

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 157488 Report

This analysis was run 04/13/24 on database version 558.

Pham number 157488 has 432 members, 52 are drafts.

Phages represented in each track:

- Track 1 : Morgushi_46, MiniBoss_46, Hamish_46, Spartan300_46, Bluephacebaby_45, Schadenfreude_45, Beaglebox_45, Kwadwo_45, PhenghisKhan_45, JangoPhett_46, Haleema_45, Horchata_46, Mcshane_45, LostAndPhound_45, Eremos_46, Veritas_45, Timmi_45, True_45, Solosis_45, Lulumae_45, Dice_48, AbsoluteMadLad_45, Keitherie_46, PhrankReynolds_44, Telesworld_45, Colbert_46, Brilliant_46, Charles1_46, Phergie_45, UAch1_46, Quisquiliae_46, Omniscient_46, Squiggle_46, Xavier_45, Lulwa_46, Phipps_46, Wallhey_45, Banjo_45, Jillium_45, Held_46, Slatt_46, HenryJackson_45, FugateOSU_45, Vaishali24_45, Roliet_46, Harvey_46, Orfeu_46, Mag7_45, Nyala_45, DaddyDaniels_46, Lasso_46, Valjean_46, Tooj_46, Robyn_45, Ricotta_46, DoesntMatter_45, AltPhacts_46, DonSanchon_45, Mikota_46, Gophee_46, Potter_45, Hartsy_45, KingTut_37, Vaticameos_42, Piglet_0045, Fozzie_45, Scrick_46, BlueHusk_46, MRabcd_45, Puhltonio_46, Mesh1_46, Kahve_45, LeiMonet_47, Kimbrough_46, PhatLouie_46, Daka_47, ShiVal_46, Oosterbaan_46, Lumine_45, TomBombadil_46, YouGoGlencoco_46, Kloppinator_46, Anderson_46, HSavage_46, Labeouficaum_45, CharlieGBrown_45, Placalicious_45, Zaidier_47, Cosmolli16_45, BatteryCK_45, Struggle_45, Derpp_45, FriarPreacher_45, Soto_46, Haimas_46, DirtJuice_46, Kwksand96_45, Zelda_46, TallGrassMM_46, EmpTee_46, Carthage_44, Matalotodo_46, Cannibal_46, Buckeye_46, Dione_45, Orwigg_46, Sheila_46, Thora_46, Samaymay_46, Hetaeria_46, LuckyMarjie_45, Basato_47, Phleuron_45, Usavi_46, Swiphy_48, Pacifista_48, Melc17_46, Pipsqueak_46, Chaelin_46, Cher_45, Burr_45, KingVeVeVe_46, Megamind20_46, Roscoe_47, MrPhizzler_45, Vivaldi_46, Serpentine_0046, Murdoc_46, SassyCat97_45, MichaelPhcott_45, Prickles_46, Iridoclysis_46, Simielle_45, Riggan_46, Magic8_46, DelRivs_45, Weher20_46, MitKao_46, Numberten_46, Boehler_46, Maru_45, Aelin_45, Rimu_48, Pops_46, Pinkman_45, Chunky_46, Bishoperium_45, Gwilliam_47, Vortex_46, Olive_46, OliverWalter_46, SDcharge11_46, PImatters_46, Oline_45, Tomlarah_46, Waterdiva_46, Nicole21_46, Altwerkus_45, Manad_45, JakeO_45, Giraffe_46, Frankicide_46, Jiminy_45, Freya_45, Mosaic_45, Podrick_46, Grand2040_45, KlimbOn_46, KLucky39_46, Selr12_47, Phunky_46, Suffolk_46, Roy17_46, Windsor_45, Skippy_46, Sophia_45, Lopsy_45, Coletti_45, UncleHowie_46, Eugenia_46, Duggie_45, Serendipity_46, Crownjwl_46, CamL_46, ProfessorX_46, Kailash_46, Schueller_46, Mana_45, QueenBeane_46, Gyarad_0046, Dingo_46, Cornobble_45, LeeLot_46, GeneCoco_46, PinheadLarry_46, Doddsville_46, Phareon_46, Longacauda_45, Mecca_45, Etaye_46, Virgeve_45, Toni_45, Surely_46, TyrionL_45, Vista_46, Chorkpop_46, Childish_45, Inverness_46, Virapocalypse_46, Newman_46,

Cobra_46, Hocus_45, CheetO_46, LemonSlice_46, Squid_46, Daffy_46, Antonia_45, Hertubise_46

- Track 2 : ABU_46, Badfish_46, LasagnaCat_46, Katniss_46, Orion_46, Scoot17C_46, Emiris_46, Megatron_46, PhrodoBaggins_45, Swish_46, IsaacEli_46, PhatCats2014_46, JacAttac_46, Phamished_46, HighStump_45, CampRoach_46, Fang_46, Craff_46, Maskar_45, Fringe_46, Pherdinand_46, Adriana_46, DuchessDung_44, PG1_46, RedMaple_45, Mulan_45, Nacho_0046, OSmaximus_46, Inchworm_46, FluffyNinja_46, Chah_47, Yoshand_46, BlackStallion_46, ThreeOh3D2_46, Morty_46, Ashraf_45, ImtiyazSitla_45, Trypo_46, MelsMeow_45, Kikipoo_46, Sigman_46, Durga_46, Andre_47

- Track 3 : Soile_46, Gareth_45

- Track 4 : Chute_45, JDog_46, Dati_46

- Track 5 : Apizium_45

- Track 6 : Zonia_46

- Track 7 : Mutante_45, Olak_46

- Track 8 : Legolas_45

- Track 9 : Imvubu_37

- Track 10 : Indlovu_43

- Track 11 : LilMcDreamy_42

- Track 12 : BirdsNest_47

- Track 13 : Zenteno07_49

- Track 14 : Hashim76_48

- Track 15 : Tinciduntolum_46, Hedgerow_45, TA17A_45, Boyle_45, Eaglehorse_45, Arbiter_44, Ares_45, MasterPo_45, FrenchFry_45, Bananafish_45, Blocker23_45, Tres_45, Holeinone_45, Sabella_44, Allegro_45, Glass_45, Lephleur_45, ItsyBitsy1_45, Kheth_45, Kaleb_45, Phantasmagoria_45, LizLemon_45, Brownie5_45, Calamitous_45, Faze9_44, West99_45, Coffee_45, Godines_45, Rhinoforte_45, Rosebush_44, Opia_45

- Track 16 : Lars_45

- Track 17 : Laurie_44

- Track 18 : Yahalom_44, Nozo_44, Daisy_44, Rita1961_44, Obutu_44, Gervas_44, Philly_43, Corofin_44, Heathcliff_44, Mortcellus_43, Abinghost_44, Gadjet_45, Devonte_44, Deenasa_44, OrangeOswald_44, Compostia_45, LestyG_44, SynergyX_44, Baloo_44, MmasiCarm_44, Kamiyu_44, Athena_45, Phlyer_44, Yinz_44, ChaChing_44, Pipefish_46, Briakila_45, Neos5_44, RomaT_44, Marley1013_44, GlenHope_45, RagingRooster_44, Kronus_43

- Track 19 : Phaedrus_42, Morty007_44, Halfpint_43, Chandler_44, Casbah_43, Jackstina_41, Ben11_43, Phayeta_45, Akoma_44, Tydolla_44, SlippinJimmy_44, Audrey_44

- Track 20 : Bernardo_45

- Track 21 : HarveySr_44

- Track 22 : Prince_42, Zemanar_42, VioletZ_42, Austelle_42, Lolalove_41

- Track 23 : JaguarMi_41

- Track 24 : Fortunato_42

- Track 25 : ChrisnMich_41

- Track 26 : Apex_42

- Track 27 : AlanGrant_43

- Track 28 : Mithril_41, Hydro_41, Heath_40, BobbyK_41, Waleliano_41, Mudslide_41, Hangman_41

- Track 29 : JAMaL_41

- Track 30 : Vincenzo_42

- Track 31 : Nanao_40, Poster_40

- Track 32 : Nigel_40

- Track 33 : Magpie_40
- Track 34 : BrownCNA_43
- Track 35 : RawrgerThat_42
- Track 36 : Frederick_41
- Track 37 : Stinger_40
- Track 38 : Cooper_42
- Track 39 : EastView9101_45, SirJeffery_45, Acadian_45, Donny_45, Suigeneris_45
- Track 40 : Mysterious_46
- Track 41 : Bae_44, Rich_43
- Track 42 : Reprobate_45, Phelemich_44
- Track 43 : Nangang_44, DigitDog_44
- Track 44 : Serendipitous_44
- Track 45 : StinkyVeggy_46
- Track 46 : KayaCho_38
- Track 47 : Hosp_036
- Track 48 : Jolie1_038
- Track 49 : 40BC_038, 39HC_038
- Track 50 : Saguaro_46
- Track 51 : Thonko_44
- Track 52 : CRB2_47
- Track 53 : Funsized_47
- Track 54 : Quesadilla_47
- Track 55 : PenguinLover67_47
- Track 56 : Knocker_46
- Track 57 : Axumite_39, Shatter_39, Ligma_39, Fresco_39
- Track 58 : MossRose_41, MakoManhole_41, AnarQue_41
- Track 59 : Mariokart_39
- Track 60 : Sour_44
- Track 61 : CaiB_41
- Track 62 : BiggityBass_39
- Track 63 : NHagos_39
- Track 64 : Evaa_39
- Track 65 : AnClar_40, Yago84_39, Sisko_39
- Track 66 : CloverMinnie_41
- Track 67 : LittleMunchkin_41
- Track 68 : Wooper_41
- Track 69 : CharlottesWeb_39
- Track 70 : StAugustine_60

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

The start number called the most often in the published annotations is 23, it was called in 199 of the 380 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbsoluteMadLad_45, Aelin_45, AltPhacts_46, Altwerkus_45, Anderson_46, Antonia_45, Banjo_45, Basato_47, BatteryCK_45, Beaglebox_45, Bishoperium_45, BlueHusk_46, Bluephacebaby_45, Bohler_46, Brilliant_46, Buckeye_46, Burr_45, CamL_46, Cannibal_46, Carthage_44, Chaelin_46, Charles1_46, CharlieGBrown_45, CheetO_46, Cher_45, Childish_45, Chorkpop_46, Chunky_46, Cobra_46,

Colbert_46, Coletti_45, Cornobble_45, Cosmolli16_45, Crownjwl_46, DaddyDaniels_46, Daffy_46, Daka_47, DelRivs_45, Derpp_45, Dice_48, Dingo_46, Dione_45, DirtJuice_46, Doddsville_46, DoesntMatter_45, DonSanchon_45, Duggie_45, EmpTee_46, Eremos_46, Etaye_46, Eugenia_46, Fozzie_45, Frankicide_46, Freya_45, FriarPreacher_45, FugateOSU_45, GeneCoco_46, Giraffe_46, Gophee_46, Grand2040_45, Gwilliam_47, Gyarad_0046, HSavage_46, Haimas_46, Haleema_45, Hamish_46, Hartsy_45, Harvey_46, Held_46, HenryJackson_45, Hertubise_46, Hetaeria_46, Hocus_45, Horchata_46, Inverness_46, Iridoclysis_46, JakeO_45, JangoPhett_46, Jillium_45, Jiminy_45, KLucky39_46, Kahve_45, Kailash_46, Keitherie_46, Kimbrough_46, KingTut_37, KingVeVeVe_46, KlimbOn_46, Kloppinator_46, Kwadwo_45, Kwksand96_45, Labeouficaum_45, Lasso_46, LeeLot_46, LeiMonet_47, LemonSlice_46, Longacauda_45, Lopsy_45, LostAndPhound_45, LuckyMarjie_45, Lulumae_45, Lulwa_46, Lumine_45, MRabcd_45, Mag7_45, Magic8_46, Mana_45, Manad_45, Maru_45, Matalotodo_46, Mcshane_45, Mecca_45, Megamind20_46, Melc17_46, Mesh1_46, MichaelPhcott_45, Mikota_46, MiniBoss_46, MitKao_46, Morgushi_46, Mosaic_45, MrPhizzler_45, Murdoc_46, Newman_46, Nicole21_46, Numberten_46, Nyala_45, Oline_45, Olive_46, OliverWalter_46, Omniscient_46, Oosterbaan_46, Orfeu_46, Orwigg_46, Pacifista_48, Phareon_46, PhatLouie_46, PhenghisKhan_45, Phergie_45, Phipps_46, Phleuron_45, PhrankReynolds_44, Phunky_46, Piglet_0045, PinheadLarry_46, Pinkman_45, Pipsqueak_46, Placalicious_45, Plmatters_46, Podrick_46, Pops_46, Potter_45, Prickles_46, ProfessorX_46, Puhltonio_46, QueenBeane_46, Quisquilliae_46, Ricotta_46, Riggan_46, Rimu_48, Robyn_45, Roliet_46, Roscoe_47, Roy17_46, SDcharge11_46, Samaymay_46, SassyCat97_45, Schadenfreude_45, Schueller_46, Scrick_46, Selr12_47, Serendipity_46, Serpentine_0046, Sheila_46, ShiVal_46, Simielle_45, Skippy_46, Slatt_46, Solosis_45, Sophia_45, Soto_46, Spartan300_46, Squid_46, Squiggle_46, Struggle_45, Suffolk_46, Surely_46, Swiphy_48, TallGrassMM_46, Telesworld_45, Thora_46, Timmi_45, TomBombadil_46, Tomlarah_46, Toni_45, Tooj_46, True_45, TyrionL_45, UAch1_46, UncleHowie_46, Usavi_46, Vaishali24_45, Valjean_46, Vaticameos_42, Veritas_45, Virapocalypse_46, Virgeve_45, Vista_46, Vivaldi_46, Vortex_46, Wallhey_45, Waterdiva_46, Weher20_46, Windsor_45, Xavier_45, YouGoGlencoco_46, Zaider_47, Zelda_46,

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

• Chute_45, Dati_46, Gareth_45, JDog_46, Mutante_45, Olak_46, Soile_46,

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

• 39HC_038, 40BC_038, ABU_46, Abinghost_44, Acadian_45, Adriana_46, Akoma_44, AlanGrant_43, Allegro_45, AnClar_40, AnarQue_41, Andre_47, Apex_42, Apizium_45, Arbiter_44, Ares_45, Ashraf_45, Athena_45, Audrey_44, Austelle_42, Axumite_39, Badfish_46, Bae_44, Baloo_44, Bananafish_45, Ben11_43, Bernardo_45, BiggityBass_39, BirdsNest_47, BlackStallion_46, Blocker23_45, BobbyK_41, Boyle_45, Briakila_45, BrownCNA_43, Brownie5_45, CRB2_47, CaiB_41, Calamitous_45, CampRoach_46, Casbah_43, ChaChing_44, Chah_47, Chandler_44, CharlottesWeb_39, ChrisnMich_41, CloverMinnie_41, Coffee_45, Compostia_45, Cooper_42, Corofin_44, Craff_46, Daisy_44, Deenasa_44, Devonte_44, DigitDog_44, Donny_45, DuchessDung_44, Durga_46, Eaglehorse_45, EastView9101_45, Emiris_46, Eva_39, Fang_46, Faze9_44, FluffyNinja_46, Fortunato_42, Frederick_41, FrenchFry_45, Fresco_39, Fringe_46, Funsized_47, Gadget_45, Gervas_44, Glass_45, GlenHope_45, Godines_45, Halfpint_43, Hangman_41, HarveySr_44, Hashim76_48, Heath_40, Heathcliff_44, Hedgerow_45, HighStump_45, Holeinone_45, Hosp_036, Hydro_41, ImtiyazSitla_45,

Imvubu_37, Inchworm_46, Indlovu_43, IsaacEli_46, ItsyBitsy1_45, JAMaL_41, JacAttac_46, Jackstina_41, JaguarMi_41, Jolie1_038, Kaleb_45, Kamiyu_44, Katniss_46, KayaCho_38, Kheth_45, Kikipoo_46, Knocker_46, Kronus_43, Lars_45, LasagnaCat_46, Laurie_44, Legolas_45, Lephleur_45, LestyG_44, Ligma_39, LilMcDreamy_42, LittleMunchkin_41, LizLemon_45, Lolalove_41, Magpie_40, MakoManhole_41, Mariokart_39, Marley1013_44, Maskar_45, MasterPo_45, Megatron_46, MelsMeow_45, Mithril_41, MmasiCarm_44, Mortcellus_43, Morty007_44, Morty_46, MossRose_41, Mudslide_41, Mulan_45, Mysterious_46, NHagos_39, Nacho_0046, Nanao_40, Nangang_44, Neos5_44, Nigel_40, Nozo_44, OSmaximus_46, Obutu_44, Opia_45, OrangeOswald_44, Orion_46, PG1_46, PenguinLover67_47, Phaedrus_42, Phamished_46, Phantasmagoria_45, PhatCats2014_46, Phayeta_45, Phelemich_44, Pherdinand_46, Philly_43, Phlyer_44, PhrodoBaggins_45, Pipefish_46, Poster_40, Prince_42, Quesadilla_47, RagingRooster_44, RawrgerThat_42, RedMaple_45, Reprobate_45, Rhinoforte_45, Rich_43, Rita1961_44, RomaT_44, Rosebush_44, Sabella_44, Saguaro_46, Scoot17C_46, Serendipitous_44, Shatter_39, Sigman_46, SirJeffery_45, Sisko_39, SlippinJimmy_44, Sour_44, StAugustine_60, Stinger_40, StinkyVeggy_46, Suigeneris_45, Swish_46, SynergyX_44, TA17A_45, Thonko_44, ThreeOh3D2_46, Tinciduntolum_46, Tres_45, Trypo_46, Tydolla_44, Vincenzo_42, VioletZ_42, Waleliano_41, West99_45, Wooper_41, Yago84_39, Yahalom_44, Yinz_44, Yoshand_46, Zemanar_42, Zenteno07_49, Zonia_46,

Summary by start number:

Start 14:

- Found in 73 of 432 (16.9%) of genes in pham
- Manual Annotations of this start: 2 of 380
- Called 2.7% of time when present
- Phage (with cluster) where this start called: Bernardo_45 (B3), Fortunato_42 (B4),

Start 23:

- Found in 225 of 432 (52.1%) of genes in pham
- Manual Annotations of this start: 199 of 380
- Called 96.9% of time when present
- Phage (with cluster) where this start called: AbsoluteMadLad_45 (B1), Aelin_45 (B1), AltPhacts_46 (B1), Altwerkus_45 (B1), Anderson_46 (B1), Antonia_45 (B1), Banjo_45 (B1), Basato_47 (B1), BatteryCK_45 (B1), Beaglebox_45 (B1), Bishoperium_45 (B1), BlueHusk_46 (B1), Bluephacebaby_45 (B1), Boehler_46 (B1), Brilliant_46 (B1), Buckeye_46 (B1), Burr_45 (B1), CamL_46 (B1), Cannibal_46 (B1), Carthage_44 (B1), Chaelin_46 (B1), Charles1_46 (B1), CharlieGBrown_45 (B1), CheetO_46 (B1), Cher_45 (B1), Childish_45 (B1), Chorkpop_46 (B1), Chunky_46 (B1), Cobra_46 (B1), Colbert_46 (B1), Coletti_45 (B1), Cornobble_45 (B1), Cosmolli16_45 (B1), Crownjwl_46 (B1), DaddyDaniels_46 (B1), Daffy_46 (B1), Daka_47 (B1), DelRivs_45 (B1), Derpp_45 (B1), Dice_48 (B1), Dingo_46 (B1), Dione_45 (B1), DirtJuice_46 (B1), Doddsville_46 (B1), DoesntMatter_45 (B1), DonSanchon_45 (B1), Duggie_45 (B1), EmpTee_46 (B1), Eremos_46 (B1), Etaye_46 (B1), Eugenia_46 (B1), Fozzie_45 (B1), Frankicide_46 (B1), Freya_45 (B1), FriarPreacher_45 (B1), FugateOSU_45 (B1), GeneCoco_46 (B1), Giraffe_46 (B1), Gophee_46 (B1), Grand2040_45 (B1), Gwilliam_47 (B1), Gyarad_0046 (B1), HSavage_46 (B1), Haimas_46 (B1), Haleema_45 (B1), Hamish_46 (B1), Hartsy_45 (B1), Harvey_46 (B1), Held_46 (B1), HenryJackson_45 (B1), Hertubise_46 (B1), Hetaeria_46 (B1), Hocus_45 (B1), Horchata_46 (B1), Inverness_46 (B1), Iridoclysis_46 (B1), JakeO_45 (B1), JangoPhett_46 (B1), Jillium_45 (B1), Jiminy_45

