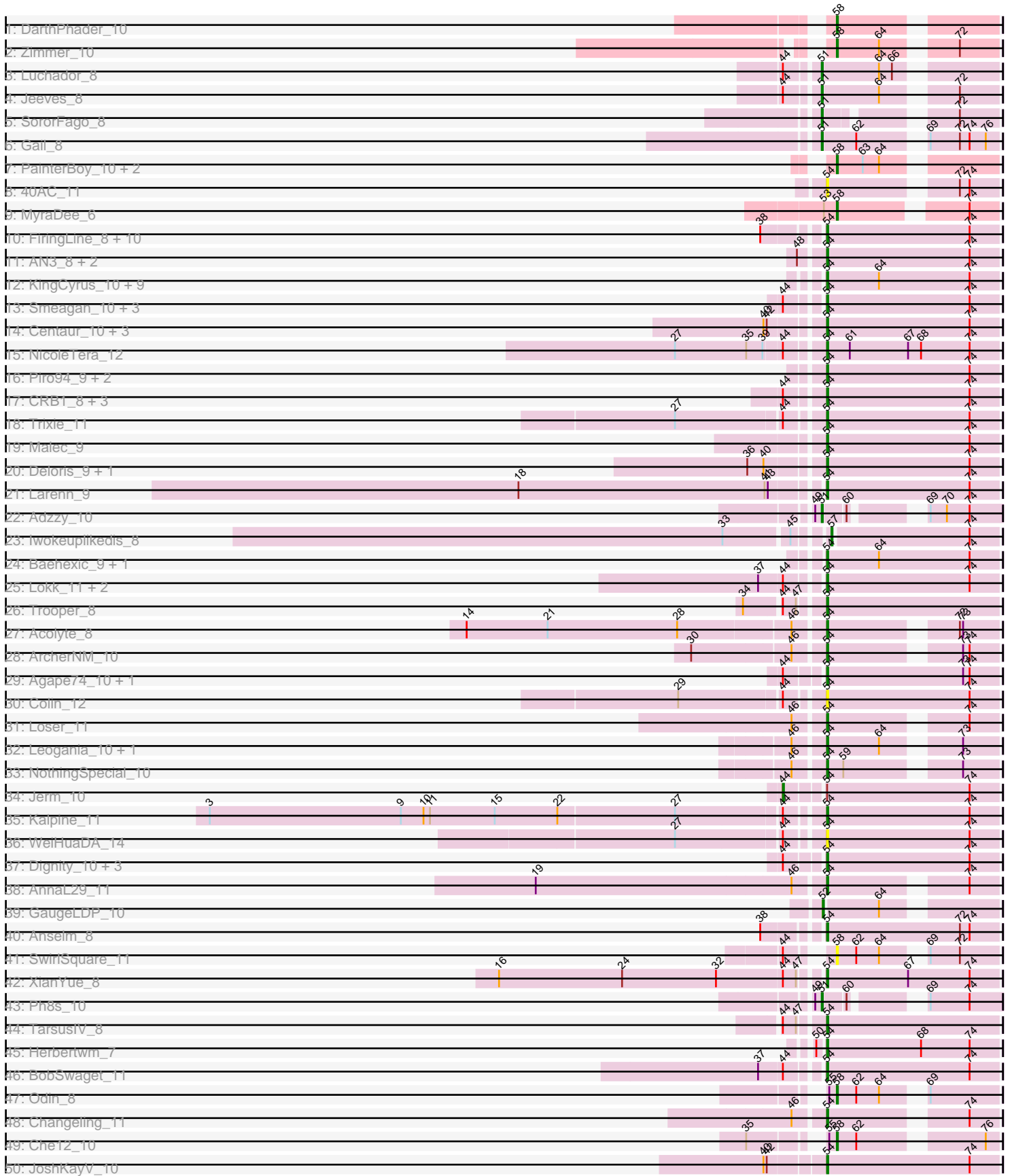
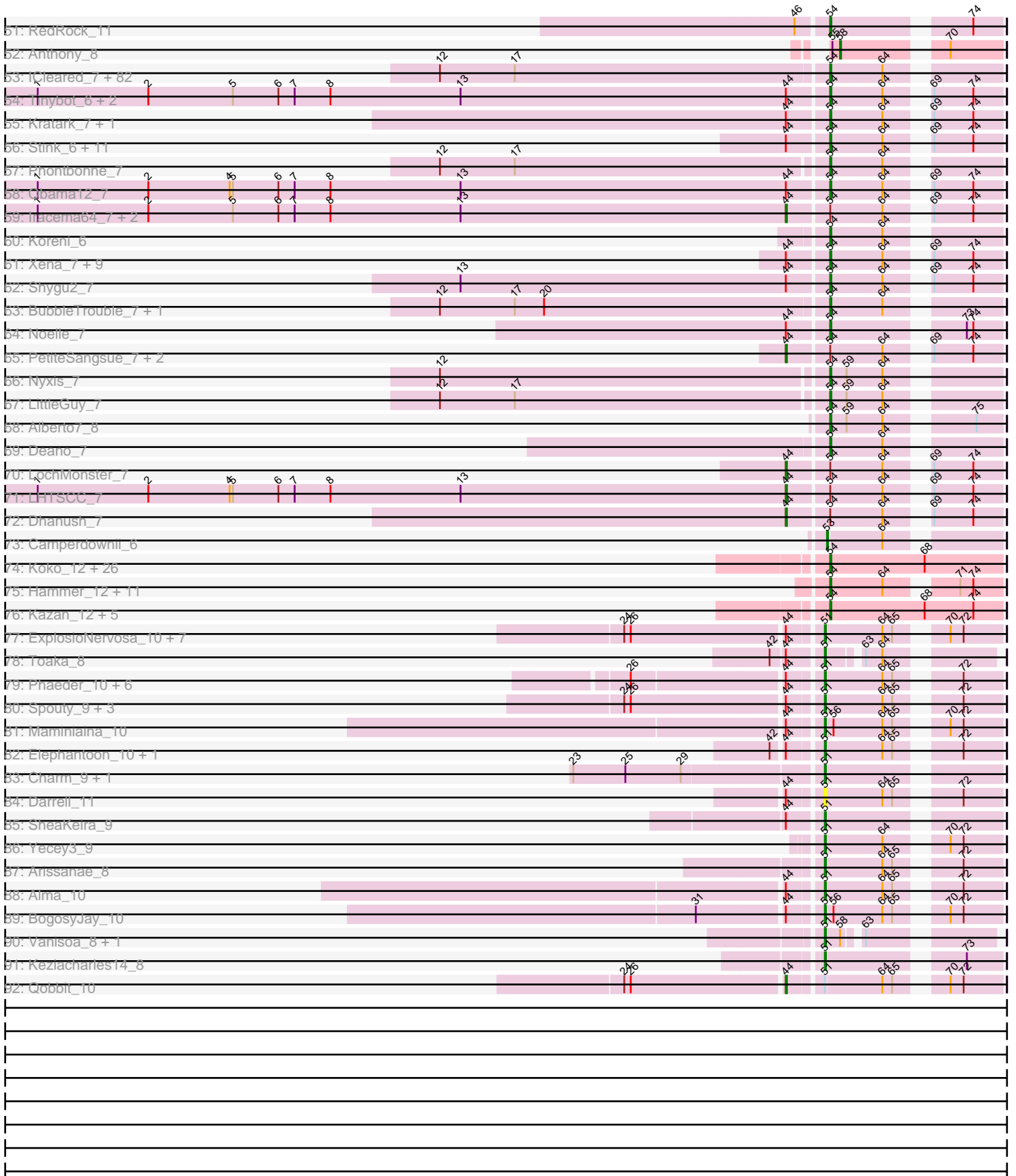


Pham 154430



Pham 154430



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 154430 Report

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

Pham number 154430 has 306 members, 21 are drafts.

Phages represented in each track:

- Track 1 : DarthPhader_10
- Track 2 : Zimmer_10
- Track 3 : Luchador_8
- Track 4 : Jeeves_8
- Track 5 : SororFago_8
- Track 6 : Gail_8
- Track 7 : PainterBoy_10, Lucyedi_10, EagleEye_11
- Track 8 : 40AC_11
- Track 9 : MyraDee_6
- Track 10 : FiringLine_8, Dalmatian_8, SnapTap_8, Retro23_8, Crucio_8, SweetiePie_8, Echid_8, Power_8, Benvolio_8, Georgie2_8, QueenBeesly_8
- Track 11 : AN3_8, VA6_8, LadyBird_8
- Track 12 : KingCyrus_10, Fameo_8, NaSiaTalie_8, Flare16_8, ChipMunk_10, EvilGenius_10, MiculUcigas_8, Heffalump_10, DudeLittle_8, QueenB2_8
- Track 13 : Smeagan_10, Buggy_10, EZMoney23_12, Leviathan_10
- Track 14 : Centaur_10, Equemioh13_10, Updawn_10, WideWale_10
- Track 15 : NicoleTera_12
- Track 16 : Piro94_9, Drake55_10, HarryHoudini_10
- Track 17 : CRB1_8, 20ES_8, SemperFi_10, First_008
- Track 18 : Trixie_11
- Track 19 : Malec_9
- Track 20 : Deloris_9, BengiVuitton_9
- Track 21 : Larenn_9
- Track 22 : Adzzy_10
- Track 23 : Iwokeuplikedis_8
- Track 24 : Baehexic_9, BabyBack_9
- Track 25 : Lokk_11, Rachaly_11, Miko_11
- Track 26 : Trooper_8
- Track 27 : Acolyte_8
- Track 28 : ArcherNM_10
- Track 29 : Agape74_10, AbbyPaige_10
- Track 30 : Colin_12
- Track 31 : Loser_11
- Track 32 : Leogania_10, BiancaTri92_10
- Track 33 : NothingSpecial_10
- Track 34 : Jerm_10
- Track 35 : Kalpine_11

- Track 36 : WeiHuaDA_14
- Track 37 : Dignity_10, Whabigail7_10, Turbido_10, LiITurb_10
- Track 38 : AnnaL29_11
- Track 39 : GaugeLDP_10
- Track 40 : Anselm_8
- Track 41 : SwirlSquare_11
- Track 42 : XianYue_8
- Track 43 : Ph8s_10
- Track 44 : TarsusIV_8
- Track 45 : Herbertwm_7
- Track 46 : BobSwaget_11
- Track 47 : Odin_8
- Track 48 : Changeling_11
- Track 49 : Che12_10
- Track 50 : JoshKayV_10
- Track 51 : RedRock_11
- Track 52 : Anthony_8
- Track 53 : ICleared_7, PeterPeter_7, Holli_7, Avle17_7, Blackmoor_7, Iceman_7, TiroTheta9_7, Polymorphads_7, Kampy_7, Medusa_7, Palestino_7, Melvin_7, Funston_7, Lunsford_7, Citius_7, Lorenzo_7, LeoAvram_7, Anyyong_7, Eurydice_7, TroyPia_7, MeeZee_7, OKaNui_7, Taquarus_7, Sabertooth_7, Peaches_7, Jaykayelowell_7, KFPoly_7, Millski_7, Commander_7, Happiness_7, Clarenza_7, CentreCat_7, JetBlade_7, Eagle_6, Lemur_7, Romney_7, Nebs_7, Eris_7, Pipcraft_7, Florean_7, HamSlice_6, Connomayer_7, Shaka_7, Skipitt_7, TinaFeyge_7, Sparxx_7, Ohfah_7, Bartimeaus_7, TygerBlood_7, Wilbur_7, Relief_7, Albee_7, Chaph_7, Ruin_7, LittleB_7, Mazhar510_7, Caelakin_7, Phacado_7, Roosevelt_7, Nemo27_7, Eros_7, Broseidon_7, Wizard007_7, Scamp_7, Bombshell_7, Burger_6, Maxo_7, NorthStar_7, BellusTerra_7, Maverick_7, Morrow_7, Spino_7, Baby16_7, Phelipe_7, YoSam321_7, LappelDuVide_6, JoongJeon_7, Eapen_7, Abdiel_7, Wander_7, Druantia_7, Bruiser_7, Kingmustik0402_7
- Track 54 : Tinybot_6, SheldonCooper_7, Cerulean_7
- Track 55 : Kratak_7, Thanksgivukkah_7
- Track 56 : Stink_6, AvatarAhPeg_7, DirtyDunning_7, NotAPhaseMom_7, Cocoaberry_7, Kyee_7, Pumbaa_7, Gadost_7, Phighter1804_7, Miramae_7, Mundrea_7, Houdini22_7
- Track 57 : Phontbonne_7
- Track 58 : Obama12_7
- Track 59 : Iracema64_7, ChampagnePapi_7, BangNhom_6
- Track 60 : Koreni_6
- Track 61 : Xena_7, Datway_7, Katalie136_7, Backyardigan_7, Cici_7, Badger_7, Wile_7, Achebe_7, AbbysRanger_7, Bumblebee11_7
- Track 62 : Shygu2_7
- Track 63 : BubbleTrouble_7, Flux_7
- Track 64 : Noelle_7
- Track 65 : PetiteSangsue_7, Perplexer_7, Morpher26_7
- Track 66 : Nyxis_7
- Track 67 : LittleGuy_7
- Track 68 : Alberto7_8
- Track 69 : Deano_7
- Track 70 : LochMonster_7
- Track 71 : LHTSCC_7
- Track 72 : Dhanush_7

