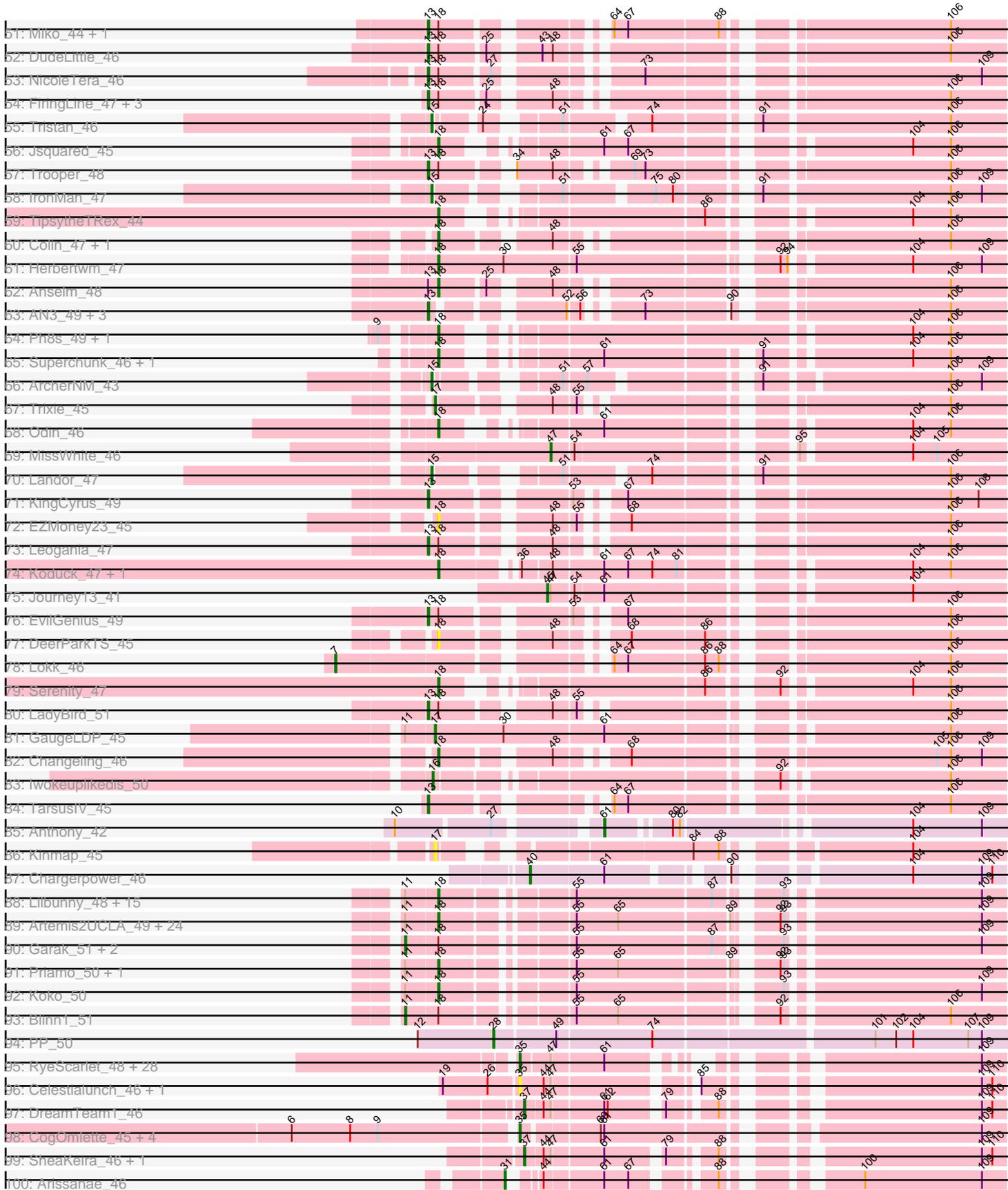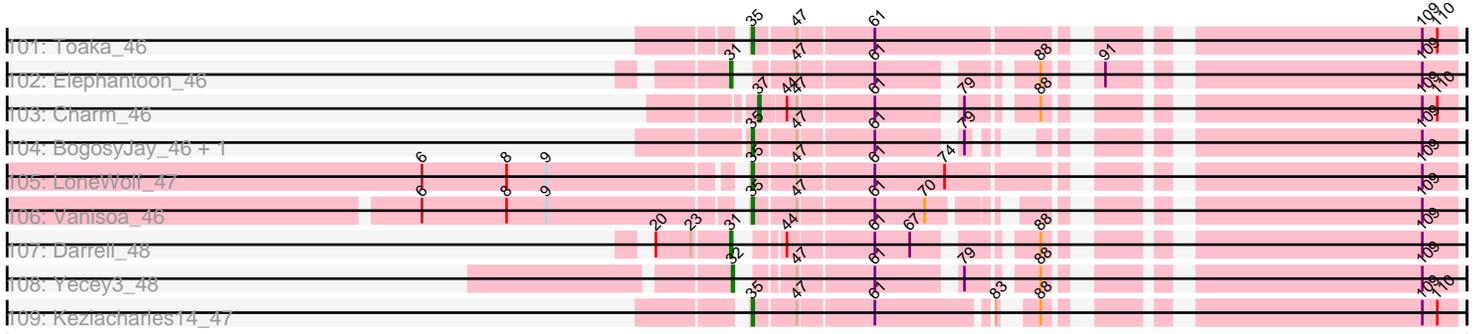Pham 283435

Pham 283435

Pham 283435

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 283435 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283435 has 279 members, 50 are drafts.

Phages represented in each track:
• Track 1 : Edison31_44
• Track 2 : DustyMartin_49, RhynO_46, Shapes_49, Rowdy_49
• Track 3 : Chupacabra_44, OKCentral2016_44, Goose_45
• Track 4 : Eaglepride_46
• Track 5 : Bachome_49, Sham4_47, Wolpertinger_46, Fibonacci_47, Ebony_47, Petersenfast_46, Bud_47, Lucivia_48, Orange_47, Bowtie_48, Hutc2_47, Insomnia_48, Mulciber_47, Snape_47, Jabith_48, Gilberta_48, Mabel_47, MaCh_48, Flaverint_48, Timothy_47, TinyTimmy_47, Munch_48, Aneem_48, Salz_46, Et2Brutus_46, Kimba_47, Joselito_48
• Track 6 : Saskia_48
• Track 7 : Refuge_46
• Track 8 : DarthPhader_44
• Track 9 : Steamy_43
• Track 10 : Pharaoh_41
• Track 11 : Zimmer_44
• Track 12 : Luchador_52, Jeeves_52
• Track 13 : Sunhee_50
• Track 14 : Gail_52
• Track 15 : SororFago_50
• Track 16 : Nedarya_45
• Track 17 : PainterBoy_48, Lucyedi_48, EagleEye_49
• Track 18 : 40AC_48
• Track 19 : Kimona_46
• Track 20 : Retro23_48, Georgie2_48, Crucio_47, Dignity_49, SemperFi_48, SweetiePie_47, Dalmatian_48, Turbido_48, Jerm_49
• Track 21 : HippoHollow_47, Echild_47, LionsBait_49, Benvolio_44
• Track 22 : Equemioh13_48, Bugsy_49, WideWale_48, MiculUcigas_47, Baehexic_46, Updawg_48, Centaur_48, Gratitude_47, NaSiaTalie_47, Sknot_47, Terrific_50, Flare16_47
• Track 23 : Loser_49
• Track 24 : Heffalump_46, QueenB2_46, Fameo_47
• Track 25 : VC3_50, AN9_50, C3_45, ANI8_50
• Track 26 : Agape74_49, AbbyPaige_49, Whabigail7_48, LilTurb_48
• Track 27 : Pomar16_49, Travvers_49, DBQu4n_49, Tomathan_49, Kerberos_49, Duplo_49, StarStuff_49
• Track 28 : SwirlSquare_52
• Track 29 : Phaded_48, Bactobuster_46

- Track 30 : XianYue_46
- Track 31 : WeiHuaDA_49
- Track 32 : AnnaL29_49, RedRock_49
- Track 33 : Quokka_45, MajorMajor_46, Bradman_46
- Track 34 : D29_46, D32_49, Naji_49
- Track 35 : BabyBack_46
- Track 36 : Smeagan_50, Leviathan_49
- Track 37 : BobSwaget_45
- Track 38 : CRB1_50, JoshKayV_49
- Track 39 : Pukovnik_46
- Track 40 : ChipMunk_49
- Track 41 : NothingSpecial_45
- Track 42 : Malec_47, Larenn_46
- Track 43 : Jaan_47
- Track 44 : BiancaTri92_47
- Track 45 : HarryHoudini_48, Piro94_47, Drake55_49
- Track 46 : Prudy_45
- Track 47 : ForesterFrank_45
- Track 48 : Che12_49
- Track 49 : 20ES_49, First_0048
- Track 50 : Acolyte_43
- Track 51 : Miko_44, Rachaly_46
- Track 52 : DudeLittle_46
- Track 53 : NicoleTera_46
- Track 54 : FiringLine_47, Power_46, SnapTap_47, QueenBeesly_47
- Track 55 : Tristan_46
- Track 56 : Jsquared_45
- Track 57 : Trooper_48
- Track 58 : IronMan_47
- Track 59 : TipsytheTRex_44
- Track 60 : Colin_47, Kalpine_45
- Track 61 : Herbertwm_47
- Track 62 : Anselm_48
- Track 63 : AN3_49, VA6_47, BengiVuitton_48, Deloris_47
- Track 64 : Ph8s_49, Adzzy_49
- Track 65 : Superchunk_46, Caraxes_47
- Track 66 : ArcherNM_43
- Track 67 : Trixie_45
- Track 68 : Odin_46
- Track 69 : MissWhite_46
- Track 70 : Landor_47
- Track 71 : KingCyrus_49
- Track 72 : EZMoney23_45
- Track 73 : Leogania_47
- Track 74 : Koduck_47, L5_46
- Track 75 : Journey13_41
- Track 76 : EvilGenius_49
- Track 77 : DeerParkTS_45
- Track 78 : Lokk_46
- Track 79 : Serenity_47
- Track 80 : LadyBird_51
- Track 81 : GaugeLDP_45
- Track 82 : Changeling_46

- Track 83 : Iwokeuplikedis_50
- Track 84 : TarsusIV_45
- Track 85 : Anthony_42
- Track 86 : Kinmap_45
- Track 87 : Chargerpower_46
- Track 88 : Lilbunny_48, BlessJoy_50, Wiks_48, ToneTone_46, Temprado_50, Helmet_51, Hammer_50, Blue7_51, Zaka_49, Indra_52, Zulu_49, WunderPhul_49, Rifter_50, Jeffabunny_49, Tucker_49, Gruunaga_49
- Track 89 : Artemis2UCLA_49, BennyP_50, SuperAwesome_49, DaVinci_48, Candra_49, GreedyLawyer_49, Kipper29_49, Dorothea_49, Gladiator_47, VohminGhazi_49, Kazan_50, Roksolana_50, McFly_49, EricB_49, Chartreuse_48, Neeharika16_48, Pmask_49, CloudWang3_49, Newrala_49, Cookiedough_49, SmellyB_49, Isiphiwo_47, DelvinSonDorr_47, SuperCallie99_48, Polyphemus_50
- Track 90 : Garak_51, Yokurt_49, Hexamo_49
- Track 91 : Priamo_50, Jordennis_48
- Track 92 : Koko_50
- Track 93 : Blinn1_51
- Track 94 : PP_50
- Track 95 : RyeScarlet_48, Eidsmoe_47, Phaeder_47, Holex_46, Fayely_47, Lilleskat_45, Myxus_47, Beemo_47, ExplosioNervosa_47, EmyBug_46, Priya_47, PackMan_46, Ugenie5_44, Catalina_48, HortumSL17_47, Scherzo_47, EdogawaKiddo_45, Conquerage_47, Qobbit_47, Ayanochan_48, Onglai_45, Phonnegut_47, Sachima_44, Jiawan_45, Tubs_47, Pioneer_47, Hanray_45, Spouty_47, Aliter_47
- Track 96 : Celestialunch_46, MegTheThird_46
- Track 97 : DreamTeam1_46
- Track 98 : CogOmlette_45, Rahalelujah_46, WorldCup_45, Minispark_45, Bellris_45
- Track 99 : SheaKeira_46, Klodlith_47
- Track 100 : Arissanae_46
- Track 101 : Toaka_46
- Track 102 : Elephantoon_46
- Track 103 : Charm_46
- Track 104 : BogosyJay_46, Maminiaina_46
- Track 105 : LoneWolf_47
- Track 106 : Vanisoa_46
- Track 107 : Darrell_48
- Track 108 : Yecey3_48
- Track 109 : Keziacharles14_47

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

The start number called the most often in the published annotations is 18, it was called in 66 of the 229 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- 40AC_48, Adzzy_49, Anselm_48, Artemis2UCLA_49, Baehexic_46, BennyP_50, BlessJoy_50, Blue7_51, Bradman_46, Bugsy_49, Candra_49, Caraxes_47, Centaur_48, Changeling_46, Chartreuse_48, Che12_49, CloudWang3_49, Colin_47, Cookiedough_49, DaVinci_48, DeerParkTS_45, DelvinSonDorr_47, Dorothea_49, EZMoney23_45, Equemioh13_48, EricB_49, Flare16_47, ForesterFrank_45,