(B1), KLucky39_46 (B1), Kahve_45 (B1), Kailash_46 (B1), Keitherie_46 (B1), Kimbrough_46 (B1), KingTut_37 (B1), KingVeVeVe_46 (B1), KlimbOn_46 (B1), Kloppinator_46 (B1), Kwadwo_45 (B1), Kwksand96_45 (B1), Labeouficaum_45 (B1), Lasso_46 (B1), LeeLot_46 (B1), LeiMonet_47 (B1), LemonSlice_46 (B1), Longacauda_45 (B1), Lopsy_45 (B1), LostAndPhound_45 (B1), LuckyMarjie_45 (B1), Lulumae_45 (B1), Lulwa_46 (B1), Lumine_45 (B1), MRabcd_45 (B1), Mag7_45 (B1), Magic8_46 (B1), Mana_45 (B1), Manad_45 (B1), Maru_45 (B1), Matalotodo_46 (B1), Mcshane_45 (B1), Mecca_45 (B1), Megamind20_46 (B1), Melc17_46 (B1), Mesh1_46 (B1), MichaelPhcott_45 (B1), Mikota_46 (B1), MiniBoss_46 (B1), MitKao_46 (B1), Morgushi_46 (B1), Mosaic_45 (B1), MrPhizzler_45 (B1), Murdoc_46 (B1), Newman_46 (B1), Nicole21_46 (B1), Numberten_46 (B1), Nyala_45 (B1), Oline_45 (B1), Olive_46 (B1), OliverWalter_46 (B1), Omniscient_46 (B1), Oosterbaan_46 (B1), Orfeu_46 (B1), Orwigg_46 (B1), Pacifista_48 (B1), Phareon_46 (B1), PhatLouie_46 (B1), PhenghisKhan_45 (B1), Phergie_45 (B1), Phipps_46 (B1), Phleuron_45 (B1), PhrankReynolds_44 (B1), Phunky_46 (B1), Piglet_0045 (B1), PinheadLarry_46 (B1), Pinkman_45 (B1), Pipsqueak_46 (B1), Placalicious_45 (B1), Plmatters_46 (B1), Podrick_46 (B1), Pops_46 (B1), Potter_45 (B1), Prickles_46 (B1), ProfessorX_46 (B1), Puhltonio_46 (B1), QueenBeane_46 (B1), Quisquilliae_46 (B1), Ricotta_46 (B1), Riggan_46 (B1), Rimu_48 (B1), Robyn_45 (B1), Roliet_46 (B1), Roscoe_47 (B1), Roy17_46 (B1), SDcharge11_46 (B1), Samaymay_46 (B1), SassyCat97_45 (B1), Schadenfreude_45 (B1), Schueller_46 (B1), Scrick_46 (B1), Selr12_47 (B1), Serendipity_46 (B1), Serpentine_0046 (B1), Sheila_46 (B1), ShiVal_46 (B1), Simielle_45 (B1), Skippy_46 (B1), Slatt_46 (B1), Solosis_45 (B1), Sophia_45 (B1), Soto_46 (B1), Spartan300_46 (B1), Squid_46 (B1), Squiggle_46 (B1), Struggle_45 (B1), Suffolk_46 (B1), Surely_46 (B1), Swiphy_48 (B1), TallGrassMM_46 (B1), Telesworld_45 (B1), Thora_46 (B1), Timmi_45 (B1), TomBombadil_46 (B1), Tomlarah_46 (B1), Toni_45 (B1), Tooj_46 (B1), True_45 (B1), TyrionL_45 (B1), UAch1_46 (B1), UncleHowie_46 (B1), Usavi_46 (B1), Vaishali24_45 (B1), Valjean_46 (B1), Vaticameos_42 (B1), Veritas_45 (B1), Virapocalypse_46 (B1), Virgeve_45 (B1), Vista_46 (B1), Vivaldi_46 (B1), Vortex_46 (B1), Wallhey_45 (B1), Waterdiva_46 (B1), Weher20_46 (B1), Windsor_45 (B1), Xavier_45 (B1), YouGoGlencoco_46 (B1), Zaider_47 (B1), Zelda_46 (B1),

Start 33:

- Found in 1 of 432 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 380
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Imvubu_37 (B10),

Start 34:

- Found in 7 of 432 (1.6%) of genes in pham
- Manual Annotations of this start: 4 of 380
- Called 85.7% of time when present
- Phage (with cluster) where this start called: BirdsNest_47 (B13), Hashim76_48 (B13), JaguarMi_41 (B4), PenguinLover67_47 (B9), Quesadilla_47 (B9), Zenteno07_49 (B13),

Start 37:

- Found in 6 of 432 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 380
- Called 16.7% of time when present
- Phage (with cluster) where this start called: CloverMinnie_41 (DR),

Start 38:

- Found in 2 of 432 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 380
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Vincenzo_42 (B4),

Start 41:

- Found in 47 of 432 (10.9%) of genes in pham
- Manual Annotations of this start: 34 of 380
- Called 72.3% of time when present
- Phage (with cluster) where this start called: Abinghost_44 (B3), Athena_45 (B3), Baloo_44 (B3), Briakila_45 (B3), ChaChing_44 (B3), Compostia_45 (B3), Corofin_44 (B3), Daisy_44 (B3), Deenasa_44 (B3), Devonte_44 (B3), Gadjet_45 (B3), Gervas_44 (B3), GlenHope_45 (B3), HarveySr_44 (B3), Heathcliff_44 (B3), Kamiyu_44 (B3), Kronus_43 (B3), LestyG_44 (B3), Marley1013_44 (B3), MmasiCarm_44 (B3), Mortcellus_43 (B3), Neos5_44 (B3), Nozo_44 (B3), Obutu_44 (B3), OrangeOswald_44 (B3), Philly_43 (B3), Phlyer_44 (B3), Pipefish_46 (B3), RagingRooster_44 (B3), Rita1961_44 (B3), RomaT_44 (B3), SynergyX_44 (B3), Yahalom_44 (B3), Yinz_44 (B3),

Start 43:

- Found in 26 of 432 (6.0%) of genes in pham
- Manual Annotations of this start: 3 of 380
- Called 11.5% of time when present
- Phage (with cluster) where this start called: BrownCNA_43 (B4), Nigel_40 (B4), Stinger_40 (B4),

Start 46:

- Found in 328 of 432 (75.9%) of genes in pham
- Manual Annotations of this start: 64 of 380
- Called 22.9% of time when present
- Phage (with cluster) where this start called: ABU_46 (B1), Adriana_46 (B1), Akoma_44 (B3), AnClar_40 (DR), Andre_47 (B1), Apizium_45 (B1), Ashraf_45 (B1), Audrey_44 (B3), Axumite_39 (DR), Badfish_46 (B1), Ben11_43 (B3), BiggityBass_39 (DR), BlackStallion_46 (B1), CampRoach_46 (B1), Casbah_43 (B3), Chah_47 (B1), Chandler_44 (B3), Chute_45 (B1), Craff_46 (B1), Dati_46 (B1), DuchessDung_44 (B1), Durga_46 (B1), Emiris_46 (B1), Fang_46 (B1), FluffyNinja_46 (B1), Fresco_39 (DR), Fringe_46 (B1), Gareth_45 (B1), Halfpint_43 (B3), HighStump_45 (B1), ImtiyazSitla_45 (B1), Inchworm_46 (B1), IsaacEli_46 (B1), JDog_46 (B1), JacAttac_46 (B1), Jackstina_41 (B3), Katniss_46 (B1), Kikipoo_46 (B1), LasagnaCat_46 (B1), Legolas_45 (B1), Ligma_39 (DR), LittleMunchkin_41 (DR), Mariokart_39 (DR), Maskar_45 (B1), Megatron_46 (B1), MelsMeow_45 (B1), Morty007_44 (B3), Morty_46 (B1), Mulan_45 (B1), Mutante_45 (B1), Nacho_0046 (B1), OSmaximus_46 (B1), Olak_46 (B1), Orion_46 (B1), PG1_46 (B1), Phaedrus_42 (B3), Phamished_46 (B1), PhatCats2014_46 (B1), Phayeta_45 (B3), Pherdinand_46 (B1), PhrodoBaggins_45 (B1), RedMaple_45 (B1), Scoot17C_46 (B1), Shatter_39 (DR), Sigman_46 (B1), Sisko_39 (DR), SlippinJimmy_44 (B3), Soile_46 (B1), Swish_46 (B1), ThreeOh3D2_46 (B1), Trypo_46 (B1), Tydolla_44 (B3), Yago84_39 (DR), Yoshand_46 (B1), Zonia_46 (B1),

Start 47:

- Found in 1 of 432 (0.2%) of genes in pham
- No Manual Annotations of this start.

- Called 100.0% of time when present
- Phage (with cluster) where this start called: CharlottesWeb_39 (DR),

Start 48:

- Found in 1 of 432 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 380
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sour_44 (DR),

Start 49:

- Found in 5 of 432 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 380
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 39HC_038 (B6), 40BC_038 (B6), Hosp_036 (B6), Jolie1_038 (B6), KayaCho_38 (B6),

Start 50:

- Found in 33 of 432 (7.6%) of genes in pham
- Manual Annotations of this start: 21 of 380
- Called 81.8% of time when present
- Phage (with cluster) where this start called: AnarQue_41 (DR), Apex_42 (B4), Austelle_42 (B4), BobbyK_41 (B4), CaiB_41 (DR), ChrisnMich_41 (B4), Cooper_42 (B4), Frederick_41 (B4), Hangman_41 (B4), Heath_40 (B4), Hydro_41 (B4), JAMaL_41 (B4), Lolalove_41 (B4), Magpie_40 (B4), MakoManhole_41 (DR), Mithril_41 (B4), MossRose_41 (DR), Mudslide_41 (B4), NHagos_39 (DR), Nanao_40 (B4), Poster_40 (B4), Prince_42 (B4), RawrgerThat_42 (B4), VioletZ_42 (B4), Waleliano_41 (B4), Wooper_41 (DR), Zemanar_42 (B4),

Start 51:

- Found in 2 of 432 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 380
- Called 50.0% of time when present
- Phage (with cluster) where this start called: AlanGrant_43 (B4),

Start 56:

- Found in 39 of 432 (9.0%) of genes in pham
- Manual Annotations of this start: 32 of 380
- Called 87.2% of time when present
- Phage (with cluster) where this start called: Allegro_45 (B2), Arbiter_44 (B2), Ares_45 (B2), Bananafish_45 (B2), Blocker23_45 (B2), Boyle_45 (B2), Brownie5_45 (B2), CRB2_47 (B9), Calamitous_45 (B2), Coffee_45 (B2), Eaglehorse_45 (B2), Faze9_44 (B2), FrenchFry_45 (B2), Glass_45 (B2), Godines_45 (B2), Hedgerow_45 (B2), Holeinone_45 (B2), ItsyBitsy1_45 (B2), Kaleb_45 (B2), Kheth_45 (B2), Lars_45 (B2), Laurie_44 (B2), Lephleur_45 (B2), LizLemon_45 (B2), MasterPo_45 (B2), Opia_45 (B2), Phantasmagoria_45 (B2), Rhinoforte_45 (B2), Rosebush_44 (B2), Sabella_44 (B2), TA17A_45 (B2), Tinciduntolum_46 (B2), Tres_45 (B2), West99_45 (B2),

Start 58:

- Found in 17 of 432 (3.9%) of genes in pham
- Manual Annotations of this start: 11 of 380
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Acadian_45 (B5), Bae_44 (B5), DigitDog_44 (B5), Donny_45 (B5), EastView9101_45 (B5), Indlovu_43 (B11), LilMcDreamy_42 (B12), Mysterious_46 (B5), Nangang_44 (B5), Phelemich_44 (B5), Reprobate_45 (B5), Rich_43 (B5), Serendipitous_44 (B5), SirJeffery_45 (B5), StinkyVeggy_46 (B5), Suigeneris_45 (B5), Thonko_44 (B8),

Start 59:

- Found in 1 of 432 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 380
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Evaa_39 (DR),

Start 60:

- Found in 4 of 432 (0.9%) of genes in pham
- Manual Annotations of this start: 3 of 380
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Funsized_47 (B9), Knocker_46 (B9), Saguaro_46 (B7), StAugustine_60 (singleton),

Summary by clusters:

There are 15 clusters represented in this pham: singleton, B10, B8, B3, B4, B5, B6, B7, B12, B1, B2, B11, DR, B9, B13,

Info for manual annotations of cluster B1:

- Start number 23 was manually annotated 199 times for cluster B1.
- Start number 46 was manually annotated 47 times for cluster B1.

Info for manual annotations of cluster B10:

- Start number 33 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B11:

- Start number 58 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:

- Start number 58 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 34 was manually annotated 2 times for cluster B13.

Info for manual annotations of cluster B2:

- Start number 56 was manually annotated 31 times for cluster B2.

Info for manual annotations of cluster B3:

- Start number 14 was manually annotated 1 time for cluster B3.
- Start number 41 was manually annotated 34 times for cluster B3.
- Start number 46 was manually annotated 9 times for cluster B3.

Info for manual annotations of cluster B4:

- Start number 14 was manually annotated 1 time for cluster B4.
- Start number 38 was manually annotated 1 time for cluster B4.
- Start number 43 was manually annotated 3 times for cluster B4.
- Start number 50 was manually annotated 16 times for cluster B4.

- Start number 51 was manually annotated 1 time for cluster B4.

Info for manual annotations of cluster B5:

- Start number 58 was manually annotated 8 times for cluster B5.

Info for manual annotations of cluster B6:

- Start number 49 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster B7:

- Start number 60 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B8:

- Start number 58 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

- Start number 34 was manually annotated 2 times for cluster B9.
- Start number 56 was manually annotated 1 time for cluster B9.
- Start number 60 was manually annotated 2 times for cluster B9.

Info for manual annotations of cluster DR:

- Start number 37 was manually annotated 1 time for cluster DR.
- Start number 46 was manually annotated 8 times for cluster DR.
- Start number 48 was manually annotated 1 time for cluster DR.
- Start number 50 was manually annotated 5 times for cluster DR.
- Start number 59 was manually annotated 1 time for cluster DR.

Gene Information:

Gene: 39HC_038 Start: 37421, Stop: 36984, Start Num: 49

Candidate Starts for 39HC_038:

(19, 37574), (21, 37565), (31, 37511), (Start: 49 @37421 has 1 MA's), (61, 37355), (68, 37295), (79, 37208), (82, 37196), (83, 37175), (105, 37076),

Gene: 40BC_038 Start: 37421, Stop: 36984, Start Num: 49

Candidate Starts for 40BC_038:

(19, 37574), (21, 37565), (31, 37511), (Start: 49 @37421 has 1 MA's), (61, 37355), (68, 37295), (79, 37208), (82, 37196), (83, 37175), (105, 37076),

Gene: ABU_46 Start: 39612, Stop: 39187, Start Num: 46

Candidate Starts for ABU_46:

(20, 39762), (22, 39753), (24, 39738), (Start: 46 @39612 has 64 MA's), (63, 39534), (64, 39519), (72, 39474),

Gene: Abinghost_44 Start: 39509, Stop: 39024, Start Num: 41

Candidate Starts for Abinghost_44:

(Start: 14 @39680 has 2 MA's), (30, 39578), (36, 39524), (Start: 41 @39509 has 34 MA's), (Start: 46 @39461 has 64 MA's), (62, 39371), (68, 39326), (69, 39320), (71, 39314), (75, 39263), (88, 39176), (93, 39152), (105, 39104),

Gene: AbsoluteMadLad_45 Start: 39726, Stop: 39196, Start Num: 23

Candidate Starts for AbsoluteMadLad_45:

(Start: 23 @39726 has 199 MA's), (Start: 46 @39621 has 64 MA's), (63, 39543), (64, 39528), (72, 39483),

Gene: Acadian_45 Start: 40034, Stop: 39648, Start Num: 58

Candidate Starts for Acadian_45:

(26, 40172), (Start: 58 @40034 has 11 MA's), (61, 40013), (65, 39974), (68, 39953), (74, 39893), (79, 39866), (101, 39779), (105, 39743), (109, 39725), (116, 39689), (121, 39668),

Gene: Adriana_46 Start: 39610, Stop: 39185, Start Num: 46

Candidate Starts for Adriana_46:

(20, 39760), (22, 39751), (24, 39736), (Start: 46 @39610 has 64 MA's), (63, 39532), (64, 39517), (72, 39472),

Gene: Aelin_45 Start: 39278, Stop: 38751, Start Num: 23

Candidate Starts for Aelin_45:

(Start: 23 @39278 has 199 MA's), (Start: 46 @39176 has 64 MA's), (63, 39098), (64, 39083), (72, 39038),

Gene: Akoma_44 Start: 39465, Stop: 39028, Start Num: 46

Candidate Starts for Akoma_44:

(Start: 14 @39684 has 2 MA's), (30, 39582), (36, 39528), (Start: 41 @39513 has 34 MA's), (Start: 46 @39465 has 64 MA's), (62, 39375), (68, 39330), (69, 39324), (71, 39318), (75, 39267), (88, 39180), (93, 39156), (105, 39108),

Gene: AlanGrant_43 Start: 40379, Stop: 39954, Start Num: 51

Candidate Starts for AlanGrant_43:

(19, 40535), (21, 40526), (Start: 38 @40436 has 1 MA's), (Start: 51 @40379 has 1 MA's), (64, 40292), (65, 40286), (68, 40265), (70, 40256), (83, 40145), (94, 40097), (105, 40052), (109, 40034), (114, 40004), (118, 39989),

Gene: Allegro_45 Start: 39852, Stop: 39463, Start Num: 56

Candidate Starts for Allegro_45:

(Start: 56 @39852 has 32 MA's), (63, 39795), (68, 39753), (72, 39732), (75, 39687), (77, 39672), (79, 39663), (82, 39651), (83, 39630), (99, 39567), (101, 39561), (105, 39525), (106, 39522), (115, 39483),

Gene: AltPhacts_46 Start: 39698, Stop: 39174, Start Num: 23

Candidate Starts for AltPhacts_46:

(Start: 23 @39698 has 199 MA's), (Start: 46 @39599 has 64 MA's), (63, 39521), (64, 39506), (72, 39461),

Gene: Altwerkus_45 Start: 39405, Stop: 38875, Start Num: 23

Candidate Starts for Altwerkus_45:

(Start: 23 @39405 has 199 MA's), (Start: 46 @39300 has 64 MA's), (63, 39222), (64, 39207), (72, 39162),

Gene: AnClar_40 Start: 36039, Stop: 35620, Start Num: 46

Candidate Starts for AnClar_40:

(Start: 46 @36039 has 64 MA's), (68, 35922), (72, 35904), (107, 35703), (112, 35667), (114, 35661),

Gene: AnarQue_41 Start: 35226, Stop: 34840, Start Num: 50

Candidate Starts for AnarQue_41:

(Start: 37 @35280 has 1 MA's), (Start: 50 @35226 has 21 MA's), (65, 35166), (67, 35151), (76, 35058), (79, 35046), (83, 35013), (95, 34965), (102, 34956),

Gene: Anderson_46 Start: 39704, Stop: 39180, Start Num: 23

Candidate Starts for Anderson_46:

(Start: 23 @39704 has 199 MA's), (Start: 46 @39605 has 64 MA's), (63, 39527), (64, 39512), (72, 39467),

Gene: Andre_47 Start: 39604, Stop: 39179, Start Num: 46

Candidate Starts for Andre_47:

(20, 39754), (22, 39745), (24, 39730), (Start: 46 @39604 has 64 MA's), (63, 39526), (64, 39511), (72, 39466),

Gene: Antonia_45 Start: 39278, Stop: 38751, Start Num: 23

Candidate Starts for Antonia_45:

(Start: 23 @39278 has 199 MA's), (Start: 46 @39176 has 64 MA's), (63, 39098), (64, 39083), (72, 39038),

Gene: Apex_42 Start: 39799, Stop: 39374, Start Num: 50

Candidate Starts for Apex_42:

(Start: 14 @40009 has 2 MA's), (15, 39985), (17, 39973), (28, 39919), (Start: 43 @39832 has 3 MA's), (Start: 50 @39799 has 21 MA's), (53, 39793), (68, 39691), (76, 39616), (79, 39604), (83, 39571), (85, 39562), (101, 39514), (105, 39478), (109, 39460),

Gene: Apizium_45 Start: 39365, Stop: 38940, Start Num: 46

Candidate Starts for Apizium_45:

(20, 39518), (22, 39509), (24, 39494), (Start: 46 @39365 has 64 MA's), (63, 39287), (64, 39272), (72, 39227),

Gene: Arbiter_44 Start: 39938, Stop: 39549, Start Num: 56

Candidate Starts for Arbiter_44:

(Start: 56 @39938 has 32 MA's), (63, 39881), (68, 39839), (72, 39818), (75, 39773), (77, 39758), (79, 39749), (82, 39737), (83, 39716), (99, 39653), (101, 39647), (105, 39611), (106, 39608), (115, 39569),

Gene: Ares_45 Start: 39922, Stop: 39533, Start Num: 56

Candidate Starts for Ares_45:

(Start: 56 @39922 has 32 MA's), (63, 39865), (68, 39823), (72, 39802), (75, 39757), (77, 39742), (79, 39733), (82, 39721), (83, 39700), (99, 39637), (101, 39631), (105, 39595), (106, 39592), (115, 39553),

Gene: Ashraf_45 Start: 39169, Stop: 38744, Start Num: 46

Candidate Starts for Ashraf_45:

(20, 39319), (22, 39310), (24, 39295), (Start: 46 @39169 has 64 MA's), (63, 39091), (64, 39076), (72, 39031),

Gene: Athena_45 Start: 40260, Stop: 39775, Start Num: 41

Candidate Starts for Athena_45:

(Start: 14 @40431 has 2 MA's), (30, 40329), (36, 40275), (Start: 41 @40260 has 34 MA's), (Start: 46 @40212 has 64 MA's), (62, 40122), (68, 40077), (69, 40071), (71, 40065), (75, 40014), (88, 39927), (93, 39903), (105, 39855),

Gene: Audrey_44 Start: 39461, Stop: 39024, Start Num: 46

Candidate Starts for Audrey_44:

(Start: 14 @39680 has 2 MA's), (30, 39578), (36, 39524), (Start: 41 @39509 has 34 MA's), (Start: 46 @39461 has 64 MA's), (62, 39371), (68, 39326), (69, 39320), (71, 39314), (75, 39263), (88, 39176), (93, 39152), (105, 39104),