- Track 73 : Camperdownii_6
- Track 74 : Koko_12, Hexamo_12, Cookiedough_12, VohminGhazi_12, BABullseye_12, Tucker_12, Dorothea_11, McFly_12, Priamo_12, Helmet_13, SmellyB_12, Roksolana_12, Candra_12, Jeffabunny_12, Blinn1_12, Garak_13, Kipper29_12, Newrala_12, Artemis2UCLA_12, Chartreuse_12, Pmask_12, ToneTone_11, Indra_12, DaVinci_12, Jordennis_12, GreedyLawyer_12, Neeharika16_12
- Track 75 : Hammer_12, Zaka_12, Gladiator_12, Hoot_12, Blue7_12, Rifter_12, Wiks_12, Zulu_12, CloudWang3_12, Yokurt_12, WunderPhul_12, Gruunaga_12
- Track 76 : Kazan_12, SuperAwesome_12, SuperCallie99_12, Isiphiwo_12, JewelBug_12, EricB_12
- Track 77 : ExplosioNervosa_10, Ugenie5_7, Scherzo_10, EmyBug_8, Phonnegut_10, Pioneer_10, Beemo_10, Fayely_10
- Track 78 : Toaka_8
- Track 79 : Phaeder_10, Catalina_10, HortumSL17_10, Aliter_10, PackMan_10, Tubs_10, Myxus_10
- Track 80 : Spouty_9, Eidsmoe_10, Conquerage_10, Priya_10
- Track 81 : Maminiaina_10
- Track 82 : Elephantoon_10, LoneWolf_10
- Track 83 : Charm_9, DreamTeam1_9
- Track 84 : Darrell_11
- Track 85 : SheaKeira_9
- Track 86 : Yecey3_9
- Track 87 : Arissanae_8
- Track 88 : Alma_10
- Track 89 : BogosyJay_10
- Track 90 : Vanisoa_8, Rahalelujah_8
- Track 91 : Keziacharles14_8
- Track 92 : Qobbit_10

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

The start number called the most often in the published annotations is 54, it was called in 225 of the 285 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES_8, 40AC_11, AN3_8, AbbyPaige_10, AbbysRanger_7, Abdiel_7, Achebe_7, Acolyte_8, Agape74_10, Albee_7, Alberto7_8, AnnaL29_11, Annyong_7, Anselm_8, ArcherNM_10, Artemis2UCLA_12, AvatarAhPeg_7, Avle17_7, BABullseye_12, Baby16_7, BabyBack_9, Backyardigan_7, Badger_7, Baehexic_9, Bartimeaus_7, BellusTerra_7, BengiVuitton_9, Benvolio_8, BiancaTri92_10, Blackmoor_7, Blinn1_12, Blue7_12, BobSwaget_11, Bombshell_7, Broseidon_7, Bruiser_7, BubbleTrouble_7, Buggy_10, Bumblebee11_7, Burger_6, CRB1_8, Caelakin_7, Candra_12, Centaur_10, CentreCat_7, Cerulean_7, Changeling_11, Chaph_7, Chartreuse_12, ChipMunk_10, Cici_7, Citius_7, Clarenza_7, CloudWang3_12, Cocoaberry_7, Colin_12, Commander_7, Connomayer_7, Cookiedough_12, Crucio_8, DaVinci_12, Dalmatian_8, Datway_7, Deano_7, Deloris_9, Dignity_10, DirtyDunning_7, Dorothea_11, Drake55_10, Druantia_7, DudeLittle_8, EZMoney23_12, Eagle_6, Eapen_7, Echild_8, Equemioh13_10, EricB_12, Eris_7, Eros_7, Eurydice_7, EvilGenius_10, Fameo_8, FiringLine_8, First_008, Flare16_8,

Floean_7, Flux_7, Funston_7, Gadost_7, Garak_13, Georgie2_8, Gladiator_12, GreedyLawyer_12, Gruunaga_12, HamSlice_6, Hammer_12, Happiness_7, HarryHoudini_10, Heffalump_10, Helmet_13, Herbertwm_7, Hexamo_12, Holli_7, Hoot_12, Houdini22_7, ICleared_7, Iceman_7, Indra_12, Isiphiwo_12, Jaykayelowell_7, Jeffabunny_12, JetBlade_7, JewelBug_12, JoongJeon_7, Jordennis_12, JoshKayV_10, KFPoly_7, Kalpine_11, Kampy_7, Katalie136_7, Kazan_12, KingCyrus_10, Kingmustik0402_7, Kipper29_12, Koko_12, Koreni_6, Kratak_7, Kyee_7, LadyBird_8, LappelDuVide_6, Larenn_9, Lemur_7, LeoAvram_7, Leogania_10, Leviathan_10, LiITurb_10, LittleB_7, LittleGuy_7, Lokk_11, Lorenzo_7, Loser_11, Lunsford_7, Malec_9, Maverick_7, Maxo_7, Mazhar510_7, McFly_12, Medusa_7, MeeZee_7, Melvin_7, MiculUcigas_8, Miko_11, Millski_7, Miramae_7, Morrow_7, Mundrea_7, NaSiaTalie_8, Nebs_7, Neeharika16_12, Nemo27_7, Newrala_12, NicoleTera_12, Noelle_7, NorthStar_7, NotAPhaseMom_7, NothingSpecial_10, Nyxis_7, OKaNui_7, Obama12_7, Ohfah_7, Palestino_7, Peaches_7, PeterPeter_7, Phacado_7, Phelipe_7, Phighter1804_7, Phontbonne_7, Pipcraft_7, Piro94_9, Pmask_12, Polymorphads_7, Power_8, Priamo_12, Pumbaa_7, QueenB2_8, QueenBeesly_8, Rachaly_11, RedRock_11, Relief_7, Retro23_8, Rifter_12, Roksolana_12, Romney_7, Roosevelt_7, Ruin_7, Sabertooth_7, Scamp_7, SemperFi_10, Shaka_7, SheldonCooper_7, Shygu2_7, Skipitt_7, Smeagan_10, SmellyB_12, SnapTap_8, Sparxx_7, Spino_7, Stink_6, SuperAwesome_12, SuperCallie99_12, SweetiePie_8, Taquarus_7, TarsusIV_8, Thanksgivukkah_7, TinaFeyge_7, Tinybot_6, TiroTheta9_7, ToneTone_11, Trixie_11, Trooper_8, TroyPia_7, Tucker_12, Turbido_10, TygerBlood_7, Updawg_10, VA6_8, VohminGhazi_12, Wander_7, WeiHuaDA_14, Whabigail7_10, WideWale_10, Wiks_12, Wilbur_7, Wile_7, Wizard007_7, WunderPhul_12, Xena_7, XianYue_8, YoSam321_7, Yokurt_12, Zaka_12, Zulu_12,

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

- BangNhom_6, ChampagnePapi_7, Dhanush_7, Iracema64_7, Jerm_10, LHTSCC_7, LochMonster_7, Morpher26_7, Perplexer_7, PetiteSangsue_7,

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

- Adzzy_10, Aliter_10, Alma_10, Anthony_8, Arissanae_8, Beemo_10, BogosyJay_10, Camperdownii_6, Catalina_10, Charm_9, Che12_10, Conquerage_10, Darrell_11, DarthPhader_10, DreamTeam1_9, EagleEye_11, Eidsmoe_10, Elephantoon_10, EmyBug_8, ExplosioNervosa_10, Fayely_10, Gail_8, GaugeLDP_10, HortumSL17_10, Iwokeuplikedis_8, Jeeves_8, Keziacharles14_8, LoneWolf_10, Luchador_8, Lucyedi_10, Maminiaina_10, MyraDee_6, Myxus_10, Odin_8, PackMan_10, PainterBoy_10, Ph8s_10, Phaeder_10, Phonnegut_10, Pioneer_10, Priya_10, Qobbit_10, Rahalelujah_8, Scherzo_10, SheaKeira_9, SororFago_8, Spouty_9, SwirlSquare_11, Toaka_8, Tubs_10, Ugenie5_7, Vanisoa_8, Yecey3_9, Zimmer_10,

Summary by start number:

Start 44:

- Found in 97 of 306 (31.7%) of genes in pham
- Manual Annotations of this start: 11 of 285
- Called 11.3% of time when present
- Phage (with cluster) where this start called: BangNhom_6 (A4), ChampagnePapi_7 (A4), Dhanush_7 (A4), Iracema64_7 (A4), Jerm_10 (A2), LHTSCC_7 (A4), LochMonster_7 (A4), Morpher26_7 (A4), Perplexer_7 (A4), PetiteSangsue_7 (A4), Qobbit_10 (A9),

Start 51:

- Found in 41 of 306 (13.4%) of genes in pham
- Manual Annotations of this start: 37 of 285
- Called 97.6% of time when present
- Phage (with cluster) where this start called: Adzzy_10 (A2), Aliter_10 (A9), Alma_10 (A9), Arissanae_8 (A9), Beemo_10 (A9), BogosyJay_10 (A9), Catalina_10 (A9), Charm_9 (A9), Conquerage_10 (A9), Darrell_11 (A9), DreamTeam1_9 (A9), Eidsmoe_10 (A9), Elephantoon_10 (A9), EmyBug_8 (A9), ExplosioNervosa_10 (A9), Fayely_10 (A9), Gail_8 (A14), HortumSL17_10 (A9), Jeeves_8 (A14), Keziacharles14_8 (A9), LoneWolf_10 (A9), Luchador_8 (A14), Maminiaina_10 (A9), Myxus_10 (A9), PackMan_10 (A9), Ph8s_10 (A2), Phaeder_10 (A9), Phonnegut_10 (A9), Pioneer_10 (A9), Priya_10 (A9), Rahalelujah_8 (A9), Scherzo_10 (A9), SheaKeira_9 (A9), SororFago_8 (A14), Spouty_9 (A9), Toaka_8 (A9), Tubs_10 (A9), Ugenie5_7 (A9), Vanisoa_8 (A9), Yecey3_9 (A9),

Start 52:

- Found in 1 of 306 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 285
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GaugeLDP_10 (A2),

Start 53:

