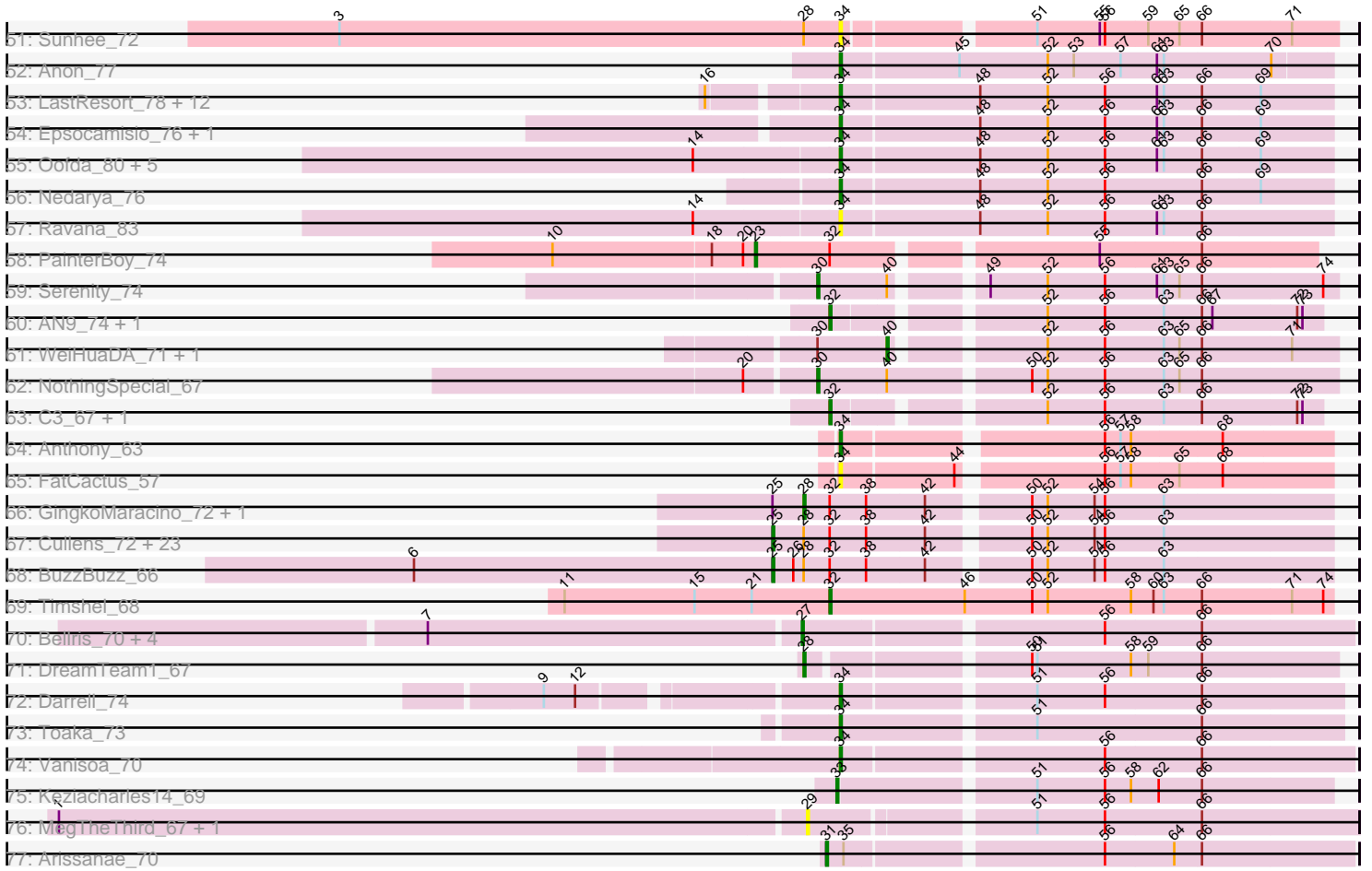


Pham 294365



Pham 294365



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 294365 Report

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

Pham number 294365 has 323 members, 36 are drafts.

Phages represented in each track:

- Track 1 : Dulcie_66, Gompeii16_66, Alsfro_72, Smeagol_68, Peterson_69, Rhynn_62, Adahisdi_65, PacerPaul_66, Doom_63, Smairt_68, ChristmasHams_60, Hami1_61, Gachnar_66, SkiPole_74, Bircsak_66, BigPaolini_62, BK1_58, Francis47_65, BillKnuckles_63, Sagefire_67, Target_69, Marsha_66, Zeuska_71, Agaliana_61, PhrostyMug_66, Sunshine924_71, Perseus_64, Squee_69, EnzoK_66, STLscum_75, Switzer_67, Paraselene_67, Paphu_65, Pepe_64, Tasp14_69, Aeneas_69, lLeeKay_68, Carlyle_67, Blesser_62, A6_58, Scowl_67, Mule_63, Makemake_72, KBG_67, Manatee_66, Traft412_69, Lamina13_69, Big3_66
- Track 2 : Pari_70, Dreamboat_68, Bethlehem_67, PherrisBueller_67, Froghopper_63, Jasper_67
- Track 3 : Jerm2_67, Zephyr_67, Tote_62, DrFeelGood_64, DD5_66, Homines_57, Rohr_67, JuliaChild_67, Burton_67, Ichabod_70, DreamCatcher_68, BeesKnees_68, Hope4ever_67, Euphoria_65, Arlo_64, IgnatiusPatJac_66, Lockley_65, Bob3_67, Gwendoluna_70, PSullivan_64, Swole_67, MilleFeuille_62, Rufus_68, Dynamix_67, Petp2012_69, Blue_66, Sibs6_68, Slagathor_68, Museum_68, ConceptII_70, Rajelicia_66, Marcell_62, Chanagan_59, NEHalo_63, Anglerfish_66, Sandaddy_63, StrongArm_64, PinkPlastic_65, Pita2_67, Moose_67, TwoPeat_67, Briton15_70, Mryolo_64, Kugel_70, QTRlifeCrisis_67, Bexan_63, BluSpix_64, Lopton_66, SwissCheese_69, TheloniousMonk_70, Sorpresa_64, Pippin_65, CartmannCramer_65, Killigrew_64, MetalQZJ_62, Ciao_63, Corvo_66, RidgeCB_66, Forsytheast_67, ProMouse_67, Ringer_69, MaryBeth_63, U2_62, McGuire_66, Rubeus_65, Molly_67, PattyP_68, BaconJack_71, HanShotFirst_67, Arcanine_68, Magnito_67
- Track 4 : Teodoridan_65, Blackflame_61, Marchy_59, Kenmech_70, Dussy_67, Ajay_65, BarrowTuph_67, Levia_63, Payneful_63, PhineBark_65, Abbyshoes_68
- Track 5 : Marco3_72
- Track 6 : Buttons_62, Licorice_66
- Track 7 : Mkhusei_61, Iqorha_61, Magnar_65, Wilkins_64, Topgun_63, JC27_70, Norz_65, Beatrix_65, Monet_68, Marge_62, Inyanga_61, LunarLander_65, Edtherson_64, Fushigi_61, Oogway_64
- Track 8 : Applejack_66, Ashballer_69, BPBiebs31_69, Bruns_68, Kanely_67, Altman_68, Ohno789_67, SpikeBT_64
- Track 9 : Bones_64, Eyeball_67, Puppet_63
- Track 10 : Sumter_62
- Track 11 : AFIS_62, GageAP_67
- Track 12 : Cueyllyss_65, Trip13t_70, Michley_70, Espresso_63, Gandalf20_68, Parliament_67, Niza_68

- Track 13 : Hermia_63, CatBus_61, KikiBouba_63, Turj99_64, Noxious_62, Aldrich_61, GroundGoblin_62, DirtDevil_63
- Track 14 : Fascinus_61, Maroc7_65, Phlippers_61, Bigfoot_59, Solon_64
- Track 15 : MrGordo_69
- Track 16 : Fenn_72, Naira_71
- Track 17 : Dexes_66
- Track 18 : Atkinbua_69
- Track 19 : Abrogate_660
- Track 20 : HarryOW_63
- Track 21 : Bigchungl_64, McSinger_63, Snazzy_63, ShortQueendom_57
- Track 22 : Treddle_66, Jorgensen_71
- Track 23 : Zeeculate_65
- Track 24 : Wheeler_68
- Track 25 : GrecoEtereo_65
- Track 26 : HermioneGrange_68, BigMau_68, MPlant7149_66
- Track 27 : Pelly_68
- Track 28 : KyMonks1A_70, Thor_65, Gyzlar_61, SarFire_65
- Track 29 : Fajezeel_66, Acme_67, Watermelon_65, Greg_66
- Track 30 : Papez_68, Alvin_65
- Track 31 : GMonster_64
- Track 32 : JackSparrow_69, CactusRose_67, Crispicous1_63
- Track 33 : LilBib_65
- Track 34 : Lesedi_62, Trouble_66, Whitspit_61, KSSJEB_65
- Track 35 : Petruccio_68, Pinto_66, Kykar_67, StewieG_60
- Track 36 : Barriga_68
- Track 37 : Graduation_71
- Track 38 : Ruotula_72
- Track 39 : PowerRanger_65
- Track 40 : PascalRango_63
- Track 41 : Nhonho_65
- Track 42 : Raid_65
- Track 43 : Rutherford_67
- Track 44 : Nerujay_71
- Track 45 : Bxb1_59
- Track 46 : Violet_63
- Track 47 : Refuge_68
- Track 48 : Gail_72
- Track 49 : Luchador_73
- Track 50 : SororFago_72
- Track 51 : Sunhee_72
- Track 52 : Anon_77
- Track 53 : LastResort_78, DekHockey33_81, Nebulosus_77, Battleship_82, Looper_79, ReMo_78, KatherineG_80, Rosalind_78, ShayRa_80, Switzerland_79, Anaysia_80, MinecraftSteve_80, Boohoo_80
- Track 54 : Epsocamisio_76, JSwag_79
- Track 55 : Oofda_80, Waits_80, Soups_80, Warrior24_81, Strosahl_81, Remus_81
- Track 56 : Nedarya_76
- Track 57 : Ravana_83
- Track 58 : PainterBoy_74
- Track 59 : Serenity_74
- Track 60 : AN9_74, ANI8_74
- Track 61 : WeiHuaDA_71, Kalpine_70
- Track 62 : NothingSpecial_67

- Track 63 : C3_67, VC3_73
- Track 64 : Anthony_63
- Track 65 : FatCactus_57
- Track 66 : GingkoMaracino_72, Gwennie_67
- Track 67 : Cullens_72, JenCasNa_73, Sabinator_70, Beauxregard13_71, P28Green_72, Colbster_68, Ollie_72, Marie_70, Penny1_72, MoneyMay_71, LugYA_75, Hercules11_72, EpicPhail_73, StepMih_71, Fernando_72, Taurus_73, Phoxy_72, PotatoSplit_73, Rummer_71, Spike509_72, Grum1_71, Anubis_75, LBerry_73, SoYo_69
- Track 68 : BuzzBuzz_66
- Track 69 : Timshel_68
- Track 70 : Bellris_70, CogOmlette_70, Minispark_70, WorldCup_70, Rahalelujah_72
- Track 71 : DreamTeam1_67
- Track 72 : Darrell_74
- Track 73 : Toaka_73
- Track 74 : Vanisoa_70
- Track 75 : Keziacharles14_69
- Track 76 : MegTheThird_67, Celestialunch_67
- Track 77 : Arissanae_70

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

The start number called the most often in the published annotations is 27, it was called in 217 of the 287 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- A6_58, AFIS_62, Abbyshoes_68, Acme_67, Adahisdi_65, Aeneas_69, Agaliana_61, Ajay_65, Aldrich_61, Alsfro_72, Altman_68, Alvin_65, Anglerfish_66, Applejack_66, Arcanine_68, Arlo_64, Ashballer_69, Atkinbua_69, BK1_58, BPBiebs31_69, BaconJack_71, Barriga_68, BarrowTuph_67, Beatrix_65, BeesKnees_68, Bellris_70, Bethlehem_67, Bexan_63, Big3_66, BigMau_68, BigPaolini_62, Bigchungu_64, Bigfoot_59, BillKnuckles_63, Bircsak_66, Blackflame_61, Blesser_62, BluSpix_64, Blue_66, Bob3_67, Bones_64, Briton15_70, Bruns_68, Burton_67, Buttons_62, Bxb1_59, CactusRose_67, Carlyle_67, CartmannCramer_65, CatBus_61, Chanagan_59, ChristmasHams_60, Ciao_63, CogOmlette_70, ConceptII_70, Corvo_66, Crispicous1_63, Cueylyss_65, DD5_66, Dexes_66, DirtDevil_63, Doom_63, DrFeelGood_64, DreamCatcher_68, Dreamboat_68, Dulcie_66, Dussy_67, Dynamix_67, Edtherson_64, EnzoK_66, Espresso_63, Euphoria_65, Eyeball_67, Fajezeel_66, Fascinus_61, Fenn_72, Forsytheast_67, Francis47_65, Froghopper_63, Fushigi_61, GMonster_64, Gachnar_66, GageAP_67, Gandalf20_68, Gompeii16_66, Graduation_71, GrecoEtereo_65, Greg_66, GroundGoblin_62, Gwendoluna_70, Gyzlar_61, Hami1_61, HanShotFirst_67, HarryOW_63, Hermia_63, HermioneGrange_68, Homines_57, Hope4ever_67, ILeeKay_68, Ichabod_70, IgnatiusPatJac_66, Inyanga_61, Iqorha_61, JC27_70, JackSparrow_69, Jasper_67, Jerm2_67, Jorgensen_71, JuliaChild_67, KBG_67, KSSJEB_65, Kanely_67, Kenmech_70, KikiBouba_63, Killigrew_64, Kugel_70, KyMonks1A_70, Kykar_67, Lamina13_69, Lesedi_62, Levia_63, Licorice_66, LilBib_65, Lockley_65, Lopton_66, LunarLander_65, MPlant7149_66, Magnar_65, Magnito_67, Makemake_72, Manatee_66, Marcell_62, Marchy_59, Marco3_72, Marge_62, Maroc7_65, Marsha_66, MaryBeth_63, McGuire_66, McSinger_63,

MetalQZJ_62, Michley_70, MilleFeuille_62, Minispark_70, Mkhuseleli_61, Molly_67, Monet_68, Moose_67, MrGordo_69, Mryolo_64, Mule_63, Museum_68, NEHalo_63, Naira_71, Nerujay_71, Nhonho_65, Niza_68, Norz_65, Noxious_62, Ohno789_67, Oogway_64, PSullivan_64, PacerPaul_66, Papez_68, Paphu_65, Paraselene_67, Pari_70, Parliament_67, PascalRango_63, PattyP_68, Payneful_63, Pelly_68, Pepe_64, Perseus_64, Peterson_69, Petp2012_69, Petruccio_68, PherrisBueller_67, PhineBark_65, Phlippers_61, PhrostyMug_66, PinkPlastic_65, Pinto_66, Pippin_65, Pita2_67, PowerRanger_65, ProMouse_67, Puppet_63, QTRlifeCrisis_67, Rahalelujah_72, Raid_65, Rajelicia_66, Rhynn_62, RidgeCB_66, Ringer_69, Rohr_67, Rubeus_65, Rufus_68, Ruotula_72, Rutherford_67, STLscum_75, Sagefire_67, Sandaddy_63, SarFire_65, Scowl_67, ShortQueendom_57, Sibs6_68, SkiPole_74, Slagathor_68, Smairt_68, Smeagol_68, Snazzy_63, Solon_64, Sorpresa_64, SpikeBT_64, Squee_69, StewieG_60, StrongArm_64, Sumter_62, Sunshine924_71, SwissCheese_69, Switzer_67, Swole_67, Target_69, Tasp14_69, Teodoridan_65, TheloniousMonk_70, Thor_65, Topgun_63, Tote_62, Traft412_69, Treddle_66, Tripl3t_70, Trouble_66, Turj99_64, TwoPeat_67, U2_62, Violet_63, Watermelon_65, Wheeler_68, Whitspit_61, Wilkins_64, WorldCup_70, Zeeculate_65, Zephyr_67, Zeuska_71,