Gene: Austelle_42 Start: 40255, Stop: 39830, Start Num: 50

Candidate Starts for Austelle_42:

(Start: 14 @40459 has 2 MA's), (15, 40435), (17, 40423), (28, 40369), (Start: 43 @40288 has 3 MA's), (Start: 50 @40255 has 21 MA's), (53, 40249), (68, 40147), (76, 40072), (79, 40060), (83, 40027), (85, 40018), (101, 39970), (105, 39934), (109, 39916),

Gene: Axumite_39 Start: 33273, Stop: 32851, Start Num: 46

Candidate Starts for Axumite_39:

(Start: 46 @33273 has 64 MA's), (68, 33156), (72, 33138), (76, 33081), (90, 32994), (95, 32979), (107, 32934), (114, 32892),

Gene: Badfish_46 Start: 39635, Stop: 39210, Start Num: 46

Candidate Starts for Badfish_46:

(20, 39785), (22, 39776), (24, 39761), (Start: 46 @39635 has 64 MA's), (63, 39557), (64, 39542), (72, 39497),

Gene: Bae_44 Start: 39937, Stop: 39551, Start Num: 58

Candidate Starts for Bae_44:

(Start: 58 @39937 has 11 MA's), (61, 39916), (65, 39877), (68, 39856), (74, 39796), (79, 39769), (101, 39682), (105, 39646), (113, 39601),

Gene: Baloo_44 Start: 39512, Stop: 39027, Start Num: 41

Candidate Starts for Baloo_44:

(Start: 14 @39683 has 2 MA's), (30, 39581), (36, 39527), (Start: 41 @39512 has 34 MA's), (Start: 46 @39464 has 64 MA's), (62, 39374), (68, 39329), (69, 39323), (71, 39317), (75, 39266), (88, 39179), (93, 39155), (105, 39107),

Gene: Bananafish_45 Start: 39858, Stop: 39469, Start Num: 56

Candidate Starts for Bananafish_45:

(Start: 56 @39858 has 32 MA's), (63, 39801), (68, 39759), (72, 39738), (75, 39693), (77, 39678), (79, 39669), (82, 39657), (83, 39636), (99, 39573), (101, 39567), (105, 39531), (106, 39528), (115, 39489),

Gene: Banjo_45 Start: 39409, Stop: 38885, Start Num: 23

Candidate Starts for Banjo_45:

(Start: 23 @39409 has 199 MA's), (Start: 46 @39310 has 64 MA's), (63, 39232), (64, 39217), (72, 39172),

Gene: Basato_47 Start: 39988, Stop: 39464, Start Num: 23

Candidate Starts for Basato_47:

(Start: 23 @39988 has 199 MA's), (Start: 46 @39889 has 64 MA's), (63, 39811), (64, 39796), (72, 39751),

Gene: BatteryCK_45 Start: 39331, Stop: 38804, Start Num: 23

Candidate Starts for BatteryCK_45:

(Start: 23 @39331 has 199 MA's), (Start: 46 @39229 has 64 MA's), (63, 39151), (64, 39136), (72, 39091),

Gene: Beaglebox_45 Start: 39430, Stop: 38906, Start Num: 23

Candidate Starts for Beaglebox_45:

(Start: 23 @39430 has 199 MA's), (Start: 46 @39331 has 64 MA's), (63, 39253), (64, 39238), (72, 39193),

Gene: Ben11_43 Start: 39283, Stop: 38846, Start Num: 46

Candidate Starts for Ben11_43:

(Start: 14 @39502 has 2 MA's), (30, 39400), (36, 39346), (Start: 41 @39331 has 34 MA's), (Start: 46 @39283 has 64 MA's), (62, 39193), (68, 39148), (69, 39142), (71, 39136), (75, 39085), (88, 38998), (93, 38974), (105, 38926),

Gene: Bernardo_45 Start: 40228, Stop: 39572, Start Num: 14

Candidate Starts for Bernardo_45:

(Start: 14 @40228 has 2 MA's), (30, 40126), (36, 40072), (Start: 41 @40057 has 34 MA's), (Start: 46 @40009 has 64 MA's), (62, 39919), (68, 39874), (69, 39868), (71, 39862), (75, 39811), (88, 39724), (93, 39700), (105, 39652),

Gene: BiggityBass_39 Start: 35501, Stop: 35082, Start Num: 46

Candidate Starts for BiggityBass_39:

(21, 35645), (32, 35582), (Start: 46 @35501 has 64 MA's), (68, 35384), (72, 35366), (79, 35297), (106, 35168), (107, 35165), (114, 35123),

Gene: BirdsNest_47 Start: 38392, Stop: 37877, Start Num: 34

Candidate Starts for BirdsNest_47:

(19, 38476), (Start: 34 @38392 has 4 MA's), (40, 38359), (44, 38332), (Start: 56 @38296 has 32 MA's), (68, 38191), (71, 38179), (78, 38107), (96, 38017), (99, 38005), (119, 37909),

Gene: Bishoperium_45 Start: 39418, Stop: 38894, Start Num: 23

Candidate Starts for Bishoperium_45:

(Start: 23 @39418 has 199 MA's), (Start: 46 @39319 has 64 MA's), (63, 39241), (64, 39226), (72, 39181),

Gene: BlackStallion_46 Start: 39621, Stop: 39196, Start Num: 46

Candidate Starts for BlackStallion_46:

(20, 39771), (22, 39762), (24, 39747), (Start: 46 @39621 has 64 MA's), (63, 39543), (64, 39528), (72, 39483),

Gene: Blocker23_45 Start: 39976, Stop: 39587, Start Num: 56

Candidate Starts for Blocker23_45:

(Start: 56 @39976 has 32 MA's), (63, 39919), (68, 39877), (72, 39856), (75, 39811), (77, 39796), (79, 39787), (82, 39775), (83, 39754), (99, 39691), (101, 39685), (105, 39649), (106, 39646), (115, 39607),

Gene: BlueHusk_46 Start: 39223, Stop: 38693, Start Num: 23

Candidate Starts for BlueHusk_46:

(Start: 23 @39223 has 199 MA's), (Start: 46 @39118 has 64 MA's), (63, 39040), (64, 39025), (72, 38980),

Gene: Bluephacebaby_45 Start: 39421, Stop: 38891, Start Num: 23

Candidate Starts for Bluephacebaby_45:

(Start: 23 @39421 has 199 MA's), (Start: 46 @39316 has 64 MA's), (63, 39238), (64, 39223), (72, 39178),

Gene: BobbyK_41 Start: 39624, Stop: 39199, Start Num: 50

Candidate Starts for BobbyK_41:

(Start: 14 @39828 has 2 MA's), (15, 39804), (17, 39792), (28, 39738), (Start: 43 @39657 has 3 MA's), (Start: 50 @39624 has 21 MA's), (68, 39516), (76, 39441), (79, 39429), (83, 39396), (85, 39387), (101, 39339), (105, 39303), (109, 39285),

Gene: Boehler_46 Start: 39727, Stop: 39197, Start Num: 23

Candidate Starts for Boehler_46:

(Start: 23 @39727 has 199 MA's), (Start: 46 @39622 has 64 MA's), (63, 39544), (64, 39529), (72, 39484),

Gene: Boyle_45 Start: 39977, Stop: 39588, Start Num: 56

Candidate Starts for Boyle_45:

(Start: 56 @39977 has 32 MA's), (63, 39920), (68, 39878), (72, 39857), (75, 39812), (77, 39797), (79, 39788), (82, 39776), (83, 39755), (99, 39692), (101, 39686), (105, 39650), (106, 39647), (115, 39608),

Gene: Briakila_45 Start: 40279, Stop: 39794, Start Num: 41

Candidate Starts for Briakila_45:

(Start: 14 @40450 has 2 MA's), (30, 40348), (36, 40294), (Start: 41 @40279 has 34 MA's), (Start: 46 @40231 has 64 MA's), (62, 40141), (68, 40096), (69, 40090), (71, 40084), (75, 40033), (88, 39946), (93, 39922), (105, 39874),

Gene: Brilliant_46 Start: 39426, Stop: 38902, Start Num: 23

Candidate Starts for Brilliant_46:

(Start: 23 @39426 has 199 MA's), (Start: 46 @39327 has 64 MA's), (63, 39249), (64, 39234), (72, 39189),

Gene: BrownCNA_43 Start: 39918, Stop: 39460, Start Num: 43

Candidate Starts for BrownCNA_43:

(Start: 14 @40089 has 2 MA's), (15, 40065), (17, 40053), (28, 39999), (Start: 43 @39918 has 3 MA's), (Start: 50 @39885 has 21 MA's), (68, 39777), (76, 39702), (79, 39690), (83, 39657), (85, 39648), (101, 39600), (105, 39564), (109, 39546),

Gene: Brownie5_45 Start: 39983, Stop: 39594, Start Num: 56

Candidate Starts for Brownie5_45:

(Start: 56 @39983 has 32 MA's), (63, 39926), (68, 39884), (72, 39863), (75, 39818), (77, 39803), (79, 39794), (82, 39782), (83, 39761), (99, 39698), (101, 39692), (105, 39656), (106, 39653), (115, 39614),

Gene: Buckeye_46 Start: 39741, Stop: 39214, Start Num: 23

Candidate Starts for Buckeye_46:

(Start: 23 @39741 has 199 MA's), (Start: 46 @39639 has 64 MA's), (63, 39561), (64, 39546), (72, 39501),

Gene: Burr_45 Start: 39415, Stop: 38891, Start Num: 23

Candidate Starts for Burr_45:

(Start: 23 @39415 has 199 MA's), (Start: 46 @39316 has 64 MA's), (63, 39238), (64, 39223), (72, 39178),

Gene: CRB2_47 Start: 42140, Stop: 41727, Start Num: 56

Candidate Starts for CRB2_47:

(19, 42299), (21, 42290), (Start: 34 @42215 has 4 MA's), (Start: 56 @42140 has 32 MA's), (65, 42065), (120, 41756),

Gene: CaiB_41 Start: 35212, Stop: 34826, Start Num: 50

Candidate Starts for CaiB_41:

(Start: 37 @35266 has 1 MA's), (Start: 50 @35212 has 21 MA's), (63, 35173), (65, 35152), (67, 35137), (76, 35044), (79, 35032), (81, 35023), (83, 34999), (95, 34951), (102, 34942),

Gene: Calamitous_45 Start: 39863, Stop: 39474, Start Num: 56

Candidate Starts for Calamitous_45:

(Start: 56 @39863 has 32 MA's), (63, 39806), (68, 39764), (72, 39743), (75, 39698), (77, 39683), (79, 39674), (82, 39662), (83, 39641), (99, 39578), (101, 39572), (105, 39536), (106, 39533), (115, 39494),

Gene: CamL_46 Start: 39716, Stop: 39192, Start Num: 23

Candidate Starts for CamL_46:

(Start: 23 @39716 has 199 MA's), (Start: 46 @39617 has 64 MA's), (63, 39539), (64, 39524), (72, 39479),

Gene: CampRoach_46 Start: 39607, Stop: 39182, Start Num: 46

Candidate Starts for CampRoach_46:

(20, 39757), (22, 39748), (24, 39733), (Start: 46 @39607 has 64 MA's), (63, 39529), (64, 39514), (72, 39469),

Gene: Cannibal_46 Start: 39699, Stop: 39175, Start Num: 23

Candidate Starts for Cannibal_46:

(Start: 23 @39699 has 199 MA's), (Start: 46 @39600 has 64 MA's), (63, 39522), (64, 39507), (72, 39462),

Gene: Carthage_44 Start: 38628, Stop: 38104, Start Num: 23

Candidate Starts for Carthage_44:

(Start: 23 @38628 has 199 MA's), (Start: 46 @38529 has 64 MA's), (63, 38451), (64, 38436), (72, 38391),

Gene: Casbah_43 Start: 39313, Stop: 38876, Start Num: 46

Candidate Starts for Casbah_43:

(Start: 14 @39532 has 2 MA's), (30, 39430), (36, 39376), (Start: 41 @39361 has 34 MA's), (Start: 46 @39313 has 64 MA's), (62, 39223), (68, 39178), (69, 39172), (71, 39166), (75, 39115), (88, 39028), (93, 39004), (105, 38956),

Gene: ChaChing_44 Start: 39524, Stop: 39039, Start Num: 41

Candidate Starts for ChaChing_44:

(Start: 14 @39695 has 2 MA's), (30, 39593), (36, 39539), (Start: 41 @39524 has 34 MA's), (Start: 46 @39476 has 64 MA's), (62, 39386), (68, 39341), (69, 39335), (71, 39329), (75, 39278), (88, 39191), (93, 39167), (105, 39119),

Gene: Chaelin_46 Start: 39416, Stop: 38889, Start Num: 23

Candidate Starts for Chaelin_46:

(Start: 23 @39416 has 199 MA's), (Start: 46 @39314 has 64 MA's), (63, 39236), (64, 39221), (72, 39176),

Gene: Chah_47 Start: 39634, Stop: 39209, Start Num: 46

Candidate Starts for Chah_47:

(20, 39784), (22, 39775), (24, 39760), (Start: 46 @39634 has 64 MA's), (63, 39556), (64, 39541), (72, 39496),

Gene: Chandler_44 Start: 40244, Stop: 39807, Start Num: 46

Candidate Starts for Chandler_44:

(Start: 14 @40463 has 2 MA's), (30, 40361), (36, 40307), (Start: 41 @40292 has 34 MA's), (Start: 46 @40244 has 64 MA's), (62, 40154), (68, 40109), (69, 40103), (71, 40097), (75, 40046), (88, 39959), (93, 39935), (105, 39887),

Gene: Charles1_46 Start: 39701, Stop: 39177, Start Num: 23

Candidate Starts for Charles1_46:

(Start: 23 @39701 has 199 MA's), (Start: 46 @39602 has 64 MA's), (63, 39524), (64, 39509), (72, 39464),

Gene: CharlieGBrown_45 Start: 39291, Stop: 38767, Start Num: 23

Candidate Starts for CharlieGBrown_45:

(Start: 23 @39291 has 199 MA's), (Start: 46 @39192 has 64 MA's), (63, 39114), (64, 39099), (72, 39054),

Gene: CharlottesWeb_39 Start: 33161, Stop: 32775, Start Num: 47

Candidate Starts for CharlottesWeb_39:

(47, 33161), (71, 33047), (72, 33041), (79, 32972), (81, 32963), (95, 32888), (107, 32843), (109, 32831),

Gene: CheetO_46 Start: 39721, Stop: 39191, Start Num: 23

Candidate Starts for CheetO_46:

(Start: 23 @39721 has 199 MA's), (Start: 46 @39616 has 64 MA's), (63, 39538), (64, 39523), (72, 39478),

Gene: Cher_45 Start: 39438, Stop: 38914, Start Num: 23

Candidate Starts for Cher_45:

(Start: 23 @39438 has 199 MA's), (Start: 46 @39339 has 64 MA's), (63, 39261), (64, 39246), (72, 39201),

Gene: Childish_45 Start: 39441, Stop: 38917, Start Num: 23

Candidate Starts for Childish_45:

(Start: 23 @39441 has 199 MA's), (Start: 46 @39342 has 64 MA's), (63, 39264), (64, 39249), (72, 39204),

Gene: Chorkpop_46 Start: 39437, Stop: 38913, Start Num: 23

Candidate Starts for Chorkpop_46:

(Start: 23 @39437 has 199 MA's), (Start: 46 @39338 has 64 MA's), (63, 39260), (64, 39245), (72, 39200),

Gene: ChrisnMich_41 Start: 38585, Stop: 38160, Start Num: 50

Candidate Starts for ChrisnMich_41:

(Start: 14 @38789 has 2 MA's), (17, 38753), (28, 38699), (Start: 43 @38618 has 3 MA's), (Start: 50 @38585 has 21 MA's), (68, 38477), (76, 38402), (83, 38357), (85, 38348), (101, 38300), (105, 38264), (109, 38246),

Gene: Chunky_46 Start: 39724, Stop: 39200, Start Num: 23

Candidate Starts for Chunky_46:

(Start: 23 @39724 has 199 MA's), (Start: 46 @39625 has 64 MA's), (63, 39547), (64, 39532), (72, 39487),

Gene: Chute_45 Start: 39663, Stop: 39238, Start Num: 46

Candidate Starts for Chute_45:

(Start: 23 @39765 has 199 MA's), (Start: 46 @39663 has 64 MA's), (63, 39585), (64, 39570), (72, 39525),

Gene: CloverMinnie_41 Start: 35206, Stop: 34766, Start Num: 37

Candidate Starts for CloverMinnie_41:

(Start: 37 @35206 has 1 MA's), (Start: 50 @35152 has 21 MA's), (65, 35092), (67, 35077), (76, 34984), (79, 34972), (83, 34939), (95, 34891), (102, 34882),

Gene: Cobra_46 Start: 39722, Stop: 39198, Start Num: 23

Candidate Starts for Cobra_46:

(Start: 23 @39722 has 199 MA's), (Start: 46 @39623 has 64 MA's), (63, 39545), (64, 39530), (72, 39485),

Gene: Coffee_45 Start: 39966, Stop: 39577, Start Num: 56

Candidate Starts for Coffee_45:

(Start: 56 @39966 has 32 MA's), (63, 39909), (68, 39867), (72, 39846), (75, 39801), (77, 39786), (79, 39777), (82, 39765), (83, 39744), (99, 39681), (101, 39675), (105, 39639), (106, 39636), (115, 39597),

Gene: Colbert_46 Start: 39777, Stop: 39253, Start Num: 23

Candidate Starts for Colbert_46:

(Start: 23 @39777 has 199 MA's), (Start: 46 @39678 has 64 MA's), (63, 39600), (64, 39585), (72, 39540),

Gene: Coletti_45 Start: 39765, Stop: 39238, Start Num: 23

Candidate Starts for Coletti_45:

(Start: 23 @39765 has 199 MA's), (Start: 46 @39663 has 64 MA's), (63, 39585), (64, 39570), (72, 39525),

Gene: Compostia_45 Start: 39940, Stop: 39455, Start Num: 41

Candidate Starts for Compostia_45:

(Start: 14 @40111 has 2 MA's), (30, 40009), (36, 39955), (Start: 41 @39940 has 34 MA's), (Start: 46 @39892 has 64 MA's), (62, 39802), (68, 39757), (69, 39751), (71, 39745), (75, 39694), (88, 39607), (93, 39583), (105, 39535),

Gene: Cooper_42 Start: 38807, Stop: 38379, Start Num: 50

Candidate Starts for Cooper_42:

(Start: 14 @39008 has 2 MA's), (17, 38972), (Start: 43 @38840 has 3 MA's), (Start: 50 @38807 has 21 MA's), (68, 38696), (76, 38621), (79, 38609), (85, 38567), (101, 38519), (104, 38486), (105, 38483), (109, 38465), (118, 38420),

Gene: Cornobble_45 Start: 39279, Stop: 38752, Start Num: 23

Candidate Starts for Cornobble_45:

(Start: 23 @39279 has 199 MA's), (Start: 46 @39177 has 64 MA's), (63, 39099), (64, 39084), (72, 39039),

Gene: Corofin_44 Start: 39535, Stop: 39050, Start Num: 41

Candidate Starts for Corofin_44:

(Start: 14 @39706 has 2 MA's), (30, 39604), (36, 39550), (Start: 41 @39535 has 34 MA's), (Start: 46 @39487 has 64 MA's), (62, 39397), (68, 39352), (69, 39346), (71, 39340), (75, 39289), (88, 39202), (93, 39178), (105, 39130),

Gene: Cosmolli16_45 Start: 39429, Stop: 38902, Start Num: 23

Candidate Starts for Cosmolli16_45:

(Start: 23 @39429 has 199 MA's), (Start: 46 @39327 has 64 MA's), (63, 39249), (64, 39234), (72, 39189),

Gene: Craff_46 Start: 39620, Stop: 39195, Start Num: 46

Candidate Starts for Craff_46:

(20, 39770), (22, 39761), (24, 39746), (Start: 46 @39620 has 64 MA's), (63, 39542), (64, 39527), (72, 39482),

Gene: Crownjwl_46 Start: 39498, Stop: 38968, Start Num: 23

Candidate Starts for Crownjwl_46:

(Start: 23 @39498 has 199 MA's), (Start: 46 @39393 has 64 MA's), (63, 39315), (64, 39300), (72, 39255),

Gene: DaddyDaniels_46 Start: 39410, Stop: 38886, Start Num: 23

Candidate Starts for DaddyDaniels_46:

(Start: 23 @39410 has 199 MA's), (Start: 46 @39311 has 64 MA's), (63, 39233), (64, 39218), (72, 39173),

Gene: Daffy_46 Start: 39441, Stop: 38917, Start Num: 23

Candidate Starts for Daffy_46:

(Start: 23 @39441 has 199 MA's), (Start: 46 @39342 has 64 MA's), (63, 39264), (64, 39249), (72, 39204),

Gene: Daisy_44 Start: 39536, Stop: 39051, Start Num: 41

Candidate Starts for Daisy_44:

(Start: 14 @39707 has 2 MA's), (30, 39605), (36, 39551), (Start: 41 @39536 has 34 MA's), (Start: 46 @39488 has 64 MA's), (62, 39398), (68, 39353), (69, 39347), (71, 39341), (75, 39290), (88, 39203), (93, 39179), (105, 39131),

Gene: Daka_47 Start: 39714, Stop: 39190, Start Num: 23

Candidate Starts for Daka_47:

(Start: 23 @39714 has 199 MA's), (Start: 46 @39615 has 64 MA's), (63, 39537), (64, 39522), (72, 39477),

Gene: Dati_46 Start: 39336, Stop: 38911, Start Num: 46

Candidate Starts for Dati_46:

(Start: 23 @39438 has 199 MA's), (Start: 46 @39336 has 64 MA's), (63, 39258), (64, 39243), (72, 39198),

Gene: Deenasa_44 Start: 40271, Stop: 39786, Start Num: 41

Candidate Starts for Deenasa_44:

(Start: 14 @40442 has 2 MA's), (30, 40340), (36, 40286), (Start: 41 @40271 has 34 MA's), (Start: 46 @40223 has 64 MA's), (62, 40133), (68, 40088), (69, 40082), (71, 40076), (75, 40025), (88, 39938), (93, 39914), (105, 39866),

Gene: DelRivs_45 Start: 39442, Stop: 38912, Start Num: 23

Candidate Starts for DelRivs_45:

(Start: 23 @39442 has 199 MA's), (Start: 46 @39337 has 64 MA's), (63, 39259), (64, 39244), (72, 39199),

Gene: Derpp_45 Start: 39280, Stop: 38756, Start Num: 23

Candidate Starts for Derpp_45:

(Start: 23 @39280 has 199 MA's), (Start: 46 @39181 has 64 MA's), (63, 39103), (64, 39088), (72, 39043),

Gene: Devonte_44 Start: 39500, Stop: 39015, Start Num: 41

Candidate Starts for Devonte_44:

(Start: 14 @39671 has 2 MA's), (30, 39569), (36, 39515), (Start: 41 @39500 has 34 MA's), (Start: 46 @39452 has 64 MA's), (62, 39362), (68, 39317), (69, 39311), (71, 39305), (75, 39254), (88, 39167), (93, 39143), (105, 39095),

Gene: Dice_48 Start: 39412, Stop: 38891, Start Num: 23

Candidate Starts for Dice_48:

(Start: 23 @39412 has 199 MA's), (Start: 46 @39316 has 64 MA's), (63, 39238), (64, 39223), (72, 39178),

Gene: DigitDog_44 Start: 39734, Stop: 39348, Start Num: 58

Candidate Starts for DigitDog_44:

(Start: 58 @39734 has 11 MA's), (61, 39713), (65, 39674), (68, 39653), (74, 39593), (77, 39575), (79, 39566), (101, 39479), (105, 39443), (109, 39425), (116, 39389),

Gene: Dingo_46 Start: 39704, Stop: 39174, Start Num: 23

Candidate Starts for Dingo_46:

(Start: 23 @39704 has 199 MA's), (Start: 46 @39599 has 64 MA's), (63, 39521), (64, 39506), (72, 39461),

Gene: Dione_45 Start: 39420, Stop: 38896, Start Num: 23

Candidate Starts for Dione_45:

(Start: 23 @39420 has 199 MA's), (Start: 46 @39321 has 64 MA's), (63, 39243), (64, 39228), (72, 39183),

Gene: DirtJuice_46 Start: 39704, Stop: 39180, Start Num: 23

Candidate Starts for DirtJuice_46:

(Start: 23 @39704 has 199 MA's), (Start: 46 @39605 has 64 MA's), (63, 39527), (64, 39512), (72, 39467),

Gene: Doddsville_46 Start: 39434, Stop: 38910, Start Num: 23

Candidate Starts for Doddsville_46:

(Start: 23 @39434 has 199 MA's), (Start: 46 @39335 has 64 MA's), (63, 39257), (64, 39242), (72, 39197),

Gene: DoesntMatter_45 Start: 39707, Stop: 39183, Start Num: 23

Candidate Starts for DoesntMatter_45:

(Start: 23 @39707 has 199 MA's), (Start: 46 @39608 has 64 MA's), (63, 39530), (64, 39515), (72, 39470),

Gene: DonSanchon_45 Start: 39417, Stop: 38890, Start Num: 23

Candidate Starts for DonSanchon_45:

(Start: 23 @39417 has 199 MA's), (Start: 46 @39315 has 64 MA's), (63, 39237), (64, 39222), (72, 39177),

Gene: Donny_45 Start: 40039, Stop: 39653, Start Num: 58

Candidate Starts for Donny_45:

(26, 40177), (Start: 58 @40039 has 11 MA's), (61, 40018), (65, 39979), (68, 39958), (74, 39898), (79, 39871), (101, 39784), (105, 39748), (109, 39730), (116, 39694), (121, 39673),

Gene: DuchessDung_44 Start: 38469, Stop: 38044, Start Num: 46

Candidate Starts for DuchessDung_44:

(20, 38619), (22, 38610), (24, 38595), (Start: 46 @38469 has 64 MA's), (63, 38391), (64, 38376), (72, 38331),

Gene: Duggie_45 Start: 39436, Stop: 38912, Start Num: 23

Candidate Starts for Duggie_45:

(Start: 23 @39436 has 199 MA's), (Start: 46 @39337 has 64 MA's), (63, 39259), (64, 39244), (72, 39199),

Gene: Durga_46 Start: 39635, Stop: 39210, Start Num: 46

Candidate Starts for Durga_46:

(20, 39785), (22, 39776), (24, 39761), (Start: 46 @39635 has 64 MA's), (63, 39557), (64, 39542), (72, 39497),

Gene: Eaglehorse_45 Start: 39890, Stop: 39501, Start Num: 56

Candidate Starts for Eaglehorse_45:

(Start: 56 @39890 has 32 MA's), (63, 39833), (68, 39791), (72, 39770), (75, 39725), (77, 39710), (79, 39701), (82, 39689), (83, 39668), (99, 39605), (101, 39599), (105, 39563), (106, 39560), (115, 39521),

Gene: EastView9101_45 Start: 39689, Stop: 39303, Start Num: 58

Candidate Starts for EastView9101_45:

(26, 39827), (Start: 58 @39689 has 11 MA's), (61, 39668), (65, 39629), (68, 39608), (74, 39548), (79, 39521), (101, 39434), (105, 39398), (109, 39380), (116, 39344), (121, 39323),

Gene: Emiris_46 Start: 39603, Stop: 39178, Start Num: 46

Candidate Starts for Emiris_46:

(20, 39753), (22, 39744), (24, 39729), (Start: 46 @39603 has 64 MA's), (63, 39525), (64, 39510), (72, 39465),

Gene: EmpTee_46 Start: 39720, Stop: 39190, Start Num: 23

Candidate Starts for EmpTee_46:

(Start: 23 @39720 has 199 MA's), (Start: 46 @39615 has 64 MA's), (63, 39537), (64, 39522), (72, 39477),

Gene: Eremos_46 Start: 39713, Stop: 39189, Start Num: 23

Candidate Starts for Eremos_46:

(Start: 23 @39713 has 199 MA's), (Start: 46 @39614 has 64 MA's), (63, 39536), (64, 39521), (72, 39476),

Gene: Etaye_46 Start: 39707, Stop: 39180, Start Num: 23

Candidate Starts for Etaye_46:

(Start: 23 @39707 has 199 MA's), (Start: 46 @39605 has 64 MA's), (63, 39527), (64, 39512), (72, 39467),

Gene: Eugenia_46 Start: 39723, Stop: 39199, Start Num: 23

Candidate Starts for Eugenia_46:

(Start: 23 @39723 has 199 MA's), (Start: 46 @39624 has 64 MA's), (63, 39546), (64, 39531), (72, 39486),

Gene: Evaa_39 Start: 34284, Stop: 33898, Start Num: 59

Candidate Starts for Evaa_39:

(55, 34296), (Start: 59 @34284 has 1 MA's), (68, 34194), (72, 34176), (82, 34095), (89, 34041), (92, 34029),

Gene: Fang_46 Start: 39628, Stop: 39203, Start Num: 46

Candidate Starts for Fang_46:

(20, 39778), (22, 39769), (24, 39754), (Start: 46 @39628 has 64 MA's), (63, 39550), (64, 39535), (72, 39490),

Gene: Faze9_44 Start: 39986, Stop: 39597, Start Num: 56

Candidate Starts for Faze9_44:

(Start: 56 @39986 has 32 MA's), (63, 39929), (68, 39887), (72, 39866), (75, 39821), (77, 39806), (79, 39797), (82, 39785), (83, 39764), (99, 39701), (101, 39695), (105, 39659), (106, 39656), (115, 39617),

Gene: FluffyNinja_46 Start: 39621, Stop: 39196, Start Num: 46

Candidate Starts for FluffyNinja_46:

(20, 39771), (22, 39762), (24, 39747), (Start: 46 @39621 has 64 MA's), (63, 39543), (64, 39528), (72, 39483),

Gene: Fortunato_42 Start: 39822, Stop: 39193, Start Num: 14

Candidate Starts for Fortunato_42:

(Start: 14 @39822 has 2 MA's), (17, 39786), (28, 39732), (Start: 43 @39651 has 3 MA's), (Start: 50 @39618 has 21 MA's), (53, 39612), (68, 39510), (76, 39435), (79, 39423), (83, 39390), (85, 39381), (101, 39333), (105, 39297), (109, 39279),

Gene: Fozzie_45 Start: 39742, Stop: 39212, Start Num: 23

Candidate Starts for Fozzie_45:

(Start: 23 @39742 has 199 MA's), (Start: 46 @39637 has 64 MA's), (63, 39559), (64, 39544), (72, 39499),

Gene: Frankicide_46 Start: 39732, Stop: 39208, Start Num: 23

Candidate Starts for Frankicide_46:

(Start: 23 @39732 has 199 MA's), (Start: 46 @39633 has 64 MA's), (63, 39555), (64, 39540), (72, 39495),

Gene: Frederick_41 Start: 39624, Stop: 39199, Start Num: 50

Candidate Starts for Frederick_41:

(Start: 14 @39828 has 2 MA's), (15, 39804), (17, 39792), (28, 39738), (Start: 43 @39657 has 3 MA's), (Start: 50 @39624 has 21 MA's), (68, 39516), (76, 39441), (83, 39396), (85, 39387), (101, 39339), (105, 39303), (109, 39285),

Gene: FrenchFry_45 Start: 39980, Stop: 39591, Start Num: 56

Candidate Starts for FrenchFry_45:

(Start: 56 @39980 has 32 MA's), (63, 39923), (68, 39881), (72, 39860), (75, 39815), (77, 39800), (79, 39791), (82, 39779), (83, 39758), (99, 39695), (101, 39689), (105, 39653), (106, 39650), (115, 39611),

Gene: Fresco_39 Start: 33273, Stop: 32851, Start Num: 46

Candidate Starts for Fresco_39:

(Start: 46 @33273 has 64 MA's), (68, 33156), (72, 33138), (76, 33081), (90, 32994), (95, 32979), (107, 32934), (114, 32892),

Gene: Freya_45 Start: 39411, Stop: 38887, Start Num: 23

Candidate Starts for Freya_45:

(Start: 23 @39411 has 199 MA's), (Start: 46 @39312 has 64 MA's), (63, 39234), (64, 39219), (72, 39174),

Gene: FriarPreacher_45 Start: 39744, Stop: 39214, Start Num: 23

Candidate Starts for FriarPreacher_45:

(Start: 23 @39744 has 199 MA's), (Start: 46 @39639 has 64 MA's), (63, 39561), (64, 39546), (72, 39501),

Gene: Fringe_46 Start: 39604, Stop: 39179, Start Num: 46

Candidate Starts for Fringe_46:

(20, 39754), (22, 39745), (24, 39730), (Start: 46 @39604 has 64 MA's), (63, 39526), (64, 39511), (72, 39466),

Gene: FugateOSU_45 Start: 39419, Stop: 38892, Start Num: 23

Candidate Starts for FugateOSU_45:

(Start: 23 @39419 has 199 MA's), (Start: 46 @39317 has 64 MA's), (63, 39239), (64, 39224), (72, 39179),

Gene: Funsized_47 Start: 42156, Stop: 41758, Start Num: 60

Candidate Starts for Funsized_47:

(Start: 60 @42156 has 3 MA's), (72, 42054), (76, 41997), (77, 41994), (84, 41946), (100, 41886), (109, 41829),

Gene: Gadget_45 Start: 39523, Stop: 39038, Start Num: 41

Candidate Starts for Gadget_45:

(Start: 14 @39694 has 2 MA's), (30, 39592), (36, 39538), (Start: 41 @39523 has 34 MA's), (Start: 46 @39475 has 64 MA's), (62, 39385), (68, 39340), (69, 39334), (71, 39328), (75, 39277), (88, 39190), (93, 39166), (105, 39118),

Gene: Gareth_45 Start: 39320, Stop: 38895, Start Num: 46

Candidate Starts for Gareth_45:

(Start: 23 @39419 has 199 MA's), (Start: 46 @39320 has 64 MA's), (63, 39242), (64, 39227), (72, 39182),

Gene: GeneCoco_46 Start: 39728, Stop: 39204, Start Num: 23

Candidate Starts for GeneCoco_46:

(Start: 23 @39728 has 199 MA's), (Start: 46 @39629 has 64 MA's), (63, 39551), (64, 39536), (72, 39491),

Gene: Gervas_44 Start: 39490, Stop: 39005, Start Num: 41

Candidate Starts for Gervas_44:

(Start: 14 @39661 has 2 MA's), (30, 39559), (36, 39505), (Start: 41 @39490 has 34 MA's), (Start: 46 @39442 has 64 MA's), (62, 39352), (68, 39307), (69, 39301), (71, 39295), (75, 39244), (88, 39157), (93, 39133), (105, 39085),

Gene: Giraffe_46 Start: 39422, Stop: 38898, Start Num: 23

Candidate Starts for Giraffe_46:

(Start: 23 @39422 has 199 MA's), (Start: 46 @39323 has 64 MA's), (63, 39245), (64, 39230), (72, 39185),

Gene: Glass_45 Start: 39980, Stop: 39591, Start Num: 56

Candidate Starts for Glass_45:

(Start: 56 @39980 has 32 MA's), (63, 39923), (68, 39881), (72, 39860), (75, 39815), (77, 39800), (79, 39791), (82, 39779), (83, 39758), (99, 39695), (101, 39689), (105, 39653), (106, 39650), (115, 39611),

Gene: GlenHope_45 Start: 39503, Stop: 39018, Start Num: 41

Candidate Starts for GlenHope_45:

(Start: 14 @39674 has 2 MA's), (30, 39572), (36, 39518), (Start: 41 @39503 has 34 MA's), (Start: 46 @39455 has 64 MA's), (62, 39365), (68, 39320), (69, 39314), (71, 39308), (75, 39257), (88, 39170), (93, 39146), (105, 39098),

Gene: Godines_45 Start: 39922, Stop: 39533, Start Num: 56

Candidate Starts for Godines_45:

(Start: 56 @39922 has 32 MA's), (63, 39865), (68, 39823), (72, 39802), (75, 39757), (77, 39742), (79, 39733), (82, 39721), (83, 39700), (99, 39637), (101, 39631), (105, 39595), (106, 39592), (115, 39553),

Gene: Gophee_46 Start: 39711, Stop: 39181, Start Num: 23

Candidate Starts for Gophee_46:

(Start: 23 @39711 has 199 MA's), (Start: 46 @39606 has 64 MA's), (63, 39528), (64, 39513), (72, 39468),

Gene: Grand2040_45 Start: 39437, Stop: 38913, Start Num: 23

Candidate Starts for Grand2040_45:

(Start: 23 @39437 has 199 MA's), (Start: 46 @39338 has 64 MA's), (63, 39260), (64, 39245), (72, 39200),

Gene: Gwilliam_47 Start: 39717, Stop: 39193, Start Num: 23

Candidate Starts for Gwilliam_47:

(Start: 23 @39717 has 199 MA's), (Start: 46 @39618 has 64 MA's), (63, 39540), (64, 39525), (72, 39480),

Gene: Gyarad_0046 Start: 39719, Stop: 39195, Start Num: 23

Candidate Starts for Gyarad_0046:

(Start: 23 @39719 has 199 MA's), (Start: 46 @39620 has 64 MA's), (63, 39542), (64, 39527), (72, 39482),

Gene: HSavage_46 Start: 39723, Stop: 39199, Start Num: 23

Candidate Starts for HSavage_46:

(Start: 23 @39723 has 199 MA's), (Start: 46 @39624 has 64 MA's), (63, 39546), (64, 39531), (72, 39486),

Gene: Haimas_46 Start: 39717, Stop: 39190, Start Num: 23

Candidate Starts for Haimas_46:

(Start: 23 @39717 has 199 MA's), (Start: 46 @39615 has 64 MA's), (63, 39537), (64, 39522), (72, 39477),

Gene: Haleema_45 Start: 39437, Stop: 38913, Start Num: 23

Candidate Starts for Haleema_45:

(Start: 23 @39437 has 199 MA's), (Start: 46 @39338 has 64 MA's), (63, 39260), (64, 39245), (72, 39200),

Gene: Halfpint_43 Start: 39281, Stop: 38844, Start Num: 46

Candidate Starts for Halfpint_43:

(Start: 14 @39500 has 2 MA's), (30, 39398), (36, 39344), (Start: 41 @39329 has 34 MA's), (Start: 46 @39281 has 64 MA's), (62, 39191), (68, 39146), (69, 39140), (71, 39134), (75, 39083), (88, 38996), (93, 38972), (105, 38924),

Gene: Hamish_46 Start: 39709, Stop: 39182, Start Num: 23

Candidate Starts for Hamish_46:

(Start: 23 @39709 has 199 MA's), (Start: 46 @39607 has 64 MA's), (63, 39529), (64, 39514), (72, 39469),

Gene: Hangman_41 Start: 39616, Stop: 39191, Start Num: 50

Candidate Starts for Hangman_41:

(Start: 14 @39820 has 2 MA's), (15, 39796), (17, 39784), (28, 39730), (Start: 43 @39649 has 3 MA's), (Start: 50 @39616 has 21 MA's), (68, 39508), (76, 39433), (79, 39421), (83, 39388), (85, 39379), (101, 39331), (105, 39295), (109, 39277),

Gene: Hartsy_45 Start: 39760, Stop: 39233, Start Num: 23

Candidate Starts for Hartsy_45:

(Start: 23 @39760 has 199 MA's), (Start: 46 @39658 has 64 MA's), (63, 39580), (64, 39565), (72, 39520),

Gene: Harvey_46 Start: 39735, Stop: 39208, Start Num: 23

Candidate Starts for Harvey_46:

(Start: 23 @39735 has 199 MA's), (Start: 46 @39633 has 64 MA's), (63, 39555), (64, 39540), (72, 39495),

Gene: HarveySr_44 Start: 39496, Stop: 39011, Start Num: 41

Candidate Starts for HarveySr_44:

(Start: 14 @39667 has 2 MA's), (30, 39565), (36, 39511), (Start: 41 @39496 has 34 MA's), (Start: 46 @39448 has 64 MA's), (62, 39358), (68, 39313), (69, 39307), (71, 39301), (75, 39250), (88, 39163), (93, 39139), (105, 39091),

Gene: Hashim76_48 Start: 38870, Stop: 38346, Start Num: 34

Candidate Starts for Hashim76_48:

(9, 39095), (19, 38954), (Start: 34 @38870 has 4 MA's), (35, 38867), (40, 38834), (44, 38807), (57, 38768), (68, 38666), (71, 38654), (78, 38582), (85, 38537), (100, 38480),

Gene: Heath_40 Start: 39223, Stop: 38798, Start Num: 50

Candidate Starts for Heath_40:

(Start: 14 @39427 has 2 MA's), (15, 39403), (17, 39391), (28, 39337), (Start: 43 @39256 has 3 MA's), (Start: 50 @39223 has 21 MA's), (68, 39115), (76, 39040), (79, 39028), (83, 38995), (85, 38986), (101, 38938), (105, 38902), (109, 38884),

Gene: Heathcliff_44 Start: 39474, Stop: 38989, Start Num: 41

Candidate Starts for Heathcliff_44:

(Start: 14 @39645 has 2 MA's), (30, 39543), (36, 39489), (Start: 41 @39474 has 34 MA's), (Start: 46 @39426 has 64 MA's), (62, 39336), (68, 39291), (69, 39285), (71, 39279), (75, 39228), (88, 39141), (93, 39117), (105, 39069),

Gene: Hedgerow_45 Start: 39962, Stop: 39573, Start Num: 56

Candidate Starts for Hedgerow_45:

(Start: 56 @39962 has 32 MA's), (63, 39905), (68, 39863), (72, 39842), (75, 39797), (77, 39782), (79, 39773), (82, 39761), (83, 39740), (99, 39677), (101, 39671), (105, 39635), (106, 39632), (115, 39593),

Gene: Held_46 Start: 39421, Stop: 38897, Start Num: 23

Candidate Starts for Held_46:

(Start: 23 @39421 has 199 MA's), (Start: 46 @39322 has 64 MA's), (63, 39244), (64, 39229), (72, 39184),

Gene: HenryJackson_45 Start: 39437, Stop: 38913, Start Num: 23

Candidate Starts for HenryJackson_45:

(Start: 23 @39437 has 199 MA's), (Start: 46 @39338 has 64 MA's), (63, 39260), (64, 39245), (72, 39200),

Gene: Hertubise_46 Start: 39731, Stop: 39204, Start Num: 23

Candidate Starts for Hertubise_46:

(Start: 23 @39731 has 199 MA's), (Start: 46 @39629 has 64 MA's), (63, 39551), (64, 39536), (72, 39491),