- Found in 2 of 306 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 285
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Camperdownii_6 (A4),

Start 54:

- Found in 252 of 306 (82.4%) of genes in pham
- Manual Annotations of this start: 225 of 285
- Called 96.0% of time when present
- Phage (with cluster) where this start called: 20ES_8 (A2), 40AC_11 (A17), AN3_8 (A2), AbbyPaige_10 (A2), AbbysRanger_7 (A4), Abdiel_7 (A4), Achebe_7 (A4), Acolyte_8 (A2), Agape74_10 (A2), Albee_7 (A4), Alberto7_8 (A4), AnnaL29_11 (A2), Annyong_7 (A4), Anselm_8 (A2), ArcherNM_10 (A2), Artemis2UCLA_12 (A6), AvatarAhPeg_7 (A4), Avie17_7 (A4), BABullseye_12 (A6), Baby16_7 (A4), BabyBack_9 (A2), Backyardigan_7 (A4), Badger_7 (A4), Baehexic_9 (A2), Bartimeaus_7 (A4), BellusTerra_7 (A4), BengiVuitton_9 (A2), Benvolio_8 (A2), BiancaTri92_10 (A2), Blackmoor_7 (A4), Blinn1_12 (A6), Blue7_12 (A6), BobSwaget_11 (A2), Bombshell_7 (A4), Broseidon_7 (A4), Bruiser_7 (A4), BubbleTrouble_7 (A4), Buggy_10 (A2), Bumblebee11_7 (A4), Burger_6 (A4), CRB1_8 (A2), Caelakin_7 (A4), Candra_12 (A6), Centaur_10 (A2), CentreCat_7 (A4), Cerulean_7 (A4), Changeling_11 (A2), Chaph_7 (A4), Chartreuse_12 (A6), ChipMunk_10 (A2), Cici_7 (A4), Citius_7 (A4), Clarenza_7 (A4), CloudWang3_12 (A6), Cocoaberry_7 (A4), Colin_12 (A2), Commander_7 (A4), Connomayer_7 (A4), Cookiedough_12 (A6), Crucio_8 (A2), DaVinci_12 (A6), Dalmatian_8 (A2), Datway_7 (A4), Deano_7 (A4), Deloris_9 (A2), Dignity_10 (A2), DirtyDunning_7 (A4), Dorothea_11 (A6), Drake55_10 (A2), Druantia_7 (A4), DudeLittle_8 (A2), EZMoney23_12 (A2), Eagle_6 (A4), Eapen_7 (A4), Echild_8 (A2), Equemioh13_10 (A2), EricB_12 (A6), Eris_7 (A4), Eros_7 (A4), Eurydice_7 (A4), EvilGenius_10 (A2), Fameo_8 (A2), FiringLine_8 (A2), First_008 (A2), Flare16_8 (A2), Florean_7 (A4), Flux_7 (A4), Funston_7 (A4), Gadost_7 (A4), Garak_13 (A6), Georgie2_8 (A2),

Gladiator_12 (A6), GreedyLawyer_12 (A6), Gruunaga_12 (A6), HamSlice_6 (A4), Hammer_12 (A6), Happiness_7 (A4), HarryHoudini_10 (A2), Heffalump_10 (A2), Helmet_13 (A6), Herbertwm_7 (A2), Hexamo_12 (A6), Holli_7 (A4), Hoot_12 (A6), Houdini22_7 (A4), ICleared_7 (A4), Iceman_7 (A4), Indra_12 (A6), Isiphiwo_12 (A6), Jaykayelowell_7 (A4), Jeffabunny_12 (A6), JetBlade_7 (A4), JewelBug_12 (A6), JoongJeon_7 (A4), Jordennis_12 (A6), JoshKayV_10 (A2), KFPoly_7 (A4), Kalpine_11 (A2), Kampy_7 (A4), Katalie136_7 (A4), Kazan_12 (A6), KingCyrus_10 (A2), Kingmustik0402_7 (A4), Kipper29_12 (A6), Koko_12 (A6), Koreni_6 (A4), Kratark_7 (A4), Kyee_7 (A4), LadyBird_8 (A2), LappelDuVide_6 (A4), Larenn_9 (A2), Lemur_7 (A4), LeoAvram_7 (A4), Leogania_10 (A2), Leviathan_10 (A2), LilTurb_10 (A2), LittleB_7 (A4), LittleGuy_7 (A4), Lökk_11 (A2), Lorenzo_7 (A4), Loser_11 (A2), Lunsford_7 (A4), Malec_9 (A2), Maverick_7 (A4), Maxo_7 (A4), Mazhar510_7 (A4), McFly_12 (A6), Medusa_7 (A4), MeeZee_7 (A4), Melvin_7 (A4), MiculUcigas_8 (A2), Miko_11 (A2), Millski_7 (A4), Miramae_7 (A4), Morrow_7 (A4), Mundrea_7 (A4), NaSiaTalie_8 (A2), Nebs_7 (A4), Neeharika16_12 (A6), Nemo27_7 (A4), Newrala_12 (A6), NicoleTera_12 (A2), Noelle_7 (A4), NorthStar_7 (A4), NotAPhaseMom_7 (A4), NothingSpecial_10 (A2), Nyxis_7 (A4), OKaNui_7 (A4), Obama12_7 (A4), Ohfah_7 (A4), Palestino_7 (A4), Peaches_7 (A4), PeterPeter_7 (A4), Phacado_7 (A4), Phelipe_7 (A4), Phighter1804_7 (A4), Phontbonne_7 (A4), Pipcraft_7 (A4), Piro94_9 (A2), Pmask_12 (A6), Polymorphads_7 (A4), Power_8 (A2), Priamo_12 (A6), Pumbaa_7 (A4), QueenB2_8 (A2), QueenBeesly_8 (A2), Rachaly_11 (A2), RedRock_11 (A2), Relief_7 (A4), Retro23_8 (A2), Rifter_12 (A6), Roksolana_12 (A6), Romney_7 (A4), Roosevelt_7 (A4), Ruin_7 (A4), Sabertooth_7 (A4), Scamp_7 (A4), SemperFi_10 (A2), Shaka_7 (A4), SheldonCooper_7 (A4), Shygu2_7 (A4), Skipitt_7 (A4), Smeagan_10 (A2), SmellyB_12 (A6), SnapTap_8 (A2), Sparxx_7 (A4), Spino_7 (A4), Stink_6 (A4), SuperAwesome_12 (A6), SuperCallie99_12 (A6), SweetiePie_8 (A2), Taquarus_7 (A4), TarsusIV_8 (A2), Thanksgivukkah_7 (A4), TinaFeyge_7 (A4), Tinybot_6 (A4), TiroTheta9_7 (A4), ToneTone_11 (A6), Trixie_11 (A2), Trooper_8 (A2), TroyPia_7 (A4), Tucker_12 (A6), Turbido_10 (A2), TygerBlood_7 (A4), Updawg_10 (A2), VA6_8 (A2), VohminGhazi_12 (A6), Wander_7 (A4), WeiHuaDA_14 (A2), Whabigail7_10 (A2), WideWale_10 (A2), Wiks_12 (A6), Wilbur_7 (A4), Wile_7 (A4), Wizard007_7 (A4), WunderPhul_12 (A6), Xena_7 (A4), XianYue_8 (A2), YoSam321_7 (A4), Yokurt_12 (A6), Zaka_12 (A6), Zulu_12 (A6),

Start 57:

- Found in 1 of 306 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 285
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Iwokeuplikedis_8 (A2),

Start 58:

- Found in 12 of 306 (3.9%) of genes in pham
- Manual Annotations of this start: 9 of 285
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Anthony_8 (A20), Che12_10 (A2), DarthPhader_10 (A12), EagleEye_11 (A16), Lucyedi_10 (A16), MyraDee_6 (A18), Odin_8 (A2), PainterBoy_10 (A16), SwirlSquare_11 (A2), Zimmer_10 (A12),

Summary by clusters:

There are 10 clusters represented in this pham: A20, A14, A17, A16, A12, A18, A2, A4, A6, A9,

Info for manual annotations of cluster A12:

- Start number 58 was manually annotated 2 times for cluster A12.

Info for manual annotations of cluster A14:

- Start number 51 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A16:

- Start number 58 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A18:

- Start number 58 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A2:

- Start number 44 was manually annotated 1 time for cluster A2.
- Start number 51 was manually annotated 2 times for cluster A2.
- Start number 52 was manually annotated 1 time for cluster A2.
- Start number 54 was manually annotated 68 times for cluster A2.
- Start number 57 was manually annotated 1 time for cluster A2.
- Start number 58 was manually annotated 2 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 58 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A4:

- Start number 44 was manually annotated 9 times for cluster A4.
- Start number 53 was manually annotated 1 time for cluster A4.
- Start number 54 was manually annotated 118 times for cluster A4.

Info for manual annotations of cluster A6:

- Start number 54 was manually annotated 39 times for cluster A6.

Info for manual annotations of cluster A9:

- Start number 44 was manually annotated 1 time for cluster A9.
- Start number 51 was manually annotated 31 times for cluster A9.

Gene Information:

Gene: 20ES_8 Start: 4532, Stop: 4690, Start Num: 54

Candidate Starts for 20ES_8:

(Start: 44 @4505 has 11 MA's), (Start: 54 @4532 has 225 MA's), (74, 4664),

Gene: 40AC_11 Start: 6438, Stop: 6575, Start Num: 54

Candidate Starts for 40AC_11:

(Start: 54 @6438 has 225 MA's), (72, 6540), (74, 6549),

Gene: AN3_8 Start: 4514, Stop: 4672, Start Num: 54

Candidate Starts for AN3_8:

(48, 4499), (Start: 54 @4514 has 225 MA's), (74, 4646),

Gene: AbbyPaige_10 Start: 4959, Stop: 5117, Start Num: 54

Candidate Starts for AbbyPaige_10:

(Start: 44 @4929 has 11 MA's), (Start: 54 @4959 has 225 MA's), (73, 5085), (74, 5091),

Gene: AbbysRanger_7 Start: 3799, Stop: 3936, Start Num: 54

Candidate Starts for AbbysRanger_7:

(Start: 44 @3763 has 11 MA's), (Start: 54 @3799 has 225 MA's), (64, 3847), (69, 3874), (74, 3910),

Gene: Abdiel_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Abdiel_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Achebe_7 Start: 3799, Stop: 3936, Start Num: 54

Candidate Starts for Achebe_7:

(Start: 44 @3763 has 11 MA's), (Start: 54 @3799 has 225 MA's), (64, 3847), (69, 3874), (74, 3910),

Gene: Acolyte_8 Start: 4492, Stop: 4629, Start Num: 54

Candidate Starts for Acolyte_8:

(14, 4171), (21, 4246), (28, 4366), (46, 4465), (Start: 54 @4492 has 225 MA's), (72, 4594), (73, 4597),

Gene: Adzzy_10 Start: 4342, Stop: 4473, Start Num: 51

Candidate Starts for Adzzy_10:

(49, 4336), (Start: 51 @4342 has 37 MA's), (60, 4360), (69, 4408), (70, 4423), (74, 4444),

Gene: Agape74_10 Start: 4959, Stop: 5117, Start Num: 54

Candidate Starts for Agape74_10:

(Start: 44 @4929 has 11 MA's), (Start: 54 @4959 has 225 MA's), (73, 5085), (74, 5091),

Gene: Albee_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Albee_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Alberto7_8 Start: 4086, Stop: 4223, Start Num: 54

Candidate Starts for Alberto7_8:

(Start: 54 @4086 has 225 MA's), (59, 4101), (64, 4134), (75, 4200),

Gene: Aliter_10 Start: 5934, Stop: 6074, Start Num: 51

Candidate Starts for Aliter_10:

