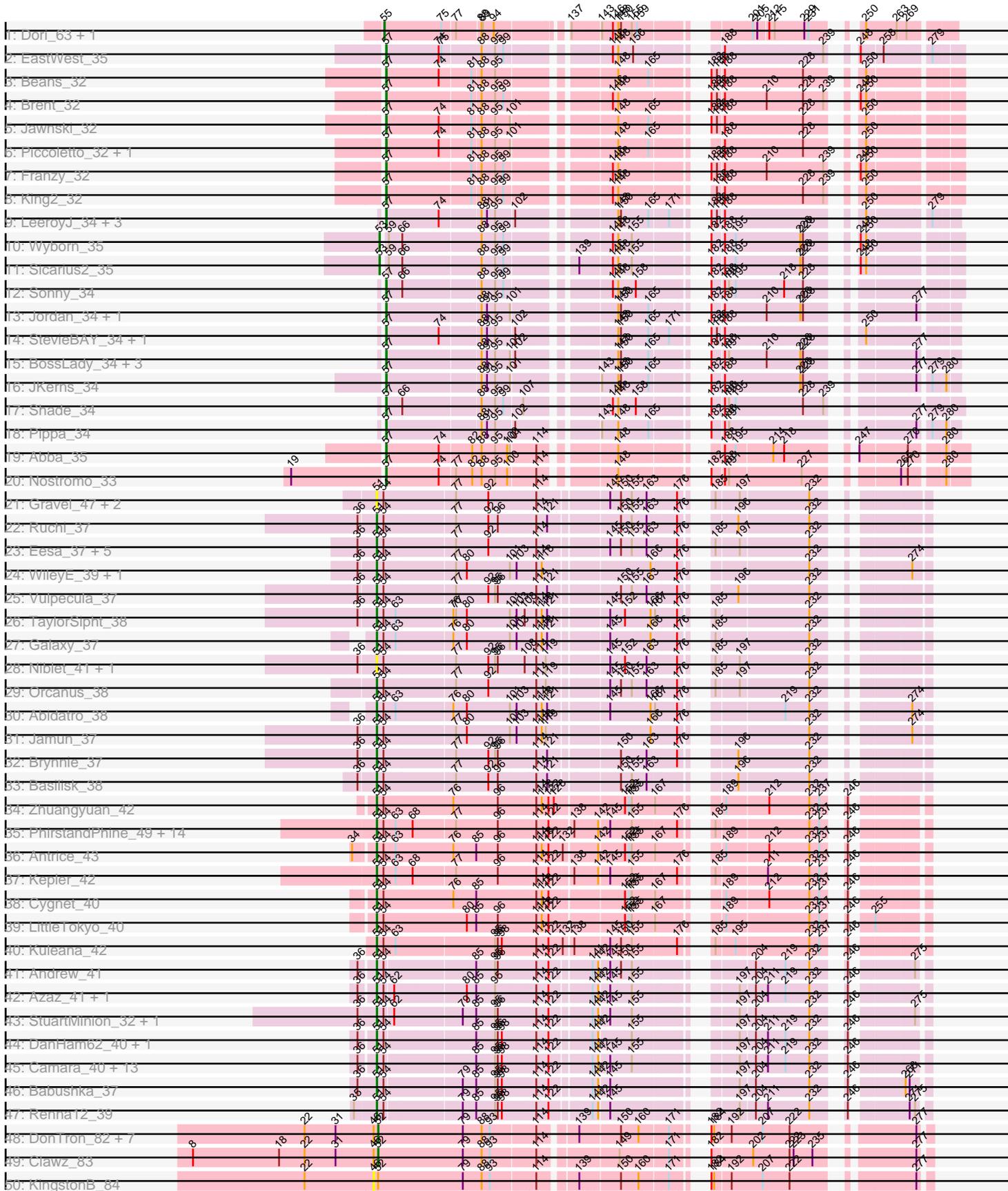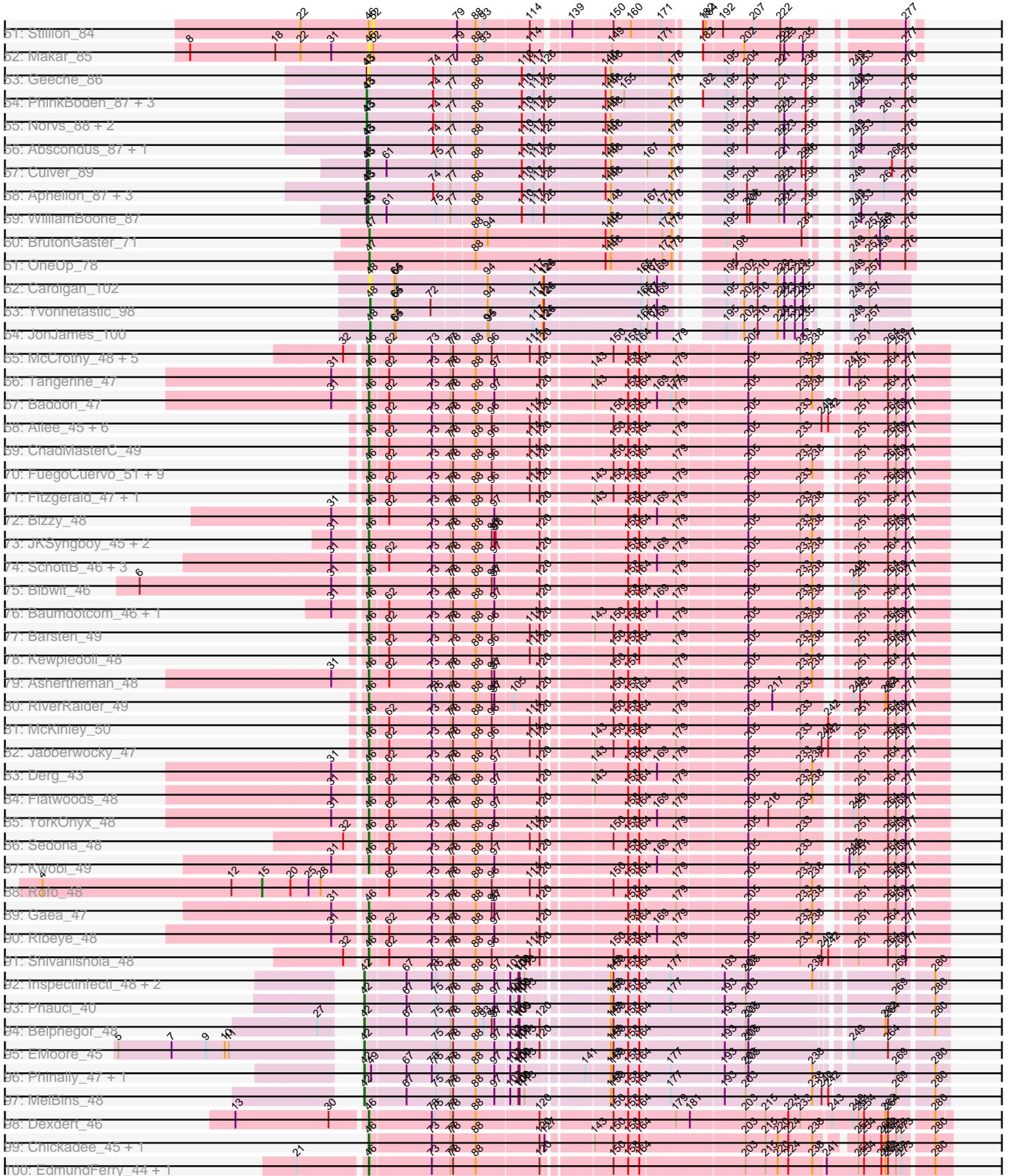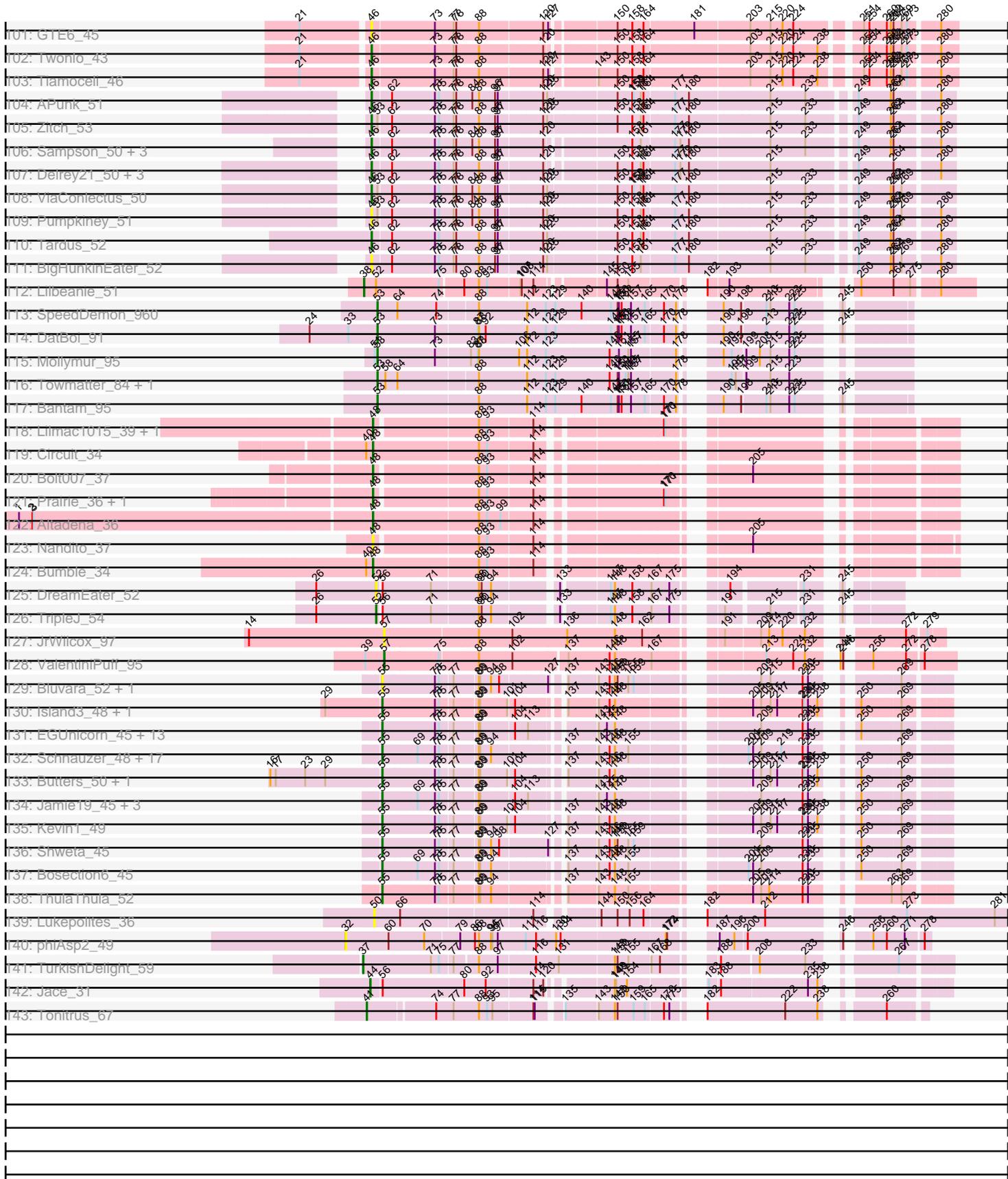# Pham 289024

Pham 289024

Pham 289024

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 289024 Report

This analysis was run 03/28/26 on database version 641.

Pham number 289024 has 285 members, 50 are drafts.

Phages represented in each track:
• Track 1 : Dori_63, Mask_63
• Track 2 : EastWest_35
• Track 3 : Beans_32
• Track 4 : Brent_32
• Track 5 : Jawnski_32
• Track 6 : Piccoletto_32, NathanVaag_32
• Track 7 : Franzy_32
• Track 8 : King2_32
• Track 9 : LeeroyJ_34, BarretLemon_34, BigDome_34, Timinator_34
• Track 10 : Wyborn_35
• Track 11 : Sicarius2_35
• Track 12 : Sonny_34
• Track 13 : Jordan_34, Zartrosa_34
• Track 14 : StevieBAY_34, GravityBall_34
• Track 15 : BossLady_34, Martha_34, TaeYoung_34, Grekaycon_34
• Track 16 : JKerns_34
• Track 17 : Shade_34
• Track 18 : Pippa_34
• Track 19 : Abba_35
• Track 20 : Nostromo_33
• Track 21 : Gravel_47, Pelletreau_47, Westrich_46
• Track 22 : Ruchi_37
• Track 23 : Eesa_37, KendraB23_48, Amanises_47, Shen_37, Toad24_40, Zixiang_41
• Track 24 : WileyE_39, Chickaboom_39
• Track 25 : Vulpecula_37
• Track 26 : TaylorSipht_38
• Track 27 : Galaxy_37
• Track 28 : Niblet_41, Chicken_38
• Track 29 : Orcanus_38
• Track 30 : Abidatro_38
• Track 31 : Jamun_37
• Track 32 : Brynnie_37
• Track 33 : Basilisk_38
• Track 34 : Zhuangyuan_42
• Track 35 : PhirstandPhine_49, Melons_42, Coral_40, Bedetta_45, Colusalem_41, OtsoOtso_41, HannahPhantana_41, Polka_40, Jerole_41, Pineda_43, Daob_42,

Amelia_40, Bibble12_44, Lunar_42, Cote_42
• Track 36 : Antrice_43
• Track 37 : Kepler_42
• Track 38 : Cygnet_40
• Track 39 : LittleTokyo_40
• Track 40 : Kuleana_42
• Track 41 : Andrew_41
• Track 42 : Azaz_41, Leona_39
• Track 43 : StuartMinion_32, AlexMinion_42
• Track 44 : DanHam62_40, AmiCi24_39
• Track 45 : Camara_40, RedFox_40, Rattail_40, AdoptaAdorbs_39, HamCheese_40, Atlantica_40, Glotell_41, Laphuphu24k_39, PhluffyCoco_40, Amphitrite_40, Juno112_39, Fingolfin_40, KHumphrey_40, Oppalora_39
• Track 46 : Babushka_37
• Track 47 : Renna12_39
• Track 48 : DonTron_82, Grumio_83, Purplicious_82, ColdSoup_85, Jollymon_82, Amo99_85, Sting_81, Soos_78
• Track 49 : Clawz_83
• Track 50 : KingstonB_84
• Track 51 : Stillion_84
• Track 52 : Makar_85
• Track 53 : Geeche_86
• Track 54 : PhinkBoden_87, Cucurbita_89, Bachita_89, Engineer_89
• Track 55 : Norvs_88, ClubL_87, Smoothie_89
• Track 56 : Abscondus_87, Dusty_85
• Track 57 : Culver_89
• Track 58 : Aphelion_87, Lozinak_88, Miskis_80, Toniann_88
• Track 59 : WilliamBoone_87
• Track 60 : BrutonGaster_71
• Track 61 : OneUp_78
• Track 62 : Cardigan_102
• Track 63 : Yvonnetastic_98
• Track 64 : JonJames_100
• Track 65 : McCrothy_48, Galadriel_48, Nordenberg_43, Brandonk123_50, Paries_51, BobBob_46
• Track 66 : Tangerine_47
• Track 67 : Baddon_47
• Track 68 : Ailee_45, Affeca_46, Sitar_48, Keitabear_48, Stultus_47, Lennon_48, Angelicage_46
• Track 69 : ChadMasterC_49
• Track 70 : FuegoCuervo_51, Tangent_49, Charming_49, Geodirt_47, Vivi2_51, Love_52, MoontowerMania_48, Fosterous_46, Kamashten_46, Thing3_46
• Track 71 : Fitzgerald_47, Sanjuju_47
• Track 72 : Bizzy_48
• Track 73 : JKSyngboy_45, Saronaya_47, Gustavo_47
• Track 74 : SchottB_46, StorminNorm_47, Tycho_47, Kroos_48
• Track 75 : Bibwit_46
• Track 76 : Baumdotcom_46, LilHam_45
• Track 77 : Barsten_49
• Track 78 : Kewpiedoll_48
• Track 79 : Ashertheman_48
• Track 80 : RiverRaider_49
• Track 81 : McKinley_50

- Track 82 : Jabberwocky_47
- Track 83 : Derg_43
- Track 84 : Flatwoods_48
- Track 85 : YorkOnyx_48
- Track 86 : Sedona_48
- Track 87 : Kwobi_49
- Track 88 : Rofo_48
- Track 89 : Gaea_47
- Track 90 : Ribeye_48
- Track 91 : Shivanishola_48
- Track 92 : Inspectinfecti_48, Ali17_45, Hans_49
- Track 93 : Phauci_40
- Track 94 : Belphegor_48
- Track 95 : EMoore_45
- Track 96 : Phinally_47, Leonard_47
- Track 97 : MelBins_48
- Track 98 : Dexdert_46
- Track 99 : Chickadee_45, Kwekel_45
- Track 100 : EdmundFerry_44, RoadKill_43
- Track 101 : GTE6_45
- Track 102 : Twonlo_43
- Track 103 : Tiamoceli_46
- Track 104 : APunk_51
- Track 105 : Zitch_53
- Track 106 : Sampson_50, Scioto_51, Natkenzie_50, Abblin_50
- Track 107 : Delrey21_50, DoctorFroggo_50, Verity_50, Zipp_51
- Track 108 : ViaConlectus_50
- Track 109 : Pumpkiney_51
- Track 110 : Tardus_52
- Track 111 : BigHunkinEater_52
- Track 112 : Lilbeanie_51
- Track 113 : SpeedDemon_960
- Track 114 : DatBoi_91
- Track 115 : Mollymur_95
- Track 116 : Towmatter_84, Daredevil_85
- Track 117 : Bantam_95
- Track 118 : Lilmac1015_39, CalWood4100_39
- Track 119 : Circuit_34
- Track 120 : Bolt007_37
- Track 121 : Prairie_36, Klevey_37
- Track 122 : Altadena_36
- Track 123 : Nandito_37
- Track 124 : Bumble_34
- Track 125 : DreamEater_52
- Track 126 : TripleJ_54
- Track 127 : JrWilcox_97
- Track 128 : ValentiniPuff_95
- Track 129 : Bluvara_52, Stuck_61
- Track 130 : Island3_48, Brujita_48
- Track 131 : EGUnicorn_45, Rebel_43, ShrimpFriedEgg_51, BabeRuth_52, Nenae_51, Purgamenstris_51, Impisi_52, Phrann_48, Redi_51, Hanako_51, Andies_44, PhancyPhin_51, Raymond7_45, Spinach_51

• Track 132 : Schnauzer_48, Fulbright_46, Melville_50, Tessdabest_48, Parmesanjohn_47, Magsby_47, Duplicity_47, Phloss_45, Silvafighter_48, Tortoise12_46, Carcharodon_47, Gex_47, Xerxes_47, Scitech_44, Pipsqueaks_47, Smurph_47, Tapioca_49, Chewbacca_49
• Track 133 : Butters_50, Rubeelu_50
• Track 134 : Jamie19_45, Panchino_44, SpongeBob_45, Snekmaggedon_45
• Track 135 : Kevin1_49
• Track 136 : Shweta_45
• Track 137 : Bosection6_45
• Track 138 : ThulaThula_52
• Track 139 : Lukepolites_36
• Track 140 : phiAsp2_49
• Track 141 : TurkishDelight_59
• Track 142 : Jace_31
• Track 143 : Tonitrus_67

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

The start number called the most often in the published annotations is 46, it was called in 68 of the 235 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• APunk_51, Abblin_50, Affeca_46, Ailee_45, Angelicage_46, Ashertheman_48, Baddon_47, Barsten_49, Baumdotcom_46, Bibwit_46, BigHunkinEater_52, Bizzy_48, BobBob_46, Brandonk123_50, ChadMasterC_49, Charming_49, Chickadee_45, Delrey21_50, Derg_43, Dexdert_46, DoctorFroggo_50, EdmundFerry_44, Fitzgerald_47, Flatwoods_48, Fosterous_46, FuegoCuervo_51, GTE6_45, Gaea_47, Galadriel_48, Geodirt_47, Gustavo_47, JKSyngboy_45, Jabberwocky_47, Kamashten_46, Keitabear_48, Kewpiedoll_48, KingstonB_84, Kroos_48, Kwekel_45, Kwobi_49, Lennon_48, LilHam_45, Love_52, Makar_85, McCrothy_48, McKinley_50, MoontowerMania_48, Natkenzie_50, Nordenberg_43, Paries_51, Pumpkiney_51, Ribeye_48, RiverRaider_49, RoadKill_43, Sampson_50, Sanjuju_47, Saronaya_47, SchottB_46, Scioto_51, Sedona_48, Shivanishola_48, Sitar_48, StorminNorm_47, Stultus_47, Tangent_49, Tangerine_47, Tardus_52, Thing3_46, Tiamoceli_46, Twonlo_43, Tycho_47, Verity_50, ViaConlectus_50, Vivi2_51, YorkOnyx_48, Zipp_51, Zitch_53,

Genes that have the "Most Annotated" start but do not call it:
• Amo99_85, Clawz_83, ColdSoup_85, DonTron_82, Grumio_83, Jollymon_82, Purplicious_82, Soos_78, Stillion_84, Sting_81,