Gene: Hetaeria_46 Start: 39733, Stop: 39206, Start Num: 23

Candidate Starts for Hetaeria_46:

(Start: 23 @39733 has 199 MA's), (Start: 46 @39631 has 64 MA's), (63, 39553), (64, 39538), (72, 39493),

Gene: HighStump_45 Start: 39321, Stop: 38896, Start Num: 46

Candidate Starts for HighStump_45:

(20, 39471), (22, 39462), (24, 39447), (Start: 46 @39321 has 64 MA's), (63, 39243), (64, 39228), (72, 39183),

Gene: Hocus_45 Start: 39426, Stop: 38902, Start Num: 23

Candidate Starts for Hocus_45:

(Start: 23 @39426 has 199 MA's), (Start: 46 @39327 has 64 MA's), (63, 39249), (64, 39234), (72, 39189),

Gene: Holeinone_45 Start: 39842, Stop: 39453, Start Num: 56

Candidate Starts for Holeinone_45:

(Start: 56 @39842 has 32 MA's), (63, 39785), (68, 39743), (72, 39722), (75, 39677), (77, 39662), (79, 39653), (82, 39641), (83, 39620), (99, 39557), (101, 39551), (105, 39515), (106, 39512), (115, 39473),

Gene: Horchata_46 Start: 39711, Stop: 39184, Start Num: 23

Candidate Starts for Horchata_46:

(Start: 23 @39711 has 199 MA's), (Start: 46 @39609 has 64 MA's), (63, 39531), (64, 39516), (72, 39471),

Gene: Hosp_036 Start: 35614, Stop: 35177, Start Num: 49

Candidate Starts for Hosp_036:

(11, 35842), (18, 35770), (Start: 49 @35614 has 1 MA's), (61, 35548), (68, 35488), (79, 35401), (82, 35389), (83, 35368), (105, 35269),

Gene: Hydro_41 Start: 39633, Stop: 39208, Start Num: 50

Candidate Starts for Hydro_41:

(Start: 14 @39837 has 2 MA's), (15, 39813), (17, 39801), (28, 39747), (Start: 43 @39666 has 3 MA's), (Start: 50 @39633 has 21 MA's), (68, 39525), (76, 39450), (79, 39438), (83, 39405), (85, 39396), (101, 39348), (105, 39312), (109, 39294),

Gene: ImtiyazSitla_45 Start: 39169, Stop: 38744, Start Num: 46

Candidate Starts for ImtiyazSitla_45:

(20, 39319), (22, 39310), (24, 39295), (Start: 46 @39169 has 64 MA's), (63, 39091), (64, 39076), (72, 39031),

Gene: Imvubu_37 Start: 36451, Stop: 35897, Start Num: 33

Candidate Starts for Imvubu_37:

(9, 36676), (19, 36532), (21, 36523), (Start: 33 @36451 has 1 MA's), (44, 36370), (52, 36331), (54, 36322), (Start: 56 @36319 has 32 MA's), (68, 36211), (79, 36124), (83, 36091), (84, 36085), (99, 36028), (109, 35968),

Gene: Inchworm_46 Start: 39607, Stop: 39182, Start Num: 46

Candidate Starts for Inchworm_46:

(20, 39757), (22, 39748), (24, 39733), (Start: 46 @39607 has 64 MA's), (63, 39529), (64, 39514), (72, 39469),

Gene: Indlovu_43 Start: 38910, Stop: 38503, Start Num: 58

Candidate Starts for Indlovu_43:

(Start: 58 @38910 has 11 MA's), (65, 38835), (77, 38736), (83, 38694), (97, 38637), (105, 38589),

Gene: Inverness_46 Start: 39720, Stop: 39196, Start Num: 23

Candidate Starts for Inverness_46:

(Start: 23 @39720 has 199 MA's), (Start: 46 @39621 has 64 MA's), (63, 39543), (64, 39528), (72, 39483),

Gene: Iridoclysis_46 Start: 39703, Stop: 39176, Start Num: 23

Candidate Starts for Iridoclysis_46:

(Start: 23 @39703 has 199 MA's), (Start: 46 @39601 has 64 MA's), (63, 39523), (64, 39508), (72, 39463),

Gene: IsaacEli_46 Start: 39625, Stop: 39200, Start Num: 46

Candidate Starts for IsaacEli_46:

(20, 39775), (22, 39766), (24, 39751), (Start: 46 @39625 has 64 MA's), (63, 39547), (64, 39532), (72, 39487),

Gene: ItsyBitsy1_45 Start: 39844, Stop: 39455, Start Num: 56

Candidate Starts for ItsyBitsy1_45:

(Start: 56 @39844 has 32 MA's), (63, 39787), (68, 39745), (72, 39724), (75, 39679), (77, 39664), (79, 39655), (82, 39643), (83, 39622), (99, 39559), (101, 39553), (105, 39517), (106, 39514), (115, 39475),

Gene: JAMaL_41 Start: 39804, Stop: 39379, Start Num: 50

Candidate Starts for JAMaL_41:

(Start: 14 @40008 has 2 MA's), (15, 39984), (17, 39972), (25, 39936), (28, 39918), (Start: 43 @39837 has 3 MA's), (Start: 50 @39804 has 21 MA's), (53, 39798), (68, 39696), (76, 39621), (79, 39609), (83, 39576), (101, 39519), (105, 39483), (109, 39465),

Gene: JDog_46 Start: 39338, Stop: 38913, Start Num: 46

Candidate Starts for JDog_46:

(Start: 23 @39440 has 199 MA's), (Start: 46 @39338 has 64 MA's), (63, 39260), (64, 39245), (72, 39200),

Gene: JacAttac_46 Start: 39607, Stop: 39182, Start Num: 46

Candidate Starts for JacAttac_46:

(20, 39757), (22, 39748), (24, 39733), (Start: 46 @39607 has 64 MA's), (63, 39529), (64, 39514), (72, 39469),

Gene: Jackstina_41 Start: 39385, Stop: 38948, Start Num: 46

Candidate Starts for Jackstina_41:

(Start: 14 @39604 has 2 MA's), (30, 39502), (36, 39448), (Start: 41 @39433 has 34 MA's), (Start: 46 @39385 has 64 MA's), (62, 39295), (68, 39250), (69, 39244), (71, 39238), (75, 39187), (88, 39100),

(93, 39076), (105, 39028),

Gene: JaguarMi_41 Start: 39177, Stop: 38674, Start Num: 34

Candidate Starts for JaguarMi_41:

(19, 39261), (Start: 34 @39177 has 4 MA's), (Start: 43 @39132 has 3 MA's), (Start: 50 @39099 has 21 MA's), (68, 38991), (76, 38916), (79, 38904), (83, 38871), (85, 38862), (101, 38814), (105, 38778), (109, 38760),

Gene: JakeO_45 Start: 39439, Stop: 38915, Start Num: 23

Candidate Starts for JakeO_45:

(Start: 23 @39439 has 199 MA's), (Start: 46 @39340 has 64 MA's), (63, 39262), (64, 39247), (72, 39202),

Gene: JangoPhett_46 Start: 39714, Stop: 39184, Start Num: 23

Candidate Starts for JangoPhett_46:

(Start: 23 @39714 has 199 MA's), (Start: 46 @39609 has 64 MA's), (63, 39531), (64, 39516), (72, 39471),

Gene: Jillium_45 Start: 39433, Stop: 38906, Start Num: 23

Candidate Starts for Jillium_45:

(Start: 23 @39433 has 199 MA's), (Start: 46 @39331 has 64 MA's), (63, 39253), (64, 39238), (72, 39193),

Gene: Jiminy_45 Start: 39274, Stop: 38750, Start Num: 23

Candidate Starts for Jiminy_45:

(Start: 23 @39274 has 199 MA's), (Start: 46 @39175 has 64 MA's), (63, 39097), (64, 39082), (72, 39037),

Gene: Jolie1_038 Start: 37398, Stop: 36964, Start Num: 49

Candidate Starts for Jolie1_038:

(11, 37626), (Start: 49 @37398 has 1 MA's), (65, 37293), (68, 37272), (74, 37212), (79, 37185), (82, 37173), (86, 37140), (105, 37065), (109, 37047),

Gene: KLucky39_46 Start: 39718, Stop: 39194, Start Num: 23

Candidate Starts for KLucky39_46:

(Start: 23 @39718 has 199 MA's), (Start: 46 @39619 has 64 MA's), (63, 39541), (64, 39526), (72, 39481),

Gene: Kahve_45 Start: 39434, Stop: 38910, Start Num: 23

Candidate Starts for Kahve_45:

(Start: 23 @39434 has 199 MA's), (Start: 46 @39335 has 64 MA's), (63, 39257), (64, 39242), (72, 39197),

Gene: Kailash_46 Start: 39775, Stop: 39248, Start Num: 23

Candidate Starts for Kailash_46:

(Start: 23 @39775 has 199 MA's), (Start: 46 @39673 has 64 MA's), (63, 39595), (64, 39580), (72, 39535),

Gene: Kaleb_45 Start: 39977, Stop: 39588, Start Num: 56

Candidate Starts for Kaleb_45:

(Start: 56 @39977 has 32 MA's), (63, 39920), (68, 39878), (72, 39857), (75, 39812), (77, 39797), (79, 39788), (82, 39776), (83, 39755), (99, 39692), (101, 39686), (105, 39650), (106, 39647), (115, 39608),

Gene: Kamiyu_44 Start: 39482, Stop: 38997, Start Num: 41

Candidate Starts for Kamiyu_44:

(Start: 14 @39653 has 2 MA's), (30, 39551), (36, 39497), (Start: 41 @39482 has 34 MA's), (Start: 46 @39434 has 64 MA's), (62, 39344), (68, 39299), (69, 39293), (71, 39287), (75, 39236), (88, 39149), (93, 39125), (105, 39077),

Gene: Katniss_46 Start: 39634, Stop: 39209, Start Num: 46

Candidate Starts for Katniss_46:

(20, 39784), (22, 39775), (24, 39760), (Start: 46 @39634 has 64 MA's), (63, 39556), (64, 39541), (72, 39496),

Gene: KayaCho_38 Start: 37397, Stop: 36963, Start Num: 49

Candidate Starts for KayaCho_38:

(Start: 49 @37397 has 1 MA's), (65, 37292), (68, 37271), (74, 37211), (79, 37184), (82, 37172), (86, 37139), (105, 37064), (109, 37046),

Gene: Keitherie_46 Start: 39774, Stop: 39247, Start Num: 23

Candidate Starts for Keitherie_46:

(Start: 23 @39774 has 199 MA's), (Start: 46 @39672 has 64 MA's), (63, 39594), (64, 39579), (72, 39534),

Gene: Kheth_45 Start: 39865, Stop: 39476, Start Num: 56

Candidate Starts for Kheth_45:

(Start: 56 @39865 has 32 MA's), (63, 39808), (68, 39766), (72, 39745), (75, 39700), (77, 39685), (79, 39676), (82, 39664), (83, 39643), (99, 39580), (101, 39574), (105, 39538), (106, 39535), (115, 39496),

Gene: Kikipoo_46 Start: 39625, Stop: 39200, Start Num: 46

Candidate Starts for Kikipoo_46:

(20, 39775), (22, 39766), (24, 39751), (Start: 46 @39625 has 64 MA's), (63, 39547), (64, 39532), (72, 39487),

Gene: Kimbrough_46 Start: 39435, Stop: 38902, Start Num: 23

Candidate Starts for Kimbrough_46:

(Start: 23 @39435 has 199 MA's), (Start: 46 @39327 has 64 MA's), (63, 39249), (64, 39234), (72, 39189),

Gene: KingTut_37 Start: 35098, Stop: 34571, Start Num: 23

Candidate Starts for KingTut_37:

(Start: 23 @35098 has 199 MA's), (Start: 46 @34996 has 64 MA's), (63, 34918), (64, 34903), (72, 34858),

Gene: KingVeVeVe_46 Start: 39705, Stop: 39175, Start Num: 23

Candidate Starts for KingVeVeVe_46:

(Start: 23 @39705 has 199 MA's), (Start: 46 @39600 has 64 MA's), (63, 39522), (64, 39507), (72, 39462),

Gene: KlimbOn_46 Start: 39712, Stop: 39188, Start Num: 23

Candidate Starts for KlimbOn_46:

(Start: 23 @39712 has 199 MA's), (Start: 46 @39613 has 64 MA's), (63, 39535), (64, 39520), (72, 39475),

Gene: Kloppinator_46 Start: 39738, Stop: 39211, Start Num: 23

Candidate Starts for Kloppinator_46:

(Start: 23 @39738 has 199 MA's), (Start: 46 @39636 has 64 MA's), (63, 39558), (64, 39543), (72, 39498),

Gene: Knocker_46 Start: 41265, Stop: 40882, Start Num: 60

Candidate Starts for Knocker_46:

(Start: 60 @41265 has 3 MA's), (68, 41190), (72, 41172), (73, 41157), (76, 41115), (85, 41061), (96, 41019), (98, 41013), (108, 40950), (117, 40914),

Gene: Kronus_43 Start: 40092, Stop: 39607, Start Num: 41

Candidate Starts for Kronus_43:

(Start: 14 @40263 has 2 MA's), (30, 40161), (36, 40107), (Start: 41 @40092 has 34 MA's), (Start: 46 @40044 has 64 MA's), (62, 39954), (68, 39909), (69, 39903), (71, 39897), (75, 39846), (88, 39759), (93, 39735), (105, 39687),

Gene: Kwadwo_45 Start: 39416, Stop: 38892, Start Num: 23

Candidate Starts for Kwadwo_45:

(Start: 23 @39416 has 199 MA's), (Start: 46 @39317 has 64 MA's), (63, 39239), (64, 39224), (72, 39179),

Gene: Kwksand96_45 Start: 39285, Stop: 38761, Start Num: 23

Candidate Starts for Kwksand96_45:

(Start: 23 @39285 has 199 MA's), (Start: 46 @39186 has 64 MA's), (63, 39108), (64, 39093), (72, 39048),

Gene: Labeouficaum_45 Start: 39280, Stop: 38756, Start Num: 23

Candidate Starts for Labeouficaum_45:

(Start: 23 @39280 has 199 MA's), (Start: 46 @39181 has 64 MA's), (63, 39103), (64, 39088), (72, 39043),

Gene: Lars_45 Start: 39967, Stop: 39578, Start Num: 56

Candidate Starts for Lars_45:

(Start: 56 @39967 has 32 MA's), (63, 39910), (68, 39868), (72, 39847), (75, 39802), (77, 39787), (79, 39778), (82, 39766), (83, 39745), (99, 39682), (101, 39676), (105, 39640), (106, 39637), (111, 39610), (115, 39598),

Gene: LasagnaCat_46 Start: 39619, Stop: 39194, Start Num: 46

Candidate Starts for LasagnaCat_46:

(20, 39769), (22, 39760), (24, 39745), (Start: 46 @39619 has 64 MA's), (63, 39541), (64, 39526), (72, 39481),

Gene: Lasso_46 Start: 39691, Stop: 39167, Start Num: 23

Candidate Starts for Lasso_46:

(Start: 23 @39691 has 199 MA's), (Start: 46 @39592 has 64 MA's), (63, 39514), (64, 39499), (72, 39454),

Gene: Laurie_44 Start: 39366, Stop: 38977, Start Num: 56

Candidate Starts for Laurie_44:

(Start: 56 @39366 has 32 MA's), (63, 39309), (68, 39267), (72, 39246), (75, 39201), (77, 39186), (79, 39177), (82, 39165), (83, 39144), (99, 39081), (101, 39075), (105, 39039), (106, 39036), (109, 39021), (115, 38997),

Gene: LeeLot_46 Start: 39722, Stop: 39198, Start Num: 23

Candidate Starts for LeeLot_46:

(Start: 23 @39722 has 199 MA's), (Start: 46 @39623 has 64 MA's), (63, 39545), (64, 39530), (72, 39485),

Gene: Legolas_45 Start: 39333, Stop: 38908, Start Num: 46

Candidate Starts for Legolas_45:

(7, 39888), (8, 39693), (12, 39549), (Start: 46 @39333 has 64 MA's), (63, 39255), (64, 39240), (72, 39195),

Gene: LeiMonet_47 Start: 39423, Stop: 38899, Start Num: 23

Candidate Starts for LeiMonet_47:

(Start: 23 @39423 has 199 MA's), (Start: 46 @39324 has 64 MA's), (63, 39246), (64, 39231), (72, 39186),

Gene: LemonSlice_46 Start: 39422, Stop: 38895, Start Num: 23

Candidate Starts for LemonSlice_46:

(Start: 23 @39422 has 199 MA's), (Start: 46 @39320 has 64 MA's), (63, 39242), (64, 39227), (72, 39182),

Gene: Lephleur_45 Start: 39860, Stop: 39471, Start Num: 56

Candidate Starts for Lephleur_45:

(Start: 56 @39860 has 32 MA's), (63, 39803), (68, 39761), (72, 39740), (75, 39695), (77, 39680), (79, 39671), (82, 39659), (83, 39638), (99, 39575), (101, 39569), (105, 39533), (106, 39530), (115, 39491),

Gene: LestyG_44 Start: 39513, Stop: 39028, Start Num: 41

Candidate Starts for LestyG_44:

(Start: 14 @39684 has 2 MA's), (30, 39582), (36, 39528), (Start: 41 @39513 has 34 MA's), (Start: 46 @39465 has 64 MA's), (62, 39375), (68, 39330), (69, 39324), (71, 39318), (75, 39267), (88, 39180), (93, 39156), (105, 39108),

Gene: Ligma_39 Start: 33273, Stop: 32851, Start Num: 46

Candidate Starts for Ligma_39:

(Start: 46 @33273 has 64 MA's), (68, 33156), (72, 33138), (76, 33081), (90, 32994), (95, 32979), (107, 32934), (114, 32892),

Gene: LilMcDreamy_42 Start: 39137, Stop: 38754, Start Num: 58

Candidate Starts for LilMcDreamy_42:

(Start: 14 @39353 has 2 MA's), (Start: 58 @39137 has 11 MA's), (65, 39077), (68, 39056), (79, 38969), (83, 38936), (85, 38927), (109, 38831), (113, 38804),

Gene: LittleMunchkin_41 Start: 36568, Stop: 36182, Start Num: 46

Candidate Starts for LittleMunchkin_41:

(Start: 46 @36568 has 64 MA's), (68, 36460), (72, 36442), (79, 36373), (82, 36361), (86, 36328), (107, 36247), (109, 36235),

Gene: LizLemon_45 Start: 39976, Stop: 39587, Start Num: 56

Candidate Starts for LizLemon_45:

(Start: 56 @39976 has 32 MA's), (63, 39919), (68, 39877), (72, 39856), (75, 39811), (77, 39796), (79, 39787), (82, 39775), (83, 39754), (99, 39691), (101, 39685), (105, 39649), (106, 39646), (115, 39607),

Gene: Lolalove_41 Start: 39630, Stop: 39205, Start Num: 50

Candidate Starts for Lolalove_41:

(Start: 14 @39834 has 2 MA's), (15, 39810), (17, 39798), (28, 39744), (Start: 43 @39663 has 3 MA's), (Start: 50 @39630 has 21 MA's), (53, 39624), (68, 39522), (76, 39447), (79, 39435), (83, 39402), (85,

39393), (101, 39345), (105, 39309), (109, 39291),

Gene: Longacauda_45 Start: 39424, Stop: 38900, Start Num: 23

Candidate Starts for Longacauda_45:

(Start: 23 @39424 has 199 MA's), (Start: 46 @39325 has 64 MA's), (63, 39247), (64, 39232), (72, 39187),

Gene: Lopsy_45 Start: 39277, Stop: 38750, Start Num: 23

Candidate Starts for Lopsy_45:

(Start: 23 @39277 has 199 MA's), (Start: 46 @39175 has 64 MA's), (63, 39097), (64, 39082), (72, 39037),

Gene: LostAndPhound_45 Start: 39425, Stop: 38901, Start Num: 23

Candidate Starts for LostAndPhound_45:

(Start: 23 @39425 has 199 MA's), (Start: 46 @39326 has 64 MA's), (63, 39248), (64, 39233), (72, 39188),

Gene: LuckyMarjie_45 Start: 39431, Stop: 38910, Start Num: 23

Candidate Starts for LuckyMarjie_45:

(Start: 23 @39431 has 199 MA's), (Start: 46 @39335 has 64 MA's), (63, 39257), (64, 39242), (72, 39197),

Gene: Lulumae_45 Start: 39416, Stop: 38892, Start Num: 23

Candidate Starts for Lulumae_45:

(Start: 23 @39416 has 199 MA's), (Start: 46 @39317 has 64 MA's), (63, 39239), (64, 39224), (72, 39179),

Gene: Lulwa_46 Start: 39703, Stop: 39179, Start Num: 23

Candidate Starts for Lulwa_46:

(Start: 23 @39703 has 199 MA's), (Start: 46 @39604 has 64 MA's), (63, 39526), (64, 39511), (72, 39466),

Gene: Lumine_45 Start: 39412, Stop: 38888, Start Num: 23

Candidate Starts for Lumine_45:

(Start: 23 @39412 has 199 MA's), (Start: 46 @39313 has 64 MA's), (63, 39235), (64, 39220), (72, 39175),

Gene: MRabcd_45 Start: 39416, Stop: 38892, Start Num: 23

Candidate Starts for MRabcd_45:

(Start: 23 @39416 has 199 MA's), (Start: 46 @39317 has 64 MA's), (63, 39239), (64, 39224), (72, 39179),