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

- Abrogate_660,

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

- AN9_74, ANI8_74, Anaysia_80, Anon_77, Anthony_63, Anubis_75, Arissanae_70, Battleship_82, Beauxregard13_71, Boohoo_80, BuzzBuzz_66, C3_67, Celestiallunch_67, Colbster_68, Cullens_72, Darrell_74, DekHockey33_81, DreamTeam1_67, EpicPhail_73, Epsocamisio_76, FatCactus_57, Fernando_72, Gail_72, GingkoMaracino_72, Grum1_71, Gwennie_67, Hercules11_72, JSwag_79, JenCasNa_73, Kalpine_70, KatherineG_80, Keziacharles14_69, LBerry_73, LastResort_78, Looper_79, Luchador_73, LugYA_75, Marie_70, MegTheThird_67, MinecraftSteve_80, MoneyMay_71, Nebulosus_77, Nedarya_76, NothingSpecial_67, Ollie_72, Oofda_80, P28Green_72, PainterBoy_74, Penny1_72, Phoxy_72, PotatoSplit_73, Ravana_83, ReMo_78, Refuge_68, Remus_81, Rosalind_78, Rummer_71, Sabinator_70, Serenity_74, ShayRa_80, SoYo_69, SororFago_72, Soups_80, Spike509_72, StepMih_71, Strosahl_81, Sunhee_72, Switzerland_79, Taurus_73, Timshel_68, Toaka_73, VC3_73, Vanisoa_70, Waits_80, Warrior24_81, WeiHuaDA_71,

Summary by start number:

Start 23:

- Found in 3 of 323 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 33.3% of time when present
- Phage (with cluster) where this start called: PainterBoy_74 (A16),

Start 24:

- Found in 1 of 323 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Refuge_68 (A12),

Start 25:

- Found in 27 of 323 (8.4%) of genes in pham
- Manual Annotations of this start: 25 of 287
- Called 92.6% of time when present
- Phage (with cluster) where this start called: Anubis_75 (A3), Beauxregard13_71 (A3), BuzzBuzz_66 (A3), Colbster_68 (A3), Cullens_72 (A3), EpicPhail_73 (A3), Fernando_72 (A3), Grum1_71 (A3), Hercules11_72 (A3), JenCasNa_73 (A3), LBerry_73 (A3), LugYA_75 (A3), Marie_70 (A3), MoneyMay_71 (A3), Ollie_72 (A3), P28Green_72 (A3), Penny1_72 (A3), Phoxy_72 (A3), PotatoSplit_73 (A3), Rummer_71 (A3), Sabinator_70 (A3), SoYo_69 (A3), Spike509_72 (A3), StepMih_71 (A3), Taurus_73 (A3),

Start 27:

- Found in 247 of 323 (76.5%) of genes in pham
- Manual Annotations of this start: 217 of 287
- Called 99.6% of time when present
- Phage (with cluster) where this start called: A6_58 (A1), AFIS_62 (A1), Abbysshoes_68 (A1), Acme_67 (A1), Adahisdi_65 (A1), Aeneas_69 (A1), Agaliana_61 (A1), Ajay_65 (A1), Aldrich_61 (A1), Alsfro_72 (A1), Altman_68 (A1), Alvin_65 (A1), Anglerfish_66 (A1), Applejack_66 (A1), Arcanine_68 (A1), Arlo_64 (A1), Ashballer_69 (A1), Atkinbua_69 (A1), BK1_58 (A1), BPBiabs31_69 (A1), BaconJack_71 (A1), Barriga_68 (A1), BarrowTuph_67 (A1), Beatrix_65 (A1), BeesKnees_68 (A1), Bellris_70 (A9), Bethlehem_67 (A1), Bexan_63 (A1), Big3_66 (A1), BigMau_68 (A1), BigPaolini_62 (A1), Bigchungi_64 (A1), Bigfoot_59 (A1), BillKnuckles_63 (A1), Bircsak_66 (A1), Blackflame_61 (A1), Blesser_62 (A1), BluSpix_64 (A1), Blue_66 (A1), Bob3_67 (A1), Bones_64 (A1), Briton15_70 (A1), Bruns_68 (A1), Burton_67 (A1), Buttons_62 (A1), Bxb1_59 (A1), CactusRose_67 (A1), Carlyle_67 (A1), CartmannCramer_65 (A1), CatBus_61 (A1), Chanagan_59 (A1), ChristmasHams_60 (A1), Ciao_63 (A1), CogOmlette_70 (A9), ConceptII_70 (A1), Corvo_66 (A1), Crispicious1_63 (A1), Cueyliss_65 (A1), DD5_66 (A1), Dexes_66 (A1), DirtDevil_63 (A1), Doom_63 (A1), DrFeelGood_64 (A1), DreamCatcher_68 (A1), Dreamboat_68 (A1), Dulcie_66 (A1), Dussy_67 (A1), Dynamix_67 (A1), Edtherson_64 (A1), EnzoK_66 (A1), Espresso_63 (A1), Euphoria_65 (A1), Eyeball_67 (A1), Fajezeel_66 (A1), Fascinus_61 (A1), Fenn_72 (A1), Forsytheast_67 (A1), Francis47_65 (A1), FrogHopper_63 (A1), Fushigi_61 (A1), GMonster_64 (A1), Gachnar_66 (A1), GageAP_67 (A1), Gandalf20_68 (A1), Gompeii16_66 (A1), Graduation_71 (A1), GrecoEtereo_65 (A1), Greg_66 (A1), GroundGoblin_62 (A1), Gwendoluna_70 (A1), Gyzlar_61 (A1), Hami1_61 (A1), HanShotFirst_67 (A1), HarryOW_63 (A1), Hermia_63 (A1), HermioneGrange_68 (A1), Homines_57 (A1), Hope4ever_67 (A1), ILeeKay_68 (A1), Ichabod_70 (A1), IgnatiusPatJac_66 (A1), Inyanga_61 (A1), Iqorha_61 (A1), JC27_70 (A1), JackSparrow_69 (A1), Jasper_67 (A1), Jerm2_67 (A1), Jorgensen_71 (A1), JuliaChild_67 (A1), KBG_67 (A1), KSSJEB_65 (A1), Kanely_67 (A1), Kenmech_70 (A1), KikiBouba_63 (A1), Killigrew_64 (A1), Kugel_70 (A1), KyMonks1A_70 (A1), Kykar_67 (A1), Lamina13_69 (A1), Lesedi_62 (A1), Levia_63 (A1), Licorice_66 (A1), LilBib_65 (A1), Lockley_65 (A1), Lopton_66 (A1), LunarLander_65 (A1), MPlant7149_66 (A1), Magnar_65 (A1), Magnito_67 (A1), Makemake_72 (A1), Manatee_66 (A1), Marcell_62 (A1), Marchy_59 (A1), Marco3_72 (A1), Marge_62 (A1), Maroc7_65 (A1), Marsha_66 (A1), MaryBeth_63 (A1), McGuire_66 (A1), McSinger_63 (A1), MetalQZJ_62 (A1), Michley_70 (A1), MilleFeuille_62 (A1), Minispark_70 (A9), Mkhusei_61 (A1), Molly_67 (A1), Monet_68 (A1), Moose_67 (A1), MrGordo_69 (A1), Mryolo_64 (A1), Mule_63 (A1), Museum_68 (A1), NEHalo_63 (A1), Naira_71 (A1), Nerujay_71 (A1), Nhonho_65 (A1), Niza_68 (A1), Norz_65 (A1), Noxious_62 (A1), Ohno789_67 (A1), Oogway_64 (A1), PSullivan_64 (A1), PacerPaul_66 (A1), Papez_68 (A1), Paphu_65 (A1),

Paraselene_67 (A1), Pari_70 (A1), Parliament_67 (A1), PascalRango_63 (A1), PattyP_68 (A1), Payneful_63 (A1), Pelly_68 (A1), Pepe_64 (A1), Perseus_64 (A1), Peterson_69 (A1), Petp2012_69 (A1), Petruccio_68 (A1), PherrisBueller_67 (A1), PhineBark_65 (A1), Phlippers_61 (A1), PhrostyMug_66 (A1), PinkPlastic_65 (A1), Pinto_66 (A1), Pippin_65 (A1), Pita2_67 (A1), PowerRanger_65 (A1), ProMouse_67 (A1), Puppet_63 (A1), QTRlifeCrisis_67 (A1), Rahalelujah_72 (A9), Raid_65 (A1), Rajelicia_66 (A1), Rhynn_62 (A1), RidgeCB_66 (A1), Ringer_69 (A1), Rohr_67 (A1), Rubeus_65 (A1), Rufus_68 (A1), Ruotula_72 (A1), Rutherford_67 (A1), STLscum_75 (A1), Sagefire_67 (A1), Sandaddy_63 (A1), SarFire_65 (A1), Scowl_67 (A1), ShortQueendom_57 (A1), Sibs6_68 (A1), SkiPole_74 (A1), Slagathor_68 (A1), Smairt_68 (A1), Smeagol_68 (A1), Snazzy_63 (A1), Solon_64 (A1), Sorpresa_64 (A1), SpikeBT_64 (A1), Squee_69 (A1), StewieG_60 (A1), StrongArm_64 (A1), Sumter_62 (A1), Sunshine924_71 (A1), SwissCheese_69 (A1), Switzer_67 (A1), Swole_67 (A1), Target_69 (A1), Tasp14_69 (A1), Teodoridan_65 (A1), TheloniousMonk_70 (A1), Thor_65 (A1), Topgun_63 (A1), Tote_62 (A1), Traft412_69 (A1), Treddle_66 (A1), Trip13t_70 (A1), Trouble_66 (A1), Turj99_64 (A1), TwoPeat_67 (A1), U2_62 (A1), Violet_63 (A1), Watermelon_65 (A1), Wheeler_68 (A1), Whitspit_61 (A1), Wilkins_64 (A1), WorldCup_70 (A9), Zeeculate_65 (A1), Zephyr_67 (A1), Zeuska_71 (A1),

Start 28:

- Found in 32 of 323 (9.9%) of genes in pham
- Manual Annotations of this start: 2 of 287
- Called 9.4% of time when present
- Phage (with cluster) where this start called: DreamTeam1_67 (A9), GingkoMaracino_72 (A3), Gwennie_67 (A3),

Start 29:

- Found in 2 of 323 (0.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Celestiallunch_67 (A9), MegTheThird_67 (A9),

Start 30:

- Found in 4 of 323 (1.2%) of genes in pham
- Manual Annotations of this start: 2 of 287
- Called 50.0% of time when present
- Phage (with cluster) where this start called: NothingSpecial_67 (A2), Serenity_74 (A2),

Start 31:

- Found in 1 of 323 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arissanæ_70 (A9),

Start 32:

- Found in 33 of 323 (10.2%) of genes in pham
- Manual Annotations of this start: 5 of 287
- Called 15.2% of time when present
- Phage (with cluster) where this start called: AN9_74 (A2), ANI8_74 (A2), C3_67 (A2), Timshel_68 (A7), VC3_73 (A2),

Start 33:

- Found in 1 of 323 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Keziacharles14_69 (A9),

Start 34:

- Found in 33 of 323 (10.2%) of genes in pham
- Manual Annotations of this start: 29 of 287
- Called 97.0% of time when present
- Phage (with cluster) where this start called: Anaysia_80 (A15), Anon_77 (A15), Anthony_63 (A20), Battleship_82 (A15), Boohoo_80 (A15), Darrell_74 (A9), DekHockey33_81 (A15), Epsocamisio_76 (A15), FatCactus_57 (A20), JSwag_79 (A15), KatherineG_80 (A15), LastResort_78 (A15), Looper_79 (A15), Luchador_73 (A14), MinecraftSteve_80 (A15), Nebulosus_77 (A15), Nedarya_76 (A15), Oofda_80 (A15), Ravana_83 (A15), ReMo_78 (A15), Remus_81 (A15), Rosalind_78 (A15), ShayRa_80 (A15), SororFago_72 (A14), Soups_80 (A15), Strosahl_81 (A15), Sunhee_72 (A14), Switzerland_79 (A15), Toaka_73 (A9), Vanisoa_70 (A9), Waits_80 (A15), Warrior24_81 (A15),

Start 36:

- Found in 2 of 323 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Gail_72 (A14),

Start 40:

- Found in 4 of 323 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Kalpine_70 (A2), WeiHuaDA_71 (A2),

Start 41:

- Found in 231 of 323 (71.5%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 0.4% of time when present
- Phage (with cluster) where this start called: Abrogate_660 (A1),

Summary by clusters:

There are 10 clusters represented in this pham: A15, A20, A16, A14, A12, A1, A3, A2, A7, A9,

Info for manual annotations of cluster A1:

- Start number 27 was manually annotated 216 times for cluster A1.
- Start number 41 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster A12:

- Start number 24 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A14:

- Start number 34 was manually annotated 2 times for cluster A14.

- Start number 36 was manually annotated 1 time for cluster A14.

Info for manual annotations of cluster A15:

- Start number 34 was manually annotated 23 times for cluster A15.

Info for manual annotations of cluster A16:

- Start number 23 was manually annotated 1 time for cluster A16.

Info for manual annotations of cluster A2:

- Start number 30 was manually annotated 2 times for cluster A2.
- Start number 32 was manually annotated 4 times for cluster A2.
- Start number 40 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A20:

- Start number 34 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A3:

- Start number 25 was manually annotated 25 times for cluster A3.
- Start number 28 was manually annotated 1 time for cluster A3.

Info for manual annotations of cluster A7:

- Start number 32 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster A9:

- Start number 27 was manually annotated 1 time for cluster A9.
- Start number 28 was manually annotated 1 time for cluster A9.
- Start number 31 was manually annotated 1 time for cluster A9.
- Start number 33 was manually annotated 1 time for cluster A9.
- Start number 34 was manually annotated 3 times for cluster A9.