Genes that do not have the "Most Annotated" start:
• Abba_35, Abidatro_38, Abscondus_87, AdoptaAdorbs_39, AlexMinion_42, Ali17_45, Altadena_36, Amanises_47, Amelia_40, AmiCi24_39, Amphitrite_40, Andies_44, Andrew_41, Antrice_43, Aphelion_87, Atlantica_40, Azaz_41, BabeRuth_52, Babushka_37, Bachita_89, Bantam_95, BarretLemon_34, Basilisk_38, Beans_32, Bedetta_45, Belphegor_48, Bibble12_44, BigDome_34, Bluvara_52, Bolt007_37, Bosection6_45, BossLady_34, Brent_32, Brujita_48, BrutonGaster_71, Brynnie_37, Bumble_34, Butters_50, CalWood4100_39, Camara_40, Carcharodon_47, Cardigan_102, Chewbacca_49, Chickaboom_39, Chicken_38,

Circuit_34, ClubL_87, Colusalem_41, Coral_40, Cote_42, Cucurbita_89, Culver_89, Cygnet_40, DanHam62_40, Daob_42, Daredevil_85, DatBoi_91, Dori_63, DreamEater_52, Duplicity_47, Dusty_85, EGUnicorn_45, EMoore_45, EastWest_35, Eesa_37, Engineer_89, Fingolfin_40, Franzy_32, Fulbright_46, Galaxy_37, Geeche_86, Gex_47, Glotell_41, Gravel_47, GravityBall_34, Grekaycon_34, HamCheese_40, Hanako_51, HannahPhantana_41, Hans_49, Impisi_52, Inspectinfecti_48, Island3_48, JKerns_34, Jace_31, Jamie19_45, Jamun_37, Jawnski_32, Jerole_41, JonJames_100, Jordan_34, JrWilcox_97, Juno112_39, KHumphrey_40, KendraB23_48, Kepler_42, Kevin1_49, King2_32, Klevey_37, Kuleana_42, Laphuphu24k_39, LeeroyJ_34, Leona_39, Leonard_47, Lilbeanie_51, Lilmac1015_39, LittleTokyo_40, Lozinak_88, Lukepolites_36, Lunar_42, Magsby_47, Martha_34, Mask_63, MelBins_48, Melons_42, Melville_50, Miskis_80, Mollymur_95, Nandito_37, NathanVaag_32, Nenae_51, Niblet_41, Norvs_88, Nostromo_33, OneUp_78, Oppalora_39, Orcanus_38, OtsoOtso_41, Panchino_44, Parmesanjohn_47, Pelletreau_47, PhancyPhin_51, Phauci_40, Phinally_47, PhinkBoden_87, PhirstandPhine_49, Phloss_45, PhluffyCoco_40, Phrann_48, Piccoletto_32, Pineda_43, Pippa_34, Pipsqueaks_47, Polka_40, Prairie_36, Purgamenstris_51, Rattail_40, Raymond7_45, Rebel_43, RedFox_40, Redi_51, Renna12_39, Rofo_48, Rubeelu_50, Ruchi_37, Schnauzer_48, Scitech_44, Shade_34, Shen_37, ShrimpFriedEgg_51, Shweta_45, Sicarius2_35, Silvafighter_48, Smoothie_89, Smurph_47, Snekmaggedon_45, Sonny_34, SpeedDemon_960, Spinach_51, SpongeBob_45, StevieBAY_34, StuartMinion_32, Stuck_61, TaeYoung_34, Tapioca_49, TaylorSipht_38, Tessdabest_48, ThulaThula_52, Timinator_34, Toad24_40, Toniann_88, Tonitrus_67, Tortoise12_46, Towmatter_84, TripleJ_54, TurkishDelight_59, ValentiniPuff_95, Vulpecula_37, Westrich_46, WileyE_39, WilliamBoone_87, Wyborn_35, Xerxes_47, Yvonnetastic_98, Zartrosa_34, Zhuangyuan_42, Zixiang_41, phiAsp2_49,

Summary by start number:

Start 15:
• Found in 1 of 285 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 235
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Rofo_48 (DE1),

Start 32:
• Found in 9 of 285 (3.2%) of genes in pham
• No Manual Annotations of this start.
• Called 11.1% of time when present
• Phage (with cluster) where this start called: phiAsp2_49 (singleton),

Start 37:
• Found in 1 of 285 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 235
• Called 100.0% of time when present
• Phage (with cluster) where this start called: TurkishDelight_59 (singleton),

Start 38:
• Found in 1 of 285 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 235
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Lilbeanie_51 (DE5),

Start 41:
• Found in 1 of 285 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 235
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Tonitrus_67 (singleton),

Start 42:
• Found in 9 of 285 (3.2%) of genes in pham
• Manual Annotations of this start: 9 of 235
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ali17_45 (DE2), Belphegor_48 (DE2), EMoore_45 (DE2), Hans_49 (DE2), Inspectinfecti_48 (DE2), Leonard_47 (DE2), MelBins_48 (DE2), Phauci_40 (DE2), Phinally_47 (DE2),

Start 43:
• Found in 16 of 285 (5.6%) of genes in pham
• Manual Annotations of this start: 7 of 235
• Called 43.8% of time when present
• Phage (with cluster) where this start called: Bachita_89 (CQ1), ClubL_87 (CQ1), Cucurbita_89 (CQ1), Engineer_89 (CQ1), Norvs_88 (CQ1), PhinkBoden_87 (CQ1), Smoothie_89 (CQ1),

Start 44:
• Found in 1 of 285 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 235
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Jace_31 (singleton),

Start 45:
• Found in 16 of 285 (5.6%) of genes in pham
• Manual Annotations of this start: 8 of 235
• Called 56.2% of time when present
• Phage (with cluster) where this start called: Abscondus_87 (CQ1), Aphelion_87 (CQ1), Culver_89 (CQ1), Dusty_85 (CQ1), Geeche_86 (CQ1), Lozinak_88 (CQ1), Miskis_80 (CQ1), Toniann_88 (CQ1), WilliamBoone_87 (CQ1),

Start 46:
• Found in 87 of 285 (30.5%) of genes in pham
• Manual Annotations of this start: 68 of 235
• Called 88.5% of time when present
• Phage (with cluster) where this start called: APunk_51 (DE4), Abblin_50 (DE4), Affeca_46 (DE1), Ailee_45 (DE1), Angelicage_46 (DE1), Ashertheman_48 (DE1), Baddon_47 (DE1), Barsten_49 (DE1), Baumdotcom_46 (DE1), Bibwit_46 (DE1), BigHunkinEater_52 (DE4), Bizzy_48 (DE1), BobBob_46 (DE1), Brandonk123_50 (DE1), ChadMasterC_49 (DE1), Charming_49 (DE1), Chickadee_45 (DE3), Delrey21_50 (DE4), Derg_43 (DE1), Dexdert_46 (DE3), DoctorFroggo_50 (DE4), EdmundFerry_44 (DE3), Fitzgerald_47 (DE1), Flatwoods_48 (DE1), Fosterous_46 (DE1), FuegoCuervo_51 (DE1), GTE6_45 (DE3), Gaea_47 (DE1), Galadriel_48 (DE1), Geodirt_47 (DE1), Gustavo_47 (DE1), JKSyngboy_45 (DE1), Jabberwocky_47 (DE1), Kamashten_46 (DE1), Keitabear_48 (DE1), Kewpiedoll_48 (DE1), KingstonB_84 (CP), Kroos_48 (DE1), Kwekel_45 (DE3), Kwobi_49 (DE1), Lennon_48 (DE1), LilHam_45 (DE1), Love_52 (DE1), Makar_85 (CP), McCrothy_48 (DE1),

McKinley_50 (DE1), MoontowerMania_48 (DE1), Natkenzie_50 (DE4), Nordenberg_43 (DE1), Paries_51 (DE1), Pumpkiney_51 (DE4), Ribeye_48 (DE1), RiverRaider_49 (DE1), RoadKill_43 (DE3), Sampson_50 (DE4), Sanjuju_47 (DE1), Saronaya_47 (DE1), SchottB_46 (DE1), Scioto_51 (DE4), Sedona_48 (DE1), Shivanishola_48 (DE1), Sitar_48 (DE1), StorminNorm_47 (DE1), Stultus_47 (DE1), Tangent_49 (DE1), Tangerine_47 (DE1), Tardus_52 (DE4), Thing3_46 (DE1), Tiamoceli_46 (DE3), Twonlo_43 (DE3), Tycho_47 (DE1), Verity_50 (DE4), ViaConlectus_50 (DE4), Vivi2_51 (DE1), YorkOnyx_48 (DE1), Zipp_51 (DE4), Zitch_53 (DE4),

Start 47:
• Found in 2 of 285 (0.7%) of genes in pham
• Manual Annotations of this start: 2 of 235
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BrutonGaster_71 (CQ2), OneUp_78 (CQ2),

Start 48:
• Found in 12 of 285 (4.2%) of genes in pham
• Manual Annotations of this start: 9 of 235
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Altadena_36 (FH), Bolt007_37 (FH), Bumble_34 (FH), CalWood4100_39 (FH), Cardigan_102 (DD), Circuit_34 (FH), JonJames_100 (DD), Klevey_37 (FH), Lilmac1015_39 (FH), Nandito_37 (FH), Prairie_36 (FH), Yvonnetastic_98 (DD),

Start 50:
• Found in 1 of 285 (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: Lukepolites_36 (singleton),

Start 51:
• Found in 67 of 285 (23.5%) of genes in pham
• Manual Annotations of this start: 44 of 235
• Called 98.5% of time when present
• Phage (with cluster) where this start called: Abidatro_38 (AS1), AdoptaAdorbs_39 (AS3), AlexMinion_42 (AS3), Amanises_47 (AS1), Amelia_40 (AS2), AmiCi24_39 (AS3), Amphitrite_40 (AS3), Andrew_41 (AS3), Antrice_43 (AS2), Atlantica_40 (AS3), Azaz_41 (AS3), Babushka_37 (AS3), Basilisk_38 (AS1), Bedetta_45 (AS2), Bibble12_44 (AS2), Brynnie_37 (AS1), Camara_40 (AS3), Chickaboom_39 (AS1), Chicken_38 (AS1), Colusalem_41 (AS2), Coral_40 (AS2), Cote_42 (AS2), Cygnet_40 (AS2), DanHam62_40 (AS3), Daob_42 (AS2), Eesa_37 (AS1), Fingolfin_40 (AS3), Galaxy_37 (AS1), Glotell_41 (AS3), Gravel_47 (AS1), HamCheese_40 (AS3), HannahPhantana_41 (AS2), Jamun_37 (AS1), Jerole_41 (AS2), Juno112_39 (AS3), KHumphrey_40 (AS3), KendraB23_48 (AS1), Kepler_42 (AS2), Kuleana_42 (AS2), Laphuphu24k_39 (AS3), Leona_39 (AS3), LittleTokyo_40 (AS2), Lunar_42 (AS2), Melons_42 (AS2), Niblet_41 (AS1), Oppalora_39 (AS3), Orcanus_38 (AS1), OtsoOtso_41 (AS2), Pelletreau_47 (AS1), PhirstandPhine_49 (AS2), PhluffyCoco_40 (AS3), Pineda_43 (AS2), Polka_40 (AS2), Rattail_40 (AS3), RedFox_40 (AS3), Renna12_39 (AS3), Ruchi_37 (AS1), Shen_37 (AS1), StuartMinion_32 (AS3), TaylorSipht_38 (AS1), Toad24_40 (AS1), Vulpecula_37 (AS1), Westrich_46 (AS1), WileyE_39 (AS1), Zhuangyuan_42 (AS2), Zixiang_41 (AS1),

Start 52:
• Found in 15 of 285 (5.3%) of genes in pham
• Manual Annotations of this start: 6 of 235
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Amo99_85 (CP), Clawz_83 (CP), ColdSoup_85 (CP), DonTron_82 (CP), DreamEater_52 (FJ), Grumio_83 (CP), Jollymon_82 (CP), Purplicious_82 (CP), Soos_78 (CP), Stillion_84 (CP), Sting_81 (CP), TripleJ_54 (FJ),

Start 53:
• Found in 11 of 285 (3.9%) of genes in pham
• Manual Annotations of this start: 8 of 235
• Called 72.7% of time when present
• Phage (with cluster) where this start called: Bantam_95 (DL), Daredevil_85 (DL), DatBoi_91 (DL), Mollymur_95 (DL), Sicarius2_35 (AO2), SpeedDemon_960 (DL), Towmatter_84 (DL), Wyborn_35 (AO2),

Start 55:
• Found in 48 of 285 (16.8%) of genes in pham
• Manual Annotations of this start: 43 of 235
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Andies_44 (N), BabeRuth_52 (N), Bluvara_52 (I), Bosection6_45 (N), Brujita_48 (I1), Butters_50 (N), Carcharodon_47 (N), Chewbacca_49 (N), Dori_63 (AD), Duplicity_47 (N), EGUnicorn_45 (N), Fulbright_46 (N), Gex_47 (N), Hanako_51 (N), Impisi_52 (N), Island3_48 (I1), Jamie19_45 (N), Kevin1_49 (N), Magsby_47 (N), Mask_63 (AD), Melville_50 (N), Nenae_51 (N), Panchino_44 (N), Parmesanjohn_47 (N), PhancyPhin_51 (N), Phloss_45 (N), Phrann_48 (N), Pipsqueaks_47 (N), Purgamenstris_51 (N), Raymond7_45 (N), Rebel_43 (N), Redi_51 (N), Rubeelu_50 (N), Schnauzer_48 (N), Scitech_44 (N), ShrimpFriedEgg_51 (N), Shweta_45 (N), Silvafighter_48 (N), Smurph_47 (N), Snekmaggedon_45 (N), Spinach_51 (N), SpongeBob_45 (N), Stuck_61 (I2), Tapioca_49 (N), Tessdabest_48 (N), ThulaThula_52 (P5), Tortoise12_46 (N), Xerxes_47 (N),

Start 57:
• Found in 28 of 285 (9.8%) of genes in pham
• Manual Annotations of this start: 26 of 235
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Abba_35 (AO3), BarretLemon_34 (AO2), Beans_32 (AO1), BigDome_34 (AO2), BossLady_34 (AO2), Brent_32 (AO1), EastWest_35 (AO), Franzy_32 (AO1), GravityBall_34 (AO2), Grekaycon_34 (AO2), JKerns_34 (AO2), Jawnski_32 (AO1), Jordan_34 (AO2), JrWilcox_97 (GL), King2_32 (AO1), LeeroyJ_34 (AO2), Martha_34 (AO2), NathanVaag_32 (AO1), Nostromo_33 (AO3), Piccoletto_32 (AO1), Pippa_34 (AO2), Shade_34 (AO2), Sonny_34 (AO2), StevieBAY_34 (AO2), TaeYoung_34 (AO2), Timinator_34 (AO2), ValentiniPuff_95 (GL), Zartrosa_34 (AO2),

Summary by clusters:

There are 27 clusters represented in this pham: DL, DD, singleton, FH, FJ, GL, I1, I2, CQ2, CQ1, AS3, AS2, AS1, AD, P5, I, AO, N, AO3, AO2, AO1, CP, DE1, DE2, DE3, DE4, DE5,

Info for manual annotations of cluster AD:
•Start number 55 was manually annotated 2 times for cluster AD.

Info for manual annotations of cluster AO:
•Start number 57 was manually annotated 1 time for cluster AO.

Info for manual annotations of cluster AO1:
•Start number 57 was manually annotated 7 times for cluster AO1.

Info for manual annotations of cluster AO2:
•Start number 53 was manually annotated 2 times for cluster AO2.
•Start number 57 was manually annotated 15 times for cluster AO2.

Info for manual annotations of cluster AO3:
•Start number 57 was manually annotated 2 times for cluster AO3.

Info for manual annotations of cluster AS1:
•Start number 51 was manually annotated 13 times for cluster AS1.

Info for manual annotations of cluster AS2:
•Start number 51 was manually annotated 17 times for cluster AS2.

Info for manual annotations of cluster AS3:
•Start number 51 was manually annotated 14 times for cluster AS3.

Info for manual annotations of cluster CP:
•Start number 52 was manually annotated 5 times for cluster CP.

Info for manual annotations of cluster CQ1:
•Start number 43 was manually annotated 7 times for cluster CQ1.
•Start number 45 was manually annotated 8 times for cluster CQ1.

Info for manual annotations of cluster CQ2:
•Start number 47 was manually annotated 2 times for cluster CQ2.

Info for manual annotations of cluster DD:
•Start number 48 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster DE1:
•Start number 15 was manually annotated 1 time for cluster DE1.
•Start number 46 was manually annotated 52 times for cluster DE1.

Info for manual annotations of cluster DE2:
•Start number 42 was manually annotated 9 times for cluster DE2.

Info for manual annotations of cluster DE3:
•Start number 46 was manually annotated 7 times for cluster DE3.

Info for manual annotations of cluster DE4:
•Start number 46 was manually annotated 9 times for cluster DE4.

Info for manual annotations of cluster DE5:

•Start number 38 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster DL:
•Start number 53 was manually annotated 6 times for cluster DL.

Info for manual annotations of cluster FH:
•Start number 48 was manually annotated 7 times for cluster FH.

Info for manual annotations of cluster FJ:
•Start number 52 was manually annotated 1 time for cluster FJ.

Info for manual annotations of cluster GL:
•Start number 57 was manually annotated 1 time for cluster GL.

Info for manual annotations of cluster I1:
•Start number 55 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster N:
•Start number 55 was manually annotated 38 times for cluster N.

Info for manual annotations of cluster P5:
•Start number 55 was manually annotated 1 time for cluster P5.

Gene Information:

Gene: APunk_51 Start: 41866, Stop: 43041, Start Num: 46
Candidate Starts for APunk_51:
(Start: 46 @41866 has 68 MA's), (62, 41905), (73, 41998), (75, 42007), (77, 42040), (78, 42046), (84, 42082), (88, 42097), (96, 42130), (97, 42136), (120, 42229), (125, 42238), (150, 42373), (158, 42406), (159, 42409), (161, 42421), (164, 42427), (177, 42490), (180, 42520), (215, 42691), (233, 42766), (249, 42850), (262, 42922), (264, 42928), (280, 43009),

Gene: Abba_35 Start: 27714, Stop: 28745, Start Num: 57
Candidate Starts for Abba_35:
(Start: 57 @27714 has 26 MA's), (74, 27831), (82, 27897), (88, 27915), (95, 27945), (100, 27969), (101, 27975), (114, 28023), (148, 28155), (188, 28317), (195, 28341), (214, 28416), (218, 28437), (247, 28542), (270, 28635), (280, 28701),

Gene: Abblin_50 Start: 42409, Stop: 43563, Start Num: 46
Candidate Starts for Abblin_50:
(Start: 46 @42409 has 68 MA's), (62, 42448), (73, 42541), (75, 42550), (77, 42583), (78, 42589), (84, 42625), (88, 42640), (96, 42673), (97, 42679), (120, 42772), (158, 42928), (161, 42943), (177, 43012), (179, 43024), (180, 43042), (215, 43213), (233, 43288), (249, 43372), (262, 43444), (264, 43450), (280, 43531),

Gene: Abidatro_38 Start: 25301, Stop: 26326, Start Num: 51
Candidate Starts for Abidatro_38:
(Start: 51 @25301 has 44 MA's), (54, 25316), (63, 25343), (76, 25460), (80, 25490), (101, 25586), (103, 25598), (114, 25640), (118, 25652), (121, 25664), (145, 25778), (166, 25865), (167, 25871),

(176, 25919), (219, 26090), (232, 26138), (274, 26291),

Gene: Abscondus_87 Start: 53597, Stop: 54637, Start Num: 45
Candidate Starts for Abscondus_87:
(Start: 43 @53594 has 7 MA's), (Start: 45 @53597 has 8 MA's), (74, 53744), (77, 53777), (88, 53828), (110, 53927), (117, 53948), (126, 53972), (146, 54101), (148, 54113), (178, 54239), (195, 54302), (204, 54341), (221, 54410), (223, 54422), (236, 54470), (249, 54503), (253, 54521), (276, 54620),

Gene: AdoptaAdorbs_39 Start: 25001, Stop: 26014, Start Num: 51
Candidate Starts for AdoptaAdorbs_39:
(36, 24977), (Start: 51 @25001 has 44 MA's), (54, 25016), (85, 25205), (95, 25247), (96, 25253), (98, 25262), (114, 25334), (122, 25361), (141, 25442), (142, 25451), (145, 25472), (155, 25520), (197, 25691), (204, 25721), (211, 25748), (219, 25787), (232, 25835), (246, 25880),

Gene: Affeca_46 Start: 40965, Stop: 42128, Start Num: 46
Candidate Starts for Affeca_46:
(Start: 46 @40965 has 68 MA's), (62, 41004), (73, 41097), (77, 41139), (78, 41145), (88, 41196), (96, 41229), (114, 41304), (120, 41325), (150, 41448), (158, 41481), (164, 41502), (179, 41577), (205, 41715), (233, 41829), (240, 41877), (242, 41892), (251, 41952), (264, 42018), (269, 42033), (277, 42051),

Gene: Ailee_45 Start: 40558, Stop: 41721, Start Num: 46
Candidate Starts for Ailee_45:
(Start: 46 @40558 has 68 MA's), (62, 40597), (73, 40690), (77, 40732), (78, 40738), (88, 40789), (96, 40822), (114, 40897), (120, 40918), (150, 41041), (158, 41074), (164, 41095), (179, 41170), (205, 41308), (233, 41422), (240, 41470), (242, 41485), (251, 41545), (264, 41611), (269, 41626), (277, 41644),

Gene: AlexMinion_42 Start: 25167, Stop: 26180, Start Num: 51
Candidate Starts for AlexMinion_42:
(36, 25134), (Start: 51 @25167 has 44 MA's), (54, 25182), (62, 25200), (79, 25341), (85, 25371), (95, 25413), (96, 25419), (114, 25500), (122, 25527), (141, 25608), (142, 25617), (145, 25638), (155, 25686), (197, 25857), (204, 25887), (232, 26001), (246, 26046), (275, 26157),