Gladiator_47, Gratitude_47, GreedyLawyer_49, Gruunaga_49, Hammer_50, Helmet_51, Herbertwm_47, Indra_52, Isiphiwo_47, Jeffabunny_49, Jordennis_48, Jsquared_45, Kalpine_45, Kazan_50, Kimona_46, Kipper29_49, Koduck_47, Koko_50, L5_46, Lilbunny_48, MajorMajor_46, McFly_49, MiculUcigas_47, NaSiaTalie_47, Neeharika16_48, Newrala_49, NothingSpecial_45, Odin_46, Ph8s_49, Pmask_49, Polyphemus_50, Priamo_50, Quokka_45, Rifter_50, Roksolana_50, Serenity_47, Sknot_47, SmellyB_49, SuperAwesome_49, SuperCallie99_48, Superchunk_46, Temprado_50, Terrific_50, TipsytheTRex_44, ToneTone_46, Tucker_49, Updawg_48, VohminGhazi_49, WeiHuaDA_49, WideWale_48, Wiks_48, WunderPhul_49, Zaka_49, Zulu_49,

Genes that have the "Most Annotated" start but do not call it:
• 20ES_49, AN9_50, ANI8_50, AbbyPaige_49, Agape74_49, AnnaL29_49, Benvolio_44, BiancaTri92_47, Blinn1_51, C3_45, CRB1_50, Crucio_47, Dalmatian_48, Dignity_49, Drake55_49, DudeLittle_46, Echild_47, EvilGenius_49, Fameo_47, FiringLine_47, First_0048, Garak_51, Georgie2_48, HarryHoudini_48, Heffalump_46, Hexamo_49, HippoHollow_47, Jerm_49, JoshKayV_49, LadyBird_51, Larenn_46, Leogania_47, Leviathan_49, LilTurb_48, LionsBait_49, Loser_49, Malec_47, Miko_44, NicoleTera_46, Piro94_47, Power_46, Prudy_45, QueenB2_46, QueenBeesly_47, Rachaly_46, RedRock_49, Retro23_48, SemperFi_48, Smeagan_50, SnapTap_47, SweetiePie_47, Trooper_48, Turbido_48, VC3_50, Whabigail7_48, Yokurt_49,

Genes that do not have the "Most Annotated" start:
• AN3_49, Acolyte_43, Aliter_47, Aneem_48, Anthony_42, ArcherNM_43, Arissanae_46, Ayanochan_48, BabyBack_46, Bachome_49, Bactobuster_46, Beemo_47, Bellris_45, BengiVuitton_48, BobSwaget_45, BogosyJay_46, Bowtie_48, Bud_47, Catalina_48, Celestialunch_46, Chargerpower_46, Charm_46, ChipMunk_49, Chupacabra_44, CogOmlette_45, Conquerage_47, D29_46, D32_49, DBQu4n_49, Darrell_48, DarthPhader_44, Deloris_47, DreamTeam1_46, Duplo_49, DustyMartin_49, EagleEye_49, Eaglepride_46, Ebony_47, Edison31_44, EdogawaKiddo_45, Eidsmoe_47, Elephantoon_46, EmyBug_46, Et2Brutus_46, ExplosioNervosa_47, Fayely_47, Fibonacci_47, Flaverint_48, Gail_52, GaugeLDP_45, Gilberta_48, Goose_45, Hanray_45, Holex_46, HortumSL17_47, Hutc2_47, Insomnia_48, IronMan_47, Iwokeuplikedis_50, Jaan_47, Jabith_48, Jeeves_52, Jiawan_45, Joselito_48, Journey13_41, Kerberos_49, Keziacharles14_47, Kimba_47, KingCyrus_49, Kinmap_45, Klodlith_47, Landor_47, Lilleskat_45, Lokk_46, LoneWolf_47, Luchador_52, Lucivia_48, Lucyedi_48, MaCh_48, Mabel_47, Maminiaina_46, MegTheThird_46, Minispark_45, MissWhite_46, Mulciber_47, Munch_48, Myxus_47, Naji_49, Nedarya_45, OKCentral2016_44, Onglai_45, Orange_47, PP_50, PackMan_46, PainterBoy_48, Petersenfast_46, Phaded_48, Phaeder_47, Pharaoh_41, Phonnegut_47, Pioneer_47, Pomar16_49, Priya_47, Pukovnik_46, Qobbit_47, Rahalelujah_46, Refuge_46, RhynO_46, Rowdy_49, RyeScarlet_48, Sachima_44, Salz_46, Saskia_48, Scherzo_47, Sham4_47, Shapes_49, SheaKeira_46, Snape_47, SororFago_50, Spouty_47, StarStuff_49, Steamy_43, Sunhee_50, SwirlSquare_52, TarsusIV_45, Timothy_47, TinyTimmy_47, Toaka_46, Tomathan_49, Travvers_49, Tristan_46, Trixie_45, Tubs_47, Ugenie5_44, VA6_47, Vanisoa_46, Wolpertinger_46, WorldCup_45, XianYue_46, Yecey3_48, Zimmer_44,

Summary by start number:

Start 7:

• Found in 2 of 279 (0.7%) of genes in pham
• Manual Annotations of this start: 2 of 229
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BobSwaget_45 (A2), Lokk_46 (A2),

Start 11:
• Found in 49 of 279 (17.6%) of genes in pham
• Manual Annotations of this start: 3 of 229
• Called 8.2% of time when present
• Phage (with cluster) where this start called: Blinn1_51 (A6), Garak_51 (A6),
Hexamo_49 (A6), Yokurt_49 (A6),

Start 13:
• Found in 56 of 279 (20.1%) of genes in pham
• Manual Annotations of this start: 49 of 229
• Called 98.2% of time when present
• Phage (with cluster) where this start called: 20ES_49 (A2), AN3_49 (A2),
AbbyPaige_49 (A2), Agape74_49 (A2), AnnaL29_49 (A2), BengiVuitton_48 (A2),
Benvolio_44 (A2), BiancaTri92_47 (A2), CRB1_50 (A2), ChipMunk_49 (A2),
Crucio_47 (A2), Dalmatian_48 (A2), Deloris_47 (A2), Dignity_49 (A2), Drake55_49
(A2), DudeLittle_46 (A2), Echild_47 (A2), EvilGenius_49 (A2), Fameo_47 (A2),
FiringLine_47 (A2), First_0048 (A2), Georgie2_48 (A2), HarryHoudini_48 (A2),
Heffalump_46 (A2), HippoHollow_47 (A2), Jerm_49 (A2), JoshKayV_49 (A2),
KingCyrus_49 (A2), LadyBird_51 (A2), Larenn_46 (A2), Leogania_47 (A2),
Leviathan_49 (A2), LilTurb_48 (A2), LionsBait_49 (A2), Loser_49 (A2), Malec_47
(A2), Miko_44 (A2), NicoleTera_46 (A2), Piro94_47 (A2), Power_46 (A2), Prudy_45
(A2), QueenB2_46 (A2), QueenBeesly_47 (A2), Rachaly_46 (A2), RedRock_49 (A2),
Retro23_48 (A2), SemperFi_48 (A2), Smeagan_50 (A2), SnapTap_47 (A2),
SweetiePie_47 (A2), TarsusIV_45 (A2), Trooper_48 (A2), Turbido_48 (A2), VA6_47
(A2), Whabigail7_48 (A2),

Start 15:
• Found in 8 of 279 (2.9%) of genes in pham
• Manual Annotations of this start: 8 of 229
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ArcherNM_43 (A2), Bactobuster_46
(A2), IronMan_47 (A2), Jaan_47 (A2), Landor_47 (A2), Phaded_48 (A2),
Pukovnik_46 (A2), Tristan_46 (A2),

Start 16:
• Found in 2 of 279 (0.7%) of genes in pham
• Manual Annotations of this start: 2 of 229
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Acolyte_43 (A2), Iwokeuplikedis_50
(A2),

Start 17:
• Found in 19 of 279 (6.8%) of genes in pham
• Manual Annotations of this start: 16 of 229
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AN9_50 (A2), ANI8_50 (A2),
BabyBack_46 (A2), C3_45 (A2), D29_46 (A2), D32_49 (A2), DBQu4n_49 (A2),
Duplo_49 (A2), GaugeLDP_45 (A2), Kerberos_49 (A2), Kinmap_45 (A21), Naji_49

(A2), Pomar16_49 (A2), StarStuff_49 (A2), SwirlSquare_52 (A2), Tomathan_49 (A2), Travvers_49 (A2), Trixie_45 (A2), VC3_50 (A2),

Start 18:
• Found in 138 of 279 (49.5%) of genes in pham
• Manual Annotations of this start: 66 of 229
• Called 59.4% of time when present
• Phage (with cluster) where this start called: 40AC_48 (A17), Adzzy_49 (A2), Anselm_48 (A2), Artemis2UCLA_49 (A6), Baehexic_46 (A2), BennyP_50 (A6), BlessJoy_50 (A6), Blue7_51 (A6), Bradman_46 (A2), Bugsy_49 (A2), Candra_49 (A6), Caraxes_47 (A2), Centaur_48 (A2), Changeling_46 (A2), Chartreuse_48 (A6), Che12_49 (A2), CloudWang3_49 (A6), Colin_47 (A2), Cookiedough_49 (A6), DaVinci_48 (A6), DeerParkTS_45 (A2), DelvinSonDorr_47 (A6), Dorothea_49 (A6), EZMoney23_45 (A2), Equemioh13_48 (A2), EricB_49 (A6), Flare16_47 (A2), ForesterFrank_45 (A2), Gladiator_47 (A6), Gratitude_47 (A2), GreedyLawyer_49 (A6), Gruunaga_49 (A6), Hammer_50 (A6), Helmet_51 (A6), Herbertwm_47 (A2), Indra_52 (A6), Isiphiwo_47 (A6), Jeffabunny_49 (A6), Jordennis_48 (A6), Jsquared_45 (A2), Kalpine_45 (A2), Kazan_50 (A6), Kimona_46 (A19), Kipper29_49 (A6), Koduck_47 (A2), Koko_50 (A6), L5_46 (A2), Lilbunny_48 (A6), MajorMajor_46 (A2), McFly_49 (A6), MiculUcigas_47 (A2), NaSiaTalie_47 (A2), Neeharika16_48 (A6), Newrala_49 (A6), NothingSpecial_45 (A2), Odin_46 (A2), Ph8s_49 (A2), Pmask_49 (A6), Polyphemus_50 (A6), Priamo_50 (A6), Quokka_45 (A2), Rifter_50 (A6), Roksolana_50 (A6), Serenity_47 (A2), Sknot_47 (A2), SmellyB_49 (A6), SuperAwesome_49 (A6), SuperCallie99_48 (A6), Superchunk_46 (A2), Temprado_50 (A6), Terrific_50 (A2), TipsytheTRex_44 (A2), ToneTone_46 (A6), Tucker_49 (A6), Updawg_48 (A2), VohminGhazi_49 (A6), WeiHuaDA_49 (A2), WideWale_48 (A2), Wiks_48 (A6), WunderPhul_49 (A6), Zaka_49 (A6), Zulu_49 (A6),

Start 28:
• Found in 1 of 279 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 229
• Called 100.0% of time when present
• Phage (with cluster) where this start called: PP_50 (A7),

Start 31:
• Found in 3 of 279 (1.1%) of genes in pham
• Manual Annotations of this start: 3 of 229
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Arissanae_46 (A9), Darrell_48 (A9), Elephantoon_46 (A9),

Start 32:
• Found in 1 of 279 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 229
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Yecey3_48 (A9),

Start 33:
• Found in 3 of 279 (1.1%) of genes in pham
• Manual Annotations of this start: 3 of 229
• Called 100.0% of time when present
• Phage (with cluster) where this start called: EagleEye_49 (A16), Lucyedi_48 (A16), PainterBoy_48 (A16),

Start 35:
- Found in 43 of 279 (15.4%) of genes in pham
- Manual Annotations of this start: 28 of 229
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aliter_47 (A9), Ayanochan_48 (A9), Beemo_47 (A9), Bellris_45 (A9), BogosyJay_46 (A9), Catalina_48 (A9), Celestialunch_46 (A9), CogOmlette_45 (A9), Conquerage_47 (A9), EdogawaKiddo_45 (A9), Eidsmoe_47 (A9), EmyBug_46 (A9), ExplosioNervosa_47 (A9), Fayely_47 (A9), Hanray_45 (A9), Holex_46 (A9), HortumSL17_47 (A9), Jiawan_45 (A9), Keziacharles14_47 (A9), Lilleskat_45 (A9), LoneWolf_47 (A9), Maminiaina_46 (A9), MegTheThird_46 (A9), Minispark_45 (A9), Myxus_47 (A9), Onglai_45 (A9), PackMan_46 (A9), Phaeder_47 (A9), Pharaoh_41 (A12), Phonnegut_47 (A9), Pioneer_47 (A9), Priya_47 (A9), Qobbit_47 (A9), Rahalelujah_46 (A9), RyeScarlet_48 (A9), Sachima_44 (A9), Scherzo_47 (A9), Spouty_47 (A9), Toaka_46 (A9), Tubs_47 (A9), Ugenie5_44 (A9), Vanisoa_46 (A9), WorldCup_45 (A9),

Start 37:
- Found in 4 of 279 (1.4%) of genes in pham
- Manual Annotations of this start: 3 of 229
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Charm_46 (A9), DreamTeam1_46 (A9), Klodlith_47 (A9), SheaKeira_46 (A9),

Start 40:
- Found in 5 of 279 (1.8%) of genes in pham
- Manual Annotations of this start: 5 of 229
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chargerpower_46 (A22), Gail_52 (A14), Jeeves_52 (A14), Luchador_52 (A14), SororFago_50 (A14),

Start 41:
- Found in 1 of 279 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 229
- Called 100.0% of time when present
- Phage (with cluster) where this start called: XianYue_46 (A2),

Start 42:
- Found in 1 of 279 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sunhee_50 (A14),

Start 45:
- Found in 1 of 279 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 229
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Journey13_41 (A2),

Start 46:
- Found in 4 of 279 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 229

• Called 25.0% of time when present
• Phage (with cluster) where this start called: Nedarya_45 (A15),

