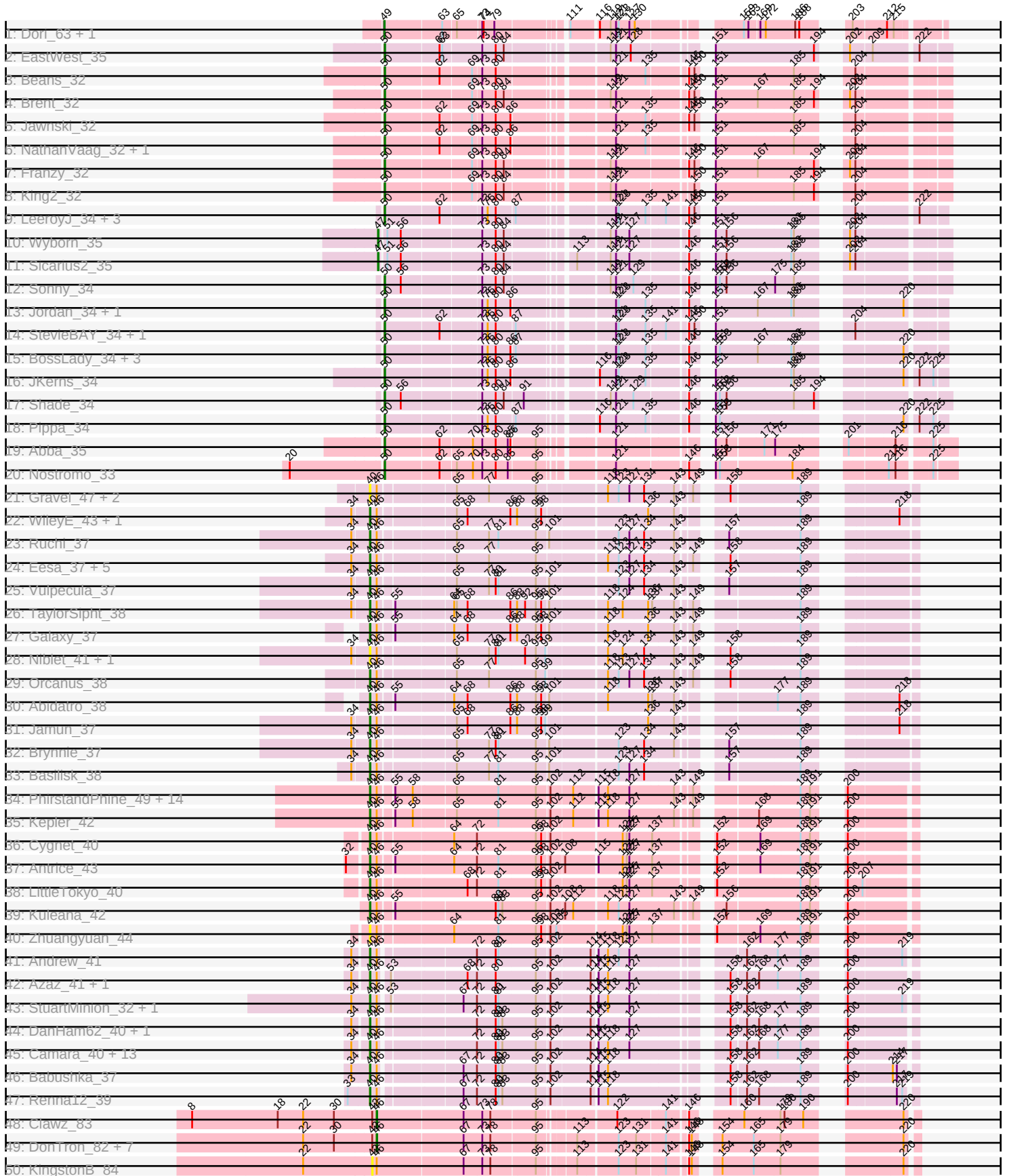
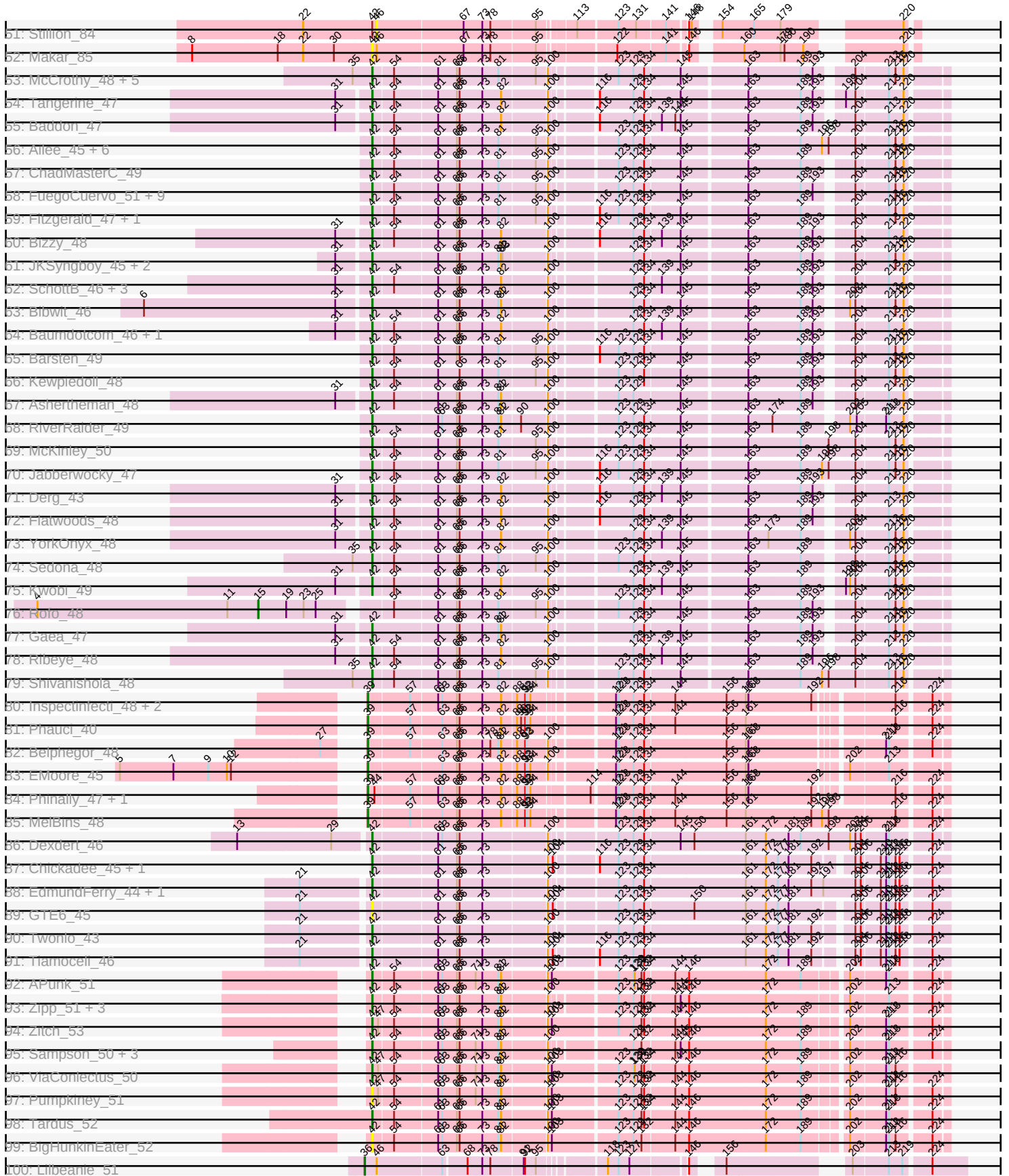


