10 @36706 has 161 MA's), (27, 36649), (28, 36646), (53, 36430), (62, 36382), (75, 36307), (76, 36304), (77, 36286), (98, 36166), (100, 36154),

Gene: RER2_36 Start: 29701, Stop: 29111, Start Num: 10

Candidate Starts for RER2_36:

(Start: 10 @29701 has 161 MA's), (Start: 13 @29683 has 21 MA's), (25, 29653), (26, 29650), (42, 29536), (50, 29452), (52, 29425), (68, 29359), (70, 29350), (82, 29302), (97, 29230), (100, 29209), (106, 29170),

Gene: RGL3_37 Start: 30321, Stop: 29776, Start Num: 14

Candidate Starts for RGL3_37:

(Start: 10 @30345 has 161 MA's), (14, 30321), (25, 30297), (26, 30294), (40, 30186), (42, 30180), (50, 30096), (52, 30069), (68, 30003), (70, 29994),

Gene: Rahalelujah_55 Start: 36500, Stop: 35808, Start Num: 9

Candidate Starts for Rahalelujah_55:

(Start: 9 @36500 has 70 MA's), (18, 36455), (24, 36440), (30, 36392), (33, 36368), (36, 36353), (39, 36329), (43, 36314), (52, 36209), (53, 36200), (61, 36161), (66, 36128), (72, 36119), (74, 36110), (95, 36017), (100, 35987), (112, 35891),

Gene: Rasputin_43 Start: 32799, Stop: 32209, Start Num: 10

Candidate Starts for Rasputin_43:

(Start: 10 @32799 has 161 MA's), (Start: 13 @32781 has 21 MA's), (25, 32751), (26, 32748), (42, 32634), (50, 32550), (52, 32523), (68, 32457), (70, 32448), (82, 32400), (97, 32328), (100, 32307), (106, 32268),

Gene: ReMo_58 Start: 35680, Stop: 35108, Start Num: 13

Candidate Starts for ReMo_58:

(7, 35731), (Start: 8 @35719 has 1 MA's), (Start: 13 @35680 has 21 MA's), (19, 35665), (42, 35527), (58, 35383), (84, 35281), (97, 35215), (100, 35194), (110, 35131),

Gene: Reba_57 Start: 36480, Stop: 35758, Start Num: 10

Candidate Starts for Reba_57:

(Start: 10 @36480 has 161 MA's), (Start: 38 @36339 has 1 MA's), (48, 36285), (60, 36171), (83, 36021), (100, 35931), (111, 35844),

Gene: Rebeuca_52 Start: 36603, Stop: 35890, Start Num: 10

Candidate Starts for Rebeuca_52:

(Start: 10 @36603 has 161 MA's), (28, 36549), (43, 36447), (44, 36438), (52, 36342), (67, 36255), (83, 36147), (92, 36096), (100, 36057),

Gene: Remus_60 Start: 35686, Stop: 35114, Start Num: 13

Candidate Starts for Remus_60:

(7, 35737), (Start: 8 @35725 has 1 MA's), (Start: 13 @35686 has 21 MA's), (19, 35671), (42, 35533), (58, 35389), (84, 35287), (97, 35221), (100, 35200), (110, 35137),

Gene: ResDef_54 Start: 36706, Stop: 36002, Start Num: 10

Candidate Starts for ResDef_54:

(Start: 10 @36706 has 161 MA's), (27, 36649), (28, 36646), (53, 36430), (62, 36382), (75, 36307), (76, 36304), (77, 36286), (98, 36166), (100, 36154),

Gene: RexFury_42 Start: 32860, Stop: 32270, Start Num: 10

Candidate Starts for RexFury_42:

(Start: 10 @32860 has 161 MA's), (Start: 13 @32842 has 21 MA's), (25, 32812), (26, 32809), (42, 32695), (50, 32611), (52, 32584), (68, 32518), (70, 32509), (82, 32461), (97, 32389), (100, 32368), (106, 32329),