Start 47:
• Found in 46 of 279 (16.5%) of genes in pham
• Manual Annotations of this start: 1 of 229
• Called 2.2% of time when present
• Phage (with cluster) where this start called: MissWhite_46 (A2),

Start 48:
• Found in 55 of 279 (19.7%) of genes in pham
• Manual Annotations of this start: 24 of 229
• Called 50.9% of time when present
• Phage (with cluster) where this start called: Aneem_48 (A11), Bachome_49 (A11), Bowtie_48 (A11), Bud_47 (A11), Ebony_47 (A11), Et2Brutus_46 (A11), Fibonacci_47 (A11), Flaverint_48 (A11), Gilberta_48 (A11), Hutc2_47 (A11), Insomnia_48 (A11), Jabith_48 (A11), Joselito_48 (A11), Kimba_47 (A11), Lucivia_48 (A11), MaCh_48 (A11), Mabel_47 (A11), Mulciber_47 (A11), Munch_48 (A11), Orange_47 (A11), Petersenfast_46 (A11), Salz_46 (A11), Saskia_48 (A11), Sham4_47 (A11), Snape_47 (A11), Timothy_47 (A11), TinyTimmy_47 (A11), Wolpertinger_46 (A11),

Start 50:
• Found in 3 of 279 (1.1%) of genes in pham
• Manual Annotations of this start: 3 of 229
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DarthPhader_44 (A12), Refuge_46 (A12), Zimmer_44 (A12),

Start 51:
• Found in 9 of 279 (3.2%) of genes in pham
• Manual Annotations of this start: 1 of 229
• Called 11.1% of time when present
• Phage (with cluster) where this start called: Steamy_43 (A12),

Start 61:
• Found in 64 of 279 (22.9%) of genes in pham
• Manual Annotations of this start: 2 of 229
• Called 3.1% of time when present
• Phage (with cluster) where this start called: Anthony_42 (A20), Eaglepride_46 (A10),

Start 62:
• Found in 9 of 279 (3.2%) of genes in pham
• Manual Annotations of this start: 5 of 229
• Called 88.9% of time when present
• Phage (with cluster) where this start called: Chupacabra_44 (A10), DustyMartin_49 (A10), Edison31_44 (A10), Goose_45 (A10), OKCentral2016_44 (A10), RhynO_46 (A10), Rowdy_49 (A10), Shapes_49 (A10),

Summary by clusters:

There are 15 clusters represented in this pham: A15, A21, A17, A16, A11, A10, A12, A19, A22, A20, A2, A7, A6, A9, A14,

Info for manual annotations of cluster A10:
•Start number 61 was manually annotated 1 time for cluster A10.
•Start number 62 was manually annotated 5 times for cluster A10.

Info for manual annotations of cluster A11:
•Start number 48 was manually annotated 24 times for cluster A11.

Info for manual annotations of cluster A12:
•Start number 35 was manually annotated 1 time for cluster A12.
•Start number 50 was manually annotated 3 times for cluster A12.
•Start number 51 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A14:
•Start number 40 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A15:
•Start number 46 was manually annotated 1 time for cluster A15.

Info for manual annotations of cluster A16:
•Start number 33 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A19:
•Start number 18 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:
•Start number 7 was manually annotated 2 times for cluster A2.
•Start number 13 was manually annotated 49 times for cluster A2.
•Start number 15 was manually annotated 8 times for cluster A2.
•Start number 16 was manually annotated 2 times for cluster A2.
•Start number 17 was manually annotated 16 times for cluster A2.
•Start number 18 was manually annotated 24 times for cluster A2.
•Start number 41 was manually annotated 1 time for cluster A2.
•Start number 45 was manually annotated 1 time for cluster A2.
•Start number 47 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A20:
•Start number 61 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A22:
•Start number 40 was manually annotated 1 time for cluster A22.

Info for manual annotations of cluster A6:
•Start number 11 was manually annotated 3 times for cluster A6.
•Start number 18 was manually annotated 41 times for cluster A6.

Info for manual annotations of cluster A7:
•Start number 28 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster A9:
•Start number 31 was manually annotated 3 times for cluster A9.
•Start number 32 was manually annotated 1 time for cluster A9.

•Start number 35 was manually annotated 27 times for cluster A9.
•Start number 37 was manually annotated 3 times for cluster A9.

Gene Information:

Gene: 20ES_49 Start: 32435, Stop: 32013, Start Num: 13
Candidate Starts for 20ES_49:
(Start: 13 @32435 has 49 MA's), (Start: 18 @32426 has 66 MA's), (106, 32060),

Gene: 40AC_48 Start: 33450, Stop: 33055, Start Num: 18
Candidate Starts for 40AC_48:
(Start: 18 @33450 has 66 MA's), (Start: 51 @33372 has 1 MA's), (57, 33354), (97, 33225), (106, 33102),

Gene: AN3_49 Start: 32806, Stop: 32393, Start Num: 13
Candidate Starts for AN3_49:
(Start: 13 @32806 has 49 MA's), (52, 32716), (56, 32707), (73, 32671), (90, 32605), (106, 32440),

Gene: AN9_50 Start: 32346, Stop: 31912, Start Num: 17
Candidate Starts for AN9_50:
(Start: 17 @32346 has 16 MA's), (Start: 18 @32343 has 66 MA's), (56, 32244), (67, 32202), (76, 32178), (96, 32079), (104, 31992), (106, 31959),

Gene: ANI8_50 Start: 32346, Stop: 31912, Start Num: 17
Candidate Starts for ANI8_50:
(Start: 17 @32346 has 16 MA's), (Start: 18 @32343 has 66 MA's), (56, 32244), (67, 32202), (76, 32178), (96, 32079), (104, 31992), (106, 31959),

Gene: AbbyPaige_49 Start: 32616, Stop: 32194, Start Num: 13
Candidate Starts for AbbyPaige_49:
(Start: 13 @32616 has 49 MA's), (Start: 18 @32607 has 66 MA's), (53, 32514), (56, 32508), (106, 32241),

Gene: Acolyte_43 Start: 31589, Stop: 31182, Start Num: 16
Candidate Starts for Acolyte_43:
(Start: 16 @31589 has 2 MA's), (38, 31532), (57, 31484), (93, 31358), (106, 31229),

Gene: Adzzy_49 Start: 31071, Stop: 30643, Start Num: 18
Candidate Starts for Adzzy_49:
(9, 31107), (Start: 18 @31071 has 66 MA's), (104, 30723), (106, 30690),

Gene: Agape74_49 Start: 32601, Stop: 32179, Start Num: 13
Candidate Starts for Agape74_49:
(Start: 13 @32601 has 49 MA's), (Start: 18 @32592 has 66 MA's), (53, 32499), (56, 32493), (106, 32226),

Gene: Aliter_47 Start: 32037, Stop: 31711, Start Num: 35
Candidate Starts for Aliter_47:
(Start: 35 @32037 has 28 MA's), (Start: 47 @32013 has 1 MA's), (Start: 61 @31971 has 2 MA's), (109, 31731),

Gene: Aneem_48 Start: 31705, Stop: 31358, Start Num: 48
Candidate Starts for Aneem_48:
(Start: 48 @31705 has 24 MA's), (59, 31672), (65, 31651), (104, 31438), (106, 31405),

Gene: AnnaL29_49 Start: 33146, Stop: 32724, Start Num: 13
Candidate Starts for AnnaL29_49:
(Start: 13 @33146 has 49 MA's), (Start: 18 @33137 has 66 MA's), (39, 33080), (53, 33044), (106, 32771),

Gene: Anselm_48 Start: 32523, Stop: 32110, Start Num: 18
Candidate Starts for Anselm_48:
(Start: 13 @32532 has 49 MA's), (Start: 18 @32523 has 66 MA's), (25, 32487), (Start: 48 @32445 has 24 MA's), (106, 32157),

Gene: Anthony_42 Start: 29795, Stop: 29478, Start Num: 61
Candidate Starts for Anthony_42:
(10, 29948), (27, 29870), (Start: 61 @29795 has 2 MA's), (80, 29747), (82, 29741), (104, 29561), (109, 29501),

Gene: ArcherNM_43 Start: 32185, Stop: 31778, Start Num: 15
Candidate Starts for ArcherNM_43:
(Start: 15 @32185 has 8 MA's), (Start: 51 @32107 has 1 MA's), (57, 32089), (91, 31972), (106, 31825), (109, 31798),

Gene: Arissanae_46 Start: 32694, Stop: 32350, Start Num: 31
Candidate Starts for Arissanae_46:
(Start: 31 @32694 has 3 MA's), (44, 32679), (Start: 61 @32631 has 2 MA's), (67, 32610), (88, 32556), (100, 32472), (109, 32370),

Gene: Artemis2UCLA_49 Start: 30834, Stop: 30406, Start Num: 18
Candidate Starts for Artemis2UCLA_49:
(Start: 11 @30861 has 3 MA's), (Start: 18 @30834 has 66 MA's), (55, 30738), (65, 30702), (89, 30612), (92, 30585), (93, 30582), (109, 30426),

Gene: Ayanochan_48 Start: 32164, Stop: 31838, Start Num: 35
Candidate Starts for Ayanochan_48:
(Start: 35 @32164 has 28 MA's), (Start: 47 @32140 has 1 MA's), (Start: 61 @32098 has 2 MA's), (109, 31858),

Gene: BabyBack_46 Start: 32865, Stop: 32410, Start Num: 17
Candidate Starts for BabyBack_46:
(Start: 17 @32865 has 16 MA's), (22, 32838), (Start: 61 @32721 has 2 MA's), (88, 32625), (93, 32589), (98, 32577), (106, 32457), (109, 32430),

Gene: Bachome_49 Start: 31693, Stop: 31346, Start Num: 48
Candidate Starts for Bachome_49:
(Start: 48 @31693 has 24 MA's), (59, 31660), (65, 31639), (104, 31426), (106, 31393),

Gene: Bactobuster_46 Start: 33096, Stop: 32677, Start Num: 15
Candidate Starts for Bactobuster_46:
(Start: 15 @33096 has 8 MA's), (Start: 51 @33015 has 1 MA's), (74, 32952), (80, 32934), (91, 32880), (106, 32724),

Gene: Baehexic_46 Start: 32303, Stop: 31869, Start Num: 18
Candidate Starts for Baehexic_46:
(Start: 18 @32303 has 66 MA's), (56, 32204), (66, 32168), (106, 31916),

Gene: Beemo_47 Start: 32159, Stop: 31833, Start Num: 35
Candidate Starts for Beemo_47:
(Start: 35 @32159 has 28 MA's), (Start: 47 @32135 has 1 MA's), (Start: 61 @32093 has 2 MA's), (109, 31853),

Gene: Bellris_45 Start: 31402, Stop: 31031, Start Num: 35
Candidate Starts for Bellris_45:
(6, 31588), (8, 31537), (9, 31513), (Start: 35 @31402 has 28 MA's), (60, 31342), (Start: 61 @31339 has 2 MA's), (109, 31051),

Gene: BengiVuitton_48 Start: 32388, Stop: 31975, Start Num: 13
Candidate Starts for BengiVuitton_48:
(Start: 13 @32388 has 49 MA's), (52, 32298), (56, 32289), (73, 32253), (90, 32187), (106, 32022),

Gene: BennyP_50 Start: 31282, Stop: 30854, Start Num: 18
Candidate Starts for BennyP_50:
(Start: 11 @31309 has 3 MA's), (Start: 18 @31282 has 66 MA's), (55, 31186), (65, 31150), (89, 31060), (92, 31033), (93, 31030), (109, 30874),

Gene: Benvolio_44 Start: 31563, Stop: 31141, Start Num: 13
Candidate Starts for Benvolio_44:
(Start: 13 @31563 has 49 MA's), (Start: 18 @31554 has 66 MA's), (Start: 48 @31476 has 24 MA's), (106, 31188),

Gene: BiancaTri92_47 Start: 32931, Stop: 32509, Start Num: 13
Candidate Starts for BiancaTri92_47:
(Start: 13 @32931 has 49 MA's), (Start: 18 @32922 has 66 MA's), (Start: 48 @32844 has 24 MA's), (106, 32556),

Gene: BlessJoy_50 Start: 31295, Stop: 30867, Start Num: 18
Candidate Starts for BlessJoy_50:
(Start: 11 @31322 has 3 MA's), (Start: 18 @31295 has 66 MA's), (55, 31199), (87, 31085), (93, 31043), (109, 30887),

Gene: Blinn1_51 Start: 31121, Stop: 30666, Start Num: 11
Candidate Starts for Blinn1_51:
(Start: 11 @31121 has 3 MA's), (Start: 18 @31094 has 66 MA's), (55, 30998), (65, 30962), (92, 30845), (106, 30713),

Gene: Blue7_51 Start: 30930, Stop: 30502, Start Num: 18
Candidate Starts for Blue7_51:
(Start: 11 @30957 has 3 MA's), (Start: 18 @30930 has 66 MA's), (55, 30834), (87, 30720), (93, 30678), (109, 30522),

Gene: BobSwaget_45 Start: 31896, Stop: 31399, Start Num: 7
Candidate Starts for BobSwaget_45:
(Start: 7 @31896 has 2 MA's), (64, 31704), (67, 31692), (88, 31617), (106, 31446),

Gene: BogosyJay_46 Start: 31869, Stop: 31543, Start Num: 35

Candidate Starts for BogosyJay_46:
(Start: 35 @31869 has 28 MA's), (Start: 47 @31845 has 1 MA's), (Start: 61 @31803 has 2 MA's), (79, 31761), (109, 31563),

Gene: Bowtie_48 Start: 31712, Stop: 31365, Start Num: 48
Candidate Starts for Bowtie_48:
(Start: 48 @31712 has 24 MA's), (59, 31679), (65, 31658), (104, 31445), (106, 31412),