Gene: Ali17_45 Start: 39857, Stop: 41008, Start Num: 42
Candidate Starts for Ali17_45:
(Start: 42 @39857 has 9 MA's), (67, 39941), (73, 39998), (75, 40007), (77, 40040), (78, 40046), (88, 40094), (97, 40133), (103, 40163), (108, 40181), (109, 40184), (113, 40193), (148, 40343), (150, 40349), (158, 40382), (164, 40403), (177, 40466), (193, 40580), (203, 40622), (205, 40628), (238, 40766), (269, 40910), (280, 40976),

Gene: Altadena_36 Start: 26934, Stop: 28001, Start Num: 48
Candidate Starts for Altadena_36:
(1, 26163), (2, 26193), (3, 26196), (Start: 48 @26934 has 9 MA's), (88, 27156), (93, 27174), (99, 27201), (114, 27264),

Gene: Amanises_47 Start: 26357, Stop: 27385, Start Num: 51
Candidate Starts for Amanises_47:
(36, 26315), (Start: 51 @26357 has 44 MA's), (54, 26372), (77, 26522), (92, 26594), (114, 26696), (145, 26834), (150, 26858), (155, 26882), (163, 26915), (176, 26978), (185, 27005), (197, 27053), (232, 27197),

Gene: Amelia_40 Start: 25064, Stop: 26086, Start Num: 51

Candidate Starts for Amelia_40:
(Start: 51 @25064 has 44 MA's), (54, 25079), (63, 25106), (68, 25142), (77, 25229), (96, 25322), (114, 25403), (122, 25430), (138, 25475), (142, 25523), (145, 25544), (155, 25592), (176, 25688), (185, 25715), (232, 25907), (237, 25928), (246, 25952),

Gene: AmiCi24_39 Start: 24999, Stop: 26012, Start Num: 51
Candidate Starts for AmiCi24_39:
(36, 24975), (Start: 51 @24999 has 44 MA's), (54, 25014), (85, 25203), (95, 25245), (96, 25251), (98, 25260), (114, 25332), (122, 25359), (141, 25440), (142, 25449), (155, 25518), (197, 25689), (204, 25719), (211, 25746), (219, 25785), (232, 25833), (246, 25878),

Gene: Amo99_85 Start: 52756, Stop: 53769, Start Num: 52
Candidate Starts for Amo99_85:
(22, 52594), (31, 52663), (Start: 46 @52747 has 68 MA's), (Start: 52 @52756 has 6 MA's), (79, 52942), (88, 52981), (93, 52999), (114, 53092), (139, 53161), (150, 53242), (160, 53281), (171, 53341), (182, 53377), (184, 53383), (192, 53416), (207, 53482), (222, 53539), (277, 53746),

Gene: Amphitrite_40 Start: 25000, Stop: 26013, Start Num: 51
Candidate Starts for Amphitrite_40:
(36, 24976), (Start: 51 @25000 has 44 MA's), (54, 25015), (85, 25204), (95, 25246), (96, 25252), (98, 25261), (114, 25333), (122, 25360), (141, 25441), (142, 25450), (145, 25471), (155, 25519), (197, 25690), (204, 25720), (211, 25747), (219, 25786), (232, 25834), (246, 25879),

Gene: Andies_44 Start: 31627, Stop: 32637, Start Num: 55
Candidate Starts for Andies_44:
(Start: 55 @31627 has 43 MA's), (73, 31741), (75, 31750), (77, 31777), (88, 31828), (89, 31831), (104, 31897), (113, 31924), (143, 32032), (145, 32050), (148, 32068), (209, 32317), (230, 32407), (235, 32419), (250, 32467), (269, 32548),

Gene: Andrew_41 Start: 24893, Stop: 25906, Start Num: 51
Candidate Starts for Andrew_41:
(36, 24869), (Start: 51 @24893 has 44 MA's), (54, 24908), (85, 25097), (95, 25139), (96, 25145), (114, 25226), (122, 25253), (141, 25334), (142, 25343), (145, 25364), (150, 25388), (155, 25412), (204, 25613), (219, 25679), (232, 25727), (246, 25772), (275, 25883),

Gene: Angelicage_46 Start: 41383, Stop: 42546, Start Num: 46
Candidate Starts for Angelicage_46:
(Start: 46 @41383 has 68 MA's), (62, 41422), (73, 41515), (77, 41557), (78, 41563), (88, 41614), (96, 41647), (114, 41722), (120, 41743), (150, 41866), (158, 41899), (164, 41920), (179, 41995), (205, 42133), (233, 42247), (240, 42295), (242, 42310), (251, 42370), (264, 42436), (269, 42451), (277, 42469),

Gene: Antrice_43 Start: 26254, Stop: 27282, Start Num: 51
Candidate Starts for Antrice_43:
(34, 26218), (Start: 51 @26254 has 44 MA's), (54, 26269), (63, 26296), (76, 26419), (85, 26470), (96, 26518), (114, 26599), (118, 26611), (122, 26626), (132, 26653), (142, 26719), (152, 26773), (153, 26782), (155, 26788), (167, 26836), (189, 26929), (212, 27019), (232, 27103), (237, 27124), (246, 27148),

Gene: Aphelion_87 Start: 54219, Stop: 55259, Start Num: 45
Candidate Starts for Aphelion_87:
(Start: 43 @54216 has 7 MA's), (Start: 45 @54219 has 8 MA's), (74, 54366), (77, 54399), (88, 54450), (110, 54549), (117, 54570), (126, 54594), (146, 54723), (148, 54735), (178, 54861), (195, 54924),

(204, 54963), (221, 55032), (223, 55044), (236, 55092), (249, 55125), (261, 55194), (276, 55242),

Gene: Ashertheman_48 Start: 41154, Stop: 42287, Start Num: 46
Candidate Starts for Ashertheman_48:
(31, 41085), (Start: 46 @41154 has 68 MA's), (62, 41199), (73, 41292), (77, 41334), (78, 41340), (88, 41391), (96, 41424), (97, 41430), (120, 41520), (150, 41643), (158, 41676), (179, 41772), (205, 41910), (233, 42024), (238, 42051), (251, 42111), (264, 42177), (277, 42210),

Gene: Atlantica_40 Start: 25001, Stop: 26014, Start Num: 51
Candidate Starts for Atlantica_40:
(36, 24977), (Start: 51 @25001 has 44 MA's), (54, 25016), (85, 25205), (95, 25247), (96, 25253), (98, 25262), (114, 25334), (122, 25361), (141, 25442), (142, 25451), (145, 25472), (155, 25520), (197, 25691), (204, 25721), (211, 25748), (219, 25787), (232, 25835), (246, 25880),

Gene: Azaz_41 Start: 25073, Stop: 26086, Start Num: 51
Candidate Starts for Azaz_41:
(36, 25049), (Start: 51 @25073 has 44 MA's), (54, 25088), (62, 25106), (80, 25256), (85, 25277), (95, 25319), (114, 25406), (122, 25433), (141, 25514), (142, 25523), (145, 25544), (155, 25592), (197, 25763), (204, 25793), (211, 25820), (219, 25859), (232, 25907), (246, 25952),

Gene: BabeRuth_52 Start: 33348, Stop: 34358, Start Num: 55
Candidate Starts for BabeRuth_52:
(Start: 55 @33348 has 43 MA's), (73, 33462), (75, 33471), (77, 33498), (88, 33549), (89, 33552), (104, 33618), (113, 33645), (143, 33753), (145, 33771), (148, 33789), (209, 34038), (230, 34128), (235, 34140), (250, 34188), (269, 34269),

Gene: Babushka_37 Start: 24932, Stop: 25945, Start Num: 51
Candidate Starts for Babushka_37:
(36, 24899), (Start: 51 @24932 has 44 MA's), (54, 24947), (79, 25106), (85, 25136), (95, 25178), (96, 25184), (98, 25193), (114, 25265), (122, 25292), (141, 25373), (142, 25382), (145, 25403), (197, 25622), (204, 25652), (232, 25766), (246, 25811), (268, 25904), (271, 25913),

Gene: Bachita_89 Start: 54642, Stop: 55685, Start Num: 43
Candidate Starts for Bachita_89:
(Start: 43 @54642 has 7 MA's), (Start: 45 @54645 has 8 MA's), (74, 54792), (77, 54825), (88, 54876), (110, 54975), (117, 54996), (126, 55020), (146, 55149), (148, 55161), (155, 55191), (178, 55287), (182, 55296), (195, 55350), (204, 55389), (221, 55458), (236, 55518), (249, 55551), (253, 55569), (276, 55668),

Gene: Baddon_47 Start: 41688, Stop: 42815, Start Num: 46
Candidate Starts for Baddon_47:
(31, 41619), (Start: 46 @41688 has 68 MA's), (62, 41727), (73, 41820), (77, 41862), (78, 41868), (88, 41919), (97, 41958), (120, 42048), (143, 42129), (158, 42204), (164, 42225), (169, 42258), (177, 42288), (179, 42300), (205, 42438), (233, 42552), (238, 42579), (251, 42639), (264, 42705), (277, 42738),

Gene: Bantam_95 Start: 64152, Stop: 63124, Start Num: 53
Candidate Starts for Bantam_95:
(Start: 53 @64152 has 8 MA's), (88, 63930), (112, 63825), (123, 63783), (129, 63762), (140, 63708), (147, 63642), (150, 63627), (151, 63624), (152, 63618), (157, 63597), (165, 63570), (170, 63534), (178, 63507), (190, 63462), (198, 63423), (213, 63372), (215, 63363), (223, 63324), (225, 63312), (245, 63246),

Gene: BarretLemon_34 Start: 28805, Stop: 29824, Start Num: 57
Candidate Starts for BarretLemon_34:
(Start: 57 @28805 has 26 MA's), (74, 28922), (88, 29006), (91, 29018), (95, 29036), (102, 29072),
(148, 29246), (150, 29252), (165, 29309), (171, 29348), (182, 29384), (186, 29396), (188, 29408),
(250, 29651), (279, 29771),

Gene: Barsten_49 Start: 41538, Stop: 42665, Start Num: 46
Candidate Starts for Barsten_49:
(Start: 46 @41538 has 68 MA's), (62, 41577), (73, 41670), (77, 41712), (78, 41718), (88, 41769), (96,
41802), (114, 41877), (120, 41898), (143, 41979), (150, 42021), (158, 42054), (164, 42075), (179,
42150), (205, 42288), (233, 42402), (238, 42429), (251, 42489), (264, 42555), (269, 42570), (277,
42588),

Gene: Basilisk_38 Start: 25812, Stop: 26840, Start Num: 51
Candidate Starts for Basilisk_38:
(36, 25779), (Start: 51 @25812 has 44 MA's), (54, 25827), (77, 25977), (92, 26049), (96, 26070), (114,
26151), (121, 26175), (150, 26313), (155, 26337), (163, 26370), (196, 26505), (232, 26652),

Gene: Baumdotcom_46 Start: 40560, Stop: 41684, Start Num: 46
Candidate Starts for Baumdotcom_46:
(31, 40491), (Start: 46 @40560 has 68 MA's), (62, 40596), (73, 40689), (77, 40731), (78, 40737), (88,
40788), (97, 40827), (120, 40917), (158, 41073), (164, 41094), (169, 41127), (179, 41169), (205,
41307), (233, 41421), (238, 41448), (251, 41508), (264, 41574), (277, 41607),

Gene: Beans_32 Start: 28492, Stop: 29520, Start Num: 57
Candidate Starts for Beans_32:
(Start: 57 @28492 has 26 MA's), (74, 28609), (81, 28675), (88, 28693), (95, 28723), (148, 28933),
(165, 28996), (182, 29071), (186, 29083), (188, 29095), (228, 29260), (250, 29338),

Gene: Bedetta_45 Start: 25211, Stop: 26233, Start Num: 51
Candidate Starts for Bedetta_45:
(Start: 51 @25211 has 44 MA's), (54, 25226), (63, 25253), (68, 25289), (77, 25376), (96, 25469), (114,
25550), (122, 25577), (138, 25622), (142, 25670), (145, 25691), (155, 25739), (176, 25835), (185,
25862), (232, 26054), (237, 26075), (246, 26099),

Gene: Belphegor_48 Start: 41897, Stop: 43045, Start Num: 42
Candidate Starts for Belphegor_48:
(27, 41861), (Start: 42 @41897 has 9 MA's), (67, 41978), (75, 42044), (77, 42077), (78, 42083), (88,
42131), (93, 42149), (96, 42164), (97, 42170), (103, 42200), (108, 42218), (109, 42221), (120, 42263),
(148, 42380), (150, 42386), (158, 42419), (164, 42440), (193, 42617), (203, 42659), (205, 42665),
(262, 42926), (264, 42932), (280, 43013),

Gene: Bibble12_44 Start: 25059, Stop: 26081, Start Num: 51
Candidate Starts for Bibble12_44:
(Start: 51 @25059 has 44 MA's), (54, 25074), (63, 25101), (68, 25137), (77, 25224), (96, 25317), (114,
25398), (122, 25425), (138, 25470), (142, 25518), (145, 25539), (155, 25587), (176, 25683), (185,
25710), (232, 25902), (237, 25923), (246, 25947),

Gene: Bibwit_46 Start: 40244, Stop: 41377, Start Num: 46
Candidate Starts for Bibwit_46:
(6, 39749), (31, 40175), (Start: 46 @40244 has 68 MA's), (73, 40382), (77, 40424), (78, 40430), (88,
40481), (96, 40514), (97, 40520), (120, 40610), (158, 40766), (164, 40787), (179, 40862), (205,
41000), (233, 41114), (238, 41141), (249, 41189), (251, 41201), (264, 41267), (269, 41282), (277,

41300),

Gene: BigDome_34 Start: 28797, Stop: 29816, Start Num: 57
Candidate Starts for BigDome_34:
(Start: 57 @28797 has 26 MA's), (74, 28914), (88, 28998), (91, 29010), (95, 29028), (102, 29064), (148, 29238), (150, 29244), (165, 29301), (171, 29340), (182, 29376), (186, 29388), (188, 29400), (250, 29643), (279, 29763),

Gene: BigHunkinEater_52 Start: 41644, Stop: 42819, Start Num: 46
Candidate Starts for BigHunkinEater_52:
(Start: 46 @41644 has 68 MA's), (62, 41683), (73, 41776), (75, 41785), (77, 41818), (78, 41824), (88, 41875), (96, 41908), (97, 41914), (120, 42007), (125, 42016), (150, 42151), (158, 42184), (161, 42199), (177, 42268), (180, 42298), (215, 42469), (233, 42544), (249, 42628), (262, 42700), (264, 42706), (269, 42721), (280, 42787),

Gene: Bizzy_48 Start: 40845, Stop: 41972, Start Num: 46
Candidate Starts for Bizzy_48:
(31, 40776), (Start: 46 @40845 has 68 MA's), (62, 40884), (73, 40977), (77, 41019), (78, 41025), (88, 41076), (97, 41115), (120, 41205), (143, 41286), (158, 41361), (164, 41382), (169, 41415), (179, 41457), (205, 41595), (233, 41709), (238, 41736), (251, 41796), (264, 41862), (277, 41895),

Gene: Bluvara_52 Start: 37027, Stop: 38037, Start Num: 55
Candidate Starts for Bluvara_52:
(Start: 55 @37027 has 43 MA's), (73, 37141), (75, 37150), (77, 37177), (88, 37228), (89, 37231), (94, 37255), (98, 37270), (127, 37363), (137, 37381), (143, 37432), (146, 37456), (148, 37468), (150, 37474), (155, 37498), (159, 37510), (209, 37717), (215, 37738), (230, 37807), (235, 37819), (269, 37948),

Gene: BobBob_46 Start: 40656, Stop: 41780, Start Num: 46
Candidate Starts for BobBob_46:
(32, 40617), (Start: 46 @40656 has 68 MA's), (62, 40692), (73, 40785), (77, 40827), (78, 40833), (88, 40884), (96, 40917), (114, 40992), (120, 41013), (150, 41136), (158, 41169), (164, 41190), (179, 41265), (205, 41403), (233, 41517), (238, 41544), (251, 41604), (264, 41670), (269, 41685), (277, 41703),

Gene: Bolt007_37 Start: 29435, Stop: 30487, Start Num: 48
Candidate Starts for Bolt007_37:
(Start: 48 @29435 has 9 MA's), (88, 29645), (93, 29663), (114, 29753), (205, 30122),

Gene: Bosection6_45 Start: 31093, Stop: 32103, Start Num: 55
Candidate Starts for Bosection6_45:
(Start: 55 @31093 has 43 MA's), (69, 31168), (73, 31207), (75, 31216), (77, 31243), (88, 31294), (89, 31297), (94, 31321), (137, 31447), (143, 31498), (146, 31522), (148, 31534), (155, 31564), (201, 31756), (205, 31765), (209, 31783), (230, 31873), (235, 31885), (250, 31933), (269, 32014),

Gene: BossLady_34 Start: 28774, Stop: 29793, Start Num: 57
Candidate Starts for BossLady_34:
(Start: 57 @28774 has 26 MA's), (88, 28975), (91, 28987), (95, 29005), (101, 29035), (102, 29041), (148, 29215), (150, 29221), (165, 29278), (182, 29353), (188, 29377), (191, 29386), (210, 29464), (226, 29536), (228, 29542), (277, 29719),

Gene: Brandonk123_50 Start: 41790, Stop: 42914, Start Num: 46
Candidate Starts for Brandonk123_50:

(32, 41751), (Start: 46 @41790 has 68 MA's), (62, 41826), (73, 41919), (77, 41961), (78, 41967), (88, 42018), (96, 42051), (114, 42126), (120, 42147), (150, 42270), (158, 42303), (164, 42324), (179, 42399), (205, 42537), (233, 42651), (238, 42678), (251, 42738), (264, 42804), (269, 42819), (277, 42837),

Gene: Brent_32 Start: 28455, Stop: 29483, Start Num: 57
Candidate Starts for Brent_32:
(Start: 57 @28455 has 26 MA's), (81, 28638), (88, 28656), (95, 28686), (99, 28701), (146, 28884), (148, 28896), (182, 29034), (186, 29046), (188, 29058), (210, 29145), (228, 29223), (239, 29265), (248, 29289), (250, 29301),

Gene: Brujita_48 Start: 33774, Stop: 34781, Start Num: 55
Candidate Starts for Brujita_48:
(29, 33654), (Start: 55 @33774 has 43 MA's), (73, 33885), (75, 33894), (77, 33921), (88, 33972), (89, 33975), (101, 34032), (104, 34041), (137, 34125), (143, 34176), (146, 34200), (148, 34212), (205, 34443), (209, 34461), (215, 34482), (217, 34497), (230, 34551), (231, 34554), (235, 34563), (238, 34581), (250, 34611), (269, 34692),

Gene: BrutonGaster_71 Start: 49921, Stop: 50958, Start Num: 47
Candidate Starts for BrutonGaster_71:
(Start: 47 @49921 has 2 MA's), (88, 50146), (94, 50173), (146, 50416), (148, 50428), (173, 50533), (178, 50554), (195, 50617), (234, 50776), (249, 50818), (257, 50854), (259, 50878), (261, 50887), (276, 50935),

Gene: Brynnie_37 Start: 25690, Stop: 26718, Start Num: 51
Candidate Starts for Brynnie_37:
(36, 25657), (Start: 51 @25690 has 44 MA's), (54, 25705), (77, 25855), (92, 25927), (95, 25942), (96, 25948), (114, 26029), (121, 26053), (150, 26191), (163, 26248), (176, 26311), (196, 26383), (232, 26530),

Gene: Bumble_34 Start: 26999, Stop: 28066, Start Num: 48
Candidate Starts for Bumble_34:
(40, 26987), (Start: 48 @26999 has 9 MA's), (88, 27221), (93, 27239), (114, 27329),

Gene: Butters_50 Start: 33050, Stop: 34057, Start Num: 55
Candidate Starts for Butters_50:
(16, 32807), (17, 32819), (23, 32885), (29, 32930), (Start: 55 @33050 has 43 MA's), (73, 33161), (75, 33170), (77, 33197), (88, 33248), (89, 33251), (101, 33308), (104, 33317), (137, 33401), (143, 33452), (146, 33476), (148, 33488), (205, 33719), (209, 33737), (215, 33758), (217, 33773), (230, 33827), (231, 33830), (235, 33839), (238, 33857), (250, 33887), (269, 33968),

Gene: CalWood4100_39 Start: 28926, Stop: 29978, Start Num: 48
Candidate Starts for CalWood4100_39:
(Start: 48 @28926 has 9 MA's), (88, 29136), (93, 29154), (114, 29244), (170, 29481), (171, 29484),

Gene: Camara_40 Start: 25003, Stop: 26016, Start Num: 51
Candidate Starts for Camara_40:
(36, 24979), (Start: 51 @25003 has 44 MA's), (54, 25018), (85, 25207), (95, 25249), (96, 25255), (98, 25264), (114, 25336), (122, 25363), (141, 25444), (142, 25453), (145, 25474), (155, 25522), (197, 25693), (204, 25723), (211, 25750), (219, 25789), (232, 25837), (246, 25882),

Gene: Carcharodon_47 Start: 32442, Stop: 33452, Start Num: 55
Candidate Starts for Carcharodon_47:

(Start: 55 @32442 has 43 MA's), (69, 32517), (73, 32556), (75, 32565), (77, 32592), (88, 32643), (89, 32646), (94, 32670), (137, 32796), (143, 32847), (146, 32871), (148, 32883), (155, 32913), (201, 33105), (205, 33114), (209, 33132), (219, 33174), (230, 33222), (235, 33234), (269, 33363),