Gene: Rhodalysa_43 Start: 32829, Stop: 32239, Start Num: 10

Candidate Starts for Rhodalysa_43:

(Start: 10 @32829 has 161 MA's), (Start: 13 @32811 has 21 MA's), (25, 32781), (26, 32778), (42, 32664), (50, 32580), (52, 32553), (68, 32487), (70, 32478), (82, 32430), (97, 32358), (100, 32337), (106, 32298),

Gene: RhynO_53 Start: 36402, Stop: 35692, Start Num: 10

Candidate Starts for RhynO_53:

(Start: 10 @36402 has 161 MA's), (28, 36351), (31, 36312), (35, 36294), (43, 36249), (44, 36240), (47, 36219), (48, 36213), (67, 36057), (81, 35955), (100, 35859),

Gene: Rifter_57 Start: 35391, Stop: 34699, Start Num: 9

Candidate Starts for Rifter_57:

(Start: 9 @35391 has 70 MA's), (23, 35340), (43, 35205), (48, 35169), (59, 35064), (98, 34899), (99, 34896), (100, 34887), (105, 34860), (114, 34734),

Gene: Roary_53 Start: 35212, Stop: 34589, Start Num: 15

Candidate Starts for Roary_53:

(Start: 15 @35212 has 42 MA's), (29, 35140), (41, 35068), (48, 35023), (61, 34906), (65, 34876), (86, 34807), (100, 34732), (101, 34723),

Gene: Rockstar_54 Start: 36211, Stop: 35510, Start Num: 10

Candidate Starts for Rockstar_54:

(Start: 10 @36211 has 161 MA's), (28, 36139), (29, 36118), (Start: 38 @36055 has 1 MA's), (48, 36001), (52, 35932), (75, 35791), (77, 35770), (80, 35761), (83, 35728), (94, 35671), (100, 35638), (108, 35578), (113, 35521),

Gene: Roksolana_58 Start: 36225, Stop: 35557, Start Num: 9

Candidate Starts for Roksolana_58:

(Start: 9 @36225 has 70 MA's), (23, 36174), (43, 36039), (48, 36003), (100, 35721), (105, 35694),

Gene: Rosalind_58 Start: 35823, Stop: 35251, Start Num: 13

Candidate Starts for Rosalind_58:

(7, 35874), (Start: 8 @35862 has 1 MA's), (Start: 13 @35823 has 21 MA's), (19, 35808), (42, 35670), (58, 35526), (84, 35424), (97, 35358), (100, 35337), (110, 35274),

Gene: Rummer_56 Start: 36959, Stop: 36237, Start Num: 10

Candidate Starts for Rummer_56:

(Start: 10 @36959 has 161 MA's), (Start: 38 @36818 has 1 MA's), (48, 36764), (60, 36650), (80, 36533), (84, 36497), (100, 36410), (111, 36323),

Gene: Sabia_57 Start: 36940, Stop: 36218, Start Num: 10

Candidate Starts for Sabia_57:

(Start: 10 @36940 has 161 MA's), (Start: 38 @36799 has 1 MA's), (48, 36745), (60, 36631), (80, 36514), (83, 36481), (84, 36478), (93, 36427), (97, 36412), (100, 36391), (111, 36304),

Gene: Sabinator_56 Start: 36930, Stop: 36208, Start Num: 10

Candidate Starts for Sabinator_56:

(Start: 10 @36930 has 161 MA's), (Start: 38 @36789 has 1 MA's), (48, 36735), (60, 36621), (80, 36504), (83, 36471), (84, 36468), (93, 36417), (97, 36402), (100, 36381), (111, 36294),

Gene: Saintus_47 Start: 31919, Stop: 31305, Start Num: 15

Candidate Starts for Saintus_47:

(Start: 15 @31919 has 42 MA's), (29, 31847), (43, 31766), (52, 31661), (56, 31640), (57, 31631), (63, 31592), (65, 31583), (72, 31571), (100, 31448),