Gene: Bradman_46 Start: 31085, Stop: 30678, Start Num: 18
Candidate Starts for Bradman_46:
(Start: 18 @31085 has 66 MA's), (38, 31049), (67, 30965), (104, 30758), (106, 30725),

Gene: Bud_47 Start: 31267, Stop: 30920, Start Num: 48
Candidate Starts for Bud_47:
(Start: 48 @31267 has 24 MA's), (59, 31234), (65, 31213), (104, 31000), (106, 30967),

Gene: Bugsy_49 Start: 32673, Stop: 32239, Start Num: 18
Candidate Starts for Bugsy_49:
(Start: 18 @32673 has 66 MA's), (56, 32574), (66, 32538), (106, 32286),

Gene: C3_45 Start: 32346, Stop: 31912, Start Num: 17
Candidate Starts for C3_45:
(Start: 17 @32346 has 16 MA's), (Start: 18 @32343 has 66 MA's), (56, 32244), (67, 32202), (76, 32178), (96, 32079), (104, 31992), (106, 31959),

Gene: CRB1_50 Start: 32781, Stop: 32359, Start Num: 13
Candidate Starts for CRB1_50:
(Start: 13 @32781 has 49 MA's), (Start: 18 @32772 has 66 MA's), (53, 32679), (56, 32673), (68, 32649), (69, 32646), (106, 32406),

Gene: Candra_49 Start: 31173, Stop: 30745, Start Num: 18
Candidate Starts for Candra_49:
(Start: 11 @31200 has 3 MA's), (Start: 18 @31173 has 66 MA's), (55, 31077), (65, 31041), (89, 30951), (92, 30924), (93, 30921), (109, 30765),

Gene: Caraxes_47 Start: 30723, Stop: 30316, Start Num: 18
Candidate Starts for Caraxes_47:
(Start: 18 @30723 has 66 MA's), (Start: 61 @30624 has 2 MA's), (91, 30510), (104, 30396), (106, 30363),

Gene: Catalina_48 Start: 32110, Stop: 31784, Start Num: 35
Candidate Starts for Catalina_48:
(Start: 35 @32110 has 28 MA's), (Start: 47 @32086 has 1 MA's), (Start: 61 @32044 has 2 MA's), (109, 31804),

Gene: Celestialunch_46 Start: 31680, Stop: 31330, Start Num: 35
Candidate Starts for Celestialunch_46:
(19, 31743), (26, 31704), (Start: 35 @31680 has 28 MA's), (44, 31659), (Start: 47 @31653 has 1 MA's), (85, 31551), (109, 31350), (110, 31341),

Gene: Centaur_48 Start: 32520, Stop: 32086, Start Num: 18
Candidate Starts for Centaur_48:
(Start: 18 @32520 has 66 MA's), (56, 32421), (66, 32385), (106, 32133),

Gene: Changeling_46 Start: 32725, Stop: 32312, Start Num: 18
Candidate Starts for Changeling_46:
(Start: 18 @32725 has 66 MA's), (Start: 48 @32647 has 24 MA's), (68, 32602), (105, 32371), (106, 32359), (109, 32332),

Gene: Chargerpower_46 Start: 31054, Stop: 30704, Start Num: 40
Candidate Starts for Chargerpower_46:
(Start: 40 @31054 has 5 MA's), (Start: 61 @30991 has 2 MA's), (90, 30910), (104, 30784), (109, 30724), (110, 30715),

Gene: Charm_46 Start: 31899, Stop: 31555, Start Num: 37
Candidate Starts for Charm_46:
(Start: 37 @31899 has 3 MA's), (44, 31884), (Start: 47 @31878 has 1 MA's), (Start: 61 @31836 has 2 MA's), (79, 31794), (88, 31761), (109, 31575), (110, 31566),

Gene: Chartreuse_48 Start: 30533, Stop: 30105, Start Num: 18
Candidate Starts for Chartreuse_48:
(Start: 11 @30560 has 3 MA's), (Start: 18 @30533 has 66 MA's), (55, 30437), (65, 30401), (89, 30311), (92, 30284), (93, 30281), (109, 30125),

Gene: Che12_49 Start: 31155, Stop: 30727, Start Num: 18
Candidate Starts for Che12_49:
(Start: 18 @31155 has 66 MA's), (59, 31044), (74, 30993), (104, 30807), (106, 30774),

Gene: ChipMunk_49 Start: 33873, Stop: 33451, Start Num: 13
Candidate Starts for ChipMunk_49:
(Start: 13 @33873 has 49 MA's), (53, 33771), (67, 33744), (106, 33498),

Gene: Chupacabra_44 Start: 31467, Stop: 31129, Start Num: 62
Candidate Starts for Chupacabra_44:
(14, 31611), (26, 31560), (Start: 62 @31467 has 5 MA's), (81, 31407), (93, 31317), (97, 31302), (103, 31224),

Gene: CloudWang3_49 Start: 30934, Stop: 30506, Start Num: 18
Candidate Starts for CloudWang3_49:
(Start: 11 @30961 has 3 MA's), (Start: 18 @30934 has 66 MA's), (55, 30838), (65, 30802), (89, 30712), (92, 30685), (93, 30682), (109, 30526),

Gene: CogOmlette_45 Start: 31399, Stop: 31028, Start Num: 35
Candidate Starts for CogOmlette_45:
(6, 31585), (8, 31534), (9, 31510), (Start: 35 @31399 has 28 MA's), (60, 31339), (Start: 61 @31336 has 2 MA's), (109, 31048),

Gene: Colin_47 Start: 32497, Stop: 32084, Start Num: 18
Candidate Starts for Colin_47:
(Start: 18 @32497 has 66 MA's), (Start: 48 @32419 has 24 MA's), (106, 32131),

Gene: Conquerage_47 Start: 32133, Stop: 31807, Start Num: 35
Candidate Starts for Conquerage_47:
(Start: 35 @32133 has 28 MA's), (Start: 47 @32109 has 1 MA's), (Start: 61 @32067 has 2 MA's), (109, 31827),

Gene: Cookiedough_49 Start: 31149, Stop: 30721, Start Num: 18
Candidate Starts for Cookiedough_49:
(Start: 11 @31176 has 3 MA's), (Start: 18 @31149 has 66 MA's), (55, 31053), (65, 31017), (89, 30927), (92, 30900), (93, 30897), (109, 30741),

Gene: Crucio_47 Start: 32116, Stop: 31694, Start Num: 13
Candidate Starts for Crucio_47:
(Start: 13 @32116 has 49 MA's), (Start: 18 @32107 has 66 MA's), (53, 32014), (68, 31984), (106, 31741),

Gene: D29_46 Start: 31906, Stop: 31496, Start Num: 17
Candidate Starts for D29_46:
(5, 32113), (Start: 17 @31906 has 16 MA's), (67, 31786), (76, 31762), (78, 31756), (96, 31663), (104, 31576), (106, 31543),

Gene: D32_49 Start: 31906, Stop: 31496, Start Num: 17
Candidate Starts for D32_49:
(5, 32113), (Start: 17 @31906 has 16 MA's), (67, 31786), (76, 31762), (78, 31756), (96, 31663), (104, 31576), (106, 31543),

Gene: DBQu4n_49 Start: 31906, Stop: 31496, Start Num: 17
Candidate Starts for DBQu4n_49:
(2, 32233), (3, 32221), (Start: 17 @31906 has 16 MA's), (67, 31786), (76, 31762), (78, 31756), (96, 31663), (104, 31576), (106, 31543),

Gene: DaVinci_48 Start: 30587, Stop: 30159, Start Num: 18
Candidate Starts for DaVinci_48:
(Start: 11 @30614 has 3 MA's), (Start: 18 @30587 has 66 MA's), (55, 30491), (65, 30455), (89, 30365), (92, 30338), (93, 30335), (109, 30179),

Gene: Dalmatian_48 Start: 32508, Stop: 32086, Start Num: 13
Candidate Starts for Dalmatian_48:
(Start: 13 @32508 has 49 MA's), (Start: 18 @32499 has 66 MA's), (53, 32406), (68, 32376), (106, 32133),

Gene: Darrell_48 Start: 32497, Stop: 32153, Start Num: 31
Candidate Starts for Darrell_48:
(20, 32539), (23, 32518), (Start: 31 @32497 has 3 MA's), (44, 32482), (Start: 61 @32434 has 2 MA's), (67, 32413), (88, 32359), (109, 32173),

Gene: DarthPhader_44 Start: 32954, Stop: 32610, Start Num: 50
Candidate Starts for DarthPhader_44:
(44, 32966), (Start: 47 @32960 has 1 MA's), (Start: 50 @32954 has 3 MA's), (64, 32912), (71, 32891), (86, 32837), (88, 32825), (100, 32732), (104, 32690), (109, 32630),

Gene: DeerParkTS_45 Start: 31640, Stop: 31224, Start Num: 18
Candidate Starts for DeerParkTS_45:
(Start: 18 @31640 has 66 MA's), (Start: 48 @31562 has 24 MA's), (68, 31517), (86, 31457), (106, 31274),

Gene: Deloris_47 Start: 32057, Stop: 31644, Start Num: 13
Candidate Starts for Deloris_47:
(Start: 13 @32057 has 49 MA's), (52, 31967), (56, 31958), (73, 31922), (90, 31856), (106, 31691),

Gene: DelvinSonDorr_47 Start: 31025, Stop: 30597, Start Num: 18
Candidate Starts for DelvinSonDorr_47:
(Start: 11 @31052 has 3 MA's), (Start: 18 @31025 has 66 MA's), (55, 30929), (65, 30893), (89, 30803), (92, 30776), (93, 30773), (109, 30617),

Gene: Dignity_49 Start: 32681, Stop: 32259, Start Num: 13
Candidate Starts for Dignity_49:
(Start: 13 @32681 has 49 MA's), (Start: 18 @32672 has 66 MA's), (53, 32579), (68, 32549), (106, 32306),

Gene: Dorothea_49 Start: 31156, Stop: 30728, Start Num: 18
Candidate Starts for Dorothea_49:
(Start: 11 @31183 has 3 MA's), (Start: 18 @31156 has 66 MA's), (55, 31060), (65, 31024), (89, 30934), (92, 30907), (93, 30904), (109, 30748),

Gene: Drake55_49 Start: 32605, Stop: 32183, Start Num: 13
Candidate Starts for Drake55_49:
(Start: 13 @32605 has 49 MA's), (Start: 18 @32596 has 66 MA's), (53, 32503), (56, 32497), (68, 32473), (106, 32230),

Gene: DreamTeam1_46 Start: 31773, Stop: 31429, Start Num: 37
Candidate Starts for DreamTeam1_46:
(Start: 37 @31773 has 3 MA's), (44, 31758), (Start: 47 @31752 has 1 MA's), (Start: 61 @31710 has 2 MA's), (Start: 62 @31707 has 5 MA's), (79, 31668), (88, 31635), (109, 31449), (110, 31440),

Gene: DudeLittle_46 Start: 32250, Stop: 31828, Start Num: 13
Candidate Starts for DudeLittle_46:
(Start: 13 @32250 has 49 MA's), (Start: 18 @32241 has 66 MA's), (25, 32205), (43, 32172), (Start: 48 @32163 has 24 MA's), (106, 31875),

Gene: Duplo_49 Start: 31944, Stop: 31534, Start Num: 17
Candidate Starts for Duplo_49:
(2, 32271), (3, 32259), (Start: 17 @31944 has 16 MA's), (67, 31824), (76, 31800), (78, 31794), (96, 31701), (104, 31614), (106, 31581),

Gene: DustyMartin_49 Start: 31547, Stop: 31209, Start Num: 62
Candidate Starts for DustyMartin_49:
(Start: 62 @31547 has 5 MA's), (81, 31487), (97, 31382), (103, 31304),

Gene: EZMoney23_45 Start: 32055, Stop: 31642, Start Num: 18
Candidate Starts for EZMoney23_45:
(Start: 18 @32055 has 66 MA's), (Start: 48 @31977 has 24 MA's), (55, 31959), (68, 31932), (106, 31689),

Gene: EagleEye_49 Start: 31670, Stop: 31308, Start Num: 33
Candidate Starts for EagleEye_49:
(Start: 33 @31670 has 3 MA's), (Start: 46 @31646 has 1 MA's), (104, 31388),

Gene: Eaglepride_46 Start: 31543, Stop: 31214, Start Num: 61
Candidate Starts for Eaglepride_46:
(14, 31681), (21, 31654), (Start: 61 @31543 has 2 MA's), (93, 31393), (103, 31309),

Gene: Ebony_47 Start: 31284, Stop: 30937, Start Num: 48
Candidate Starts for Ebony_47:
(Start: 48 @31284 has 24 MA's), (59, 31251), (65, 31230), (104, 31017), (106, 30984),

Gene: Echild_47 Start: 31587, Stop: 31165, Start Num: 13
Candidate Starts for Echild_47:
(Start: 13 @31587 has 49 MA's), (Start: 18 @31578 has 66 MA's), (Start: 48 @31500 has 24 MA's), (106, 31212),

Gene: Edison31_44 Start: 31487, Stop: 31149, Start Num: 62
Candidate Starts for Edison31_44:
(14, 31631), (26, 31580), (Start: 62 @31487 has 5 MA's), (93, 31337), (97, 31322), (103, 31244),

Gene: EdogawaKiddo_45 Start: 32110, Stop: 31784, Start Num: 35
Candidate Starts for EdogawaKiddo_45:
(Start: 35 @32110 has 28 MA's), (Start: 47 @32086 has 1 MA's), (Start: 61 @32044 has 2 MA's), (109, 31804),

Gene: Eidsmoe_47 Start: 32173, Stop: 31847, Start Num: 35
Candidate Starts for Eidsmoe_47:
(Start: 35 @32173 has 28 MA's), (Start: 47 @32149 has 1 MA's), (Start: 61 @32107 has 2 MA's), (109, 31867),