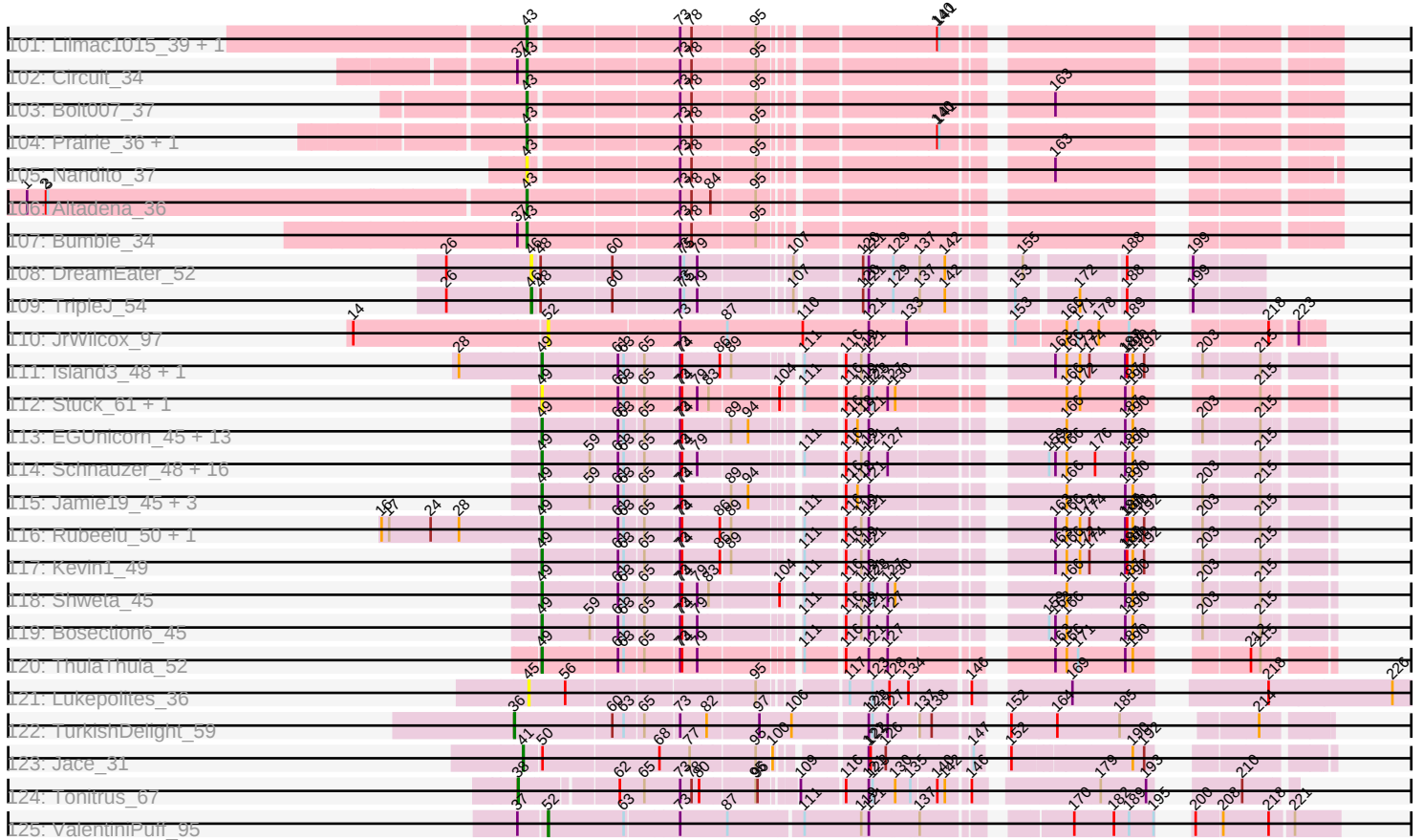
Pham 270775



Pham 270775



Pham 270775



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 270775 Report

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

Pham number 270775 has 256 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 : NathanVaag_32, Piccoletto_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 : WileyE_43, Chickaboom_39
- Track 23 : Ruchi_37
- Track 24 : Eesa_37, Zixiang_41, KendraB23_48, Amanises_47, Shen_37, Toad24_40
- 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 : PhirstandPhine_49, Melons_42, Coral_40, Bedetta_45, Colusalem_41, OtsoOtso_41, HannahPhantana_41, Polka_40, Pineda_43, Daob_42, Amelia_40, Jerole_41, Bibble12_44, Lunar_42, Cote_42

- Track 35 : Kepler_42
- Track 36 : Cygnet_40
- Track 37 : Antrice_43
- Track 38 : LittleTokyo_40
- Track 39 : Kuleana_42
- Track 40 : Zhuangyuan_44
- 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, AdoptaAdorbs_39, HamCheese_40, Atlantica_40, Glotell_41, Rattail_40, Fingolfin_40, Laphuphu24k_39, PhluffyCoco_40, Amphitrite_40, Juno112_39, KHumphrey_40, Oppalora_39
- Track 46 : Babushka_37
- Track 47 : Renna12_39
- Track 48 : Clawz_83
- Track 49 : DonTron_82, Grumio_83, Purplicious_82, ColdSoup_85, Jollymon_82, Amo99_85, Sting_81, Soos_78
- Track 50 : KingstonB_84
- Track 51 : Stillion_84
- Track 52 : Makar_85
- Track 53 : McCrothy_48, Galadriel_48, Nordenberg_43, Brandonk123_50, Paries_51, BobBob_46
- Track 54 : Tangerine_47
- Track 55 : Baddon_47
- Track 56 : Ailee_45, Sitar_48, Affeca_46, Keitabear_48, Stultus_47, Lennon_48, Angelicage_46
- Track 57 : ChadMasterC_49
- Track 58 : FuegoCuervo_51, Tangent_49, Charming_49, Geodirt_47, Vivi2_51, Fosterous_46, Love_52, MoontowerMania_48, Kamashten_46, Thing3_46
- Track 59 : Fitzgerald_47, Sanjuju_47
- Track 60 : Bizzy_48
- Track 61 : JKSyngboy_45, Saronaya_47, Gustavo_47
- Track 62 : SchottB_46, StorminNorm_47, Tycho_47, Kroos_48
- Track 63 : Bibwit_46
- Track 64 : Baumdotcom_46, LilHam_45
- Track 65 : Barsten_49
- Track 66 : Kewpiedoll_48
- Track 67 : Ashertheman_48
- Track 68 : RiverRaider_49
- Track 69 : McKinley_50
- Track 70 : Jabberwocky_47
- Track 71 : Derg_43
- Track 72 : Flatwoods_48
- Track 73 : YorkOnyx_48
- Track 74 : Sedona_48
- Track 75 : Kwobi_49
- Track 76 : Rofo_48
- Track 77 : Gaea_47
- Track 78 : Ribeye_48
- Track 79 : Shivanishola_48
- Track 80 : Inspectinfecti_48, Ali17_45, Hans_49
- Track 81 : Phauci_40

- Track 82 : Belphegor_48
- Track 83 : EMOore_45
- Track 84 : Phinally_47, Leonard_47
- Track 85 : MelBins_48
- Track 86 : Dexdert_46
- Track 87 : Chickadee_45, Kwekel_45
- Track 88 : EdmundFerry_44, RoadKill_43
- Track 89 : GTE6_45
- Track 90 : Twonlo_43
- Track 91 : Tiamoceli_46
- Track 92 : APunk_51
- Track 93 : Zipp_51, Delrey21_50, DoctorFroggo_50, Verity_50
- Track 94 : Zitch_53
- Track 95 : Sampson_50, Scioto_51, Natkenzie_50, Abblin_50
- Track 96 : ViaConlectus_50
- Track 97 : Pumpkiney_51
- Track 98 : Tardus_52
- Track 99 : BigHunkinEater_52
- Track 100 : Lilbeanie_51
- Track 101 : Lilmac1015_39, CalWood4100_39
- Track 102 : Circuit_34
- Track 103 : Bolt007_37
- Track 104 : Prairie_36, Klevey_37
- Track 105 : Nandito_37
- Track 106 : Altadena_36
- Track 107 : Bumble_34
- Track 108 : DreamEater_52
- Track 109 : TripleJ_54
- Track 110 : JrWilcox_97
- Track 111 : Island3_48, Brujita_48
- Track 112 : Stuck_61, Bluvara_52
- Track 113 : EGUnicorn_45, Rebel_43, ShrimpFriedEgg_51, Nенаe_51, Purgamenstris_51, Impisi_52, Phrann_48, Redi_51, BabeRuth_52, Hanako_51, Andies_44, PhancyPhin_51, Raymond7_45, Spinach_51
- Track 114 : Schnauzer_48, Fulbright_46, Melville_50, Smurph_47, Parmesanjohn_47, Duplicity_47, Magsby_47, Phloss_45, Silvafighter_48, Tortoise12_46, Carcharodon_47, Gex_47, Xerxes_47, Scitech_44, Pipsqueaks_47, Tapioca_49, Chewbacca_49
- Track 115 : Jamie19_45, Panchino_44, Snekmaggedon_45, SpongeBob_45
- Track 116 : Rubeelu_50, Butters_50
- Track 117 : Kevin1_49
- Track 118 : Shweta_45
- Track 119 : Bosection6_45
- Track 120 : ThulaThula_52
- Track 121 : Lukepolites_36
- Track 122 : TurkishDelight_59
- Track 123 : Jace_31
- Track 124 : Tonitrus_67
- Track 125 : ValentiniPuff_95

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

The start number called the most often in the published annotations is 42, it was called in 67 of the 206 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, AdoptaAdorbs_39, AlexMinion_42, Ali17_45, Altadena_36, Amanises_47, Amelia_40, AmiCi24_39, Amphitrite_40, Andies_44, Andrew_41, Antrice_43, Atlantica_40, Azaz_41, BabeRuth_52, Babushka_37, 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, Brynnie_37, Bumble_34, Butters_50, CalWood4100_39, Camara_40, Carcharodon_47, Chewbacca_49, Chickaboom_39, Chicken_38, Circuit_34, Colusalem_41, Coral_40, Cote_42, Cygnet_40, DanHam62_40, Daob_42, Dori_63, DreamEater_52, Duplicity_47, EGUnicorn_45, EMoore_45, EastWest_35, Eesa_37, Fingolfin_40, Franzy_32, Fulbright_46, Galaxy_37, 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, 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, Lukepolites_36, Lunar_42, Magsby_47, Martha_34, Mask_63, MelBins_48, Melons_42, Melville_50, Nandito_37, NathanVaag_32, Nenae_51, Niblet_41, Nostromo_33, Oppalora_39, Orcanus_38, OtsoOtso_41, Panchino_44, Parmesanjohn_47, Pelletreau_47, PhancyPhin_51, Phauci_40, Phinally_47, 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, Smurph_47, Snekmaggon_45, Sonny_34, Spinach_51, SpongeBob_45, StevieBAY_34, StuartMinion_32, Stuck_61, TaeYoung_34, Tapioca_49, TaylorSipht_38, ThulaThula_52, Timinator_34, Toad24_40, Tonitrus_67, Tortoise12_46, TripleJ_54, TurkishDelight_59, ValentiniPuff_95, Vulpecula_37,

