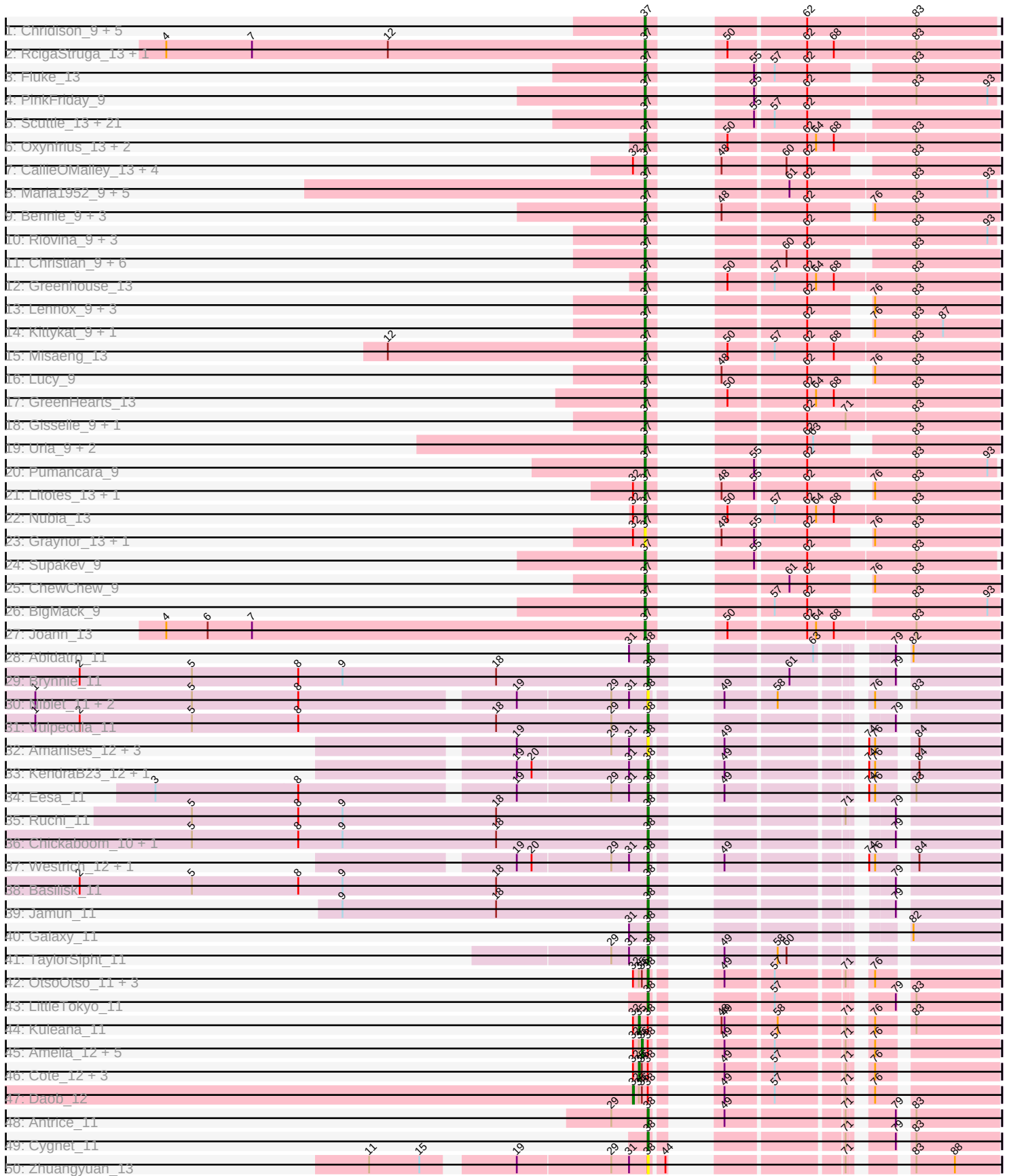
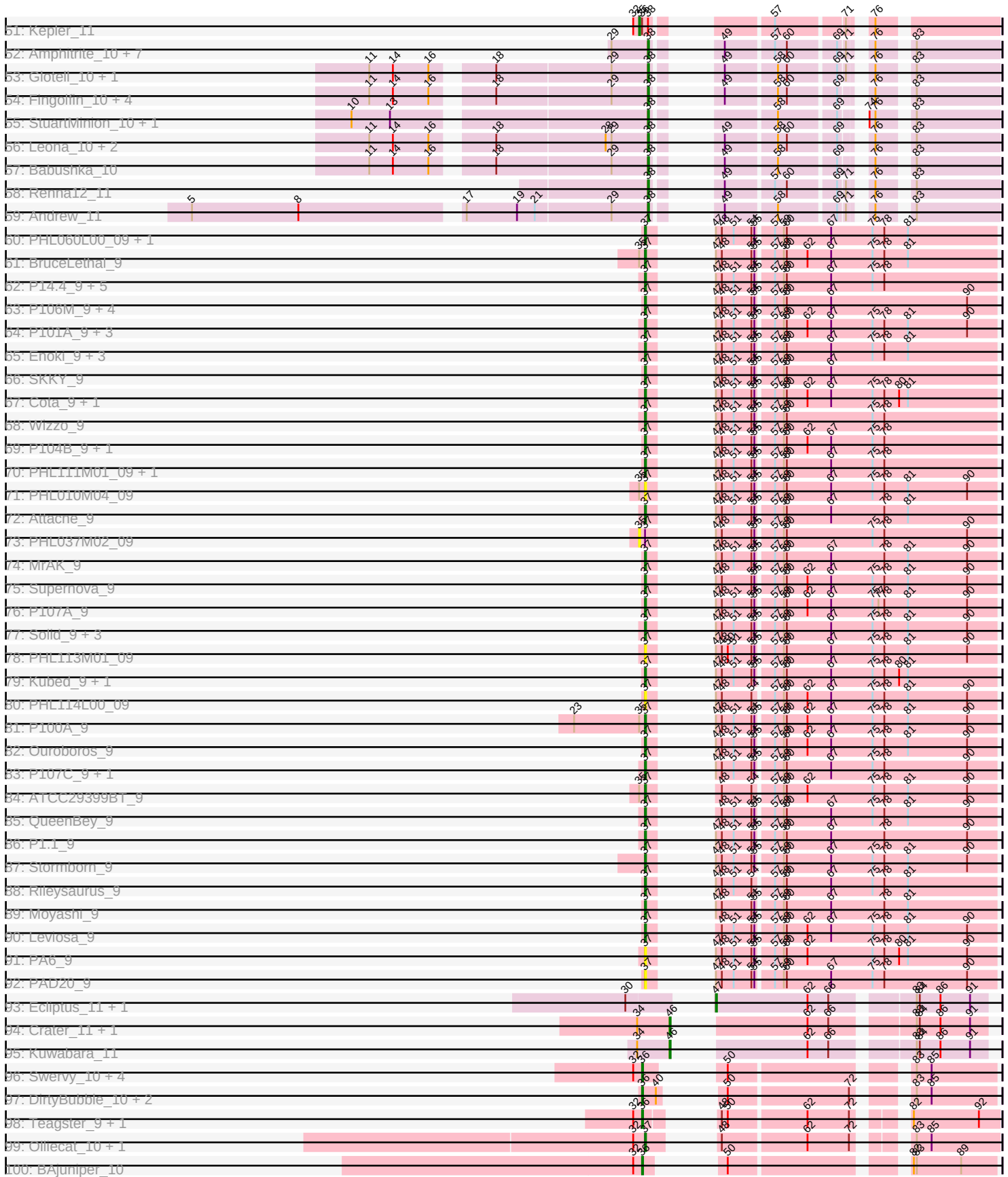


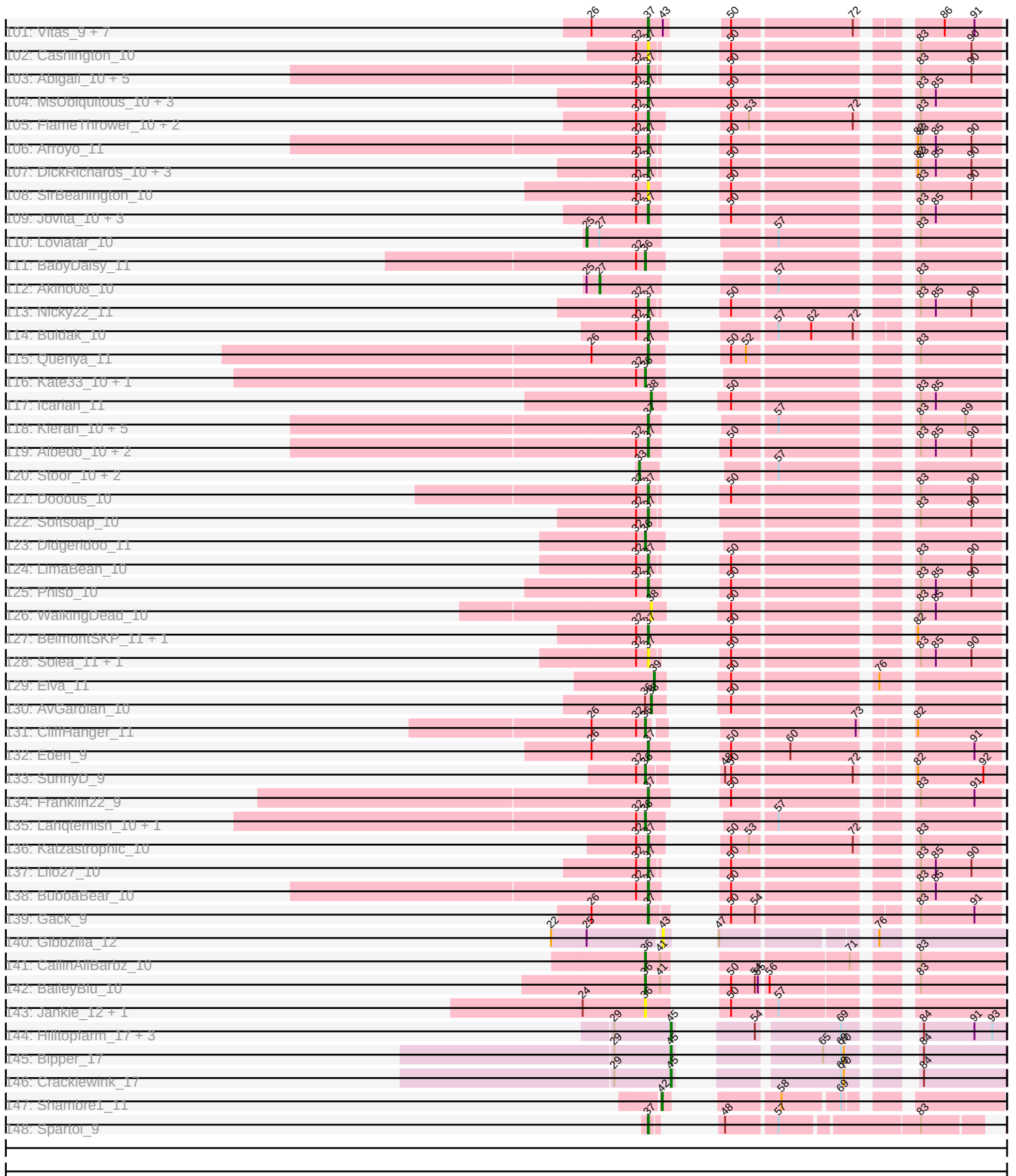
Pham 280018



Pham 280018



Pham 280018



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 280018 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280018 has 315 members, 54 are drafts.

Phages represented in each track:

- Track 1 : Chridison_9, DrRobert_9, Vulture_9, HunterDalle_9, WonderBoy_9, AustinPowers_9
- Track 2 : RcigaStruga_13, Huntingdon_13
- Track 3 : Fluke_13
- Track 4 : PinkFriday_9
- Track 5 : Scuttle_13, Carpal_13, RAP15_13, Dino_13, Wawa_13, Potatoes_13, Cholula_13, Korra_13, Glenn_13, Vallejo_13, Jumboset_13, TattModd_13, Rozby_13, MrGloopy_13, Riverdale_13, Savage2526_13, Immaculata_13, MeganNoll_13, Beethoven_13, Kalizoi_13, BrotherBLo_13, Zorro_13
- Track 6 : Oxyfnrius_13, Lakshmi_13, Albanese_13
- Track 7 : CallieOMalley_13, Canowicakte_13, Suppi_13, Wayne_13, AppleCider_13
- Track 8 : Maria1952_9, KingBob_9, Herb_9, Sergei_9, Daiboju_9, Temper16_9
- Track 9 : Bennie_9, HeadNerd_9, Moki_9, Huckleberry_9
- Track 10 : Rivoina_9, Eunoia_9, OMalley_9, Aledel_9
- Track 11 : Christian_9, Nancia_9, Bodacious_9, LilStuart_9, Lasagna_9, OurGirlNessie_9, CristinaYang_9
- Track 12 : Greenhouse_13
- Track 13 : Lennox_9, Makoto_9, PitaDog_9, Pterodactyl_9
- Track 14 : Kittykat_9, Preamble_9
- Track 15 : Misaeng_13
- Track 16 : Lucy_9
- Track 17 : GreenHearts_13
- Track 18 : Gisselle_9, DreamTeam_9
- Track 19 : Urla_9, MamaPearl_9, EstebanJulior_9
- Track 20 : Pumancara_9
- Track 21 : Litotes_13, PartyCup_13
- Track 22 : Nubia_13
- Track 23 : Graynor_13, MrBoss_13
- Track 24 : Supakev_9
- Track 25 : ChewChew_9
- Track 26 : BigMack_9
- Track 27 : Joann_13
- Track 28 : Abidatro_11
- Track 29 : Brynnie_11
- Track 30 : Niblet_11, Zixiang_11, Chicken_11
- Track 31 : Vulpecula_11
- Track 32 : Amanises_12, Gravel_12, Pelletreau_12, Shen_12

- Track 33 : KendraB23_12, Toad24_12
- Track 34 : Eesa_11
- Track 35 : Ruchi_11
- Track 36 : Chickaboom_10, WileyE_10
- Track 37 : Westrich_12, Orcanus_11
- Track 38 : Basilisk_11
- Track 39 : Jamun_11
- Track 40 : Galaxy_11
- Track 41 : TaylorSipht_11
- Track 42 : OtsoOtso_11, Bibble12_12, PhirstandPhine_12, Pineda_12
- Track 43 : LittleTokyo_11
- Track 44 : Kuleana_11
- Track 45 : Amelia_12, Bedetta_12, Lunar_12, Colusalem_11, Jerole_12, HannahPhantana_12
- Track 46 : Cote_12, Coral_11, Melons_12, Polka_11
- Track 47 : Daob_12
- Track 48 : Antrice_11
- Track 49 : Cygnet_11
- Track 50 : Zhuangyuan_13
- Track 51 : Kepler_11
- Track 52 : Amphitrite_10, PhluffyCoco_10, Laphuphu24k_10, DanHam62_10, HamCheese_10, AdoptaAdorbs_10, Camara_10, RedFox_10
- Track 53 : Glotell_10, KHumphrey_10
- Track 54 : Fingolfin_10, Oppalora_10, Juno112_10, AmiCi24_10, Atlantica_10
- Track 55 : StuartMinion_10, AlexMinion_10
- Track 56 : Leona_10, Azaz_10, Rattail_10
- Track 57 : Babushka_10
- Track 58 : Renna12_11
- Track 59 : Andrew_11
- Track 60 : PHL060L00_09, Lauchelly_9
- Track 61 : BruceLethal_9
- Track 62 : P14.4_9, PHL071N05_09, P108C_9, Enochoraptor_9, Pirate_9, Aquarius_9
- Track 63 : P106M_9, P106I_9, P106L_9, P106C_9, P106A_9
- Track 64 : P101A_9, P100.1_9, DrParker_9, P105_9
- Track 65 : Enoki_9, PAS50_9, P100D_9, PHL067M10_09
- Track 66 : SKKY_9
- Track 67 : Cota_9, Keiki_9
- Track 68 : Wizzo_9
- Track 69 : P104B_9, LilBandit_9
- Track 70 : PHL111M01_09, P9.1_9
- Track 71 : PHL010M04_09
- Track 72 : Attacne_9
- Track 73 : PHL037M02_09
- Track 74 : MrAK_9
- Track 75 : Supernova_9
- Track 76 : P107A_9
- Track 77 : Solid_9, P104A_9, Procrass1_9, MEAK_9
- Track 78 : PHL113M01_09
- Track 79 : Kubed_9, PHL112N00_09
- Track 80 : PHL114L00_09
- Track 81 : P100A_9
- Track 82 : Ouroboros_9