Gene: Cardigan_102 Start: 59943, Stop: 60962, Start Num: 48
Candidate Starts for Cardigan_102:
(Start: 48 @59943 has 9 MA's), (64, 59997), (65, 60000), (94, 60195), (117, 60288), (124, 60309), (126, 60312), (165, 60513), (167, 60522), (169, 60543), (195, 60639), (202, 60672), (210, 60702), (220, 60744), (223, 60759), (229, 60783), (235, 60801), (249, 60837), (257, 60873),

Gene: ChadMasterC_49 Start: 42937, Stop: 44064, Start Num: 46
Candidate Starts for ChadMasterC_49:
(Start: 46 @42937 has 68 MA's), (62, 42976), (73, 43069), (77, 43111), (78, 43117), (88, 43168), (96, 43201), (114, 43276), (120, 43297), (150, 43420), (158, 43453), (164, 43474), (179, 43549), (205, 43687), (233, 43801), (251, 43888), (264, 43954), (269, 43969), (277, 43987),

Gene: Charming_49 Start: 41293, Stop: 42420, Start Num: 46
Candidate Starts for Charming_49:
(Start: 46 @41293 has 68 MA's), (62, 41332), (73, 41425), (77, 41467), (78, 41473), (88, 41524), (96, 41557), (114, 41632), (120, 41653), (150, 41776), (158, 41809), (164, 41830), (179, 41905), (205, 42043), (233, 42157), (238, 42184), (251, 42244), (264, 42310), (269, 42325), (277, 42343),

Gene: Chewbacca_49 Start: 32442, Stop: 33452, Start Num: 55
Candidate Starts for Chewbacca_49:
(Start: 55 @32442 has 43 MA's), (69, 32517), (73, 32556), (75, 32565), (77, 32592), (88, 32643), (89, 32646), (94, 32670), (137, 32796), (143, 32847), (146, 32871), (148, 32883), (155, 32913), (201, 33105), (205, 33114), (209, 33132), (219, 33174), (230, 33222), (235, 33234), (269, 33363),

Gene: Chickaboom_39 Start: 25312, Stop: 26337, Start Num: 51
Candidate Starts for Chickaboom_39:
(36, 25279), (Start: 51 @25312 has 44 MA's), (54, 25327), (77, 25477), (80, 25501), (101, 25597), (103, 25609), (114, 25651), (118, 25663), (166, 25876), (176, 25930), (232, 26149), (274, 26302),

Gene: Chickadee_45 Start: 37929, Stop: 39083, Start Num: 46
Candidate Starts for Chickadee_45:
(Start: 46 @37929 has 68 MA's), (73, 38058), (77, 38100), (78, 38106), (88, 38157), (120, 38286), (127, 38292), (143, 38370), (150, 38412), (158, 38445), (164, 38466), (203, 38685), (215, 38730), (220, 38754), (224, 38778), (238, 38829), (251, 38898), (254, 38910), (260, 38949), (262, 38958), (264, 38964), (269, 38979), (273, 38988), (280, 39045),

Gene: Chicken_38 Start: 25652, Stop: 26680, Start Num: 51
Candidate Starts for Chicken_38:
(36, 25619), (Start: 51 @25652 has 44 MA's), (54, 25667), (77, 25817), (92, 25889), (95, 25904), (96, 25910), (108, 25967), (114, 25991), (119, 26012), (145, 26129), (152, 26162), (163, 26210), (176, 26273), (185, 26300), (197, 26348), (232, 26492),

Gene: Circuit_34 Start: 27961, Stop: 29031, Start Num: 48
Candidate Starts for Circuit_34:
(40, 27946), (Start: 48 @27961 has 9 MA's), (88, 28186), (93, 28204), (114, 28294),

Gene: Clawz_83 Start: 52842, Stop: 53858, Start Num: 52
Candidate Starts for Clawz_83:

(8, 52431), (18, 52623), (22, 52680), (31, 52749), (Start: 46 @52833 has 68 MA's), (Start: 52 @52842 has 6 MA's), (79, 53031), (88, 53070), (93, 53088), (114, 53181), (149, 53328), (171, 53430), (182, 53466), (202, 53550), (222, 53628), (223, 53637), (235, 53679), (277, 53835),

Gene: ClubL_87 Start: 53329, Stop: 54372, Start Num: 43
Candidate Starts for ClubL_87:
(Start: 43 @53329 has 7 MA's), (Start: 45 @53332 has 8 MA's), (74, 53479), (77, 53512), (88, 53563), (110, 53662), (117, 53683), (126, 53707), (146, 53836), (148, 53848), (178, 53974), (195, 54037), (204, 54076), (221, 54145), (223, 54157), (236, 54205), (249, 54238), (261, 54307), (276, 54355),

Gene: ColdSoup_85 Start: 52837, Stop: 53850, Start Num: 52
Candidate Starts for ColdSoup_85:
(22, 52675), (31, 52744), (Start: 46 @52828 has 68 MA's), (Start: 52 @52837 has 6 MA's), (79, 53023), (88, 53062), (93, 53080), (114, 53173), (139, 53242), (150, 53323), (160, 53362), (171, 53422), (182, 53458), (184, 53464), (192, 53497), (207, 53563), (222, 53620), (277, 53827),

Gene: Colusalem_41 Start: 25041, Stop: 26063, Start Num: 51
Candidate Starts for Colusalem_41:
(Start: 51 @25041 has 44 MA's), (54, 25056), (63, 25083), (68, 25119), (77, 25206), (96, 25299), (114, 25380), (122, 25407), (138, 25452), (142, 25500), (145, 25521), (155, 25569), (176, 25665), (185, 25692), (232, 25884), (237, 25905), (246, 25929),

Gene: Coral_40 Start: 24912, Stop: 25934, Start Num: 51
Candidate Starts for Coral_40:
(Start: 51 @24912 has 44 MA's), (54, 24927), (63, 24954), (68, 24990), (77, 25077), (96, 25170), (114, 25251), (122, 25278), (138, 25323), (142, 25371), (145, 25392), (155, 25440), (176, 25536), (185, 25563), (232, 25755), (237, 25776), (246, 25800),

Gene: Cote_42 Start: 25389, Stop: 26411, Start Num: 51
Candidate Starts for Cote_42:
(Start: 51 @25389 has 44 MA's), (54, 25404), (63, 25431), (68, 25467), (77, 25554), (96, 25647), (114, 25728), (122, 25755), (138, 25800), (142, 25848), (145, 25869), (155, 25917), (176, 26013), (185, 26040), (232, 26232), (237, 26253), (246, 26277),

Gene: Cucurbita_89 Start: 55149, Stop: 56192, Start Num: 43
Candidate Starts for Cucurbita_89:
(Start: 43 @55149 has 7 MA's), (Start: 45 @55152 has 8 MA's), (74, 55299), (77, 55332), (88, 55383), (110, 55482), (117, 55503), (126, 55527), (146, 55656), (148, 55668), (155, 55698), (178, 55794), (182, 55803), (195, 55857), (204, 55896), (221, 55965), (236, 56025), (249, 56058), (253, 56076), (276, 56175),

Gene: Culver_89 Start: 53256, Stop: 54293, Start Num: 45
Candidate Starts for Culver_89:
(Start: 43 @53253 has 7 MA's), (Start: 45 @53256 has 8 MA's), (61, 53298), (75, 53409), (77, 53436), (88, 53487), (110, 53586), (117, 53607), (126, 53631), (146, 53760), (148, 53772), (167, 53844), (178, 53898), (195, 53961), (221, 54069), (234, 54120), (236, 54129), (249, 54159), (266, 54246), (276, 54276),

Gene: Cygnet_40 Start: 25852, Stop: 26877, Start Num: 51
Candidate Starts for Cygnet_40:
(Start: 51 @25852 has 44 MA's), (54, 25864), (76, 26014), (85, 26065), (114, 26194), (118, 26206), (122, 26221), (152, 26368), (153, 26377), (155, 26383), (167, 26431), (189, 26524), (212, 26614), (232, 26698), (237, 26719), (246, 26743),

Gene: DanHam62_40 Start: 25000, Stop: 26013, Start Num: 51
Candidate Starts for DanHam62_40:
(36, 24976), (Start: 51 @25000 has 44 MA's), (54, 25015), (85, 25204), (95, 25246), (96, 25252), (98, 25261), (114, 25333), (122, 25360), (141, 25441), (142, 25450), (155, 25519), (197, 25690), (204, 25720), (211, 25747), (219, 25786), (232, 25834), (246, 25879),

Gene: Daob_42 Start: 25397, Stop: 26419, Start Num: 51
Candidate Starts for Daob_42:
(Start: 51 @25397 has 44 MA's), (54, 25412), (63, 25439), (68, 25475), (77, 25562), (96, 25655), (114, 25736), (122, 25763), (138, 25808), (142, 25856), (145, 25877), (155, 25925), (176, 26021), (185, 26048), (232, 26240), (237, 26261), (246, 26285),

Gene: Daredevil_85 Start: 59811, Stop: 58786, Start Num: 53
Candidate Starts for Daredevil_85:
(Start: 53 @59811 has 8 MA's), (58, 59796), (64, 59769), (88, 59598), (112, 59496), (123, 59454), (129, 59433), (146, 59316), (150, 59298), (151, 59295), (153, 59280), (155, 59274), (157, 59268), (178, 59178), (195, 59115), (197, 59106), (199, 59088), (215, 59034), (223, 58995),

Gene: DatBoi_91 Start: 63297, Stop: 62272, Start Num: 53
Candidate Starts for DatBoi_91:
(24, 63447), (33, 63360), (Start: 53 @63297 has 8 MA's), (73, 63171), (87, 63081), (88, 63078), (92, 63063), (112, 62973), (123, 62931), (129, 62910), (147, 62790), (150, 62775), (151, 62772), (152, 62766), (157, 62745), (165, 62718), (170, 62682), (178, 62655), (190, 62610), (198, 62571), (213, 62520), (223, 62472), (225, 62460), (245, 62394),

Gene: Delrey21_50 Start: 43180, Stop: 44334, Start Num: 46
Candidate Starts for Delrey21_50:
(Start: 46 @43180 has 68 MA's), (62, 43219), (73, 43312), (75, 43321), (77, 43354), (78, 43360), (88, 43411), (96, 43444), (97, 43450), (120, 43543), (150, 43666), (158, 43699), (161, 43714), (164, 43720), (177, 43783), (179, 43795), (180, 43813), (215, 43984), (249, 44143), (264, 44221), (280, 44302),

Gene: Derg_43 Start: 40440, Stop: 41564, Start Num: 46
Candidate Starts for Derg_43:
(31, 40371), (Start: 46 @40440 has 68 MA's), (62, 40476), (73, 40569), (77, 40611), (78, 40617), (88, 40668), (97, 40707), (120, 40797), (143, 40878), (158, 40953), (164, 40974), (169, 41007), (179, 41049), (205, 41187), (233, 41301), (238, 41328), (251, 41388), (264, 41454), (277, 41487),

Gene: Dexdert_46 Start: 38194, Stop: 39375, Start Num: 46
Candidate Starts for Dexdert_46:
(13, 37912), (30, 38119), (Start: 46 @38194 has 68 MA's), (73, 38326), (75, 38335), (77, 38368), (78, 38374), (88, 38425), (120, 38554), (150, 38680), (158, 38713), (164, 38734), (179, 38809), (181, 38839), (203, 38953), (215, 38998), (224, 39046), (233, 39073), (243, 39136), (249, 39184), (251, 39196), (254, 39208), (262, 39256), (264, 39262), (280, 39343),

Gene: DoctorFroggo_50 Start: 43180, Stop: 44334, Start Num: 46
Candidate Starts for DoctorFroggo_50:
(Start: 46 @43180 has 68 MA's), (62, 43219), (73, 43312), (75, 43321), (77, 43354), (78, 43360), (88, 43411), (96, 43444), (97, 43450), (120, 43543), (150, 43666), (158, 43699), (161, 43714), (164, 43720), (177, 43783), (179, 43795), (180, 43813), (215, 43984), (249, 44143), (264, 44221), (280, 44302),

Gene: DonTron_82 Start: 52715, Stop: 53728, Start Num: 52
Candidate Starts for DonTron_82:
(22, 52553), (31, 52622), (Start: 46 @52706 has 68 MA's), (Start: 52 @52715 has 6 MA's), (79, 52901), (88, 52940), (93, 52958), (114, 53051), (139, 53120), (150, 53201), (160, 53240), (171, 53300), (182, 53336), (184, 53342), (192, 53375), (207, 53441), (222, 53498), (277, 53705),

Gene: Dori_63 Start: 49123, Stop: 50127, Start Num: 55
Candidate Starts for Dori_63:
(Start: 55 @49123 has 43 MA's), (75, 49246), (77, 49273), (88, 49324), (89, 49327), (94, 49351), (137, 49477), (143, 49528), (146, 49552), (148, 49564), (150, 49570), (155, 49594), (159, 49606), (201, 49786), (205, 49795), (212, 49816), (215, 49828), (229, 49891), (231, 49900), (250, 49957), (263, 50023), (269, 50038),

Gene: DreamEater_52 Start: 33476, Stop: 34402, Start Num: 52
Candidate Starts for DreamEater_52:
(26, 33344), (Start: 52 @33476 has 6 MA's), (56, 33482), (71, 33590), (88, 33686), (90, 33692), (94, 33713), (133, 33833), (147, 33920), (148, 33929), (158, 33968), (167, 34007), (175, 34046), (194, 34118), (231, 34253), (245, 34298),

Gene: Duplicity_47 Start: 32451, Stop: 33461, Start Num: 55
Candidate Starts for Duplicity_47:
(Start: 55 @32451 has 43 MA's), (69, 32526), (73, 32565), (75, 32574), (77, 32601), (88, 32652), (89, 32655), (94, 32679), (137, 32805), (143, 32856), (146, 32880), (148, 32892), (155, 32922), (201, 33114), (205, 33123), (209, 33141), (219, 33183), (230, 33231), (235, 33243), (269, 33372),

Gene: Dusty_85 Start: 52844, Stop: 53884, Start Num: 45
Candidate Starts for Dusty_85:
(Start: 43 @52841 has 7 MA's), (Start: 45 @52844 has 8 MA's), (74, 52991), (77, 53024), (88, 53075), (110, 53174), (117, 53195), (126, 53219), (146, 53348), (148, 53360), (178, 53486), (195, 53549), (204, 53588), (221, 53657), (223, 53669), (236, 53717), (249, 53750), (253, 53768), (276, 53867),

Gene: EGUnicorn_45 Start: 31139, Stop: 32149, Start Num: 55
Candidate Starts for EGUnicorn_45:
(Start: 55 @31139 has 43 MA's), (73, 31253), (75, 31262), (77, 31289), (88, 31340), (89, 31343), (104, 31409), (113, 31436), (143, 31544), (145, 31562), (148, 31580), (209, 31829), (230, 31919), (235, 31931), (250, 31979), (269, 32060),

Gene: EMoore_45 Start: 41058, Stop: 42209, Start Num: 42
Candidate Starts for EMoore_45:
(5, 40575), (7, 40695), (9, 40773), (10, 40815), (11, 40824), (Start: 42 @41058 has 9 MA's), (75, 41208), (77, 41241), (78, 41247), (88, 41295), (97, 41334), (103, 41364), (108, 41382), (109, 41385), (113, 41394), (120, 41427), (148, 41544), (150, 41550), (158, 41583), (164, 41604), (193, 41781), (203, 41823), (205, 41829), (249, 42018), (264, 42096),

Gene: EastWest_35 Start: 28014, Stop: 29039, Start Num: 57
Candidate Starts for EastWest_35:
(Start: 57 @28014 has 26 MA's), (74, 28131), (75, 28137), (88, 28215), (95, 28245), (99, 28260), (146, 28443), (148, 28455), (156, 28488), (188, 28617), (239, 28824), (248, 28848), (258, 28893), (279, 28980),

Gene: EdmundFerry_44 Start: 37970, Stop: 39154, Start Num: 46
Candidate Starts for EdmundFerry_44:

(21, 37829), (Start: 46 @37970 has 68 MA's), (73, 38099), (77, 38141), (78, 38147), (88, 38198), (120, 38327), (150, 38453), (158, 38486), (164, 38507), (203, 38726), (215, 38771), (220, 38795), (224, 38819), (238, 38870), (241, 38897), (251, 38969), (254, 38981), (260, 39020), (262, 39029), (264, 39035), (269, 39050), (273, 39059), (280, 39116),

Gene: Eesa_37 Start: 26191, Stop: 27219, Start Num: 51
Candidate Starts for Eesa_37:
(36, 26149), (Start: 51 @26191 has 44 MA's), (54, 26206), (77, 26356), (92, 26428), (114, 26530), (145, 26668), (150, 26692), (155, 26716), (163, 26749), (176, 26812), (185, 26839), (197, 26887), (232, 27031),

Gene: Engineer_89 Start: 54615, Stop: 55658, Start Num: 43
Candidate Starts for Engineer_89:
(Start: 43 @54615 has 7 MA's), (Start: 45 @54618 has 8 MA's), (74, 54765), (77, 54798), (88, 54849), (110, 54948), (117, 54969), (126, 54993), (146, 55122), (148, 55134), (155, 55164), (178, 55260), (182, 55269), (195, 55323), (204, 55362), (221, 55431), (236, 55491), (249, 55524), (253, 55542), (276, 55641),

Gene: Fingolfin_40 Start: 25003, Stop: 26016, Start Num: 51
Candidate Starts for Fingolfin_40:
(36, 24979), (Start: 51 @25003 has 44 MA's), (54, 25018), (85, 25207), (95, 25249), (96, 25255), (98, 25264), (114, 25336), (122, 25363), (141, 25444), (142, 25453), (145, 25474), (155, 25522), (197, 25693), (204, 25723), (211, 25750), (219, 25789), (232, 25837), (246, 25882),

Gene: Fitzgerald_47 Start: 42195, Stop: 43319, Start Num: 46
Candidate Starts for Fitzgerald_47:
(Start: 46 @42195 has 68 MA's), (62, 42231), (73, 42324), (77, 42366), (78, 42372), (88, 42423), (96, 42456), (114, 42531), (120, 42552), (143, 42633), (150, 42675), (158, 42708), (164, 42729), (179, 42804), (205, 42942), (233, 43056), (251, 43143), (264, 43209), (269, 43224), (277, 43242),

Gene: Flatwoods_48 Start: 40789, Stop: 41913, Start Num: 46
Candidate Starts for Flatwoods_48:
(31, 40720), (Start: 46 @40789 has 68 MA's), (62, 40825), (73, 40918), (77, 40960), (78, 40966), (88, 41017), (97, 41056), (120, 41146), (143, 41227), (158, 41302), (164, 41323), (179, 41398), (205, 41536), (233, 41650), (238, 41677), (251, 41737), (264, 41803), (277, 41836),

Gene: Fosterous_46 Start: 40754, Stop: 41881, Start Num: 46
Candidate Starts for Fosterous_46:
(Start: 46 @40754 has 68 MA's), (62, 40793), (73, 40886), (77, 40928), (78, 40934), (88, 40985), (96, 41018), (114, 41093), (120, 41114), (150, 41237), (158, 41270), (164, 41291), (179, 41366), (205, 41504), (233, 41618), (238, 41645), (251, 41705), (264, 41771), (269, 41786), (277, 41804),

Gene: Franzy_32 Start: 28454, Stop: 29482, Start Num: 57
Candidate Starts for Franzy_32:
(Start: 57 @28454 has 26 MA's), (81, 28637), (88, 28655), (95, 28685), (99, 28700), (146, 28883), (148, 28895), (182, 29033), (186, 29045), (188, 29057), (210, 29144), (239, 29264), (248, 29288), (250, 29300),

Gene: FuegoCuervo_51 Start: 40622, Stop: 41746, Start Num: 46
Candidate Starts for FuegoCuervo_51:
(Start: 46 @40622 has 68 MA's), (62, 40661), (73, 40754), (77, 40796), (78, 40802), (88, 40853), (96, 40886), (114, 40961), (120, 40982), (150, 41105), (158, 41138), (164, 41159), (179, 41234), (205, 41372), (233, 41486), (238, 41513), (251, 41573), (264, 41639), (269, 41654), (277, 41672),

Gene: Fulbright_46 Start: 31531, Stop: 32541, Start Num: 55
Candidate Starts for Fulbright_46:
(Start: 55 @31531 has 43 MA's), (69, 31606), (73, 31645), (75, 31654), (77, 31681), (88, 31732), (89, 31735), (94, 31759), (137, 31885), (143, 31936), (146, 31960), (148, 31972), (155, 32002), (201, 32194), (205, 32203), (209, 32221), (219, 32263), (230, 32311), (235, 32323), (269, 32452),

Gene: GTE6_45 Start: 38462, Stop: 39616, Start Num: 46
Candidate Starts for GTE6_45:
(21, 38321), (Start: 46 @38462 has 68 MA's), (73, 38591), (77, 38633), (78, 38639), (88, 38690), (120, 38819), (127, 38825), (150, 38945), (158, 38978), (164, 38999), (181, 39104), (203, 39218), (215, 39263), (220, 39287), (224, 39311), (251, 39431), (254, 39443), (260, 39482), (262, 39491), (264, 39497), (269, 39512), (273, 39521), (280, 39578),

Gene: Gaea_47 Start: 40432, Stop: 41565, Start Num: 46
Candidate Starts for Gaea_47:
(31, 40363), (Start: 46 @40432 has 68 MA's), (73, 40570), (77, 40612), (78, 40618), (88, 40669), (96, 40702), (97, 40708), (120, 40798), (158, 40954), (164, 40975), (179, 41050), (205, 41188), (233, 41302), (238, 41329), (251, 41389), (264, 41455), (269, 41470), (277, 41488),