Westrich_46, WileyE_43, Wyborn_35, Xerxes_47, Zartrosa_34, Zhuangyuan_44, Zixiang_41,

Summary by start number:

Start 15:

- Found in 1 of 256 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 206
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rofo_48 (DE1),

Start 36:

- Found in 2 of 256 (0.8%) of genes in pham
- Manual Annotations of this start: 2 of 206
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lilbeanie_51 (DE5), TurkishDelight_59 (singleton),

Start 38:

- Found in 1 of 256 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 206
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tonitrus_67 (singleton),

Start 39:

- Found in 9 of 256 (3.5%) of genes in pham
- Manual Annotations of this start: 9 of 206
- 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 40:

- Found in 66 of 256 (25.8%) of genes in pham
- Manual Annotations of this start: 41 of 206
- Called 100.0% 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_43 (AS1), Zhuangyuan_44 (AS2), Zixiang_41 (AS1),

Start 41:

- Found in 1 of 256 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 206
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jace_31 (singleton),

Start 42:

- Found in 87 of 256 (34.0%) of genes in pham
- Manual Annotations of this start: 67 of 206
- 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), Dextert_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 43:

- Found in 9 of 256 (3.5%) of genes in pham
- Manual Annotations of this start: 7 of 206
- 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), Circuit_34 (FH), Klevey_37 (FH), Lilmac1015_39 (FH), Nandito_37 (FH), Prairie_36 (FH),

Start 45:

- Found in 1 of 256 (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 46:

- Found in 81 of 256 (31.6%) of genes in pham
- Manual Annotations of this start: 6 of 206
- Called 14.8% 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 47:

- Found in 5 of 256 (2.0%) of genes in pham
- Manual Annotations of this start: 2 of 206
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Sicarius2_35 (AO2), Wyborn_35 (AO2),

Start 49:

- Found in 47 of 256 (18.4%) of genes in pham
- Manual Annotations of this start: 43 of 206
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Andies_44 (N), BabeRuth_52 (N), Bluvara_52 (UNK), 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), Snekmaggon_45 (N), Spinach_51 (N), SpongeBob_45 (N), Stuck_61 (I2), Tapioca_49 (N), ThulaThula_52 (P5), Tortoise12_46 (N), Xerxes_47 (N),

Start 50:

- Found in 27 of 256 (10.5%) of genes in pham
- Manual Annotations of this start: 25 of 206
- Called 96.3% 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), 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), Zartrosa_34 (AO2),

Start 52:

- Found in 2 of 256 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 206
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JrWilcox_97 (GL), ValentiniPuff_95 (singleton),

Summary by clusters:

There are 23 clusters represented in this pham: singleton, FH, FJ, UNK, I1, I2, AS3, AS2, AS1, AD, P5, AO, N, AO3, AO2, AO1, CP, GL, DE1, DE2, DE3, DE4, DE5,

Info for manual annotations of cluster AD:

- Start number 49 was manually annotated 2 times for cluster AD.

Info for manual annotations of cluster AO:

- Start number 50 was manually annotated 1 time for cluster AO.

Info for manual annotations of cluster AO1:

- Start number 50 was manually annotated 7 times for cluster AO1.

Info for manual annotations of cluster AO2:

- Start number 47 was manually annotated 2 times for cluster AO2.
- Start number 50 was manually annotated 15 times for cluster AO2.

Info for manual annotations of cluster AO3:

- Start number 50 was manually annotated 2 times for cluster AO3.

Info for manual annotations of cluster AS1:

- Start number 40 was manually annotated 12 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 40 was manually annotated 16 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 40 was manually annotated 13 times for cluster AS3.

Info for manual annotations of cluster CP:

- Start number 46 was manually annotated 5 times for cluster CP.

Info for manual annotations of cluster DE1:

- Start number 15 was manually annotated 1 time for cluster DE1.
- Start number 42 was manually annotated 51 times for cluster DE1.

Info for manual annotations of cluster DE2:

- Start number 39 was manually annotated 9 times for cluster DE2.

Info for manual annotations of cluster DE3:

- Start number 42 was manually annotated 7 times for cluster DE3.

Info for manual annotations of cluster DE4:

- Start number 42 was manually annotated 9 times for cluster DE4.

Info for manual annotations of cluster DE5:

- Start number 36 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster FH:

- Start number 43 was manually annotated 7 times for cluster FH.

Info for manual annotations of cluster FJ:

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

Info for manual annotations of cluster I1:

- Start number 49 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster N:

- Start number 49 was manually annotated 38 times for cluster N.

Info for manual annotations of cluster P5:

- Start number 49 was manually annotated 1 time for cluster P5.

Gene Information:

Gene: APunk_51 Start: 41866, Stop: 43041, Start Num: 42

Candidate Starts for APunk_51:

(Start: 42 @41866 has 67 MA's), (54, 41905), (61, 41998), (63, 42007), (65, 42040), (66, 42046), (71, 42082), (73, 42097), (81, 42130), (82, 42136), (100, 42229), (103, 42238), (123, 42373), (129, 42406), (130, 42409), (132, 42421), (134, 42427), (144, 42490), (146, 42520), (172, 42691), (189, 42766), (202, 42850), (211, 42922), (213, 42928), (224, 43009),

Gene: Abba_35 Start: 27714, Stop: 28745, Start Num: 50

Candidate Starts for Abba_35:

(Start: 50 @27714 has 25 MA's), (62, 27831), (70, 27897), (73, 27915), (80, 27945), (85, 27969), (86, 27975), (95, 28023), (121, 28155), (151, 28317), (156, 28341), (171, 28416), (175, 28437), (201, 28542), (216, 28635), (225, 28701),

Gene: Abblin_50 Start: 42409, Stop: 43563, Start Num: 42

Candidate Starts for Abblin_50:

(Start: 42 @42409 has 67 MA's), (54, 42448), (61, 42541), (63, 42550), (65, 42583), (66, 42589), (71, 42625), (73, 42640), (81, 42673), (82, 42679), (100, 42772), (129, 42928), (132, 42943), (144, 43012), (145, 43024), (146, 43042), (172, 43213), (189, 43288), (202, 43372), (211, 43444), (213, 43450), (224, 43531),

Gene: Abidatro_38 Start: 25301, Stop: 26326, Start Num: 40

Candidate Starts for Abidatro_38:

(Start: 40 @25301 has 41 MA's), (Start: 46 @25316 has 6 MA's), (55, 25343), (64, 25460), (68, 25490), (86, 25586), (88, 25598), (95, 25640), (98, 25652), (101, 25664), (118, 25778), (136, 25865), (137, 25871), (143, 25919), (177, 26090), (189, 26138), (218, 26291),

Gene: AdoptaAdorbs_39 Start: 25001, Stop: 26014, Start Num: 40

Candidate Starts for AdoptaAdorbs_39:

(34, 24977), (Start: 40 @25001 has 41 MA's), (Start: 46 @25016 has 6 MA's), (72, 25205), (80, 25247), (81, 25253), (83, 25262), (95, 25334), (102, 25361), (114, 25442), (115, 25451), (118, 25472), (127, 25520), (158, 25691), (162, 25721), (168, 25748), (177, 25787), (189, 25835), (200, 25880),

Gene: Affeca_46 Start: 40965, Stop: 42128, Start Num: 42

Candidate Starts for Affeca_46:

(Start: 42 @40965 has 67 MA's), (54, 41004), (61, 41097), (65, 41139), (66, 41145), (73, 41196), (81, 41229), (95, 41304), (100, 41325), (123, 41448), (129, 41481), (134, 41502), (145, 41577), (163, 41715), (189, 41829), (196, 41877), (198, 41892), (204, 41952), (213, 42018), (216, 42033), (220, 42051),

Gene: Ailee_45 Start: 40558, Stop: 41721, Start Num: 42

Candidate Starts for Ailee_45:

(Start: 42 @40558 has 67 MA's), (54, 40597), (61, 40690), (65, 40732), (66, 40738), (73, 40789), (81, 40822), (95, 40897), (100, 40918), (123, 41041), (129, 41074), (134, 41095), (145, 41170), (163,

41308), (189, 41422), (196, 41470), (198, 41485), (204, 41545), (213, 41611), (216, 41626), (220, 41644),

Gene: AlexMinion_42 Start: 25167, Stop: 26180, Start Num: 40

Candidate Starts for AlexMinion_42:

(34, 25134), (Start: 40 @25167 has 41 MA's), (Start: 46 @25182 has 6 MA's), (53, 25200), (67, 25341), (72, 25371), (80, 25413), (81, 25419), (95, 25500), (102, 25527), (114, 25608), (115, 25617), (118, 25638), (127, 25686), (158, 25857), (162, 25887), (189, 26001), (200, 26046), (219, 26157),

Gene: Ali17_45 Start: 39857, Stop: 41008, Start Num: 39

Candidate Starts for Ali17_45:

(Start: 39 @39857 has 9 MA's), (57, 39941), (61, 39998), (63, 40007), (65, 40040), (66, 40046), (73, 40094), (82, 40133), (88, 40163), (92, 40181), (93, 40184), (94, 40193), (121, 40343), (123, 40349), (129, 40382), (134, 40403), (144, 40466), (156, 40580), (161, 40622), (163, 40628), (192, 40766), (216, 40910), (224, 40976),

Gene: Altadena_36 Start: 26934, Stop: 28001, Start Num: 43

Candidate Starts for Altadena_36:

(1, 26163), (2, 26193), (3, 26196), (Start: 43 @26934 has 7 MA's), (73, 27156), (78, 27174), (84, 27201), (95, 27264),

Gene: Amanises_47 Start: 26357, Stop: 27385, Start Num: 40

Candidate Starts for Amanises_47:

(34, 26315), (Start: 40 @26357 has 41 MA's), (Start: 46 @26372 has 6 MA's), (65, 26522), (77, 26594), (95, 26696), (118, 26834), (123, 26858), (127, 26882), (134, 26915), (143, 26978), (149, 27005), (158, 27053), (189, 27197),

Gene: Amelia_40 Start: 25064, Stop: 26086, Start Num: 40

Candidate Starts for Amelia_40:

(Start: 40 @25064 has 41 MA's), (Start: 46 @25079 has 6 MA's), (55, 25106), (58, 25142), (65, 25229), (81, 25322), (95, 25403), (102, 25430), (112, 25475), (115, 25523), (118, 25544), (127, 25592), (143, 25688), (149, 25715), (189, 25907), (191, 25928), (200, 25952),

Gene: AmiCi24_39 Start: 24999, Stop: 26012, Start Num: 40

Candidate Starts for AmiCi24_39:

(34, 24975), (Start: 40 @24999 has 41 MA's), (Start: 46 @25014 has 6 MA's), (72, 25203), (80, 25245), (81, 25251), (83, 25260), (95, 25332), (102, 25359), (114, 25440), (115, 25449), (127, 25518), (158, 25689), (162, 25719), (168, 25746), (177, 25785), (189, 25833), (200, 25878),

Gene: Amo99_85 Start: 52756, Stop: 53769, Start Num: 46

Candidate Starts for Amo99_85:

(22, 52594), (30, 52663), (Start: 42 @52747 has 67 MA's), (Start: 46 @52756 has 6 MA's), (67, 52942), (73, 52981), (78, 52999), (95, 53092), (113, 53161), (123, 53242), (131, 53281), (141, 53341), (146, 53377), (148, 53383), (154, 53416), (165, 53482), (179, 53539), (220, 53746),

Gene: Amphitrite_40 Start: 25000, Stop: 26013, Start Num: 40

Candidate Starts for Amphitrite_40:

(34, 24976), (Start: 40 @25000 has 41 MA's), (Start: 46 @25015 has 6 MA's), (72, 25204), (80, 25246), (81, 25252), (83, 25261), (95, 25333), (102, 25360), (114, 25441), (115, 25450), (118, 25471), (127, 25519), (158, 25690), (162, 25720), (168, 25747), (177, 25786), (189, 25834), (200, 25879),

Gene: Andies_44 Start: 31627, Stop: 32637, Start Num: 49

Candidate Starts for Andies_44:

(Start: 49 @31627 has 43 MA's), (61, 31741), (63, 31750), (65, 31777), (73, 31828), (74, 31831), (89, 31897), (94, 31924), (116, 32032), (118, 32050), (121, 32068), (166, 32317), (187, 32407), (190, 32419), (203, 32467), (215, 32548),

Gene: Andrew_41 Start: 24893, Stop: 25906, Start Num: 40

Candidate Starts for Andrew_41:

(34, 24869), (Start: 40 @24893 has 41 MA's), (Start: 46 @24908 has 6 MA's), (72, 25097), (80, 25139), (81, 25145), (95, 25226), (102, 25253), (114, 25334), (115, 25343), (118, 25364), (123, 25388), (127, 25412), (162, 25613), (177, 25679), (189, 25727), (200, 25772), (219, 25883),

Gene: Angelicage_46 Start: 41383, Stop: 42546, Start Num: 42

Candidate Starts for Angelicage_46:

(Start: 42 @41383 has 67 MA's), (54, 41422), (61, 41515), (65, 41557), (66, 41563), (73, 41614), (81, 41647), (95, 41722), (100, 41743), (123, 41866), (129, 41899), (134, 41920), (145, 41995), (163, 42133), (189, 42247), (196, 42295), (198, 42310), (204, 42370), (213, 42436), (216, 42451), (220, 42469),

Gene: Antrice_43 Start: 26254, Stop: 27282, Start Num: 40

Candidate Starts for Antrice_43:

(32, 26218), (Start: 40 @26254 has 41 MA's), (Start: 46 @26269 has 6 MA's), (55, 26296), (64, 26419), (72, 26470), (81, 26518), (95, 26599), (98, 26611), (102, 26626), (108, 26653), (115, 26719), (124, 26773), (125, 26782), (127, 26788), (137, 26836), (152, 26929), (169, 27019), (189, 27103), (191, 27124), (200, 27148),

Gene: Ashertheman_48 Start: 41154, Stop: 42287, Start Num: 42

Candidate Starts for Ashertheman_48:

(31, 41085), (Start: 42 @41154 has 67 MA's), (54, 41199), (61, 41292), (65, 41334), (66, 41340), (73, 41391), (81, 41424), (82, 41430), (100, 41520), (123, 41643), (129, 41676), (145, 41772), (163, 41910), (189, 42024), (193, 42051), (204, 42111), (213, 42177), (220, 42210),

Gene: Atlantica_40 Start: 25001, Stop: 26014, Start Num: 40

Candidate Starts for Atlantica_40:

(34, 24977), (Start: 40 @25001 has 41 MA's), (Start: 46 @25016 has 6 MA's), (72, 25205), (80, 25247), (81, 25253), (83, 25262), (95, 25334), (102, 25361), (114, 25442), (115, 25451), (118, 25472), (127, 25520), (158, 25691), (162, 25721), (168, 25748), (177, 25787), (189, 25835), (200, 25880),

Gene: Azaz_41 Start: 25073, Stop: 26086, Start Num: 40

Candidate Starts for Azaz_41:

(34, 25049), (Start: 40 @25073 has 41 MA's), (Start: 46 @25088 has 6 MA's), (53, 25106), (68, 25256), (72, 25277), (80, 25319), (95, 25406), (102, 25433), (114, 25514), (115, 25523), (118, 25544), (127, 25592), (158, 25763), (162, 25793), (168, 25820), (177, 25859), (189, 25907), (200, 25952),

Gene: BabeRuth_52 Start: 33348, Stop: 34358, Start Num: 49

Candidate Starts for BabeRuth_52:

(Start: 49 @33348 has 43 MA's), (61, 33462), (63, 33471), (65, 33498), (73, 33549), (74, 33552), (89, 33618), (94, 33645), (116, 33753), (118, 33771), (121, 33789), (166, 34038), (187, 34128), (190, 34140), (203, 34188), (215, 34269),

Gene: Babushka_37 Start: 24932, Stop: 25945, Start Num: 40

Candidate Starts for Babushka_37:

(34, 24899), (Start: 40 @24932 has 41 MA's), (Start: 46 @24947 has 6 MA's), (67, 25106), (72, 25136), (80, 25178), (81, 25184), (83, 25193), (95, 25265), (102, 25292), (114, 25373), (115, 25382), (118, 25403), (158, 25622), (162, 25652), (189, 25766), (200, 25811), (214, 25904), (217, 25913),

Gene: Baddon_47 Start: 41688, Stop: 42815, Start Num: 42

Candidate Starts for Baddon_47:

(31, 41619), (Start: 42 @41688 has 67 MA's), (54, 41727), (61, 41820), (65, 41862), (66, 41868), (73, 41919), (82, 41958), (100, 42048), (116, 42129), (129, 42204), (134, 42225), (139, 42258), (144, 42288), (145, 42300), (163, 42438), (189, 42552), (193, 42579), (204, 42639), (213, 42705), (220, 42738),

Gene: BarretLemon_34 Start: 28805, Stop: 29824, Start Num: 50

Candidate Starts for BarretLemon_34:

(Start: 50 @28805 has 25 MA's), (62, 28922), (73, 29006), (76, 29018), (80, 29036), (87, 29072), (121, 29246), (123, 29252), (135, 29309), (141, 29348), (146, 29384), (150, 29396), (151, 29408), (204, 29651), (222, 29771),

Gene: Barsten_49 Start: 41538, Stop: 42665, Start Num: 42

Candidate Starts for Barsten_49:

(Start: 42 @41538 has 67 MA's), (54, 41577), (61, 41670), (65, 41712), (66, 41718), (73, 41769), (81, 41802), (95, 41877), (100, 41898), (116, 41979), (123, 42021), (129, 42054), (134, 42075), (145, 42150), (163, 42288), (189, 42402), (193, 42429), (204, 42489), (213, 42555), (216, 42570), (220, 42588),

Gene: Basilisk_38 Start: 25812, Stop: 26840, Start Num: 40

Candidate Starts for Basilisk_38:

(34, 25779), (Start: 40 @25812 has 41 MA's), (Start: 46 @25827 has 6 MA's), (65, 25977), (77, 26049), (81, 26070), (95, 26151), (101, 26175), (123, 26313), (127, 26337), (134, 26370), (157, 26505), (189, 26652),

Gene: Baumdotcom_46 Start: 40560, Stop: 41684, Start Num: 42

Candidate Starts for Baumdotcom_46:

(31, 40491), (Start: 42 @40560 has 67 MA's), (54, 40596), (61, 40689), (65, 40731), (66, 40737), (73, 40788), (82, 40827), (100, 40917), (129, 41073), (134, 41094), (139, 41127), (145, 41169), (163, 41307), (189, 41421), (193, 41448), (204, 41508), (213, 41574), (220, 41607),