- Track 83 : P107C_9, ATCC29399BC_9
- Track 84 : ATCC29399BT_9
- Track 85 : QueenBey_9
- Track 86 : P1.1_9
- Track 87 : Stormborn_9
- Track 88 : Rileysaurus_9
- Track 89 : Moyashi_9
- Track 90 : Leviosa_9
- Track 91 : PA6_9
- Track 92 : PAD20_9
- Track 93 : Ecliptus_11, ODay_11
- Track 94 : Crater_11, Apricot_11
- Track 95 : Kuwabara_11
- Track 96 : Swervy_10, AylexOG_11, Slay_10, Finalfrontier_11, SarBear_10
- Track 97 : DirtyBubble_10, Stromboli_10, BabyYoda_10
- Track 98 : Teagster_9, Shayna_9
- Track 99 : Olliecat_10, Squirrel_10
- Track 100 : BAjuniper_10
- Track 101 : Vitas_9, Clayda5_9, Brahms_9, Bernstein_9, Rollins_9, Coltrane_9, Armstrong_9, Skylord_9
- Track 102 : Cashington_10
- Track 103 : Abigail_10, Burritobowl_10, Albright_10, Johnathan_10, Avacadoman_10, Bengal_10
- Track 104 : MsUbiquitous_10, CupcakePrincess_10, TukTuk_10, Jabb_10
- Track 105 : FlameThrower_10, Bachaco_10, Celæna_10
- Track 106 : Arroyo_11
- Track 107 : DickRichards_10, PhigPhack_10, CroZenni_10, SansAfet_10
- Track 108 : SirBeanington_10
- Track 109 : Jovita_10, QMacho_11, Pecas_10, Eula_10
- Track 110 : Loviatar_10
- Track 111 : BabyDaisy_11
- Track 112 : Akino08_10
- Track 113 : Nicky22_11
- Track 114 : Buldak_10
- Track 115 : Quenya_11
- Track 116 : Kate33_10, IndyLu_10
- Track 117 : Icarian_11
- Track 118 : Kieran_10, ChiliPepper_10, Kamdara_10, Sharkboy_10, Dismas_10, Rona_10
- Track 119 : Albedo_10, Kenzers_10, Lynlen_10
- Track 120 : Stoor_10, PondAmelia_13, SanaSana_11
- Track 121 : Doobus_10
- Track 122 : Softsoap_10
- Track 123 : Didgeridoo_11
- Track 124 : LimaBean_10
- Track 125 : Phisb_10
- Track 126 : WalkingDead_10
- Track 127 : BelmontSKP_11, AnnaLie_11
- Track 128 : Solea_11, Milomuff_11
- Track 129 : Elva_11
- Track 130 : AvGardian_10
- Track 131 : CliffHanger_11
- Track 132 : Eden_9

- Track 133 : SunnyD_9
- Track 134 : Franklin22_9
- Track 135 : Lahqtemish_10, PastaFagioli_10
- Track 136 : Katzastrophic_10
- Track 137 : Lilo27_10
- Track 138 : BubbaBear_10
- Track 139 : Gack_9
- Track 140 : Gibbzilla_12
- Track 141 : CallinAllBarbz_10
- Track 142 : BaileyBlu_10
- Track 143 : Jankie_12, GrimEater_11
- Track 144 : Hilltopfarm_17, Faiyaz_17, AuntGwenStacy_17, Typha_17
- Track 145 : Bipper_17
- Track 146 : Cracklewink_17
- Track 147 : Shambre1_11
- Track 148 : Spartoi_9

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

The start number called the most often in the published annotations is 37, it was called in 182 of the 261 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• ATCC29399BC_9, ATCC29399BT_9, Abigail_10, Albanese_13, Albedo_10, Albright_10, Aledel_9, AnnaLie_11, AppleCider_13, Aquarius_9, Armstrong_9, Arroyo_11, Attacne_9, AustinPowers_9, Avocadoman_10, Bachaco_10, Beethoven_13, BelmontSKP_11, Bengal_10, Bennie_9, Bernstein_9, BigMack_9, Bodacious_9, Brahms_9, BrotherBLo_13, BruceLethal_9, BubbaBear_10, Buldak_10, Burritobowl_10, CallieOMalley_13, Canowicakte_13, Carpal_13, Cashington_10, Celaena_10, ChewChew_9, ChiliPepper_10, Cholula_13, Chridison_9, Christian_9, Clayda5_9, Coltrane_9, Cota_9, CristinaYang_9, CroZenni_10, CupcakePrincess_10, Daiboju_9, DickRichards_10, Dino_13, Dismas_10, Doobus_10, DrParker_9, DrRobert_9, DreamTeam_9, Eden_9, Enochoraptor_9, Enoki_9, EstebanJulior_9, Eula_10, Eunoia_9, FlameThrower_10, Fluke_13, Franklin22_9, Gack_9, Gisselle_9, Glenn_13, Graynor_13, GreenHearts_13, Greenhouse_13, HeadNerd_9, Herb_9, Huckleberry_9, HunterDalle_9, Huntingdon_13, Immaculata_13, Jabb_10, Joann_13, Johnathan_10, Jovita_10, Jumboset_13, Kalizoi_13, Kamdara_10, Katzastrophic_10, Keiki_9, Kenzers_10, Kieran_10, KingBob_9, Kittykat_9, Korra_13, Kubed_9, Lakshmi_13, Lasagna_9, Lauchelly_9, Lennox_9, Leviosa_9, LilBandit_9, LilStuart_9, Lilo27_10, LimaBean_10, Litotes_13, Lucy_9, Lynlen_10, MEAK_9, Makoto_9, MamaPearl_9, Maria1952_9, MeganNoll_13, Milomuff_11, Misaeng_13, Moki_9, Moyashi_9, MrAK_9, MrBoss_13, MrGloopy_13, MsUbiquitous_10, Nancia_9, Nicky22_11, Nubia_13, OMalley_9, Olliecat_10, OurGirlNessie_9, Ouroboros_9, Oxynfrius_13, P1.1_9, P100.1_9, P100A_9, P100D_9, P101A_9, P104A_9, P104B_9, P105_9, P106A_9, P106C_9, P106I_9, P106L_9, P106M_9, P107A_9, P107C_9, P108C_9, P14.4_9, P9.1_9, PA6_9, PAD20_9, PAS50_9, PHL010M04_09, PHL060L00_09, PHL067M10_09, PHL071N05_09, PHL111M01_09, PHL112N00_09, PHL113M01_09, PHL114L00_09, PartyCup_13, Pecas_10, PhigPhack_10, Phisb_10, PinkFriday_9, Pirate_9, PitaDog_9, Potatoes_13, Preamble_9, Procrass1_9, Pterodactyl_9, Pumancara_9, QMacho_11,

QueenBey_9, Quenya_11, RAP15_13, RcigaStruga_13, Rileysaurus_9, Rivovina_9, Riverdale_13, Rollins_9, Rona_10, Rozby_13, SKKY_9, SansAfet_10, Savage2526_13, Scuttle_13, Sergei_9, Sharkboy_10, SirBeanington_10, Skylord_9, Softsoap_10, Solea_11, Solid_9, Spartoi_9, Squircle_10, Stormborn_9, Supakev_9, Supernova_9, Suppi_13, TattModd_13, Temper16_9, TukTuk_10, Urla_9, Vallejo_13, Vitas_9, Vulture_9, Wawa_13, Wayne_13, Wizzo_9, WonderBoy_9, Zorro_13,

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

- PHL037M02_09,

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

- Abidatro_11, AdoptaAdorbs_10, Akino08_10, AlexMinion_10, Amanises_12, Amelia_12, AmiCi24_10, Amphitrite_10, Andrew_11, Antrice_11, Apricot_11, Atlantica_10, AuntGwenStacy_17, AvGardian_10, AylexOG_11, Azaz_10, BAjuniper_10, Babushka_10, BabyDaisy_11, BabyYoda_10, BaileyBlu_10, Basilisk_11, Bedetta_12, Bibble12_12, Bipper_17, Brynnie_11, CallinAllBarbz_10, Camara_10, Chickaboom_10, Chicken_11, CliffHanger_11, Colusalem_11, Coral_11, Cote_12, Cracklewink_17, Crater_11, Cygnet_11, DanHam62_10, Daob_12, Didgeridoo_11, DirtyBubble_10, Ecliptus_11, Eesa_11, Elva_11, Faiyaz_17, Finalfrontier_11, Fingolfin_10, Galaxy_11, Gibbzilla_12, Glotell_10, Gravel_12, GrimEater_11, HamCheese_10, HannahPhantana_12, Hilltopfarm_17, Icarian_11, IndyLu_10, Jamun_11, Jankie_12, Jerole_12, Juno112_10, KHumphrey_10, Kate33_10, KendraB23_12, Kepler_11, Kuleana_11, Kuwabara_11, Lahqtemish_10, Laphuphu24k_10, Leona_10, LittleTokyo_11, Loviatar_10, Lunar_12, Melons_12, Niblet_11, ODay_11, Oppalora_10, Orcanus_11, OtsoOtso_11, PastaFagioli_10, Pelletreau_12, PhirstandPhine_12, PhluffyCoco_10, Pineda_12, Polka_11, PondAmelia_13, Rattail_10, RedFox_10, Renna12_11, Ruchi_11, SanaSana_11, SarBear_10, Shambre1_11, Shayna_9, Shen_12, Slay_10, Stoor_10, Stromboli_10, StuartMinion_10, SunnyD_9, Swervy_10, TaylorSipht_11, Teagster_9, Toad24_12, Typha_17, Vulpecula_11, WalkingDead_10, Westrich_12, WileyE_10, Zhuangyuan_13, Zixiang_11,

Summary by start number:

Start 25:

- Found in 3 of 315 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 261
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Loviatar_10 (EB),

Start 27:

- Found in 2 of 315 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 261
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Akino08_10 (EB),

Start 32:

- Found in 85 of 315 (27.0%) of genes in pham
- Manual Annotations of this start: 1 of 261
- Called 1.2% of time when present
- Phage (with cluster) where this start called: Daob_12 (AS2),

Start 33:

- Found in 3 of 315 (1.0%) of genes in pham
- Manual Annotations of this start: 2 of 261
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PondAmelia_13 (EB), SanaSana_11 (EB), Stoor_10 (EB),

Start 35:

- Found in 22 of 315 (7.0%) of genes in pham
- Manual Annotations of this start: 6 of 261
- Called 31.8% of time when present
- Phage (with cluster) where this start called: Coral_11 (AS2), Cote_12 (AS2), Kepler_11 (AS2), Kuleana_11 (AS2), Melons_12 (AS2), PHL037M02_09 (BU), Polka_11 (AS2),

Start 36:

- Found in 40 of 315 (12.7%) of genes in pham
- Manual Annotations of this start: 25 of 261
- Called 72.5% of time when present
- Phage (with cluster) where this start called: Amelia_12 (AS2), AylexOG_11 (EB), BAjuniper_10 (EB), BabyDaisy_11 (EB), BabyYoda_10 (EB), BaileyBlu_10 (FP), Bedetta_12 (AS2), CallinAllBarbz_10 (FP), CliffHanger_11 (EB), Colusalem_11 (AS2), Didgeridoo_11 (EB), DirtyBubble_10 (EB), FinalFrontier_11 (EB), GrimEater_11 (FP), HannahPhantana_12 (AS2), IndyLu_10 (EB), Jankie_12 (FP), Jerole_12 (AS2), Kate33_10 (EB), Lahqtemish_10 (EB), Lunar_12 (AS2), PastaFagioli_10 (EB), SarBear_10 (EB), Shayna_9 (EB), Slay_10 (EB), Stromboli_10 (EB), SunnyD_9 (EB), Swervy_10 (EB), Teagster_9 (EB),

Start 37:

- Found in 204 of 315 (64.8%) of genes in pham
- Manual Annotations of this start: 182 of 261
- Called 99.5% of time when present
- Phage (with cluster) where this start called: ATCC29399BC_9 (BU), ATCC29399BT_9 (BU), Abigail_10 (EB), Albanese_13 (AK), Albedo_10 (EB), Albright_10 (EB), Aledel_9 (AK), AnnaLie_11 (EB), AppleCider_13 (AK), Aquarius_9 (BU), Armstrong_9 (EB), Arroyo_11 (EB), Attacne_9 (BU), AustinPowers_9 (AK), Avocadoman_10 (EB), Bachaco_10 (EB), Beethoven_13 (AK), BelmontSKP_11 (EB), Bengal_10 (EB), Bennie_9 (AK), Bernstein_9 (EB), BigMack_9 (AK), Bodacious_9 (AK), Brahms_9 (EB), BrotherBLo_13 (AK), BruceLethal_9 (BU), BubbaBear_10 (EB), Buldak_10 (EB), Burritobowl_10 (EB), CallieOMalley_13 (AK), Canowicakte_13 (AK), Carpal_13 (AK), Cashington_10 (EB), Celaena_10 (EB), ChewChew_9 (AK), ChiliPepper_10 (EB), Cholula_13 (AK), Chridison_9 (AK), Christian_9 (AK), Clayda5_9 (EB), Coltrane_9 (EB), Cota_9 (BU), CristinaYang_9 (AK), CroZenni_10 (EB), CupcakePrincess_10 (EB), Daiboju_9 (AK), DickRichards_10 (EB), Dino_13 (AK), Dismas_10 (EB), Doobus_10 (EB), DrParker_9 (BU), DrRobert_9 (AK), DreamTeam_9 (AK), Eden_9 (EB), Enochoraptor_9 (BU), Enoki_9 (BU), EstebanJulior_9 (AK), Eula_10 (EB), Eunoia_9 (AK), FlameThrower_10 (EB), Fluke_13 (AK), Franklin22_9 (EB), Gack_9 (EB), Gisselle_9 (AK), Glenn_13 (AK), Graynor_13 (AK), GreenHearts_13 (AK), Greenhouse_13 (AK), HeadNerd_9 (AK), Herb_9 (AK), Huckleberry_9 (AK), HunterDalle_9 (AK), Huntingdon_13 (AK), Immaculata_13 (AK), Jabb_10 (EB), Joann_13 (AK), Johnathan_10 (EB), Jovita_10 (EB), Jumboset_13 (AK), Kalizoi_13 (AK), Kamdara_10 (EB), Katzastrophic_10 (EB), Keiki_9 (BU), Kenzers_10 (EB), Kieran_10 (EB), KingBob_9 (AK), Kittykat_9 (AK), Korra_13 (AK), Kubed_9 (BU), Lakshmi_13 (AK), Lasagna_9 (AK), Lauchelly_9 (BU),

Lennox_9 (AK), Leviosa_9 (BU), LilBandit_9 (BU), LilStuart_9 (AK), Lilo27_10 (EB),
 LimaBean_10 (EB), Litotes_13 (AK), Lucy_9 (AK), Lynlen_10 (EB), MEAK_9 (BU),
 Makoto_9 (AK), MamaPearl_9 (AK), Maria1952_9 (AK), MeganNoll_13 (AK),
 Milomuff_11 (EB), Misaeng_13 (AK), Moki_9 (AK), Moyashi_9 (BU), MrAK_9 (BU),
 MrBoss_13 (AK), MrGloopy_13 (AK), MsUbiquitous_10 (EB), Nancia_9 (AK),
 Nicky22_11 (EB), Nubia_13 (AK), OMalley_9 (AK), Olliecat_10 (EB), OurGirlNessie_9
 (AK), Ouroboros_9 (BU), Oxynfrius_13 (AK), P1.1_9 (BU), P100.1_9 (BU), P100A_9
 (BU), P100D_9 (BU), P101A_9 (BU), P104A_9 (BU), P104B_9 (BU), P105_9 (BU),
 P106A_9 (BU), P106C_9 (BU), P106I_9 (BU), P106L_9 (BU), P106M_9 (BU),
 P107A_9 (BU), P107C_9 (BU), P108C_9 (BU), P14.4_9 (BU), P9.1_9 (BU), PA6_9
 (BU), PAD20_9 (BU), PAS50_9 (BU), PHL010M04_09 (BU), PHL060L00_09 (BU),
 PHL067M10_09 (BU), PHL071N05_09 (BU), PHL111M01_09 (BU), PHL112N00_09
 (BU), PHL113M01_09 (BU), PHL114L00_09 (BU), PartyCup_13 (AK), Pecas_10
 (EB), PhigPhack_10 (EB), Phisb_10 (EB), PinkFriday_9 (AK), Pirate_9 (BU),
 PitaDog_9 (AK), Potatoes_13 (AK), Preamble_9 (AK), Procrass1_9 (BU),
 Pterodactyl_9 (AK), Pumancara_9 (AK), QMacho_11 (EB), QueenBey_9 (BU),
 Quenya_11 (EB), RAP15_13 (AK), RcigaStruga_13 (AK), Rileysaurus_9 (BU),
 Rivovina_9 (AK), Riverdale_13 (AK), Rollins_9 (EB), Rona_10 (EB), Rozby_13 (AK),
 SKKY_9 (BU), SansAfet_10 (EB), Savage2526_13 (AK), Scuttle_13 (AK), Sergei_9
 (AK), Sharkboy_10 (EB), SirBeanington_10 (EB), Skylord_9 (EB), Softsoap_10 (EB),
 Solea_11 (EB), Solid_9 (BU), Spartoi_9 (singleton), Squircle_10 (EB), Stormborn_9
 (BU), Supakev_9 (AK), Supernova_9 (BU), Suppi_13 (AK), TattModd_13 (AK),
 Temper16_9 (AK), TukTuk_10 (EB), Urla_9 (AK), Vallejo_13 (AK), Vitas_9 (EB),
 Vulture_9 (AK), Wawa_13 (AK), Wayne_13 (AK), Wizzo_9 (BU), WonderBoy_9 (AK),
 Zorro_13 (AK),