Gene: Elephantoon_46 Start: 31477, Stop: 31130, Start Num: 31
Candidate Starts for Elephantoon_46:
(Start: 31 @31477 has 3 MA's), (Start: 47 @31453 has 1 MA's), (Start: 61 @31411 has 2 MA's), (88, 31336), (91, 31318), (109, 31150),

Gene: EmyBug_46 Start: 32175, Stop: 31849, Start Num: 35
Candidate Starts for EmyBug_46:
(Start: 35 @32175 has 28 MA's), (Start: 47 @32151 has 1 MA's), (Start: 61 @32109 has 2 MA's), (109, 31869),

Gene: Equemioh13_48 Start: 32422, Stop: 31988, Start Num: 18
Candidate Starts for Equemioh13_48:
(Start: 18 @32422 has 66 MA's), (56, 32323), (66, 32287), (106, 32035),

Gene: EricB_49 Start: 31130, Stop: 30702, Start Num: 18
Candidate Starts for EricB_49:
(Start: 11 @31157 has 3 MA's), (Start: 18 @31130 has 66 MA's), (55, 31034), (65, 30998), (89, 30908), (92, 30881), (93, 30878), (109, 30722),

Gene: Et2Brutus_46 Start: 31244, Stop: 30897, Start Num: 48
Candidate Starts for Et2Brutus_46:
(Start: 48 @31244 has 24 MA's), (59, 31211), (65, 31190), (104, 30977), (106, 30944),

Gene: EvilGenius_49 Start: 33877, Stop: 33455, Start Num: 13
Candidate Starts for EvilGenius_49:
(Start: 13 @33877 has 49 MA's), (Start: 18 @33868 has 66 MA's), (53, 33775), (67, 33748), (106, 33502),

Gene: ExplosioNervosa_47 Start: 32193, Stop: 31867, Start Num: 35
Candidate Starts for ExplosioNervosa_47:

(Start: 35 @32193 has 28 MA's), (Start: 47 @32169 has 1 MA's), (Start: 61 @32127 has 2 MA's), (109, 31887),

Gene: Fameo_47 Start: 32426, Stop: 32004, Start Num: 13
Candidate Starts for Fameo_47:
(Start: 13 @32426 has 49 MA's), (Start: 18 @32417 has 66 MA's), (25, 32381), (Start: 48 @32339 has 24 MA's), (106, 32051),

Gene: Fayely_47 Start: 32142, Stop: 31816, Start Num: 35
Candidate Starts for Fayely_47:
(Start: 35 @32142 has 28 MA's), (Start: 47 @32118 has 1 MA's), (Start: 61 @32076 has 2 MA's), (109, 31836),

Gene: Fibonacci_47 Start: 31259, Stop: 30912, Start Num: 48
Candidate Starts for Fibonacci_47:
(Start: 48 @31259 has 24 MA's), (59, 31226), (65, 31205), (104, 30992), (106, 30959),

Gene: FiringLine_47 Start: 32097, Stop: 31675, Start Num: 13
Candidate Starts for FiringLine_47:
(Start: 13 @32097 has 49 MA's), (Start: 18 @32088 has 66 MA's), (25, 32052), (Start: 48 @32010 has 24 MA's), (106, 31722),

Gene: First_0048 Start: 32311, Stop: 31889, Start Num: 13
Candidate Starts for First_0048:
(Start: 13 @32311 has 49 MA's), (Start: 18 @32302 has 66 MA's), (106, 31936),

Gene: Flare16_47 Start: 32181, Stop: 31747, Start Num: 18
Candidate Starts for Flare16_47:
(Start: 18 @32181 has 66 MA's), (56, 32082), (66, 32046), (106, 31794),

Gene: Flaverint_48 Start: 31706, Stop: 31359, Start Num: 48
Candidate Starts for Flaverint_48:
(Start: 48 @31706 has 24 MA's), (59, 31673), (65, 31652), (104, 31439), (106, 31406),

Gene: ForesterFrank_45 Start: 32797, Stop: 32381, Start Num: 18
Candidate Starts for ForesterFrank_45:
(Start: 18 @32797 has 66 MA's), (34, 32749), (Start: 48 @32719 has 24 MA's), (55, 32701), (68, 32674), (106, 32428), (109, 32401),

Gene: Gail_52 Start: 33875, Stop: 33528, Start Num: 40
Candidate Starts for Gail_52:
(29, 33899), (Start: 40 @33875 has 5 MA's), (Start: 61 @33815 has 2 MA's), (104, 33608), (109, 33548), (110, 33539),

Gene: Garak_51 Start: 31328, Stop: 30873, Start Num: 11
Candidate Starts for Garak_51:
(Start: 11 @31328 has 3 MA's), (Start: 18 @31301 has 66 MA's), (55, 31205), (87, 31091), (93, 31049), (109, 30893),

Gene: GaugeLDP_45 Start: 32488, Stop: 32036, Start Num: 17
Candidate Starts for GaugeLDP_45:
(Start: 11 @32512 has 3 MA's), (Start: 17 @32488 has 16 MA's), (30, 32428), (Start: 61 @32344 has 2 MA's), (106, 32083),

Gene: Georgie2_48 Start: 32142, Stop: 31720, Start Num: 13
Candidate Starts for Georgie2_48:
(Start: 13 @32142 has 49 MA's), (Start: 18 @32133 has 66 MA's), (53, 32040), (68, 32010), (106, 31767),

Gene: Gilberta_48 Start: 31696, Stop: 31349, Start Num: 48
Candidate Starts for Gilberta_48:
(Start: 48 @31696 has 24 MA's), (59, 31663), (65, 31642), (104, 31429), (106, 31396),

Gene: Gladiator_47 Start: 30461, Stop: 30033, Start Num: 18
Candidate Starts for Gladiator_47:
(Start: 11 @30488 has 3 MA's), (Start: 18 @30461 has 66 MA's), (55, 30365), (65, 30329), (89, 30239), (92, 30212), (93, 30209), (109, 30053),

Gene: Goose_45 Start: 31271, Stop: 30933, Start Num: 62
Candidate Starts for Goose_45:
(14, 31415), (26, 31364), (Start: 62 @31271 has 5 MA's), (81, 31211), (93, 31121), (97, 31106), (103, 31028),

Gene: Gratitude_47 Start: 32422, Stop: 31988, Start Num: 18
Candidate Starts for Gratitude_47:
(Start: 18 @32422 has 66 MA's), (56, 32323), (66, 32287), (106, 32035),

Gene: GreedyLawyer_49 Start: 31137, Stop: 30709, Start Num: 18
Candidate Starts for GreedyLawyer_49:
(Start: 11 @31164 has 3 MA's), (Start: 18 @31137 has 66 MA's), (55, 31041), (65, 31005), (89, 30915), (92, 30888), (93, 30885), (109, 30729),

Gene: Gruunaga_49 Start: 31137, Stop: 30709, Start Num: 18
Candidate Starts for Gruunaga_49:
(Start: 11 @31164 has 3 MA's), (Start: 18 @31137 has 66 MA's), (55, 31041), (87, 30927), (93, 30885), (109, 30729),

Gene: Hammer_50 Start: 30740, Stop: 30312, Start Num: 18
Candidate Starts for Hammer_50:
(Start: 11 @30767 has 3 MA's), (Start: 18 @30740 has 66 MA's), (55, 30644), (87, 30530), (93, 30488), (109, 30332),

Gene: Hanray_45 Start: 32114, Stop: 31788, Start Num: 35
Candidate Starts for Hanray_45:
(Start: 35 @32114 has 28 MA's), (Start: 47 @32090 has 1 MA's), (Start: 61 @32048 has 2 MA's), (109, 31808),

Gene: HarryHoudini_48 Start: 32614, Stop: 32192, Start Num: 13
Candidate Starts for HarryHoudini_48:
(Start: 13 @32614 has 49 MA's), (Start: 18 @32605 has 66 MA's), (53, 32512), (56, 32506), (68, 32482), (106, 32239),

Gene: Heffalump_46 Start: 32894, Stop: 32472, Start Num: 13
Candidate Starts for Heffalump_46:
(Start: 13 @32894 has 49 MA's), (Start: 18 @32885 has 66 MA's), (25, 32849), (Start: 48 @32807 has 24 MA's), (106, 32519),

Gene: Helmet_51 Start: 31301, Stop: 30873, Start Num: 18
Candidate Starts for Helmet_51:
(Start: 11 @31328 has 3 MA's), (Start: 18 @31301 has 66 MA's), (55, 31205), (87, 31091), (93, 31049), (109, 30893),

Gene: Herbertwm_47 Start: 31973, Stop: 31524, Start Num: 18
Candidate Starts for Herbertwm_47:
(Start: 18 @31973 has 66 MA's), (30, 31916), (55, 31856), (92, 31703), (94, 31697), (104, 31604), (109, 31544),

Gene: Hexamo_49 Start: 30949, Stop: 30494, Start Num: 11
Candidate Starts for Hexamo_49:
(Start: 11 @30949 has 3 MA's), (Start: 18 @30922 has 66 MA's), (55, 30826), (87, 30712), (93, 30670), (109, 30514),

Gene: HippoHollow_47 Start: 33647, Stop: 33225, Start Num: 13
Candidate Starts for HippoHollow_47:
(Start: 13 @33647 has 49 MA's), (Start: 18 @33638 has 66 MA's), (Start: 48 @33560 has 24 MA's), (106, 33272),

Gene: Holex_46 Start: 32133, Stop: 31807, Start Num: 35
Candidate Starts for Holex_46:
(Start: 35 @32133 has 28 MA's), (Start: 47 @32109 has 1 MA's), (Start: 61 @32067 has 2 MA's), (109, 31827),

Gene: HortumSL17_47 Start: 32109, Stop: 31783, Start Num: 35
Candidate Starts for HortumSL17_47:
(Start: 35 @32109 has 28 MA's), (Start: 47 @32085 has 1 MA's), (Start: 61 @32043 has 2 MA's), (109, 31803),

Gene: Hutc2_47 Start: 31259, Stop: 30912, Start Num: 48
Candidate Starts for Hutc2_47:
(Start: 48 @31259 has 24 MA's), (59, 31226), (65, 31205), (104, 30992), (106, 30959),

Gene: Indra_52 Start: 31302, Stop: 30874, Start Num: 18
Candidate Starts for Indra_52:
(Start: 11 @31329 has 3 MA's), (Start: 18 @31302 has 66 MA's), (55, 31206), (87, 31092), (93, 31050), (109, 30894),

Gene: Insomnia_48 Start: 31764, Stop: 31417, Start Num: 48
Candidate Starts for Insomnia_48:
(Start: 48 @31764 has 24 MA's), (59, 31731), (65, 31710), (104, 31497), (106, 31464),

Gene: IronMan_47 Start: 33279, Stop: 32860, Start Num: 15
Candidate Starts for IronMan_47:
(Start: 15 @33279 has 8 MA's), (Start: 51 @33198 has 1 MA's), (75, 33132), (80, 33117), (91, 33063), (106, 32907), (109, 32880),

Gene: Isiphiwo_47 Start: 30674, Stop: 30246, Start Num: 18
Candidate Starts for Isiphiwo_47:
(Start: 11 @30701 has 3 MA's), (Start: 18 @30674 has 66 MA's), (55, 30578), (65, 30542), (89, 30452), (92, 30425), (93, 30422), (109, 30266),

Gene: Iwokeuplikedis_50 Start: 32216, Stop: 31788, Start Num: 16
Candidate Starts for Iwokeuplikedis_50:
(Start: 16 @32216 has 2 MA's), (92, 31967), (106, 31835),

Gene: Jaan_47 Start: 33445, Stop: 33047, Start Num: 15
Candidate Starts for Jaan_47:
(Start: 15 @33445 has 8 MA's), (58, 33364), (74, 33322), (91, 33250), (106, 33094),

Gene: Jabith_48 Start: 31765, Stop: 31418, Start Num: 48
Candidate Starts for Jabith_48:
(Start: 48 @31765 has 24 MA's), (59, 31732), (65, 31711), (104, 31498), (106, 31465),

Gene: Jeeves_52 Start: 32647, Stop: 32300, Start Num: 40
Candidate Starts for Jeeves_52:
(29, 32671), (Start: 40 @32647 has 5 MA's), (Start: 61 @32587 has 2 MA's), (104, 32380), (109, 32320),

Gene: Jeffabunny_49 Start: 30958, Stop: 30530, Start Num: 18
Candidate Starts for Jeffabunny_49:
(Start: 11 @30985 has 3 MA's), (Start: 18 @30958 has 66 MA's), (55, 30862), (87, 30748), (93, 30706), (109, 30550),

Gene: Jerm_49 Start: 32674, Stop: 32252, Start Num: 13
Candidate Starts for Jerm_49:
(Start: 13 @32674 has 49 MA's), (Start: 18 @32665 has 66 MA's), (53, 32572), (68, 32542), (106, 32299),

Gene: Jiawan_45 Start: 32146, Stop: 31820, Start Num: 35
Candidate Starts for Jiawan_45:
(Start: 35 @32146 has 28 MA's), (Start: 47 @32122 has 1 MA's), (Start: 61 @32080 has 2 MA's), (109, 31840),

Gene: Jordennis_48 Start: 30594, Stop: 30166, Start Num: 18
Candidate Starts for Jordennis_48:
(Start: 11 @30621 has 3 MA's), (Start: 18 @30594 has 66 MA's), (55, 30498), (65, 30462), (89, 30372), (92, 30345), (93, 30342),

Gene: Joselito_48 Start: 31705, Stop: 31358, Start Num: 48
Candidate Starts for Joselito_48:
(Start: 48 @31705 has 24 MA's), (59, 31672), (65, 31651), (104, 31438), (106, 31405),