Gene: Beans_32 Start: 28492, Stop: 29520, Start Num: 50

Candidate Starts for Beans_32:

(Start: 50 @28492 has 25 MA's), (62, 28609), (69, 28675), (73, 28693), (80, 28723), (121, 28933), (135, 28996), (146, 29071), (150, 29083), (151, 29095), (185, 29260), (204, 29338),

Gene: Bedetta_45 Start: 25211, Stop: 26233, Start Num: 40

Candidate Starts for Bedetta_45:

(Start: 40 @25211 has 41 MA's), (Start: 46 @25226 has 6 MA's), (55, 25253), (58, 25289), (65, 25376), (81, 25469), (95, 25550), (102, 25577), (112, 25622), (115, 25670), (118, 25691), (127, 25739), (143, 25835), (149, 25862), (189, 26054), (191, 26075), (200, 26099),

Gene: Belphegor_48 Start: 41897, Stop: 43045, Start Num: 39

Candidate Starts for Belphegor_48:

(27, 41861), (Start: 39 @41897 has 9 MA's), (57, 41978), (63, 42044), (65, 42077), (66, 42083), (73, 42131), (78, 42149), (81, 42164), (82, 42170), (88, 42200), (92, 42218), (93, 42221), (100, 42263), (121, 42380), (123, 42386), (129, 42419), (134, 42440), (156, 42617), (161, 42659), (163, 42665), (211, 42926), (213, 42932), (224, 43013),

Gene: Bibble12_44 Start: 25059, Stop: 26081, Start Num: 40

Candidate Starts for Bibble12_44:

(Start: 40 @25059 has 41 MA's), (Start: 46 @25074 has 6 MA's), (55, 25101), (58, 25137), (65, 25224), (81, 25317), (95, 25398), (102, 25425), (112, 25470), (115, 25518), (118, 25539), (127, 25587), (143, 25683), (149, 25710), (189, 25902), (191, 25923), (200, 25947),

Gene: Bibwit_46 Start: 40244, Stop: 41377, Start Num: 42

Candidate Starts for Bibwit_46:

(6, 39749), (31, 40175), (Start: 42 @40244 has 67 MA's), (61, 40382), (65, 40424), (66, 40430), (73, 40481), (81, 40514), (82, 40520), (100, 40610), (129, 40766), (134, 40787), (145, 40862), (163, 41000), (189, 41114), (193, 41141), (202, 41189), (204, 41201), (213, 41267), (216, 41282), (220, 41300),

Gene: BigDome_34 Start: 28797, Stop: 29816, Start Num: 50

Candidate Starts for BigDome_34:

(Start: 50 @28797 has 25 MA's), (62, 28914), (73, 28998), (76, 29010), (80, 29028), (87, 29064), (121, 29238), (123, 29244), (135, 29301), (141, 29340), (146, 29376), (150, 29388), (151, 29400), (204, 29643), (222, 29763),

Gene: BigHunkinEater_52 Start: 41644, Stop: 42819, Start Num: 42

Candidate Starts for BigHunkinEater_52:

(Start: 42 @41644 has 67 MA's), (54, 41683), (61, 41776), (63, 41785), (65, 41818), (66, 41824), (73, 41875), (81, 41908), (82, 41914), (100, 42007), (103, 42016), (123, 42151), (129, 42184), (132, 42199), (144, 42268), (146, 42298), (172, 42469), (189, 42544), (202, 42628), (211, 42700), (213, 42706), (216, 42721), (224, 42787),

Gene: Bizzy_48 Start: 40845, Stop: 41972, Start Num: 42

Candidate Starts for Bizzy_48:

(31, 40776), (Start: 42 @40845 has 67 MA's), (54, 40884), (61, 40977), (65, 41019), (66, 41025), (73, 41076), (82, 41115), (100, 41205), (116, 41286), (129, 41361), (134, 41382), (139, 41415), (145, 41457), (163, 41595), (189, 41709), (193, 41736), (204, 41796), (213, 41862), (220, 41895),

Gene: Bluvara_52 Start: 37027, Stop: 38037, Start Num: 49

Candidate Starts for Bluvara_52:

(Start: 49 @37027 has 43 MA's), (61, 37141), (63, 37150), (65, 37177), (73, 37228), (74, 37231), (79, 37255), (83, 37270), (104, 37363), (111, 37381), (116, 37432), (119, 37456), (121, 37468), (123, 37474), (127, 37498), (130, 37510), (166, 37717), (172, 37738), (187, 37807), (190, 37819), (215, 37948),

Gene: BobBob_46 Start: 40656, Stop: 41780, Start Num: 42

Candidate Starts for BobBob_46:

(35, 40617), (Start: 42 @40656 has 67 MA's), (54, 40692), (61, 40785), (65, 40827), (66, 40833), (73, 40884), (81, 40917), (95, 40992), (100, 41013), (123, 41136), (129, 41169), (134, 41190), (145, 41265), (163, 41403), (189, 41517), (193, 41544), (204, 41604), (213, 41670), (216, 41685), (220, 41703),

Gene: Bolt007_37 Start: 29435, Stop: 30487, Start Num: 43

Candidate Starts for Bolt007_37:

(Start: 43 @29435 has 7 MA's), (73, 29645), (78, 29663), (95, 29753), (163, 30122),

Gene: Bosection6_45 Start: 31093, Stop: 32103, Start Num: 49

Candidate Starts for Bosection6_45:

(Start: 49 @31093 has 43 MA's), (59, 31168), (61, 31207), (63, 31216), (65, 31243), (73, 31294), (74, 31297), (79, 31321), (111, 31447), (116, 31498), (119, 31522), (121, 31534), (127, 31564), (159, 31756), (163, 31765), (166, 31783), (187, 31873), (190, 31885), (203, 31933), (215, 32014),

Gene: BossLady_34 Start: 28774, Stop: 29793, Start Num: 50

Candidate Starts for BossLady_34:

(Start: 50 @28774 has 25 MA's), (73, 28975), (76, 28987), (80, 29005), (86, 29035), (87, 29041), (121, 29215), (123, 29221), (135, 29278), (146, 29353), (151, 29377), (153, 29386), (167, 29464), (183, 29536), (185, 29542), (220, 29719),

Gene: Brandonk123_50 Start: 41790, Stop: 42914, Start Num: 42

Candidate Starts for Brandonk123_50:

(35, 41751), (Start: 42 @41790 has 67 MA's), (54, 41826), (61, 41919), (65, 41961), (66, 41967), (73, 42018), (81, 42051), (95, 42126), (100, 42147), (123, 42270), (129, 42303), (134, 42324), (145, 42399), (163, 42537), (189, 42651), (193, 42678), (204, 42738), (213, 42804), (216, 42819), (220, 42837),

Gene: Brent_32 Start: 28455, Stop: 29483, Start Num: 50

Candidate Starts for Brent_32:

(Start: 50 @28455 has 25 MA's), (69, 28638), (73, 28656), (80, 28686), (84, 28701), (119, 28884), (121, 28896), (146, 29034), (150, 29046), (151, 29058), (167, 29145), (185, 29223), (194, 29265), (202, 29289), (204, 29301),

Gene: Brujita_48 Start: 33774, Stop: 34781, Start Num: 49

Candidate Starts for Brujita_48:

(28, 33654), (Start: 49 @33774 has 43 MA's), (61, 33885), (63, 33894), (65, 33921), (73, 33972), (74, 33975), (86, 34032), (89, 34041), (111, 34125), (116, 34176), (119, 34200), (121, 34212), (163, 34443), (166, 34461), (172, 34482), (174, 34497), (187, 34551), (188, 34554), (190, 34563), (192, 34581), (203, 34611), (215, 34692),

Gene: Brynnie_37 Start: 25690, Stop: 26718, Start Num: 40

Candidate Starts for Brynnie_37:

(34, 25657), (Start: 40 @25690 has 41 MA's), (Start: 46 @25705 has 6 MA's), (65, 25855), (77, 25927), (80, 25942), (81, 25948), (95, 26029), (101, 26053), (123, 26191), (134, 26248), (143, 26311), (157, 26383), (189, 26530),

Gene: Bumble_34 Start: 26999, Stop: 28066, Start Num: 43

Candidate Starts for Bumble_34:

(37, 26987), (Start: 43 @26999 has 7 MA's), (73, 27221), (78, 27239), (95, 27329),

Gene: Butters_50 Start: 33050, Stop: 34057, Start Num: 49

Candidate Starts for Butters_50:

(16, 32807), (17, 32819), (24, 32885), (28, 32930), (Start: 49 @33050 has 43 MA's), (61, 33161), (63, 33170), (65, 33197), (73, 33248), (74, 33251), (86, 33308), (89, 33317), (111, 33401), (116, 33452), (119, 33476), (121, 33488), (163, 33719), (166, 33737), (172, 33758), (174, 33773), (187, 33827), (188, 33830), (190, 33839), (192, 33857), (203, 33887), (215, 33968),

Gene: CalWood4100_39 Start: 28926, Stop: 29978, Start Num: 43

Candidate Starts for CalWood4100_39:

(Start: 43 @28926 has 7 MA's), (73, 29136), (78, 29154), (95, 29244), (140, 29481), (141, 29484),

Gene: Camara_40 Start: 25003, Stop: 26016, Start Num: 40

Candidate Starts for Camara_40:

(34, 24979), (Start: 40 @25003 has 41 MA's), (Start: 46 @25018 has 6 MA's), (72, 25207), (80, 25249), (81, 25255), (83, 25264), (95, 25336), (102, 25363), (114, 25444), (115, 25453), (118, 25474), (127, 25522), (158, 25693), (162, 25723), (168, 25750), (177, 25789), (189, 25837), (200, 25882),

Gene: Carcharodon_47 Start: 32442, Stop: 33452, Start Num: 49

Candidate Starts for Carcharodon_47:

(Start: 49 @32442 has 43 MA's), (59, 32517), (61, 32556), (63, 32565), (65, 32592), (73, 32643), (74, 32646), (79, 32670), (111, 32796), (116, 32847), (119, 32871), (121, 32883), (127, 32913), (159, 33105), (163, 33114), (166, 33132), (176, 33174), (187, 33222), (190, 33234), (215, 33363),

Gene: ChadMasterC_49 Start: 42937, Stop: 44064, Start Num: 42

Candidate Starts for ChadMasterC_49:

(Start: 42 @42937 has 67 MA's), (54, 42976), (61, 43069), (65, 43111), (66, 43117), (73, 43168), (81, 43201), (95, 43276), (100, 43297), (123, 43420), (129, 43453), (134, 43474), (145, 43549), (163, 43687), (189, 43801), (204, 43888), (213, 43954), (216, 43969), (220, 43987),

Gene: Charming_49 Start: 41293, Stop: 42420, Start Num: 42

Candidate Starts for Charming_49:

(Start: 42 @41293 has 67 MA's), (54, 41332), (61, 41425), (65, 41467), (66, 41473), (73, 41524), (81, 41557), (95, 41632), (100, 41653), (123, 41776), (129, 41809), (134, 41830), (145, 41905), (163, 42043), (189, 42157), (193, 42184), (204, 42244), (213, 42310), (216, 42325), (220, 42343),

Gene: Chewbacca_49 Start: 32442, Stop: 33452, Start Num: 49

Candidate Starts for Chewbacca_49:

(Start: 49 @32442 has 43 MA's), (59, 32517), (61, 32556), (63, 32565), (65, 32592), (73, 32643), (74, 32646), (79, 32670), (111, 32796), (116, 32847), (119, 32871), (121, 32883), (127, 32913), (159, 33105), (163, 33114), (166, 33132), (176, 33174), (187, 33222), (190, 33234), (215, 33363),

Gene: Chickaboom_39 Start: 25312, Stop: 26337, Start Num: 40

Candidate Starts for Chickaboom_39:

(34, 25279), (Start: 40 @25312 has 41 MA's), (Start: 46 @25327 has 6 MA's), (65, 25477), (68, 25501), (86, 25597), (88, 25609), (95, 25651), (98, 25663), (136, 25876), (143, 25930), (189, 26149), (218, 26302),

Gene: Chickadee_45 Start: 37929, Stop: 39083, Start Num: 42

Candidate Starts for Chickadee_45:

(Start: 42 @37929 has 67 MA's), (61, 38058), (65, 38100), (66, 38106), (73, 38157), (100, 38286), (104, 38292), (116, 38370), (123, 38412), (129, 38445), (134, 38466), (161, 38685), (172, 38730), (177, 38754), (181, 38778), (192, 38829), (204, 38898), (206, 38910), (210, 38949), (211, 38958), (213, 38964), (216, 38979), (218, 38988), (224, 39045),

Gene: Chicken_38 Start: 25652, Stop: 26680, Start Num: 40

Candidate Starts for Chicken_38:

(34, 25619), (Start: 40 @25652 has 41 MA's), (Start: 46 @25667 has 6 MA's), (65, 25817), (77, 25889), (80, 25904), (81, 25910), (92, 25967), (95, 25991), (99, 26012), (118, 26129), (124, 26162), (134, 26210), (143, 26273), (149, 26300), (158, 26348), (189, 26492),

Gene: Circuit_34 Start: 27961, Stop: 29031, Start Num: 43

Candidate Starts for Circuit_34:

(37, 27946), (Start: 43 @27961 has 7 MA's), (73, 28186), (78, 28204), (95, 28294),

Gene: Clawz_83 Start: 52842, Stop: 53858, Start Num: 46

Candidate Starts for Clawz_83:

(8, 52431), (18, 52623), (22, 52680), (30, 52749), (Start: 42 @52833 has 67 MA's), (Start: 46 @52842 has 6 MA's), (67, 53031), (73, 53070), (78, 53088), (95, 53181), (122, 53328), (141, 53430), (146, 53466), (160, 53550), (179, 53628), (180, 53637), (190, 53679), (220, 53835),

Gene: ColdSoup_85 Start: 52837, Stop: 53850, Start Num: 46

Candidate Starts for ColdSoup_85:

(22, 52675), (30, 52744), (Start: 42 @52828 has 67 MA's), (Start: 46 @52837 has 6 MA's), (67, 53023), (73, 53062), (78, 53080), (95, 53173), (113, 53242), (123, 53323), (131, 53362), (141, 53422), (146, 53458), (148, 53464), (154, 53497), (165, 53563), (179, 53620), (220, 53827),

Gene: Colusalem_41 Start: 25041, Stop: 26063, Start Num: 40

Candidate Starts for Colusalem_41:

(Start: 40 @25041 has 41 MA's), (Start: 46 @25056 has 6 MA's), (55, 25083), (58, 25119), (65, 25206), (81, 25299), (95, 25380), (102, 25407), (112, 25452), (115, 25500), (118, 25521), (127, 25569), (143, 25665), (149, 25692), (189, 25884), (191, 25905), (200, 25929),

Gene: Coral_40 Start: 24912, Stop: 25934, Start Num: 40

Candidate Starts for Coral_40:

(Start: 40 @24912 has 41 MA's), (Start: 46 @24927 has 6 MA's), (55, 24954), (58, 24990), (65, 25077), (81, 25170), (95, 25251), (102, 25278), (112, 25323), (115, 25371), (118, 25392), (127, 25440), (143, 25536), (149, 25563), (189, 25755), (191, 25776), (200, 25800),

Gene: Cote_42 Start: 25389, Stop: 26411, Start Num: 40

Candidate Starts for Cote_42:

(Start: 40 @25389 has 41 MA's), (Start: 46 @25404 has 6 MA's), (55, 25431), (58, 25467), (65, 25554), (81, 25647), (95, 25728), (102, 25755), (112, 25800), (115, 25848), (118, 25869), (127, 25917), (143, 26013), (149, 26040), (189, 26232), (191, 26253), (200, 26277),

Gene: Cygnet_40 Start: 25852, Stop: 26877, Start Num: 40

Candidate Starts for Cygnet_40:

(Start: 40 @25852 has 41 MA's), (Start: 46 @25864 has 6 MA's), (64, 26014), (72, 26065), (95, 26194), (98, 26206), (102, 26221), (124, 26368), (125, 26377), (127, 26383), (137, 26431), (152, 26524), (169, 26614), (189, 26698), (191, 26719), (200, 26743),

Gene: DanHam62_40 Start: 25000, Stop: 26013, Start Num: 40

Candidate Starts for DanHam62_40:

(34, 24976), (Start: 40 @25000 has 41 MA's), (Start: 46 @25015 has 6 MA's), (72, 25204), (80, 25246), (81, 25252), (83, 25261), (95, 25333), (102, 25360), (114, 25441), (115, 25450), (127, 25519), (158, 25690), (162, 25720), (168, 25747), (177, 25786), (189, 25834), (200, 25879),

Gene: Daob_42 Start: 25397, Stop: 26419, Start Num: 40

Candidate Starts for Daob_42:

(Start: 40 @25397 has 41 MA's), (Start: 46 @25412 has 6 MA's), (55, 25439), (58, 25475), (65, 25562), (81, 25655), (95, 25736), (102, 25763), (112, 25808), (115, 25856), (118, 25877), (127, 25925), (143, 26021), (149, 26048), (189, 26240), (191, 26261), (200, 26285),

Gene: Delrey21_50 Start: 43180, Stop: 44334, Start Num: 42

Candidate Starts for Delrey21_50:

(Start: 42 @43180 has 67 MA's), (54, 43219), (61, 43312), (63, 43321), (65, 43354), (66, 43360), (73, 43411), (81, 43444), (82, 43450), (100, 43543), (123, 43666), (129, 43699), (132, 43714), (134, 43720), (144, 43783), (145, 43795), (146, 43813), (172, 43984), (202, 44143), (213, 44221), (224, 44302),

Gene: Derg_43 Start: 40440, Stop: 41564, Start Num: 42

Candidate Starts for Derg_43:

(31, 40371), (Start: 42 @40440 has 67 MA's), (54, 40476), (61, 40569), (65, 40611), (66, 40617), (73, 40668), (82, 40707), (100, 40797), (116, 40878), (129, 40953), (134, 40974), (139, 41007), (145, 41049), (163, 41187), (189, 41301), (193, 41328), (204, 41388), (213, 41454), (220, 41487),

Gene: Dexdert_46 Start: 38194, Stop: 39375, Start Num: 42

Candidate Starts for Dexdert_46:

(13, 37912), (29, 38119), (Start: 42 @38194 has 67 MA's), (61, 38326), (63, 38335), (65, 38368), (66, 38374), (73, 38425), (100, 38554), (123, 38680), (129, 38713), (134, 38734), (145, 38809), (150, 38839), (161, 38953), (172, 38998), (181, 39046), (189, 39073), (198, 39136), (202, 39184), (204, 39196), (206, 39208), (211, 39256), (213, 39262), (224, 39343),