Gene: Galadriel_48 Start: 41561, Stop: 42682, Start Num: 46
Candidate Starts for Galadriel_48:
(32, 41522), (Start: 46 @41561 has 68 MA's), (62, 41597), (73, 41690), (77, 41732), (78, 41738), (88, 41789), (96, 41822), (114, 41897), (120, 41918), (150, 42041), (158, 42074), (164, 42095), (179, 42170), (205, 42308), (233, 42422), (238, 42449), (251, 42509), (264, 42575), (269, 42590), (277, 42608),

Gene: Galaxy_37 Start: 25067, Stop: 26092, Start Num: 51
Candidate Starts for Galaxy_37:
(Start: 51 @25067 has 44 MA's), (54, 25082), (63, 25109), (76, 25226), (80, 25256), (101, 25352), (103, 25364), (114, 25406), (118, 25418), (121, 25430), (145, 25544), (166, 25631), (176, 25685), (185, 25712), (232, 25904),

Gene: Geeche_86 Start: 53681, Stop: 54721, Start Num: 45
Candidate Starts for Geeche_86:
(Start: 43 @53678 has 7 MA's), (Start: 45 @53681 has 8 MA's), (74, 53828), (77, 53861), (88, 53912), (110, 54011), (117, 54032), (126, 54056), (146, 54185), (148, 54197), (178, 54323), (195, 54386), (204, 54425), (221, 54494), (236, 54554), (249, 54587), (253, 54605), (276, 54704),

Gene: Geodirt_47 Start: 42173, Stop: 43297, Start Num: 46
Candidate Starts for Geodirt_47:
(Start: 46 @42173 has 68 MA's), (62, 42212), (73, 42305), (77, 42347), (78, 42353), (88, 42404), (96, 42437), (114, 42512), (120, 42533), (150, 42656), (158, 42689), (164, 42710), (179, 42785), (205, 42923), (233, 43037), (238, 43064), (251, 43124), (264, 43190), (269, 43205), (277, 43223),

Gene: Gex_47 Start: 32458, Stop: 33468, Start Num: 55
Candidate Starts for Gex_47:
(Start: 55 @32458 has 43 MA's), (69, 32533), (73, 32572), (75, 32581), (77, 32608), (88, 32659), (89, 32662), (94, 32686), (137, 32812), (143, 32863), (146, 32887), (148, 32899), (155, 32929), (201, 33121), (205, 33130), (209, 33148), (219, 33190), (230, 33238), (235, 33250), (269, 33379),

Gene: Glotell_41 Start: 25159, Stop: 26172, Start Num: 51
Candidate Starts for Glotell_41:

(36, 25135), (Start: 51 @25159 has 44 MA's), (54, 25174), (85, 25363), (95, 25405), (96, 25411), (98, 25420), (114, 25492), (122, 25519), (141, 25600), (142, 25609), (145, 25630), (155, 25678), (197, 25849), (204, 25879), (211, 25906), (219, 25945), (232, 25993), (246, 26038),

Gene: Gravel_47 Start: 26164, Stop: 27192, Start Num: 51
Candidate Starts for Gravel_47:
(Start: 51 @26164 has 44 MA's), (54, 26179), (77, 26329), (92, 26401), (114, 26503), (145, 26641), (150, 26665), (155, 26689), (163, 26722), (176, 26785), (185, 26812), (197, 26860), (232, 27004),

Gene: GravityBall_34 Start: 28804, Stop: 29823, Start Num: 57
Candidate Starts for GravityBall_34:
(Start: 57 @28804 has 26 MA's), (74, 28921), (88, 29005), (91, 29017), (95, 29035), (102, 29071), (148, 29245), (150, 29251), (165, 29308), (171, 29347), (182, 29383), (186, 29395), (188, 29407), (250, 29650),

Gene: Grekaycon_34 Start: 28720, Stop: 29739, Start Num: 57
Candidate Starts for Grekaycon_34:
(Start: 57 @28720 has 26 MA's), (88, 28921), (91, 28933), (95, 28951), (101, 28981), (102, 28987), (148, 29161), (150, 29167), (165, 29224), (182, 29299), (188, 29323), (191, 29332), (210, 29410), (226, 29482), (228, 29488), (277, 29665),

Gene: Grumio_83 Start: 52315, Stop: 53328, Start Num: 52
Candidate Starts for Grumio_83:
(22, 52153), (31, 52222), (Start: 46 @52306 has 68 MA's), (Start: 52 @52315 has 6 MA's), (79, 52501), (88, 52540), (93, 52558), (114, 52651), (139, 52720), (150, 52801), (160, 52840), (171, 52900), (182, 52936), (184, 52942), (192, 52975), (207, 53041), (222, 53098), (277, 53305),

Gene: Gustavo_47 Start: 40605, Stop: 41738, Start Num: 46
Candidate Starts for Gustavo_47:
(31, 40536), (Start: 46 @40605 has 68 MA's), (73, 40743), (77, 40785), (78, 40791), (88, 40842), (96, 40875), (97, 40881), (98, 40884), (120, 40971), (158, 41127), (164, 41148), (179, 41223), (205, 41361), (233, 41475), (238, 41502), (251, 41562), (264, 41628), (269, 41643), (277, 41661),

Gene: HamCheese_40 Start: 24987, Stop: 26000, Start Num: 51
Candidate Starts for HamCheese_40:
(36, 24963), (Start: 51 @24987 has 44 MA's), (54, 25002), (85, 25191), (95, 25233), (96, 25239), (98, 25248), (114, 25320), (122, 25347), (141, 25428), (142, 25437), (145, 25458), (155, 25506), (197, 25677), (204, 25707), (211, 25734), (219, 25773), (232, 25821), (246, 25866),

Gene: Hanako_51 Start: 33348, Stop: 34358, Start Num: 55
Candidate Starts for Hanako_51:
(Start: 55 @33348 has 43 MA's), (73, 33462), (75, 33471), (77, 33498), (88, 33549), (89, 33552), (104, 33618), (113, 33645), (143, 33753), (145, 33771), (148, 33789), (209, 34038), (230, 34128), (235, 34140), (250, 34188), (269, 34269),

Gene: HannahPhantana_41 Start: 25059, Stop: 26081, Start Num: 51
Candidate Starts for HannahPhantana_41:
(Start: 51 @25059 has 44 MA's), (54, 25074), (63, 25101), (68, 25137), (77, 25224), (96, 25317), (114, 25398), (122, 25425), (138, 25470), (142, 25518), (145, 25539), (155, 25587), (176, 25683), (185, 25710), (232, 25902), (237, 25923), (246, 25947),

Gene: Hans_49 Start: 40497, Stop: 41648, Start Num: 42
Candidate Starts for Hans_49:

(Start: 42 @40497 has 9 MA's), (67, 40581), (73, 40638), (75, 40647), (77, 40680), (78, 40686), (88, 40734), (97, 40773), (103, 40803), (108, 40821), (109, 40824), (113, 40833), (148, 40983), (150, 40989), (158, 41022), (164, 41043), (177, 41106), (193, 41220), (203, 41262), (205, 41268), (238, 41406), (269, 41550), (280, 41616),

Gene: Impisi_52 Start: 33145, Stop: 34155, Start Num: 55
Candidate Starts for Impisi_52:
(Start: 55 @33145 has 43 MA's), (73, 33259), (75, 33268), (77, 33295), (88, 33346), (89, 33349), (104, 33415), (113, 33442), (143, 33550), (145, 33568), (148, 33586), (209, 33835), (230, 33925), (235, 33937), (250, 33985), (269, 34066),

Gene: Inspectinfecti_48 Start: 40943, Stop: 42094, Start Num: 42
Candidate Starts for Inspectinfecti_48:
(Start: 42 @40943 has 9 MA's), (67, 41027), (73, 41084), (75, 41093), (77, 41126), (78, 41132), (88, 41180), (97, 41219), (103, 41249), (108, 41267), (109, 41270), (113, 41279), (148, 41429), (150, 41435), (158, 41468), (164, 41489), (177, 41552), (193, 41666), (203, 41708), (205, 41714), (238, 41852), (269, 41996), (280, 42062),

Gene: Island3_48 Start: 33774, Stop: 34781, Start Num: 55
Candidate Starts for Island3_48:
(29, 33654), (Start: 55 @33774 has 43 MA's), (73, 33885), (75, 33894), (77, 33921), (88, 33972), (89, 33975), (101, 34032), (104, 34041), (137, 34125), (143, 34176), (146, 34200), (148, 34212), (205, 34443), (209, 34461), (215, 34482), (217, 34497), (230, 34551), (231, 34554), (235, 34563), (238, 34581), (250, 34611), (269, 34692),

Gene: JKSyngboy_45 Start: 41204, Stop: 42337, Start Num: 46
Candidate Starts for JKSyngboy_45:
(31, 41135), (Start: 46 @41204 has 68 MA's), (73, 41342), (77, 41384), (78, 41390), (88, 41441), (96, 41474), (97, 41480), (98, 41483), (120, 41570), (158, 41726), (164, 41747), (179, 41822), (205, 41960), (233, 42074), (238, 42101), (251, 42161), (264, 42227), (269, 42242), (277, 42260),

Gene: JKerns_34 Start: 28666, Stop: 29685, Start Num: 57
Candidate Starts for JKerns_34:
(Start: 57 @28666 has 26 MA's), (88, 28867), (91, 28879), (95, 28897), (101, 28927), (143, 29071), (148, 29107), (150, 29113), (165, 29170), (182, 29245), (188, 29269), (226, 29428), (228, 29434), (277, 29611), (279, 29632), (280, 29659),

Gene: Jabberwocky_47 Start: 42599, Stop: 43762, Start Num: 46
Candidate Starts for Jabberwocky_47:
(Start: 46 @42599 has 68 MA's), (62, 42638), (73, 42731), (77, 42773), (78, 42779), (88, 42830), (96, 42863), (114, 42938), (120, 42959), (143, 43040), (150, 43082), (158, 43115), (164, 43136), (179, 43211), (205, 43349), (233, 43463), (240, 43511), (242, 43526), (251, 43586), (264, 43652), (269, 43667), (277, 43685),

Gene: Jace_31 Start: 25322, Stop: 26353, Start Num: 44
Candidate Starts for Jace_31:
(Start: 44 @25322 has 1 MA's), (56, 25343), (80, 25523), (92, 25571), (114, 25664), (120, 25685), (148, 25793), (149, 25796), (154, 25820), (183, 25934), (188, 25955), (235, 26132), (238, 26150),

Gene: Jamie19_45 Start: 31639, Stop: 32649, Start Num: 55
Candidate Starts for Jamie19_45:
(Start: 55 @31639 has 43 MA's), (69, 31714), (73, 31753), (75, 31762), (77, 31789), (88, 31840), (89, 31843), (104, 31909), (113, 31936), (143, 32044), (145, 32062), (148, 32080), (209, 32329), (230,

32419), (235, 32431), (250, 32479), (269, 32560),

Gene: Jamun_37 Start: 25352, Stop: 26377, Start Num: 51
Candidate Starts for Jamun_37:
(36, 25319), (Start: 51 @25352 has 44 MA's), (54, 25367), (77, 25517), (80, 25541), (101, 25637),
(103, 25649), (114, 25691), (118, 25703), (119, 25712), (166, 25916), (176, 25970), (232, 26189),
(274, 26342),

Gene: Jawnski_32 Start: 28461, Stop: 29489, Start Num: 57
Candidate Starts for Jawnski_32:
(Start: 57 @28461 has 26 MA's), (74, 28578), (81, 28644), (88, 28662), (95, 28692), (101, 28722),
(148, 28902), (165, 28965), (182, 29040), (186, 29052), (188, 29064), (228, 29229), (250, 29307),

Gene: Jerole_41 Start: 25183, Stop: 26205, Start Num: 51
Candidate Starts for Jerole_41:
(Start: 51 @25183 has 44 MA's), (54, 25198), (63, 25225), (68, 25261), (77, 25348), (96, 25441), (114,
25522), (122, 25549), (138, 25594), (142, 25642), (145, 25663), (155, 25711), (176, 25807), (185,
25834), (232, 26026), (237, 26047), (246, 26071),

Gene: Jollymon_82 Start: 52837, Stop: 53850, Start Num: 52
Candidate Starts for Jollymon_82:
(22, 52675), (31, 52744), (Start: 46 @52828 has 68 MA's), (Start: 52 @52837 has 6 MA's), (79, 53023),
(88, 53062), (93, 53080), (114, 53173), (139, 53242), (150, 53323), (160, 53362), (171, 53422), (182,
53458), (184, 53464), (192, 53497), (207, 53563), (222, 53620), (277, 53827),

Gene: JonJames_100 Start: 60136, Stop: 61155, Start Num: 48
Candidate Starts for JonJames_100:
(Start: 48 @60136 has 9 MA's), (64, 60190), (65, 60193), (94, 60388), (95, 60391), (117, 60481), (124,
60502), (126, 60505), (165, 60706), (167, 60715), (169, 60736), (195, 60832), (202, 60865), (210,
60895), (220, 60937), (223, 60952), (229, 60976), (235, 60994), (249, 61030), (257, 61066),

Gene: Jordan_34 Start: 28716, Stop: 29735, Start Num: 57
Candidate Starts for Jordan_34:
(Start: 57 @28716 has 26 MA's), (88, 28917), (91, 28929), (95, 28947), (101, 28977), (148, 29157),
(150, 29163), (165, 29220), (182, 29295), (188, 29319), (210, 29406), (226, 29478), (228, 29484),
(277, 29661),

Gene: JrWilcox_97 Start: 53551, Stop: 54615, Start Num: 57
Candidate Starts for JrWilcox_97:
(14, 53251), (Start: 57 @53551 has 26 MA's), (88, 53749), (102, 53824), (136, 53944), (148, 54049),
(162, 54106), (191, 54220), (209, 54289), (214, 54307), (220, 54337), (232, 54385), (272, 54541),
(279, 54580),

Gene: Juno112_39 Start: 25003, Stop: 26016, Start Num: 51
Candidate Starts for Juno112_39:
(36, 24979), (Start: 51 @25003 has 44 MA's), (54, 25018), (85, 25207), (95, 25249), (96, 25255), (98,
25264), (114, 25336), (122, 25363), (141, 25444), (142, 25453), (145, 25474), (155, 25522), (197,
25693), (204, 25723), (211, 25750), (219, 25789), (232, 25837), (246, 25882),

Gene: KHumphrey_40 Start: 25002, Stop: 26015, Start Num: 51
Candidate Starts for KHumphrey_40:
(36, 24978), (Start: 51 @25002 has 44 MA's), (54, 25017), (85, 25206), (95, 25248), (96, 25254), (98,
25263), (114, 25335), (122, 25362), (141, 25443), (142, 25452), (145, 25473), (155, 25521), (197,

25692), (204, 25722), (211, 25749), (219, 25788), (232, 25836), (246, 25881),

Gene: Kamashten_46 Start: 40534, Stop: 41661, Start Num: 46
Candidate Starts for Kamashten_46:
(Start: 46 @40534 has 68 MA's), (62, 40573), (73, 40666), (77, 40708), (78, 40714), (88, 40765), (96, 40798), (114, 40873), (120, 40894), (150, 41017), (158, 41050), (164, 41071), (179, 41146), (205, 41284), (233, 41398), (238, 41425), (251, 41485), (264, 41551), (269, 41566), (277, 41584),

Gene: Keitabear_48 Start: 42189, Stop: 43352, Start Num: 46
Candidate Starts for Keitabear_48:
(Start: 46 @42189 has 68 MA's), (62, 42228), (73, 42321), (77, 42363), (78, 42369), (88, 42420), (96, 42453), (114, 42528), (120, 42549), (150, 42672), (158, 42705), (164, 42726), (179, 42801), (205, 42939), (233, 43053), (240, 43101), (242, 43116), (251, 43176), (264, 43242), (269, 43257), (277, 43275),

Gene: KendraB23_48 Start: 26357, Stop: 27385, Start Num: 51
Candidate Starts for KendraB23_48:
(36, 26315), (Start: 51 @26357 has 44 MA's), (54, 26372), (77, 26522), (92, 26594), (114, 26696), (145, 26834), (150, 26858), (155, 26882), (163, 26915), (176, 26978), (185, 27005), (197, 27053), (232, 27197),

Gene: Kepler_42 Start: 25807, Stop: 26829, Start Num: 51
Candidate Starts for Kepler_42:
(Start: 51 @25807 has 44 MA's), (54, 25822), (63, 25849), (68, 25885), (77, 25972), (96, 26065), (114, 26146), (122, 26173), (138, 26218), (142, 26266), (145, 26287), (155, 26335), (176, 26431), (185, 26458), (211, 26563), (232, 26650), (237, 26671), (246, 26695),

Gene: Kevin1_49 Start: 32486, Stop: 33493, Start Num: 55
Candidate Starts for Kevin1_49:
(Start: 55 @32486 has 43 MA's), (73, 32597), (75, 32606), (77, 32633), (88, 32684), (89, 32687), (101, 32744), (104, 32753), (137, 32837), (143, 32888), (146, 32912), (148, 32924), (205, 33155), (209, 33173), (215, 33194), (217, 33209), (230, 33263), (231, 33266), (235, 33275), (238, 33293), (250, 33323), (269, 33404),

Gene: Kewpiedoll_48 Start: 41475, Stop: 42602, Start Num: 46
Candidate Starts for Kewpiedoll_48:
(Start: 46 @41475 has 68 MA's), (62, 41514), (73, 41607), (78, 41655), (88, 41706), (96, 41739), (114, 41814), (120, 41835), (150, 41958), (158, 41991), (164, 42012), (179, 42087), (205, 42225), (233, 42339), (238, 42366), (251, 42426), (264, 42492), (269, 42507), (277, 42525),

Gene: King2_32 Start: 28450, Stop: 29478, Start Num: 57
Candidate Starts for King2_32:
(Start: 57 @28450 has 26 MA's), (81, 28633), (88, 28651), (95, 28681), (99, 28696), (146, 28879), (148, 28891), (186, 29041), (188, 29053), (228, 29218), (239, 29260), (250, 29296),

Gene: KingstonB_84 Start: 52239, Stop: 53261, Start Num: 46
Candidate Starts for KingstonB_84:
(22, 52086), (Start: 46 @52239 has 68 MA's), (Start: 52 @52248 has 6 MA's), (79, 52434), (88, 52473), (93, 52491), (114, 52584), (139, 52653), (150, 52734), (160, 52773), (171, 52833), (182, 52869), (184, 52875), (192, 52908), (207, 52974), (222, 53031), (277, 53238),

Gene: Klevey_37 Start: 28353, Stop: 29405, Start Num: 48
Candidate Starts for Klevey_37:

(Start: 48 @28353 has 9 MA's), (88, 28563), (93, 28581), (114, 28671), (170, 28908), (171, 28911),

Gene: Kroos_48 Start: 41345, Stop: 42472, Start Num: 46
Candidate Starts for Kroos_48:
(31, 41276), (Start: 46 @41345 has 68 MA's), (62, 41384), (73, 41477), (77, 41519), (78, 41525), (88, 41576), (97, 41615), (120, 41705), (158, 41861), (164, 41882), (169, 41915), (179, 41957), (205, 42095), (233, 42209), (238, 42236), (251, 42296), (264, 42362), (277, 42395),

Gene: Kuleana_42 Start: 25383, Stop: 26405, Start Num: 51
Candidate Starts for Kuleana_42:
(Start: 51 @25383 has 44 MA's), (54, 25398), (63, 25425), (95, 25635), (96, 25641), (98, 25650), (114, 25722), (122, 25749), (132, 25776), (138, 25794), (145, 25863), (150, 25887), (155, 25911), (176, 26007), (185, 26034), (195, 26073), (232, 26226), (237, 26247), (246, 26271),

Gene: Kwekel_45 Start: 37890, Stop: 39044, Start Num: 46
Candidate Starts for Kwekel_45:
(Start: 46 @37890 has 68 MA's), (73, 38019), (77, 38061), (78, 38067), (88, 38118), (120, 38247), (127, 38253), (143, 38331), (150, 38373), (158, 38406), (164, 38427), (203, 38646), (215, 38691), (220, 38715), (224, 38739), (238, 38790), (251, 38859), (254, 38871), (260, 38910), (262, 38919), (264, 38925), (269, 38940), (273, 38949), (280, 39006),

Gene: Kwobi_49 Start: 41331, Stop: 42458, Start Num: 46
Candidate Starts for Kwobi_49:
(31, 41262), (Start: 46 @41331 has 68 MA's), (62, 41370), (73, 41463), (77, 41505), (78, 41511), (88, 41562), (97, 41601), (120, 41691), (158, 41847), (164, 41868), (169, 41901), (179, 41943), (205, 42081), (233, 42195), (247, 42261), (249, 42270), (251, 42282), (264, 42348), (269, 42363), (277, 42381),

Gene: Laphuphu24k_39 Start: 24987, Stop: 26000, Start Num: 51
Candidate Starts for Laphuphu24k_39:
(36, 24963), (Start: 51 @24987 has 44 MA's), (54, 25002), (85, 25191), (95, 25233), (96, 25239), (98, 25248), (114, 25320), (122, 25347), (141, 25428), (142, 25437), (145, 25458), (155, 25506), (197, 25677), (204, 25707), (211, 25734), (219, 25773), (232, 25821), (246, 25866),

Gene: LeeroyJ_34 Start: 28804, Stop: 29823, Start Num: 57
Candidate Starts for LeeroyJ_34:
(Start: 57 @28804 has 26 MA's), (74, 28921), (88, 29005), (91, 29017), (95, 29035), (102, 29071), (148, 29245), (150, 29251), (165, 29308), (171, 29347), (182, 29383), (186, 29395), (188, 29407), (250, 29650), (279, 29770),