(26, 5775), (Start: 44 @5907 has 11 MA's), (Start: 51 @5934 has 37 MA's), (64, 5985), (65, 5994), (72, 6039),

Gene: Alma_10 Start: 6013, Stop: 6153, Start Num: 51

Candidate Starts for Alma_10:

(Start: 44 @5986 has 11 MA's), (Start: 51 @6013 has 37 MA's), (64, 6064), (65, 6073), (72, 6118),

Gene: AnnaL29_11 Start: 6279, Stop: 6416, Start Num: 54

Candidate Starts for AnnaL29_11:

(19, 6018), (46, 6252), (Start: 54 @6279 has 225 MA's), (74, 6390),

Gene: Annyong_7 Start: 3785, Stop: 3922, Start Num: 54

Candidate Starts for Annyong_7:

(12, 3434), (17, 3503), (Start: 54 @3785 has 225 MA's), (64, 3833),

Gene: Anselm_8 Start: 4647, Stop: 4805, Start Num: 54

Candidate Starts for Anselm_8:

(38, 4602), (Start: 54 @4647 has 225 MA's), (72, 4770), (74, 4779),

Gene: Anthony_8 Start: 3757, Stop: 3885, Start Num: 58

Candidate Starts for Anthony_8:

(55, 3751), (Start: 58 @3757 has 9 MA's), (70, 3838),

Gene: ArcherNM_10 Start: 6376, Stop: 6513, Start Num: 54

Candidate Starts for ArcherNM_10:

(30, 6262), (46, 6349), (Start: 54 @6376 has 225 MA's), (73, 6481), (74, 6487),

Gene: Arissanae_8 Start: 4165, Stop: 4305, Start Num: 51

Candidate Starts for Arissanae_8:

(Start: 51 @4165 has 37 MA's), (64, 4216), (65, 4225), (72, 4270),

Gene: Artemis2UCLA_12 Start: 5579, Stop: 5737, Start Num: 54

Candidate Starts for Artemis2UCLA_12:

(Start: 54 @5579 has 225 MA's), (68, 5666),

Gene: AvatarAhPeg_7 Start: 3787, Stop: 3924, Start Num: 54

Candidate Starts for AvatarAhPeg_7:

(Start: 44 @3751 has 11 MA's), (Start: 54 @3787 has 225 MA's), (64, 3835), (69, 3862), (74, 3898),

Gene: Avle17_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Avle17_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: BABullseye_12 Start: 5696, Stop: 5854, Start Num: 54

Candidate Starts for BABullseye_12:

(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: Baby16_7 Start: 3793, Stop: 3930, Start Num: 54

Candidate Starts for Baby16_7:

(12, 3442), (17, 3511), (Start: 54 @3793 has 225 MA's), (64, 3841),

Gene: BabyBack_9 Start: 6002, Stop: 6139, Start Num: 54

Candidate Starts for BabyBack_9:

(Start: 54 @6002 has 225 MA's), (64, 6050), (74, 6113),

Gene: Backyardigan_7 Start: 3799, Stop: 3936, Start Num: 54

Candidate Starts for Backyardigan_7:

(Start: 44 @3763 has 11 MA's), (Start: 54 @3799 has 225 MA's), (64, 3847), (69, 3874), (74, 3910),

Gene: Badger_7 Start: 3800, Stop: 3937, Start Num: 54

Candidate Starts for Badger_7:

(Start: 44 @3764 has 11 MA's), (Start: 54 @3800 has 225 MA's), (64, 3848), (69, 3875), (74, 3911),

Gene: Baehexic_9 Start: 5051, Stop: 5209, Start Num: 54

Candidate Starts for Baehexic_9:

(Start: 54 @5051 has 225 MA's), (64, 5099), (74, 5183),

Gene: BangNhom_6 Start: 3755, Stop: 3928, Start Num: 44

Candidate Starts for BangNhom_6:

(1, 3065), (2, 3167), (5, 3245), (6, 3287), (7, 3302), (8, 3335), (13, 3455), (Start: 44 @3755 has 11 MA's), (Start: 54 @3791 has 225 MA's), (64, 3839), (69, 3866), (74, 3902),

Gene: Bartimeaus_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Bartimeaus_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Beemo_10 Start: 6040, Stop: 6180, Start Num: 51

Candidate Starts for Beemo_10:

(24, 5872), (26, 5878), (Start: 44 @6013 has 11 MA's), (Start: 51 @6040 has 37 MA's), (64, 6091), (65, 6100), (70, 6133), (72, 6145),

Gene: BellusTerra_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for BellusTerra_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: BengiVuitton_9 Start: 4975, Stop: 5133, Start Num: 54

Candidate Starts for BengiVuitton_9:

(36, 4918), (40, 4933), (Start: 54 @4975 has 225 MA's), (74, 5107),

Gene: Benvolio_8 Start: 4639, Stop: 4797, Start Num: 54

Candidate Starts for Benvolio_8:

(38, 4594), (Start: 54 @4639 has 225 MA's), (74, 4771),

Gene: BiancaTri92_10 Start: 6131, Stop: 6268, Start Num: 54

Candidate Starts for BiancaTri92_10:

(46, 6104), (Start: 54 @6131 has 225 MA's), (64, 6179), (73, 6236),

Gene: Blackmoor_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Blackmoor_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Blinn1_12 Start: 5729, Stop: 5887, Start Num: 54

Candidate Starts for Blinn1_12:

(Start: 54 @5729 has 225 MA's), (68, 5816),

Gene: Blue7_12 Start: 5688, Stop: 5825, Start Num: 54

Candidate Starts for Blue7_12:

(Start: 54 @5688 has 225 MA's), (64, 5736), (71, 5787), (74, 5799),

Gene: BobSwaget_11 Start: 6254, Stop: 6412, Start Num: 54

Candidate Starts for BobSwaget_11:

(37, 6206), (Start: 44 @6227 has 11 MA's), (Start: 54 @6254 has 225 MA's), (74, 6386),

Gene: BogosyJay_10 Start: 5797, Stop: 5937, Start Num: 51

Candidate Starts for BogosyJay_10:

(31, 5695), (Start: 44 @5770 has 11 MA's), (Start: 51 @5797 has 37 MA's), (56, 5803), (64, 5848), (65, 5857), (70, 5890), (72, 5902),

Gene: Bombshell_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Bombshell_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Broseidon_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Broseidon_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Bruiser_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Bruiser_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: BubbleTrouble_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for BubbleTrouble_7:
(12, 3433), (17, 3502), (20, 3529), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Buggy_10 Start: 4958, Stop: 5116, Start Num: 54
Candidate Starts for Buggy_10:
(Start: 44 @4931 has 11 MA's), (Start: 54 @4958 has 225 MA's), (74, 5090),

Gene: Bumblebee11_7 Start: 3799, Stop: 3936, Start Num: 54
Candidate Starts for Bumblebee11_7:
(Start: 44 @3763 has 11 MA's), (Start: 54 @3799 has 225 MA's), (64, 3847), (69, 3874), (74, 3910),

Gene: Burger_6 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Burger_6:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: CRB1_8 Start: 4521, Stop: 4679, Start Num: 54
Candidate Starts for CRB1_8:
(Start: 44 @4494 has 11 MA's), (Start: 54 @4521 has 225 MA's), (74, 4653),

Gene: Caelakin_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Caelakin_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Camperdownii_6 Start: 3437, Stop: 3574, Start Num: 53
Candidate Starts for Camperdownii_6:
(Start: 53 @3437 has 1 MA's), (64, 3485),

Gene: Candra_12 Start: 5729, Stop: 5887, Start Num: 54
Candidate Starts for Candra_12:
(Start: 54 @5729 has 225 MA's), (68, 5816),

Gene: Catalina_10 Start: 6007, Stop: 6147, Start Num: 51
Candidate Starts for Catalina_10:
(26, 5848), (Start: 44 @5980 has 11 MA's), (Start: 51 @6007 has 37 MA's), (64, 6058), (65, 6067),
(72, 6112),

Gene: Centaur_10 Start: 5030, Stop: 5188, Start Num: 54
Candidate Starts for Centaur_10:
(40, 4988), (42, 4991), (Start: 54 @5030 has 225 MA's), (74, 5162),

Gene: CentreCat_7 Start: 3785, Stop: 3922, Start Num: 54
Candidate Starts for CentreCat_7:
(12, 3434), (17, 3503), (Start: 54 @3785 has 225 MA's), (64, 3833),

Gene: Cerulean_7 Start: 3792, Stop: 3929, Start Num: 54

Candidate Starts for Cerulean_7:

(1, 3066), (2, 3168), (5, 3246), (6, 3288), (7, 3303), (8, 3336), (13, 3456), (Start: 44 @3756 has 11 MA's), (Start: 54 @3792 has 225 MA's), (64, 3840), (69, 3867), (74, 3903),

Gene: ChampagnePapi_7 Start: 3755, Stop: 3928, Start Num: 44

Candidate Starts for ChampagnePapi_7:

(1, 3065), (2, 3167), (5, 3245), (6, 3287), (7, 3302), (8, 3335), (13, 3455), (Start: 44 @3755 has 11 MA's), (Start: 54 @3791 has 225 MA's), (64, 3839), (69, 3866), (74, 3902),

Gene: Changeling_11 Start: 6288, Stop: 6425, Start Num: 54

Candidate Starts for Changeling_11:

(46, 6261), (Start: 54 @6288 has 225 MA's), (74, 6399),

Gene: Chaph_7 Start: 3793, Stop: 3930, Start Num: 54

Candidate Starts for Chaph_7:

(12, 3442), (17, 3511), (Start: 54 @3793 has 225 MA's), (64, 3841),

Gene: Charm_9 Start: 4220, Stop: 4360, Start Num: 51

Candidate Starts for Charm_9:

(23, 4004), (25, 4052), (29, 4103), (Start: 51 @4220 has 37 MA's),

Gene: Chartreuse_12 Start: 5643, Stop: 5801, Start Num: 54

Candidate Starts for Chartreuse_12:

(Start: 54 @5643 has 225 MA's), (68, 5730),

Gene: Che12_10 Start: 4345, Stop: 4473, Start Num: 58

Candidate Starts for Che12_10:

(35, 4288), (55, 4339), (Start: 58 @4345 has 9 MA's), (62, 4363), (76, 4462),

Gene: ChipMunk_10 Start: 4908, Stop: 5066, Start Num: 54

Candidate Starts for ChipMunk_10:

(Start: 54 @4908 has 225 MA's), (64, 4956), (74, 5040),

Gene: Cici_7 Start: 3799, Stop: 3936, Start Num: 54

Candidate Starts for Cici_7:

(Start: 44 @3763 has 11 MA's), (Start: 54 @3799 has 225 MA's), (64, 3847), (69, 3874), (74, 3910),

Gene: Citius_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Citius_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Clarenza_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Clarenza_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: CloudWang3_12 Start: 5695, Stop: 5832, Start Num: 54

Candidate Starts for CloudWang3_12:

(Start: 54 @5695 has 225 MA's), (64, 5743), (71, 5794), (74, 5806),

Gene: Cocoaberry_7 Start: 3788, Stop: 3925, Start Num: 54

Candidate Starts for Cocoaberry_7:

(Start: 44 @3752 has 11 MA's), (Start: 54 @3788 has 225 MA's), (64, 3836), (69, 3863), (74, 3899),

Gene: Colin_12 Start: 6233, Stop: 6391, Start Num: 54

Candidate Starts for Colin_12:

(29, 6116), (Start: 44 @6206 has 11 MA's), (Start: 54 @6233 has 225 MA's), (74, 6365),

Gene: Commander_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Commander_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Connomayer_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Connomayer_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Conquerage_10 Start: 6036, Stop: 6176, Start Num: 51