Gene: JoshKayV_49 Start: 32755, Stop: 32333, Start Num: 13
Candidate Starts for JoshKayV_49:
(Start: 13 @32755 has 49 MA's), (Start: 18 @32746 has 66 MA's), (53, 32653), (56, 32647), (68, 32623), (69, 32620), (106, 32380),

Gene: Journey13_41 Start: 30529, Stop: 30176, Start Num: 45
Candidate Starts for Journey13_41:
(Start: 45 @30529 has 1 MA's), (Start: 47 @30526 has 1 MA's), (54, 30508), (Start: 61 @30484 has 2 MA's), (104, 30256),

Gene: Jsquared_45 Start: 31025, Stop: 30618, Start Num: 18

Candidate Starts for Jsquared_45:
(Start: 18 @31025 has 66 MA's), (Start: 61 @30926 has 2 MA's), (67, 30905), (104, 30698), (106, 30665),

Gene: Kalpine_45 Start: 32395, Stop: 31982, Start Num: 18
Candidate Starts for Kalpine_45:
(Start: 18 @32395 has 66 MA's), (Start: 48 @32317 has 24 MA's), (106, 32029),

Gene: Kazan_50 Start: 31143, Stop: 30715, Start Num: 18
Candidate Starts for Kazan_50:
(Start: 11 @31170 has 3 MA's), (Start: 18 @31143 has 66 MA's), (55, 31047), (65, 31011), (89, 30921), (92, 30894), (93, 30891), (109, 30735),

Gene: Kerberos_49 Start: 31906, Stop: 31496, Start Num: 17
Candidate Starts for Kerberos_49:
(2, 32233), (3, 32221), (Start: 17 @31906 has 16 MA's), (67, 31786), (76, 31762), (78, 31756), (96, 31663), (104, 31576), (106, 31543),

Gene: Keziacharles14_47 Start: 33144, Stop: 32797, Start Num: 35
Candidate Starts for Keziacharles14_47:
(Start: 35 @33144 has 28 MA's), (Start: 47 @33120 has 1 MA's), (Start: 61 @33078 has 2 MA's), (83, 33015), (88, 33003), (109, 32817), (110, 32808),

Gene: Kimba_47 Start: 31285, Stop: 30938, Start Num: 48
Candidate Starts for Kimba_47:
(Start: 48 @31285 has 24 MA's), (59, 31252), (65, 31231), (104, 31018), (106, 30985),

Gene: Kimona_46 Start: 30459, Stop: 30046, Start Num: 18
Candidate Starts for Kimona_46:
(Start: 18 @30459 has 66 MA's), (59, 30369), (73, 30324), (93, 30228), (106, 30099),

Gene: KingCyrus_49 Start: 33872, Stop: 33450, Start Num: 13
Candidate Starts for KingCyrus_49:
(Start: 13 @33872 has 49 MA's), (53, 33770), (67, 33743), (106, 33497), (108, 33473),

Gene: Kinmap_45 Start: 31426, Stop: 31016, Start Num: 17
Candidate Starts for Kinmap_45:
(Start: 17 @31426 has 16 MA's), (84, 31252), (88, 31231), (104, 31096),

Gene: Kipper29_49 Start: 31156, Stop: 30728, Start Num: 18
Candidate Starts for Kipper29_49:
(Start: 11 @31183 has 3 MA's), (Start: 18 @31156 has 66 MA's), (55, 31060), (65, 31024), (89, 30934), (92, 30907), (93, 30904), (109, 30748),

Gene: Klodlith_47 Start: 31790, Stop: 31446, Start Num: 37
Candidate Starts for Klodlith_47:
(Start: 37 @31790 has 3 MA's), (44, 31775), (Start: 47 @31769 has 1 MA's), (Start: 61 @31727 has 2 MA's), (79, 31685), (88, 31652), (109, 31466), (110, 31457),

Gene: Koduck_47 Start: 31317, Stop: 30889, Start Num: 18
Candidate Starts for Koduck_47:
(Start: 18 @31317 has 66 MA's), (36, 31263), (Start: 48 @31239 has 24 MA's), (Start: 61 @31197 has 2 MA's), (67, 31176), (74, 31155), (81, 31134), (104, 30969), (106, 30936),

Gene: Koko_50 Start: 31279, Stop: 30851, Start Num: 18
Candidate Starts for Koko_50:
(Start: 11 @31306 has 3 MA's), (Start: 18 @31279 has 66 MA's), (55, 31183), (93, 31027), (109, 30871),

Gene: L5_46 Start: 31389, Stop: 30961, Start Num: 18
Candidate Starts for L5_46:
(Start: 18 @31389 has 66 MA's), (36, 31335), (Start: 48 @31311 has 24 MA's), (Start: 61 @31269 has 2 MA's), (67, 31248), (74, 31227), (81, 31206), (104, 31041), (106, 31008),

Gene: LadyBird_51 Start: 32746, Stop: 32324, Start Num: 13
Candidate Starts for LadyBird_51:
(Start: 13 @32746 has 49 MA's), (Start: 18 @32737 has 66 MA's), (Start: 48 @32659 has 24 MA's), (55, 32641), (106, 32371),

Gene: Landor_47 Start: 33357, Stop: 32938, Start Num: 15
Candidate Starts for Landor_47:
(Start: 15 @33357 has 8 MA's), (Start: 51 @33276 has 1 MA's), (74, 33213), (91, 33141), (106, 32985),

Gene: Larenn_46 Start: 32287, Stop: 31865, Start Num: 13
Candidate Starts for Larenn_46:
(Start: 13 @32287 has 49 MA's), (Start: 18 @32278 has 66 MA's), (39, 32221), (64, 32170), (106, 31912),

Gene: Leogania_47 Start: 33298, Stop: 32876, Start Num: 13
Candidate Starts for Leogania_47:
(Start: 13 @33298 has 49 MA's), (Start: 18 @33289 has 66 MA's), (Start: 48 @33211 has 24 MA's), (106, 32923),

Gene: Leviathan_49 Start: 32730, Stop: 32308, Start Num: 13
Candidate Starts for Leviathan_49:
(Start: 13 @32730 has 49 MA's), (Start: 18 @32721 has 66 MA's), (53, 32628), (56, 32622), (68, 32598), (106, 32355),

Gene: LilTurb_48 Start: 32563, Stop: 32141, Start Num: 13
Candidate Starts for LilTurb_48:
(Start: 13 @32563 has 49 MA's), (Start: 18 @32554 has 66 MA's), (53, 32461), (56, 32455), (106, 32188),

Gene: Lilbunny_48 Start: 30932, Stop: 30504, Start Num: 18
Candidate Starts for Lilbunny_48:
(Start: 11 @30959 has 3 MA's), (Start: 18 @30932 has 66 MA's), (55, 30836), (87, 30722), (93, 30680), (109, 30524),

Gene: Lilleskat_45 Start: 32063, Stop: 31737, Start Num: 35
Candidate Starts for Lilleskat_45:
(Start: 35 @32063 has 28 MA's), (Start: 47 @32039 has 1 MA's), (Start: 61 @31997 has 2 MA's), (109, 31757),

Gene: LionsBait_49 Start: 33648, Stop: 33226, Start Num: 13
Candidate Starts for LionsBait_49:

(Start: 13 @33648 has 49 MA's), (Start: 18 @33639 has 66 MA's), (Start: 48 @33561 has 24 MA's), (106, 33273),

Gene: Lokk_46 Start: 32421, Stop: 31924, Start Num: 7
Candidate Starts for Lokk_46:
(Start: 7 @32421 has 2 MA's), (64, 32229), (67, 32217), (86, 32154), (88, 32142), (106, 31971),

Gene: LoneWolf_47 Start: 31870, Stop: 31502, Start Num: 35
Candidate Starts for LoneWolf_47:
(6, 32050), (8, 31999), (9, 31975), (Start: 35 @31870 has 28 MA's), (Start: 47 @31846 has 1 MA's), (Start: 61 @31804 has 2 MA's), (74, 31762), (109, 31522),

Gene: Loser_49 Start: 33095, Stop: 32673, Start Num: 13
Candidate Starts for Loser_49:
(1, 33422), (Start: 13 @33095 has 49 MA's), (Start: 18 @33086 has 66 MA's), (39, 33029), (53, 32993), (106, 32720),

Gene: Luchador_52 Start: 34435, Stop: 34088, Start Num: 40
Candidate Starts for Luchador_52:
(29, 34459), (Start: 40 @34435 has 5 MA's), (Start: 61 @34375 has 2 MA's), (104, 34168), (109, 34108),

Gene: Lucivia_48 Start: 31754, Stop: 31407, Start Num: 48
Candidate Starts for Lucivia_48:
(Start: 48 @31754 has 24 MA's), (59, 31721), (65, 31700), (104, 31487), (106, 31454),

Gene: Lucyedi_48 Start: 31865, Stop: 31503, Start Num: 33
Candidate Starts for Lucyedi_48:
(Start: 33 @31865 has 3 MA's), (Start: 46 @31841 has 1 MA's), (104, 31583),

Gene: MaCh_48 Start: 31692, Stop: 31345, Start Num: 48
Candidate Starts for MaCh_48:
(Start: 48 @31692 has 24 MA's), (59, 31659), (65, 31638), (104, 31425), (106, 31392),

Gene: Mabel_47 Start: 31294, Stop: 30947, Start Num: 48
Candidate Starts for Mabel_47:
(Start: 48 @31294 has 24 MA's), (59, 31261), (65, 31240), (104, 31027), (106, 30994),

Gene: MajorMajor_46 Start: 31085, Stop: 30678, Start Num: 18
Candidate Starts for MajorMajor_46:
(Start: 18 @31085 has 66 MA's), (38, 31049), (67, 30965), (104, 30758), (106, 30725),

Gene: Malec_47 Start: 32851, Stop: 32429, Start Num: 13
Candidate Starts for Malec_47:
(Start: 13 @32851 has 49 MA's), (Start: 18 @32842 has 66 MA's), (39, 32785), (64, 32734), (106, 32476),

Gene: Maminiaina_46 Start: 31851, Stop: 31525, Start Num: 35
Candidate Starts for Maminiaina_46:
(Start: 35 @31851 has 28 MA's), (Start: 47 @31827 has 1 MA's), (Start: 61 @31785 has 2 MA's), (79, 31743), (109, 31545),

Gene: McFly_49 Start: 31137, Stop: 30709, Start Num: 18

Candidate Starts for McFly_49:
(Start: 11 @31164 has 3 MA's), (Start: 18 @31137 has 66 MA's), (55, 31041), (65, 31005), (89, 30915), (92, 30888), (93, 30885), (109, 30729),

Gene: MegTheThird_46 Start: 31679, Stop: 31329, Start Num: 35
Candidate Starts for MegTheThird_46:
(19, 31742), (26, 31703), (Start: 35 @31679 has 28 MA's), (44, 31658), (Start: 47 @31652 has 1 MA's), (85, 31550), (109, 31349), (110, 31340),

Gene: MiculUcigas_47 Start: 32081, Stop: 31647, Start Num: 18
Candidate Starts for MiculUcigas_47:
(Start: 18 @32081 has 66 MA's), (56, 31982), (66, 31946), (106, 31694),

Gene: Miko_44 Start: 32243, Stop: 31821, Start Num: 13
Candidate Starts for Miko_44:
(Start: 13 @32243 has 49 MA's), (Start: 18 @32234 has 66 MA's), (64, 32126), (67, 32114), (88, 32039), (106, 31868),

Gene: Minispark_45 Start: 31396, Stop: 31025, Start Num: 35
Candidate Starts for Minispark_45:
(6, 31582), (8, 31531), (9, 31507), (Start: 35 @31396 has 28 MA's), (60, 31336), (Start: 61 @31333 has 2 MA's), (109, 31045),

Gene: MissWhite_46 Start: 30606, Stop: 30256, Start Num: 47
Candidate Starts for MissWhite_46:
(Start: 47 @30606 has 1 MA's), (54, 30588), (95, 30426), (104, 30336), (105, 30315),

Gene: Mulciber_47 Start: 31256, Stop: 30909, Start Num: 48
Candidate Starts for Mulciber_47:
(Start: 48 @31256 has 24 MA's), (59, 31223), (65, 31202), (104, 30989), (106, 30956),

Gene: Munch_48 Start: 31705, Stop: 31358, Start Num: 48
Candidate Starts for Munch_48:
(Start: 48 @31705 has 24 MA's), (59, 31672), (65, 31651), (104, 31438), (106, 31405),

Gene: Myxus_47 Start: 32109, Stop: 31783, Start Num: 35
Candidate Starts for Myxus_47:
(Start: 35 @32109 has 28 MA's), (Start: 47 @32085 has 1 MA's), (Start: 61 @32043 has 2 MA's), (109, 31803),

Gene: NaSiaTalie_47 Start: 32178, Stop: 31744, Start Num: 18
Candidate Starts for NaSiaTalie_47:
(Start: 18 @32178 has 66 MA's), (56, 32079), (66, 32043), (106, 31791),

Gene: Naji_49 Start: 31906, Stop: 31496, Start Num: 17
Candidate Starts for Naji_49:
(5, 32113), (Start: 17 @31906 has 16 MA's), (67, 31786), (76, 31762), (78, 31756), (96, 31663), (104, 31576), (106, 31543),

Gene: Nedarya_45 Start: 30054, Stop: 29713, Start Num: 46
Candidate Starts for Nedarya_45:
(Start: 46 @30054 has 1 MA's), (96, 29883), (104, 29796),

Gene: Neeharika16_48 Start: 30597, Stop: 30169, Start Num: 18
Candidate Starts for Neeharika16_48:
(Start: 11 @30624 has 3 MA's), (Start: 18 @30597 has 66 MA's), (55, 30501), (65, 30465), (89, 30375), (92, 30348), (93, 30345), (109, 30189),