Gene: Lennon_48 Start: 42278, Stop: 43441, Start Num: 46
Candidate Starts for Lennon_48:
(Start: 46 @42278 has 68 MA's), (62, 42317), (73, 42410), (77, 42452), (78, 42458), (88, 42509), (96, 42542), (114, 42617), (120, 42638), (150, 42761), (158, 42794), (164, 42815), (179, 42890), (205, 43028), (233, 43142), (240, 43190), (242, 43205), (251, 43265), (264, 43331), (269, 43346), (277, 43364),

Gene: Leona_39 Start: 25074, Stop: 26087, Start Num: 51
Candidate Starts for Leona_39:
(36, 25050), (Start: 51 @25074 has 44 MA's), (54, 25089), (62, 25107), (80, 25257), (85, 25278), (95, 25320), (114, 25407), (122, 25434), (141, 25515), (142, 25524), (145, 25545), (155, 25593), (197, 25764), (204, 25794), (211, 25821), (219, 25860), (232, 25908), (246, 25953),

Gene: Leonard_47 Start: 40587, Stop: 41741, Start Num: 42
Candidate Starts for Leonard_47:
(Start: 42 @40587 has 9 MA's), (49, 40602), (67, 40671), (73, 40728), (75, 40737), (77, 40770), (78, 40776), (88, 40824), (97, 40863), (103, 40893), (108, 40911), (109, 40914), (113, 40923), (141, 41031), (148, 41076), (150, 41082), (158, 41115), (164, 41136), (177, 41199), (193, 41313), (203, 41355), (205, 41361), (238, 41499), (269, 41643), (280, 41709),

Gene: LilHam_45 Start: 39953, Stop: 41077, Start Num: 46
Candidate Starts for LilHam_45:
(31, 39884), (Start: 46 @39953 has 68 MA's), (62, 39989), (73, 40082), (77, 40124), (78, 40130), (88, 40181), (97, 40220), (120, 40310), (158, 40466), (164, 40487), (169, 40520), (179, 40562), (205, 40700), (233, 40814), (238, 40841), (251, 40901), (264, 40967), (277, 41000),

Gene: Lilbeanie_51 Start: 37513, Stop: 38625, Start Num: 38
Candidate Starts for Lilbeanie_51:
(Start: 38 @37513 has 1 MA's), (Start: 52 @37537 has 6 MA's), (75, 37675), (80, 37723), (88, 37753), (93, 37771), (107, 37837), (108, 37840), (114, 37864), (145, 37981), (150, 38005), (155, 38029), (182, 38137), (193, 38179), (250, 38395), (264, 38467), (275, 38497), (280, 38548),

Gene: Lilmac1015_39 Start: 28926, Stop: 29978, Start Num: 48
Candidate Starts for Lilmac1015_39:
(Start: 48 @28926 has 9 MA's), (88, 29136), (93, 29154), (114, 29244), (170, 29481), (171, 29484),

Gene: LittleTokyo_40 Start: 24933, Stop: 25961, Start Num: 51
Candidate Starts for LittleTokyo_40:
(Start: 51 @24933 has 44 MA's), (54, 24948), (80, 25128), (85, 25149), (96, 25197), (114, 25278), (118, 25290), (122, 25305), (152, 25452), (153, 25461), (155, 25467), (167, 25515), (189, 25608), (232, 25782), (237, 25803), (246, 25827), (255, 25857),

Gene: Love_52 Start: 42726, Stop: 43853, Start Num: 46
Candidate Starts for Love_52:
(Start: 46 @42726 has 68 MA's), (62, 42765), (73, 42858), (77, 42900), (78, 42906), (88, 42957), (96, 42990), (114, 43065), (120, 43086), (150, 43209), (158, 43242), (164, 43263), (179, 43338), (205, 43476), (233, 43590), (238, 43617), (251, 43677), (264, 43743), (269, 43758), (277, 43776),

Gene: Lozinak_88 Start: 54455, Stop: 55495, Start Num: 45
Candidate Starts for Lozinak_88:
(Start: 43 @54452 has 7 MA's), (Start: 45 @54455 has 8 MA's), (74, 54602), (77, 54635), (88, 54686), (110, 54785), (117, 54806), (126, 54830), (146, 54959), (148, 54971), (178, 55097), (195, 55160), (204, 55199), (221, 55268), (223, 55280), (236, 55328), (249, 55361), (261, 55430), (276, 55478),

Gene: Lukepolites_36 Start: 28340, Stop: 29587, Start Num: 50
Candidate Starts for Lukepolites_36:
(50, 28340), (66, 28394), (114, 28667), (144, 28769), (150, 28805), (156, 28832), (164, 28862), (182, 28937), (212, 29060), (273, 29315), (281, 29510),

Gene: Lunar_42 Start: 25723, Stop: 26745, Start Num: 51
Candidate Starts for Lunar_42:
(Start: 51 @25723 has 44 MA's), (54, 25738), (63, 25765), (68, 25801), (77, 25888), (96, 25981), (114, 26062), (122, 26089), (138, 26134), (142, 26182), (145, 26203), (155, 26251), (176, 26347), (185, 26374), (232, 26566), (237, 26587), (246, 26611),

Gene: Magsby_47 Start: 32459, Stop: 33469, Start Num: 55

Candidate Starts for Magsby_47:
(Start: 55 @32459 has 43 MA's), (69, 32534), (73, 32573), (75, 32582), (77, 32609), (88, 32660), (89, 32663), (94, 32687), (137, 32813), (143, 32864), (146, 32888), (148, 32900), (155, 32930), (201, 33122), (205, 33131), (209, 33149), (219, 33191), (230, 33239), (235, 33251), (269, 33380),

Gene: Makar_85 Start: 52565, Stop: 53590, Start Num: 46
Candidate Starts for Makar_85:
(8, 52163), (18, 52355), (22, 52412), (31, 52481), (Start: 46 @52565 has 68 MA's), (Start: 52 @52574 has 6 MA's), (79, 52763), (88, 52802), (93, 52820), (114, 52913), (149, 53060), (171, 53162), (182, 53198), (202, 53282), (222, 53360), (223, 53369), (235, 53411), (277, 53567),

Gene: Martha_34 Start: 28721, Stop: 29740, Start Num: 57
Candidate Starts for Martha_34:
(Start: 57 @28721 has 26 MA's), (88, 28922), (91, 28934), (95, 28952), (101, 28982), (102, 28988), (148, 29162), (150, 29168), (165, 29225), (182, 29300), (188, 29324), (191, 29333), (210, 29411), (226, 29483), (228, 29489), (277, 29666),

Gene: Mask_63 Start: 49866, Stop: 50870, Start Num: 55
Candidate Starts for Mask_63:
(Start: 55 @49866 has 43 MA's), (75, 49989), (77, 50016), (88, 50067), (89, 50070), (94, 50094), (137, 50220), (143, 50271), (146, 50295), (148, 50307), (150, 50313), (155, 50337), (159, 50349), (201, 50529), (205, 50538), (212, 50559), (215, 50571), (229, 50634), (231, 50643), (250, 50700), (263, 50766), (269, 50781),

Gene: McCrothy_48 Start: 41885, Stop: 43006, Start Num: 46
Candidate Starts for McCrothy_48:
(32, 41846), (Start: 46 @41885 has 68 MA's), (62, 41921), (73, 42014), (77, 42056), (78, 42062), (88, 42113), (96, 42146), (114, 42221), (120, 42242), (150, 42365), (158, 42398), (164, 42419), (179, 42494), (205, 42632), (233, 42746), (238, 42773), (251, 42833), (264, 42899), (269, 42914), (277, 42932),

Gene: McKinley_50 Start: 42099, Stop: 43259, Start Num: 46
Candidate Starts for McKinley_50:
(Start: 46 @42099 has 68 MA's), (62, 42138), (73, 42231), (77, 42273), (78, 42279), (88, 42330), (96, 42363), (114, 42438), (120, 42459), (150, 42582), (158, 42615), (164, 42636), (179, 42711), (205, 42849), (233, 42963), (242, 43026), (251, 43086), (264, 43152), (269, 43167), (277, 43185),

Gene: MelBins_48 Start: 40737, Stop: 41921, Start Num: 42
Candidate Starts for MelBins_48:
(Start: 42 @40737 has 9 MA's), (67, 40821), (75, 40887), (77, 40920), (78, 40926), (88, 40974), (97, 41013), (103, 41043), (108, 41061), (109, 41064), (113, 41073), (148, 41223), (150, 41229), (158, 41262), (164, 41283), (177, 41346), (193, 41460), (203, 41502), (238, 41646), (240, 41667), (242, 41682), (269, 41823), (280, 41889),

Gene: Melons_42 Start: 25537, Stop: 26559, Start Num: 51
Candidate Starts for Melons_42:
(Start: 51 @25537 has 44 MA's), (54, 25552), (63, 25579), (68, 25615), (77, 25702), (96, 25795), (114, 25876), (122, 25903), (138, 25948), (142, 25996), (145, 26017), (155, 26065), (176, 26161), (185, 26188), (232, 26380), (237, 26401), (246, 26425),

Gene: Melville_50 Start: 32443, Stop: 33453, Start Num: 55
Candidate Starts for Melville_50:

(Start: 55 @32443 has 43 MA's), (69, 32518), (73, 32557), (75, 32566), (77, 32593), (88, 32644), (89, 32647), (94, 32671), (137, 32797), (143, 32848), (146, 32872), (148, 32884), (155, 32914), (201, 33106), (205, 33115), (209, 33133), (219, 33175), (230, 33223), (235, 33235), (269, 33364),

Gene: Miskis_80 Start: 52360, Stop: 53400, Start Num: 45
Candidate Starts for Miskis_80:
(Start: 43 @52357 has 7 MA's), (Start: 45 @52360 has 8 MA's), (74, 52507), (77, 52540), (88, 52591), (110, 52690), (117, 52711), (126, 52735), (146, 52864), (148, 52876), (178, 53002), (195, 53065), (204, 53104), (221, 53173), (223, 53185), (236, 53233), (249, 53266), (261, 53335), (276, 53383),

Gene: Mollymur_95 Start: 64969, Stop: 63935, Start Num: 53
Candidate Starts for Mollymur_95:
(Start: 51 @64975 has 44 MA's), (Start: 53 @64969 has 8 MA's), (73, 64843), (83, 64768), (87, 64753), (88, 64750), (106, 64663), (112, 64645), (123, 64603), (146, 64465), (151, 64444), (155, 64423), (157, 64417), (178, 64327), (190, 64282), (195, 64264), (199, 64237), (208, 64207), (215, 64183), (223, 64144), (225, 64132),

Gene: MoontowerMania_48 Start: 41934, Stop: 43061, Start Num: 46
Candidate Starts for MoontowerMania_48:
(Start: 46 @41934 has 68 MA's), (62, 41973), (73, 42066), (77, 42108), (78, 42114), (88, 42165), (96, 42198), (114, 42273), (120, 42294), (150, 42417), (158, 42450), (164, 42471), (179, 42546), (205, 42684), (233, 42798), (238, 42825), (251, 42885), (264, 42951), (269, 42966), (277, 42984),

Gene: Nandito_37 Start: 28626, Stop: 29672, Start Num: 48
Candidate Starts for Nandito_37:
(Start: 48 @28626 has 9 MA's), (88, 28836), (93, 28854), (114, 28944), (205, 29313),

Gene: NathanVaag_32 Start: 28464, Stop: 29492, Start Num: 57
Candidate Starts for NathanVaag_32:
(Start: 57 @28464 has 26 MA's), (74, 28581), (81, 28647), (88, 28665), (95, 28695), (101, 28725), (148, 28905), (165, 28968), (188, 29067), (228, 29232), (250, 29310),

Gene: Natkenzie_50 Start: 42409, Stop: 43563, Start Num: 46
Candidate Starts for Natkenzie_50:
(Start: 46 @42409 has 68 MA's), (62, 42448), (73, 42541), (75, 42550), (77, 42583), (78, 42589), (84, 42625), (88, 42640), (96, 42673), (97, 42679), (120, 42772), (158, 42928), (161, 42943), (177, 43012), (179, 43024), (180, 43042), (215, 43213), (233, 43288), (249, 43372), (262, 43444), (264, 43450), (280, 43531),

Gene: Nenae_51 Start: 33350, Stop: 34360, Start Num: 55
Candidate Starts for Nenae_51:
(Start: 55 @33350 has 43 MA's), (73, 33464), (75, 33473), (77, 33500), (88, 33551), (89, 33554), (104, 33620), (113, 33647), (143, 33755), (145, 33773), (148, 33791), (209, 34040), (230, 34130), (235, 34142), (250, 34190), (269, 34271),

Gene: Niblet_41 Start: 25739, Stop: 26767, Start Num: 51
Candidate Starts for Niblet_41:
(36, 25706), (Start: 51 @25739 has 44 MA's), (54, 25754), (77, 25904), (92, 25976), (95, 25991), (96, 25997), (108, 26054), (114, 26078), (119, 26099), (145, 26216), (152, 26249), (163, 26297), (176, 26360), (185, 26387), (197, 26435), (232, 26579),

Gene: Nordenberg_43 Start: 40917, Stop: 42038, Start Num: 46
Candidate Starts for Nordenberg_43:

(32, 40878), (Start: 46 @40917 has 68 MA's), (62, 40953), (73, 41046), (77, 41088), (78, 41094), (88, 41145), (96, 41178), (114, 41253), (120, 41274), (150, 41397), (158, 41430), (164, 41451), (179, 41526), (205, 41664), (233, 41778), (238, 41805), (251, 41865), (264, 41931), (269, 41946), (277, 41964),

Gene: Norvs_88 Start: 53861, Stop: 54904, Start Num: 43
Candidate Starts for Norvs_88:
(Start: 43 @53861 has 7 MA's), (Start: 45 @53864 has 8 MA's), (74, 54011), (77, 54044), (88, 54095), (110, 54194), (117, 54215), (126, 54239), (146, 54368), (148, 54380), (178, 54506), (195, 54569), (204, 54608), (221, 54677), (223, 54689), (236, 54737), (249, 54770), (261, 54839), (276, 54887),

Gene: Nostromo_33 Start: 27783, Stop: 28817, Start Num: 57
Candidate Starts for Nostromo_33:
(19, 27585), (Start: 57 @27783 has 26 MA's), (74, 27900), (77, 27933), (82, 27966), (88, 27984), (95, 28014), (100, 28038), (114, 28092), (148, 28224), (182, 28362), (188, 28386), (191, 28395), (227, 28545), (265, 28689), (270, 28704), (280, 28770),

Gene: OneUp_78 Start: 51739, Stop: 52776, Start Num: 47
Candidate Starts for OneUp_78:
(Start: 47 @51739 has 2 MA's), (88, 51964), (146, 52234), (148, 52246), (173, 52351), (178, 52372), (198, 52456), (249, 52636), (257, 52672), (259, 52696), (276, 52753),

Gene: Oppalora_39 Start: 25001, Stop: 26014, Start Num: 51
Candidate Starts for Oppalora_39:
(36, 24977), (Start: 51 @25001 has 44 MA's), (54, 25016), (85, 25205), (95, 25247), (96, 25253), (98, 25262), (114, 25334), (122, 25361), (141, 25442), (142, 25451), (145, 25472), (155, 25520), (197, 25691), (204, 25721), (211, 25748), (219, 25787), (232, 25835), (246, 25880),

Gene: Orcanus_38 Start: 25714, Stop: 26742, Start Num: 51
Candidate Starts for Orcanus_38:
(Start: 51 @25714 has 44 MA's), (54, 25729), (77, 25879), (92, 25951), (114, 26053), (119, 26074), (145, 26191), (150, 26215), (155, 26239), (163, 26272), (176, 26335), (185, 26362), (197, 26410), (232, 26554),

Gene: OtsoOtso_41 Start: 24913, Stop: 25935, Start Num: 51
Candidate Starts for OtsoOtso_41:
(Start: 51 @24913 has 44 MA's), (54, 24928), (63, 24955), (68, 24991), (77, 25078), (96, 25171), (114, 25252), (122, 25279), (138, 25324), (142, 25372), (145, 25393), (155, 25441), (176, 25537), (185, 25564), (232, 25756), (237, 25777), (246, 25801),

Gene: Panchino_44 Start: 32985, Stop: 33995, Start Num: 55
Candidate Starts for Panchino_44:
(Start: 55 @32985 has 43 MA's), (69, 33060), (73, 33099), (75, 33108), (77, 33135), (88, 33186), (89, 33189), (104, 33255), (113, 33282), (143, 33390), (145, 33408), (148, 33426), (209, 33675), (230, 33765), (235, 33777), (250, 33825), (269, 33906),

Gene: Paries_51 Start: 42388, Stop: 43509, Start Num: 46
Candidate Starts for Paries_51:
(32, 42349), (Start: 46 @42388 has 68 MA's), (62, 42424), (73, 42517), (77, 42559), (78, 42565), (88, 42616), (96, 42649), (114, 42724), (120, 42745), (150, 42868), (158, 42901), (164, 42922), (179, 42997), (205, 43135), (233, 43249), (238, 43276), (251, 43336), (264, 43402), (269, 43417), (277, 43435),

Gene: Parmesanjohn_47 Start: 32462, Stop: 33472, Start Num: 55
Candidate Starts for Parmesanjohn_47:
(Start: 55 @32462 has 43 MA's), (69, 32537), (73, 32576), (75, 32585), (77, 32612), (88, 32663), (89, 32666), (94, 32690), (137, 32816), (143, 32867), (146, 32891), (148, 32903), (155, 32933), (201, 33125), (205, 33134), (209, 33152), (219, 33194), (230, 33242), (235, 33254), (269, 33383),

Gene: Pelletreau_47 Start: 26164, Stop: 27192, Start Num: 51
Candidate Starts for Pelletreau_47:
(Start: 51 @26164 has 44 MA's), (54, 26179), (77, 26329), (92, 26401), (114, 26503), (145, 26641), (150, 26665), (155, 26689), (163, 26722), (176, 26785), (185, 26812), (197, 26860), (232, 27004),

Gene: PhancyPhin_51 Start: 33344, Stop: 34354, Start Num: 55
Candidate Starts for PhancyPhin_51:
(Start: 55 @33344 has 43 MA's), (73, 33458), (75, 33467), (77, 33494), (88, 33545), (89, 33548), (104, 33614), (113, 33641), (143, 33749), (145, 33767), (148, 33785), (209, 34034), (230, 34124), (235, 34136), (250, 34184), (269, 34265),

Gene: Phauci_40 Start: 37439, Stop: 38590, Start Num: 42
Candidate Starts for Phauci_40:
(Start: 42 @37439 has 9 MA's), (67, 37523), (75, 37589), (77, 37622), (78, 37628), (88, 37676), (97, 37715), (103, 37745), (105, 37754), (108, 37763), (109, 37766), (113, 37775), (148, 37925), (150, 37931), (158, 37964), (164, 37985), (177, 38048), (193, 38162), (203, 38204), (269, 38492), (280, 38558),

Gene: Phinally_47 Start: 40584, Stop: 41738, Start Num: 42
Candidate Starts for Phinally_47:
(Start: 42 @40584 has 9 MA's), (49, 40599), (67, 40668), (73, 40725), (75, 40734), (77, 40767), (78, 40773), (88, 40821), (97, 40860), (103, 40890), (108, 40908), (109, 40911), (113, 40920), (141, 41028), (148, 41073), (150, 41079), (158, 41112), (164, 41133), (177, 41196), (193, 41310), (203, 41352), (205, 41358), (238, 41496), (269, 41640), (280, 41706),

Gene: PhinkBoden_87 Start: 54243, Stop: 55286, Start Num: 43
Candidate Starts for PhinkBoden_87:
(Start: 43 @54243 has 7 MA's), (Start: 45 @54246 has 8 MA's), (74, 54393), (77, 54426), (88, 54477), (110, 54576), (117, 54597), (126, 54621), (146, 54750), (148, 54762), (155, 54792), (178, 54888), (182, 54897), (195, 54951), (204, 54990), (221, 55059), (236, 55119), (249, 55152), (253, 55170), (276, 55269),

Gene: PhirstandPhine_49 Start: 25683, Stop: 26705, Start Num: 51
Candidate Starts for PhirstandPhine_49:
(Start: 51 @25683 has 44 MA's), (54, 25698), (63, 25725), (68, 25761), (77, 25848), (96, 25941), (114, 26022), (122, 26049), (138, 26094), (142, 26142), (145, 26163), (155, 26211), (176, 26307), (185, 26334), (232, 26526), (237, 26547), (246, 26571),

Gene: Phloss_45 Start: 31869, Stop: 32879, Start Num: 55
Candidate Starts for Phloss_45:
(Start: 55 @31869 has 43 MA's), (69, 31944), (73, 31983), (75, 31992), (77, 32019), (88, 32070), (89, 32073), (94, 32097), (137, 32223), (143, 32274), (146, 32298), (148, 32310), (155, 32340), (201, 32532), (205, 32541), (209, 32559), (219, 32601), (230, 32649), (235, 32661), (269, 32790),

Gene: PhluffyCoco_40 Start: 24999, Stop: 26012, Start Num: 51
Candidate Starts for PhluffyCoco_40:

(36, 24975), (Start: 51 @24999 has 44 MA's), (54, 25014), (85, 25203), (95, 25245), (96, 25251), (98, 25260), (114, 25332), (122, 25359), (141, 25440), (142, 25449), (145, 25470), (155, 25518), (197, 25689), (204, 25719), (211, 25746), (219, 25785), (232, 25833), (246, 25878),

Gene: Phrann_48 Start: 33627, Stop: 34637, Start Num: 55
Candidate Starts for Phrann_48:
(Start: 55 @33627 has 43 MA's), (73, 33741), (75, 33750), (77, 33777), (88, 33828), (89, 33831), (104, 33897), (113, 33924), (143, 34032), (145, 34050), (148, 34068), (209, 34317), (230, 34407), (235, 34419), (250, 34467), (269, 34548),