Start 38:

- Found in 69 of 315 (21.9%) of genes in pham
- Manual Annotations of this start: 31 of 261
- Called 81.2% of time when present
- Phage (with cluster) where this start called: Abidatro_11 (AS1), AdoptaAdorbs_10 (AS3), AlexMinion_10 (AS3), Amanises_12 (AS1), AmCi24_10 (AS3), Amphitrite_10 (AS3), Andrew_11 (AS3), Antrice_11 (AS2), Atlantica_10 (AS3), AvGardian_10 (EB), Azaz_10 (AS3), Babushka_10 (AS3), Basilisk_11 (AS1), Bibble12_12 (AS2), Brynnie_11 (AS1), Camara_10 (AS3), Chickaboom_10 (AS1), Chicken_11 (AS1), Cygnet_11 (AS2), DanHam62_10 (AS3), Eesa_11 (AS1), Fingolfin_10 (AS3), Galaxy_11 (AS1), Glotell_10 (AS3), Gravel_12 (AS1), HamCheese_10 (AS3), Icarian_11 (EB), Jamun_11 (AS1), Juno112_10 (AS3), KHumphrey_10 (AS3), KendraB23_12 (AS1), Laphuphu24k_10 (AS3), Leona_10 (AS3), LittleTokyo_11 (AS2), Niblet_11 (AS1), Oppalora_10 (AS3), Orcanus_11 (AS1), OtsoOtso_11 (AS2), Pelletreau_12 (AS1), PhirstandPhine_12 (AS2), PhluffyCoco_10 (AS3), Pineda_12 (AS2), Rattail_10 (AS3), RedFox_10 (AS3), Renna12_11 (AS3), Ruchi_11 (AS1), Shen_12 (AS1), StuartMinion_10 (AS3), TaylorSipht_11 (AS1), Toad24_12 (AS1), Vulpecula_11 (AS1), WalkingDead_10 (EB), Westrich_12 (AS1), WileyE_10 (AS1), Zhuangyuan_13 (AS2), Zixiang_11 (AS1),

Start 39:

- Found in 1 of 315 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 261
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elva_11 (EB),

Start 42:

- Found in 1 of 315 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 261
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Shambre1_11 (singleton),

Start 43:

- Found in 9 of 315 (2.9%) of genes in pham
- No Manual Annotations of this start.
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Gibbzilla_12 (FB),

Start 45:

- Found in 6 of 315 (1.9%) of genes in pham
- Manual Annotations of this start: 5 of 261
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AuntGwenStacy_17 (Y), Bipper_17 (Y), Cracklewink_17 (Y), Faiyaz_17 (Y), Hilltopfarm_17 (Y), Typha_17 (Y),

Start 46:

- Found in 3 of 315 (1.0%) of genes in pham
- Manual Annotations of this start: 3 of 261
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apricot_11 (DN3), Crater_11 (DN3), Kuwabara_11 (DN4),

Start 47:

- Found in 57 of 315 (18.1%) of genes in pham
- Manual Annotations of this start: 2 of 261
- Called 3.5% of time when present
- Phage (with cluster) where this start called: Ecliptus_11 (DN), ODay_11 (DN),

Summary by clusters:

There are 13 clusters represented in this pham: AS3, AS2, AS1, DN4, AK, singleton, FP, EB, BU, FB, DN3, Y, DN,

Info for manual annotations of cluster AK:

- Start number 37 was manually annotated 84 times for cluster AK.

Info for manual annotations of cluster AS1:

- Start number 38 was manually annotated 12 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 32 was manually annotated 1 time for cluster AS2.
- Start number 35 was manually annotated 6 times for cluster AS2.
- Start number 36 was manually annotated 5 times for cluster AS2.
- Start number 38 was manually annotated 4 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 38 was manually annotated 13 times for cluster AS3.

Info for manual annotations of cluster BU:

- Start number 37 was manually annotated 45 times for cluster BU.

Info for manual annotations of cluster DN:

- Start number 47 was manually annotated 2 times for cluster DN.

Info for manual annotations of cluster DN3:

- Start number 46 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DN4:

- Start number 46 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster EB:

- Start number 25 was manually annotated 1 time for cluster EB.
- Start number 27 was manually annotated 1 time for cluster EB.
- Start number 33 was manually annotated 2 times for cluster EB.
- Start number 36 was manually annotated 18 times for cluster EB.
- Start number 37 was manually annotated 52 times for cluster EB.
- Start number 38 was manually annotated 2 times for cluster EB.
- Start number 39 was manually annotated 1 time for cluster EB.

Info for manual annotations of cluster FP:

- Start number 36 was manually annotated 2 times for cluster FP.

Info for manual annotations of cluster Y:

- Start number 45 was manually annotated 5 times for cluster Y.

Gene Information:

Gene: ATCC29399BC_9 Start: 6452, Stop: 6742, Start Num: 37

Candidate Starts for ATCC29399BC_9:

(Start: 37 @6452 has 182 MA's), (Start: 47 @6464 has 2 MA's), (48, 6470), (51, 6482), (54, 6500), (55, 6503), (57, 6518), (59, 6527), (60, 6530), (67, 6575), (75, 6617), (78, 6629), (90, 6713),

Gene: ATCC29399BT_9 Start: 6448, Stop: 6738, Start Num: 37

Candidate Starts for ATCC29399BT_9:

(Start: 35 @6442 has 6 MA's), (Start: 37 @6448 has 182 MA's), (48, 6466), (54, 6496), (57, 6514), (59, 6523), (60, 6526), (62, 6547), (75, 6613), (78, 6625), (81, 6649), (90, 6709),

Gene: Abidatro_11 Start: 8071, Stop: 8328, Start Num: 38

Candidate Starts for Abidatro_11:

(31, 8053), (Start: 38 @8071 has 31 MA's), (63, 8185), (79, 8239), (82, 8242),

Gene: Abigail_10 Start: 7773, Stop: 8030, Start Num: 37

Candidate Starts for Abigail_10:

(Start: 32 @7761 has 1 MA's), (Start: 37 @7773 has 182 MA's), (50, 7794), (83, 7950), (90, 8001),

Gene: AdoptaAdorbs_10 Start: 7655, Stop: 7909, Start Num: 38

Candidate Starts for AdoptaAdorbs_10:

(29, 7619), (Start: 38 @7655 has 31 MA's), (49, 7679), (57, 7724), (60, 7736), (69, 7781), (71, 7787), (76, 7799), (83, 7826),

Gene: Akino08_10 Start: 7908, Stop: 8216, Start Num: 27

Candidate Starts for Akino08_10:

(Start: 25 @7896 has 1 MA's), (Start: 27 @7908 has 1 MA's), (57, 8022), (83, 8136),

Gene: Albanese_13 Start: 10184, Stop: 10474, Start Num: 37

Candidate Starts for Albanese_13:

(Start: 37 @10184 has 182 MA's), (50, 10208), (62, 10283), (64, 10292), (68, 10310), (83, 10391),

Gene: Albedo_10 Start: 7645, Stop: 7905, Start Num: 37

Candidate Starts for Albedo_10:

(Start: 32 @7633 has 1 MA's), (Start: 37 @7645 has 182 MA's), (50, 7669), (83, 7825), (85, 7840), (90, 7876),

Gene: Albright_10 Start: 7654, Stop: 7911, Start Num: 37

Candidate Starts for Albright_10:

(Start: 32 @7642 has 1 MA's), (Start: 37 @7654 has 182 MA's), (50, 7675), (83, 7831), (90, 7882),

Gene: Aledel_9 Start: 7261, Stop: 7548, Start Num: 37

Candidate Starts for Aledel_9:

(Start: 37 @7261 has 182 MA's), (62, 7360), (83, 7468), (93, 7540),

Gene: AlexMinion_10 Start: 7681, Stop: 7935, Start Num: 38

Candidate Starts for AlexMinion_10:

(10, 7405), (13, 7444), (Start: 38 @7681 has 31 MA's), (58, 7753), (69, 7807), (74, 7819), (76, 7825), (83, 7852),

Gene: Amanises_12 Start: 8245, Stop: 8499, Start Num: 38

Candidate Starts for Amanises_12:

(19, 8116), (29, 8209), (31, 8227), (Start: 38 @8245 has 31 MA's), (49, 8269), (74, 8383), (76, 8389), (84, 8419),

Gene: Amelia_12 Start: 8244, Stop: 8504, Start Num: 36

Candidate Starts for Amelia_12:

(Start: 32 @8235 has 1 MA's), (Start: 35 @8241 has 6 MA's), (Start: 36 @8244 has 25 MA's), (Start: 38 @8250 has 31 MA's), (49, 8274), (57, 8319), (71, 8382), (76, 8394),

Gene: AmiCi24_10 Start: 7655, Stop: 7909, Start Num: 38

Candidate Starts for AmiCi24_10:

(11, 7397), (14, 7421), (16, 7457), (18, 7505), (29, 7619), (Start: 38 @7655 has 31 MA's), (49, 7679), (58, 7727), (60, 7736), (69, 7781), (76, 7799), (83, 7826),

Gene: Amphitrite_10 Start: 7653, Stop: 7907, Start Num: 38

Candidate Starts for Amphitrite_10:

(29, 7617), (Start: 38 @7653 has 31 MA's), (49, 7677), (57, 7722), (60, 7734), (69, 7779), (71, 7785), (76, 7797), (83, 7824),

Gene: Andrew_11 Start: 8034, Stop: 8288, Start Num: 38

Candidate Starts for Andrew_11:

(5, 7596), (8, 7704), (17, 7854), (19, 7905), (21, 7923), (29, 7998), (Start: 38 @8034 has 31 MA's), (49, 8058), (58, 8106), (69, 8160), (71, 8166), (76, 8178), (83, 8205),

Gene: AnnaLie_11 Start: 8000, Stop: 8320, Start Num: 37

Candidate Starts for AnnaLie_11:

(Start: 32 @7988 has 1 MA's), (Start: 37 @8000 has 182 MA's), (50, 8084), (82, 8237),

Gene: Antrice_11 Start: 7990, Stop: 8244, Start Num: 38

Candidate Starts for Antrice_11:

(29, 7954), (Start: 38 @7990 has 31 MA's), (49, 8014), (71, 8122), (79, 8155), (83, 8161),

Gene: AppleCider_13 Start: 10140, Stop: 10409, Start Num: 37

Candidate Starts for AppleCider_13:

(Start: 32 @10128 has 1 MA's), (Start: 37 @10140 has 182 MA's), (48, 10158), (60, 10218), (62, 10239), (83, 10326),

Gene: Apricot_11 Start: 7129, Stop: 7386, Start Num: 46

Candidate Starts for Apricot_11:

(34, 7096), (Start: 46 @7129 has 3 MA's), (62, 7222), (66, 7243), (83, 7315), (84, 7318), (86, 7339), (91, 7369),

Gene: Aquarius_9 Start: 6442, Stop: 6732, Start Num: 37

Candidate Starts for Aquarius_9:

(Start: 37 @6442 has 182 MA's), (Start: 47 @6454 has 2 MA's), (48, 6460), (51, 6472), (54, 6490), (55, 6493), (57, 6508), (59, 6517), (60, 6520), (67, 6565), (75, 6607), (78, 6619),

Gene: Armstrong_9 Start: 7425, Stop: 7688, Start Num: 37

Candidate Starts for Armstrong_9:

(26, 7368), (Start: 37 @7425 has 182 MA's), (43, 7440), (50, 7455), (72, 7572), (86, 7632), (91, 7662),

Gene: Arroyo_11 Start: 8124, Stop: 8381, Start Num: 37

Candidate Starts for Arroyo_11:

(Start: 32 @8112 has 1 MA's), (Start: 37 @8124 has 182 MA's), (50, 8145), (82, 8298), (83, 8301), (85, 8316), (90, 8352),

Gene: Atlantica_10 Start: 7655, Stop: 7909, Start Num: 38

Candidate Starts for Atlantica_10:

(11, 7397), (14, 7421), (16, 7457), (18, 7505), (29, 7619), (Start: 38 @7655 has 31 MA's), (49, 7679), (58, 7727), (60, 7736), (69, 7781), (76, 7799), (83, 7826),

Gene: Attacne_9 Start: 6453, Stop: 6743, Start Num: 37

Candidate Starts for Attacne_9:

(Start: 37 @6453 has 182 MA's), (Start: 47 @6465 has 2 MA's), (48, 6471), (51, 6483), (54, 6501), (55, 6504), (57, 6519), (59, 6528), (60, 6531), (67, 6576), (78, 6630), (81, 6654),

Gene: AuntGwenStacy_17 Start: 11749, Stop: 11997, Start Num: 45

Candidate Starts for AuntGwenStacy_17:

(29, 11692), (Start: 45 @11749 has 5 MA's), (54, 11791), (69, 11866), (84, 11914), (91, 11965), (93, 11983),

Gene: AustinPowers_9 Start: 7262, Stop: 7549, Start Num: 37

Candidate Starts for AustinPowers_9:

(Start: 37 @7262 has 182 MA's), (62, 7361), (83, 7469),

Gene: AvGardian_10 Start: 7705, Stop: 7968, Start Num: 38

Candidate Starts for AvGardian_10:

(Start: 36 @7699 has 25 MA's), (Start: 38 @7705 has 31 MA's), (50, 7732),

Gene: Avocadoman_10 Start: 7712, Stop: 7969, Start Num: 37
Candidate Starts for Avocadoman_10:
(Start: 32 @7700 has 1 MA's), (Start: 37 @7712 has 182 MA's), (50, 7733), (83, 7889), (90, 7940),

Gene: AylexOG_11 Start: 7993, Stop: 8256, Start Num: 36
Candidate Starts for AylexOG_11:
(Start: 32 @7984 has 1 MA's), (Start: 36 @7993 has 25 MA's), (50, 8020), (83, 8176), (85, 8191),

Gene: Azaz_10 Start: 7706, Stop: 7960, Start Num: 38
Candidate Starts for Azaz_10:
(11, 7448), (14, 7472), (16, 7508), (18, 7556), (28, 7664), (29, 7670), (Start: 38 @7706 has 31 MA's),
(49, 7730), (58, 7778), (60, 7787), (69, 7832), (76, 7850), (83, 7877),

Gene: BAjuniper_10 Start: 7595, Stop: 7852, Start Num: 36
Candidate Starts for BAjuniper_10:
(Start: 32 @7586 has 1 MA's), (Start: 36 @7595 has 25 MA's), (50, 7616), (82, 7769), (83, 7772), (89, 7817),

Gene: Babushka_10 Start: 7703, Stop: 7957, Start Num: 38
Candidate Starts for Babushka_10:
(11, 7445), (14, 7469), (16, 7505), (18, 7553), (29, 7667), (Start: 38 @7703 has 31 MA's), (49, 7727),
(58, 7775), (69, 7829), (76, 7847), (83, 7874),

Gene: BabyDaisy_11 Start: 7870, Stop: 8133, Start Num: 36
Candidate Starts for BabyDaisy_11:
(Start: 32 @7861 has 1 MA's), (Start: 36 @7870 has 25 MA's),

Gene: BabyYoda_10 Start: 7899, Stop: 8162, Start Num: 36
Candidate Starts for BabyYoda_10:
(Start: 36 @7899 has 25 MA's), (40, 7911), (50, 7926), (72, 8043), (83, 8082), (85, 8097),

Gene: Bachaco_10 Start: 7786, Stop: 8049, Start Num: 37
Candidate Starts for Bachaco_10:
(Start: 32 @7774 has 1 MA's), (Start: 37 @7786 has 182 MA's), (50, 7813), (53, 7831), (72, 7930), (83, 7969),