Gene: Newrala_49 Start: 31148, Stop: 30720, Start Num: 18
Candidate Starts for Newrala_49:
(Start: 11 @31175 has 3 MA's), (Start: 18 @31148 has 66 MA's), (55, 31052), (65, 31016), (89, 30926), (92, 30899), (93, 30896), (109, 30740),

Gene: NicoleTera_46 Start: 32449, Stop: 32027, Start Num: 13
Candidate Starts for NicoleTera_46:
(Start: 13 @32449 has 49 MA's), (Start: 18 @32440 has 66 MA's), (27, 32401), (73, 32305), (109, 32047),

Gene: NothingSpecial_45 Start: 32705, Stop: 32271, Start Num: 18
Candidate Starts for NothingSpecial_45:
(Start: 18 @32705 has 66 MA's), (56, 32606), (106, 32318),

Gene: OKCentral2016_44 Start: 31174, Stop: 30836, Start Num: 62
Candidate Starts for OKCentral2016_44:
(14, 31318), (26, 31267), (Start: 62 @31174 has 5 MA's), (81, 31114), (93, 31024), (97, 31009), (103, 30931),

Gene: Odin_46 Start: 30872, Stop: 30465, Start Num: 18
Candidate Starts for Odin_46:
(Start: 18 @30872 has 66 MA's), (Start: 61 @30773 has 2 MA's), (104, 30545), (106, 30512),

Gene: Onglai_45 Start: 30450, Stop: 30124, Start Num: 35
Candidate Starts for Onglai_45:
(Start: 35 @30450 has 28 MA's), (Start: 47 @30426 has 1 MA's), (Start: 61 @30384 has 2 MA's), (109, 30144),

Gene: Orange_47 Start: 31254, Stop: 30907, Start Num: 48
Candidate Starts for Orange_47:
(Start: 48 @31254 has 24 MA's), (59, 31221), (65, 31200), (104, 30987), (106, 30954),

Gene: PP_50 Start: 36311, Stop: 35883, Start Num: 28
Candidate Starts for PP_50:
(12, 36377), (Start: 28 @36311 has 1 MA's), (49, 36260), (74, 36179), (101, 35999), (102, 35981), (104, 35966), (107, 35918), (109, 35906),

Gene: PackMan_46 Start: 32109, Stop: 31783, Start Num: 35
Candidate Starts for PackMan_46:
(Start: 35 @32109 has 28 MA's), (Start: 47 @32085 has 1 MA's), (Start: 61 @32043 has 2 MA's), (109, 31803),

Gene: PainterBoy_48 Start: 31801, Stop: 31439, Start Num: 33
Candidate Starts for PainterBoy_48:
(Start: 33 @31801 has 3 MA's), (Start: 46 @31777 has 1 MA's), (104, 31519),

Gene: Petersenfast_46 Start: 31261, Stop: 30914, Start Num: 48
Candidate Starts for Petersenfast_46:

(Start: 48 @31261 has 24 MA's), (59, 31228), (65, 31207), (104, 30994), (106, 30961),

Gene: Ph8s_49 Start: 31506, Stop: 31078, Start Num: 18
Candidate Starts for Ph8s_49:
(9, 31542), (Start: 18 @31506 has 66 MA's), (104, 31158), (106, 31125),

Gene: Phaded_48 Start: 33339, Stop: 32920, Start Num: 15
Candidate Starts for Phaded_48:
(Start: 15 @33339 has 8 MA's), (Start: 51 @33258 has 1 MA's), (74, 33195), (80, 33177), (91, 33123), (106, 32967),

Gene: Phaeder_47 Start: 32109, Stop: 31783, Start Num: 35
Candidate Starts for Phaeder_47:
(Start: 35 @32109 has 28 MA's), (Start: 47 @32085 has 1 MA's), (Start: 61 @32043 has 2 MA's), (109, 31803),

Gene: Pharaoh_41 Start: 31682, Stop: 31311, Start Num: 35
Candidate Starts for Pharaoh_41:
(4, 32006), (Start: 35 @31682 has 28 MA's), (Start: 61 @31619 has 2 MA's), (88, 31523), (104, 31391),

Gene: Phonnegut_47 Start: 32158, Stop: 31832, Start Num: 35
Candidate Starts for Phonnegut_47:
(Start: 35 @32158 has 28 MA's), (Start: 47 @32134 has 1 MA's), (Start: 61 @32092 has 2 MA's), (109, 31852),

Gene: Pioneer_47 Start: 32158, Stop: 31832, Start Num: 35
Candidate Starts for Pioneer_47:
(Start: 35 @32158 has 28 MA's), (Start: 47 @32134 has 1 MA's), (Start: 61 @32092 has 2 MA's), (109, 31852),

Gene: Piro94_47 Start: 32531, Stop: 32109, Start Num: 13
Candidate Starts for Piro94_47:
(Start: 13 @32531 has 49 MA's), (Start: 18 @32522 has 66 MA's), (53, 32429), (56, 32423), (68, 32399), (106, 32156),

Gene: Pmask_49 Start: 31149, Stop: 30721, Start Num: 18
Candidate Starts for Pmask_49:
(Start: 11 @31176 has 3 MA's), (Start: 18 @31149 has 66 MA's), (55, 31053), (65, 31017), (89, 30927), (92, 30900), (93, 30897), (109, 30741),

Gene: Polyphemus_50 Start: 31292, Stop: 30864, Start Num: 18
Candidate Starts for Polyphemus_50:
(Start: 11 @31319 has 3 MA's), (Start: 18 @31292 has 66 MA's), (55, 31196), (65, 31160), (89, 31070), (92, 31043), (93, 31040), (109, 30884),

Gene: Pomar16_49 Start: 31947, Stop: 31537, Start Num: 17
Candidate Starts for Pomar16_49:
(2, 32274), (3, 32262), (Start: 17 @31947 has 16 MA's), (67, 31827), (76, 31803), (78, 31797), (96, 31704), (104, 31617), (106, 31584),

Gene: Power_46 Start: 32150, Stop: 31728, Start Num: 13
Candidate Starts for Power_46:

(Start: 13 @32150 has 49 MA's), (Start: 18 @32141 has 66 MA's), (25, 32105), (Start: 48 @32063 has 24 MA's), (106, 31775),

Gene: Priamo_50 Start: 30766, Stop: 30338, Start Num: 18
Candidate Starts for Priamo_50:
(Start: 11 @30793 has 3 MA's), (Start: 18 @30766 has 66 MA's), (55, 30670), (65, 30634), (89, 30544), (92, 30517), (93, 30514),

Gene: Priya_47 Start: 32176, Stop: 31850, Start Num: 35
Candidate Starts for Priya_47:
(Start: 35 @32176 has 28 MA's), (Start: 47 @32152 has 1 MA's), (Start: 61 @32110 has 2 MA's), (109, 31870),

Gene: Prudy_45 Start: 32629, Stop: 32207, Start Num: 13
Candidate Starts for Prudy_45:
(Start: 13 @32629 has 49 MA's), (Start: 18 @32620 has 66 MA's), (52, 32530), (106, 32254),

Gene: Pukovnik_46 Start: 32944, Stop: 32528, Start Num: 15
Candidate Starts for Pukovnik_46:
(Start: 15 @32944 has 8 MA's), (24, 32914), (Start: 51 @32866 has 1 MA's), (68, 32821), (86, 32761), (91, 32731), (106, 32575),

Gene: Qobbit_47 Start: 32138, Stop: 31812, Start Num: 35
Candidate Starts for Qobbit_47:
(Start: 35 @32138 has 28 MA's), (Start: 47 @32114 has 1 MA's), (Start: 61 @32072 has 2 MA's), (109, 31832),

Gene: QueenB2_46 Start: 32110, Stop: 31688, Start Num: 13
Candidate Starts for QueenB2_46:
(Start: 13 @32110 has 49 MA's), (Start: 18 @32101 has 66 MA's), (25, 32065), (Start: 48 @32023 has 24 MA's), (106, 31735),

Gene: QueenBeesly_47 Start: 32097, Stop: 31675, Start Num: 13
Candidate Starts for QueenBeesly_47:
(Start: 13 @32097 has 49 MA's), (Start: 18 @32088 has 66 MA's), (25, 32052), (Start: 48 @32010 has 24 MA's), (106, 31722),

Gene: Quokka_45 Start: 31085, Stop: 30678, Start Num: 18
Candidate Starts for Quokka_45:
(Start: 18 @31085 has 66 MA's), (38, 31049), (67, 30965), (104, 30758), (106, 30725),

Gene: Rachaly_46 Start: 32420, Stop: 31998, Start Num: 13
Candidate Starts for Rachaly_46:
(Start: 13 @32420 has 49 MA's), (Start: 18 @32411 has 66 MA's), (64, 32303), (67, 32291), (88, 32216), (106, 32045),

Gene: Rahalelujah_46 Start: 31411, Stop: 31040, Start Num: 35
Candidate Starts for Rahalelujah_46:
(6, 31597), (8, 31546), (9, 31522), (Start: 35 @31411 has 28 MA's), (60, 31351), (Start: 61 @31348 has 2 MA's), (109, 31060),

Gene: RedRock_49 Start: 33308, Stop: 32886, Start Num: 13
Candidate Starts for RedRock_49:

(Start: 13 @33308 has 49 MA's), (Start: 18 @33299 has 66 MA's), (39, 33242), (53, 33206), (106, 32933),

Gene: Refuge_46 Start: 33330, Stop: 32986, Start Num: 50
Candidate Starts for Refuge_46:
(44, 33342), (Start: 50 @33330 has 3 MA's), (64, 33288), (65, 33285), (71, 33267), (86, 33213), (88, 33201), (104, 33066), (109, 33006),

Gene: Retro23_48 Start: 32504, Stop: 32082, Start Num: 13
Candidate Starts for Retro23_48:
(Start: 13 @32504 has 49 MA's), (Start: 18 @32495 has 66 MA's), (53, 32402), (68, 32372), (106, 32129),

Gene: RhynO_46 Start: 31639, Stop: 31301, Start Num: 62
Candidate Starts for RhynO_46:
(Start: 62 @31639 has 5 MA's), (81, 31579), (97, 31474), (103, 31396),

Gene: Rifter_50 Start: 30703, Stop: 30275, Start Num: 18
Candidate Starts for Rifter_50:
(Start: 11 @30730 has 3 MA's), (Start: 18 @30703 has 66 MA's), (55, 30607), (87, 30493), (93, 30451), (109, 30295),

Gene: Roksolana_50 Start: 31185, Stop: 30757, Start Num: 18
Candidate Starts for Roksolana_50:
(Start: 11 @31212 has 3 MA's), (Start: 18 @31185 has 66 MA's), (55, 31089), (65, 31053), (89, 30963), (92, 30936), (93, 30933), (109, 30777),

Gene: Rowdy_49 Start: 31547, Stop: 31209, Start Num: 62
Candidate Starts for Rowdy_49:
(Start: 62 @31547 has 5 MA's), (81, 31487), (97, 31382), (103, 31304),

Gene: RyeScarlet_48 Start: 32133, Stop: 31807, Start Num: 35
Candidate Starts for RyeScarlet_48:
(Start: 35 @32133 has 28 MA's), (Start: 47 @32109 has 1 MA's), (Start: 61 @32067 has 2 MA's), (109, 31827),

Gene: Sachima_44 Start: 32043, Stop: 31717, Start Num: 35
Candidate Starts for Sachima_44:
(Start: 35 @32043 has 28 MA's), (Start: 47 @32019 has 1 MA's), (Start: 61 @31977 has 2 MA's), (109, 31737),

Gene: Salz_46 Start: 31232, Stop: 30885, Start Num: 48
Candidate Starts for Salz_46:
(Start: 48 @31232 has 24 MA's), (59, 31199), (65, 31178), (104, 30965), (106, 30932),

Gene: Saskia_48 Start: 31226, Stop: 30879, Start Num: 48
Candidate Starts for Saskia_48:
(Start: 48 @31226 has 24 MA's), (59, 31193), (65, 31172), (75, 31139), (104, 30959), (106, 30926),

Gene: Scherzo_47 Start: 32347, Stop: 32021, Start Num: 35
Candidate Starts for Scherzo_47:
(Start: 35 @32347 has 28 MA's), (Start: 47 @32323 has 1 MA's), (Start: 61 @32281 has 2 MA's), (109, 32041),

Gene: SemperFi_48 Start: 32365, Stop: 31943, Start Num: 13
Candidate Starts for SemperFi_48:
(Start: 13 @32365 has 49 MA's), (Start: 18 @32356 has 66 MA's), (53, 32263), (68, 32233), (106, 31990),

Gene: Serenity_47 Start: 31249, Stop: 30842, Start Num: 18
Candidate Starts for Serenity_47:
(Start: 18 @31249 has 66 MA's), (86, 31066), (92, 31021), (104, 30922), (106, 30889),

Gene: Sham4_47 Start: 31260, Stop: 30913, Start Num: 48
Candidate Starts for Sham4_47:
(Start: 48 @31260 has 24 MA's), (59, 31227), (65, 31206), (104, 30993), (106, 30960),

Gene: Shapes_49 Start: 31547, Stop: 31209, Start Num: 62
Candidate Starts for Shapes_49:
(Start: 62 @31547 has 5 MA's), (81, 31487), (97, 31382), (103, 31304),

Gene: SheaKeira_46 Start: 31684, Stop: 31340, Start Num: 37
Candidate Starts for SheaKeira_46:
(Start: 37 @31684 has 3 MA's), (44, 31669), (Start: 47 @31663 has 1 MA's), (Start: 61 @31621 has 2 MA's), (79, 31579), (88, 31546), (109, 31360), (110, 31351),

Gene: Sknot_47 Start: 32181, Stop: 31747, Start Num: 18
Candidate Starts for Sknot_47:
(Start: 18 @32181 has 66 MA's), (56, 32082), (66, 32046), (106, 31794),