Gene: Piccoletto_32 Start: 28465, Stop: 29493, Start Num: 57
Candidate Starts for Piccoletto_32:
(Start: 57 @28465 has 26 MA's), (74, 28582), (81, 28648), (88, 28666), (95, 28696), (101, 28726), (148, 28906), (165, 28969), (188, 29068), (228, 29233), (250, 29311),

Gene: Pineda_43 Start: 25209, Stop: 26231, Start Num: 51
Candidate Starts for Pineda_43:
(Start: 51 @25209 has 44 MA's), (54, 25224), (63, 25251), (68, 25287), (77, 25374), (96, 25467), (114, 25548), (122, 25575), (138, 25620), (142, 25668), (145, 25689), (155, 25737), (176, 25833), (185, 25860), (232, 26052), (237, 26073), (246, 26097),

Gene: Pippa_34 Start: 28845, Stop: 29864, Start Num: 57
Candidate Starts for Pippa_34:
(Start: 57 @28845 has 26 MA's), (88, 29046), (91, 29058), (95, 29076), (102, 29112), (143, 29250), (148, 29286), (165, 29349), (182, 29424), (188, 29448), (191, 29457), (277, 29790), (279, 29811), (280, 29838),

Gene: Pipsqueaks_47 Start: 32439, Stop: 33449, Start Num: 55
Candidate Starts for Pipsqueaks_47:
(Start: 55 @32439 has 43 MA's), (69, 32514), (73, 32553), (75, 32562), (77, 32589), (88, 32640), (89, 32643), (94, 32667), (137, 32793), (143, 32844), (146, 32868), (148, 32880), (155, 32910), (201, 33102), (205, 33111), (209, 33129), (219, 33171), (230, 33219), (235, 33231), (269, 33360),

Gene: Polka_40 Start: 24913, Stop: 25935, Start Num: 51
Candidate Starts for Polka_40:
(Start: 51 @24913 has 44 MA's), (54, 24928), (63, 24955), (68, 24991), (77, 25078), (96, 25171), (114, 25252), (122, 25279), (138, 25324), (142, 25372), (145, 25393), (155, 25441), (176, 25537), (185, 25564), (232, 25756), (237, 25777), (246, 25801),

Gene: Prairie_36 Start: 28272, Stop: 29321, Start Num: 48
Candidate Starts for Prairie_36:
(Start: 48 @28272 has 9 MA's), (88, 28482), (93, 28500), (114, 28590), (170, 28827), (171, 28830),

Gene: Pumpkiney_51 Start: 39724, Stop: 40899, Start Num: 46
Candidate Starts for Pumpkiney_51:
(Start: 46 @39724 has 68 MA's), (Start: 53 @39736 has 8 MA's), (62, 39763), (73, 39856), (75, 39865), (77, 39898), (78, 39904), (84, 39940), (88, 39955), (96, 39988), (97, 39994), (120, 40087), (125, 40096), (150, 40231), (158, 40264), (161, 40279), (164, 40285), (177, 40348), (180, 40378), (215, 40549), (233, 40624), (249, 40708), (262, 40780), (264, 40786), (269, 40801), (280, 40867),

Gene: Purgamenstris_51 Start: 33348, Stop: 34358, Start Num: 55
Candidate Starts for Purgamenstris_51:

(Start: 55 @33348 has 43 MA's), (73, 33462), (75, 33471), (77, 33498), (88, 33549), (89, 33552), (104, 33618), (113, 33645), (143, 33753), (145, 33771), (148, 33789), (209, 34038), (230, 34128), (235, 34140), (250, 34188), (269, 34269),

Gene: Purplicious_82 Start: 52080, Stop: 53093, Start Num: 52
Candidate Starts for Purplicious_82:
(22, 51918), (31, 51987), (Start: 46 @52071 has 68 MA's), (Start: 52 @52080 has 6 MA's), (79, 52266), (88, 52305), (93, 52323), (114, 52416), (139, 52485), (150, 52566), (160, 52605), (171, 52665), (182, 52701), (184, 52707), (192, 52740), (207, 52806), (222, 52863), (277, 53070),

Gene: Rattail_40 Start: 25085, Stop: 26098, Start Num: 51
Candidate Starts for Rattail_40:
(36, 25061), (Start: 51 @25085 has 44 MA's), (54, 25100), (85, 25289), (95, 25331), (96, 25337), (98, 25346), (114, 25418), (122, 25445), (141, 25526), (142, 25535), (145, 25556), (155, 25604), (197, 25775), (204, 25805), (211, 25832), (219, 25871), (232, 25919), (246, 25964),

Gene: Raymond7_45 Start: 33136, Stop: 34146, Start Num: 55
Candidate Starts for Raymond7_45:
(Start: 55 @33136 has 43 MA's), (73, 33250), (75, 33259), (77, 33286), (88, 33337), (89, 33340), (104, 33406), (113, 33433), (143, 33541), (145, 33559), (148, 33577), (209, 33826), (230, 33916), (235, 33928), (250, 33976), (269, 34057),

Gene: Rebel_43 Start: 29478, Stop: 30488, Start Num: 55
Candidate Starts for Rebel_43:
(Start: 55 @29478 has 43 MA's), (73, 29592), (75, 29601), (77, 29628), (88, 29679), (89, 29682), (104, 29748), (113, 29775), (143, 29883), (145, 29901), (148, 29919), (209, 30168), (230, 30258), (235, 30270), (250, 30318), (269, 30399),

Gene: RedFox_40 Start: 24998, Stop: 26011, Start Num: 51
Candidate Starts for RedFox_40:
(36, 24974), (Start: 51 @24998 has 44 MA's), (54, 25013), (85, 25202), (95, 25244), (96, 25250), (98, 25259), (114, 25331), (122, 25358), (141, 25439), (142, 25448), (145, 25469), (155, 25517), (197, 25688), (204, 25718), (211, 25745), (219, 25784), (232, 25832), (246, 25877),

Gene: Redi_51 Start: 33347, Stop: 34357, Start Num: 55
Candidate Starts for Redi_51:
(Start: 55 @33347 has 43 MA's), (73, 33461), (75, 33470), (77, 33497), (88, 33548), (89, 33551), (104, 33617), (113, 33644), (143, 33752), (145, 33770), (148, 33788), (209, 34037), (230, 34127), (235, 34139), (250, 34187), (269, 34268),

Gene: Renna12_39 Start: 25056, Stop: 26069, Start Num: 51
Candidate Starts for Renna12_39:
(35, 25014), (Start: 51 @25056 has 44 MA's), (54, 25071), (79, 25230), (85, 25260), (95, 25302), (96, 25308), (98, 25317), (114, 25389), (122, 25416), (141, 25497), (142, 25506), (145, 25527), (197, 25746), (204, 25776), (211, 25803), (232, 25890), (246, 25935), (271, 26037), (275, 26046),

Gene: Ribeye_48 Start: 41766, Stop: 42890, Start Num: 46
Candidate Starts for Ribeye_48:
(31, 41697), (Start: 46 @41766 has 68 MA's), (62, 41802), (73, 41895), (77, 41937), (78, 41943), (88, 41994), (97, 42033), (120, 42123), (158, 42279), (164, 42300), (169, 42333), (179, 42375), (205, 42513), (233, 42627), (238, 42654), (251, 42714), (264, 42780), (277, 42813),

Gene: RiverRaider_49 Start: 40177, Stop: 41307, Start Num: 46

Candidate Starts for RiverRaider_49:
(Start: 46 @40177 has 68 MA's), (73, 40315), (75, 40324), (77, 40357), (78, 40363), (88, 40414), (96, 40447), (97, 40453), (105, 40489), (120, 40543), (150, 40666), (158, 40699), (164, 40720), (179, 40795), (205, 40933), (217, 40987), (233, 41047), (249, 41122), (252, 41137), (262, 41194), (264, 41200), (277, 41233),

Gene: RoadKill_43 Start: 37465, Stop: 38649, Start Num: 46
Candidate Starts for RoadKill_43:
(21, 37324), (Start: 46 @37465 has 68 MA's), (73, 37594), (77, 37636), (78, 37642), (88, 37693), (120, 37822), (150, 37948), (158, 37981), (164, 38002), (203, 38221), (215, 38266), (220, 38290), (224, 38314), (238, 38365), (241, 38392), (251, 38464), (254, 38476), (260, 38515), (262, 38524), (264, 38530), (269, 38545), (273, 38554), (280, 38611),

Gene: Rofo_48 Start: 41463, Stop: 42809, Start Num: 15
Candidate Starts for Rofo_48:
(4, 40968), (12, 41394), (Start: 15 @41463 has 1 MA's), (20, 41526), (25, 41565), (28, 41592), (62, 41721), (73, 41814), (77, 41856), (78, 41862), (88, 41913), (96, 41946), (114, 42021), (120, 42042), (150, 42165), (158, 42198), (164, 42219), (179, 42294), (205, 42432), (233, 42546), (238, 42573), (251, 42633), (264, 42699), (269, 42714), (277, 42732),

Gene: Rubeelu_50 Start: 33050, Stop: 34057, Start Num: 55
Candidate Starts for Rubeelu_50:
(16, 32807), (17, 32819), (23, 32885), (29, 32930), (Start: 55 @33050 has 43 MA's), (73, 33161), (75, 33170), (77, 33197), (88, 33248), (89, 33251), (101, 33308), (104, 33317), (137, 33401), (143, 33452), (146, 33476), (148, 33488), (205, 33719), (209, 33737), (215, 33758), (217, 33773), (230, 33827), (231, 33830), (235, 33839), (238, 33857), (250, 33887), (269, 33968),

Gene: Ruchi_37 Start: 25758, Stop: 26786, Start Num: 51
Candidate Starts for Ruchi_37:
(36, 25725), (Start: 51 @25758 has 44 MA's), (54, 25773), (77, 25923), (92, 25995), (96, 26016), (114, 26097), (121, 26121), (150, 26259), (155, 26283), (163, 26316), (176, 26379), (196, 26451), (232, 26598),

Gene: Sampson_50 Start: 42354, Stop: 43508, Start Num: 46
Candidate Starts for Sampson_50:
(Start: 46 @42354 has 68 MA's), (62, 42393), (73, 42486), (75, 42495), (77, 42528), (78, 42534), (84, 42570), (88, 42585), (96, 42618), (97, 42624), (120, 42717), (158, 42873), (161, 42888), (177, 42957), (179, 42969), (180, 42987), (215, 43158), (233, 43233), (249, 43317), (262, 43389), (264, 43395), (280, 43476),

Gene: Sanjuju_47 Start: 42328, Stop: 43452, Start Num: 46
Candidate Starts for Sanjuju_47:
(Start: 46 @42328 has 68 MA's), (62, 42364), (73, 42457), (77, 42499), (78, 42505), (88, 42556), (96, 42589), (114, 42664), (120, 42685), (143, 42766), (150, 42808), (158, 42841), (164, 42862), (179, 42937), (205, 43075), (233, 43189), (251, 43276), (264, 43342), (269, 43357), (277, 43375),

Gene: Saronaya_47 Start: 40605, Stop: 41738, Start Num: 46
Candidate Starts for Saronaya_47:
(31, 40536), (Start: 46 @40605 has 68 MA's), (73, 40743), (77, 40785), (78, 40791), (88, 40842), (96, 40875), (97, 40881), (98, 40884), (120, 40971), (158, 41127), (164, 41148), (179, 41223), (205, 41361), (233, 41475), (238, 41502), (251, 41562), (264, 41628), (269, 41643), (277, 41661),

Gene: Schnauzer_48 Start: 32462, Stop: 33472, Start Num: 55

Candidate Starts for Schnauzer_48:
(Start: 55 @32462 has 43 MA's), (69, 32537), (73, 32576), (75, 32585), (77, 32612), (88, 32663), (89, 32666), (94, 32690), (137, 32816), (143, 32867), (146, 32891), (148, 32903), (155, 32933), (201, 33125), (205, 33134), (209, 33152), (219, 33194), (230, 33242), (235, 33254), (269, 33383),

Gene: SchottB_46 Start: 41605, Stop: 42732, Start Num: 46
Candidate Starts for SchottB_46:
(31, 41536), (Start: 46 @41605 has 68 MA's), (62, 41644), (73, 41737), (77, 41779), (78, 41785), (88, 41836), (97, 41875), (120, 41965), (158, 42121), (164, 42142), (169, 42175), (179, 42217), (205, 42355), (233, 42469), (238, 42496), (251, 42556), (264, 42622), (277, 42655),

Gene: Scioto_51 Start: 42410, Stop: 43564, Start Num: 46
Candidate Starts for Scioto_51:
(Start: 46 @42410 has 68 MA's), (62, 42449), (73, 42542), (75, 42551), (77, 42584), (78, 42590), (84, 42626), (88, 42641), (96, 42674), (97, 42680), (120, 42773), (158, 42929), (161, 42944), (177, 43013), (179, 43025), (180, 43043), (215, 43214), (233, 43289), (249, 43373), (262, 43445), (264, 43451), (280, 43532),

Gene: Scitech_44 Start: 30478, Stop: 31488, Start Num: 55
Candidate Starts for Scitech_44:
(Start: 55 @30478 has 43 MA's), (69, 30553), (73, 30592), (75, 30601), (77, 30628), (88, 30679), (89, 30682), (94, 30706), (137, 30832), (143, 30883), (146, 30907), (148, 30919), (155, 30949), (201, 31141), (205, 31150), (209, 31168), (219, 31210), (230, 31258), (235, 31270), (269, 31399),

Gene: Sedona_48 Start: 41923, Stop: 43047, Start Num: 46
Candidate Starts for Sedona_48:
(32, 41884), (Start: 46 @41923 has 68 MA's), (62, 41959), (73, 42052), (77, 42094), (78, 42100), (88, 42151), (96, 42184), (114, 42259), (120, 42280), (150, 42403), (158, 42436), (164, 42457), (179, 42532), (205, 42670), (233, 42784), (251, 42871), (264, 42937), (269, 42952), (277, 42970),

Gene: Shade_34 Start: 28686, Stop: 29714, Start Num: 57
Candidate Starts for Shade_34:
(Start: 57 @28686 has 26 MA's), (66, 28722), (88, 28887), (95, 28917), (99, 28932), (107, 28968), (146, 29115), (148, 29127), (158, 29166), (182, 29265), (188, 29289), (191, 29298), (195, 29313), (228, 29454), (239, 29496),

Gene: Shen_37 Start: 24271, Stop: 25299, Start Num: 51
Candidate Starts for Shen_37:
(36, 24229), (Start: 51 @24271 has 44 MA's), (54, 24286), (77, 24436), (92, 24508), (114, 24610), (145, 24748), (150, 24772), (155, 24796), (163, 24829), (176, 24892), (185, 24919), (197, 24967), (232, 25111),

Gene: Shivanishola_48 Start: 40593, Stop: 41753, Start Num: 46
Candidate Starts for Shivanishola_48:
(32, 40554), (Start: 46 @40593 has 68 MA's), (62, 40629), (73, 40722), (77, 40764), (78, 40770), (88, 40821), (96, 40854), (114, 40929), (120, 40950), (150, 41073), (158, 41106), (164, 41127), (179, 41202), (205, 41340), (233, 41454), (240, 41502), (242, 41517), (251, 41577), (264, 41643), (269, 41658), (277, 41676),

Gene: ShrimpFriedEgg_51 Start: 33347, Stop: 34357, Start Num: 55
Candidate Starts for ShrimpFriedEgg_51:
(Start: 55 @33347 has 43 MA's), (73, 33461), (75, 33470), (77, 33497), (88, 33548), (89, 33551), (104, 33617), (113, 33644), (143, 33752), (145, 33770), (148, 33788), (209, 34037), (230, 34127), (235,

34139), (250, 34187), (269, 34268),

Gene: Shweta_45 Start: 31406, Stop: 32416, Start Num: 55
Candidate Starts for Shweta_45:
(Start: 55 @31406 has 43 MA's), (73, 31520), (75, 31529), (77, 31556), (88, 31607), (89, 31610), (94, 31634), (98, 31649), (127, 31742), (137, 31760), (143, 31811), (146, 31835), (148, 31847), (150, 31853), (155, 31877), (159, 31889), (209, 32096), (230, 32186), (235, 32198), (250, 32246), (269, 32327),

Gene: Sicarius2_35 Start: 28313, Stop: 29347, Start Num: 53
Candidate Starts for Sicarius2_35:
(Start: 53 @28313 has 8 MA's), (59, 28322), (66, 28352), (88, 28520), (95, 28550), (99, 28565), (139, 28685), (146, 28748), (148, 28760), (155, 28790), (182, 28898), (188, 28922), (195, 28946), (226, 29081), (228, 29087), (248, 29153), (250, 29165),

Gene: Silvafighter_48 Start: 32435, Stop: 33445, Start Num: 55
Candidate Starts for Silvafighter_48:
(Start: 55 @32435 has 43 MA's), (69, 32510), (73, 32549), (75, 32558), (77, 32585), (88, 32636), (89, 32639), (94, 32663), (137, 32789), (143, 32840), (146, 32864), (148, 32876), (155, 32906), (201, 33098), (205, 33107), (209, 33125), (219, 33167), (230, 33215), (235, 33227), (269, 33356),

Gene: Sitar_48 Start: 42278, Stop: 43441, Start Num: 46
Candidate Starts for Sitar_48:
(Start: 46 @42278 has 68 MA's), (62, 42317), (73, 42410), (77, 42452), (78, 42458), (88, 42509), (96, 42542), (114, 42617), (120, 42638), (150, 42761), (158, 42794), (164, 42815), (179, 42890), (205, 43028), (233, 43142), (240, 43190), (242, 43205), (251, 43265), (264, 43331), (269, 43346), (277, 43364),

Gene: Smoothie_89 Start: 54452, Stop: 55495, Start Num: 43
Candidate Starts for Smoothie_89:
(Start: 43 @54452 has 7 MA's), (Start: 45 @54455 has 8 MA's), (74, 54602), (77, 54635), (88, 54686), (110, 54785), (117, 54806), (126, 54830), (146, 54959), (148, 54971), (178, 55097), (195, 55160), (204, 55199), (221, 55268), (223, 55280), (236, 55328), (249, 55361), (261, 55430), (276, 55478),

Gene: Smurph_47 Start: 32462, Stop: 33472, Start Num: 55
Candidate Starts for Smurph_47:
(Start: 55 @32462 has 43 MA's), (69, 32537), (73, 32576), (75, 32585), (77, 32612), (88, 32663), (89, 32666), (94, 32690), (137, 32816), (143, 32867), (146, 32891), (148, 32903), (155, 32933), (201, 33125), (205, 33134), (209, 33152), (219, 33194), (230, 33242), (235, 33254), (269, 33383),

Gene: Snekmaggedon_45 Start: 31639, Stop: 32649, Start Num: 55
Candidate Starts for Snekmaggedon_45:
(Start: 55 @31639 has 43 MA's), (69, 31714), (73, 31753), (75, 31762), (77, 31789), (88, 31840), (89, 31843), (104, 31909), (113, 31936), (143, 32044), (145, 32062), (148, 32080), (209, 32329), (230, 32419), (235, 32431), (250, 32479), (269, 32560),

Gene: Sonny_34 Start: 28716, Stop: 29744, Start Num: 57
Candidate Starts for Sonny_34:
(Start: 57 @28716 has 26 MA's), (66, 28752), (88, 28917), (95, 28947), (99, 28962), (146, 29145), (148, 29157), (158, 29196), (182, 29295), (188, 29319), (191, 29328), (195, 29343), (218, 29442), (228, 29484),

Gene: Soos_78 Start: 52041, Stop: 53054, Start Num: 52

Candidate Starts for Soos_78:
(22, 51879), (31, 51948), (Start: 46 @52032 has 68 MA's), (Start: 52 @52041 has 6 MA's), (79, 52227), (88, 52266), (93, 52284), (114, 52377), (139, 52446), (150, 52527), (160, 52566), (171, 52626), (182, 52662), (184, 52668), (192, 52701), (207, 52767), (222, 52824), (277, 53031),

Gene: SpeedDemon_960 Start: 66064, Stop: 65045, Start Num: 53
Candidate Starts for SpeedDemon_960:
(Start: 53 @66064 has 8 MA's), (64, 66022), (74, 65935), (88, 65851), (112, 65746), (123, 65704), (129, 65683), (140, 65629), (147, 65563), (150, 65548), (151, 65545), (152, 65539), (157, 65518), (165, 65491), (170, 65455), (178, 65428), (190, 65383), (198, 65344), (213, 65293), (215, 65284), (223, 65245), (225, 65233), (245, 65167),

Gene: Spinach_51 Start: 33347, Stop: 34357, Start Num: 55
Candidate Starts for Spinach_51:
(Start: 55 @33347 has 43 MA's), (73, 33461), (75, 33470), (77, 33497), (88, 33548), (89, 33551), (104, 33617), (113, 33644), (143, 33752), (145, 33770), (148, 33788), (209, 34037), (230, 34127), (235, 34139), (250, 34187), (269, 34268),

Gene: SpongeBob_45 Start: 31639, Stop: 32649, Start Num: 55
Candidate Starts for SpongeBob_45:
(Start: 55 @31639 has 43 MA's), (69, 31714), (73, 31753), (75, 31762), (77, 31789), (88, 31840), (89, 31843), (104, 31909), (113, 31936), (143, 32044), (145, 32062), (148, 32080), (209, 32329), (230, 32419), (235, 32431), (250, 32479), (269, 32560),