Gene: Mag7_45 Start: 39325, Stop: 38798, Start Num: 23

Candidate Starts for Mag7_45:

(Start: 23 @39325 has 199 MA's), (Start: 46 @39223 has 64 MA's), (63, 39145), (64, 39130), (72, 39085),

Gene: Magic8_46 Start: 39760, Stop: 39233, Start Num: 23

Candidate Starts for Magic8_46:

(Start: 23 @39760 has 199 MA's), (Start: 46 @39658 has 64 MA's), (63, 39580), (64, 39565), (72, 39520),

Gene: Magpie_40 Start: 39466, Stop: 39041, Start Num: 50

Candidate Starts for Magpie_40:

(Start: 14 @39670 has 2 MA's), (15, 39646), (17, 39634), (28, 39580), (29, 39574), (Start: 43 @39499 has 3 MA's), (Start: 50 @39466 has 21 MA's), (53, 39460), (68, 39358), (76, 39283), (79, 39271), (83, 39238), (85, 39229), (101, 39181), (105, 39145), (109, 39127),

Gene: MakoManhole_41 Start: 35230, Stop: 34844, Start Num: 50

Candidate Starts for MakoManhole_41:

(Start: 37 @35284 has 1 MA's), (Start: 50 @35230 has 21 MA's), (65, 35170), (67, 35155), (76, 35062), (79, 35050), (83, 35017), (95, 34969), (102, 34960),

Gene: Mana_45 Start: 39431, Stop: 38907, Start Num: 23

Candidate Starts for Mana_45:

(Start: 23 @39431 has 199 MA's), (Start: 46 @39332 has 64 MA's), (63, 39254), (64, 39239), (72, 39194),

Gene: Manad_45 Start: 39276, Stop: 38749, Start Num: 23

Candidate Starts for Manad_45:

(Start: 23 @39276 has 199 MA's), (Start: 46 @39174 has 64 MA's), (63, 39096), (64, 39081), (72, 39036),

Gene: Mariokart_39 Start: 33175, Stop: 32774, Start Num: 46

Candidate Starts for Mariokart_39:

(Start: 46 @33175 has 64 MA's), (71, 33046), (72, 33040), (79, 32971), (81, 32962), (95, 32887), (107, 32842), (109, 32830),

Gene: Marley1013_44 Start: 40291, Stop: 39806, Start Num: 41

Candidate Starts for Marley1013_44:

(Start: 14 @40462 has 2 MA's), (30, 40360), (36, 40306), (Start: 41 @40291 has 34 MA's), (Start: 46 @40243 has 64 MA's), (62, 40153), (68, 40108), (69, 40102), (71, 40096), (75, 40045), (88, 39958), (93, 39934), (105, 39886),

Gene: Maru_45 Start: 39374, Stop: 38850, Start Num: 23

Candidate Starts for Maru_45:

(Start: 23 @39374 has 199 MA's), (Start: 46 @39275 has 64 MA's), (63, 39197), (64, 39182), (72, 39137),

Gene: Maskar_45 Start: 39169, Stop: 38744, Start Num: 46

Candidate Starts for Maskar_45:

(20, 39319), (22, 39310), (24, 39295), (Start: 46 @39169 has 64 MA's), (63, 39091), (64, 39076), (72, 39031),

Gene: MasterPo_45 Start: 39863, Stop: 39474, Start Num: 56

Candidate Starts for MasterPo_45:

(Start: 56 @39863 has 32 MA's), (63, 39806), (68, 39764), (72, 39743), (75, 39698), (77, 39683), (79, 39674), (82, 39662), (83, 39641), (99, 39578), (101, 39572), (105, 39536), (106, 39533), (115, 39494),

Gene: Matalotodo_46 Start: 39720, Stop: 39193, Start Num: 23

Candidate Starts for Matalotodo_46:

(Start: 23 @39720 has 199 MA's), (Start: 46 @39618 has 64 MA's), (63, 39540), (64, 39525), (72, 39480),

Gene: Mcshane_45 Start: 39417, Stop: 38890, Start Num: 23

Candidate Starts for Mcshane_45:

(Start: 23 @39417 has 199 MA's), (Start: 46 @39315 has 64 MA's), (63, 39237), (64, 39222), (72, 39177),

Gene: Mecca_45 Start: 39423, Stop: 38893, Start Num: 23

Candidate Starts for Mecca_45:

(Start: 23 @39423 has 199 MA's), (Start: 46 @39318 has 64 MA's), (63, 39240), (64, 39225), (72, 39180),

Gene: Megamind20_46 Start: 39445, Stop: 38915, Start Num: 23

Candidate Starts for Megamind20_46:

(Start: 23 @39445 has 199 MA's), (Start: 46 @39340 has 64 MA's), (63, 39262), (64, 39247), (72, 39202),

Gene: Megatron_46 Start: 39616, Stop: 39191, Start Num: 46

Candidate Starts for Megatron_46:

(20, 39766), (22, 39757), (24, 39742), (Start: 46 @39616 has 64 MA's), (63, 39538), (64, 39523), (72, 39478),

Gene: Melc17_46 Start: 39715, Stop: 39188, Start Num: 23

Candidate Starts for Melc17_46:

(Start: 23 @39715 has 199 MA's), (Start: 46 @39613 has 64 MA's), (63, 39535), (64, 39520), (72, 39475),

Gene: MelsMeow_45 Start: 39219, Stop: 38794, Start Num: 46

Candidate Starts for MelsMeow_45:

(20, 39369), (22, 39360), (24, 39345), (Start: 46 @39219 has 64 MA's), (63, 39141), (64, 39126), (72, 39081),

Gene: Mesh1_46 Start: 39732, Stop: 39205, Start Num: 23

Candidate Starts for Mesh1_46:

(Start: 23 @39732 has 199 MA's), (Start: 46 @39630 has 64 MA's), (63, 39552), (64, 39537), (72, 39492),

Gene: MichaelPhcott_45 Start: 39322, Stop: 38795, Start Num: 23

Candidate Starts for MichaelPhcott_45:

(Start: 23 @39322 has 199 MA's), (Start: 46 @39220 has 64 MA's), (63, 39142), (64, 39127), (72, 39082),

Gene: Mikota_46 Start: 39702, Stop: 39178, Start Num: 23

Candidate Starts for Mikota_46:

(Start: 23 @39702 has 199 MA's), (Start: 46 @39603 has 64 MA's), (63, 39525), (64, 39510), (72, 39465),

Gene: MiniBoss_46 Start: 39708, Stop: 39184, Start Num: 23

Candidate Starts for MiniBoss_46:

(Start: 23 @39708 has 199 MA's), (Start: 46 @39609 has 64 MA's), (63, 39531), (64, 39516), (72, 39471),

Gene: MitKao_46 Start: 39423, Stop: 38899, Start Num: 23

Candidate Starts for MitKao_46:

(Start: 23 @39423 has 199 MA's), (Start: 46 @39324 has 64 MA's), (63, 39246), (64, 39231), (72, 39186),

Gene: Mithril_41 Start: 39634, Stop: 39209, Start Num: 50

Candidate Starts for Mithril_41:

(Start: 14 @39838 has 2 MA's), (15, 39814), (17, 39802), (28, 39748), (Start: 43 @39667 has 3 MA's), (Start: 50 @39634 has 21 MA's), (68, 39526), (76, 39451), (79, 39439), (83, 39406), (85, 39397), (101, 39349), (105, 39313), (109, 39295),

Gene: MmasiCarm_44 Start: 39495, Stop: 39010, Start Num: 41

Candidate Starts for MmasiCarm_44:

(Start: 14 @39666 has 2 MA's), (30, 39564), (36, 39510), (Start: 41 @39495 has 34 MA's), (Start: 46 @39447 has 64 MA's), (62, 39357), (68, 39312), (69, 39306), (71, 39300), (75, 39249), (88, 39162), (93, 39138), (105, 39090),

Gene: Morgushi_46 Start: 39424, Stop: 38900, Start Num: 23

Candidate Starts for Morgushi_46:

(Start: 23 @39424 has 199 MA's), (Start: 46 @39325 has 64 MA's), (63, 39247), (64, 39232), (72, 39187),

Gene: Mortcellus_43 Start: 40147, Stop: 39662, Start Num: 41

Candidate Starts for Mortcellus_43:

(Start: 14 @40318 has 2 MA's), (30, 40216), (36, 40162), (Start: 41 @40147 has 34 MA's), (Start: 46 @40099 has 64 MA's), (62, 40009), (68, 39964), (69, 39958), (71, 39952), (75, 39901), (88, 39814), (93, 39790), (105, 39742),

Gene: Morty_46 Start: 39625, Stop: 39200, Start Num: 46

Candidate Starts for Morty_46:

(20, 39775), (22, 39766), (24, 39751), (Start: 46 @39625 has 64 MA's), (63, 39547), (64, 39532), (72, 39487),

Gene: Morty007_44 Start: 40243, Stop: 39806, Start Num: 46

Candidate Starts for Morty007_44:

(Start: 14 @40462 has 2 MA's), (30, 40360), (36, 40306), (Start: 41 @40291 has 34 MA's), (Start: 46 @40243 has 64 MA's), (62, 40153), (68, 40108), (69, 40102), (71, 40096), (75, 40045), (88, 39958), (93, 39934), (105, 39886),

Gene: Mosaic_45 Start: 39417, Stop: 38905, Start Num: 23

Candidate Starts for Mosaic_45:

(Start: 23 @39417 has 199 MA's), (Start: 46 @39318 has 64 MA's), (63, 39252), (64, 39237), (72, 39192),

Gene: MossRose_41 Start: 35209, Stop: 34823, Start Num: 50

Candidate Starts for MossRose_41:

(Start: 37 @35263 has 1 MA's), (Start: 50 @35209 has 21 MA's), (65, 35149), (67, 35134), (76, 35041), (79, 35029), (83, 34996), (95, 34948), (102, 34939),

Gene: MrPhizzler_45 Start: 39432, Stop: 38908, Start Num: 23

Candidate Starts for MrPhizzler_45:

(Start: 23 @39432 has 199 MA's), (Start: 46 @39333 has 64 MA's), (63, 39255), (64, 39240), (72, 39195),

Gene: Mudslide_41 Start: 39866, Stop: 39441, Start Num: 50

Candidate Starts for Mudslide_41:

(Start: 14 @40070 has 2 MA's), (15, 40046), (17, 40034), (28, 39980), (Start: 43 @39899 has 3 MA's), (Start: 50 @39866 has 21 MA's), (68, 39758), (76, 39683), (79, 39671), (83, 39638), (85, 39629), (101,

39581), (105, 39545), (109, 39527),

Gene: Mulan_45 Start: 39342, Stop: 38917, Start Num: 46

Candidate Starts for Mulan_45:

(20, 39492), (22, 39483), (24, 39468), (Start: 46 @39342 has 64 MA's), (63, 39264), (64, 39249), (72, 39204),

Gene: Murdoc_46 Start: 39716, Stop: 39192, Start Num: 23

Candidate Starts for Murdoc_46:

(Start: 23 @39716 has 199 MA's), (Start: 46 @39617 has 64 MA's), (63, 39539), (64, 39524), (72, 39479),

Gene: Mutante_45 Start: 39324, Stop: 38899, Start Num: 46

Candidate Starts for Mutante_45:

(Start: 23 @39429 has 199 MA's), (Start: 46 @39324 has 64 MA's), (63, 39246), (64, 39231), (72, 39186),

Gene: Mysterious_46 Start: 40306, Stop: 39920, Start Num: 58

Candidate Starts for Mysterious_46:

(Start: 58 @40306 has 11 MA's), (65, 40246), (66, 40240), (68, 40225), (77, 40147), (79, 40138), (85, 40096), (86, 40093), (101, 40051), (103, 40039), (105, 40015), (109, 39997), (116, 39961),

Gene: NHagos_39 Start: 33821, Stop: 33447, Start Num: 50

Candidate Starts for NHagos_39:

(Start: 50 @33821 has 21 MA's), (68, 33740), (72, 33722), (79, 33653), (90, 33584), (105, 33533), (109, 33515),

Gene: Nacho_0046 Start: 39619, Stop: 39194, Start Num: 46

Candidate Starts for Nacho_0046:

(20, 39769), (22, 39760), (24, 39745), (Start: 46 @39619 has 64 MA's), (63, 39541), (64, 39526), (72, 39481),

Gene: Nanao_40 Start: 38592, Stop: 38167, Start Num: 50

Candidate Starts for Nanao_40:

(Start: 14 @38796 has 2 MA's), (17, 38760), (28, 38706), (Start: 43 @38625 has 3 MA's), (Start: 50 @38592 has 21 MA's), (68, 38484), (76, 38409), (79, 38397), (83, 38364), (85, 38355), (101, 38307), (105, 38271), (109, 38253),

Gene: Nangang_44 Start: 40099, Stop: 39713, Start Num: 58

Candidate Starts for Nangang_44:

(Start: 58 @40099 has 11 MA's), (61, 40078), (65, 40039), (68, 40018), (74, 39958), (77, 39940), (79, 39931), (101, 39844), (105, 39808), (109, 39790), (116, 39754),

Gene: Neos5_44 Start: 40306, Stop: 39821, Start Num: 41

Candidate Starts for Neos5_44:

(Start: 14 @40477 has 2 MA's), (30, 40375), (36, 40321), (Start: 41 @40306 has 34 MA's), (Start: 46 @40258 has 64 MA's), (62, 40168), (68, 40123), (69, 40117), (71, 40111), (75, 40060), (88, 39973), (93, 39949), (105, 39901),

Gene: Newman_46 Start: 39715, Stop: 39191, Start Num: 23

Candidate Starts for Newman_46:

(Start: 23 @39715 has 199 MA's), (Start: 46 @39616 has 64 MA's), (63, 39538), (64, 39523), (72, 39478),

Gene: Nicole21_46 Start: 39716, Stop: 39189, Start Num: 23

Candidate Starts for Nicole21_46:

(Start: 23 @39716 has 199 MA's), (Start: 46 @39614 has 64 MA's), (63, 39536), (64, 39521), (72, 39476),

Gene: Nigel_40 Start: 38541, Stop: 38083, Start Num: 43

Candidate Starts for Nigel_40:

(13, 38721), (Start: 14 @38709 has 2 MA's), (16, 38679), (18, 38670), (27, 38625), (28, 38619), (Start: 43 @38541 has 3 MA's), (Start: 50 @38508 has 21 MA's), (68, 38400), (76, 38325), (79, 38313), (82, 38301), (83, 38280), (101, 38223), (105, 38187), (118, 38124), (123, 38091),

Gene: Nozo_44 Start: 40271, Stop: 39786, Start Num: 41

Candidate Starts for Nozo_44:

(Start: 14 @40442 has 2 MA's), (30, 40340), (36, 40286), (Start: 41 @40271 has 34 MA's), (Start: 46 @40223 has 64 MA's), (62, 40133), (68, 40088), (69, 40082), (71, 40076), (75, 40025), (88, 39938), (93, 39914), (105, 39866),

Gene: Numberten_46 Start: 39722, Stop: 39198, Start Num: 23

Candidate Starts for Numberten_46:

(Start: 23 @39722 has 199 MA's), (Start: 46 @39623 has 64 MA's), (63, 39545), (64, 39530), (72, 39485),

Gene: Nyala_45 Start: 39421, Stop: 38891, Start Num: 23

Candidate Starts for Nyala_45:

(Start: 23 @39421 has 199 MA's), (Start: 46 @39316 has 64 MA's), (63, 39238), (64, 39223), (72, 39178),

Gene: OSmaximus_46 Start: 39658, Stop: 39233, Start Num: 46

Candidate Starts for OSmaximus_46:

(20, 39808), (22, 39799), (24, 39784), (Start: 46 @39658 has 64 MA's), (63, 39580), (64, 39565), (72, 39520),

Gene: Obutu_44 Start: 39495, Stop: 39010, Start Num: 41

Candidate Starts for Obutu_44:

(Start: 14 @39666 has 2 MA's), (30, 39564), (36, 39510), (Start: 41 @39495 has 34 MA's), (Start: 46 @39447 has 64 MA's), (62, 39357), (68, 39312), (69, 39306), (71, 39300), (75, 39249), (88, 39162), (93, 39138), (105, 39090),

Gene: Olak_46 Start: 39319, Stop: 38894, Start Num: 46

Candidate Starts for Olak_46:

(Start: 23 @39424 has 199 MA's), (Start: 46 @39319 has 64 MA's), (63, 39241), (64, 39226), (72, 39181),

Gene: Oline_45 Start: 39284, Stop: 38760, Start Num: 23

Candidate Starts for Oline_45:

(Start: 23 @39284 has 199 MA's), (Start: 46 @39185 has 64 MA's), (63, 39107), (64, 39092), (72, 39047),

Gene: Olive_46 Start: 39711, Stop: 39181, Start Num: 23

Candidate Starts for Olive_46:

(Start: 23 @39711 has 199 MA's), (Start: 46 @39606 has 64 MA's), (63, 39528), (64, 39513), (72, 39468),

Gene: OliverWalter_46 Start: 39733, Stop: 39203, Start Num: 23
Candidate Starts for OliverWalter_46:
(Start: 23 @39733 has 199 MA's), (Start: 46 @39628 has 64 MA's), (63, 39550), (64, 39535), (72, 39490),

Gene: Omniscient_46 Start: 39730, Stop: 39200, Start Num: 23
Candidate Starts for Omniscient_46:
(Start: 23 @39730 has 199 MA's), (Start: 46 @39625 has 64 MA's), (63, 39547), (64, 39532), (72, 39487),

Gene: Oosterbaan_46 Start: 39718, Stop: 39191, Start Num: 23
Candidate Starts for Oosterbaan_46:
(Start: 23 @39718 has 199 MA's), (Start: 46 @39616 has 64 MA's), (63, 39538), (64, 39523), (72, 39478),

Gene: Opia_45 Start: 39849, Stop: 39460, Start Num: 56
Candidate Starts for Opia_45:
(Start: 56 @39849 has 32 MA's), (63, 39792), (68, 39750), (72, 39729), (75, 39684), (77, 39669), (79, 39660), (82, 39648), (83, 39627), (99, 39564), (101, 39558), (105, 39522), (106, 39519), (115, 39480),

Gene: OrangeOswald_44 Start: 39512, Stop: 39027, Start Num: 41
Candidate Starts for OrangeOswald_44:
(Start: 14 @39683 has 2 MA's), (30, 39581), (36, 39527), (Start: 41 @39512 has 34 MA's), (Start: 46 @39464 has 64 MA's), (62, 39374), (68, 39329), (69, 39323), (71, 39317), (75, 39266), (88, 39179), (93, 39155), (105, 39107),

Gene: Orfeu_46 Start: 39423, Stop: 38899, Start Num: 23
Candidate Starts for Orfeu_46:
(Start: 23 @39423 has 199 MA's), (Start: 46 @39324 has 64 MA's), (63, 39246), (64, 39231), (72, 39186),

Gene: Orion_46 Start: 39614, Stop: 39189, Start Num: 46
Candidate Starts for Orion_46:
(20, 39764), (22, 39755), (24, 39740), (Start: 46 @39614 has 64 MA's), (63, 39536), (64, 39521), (72, 39476),

Gene: Orwigg_46 Start: 39417, Stop: 38887, Start Num: 23
Candidate Starts for Orwigg_46:
(Start: 23 @39417 has 199 MA's), (Start: 46 @39312 has 64 MA's), (63, 39234), (64, 39219), (72, 39174),

Gene: PG1_46 Start: 39627, Stop: 39202, Start Num: 46
Candidate Starts for PG1_46:
(20, 39777), (22, 39768), (24, 39753), (Start: 46 @39627 has 64 MA's), (63, 39549), (64, 39534), (72, 39489),

Gene: Pacifista_48 Start: 39420, Stop: 38893, Start Num: 23
Candidate Starts for Pacifista_48:
(Start: 23 @39420 has 199 MA's), (Start: 46 @39318 has 64 MA's), (63, 39240), (64, 39225), (72, 39180),

Gene: PenguinLover67_47 Start: 41507, Stop: 41013, Start Num: 34

Candidate Starts for PenguinLover67_47:

(19, 41591), (21, 41582), (Start: 34 @41507 has 4 MA's), (Start: 56 @41429 has 32 MA's), (68, 41327), (71, 41315),

Gene: Phaedrus_42 Start: 39384, Stop: 38947, Start Num: 46

Candidate Starts for Phaedrus_42:

(Start: 14 @39603 has 2 MA's), (30, 39501), (36, 39447), (Start: 41 @39432 has 34 MA's), (Start: 46 @39384 has 64 MA's), (62, 39294), (68, 39249), (69, 39243), (71, 39237), (75, 39186), (88, 39099), (93, 39075), (105, 39027),

Gene: Phamished_46 Start: 39622, Stop: 39197, Start Num: 46

Candidate Starts for Phamished_46:

(20, 39772), (22, 39763), (24, 39748), (Start: 46 @39622 has 64 MA's), (63, 39544), (64, 39529), (72, 39484),

Gene: Phantasmagoria_45 Start: 39861, Stop: 39472, Start Num: 56

Candidate Starts for Phantasmagoria_45:

(Start: 56 @39861 has 32 MA's), (63, 39804), (68, 39762), (72, 39741), (75, 39696), (77, 39681), (79, 39672), (82, 39660), (83, 39639), (99, 39576), (101, 39570), (105, 39534), (106, 39531), (115, 39492),

Gene: Phareon_46 Start: 39425, Stop: 38901, Start Num: 23

Candidate Starts for Phareon_46:

(Start: 23 @39425 has 199 MA's), (Start: 46 @39326 has 64 MA's), (63, 39248), (64, 39233), (72, 39188),

Gene: PhatCats2014_46 Start: 39631, Stop: 39206, Start Num: 46

Candidate Starts for PhatCats2014_46:

(20, 39781), (22, 39772), (24, 39757), (Start: 46 @39631 has 64 MA's), (63, 39553), (64, 39538), (72, 39493),

Gene: PhatLouie_46 Start: 39722, Stop: 39195, Start Num: 23

Candidate Starts for PhatLouie_46:

(Start: 23 @39722 has 199 MA's), (Start: 46 @39620 has 64 MA's), (63, 39542), (64, 39527), (72, 39482),

Gene: Phayeta_45 Start: 39329, Stop: 38892, Start Num: 46

Candidate Starts for Phayeta_45:

(Start: 14 @39548 has 2 MA's), (30, 39446), (36, 39392), (Start: 41 @39377 has 34 MA's), (Start: 46 @39329 has 64 MA's), (62, 39239), (68, 39194), (69, 39188), (71, 39182), (75, 39131), (88, 39044), (93, 39020), (105, 38972),

Gene: Phelemich_44 Start: 40305, Stop: 39919, Start Num: 58

Candidate Starts for Phelemich_44:

(Start: 58 @40305 has 11 MA's), (65, 40245), (68, 40224), (77, 40146), (79, 40137), (85, 40095), (86, 40092), (91, 40062), (101, 40050), (103, 40038), (105, 40014), (109, 39996), (116, 39960),

Gene: PhenghisKhan_45 Start: 39328, Stop: 38801, Start Num: 23

Candidate Starts for PhenghisKhan_45:

(Start: 23 @39328 has 199 MA's), (Start: 46 @39226 has 64 MA's), (63, 39148), (64, 39133), (72, 39088),

Gene: Pherdinand_46 Start: 39622, Stop: 39197, Start Num: 46

Candidate Starts for Pherdinand_46:

(20, 39772), (22, 39763), (24, 39748), (Start: 46 @39622 has 64 MA's), (63, 39544), (64, 39529), (72, 39484),

Gene: Phergie_45 Start: 39319, Stop: 38792, Start Num: 23

Candidate Starts for Phergie_45:

(Start: 23 @39319 has 199 MA's), (Start: 46 @39217 has 64 MA's), (63, 39139), (64, 39124), (72, 39079),

Gene: Philly_43 Start: 39363, Stop: 38878, Start Num: 41

Candidate Starts for Philly_43:

(Start: 14 @39534 has 2 MA's), (30, 39432), (36, 39378), (Start: 41 @39363 has 34 MA's), (Start: 46 @39315 has 64 MA's), (62, 39225), (68, 39180), (69, 39174), (71, 39168), (75, 39117), (88, 39030), (93, 39006), (105, 38958),

Gene: Phipps_46 Start: 39698, Stop: 39168, Start Num: 23

Candidate Starts for Phipps_46:

(Start: 23 @39698 has 199 MA's), (Start: 46 @39593 has 64 MA's), (63, 39515), (64, 39500), (72, 39455),

Gene: Phleuron_45 Start: 39325, Stop: 38798, Start Num: 23

Candidate Starts for Phleuron_45:

(Start: 23 @39325 has 199 MA's), (Start: 46 @39223 has 64 MA's), (63, 39145), (64, 39130), (72, 39085),

Gene: Phlyer_44 Start: 40251, Stop: 39766, Start Num: 41

Candidate Starts for Phlyer_44:

(Start: 14 @40422 has 2 MA's), (30, 40320), (36, 40266), (Start: 41 @40251 has 34 MA's), (Start: 46 @40203 has 64 MA's), (62, 40113), (68, 40068), (69, 40062), (71, 40056), (75, 40005), (88, 39918), (93, 39894), (105, 39846),

Gene: PhrankReynolds_44 Start: 39325, Stop: 38798, Start Num: 23

Candidate Starts for PhrankReynolds_44:

(Start: 23 @39325 has 199 MA's), (Start: 46 @39223 has 64 MA's), (63, 39145), (64, 39130), (72, 39085),

Gene: PhrodoBaggins_45 Start: 39610, Stop: 39185, Start Num: 46

Candidate Starts for PhrodoBaggins_45:

(20, 39760), (22, 39751), (24, 39736), (Start: 46 @39610 has 64 MA's), (63, 39532), (64, 39517), (72, 39472),

Gene: Phunky_46 Start: 39722, Stop: 39198, Start Num: 23

Candidate Starts for Phunky_46:

(Start: 23 @39722 has 199 MA's), (Start: 46 @39623 has 64 MA's), (63, 39545), (64, 39530), (72, 39485),

Gene: Piglet_0045 Start: 39829, Stop: 39305, Start Num: 23

Candidate Starts for Piglet_0045:

(Start: 23 @39829 has 199 MA's), (Start: 46 @39730 has 64 MA's), (63, 39652), (64, 39637), (72, 39592),

Gene: PinheadLarry_46 Start: 39435, Stop: 38911, Start Num: 23

Candidate Starts for PinheadLarry_46:

(Start: 23 @39435 has 199 MA's), (Start: 46 @39336 has 64 MA's), (63, 39258), (64, 39243), (72, 39198),

Gene: Pinkman_45 Start: 39278, Stop: 38754, Start Num: 23

Candidate Starts for Pinkman_45:

(Start: 23 @39278 has 199 MA's), (Start: 46 @39179 has 64 MA's), (63, 39101), (64, 39086), (72, 39041),

Gene: Pipefish_46 Start: 40904, Stop: 40419, Start Num: 41

Candidate Starts for Pipefish_46:

(Start: 14 @41075 has 2 MA's), (30, 40973), (36, 40919), (Start: 41 @40904 has 34 MA's), (Start: 46 @40856 has 64 MA's), (62, 40766), (68, 40721), (69, 40715), (71, 40709), (75, 40658), (88, 40571), (93, 40547), (105, 40499),

Gene: Pipsqueak_46 Start: 39723, Stop: 39196, Start Num: 23

Candidate Starts for Pipsqueak_46:

(Start: 23 @39723 has 199 MA's), (Start: 46 @39621 has 64 MA's), (63, 39543), (64, 39528), (72, 39483),

Gene: Placalicious_45 Start: 39416, Stop: 38889, Start Num: 23

Candidate Starts for Placalicious_45:

(Start: 23 @39416 has 199 MA's), (Start: 46 @39314 has 64 MA's), (63, 39236), (64, 39221), (72, 39176),

Gene: Plmatters_46 Start: 39719, Stop: 39195, Start Num: 23

Candidate Starts for Plmatters_46:

(Start: 23 @39719 has 199 MA's), (Start: 46 @39620 has 64 MA's), (63, 39542), (64, 39527), (72, 39482),

Gene: Podrick_46 Start: 39710, Stop: 39186, Start Num: 23

Candidate Starts for Podrick_46:

(Start: 23 @39710 has 199 MA's), (Start: 46 @39611 has 64 MA's), (63, 39533), (64, 39518), (72, 39473),

Gene: Pops_46 Start: 39734, Stop: 39210, Start Num: 23

Candidate Starts for Pops_46:

(Start: 23 @39734 has 199 MA's), (Start: 46 @39635 has 64 MA's), (63, 39557), (64, 39542), (72, 39497),

Gene: Poster_40 Start: 38593, Stop: 38168, Start Num: 50

Candidate Starts for Poster_40:

(Start: 14 @38797 has 2 MA's), (17, 38761), (28, 38707), (Start: 43 @38626 has 3 MA's), (Start: 50 @38593 has 21 MA's), (68, 38485), (76, 38410), (79, 38398), (83, 38365), (85, 38356), (101, 38308), (105, 38272), (109, 38254),

Gene: Potter_45 Start: 39434, Stop: 38910, Start Num: 23

Candidate Starts for Potter_45:

(Start: 23 @39434 has 199 MA's), (Start: 46 @39335 has 64 MA's), (63, 39257), (64, 39242), (72, 39197),

Gene: Prickles_46 Start: 39710, Stop: 39186, Start Num: 23

Candidate Starts for Prickles_46:

(Start: 23 @39710 has 199 MA's), (Start: 46 @39611 has 64 MA's), (63, 39533), (64, 39518), (72, 39473),

Gene: Prince_42 Start: 39776, Stop: 39351, Start Num: 50

Candidate Starts for Prince_42:

(Start: 14 @39980 has 2 MA's), (15, 39956), (17, 39944), (28, 39890), (Start: 43 @39809 has 3 MA's), (Start: 50 @39776 has 21 MA's), (53, 39770), (68, 39668), (76, 39593), (79, 39581), (83, 39548), (85, 39539), (101, 39491), (105, 39455), (109, 39437),

Gene: ProfessorX_46 Start: 39711, Stop: 39181, Start Num: 23

Candidate Starts for ProfessorX_46:

(Start: 23 @39711 has 199 MA's), (Start: 46 @39606 has 64 MA's), (63, 39528), (64, 39513), (72, 39468),

Gene: Puhltonio_46 Start: 39726, Stop: 39202, Start Num: 23

Candidate Starts for Puhltonio_46:

(Start: 23 @39726 has 199 MA's), (Start: 46 @39627 has 64 MA's), (63, 39549), (64, 39534), (72, 39489),

Gene: QueenBeane_46 Start: 39716, Stop: 39192, Start Num: 23

Candidate Starts for QueenBeane_46:

(Start: 23 @39716 has 199 MA's), (Start: 46 @39617 has 64 MA's), (63, 39539), (64, 39524), (72, 39479),

Gene: Quesadilla_47 Start: 41493, Stop: 40987, Start Num: 34

Candidate Starts for Quesadilla_47:

(19, 41577), (Start: 34 @41493 has 4 MA's), (Start: 56 @41406 has 32 MA's), (68, 41304), (99, 41115), (109, 41055), (119, 41019),

Gene: Quisquilliae_46 Start: 39747, Stop: 39220, Start Num: 23

Candidate Starts for Quisquilliae_46:

(Start: 23 @39747 has 199 MA's), (Start: 46 @39645 has 64 MA's), (63, 39567), (64, 39552), (72, 39507),

Gene: RagingRooster_44 Start: 39513, Stop: 39028, Start Num: 41

Candidate Starts for RagingRooster_44:

(Start: 14 @39684 has 2 MA's), (30, 39582), (36, 39528), (Start: 41 @39513 has 34 MA's), (Start: 46 @39465 has 64 MA's), (62, 39375), (68, 39330), (69, 39324), (71, 39318), (75, 39267), (88, 39180), (93, 39156), (105, 39108),

Gene: RawrgerThat_42 Start: 39621, Stop: 39196, Start Num: 50

Candidate Starts for RawrgerThat_42:

(Start: 14 @39825 has 2 MA's), (17, 39789), (28, 39735), (Start: 43 @39654 has 3 MA's), (Start: 50 @39621 has 21 MA's), (53, 39615), (68, 39513), (76, 39438), (79, 39426), (83, 39393), (85, 39384), (101, 39336), (105, 39300), (109, 39282),

Gene: RedMaple_45 Start: 39624, Stop: 39199, Start Num: 46

Candidate Starts for RedMaple_45:

(20, 39774), (22, 39765), (24, 39750), (Start: 46 @39624 has 64 MA's), (63, 39546), (64, 39531), (72, 39486),

Gene: Reprobate_45 Start: 40310, Stop: 39924, Start Num: 58

Candidate Starts for Reprobate_45:

(Start: 58 @40310 has 11 MA's), (65, 40250), (68, 40229), (77, 40151), (79, 40142), (85, 40100), (86, 40097), (91, 40067), (101, 40055), (103, 40043), (105, 40019), (109, 40001), (116, 39965),

Gene: Rhinoforte_45 Start: 39970, Stop: 39581, Start Num: 56

Candidate Starts for Rhinoforte_45:

(Start: 56 @39970 has 32 MA's), (63, 39913), (68, 39871), (72, 39850), (75, 39805), (77, 39790), (79, 39781), (82, 39769), (83, 39748), (99, 39685), (101, 39679), (105, 39643), (106, 39640), (115, 39601),

Gene: Rich_43 Start: 39907, Stop: 39521, Start Num: 58

Candidate Starts for Rich_43:

(Start: 58 @39907 has 11 MA's), (61, 39886), (65, 39847), (68, 39826), (74, 39766), (79, 39739), (101, 39652), (105, 39616), (113, 39571),

Gene: Ricotta_46 Start: 39439, Stop: 38918, Start Num: 23

Candidate Starts for Ricotta_46:

(Start: 23 @39439 has 199 MA's), (Start: 46 @39343 has 64 MA's), (63, 39265), (64, 39250), (72, 39205),

Gene: Riggan_46 Start: 39706, Stop: 39179, Start Num: 23

Candidate Starts for Riggan_46:

(Start: 23 @39706 has 199 MA's), (Start: 46 @39604 has 64 MA's), (63, 39526), (64, 39511), (72, 39466),

Gene: Rimu_48 Start: 39452, Stop: 38928, Start Num: 23

Candidate Starts for Rimu_48:

(Start: 23 @39452 has 199 MA's), (Start: 46 @39353 has 64 MA's), (63, 39275), (64, 39260), (72, 39215),

Gene: Rita1961_44 Start: 39496, Stop: 39011, Start Num: 41

Candidate Starts for Rita1961_44:

(Start: 14 @39667 has 2 MA's), (30, 39565), (36, 39511), (Start: 41 @39496 has 34 MA's), (Start: 46 @39448 has 64 MA's), (62, 39358), (68, 39313), (69, 39307), (71, 39301), (75, 39250), (88, 39163), (93, 39139), (105, 39091),

Gene: Robyn_45 Start: 39290, Stop: 38763, Start Num: 23

Candidate Starts for Robyn_45:

(Start: 23 @39290 has 199 MA's), (Start: 46 @39188 has 64 MA's), (63, 39110), (64, 39095), (72, 39050),

Gene: Roliet_46 Start: 39718, Stop: 39188, Start Num: 23

Candidate Starts for Roliet_46:

(Start: 23 @39718 has 199 MA's), (Start: 46 @39613 has 64 MA's), (63, 39535), (64, 39520), (72, 39475),

Gene: RomaT_44 Start: 40286, Stop: 39801, Start Num: 41

Candidate Starts for RomaT_44:

(Start: 14 @40457 has 2 MA's), (30, 40355), (36, 40301), (Start: 41 @40286 has 34 MA's), (Start: 46 @40238 has 64 MA's), (62, 40148), (68, 40103), (69, 40097), (71, 40091), (75, 40040), (88, 39953), (93, 39929), (105, 39881),

Gene: Roscoe_47 Start: 39956, Stop: 39426, Start Num: 23

Candidate Starts for Roscoe_47:

(Start: 23 @39956 has 199 MA's), (Start: 46 @39851 has 64 MA's), (63, 39773), (64, 39758), (72, 39713),

Gene: Rosebush_44 Start: 39977, Stop: 39588, Start Num: 56

Candidate Starts for Rosebush_44:

(Start: 56 @39977 has 32 MA's), (63, 39920), (68, 39878), (72, 39857), (75, 39812), (77, 39797), (79, 39788), (82, 39776), (83, 39755), (99, 39692), (101, 39686), (105, 39650), (106, 39647), (115, 39608),

Gene: Roy17_46 Start: 39416, Stop: 38892, Start Num: 23

Candidate Starts for Roy17_46:

(Start: 23 @39416 has 199 MA's), (Start: 46 @39317 has 64 MA's), (63, 39239), (64, 39224), (72, 39179),

Gene: SDcharge11_46 Start: 39696, Stop: 39166, Start Num: 23

Candidate Starts for SDcharge11_46:

(Start: 23 @39696 has 199 MA's), (Start: 46 @39591 has 64 MA's), (63, 39513), (64, 39498), (72, 39453),

Gene: Sabella_44 Start: 39854, Stop: 39465, Start Num: 56

Candidate Starts for Sabella_44:

(Start: 56 @39854 has 32 MA's), (63, 39797), (68, 39755), (72, 39734), (75, 39689), (77, 39674), (79, 39665), (82, 39653), (83, 39632), (99, 39569), (101, 39563), (105, 39527), (106, 39524), (115, 39485),

Gene: Saguaro_46 Start: 41034, Stop: 40648, Start Num: 60

Candidate Starts for Saguaro_46:

(Start: 60 @41034 has 3 MA's), (68, 40953), (77, 40875), (83, 40833), (85, 40824), (87, 40815),

Gene: Samaymay_46 Start: 39716, Stop: 39192, Start Num: 23

Candidate Starts for Samaymay_46:

(Start: 23 @39716 has 199 MA's), (Start: 46 @39617 has 64 MA's), (63, 39539), (64, 39524), (72, 39479),

Gene: SassyCat97_45 Start: 39422, Stop: 38898, Start Num: 23

Candidate Starts for SassyCat97_45:

(Start: 23 @39422 has 199 MA's), (Start: 46 @39323 has 64 MA's), (63, 39245), (64, 39230), (72, 39185),

Gene: Schadenfreude_45 Start: 39264, Stop: 38749, Start Num: 23

Candidate Starts for Schadenfreude_45:

(Start: 23 @39264 has 199 MA's), (Start: 46 @39162 has 64 MA's), (63, 39096), (64, 39081), (72, 39036),

Gene: Schueller_46 Start: 39435, Stop: 38911, Start Num: 23

Candidate Starts for Schueller_46:

(Start: 23 @39435 has 199 MA's), (Start: 46 @39336 has 64 MA's), (63, 39258), (64, 39243), (72, 39198),

Gene: Scoot17C_46 Start: 39616, Stop: 39191, Start Num: 46

Candidate Starts for Scoot17C_46:

(20, 39766), (22, 39757), (24, 39742), (Start: 46 @39616 has 64 MA's), (63, 39538), (64, 39523), (72, 39478),

Gene: Scrick_46 Start: 39446, Stop: 38916, Start Num: 23

Candidate Starts for Scrick_46:

(Start: 23 @39446 has 199 MA's), (Start: 46 @39341 has 64 MA's), (63, 39263), (64, 39248), (72, 39203),

Gene: Selr12_47 Start: 39449, Stop: 38919, Start Num: 23

Candidate Starts for Selr12_47:

(Start: 23 @39449 has 199 MA's), (Start: 46 @39344 has 64 MA's), (63, 39266), (64, 39251), (72, 39206),

Gene: Serendipitous_44 Start: 39865, Stop: 39479, Start Num: 58

Candidate Starts for Serendipitous_44:

(44, 39916), (Start: 58 @39865 has 11 MA's), (61, 39844), (65, 39805), (68, 39784), (74, 39724), (79, 39697), (101, 39610), (105, 39574), (109, 39556), (116, 39520),

Gene: Serendipity_46 Start: 39740, Stop: 39216, Start Num: 23

Candidate Starts for Serendipity_46:

(Start: 23 @39740 has 199 MA's), (Start: 46 @39641 has 64 MA's), (63, 39563), (64, 39548), (72, 39503),

Gene: Serpentine_0046 Start: 39721, Stop: 39197, Start Num: 23

Candidate Starts for Serpentine_0046:

(Start: 23 @39721 has 199 MA's), (Start: 46 @39622 has 64 MA's), (63, 39544), (64, 39529), (72, 39484),

Gene: Shatter_39 Start: 33273, Stop: 32851, Start Num: 46

Candidate Starts for Shatter_39:

(Start: 46 @33273 has 64 MA's), (68, 33156), (72, 33138), (76, 33081), (90, 32994), (95, 32979), (107, 32934), (114, 32892),

Gene: Sheila_46 Start: 39758, Stop: 39234, Start Num: 23

Candidate Starts for Sheila_46:

(Start: 23 @39758 has 199 MA's), (Start: 46 @39659 has 64 MA's), (63, 39581), (64, 39566), (72, 39521),

Gene: ShiVal_46 Start: 39720, Stop: 39190, Start Num: 23

Candidate Starts for ShiVal_46:

(Start: 23 @39720 has 199 MA's), (Start: 46 @39615 has 64 MA's), (63, 39537), (64, 39522), (72, 39477),

Gene: Sigman_46 Start: 39607, Stop: 39182, Start Num: 46

Candidate Starts for Sigman_46:

(20, 39757), (22, 39748), (24, 39733), (Start: 46 @39607 has 64 MA's), (63, 39529), (64, 39514), (72, 39469),

Gene: Simielle_45 Start: 39409, Stop: 38885, Start Num: 23

Candidate Starts for Simielle_45:

(Start: 23 @39409 has 199 MA's), (Start: 46 @39310 has 64 MA's), (63, 39232), (64, 39217), (72, 39172),

Gene: SirJeffery_45 Start: 40036, Stop: 39650, Start Num: 58

Candidate Starts for SirJeffery_45:

(26, 40174), (Start: 58 @40036 has 11 MA's), (61, 40015), (65, 39976), (68, 39955), (74, 39895), (79, 39868), (101, 39781), (105, 39745), (109, 39727), (116, 39691), (121, 39670),

Gene: Sisko_39 Start: 34043, Stop: 33624, Start Num: 46
Candidate Starts for Sisko_39:
(Start: 46 @34043 has 64 MA's), (68, 33926), (72, 33908), (107, 33707), (112, 33671), (114, 33665),

Gene: Skippy_46 Start: 39704, Stop: 39180, Start Num: 23
Candidate Starts for Skippy_46:
(Start: 23 @39704 has 199 MA's), (Start: 46 @39605 has 64 MA's), (63, 39527), (64, 39512), (72, 39467),