Candidate Starts for Conquerage_10:

(24, 5868), (26, 5874), (Start: 44 @6009 has 11 MA's), (Start: 51 @6036 has 37 MA's), (64, 6087), (65, 6096), (72, 6141),

Gene: Cookiedough_12 Start: 5696, Stop: 5854, Start Num: 54

Candidate Starts for Cookiedough_12:

(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: Crucio_8 Start: 4536, Stop: 4694, Start Num: 54

Candidate Starts for Crucio_8:

(38, 4491), (Start: 54 @4536 has 225 MA's), (74, 4668),

Gene: DaVinci_12 Start: 5697, Stop: 5855, Start Num: 54

Candidate Starts for DaVinci_12:

(Start: 54 @5697 has 225 MA's), (68, 5784),

Gene: Dalmatian_8 Start: 4638, Stop: 4796, Start Num: 54

Candidate Starts for Dalmatian_8:

(38, 4593), (Start: 54 @4638 has 225 MA's), (74, 4770),

Gene: Darrell_11 Start: 6229, Stop: 6369, Start Num: 51

Candidate Starts for Darrell_11:

(Start: 44 @6202 has 11 MA's), (Start: 51 @6229 has 37 MA's), (64, 6280), (65, 6289), (72, 6334),

Gene: DarthPhader_10 Start: 6401, Stop: 6529, Start Num: 58

Candidate Starts for DarthPhader_10:

(Start: 58 @6401 has 9 MA's),

Gene: Datway_7 Start: 3799, Stop: 3936, Start Num: 54

Candidate Starts for Datway_7:

(Start: 44 @3763 has 11 MA's), (Start: 54 @3799 has 225 MA's), (64, 3847), (69, 3874), (74, 3910),

Gene: Deano_7 Start: 3790, Stop: 3927, Start Num: 54

Candidate Starts for Deano_7:

(Start: 54 @3790 has 225 MA's), (64, 3838),

Gene: Deloris_9 Start: 4975, Stop: 5133, Start Num: 54

Candidate Starts for Deloris_9:

(36, 4918), (40, 4933), (Start: 54 @4975 has 225 MA's), (74, 5107),

Gene: Dhanush_7 Start: 3751, Stop: 3924, Start Num: 44
Candidate Starts for Dhanush_7:
(Start: 44 @3751 has 11 MA's), (Start: 54 @3787 has 225 MA's), (64, 3835), (69, 3862), (74, 3898),

Gene: Dignity_10 Start: 4903, Stop: 5061, Start Num: 54
Candidate Starts for Dignity_10:
(Start: 44 @4873 has 11 MA's), (Start: 54 @4903 has 225 MA's), (74, 5035),

Gene: DirtyDunning_7 Start: 3789, Stop: 3926, Start Num: 54
Candidate Starts for DirtyDunning_7:
(Start: 44 @3753 has 11 MA's), (Start: 54 @3789 has 225 MA's), (64, 3837), (69, 3864), (74, 3900),

Gene: Dorothea_11 Start: 5696, Stop: 5854, Start Num: 54
Candidate Starts for Dorothea_11:
(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: Drake55_10 Start: 5047, Stop: 5205, Start Num: 54
Candidate Starts for Drake55_10:
(Start: 54 @5047 has 225 MA's), (74, 5179),

Gene: DreamTeam1_9 Start: 4220, Stop: 4360, Start Num: 51
Candidate Starts for DreamTeam1_9:
(23, 4004), (25, 4052), (29, 4103), (Start: 51 @4220 has 37 MA's),

Gene: Druantia_7 Start: 3785, Stop: 3922, Start Num: 54
Candidate Starts for Druantia_7:
(12, 3434), (17, 3503), (Start: 54 @3785 has 225 MA's), (64, 3833),

Gene: DudeLittle_8 Start: 4640, Stop: 4798, Start Num: 54
Candidate Starts for DudeLittle_8:
(Start: 54 @4640 has 225 MA's), (64, 4688), (74, 4772),

Gene: EZMoney23_12 Start: 6526, Stop: 6684, Start Num: 54
Candidate Starts for EZMoney23_12:
(Start: 44 @6499 has 11 MA's), (Start: 54 @6526 has 225 MA's), (74, 6658),

Gene: Eagle_6 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Eagle_6:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: EagleEye_11 Start: 5767, Stop: 5895, Start Num: 58
Candidate Starts for EagleEye_11:
(Start: 58 @5767 has 9 MA's), (63, 5791), (64, 5806),

Gene: Eapen_7 Start: 3786, Stop: 3923, Start Num: 54
Candidate Starts for Eapen_7:
(12, 3435), (17, 3504), (Start: 54 @3786 has 225 MA's), (64, 3834),

Gene: Echild_8 Start: 4639, Stop: 4797, Start Num: 54
Candidate Starts for Echild_8:
(38, 4594), (Start: 54 @4639 has 225 MA's), (74, 4771),

Gene: Eidsmoe_10 Start: 6036, Stop: 6176, Start Num: 51

Candidate Starts for Eidsmoe_10:

(24, 5868), (26, 5874), (Start: 44 @6009 has 11 MA's), (Start: 51 @6036 has 37 MA's), (64, 6087), (65, 6096), (72, 6141),

Gene: Elephantoon_10 Start: 5658, Stop: 5798, Start Num: 51

Candidate Starts for Elephantoon_10:

(42, 5622), (Start: 44 @5631 has 11 MA's), (Start: 51 @5658 has 37 MA's), (64, 5709), (65, 5718), (72, 5763),

Gene: EmyBug_8 Start: 6036, Stop: 6176, Start Num: 51

Candidate Starts for EmyBug_8:

(24, 5868), (26, 5874), (Start: 44 @6009 has 11 MA's), (Start: 51 @6036 has 37 MA's), (64, 6087), (65, 6096), (70, 6129), (72, 6141),

Gene: Equemioh13_10 Start: 5033, Stop: 5191, Start Num: 54

Candidate Starts for Equemioh13_10:

(40, 4991), (42, 4994), (Start: 54 @5033 has 225 MA's), (74, 5165),

Gene: EricB_12 Start: 5697, Stop: 5855, Start Num: 54

Candidate Starts for EricB_12:

(Start: 54 @5697 has 225 MA's), (68, 5784), (74, 5829),

Gene: Eris_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Eris_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Eros_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Eros_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Eurydice_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Eurydice_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: EvilGenius_10 Start: 4907, Stop: 5065, Start Num: 54

Candidate Starts for EvilGenius_10:

(Start: 54 @4907 has 225 MA's), (64, 4955), (74, 5039),

Gene: ExplosioNervosa_10 Start: 6039, Stop: 6179, Start Num: 51

Candidate Starts for ExplosioNervosa_10:

(24, 5871), (26, 5877), (Start: 44 @6012 has 11 MA's), (Start: 51 @6039 has 37 MA's), (64, 6090), (65, 6099), (70, 6132), (72, 6144),

Gene: Fameo_8 Start: 4642, Stop: 4800, Start Num: 54

Candidate Starts for Fameo_8:

(Start: 54 @4642 has 225 MA's), (64, 4690), (74, 4774),

Gene: Fayely_10 Start: 6039, Stop: 6179, Start Num: 51

Candidate Starts for Fayely_10:

(24, 5871), (26, 5877), (Start: 44 @6012 has 11 MA's), (Start: 51 @6039 has 37 MA's), (64, 6090), (65, 6099), (70, 6132), (72, 6144),

Gene: FiringLine_8 Start: 4536, Stop: 4694, Start Num: 54
Candidate Starts for FiringLine_8:
(38, 4491), (Start: 54 @4536 has 225 MA's), (74, 4668),

Gene: First_008 Start: 4532, Stop: 4690, Start Num: 54
Candidate Starts for First_008:
(Start: 44 @4505 has 11 MA's), (Start: 54 @4532 has 225 MA's), (74, 4664),

Gene: Flare16_8 Start: 4591, Stop: 4749, Start Num: 54
Candidate Starts for Flare16_8:
(Start: 54 @4591 has 225 MA's), (64, 4639), (74, 4723),

Gene: Florean_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Florean_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Flux_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Flux_7:
(12, 3433), (17, 3502), (20, 3529), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Funston_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Funston_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Gadost_7 Start: 3788, Stop: 3925, Start Num: 54
Candidate Starts for Gadost_7:
(Start: 44 @3752 has 11 MA's), (Start: 54 @3788 has 225 MA's), (64, 3836), (69, 3863), (74, 3899),

Gene: Gail_8 Start: 4427, Stop: 4567, Start Num: 51
Candidate Starts for Gail_8:
(Start: 51 @4427 has 37 MA's), (62, 4457), (69, 4505), (72, 4532), (74, 4541), (76, 4556),

Gene: Garak_13 Start: 5696, Stop: 5854, Start Num: 54
Candidate Starts for Garak_13:
(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: GaugeLDP_10 Start: 5712, Stop: 5849, Start Num: 52
Candidate Starts for GaugeLDP_10:
(Start: 52 @5712 has 1 MA's), (64, 5760),

Gene: Georgie2_8 Start: 4537, Stop: 4695, Start Num: 54
Candidate Starts for Georgie2_8:
(38, 4492), (Start: 54 @4537 has 225 MA's), (74, 4669),

Gene: Gladiator_12 Start: 5688, Stop: 5825, Start Num: 54
Candidate Starts for Gladiator_12:
(Start: 54 @5688 has 225 MA's), (64, 5736), (71, 5787), (74, 5799),

Gene: GreedyLawyer_12 Start: 5696, Stop: 5854, Start Num: 54
Candidate Starts for GreedyLawyer_12:
(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: Gruunaga_12 Start: 5688, Stop: 5825, Start Num: 54

Candidate Starts for Gruunaga_12:

(Start: 54 @5688 has 225 MA's), (64, 5736), (71, 5787), (74, 5799),

Gene: HamSlice_6 Start: 3785, Stop: 3922, Start Num: 54

Candidate Starts for HamSlice_6:

(12, 3434), (17, 3503), (Start: 54 @3785 has 225 MA's), (64, 3833),

Gene: Hammer_12 Start: 5688, Stop: 5825, Start Num: 54

Candidate Starts for Hammer_12:

(Start: 54 @5688 has 225 MA's), (64, 5736), (71, 5787), (74, 5799),

Gene: Happiness_7 Start: 3789, Stop: 3926, Start Num: 54

Candidate Starts for Happiness_7:

(12, 3438), (17, 3507), (Start: 54 @3789 has 225 MA's), (64, 3837),

Gene: HarryHoudini_10 Start: 5047, Stop: 5205, Start Num: 54

Candidate Starts for HarryHoudini_10:

(Start: 54 @5047 has 225 MA's), (74, 5179),

Gene: Heffalump_10 Start: 6441, Stop: 6599, Start Num: 54

Candidate Starts for Heffalump_10:

(Start: 54 @6441 has 225 MA's), (64, 6489), (74, 6573),

Gene: Helmet_13 Start: 5696, Stop: 5854, Start Num: 54

Candidate Starts for Helmet_13:

(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: Herbertwm_7 Start: 4328, Stop: 4486, Start Num: 54

Candidate Starts for Herbertwm_7:

(50, 4322), (Start: 54 @4328 has 225 MA's), (68, 4415), (74, 4460),

Gene: Hexamo_12 Start: 5651, Stop: 5809, Start Num: 54

Candidate Starts for Hexamo_12:

(Start: 54 @5651 has 225 MA's), (68, 5738),

Gene: Holli_7 Start: 3577, Stop: 3714, Start Num: 54

Candidate Starts for Holli_7:

(12, 3226), (17, 3295), (Start: 54 @3577 has 225 MA's), (64, 3625),

Gene: Hoot_12 Start: 5696, Stop: 5833, Start Num: 54

Candidate Starts for Hoot_12:

(Start: 54 @5696 has 225 MA's), (64, 5744), (71, 5795), (74, 5807),

Gene: HortumSL17_10 Start: 6006, Stop: 6146, Start Num: 51

Candidate Starts for HortumSL17_10:

(26, 5847), (Start: 44 @5979 has 11 MA's), (Start: 51 @6006 has 37 MA's), (64, 6057), (65, 6066), (72, 6111),

Gene: Houdini22_7 Start: 3788, Stop: 3925, Start Num: 54

Candidate Starts for Houdini22_7:

(Start: 44 @3752 has 11 MA's), (Start: 54 @3788 has 225 MA's), (64, 3836), (69, 3863), (74, 3899),

Gene: ICleared_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for ICleared_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Iceman_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Iceman_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Indra_12 Start: 5696, Stop: 5854, Start Num: 54
Candidate Starts for Indra_12:
(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: Iracema64_7 Start: 3755, Stop: 3928, Start Num: 44
Candidate Starts for Iracema64_7:
(1, 3065), (2, 3167), (5, 3245), (6, 3287), (7, 3302), (8, 3335), (13, 3455), (Start: 44 @3755 has 11 MA's), (Start: 54 @3791 has 225 MA's), (64, 3839), (69, 3866), (74, 3902),

Gene: Isiphiwo_12 Start: 5696, Stop: 5854, Start Num: 54
Candidate Starts for Isiphiwo_12:
(Start: 54 @5696 has 225 MA's), (68, 5783), (74, 5828),

Gene: Iwokeuplikedis_8 Start: 4340, Stop: 4489, Start Num: 57
Candidate Starts for Iwokeuplikedis_8:
(33, 4259), (45, 4316), (Start: 57 @4340 has 1 MA's), (74, 4463),

Gene: Jaykayelowell_7 Start: 3783, Stop: 3920, Start Num: 54
Candidate Starts for Jaykayelowell_7:
(12, 3432), (17, 3501), (Start: 54 @3783 has 225 MA's), (64, 3831),

Gene: Jeeves_8 Start: 4443, Stop: 4583, Start Num: 51
Candidate Starts for Jeeves_8:
(Start: 44 @4416 has 11 MA's), (Start: 51 @4443 has 37 MA's), (64, 4494), (72, 4548),

Gene: Jeffabunny_12 Start: 5696, Stop: 5854, Start Num: 54
Candidate Starts for Jeffabunny_12:
(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: Jerm_10 Start: 4874, Stop: 5062, Start Num: 44
Candidate Starts for Jerm_10:
(Start: 44 @4874 has 11 MA's), (Start: 54 @4904 has 225 MA's), (74, 5036),

Gene: JetBlade_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for JetBlade_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: JewelBug_12 Start: 5697, Stop: 5855, Start Num: 54
Candidate Starts for JewelBug_12:
(Start: 54 @5697 has 225 MA's), (68, 5784), (74, 5829),

Gene: JoongJeon_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for JoongJeon_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Jordennis_12 Start: 5696, Stop: 5854, Start Num: 54

Candidate Starts for Jordennis_12:
(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: JoshKayV_10 Start: 4917, Stop: 5075, Start Num: 54
Candidate Starts for JoshKayV_10:
(40, 4872), (42, 4875), (Start: 54 @4917 has 225 MA's), (74, 5049),

Gene: KFPoly_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for KFPoly_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Kalpine_11 Start: 6346, Stop: 6504, Start Num: 54
Candidate Starts for Kalpine_11:
(3, 5800), (9, 5977), (10, 5998), (11, 6004), (15, 6064), (22, 6121), (27, 6226), (Start: 44 @6319 has 11 MA's), (Start: 54 @6346 has 225 MA's), (74, 6478),

Gene: Kamy_7 Start: 3785, Stop: 3922, Start Num: 54
Candidate Starts for Kamy_7:
(12, 3434), (17, 3503), (Start: 54 @3785 has 225 MA's), (64, 3833),

Gene: Katalie136_7 Start: 3799, Stop: 3936, Start Num: 54
Candidate Starts for Katalie136_7:
(Start: 44 @3763 has 11 MA's), (Start: 54 @3799 has 225 MA's), (64, 3847), (69, 3874), (74, 3910),

Gene: Kazan_12 Start: 5702, Stop: 5860, Start Num: 54
Candidate Starts for Kazan_12:
(Start: 54 @5702 has 225 MA's), (68, 5789), (74, 5834),

Gene: Keziacharles14_8 Start: 4207, Stop: 4347, Start Num: 51
Candidate Starts for Keziacharles14_8:
(Start: 51 @4207 has 37 MA's), (73, 4315),

Gene: KingCyrus_10 Start: 4896, Stop: 5054, Start Num: 54
Candidate Starts for KingCyrus_10:
(Start: 54 @4896 has 225 MA's), (64, 4944), (74, 5028),

Gene: Kingmustik0402_7 Start: 3776, Stop: 3913, Start Num: 54
Candidate Starts for Kingmustik0402_7:
(12, 3425), (17, 3494), (Start: 54 @3776 has 225 MA's), (64, 3824),

Gene: Kipper29_12 Start: 5696, Stop: 5854, Start Num: 54
Candidate Starts for Kipper29_12:
(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: Koko_12 Start: 5696, Stop: 5854, Start Num: 54
Candidate Starts for Koko_12:
(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: Koreni_6 Start: 3433, Stop: 3570, Start Num: 54
Candidate Starts for Koreni_6:
(Start: 54 @3433 has 225 MA's), (64, 3481),

Gene: Kratak_7 Start: 3788, Stop: 3925, Start Num: 54

Candidate Starts for Kratak_7:

(Start: 44 @3752 has 11 MA's), (Start: 54 @3788 has 225 MA's), (64, 3836), (69, 3863), (74, 3899),

Gene: Kyee_7 Start: 3788, Stop: 3925, Start Num: 54

Candidate Starts for Kyee_7:

(Start: 44 @3752 has 11 MA's), (Start: 54 @3788 has 225 MA's), (64, 3836), (69, 3863), (74, 3899),

Gene: LHTSCC_7 Start: 3755, Stop: 3928, Start Num: 44

Candidate Starts for LHTSCC_7:

(1, 3065), (2, 3167), (4, 3242), (5, 3245), (6, 3287), (7, 3302), (8, 3335), (13, 3455), (Start: 44 @3755 has 11 MA's), (Start: 54 @3791 has 225 MA's), (64, 3839), (69, 3866), (74, 3902),

Gene: LadyBird_8 Start: 4523, Stop: 4681, Start Num: 54

Candidate Starts for LadyBird_8:

(48, 4508), (Start: 54 @4523 has 225 MA's), (74, 4655),

Gene: LappelDuVide_6 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for LappelDuVide_6:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Larenn_9 Start: 4621, Stop: 4779, Start Num: 54

Candidate Starts for Larenn_9:

(18, 4351), (41, 4579), (43, 4582), (Start: 54 @4621 has 225 MA's), (74, 4753),

Gene: Lemur_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Lemur_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: LeoAvram_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for LeoAvram_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Leogania_10 Start: 6488, Stop: 6625, Start Num: 54

Candidate Starts for Leogania_10:

(46, 6461), (Start: 54 @6488 has 225 MA's), (64, 6536), (73, 6593),

Gene: Leviathan_10 Start: 4951, Stop: 5109, Start Num: 54

Candidate Starts for Leviathan_10:

(Start: 44 @4924 has 11 MA's), (Start: 54 @4951 has 225 MA's), (74, 5083),

Gene: LilTurb_10 Start: 4963, Stop: 5121, Start Num: 54

Candidate Starts for LilTurb_10:

(Start: 44 @4933 has 11 MA's), (Start: 54 @4963 has 225 MA's), (74, 5095),

Gene: LittleB_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for LittleB_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: LittleGuy_7 Start: 3781, Stop: 3918, Start Num: 54

Candidate Starts for LittleGuy_7:

(12, 3433), (17, 3502), (Start: 54 @3781 has 225 MA's), (59, 3796), (64, 3829),

Gene: LochMonster_7 Start: 3753, Stop: 3926, Start Num: 44

Candidate Starts for LochMonster_7:

(Start: 44 @3753 has 11 MA's), (Start: 54 @3789 has 225 MA's), (64, 3837), (69, 3864), (74, 3900),

Gene: Lokk_11 Start: 6259, Stop: 6417, Start Num: 54

Candidate Starts for Lokk_11:

(37, 6211), (Start: 44 @6232 has 11 MA's), (Start: 54 @6259 has 225 MA's), (74, 6391),

Gene: LoneWolf_10 Start: 5853, Stop: 5993, Start Num: 51

Candidate Starts for LoneWolf_10:

(42, 5817), (Start: 44 @5826 has 11 MA's), (Start: 51 @5853 has 37 MA's), (64, 5904), (65, 5913), (72, 5958),

Gene: Lorenzo_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Lorenzo_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Loser_11 Start: 6267, Stop: 6404, Start Num: 54

Candidate Starts for Loser_11:

(46, 6240), (Start: 54 @6267 has 225 MA's), (74, 6378),

Gene: Luchador_8 Start: 4428, Stop: 4568, Start Num: 51

Candidate Starts for Luchador_8:

(Start: 44 @4401 has 11 MA's), (Start: 51 @4428 has 37 MA's), (64, 4479), (66, 4491),

Gene: Lucyedi_10 Start: 5686, Stop: 5814, Start Num: 58

Candidate Starts for Lucyedi_10:

(Start: 58 @5686 has 9 MA's), (63, 5710), (64, 5725),

Gene: Lunsford_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Lunsford_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Malec_9 Start: 4626, Stop: 4784, Start Num: 54

Candidate Starts for Malec_9:

(Start: 54 @4626 has 225 MA's), (74, 4758),

Gene: Maminiaina_10 Start: 5776, Stop: 5916, Start Num: 51

Candidate Starts for Maminiaina_10:

(Start: 44 @5749 has 11 MA's), (Start: 51 @5776 has 37 MA's), (56, 5782), (64, 5827), (65, 5836), (70, 5869), (72, 5881),

Gene: Maverick_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Maverick_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Maxo_7 Start: 3785, Stop: 3922, Start Num: 54

Candidate Starts for Maxo_7:

(12, 3434), (17, 3503), (Start: 54 @3785 has 225 MA's), (64, 3833),

Gene: Mazhar510_7 Start: 3785, Stop: 3922, Start Num: 54

Candidate Starts for Mazhar510_7:

(12, 3434), (17, 3503), (Start: 54 @3785 has 225 MA's), (64, 3833),

Gene: McFly_12 Start: 5696, Stop: 5854, Start Num: 54

Candidate Starts for McFly_12:

(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: Medusa_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Medusa_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: MeeZee_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for MeeZee_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Melvin_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Melvin_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: MiculUcigas_8 Start: 4591, Stop: 4749, Start Num: 54

Candidate Starts for MiculUcigas_8:

(Start: 54 @4591 has 225 MA's), (64, 4639), (74, 4723),

Gene: Miko_11 Start: 6237, Stop: 6395, Start Num: 54

Candidate Starts for Miko_11:

(37, 6189), (Start: 44 @6210 has 11 MA's), (Start: 54 @6237 has 225 MA's), (74, 6369),

Gene: Millski_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Millski_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Miramae_7 Start: 3787, Stop: 3924, Start Num: 54

Candidate Starts for Miramae_7:

(Start: 44 @3751 has 11 MA's), (Start: 54 @3787 has 225 MA's), (64, 3835), (69, 3862), (74, 3898),

Gene: Morpher26_7 Start: 3763, Stop: 3936, Start Num: 44

Candidate Starts for Morpher26_7:

(Start: 44 @3763 has 11 MA's), (Start: 54 @3799 has 225 MA's), (64, 3847), (69, 3874), (74, 3910),

Gene: Morrow_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Morrow_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Mundrea_7 Start: 3782, Stop: 3919, Start Num: 54

Candidate Starts for Mundrea_7:

(Start: 44 @3746 has 11 MA's), (Start: 54 @3782 has 225 MA's), (64, 3830), (69, 3857), (74, 3893),

Gene: MyraDee_6 Start: 3130, Stop: 3258, Start Num: 58

Candidate Starts for MyraDee_6:

(Start: 53 @3118 has 1 MA's), (Start: 58 @3130 has 9 MA's), (74, 3232),

Gene: Myxus_10 Start: 6006, Stop: 6146, Start Num: 51

Candidate Starts for Myxus_10:

(26, 5847), (Start: 44 @5979 has 11 MA's), (Start: 51 @6006 has 37 MA's), (64, 6057), (65, 6066), (72, 6111),

Gene: NaSiaTalie_8 Start: 4591, Stop: 4749, Start Num: 54

Candidate Starts for NaSiaTalie_8:

(Start: 54 @4591 has 225 MA's), (64, 4639), (74, 4723),

Gene: Nebs_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Nebs_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Neeharika16_12 Start: 5696, Stop: 5854, Start Num: 54

Candidate Starts for Neeharika16_12:

(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: Nemo27_7 Start: 3783, Stop: 3920, Start Num: 54

Candidate Starts for Nemo27_7:

(12, 3432), (17, 3501), (Start: 54 @3783 has 225 MA's), (64, 3831),

Gene: Newrala_12 Start: 5696, Stop: 5854, Start Num: 54

Candidate Starts for Newrala_12:

(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: NicoleTera_12 Start: 6309, Stop: 6467, Start Num: 54

Candidate Starts for NicoleTera_12:

(27, 6186), (35, 6252), (39, 6267), (Start: 44 @6282 has 11 MA's), (Start: 54 @6309 has 225 MA's), (61, 6330), (67, 6384), (68, 6396), (74, 6441),

Gene: Noelle_7 Start: 3853, Stop: 3990, Start Num: 54

Candidate Starts for Noelle_7:

(Start: 44 @3817 has 11 MA's), (Start: 54 @3853 has 225 MA's), (73, 3958), (74, 3964),

Gene: NorthStar_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for NorthStar_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: NotAPhaseMom_7 Start: 3788, Stop: 3925, Start Num: 54

Candidate Starts for NotAPhaseMom_7:

(Start: 44 @3752 has 11 MA's), (Start: 54 @3788 has 225 MA's), (64, 3836), (69, 3863), (74, 3899),

Gene: NothingSpecial_10 Start: 6370, Stop: 6507, Start Num: 54

Candidate Starts for NothingSpecial_10:

(46, 6343), (Start: 54 @6370 has 225 MA's), (59, 6385), (73, 6475),

Gene: Nyxis_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Nyxis_7:

(12, 3436), (Start: 54 @3784 has 225 MA's), (59, 3799), (64, 3832),

Gene: OKaNui_7 Start: 3549, Stop: 3686, Start Num: 54

Candidate Starts for OKaNui_7:

(12, 3198), (17, 3267), (Start: 54 @3549 has 225 MA's), (64, 3597),

Gene: Obama12_7 Start: 3793, Stop: 3930, Start Num: 54

Candidate Starts for Obama12_7:

(1, 3067), (2, 3169), (4, 3244), (5, 3247), (6, 3289), (7, 3304), (8, 3337), (13, 3457), (Start: 44 @3757 has 11 MA's), (Start: 54 @3793 has 225 MA's), (64, 3841), (69, 3868), (74, 3904),

Gene: Odin_8 Start: 4345, Stop: 4473, Start Num: 58
Candidate Starts for Odin_8:
(55, 4339), (Start: 58 @4345 has 9 MA's), (62, 4363), (64, 4384), (69, 4411),

Gene: Ohfah_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Ohfah_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: PackMan_10 Start: 6006, Stop: 6146, Start Num: 51
Candidate Starts for PackMan_10:
(26, 5847), (Start: 44 @5979 has 11 MA's), (Start: 51 @6006 has 37 MA's), (64, 6057), (65, 6066),
(72, 6111),

Gene: PainterBoy_10 Start: 5686, Stop: 5814, Start Num: 58
Candidate Starts for PainterBoy_10:
(Start: 58 @5686 has 9 MA's), (63, 5710), (64, 5725),

Gene: Palestino_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Palestino_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Peaches_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Peaches_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Perplexer_7 Start: 3763, Stop: 3936, Start Num: 44
Candidate Starts for Perplexer_7:
(Start: 44 @3763 has 11 MA's), (Start: 54 @3799 has 225 MA's), (64, 3847), (69, 3874), (74, 3910),

Gene: PeterPeter_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for PeterPeter_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: PetiteSangsue_7 Start: 3763, Stop: 3936, Start Num: 44
Candidate Starts for PetiteSangsue_7:
(Start: 44 @3763 has 11 MA's), (Start: 54 @3799 has 225 MA's), (64, 3847), (69, 3874), (74, 3910),

Gene: Ph8s_10 Start: 4343, Stop: 4474, Start Num: 51
Candidate Starts for Ph8s_10:
(49, 4337), (Start: 51 @4343 has 37 MA's), (60, 4361), (69, 4409), (74, 4445),

Gene: Phacado_7 Start: 3783, Stop: 3920, Start Num: 54
Candidate Starts for Phacado_7:
(12, 3432), (17, 3501), (Start: 54 @3783 has 225 MA's), (64, 3831),

Gene: Phaeder_10 Start: 6006, Stop: 6146, Start Num: 51
Candidate Starts for Phaeder_10:
(26, 5847), (Start: 44 @5979 has 11 MA's), (Start: 51 @6006 has 37 MA's), (64, 6057), (65, 6066),
(72, 6111),

Gene: Phelipe_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Phelipe_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Phighter1804_7 Start: 3790, Stop: 3927, Start Num: 54

Candidate Starts for Phighter1804_7:

(Start: 44 @3754 has 11 MA's), (Start: 54 @3790 has 225 MA's), (64, 3838), (69, 3865), (74, 3901),

Gene: Phonnegut_10 Start: 6039, Stop: 6179, Start Num: 51

Candidate Starts for Phonnegut_10:

(24, 5871), (26, 5877), (Start: 44 @6012 has 11 MA's), (Start: 51 @6039 has 37 MA's), (64, 6090), (65, 6099), (70, 6132), (72, 6144),

Gene: Phontbonne_7 Start: 3779, Stop: 3916, Start Num: 54

Candidate Starts for Phontbonne_7:

(12, 3431), (17, 3500), (Start: 54 @3779 has 225 MA's), (64, 3827),

Gene: Pioneer_10 Start: 6039, Stop: 6179, Start Num: 51

Candidate Starts for Pioneer_10:

(24, 5871), (26, 5877), (Start: 44 @6012 has 11 MA's), (Start: 51 @6039 has 37 MA's), (64, 6090), (65, 6099), (70, 6132), (72, 6144),

Gene: Pipcraft_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Pipcraft_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Piro94_9 Start: 5048, Stop: 5206, Start Num: 54

Candidate Starts for Piro94_9:

(Start: 54 @5048 has 225 MA's), (74, 5180),

Gene: Pmask_12 Start: 5696, Stop: 5854, Start Num: 54

Candidate Starts for Pmask_12:

(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: Polymorphads_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Polymorphads_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Power_8 Start: 4536, Stop: 4694, Start Num: 54

Candidate Starts for Power_8:

(38, 4491), (Start: 54 @4536 has 225 MA's), (74, 4668),

Gene: Priamo_12 Start: 5714, Stop: 5872, Start Num: 54

Candidate Starts for Priamo_12:

(Start: 54 @5714 has 225 MA's), (68, 5801),

Gene: Priya_10 Start: 6037, Stop: 6177, Start Num: 51

Candidate Starts for Priya_10:

(24, 5869), (26, 5875), (Start: 44 @6010 has 11 MA's), (Start: 51 @6037 has 37 MA's), (64, 6088), (65, 6097), (72, 6142),

Gene: Pumbaa_7 Start: 3789, Stop: 3926, Start Num: 54

Candidate Starts for Pumbaa_7:

(Start: 44 @3753 has 11 MA's), (Start: 54 @3789 has 225 MA's), (64, 3837), (69, 3864), (74, 3900),

Gene: Qobbit_10 Start: 6009, Stop: 6176, Start Num: 44
Candidate Starts for Qobbit_10:
(24, 5868), (26, 5874), (Start: 44 @6009 has 11 MA's), (Start: 51 @6036 has 37 MA's), (64, 6087),
(65, 6096), (70, 6129), (72, 6141),

Gene: QueenB2_8 Start: 4642, Stop: 4800, Start Num: 54
Candidate Starts for QueenB2_8:
(Start: 54 @4642 has 225 MA's), (64, 4690), (74, 4774),

Gene: QueenBeesly_8 Start: 4536, Stop: 4694, Start Num: 54
Candidate Starts for QueenBeesly_8:
(38, 4491), (Start: 54 @4536 has 225 MA's), (74, 4668),

Gene: Rachaly_11 Start: 6257, Stop: 6415, Start Num: 54
Candidate Starts for Rachaly_11:
(37, 6209), (Start: 44 @6230 has 11 MA's), (Start: 54 @6257 has 225 MA's), (74, 6389),

Gene: Rahalelujah_8 Start: 4151, Stop: 4273, Start Num: 51
Candidate Starts for Rahalelujah_8:
(Start: 51 @4151 has 37 MA's), (Start: 58 @4163 has 9 MA's), (63, 4175),

Gene: RedRock_11 Start: 6350, Stop: 6487, Start Num: 54
Candidate Starts for RedRock_11:
(46, 6323), (Start: 54 @6350 has 225 MA's), (74, 6461),

Gene: Relief_7 Start: 3785, Stop: 3922, Start Num: 54
Candidate Starts for Relief_7:
(12, 3434), (17, 3503), (Start: 54 @3785 has 225 MA's), (64, 3833),

Gene: Retro23_8 Start: 4639, Stop: 4797, Start Num: 54
Candidate Starts for Retro23_8:
(38, 4594), (Start: 54 @4639 has 225 MA's), (74, 4771),

Gene: Rifter_12 Start: 5687, Stop: 5824, Start Num: 54
Candidate Starts for Rifter_12:
(Start: 54 @5687 has 225 MA's), (64, 5735), (71, 5786), (74, 5798),

Gene: Roksolana_12 Start: 5696, Stop: 5854, Start Num: 54
Candidate Starts for Roksolana_12:
(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: Romney_7 Start: 3783, Stop: 3920, Start Num: 54
Candidate Starts for Romney_7:
(12, 3432), (17, 3501), (Start: 54 @3783 has 225 MA's), (64, 3831),

Gene: Roosevelt_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Roosevelt_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Ruin_7 Start: 3783, Stop: 3920, Start Num: 54
Candidate Starts for Ruin_7:
(12, 3432), (17, 3501), (Start: 54 @3783 has 225 MA's), (64, 3831),

Gene: Sabertooth_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Sabertooth_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Scamp_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Scamp_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Scherzo_10 Start: 6039, Stop: 6179, Start Num: 51
Candidate Starts for Scherzo_10:
(24, 5871), (26, 5877), (Start: 44 @6012 has 11 MA's), (Start: 51 @6039 has 37 MA's), (64, 6090),
(65, 6099), (70, 6132), (72, 6144),

Gene: SemperFi_10 Start: 4964, Stop: 5122, Start Num: 54
Candidate Starts for SemperFi_10:
(Start: 44 @4937 has 11 MA's), (Start: 54 @4964 has 225 MA's), (74, 5096),