Gene Information:

Gene: A6_58 Start: 40313, Stop: 40020, Start Num: 27

Candidate Starts for A6_58:

(Start: 27 @40313 has 217 MA's), (Start: 41 @40268 has 1 MA's), (43, 40238), (50, 40190), (56, 40148),

Gene: AFIS_62 Start: 41768, Stop: 41475, Start Num: 27

Candidate Starts for AFIS_62:

(2, 42026), (5, 41990), (19, 41795), (Start: 27 @41768 has 217 MA's), (Start: 41 @41723 has 1 MA's), (43, 41693), (47, 41681), (50, 41645), (56, 41603),

Gene: AN9_74 Start: 43176, Stop: 42916, Start Num: 32

Candidate Starts for AN9_74:

(Start: 32 @43176 has 5 MA's), (52, 43071), (56, 43038), (63, 43005), (66, 42984), (67, 42978), (72, 42930), (73, 42927),

Gene: ANI8_74 Start: 43176, Stop: 42916, Start Num: 32

Candidate Starts for ANI8_74:

(Start: 32 @43176 has 5 MA's), (52, 43071), (56, 43038), (63, 43005), (66, 42984), (67, 42978), (72, 42930), (73, 42927),

Gene: Abbysshoes_68 Start: 43272, Stop: 42979, Start Num: 27

Candidate Starts for Abbysshoes_68:

(Start: 27 @43272 has 217 MA's), (Start: 41 @43227 has 1 MA's), (43, 43197), (50, 43149), (56, 43107),

Gene: Abrogate_660 Start: 44316, Stop: 44068, Start Num: 41

Candidate Starts for Abrogate_660:

(Start: 27 @44361 has 217 MA's), (Start: 41 @44316 has 1 MA's), (50, 44238), (56, 44196),

Gene: Acme_67 Start: 42824, Stop: 42531, Start Num: 27

Candidate Starts for Acme_67:

(19, 42851), (Start: 27 @42824 has 217 MA's), (Start: 41 @42779 has 1 MA's), (43, 42749), (50, 42701), (56, 42659),

Gene: Adahisdi_65 Start: 43768, Stop: 43475, Start Num: 27

Candidate Starts for Adahisdi_65:

(Start: 27 @43768 has 217 MA's), (Start: 41 @43723 has 1 MA's), (43, 43693), (50, 43645), (56, 43603),

Gene: Aeneas_69 Start: 44571, Stop: 44278, Start Num: 27

Candidate Starts for Aeneas_69:

(Start: 27 @44571 has 217 MA's), (Start: 41 @44526 has 1 MA's), (43, 44496), (50, 44448), (56, 44406),

Gene: Agaliana_61 Start: 39647, Stop: 39354, Start Num: 27

Candidate Starts for Agaliana_61:

(Start: 27 @39647 has 217 MA's), (Start: 41 @39602 has 1 MA's), (43, 39572), (50, 39524), (56, 39482),

Gene: Ajay_65 Start: 42714, Stop: 42421, Start Num: 27

Candidate Starts for Ajay_65:

(Start: 27 @42714 has 217 MA's), (Start: 41 @42669 has 1 MA's), (43, 42639), (50, 42591), (56, 42549),

Gene: Aldrich_61 Start: 42001, Stop: 41708, Start Num: 27

Candidate Starts for Aldrich_61:

(19, 42028), (Start: 27 @42001 has 217 MA's), (43, 41926), (50, 41878), (56, 41836),

Gene: Alsfro_72 Start: 43165, Stop: 42872, Start Num: 27

Candidate Starts for Alsfro_72:

(Start: 27 @43165 has 217 MA's), (Start: 41 @43120 has 1 MA's), (43, 43090), (50, 43042), (56, 43000),

Gene: Altman_68 Start: 42803, Stop: 42510, Start Num: 27

Candidate Starts for Altman_68:

(19, 42830), (Start: 27 @42803 has 217 MA's), (Start: 41 @42758 has 1 MA's), (43, 42728), (47, 42716), (50, 42680), (56, 42638),

Gene: Alvin_65 Start: 42599, Stop: 42303, Start Num: 27

Candidate Starts for Alvin_65:

(Start: 27 @42599 has 217 MA's), (50, 42473), (56, 42431),

Gene: Anaysia_80 Start: 43699, Stop: 43421, Start Num: 34

Candidate Starts for Anaysia_80:

(16, 43759), (Start: 34 @43699 has 29 MA's), (48, 43621), (52, 43582), (56, 43549), (61, 43519), (63, 43516), (66, 43495), (69, 43462),

Gene: Anglerfish_66 Start: 42975, Stop: 42682, Start Num: 27

Candidate Starts for Anglerfish_66:

(19, 43002), (Start: 27 @42975 has 217 MA's), (Start: 41 @42930 has 1 MA's), (43, 42900), (50, 42852), (56, 42810),

Gene: Anon_77 Start: 43390, Stop: 43115, Start Num: 34

Candidate Starts for Anon_77:

(Start: 34 @43390 has 29 MA's), (45, 43324), (52, 43273), (53, 43258), (57, 43231), (61, 43210), (63, 43207), (70, 43147),

Gene: Anthony_63 Start: 40063, Stop: 39797, Start Num: 34

Candidate Starts for Anthony_63:

(Start: 34 @40063 has 29 MA's), (56, 39925), (57, 39916), (58, 39910), (68, 39859),

Gene: Anubis_75 Start: 42328, Stop: 42020, Start Num: 25

Candidate Starts for Anubis_75:

(Start: 25 @42328 has 25 MA's), (Start: 28 @42310 has 2 MA's), (Start: 32 @42295 has 5 MA's), (38, 42274), (42, 42241), (50, 42190), (52, 42181), (54, 42154), (56, 42148), (63, 42115),

Gene: Applejack_66 Start: 41373, Stop: 41080, Start Num: 27

Candidate Starts for Applejack_66:

(19, 41400), (Start: 27 @41373 has 217 MA's), (Start: 41 @41328 has 1 MA's), (43, 41298), (47, 41286), (50, 41250), (56, 41208),

Gene: Arcanine_68 Start: 43699, Stop: 43406, Start Num: 27

Candidate Starts for Arcanine_68:

(19, 43726), (Start: 27 @43699 has 217 MA's), (Start: 41 @43654 has 1 MA's), (43, 43624), (50, 43576), (56, 43534),

Gene: Arissanae_70 Start: 42870, Stop: 42583, Start Num: 31

Candidate Starts for Arissanae_70:

(Start: 31 @42870 has 1 MA's), (35, 42861), (56, 42723), (64, 42684), (66, 42669),

Gene: Arlo_64 Start: 42290, Stop: 41997, Start Num: 27

Candidate Starts for Arlo_64:

(19, 42317), (Start: 27 @42290 has 217 MA's), (Start: 41 @42245 has 1 MA's), (43, 42215), (50, 42167), (56, 42125),

Gene: Ashballer_69 Start: 43449, Stop: 43156, Start Num: 27

Candidate Starts for Ashballer_69:

(19, 43476), (Start: 27 @43449 has 217 MA's), (Start: 41 @43404 has 1 MA's), (43, 43374), (47, 43362), (50, 43326), (56, 43284),

Gene: Atkinbua_69 Start: 42674, Stop: 42381, Start Num: 27

Candidate Starts for Atkinbua_69:

(19, 42701), (Start: 27 @42674 has 217 MA's), (Start: 41 @42629 has 1 MA's), (43, 42599), (50, 42551), (56, 42509), (71, 42404),

Gene: BK1_58 Start: 40313, Stop: 40020, Start Num: 27

Candidate Starts for BK1_58:

(Start: 27 @40313 has 217 MA's), (Start: 41 @40268 has 1 MA's), (43, 40238), (50, 40190), (56, 40148),

Gene: BPBiEbs31_69 Start: 43396, Stop: 43103, Start Num: 27

Candidate Starts for BPBiEbs31_69:

(19, 43423), (Start: 27 @43396 has 217 MA's), (Start: 41 @43351 has 1 MA's), (43, 43321), (47, 43309), (50, 43273), (56, 43231),

Gene: BaconJack_71 Start: 45661, Stop: 45368, Start Num: 27

Candidate Starts for BaconJack_71:

(19, 45688), (Start: 27 @45661 has 217 MA's), (Start: 41 @45616 has 1 MA's), (43, 45586), (50, 45538), (56, 45496),

Gene: Barriga_68 Start: 41452, Stop: 41159, Start Num: 27

Candidate Starts for Barriga_68:

(19, 41479), (Start: 27 @41452 has 217 MA's), (Start: 41 @41407 has 1 MA's), (43, 41377), (47, 41365), (50, 41329), (56, 41287),

Gene: BarrowTuph_67 Start: 42484, Stop: 42191, Start Num: 27

Candidate Starts for BarrowTuph_67:

(Start: 27 @42484 has 217 MA's), (Start: 41 @42439 has 1 MA's), (43, 42409), (50, 42361), (56, 42319),

Gene: Battleship_82 Start: 43572, Stop: 43294, Start Num: 34

Candidate Starts for Battleship_82:

(16, 43632), (Start: 34 @43572 has 29 MA's), (48, 43494), (52, 43455), (56, 43422), (61, 43392), (63, 43389), (66, 43368), (69, 43335),

Gene: Beatrix_65 Start: 43536, Stop: 43243, Start Num: 27

Candidate Starts for Beatrix_65:

(19, 43563), (Start: 27 @43536 has 217 MA's), (Start: 41 @43491 has 1 MA's), (43, 43461), (50, 43413), (56, 43371),

Gene: Beauxregard13_71 Start: 42445, Stop: 42137, Start Num: 25

Candidate Starts for Beauxregard13_71:

(Start: 25 @42445 has 25 MA's), (Start: 28 @42427 has 2 MA's), (Start: 32 @42412 has 5 MA's), (38, 42391), (42, 42358), (50, 42307), (52, 42298), (54, 42271), (56, 42265), (63, 42232),

Gene: BeesKnees_68 Start: 42003, Stop: 41710, Start Num: 27

Candidate Starts for BeesKnees_68:

(19, 42030), (Start: 27 @42003 has 217 MA's), (Start: 41 @41958 has 1 MA's), (43, 41928), (50, 41880), (56, 41838),

Gene: Bellris_70 Start: 42330, Stop: 42028, Start Num: 27

Candidate Starts for Bellris_70:

(7, 42540), (Start: 27 @42330 has 217 MA's), (56, 42168), (66, 42114),

Gene: Bethlehem_67 Start: 44314, Stop: 44021, Start Num: 27

Candidate Starts for Bethlehem_67:

(19, 44341), (Start: 27 @44314 has 217 MA's), (Start: 41 @44269 has 1 MA's), (43, 44239), (50, 44191), (56, 44149),

Gene: Bexan_63 Start: 43315, Stop: 43022, Start Num: 27

Candidate Starts for Bexan_63:

(19, 43342), (Start: 27 @43315 has 217 MA's), (Start: 41 @43270 has 1 MA's), (43, 43240), (50, 43192), (56, 43150),

Gene: Big3_66 Start: 43783, Stop: 43490, Start Num: 27

Candidate Starts for Big3_66:

(Start: 27 @43783 has 217 MA's), (Start: 41 @43738 has 1 MA's), (43, 43708), (50, 43660), (56, 43618),

Gene: BigMau_68 Start: 43204, Stop: 42911, Start Num: 27

Candidate Starts for BigMau_68:

(4, 43432), (19, 43231), (Start: 27 @43204 has 217 MA's), (Start: 41 @43159 has 1 MA's), (43, 43129), (50, 43081), (56, 43039),

Gene: BigPaolini_62 Start: 40440, Stop: 40147, Start Num: 27

Candidate Starts for BigPaolini_62:

(Start: 27 @40440 has 217 MA's), (Start: 41 @40395 has 1 MA's), (43, 40365), (50, 40317), (56, 40275),

Gene: Bigchungj_64 Start: 42232, Stop: 41939, Start Num: 27

Candidate Starts for Bigchungj_64:

(19, 42259), (Start: 27 @42232 has 217 MA's), (Start: 41 @42187 has 1 MA's), (43, 42157), (50, 42109), (56, 42067),

Gene: Bigfoot_59 Start: 41835, Stop: 41542, Start Num: 27

Candidate Starts for Bigfoot_59:

(19, 41862), (Start: 27 @41835 has 217 MA's), (Start: 41 @41790 has 1 MA's), (43, 41760), (47, 41748), (50, 41712), (56, 41670),

Gene: BillKnuckles_63 Start: 43835, Stop: 43542, Start Num: 27

Candidate Starts for BillKnuckles_63:

(Start: 27 @43835 has 217 MA's), (Start: 41 @43790 has 1 MA's), (43, 43760), (50, 43712), (56, 43670),

Gene: Bircsak_66 Start: 44564, Stop: 44271, Start Num: 27

Candidate Starts for Bircsak_66:

(Start: 27 @44564 has 217 MA's), (Start: 41 @44519 has 1 MA's), (43, 44489), (50, 44441), (56, 44399),

Gene: Blackflame_61 Start: 41979, Stop: 41686, Start Num: 27

Candidate Starts for Blackflame_61:

(Start: 27 @41979 has 217 MA's), (Start: 41 @41934 has 1 MA's), (43, 41904), (50, 41856), (56, 41814),

Gene: Blesser_62 Start: 41585, Stop: 41292, Start Num: 27

Candidate Starts for Blesser_62:

(Start: 27 @41585 has 217 MA's), (Start: 41 @41540 has 1 MA's), (43, 41510), (50, 41462), (56, 41420),

Gene: BluSpix_64 Start: 38419, Stop: 38126, Start Num: 27

Candidate Starts for BluSpix_64:

(19, 38446), (Start: 27 @38419 has 217 MA's), (Start: 41 @38374 has 1 MA's), (43, 38344), (50, 38296), (56, 38254),

Gene: Blue_66 Start: 43535, Stop: 43242, Start Num: 27

Candidate Starts for Blue_66:

(19, 43562), (Start: 27 @43535 has 217 MA's), (Start: 41 @43490 has 1 MA's), (43, 43460), (50, 43412), (56, 43370),

Gene: Bob3_67 Start: 42474, Stop: 42181, Start Num: 27

Candidate Starts for Bob3_67:

(19, 42501), (Start: 27 @42474 has 217 MA's), (Start: 41 @42429 has 1 MA's), (43, 42399), (50, 42351), (56, 42309),

Gene: Bones_64 Start: 43490, Stop: 43197, Start Num: 27

Candidate Starts for Bones_64:

(17, 43526), (Start: 27 @43490 has 217 MA's), (Start: 41 @43445 has 1 MA's), (43, 43415), (50, 43367), (56, 43325),

Gene: Boohoo_80 Start: 43699, Stop: 43421, Start Num: 34

Candidate Starts for Boohoo_80:

(16, 43759), (Start: 34 @43699 has 29 MA's), (48, 43621), (52, 43582), (56, 43549), (61, 43519), (63, 43516), (66, 43495), (69, 43462),

Gene: Briton15_70 Start: 44278, Stop: 43985, Start Num: 27

Candidate Starts for Briton15_70:

(19, 44305), (Start: 27 @44278 has 217 MA's), (Start: 41 @44233 has 1 MA's), (43, 44203), (50, 44155), (56, 44113),

Gene: Bruns_68 Start: 42415, Stop: 42122, Start Num: 27

Candidate Starts for Bruns_68:

(19, 42442), (Start: 27 @42415 has 217 MA's), (Start: 41 @42370 has 1 MA's), (43, 42340), (47, 42328), (50, 42292), (56, 42250),

Gene: Burton_67 Start: 44237, Stop: 43944, Start Num: 27

Candidate Starts for Burton_67:

(19, 44264), (Start: 27 @44237 has 217 MA's), (Start: 41 @44192 has 1 MA's), (43, 44162), (50, 44114), (56, 44072),

Gene: Buttons_62 Start: 39954, Stop: 39661, Start Num: 27

Candidate Starts for Buttons_62:

(19, 39981), (Start: 27 @39954 has 217 MA's), (Start: 41 @39909 has 1 MA's), (43, 39879), (50, 39831), (56, 39789),

Gene: BuzzBuzz_66 Start: 42469, Stop: 42161, Start Num: 25

Candidate Starts for BuzzBuzz_66:

(6, 42676), (Start: 25 @42469 has 25 MA's), (26, 42457), (Start: 28 @42451 has 2 MA's), (Start: 32 @42436 has 5 MA's), (38, 42415), (42, 42382), (50, 42331), (52, 42322), (54, 42295), (56, 42289), (63, 42256),

Gene: Bxb1_59 Start: 41067, Stop: 40774, Start Num: 27

Candidate Starts for Bxb1_59:

(19, 41094), (Start: 27 @41067 has 217 MA's), (Start: 41 @41022 has 1 MA's), (43, 40992), (47, 40980), (50, 40944), (56, 40902),

Gene: C3_67 Start: 43176, Stop: 42916, Start Num: 32

Candidate Starts for C3_67:

(Start: 32 @43176 has 5 MA's), (52, 43071), (56, 43038), (63, 43005), (66, 42984), (72, 42930), (73, 42927),

Gene: CactusRose_67 Start: 42855, Stop: 42562, Start Num: 27

Candidate Starts for CactusRose_67:

(19, 42882), (Start: 27 @42855 has 217 MA's), (Start: 41 @42810 has 1 MA's), (43, 42780), (50, 42732), (56, 42690),

Gene: Carlyle_67 Start: 41641, Stop: 41348, Start Num: 27

Candidate Starts for Carlyle_67:

(Start: 27 @41641 has 217 MA's), (Start: 41 @41596 has 1 MA's), (43, 41566), (50, 41518), (56, 41476),

Gene: CartmannCramer_65 Start: 44511, Stop: 44218, Start Num: 27

Candidate Starts for CartmannCramer_65:

(19, 44538), (Start: 27 @44511 has 217 MA's), (Start: 41 @44466 has 1 MA's), (43, 44436), (50, 44388), (56, 44346),

Gene: CatBus_61 Start: 42193, Stop: 41900, Start Num: 27

Candidate Starts for CatBus_61:

(19, 42220), (Start: 27 @42193 has 217 MA's), (43, 42118), (50, 42070), (56, 42028),

Gene: Celestiallunch_67 Start: 41585, Stop: 41286, Start Num: 29

Candidate Starts for Celestiallunch_67:

(1, 42011), (29, 41585), (51, 41468), (56, 41429), (66, 41375),

Gene: Chanagan_59 Start: 40048, Stop: 39755, Start Num: 27

Candidate Starts for Chanagan_59:

(19, 40075), (Start: 27 @40048 has 217 MA's), (Start: 41 @40003 has 1 MA's), (43, 39973), (50, 39925), (56, 39883),

Gene: ChristmasHams_60 Start: 40214, Stop: 39921, Start Num: 27

Candidate Starts for ChristmasHams_60:

(Start: 27 @40214 has 217 MA's), (Start: 41 @40169 has 1 MA's), (43, 40139), (50, 40091), (56, 40049),

Gene: Ciao_63 Start: 41412, Stop: 41119, Start Num: 27

Candidate Starts for Ciao_63:

(19, 41439), (Start: 27 @41412 has 217 MA's), (Start: 41 @41367 has 1 MA's), (43, 41337), (50, 41289), (56, 41247),

Gene: CogOmlette_70 Start: 42327, Stop: 42025, Start Num: 27

Candidate Starts for CogOmlette_70:

(7, 42537), (Start: 27 @42327 has 217 MA's), (56, 42165), (66, 42111),

Gene: Colbster_68 Start: 42445, Stop: 42137, Start Num: 25

Candidate Starts for Colbster_68:

(Start: 25 @42445 has 25 MA's), (Start: 28 @42427 has 2 MA's), (Start: 32 @42412 has 5 MA's), (38, 42391), (42, 42358), (50, 42307), (52, 42298), (54, 42271), (56, 42265), (63, 42232),

Gene: ConceptII_70 Start: 44031, Stop: 43738, Start Num: 27

Candidate Starts for ConceptII_70:

(19, 44058), (Start: 27 @44031 has 217 MA's), (Start: 41 @43986 has 1 MA's), (43, 43956), (50, 43908), (56, 43866),

Gene: Corvo_66 Start: 43343, Stop: 43050, Start Num: 27

Candidate Starts for Corvo_66:

(19, 43370), (Start: 27 @43343 has 217 MA's), (Start: 41 @43298 has 1 MA's), (43, 43268), (50, 43220), (56, 43178),

Gene: Crispicous1_63 Start: 41754, Stop: 41461, Start Num: 27

Candidate Starts for Crispicous1_63:

(19, 41781), (Start: 27 @41754 has 217 MA's), (Start: 41 @41709 has 1 MA's), (43, 41679), (50, 41631), (56, 41589),

Gene: Cueyllyss_65 Start: 43690, Stop: 43397, Start Num: 27

Candidate Starts for Cueyllyss_65:

(Start: 27 @43690 has 217 MA's), (Start: 41 @43645 has 1 MA's), (43, 43615), (47, 43603), (50, 43567), (56, 43525),

Gene: Cullens_72 Start: 42441, Stop: 42133, Start Num: 25

Candidate Starts for Cullens_72:

(Start: 25 @42441 has 25 MA's), (Start: 28 @42423 has 2 MA's), (Start: 32 @42408 has 5 MA's), (38, 42387), (42, 42354), (50, 42303), (52, 42294), (54, 42267), (56, 42261), (63, 42228),

Gene: DD5_66 Start: 43578, Stop: 43285, Start Num: 27

Candidate Starts for DD5_66:

(19, 43605), (Start: 27 @43578 has 217 MA's), (Start: 41 @43533 has 1 MA's), (43, 43503), (50, 43455), (56, 43413),

Gene: Darrell_74 Start: 43196, Stop: 42921, Start Num: 34

Candidate Starts for Darrell_74:

(9, 43346), (12, 43328), (Start: 34 @43196 has 29 MA's), (51, 43094), (56, 43055), (66, 43001),

Gene: DekHockey33_81 Start: 43657, Stop: 43379, Start Num: 34

Candidate Starts for DekHockey33_81:

(16, 43717), (Start: 34 @43657 has 29 MA's), (48, 43579), (52, 43540), (56, 43507), (61, 43477), (63, 43474), (66, 43453), (69, 43420),

Gene: Dexes_66 Start: 43299, Stop: 43006, Start Num: 27

Candidate Starts for Dexes_66:

(Start: 27 @43299 has 217 MA's), (Start: 41 @43254 has 1 MA's), (50, 43176), (56, 43134),

Gene: DirtDevil_63 Start: 42001, Stop: 41708, Start Num: 27

Candidate Starts for DirtDevil_63:

(19, 42028), (Start: 27 @42001 has 217 MA's), (43, 41926), (50, 41878), (56, 41836),

Gene: Doom_63 Start: 42899, Stop: 42606, Start Num: 27

Candidate Starts for Doom_63:

(Start: 27 @42899 has 217 MA's), (Start: 41 @42854 has 1 MA's), (43, 42824), (50, 42776), (56, 42734),

Gene: DrFeelGood_64 Start: 41833, Stop: 41540, Start Num: 27

Candidate Starts for DrFeelGood_64:

(19, 41860), (Start: 27 @41833 has 217 MA's), (Start: 41 @41788 has 1 MA's), (43, 41758), (50, 41710), (56, 41668),

Gene: DreamCatcher_68 Start: 42983, Stop: 42690, Start Num: 27

Candidate Starts for DreamCatcher_68:

(19, 43010), (Start: 27 @42983 has 217 MA's), (Start: 41 @42938 has 1 MA's), (43, 42908), (50, 42860), (56, 42818),

Gene: DreamTeam1_67 Start: 41535, Stop: 41248, Start Num: 28

Candidate Starts for DreamTeam1_67:

(Start: 28 @41535 has 2 MA's), (50, 41421), (51, 41418), (58, 41364), (59, 41355), (66, 41325),

Gene: Dreamboat_68 Start: 42073, Stop: 41780, Start Num: 27

Candidate Starts for Dreamboat_68:

(19, 42100), (Start: 27 @42073 has 217 MA's), (Start: 41 @42028 has 1 MA's), (43, 41998), (50, 41950), (56, 41908),

Gene: Dulcie_66 Start: 44308, Stop: 44015, Start Num: 27

Candidate Starts for Dulcie_66:

(Start: 27 @44308 has 217 MA's), (Start: 41 @44263 has 1 MA's), (43, 44233), (50, 44185), (56, 44143),

Gene: Dussy_67 Start: 43292, Stop: 42999, Start Num: 27

Candidate Starts for Dussy_67:

(Start: 27 @43292 has 217 MA's), (Start: 41 @43247 has 1 MA's), (43, 43217), (50, 43169), (56, 43127),

Gene: Dynamix_67 Start: 41907, Stop: 41614, Start Num: 27

Candidate Starts for Dynamix_67:

(19, 41934), (Start: 27 @41907 has 217 MA's), (Start: 41 @41862 has 1 MA's), (43, 41832), (50, 41784), (56, 41742),

Gene: Edtherson_64 Start: 42893, Stop: 42600, Start Num: 27

Candidate Starts for Edtherson_64:

(19, 42920), (Start: 27 @42893 has 217 MA's), (Start: 41 @42848 has 1 MA's), (43, 42818), (50, 42770), (56, 42728),

Gene: EnzoK_66 Start: 40168, Stop: 39875, Start Num: 27

Candidate Starts for EnzoK_66:

(Start: 27 @40168 has 217 MA's), (Start: 41 @40123 has 1 MA's), (43, 40093), (50, 40045), (56, 40003),

Gene: EpicPhail_73 Start: 42445, Stop: 42137, Start Num: 25

Candidate Starts for EpicPhail_73:

(Start: 25 @42445 has 25 MA's), (Start: 28 @42427 has 2 MA's), (Start: 32 @42412 has 5 MA's), (38, 42391), (42, 42358), (50, 42307), (52, 42298), (54, 42271), (56, 42265), (63, 42232),

Gene: Epsocamisio_76 Start: 42795, Stop: 42517, Start Num: 34

Candidate Starts for Epsocamisio_76:

(Start: 34 @42795 has 29 MA's), (48, 42717), (52, 42678), (56, 42645), (61, 42615), (63, 42612), (66, 42591), (69, 42558),

Gene: Espresso_63 Start: 42517, Stop: 42224, Start Num: 27

Candidate Starts for Espresso_63:

(Start: 27 @42517 has 217 MA's), (Start: 41 @42472 has 1 MA's), (43, 42442), (47, 42430), (50, 42394), (56, 42352),

Gene: Euphoria_65 Start: 42359, Stop: 42066, Start Num: 27

Candidate Starts for Euphoria_65:

(19, 42386), (Start: 27 @42359 has 217 MA's), (Start: 41 @42314 has 1 MA's), (43, 42284), (50, 42236), (56, 42194),

Gene: Eyeball_67 Start: 43398, Stop: 43105, Start Num: 27

Candidate Starts for Eyeball_67:

(17, 43434), (Start: 27 @43398 has 217 MA's), (Start: 41 @43353 has 1 MA's), (43, 43323), (50, 43275), (56, 43233),

Gene: Fajezeel_66 Start: 42114, Stop: 41821, Start Num: 27

Candidate Starts for Fajezeel_66:

(19, 42141), (Start: 27 @42114 has 217 MA's), (Start: 41 @42069 has 1 MA's), (43, 42039), (50, 41991), (56, 41949),

Gene: Fascinus_61 Start: 42349, Stop: 42056, Start Num: 27

Candidate Starts for Fascinus_61:

(19, 42376), (Start: 27 @42349 has 217 MA's), (Start: 41 @42304 has 1 MA's), (43, 42274), (47, 42262), (50, 42226), (56, 42184),

Gene: FatCactus_57 Start: 38993, Stop: 38727, Start Num: 34

Candidate Starts for FatCactus_57:

(Start: 34 @38993 has 29 MA's), (44, 38930), (56, 38855), (57, 38846), (58, 38840), (65, 38813), (68, 38789),

Gene: Fenn_72 Start: 44750, Stop: 44457, Start Num: 27

Candidate Starts for Fenn_72:

(19, 44795), (Start: 23 @44777 has 1 MA's), (Start: 27 @44750 has 217 MA's), (Start: 41 @44705 has 1 MA's), (43, 44675), (50, 44627), (56, 44585),

Gene: Fernando_72 Start: 42441, Stop: 42133, Start Num: 25

Candidate Starts for Fernando_72:

(Start: 25 @42441 has 25 MA's), (Start: 28 @42423 has 2 MA's), (Start: 32 @42408 has 5 MA's), (38, 42387), (42, 42354), (50, 42303), (52, 42294), (54, 42267), (56, 42261), (63, 42228),

Gene: Forsytheast_67 Start: 42412, Stop: 42119, Start Num: 27

Candidate Starts for Forsytheast_67:

(19, 42439), (Start: 27 @42412 has 217 MA's), (Start: 41 @42367 has 1 MA's), (43, 42337), (50, 42289), (56, 42247),

Gene: Francis47_65 Start: 43491, Stop: 43198, Start Num: 27

Candidate Starts for Francis47_65:

(Start: 27 @43491 has 217 MA's), (Start: 41 @43446 has 1 MA's), (43, 43416), (50, 43368), (56, 43326),

Gene: Froghopper_63 Start: 41471, Stop: 41178, Start Num: 27

Candidate Starts for Froghopper_63:

(19, 41498), (Start: 27 @41471 has 217 MA's), (Start: 41 @41426 has 1 MA's), (43, 41396), (50, 41348), (56, 41306),

Gene: Fushigi_61 Start: 40434, Stop: 40141, Start Num: 27

Candidate Starts for Fushigi_61:

(19, 40461), (Start: 27 @40434 has 217 MA's), (Start: 41 @40389 has 1 MA's), (43, 40359), (50, 40311), (56, 40269),

Gene: GMonster_64 Start: 42254, Stop: 41961, Start Num: 27

Candidate Starts for GMonster_64:

(19, 42281), (Start: 27 @42254 has 217 MA's), (Start: 41 @42209 has 1 MA's), (43, 42179), (50, 42131),

Gene: Gachnar_66 Start: 42948, Stop: 42655, Start Num: 27

Candidate Starts for Gachnar_66:

(Start: 27 @42948 has 217 MA's), (Start: 41 @42903 has 1 MA's), (43, 42873), (50, 42825), (56, 42783),

Gene: GageAP_67 Start: 43435, Stop: 43142, Start Num: 27

Candidate Starts for GageAP_67:

(2, 43693), (5, 43657), (19, 43462), (Start: 27 @43435 has 217 MA's), (Start: 41 @43390 has 1 MA's), (43, 43360), (47, 43348), (50, 43312), (56, 43270),

Gene: Gail_72 Start: 43458, Stop: 43192, Start Num: 36

Candidate Starts for Gail_72:

(Start: 28 @43482 has 2 MA's), (Start: 34 @43461 has 29 MA's), (Start: 36 @43458 has 1 MA's), (51, 43362), (55, 43326), (56, 43323), (65, 43281), (66, 43269), (71, 43218),

Gene: Gandalf20_68 Start: 43802, Stop: 43509, Start Num: 27

Candidate Starts for Gandalf20_68:

(Start: 27 @43802 has 217 MA's), (Start: 41 @43757 has 1 MA's), (43, 43727), (47, 43715), (50, 43679), (56, 43637),

Gene: GingkoMaracino_72 Start: 42309, Stop: 42019, Start Num: 28

Candidate Starts for GingkoMaracino_72:

(Start: 25 @42327 has 25 MA's), (Start: 28 @42309 has 2 MA's), (Start: 32 @42294 has 5 MA's), (38, 42273), (42, 42240), (50, 42189), (52, 42180), (54, 42153), (56, 42147), (63, 42114),

Gene: Gompeii16_66 Start: 44565, Stop: 44272, Start Num: 27

Candidate Starts for Gompeii16_66:

(Start: 27 @44565 has 217 MA's), (Start: 41 @44520 has 1 MA's), (43, 44490), (50, 44442), (56, 44400),

Gene: Graduation_71 Start: 44181, Stop: 43888, Start Num: 27

Candidate Starts for Graduation_71:

(19, 44208), (Start: 27 @44181 has 217 MA's), (Start: 41 @44136 has 1 MA's), (43, 44106), (47, 44094), (50, 44058), (56, 44016),

Gene: GrecoEtereo_65 Start: 41688, Stop: 41395, Start Num: 27

Candidate Starts for GrecoEtereo_65:

(19, 41715), (Start: 27 @41688 has 217 MA's), (Start: 41 @41643 has 1 MA's), (43, 41613), (50, 41565), (56, 41523),

Gene: Greg_66 Start: 42114, Stop: 41821, Start Num: 27

Candidate Starts for Greg_66:

(19, 42141), (Start: 27 @42114 has 217 MA's), (Start: 41 @42069 has 1 MA's), (43, 42039), (50, 41991), (56, 41949),

Gene: GroundGoblin_62 Start: 42143, Stop: 41850, Start Num: 27

Candidate Starts for GroundGoblin_62:

(19, 42170), (Start: 27 @42143 has 217 MA's), (43, 42068), (50, 42020), (56, 41978),

Gene: Grum1_71 Start: 42441, Stop: 42133, Start Num: 25

Candidate Starts for Grum1_71:

(Start: 25 @42441 has 25 MA's), (Start: 28 @42423 has 2 MA's), (Start: 32 @42408 has 5 MA's), (38, 42387), (42, 42354), (50, 42303), (52, 42294), (54, 42267), (56, 42261), (63, 42228),

Gene: Gwendoluna_70 Start: 44629, Stop: 44336, Start Num: 27

Candidate Starts for Gwendoluna_70:

(19, 44656), (Start: 27 @44629 has 217 MA's), (Start: 41 @44584 has 1 MA's), (43, 44554), (50, 44506), (56, 44464),

Gene: Gwennie_67 Start: 42427, Stop: 42137, Start Num: 28

Candidate Starts for Gwennie_67:

(Start: 25 @42445 has 25 MA's), (Start: 28 @42427 has 2 MA's), (Start: 32 @42412 has 5 MA's), (38, 42391), (42, 42358), (50, 42307), (52, 42298), (54, 42271), (56, 42265), (63, 42232),

Gene: Gyzlar_61 Start: 40384, Stop: 40091, Start Num: 27

Candidate Starts for Gyzlar_61:

(19, 40411), (Start: 27 @40384 has 217 MA's), (Start: 41 @40339 has 1 MA's), (50, 40261), (56, 40219),

Gene: Hami1_61 Start: 38461, Stop: 38168, Start Num: 27

Candidate Starts for Hami1_61:

(Start: 27 @38461 has 217 MA's), (Start: 41 @38416 has 1 MA's), (43, 38386), (50, 38338), (56, 38296),

Gene: HanShotFirst_67 Start: 44227, Stop: 43934, Start Num: 27

Candidate Starts for HanShotFirst_67:

(19, 44254), (Start: 27 @44227 has 217 MA's), (Start: 41 @44182 has 1 MA's), (43, 44152), (50, 44104), (56, 44062),

Gene: HarryOW_63 Start: 42195, Stop: 41902, Start Num: 27

Candidate Starts for HarryOW_63:

(19, 42222), (Start: 27 @42195 has 217 MA's), (43, 42120), (50, 42072), (56, 42030),

Gene: Hercules11_72 Start: 42450, Stop: 42142, Start Num: 25

Candidate Starts for Hercules11_72:

(Start: 25 @42450 has 25 MA's), (Start: 28 @42432 has 2 MA's), (Start: 32 @42417 has 5 MA's), (38, 42396), (42, 42363), (50, 42312), (52, 42303), (54, 42276), (56, 42270), (63, 42237),

Gene: Hermia_63 Start: 42193, Stop: 41900, Start Num: 27

Candidate Starts for Hermia_63:

(19, 42220), (Start: 27 @42193 has 217 MA's), (43, 42118), (50, 42070), (56, 42028),

Gene: HermioneGrange_68 Start: 43698, Stop: 43405, Start Num: 27

Candidate Starts for HermioneGrange_68:

(4, 43926), (19, 43725), (Start: 27 @43698 has 217 MA's), (Start: 41 @43653 has 1 MA's), (43, 43623), (50, 43575), (56, 43533),

Gene: Homines_57 Start: 38523, Stop: 38230, Start Num: 27

Candidate Starts for Homines_57:

(19, 38550), (Start: 27 @38523 has 217 MA's), (Start: 41 @38478 has 1 MA's), (43, 38448), (50, 38400), (56, 38358),

Gene: Hope4ever_67 Start: 42682, Stop: 42389, Start Num: 27

Candidate Starts for Hope4ever_67:

(19, 42709), (Start: 27 @42682 has 217 MA's), (Start: 41 @42637 has 1 MA's), (43, 42607), (50, 42559), (56, 42517),

Gene: ILeeKay_68 Start: 42579, Stop: 42286, Start Num: 27

Candidate Starts for ILeeKay_68:

(Start: 27 @42579 has 217 MA's), (Start: 41 @42534 has 1 MA's), (43, 42504), (50, 42456), (56, 42414),

Gene: Ichabod_70 Start: 43792, Stop: 43499, Start Num: 27

Candidate Starts for Ichabod_70:

(19, 43819), (Start: 27 @43792 has 217 MA's), (Start: 41 @43747 has 1 MA's), (43, 43717), (50, 43669), (56, 43627),

Gene: IgnatiusPatJac_66 Start: 42364, Stop: 42071, Start Num: 27

Candidate Starts for IgnatiusPatJac_66:

(19, 42391), (Start: 27 @42364 has 217 MA's), (Start: 41 @42319 has 1 MA's), (43, 42289), (50, 42241), (56, 42199),

Gene: Inyanga_61 Start: 42487, Stop: 42194, Start Num: 27

Candidate Starts for Inyanga_61:

(19, 42514), (Start: 27 @42487 has 217 MA's), (Start: 41 @42442 has 1 MA's), (43, 42412), (50, 42364), (56, 42322),

Gene: Iqorha_61 Start: 42486, Stop: 42193, Start Num: 27

Candidate Starts for Iqorha_61:

(19, 42513), (Start: 27 @42486 has 217 MA's), (Start: 41 @42441 has 1 MA's), (43, 42411), (50, 42363), (56, 42321),

Gene: JC27_70 Start: 43426, Stop: 43133, Start Num: 27

Candidate Starts for JC27_70:

(19, 43453), (Start: 27 @43426 has 217 MA's), (Start: 41 @43381 has 1 MA's), (43, 43351), (50, 43303), (56, 43261),

Gene: JSwag_79 Start: 43080, Stop: 42802, Start Num: 34

Candidate Starts for JSwag_79:

(Start: 34 @43080 has 29 MA's), (48, 43002), (52, 42963), (56, 42930), (61, 42900), (63, 42897), (66, 42876), (69, 42843),

Gene: JackSparrow_69 Start: 42909, Stop: 42616, Start Num: 27

Candidate Starts for JackSparrow_69:

(19, 42936), (Start: 27 @42909 has 217 MA's), (Start: 41 @42864 has 1 MA's), (43, 42834), (50, 42786), (56, 42744),

Gene: Jasper_67 Start: 41959, Stop: 41666, Start Num: 27

Candidate Starts for Jasper_67:

(19, 41986), (Start: 27 @41959 has 217 MA's), (Start: 41 @41914 has 1 MA's), (43, 41884), (50, 41836), (56, 41794),

Gene: JenCasNa_73 Start: 42441, Stop: 42133, Start Num: 25

Candidate Starts for JenCasNa_73:

(Start: 25 @42441 has 25 MA's), (Start: 28 @42423 has 2 MA's), (Start: 32 @42408 has 5 MA's), (38, 42387), (42, 42354), (50, 42303), (52, 42294), (54, 42267), (56, 42261), (63, 42228),

Gene: Jerm2_67 Start: 43768, Stop: 43475, Start Num: 27

Candidate Starts for Jerm2_67:

(19, 43795), (Start: 27 @43768 has 217 MA's), (Start: 41 @43723 has 1 MA's), (43, 43693), (50, 43645), (56, 43603),

Gene: Jorgensen_71 Start: 43337, Stop: 43044, Start Num: 27

Candidate Starts for Jorgensen_71:

(19, 43364), (Start: 27 @43337 has 217 MA's), (Start: 41 @43292 has 1 MA's), (43, 43262), (47, 43250), (50, 43214), (56, 43172),

Gene: JuliaChild_67 Start: 43013, Stop: 42720, Start Num: 27

Candidate Starts for JuliaChild_67:

(19, 43040), (Start: 27 @43013 has 217 MA's), (Start: 41 @42968 has 1 MA's), (43, 42938), (50, 42890), (56, 42848),

Gene: KBG_67 Start: 44545, Stop: 44252, Start Num: 27

Candidate Starts for KBG_67:

(Start: 27 @44545 has 217 MA's), (Start: 41 @44500 has 1 MA's), (43, 44470), (50, 44422), (56, 44380),

Gene: KSSJEB_65 Start: 41821, Stop: 41528, Start Num: 27

Candidate Starts for KSSJEB_65:

(Start: 27 @41821 has 217 MA's), (Start: 41 @41776 has 1 MA's), (43, 41746), (50, 41698), (56, 41656),

Gene: Kalpine_70 Start: 43417, Stop: 43178, Start Num: 40

Candidate Starts for Kalpine_70:

(Start: 30 @43456 has 2 MA's), (Start: 40 @43417 has 1 MA's), (52, 43342), (56, 43309), (63, 43276), (65, 43267), (66, 43255), (71, 43204),

Gene: Kanely_67 Start: 42580, Stop: 42287, Start Num: 27

Candidate Starts for Kanely_67:

(19, 42607), (Start: 27 @42580 has 217 MA's), (Start: 41 @42535 has 1 MA's), (43, 42505), (47, 42493), (50, 42457), (56, 42415),

Gene: KatherineG_80 Start: 43544, Stop: 43266, Start Num: 34

Candidate Starts for KatherineG_80:

(16, 43604), (Start: 34 @43544 has 29 MA's), (48, 43466), (52, 43427), (56, 43394), (61, 43364), (63, 43361), (66, 43340), (69, 43307),

Gene: Kenmech_70 Start: 44418, Stop: 44125, Start Num: 27

Candidate Starts for Kenmech_70:

(Start: 27 @44418 has 217 MA's), (Start: 41 @44373 has 1 MA's), (43, 44343), (50, 44295), (56, 44253),

Gene: Keziacharles14_69 Start: 43094, Stop: 42822, Start Num: 33

Candidate Starts for Keziacharles14_69:

(Start: 33 @43094 has 1 MA's), (51, 42989), (56, 42950), (58, 42935), (62, 42920), (66, 42896),

Gene: KikiBouba_63 Start: 42002, Stop: 41709, Start Num: 27

Candidate Starts for KikiBouba_63:

(19, 42029), (Start: 27 @42002 has 217 MA's), (43, 41927), (50, 41879), (56, 41837),

Gene: Killigrew_64 Start: 42625, Stop: 42332, Start Num: 27

Candidate Starts for Killigrew_64:

(19, 42652), (Start: 27 @42625 has 217 MA's), (Start: 41 @42580 has 1 MA's), (43, 42550), (50, 42502), (56, 42460),

Gene: Kugel_70 Start: 44438, Stop: 44145, Start Num: 27

Candidate Starts for Kugel_70:

(19, 44465), (Start: 27 @44438 has 217 MA's), (Start: 41 @44393 has 1 MA's), (43, 44363), (50, 44315), (56, 44273),

Gene: KyMonks1A_70 Start: 42786, Stop: 42493, Start Num: 27

Candidate Starts for KyMonks1A_70:

(19, 42813), (Start: 27 @42786 has 217 MA's), (Start: 41 @42741 has 1 MA's), (50, 42663), (56, 42621),

Gene: Kykar_67 Start: 43161, Stop: 42868, Start Num: 27

Candidate Starts for Kykar_67:

(2, 43419), (5, 43383), (19, 43188), (Start: 27 @43161 has 217 MA's), (Start: 41 @43116 has 1 MA's), (43, 43086), (50, 43038), (56, 42996),

Gene: LBerry_73 Start: 42445, Stop: 42137, Start Num: 25

Candidate Starts for LBerry_73:

(Start: 25 @42445 has 25 MA's), (Start: 28 @42427 has 2 MA's), (Start: 32 @42412 has 5 MA's), (38, 42391), (42, 42358), (50, 42307), (52, 42298), (54, 42271), (56, 42265), (63, 42232),

Gene: Lamina13_69 Start: 43778, Stop: 43485, Start Num: 27

Candidate Starts for Lamina13_69:

(Start: 27 @43778 has 217 MA's), (Start: 41 @43733 has 1 MA's), (43, 43703), (50, 43655), (56, 43613),

Gene: LastResort_78 Start: 43475, Stop: 43197, Start Num: 34

Candidate Starts for LastResort_78:

(16, 43535), (Start: 34 @43475 has 29 MA's), (48, 43397), (52, 43358), (56, 43325), (61, 43295), (63, 43292), (66, 43271), (69, 43238),

Gene: Lesedi_62 Start: 40853, Stop: 40560, Start Num: 27

Candidate Starts for Lesedi_62:

(Start: 27 @40853 has 217 MA's), (Start: 41 @40808 has 1 MA's), (43, 40778), (50, 40730), (56, 40688),

Gene: Levia_63 Start: 41770, Stop: 41477, Start Num: 27

Candidate Starts for Levia_63:

(Start: 27 @41770 has 217 MA's), (Start: 41 @41725 has 1 MA's), (43, 41695), (50, 41647), (56, 41605),

Gene: Licorice_66 Start: 43887, Stop: 43594, Start Num: 27

Candidate Starts for Licorice_66:

(19, 43914), (Start: 27 @43887 has 217 MA's), (Start: 41 @43842 has 1 MA's), (43, 43812), (50, 43764), (56, 43722),

Gene: LilBib_65 Start: 43871, Stop: 43578, Start Num: 27

Candidate Starts for LilBib_65:

(Start: 27 @43871 has 217 MA's), (Start: 41 @43826 has 1 MA's), (43, 43796), (50, 43748), (56, 43706),

Gene: Lockley_65 Start: 42740, Stop: 42447, Start Num: 27

Candidate Starts for Lockley_65:

(19, 42767), (Start: 27 @42740 has 217 MA's), (Start: 41 @42695 has 1 MA's), (43, 42665), (50, 42617), (56, 42575),

Gene: Looper_79 Start: 43387, Stop: 43109, Start Num: 34

Candidate Starts for Looper_79:

(16, 43447), (Start: 34 @43387 has 29 MA's), (48, 43309), (52, 43270), (56, 43237), (61, 43207), (63, 43204), (66, 43183), (69, 43150),

Gene: Lopton_66 Start: 44440, Stop: 44147, Start Num: 27

Candidate Starts for Lopton_66:

(19, 44467), (Start: 27 @44440 has 217 MA's), (Start: 41 @44395 has 1 MA's), (43, 44365), (50, 44317), (56, 44275),

Gene: Luchador_73 Start: 43928, Stop: 43659, Start Num: 34

Candidate Starts for Luchador_73:

(Start: 28 @43949 has 2 MA's), (Start: 34 @43928 has 29 MA's), (Start: 36 @43925 has 1 MA's), (51, 43829), (55, 43793), (56, 43790), (65, 43748), (66, 43736), (71, 43685),

Gene: LugYA_75 Start: 42442, Stop: 42134, Start Num: 25

Candidate Starts for LugYA_75:

(Start: 25 @42442 has 25 MA's), (Start: 28 @42424 has 2 MA's), (Start: 32 @42409 has 5 MA's), (38, 42388), (42, 42355), (50, 42304), (52, 42295), (54, 42268), (56, 42262), (63, 42229),

Gene: LunarLander_65 Start: 43066, Stop: 42773, Start Num: 27

Candidate Starts for LunarLander_65:

(19, 43093), (Start: 27 @43066 has 217 MA's), (Start: 41 @43021 has 1 MA's), (43, 42991), (50, 42943), (56, 42901),