Gene: StevieBAY_34 Start: 28804, Stop: 29823, Start Num: 57
Candidate Starts for StevieBAY_34:
(Start: 57 @28804 has 26 MA's), (74, 28921), (88, 29005), (91, 29017), (95, 29035), (102, 29071), (148, 29245), (150, 29251), (165, 29308), (171, 29347), (182, 29383), (186, 29395), (188, 29407), (250, 29650),

Gene: Stillion_84 Start: 52962, Stop: 53975, Start Num: 52
Candidate Starts for Stillion_84:
(22, 52800), (Start: 46 @52953 has 68 MA's), (Start: 52 @52962 has 6 MA's), (79, 53148), (88, 53187), (93, 53205), (114, 53298), (139, 53367), (150, 53448), (160, 53487), (171, 53547), (182, 53583), (184, 53589), (192, 53622), (207, 53688), (222, 53745), (277, 53952),

Gene: Sting_81 Start: 52480, Stop: 53493, Start Num: 52
Candidate Starts for Sting_81:
(22, 52318), (31, 52387), (Start: 46 @52471 has 68 MA's), (Start: 52 @52480 has 6 MA's), (79, 52666), (88, 52705), (93, 52723), (114, 52816), (139, 52885), (150, 52966), (160, 53005), (171, 53065), (182, 53101), (184, 53107), (192, 53140), (207, 53206), (222, 53263), (277, 53470),

Gene: StorminNorm_47 Start: 40696, Stop: 41823, Start Num: 46
Candidate Starts for StorminNorm_47:
(31, 40627), (Start: 46 @40696 has 68 MA's), (62, 40735), (73, 40828), (77, 40870), (78, 40876), (88, 40927), (97, 40966), (120, 41056), (158, 41212), (164, 41233), (169, 41266), (179, 41308), (205, 41446), (233, 41560), (238, 41587), (251, 41647), (264, 41713), (277, 41746),

Gene: StuartMinion_32 Start: 22066, Stop: 23079, Start Num: 51
Candidate Starts for StuartMinion_32:
(36, 22033), (Start: 51 @22066 has 44 MA's), (54, 22081), (62, 22099), (79, 22240), (85, 22270), (95, 22312), (96, 22318), (114, 22399), (122, 22426), (141, 22507), (142, 22516), (145, 22537), (155, 22585), (197, 22756), (204, 22786), (232, 22900), (246, 22945), (275, 23056),

Gene: Stuck_61 Start: 41880, Stop: 42890, Start Num: 55
Candidate Starts for Stuck_61:
(Start: 55 @41880 has 43 MA's), (73, 41994), (75, 42003), (77, 42030), (88, 42081), (89, 42084), (94, 42108), (98, 42123), (127, 42216), (137, 42234), (143, 42285), (146, 42309), (148, 42321), (150, 42327), (155, 42351), (159, 42363), (209, 42570), (215, 42591), (230, 42660), (235, 42672), (269, 42801),

Gene: Stultus_47 Start: 41231, Stop: 42394, Start Num: 46
Candidate Starts for Stultus_47:
(Start: 46 @41231 has 68 MA's), (62, 41270), (73, 41363), (77, 41405), (78, 41411), (88, 41462), (96, 41495), (114, 41570), (120, 41591), (150, 41714), (158, 41747), (164, 41768), (179, 41843), (205, 41981), (233, 42095), (240, 42143), (242, 42158), (251, 42218), (264, 42284), (269, 42299), (277, 42317),

Gene: TaeYoung_34 Start: 28721, Stop: 29740, Start Num: 57
Candidate Starts for TaeYoung_34:
(Start: 57 @28721 has 26 MA's), (88, 28922), (91, 28934), (95, 28952), (101, 28982), (102, 28988), (148, 29162), (150, 29168), (165, 29225), (182, 29300), (188, 29324), (191, 29333), (210, 29411), (226, 29483), (228, 29489), (277, 29666),

Gene: Tangent_49 Start: 41305, Stop: 42432, Start Num: 46
Candidate Starts for Tangent_49:
(Start: 46 @41305 has 68 MA's), (62, 41344), (73, 41437), (77, 41479), (78, 41485), (88, 41536), (96, 41569), (114, 41644), (120, 41665), (150, 41788), (158, 41821), (164, 41842), (179, 41917), (205, 42055), (233, 42169), (238, 42196), (251, 42256), (264, 42322), (269, 42337), (277, 42355),

Gene: Tangerine_47 Start: 40477, Stop: 41601, Start Num: 46
Candidate Starts for Tangerine_47:
(31, 40408), (Start: 46 @40477 has 68 MA's), (62, 40513), (73, 40606), (77, 40648), (78, 40654), (88, 40705), (97, 40744), (120, 40834), (143, 40915), (158, 40990), (164, 41011), (179, 41086), (205, 41224), (233, 41338), (238, 41365), (247, 41404), (251, 41425), (264, 41491), (277, 41524),

Gene: Tapioca_49 Start: 32428, Stop: 33438, Start Num: 55
Candidate Starts for Tapioca_49:
(Start: 55 @32428 has 43 MA's), (69, 32503), (73, 32542), (75, 32551), (77, 32578), (88, 32629), (89, 32632), (94, 32656), (137, 32782), (143, 32833), (146, 32857), (148, 32869), (155, 32899), (201, 33091), (205, 33100), (209, 33118), (219, 33160), (230, 33208), (235, 33220), (269, 33349),

Gene: Tardus_52 Start: 42085, Stop: 43260, Start Num: 46
Candidate Starts for Tardus_52:
(Start: 46 @42085 has 68 MA's), (62, 42124), (73, 42217), (75, 42226), (77, 42259), (78, 42265), (88, 42316), (96, 42349), (97, 42355), (120, 42448), (125, 42457), (150, 42592), (158, 42625), (161, 42640), (164, 42646), (177, 42709), (180, 42739), (215, 42910), (233, 42985), (249, 43069), (262, 43141), (264, 43147), (280, 43228),

Gene: TaylorSipht_38 Start: 25131, Stop: 26156, Start Num: 51
Candidate Starts for TaylorSipht_38:
(36, 25098), (Start: 51 @25131 has 44 MA's), (54, 25146), (63, 25173), (76, 25290), (77, 25296), (80, 25320), (101, 25416), (103, 25428), (108, 25446), (114, 25470), (118, 25482), (121, 25494), (145, 25608), (152, 25641), (166, 25695), (167, 25701), (176, 25749), (185, 25776), (232, 25968),

Gene: Tessdabest_48 Start: 32459, Stop: 33469, Start Num: 55

Candidate Starts for Tessdabest_48:
(Start: 55 @32459 has 43 MA's), (69, 32534), (73, 32573), (75, 32582), (77, 32609), (88, 32660), (89, 32663), (94, 32687), (137, 32813), (143, 32864), (146, 32888), (148, 32900), (155, 32930), (201, 33122), (205, 33131), (209, 33149), (219, 33191), (230, 33239), (235, 33251), (269, 33380),

Gene: Thing3_46 Start: 40534, Stop: 41661, Start Num: 46
Candidate Starts for Thing3_46:
(Start: 46 @40534 has 68 MA's), (62, 40573), (73, 40666), (77, 40708), (78, 40714), (88, 40765), (96, 40798), (114, 40873), (120, 40894), (150, 41017), (158, 41050), (164, 41071), (179, 41146), (205, 41284), (233, 41398), (238, 41425), (251, 41485), (264, 41551), (269, 41566), (277, 41584),

Gene: ThulaThula_52 Start: 36104, Stop: 37114, Start Num: 55
Candidate Starts for ThulaThula_52:
(Start: 55 @36104 has 43 MA's), (73, 36218), (75, 36227), (77, 36254), (88, 36305), (89, 36308), (94, 36332), (137, 36458), (143, 36509), (148, 36545), (155, 36575), (205, 36776), (209, 36794), (214, 36812), (230, 36884), (235, 36896), (263, 37010), (269, 37025),

Gene: Tiamoceli_46 Start: 38786, Stop: 39940, Start Num: 46
Candidate Starts for Tiamoceli_46:
(21, 38645), (Start: 46 @38786 has 68 MA's), (73, 38915), (77, 38957), (78, 38963), (88, 39014), (120, 39143), (127, 39149), (143, 39227), (150, 39269), (158, 39302), (164, 39323), (203, 39542), (215, 39587), (220, 39611), (224, 39635), (238, 39686), (251, 39755), (254, 39767), (260, 39806), (262, 39815), (264, 39821), (269, 39836), (273, 39845), (280, 39902),

Gene: Timinator_34 Start: 28804, Stop: 29823, Start Num: 57
Candidate Starts for Timinator_34:
(Start: 57 @28804 has 26 MA's), (74, 28921), (88, 29005), (91, 29017), (95, 29035), (102, 29071), (148, 29245), (150, 29251), (165, 29308), (171, 29347), (182, 29383), (186, 29395), (188, 29407), (250, 29650), (279, 29770),

Gene: Toad24_40 Start: 26410, Stop: 27438, Start Num: 51
Candidate Starts for Toad24_40:
(36, 26368), (Start: 51 @26410 has 44 MA's), (54, 26425), (77, 26575), (92, 26647), (114, 26749), (145, 26887), (150, 26911), (155, 26935), (163, 26968), (176, 27031), (185, 27058), (197, 27106), (232, 27250),

Gene: Toniann_88 Start: 53807, Stop: 54847, Start Num: 45
Candidate Starts for Toniann_88:
(Start: 43 @53804 has 7 MA's), (Start: 45 @53807 has 8 MA's), (74, 53954), (77, 53987), (88, 54038), (110, 54137), (117, 54158), (126, 54182), (146, 54311), (148, 54323), (178, 54449), (195, 54512), (204, 54551), (221, 54620), (223, 54632), (236, 54680), (249, 54713), (261, 54782), (276, 54830),

Gene: Tonitrus_67 Start: 48810, Stop: 49829, Start Num: 41
Candidate Starts for Tonitrus_67:
(Start: 41 @48810 has 1 MA's), (74, 48945), (77, 48984), (88, 49038), (93, 49056), (95, 49068), (114, 49146), (115, 49149), (135, 49194), (143, 49254), (148, 49287), (150, 49293), (159, 49329), (165, 49353), (170, 49389), (175, 49401), (182, 49428), (222, 49596), (238, 49668), (260, 49758),

Gene: Tortoise12_46 Start: 31145, Stop: 32155, Start Num: 55
Candidate Starts for Tortoise12_46:
(Start: 55 @31145 has 43 MA's), (69, 31220), (73, 31259), (75, 31268), (77, 31295), (88, 31346), (89, 31349), (94, 31373), (137, 31499), (143, 31550), (146, 31574), (148, 31586), (155, 31616), (201, 31808), (205, 31817), (209, 31835), (219, 31877), (230, 31925), (235, 31937), (269, 32066),

Gene: Towmatter_84 Start: 59893, Stop: 58868, Start Num: 53
Candidate Starts for Towmatter_84:
(Start: 53 @59893 has 8 MA's), (58, 59878), (64, 59851), (88, 59680), (112, 59578), (123, 59536),
(129, 59515), (146, 59398), (150, 59380), (151, 59377), (153, 59362), (155, 59356), (157, 59350),
(178, 59260), (195, 59197), (197, 59188), (199, 59170), (215, 59116), (223, 59077),

Gene: TripleJ_54 Start: 32997, Stop: 33923, Start Num: 52
Candidate Starts for TripleJ_54:
(26, 32865), (Start: 52 @32997 has 6 MA's), (56, 33003), (71, 33111), (88, 33207), (90, 33213), (94,
33234), (133, 33354), (147, 33441), (148, 33450), (158, 33489), (167, 33528), (175, 33567), (191,
33627), (215, 33711), (231, 33774), (245, 33819),

Gene: TurkishDelight_59 Start: 49631, Stop: 50719, Start Num: 37
Candidate Starts for TurkishDelight_59:
(Start: 37 @49631 has 1 MA's), (71, 49781), (75, 49799), (77, 49826), (88, 49874), (97, 49913), (116,
49991), (131, 50042), (148, 50150), (150, 50156), (155, 50180), (167, 50222), (168, 50240), (188,
50312), (208, 50384), (233, 50483), (267, 50621),

Gene: Twonlo_43 Start: 37416, Stop: 38570, Start Num: 46
Candidate Starts for Twonlo_43:
(21, 37275), (Start: 46 @37416 has 68 MA's), (73, 37545), (77, 37587), (78, 37593), (88, 37644), (120,
37773), (150, 37899), (158, 37932), (164, 37953), (203, 38172), (215, 38217), (220, 38241), (224,
38265), (238, 38316), (251, 38385), (254, 38397), (260, 38436), (262, 38445), (264, 38451), (269,
38466), (273, 38475), (280, 38532),

Gene: Tycho_47 Start: 40564, Stop: 41691, Start Num: 46
Candidate Starts for Tycho_47:
(31, 40495), (Start: 46 @40564 has 68 MA's), (62, 40603), (73, 40696), (77, 40738), (78, 40744), (88,
40795), (97, 40834), (120, 40924), (158, 41080), (164, 41101), (169, 41134), (179, 41176), (205,
41314), (233, 41428), (238, 41455), (251, 41515), (264, 41581), (277, 41614),

Gene: ValentiniPuff_95 Start: 54258, Stop: 55337, Start Num: 57
Candidate Starts for ValentiniPuff_95:
(39, 54216), (Start: 57 @54258 has 26 MA's), (75, 54375), (88, 54453), (102, 54528), (137, 54639),
(146, 54729), (148, 54741), (167, 54813), (213, 54993), (224, 55053), (232, 55077), (244, 55116),
(246, 55122), (256, 55161), (272, 55233), (278, 55266),

Gene: Verity_50 Start: 43180, Stop: 44334, Start Num: 46
Candidate Starts for Verity_50:
(Start: 46 @43180 has 68 MA's), (62, 43219), (73, 43312), (75, 43321), (77, 43354), (78, 43360), (88,
43411), (96, 43444), (97, 43450), (120, 43543), (150, 43666), (158, 43699), (161, 43714), (164,
43720), (177, 43783), (179, 43795), (180, 43813), (215, 43984), (249, 44143), (264, 44221), (280,
44302),

Gene: ViaConlectus_50 Start: 41038, Stop: 42213, Start Num: 46
Candidate Starts for ViaConlectus_50:
(Start: 46 @41038 has 68 MA's), (Start: 53 @41050 has 8 MA's), (62, 41077), (73, 41170), (75, 41179),
(77, 41212), (78, 41218), (84, 41254), (88, 41269), (96, 41302), (97, 41308), (120, 41401), (125,
41410), (150, 41545), (158, 41578), (159, 41581), (161, 41593), (164, 41599), (177, 41662), (180,
41692), (215, 41863), (233, 41938), (249, 42022), (262, 42094), (264, 42100), (269, 42115),

Gene: Vivi2_51 Start: 42332, Stop: 43459, Start Num: 46

Candidate Starts for Vivi2_51:
(Start: 46 @42332 has 68 MA's), (62, 42371), (73, 42464), (77, 42506), (78, 42512), (88, 42563), (96, 42596), (114, 42671), (120, 42692), (150, 42815), (158, 42848), (164, 42869), (179, 42944), (205, 43082), (233, 43196), (238, 43223), (251, 43283), (264, 43349), (269, 43364), (277, 43382),

Gene: Vulpecula_37 Start: 25435, Stop: 26463, Start Num: 51
Candidate Starts for Vulpecula_37:
(36, 25402), (Start: 51 @25435 has 44 MA's), (54, 25450), (77, 25600), (92, 25672), (95, 25687), (96, 25693), (114, 25774), (121, 25798), (150, 25936), (155, 25960), (163, 25993), (176, 26056), (196, 26128), (232, 26275),

Gene: Westrich_46 Start: 26088, Stop: 27116, Start Num: 51
Candidate Starts for Westrich_46:
(Start: 51 @26088 has 44 MA's), (54, 26103), (77, 26253), (92, 26325), (114, 26427), (145, 26565), (150, 26589), (155, 26613), (163, 26646), (176, 26709), (185, 26736), (197, 26784), (232, 26928),

Gene: WileyE_39 Start: 25312, Stop: 26337, Start Num: 51
Candidate Starts for WileyE_39:
(36, 25279), (Start: 51 @25312 has 44 MA's), (54, 25327), (77, 25477), (80, 25501), (101, 25597), (103, 25609), (114, 25651), (118, 25663), (166, 25876), (176, 25930), (232, 26149), (274, 26302),

Gene: WilliamBoone_87 Start: 52559, Stop: 53599, Start Num: 45
Candidate Starts for WilliamBoone_87:
(Start: 43 @52556 has 7 MA's), (Start: 45 @52559 has 8 MA's), (61, 52601), (75, 52712), (77, 52739), (88, 52790), (110, 52889), (117, 52910), (126, 52934), (148, 53075), (167, 53147), (171, 53177), (178, 53201), (195, 53264), (204, 53303), (206, 53309), (221, 53372), (223, 53384), (236, 53432), (249, 53465), (253, 53483), (276, 53582),

Gene: Wyborn_35 Start: 28951, Stop: 29985, Start Num: 53
Candidate Starts for Wyborn_35:
(Start: 53 @28951 has 8 MA's), (59, 28960), (66, 28990), (88, 29158), (95, 29188), (99, 29203), (146, 29386), (148, 29398), (155, 29428), (182, 29536), (188, 29560), (195, 29584), (226, 29719), (228, 29725), (248, 29791), (250, 29803),

Gene: Xerxes_47 Start: 32459, Stop: 33469, Start Num: 55
Candidate Starts for Xerxes_47:
(Start: 55 @32459 has 43 MA's), (69, 32534), (73, 32573), (75, 32582), (77, 32609), (88, 32660), (89, 32663), (94, 32687), (137, 32813), (143, 32864), (146, 32888), (148, 32900), (155, 32930), (201, 33122), (205, 33131), (209, 33149), (219, 33191), (230, 33239), (235, 33251), (269, 33380),

Gene: YorkOnyx_48 Start: 40821, Stop: 41948, Start Num: 46
Candidate Starts for YorkOnyx_48:
(31, 40752), (Start: 46 @40821 has 68 MA's), (62, 40860), (73, 40953), (77, 40995), (78, 41001), (88, 41052), (97, 41091), (120, 41181), (158, 41337), (164, 41358), (169, 41391), (179, 41433), (205, 41571), (216, 41616), (233, 41685), (249, 41760), (251, 41772), (264, 41838), (269, 41853), (277, 41871),

Gene: Yvonnetastic_98 Start: 57678, Stop: 58697, Start Num: 48
Candidate Starts for Yvonnetastic_98:
(Start: 48 @57678 has 9 MA's), (64, 57732), (65, 57735), (72, 57813), (94, 57930), (117, 58023), (124, 58044), (126, 58047), (165, 58248), (167, 58257), (169, 58278), (195, 58374), (202, 58407), (210, 58437), (220, 58479), (223, 58494), (229, 58518), (235, 58536), (249, 58572), (257, 58608),

Gene: Zartrosa_34 Start: 28629, Stop: 29648, Start Num: 57
Candidate Starts for Zartrosa_34:
(Start: 57 @28629 has 26 MA's), (88, 28830), (91, 28842), (95, 28860), (101, 28890), (148, 29070), (150, 29076), (165, 29133), (182, 29208), (188, 29232), (210, 29319), (226, 29391), (228, 29397), (277, 29574),

Gene: Zhuangyuan_42 Start: 25780, Stop: 26808, Start Num: 51
Candidate Starts for Zhuangyuan_42:
(Start: 51 @25780 has 44 MA's), (54, 25795), (76, 25945), (96, 26044), (114, 26125), (118, 26137), (122, 26152), (128, 26164), (152, 26299), (153, 26308), (155, 26314), (167, 26362), (189, 26455), (212, 26545), (232, 26629), (237, 26650), (246, 26674),

Gene: Zipp_51 Start: 43095, Stop: 44249, Start Num: 46
Candidate Starts for Zipp_51:
(Start: 46 @43095 has 68 MA's), (62, 43134), (73, 43227), (75, 43236), (77, 43269), (78, 43275), (88, 43326), (96, 43359), (97, 43365), (120, 43458), (150, 43581), (158, 43614), (161, 43629), (164, 43635), (177, 43698), (179, 43710), (180, 43728), (215, 43899), (249, 44058), (264, 44136), (280, 44217),

Gene: Zitch_53 Start: 41194, Stop: 42369, Start Num: 46
Candidate Starts for Zitch_53:
(Start: 46 @41194 has 68 MA's), (Start: 53 @41206 has 8 MA's), (62, 41233), (73, 41326), (75, 41335), (77, 41368), (78, 41374), (88, 41425), (96, 41458), (97, 41464), (120, 41557), (125, 41566), (150, 41701), (158, 41734), (161, 41749), (164, 41755), (177, 41818), (180, 41848), (215, 42019), (233, 42094), (249, 42178), (262, 42250), (264, 42256), (280, 42337),

Gene: Zixiang_41 Start: 25775, Stop: 26803, Start Num: 51
Candidate Starts for Zixiang_41:
(36, 25733), (Start: 51 @25775 has 44 MA's), (54, 25790), (77, 25940), (92, 26012), (114, 26114), (145, 26252), (150, 26276), (155, 26300), (163, 26333), (176, 26396), (185, 26423), (197, 26471), (232, 26615),

Gene: phiAsp2_49 Start: 37965, Stop: 39083, Start Num: 32
Candidate Starts for phiAsp2_49:
(32, 37965), (60, 38061), (70, 38139), (79, 38214), (86, 38241), (88, 38250), (94, 38277), (95, 38280), (97, 38292), (111, 38346), (116, 38367), (130, 38412), (134, 38418), (172, 38643), (174, 38646), (187, 38700), (196, 38733), (200, 38757), (246, 38928), (256, 38964), (260, 38994), (271, 39033), (278, 39069),