Gene: SaturnRing_55 Start: 36750, Stop: 36073, Start Num: 10

Candidate Starts for SaturnRing_55:

(Start: 10 @36750 has 161 MA's), (21, 36729), (24, 36723), (35, 36642), (37, 36633), (41, 36606), (43, 36597), (47, 36567), (52, 36492), (75, 36354), (77, 36333), (80, 36324), (83, 36291), (84, 36288), (100, 36201), (108, 36141), (113, 36084),

Gene: Scherzo_55 Start: 37193, Stop: 36528, Start Num: 9

Candidate Starts for Scherzo_55:

(Start: 9 @37193 has 70 MA's), (24, 37142), (30, 37094), (33, 37070), (39, 37031), (43, 37016), (61, 36863), (66, 36830), (74, 36812), (95, 36719), (100, 36689), (108, 36629),

Gene: Scorpia_52 Start: 35740, Stop: 35105, Start Num: 11

Candidate Starts for Scorpia_52:

(3, 36079), (Start: 11 @35740 has 8 MA's), (Start: 15 @35728 has 42 MA's), (31, 35638), (43, 35575), (52, 35470), (53, 35461), (58, 35437), (63, 35401), (66, 35389), (72, 35380), (97, 35269), (100,

35248), (109, 35185),

Gene: Scout_54 Start: 35898, Stop: 35197, Start Num: 10

Candidate Starts for Scout_54:

(Start: 10 @35898 has 161 MA's), (28, 35826), (29, 35805), (Start: 38 @35742 has 1 MA's), (48, 35688), (52, 35619), (72, 35490), (75, 35478), (77, 35457), (80, 35448), (83, 35415), (100, 35325), (108, 35265), (113, 35208),

Gene: Severus_50 Start: 35480, Stop: 34746, Start Num: 10

Candidate Starts for Severus_50:

(Start: 10 @35480 has 161 MA's), (29, 35384), (Start: 38 @35321 has 1 MA's), (42, 35309), (48, 35267), (67, 35111), (71, 35081), (92, 34952), (93, 34949), (100, 34913),

Gene: ShayRa_60 Start: 35867, Stop: 35295, Start Num: 13

Candidate Starts for ShayRa_60:

(7, 35918), (Start: 8 @35906 has 1 MA's), (Start: 13 @35867 has 21 MA's), (19, 35852), (42, 35714), (58, 35570), (84, 35468), (97, 35402), (100, 35381), (110, 35318),

Gene: SheaKeira_53 Start: 36414, Stop: 35713, Start Num: 9

Candidate Starts for SheaKeira_53:

(Start: 9 @36414 has 70 MA's), (18, 36369), (24, 36354), (30, 36306), (33, 36282), (36, 36267), (43, 36228), (53, 36114), (61, 36075), (66, 36042), (87, 35967), (100, 35898), (114, 35748),

Gene: Shuman_43 Start: 32774, Stop: 32184, Start Num: 10

Candidate Starts for Shuman_43:

(Start: 10 @32774 has 161 MA's), (Start: 13 @32756 has 21 MA's), (25, 32726), (26, 32723), (42, 32609), (50, 32525), (52, 32498), (68, 32432), (70, 32423), (82, 32375), (97, 32303), (100, 32282), (106, 32243),

Gene: Smeadley_53 Start: 35378, Stop: 34755, Start Num: 15

Candidate Starts for Smeadley_53:

(Start: 15 @35378 has 42 MA's), (29, 35306), (41, 35234), (48, 35189), (61, 35072), (65, 35042), (100, 34898), (101, 34889),

Gene: SmellyB_56 Start: 35795, Stop: 35127, Start Num: 9

Candidate Starts for SmellyB_56:

(Start: 9 @35795 has 70 MA's), (23, 35744), (43, 35609), (48, 35573), (100, 35291), (105, 35264),

Gene: Snickers_57 Start: 36905, Stop: 36183, Start Num: 10

Candidate Starts for Snickers_57:

(Start: 10 @36905 has 161 MA's), (Start: 38 @36764 has 1 MA's), (48, 36710), (60, 36596), (80, 36479), (83, 36446), (84, 36443), (93, 36392), (97, 36377), (100, 36356), (111, 36269),

Gene: SoYo_57 Start: 36843, Stop: 36121, Start Num: 10

Candidate Starts for SoYo_57:

(Start: 10 @36843 has 161 MA's), (Start: 38 @36702 has 1 MA's), (48, 36648), (60, 36534), (80, 36417), (83, 36384), (84, 36381), (93, 36330), (97, 36315), (100, 36294), (111, 36207),

Gene: SoilDragon_57 Start: 36379, Stop: 35657, Start Num: 10

Candidate Starts for SoilDragon_57:

(Start: 10 @36379 has 161 MA's), (Start: 38 @36238 has 1 MA's), (48, 36184), (60, 36070), (80, 35953), (83, 35920), (84, 35917), (93, 35866), (97, 35851), (100, 35830), (111, 35743),

Gene: Soshari_59 Start: 36955, Stop: 36233, Start Num: 10

Candidate Starts for Soshari_59:

(Start: 10 @36955 has 161 MA's), (Start: 38 @36814 has 1 MA's), (48, 36760), (84, 36493), (100, 36406), (111, 36319),

Gene: Soups_60 Start: 36106, Stop: 35534, Start Num: 13

Candidate Starts for Soups_60:

(7, 36157), (Start: 8 @36145 has 1 MA's), (Start: 13 @36106 has 21 MA's), (19, 36091), (42, 35953), (58, 35809), (84, 35707), (97, 35641), (100, 35620), (110, 35557),

Gene: Spike509_57 Start: 36956, Stop: 36234, Start Num: 10

Candidate Starts for Spike509_57:

(Start: 10 @36956 has 161 MA's), (Start: 38 @36815 has 1 MA's), (48, 36761), (84, 36494), (100, 36407), (111, 36320),

Gene: Spouty_53 Start: 36973, Stop: 36308, Start Num: 9

Candidate Starts for Spouty_53:

(Start: 9 @36973 has 70 MA's), (24, 36922), (30, 36874), (33, 36850), (39, 36811), (43, 36796), (61, 36643), (66, 36610), (74, 36592), (95, 36499), (100, 36469), (108, 36409),

Gene: StCroix_42 Start: 32842, Stop: 32252, Start Num: 10

Candidate Starts for StCroix_42:

(Start: 10 @32842 has 161 MA's), (Start: 13 @32824 has 21 MA's), (25, 32794), (26, 32791), (42, 32677), (50, 32593), (52, 32566), (68, 32500), (70, 32491), (82, 32443), (97, 32371), (100, 32350), (106, 32311),

Gene: Stagni_57 Start: 36934, Stop: 36212, Start Num: 10

Candidate Starts for Stagni_57:

(Start: 10 @36934 has 161 MA's), (Start: 38 @36793 has 1 MA's), (48, 36739), (60, 36625), (80, 36508), (83, 36475), (84, 36472), (93, 36421), (97, 36406), (100, 36385), (111, 36298),

Gene: StepMih_57 Start: 36925, Stop: 36203, Start Num: 10

Candidate Starts for StepMih_57:

(Start: 10 @36925 has 161 MA's), (Start: 38 @36784 has 1 MA's), (48, 36730), (60, 36616), (80, 36499), (83, 36466), (84, 36463), (93, 36412), (97, 36397), (100, 36376), (111, 36289),

Gene: Stephig9_53 Start: 35444, Stop: 34821, Start Num: 15

Candidate Starts for Stephig9_53:

(Start: 15 @35444 has 42 MA's), (29, 35372), (41, 35300), (48, 35255), (61, 35138), (65, 35108), (86, 35039), (88, 35027), (100, 34964), (101, 34955),

Gene: Strosahl_60 Start: 35686, Stop: 35114, Start Num: 13

Candidate Starts for Strosahl_60:

(7, 35737), (Start: 8 @35725 has 1 MA's), (Start: 13 @35686 has 21 MA's), (19, 35671), (42, 35533), (58, 35389), (84, 35287), (97, 35221), (100, 35200), (110, 35137),

Gene: Success_24 Start: 16405, Stop: 15854, Start Num: 13

Candidate Starts for Success_24:

(Start: 13 @16405 has 21 MA's), (23, 16381), (29, 16330), (30, 16327), (31, 16312), (54, 16135), (62, 16090), (78, 16015), (82, 15979), (84, 15973), (87, 15952), (100, 15886), (103, 15865),

Gene: SuperAwesome_56 Start: 35809, Stop: 35141, Start Num: 9

Candidate Starts for SuperAwesome_56:

(Start: 9 @35809 has 70 MA's), (23, 35758), (43, 35623), (48, 35587), (100, 35305), (105, 35278),

Gene: SuperCallie99_55 Start: 35682, Stop: 35014, Start Num: 9

Candidate Starts for SuperCallie99_55:

(Start: 9 @35682 has 70 MA's), (23, 35631), (43, 35496), (48, 35460), (100, 35178), (105, 35151),

Gene: Swann_43 Start: 32827, Stop: 32237, Start Num: 10

Candidate Starts for Swann_43:

(Start: 10 @32827 has 161 MA's), (Start: 13 @32809 has 21 MA's), (25, 32779), (26, 32776), (42, 32662), (50, 32578), (52, 32551), (68, 32485), (70, 32476), (82, 32428), (97, 32356), (100, 32335), (106, 32296),

Gene: Swirley_49 Start: 35919, Stop: 35284, Start Num: 11

Candidate Starts for Swirley_49:

(3, 36258), (Start: 11 @35919 has 8 MA's), (Start: 15 @35907 has 42 MA's), (31, 35817), (43, 35754), (52, 35649), (53, 35640), (63, 35580), (66, 35568), (72, 35559), (88, 35490), (100, 35427), (109, 35364),

Gene: Switzerland_59 Start: 36006, Stop: 35434, Start Num: 13

Candidate Starts for Switzerland_59:

(7, 36057), (Start: 8 @36045 has 1 MA's), (Start: 13 @36006 has 21 MA's), (19, 35991), (42, 35853), (58, 35709), (84, 35607), (97, 35541), (100, 35520), (110, 35457),

Gene: SydNat_50 Start: 36432, Stop: 35806, Start Num: 15

Candidate Starts for SydNat_50:

(Start: 11 @36444 has 8 MA's), (Start: 15 @36432 has 42 MA's), (22, 36414), (31, 36339), (43, 36276), (52, 36171), (53, 36162), (63, 36102), (66, 36090), (88, 36012), (100, 35949),

Gene: TNguyen7_55 Start: 36716, Stop: 36039, Start Num: 10

Candidate Starts for TNguyen7_55:

(Start: 10 @36716 has 161 MA's), (21, 36695), (24, 36689), (35, 36608), (37, 36599), (41, 36572), (43, 36563), (47, 36533), (52, 36458), (75, 36320), (77, 36299), (80, 36290), (83, 36257), (84, 36254), (100, 36167), (108, 36107), (113, 36050),

Gene: TWAMP_43 Start: 32829, Stop: 32239, Start Num: 10

Candidate Starts for TWAMP_43:

(Start: 10 @32829 has 161 MA's), (Start: 13 @32811 has 21 MA's), (25, 32781), (26, 32778), (42, 32664), (50, 32580), (52, 32553), (68, 32487), (70, 32478), (82, 32430), (97, 32358), (100, 32337), (106, 32298),

Gene: Takoda_43 Start: 32733, Stop: 32146, Start Num: 10

Candidate Starts for Takoda_43:

(Start: 10 @32733 has 161 MA's), (25, 32688), (26, 32685), (37, 32601), (40, 32577), (42, 32571), (50, 32487), (52, 32460), (54, 32445), (68, 32394), (69, 32388), (70, 32385), (82, 32337), (93, 32280), (104, 32220), (106, 32205),