Gene: Slatt_46 Start: 39730, Stop: 39206, Start Num: 23
Candidate Starts for Slatt_46:
(Start: 23 @39730 has 199 MA's), (Start: 46 @39631 has 64 MA's), (63, 39553), (64, 39538), (72, 39493),

Gene: SlippinJimmy_44 Start: 40230, Stop: 39793, Start Num: 46
Candidate Starts for SlippinJimmy_44:
(Start: 14 @40449 has 2 MA's), (30, 40347), (36, 40293), (Start: 41 @40278 has 34 MA's), (Start: 46 @40230 has 64 MA's), (62, 40140), (68, 40095), (69, 40089), (71, 40083), (75, 40032), (88, 39945), (93, 39921), (105, 39873),

Gene: Soile_46 Start: 39334, Stop: 38909, Start Num: 46
Candidate Starts for Soile_46:
(Start: 23 @39433 has 199 MA's), (Start: 46 @39334 has 64 MA's), (63, 39256), (64, 39241), (72, 39196),

Gene: Solosis_45 Start: 39431, Stop: 38907, Start Num: 23
Candidate Starts for Solosis_45:
(Start: 23 @39431 has 199 MA's), (Start: 46 @39332 has 64 MA's), (63, 39254), (64, 39239), (72, 39194),

Gene: Sophia_45 Start: 39431, Stop: 38907, Start Num: 23
Candidate Starts for Sophia_45:
(Start: 23 @39431 has 199 MA's), (Start: 46 @39332 has 64 MA's), (63, 39254), (64, 39239), (72, 39194),

Gene: Soto_46 Start: 39730, Stop: 39200, Start Num: 23
Candidate Starts for Soto_46:
(Start: 23 @39730 has 199 MA's), (Start: 46 @39625 has 64 MA's), (63, 39547), (64, 39532), (72, 39487),

Gene: Sour_44 Start: 37942, Stop: 37568, Start Num: 48
Candidate Starts for Sour_44:
(19, 38089), (31, 38026), (Start: 48 @37942 has 1 MA's), (68, 37858), (72, 37840), (79, 37771), (80, 37768), (101, 37684), (107, 37645), (122, 37582),

Gene: Spartan300_46 Start: 39716, Stop: 39186, Start Num: 23
Candidate Starts for Spartan300_46:
(Start: 23 @39716 has 199 MA's), (Start: 46 @39611 has 64 MA's), (63, 39533), (64, 39518), (72, 39473),

Gene: Squid_46 Start: 39422, Stop: 38898, Start Num: 23
Candidate Starts for Squid_46:

(Start: 23 @39422 has 199 MA's), (Start: 46 @39323 has 64 MA's), (63, 39245), (64, 39230), (72, 39185),

Gene: Squiggle_46 Start: 39440, Stop: 38910, Start Num: 23

Candidate Starts for Squiggle_46:

(Start: 23 @39440 has 199 MA's), (Start: 46 @39335 has 64 MA's), (63, 39257), (64, 39242), (72, 39197),

Gene: StAugustine_60 Start: 48208, Stop: 47849, Start Num: 60

Candidate Starts for StAugustine_60:

(Start: 37 @48319 has 1 MA's), (42, 48304), (45, 48274), (Start: 60 @48208 has 3 MA's), (68, 48115), (81, 48019), (86, 47983), (105, 47917), (109, 47899), (110, 47896),

Gene: Stinger_40 Start: 38231, Stop: 37773, Start Num: 43

Candidate Starts for Stinger_40:

(Start: 14 @38399 has 2 MA's), (28, 38309), (Start: 43 @38231 has 3 MA's), (Start: 50 @38198 has 21 MA's), (68, 38090), (76, 38015), (79, 38003), (82, 37991), (83, 37970), (85, 37961), (101, 37913), (105, 37877), (118, 37814), (123, 37781),

Gene: StinkyVeggy_46 Start: 40176, Stop: 39790, Start Num: 58

Candidate Starts for StinkyVeggy_46:

(Start: 58 @40176 has 11 MA's), (61, 40155), (65, 40116), (68, 40095), (74, 40035), (77, 40017), (79, 40008), (105, 39885), (109, 39867), (116, 39831),

Gene: Struggle_45 Start: 39272, Stop: 38748, Start Num: 23

Candidate Starts for Struggle_45:

(Start: 23 @39272 has 199 MA's), (Start: 46 @39173 has 64 MA's), (63, 39095), (64, 39080), (72, 39035),

Gene: Suffolk_46 Start: 39721, Stop: 39197, Start Num: 23

Candidate Starts for Suffolk_46:

(Start: 23 @39721 has 199 MA's), (Start: 46 @39622 has 64 MA's), (63, 39544), (64, 39529), (72, 39484),

Gene: Suigeneris_45 Start: 40039, Stop: 39653, Start Num: 58

Candidate Starts for Suigeneris_45:

(26, 40177), (Start: 58 @40039 has 11 MA's), (61, 40018), (65, 39979), (68, 39958), (74, 39898), (79, 39871), (101, 39784), (105, 39748), (109, 39730), (116, 39694), (121, 39673),

Gene: Surely_46 Start: 39727, Stop: 39200, Start Num: 23

Candidate Starts for Surely_46:

(Start: 23 @39727 has 199 MA's), (Start: 46 @39625 has 64 MA's), (63, 39547), (64, 39532), (72, 39487),

Gene: Swiphy_48 Start: 39722, Stop: 39195, Start Num: 23

Candidate Starts for Swiphy_48:

(Start: 23 @39722 has 199 MA's), (Start: 46 @39620 has 64 MA's), (63, 39542), (64, 39527), (72, 39482),

Gene: Swish_46 Start: 39608, Stop: 39183, Start Num: 46

Candidate Starts for Swish_46:

(20, 39758), (22, 39749), (24, 39734), (Start: 46 @39608 has 64 MA's), (63, 39530), (64, 39515), (72, 39470),

Gene: SynergyX_44 Start: 39513, Stop: 39028, Start Num: 41

Candidate Starts for SynergyX_44:

(Start: 14 @39684 has 2 MA's), (30, 39582), (36, 39528), (Start: 41 @39513 has 34 MA's), (Start: 46 @39465 has 64 MA's), (62, 39375), (68, 39330), (69, 39324), (71, 39318), (75, 39267), (88, 39180), (93, 39156), (105, 39108),

Gene: TA17A_45 Start: 39844, Stop: 39455, Start Num: 56

Candidate Starts for TA17A_45:

(Start: 56 @39844 has 32 MA's), (63, 39787), (68, 39745), (72, 39724), (75, 39679), (77, 39664), (79, 39655), (82, 39643), (83, 39622), (99, 39559), (101, 39553), (105, 39517), (106, 39514), (115, 39475),

Gene: TallGrassMM_46 Start: 39346, Stop: 38822, Start Num: 23

Candidate Starts for TallGrassMM_46:

(Start: 23 @39346 has 199 MA's), (Start: 46 @39247 has 64 MA's), (63, 39169), (64, 39154), (72, 39109),

Gene: Telesworld_45 Start: 39419, Stop: 38895, Start Num: 23

Candidate Starts for Telesworld_45:

(Start: 23 @39419 has 199 MA's), (Start: 46 @39320 has 64 MA's), (63, 39242), (64, 39227), (72, 39182),

Gene: Thonko_44 Start: 37338, Stop: 36958, Start Num: 58

Candidate Starts for Thonko_44:

(26, 37470), (39, 37404), (Start: 58 @37338 has 11 MA's), (68, 37257), (72, 37239),

Gene: Thora_46 Start: 39726, Stop: 39199, Start Num: 23

Candidate Starts for Thora_46:

(Start: 23 @39726 has 199 MA's), (Start: 46 @39624 has 64 MA's), (63, 39546), (64, 39531), (72, 39486),

Gene: ThreeOh3D2_46 Start: 39622, Stop: 39197, Start Num: 46

Candidate Starts for ThreeOh3D2_46:

(20, 39772), (22, 39763), (24, 39748), (Start: 46 @39622 has 64 MA's), (63, 39544), (64, 39529), (72, 39484),

Gene: Timmi_45 Start: 39432, Stop: 38908, Start Num: 23

Candidate Starts for Timmi_45:

(Start: 23 @39432 has 199 MA's), (Start: 46 @39333 has 64 MA's), (63, 39255), (64, 39240), (72, 39195),

Gene: Tinciduntolum_46 Start: 39982, Stop: 39593, Start Num: 56

Candidate Starts for Tinciduntolum_46:

(Start: 56 @39982 has 32 MA's), (63, 39925), (68, 39883), (72, 39862), (75, 39817), (77, 39802), (79, 39793), (82, 39781), (83, 39760), (99, 39697), (101, 39691), (105, 39655), (106, 39652), (115, 39613),

Gene: TomBombadil_46 Start: 39717, Stop: 39193, Start Num: 23

Candidate Starts for TomBombadil_46:

(Start: 23 @39717 has 199 MA's), (Start: 46 @39618 has 64 MA's), (63, 39540), (64, 39525), (72, 39480),

Gene: Tomlarah_46 Start: 39714, Stop: 39184, Start Num: 23

Candidate Starts for Tomlarah_46:

(Start: 23 @39714 has 199 MA's), (Start: 46 @39609 has 64 MA's), (63, 39531), (64, 39516), (72, 39471),

Gene: Toni_45 Start: 39424, Stop: 38900, Start Num: 23

Candidate Starts for Toni_45:

(Start: 23 @39424 has 199 MA's), (Start: 46 @39325 has 64 MA's), (63, 39247), (64, 39232), (72, 39187),

Gene: Tooj_46 Start: 39781, Stop: 39257, Start Num: 23

Candidate Starts for Tooj_46:

(Start: 23 @39781 has 199 MA's), (Start: 46 @39682 has 64 MA's), (63, 39604), (64, 39589), (72, 39544),

Gene: Tres_45 Start: 39857, Stop: 39468, Start Num: 56

Candidate Starts for Tres_45:

(Start: 56 @39857 has 32 MA's), (63, 39800), (68, 39758), (72, 39737), (75, 39692), (77, 39677), (79, 39668), (82, 39656), (83, 39635), (99, 39572), (101, 39566), (105, 39530), (106, 39527), (115, 39488),

Gene: True_45 Start: 39424, Stop: 38897, Start Num: 23

Candidate Starts for True_45:

(Start: 23 @39424 has 199 MA's), (Start: 46 @39322 has 64 MA's), (63, 39244), (64, 39229), (72, 39184),

Gene: Trypo_46 Start: 39618, Stop: 39193, Start Num: 46

Candidate Starts for Trypo_46:

(20, 39768), (22, 39759), (24, 39744), (Start: 46 @39618 has 64 MA's), (63, 39540), (64, 39525), (72, 39480),

Gene: Tydolla_44 Start: 40199, Stop: 39762, Start Num: 46

Candidate Starts for Tydolla_44:

(Start: 14 @40418 has 2 MA's), (30, 40316), (36, 40262), (Start: 41 @40247 has 34 MA's), (Start: 46 @40199 has 64 MA's), (62, 40109), (68, 40064), (69, 40058), (71, 40052), (75, 40001), (88, 39914), (93, 39890), (105, 39842),

Gene: TyrionL_45 Start: 39280, Stop: 38756, Start Num: 23

Candidate Starts for TyrionL_45:

(Start: 23 @39280 has 199 MA's), (Start: 46 @39181 has 64 MA's), (63, 39103), (64, 39088), (72, 39043),

Gene: UAch1_46 Start: 39733, Stop: 39206, Start Num: 23

Candidate Starts for UAch1_46:

(Start: 23 @39733 has 199 MA's), (Start: 46 @39631 has 64 MA's), (63, 39553), (64, 39538), (72, 39493),

Gene: UncleHowie_46 Start: 39423, Stop: 38896, Start Num: 23

Candidate Starts for UncleHowie_46:

(Start: 23 @39423 has 199 MA's), (Start: 46 @39321 has 64 MA's), (63, 39243), (64, 39228), (72, 39183),

Gene: Usavi_46 Start: 39721, Stop: 39197, Start Num: 23

Candidate Starts for Usavi_46:

(Start: 23 @39721 has 199 MA's), (Start: 46 @39622 has 64 MA's), (63, 39544), (64, 39529), (72, 39484),

Gene: Vaishali24_45 Start: 39382, Stop: 38858, Start Num: 23

Candidate Starts for Vaishali24_45:

(Start: 23 @39382 has 199 MA's), (Start: 46 @39283 has 64 MA's), (63, 39205), (64, 39190), (72, 39145),

Gene: Valjean_46 Start: 39719, Stop: 39189, Start Num: 23

Candidate Starts for Valjean_46:

(Start: 23 @39719 has 199 MA's), (Start: 46 @39614 has 64 MA's), (63, 39536), (64, 39521), (72, 39476),

Gene: Vaticameos_42 Start: 37411, Stop: 36887, Start Num: 23

Candidate Starts for Vaticameos_42:

(Start: 23 @37411 has 199 MA's), (Start: 46 @37312 has 64 MA's), (63, 37234), (64, 37219), (72, 37174),

Gene: Veritas_45 Start: 39286, Stop: 38759, Start Num: 23

Candidate Starts for Veritas_45:

(Start: 23 @39286 has 199 MA's), (Start: 46 @39184 has 64 MA's), (63, 39106), (64, 39091), (72, 39046),

Gene: Vincenzo_42 Start: 40436, Stop: 39954, Start Num: 38

Candidate Starts for Vincenzo_42:

(19, 40535), (21, 40526), (Start: 38 @40436 has 1 MA's), (Start: 51 @40379 has 1 MA's), (64, 40292), (65, 40286), (68, 40265), (70, 40256), (83, 40145), (94, 40097), (105, 40052), (109, 40034), (114, 40004), (118, 39989),

Gene: VioletZ_42 Start: 39692, Stop: 39267, Start Num: 50

Candidate Starts for VioletZ_42:

(Start: 14 @39896 has 2 MA's), (15, 39872), (17, 39860), (28, 39806), (Start: 43 @39725 has 3 MA's), (Start: 50 @39692 has 21 MA's), (53, 39686), (68, 39584), (76, 39509), (79, 39497), (83, 39464), (85, 39455), (101, 39407), (105, 39371), (109, 39353),

Gene: Virapocalypse_46 Start: 39714, Stop: 39184, Start Num: 23

Candidate Starts for Virapocalypse_46:

(Start: 23 @39714 has 199 MA's), (Start: 46 @39609 has 64 MA's), (63, 39531), (64, 39516), (72, 39471),

Gene: Virgeve_45 Start: 39491, Stop: 38964, Start Num: 23

Candidate Starts for Virgeve_45:

(Start: 23 @39491 has 199 MA's), (Start: 46 @39389 has 64 MA's), (63, 39311), (64, 39296), (72, 39251),

Gene: Vista_46 Start: 39724, Stop: 39197, Start Num: 23

Candidate Starts for Vista_46:

(Start: 23 @39724 has 199 MA's), (Start: 46 @39622 has 64 MA's), (63, 39544), (64, 39529), (72, 39484),

Gene: Vivaldi_46 Start: 39750, Stop: 39226, Start Num: 23

Candidate Starts for Vivaldi_46:

(Start: 23 @39750 has 199 MA's), (Start: 46 @39651 has 64 MA's), (63, 39573), (64, 39558), (72, 39513),

Gene: Vortex_46 Start: 39427, Stop: 38903, Start Num: 23

Candidate Starts for Vortex_46:

(Start: 23 @39427 has 199 MA's), (Start: 46 @39328 has 64 MA's), (63, 39250), (64, 39235), (72, 39190),

Gene: Waleliano_41 Start: 39619, Stop: 39194, Start Num: 50

Candidate Starts for Waleliano_41:

(Start: 14 @39823 has 2 MA's), (15, 39799), (17, 39787), (28, 39733), (Start: 43 @39652 has 3 MA's), (Start: 50 @39619 has 21 MA's), (68, 39511), (76, 39436), (79, 39424), (83, 39391), (85, 39382), (101, 39334), (105, 39298), (109, 39280),

Gene: Wallhey_45 Start: 39284, Stop: 38760, Start Num: 23

Candidate Starts for Wallhey_45:

(Start: 23 @39284 has 199 MA's), (Start: 46 @39185 has 64 MA's), (63, 39107), (64, 39092), (72, 39047),

Gene: Waterdiva_46 Start: 39716, Stop: 39189, Start Num: 23

Candidate Starts for Waterdiva_46:

(Start: 23 @39716 has 199 MA's), (Start: 46 @39614 has 64 MA's), (63, 39536), (64, 39521), (72, 39476),

Gene: Weher20_46 Start: 39715, Stop: 39188, Start Num: 23

Candidate Starts for Weher20_46:

(Start: 23 @39715 has 199 MA's), (Start: 46 @39613 has 64 MA's), (63, 39535), (64, 39520), (72, 39475),

Gene: West99_45 Start: 39977, Stop: 39588, Start Num: 56

Candidate Starts for West99_45:

(Start: 56 @39977 has 32 MA's), (63, 39920), (68, 39878), (72, 39857), (75, 39812), (77, 39797), (79, 39788), (82, 39776), (83, 39755), (99, 39692), (101, 39686), (105, 39650), (106, 39647), (115, 39608),

Gene: Windsor_45 Start: 39420, Stop: 38893, Start Num: 23

Candidate Starts for Windsor_45:

(Start: 23 @39420 has 199 MA's), (Start: 46 @39318 has 64 MA's), (63, 39240), (64, 39225), (72, 39180),

Gene: Wooper_41 Start: 35248, Stop: 34859, Start Num: 50

Candidate Starts for Wooper_41:

(10, 35497), (Start: 50 @35248 has 21 MA's), (65, 35188), (67, 35173), (76, 35080), (79, 35068), (83, 35035), (95, 34987), (102, 34978), (109, 34930),

Gene: Xavier_45 Start: 39434, Stop: 38910, Start Num: 23

Candidate Starts for Xavier_45:

(Start: 23 @39434 has 199 MA's), (Start: 46 @39335 has 64 MA's), (63, 39257), (64, 39242), (72, 39197),

Gene: Yago84_39 Start: 34117, Stop: 33698, Start Num: 46

Candidate Starts for Yago84_39:

(Start: 46 @34117 has 64 MA's), (68, 34000), (72, 33982), (107, 33781), (112, 33745), (114, 33739),

Gene: Yahalom_44 Start: 39523, Stop: 39038, Start Num: 41

Candidate Starts for Yahalom_44:

(Start: 14 @39694 has 2 MA's), (30, 39592), (36, 39538), (Start: 41 @39523 has 34 MA's), (Start: 46 @39475 has 64 MA's), (62, 39385), (68, 39340), (69, 39334), (71, 39328), (75, 39277), (88, 39190), (93, 39166), (105, 39118),

Gene: Yinz_44 Start: 39549, Stop: 39064, Start Num: 41

Candidate Starts for Yinz_44:

(Start: 14 @39720 has 2 MA's), (30, 39618), (36, 39564), (Start: 41 @39549 has 34 MA's), (Start: 46 @39501 has 64 MA's), (62, 39411), (68, 39366), (69, 39360), (71, 39354), (75, 39303), (88, 39216), (93, 39192), (105, 39144),

Gene: Yoshand_46 Start: 39621, Stop: 39196, Start Num: 46

Candidate Starts for Yoshand_46:

(20, 39771), (22, 39762), (24, 39747), (Start: 46 @39621 has 64 MA's), (63, 39543), (64, 39528), (72, 39483),

Gene: YouGoGlencoco_46 Start: 39718, Stop: 39191, Start Num: 23

Candidate Starts for YouGoGlencoco_46:

(Start: 23 @39718 has 199 MA's), (Start: 46 @39616 has 64 MA's), (63, 39538), (64, 39523), (72, 39478),

Gene: Zaider_47 Start: 39948, Stop: 39421, Start Num: 23

Candidate Starts for Zaider_47:

(Start: 23 @39948 has 199 MA's), (Start: 46 @39846 has 64 MA's), (63, 39768), (64, 39753), (72, 39708),

Gene: Zelda_46 Start: 39765, Stop: 39238, Start Num: 23

Candidate Starts for Zelda_46:

(Start: 23 @39765 has 199 MA's), (Start: 46 @39663 has 64 MA's), (63, 39585), (64, 39570), (72, 39525),

Gene: Zemanar_42 Start: 39622, Stop: 39197, Start Num: 50

Candidate Starts for Zemanar_42:

(Start: 14 @39826 has 2 MA's), (15, 39802), (17, 39790), (28, 39736), (Start: 43 @39655 has 3 MA's), (Start: 50 @39622 has 21 MA's), (53, 39616), (68, 39514), (76, 39439), (79, 39427), (83, 39394), (85, 39385), (101, 39337), (105, 39301), (109, 39283),

Gene: Zenteno07_49 Start: 39074, Stop: 38550, Start Num: 34

Candidate Starts for Zenteno07_49:

(1, 39968), (2, 39947), (3, 39944), (4, 39929), (5, 39914), (6, 39908), (9, 39299), (19, 39158), (Start: 34 @39074 has 4 MA's), (40, 39038), (44, 39011), (Start: 56 @38975 has 32 MA's), (68, 38870), (71, 38858), (78, 38786), (85, 38741), (100, 38684),

Gene: Zonia_46 Start: 39635, Stop: 39210, Start Num: 46

Candidate Starts for Zonia_46:

(Start: 46 @39635 has 64 MA's), (63, 39557), (64, 39542), (72, 39497),