Gene: Shaka_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Shaka_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: SheaKeira_9 Start: 4237, Stop: 4377, Start Num: 51
Candidate Starts for SheaKeira_9:
(Start: 44 @4210 has 11 MA's), (Start: 51 @4237 has 37 MA's),

Gene: SheldonCooper_7 Start: 3792, Stop: 3929, Start Num: 54
Candidate Starts for SheldonCooper_7:
(1, 3066), (2, 3168), (5, 3246), (6, 3288), (7, 3303), (8, 3336), (13, 3456), (Start: 44 @3756 has 11 MA's),
(Start: 54 @3792 has 225 MA's), (64, 3840), (69, 3867), (74, 3903),

Gene: Shygu2_7 Start: 3793, Stop: 3930, Start Num: 54
Candidate Starts for Shygu2_7:
(13, 3457), (Start: 44 @3757 has 11 MA's), (Start: 54 @3793 has 225 MA's), (64, 3841), (69, 3868),
(74, 3904),

Gene: Skipitt_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Skipitt_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Smeagan_10 Start: 4954, Stop: 5112, Start Num: 54
Candidate Starts for Smeagan_10:
(Start: 44 @4927 has 11 MA's), (Start: 54 @4954 has 225 MA's), (74, 5086),

Gene: SmellyB_12 Start: 5696, Stop: 5854, Start Num: 54
Candidate Starts for SmellyB_12:
(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: SnapTap_8 Start: 4536, Stop: 4694, Start Num: 54
Candidate Starts for SnapTap_8:
(38, 4491), (Start: 54 @4536 has 225 MA's), (74, 4668),

Gene: SororFago_8 Start: 4427, Stop: 4555, Start Num: 51
Candidate Starts for SororFago_8:

(Start: 51 @4427 has 37 MA's), (72, 4520),

Gene: Sparxx_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Sparxx_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Spino_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for Spino_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Spouty_9 Start: 6036, Stop: 6176, Start Num: 51

Candidate Starts for Spouty_9:

(24, 5868), (26, 5874), (Start: 44 @6009 has 11 MA's), (Start: 51 @6036 has 37 MA's), (64, 6087), (65, 6096), (72, 6141),

Gene: Stink_6 Start: 3788, Stop: 3925, Start Num: 54

Candidate Starts for Stink_6:

(Start: 44 @3752 has 11 MA's), (Start: 54 @3788 has 225 MA's), (64, 3836), (69, 3863), (74, 3899),

Gene: SuperAwesome_12 Start: 5696, Stop: 5854, Start Num: 54

Candidate Starts for SuperAwesome_12:

(Start: 54 @5696 has 225 MA's), (68, 5783), (74, 5828),

Gene: SuperCallie99_12 Start: 5697, Stop: 5855, Start Num: 54

Candidate Starts for SuperCallie99_12:

(Start: 54 @5697 has 225 MA's), (68, 5784), (74, 5829),

Gene: SweetiePie_8 Start: 4536, Stop: 4694, Start Num: 54

Candidate Starts for SweetiePie_8:

(38, 4491), (Start: 54 @4536 has 225 MA's), (74, 4668),

Gene: SwirlSquare_11 Start: 4380, Stop: 4508, Start Num: 58

Candidate Starts for SwirlSquare_11:

(Start: 44 @4353 has 11 MA's), (Start: 58 @4380 has 9 MA's), (62, 4398), (64, 4419), (69, 4446), (72, 4473),

Gene: Taquarus_7 Start: 3787, Stop: 3924, Start Num: 54

Candidate Starts for Taquarus_7:

(12, 3436), (17, 3505), (Start: 54 @3787 has 225 MA's), (64, 3835),

Gene: TarsusIV_8 Start: 4529, Stop: 4687, Start Num: 54

Candidate Starts for TarsusIV_8:

(Start: 44 @4502 has 11 MA's), (47, 4514), (Start: 54 @4529 has 225 MA's),

Gene: Thanksgivukkah_7 Start: 3789, Stop: 3926, Start Num: 54

Candidate Starts for Thanksgivukkah_7:

(Start: 44 @3753 has 11 MA's), (Start: 54 @3789 has 225 MA's), (64, 3837), (69, 3864), (74, 3900),

Gene: TinaFeyge_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for TinaFeyge_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Tinybot_6 Start: 3794, Stop: 3931, Start Num: 54

Candidate Starts for Tinybot_6:

(1, 3068), (2, 3170), (5, 3248), (6, 3290), (7, 3305), (8, 3338), (13, 3458), (Start: 44 @3758 has 11 MA's), (Start: 54 @3794 has 225 MA's), (64, 3842), (69, 3869), (74, 3905),

Gene: TiroTheta9_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for TiroTheta9_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Toaka_8 Start: 4431, Stop: 4553, Start Num: 51

Candidate Starts for Toaka_8:

(42, 4389), (Start: 44 @4401 has 11 MA's), (Start: 51 @4431 has 37 MA's), (63, 4455), (64, 4470),

Gene: ToneTone_11 Start: 5606, Stop: 5764, Start Num: 54

Candidate Starts for ToneTone_11:

(Start: 54 @5606 has 225 MA's), (68, 5693),

Gene: Trixie_11 Start: 6218, Stop: 6376, Start Num: 54

Candidate Starts for Trixie_11:

(27, 6098), (Start: 44 @6191 has 11 MA's), (Start: 54 @6218 has 225 MA's), (74, 6350),

Gene: Trooper_8 Start: 4328, Stop: 4486, Start Num: 54

Candidate Starts for Trooper_8:

(34, 4271), (Start: 44 @4301 has 11 MA's), (47, 4313), (Start: 54 @4328 has 225 MA's),

Gene: TroyPia_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for TroyPia_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Tubs_10 Start: 6006, Stop: 6146, Start Num: 51

Candidate Starts for Tubs_10:

(26, 5847), (Start: 44 @5979 has 11 MA's), (Start: 51 @6006 has 37 MA's), (64, 6057), (65, 6066), (72, 6111),

Gene: Tucker_12 Start: 5696, Stop: 5854, Start Num: 54

Candidate Starts for Tucker_12:

(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: Turbido_10 Start: 4966, Stop: 5124, Start Num: 54

Candidate Starts for Turbido_10:

(Start: 44 @4936 has 11 MA's), (Start: 54 @4966 has 225 MA's), (74, 5098),

Gene: TygerBlood_7 Start: 3786, Stop: 3923, Start Num: 54

Candidate Starts for TygerBlood_7:

(12, 3435), (17, 3504), (Start: 54 @3786 has 225 MA's), (64, 3834),

Gene: Ugenie5_7 Start: 6039, Stop: 6179, Start Num: 51

Candidate Starts for Ugenie5_7:

(24, 5871), (26, 5877), (Start: 44 @6012 has 11 MA's), (Start: 51 @6039 has 37 MA's), (64, 6090), (65, 6099), (70, 6132), (72, 6144),

Gene: Updawg_10 Start: 5033, Stop: 5191, Start Num: 54

Candidate Starts for Updawg_10:

(40, 4991), (42, 4994), (Start: 54 @5033 has 225 MA's), (74, 5165),

Gene: VA6_8 Start: 4514, Stop: 4672, Start Num: 54
Candidate Starts for VA6_8:
(48, 4499), (Start: 54 @4514 has 225 MA's), (74, 4646),

Gene: Vanisoa_8 Start: 4142, Stop: 4264, Start Num: 51
Candidate Starts for Vanisoa_8:
(Start: 51 @4142 has 37 MA's), (Start: 58 @4154 has 9 MA's), (63, 4166),

Gene: VohminGhazi_12 Start: 5696, Stop: 5854, Start Num: 54
Candidate Starts for VohminGhazi_12:
(Start: 54 @5696 has 225 MA's), (68, 5783),

Gene: Wander_7 Start: 3784, Stop: 3921, Start Num: 54
Candidate Starts for Wander_7:
(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: WeiHuaDA_14 Start: 6828, Stop: 6986, Start Num: 54
Candidate Starts for WeiHuaDA_14:
(27, 6708), (Start: 44 @6801 has 11 MA's), (Start: 54 @6828 has 225 MA's), (74, 6960),

Gene: Whabigail7_10 Start: 4969, Stop: 5127, Start Num: 54
Candidate Starts for Whabigail7_10:
(Start: 44 @4939 has 11 MA's), (Start: 54 @4969 has 225 MA's), (74, 5101),

Gene: WideWale_10 Start: 5033, Stop: 5191, Start Num: 54
Candidate Starts for WideWale_10:
(40, 4991), (42, 4994), (Start: 54 @5033 has 225 MA's), (74, 5165),

Gene: Wiks_12 Start: 5695, Stop: 5832, Start Num: 54
Candidate Starts for Wiks_12:
(Start: 54 @5695 has 225 MA's), (64, 5743), (71, 5794), (74, 5806),

Gene: Wilbur_7 Start: 3783, Stop: 3920, Start Num: 54
Candidate Starts for Wilbur_7:
(12, 3432), (17, 3501), (Start: 54 @3783 has 225 MA's), (64, 3831),

Gene: Wile_7 Start: 3800, Stop: 3937, Start Num: 54
Candidate Starts for Wile_7:
(Start: 44 @3764 has 11 MA's), (Start: 54 @3800 has 225 MA's), (64, 3848), (69, 3875), (74, 3911),

Gene: Wizard007_7 Start: 3786, Stop: 3923, Start Num: 54
Candidate Starts for Wizard007_7:
(12, 3435), (17, 3504), (Start: 54 @3786 has 225 MA's), (64, 3834),

Gene: WunderPhul_12 Start: 5695, Stop: 5832, Start Num: 54
Candidate Starts for WunderPhul_12:
(Start: 54 @5695 has 225 MA's), (64, 5743), (71, 5794), (74, 5806),

Gene: Xena_7 Start: 3799, Stop: 3936, Start Num: 54
Candidate Starts for Xena_7:
(Start: 44 @3763 has 11 MA's), (Start: 54 @3799 has 225 MA's), (64, 3847), (69, 3874), (74, 3910),

Gene: XianYue_8 Start: 4451, Stop: 4609, Start Num: 54

Candidate Starts for XianYue_8:

(16, 4163), (24, 4277), (32, 4364), (Start: 44 @4424 has 11 MA's), (47, 4436), (Start: 54 @4451 has 225 MA's), (67, 4526), (74, 4583),

Gene: Yecey3_9 Start: 4201, Stop: 4341, Start Num: 51

Candidate Starts for Yecey3_9:

(Start: 51 @4201 has 37 MA's), (64, 4252), (70, 4294), (72, 4306),

Gene: YoSam321_7 Start: 3784, Stop: 3921, Start Num: 54

Candidate Starts for YoSam321_7:

(12, 3433), (17, 3502), (Start: 54 @3784 has 225 MA's), (64, 3832),

Gene: Yokurt_12 Start: 5695, Stop: 5832, Start Num: 54

Candidate Starts for Yokurt_12:

(Start: 54 @5695 has 225 MA's), (64, 5743), (71, 5794), (74, 5806),

Gene: Zaka_12 Start: 5695, Stop: 5832, Start Num: 54

Candidate Starts for Zaka_12:

(Start: 54 @5695 has 225 MA's), (64, 5743), (71, 5794), (74, 5806),

Gene: Zimmer_10 Start: 6114, Stop: 6242, Start Num: 58

Candidate Starts for Zimmer_10:

(Start: 58 @6114 has 9 MA's), (64, 6153), (72, 6207),

Gene: Zulu_12 Start: 5694, Stop: 5831, Start Num: 54

Candidate Starts for Zulu_12:

(Start: 54 @5694 has 225 MA's), (64, 5742), (71, 5793), (74, 5805),