Gene: MPlant7149_66 Start: 41586, Stop: 41293, Start Num: 27

Candidate Starts for MPlant7149_66:

(4, 41814), (19, 41613), (Start: 27 @41586 has 217 MA's), (Start: 41 @41541 has 1 MA's), (43, 41511), (50, 41463), (56, 41421),

Gene: Magnar_65 Start: 42659, Stop: 42366, Start Num: 27

Candidate Starts for Magnar_65:

(19, 42686), (Start: 27 @42659 has 217 MA's), (Start: 41 @42614 has 1 MA's), (43, 42584), (50, 42536), (56, 42494),

Gene: Magnito_67 Start: 42855, Stop: 42562, Start Num: 27

Candidate Starts for Magnito_67:

(19, 42882), (Start: 27 @42855 has 217 MA's), (Start: 41 @42810 has 1 MA's), (43, 42780), (50, 42732), (56, 42690),

Gene: Makemake_72 Start: 44876, Stop: 44583, Start Num: 27

Candidate Starts for Makemake_72:

(Start: 27 @44876 has 217 MA's), (Start: 41 @44831 has 1 MA's), (43, 44801), (50, 44753), (56, 44711),

Gene: Manatee_66 Start: 42327, Stop: 42034, Start Num: 27

Candidate Starts for Manatee_66:

(Start: 27 @42327 has 217 MA's), (Start: 41 @42282 has 1 MA's), (43, 42252), (50, 42204), (56, 42162),

Gene: Marcell_62 Start: 41366, Stop: 41073, Start Num: 27

Candidate Starts for Marcell_62:

(19, 41393), (Start: 27 @41366 has 217 MA's), (Start: 41 @41321 has 1 MA's), (43, 41291), (50, 41243), (56, 41201),

Gene: Marchy_59 Start: 39104, Stop: 38811, Start Num: 27

Candidate Starts for Marchy_59:

(Start: 27 @39104 has 217 MA's), (Start: 41 @39059 has 1 MA's), (43, 39029), (50, 38981), (56, 38939),

Gene: Marco3_72 Start: 45164, Stop: 44871, Start Num: 27

Candidate Starts for Marco3_72:

(Start: 27 @45164 has 217 MA's), (Start: 41 @45119 has 1 MA's), (43, 45089), (50, 45041), (56, 44999),

Gene: Marge_62 Start: 41896, Stop: 41603, Start Num: 27

Candidate Starts for Marge_62:

(19, 41923), (Start: 27 @41896 has 217 MA's), (Start: 41 @41851 has 1 MA's), (43, 41821), (50, 41773), (56, 41731),

Gene: Marie_70 Start: 42441, Stop: 42133, Start Num: 25

Candidate Starts for Marie_70:

(Start: 25 @42441 has 25 MA's), (Start: 28 @42423 has 2 MA's), (Start: 32 @42408 has 5 MA's), (38, 42387), (42, 42354), (50, 42303), (52, 42294), (54, 42267), (56, 42261), (63, 42228),

Gene: Maroc7_65 Start: 43339, Stop: 43046, Start Num: 27

Candidate Starts for Maroc7_65:

(19, 43366), (Start: 27 @43339 has 217 MA's), (Start: 41 @43294 has 1 MA's), (43, 43264), (47, 43252), (50, 43216), (56, 43174),

Gene: Marsha_66 Start: 43889, Stop: 43596, Start Num: 27

Candidate Starts for Marsha_66:

(Start: 27 @43889 has 217 MA's), (Start: 41 @43844 has 1 MA's), (43, 43814), (50, 43766), (56, 43724),

Gene: MaryBeth_63 Start: 42720, Stop: 42427, Start Num: 27

Candidate Starts for MaryBeth_63:

(19, 42747), (Start: 27 @42720 has 217 MA's), (Start: 41 @42675 has 1 MA's), (43, 42645), (50, 42597), (56, 42555),

Gene: McGuire_66 Start: 41690, Stop: 41397, Start Num: 27

Candidate Starts for McGuire_66:

(19, 41717), (Start: 27 @41690 has 217 MA's), (Start: 41 @41645 has 1 MA's), (43, 41615), (50, 41567), (56, 41525),

Gene: McSinger_63 Start: 41639, Stop: 41346, Start Num: 27

Candidate Starts for McSinger_63:

(19, 41666), (Start: 27 @41639 has 217 MA's), (Start: 41 @41594 has 1 MA's), (43, 41564), (50, 41516), (56, 41474),

Gene: MegTheThird_67 Start: 41584, Stop: 41285, Start Num: 29

Candidate Starts for MegTheThird_67:

(1, 42010), (29, 41584), (51, 41467), (56, 41428), (66, 41374),

Gene: MetalQZJ_62 Start: 42720, Stop: 42427, Start Num: 27

Candidate Starts for MetalQZJ_62:

(19, 42747), (Start: 27 @42720 has 217 MA's), (Start: 41 @42675 has 1 MA's), (43, 42645), (50, 42597), (56, 42555),

Gene: Michley_70 Start: 43281, Stop: 42988, Start Num: 27

Candidate Starts for Michley_70:

(Start: 27 @43281 has 217 MA's), (Start: 41 @43236 has 1 MA's), (43, 43206), (47, 43194), (50, 43158), (56, 43116),

Gene: MilleFeuille_62 Start: 42452, Stop: 42159, Start Num: 27

Candidate Starts for MilleFeuille_62:

(19, 42479), (Start: 27 @42452 has 217 MA's), (Start: 41 @42407 has 1 MA's), (43, 42377), (50, 42329), (56, 42287),

Gene: MinecraftSteve_80 Start: 43368, Stop: 43090, Start Num: 34

Candidate Starts for MinecraftSteve_80:

(16, 43428), (Start: 34 @43368 has 29 MA's), (48, 43290), (52, 43251), (56, 43218), (61, 43188), (63, 43185), (66, 43164), (69, 43131),

Gene: Minispark_70 Start: 42324, Stop: 42022, Start Num: 27

Candidate Starts for Minispark_70:

(7, 42534), (Start: 27 @42324 has 217 MA's), (56, 42162), (66, 42108),

Gene: Mkhuseli_61 Start: 40758, Stop: 40465, Start Num: 27

Candidate Starts for Mkhuseli_61:

(19, 40785), (Start: 27 @40758 has 217 MA's), (Start: 41 @40713 has 1 MA's), (43, 40683), (50, 40635), (56, 40593),

Gene: Molly_67 Start: 42963, Stop: 42670, Start Num: 27

Candidate Starts for Molly_67:

(19, 42990), (Start: 27 @42963 has 217 MA's), (Start: 41 @42918 has 1 MA's), (43, 42888), (50, 42840), (56, 42798),

Gene: Monet_68 Start: 44284, Stop: 43991, Start Num: 27

Candidate Starts for Monet_68:

(19, 44311), (Start: 27 @44284 has 217 MA's), (Start: 41 @44239 has 1 MA's), (43, 44209), (50, 44161), (56, 44119),

Gene: MoneyMay_71 Start: 42441, Stop: 42133, Start Num: 25

Candidate Starts for MoneyMay_71:

(Start: 25 @42441 has 25 MA's), (Start: 28 @42423 has 2 MA's), (Start: 32 @42408 has 5 MA's), (38, 42387), (42, 42354), (50, 42303), (52, 42294), (54, 42267), (56, 42261), (63, 42228),

Gene: Moose_67 Start: 42412, Stop: 42119, Start Num: 27

Candidate Starts for Moose_67:

(19, 42439), (Start: 27 @42412 has 217 MA's), (Start: 41 @42367 has 1 MA's), (43, 42337), (50, 42289), (56, 42247),

Gene: MrGordo_69 Start: 43202, Stop: 42909, Start Num: 27

Candidate Starts for MrGordo_69:

(Start: 27 @43202 has 217 MA's), (Start: 41 @43157 has 1 MA's), (43, 43127), (50, 43079),

Gene: Mryolo_64 Start: 42236, Stop: 41943, Start Num: 27

Candidate Starts for Mryolo_64:

(19, 42263), (Start: 27 @42236 has 217 MA's), (Start: 41 @42191 has 1 MA's), (43, 42161), (50, 42113), (56, 42071),

Gene: Mule_63 Start: 41944, Stop: 41651, Start Num: 27

Candidate Starts for Mule_63:

(Start: 27 @41944 has 217 MA's), (Start: 41 @41899 has 1 MA's), (43, 41869), (50, 41821), (56, 41779),

Gene: Museum_68 Start: 44182, Stop: 43889, Start Num: 27

Candidate Starts for Museum_68:

(19, 44209), (Start: 27 @44182 has 217 MA's), (Start: 41 @44137 has 1 MA's), (43, 44107), (50, 44059), (56, 44017),

Gene: NEHalo_63 Start: 42836, Stop: 42543, Start Num: 27

Candidate Starts for NEHalo_63:

(19, 42863), (Start: 27 @42836 has 217 MA's), (Start: 41 @42791 has 1 MA's), (43, 42761), (50, 42713), (56, 42671),

Gene: Naira_71 Start: 44806, Stop: 44513, Start Num: 27

Candidate Starts for Naira_71:

(19, 44851), (Start: 23 @44833 has 1 MA's), (Start: 27 @44806 has 217 MA's), (Start: 41 @44761 has 1 MA's), (43, 44731), (50, 44683), (56, 44641),

Gene: Nebulosus_77 Start: 43032, Stop: 42754, Start Num: 34

Candidate Starts for Nebulosus_77:

(16, 43092), (Start: 34 @43032 has 29 MA's), (48, 42954), (52, 42915), (56, 42882), (61, 42852), (63, 42849), (66, 42828), (69, 42795),

Gene: Nedarya_76 Start: 43628, Stop: 43350, Start Num: 34

Candidate Starts for Nedarya_76:

(Start: 34 @43628 has 29 MA's), (48, 43550), (52, 43511), (56, 43478), (66, 43424), (69, 43391),

Gene: Nerujay_71 Start: 44385, Stop: 44092, Start Num: 27

Candidate Starts for Nerujay_71:

(19, 44412), (Start: 27 @44385 has 217 MA's), (Start: 41 @44340 has 1 MA's), (43, 44310), (50, 44262), (56, 44220),

Gene: Nhonho_65 Start: 43327, Stop: 43034, Start Num: 27

Candidate Starts for Nhonho_65:

(19, 43354), (Start: 27 @43327 has 217 MA's), (Start: 41 @43282 has 1 MA's), (43, 43252), (47, 43240), (50, 43204), (56, 43162),

Gene: Niza_68 Start: 44472, Stop: 44179, Start Num: 27

Candidate Starts for Niza_68:

(Start: 27 @44472 has 217 MA's), (Start: 41 @44427 has 1 MA's), (43, 44397), (47, 44385), (50, 44349), (56, 44307),

Gene: Norz_65 Start: 44712, Stop: 44419, Start Num: 27

Candidate Starts for Norz_65:

(19, 44739), (Start: 27 @44712 has 217 MA's), (Start: 41 @44667 has 1 MA's), (43, 44637), (50, 44589), (56, 44547),

Gene: NothingSpecial_67 Start: 43318, Stop: 43031, Start Num: 30

Candidate Starts for NothingSpecial_67:

(20, 43354), (Start: 30 @43318 has 2 MA's), (Start: 40 @43279 has 1 MA's), (50, 43204), (52, 43195), (56, 43162), (63, 43129), (65, 43120), (66, 43108),

Gene: Noxious_62 Start: 42193, Stop: 41900, Start Num: 27

Candidate Starts for Noxious_62:

(19, 42220), (Start: 27 @42193 has 217 MA's), (43, 42118), (50, 42070), (56, 42028),

Gene: Ohno789_67 Start: 43300, Stop: 43007, Start Num: 27

Candidate Starts for Ohno789_67:

(19, 43327), (Start: 27 @43300 has 217 MA's), (Start: 41 @43255 has 1 MA's), (43, 43225), (47, 43213), (50, 43177), (56, 43135),

Gene: Ollie_72 Start: 42312, Stop: 42004, Start Num: 25

Candidate Starts for Ollie_72:

(Start: 25 @42312 has 25 MA's), (Start: 28 @42294 has 2 MA's), (Start: 32 @42279 has 5 MA's), (38, 42258), (42, 42225), (50, 42174), (52, 42165), (54, 42138), (56, 42132), (63, 42099),

Gene: Oofda_80 Start: 43721, Stop: 43443, Start Num: 34

Candidate Starts for Oofda_80:

(14, 43796), (Start: 34 @43721 has 29 MA's), (48, 43643), (52, 43604), (56, 43571), (61, 43541), (63, 43538), (66, 43517), (69, 43484),

Gene: Oogway_64 Start: 43355, Stop: 43062, Start Num: 27

Candidate Starts for Oogway_64:

(19, 43382), (Start: 27 @43355 has 217 MA's), (Start: 41 @43310 has 1 MA's), (43, 43280), (50, 43232), (56, 43190),

Gene: P28Green_72 Start: 42444, Stop: 42136, Start Num: 25

Candidate Starts for P28Green_72:

(Start: 25 @42444 has 25 MA's), (Start: 28 @42426 has 2 MA's), (Start: 32 @42411 has 5 MA's), (38, 42390), (42, 42357), (50, 42306), (52, 42297), (54, 42270), (56, 42264), (63, 42231),

Gene: PSullivan_64 Start: 41080, Stop: 40787, Start Num: 27

Candidate Starts for PSullivan_64:

(19, 41107), (Start: 27 @41080 has 217 MA's), (Start: 41 @41035 has 1 MA's), (43, 41005), (50, 40957), (56, 40915),

Gene: PacerPaul_66 Start: 42858, Stop: 42565, Start Num: 27

Candidate Starts for PacerPaul_66:

(Start: 27 @42858 has 217 MA's), (Start: 41 @42813 has 1 MA's), (43, 42783), (50, 42735), (56, 42693),

Gene: PainterBoy_74 Start: 43245, Stop: 42943, Start Num: 23

Candidate Starts for PainterBoy_74:

(10, 43359), (18, 43269), (20, 43251), (Start: 23 @43245 has 1 MA's), (Start: 32 @43203 has 5 MA's), (55, 43065), (66, 43008),

Gene: Papez_68 Start: 44027, Stop: 43731, Start Num: 27

Candidate Starts for Papez_68:

(Start: 27 @44027 has 217 MA's), (50, 43901), (56, 43859),

Gene: Paphu_65 Start: 43166, Stop: 42873, Start Num: 27

Candidate Starts for Paphu_65:

(Start: 27 @43166 has 217 MA's), (Start: 41 @43121 has 1 MA's), (43, 43091), (50, 43043), (56, 43001),

Gene: Paraselene_67 Start: 43668, Stop: 43375, Start Num: 27

Candidate Starts for Paraselene_67:

(Start: 27 @43668 has 217 MA's), (Start: 41 @43623 has 1 MA's), (43, 43593), (50, 43545), (56, 43503),

Gene: Pari_70 Start: 42376, Stop: 42083, Start Num: 27

Candidate Starts for Pari_70:

(19, 42403), (Start: 27 @42376 has 217 MA's), (Start: 41 @42331 has 1 MA's), (43, 42301), (50, 42253), (56, 42211),

Gene: Parliament_67 Start: 44958, Stop: 44665, Start Num: 27

Candidate Starts for Parliament_67:

(Start: 27 @44958 has 217 MA's), (Start: 41 @44913 has 1 MA's), (43, 44883), (47, 44871), (50, 44835), (56, 44793),

Gene: PascalRango_63 Start: 42153, Stop: 41860, Start Num: 27

Candidate Starts for PascalRango_63:

(19, 42180), (Start: 27 @42153 has 217 MA's), (Start: 41 @42108 has 1 MA's), (43, 42078), (50, 42030), (56, 41988),

Gene: PattyP_68 Start: 43888, Stop: 43595, Start Num: 27

Candidate Starts for PattyP_68:

(19, 43915), (Start: 27 @43888 has 217 MA's), (Start: 41 @43843 has 1 MA's), (43, 43813), (50, 43765), (56, 43723),

Gene: Payneful_63 Start: 41821, Stop: 41528, Start Num: 27

Candidate Starts for Payneful_63:

(Start: 27 @41821 has 217 MA's), (Start: 41 @41776 has 1 MA's), (43, 41746), (50, 41698), (56, 41656),

Gene: Pelly_68 Start: 44825, Stop: 44532, Start Num: 27

Candidate Starts for Pelly_68:

(19, 44852), (Start: 27 @44825 has 217 MA's), (Start: 41 @44780 has 1 MA's), (50, 44702), (56, 44660),

Gene: Penny1_72 Start: 42445, Stop: 42137, Start Num: 25

Candidate Starts for Penny1_72:

(Start: 25 @42445 has 25 MA's), (Start: 28 @42427 has 2 MA's), (Start: 32 @42412 has 5 MA's), (38, 42391), (42, 42358), (50, 42307), (52, 42298), (54, 42271), (56, 42265), (63, 42232),

Gene: Pepe_64 Start: 41654, Stop: 41361, Start Num: 27

Candidate Starts for Pepe_64:

(Start: 27 @41654 has 217 MA's), (Start: 41 @41609 has 1 MA's), (43, 41579), (50, 41531), (56, 41489),

Gene: Perseus_64 Start: 44104, Stop: 43811, Start Num: 27

Candidate Starts for Perseus_64:

(Start: 27 @44104 has 217 MA's), (Start: 41 @44059 has 1 MA's), (43, 44029), (50, 43981), (56, 43939),

Gene: Peterson_69 Start: 44970, Stop: 44677, Start Num: 27

Candidate Starts for Peterson_69:

(Start: 27 @44970 has 217 MA's), (Start: 41 @44925 has 1 MA's), (43, 44895), (50, 44847), (56, 44805),

Gene: Petp2012_69 Start: 44669, Stop: 44376, Start Num: 27

Candidate Starts for Petp2012_69:

(19, 44696), (Start: 27 @44669 has 217 MA's), (Start: 41 @44624 has 1 MA's), (43, 44594), (50, 44546), (56, 44504),

Gene: Petruccio_68 Start: 42490, Stop: 42197, Start Num: 27

Candidate Starts for Petruccio_68:

(2, 42748), (5, 42712), (19, 42517), (Start: 27 @42490 has 217 MA's), (Start: 41 @42445 has 1 MA's), (43, 42415), (50, 42367), (56, 42325),

Gene: PherrisBueller_67 Start: 41610, Stop: 41317, Start Num: 27

Candidate Starts for PherrisBueller_67:

(19, 41637), (Start: 27 @41610 has 217 MA's), (Start: 41 @41565 has 1 MA's), (43, 41535), (50, 41487), (56, 41445),

Gene: PhineBark_65 Start: 42788, Stop: 42495, Start Num: 27

Candidate Starts for PhineBark_65:

(Start: 27 @42788 has 217 MA's), (Start: 41 @42743 has 1 MA's), (43, 42713), (50, 42665), (56, 42623),

Gene: Phlippers_61 Start: 42632, Stop: 42339, Start Num: 27

Candidate Starts for Phlippers_61:

(19, 42659), (Start: 27 @42632 has 217 MA's), (Start: 41 @42587 has 1 MA's), (43, 42557), (47, 42545), (50, 42509), (56, 42467),

Gene: Phoxy_72 Start: 42466, Stop: 42158, Start Num: 25

Candidate Starts for Phoxy_72:

(Start: 25 @42466 has 25 MA's), (Start: 28 @42448 has 2 MA's), (Start: 32 @42433 has 5 MA's), (38, 42412), (42, 42379), (50, 42328), (52, 42319), (54, 42292), (56, 42286), (63, 42253),

Gene: PhrostyMug_66 Start: 44118, Stop: 43825, Start Num: 27

Candidate Starts for PhrostyMug_66:

(Start: 27 @44118 has 217 MA's), (Start: 41 @44073 has 1 MA's), (43, 44043), (50, 43995), (56, 43953),

Gene: PinkPlastic_65 Start: 42426, Stop: 42133, Start Num: 27

Candidate Starts for PinkPlastic_65:

(19, 42453), (Start: 27 @42426 has 217 MA's), (Start: 41 @42381 has 1 MA's), (43, 42351), (50, 42303), (56, 42261),

Gene: Pinto_66 Start: 42379, Stop: 42086, Start Num: 27

Candidate Starts for Pinto_66:

(2, 42637), (5, 42601), (19, 42406), (Start: 27 @42379 has 217 MA's), (Start: 41 @42334 has 1 MA's), (43, 42304), (50, 42256), (56, 42214),

Gene: Pippin_65 Start: 41805, Stop: 41512, Start Num: 27

Candidate Starts for Pippin_65:

(19, 41832), (Start: 27 @41805 has 217 MA's), (Start: 41 @41760 has 1 MA's), (43, 41730), (50, 41682), (56, 41640),

Gene: Pita2_67 Start: 42577, Stop: 42284, Start Num: 27

Candidate Starts for Pita2_67:

(19, 42604), (Start: 27 @42577 has 217 MA's), (Start: 41 @42532 has 1 MA's), (43, 42502), (50, 42454), (56, 42412),

Gene: PotatoSplit_73 Start: 42445, Stop: 42137, Start Num: 25

Candidate Starts for PotatoSplit_73:

(Start: 25 @42445 has 25 MA's), (Start: 28 @42427 has 2 MA's), (Start: 32 @42412 has 5 MA's), (38, 42391), (42, 42358), (50, 42307), (52, 42298), (54, 42271), (56, 42265), (63, 42232),

Gene: PowerRanger_65 Start: 43852, Stop: 43559, Start Num: 27

Candidate Starts for PowerRanger_65:

(19, 43879), (Start: 27 @43852 has 217 MA's), (Start: 41 @43807 has 1 MA's), (50, 43729), (56, 43687),

Gene: ProMouse_67 Start: 43095, Stop: 42802, Start Num: 27

Candidate Starts for ProMouse_67:

(19, 43122), (Start: 27 @43095 has 217 MA's), (Start: 41 @43050 has 1 MA's), (43, 43020), (50, 42972), (56, 42930),

Gene: Puppet_63 Start: 43810, Stop: 43517, Start Num: 27

Candidate Starts for Puppet_63:

(17, 43846), (Start: 27 @43810 has 217 MA's), (Start: 41 @43765 has 1 MA's), (43, 43735), (50, 43687), (56, 43645),

Gene: QTRlifeCrisis_67 Start: 43106, Stop: 42813, Start Num: 27

Candidate Starts for QTRlifeCrisis_67:

(19, 43133), (Start: 27 @43106 has 217 MA's), (Start: 41 @43061 has 1 MA's), (43, 43031), (50, 42983), (56, 42941),

Gene: Rahalelujah_72 Start: 42339, Stop: 42037, Start Num: 27
Candidate Starts for Rahalelujah_72:
(7, 42549), (Start: 27 @42339 has 217 MA's), (56, 42177), (66, 42123),

Gene: Raid_65 Start: 42932, Stop: 42639, Start Num: 27
Candidate Starts for Raid_65:
(19, 42959), (Start: 27 @42932 has 217 MA's), (39, 42899), (Start: 41 @42887 has 1 MA's), (43, 42857), (50, 42809), (56, 42767),

Gene: Rajelicia_66 Start: 44209, Stop: 43916, Start Num: 27
Candidate Starts for Rajelicia_66:
(19, 44236), (Start: 27 @44209 has 217 MA's), (Start: 41 @44164 has 1 MA's), (43, 44134), (50, 44086), (56, 44044),

Gene: Ravana_83 Start: 45133, Stop: 44855, Start Num: 34
Candidate Starts for Ravana_83:
(14, 45208), (Start: 34 @45133 has 29 MA's), (48, 45055), (52, 45016), (56, 44983), (61, 44953), (63, 44950), (66, 44929),

Gene: ReMo_78 Start: 43472, Stop: 43194, Start Num: 34
Candidate Starts for ReMo_78:
(16, 43532), (Start: 34 @43472 has 29 MA's), (48, 43394), (52, 43355), (56, 43322), (61, 43292), (63, 43289), (66, 43268), (69, 43235),

Gene: Refuge_68 Start: 43722, Stop: 43405, Start Num: 24
Candidate Starts for Refuge_68:
(8, 43860), (13, 43821), (22, 43725), (Start: 24 @43722 has 1 MA's), (37, 43668), (43, 43617), (50, 43578), (52, 43569), (56, 43536),

Gene: Remus_81 Start: 43800, Stop: 43522, Start Num: 34
Candidate Starts for Remus_81:
(14, 43875), (Start: 34 @43800 has 29 MA's), (48, 43722), (52, 43683), (56, 43650), (61, 43620), (63, 43617), (66, 43596), (69, 43563),

Gene: Rhynn_62 Start: 42109, Stop: 41816, Start Num: 27
Candidate Starts for Rhynn_62:
(Start: 27 @42109 has 217 MA's), (Start: 41 @42064 has 1 MA's), (43, 42034), (50, 41986), (56, 41944),

Gene: RidgeCB_66 Start: 42526, Stop: 42233, Start Num: 27
Candidate Starts for RidgeCB_66:
(19, 42553), (Start: 27 @42526 has 217 MA's), (Start: 41 @42481 has 1 MA's), (43, 42451), (50, 42403), (56, 42361),

Gene: Ringer_69 Start: 44632, Stop: 44339, Start Num: 27
Candidate Starts for Ringer_69:
(19, 44659), (Start: 27 @44632 has 217 MA's), (Start: 41 @44587 has 1 MA's), (43, 44557), (50, 44509), (56, 44467),

Gene: Rohr_67 Start: 43844, Stop: 43551, Start Num: 27
Candidate Starts for Rohr_67:
(19, 43871), (Start: 27 @43844 has 217 MA's), (Start: 41 @43799 has 1 MA's), (43, 43769), (50, 43721), (56, 43679),

Gene: Rosalind_78 Start: 43296, Stop: 43018, Start Num: 34

Candidate Starts for Rosalind_78:

(16, 43356), (Start: 34 @43296 has 29 MA's), (48, 43218), (52, 43179), (56, 43146), (61, 43116), (63, 43113), (66, 43092), (69, 43059),

Gene: Rubeus_65 Start: 40346, Stop: 40053, Start Num: 27

Candidate Starts for Rubeus_65:

(19, 40373), (Start: 27 @40346 has 217 MA's), (Start: 41 @40301 has 1 MA's), (43, 40271), (50, 40223), (56, 40181),

Gene: Rufus_68 Start: 43030, Stop: 42737, Start Num: 27

Candidate Starts for Rufus_68:

(19, 43057), (Start: 27 @43030 has 217 MA's), (Start: 41 @42985 has 1 MA's), (43, 42955), (50, 42907), (56, 42865),

Gene: Rummer_71 Start: 42469, Stop: 42161, Start Num: 25

Candidate Starts for Rummer_71:

(Start: 25 @42469 has 25 MA's), (Start: 28 @42451 has 2 MA's), (Start: 32 @42436 has 5 MA's), (38, 42415), (42, 42382), (50, 42331), (52, 42322), (54, 42295), (56, 42289), (63, 42256),

Gene: Ruotula_72 Start: 45133, Stop: 44840, Start Num: 27

Candidate Starts for Ruotula_72:

(19, 45160), (Start: 27 @45133 has 217 MA's), (Start: 41 @45088 has 1 MA's), (43, 45058), (50, 45010), (56, 44968),

Gene: Rutherferd_67 Start: 43925, Stop: 43632, Start Num: 27

Candidate Starts for Rutherferd_67:

(Start: 27 @43925 has 217 MA's), (Start: 41 @43880 has 1 MA's), (50, 43802), (56, 43760),

Gene: STLscum_75 Start: 44847, Stop: 44554, Start Num: 27

Candidate Starts for STLscum_75:

(Start: 27 @44847 has 217 MA's), (Start: 41 @44802 has 1 MA's), (43, 44772), (50, 44724), (56, 44682),

Gene: Sabinator_70 Start: 42440, Stop: 42132, Start Num: 25

Candidate Starts for Sabinator_70:

(Start: 25 @42440 has 25 MA's), (Start: 28 @42422 has 2 MA's), (Start: 32 @42407 has 5 MA's), (38, 42386), (42, 42353), (50, 42302), (52, 42293), (54, 42266), (56, 42260), (63, 42227),

Gene: Sagefire_67 Start: 44059, Stop: 43766, Start Num: 27

Candidate Starts for Sagefire_67:

(Start: 27 @44059 has 217 MA's), (Start: 41 @44014 has 1 MA's), (43, 43984), (50, 43936), (56, 43894),

Gene: Sandaddy_63 Start: 42327, Stop: 42034, Start Num: 27

Candidate Starts for Sandaddy_63:

(19, 42354), (Start: 27 @42327 has 217 MA's), (Start: 41 @42282 has 1 MA's), (43, 42252), (50, 42204), (56, 42162),

Gene: SarFire_65 Start: 42573, Stop: 42280, Start Num: 27

Candidate Starts for SarFire_65:

(19, 42600), (Start: 27 @42573 has 217 MA's), (Start: 41 @42528 has 1 MA's), (50, 42450), (56, 42408),

Gene: Scowl_67 Start: 42499, Stop: 42206, Start Num: 27

Candidate Starts for Scowl_67:

(Start: 27 @42499 has 217 MA's), (Start: 41 @42454 has 1 MA's), (43, 42424), (50, 42376), (56, 42334),

Gene: Serenity_74 Start: 42637, Stop: 42359, Start Num: 30

Candidate Starts for Serenity_74:

(Start: 30 @42637 has 2 MA's), (Start: 40 @42598 has 1 MA's), (49, 42556), (52, 42523), (56, 42490), (61, 42460), (63, 42457), (65, 42448), (66, 42436), (74, 42367),

Gene: ShayRa_80 Start: 43325, Stop: 43047, Start Num: 34

Candidate Starts for ShayRa_80:

(16, 43385), (Start: 34 @43325 has 29 MA's), (48, 43247), (52, 43208), (56, 43175), (61, 43145), (63, 43142), (66, 43121), (69, 43088),

Gene: ShortQueendom_57 Start: 40038, Stop: 39745, Start Num: 27

Candidate Starts for ShortQueendom_57:

(19, 40065), (Start: 27 @40038 has 217 MA's), (Start: 41 @39993 has 1 MA's), (43, 39963), (50, 39915), (56, 39873),

Gene: Sibs6_68 Start: 41229, Stop: 40936, Start Num: 27

Candidate Starts for Sibs6_68:

(19, 41256), (Start: 27 @41229 has 217 MA's), (Start: 41 @41184 has 1 MA's), (43, 41154), (50, 41106), (56, 41064),

Gene: SkiPole_74 Start: 44120, Stop: 43827, Start Num: 27

Candidate Starts for SkiPole_74:

(Start: 27 @44120 has 217 MA's), (Start: 41 @44075 has 1 MA's), (43, 44045), (50, 43997), (56, 43955),

Gene: Slagathor_68 Start: 44595, Stop: 44302, Start Num: 27

Candidate Starts for Slagathor_68:

(19, 44622), (Start: 27 @44595 has 217 MA's), (Start: 41 @44550 has 1 MA's), (43, 44520), (50, 44472), (56, 44430),