Gene: BaileyBlu_10 Start: 6510, Stop: 6782, Start Num: 36
Candidate Starts for BaileyBlu_10:
(Start: 36 @6510 has 25 MA's), (41, 6525), (50, 6546), (54, 6570), (55, 6573), (56, 6579), (83, 6699),

Gene: Basilisk_11 Start: 8395, Stop: 8652, Start Num: 38
Candidate Starts for Basilisk_11:
(2, 7819), (5, 7933), (8, 8041), (9, 8086), (18, 8242), (Start: 38 @8395 has 31 MA's), (79, 8563),

Gene: Bedetta_12 Start: 8244, Stop: 8504, Start Num: 36
Candidate Starts for Bedetta_12:
(Start: 32 @8235 has 1 MA's), (Start: 35 @8241 has 6 MA's), (Start: 36 @8244 has 25 MA's), (Start: 38 @8250 has 31 MA's), (49, 8274), (57, 8319), (71, 8382), (76, 8394),

Gene: Beethoven_13 Start: 10100, Stop: 10369, Start Num: 37
Candidate Starts for Beethoven_13:
(Start: 37 @10100 has 182 MA's), (55, 10151), (57, 10166), (62, 10199),

Gene: BelmontSKP_11 Start: 8000, Stop: 8320, Start Num: 37

Candidate Starts for BelmontSKP_11:

(Start: 32 @7988 has 1 MA's), (Start: 37 @8000 has 182 MA's), (50, 8084), (82, 8237),

Gene: Bengal_10 Start: 7654, Stop: 7911, Start Num: 37

Candidate Starts for Bengal_10:

(Start: 32 @7642 has 1 MA's), (Start: 37 @7654 has 182 MA's), (50, 7675), (83, 7831), (90, 7882),

Gene: Bennie_9 Start: 7245, Stop: 7514, Start Num: 37

Candidate Starts for Bennie_9:

(Start: 37 @7245 has 182 MA's), (48, 7263), (62, 7344), (76, 7389), (83, 7431),

Gene: Bernstein_9 Start: 7485, Stop: 7748, Start Num: 37

Candidate Starts for Bernstein_9:

(26, 7428), (Start: 37 @7485 has 182 MA's), (43, 7500), (50, 7515), (72, 7632), (86, 7692), (91, 7722),

Gene: Bibble12_12 Start: 8253, Stop: 8507, Start Num: 38

Candidate Starts for Bibble12_12:

(Start: 32 @8238 has 1 MA's), (Start: 35 @8244 has 6 MA's), (Start: 36 @8247 has 25 MA's), (Start: 38 @8253 has 31 MA's), (49, 8277), (57, 8322), (71, 8385), (76, 8397),

Gene: BigMack_9 Start: 7245, Stop: 7514, Start Num: 37

Candidate Starts for BigMack_9:

(Start: 37 @7245 has 182 MA's), (57, 7311), (62, 7344), (83, 7431), (93, 7503),

Gene: Bipper_17 Start: 11835, Stop: 12083, Start Num: 45

Candidate Starts for Bipper_17:

(29, 11778), (Start: 45 @11835 has 5 MA's), (65, 11934), (69, 11952), (70, 11955), (84, 12000),

Gene: Bodacious_9 Start: 7243, Stop: 7512, Start Num: 37

Candidate Starts for Bodacious_9:

(Start: 37 @7243 has 182 MA's), (60, 7321), (62, 7342), (83, 7429),

Gene: Brahms_9 Start: 7425, Stop: 7688, Start Num: 37

Candidate Starts for Brahms_9:

(26, 7368), (Start: 37 @7425 has 182 MA's), (43, 7440), (50, 7455), (72, 7572), (86, 7632), (91, 7662),

Gene: BrotherBLo_13 Start: 10107, Stop: 10376, Start Num: 37

Candidate Starts for BrotherBLo_13:

(Start: 37 @10107 has 182 MA's), (55, 10158), (57, 10173), (62, 10206),

Gene: BruceLethal_9 Start: 6441, Stop: 6731, Start Num: 37

Candidate Starts for BruceLethal_9:

(Start: 35 @6435 has 6 MA's), (Start: 37 @6441 has 182 MA's), (Start: 47 @6453 has 2 MA's), (48, 6459), (54, 6489), (55, 6492), (57, 6507), (59, 6516), (60, 6519), (62, 6540), (67, 6564), (75, 6606), (78, 6618), (81, 6642),

Gene: Brynnie_11 Start: 8207, Stop: 8464, Start Num: 38

Candidate Starts for Brynnie_11:

(2, 7631), (5, 7745), (8, 7853), (9, 7898), (18, 8054), (Start: 38 @8207 has 31 MA's), (61, 8297), (79, 8375),

Gene: BubbaBear_10 Start: 7645, Stop: 7905, Start Num: 37

Candidate Starts for BubbaBear_10:

(Start: 32 @7633 has 1 MA's), (Start: 37 @7645 has 182 MA's), (50, 7669), (83, 7825), (85, 7840),

Gene: Buldak_10 Start: 7930, Stop: 8196, Start Num: 37

Candidate Starts for Buldak_10:

(Start: 32 @7918 has 1 MA's), (Start: 37 @7930 has 182 MA's), (57, 8002), (62, 8035), (72, 8077),

Gene: Burritobowl_10 Start: 7681, Stop: 7938, Start Num: 37

Candidate Starts for Burritobowl_10:

(Start: 32 @7669 has 1 MA's), (Start: 37 @7681 has 182 MA's), (50, 7702), (83, 7858), (90, 7909),

Gene: CallieOMalley_13 Start: 10140, Stop: 10409, Start Num: 37

Candidate Starts for CallieOMalley_13:

(Start: 32 @10128 has 1 MA's), (Start: 37 @10140 has 182 MA's), (48, 10158), (60, 10218), (62, 10239), (83, 10326),

Gene: CallinAllBarbz_10 Start: 6520, Stop: 6792, Start Num: 36

Candidate Starts for CallinAllBarbz_10:

(Start: 36 @6520 has 25 MA's), (41, 6535), (71, 6667), (83, 6709),

Gene: Camara_10 Start: 7656, Stop: 7910, Start Num: 38

Candidate Starts for Camara_10:

(29, 7620), (Start: 38 @7656 has 31 MA's), (49, 7680), (57, 7725), (60, 7737), (69, 7782), (71, 7788), (76, 7800), (83, 7827),

Gene: Canowicakte_13 Start: 10175, Stop: 10444, Start Num: 37

Candidate Starts for Canowicakte_13:

(Start: 32 @10163 has 1 MA's), (Start: 37 @10175 has 182 MA's), (48, 10193), (60, 10253), (62, 10274), (83, 10361),

Gene: Carpal_13 Start: 10107, Stop: 10376, Start Num: 37

Candidate Starts for Carpal_13:

(Start: 37 @10107 has 182 MA's), (55, 10158), (57, 10173), (62, 10206),

Gene: Cashington_10 Start: 7671, Stop: 7928, Start Num: 37

Candidate Starts for Cashington_10:

(Start: 32 @7659 has 1 MA's), (Start: 37 @7671 has 182 MA's), (50, 7692), (83, 7848), (90, 7899),

Gene: Celaena_10 Start: 7723, Stop: 7986, Start Num: 37

Candidate Starts for Celaena_10:

(Start: 32 @7711 has 1 MA's), (Start: 37 @7723 has 182 MA's), (50, 7750), (53, 7768), (72, 7867), (83, 7906),

Gene: ChewChew_9 Start: 7242, Stop: 7511, Start Num: 37

Candidate Starts for ChewChew_9:

(Start: 37 @7242 has 182 MA's), (61, 7323), (62, 7341), (76, 7386), (83, 7428),

Gene: Chickaboom_10 Start: 7752, Stop: 8009, Start Num: 38

Candidate Starts for Chickaboom_10:

(5, 7290), (8, 7398), (9, 7443), (18, 7599), (Start: 38 @7752 has 31 MA's), (79, 7920),

Gene: Chicken_11 Start: 8034, Stop: 8288, Start Num: 38

Candidate Starts for Chicken_11:

(1, 7434), (5, 7593), (8, 7701), (19, 7905), (29, 7998), (31, 8016), (Start: 38 @8034 has 31 MA's), (49, 8058), (58, 8106), (76, 8178), (83, 8205),

Gene: ChiliPepper_10 Start: 7882, Stop: 8139, Start Num: 37

Candidate Starts for ChiliPepper_10:

(Start: 37 @7882 has 182 MA's), (57, 7945), (83, 8059), (89, 8104),

Gene: Cholula_13 Start: 10152, Stop: 10421, Start Num: 37

Candidate Starts for Cholula_13:

(Start: 37 @10152 has 182 MA's), (55, 10203), (57, 10218), (62, 10251),

Gene: Chridison_9 Start: 7262, Stop: 7549, Start Num: 37

Candidate Starts for Chridison_9:

(Start: 37 @7262 has 182 MA's), (62, 7361), (83, 7469),

Gene: Christian_9 Start: 7243, Stop: 7512, Start Num: 37

Candidate Starts for Christian_9:

(Start: 37 @7243 has 182 MA's), (60, 7321), (62, 7342), (83, 7429),

Gene: Clayda5_9 Start: 7425, Stop: 7688, Start Num: 37

Candidate Starts for Clayda5_9:

(26, 7368), (Start: 37 @7425 has 182 MA's), (43, 7440), (50, 7455), (72, 7572), (86, 7632), (91, 7662),

Gene: CliffHanger_11 Start: 7626, Stop: 7886, Start Num: 36

Candidate Starts for CliffHanger_11:

(26, 7572), (Start: 32 @7617 has 1 MA's), (Start: 36 @7626 has 25 MA's), (73, 7773), (82, 7803),

Gene: Coltrane_9 Start: 7425, Stop: 7688, Start Num: 37

Candidate Starts for Coltrane_9:

(26, 7368), (Start: 37 @7425 has 182 MA's), (43, 7440), (50, 7455), (72, 7572), (86, 7632), (91, 7662),

Gene: Colusalem_11 Start: 8083, Stop: 8343, Start Num: 36

Candidate Starts for Colusalem_11:

(Start: 32 @8074 has 1 MA's), (Start: 35 @8080 has 6 MA's), (Start: 36 @8083 has 25 MA's), (Start: 38 @8089 has 31 MA's), (49, 8113), (57, 8158), (71, 8221), (76, 8233),

Gene: Coral_11 Start: 8080, Stop: 8343, Start Num: 35

Candidate Starts for Coral_11:

(Start: 32 @8074 has 1 MA's), (Start: 35 @8080 has 6 MA's), (Start: 36 @8083 has 25 MA's), (Start: 38 @8089 has 31 MA's), (49, 8113), (57, 8158), (71, 8221), (76, 8233),

Gene: Cota_9 Start: 6460, Stop: 6750, Start Num: 37

Candidate Starts for Cota_9:

(Start: 37 @6460 has 182 MA's), (Start: 47 @6472 has 2 MA's), (48, 6478), (51, 6490), (54, 6508), (55, 6511), (57, 6526), (59, 6535), (60, 6538), (62, 6559), (67, 6583), (75, 6625), (78, 6637), (80, 6652), (81, 6661),

Gene: Cote_12 Start: 8241, Stop: 8504, Start Num: 35

Candidate Starts for Cote_12:

(Start: 32 @8235 has 1 MA's), (Start: 35 @8241 has 6 MA's), (Start: 36 @8244 has 25 MA's), (Start: 38 @8250 has 31 MA's), (49, 8274), (57, 8319), (71, 8382), (76, 8394),

Gene: Cracklewink_17 Start: 11835, Stop: 12083, Start Num: 45

Candidate Starts for Cracklewink_17:

(29, 11778), (Start: 45 @11835 has 5 MA's), (69, 11952), (70, 11955), (84, 12000),

Gene: Crater_11 Start: 7129, Stop: 7386, Start Num: 46

Candidate Starts for Crater_11:

(34, 7096), (Start: 46 @7129 has 3 MA's), (62, 7222), (66, 7243), (83, 7315), (84, 7318), (86, 7339), (91, 7369),

Gene: CristinaYang_9 Start: 7243, Stop: 7512, Start Num: 37

Candidate Starts for CristinaYang_9:

(Start: 37 @7243 has 182 MA's), (60, 7321), (62, 7342), (83, 7429),

Gene: CroZenni_10 Start: 7654, Stop: 7911, Start Num: 37

Candidate Starts for CroZenni_10:

(Start: 32 @7642 has 1 MA's), (Start: 37 @7654 has 182 MA's), (50, 7675), (82, 7828), (83, 7831), (85, 7846), (90, 7882),

Gene: CupcakePrincess_10 Start: 7631, Stop: 7951, Start Num: 37

Candidate Starts for CupcakePrincess_10:

(Start: 32 @7619 has 1 MA's), (Start: 37 @7631 has 182 MA's), (50, 7715), (83, 7871), (85, 7886),

Gene: Cygnet_11 Start: 8032, Stop: 8286, Start Num: 38

Candidate Starts for Cygnet_11:

(Start: 38 @8032 has 31 MA's), (71, 8164), (79, 8197), (83, 8203),

Gene: Daiboju_9 Start: 7263, Stop: 7550, Start Num: 37

Candidate Starts for Daiboju_9:

(Start: 37 @7263 has 182 MA's), (61, 7344), (62, 7362), (83, 7470), (93, 7542),

Gene: DanHam62_10 Start: 7655, Stop: 7909, Start Num: 38

Candidate Starts for DanHam62_10:

(29, 7619), (Start: 38 @7655 has 31 MA's), (49, 7679), (57, 7724), (60, 7736), (69, 7781), (71, 7787), (76, 7799), (83, 7826),

Gene: Daob_12 Start: 8238, Stop: 8507, Start Num: 32

Candidate Starts for Daob_12:

(Start: 32 @8238 has 1 MA's), (Start: 35 @8244 has 6 MA's), (Start: 36 @8247 has 25 MA's), (Start: 38 @8253 has 31 MA's), (49, 8277), (57, 8322), (71, 8385), (76, 8397),

Gene: DickRichards_10 Start: 8148, Stop: 8405, Start Num: 37

Candidate Starts for DickRichards_10:

(Start: 32 @8136 has 1 MA's), (Start: 37 @8148 has 182 MA's), (50, 8169), (82, 8322), (83, 8325), (85, 8340), (90, 8376),

Gene: Didgeridoo_11 Start: 7870, Stop: 8133, Start Num: 36

Candidate Starts for Didgeridoo_11:

(Start: 32 @7861 has 1 MA's), (Start: 36 @7870 has 25 MA's),

Gene: Dino_13 Start: 10106, Stop: 10375, Start Num: 37

Candidate Starts for Dino_13:

(Start: 37 @10106 has 182 MA's), (55, 10157), (57, 10172), (62, 10205),

Gene: DirtyBubble_10 Start: 7907, Stop: 8170, Start Num: 36

Candidate Starts for DirtyBubble_10:

(Start: 36 @7907 has 25 MA's), (40, 7919), (50, 7934), (72, 8051), (83, 8090), (85, 8105),

Gene: Dismas_10 Start: 7882, Stop: 8139, Start Num: 37

Candidate Starts for Dismas_10:

(Start: 37 @7882 has 182 MA's), (57, 7945), (83, 8059), (89, 8104),

Gene: Doobus_10 Start: 7885, Stop: 8142, Start Num: 37

Candidate Starts for Doobus_10:

(Start: 32 @7873 has 1 MA's), (Start: 37 @7885 has 182 MA's), (50, 7906), (83, 8062), (90, 8113),

Gene: DrParker_9 Start: 6467, Stop: 6757, Start Num: 37

Candidate Starts for DrParker_9:

(Start: 37 @6467 has 182 MA's), (Start: 47 @6479 has 2 MA's), (48, 6485), (51, 6497), (54, 6515), (55, 6518), (57, 6533), (59, 6542), (60, 6545), (62, 6566), (67, 6590), (75, 6632), (78, 6644), (81, 6668), (90, 6728),

Gene: DrRobert_9 Start: 7243, Stop: 7512, Start Num: 37

Candidate Starts for DrRobert_9:

(Start: 37 @7243 has 182 MA's), (62, 7342), (83, 7429),

Gene: DreamTeam_9 Start: 7289, Stop: 7579, Start Num: 37

Candidate Starts for DreamTeam_9:

(Start: 37 @7289 has 182 MA's), (62, 7388), (71, 7427), (83, 7496),

Gene: Ecliptus_11 Start: 6857, Stop: 7114, Start Num: 47

Candidate Starts for Ecliptus_11:

(30, 6812), (Start: 47 @6857 has 2 MA's), (62, 6950), (66, 6971), (83, 7043), (84, 7046), (86, 7067), (91, 7097),