Gene: Tarynearal_45 Start: 35361, Stop: 34726, Start Num: 11

Candidate Starts for Tarynearal_45:

(Start: 11 @35361 has 8 MA's), (Start: 15 @35349 has 42 MA's), (31, 35259), (43, 35196), (52, 35091), (53, 35082), (63, 35022), (66, 35010), (72, 35001), (100, 34869), (109, 34806),

Gene: Taurus_58 Start: 36931, Stop: 36209, Start Num: 10

Candidate Starts for Taurus_58:

(Start: 10 @36931 has 161 MA's), (Start: 38 @36790 has 1 MA's), (48, 36736), (60, 36622), (80, 36505), (83, 36472), (84, 36469), (93, 36418), (97, 36403), (100, 36382), (111, 36295),

Gene: Texage_52 Start: 36707, Stop: 36003, Start Num: 10

Candidate Starts for Texage_52:

(Start: 10 @36707 has 161 MA's), (27, 36650), (28, 36647), (53, 36431), (62, 36383), (75, 36308), (76, 36305), (77, 36287), (98, 36167), (100, 36155),

Gene: Theia_46 Start: 35909, Stop: 35283, Start Num: 15

Candidate Starts for Theia_46:

(2, 36470), (3, 36260), (Start: 11 @35921 has 8 MA's), (Start: 15 @35909 has 42 MA's), (31, 35816), (43, 35753), (63, 35579), (66, 35567), (100, 35426), (109, 35363),

Gene: Tiffany_57 Start: 36817, Stop: 36095, Start Num: 10

Candidate Starts for Tiffany_57:

(Start: 10 @36817 has 161 MA's), (Start: 38 @36676 has 1 MA's), (48, 36622), (60, 36508), (80, 36391), (83, 36358), (84, 36355), (93, 36304), (97, 36289), (100, 36268), (111, 36181),

Gene: Tiger_46 Start: 35098, Stop: 34472, Start Num: 15

Candidate Starts for Tiger_46:

(Start: 11 @35110 has 8 MA's), (Start: 15 @35098 has 42 MA's), (22, 35080), (31, 35005), (Start: 38 @34960 has 1 MA's), (43, 34942), (63, 34768), (66, 34756), (100, 34615), (109, 34552),

Gene: Toaka_55 Start: 36696, Stop: 36142, Start Num: 9

Candidate Starts for Toaka_55:

(Start: 9 @36696 has 70 MA's), (29, 36594), (31, 36576), (36, 36552), (39, 36528), (52, 36408), (53, 36399), (63, 36339), (74, 36309), (90, 36240), (100, 36186),

Gene: Todacoro_53 Start: 36706, Stop: 36002, Start Num: 10

Candidate Starts for Todacoro_53:

(Start: 10 @36706 has 161 MA's), (27, 36649), (28, 36646), (53, 36430), (62, 36382), (75, 36307), (76, 36304), (77, 36286), (98, 36166), (100, 36154),

Gene: ToneTone_54 Start: 35818, Stop: 35150, Start Num: 9

Candidate Starts for ToneTone_54:

(Start: 9 @35818 has 70 MA's), (23, 35767), (43, 35632), (48, 35596), (100, 35314), (105, 35287),

Gene: Topanga_50 Start: 36244, Stop: 35534, Start Num: 10

Candidate Starts for Topanga_50:

(Start: 10 @36244 has 161 MA's), (28, 36193), (35, 36136), (43, 36091), (44, 36082), (47, 36061), (48, 36055), (67, 35899), (81, 35797), (100, 35701),

Gene: Trike_50 Start: 35489, Stop: 34755, Start Num: 10

Candidate Starts for Trike_50:

(Start: 10 @35489 has 161 MA's), (29, 35393), (Start: 38 @35330 has 1 MA's), (42, 35318), (48, 35276), (67, 35120), (71, 35090), (92, 34961), (93, 34958), (100, 34922),