Gene: DoctorFroggo_50 Start: 43180, Stop: 44334, Start Num: 42

Candidate Starts for DoctorFroggo_50:

(Start: 42 @43180 has 67 MA's), (54, 43219), (61, 43312), (63, 43321), (65, 43354), (66, 43360), (73, 43411), (81, 43444), (82, 43450), (100, 43543), (123, 43666), (129, 43699), (132, 43714), (134, 43720), (144, 43783), (145, 43795), (146, 43813), (172, 43984), (202, 44143), (213, 44221), (224, 44302),

Gene: DonTron_82 Start: 52715, Stop: 53728, Start Num: 46

Candidate Starts for DonTron_82:

(22, 52553), (30, 52622), (Start: 42 @52706 has 67 MA's), (Start: 46 @52715 has 6 MA's), (67, 52901), (73, 52940), (78, 52958), (95, 53051), (113, 53120), (123, 53201), (131, 53240), (141, 53300), (146, 53336), (148, 53342), (154, 53375), (165, 53441), (179, 53498), (220, 53705),

Gene: Dori_63 Start: 49123, Stop: 50127, Start Num: 49

Candidate Starts for Dori_63:

(Start: 49 @49123 has 43 MA's), (63, 49246), (65, 49273), (73, 49324), (74, 49327), (79, 49351), (111, 49477), (116, 49528), (119, 49552), (121, 49564), (123, 49570), (127, 49594), (130, 49606), (159, 49786), (163, 49795), (169, 49816), (172, 49828), (186, 49891), (188, 49900), (203, 49957), (212, 50023), (215, 50038),

Gene: DreamEater_52 Start: 33476, Stop: 34402, Start Num: 46

Candidate Starts for DreamEater_52:

(26, 33344), (Start: 46 @33476 has 6 MA's), (48, 33482), (60, 33590), (73, 33686), (75, 33692), (79, 33713), (107, 33833), (120, 33920), (121, 33929), (129, 33968), (137, 34007), (142, 34046), (155, 34118), (188, 34253), (199, 34298),

Gene: Duplicity_47 Start: 32451, Stop: 33461, Start Num: 49

Candidate Starts for Duplicity_47:

(Start: 49 @32451 has 43 MA's), (59, 32526), (61, 32565), (63, 32574), (65, 32601), (73, 32652), (74, 32655), (79, 32679), (111, 32805), (116, 32856), (119, 32880), (121, 32892), (127, 32922), (159, 33114), (163, 33123), (166, 33141), (176, 33183), (187, 33231), (190, 33243), (215, 33372),

Gene: EGUnicorn_45 Start: 31139, Stop: 32149, Start Num: 49

Candidate Starts for EGUnicorn_45:

(Start: 49 @31139 has 43 MA's), (61, 31253), (63, 31262), (65, 31289), (73, 31340), (74, 31343), (89, 31409), (94, 31436), (116, 31544), (118, 31562), (121, 31580), (166, 31829), (187, 31919), (190, 31931), (203, 31979), (215, 32060),

Gene: EMoore_45 Start: 41058, Stop: 42209, Start Num: 39

Candidate Starts for EMoore_45:

(5, 40575), (7, 40695), (9, 40773), (10, 40815), (12, 40824), (Start: 39 @41058 has 9 MA's), (63, 41208), (65, 41241), (66, 41247), (73, 41295), (82, 41334), (88, 41364), (92, 41382), (93, 41385), (94,

41394), (100, 41427), (121, 41544), (123, 41550), (129, 41583), (134, 41604), (156, 41781), (161, 41823), (163, 41829), (202, 42018), (213, 42096),

Gene: EastWest_35 Start: 28014, Stop: 29039, Start Num: 50

Candidate Starts for EastWest_35:

(Start: 50 @28014 has 25 MA's), (62, 28131), (63, 28137), (73, 28215), (80, 28245), (84, 28260), (119, 28443), (121, 28455), (128, 28488), (151, 28617), (194, 28824), (202, 28848), (209, 28893), (222, 28980),

Gene: EdmundFerry_44 Start: 37970, Stop: 39154, Start Num: 42

Candidate Starts for EdmundFerry_44:

(21, 37829), (Start: 42 @37970 has 67 MA's), (61, 38099), (65, 38141), (66, 38147), (73, 38198), (100, 38327), (123, 38453), (129, 38486), (134, 38507), (161, 38726), (172, 38771), (177, 38795), (181, 38819), (192, 38870), (197, 38897), (204, 38969), (206, 38981), (210, 39020), (211, 39029), (213, 39035), (216, 39050), (218, 39059), (224, 39116),

Gene: Eesa_37 Start: 26191, Stop: 27219, Start Num: 40

Candidate Starts for Eesa_37:

(34, 26149), (Start: 40 @26191 has 41 MA's), (Start: 46 @26206 has 6 MA's), (65, 26356), (77, 26428), (95, 26530), (118, 26668), (123, 26692), (127, 26716), (134, 26749), (143, 26812), (149, 26839), (158, 26887), (189, 27031),

Gene: Fingolfin_40 Start: 25003, Stop: 26016, Start Num: 40

Candidate Starts for Fingolfin_40:

(34, 24979), (Start: 40 @25003 has 41 MA's), (Start: 46 @25018 has 6 MA's), (72, 25207), (80, 25249), (81, 25255), (83, 25264), (95, 25336), (102, 25363), (114, 25444), (115, 25453), (118, 25474), (127, 25522), (158, 25693), (162, 25723), (168, 25750), (177, 25789), (189, 25837), (200, 25882),

Gene: Fitzgerald_47 Start: 42195, Stop: 43319, Start Num: 42

Candidate Starts for Fitzgerald_47:

(Start: 42 @42195 has 67 MA's), (54, 42231), (61, 42324), (65, 42366), (66, 42372), (73, 42423), (81, 42456), (95, 42531), (100, 42552), (116, 42633), (123, 42675), (129, 42708), (134, 42729), (145, 42804), (163, 42942), (189, 43056), (204, 43143), (213, 43209), (216, 43224), (220, 43242),

Gene: Flatwoods_48 Start: 40789, Stop: 41913, Start Num: 42

Candidate Starts for Flatwoods_48:

(31, 40720), (Start: 42 @40789 has 67 MA's), (54, 40825), (61, 40918), (65, 40960), (66, 40966), (73, 41017), (82, 41056), (100, 41146), (116, 41227), (129, 41302), (134, 41323), (145, 41398), (163, 41536), (189, 41650), (193, 41677), (204, 41737), (213, 41803), (220, 41836),

Gene: Fosterous_46 Start: 40754, Stop: 41881, Start Num: 42

Candidate Starts for Fosterous_46:

(Start: 42 @40754 has 67 MA's), (54, 40793), (61, 40886), (65, 40928), (66, 40934), (73, 40985), (81, 41018), (95, 41093), (100, 41114), (123, 41237), (129, 41270), (134, 41291), (145, 41366), (163, 41504), (189, 41618), (193, 41645), (204, 41705), (213, 41771), (216, 41786), (220, 41804),

Gene: Franzy_32 Start: 28454, Stop: 29482, Start Num: 50

Candidate Starts for Franzy_32:

(Start: 50 @28454 has 25 MA's), (69, 28637), (73, 28655), (80, 28685), (84, 28700), (119, 28883), (121, 28895), (146, 29033), (150, 29045), (151, 29057), (167, 29144), (194, 29264), (202, 29288), (204, 29300),

Gene: FuegoCuervo_51 Start: 40622, Stop: 41746, Start Num: 42

Candidate Starts for FuegoCuervo_51:

(Start: 42 @40622 has 67 MA's), (54, 40661), (61, 40754), (65, 40796), (66, 40802), (73, 40853), (81, 40886), (95, 40961), (100, 40982), (123, 41105), (129, 41138), (134, 41159), (145, 41234), (163, 41372), (189, 41486), (193, 41513), (204, 41573), (213, 41639), (216, 41654), (220, 41672),

Gene: Fulbright_46 Start: 31531, Stop: 32541, Start Num: 49

Candidate Starts for Fulbright_46:

(Start: 49 @31531 has 43 MA's), (59, 31606), (61, 31645), (63, 31654), (65, 31681), (73, 31732), (74, 31735), (79, 31759), (111, 31885), (116, 31936), (119, 31960), (121, 31972), (127, 32002), (159, 32194), (163, 32203), (166, 32221), (176, 32263), (187, 32311), (190, 32323), (215, 32452),

Gene: GTE6_45 Start: 38462, Stop: 39616, Start Num: 42

Candidate Starts for GTE6_45:

(21, 38321), (Start: 42 @38462 has 67 MA's), (61, 38591), (65, 38633), (66, 38639), (73, 38690), (100, 38819), (104, 38825), (123, 38945), (129, 38978), (134, 38999), (150, 39104), (161, 39218), (172, 39263), (177, 39287), (181, 39311), (204, 39431), (206, 39443), (210, 39482), (211, 39491), (213, 39497), (216, 39512), (218, 39521), (224, 39578),

Gene: Gaea_47 Start: 40432, Stop: 41565, Start Num: 42

Candidate Starts for Gaea_47:

(31, 40363), (Start: 42 @40432 has 67 MA's), (61, 40570), (65, 40612), (66, 40618), (73, 40669), (81, 40702), (82, 40708), (100, 40798), (129, 40954), (134, 40975), (145, 41050), (163, 41188), (189, 41302), (193, 41329), (204, 41389), (213, 41455), (216, 41470), (220, 41488),