Gene: Eden_9 Start: 7514, Stop: 7780, Start Num: 37

Candidate Starts for Eden_9:

(26, 7457), (Start: 37 @7514 has 182 MA's), (50, 7547), (60, 7601), (91, 7754),

Gene: Eesa_11 Start: 8248, Stop: 8502, Start Num: 38

Candidate Starts for Eesa_11:

(3, 7771), (8, 7915), (19, 8119), (29, 8212), (31, 8230), (Start: 38 @8248 has 31 MA's), (49, 8272), (74, 8386), (76, 8392), (83, 8419),

Gene: Elva_11 Start: 7965, Stop: 8225, Start Num: 39

Candidate Starts for Elva_11:

(Start: 39 @7965 has 1 MA's), (50, 7989), (76, 8118),

Gene: Enochoraptor_9 Start: 6463, Stop: 6753, Start Num: 37

Candidate Starts for Enochoraptor_9:

(Start: 37 @6463 has 182 MA's), (Start: 47 @6475 has 2 MA's), (48, 6481), (51, 6493), (54, 6511), (55, 6514), (57, 6529), (59, 6538), (60, 6541), (67, 6586), (75, 6628), (78, 6640),

Gene: Enoki_9 Start: 6448, Stop: 6738, Start Num: 37

Candidate Starts for Enoki_9:

(Start: 37 @6448 has 182 MA's), (Start: 47 @6460 has 2 MA's), (48, 6466), (51, 6478), (54, 6496), (55, 6499), (57, 6514), (59, 6523), (60, 6526), (67, 6571), (75, 6613), (78, 6625), (81, 6649),

Gene: EstebanJulior_9 Start: 7287, Stop: 7556, Start Num: 37
Candidate Starts for EstebanJulior_9:
(Start: 37 @7287 has 182 MA's), (62, 7386), (63, 7392), (83, 7473),

Gene: Eula_10 Start: 7652, Stop: 7912, Start Num: 37
Candidate Starts for Eula_10:
(Start: 32 @7640 has 1 MA's), (Start: 37 @7652 has 182 MA's), (50, 7676), (83, 7832), (85, 7847),

Gene: Eunoia_9 Start: 7261, Stop: 7548, Start Num: 37
Candidate Starts for Eunoia_9:
(Start: 37 @7261 has 182 MA's), (62, 7360), (83, 7468), (93, 7540),

Gene: Faiyaz_17 Start: 11749, Stop: 11997, Start Num: 45
Candidate Starts for Faiyaz_17:
(29, 11692), (Start: 45 @11749 has 5 MA's), (54, 11791), (69, 11866), (84, 11914), (91, 11965), (93, 11983),

Gene: Finalfrontier_11 Start: 8160, Stop: 8423, Start Num: 36
Candidate Starts for Finalfrontier_11:
(Start: 32 @8151 has 1 MA's), (Start: 36 @8160 has 25 MA's), (50, 8187), (83, 8343), (85, 8358),

Gene: Fingolfin_10 Start: 7656, Stop: 7910, Start Num: 38
Candidate Starts for Fingolfin_10:
(11, 7398), (14, 7422), (16, 7458), (18, 7506), (29, 7620), (Start: 38 @7656 has 31 MA's), (49, 7680), (58, 7728), (60, 7737), (69, 7782), (76, 7800), (83, 7827),

Gene: FlameThrower_10 Start: 7611, Stop: 7874, Start Num: 37
Candidate Starts for FlameThrower_10:
(Start: 32 @7599 has 1 MA's), (Start: 37 @7611 has 182 MA's), (50, 7638), (53, 7656), (72, 7755), (83, 7794),

Gene: Fluke_13 Start: 10148, Stop: 10417, Start Num: 37
Candidate Starts for Fluke_13:
(Start: 37 @10148 has 182 MA's), (55, 10199), (57, 10214), (62, 10247), (83, 10334),

Gene: Franklin22_9 Start: 7495, Stop: 7761, Start Num: 37
Candidate Starts for Franklin22_9:
(Start: 37 @7495 has 182 MA's), (50, 7528), (83, 7681), (91, 7735),

Gene: Gack_9 Start: 7565, Stop: 7828, Start Num: 37
Candidate Starts for Gack_9:
(26, 7508), (Start: 37 @7565 has 182 MA's), (50, 7595), (54, 7619), (83, 7748), (91, 7802),

Gene: Galaxy_11 Start: 8078, Stop: 8335, Start Num: 38
Candidate Starts for Galaxy_11:
(31, 8060), (Start: 38 @8078 has 31 MA's), (82, 8249),

Gene: Gibbzilla_12 Start: 7535, Stop: 7786, Start Num: 43
Candidate Starts for Gibbzilla_12:
(22, 7430), (Start: 25 @7466 has 1 MA's), (43, 7535), (Start: 47 @7544 has 2 MA's), (76, 7676),

Gene: Gisselle_9 Start: 7289, Stop: 7579, Start Num: 37
Candidate Starts for Gisselle_9:

(Start: 37 @7289 has 182 MA's), (62, 7388), (71, 7427), (83, 7496),

Gene: Glenn_13 Start: 10158, Stop: 10427, Start Num: 37

Candidate Starts for Glenn_13:

(Start: 37 @10158 has 182 MA's), (55, 10209), (57, 10224), (62, 10257),

Gene: Glotell_10 Start: 7655, Stop: 7909, Start Num: 38

Candidate Starts for Glotell_10:

(11, 7397), (14, 7421), (16, 7457), (18, 7505), (29, 7619), (Start: 38 @7655 has 31 MA's), (49, 7679), (58, 7727), (60, 7736), (69, 7781), (71, 7787), (76, 7799), (83, 7826),

Gene: Gravel_12 Start: 8244, Stop: 8498, Start Num: 38

Candidate Starts for Gravel_12:

(19, 8115), (29, 8208), (31, 8226), (Start: 38 @8244 has 31 MA's), (49, 8268), (74, 8382), (76, 8388), (84, 8418),

Gene: Graynor_13 Start: 10164, Stop: 10433, Start Num: 37

Candidate Starts for Graynor_13:

(Start: 32 @10152 has 1 MA's), (Start: 37 @10164 has 182 MA's), (48, 10182), (55, 10215), (62, 10263), (76, 10308), (83, 10350),

Gene: GreenHearts_13 Start: 10230, Stop: 10520, Start Num: 37

Candidate Starts for GreenHearts_13:

(Start: 37 @10230 has 182 MA's), (50, 10254), (62, 10329), (64, 10338), (68, 10356), (83, 10437),

Gene: Greenhouse_13 Start: 10155, Stop: 10445, Start Num: 37

Candidate Starts for Greenhouse_13:

(Start: 37 @10155 has 182 MA's), (50, 10179), (57, 10221), (62, 10254), (64, 10263), (68, 10281), (83, 10362),

Gene: GrimEater_11 Start: 6522, Stop: 6794, Start Num: 36

Candidate Starts for GrimEater_11:

(24, 6459), (Start: 36 @6522 has 25 MA's), (50, 6558), (57, 6600),

Gene: HamCheese_10 Start: 7655, Stop: 7909, Start Num: 38

Candidate Starts for HamCheese_10:

(29, 7619), (Start: 38 @7655 has 31 MA's), (49, 7679), (57, 7724), (60, 7736), (69, 7781), (71, 7787), (76, 7799), (83, 7826),

Gene: HannahPhantana_12 Start: 8247, Stop: 8507, Start Num: 36

Candidate Starts for HannahPhantana_12:

(Start: 32 @8238 has 1 MA's), (Start: 35 @8244 has 6 MA's), (Start: 36 @8247 has 25 MA's), (Start: 38 @8253 has 31 MA's), (49, 8277), (57, 8322), (71, 8385), (76, 8397),

Gene: HeadNerd_9 Start: 7245, Stop: 7514, Start Num: 37

Candidate Starts for HeadNerd_9:

(Start: 37 @7245 has 182 MA's), (48, 7263), (62, 7344), (76, 7389), (83, 7431),

Gene: Herb_9 Start: 7263, Stop: 7550, Start Num: 37

Candidate Starts for Herb_9:

(Start: 37 @7263 has 182 MA's), (61, 7344), (62, 7362), (83, 7470), (93, 7542),

Gene: Hilltopfarm_17 Start: 11779, Stop: 12027, Start Num: 45

Candidate Starts for Hilltopfarm_17:

(29, 11722), (Start: 45 @11779 has 5 MA's), (54, 11821), (69, 11896), (84, 11944), (91, 11995), (93, 12013),

Gene: Huckleberry_9 Start: 7245, Stop: 7514, Start Num: 37

Candidate Starts for Huckleberry_9:

(Start: 37 @7245 has 182 MA's), (48, 7263), (62, 7344), (76, 7389), (83, 7431),

Gene: HunterDalle_9 Start: 7261, Stop: 7548, Start Num: 37

Candidate Starts for HunterDalle_9:

(Start: 37 @7261 has 182 MA's), (62, 7360), (83, 7468),

Gene: Huntingdon_13 Start: 10141, Stop: 10431, Start Num: 37

Candidate Starts for Huntingdon_13:

(4, 9655), (7, 9742), (12, 9880), (Start: 37 @10141 has 182 MA's), (50, 10165), (62, 10240), (68, 10267), (83, 10348),

Gene: Icarian_11 Start: 7889, Stop: 8152, Start Num: 38

Candidate Starts for Icarian_11:

(Start: 38 @7889 has 31 MA's), (50, 7916), (83, 8072), (85, 8087),

Gene: Immaculata_13 Start: 10152, Stop: 10421, Start Num: 37

Candidate Starts for Immaculata_13:

(Start: 37 @10152 has 182 MA's), (55, 10203), (57, 10218), (62, 10251),

Gene: IndyLu_10 Start: 7694, Stop: 7957, Start Num: 36

Candidate Starts for IndyLu_10:

(Start: 32 @7685 has 1 MA's), (Start: 36 @7694 has 25 MA's),

Gene: Jabb_10 Start: 7631, Stop: 7951, Start Num: 37

Candidate Starts for Jabb_10:

(Start: 32 @7619 has 1 MA's), (Start: 37 @7631 has 182 MA's), (50, 7715), (83, 7871), (85, 7886),

Gene: Jamun_11 Start: 8419, Stop: 8676, Start Num: 38

Candidate Starts for Jamun_11:

(9, 8110), (18, 8266), (Start: 38 @8419 has 31 MA's), (79, 8587),

Gene: Jankie_12 Start: 6521, Stop: 6793, Start Num: 36

Candidate Starts for Jankie_12:

(24, 6458), (Start: 36 @6521 has 25 MA's), (50, 6557), (57, 6599),

Gene: Jerole_12 Start: 8244, Stop: 8504, Start Num: 36

Candidate Starts for Jerole_12:

(Start: 32 @8235 has 1 MA's), (Start: 35 @8241 has 6 MA's), (Start: 36 @8244 has 25 MA's), (Start: 38 @8250 has 31 MA's), (49, 8274), (57, 8319), (71, 8382), (76, 8394),

Gene: Joann_13 Start: 10133, Stop: 10423, Start Num: 37

Candidate Starts for Joann_13:

(4, 9647), (6, 9689), (7, 9734), (Start: 37 @10133 has 182 MA's), (50, 10157), (62, 10232), (64, 10241), (68, 10259), (83, 10340),

Gene: Johnathan_10 Start: 7654, Stop: 7911, Start Num: 37

Candidate Starts for Johnathan_10:

(Start: 32 @7642 has 1 MA's), (Start: 37 @7654 has 182 MA's), (50, 7675), (83, 7831), (90, 7882),

Gene: Jovita_10 Start: 7753, Stop: 8013, Start Num: 37

Candidate Starts for Jovita_10:

(Start: 32 @7741 has 1 MA's), (Start: 37 @7753 has 182 MA's), (50, 7777), (83, 7933), (85, 7948),

Gene: Jumboset_13 Start: 10101, Stop: 10370, Start Num: 37

Candidate Starts for Jumboset_13:

(Start: 37 @10101 has 182 MA's), (55, 10152), (57, 10167), (62, 10200),

Gene: Juno112_10 Start: 7656, Stop: 7910, Start Num: 38

Candidate Starts for Juno112_10:

(11, 7398), (14, 7422), (16, 7458), (18, 7506), (29, 7620), (Start: 38 @7656 has 31 MA's), (49, 7680), (58, 7728), (60, 7737), (69, 7782), (76, 7800), (83, 7827),

Gene: KHumphrey_10 Start: 7655, Stop: 7909, Start Num: 38

Candidate Starts for KHumphrey_10:

(11, 7397), (14, 7421), (16, 7457), (18, 7505), (29, 7619), (Start: 38 @7655 has 31 MA's), (49, 7679), (58, 7727), (60, 7736), (69, 7781), (71, 7787), (76, 7799), (83, 7826),

Gene: Kalizoi_13 Start: 10100, Stop: 10369, Start Num: 37

Candidate Starts for Kalizoi_13:

(Start: 37 @10100 has 182 MA's), (55, 10151), (57, 10166), (62, 10199),

Gene: Kamdara_10 Start: 7881, Stop: 8138, Start Num: 37

Candidate Starts for Kamdara_10:

(Start: 37 @7881 has 182 MA's), (57, 7944), (83, 8058), (89, 8103),

Gene: Kate33_10 Start: 7693, Stop: 7956, Start Num: 36

Candidate Starts for Kate33_10:

(Start: 32 @7684 has 1 MA's), (Start: 36 @7693 has 25 MA's),

Gene: Katzastrophic_10 Start: 7786, Stop: 8049, Start Num: 37

Candidate Starts for Katzastrophic_10:

(Start: 32 @7774 has 1 MA's), (Start: 37 @7786 has 182 MA's), (50, 7813), (53, 7831), (72, 7930), (83, 7969),

Gene: Keiki_9 Start: 6460, Stop: 6750, Start Num: 37

Candidate Starts for Keiki_9:

(Start: 37 @6460 has 182 MA's), (Start: 47 @6472 has 2 MA's), (48, 6478), (51, 6490), (54, 6508), (55, 6511), (57, 6526), (59, 6535), (60, 6538), (62, 6559), (67, 6583), (75, 6625), (78, 6637), (80, 6652), (81, 6661),

Gene: KendraB23_12 Start: 8245, Stop: 8499, Start Num: 38

Candidate Starts for KendraB23_12:

(19, 8116), (20, 8131), (31, 8227), (Start: 38 @8245 has 31 MA's), (49, 8269), (74, 8383), (76, 8389), (84, 8419),

Gene: Kenzers_10 Start: 7668, Stop: 7928, Start Num: 37

Candidate Starts for Kenzers_10:

(Start: 32 @7656 has 1 MA's), (Start: 37 @7668 has 182 MA's), (50, 7692), (83, 7848), (85, 7863), (90, 7899),

Gene: Kepler_11 Start: 8079, Stop: 8342, Start Num: 35

Candidate Starts for Kepler_11:

(Start: 32 @8073 has 1 MA's), (Start: 35 @8079 has 6 MA's), (Start: 36 @8082 has 25 MA's), (Start: 38 @8088 has 31 MA's), (57, 8157), (71, 8220), (76, 8232),

Gene: Kieran_10 Start: 7885, Stop: 8142, Start Num: 37

Candidate Starts for Kieran_10:

(Start: 37 @7885 has 182 MA's), (57, 7948), (83, 8062), (89, 8107),

Gene: KingBob_9 Start: 7263, Stop: 7550, Start Num: 37

Candidate Starts for KingBob_9:

(Start: 37 @7263 has 182 MA's), (61, 7344), (62, 7362), (83, 7470), (93, 7542),

Gene: Kittykat_9 Start: 7286, Stop: 7555, Start Num: 37

Candidate Starts for Kittykat_9:

(Start: 37 @7286 has 182 MA's), (62, 7385), (76, 7430), (83, 7472), (87, 7499),

Gene: Korra_13 Start: 10106, Stop: 10375, Start Num: 37

Candidate Starts for Korra_13:

(Start: 37 @10106 has 182 MA's), (55, 10157), (57, 10172), (62, 10205),

Gene: Kubed_9 Start: 6450, Stop: 6740, Start Num: 37

Candidate Starts for Kubed_9:

(Start: 37 @6450 has 182 MA's), (Start: 47 @6462 has 2 MA's), (48, 6468), (51, 6480), (54, 6498), (55, 6501), (57, 6516), (59, 6525), (60, 6528), (67, 6573), (75, 6615), (78, 6627), (80, 6642), (81, 6651),

Gene: Kuleana_11 Start: 8039, Stop: 8302, Start Num: 35

Candidate Starts for Kuleana_11:

(Start: 32 @8033 has 1 MA's), (Start: 35 @8039 has 6 MA's), (Start: 38 @8048 has 31 MA's), (48, 8069), (49, 8072), (58, 8120), (71, 8180), (76, 8192), (83, 8219),

Gene: Kuwabara_11 Start: 7129, Stop: 7386, Start Num: 46

Candidate Starts for Kuwabara_11:

(34, 7096), (Start: 46 @7129 has 3 MA's), (62, 7222), (66, 7243), (83, 7315), (84, 7318), (86, 7339), (91, 7369),

Gene: Lahqtemish_10 Start: 7738, Stop: 8001, Start Num: 36

Candidate Starts for Lahqtemish_10:

(Start: 32 @7729 has 1 MA's), (Start: 36 @7738 has 25 MA's), (57, 7807),

Gene: Lakshmi_13 Start: 10160, Stop: 10450, Start Num: 37

Candidate Starts for Lakshmi_13:

(Start: 37 @10160 has 182 MA's), (50, 10184), (62, 10259), (64, 10268), (68, 10286), (83, 10367),

Gene: Laphuphu24k_10 Start: 7655, Stop: 7909, Start Num: 38

Candidate Starts for Laphuphu24k_10:

(29, 7619), (Start: 38 @7655 has 31 MA's), (49, 7679), (57, 7724), (60, 7736), (69, 7781), (71, 7787), (76, 7799), (83, 7826),

Gene: Lasagna_9 Start: 7243, Stop: 7512, Start Num: 37

Candidate Starts for Lasagna_9:

(Start: 37 @7243 has 182 MA's), (60, 7321), (62, 7342), (83, 7429),

Gene: Lauchelly_9 Start: 6445, Stop: 6735, Start Num: 37

Candidate Starts for Lauchelly_9:

(Start: 37 @6445 has 182 MA's), (Start: 47 @6457 has 2 MA's), (48, 6463), (51, 6475), (54, 6493), (55, 6496), (57, 6511), (59, 6520), (60, 6523), (67, 6568), (75, 6610), (78, 6622), (81, 6646),

Gene: Lennox_9 Start: 7243, Stop: 7512, Start Num: 37

Candidate Starts for Lennox_9:

(Start: 37 @7243 has 182 MA's), (62, 7342), (76, 7387), (83, 7429),

Gene: Leona_10 Start: 7706, Stop: 7960, Start Num: 38

Candidate Starts for Leona_10:

(11, 7448), (14, 7472), (16, 7508), (18, 7556), (28, 7664), (29, 7670), (Start: 38 @7706 has 31 MA's), (49, 7730), (58, 7778), (60, 7787), (69, 7832), (76, 7850), (83, 7877),

Gene: Leviosa_9 Start: 6466, Stop: 6756, Start Num: 37

Candidate Starts for Leviosa_9:

(Start: 37 @6466 has 182 MA's), (48, 6484), (51, 6496), (54, 6514), (55, 6517), (57, 6532), (59, 6541), (60, 6544), (62, 6565), (67, 6589), (75, 6631), (78, 6643), (81, 6667), (90, 6727),

Gene: LilBandit_9 Start: 6450, Stop: 6740, Start Num: 37

Candidate Starts for LilBandit_9:

(Start: 37 @6450 has 182 MA's), (Start: 47 @6462 has 2 MA's), (48, 6468), (51, 6480), (54, 6498), (55, 6501), (57, 6516), (59, 6525), (60, 6528), (62, 6549), (67, 6573), (75, 6615), (78, 6627),

Gene: LilStuart_9 Start: 7243, Stop: 7512, Start Num: 37

Candidate Starts for LilStuart_9:

(Start: 37 @7243 has 182 MA's), (60, 7321), (62, 7342), (83, 7429),

Gene: Lilo27_10 Start: 7631, Stop: 7888, Start Num: 37

Candidate Starts for Lilo27_10:

(Start: 32 @7619 has 1 MA's), (Start: 37 @7631 has 182 MA's), (50, 7652), (83, 7808), (85, 7823), (90, 7859),

Gene: LimaBean_10 Start: 7654, Stop: 7911, Start Num: 37

Candidate Starts for LimaBean_10:

(Start: 32 @7642 has 1 MA's), (Start: 37 @7654 has 182 MA's), (50, 7675), (83, 7831), (90, 7882),

Gene: Litotes_13 Start: 10128, Stop: 10397, Start Num: 37

Candidate Starts for Litotes_13:

(Start: 32 @10116 has 1 MA's), (Start: 37 @10128 has 182 MA's), (48, 10146), (55, 10179), (62, 10227), (76, 10272), (83, 10314),

Gene: LittleTokyo_11 Start: 7988, Stop: 8242, Start Num: 38

Candidate Starts for LittleTokyo_11:

(Start: 38 @7988 has 31 MA's), (57, 8057), (79, 8153), (83, 8159),

Gene: Loviatar_10 Start: 7911, Stop: 8231, Start Num: 25

Candidate Starts for Loviatar_10:

(Start: 25 @7911 has 1 MA's), (Start: 27 @7923 has 1 MA's), (57, 8037), (83, 8151),

Gene: Lucy_9 Start: 7234, Stop: 7503, Start Num: 37

Candidate Starts for Lucy_9:

(Start: 37 @7234 has 182 MA's), (48, 7252), (62, 7333), (76, 7378), (83, 7420),

Gene: Lunar_12 Start: 8244, Stop: 8504, Start Num: 36

Candidate Starts for Lunar_12:

(Start: 32 @8235 has 1 MA's), (Start: 35 @8241 has 6 MA's), (Start: 36 @8244 has 25 MA's), (Start: 38 @8250 has 31 MA's), (49, 8274), (57, 8319), (71, 8382), (76, 8394),

Gene: Lynlen_10 Start: 7668, Stop: 7928, Start Num: 37

Candidate Starts for Lynlen_10:

(Start: 32 @7656 has 1 MA's), (Start: 37 @7668 has 182 MA's), (50, 7692), (83, 7848), (85, 7863), (90, 7899),

Gene: MEAK_9 Start: 6452, Stop: 6742, Start Num: 37

Candidate Starts for MEAK_9:

(Start: 37 @6452 has 182 MA's), (Start: 47 @6464 has 2 MA's), (48, 6470), (51, 6482), (54, 6500), (55, 6503), (57, 6518), (59, 6527), (60, 6530), (67, 6575), (75, 6617), (78, 6629), (81, 6653), (90, 6713),

Gene: Makoto_9 Start: 7243, Stop: 7512, Start Num: 37

Candidate Starts for Makoto_9:

(Start: 37 @7243 has 182 MA's), (62, 7342), (76, 7387), (83, 7429),

Gene: MamaPearl_9 Start: 7287, Stop: 7556, Start Num: 37

Candidate Starts for MamaPearl_9:

(Start: 37 @7287 has 182 MA's), (62, 7386), (63, 7392), (83, 7473),

Gene: Maria1952_9 Start: 7263, Stop: 7550, Start Num: 37

Candidate Starts for Maria1952_9:

(Start: 37 @7263 has 182 MA's), (61, 7344), (62, 7362), (83, 7470), (93, 7542),

Gene: MeganNoll_13 Start: 10158, Stop: 10427, Start Num: 37

Candidate Starts for MeganNoll_13:

(Start: 37 @10158 has 182 MA's), (55, 10209), (57, 10224), (62, 10257),

Gene: Melons_12 Start: 8241, Stop: 8504, Start Num: 35

Candidate Starts for Melons_12:

(Start: 32 @8235 has 1 MA's), (Start: 35 @8241 has 6 MA's), (Start: 36 @8244 has 25 MA's), (Start: 38 @8250 has 31 MA's), (49, 8274), (57, 8319), (71, 8382), (76, 8394),

Gene: Milomuff_11 Start: 8040, Stop: 8297, Start Num: 37

Candidate Starts for Milomuff_11:

(Start: 32 @8028 has 1 MA's), (Start: 37 @8040 has 182 MA's), (50, 8061), (83, 8217), (85, 8232), (90, 8268),

Gene: Misaeng_13 Start: 10206, Stop: 10496, Start Num: 37

Candidate Starts for Misaeng_13:

(12, 9945), (Start: 37 @10206 has 182 MA's), (50, 10230), (57, 10272), (62, 10305), (68, 10332), (83, 10413),

Gene: Moki_9 Start: 7245, Stop: 7514, Start Num: 37

Candidate Starts for Moki_9:

(Start: 37 @7245 has 182 MA's), (48, 7263), (62, 7344), (76, 7389), (83, 7431),

Gene: Moyashi_9 Start: 6470, Stop: 6760, Start Num: 37

Candidate Starts for Moyashi_9:

(Start: 37 @6470 has 182 MA's), (Start: 47 @6482 has 2 MA's), (48, 6488), (54, 6518), (55, 6521), (57, 6536), (59, 6545), (60, 6548), (67, 6593), (78, 6647), (81, 6671),

Gene: MrAK_9 Start: 6479, Stop: 6769, Start Num: 37

Candidate Starts for MrAK_9:

(Start: 37 @6479 has 182 MA's), (Start: 47 @6491 has 2 MA's), (48, 6497), (51, 6509), (54, 6527), (55, 6530), (57, 6545), (59, 6554), (60, 6557), (67, 6602), (78, 6656), (81, 6680), (90, 6740),

Gene: MrBoss_13 Start: 10128, Stop: 10397, Start Num: 37

Candidate Starts for MrBoss_13:

(Start: 32 @10116 has 1 MA's), (Start: 37 @10128 has 182 MA's), (48, 10146), (55, 10179), (62, 10227), (76, 10272), (83, 10314),

Gene: MrGloopy_13 Start: 10091, Stop: 10360, Start Num: 37

Candidate Starts for MrGloopy_13:

(Start: 37 @10091 has 182 MA's), (55, 10142), (57, 10157), (62, 10190),

Gene: MsUbiquitous_10 Start: 7631, Stop: 7951, Start Num: 37

Candidate Starts for MsUbiquitous_10:

(Start: 32 @7619 has 1 MA's), (Start: 37 @7631 has 182 MA's), (50, 7715), (83, 7871), (85, 7886),

Gene: Nancia_9 Start: 7243, Stop: 7512, Start Num: 37

Candidate Starts for Nancia_9:

(Start: 37 @7243 has 182 MA's), (60, 7321), (62, 7342), (83, 7429),

Gene: Niblet_11 Start: 8034, Stop: 8288, Start Num: 38

Candidate Starts for Niblet_11:

(1, 7434), (5, 7593), (8, 7701), (19, 7905), (29, 7998), (31, 8016), (Start: 38 @8034 has 31 MA's), (49, 8058), (58, 8106), (76, 8178), (83, 8205),

Gene: Nicky22_11 Start: 8102, Stop: 8359, Start Num: 37

Candidate Starts for Nicky22_11:

(Start: 32 @8090 has 1 MA's), (Start: 37 @8102 has 182 MA's), (50, 8123), (83, 8279), (85, 8294), (90, 8330),

Gene: Nubia_13 Start: 10120, Stop: 10410, Start Num: 37

Candidate Starts for Nubia_13:

(Start: 32 @10108 has 1 MA's), (Start: 37 @10120 has 182 MA's), (50, 10144), (57, 10186), (62, 10219), (64, 10228), (68, 10246), (83, 10327),

Gene: ODay_11 Start: 6855, Stop: 7112, Start Num: 47

Candidate Starts for ODay_11:

(30, 6810), (Start: 47 @6855 has 2 MA's), (62, 6948), (66, 6969), (83, 7041), (84, 7044), (86, 7065), (91, 7095),

Gene: OMalley_9 Start: 7261, Stop: 7548, Start Num: 37

Candidate Starts for OMalley_9:

(Start: 37 @7261 has 182 MA's), (62, 7360), (83, 7468), (93, 7540),

Gene: Olliecat_10 Start: 7885, Stop: 8151, Start Num: 37

Candidate Starts for Olliecat_10:

(Start: 32 @7873 has 1 MA's), (Start: 37 @7885 has 182 MA's), (48, 7909), (62, 7990), (72, 8032), (83, 8068), (85, 8083),

Gene: Oppalora_10 Start: 7655, Stop: 7909, Start Num: 38

Candidate Starts for Oppalora_10:

(11, 7397), (14, 7421), (16, 7457), (18, 7505), (29, 7619), (Start: 38 @7655 has 31 MA's), (49, 7679), (58, 7727), (60, 7736), (69, 7781), (76, 7799), (83, 7826),

Gene: Orcanus_11 Start: 8038, Stop: 8292, Start Num: 38

Candidate Starts for Orcanus_11:

(19, 7909), (20, 7924), (29, 8002), (31, 8020), (Start: 38 @8038 has 31 MA's), (49, 8062), (74, 8176), (76, 8182), (84, 8212),

Gene: OtsoOtso_11 Start: 8089, Stop: 8343, Start Num: 38

Candidate Starts for OtsoOtso_11:

(Start: 32 @8074 has 1 MA's), (Start: 35 @8080 has 6 MA's), (Start: 36 @8083 has 25 MA's), (Start: 38 @8089 has 31 MA's), (49, 8113), (57, 8158), (71, 8221), (76, 8233),

Gene: OurGirlNessie_9 Start: 7234, Stop: 7503, Start Num: 37

Candidate Starts for OurGirlNessie_9:

(Start: 37 @7234 has 182 MA's), (60, 7312), (62, 7333), (83, 7420),

Gene: Ouroboros_9 Start: 6453, Stop: 6743, Start Num: 37

Candidate Starts for Ouroboros_9:

(Start: 37 @6453 has 182 MA's), (Start: 47 @6465 has 2 MA's), (48, 6471), (51, 6483), (54, 6501), (55, 6504), (57, 6519), (59, 6528), (60, 6531), (62, 6552), (67, 6576), (75, 6618), (78, 6630), (81, 6654), (90, 6714),

Gene: Oxynfrius_13 Start: 10133, Stop: 10423, Start Num: 37

Candidate Starts for Oxynfrius_13:

(Start: 37 @10133 has 182 MA's), (50, 10157), (62, 10232), (64, 10241), (68, 10259), (83, 10340),

Gene: P1.1_9 Start: 6453, Stop: 6743, Start Num: 37

Candidate Starts for P1.1_9:

(Start: 37 @6453 has 182 MA's), (Start: 47 @6465 has 2 MA's), (48, 6471), (51, 6483), (54, 6501), (55, 6504), (57, 6519), (59, 6528), (60, 6531), (67, 6576), (78, 6630), (90, 6714),

Gene: P100.1_9 Start: 6443, Stop: 6733, Start Num: 37

Candidate Starts for P100.1_9:

(Start: 37 @6443 has 182 MA's), (Start: 47 @6455 has 2 MA's), (48, 6461), (51, 6473), (54, 6491), (55, 6494), (57, 6509), (59, 6518), (60, 6521), (62, 6542), (67, 6566), (75, 6608), (78, 6620), (81, 6644), (90, 6704),

Gene: P100A_9 Start: 6464, Stop: 6754, Start Num: 37

Candidate Starts for P100A_9:

(23, 6392), (Start: 35 @6458 has 6 MA's), (Start: 37 @6464 has 182 MA's), (Start: 47 @6476 has 2 MA's), (48, 6482), (51, 6494), (54, 6512), (55, 6515), (57, 6530), (59, 6539), (60, 6542), (62, 6563), (67, 6587), (75, 6629), (78, 6641), (81, 6665), (90, 6725),

Gene: P100D_9 Start: 6447, Stop: 6737, Start Num: 37

Candidate Starts for P100D_9:

(Start: 37 @6447 has 182 MA's), (Start: 47 @6459 has 2 MA's), (48, 6465), (51, 6477), (54, 6495), (55, 6498), (57, 6513), (59, 6522), (60, 6525), (67, 6570), (75, 6612), (78, 6624), (81, 6648),

Gene: P101A_9 Start: 6446, Stop: 6736, Start Num: 37

Candidate Starts for P101A_9:

(Start: 37 @6446 has 182 MA's), (Start: 47 @6458 has 2 MA's), (48, 6464), (51, 6476), (54, 6494), (55, 6497), (57, 6512), (59, 6521), (60, 6524), (62, 6545), (67, 6569), (75, 6611), (78, 6623), (81, 6647), (90, 6707),

Gene: P104A_9 Start: 6448, Stop: 6738, Start Num: 37

Candidate Starts for P104A_9:

(Start: 37 @6448 has 182 MA's), (Start: 47 @6460 has 2 MA's), (48, 6466), (51, 6478), (54, 6496), (55, 6499), (57, 6514), (59, 6523), (60, 6526), (67, 6571), (75, 6613), (78, 6625), (81, 6649), (90, 6709),