Gene: Tubs_55 Start: 36907, Stop: 36242, Start Num: 9

Candidate Starts for Tubs_55:

(Start: 9 @36907 has 70 MA's), (24, 36856), (30, 36808), (33, 36784), (39, 36745), (43, 36730), (61, 36577), (66, 36544), (74, 36526), (95, 36433), (100, 36403), (108, 36343),

Gene: Tucker_57 Start: 35987, Stop: 35319, Start Num: 9

Candidate Starts for Tucker_57:

(Start: 9 @35987 has 70 MA's), (23, 35936), (43, 35801), (48, 35765), (100, 35483), (105, 35456),

Gene: Twister_50 Start: 36164, Stop: 35451, Start Num: 10

Candidate Starts for Twister_50:

(Start: 10 @36164 has 161 MA's), (28, 36110), (43, 36008), (44, 35999), (52, 35903), (67, 35816), (83, 35708), (92, 35657), (100, 35618),

Gene: Ugenie5_52 Start: 37192, Stop: 36527, Start Num: 9

Candidate Starts for Ugenie5_52:

(Start: 9 @37192 has 70 MA's), (24, 37141), (30, 37093), (33, 37069), (39, 37030), (43, 37015), (61, 36862), (66, 36829), (74, 36811), (95, 36718), (100, 36688), (108, 36628),

Gene: UhSalsa_43 Start: 32762, Stop: 32172, Start Num: 10

Candidate Starts for UhSalsa_43:

(Start: 10 @32762 has 161 MA's), (Start: 13 @32744 has 21 MA's), (25, 32714), (26, 32711), (42, 32597), (50, 32513), (52, 32486), (68, 32420), (70, 32411), (82, 32363), (97, 32291), (100, 32270), (106, 32231),

Gene: UnionJack_49 Start: 35218, Stop: 34595, Start Num: 15

Candidate Starts for UnionJack_49:

(Start: 11 @35230 has 8 MA's), (Start: 15 @35218 has 42 MA's), (31, 35128), (43, 35065), (63, 34891), (66, 34879), (87, 34804), (97, 34759), (100, 34738), (109, 34675),

Gene: Vanisoa_55 Start: 37825, Stop: 37151, Start Num: 9

Candidate Starts for Vanisoa_55:

(Start: 9 @37825 has 70 MA's), (24, 37765), (30, 37717), (33, 37693), (35, 37684), (36, 37678), (43, 37639), (52, 37534), (61, 37486), (63, 37465), (66, 37453), (74, 37435), (100, 37309),

Gene: Veracruz_52 Start: 36706, Stop: 36002, Start Num: 10

Candidate Starts for Veracruz_52:

(Start: 10 @36706 has 161 MA's), (27, 36649), (28, 36646), (53, 36430), (62, 36382), (75, 36307), (76, 36304), (77, 36286), (98, 36166), (100, 36154),

Gene: Vix_57 Start: 37014, Stop: 36292, Start Num: 10

Candidate Starts for Vix_57:

(Start: 10 @37014 has 161 MA's), (Start: 38 @36873 has 1 MA's), (48, 36819), (60, 36705), (80, 36588), (83, 36555), (84, 36552), (93, 36501), (97, 36486), (100, 36465), (111, 36378),

Gene: VohminGhazi_56 Start: 35796, Stop: 35128, Start Num: 9

Candidate Starts for VohminGhazi_56:

(Start: 9 @35796 has 70 MA's), (23, 35745), (43, 35610), (48, 35574), (100, 35292), (105, 35265),

Gene: Waits_60 Start: 35888, Stop: 35316, Start Num: 13

Candidate Starts for Waits_60:

(7, 35939), (Start: 8 @35927 has 1 MA's), (Start: 13 @35888 has 21 MA's), (19, 35873), (42, 35735), (58, 35591), (84, 35489), (97, 35423), (100, 35402), (110, 35339),

Gene: WalterMcMickey_50 Start: 36164, Stop: 35451, Start Num: 10

Candidate Starts for WalterMcMickey_50:

(Start: 10 @36164 has 161 MA's), (28, 36110), (43, 36008), (44, 35999), (52, 35903), (67, 35816), (83, 35708), (92, 35657), (100, 35618),

Gene: Watson_57 Start: 36923, Stop: 36201, Start Num: 10

Candidate Starts for Watson_57:

(Start: 10 @36923 has 161 MA's), (Start: 38 @36782 has 1 MA's), (48, 36728), (60, 36614), (80, 36497), (83, 36464), (84, 36461), (93, 36410), (97, 36395), (100, 36374), (111, 36287),

Gene: Wiks_56 Start: 35889, Stop: 35221, Start Num: 9

Candidate Starts for Wiks_56:

(Start: 9 @35889 has 70 MA's), (23, 35838), (43, 35703), (48, 35667), (100, 35385), (105, 35358),

Gene: Wooldri_59 Start: 36843, Stop: 36121, Start Num: 10

Candidate Starts for Wooldri_59:

(Start: 10 @36843 has 161 MA's), (Start: 38 @36702 has 1 MA's), (48, 36648), (60, 36534), (80, 36417), (83, 36384), (84, 36381), (93, 36330), (97, 36315), (100, 36294), (111, 36207),

Gene: WunderPhul_57 Start: 35887, Stop: 35219, Start Num: 9

Candidate Starts for WunderPhul_57:

(Start: 9 @35887 has 70 MA's), (23, 35836), (43, 35701), (48, 35665), (100, 35383), (105, 35356),

Gene: Yogi_42 Start: 32803, Stop: 32213, Start Num: 10

Candidate Starts for Yogi_42:

(Start: 10 @32803 has 161 MA's), (Start: 13 @32785 has 21 MA's), (25, 32755), (26, 32752), (42, 32638), (50, 32554), (52, 32527), (68, 32461), (70, 32452), (82, 32404), (97, 32332), (100, 32311), (106, 32272),

Gene: Yokurt_57 Start: 35889, Stop: 35221, Start Num: 9

Candidate Starts for Yokurt_57:

(Start: 9 @35889 has 70 MA's), (23, 35838), (43, 35703), (48, 35667), (100, 35385), (105, 35358),

Gene: Yoncess_42 Start: 32583, Stop: 31993, Start Num: 10

Candidate Starts for Yoncess_42:

(Start: 10 @32583 has 161 MA's), (Start: 13 @32565 has 21 MA's), (25, 32535), (26, 32532), (42, 32418), (50, 32334), (52, 32307), (68, 32241), (70, 32232), (82, 32184), (97, 32112), (100, 32091), (106, 32052),

Gene: Zaka_57 Start: 35889, Stop: 35221, Start Num: 9

Candidate Starts for Zaka_57:

(Start: 9 @35889 has 70 MA's), (23, 35838), (43, 35703), (48, 35667), (100, 35385), (105, 35358),

Gene: Zetzy_56 Start: 36494, Stop: 35772, Start Num: 10

Candidate Starts for Zetzy_56:

(Start: 10 @36494 has 161 MA's), (Start: 38 @36353 has 1 MA's), (48, 36299), (60, 36185), (80, 36068), (83, 36035), (84, 36032), (93, 35981), (97, 35966), (100, 35945), (111, 35858),

Gene: Zolita_49 Start: 36436, Stop: 35810, Start Num: 15

Candidate Starts for Zolita_49:

(Start: 11 @36448 has 8 MA's), (Start: 15 @36436 has 42 MA's), (22, 36418), (31, 36343), (43, 36280), (52, 36175), (53, 36166), (63, 36106), (66, 36094), (88, 36016), (100, 35953),

Gene: Zulu_58 Start: 36267, Stop: 35599, Start Num: 9

Candidate Starts for Zulu_58:

(Start: 9 @36267 has 70 MA's), (23, 36216), (43, 36081), (48, 36045), (100, 35763), (105, 35736),