Gene: Smairt_68 Start: 45112, Stop: 44819, Start Num: 27

Candidate Starts for Smairt_68:

(Start: 27 @45112 has 217 MA's), (Start: 41 @45067 has 1 MA's), (43, 45037), (50, 44989), (56, 44947),

Gene: Smeagol_68 Start: 44353, Stop: 44060, Start Num: 27

Candidate Starts for Smeagol_68:

(Start: 27 @44353 has 217 MA's), (Start: 41 @44308 has 1 MA's), (43, 44278), (50, 44230), (56, 44188),

Gene: Snazzy_63 Start: 41494, Stop: 41201, Start Num: 27

Candidate Starts for Snazzy_63:

(19, 41521), (Start: 27 @41494 has 217 MA's), (Start: 41 @41449 has 1 MA's), (43, 41419), (50, 41371), (56, 41329),

Gene: SoYo_69 Start: 42353, Stop: 42045, Start Num: 25

Candidate Starts for SoYo_69:

(Start: 25 @42353 has 25 MA's), (Start: 28 @42335 has 2 MA's), (Start: 32 @42320 has 5 MA's), (38, 42299), (42, 42266), (50, 42215), (52, 42206), (54, 42179), (56, 42173), (63, 42140),

Gene: Solon_64 Start: 42070, Stop: 41777, Start Num: 27

Candidate Starts for Solon_64:

(19, 42097), (Start: 27 @42070 has 217 MA's), (Start: 41 @42025 has 1 MA's), (43, 41995), (47, 41983), (50, 41947), (56, 41905),

Gene: SororFago_72 Start: 43648, Stop: 43376, Start Num: 34

Candidate Starts for SororFago_72:

(3, 43936), (Start: 28 @43669 has 2 MA's), (Start: 34 @43648 has 29 MA's), (51, 43546), (55, 43510), (56, 43507), (65, 43465), (66, 43453), (71, 43402),

Gene: Sorpresa_64 Start: 42329, Stop: 42036, Start Num: 27

Candidate Starts for Sorpresa_64:

(19, 42356), (Start: 27 @42329 has 217 MA's), (Start: 41 @42284 has 1 MA's), (43, 42254), (50, 42206), (56, 42164),

Gene: Soups_80 Start: 43589, Stop: 43311, Start Num: 34

Candidate Starts for Soups_80:

(14, 43664), (Start: 34 @43589 has 29 MA's), (48, 43511), (52, 43472), (56, 43439), (61, 43409), (63, 43406), (66, 43385), (69, 43352),

Gene: Spike509_72 Start: 42466, Stop: 42158, Start Num: 25

Candidate Starts for Spike509_72:

(Start: 25 @42466 has 25 MA's), (Start: 28 @42448 has 2 MA's), (Start: 32 @42433 has 5 MA's), (38, 42412), (42, 42379), (50, 42328), (52, 42319), (54, 42292), (56, 42286), (63, 42253),

Gene: SpikeBT_64 Start: 42693, Stop: 42400, Start Num: 27

Candidate Starts for SpikeBT_64:

(19, 42720), (Start: 27 @42693 has 217 MA's), (Start: 41 @42648 has 1 MA's), (43, 42618), (47, 42606), (50, 42570), (56, 42528),

Gene: Squee_69 Start: 42726, Stop: 42433, Start Num: 27

Candidate Starts for Squee_69:

(Start: 27 @42726 has 217 MA's), (Start: 41 @42681 has 1 MA's), (43, 42651), (50, 42603), (56, 42561),

Gene: StepMih_71 Start: 42435, Stop: 42127, Start Num: 25

Candidate Starts for StepMih_71:

(Start: 25 @42435 has 25 MA's), (Start: 28 @42417 has 2 MA's), (Start: 32 @42402 has 5 MA's), (38, 42381), (42, 42348), (50, 42297), (52, 42288), (54, 42261), (56, 42255), (63, 42222),

Gene: StewieG_60 Start: 38877, Stop: 38584, Start Num: 27

Candidate Starts for StewieG_60:

(2, 39135), (5, 39099), (19, 38904), (Start: 27 @38877 has 217 MA's), (Start: 41 @38832 has 1 MA's), (43, 38802), (50, 38754), (56, 38712),

Gene: StrongArm_64 Start: 43443, Stop: 43150, Start Num: 27

Candidate Starts for StrongArm_64:

(19, 43470), (Start: 27 @43443 has 217 MA's), (Start: 41 @43398 has 1 MA's), (43, 43368), (50, 43320), (56, 43278),

Gene: Strosahl_81 Start: 43800, Stop: 43522, Start Num: 34

Candidate Starts for Strosahl_81:

(14, 43875), (Start: 34 @43800 has 29 MA's), (48, 43722), (52, 43683), (56, 43650), (61, 43620), (63, 43617), (66, 43596), (69, 43563),

Gene: Sumter_62 Start: 42684, Stop: 42391, Start Num: 27

Candidate Starts for Sumter_62:

(19, 42711), (Start: 27 @42684 has 217 MA's), (Start: 41 @42639 has 1 MA's), (43, 42609), (50, 42561), (56, 42519),

Gene: Sunhee_72 Start: 41700, Stop: 41431, Start Num: 34

Candidate Starts for Sunhee_72:

(3, 41988), (Start: 28 @41721 has 2 MA's), (Start: 34 @41700 has 29 MA's), (51, 41601), (55, 41565), (56, 41562), (59, 41538), (65, 41520), (66, 41508), (71, 41457),

Gene: Sunshine924_71 Start: 43388, Stop: 43095, Start Num: 27

Candidate Starts for Sunshine924_71:

(Start: 27 @43388 has 217 MA's), (Start: 41 @43343 has 1 MA's), (43, 43313), (50, 43265), (56, 43223),

Gene: SwissCheese_69 Start: 42912, Stop: 42619, Start Num: 27

Candidate Starts for SwissCheese_69:

(19, 42939), (Start: 27 @42912 has 217 MA's), (Start: 41 @42867 has 1 MA's), (43, 42837), (50, 42789), (56, 42747),

Gene: Switzer_67 Start: 44218, Stop: 43925, Start Num: 27

Candidate Starts for Switzer_67:

(Start: 27 @44218 has 217 MA's), (Start: 41 @44173 has 1 MA's), (43, 44143), (50, 44095), (56, 44053),

Gene: Switzerland_79 Start: 43464, Stop: 43186, Start Num: 34

Candidate Starts for Switzerland_79:

(16, 43524), (Start: 34 @43464 has 29 MA's), (48, 43386), (52, 43347), (56, 43314), (61, 43284), (63, 43281), (66, 43260), (69, 43227),

Gene: Swole_67 Start: 42487, Stop: 42194, Start Num: 27

Candidate Starts for Swole_67:

(19, 42514), (Start: 27 @42487 has 217 MA's), (Start: 41 @42442 has 1 MA's), (43, 42412), (50, 42364), (56, 42322),

Gene: Target_69 Start: 42804, Stop: 42511, Start Num: 27

Candidate Starts for Target_69:

(Start: 27 @42804 has 217 MA's), (Start: 41 @42759 has 1 MA's), (43, 42729), (50, 42681), (56, 42639),

Gene: Tasp14_69 Start: 44447, Stop: 44154, Start Num: 27

Candidate Starts for Tasp14_69:

(Start: 27 @44447 has 217 MA's), (Start: 41 @44402 has 1 MA's), (43, 44372), (50, 44324), (56, 44282),

Gene: Taurus_73 Start: 42441, Stop: 42133, Start Num: 25

Candidate Starts for Taurus_73:

(Start: 25 @42441 has 25 MA's), (Start: 28 @42423 has 2 MA's), (Start: 32 @42408 has 5 MA's), (38, 42387), (42, 42354), (50, 42303), (52, 42294), (54, 42267), (56, 42261), (63, 42228),

Gene: Teodoridan_65 Start: 41810, Stop: 41517, Start Num: 27

Candidate Starts for Teodoridan_65:

(Start: 27 @41810 has 217 MA's), (Start: 41 @41765 has 1 MA's), (43, 41735), (50, 41687), (56, 41645),

Gene: TheloniousMonk_70 Start: 45181, Stop: 44888, Start Num: 27

Candidate Starts for TheloniousMonk_70:

(19, 45208), (Start: 27 @45181 has 217 MA's), (Start: 41 @45136 has 1 MA's), (43, 45106), (50, 45058), (56, 45016),

Gene: Thor_65 Start: 41931, Stop: 41638, Start Num: 27

Candidate Starts for Thor_65:

(19, 41958), (Start: 27 @41931 has 217 MA's), (Start: 41 @41886 has 1 MA's), (50, 41808), (56, 41766),

Gene: Timshel_68 Start: 45505, Stop: 45218, Start Num: 32

Candidate Starts for Timshel_68:

(11, 45658), (15, 45583), (21, 45550), (Start: 32 @45505 has 5 MA's), (46, 45427), (50, 45388), (52, 45379), (58, 45331), (60, 45319), (63, 45313), (66, 45292), (71, 45241), (74, 45223),

Gene: Toaka_73 Start: 42844, Stop: 42566, Start Num: 34

Candidate Starts for Toaka_73:

(Start: 34 @42844 has 29 MA's), (51, 42739), (66, 42646),

Gene: Topgun_63 Start: 41557, Stop: 41264, Start Num: 27

Candidate Starts for Topgun_63:

(19, 41584), (Start: 27 @41557 has 217 MA's), (Start: 41 @41512 has 1 MA's), (43, 41482), (50, 41434), (56, 41392),

Gene: Tote_62 Start: 39754, Stop: 39461, Start Num: 27

Candidate Starts for Tote_62:

(19, 39781), (Start: 27 @39754 has 217 MA's), (Start: 41 @39709 has 1 MA's), (43, 39679), (50, 39631), (56, 39589),

Gene: Traft412_69 Start: 43542, Stop: 43249, Start Num: 27

Candidate Starts for Traft412_69:

(Start: 27 @43542 has 217 MA's), (Start: 41 @43497 has 1 MA's), (43, 43467), (50, 43419), (56, 43377),

Gene: Treddle_66 Start: 43796, Stop: 43503, Start Num: 27

Candidate Starts for Treddle_66:

(19, 43823), (Start: 27 @43796 has 217 MA's), (Start: 41 @43751 has 1 MA's), (43, 43721), (47, 43709), (50, 43673), (56, 43631),

Gene: Tripl3t_70 Start: 45279, Stop: 44986, Start Num: 27

Candidate Starts for Tripl3t_70:

(Start: 27 @45279 has 217 MA's), (Start: 41 @45234 has 1 MA's), (43, 45204), (47, 45192), (50, 45156), (56, 45114),

Gene: Trouble_66 Start: 42897, Stop: 42604, Start Num: 27

Candidate Starts for Trouble_66:

(Start: 27 @42897 has 217 MA's), (Start: 41 @42852 has 1 MA's), (43, 42822), (50, 42774), (56, 42732),

Gene: Turj99_64 Start: 43466, Stop: 43173, Start Num: 27

Candidate Starts for Turj99_64:

(19, 43493), (Start: 27 @43466 has 217 MA's), (43, 43391), (50, 43343), (56, 43301),

Gene: TwoPeat_67 Start: 43318, Stop: 43025, Start Num: 27

Candidate Starts for TwoPeat_67:

(19, 43345), (Start: 27 @43318 has 217 MA's), (Start: 41 @43273 has 1 MA's), (43, 43243), (50, 43195), (56, 43153),

Gene: U2_62 Start: 43288, Stop: 42995, Start Num: 27

Candidate Starts for U2_62:

(19, 43315), (Start: 27 @43288 has 217 MA's), (Start: 41 @43243 has 1 MA's), (43, 43213), (50, 43165), (56, 43123),

Gene: VC3_73 Start: 43176, Stop: 42916, Start Num: 32

Candidate Starts for VC3_73:

(Start: 32 @43176 has 5 MA's), (52, 43071), (56, 43038), (63, 43005), (66, 42984), (72, 42930), (73, 42927),

Gene: Vanisoa_70 Start: 43200, Stop: 42919, Start Num: 34

Candidate Starts for Vanisoa_70:

(Start: 34 @43200 has 29 MA's), (56, 43059), (66, 43005),

Gene: Violet_63 Start: 44154, Stop: 43861, Start Num: 27

Candidate Starts for Violet_63:

(19, 44181), (Start: 27 @44154 has 217 MA's), (Start: 41 @44109 has 1 MA's), (43, 44079), (50, 44031), (56, 43989),

Gene: Waits_80 Start: 43700, Stop: 43422, Start Num: 34

Candidate Starts for Waits_80:

(14, 43775), (Start: 34 @43700 has 29 MA's), (48, 43622), (52, 43583), (56, 43550), (61, 43520), (63, 43517), (66, 43496), (69, 43463),

Gene: Warrior24_81 Start: 44177, Stop: 43899, Start Num: 34

Candidate Starts for Warrior24_81:

(14, 44252), (Start: 34 @44177 has 29 MA's), (48, 44099), (52, 44060), (56, 44027), (61, 43997), (63, 43994), (66, 43973), (69, 43940),

Gene: Watermelon_65 Start: 41890, Stop: 41597, Start Num: 27

Candidate Starts for Watermelon_65:

(19, 41917), (Start: 27 @41890 has 217 MA's), (Start: 41 @41845 has 1 MA's), (43, 41815), (50, 41767), (56, 41725),

Gene: WeiHuaDA_71 Start: 43855, Stop: 43616, Start Num: 40

Candidate Starts for WeiHuaDA_71:

(Start: 30 @43894 has 2 MA's), (Start: 40 @43855 has 1 MA's), (52, 43780), (56, 43747), (63, 43714), (65, 43705), (66, 43693), (71, 43642),

Gene: Wheeler_68 Start: 43157, Stop: 42864, Start Num: 27

Candidate Starts for Wheeler_68:

(19, 43184), (Start: 27 @43157 has 217 MA's), (Start: 41 @43112 has 1 MA's), (43, 43082), (47, 43070), (50, 43034), (56, 42992),

Gene: Whitspit_61 Start: 40235, Stop: 39942, Start Num: 27

Candidate Starts for Whitspit_61:

(Start: 27 @40235 has 217 MA's), (Start: 41 @40190 has 1 MA's), (43, 40160), (50, 40112), (56, 40070),

Gene: Wilkins_64 Start: 41487, Stop: 41194, Start Num: 27

Candidate Starts for Wilkins_64:

(19, 41514), (Start: 27 @41487 has 217 MA's), (Start: 41 @41442 has 1 MA's), (43, 41412), (50, 41364), (56, 41322),

Gene: WorldCup_70 Start: 42333, Stop: 42031, Start Num: 27

Candidate Starts for WorldCup_70:

(7, 42543), (Start: 27 @42333 has 217 MA's), (56, 42171), (66, 42117),

Gene: Zeeculate_65 Start: 43127, Stop: 42834, Start Num: 27

Candidate Starts for Zeeculate_65:

(Start: 27 @43127 has 217 MA's), (Start: 41 @43082 has 1 MA's), (43, 43052), (50, 43004), (56, 42962), (71, 42857),

Gene: Zephyr_67 Start: 42228, Stop: 41935, Start Num: 27

Candidate Starts for Zephyr_67:

(19, 42255), (Start: 27 @42228 has 217 MA's), (Start: 41 @42183 has 1 MA's), (43, 42153), (50, 42105), (56, 42063),

Gene: Zeuska_71 Start: 45391, Stop: 45098, Start Num: 27

Candidate Starts for Zeuska_71:

(Start: 27 @45391 has 217 MA's), (Start: 41 @45346 has 1 MA's), (43, 45316), (50, 45268), (56, 45226),