Gene: P104B_9 Start: 6452, Stop: 6742, Start Num: 37

Candidate Starts for P104B_9:

(Start: 37 @6452 has 182 MA's), (Start: 47 @6464 has 2 MA's), (48, 6470), (51, 6482), (54, 6500), (55, 6503), (57, 6518), (59, 6527), (60, 6530), (62, 6551), (67, 6575), (75, 6617), (78, 6629),

Gene: P105_9 Start: 6442, Stop: 6732, Start Num: 37

Candidate Starts for P105_9:

(Start: 37 @6442 has 182 MA's), (Start: 47 @6454 has 2 MA's), (48, 6460), (51, 6472), (54, 6490), (55, 6493), (57, 6508), (59, 6517), (60, 6520), (62, 6541), (67, 6565), (75, 6607), (78, 6619), (81, 6643), (90, 6703),

Gene: P106A_9 Start: 6470, Stop: 6760, Start Num: 37

Candidate Starts for P106A_9:

(Start: 37 @6470 has 182 MA's), (Start: 47 @6482 has 2 MA's), (48, 6488), (51, 6500), (54, 6518), (55, 6521), (57, 6536), (59, 6545), (60, 6548), (67, 6593), (90, 6731),

Gene: P106C_9 Start: 6470, Stop: 6760, Start Num: 37

Candidate Starts for P106C_9:

(Start: 37 @6470 has 182 MA's), (Start: 47 @6482 has 2 MA's), (48, 6488), (51, 6500), (54, 6518), (55, 6521), (57, 6536), (59, 6545), (60, 6548), (67, 6593), (90, 6731),

Gene: P106I_9 Start: 6470, Stop: 6760, Start Num: 37

Candidate Starts for P106I_9:

(Start: 37 @6470 has 182 MA's), (Start: 47 @6482 has 2 MA's), (48, 6488), (51, 6500), (54, 6518), (55, 6521), (57, 6536), (59, 6545), (60, 6548), (67, 6593), (90, 6731),

Gene: P106L_9 Start: 6470, Stop: 6760, Start Num: 37

Candidate Starts for P106L_9:

(Start: 37 @6470 has 182 MA's), (Start: 47 @6482 has 2 MA's), (48, 6488), (51, 6500), (54, 6518), (55, 6521), (57, 6536), (59, 6545), (60, 6548), (67, 6593), (90, 6731),

Gene: P106M_9 Start: 6470, Stop: 6760, Start Num: 37

Candidate Starts for P106M_9:

(Start: 37 @6470 has 182 MA's), (Start: 47 @6482 has 2 MA's), (48, 6488), (51, 6500), (54, 6518), (55, 6521), (57, 6536), (59, 6545), (60, 6548), (67, 6593), (90, 6731),

Gene: P107A_9 Start: 6456, Stop: 6746, Start Num: 37

Candidate Starts for P107A_9:

(Start: 37 @6456 has 182 MA's), (Start: 47 @6468 has 2 MA's), (48, 6474), (51, 6486), (54, 6504), (55, 6507), (57, 6522), (59, 6531), (60, 6534), (62, 6555), (67, 6579), (75, 6621), (77, 6627), (78, 6633), (81, 6657), (90, 6717),

Gene: P107C_9 Start: 6452, Stop: 6742, Start Num: 37

Candidate Starts for P107C_9:

(Start: 37 @6452 has 182 MA's), (Start: 47 @6464 has 2 MA's), (48, 6470), (51, 6482), (54, 6500), (55, 6503), (57, 6518), (59, 6527), (60, 6530), (67, 6575), (75, 6617), (78, 6629), (90, 6713),

Gene: P108C_9 Start: 6456, Stop: 6746, Start Num: 37

Candidate Starts for P108C_9:

(Start: 37 @6456 has 182 MA's), (Start: 47 @6468 has 2 MA's), (48, 6474), (51, 6486), (54, 6504), (55, 6507), (57, 6522), (59, 6531), (60, 6534), (67, 6579), (75, 6621), (78, 6633),

Gene: P14.4_9 Start: 6447, Stop: 6737, Start Num: 37

Candidate Starts for P14.4_9:

(Start: 37 @6447 has 182 MA's), (Start: 47 @6459 has 2 MA's), (48, 6465), (51, 6477), (54, 6495), (55, 6498), (57, 6513), (59, 6522), (60, 6525), (67, 6570), (75, 6612), (78, 6624),

Gene: P9.1_9 Start: 6445, Stop: 6735, Start Num: 37

Candidate Starts for P9.1_9:

(Start: 37 @6445 has 182 MA's), (Start: 47 @6457 has 2 MA's), (48, 6463), (51, 6475), (54, 6493), (55, 6496), (57, 6511), (59, 6520), (60, 6523), (67, 6568), (75, 6610), (78, 6622),

Gene: PA6_9 Start: 6455, Stop: 6745, Start Num: 37

Candidate Starts for PA6_9:

(Start: 37 @6455 has 182 MA's), (Start: 47 @6467 has 2 MA's), (48, 6473), (51, 6485), (54, 6503), (55, 6506), (57, 6521), (59, 6530), (60, 6533), (62, 6554), (75, 6620), (78, 6632), (80, 6647), (81, 6656), (90, 6716),

Gene: PAD20_9 Start: 6453, Stop: 6743, Start Num: 37

Candidate Starts for PAD20_9:

(Start: 37 @6453 has 182 MA's), (Start: 47 @6465 has 2 MA's), (48, 6471), (51, 6483), (54, 6501), (55, 6504), (57, 6519), (59, 6528), (60, 6531), (67, 6576), (75, 6618), (78, 6630), (90, 6714),

Gene: PAS50_9 Start: 6450, Stop: 6740, Start Num: 37

Candidate Starts for PAS50_9:

(Start: 37 @6450 has 182 MA's), (Start: 47 @6462 has 2 MA's), (48, 6468), (51, 6480), (54, 6498), (55, 6501), (57, 6516), (59, 6525), (60, 6528), (67, 6573), (75, 6615), (78, 6627), (81, 6651),

Gene: PHL010M04_09 Start: 6444, Stop: 6734, Start Num: 37

Candidate Starts for PHL010M04_09:

(Start: 35 @6438 has 6 MA's), (Start: 37 @6444 has 182 MA's), (Start: 47 @6456 has 2 MA's), (48, 6462), (51, 6474), (54, 6492), (55, 6495), (57, 6510), (59, 6519), (60, 6522), (67, 6567), (75, 6609), (78, 6621), (81, 6645), (90, 6705),

Gene: PHL037M02_09 Start: 6444, Stop: 6740, Start Num: 35

Candidate Starts for PHL037M02_09:

(Start: 35 @6444 has 6 MA's), (Start: 37 @6450 has 182 MA's), (Start: 47 @6462 has 2 MA's), (48, 6468), (54, 6498), (55, 6501), (57, 6516), (59, 6525), (60, 6528), (75, 6615), (78, 6627), (90, 6711),

Gene: PHL060L00_09 Start: 6443, Stop: 6733, Start Num: 37

Candidate Starts for PHL060L00_09:

(Start: 37 @6443 has 182 MA's), (Start: 47 @6455 has 2 MA's), (48, 6461), (51, 6473), (54, 6491), (55, 6494), (57, 6509), (59, 6518), (60, 6521), (67, 6566), (75, 6608), (78, 6620), (81, 6644),

Gene: PHL067M10_09 Start: 6447, Stop: 6737, Start Num: 37

Candidate Starts for PHL067M10_09:

(Start: 37 @6447 has 182 MA's), (Start: 47 @6459 has 2 MA's), (48, 6465), (51, 6477), (54, 6495), (55, 6498), (57, 6513), (59, 6522), (60, 6525), (67, 6570), (75, 6612), (78, 6624), (81, 6648),

Gene: PHL071N05_09 Start: 6449, Stop: 6739, Start Num: 37

Candidate Starts for PHL071N05_09:

(Start: 37 @6449 has 182 MA's), (Start: 47 @6461 has 2 MA's), (48, 6467), (51, 6479), (54, 6497), (55, 6500), (57, 6515), (59, 6524), (60, 6527), (67, 6572), (75, 6614), (78, 6626),

Gene: PHL111M01_09 Start: 6453, Stop: 6743, Start Num: 37

Candidate Starts for PHL111M01_09:

(Start: 37 @6453 has 182 MA's), (Start: 47 @6465 has 2 MA's), (48, 6471), (51, 6483), (54, 6501), (55, 6504), (57, 6519), (59, 6528), (60, 6531), (67, 6576), (75, 6618), (78, 6630),

Gene: PHL112N00_09 Start: 6453, Stop: 6743, Start Num: 37

Candidate Starts for PHL112N00_09:

(Start: 37 @6453 has 182 MA's), (Start: 47 @6465 has 2 MA's), (48, 6471), (51, 6483), (54, 6501), (55, 6504), (57, 6519), (59, 6528), (60, 6531), (67, 6576), (75, 6618), (78, 6630), (80, 6645), (81, 6654),

Gene: PHL113M01_09 Start: 6453, Stop: 6743, Start Num: 37

Candidate Starts for PHL113M01_09:

(Start: 37 @6453 has 182 MA's), (Start: 47 @6465 has 2 MA's), (48, 6471), (50, 6477), (51, 6483), (54, 6501), (55, 6504), (57, 6519), (59, 6528), (60, 6531), (67, 6576), (75, 6618), (78, 6630), (81, 6654), (90, 6714),

Gene: PHL114L00_09 Start: 6452, Stop: 6742, Start Num: 37

Candidate Starts for PHL114L00_09:

(Start: 37 @6452 has 182 MA's), (Start: 47 @6464 has 2 MA's), (48, 6470), (54, 6500), (57, 6518), (59, 6527), (60, 6530), (62, 6551), (67, 6575), (75, 6617), (78, 6629), (81, 6653), (90, 6713),

Gene: PartyCup_13 Start: 10175, Stop: 10444, Start Num: 37

Candidate Starts for PartyCup_13:

(Start: 32 @10163 has 1 MA's), (Start: 37 @10175 has 182 MA's), (48, 10193), (55, 10226), (62, 10274), (76, 10319), (83, 10361),

Gene: PastaFagioli_10 Start: 7726, Stop: 7989, Start Num: 36

Candidate Starts for PastaFagioli_10:

(Start: 32 @7717 has 1 MA's), (Start: 36 @7726 has 25 MA's), (57, 7795),

Gene: Pecas_10 Start: 7652, Stop: 7912, Start Num: 37

Candidate Starts for Pecas_10:

(Start: 32 @7640 has 1 MA's), (Start: 37 @7652 has 182 MA's), (50, 7676), (83, 7832), (85, 7847),

Gene: Pelletreau_12 Start: 8244, Stop: 8498, Start Num: 38

Candidate Starts for Pelletreau_12:

(19, 8115), (29, 8208), (31, 8226), (Start: 38 @8244 has 31 MA's), (49, 8268), (74, 8382), (76, 8388), (84, 8418),

Gene: PhigPhack_10 Start: 7683, Stop: 7940, Start Num: 37

Candidate Starts for PhigPhack_10:

(Start: 32 @7671 has 1 MA's), (Start: 37 @7683 has 182 MA's), (50, 7704), (82, 7857), (83, 7860), (85, 7875), (90, 7911),

Gene: PhirstandPhine_12 Start: 8250, Stop: 8504, Start Num: 38

Candidate Starts for PhirstandPhine_12:

(Start: 32 @8235 has 1 MA's), (Start: 35 @8241 has 6 MA's), (Start: 36 @8244 has 25 MA's), (Start: 38 @8250 has 31 MA's), (49, 8274), (57, 8319), (71, 8382), (76, 8394),

Gene: Phisb_10 Start: 7645, Stop: 7905, Start Num: 37

Candidate Starts for Phisb_10:

(Start: 32 @7633 has 1 MA's), (Start: 37 @7645 has 182 MA's), (50, 7669), (83, 7825), (85, 7840), (90, 7876),

Gene: PhluffyCoco_10 Start: 7655, Stop: 7909, Start Num: 38

Candidate Starts for PhluffyCoco_10:

(29, 7619), (Start: 38 @7655 has 31 MA's), (49, 7679), (57, 7724), (60, 7736), (69, 7781), (71, 7787), (76, 7799), (83, 7826),

Gene: Pineda_12 Start: 8250, Stop: 8504, Start Num: 38

Candidate Starts for Pineda_12:

(Start: 32 @8235 has 1 MA's), (Start: 35 @8241 has 6 MA's), (Start: 36 @8244 has 25 MA's), (Start: 38 @8250 has 31 MA's), (49, 8274), (57, 8319), (71, 8382), (76, 8394),

Gene: PinkFriday_9 Start: 7264, Stop: 7551, Start Num: 37

Candidate Starts for PinkFriday_9:

(Start: 37 @7264 has 182 MA's), (55, 7315), (62, 7363), (83, 7471), (93, 7543),

Gene: Pirate_9 Start: 6445, Stop: 6735, Start Num: 37

Candidate Starts for Pirate_9:

(Start: 37 @6445 has 182 MA's), (Start: 47 @6457 has 2 MA's), (48, 6463), (51, 6475), (54, 6493), (55, 6496), (57, 6511), (59, 6520), (60, 6523), (67, 6568), (75, 6610), (78, 6622),

Gene: PitaDog_9 Start: 7234, Stop: 7503, Start Num: 37

Candidate Starts for PitaDog_9:

(Start: 37 @7234 has 182 MA's), (62, 7333), (76, 7378), (83, 7420),

Gene: Polka_11 Start: 8080, Stop: 8343, Start Num: 35

Candidate Starts for Polka_11:

(Start: 32 @8074 has 1 MA's), (Start: 35 @8080 has 6 MA's), (Start: 36 @8083 has 25 MA's), (Start: 38 @8089 has 31 MA's), (49, 8113), (57, 8158), (71, 8221), (76, 8233),

Gene: PondAmelia_13 Start: 7900, Stop: 8160, Start Num: 33

Candidate Starts for PondAmelia_13:

(Start: 33 @7900 has 2 MA's), (57, 7966),

Gene: Potatoes_13 Start: 10152, Stop: 10421, Start Num: 37

Candidate Starts for Potatoes_13:

(Start: 37 @10152 has 182 MA's), (55, 10203), (57, 10218), (62, 10251),

Gene: Preamble_9 Start: 7244, Stop: 7513, Start Num: 37

Candidate Starts for Preamble_9:

(Start: 37 @7244 has 182 MA's), (62, 7343), (76, 7388), (83, 7430), (87, 7457),

Gene: Procrass1_9 Start: 6452, Stop: 6742, Start Num: 37

Candidate Starts for Procrass1_9:

(Start: 37 @6452 has 182 MA's), (Start: 47 @6464 has 2 MA's), (48, 6470), (51, 6482), (54, 6500), (55, 6503), (57, 6518), (59, 6527), (60, 6530), (67, 6575), (75, 6617), (78, 6629), (81, 6653), (90, 6713),

Gene: Pterodactyl_9 Start: 7235, Stop: 7504, Start Num: 37

Candidate Starts for Pterodactyl_9:

(Start: 37 @7235 has 182 MA's), (62, 7334), (76, 7379), (83, 7421),

Gene: Pumancara_9 Start: 7263, Stop: 7550, Start Num: 37

Candidate Starts for Pumancara_9:

(Start: 37 @7263 has 182 MA's), (55, 7314), (62, 7362), (83, 7470), (93, 7542),

Gene: QMacho_11 Start: 8135, Stop: 8395, Start Num: 37

Candidate Starts for QMacho_11:

(Start: 32 @8123 has 1 MA's), (Start: 37 @8135 has 182 MA's), (50, 8159), (83, 8315), (85, 8330),

Gene: QueenBey_9 Start: 6446, Stop: 6736, Start Num: 37

Candidate Starts for QueenBey_9:

(Start: 37 @6446 has 182 MA's), (48, 6464), (51, 6476), (54, 6494), (55, 6497), (57, 6512), (59, 6521), (60, 6524), (67, 6569), (75, 6611), (78, 6623), (81, 6647), (90, 6707),

Gene: Quenya_11 Start: 7781, Stop: 8044, Start Num: 37

Candidate Starts for Quenya_11:

(26, 7724), (Start: 37 @7781 has 182 MA's), (50, 7808), (52, 7823), (83, 7964),

Gene: RAP15_13 Start: 10158, Stop: 10427, Start Num: 37

Candidate Starts for RAP15_13:

(Start: 37 @10158 has 182 MA's), (55, 10209), (57, 10224), (62, 10257),

Gene: Rattail_10 Start: 7706, Stop: 7960, Start Num: 38

Candidate Starts for Rattail_10:

(11, 7448), (14, 7472), (16, 7508), (18, 7556), (28, 7664), (29, 7670), (Start: 38 @7706 has 31 MA's), (49, 7730), (58, 7778), (60, 7787), (69, 7832), (76, 7850), (83, 7877),

Gene: RcigaStruga_13 Start: 10141, Stop: 10431, Start Num: 37

Candidate Starts for RcigaStruga_13:

(4, 9655), (7, 9742), (12, 9880), (Start: 37 @10141 has 182 MA's), (50, 10165), (62, 10240), (68, 10267), (83, 10348),

Gene: RedFox_10 Start: 7655, Stop: 7909, Start Num: 38

Candidate Starts for RedFox_10:

(29, 7619), (Start: 38 @7655 has 31 MA's), (49, 7679), (57, 7724), (60, 7736), (69, 7781), (71, 7787), (76, 7799), (83, 7826),

Gene: Renna12_11 Start: 7855, Stop: 8109, Start Num: 38

Candidate Starts for Renna12_11:

(Start: 38 @7855 has 31 MA's), (49, 7879), (57, 7924), (60, 7936), (69, 7981), (71, 7987), (76, 7999), (83, 8026),

Gene: Rileysaurus_9 Start: 6441, Stop: 6731, Start Num: 37

Candidate Starts for Rileysaurus_9:

(Start: 37 @6441 has 182 MA's), (Start: 47 @6453 has 2 MA's), (48, 6459), (51, 6471), (54, 6489), (57, 6507), (59, 6516), (60, 6519), (67, 6564), (75, 6606), (78, 6618), (81, 6642),

Gene: Riovina_9 Start: 7261, Stop: 7548, Start Num: 37

Candidate Starts for Riovina_9:

(Start: 37 @7261 has 182 MA's), (62, 7360), (83, 7468), (93, 7540),

Gene: Riverdale_13 Start: 10089, Stop: 10358, Start Num: 37

Candidate Starts for Riverdale_13:

(Start: 37 @10089 has 182 MA's), (55, 10140), (57, 10155), (62, 10188),

Gene: Rollins_9 Start: 7485, Stop: 7748, Start Num: 37

Candidate Starts for Rollins_9:

(26, 7428), (Start: 37 @7485 has 182 MA's), (43, 7500), (50, 7515), (72, 7632), (86, 7692), (91, 7722),

Gene: Rona_10 Start: 7882, Stop: 8139, Start Num: 37

Candidate Starts for Rona_10:

(Start: 37 @7882 has 182 MA's), (57, 7945), (83, 8059), (89, 8104),

Gene: Rozby_13 Start: 10089, Stop: 10358, Start Num: 37

Candidate Starts for Rozby_13:

(Start: 37 @10089 has 182 MA's), (55, 10140), (57, 10155), (62, 10188),

Gene: Ruchi_11 Start: 8341, Stop: 8598, Start Num: 38

Candidate Starts for Ruchi_11:

(5, 7879), (8, 7987), (9, 8032), (18, 8188), (Start: 38 @8341 has 31 MA's), (71, 8479), (79, 8509),

Gene: SKKY_9 Start: 6477, Stop: 6767, Start Num: 37

Candidate Starts for SKKY_9:

(Start: 37 @6477 has 182 MA's), (Start: 47 @6489 has 2 MA's), (48, 6495), (51, 6507), (54, 6525), (55, 6528), (57, 6543), (59, 6552), (60, 6555), (67, 6600),

Gene: SanaSana_11 Start: 7900, Stop: 8160, Start Num: 33

Candidate Starts for SanaSana_11:

(Start: 33 @7900 has 2 MA's), (57, 7966),

Gene: SansAfet_10 Start: 7665, Stop: 7922, Start Num: 37

Candidate Starts for SansAfet_10:

(Start: 32 @7653 has 1 MA's), (Start: 37 @7665 has 182 MA's), (50, 7686), (82, 7839), (83, 7842), (85, 7857), (90, 7893),

Gene: SarBear_10 Start: 7625, Stop: 7888, Start Num: 36

Candidate Starts for SarBear_10:

(Start: 32 @7616 has 1 MA's), (Start: 36 @7625 has 25 MA's), (50, 7652), (83, 7808), (85, 7823),

Gene: Savage2526_13 Start: 10152, Stop: 10421, Start Num: 37

Candidate Starts for Savage2526_13:

(Start: 37 @10152 has 182 MA's), (55, 10203), (57, 10218), (62, 10251),

Gene: Scuttle_13 Start: 10158, Stop: 10427, Start Num: 37

Candidate Starts for Scuttle_13:

(Start: 37 @10158 has 182 MA's), (55, 10209), (57, 10224), (62, 10257),

Gene: Sergei_9 Start: 7263, Stop: 7550, Start Num: 37

Candidate Starts for Sergei_9:

(Start: 37 @7263 has 182 MA's), (61, 7344), (62, 7362), (83, 7470), (93, 7542),

Gene: Shambre1_11 Start: 8534, Stop: 8782, Start Num: 42

Candidate Starts for Shambre1_11:

(Start: 42 @8534 has 1 MA's), (58, 8600), (69, 8654),

Gene: Sharkboy_10 Start: 7881, Stop: 8138, Start Num: 37

Candidate Starts for Sharkboy_10:

(Start: 37 @7881 has 182 MA's), (57, 7944), (83, 8058), (89, 8103),

Gene: Shayna_9 Start: 7487, Stop: 7753, Start Num: 36

Candidate Starts for Shayna_9:

(Start: 32 @7478 has 1 MA's), (Start: 36 @7487 has 25 MA's), (48, 7511), (50, 7517), (62, 7592), (72, 7634), (82, 7667), (92, 7733),

Gene: Shen_12 Start: 8245, Stop: 8499, Start Num: 38

Candidate Starts for Shen_12:

(19, 8116), (29, 8209), (31, 8227), (Start: 38 @8245 has 31 MA's), (49, 8269), (74, 8383), (76, 8389), (84, 8419),

Gene: SirBeanington_10 Start: 7654, Stop: 7914, Start Num: 37

Candidate Starts for SirBeanington_10:

(Start: 32 @7642 has 1 MA's), (Start: 37 @7654 has 182 MA's), (50, 7678), (83, 7834), (90, 7885),

Gene: Skylord_9 Start: 7425, Stop: 7688, Start Num: 37

Candidate Starts for Skylord_9:

(26, 7368), (Start: 37 @7425 has 182 MA's), (43, 7440), (50, 7455), (72, 7572), (86, 7632), (91, 7662),

Gene: Slay_10 Start: 8101, Stop: 8364, Start Num: 36

Candidate Starts for Slay_10:

(Start: 32 @8092 has 1 MA's), (Start: 36 @8101 has 25 MA's), (50, 8128), (83, 8284), (85, 8299),

Gene: Softsoap_10 Start: 7654, Stop: 7911, Start Num: 37

Candidate Starts for Softsoap_10:

(Start: 32 @7642 has 1 MA's), (Start: 37 @7654 has 182 MA's), (83, 7831), (90, 7882),

Gene: Solea_11 Start: 8040, Stop: 8297, Start Num: 37

Candidate Starts for Solea_11:

(Start: 32 @8028 has 1 MA's), (Start: 37 @8040 has 182 MA's), (50, 8061), (83, 8217), (85, 8232), (90, 8268),

Gene: Solid_9 Start: 6453, Stop: 6743, Start Num: 37

Candidate Starts for Solid_9:

(Start: 37 @6453 has 182 MA's), (Start: 47 @6465 has 2 MA's), (48, 6471), (51, 6483), (54, 6501), (55, 6504), (57, 6519), (59, 6528), (60, 6531), (67, 6576), (75, 6618), (78, 6630), (81, 6654), (90, 6714),

Gene: Spartoi_9 Start: 6351, Stop: 6599, Start Num: 37

Candidate Starts for Spartoi_9:

(Start: 37 @6351 has 182 MA's), (48, 6366), (57, 6414), (83, 6540),

Gene: Squirrel_10 Start: 7884, Stop: 8150, Start Num: 37

Candidate Starts for Squirrel_10:

(Start: 32 @7872 has 1 MA's), (Start: 37 @7884 has 182 MA's), (48, 7908), (62, 7989), (72, 8031), (83, 8067), (85, 8082),

Gene: Stoor_10 Start: 7897, Stop: 8157, Start Num: 33

Candidate Starts for Stoor_10:
(Start: 33 @7897 has 2 MA's), (57, 7963),

Gene: Stormborn_9 Start: 6448, Stop: 6738, Start Num: 37
Candidate Starts for Stormborn_9:
(Start: 37 @6448 has 182 MA's), (Start: 47 @6460 has 2 MA's), (48, 6466), (51, 6478), (54, 6496), (55, 6499), (57, 6514), (59, 6523), (60, 6526), (67, 6571), (75, 6613), (78, 6625), (81, 6649), (90, 6709),

Gene: Stromboli_10 Start: 7898, Stop: 8161, Start Num: 36
Candidate Starts for Stromboli_10:
(Start: 36 @7898 has 25 MA's), (40, 7910), (50, 7925), (72, 8042), (83, 8081), (85, 8096),

Gene: StuartMinion_10 Start: 7681, Stop: 7935, Start Num: 38
Candidate Starts for StuartMinion_10:
(10, 7405), (13, 7444), (Start: 38 @7681 has 31 MA's), (58, 7753), (69, 7807), (74, 7819), (76, 7825), (83, 7852),

Gene: SunnyD_9 Start: 7487, Stop: 7753, Start Num: 36
Candidate Starts for SunnyD_9:
(Start: 32 @7478 has 1 MA's), (Start: 36 @7487 has 25 MA's), (48, 7511), (50, 7517), (72, 7634), (82, 7667), (92, 7733),

Gene: Supakev_9 Start: 7263, Stop: 7550, Start Num: 37
Candidate Starts for Supakev_9:
(Start: 37 @7263 has 182 MA's), (55, 7314), (62, 7362), (83, 7470),

Gene: Supernova_9 Start: 6445, Stop: 6735, Start Num: 37
Candidate Starts for Supernova_9:
(Start: 37 @6445 has 182 MA's), (Start: 47 @6457 has 2 MA's), (48, 6463), (54, 6493), (55, 6496), (57, 6511), (59, 6520), (60, 6523), (62, 6544), (67, 6568), (75, 6610), (78, 6622), (81, 6646), (90, 6706),

Gene: Suppi_13 Start: 10175, Stop: 10444, Start Num: 37
Candidate Starts for Suppi_13:
(Start: 32 @10163 has 1 MA's), (Start: 37 @10175 has 182 MA's), (48, 10193), (60, 10253), (62, 10274), (83, 10361),

Gene: Swervy_10 Start: 7625, Stop: 7888, Start Num: 36
Candidate Starts for Swervy_10:
(Start: 32 @7616 has 1 MA's), (Start: 36 @7625 has 25 MA's), (50, 7652), (83, 7808), (85, 7823),

Gene: TattModd_13 Start: 10152, Stop: 10421, Start Num: 37
Candidate Starts for TattModd_13:
(Start: 37 @10152 has 182 MA's), (55, 10203), (57, 10218), (62, 10251),

Gene: TaylorSipht_11 Start: 8123, Stop: 8377, Start Num: 38
Candidate Starts for TaylorSipht_11:
(29, 8087), (31, 8105), (Start: 38 @8123 has 31 MA's), (49, 8147), (58, 8195), (60, 8204),

Gene: Teagster_9 Start: 7487, Stop: 7753, Start Num: 36
Candidate Starts for Teagster_9:
(Start: 32 @7478 has 1 MA's), (Start: 36 @7487 has 25 MA's), (48, 7511), (50, 7517), (62, 7592), (72, 7634), (82, 7667), (92, 7733),

Gene: Temper16_9 Start: 7263, Stop: 7550, Start Num: 37

Candidate Starts for Temper16_9:

(Start: 37 @7263 has 182 MA's), (61, 7344), (62, 7362), (83, 7470), (93, 7542),

Gene: Toad24_12 Start: 8245, Stop: 8499, Start Num: 38

Candidate Starts for Toad24_12:

(19, 8116), (20, 8131), (31, 8227), (Start: 38 @8245 has 31 MA's), (49, 8269), (74, 8383), (76, 8389), (84, 8419),

Gene: TukTuk_10 Start: 7628, Stop: 7948, Start Num: 37

Candidate Starts for TukTuk_10:

(Start: 32 @7616 has 1 MA's), (Start: 37 @7628 has 182 MA's), (50, 7712), (83, 7868), (85, 7883),

Gene: Typha_17 Start: 11749, Stop: 11997, Start Num: 45

Candidate Starts for Typha_17:

(29, 11692), (Start: 45 @11749 has 5 MA's), (54, 11791), (69, 11866), (84, 11914), (91, 11965), (93, 11983),

Gene: Urla_9 Start: 7290, Stop: 7559, Start Num: 37

Candidate Starts for Urla_9:

(Start: 37 @7290 has 182 MA's), (62, 7389), (63, 7395), (83, 7476),

Gene: Vallejo_13 Start: 10090, Stop: 10359, Start Num: 37

Candidate Starts for Vallejo_13:

(Start: 37 @10090 has 182 MA's), (55, 10141), (57, 10156), (62, 10189),

Gene: Vitas_9 Start: 7425, Stop: 7688, Start Num: 37

Candidate Starts for Vitas_9:

(26, 7368), (Start: 37 @7425 has 182 MA's), (43, 7440), (50, 7455), (72, 7572), (86, 7632), (91, 7662),

Gene: Vulpecula_11 Start: 8417, Stop: 8674, Start Num: 38

Candidate Starts for Vulpecula_11:

(1, 7796), (2, 7841), (5, 7955), (8, 8063), (18, 8264), (29, 8381), (Start: 38 @8417 has 31 MA's), (79, 8585),

Gene: Vulture_9 Start: 7261, Stop: 7548, Start Num: 37

Candidate Starts for Vulture_9:

(Start: 37 @7261 has 182 MA's), (62, 7360), (83, 7468),

Gene: WalkingDead_10 Start: 7885, Stop: 8148, Start Num: 38

Candidate Starts for WalkingDead_10:

(Start: 38 @7885 has 31 MA's), (50, 7912), (83, 8068), (85, 8083),

Gene: Wawa_13 Start: 10127, Stop: 10396, Start Num: 37

Candidate Starts for Wawa_13:

(Start: 37 @10127 has 182 MA's), (55, 10178), (57, 10193), (62, 10226),

Gene: Wayne_13 Start: 10221, Stop: 10490, Start Num: 37

Candidate Starts for Wayne_13:

(Start: 32 @10209 has 1 MA's), (Start: 37 @10221 has 182 MA's), (48, 10239), (60, 10299), (62, 10320), (83, 10407),

Gene: Westrich_12 Start: 8233, Stop: 8487, Start Num: 38

Candidate Starts for Westrich_12:

(19, 8104), (20, 8119), (29, 8197), (31, 8215), (Start: 38 @8233 has 31 MA's), (49, 8257), (74, 8371), (76, 8377), (84, 8407),

Gene: WileyE_10 Start: 7752, Stop: 8009, Start Num: 38

Candidate Starts for WileyE_10:

(5, 7290), (8, 7398), (9, 7443), (18, 7599), (Start: 38 @7752 has 31 MA's), (79, 7920),

Gene: Wizzo_9 Start: 6457, Stop: 6747, Start Num: 37

Candidate Starts for Wizzo_9:

(Start: 37 @6457 has 182 MA's), (Start: 47 @6469 has 2 MA's), (48, 6475), (51, 6487), (54, 6505), (55, 6508), (57, 6523), (59, 6532), (60, 6535), (75, 6622), (78, 6634),

Gene: WonderBoy_9 Start: 7243, Stop: 7512, Start Num: 37

Candidate Starts for WonderBoy_9:

(Start: 37 @7243 has 182 MA's), (62, 7342), (83, 7429),

Gene: Zhuangyuan_13 Start: 8412, Stop: 8666, Start Num: 38

Candidate Starts for Zhuangyuan_13:

(11, 8154), (15, 8205), (19, 8283), (29, 8376), (31, 8394), (Start: 38 @8412 has 31 MA's), (44, 8424), (71, 8544), (83, 8583), (88, 8622),

Gene: Zixiang_11 Start: 8034, Stop: 8288, Start Num: 38

Candidate Starts for Zixiang_11:

(1, 7434), (5, 7593), (8, 7701), (19, 7905), (29, 7998), (31, 8016), (Start: 38 @8034 has 31 MA's), (49, 8058), (58, 8106), (76, 8178), (83, 8205),

Gene: Zorro_13 Start: 10106, Stop: 10375, Start Num: 37

Candidate Starts for Zorro_13:

(Start: 37 @10106 has 182 MA's), (55, 10157), (57, 10172), (62, 10205),