Gene: Smeagan_50 Start: 32817, Stop: 32395, Start Num: 13
Candidate Starts for Smeagan_50:
(Start: 13 @32817 has 49 MA's), (Start: 18 @32808 has 66 MA's), (53, 32715), (56, 32709), (68, 32685), (106, 32442),

Gene: SmellyB_49 Start: 31137, Stop: 30709, Start Num: 18
Candidate Starts for SmellyB_49:
(Start: 11 @31164 has 3 MA's), (Start: 18 @31137 has 66 MA's), (55, 31041), (65, 31005), (89, 30915), (92, 30888), (93, 30885), (109, 30729),

Gene: SnapTap_47 Start: 32176, Stop: 31754, Start Num: 13
Candidate Starts for SnapTap_47:
(Start: 13 @32176 has 49 MA's), (Start: 18 @32167 has 66 MA's), (25, 32131), (Start: 48 @32089 has 24 MA's), (106, 31801),

Gene: Snape_47 Start: 31258, Stop: 30911, Start Num: 48
Candidate Starts for Snape_47:
(Start: 48 @31258 has 24 MA's), (59, 31225), (65, 31204), (104, 30991), (106, 30958),

Gene: SororFago_50 Start: 33759, Stop: 33412, Start Num: 40
Candidate Starts for SororFago_50:
(29, 33783), (Start: 40 @33759 has 5 MA's), (88, 33624), (90, 33618), (104, 33492), (109, 33432),

Gene: Spouty_47 Start: 32175, Stop: 31849, Start Num: 35
Candidate Starts for Spouty_47:

(Start: 35 @32175 has 28 MA's), (Start: 47 @32151 has 1 MA's), (Start: 61 @32109 has 2 MA's), (109, 31869),

Gene: StarStuff_49 Start: 31909, Stop: 31499, Start Num: 17
Candidate Starts for StarStuff_49:
(2, 32236), (3, 32224), (Start: 17 @31909 has 16 MA's), (67, 31789), (76, 31765), (78, 31759), (96, 31666), (104, 31579), (106, 31546),

Gene: Steamy_43 Start: 31608, Stop: 31282, Start Num: 51
Candidate Starts for Steamy_43:
(10, 31740), (23, 31668), (49, 31614), (Start: 51 @31608 has 1 MA's), (82, 31515), (86, 31509), (88, 31497), (104, 31362),

Gene: Sunhee_50 Start: 32074, Stop: 31730, Start Num: 42
Candidate Starts for Sunhee_50:
(42, 32074), (60, 32020), (77, 31978), (90, 31936), (104, 31810), (109, 31750),

Gene: SuperAwesome_49 Start: 31148, Stop: 30720, Start Num: 18
Candidate Starts for SuperAwesome_49:
(Start: 11 @31175 has 3 MA's), (Start: 18 @31148 has 66 MA's), (55, 31052), (65, 31016), (89, 30926), (92, 30899), (93, 30896), (109, 30740),

Gene: SuperCallie99_48 Start: 31021, Stop: 30593, Start Num: 18
Candidate Starts for SuperCallie99_48:
(Start: 11 @31048 has 3 MA's), (Start: 18 @31021 has 66 MA's), (55, 30925), (65, 30889), (89, 30799), (92, 30772), (93, 30769), (109, 30613),

Gene: Superchunk_46 Start: 30723, Stop: 30316, Start Num: 18
Candidate Starts for Superchunk_46:
(Start: 18 @30723 has 66 MA's), (Start: 61 @30624 has 2 MA's), (91, 30510), (104, 30396), (106, 30363),

Gene: SweetiePie_47 Start: 32305, Stop: 31883, Start Num: 13
Candidate Starts for SweetiePie_47:
(Start: 13 @32305 has 49 MA's), (Start: 18 @32296 has 66 MA's), (53, 32203), (68, 32173), (106, 31930),

Gene: SwirlSquare_52 Start: 31390, Stop: 30980, Start Num: 17
Candidate Starts for SwirlSquare_52:
(Start: 17 @31390 has 16 MA's), (59, 31300), (63, 31285), (72, 31258), (76, 31246), (78, 31240), (88, 31195), (104, 31060), (106, 31027),

Gene: TarsusIV_45 Start: 31964, Stop: 31542, Start Num: 13
Candidate Starts for TarsusIV_45:
(Start: 13 @31964 has 49 MA's), (64, 31847), (67, 31835), (106, 31589),

Gene: Temprado_50 Start: 31301, Stop: 30873, Start Num: 18
Candidate Starts for Temprado_50:
(Start: 11 @31328 has 3 MA's), (Start: 18 @31301 has 66 MA's), (55, 31205), (87, 31091), (93, 31049), (109, 30893),

Gene: Terrific_50 Start: 32535, Stop: 32101, Start Num: 18
Candidate Starts for Terrific_50:

(Start: 18 @32535 has 66 MA's), (56, 32436), (66, 32400), (106, 32148),

Gene: Timothy_47 Start: 31235, Stop: 30888, Start Num: 48
Candidate Starts for Timothy_47:
(Start: 48 @31235 has 24 MA's), (59, 31202), (65, 31181), (104, 30968), (106, 30935),

Gene: TinyTimmy_47 Start: 31278, Stop: 30931, Start Num: 48
Candidate Starts for TinyTimmy_47:
(Start: 48 @31278 has 24 MA's), (59, 31245), (65, 31224), (104, 31011), (106, 30978),

Gene: TipsytheTRex_44 Start: 31322, Stop: 30915, Start Num: 18
Candidate Starts for TipsytheTRex_44:
(Start: 18 @31322 has 66 MA's), (86, 31139), (104, 30995), (106, 30962),

Gene: Toaka_46 Start: 31676, Stop: 31308, Start Num: 35
Candidate Starts for Toaka_46:
(Start: 35 @31676 has 28 MA's), (Start: 47 @31652 has 1 MA's), (Start: 61 @31610 has 2 MA's), (109, 31328), (110, 31319),

Gene: Tomathan_49 Start: 31906, Stop: 31496, Start Num: 17
Candidate Starts for Tomathan_49:
(2, 32233), (3, 32221), (Start: 17 @31906 has 16 MA's), (67, 31786), (76, 31762), (78, 31756), (96, 31663), (104, 31576), (106, 31543),

Gene: ToneTone_46 Start: 30864, Stop: 30436, Start Num: 18
Candidate Starts for ToneTone_46:
(Start: 11 @30891 has 3 MA's), (Start: 18 @30864 has 66 MA's), (55, 30768), (87, 30654), (93, 30612), (109, 30456),

Gene: Travvers_49 Start: 31906, Stop: 31496, Start Num: 17
Candidate Starts for Travvers_49:
(2, 32233), (3, 32221), (Start: 17 @31906 has 16 MA's), (67, 31786), (76, 31762), (78, 31756), (96, 31663), (104, 31576), (106, 31543),

Gene: Tristan_46 Start: 33143, Stop: 32727, Start Num: 15
Candidate Starts for Tristan_46:
(Start: 15 @33143 has 8 MA's), (24, 33113), (Start: 51 @33065 has 1 MA's), (74, 33002), (91, 32930), (106, 32774),

Gene: Trixie_45 Start: 32233, Stop: 31820, Start Num: 17
Candidate Starts for Trixie_45:
(Start: 17 @32233 has 16 MA's), (Start: 48 @32155 has 24 MA's), (55, 32137), (106, 31867),

Gene: Trooper_48 Start: 32526, Stop: 32104, Start Num: 13
Candidate Starts for Trooper_48:
(Start: 13 @32526 has 49 MA's), (Start: 18 @32517 has 66 MA's), (34, 32469), (Start: 48 @32439 has 24 MA's), (69, 32391), (73, 32382), (106, 32151),

Gene: Tubs_47 Start: 32109, Stop: 31783, Start Num: 35
Candidate Starts for Tubs_47:
(Start: 35 @32109 has 28 MA's), (Start: 47 @32085 has 1 MA's), (Start: 61 @32043 has 2 MA's), (109, 31803),

Gene: Tucker_49 Start: 30751, Stop: 30323, Start Num: 18
Candidate Starts for Tucker_49:
(Start: 11 @30778 has 3 MA's), (Start: 18 @30751 has 66 MA's), (55, 30655), (87, 30541), (93, 30499), (109, 30343),

Gene: Turbido_48 Start: 32560, Stop: 32138, Start Num: 13
Candidate Starts for Turbido_48:
(Start: 13 @32560 has 49 MA's), (Start: 18 @32551 has 66 MA's), (53, 32458), (68, 32428), (106, 32185),

Gene: Ugenie5_44 Start: 32346, Stop: 32020, Start Num: 35
Candidate Starts for Ugenie5_44:
(Start: 35 @32346 has 28 MA's), (Start: 47 @32322 has 1 MA's), (Start: 61 @32280 has 2 MA's), (109, 32040),

Gene: Updawg_48 Start: 32422, Stop: 31988, Start Num: 18
Candidate Starts for Updawg_48:
(Start: 18 @32422 has 66 MA's), (56, 32323), (66, 32287), (106, 32035),

Gene: VA6_47 Start: 32280, Stop: 31867, Start Num: 13
Candidate Starts for VA6_47:
(Start: 13 @32280 has 49 MA's), (52, 32190), (56, 32181), (73, 32145), (90, 32079), (106, 31914),

Gene: VC3_50 Start: 32346, Stop: 31912, Start Num: 17
Candidate Starts for VC3_50:
(Start: 17 @32346 has 16 MA's), (Start: 18 @32343 has 66 MA's), (56, 32244), (67, 32202), (76, 32178), (96, 32079), (104, 31992), (106, 31959),

Gene: Vanisoa_46 Start: 32705, Stop: 32358, Start Num: 35
Candidate Starts for Vanisoa_46:
(6, 32888), (8, 32837), (9, 32813), (Start: 35 @32705 has 28 MA's), (Start: 47 @32681 has 1 MA's), (Start: 61 @32639 has 2 MA's), (70, 32609), (109, 32378),

Gene: VohminGhazi_49 Start: 31138, Stop: 30710, Start Num: 18
Candidate Starts for VohminGhazi_49:
(Start: 11 @31165 has 3 MA's), (Start: 18 @31138 has 66 MA's), (55, 31042), (65, 31006), (89, 30916), (92, 30889), (93, 30886), (109, 30730),

Gene: WeiHuaDA_49 Start: 33119, Stop: 32706, Start Num: 18
Candidate Starts for WeiHuaDA_49:
(Start: 18 @33119 has 66 MA's), (Start: 48 @33041 has 24 MA's), (67, 32999), (106, 32753),

Gene: Whabigail7_48 Start: 32545, Stop: 32123, Start Num: 13
Candidate Starts for Whabigail7_48:
(Start: 13 @32545 has 49 MA's), (Start: 18 @32536 has 66 MA's), (53, 32443), (56, 32437), (106, 32170),

Gene: WideWale_48 Start: 32422, Stop: 31988, Start Num: 18
Candidate Starts for WideWale_48:
(Start: 18 @32422 has 66 MA's), (56, 32323), (66, 32287), (106, 32035),

Gene: Wiks_48 Start: 30932, Stop: 30504, Start Num: 18
Candidate Starts for Wiks_48:

(Start: 11 @30959 has 3 MA's), (Start: 18 @30932 has 66 MA's), (55, 30836), (87, 30722), (93, 30680), (109, 30524),

Gene: Wolpertinger_46 Start: 31261, Stop: 30914, Start Num: 48
Candidate Starts for Wolpertinger_46:
(Start: 48 @31261 has 24 MA's), (59, 31228), (65, 31207), (104, 30994), (106, 30961),

Gene: WorldCup_45 Start: 31405, Stop: 31034, Start Num: 35
Candidate Starts for WorldCup_45:
(6, 31591), (8, 31540), (9, 31516), (Start: 35 @31405 has 28 MA's), (60, 31345), (Start: 61 @31342 has 2 MA's), (109, 31054),

Gene: WunderPhul_49 Start: 30930, Stop: 30502, Start Num: 18
Candidate Starts for WunderPhul_49:
(Start: 11 @30957 has 3 MA's), (Start: 18 @30930 has 66 MA's), (55, 30834), (87, 30720), (93, 30678), (109, 30522),

Gene: XianYue_46 Start: 31886, Stop: 31548, Start Num: 41
Candidate Starts for XianYue_46:
(Start: 41 @31886 has 1 MA's), (99, 31712), (106, 31595),

Gene: Yecey3_48 Start: 31582, Stop: 31238, Start Num: 32
Candidate Starts for Yecey3_48:
(Start: 32 @31582 has 1 MA's), (Start: 47 @31561 has 1 MA's), (Start: 61 @31519 has 2 MA's), (79, 31477), (88, 31444), (109, 31258),

Gene: Yokurt_49 Start: 30959, Stop: 30504, Start Num: 11
Candidate Starts for Yokurt_49:
(Start: 11 @30959 has 3 MA's), (Start: 18 @30932 has 66 MA's), (55, 30836), (87, 30722), (93, 30680), (109, 30524),

Gene: Zaka_49 Start: 30932, Stop: 30504, Start Num: 18
Candidate Starts for Zaka_49:
(Start: 11 @30959 has 3 MA's), (Start: 18 @30932 has 66 MA's), (55, 30836), (87, 30722), (93, 30680), (109, 30524),

Gene: Zimmer_44 Start: 32823, Stop: 32467, Start Num: 50
Candidate Starts for Zimmer_44:
(Start: 50 @32823 has 3 MA's), (64, 32781), (86, 32706), (88, 32694), (91, 32676), (104, 32547), (109, 32487),

Gene: Zulu_49 Start: 30732, Stop: 30304, Start Num: 18
Candidate Starts for Zulu_49:
(Start: 11 @30759 has 3 MA's), (Start: 18 @30732 has 66 MA's), (55, 30636), (87, 30522), (93, 30480), (109, 30324),