Gene: Galadriel_48 Start: 41561, Stop: 42682, Start Num: 42

Candidate Starts for Galadriel_48:

(35, 41522), (Start: 42 @41561 has 67 MA's), (54, 41597), (61, 41690), (65, 41732), (66, 41738), (73, 41789), (81, 41822), (95, 41897), (100, 41918), (123, 42041), (129, 42074), (134, 42095), (145, 42170), (163, 42308), (189, 42422), (193, 42449), (204, 42509), (213, 42575), (216, 42590), (220, 42608),

Gene: Galaxy_37 Start: 25067, Stop: 26092, Start Num: 40

Candidate Starts for Galaxy_37:

(Start: 40 @25067 has 41 MA's), (Start: 46 @25082 has 6 MA's), (55, 25109), (64, 25226), (68, 25256), (86, 25352), (88, 25364), (95, 25406), (98, 25418), (101, 25430), (118, 25544), (136, 25631), (143, 25685), (149, 25712), (189, 25904),

Gene: Geodirt_47 Start: 42173, Stop: 43297, Start Num: 42

Candidate Starts for Geodirt_47:

(Start: 42 @42173 has 67 MA's), (54, 42212), (61, 42305), (65, 42347), (66, 42353), (73, 42404), (81, 42437), (95, 42512), (100, 42533), (123, 42656), (129, 42689), (134, 42710), (145, 42785), (163, 42923), (189, 43037), (193, 43064), (204, 43124), (213, 43190), (216, 43205), (220, 43223),

Gene: Gex_47 Start: 32458, Stop: 33468, Start Num: 49

Candidate Starts for Gex_47:

(Start: 49 @32458 has 43 MA's), (59, 32533), (61, 32572), (63, 32581), (65, 32608), (73, 32659), (74, 32662), (79, 32686), (111, 32812), (116, 32863), (119, 32887), (121, 32899), (127, 32929), (159, 33121), (163, 33130), (166, 33148), (176, 33190), (187, 33238), (190, 33250), (215, 33379),

Gene: Glotell_41 Start: 25159, Stop: 26172, Start Num: 40

Candidate Starts for Glotell_41:

(34, 25135), (Start: 40 @25159 has 41 MA's), (Start: 46 @25174 has 6 MA's), (72, 25363), (80, 25405), (81, 25411), (83, 25420), (95, 25492), (102, 25519), (114, 25600), (115, 25609), (118, 25630), (127,

25678), (158, 25849), (162, 25879), (168, 25906), (177, 25945), (189, 25993), (200, 26038),

Gene: Gravel_47 Start: 26164, Stop: 27192, Start Num: 40

Candidate Starts for Gravel_47:

(Start: 40 @26164 has 41 MA's), (Start: 46 @26179 has 6 MA's), (65, 26329), (77, 26401), (95, 26503), (118, 26641), (123, 26665), (127, 26689), (134, 26722), (143, 26785), (149, 26812), (158, 26860), (189, 27004),

Gene: GravityBall_34 Start: 28804, Stop: 29823, Start Num: 50

Candidate Starts for GravityBall_34:

(Start: 50 @28804 has 25 MA's), (62, 28921), (73, 29005), (76, 29017), (80, 29035), (87, 29071), (121, 29245), (123, 29251), (135, 29308), (141, 29347), (146, 29383), (150, 29395), (151, 29407), (204, 29650),

Gene: Grekaycon_34 Start: 28720, Stop: 29739, Start Num: 50

Candidate Starts for Grekaycon_34:

(Start: 50 @28720 has 25 MA's), (73, 28921), (76, 28933), (80, 28951), (86, 28981), (87, 28987), (121, 29161), (123, 29167), (135, 29224), (146, 29299), (151, 29323), (153, 29332), (167, 29410), (183, 29482), (185, 29488), (220, 29665),

Gene: Grumio_83 Start: 52315, Stop: 53328, Start Num: 46

Candidate Starts for Grumio_83:

(22, 52153), (30, 52222), (Start: 42 @52306 has 67 MA's), (Start: 46 @52315 has 6 MA's), (67, 52501), (73, 52540), (78, 52558), (95, 52651), (113, 52720), (123, 52801), (131, 52840), (141, 52900), (146, 52936), (148, 52942), (154, 52975), (165, 53041), (179, 53098), (220, 53305),

Gene: Gustavo_47 Start: 40605, Stop: 41738, Start Num: 42

Candidate Starts for Gustavo_47:

(31, 40536), (Start: 42 @40605 has 67 MA's), (61, 40743), (65, 40785), (66, 40791), (73, 40842), (81, 40875), (82, 40881), (83, 40884), (100, 40971), (129, 41127), (134, 41148), (145, 41223), (163, 41361), (189, 41475), (193, 41502), (204, 41562), (213, 41628), (216, 41643), (220, 41661),

Gene: HamCheese_40 Start: 24987, Stop: 26000, Start Num: 40

Candidate Starts for HamCheese_40:

(34, 24963), (Start: 40 @24987 has 41 MA's), (Start: 46 @25002 has 6 MA's), (72, 25191), (80, 25233), (81, 25239), (83, 25248), (95, 25320), (102, 25347), (114, 25428), (115, 25437), (118, 25458), (127, 25506), (158, 25677), (162, 25707), (168, 25734), (177, 25773), (189, 25821), (200, 25866),

Gene: Hanako_51 Start: 33348, Stop: 34358, Start Num: 49

Candidate Starts for Hanako_51:

(Start: 49 @33348 has 43 MA's), (61, 33462), (63, 33471), (65, 33498), (73, 33549), (74, 33552), (89, 33618), (94, 33645), (116, 33753), (118, 33771), (121, 33789), (166, 34038), (187, 34128), (190, 34140), (203, 34188), (215, 34269),

Gene: HannahPhantana_41 Start: 25059, Stop: 26081, Start Num: 40

Candidate Starts for HannahPhantana_41:

(Start: 40 @25059 has 41 MA's), (Start: 46 @25074 has 6 MA's), (55, 25101), (58, 25137), (65, 25224), (81, 25317), (95, 25398), (102, 25425), (112, 25470), (115, 25518), (118, 25539), (127, 25587), (143, 25683), (149, 25710), (189, 25902), (191, 25923), (200, 25947),

Gene: Hans_49 Start: 40497, Stop: 41648, Start Num: 39

Candidate Starts for Hans_49:

(Start: 39 @40497 has 9 MA's), (57, 40581), (61, 40638), (63, 40647), (65, 40680), (66, 40686), (73, 40734), (82, 40773), (88, 40803), (92, 40821), (93, 40824), (94, 40833), (121, 40983), (123, 40989), (129, 41022), (134, 41043), (144, 41106), (156, 41220), (161, 41262), (163, 41268), (192, 41406), (216, 41550), (224, 41616),

Gene: Impisi_52 Start: 33145, Stop: 34155, Start Num: 49

Candidate Starts for Impisi_52:

(Start: 49 @33145 has 43 MA's), (61, 33259), (63, 33268), (65, 33295), (73, 33346), (74, 33349), (89, 33415), (94, 33442), (116, 33550), (118, 33568), (121, 33586), (166, 33835), (187, 33925), (190, 33937), (203, 33985), (215, 34066),

Gene: Inspectinfecti_48 Start: 40943, Stop: 42094, Start Num: 39

Candidate Starts for Inspectinfecti_48:

(Start: 39 @40943 has 9 MA's), (57, 41027), (61, 41084), (63, 41093), (65, 41126), (66, 41132), (73, 41180), (82, 41219), (88, 41249), (92, 41267), (93, 41270), (94, 41279), (121, 41429), (123, 41435), (129, 41468), (134, 41489), (144, 41552), (156, 41666), (161, 41708), (163, 41714), (192, 41852), (216, 41996), (224, 42062),

Gene: Island3_48 Start: 33774, Stop: 34781, Start Num: 49

Candidate Starts for Island3_48:

(28, 33654), (Start: 49 @33774 has 43 MA's), (61, 33885), (63, 33894), (65, 33921), (73, 33972), (74, 33975), (86, 34032), (89, 34041), (111, 34125), (116, 34176), (119, 34200), (121, 34212), (163, 34443), (166, 34461), (172, 34482), (174, 34497), (187, 34551), (188, 34554), (190, 34563), (192, 34581), (203, 34611), (215, 34692),

Gene: JKSyngboy_45 Start: 41204, Stop: 42337, Start Num: 42

Candidate Starts for JKSyngboy_45:

(31, 41135), (Start: 42 @41204 has 67 MA's), (61, 41342), (65, 41384), (66, 41390), (73, 41441), (81, 41474), (82, 41480), (83, 41483), (100, 41570), (129, 41726), (134, 41747), (145, 41822), (163, 41960), (189, 42074), (193, 42101), (204, 42161), (213, 42227), (216, 42242), (220, 42260),

Gene: JKerns_34 Start: 28666, Stop: 29685, Start Num: 50

Candidate Starts for JKerns_34:

(Start: 50 @28666 has 25 MA's), (73, 28867), (76, 28879), (80, 28897), (86, 28927), (116, 29071), (121, 29107), (123, 29113), (135, 29170), (146, 29245), (151, 29269), (183, 29428), (185, 29434), (220, 29611), (222, 29632), (225, 29659),

Gene: Jabberwocky_47 Start: 42599, Stop: 43762, Start Num: 42

Candidate Starts for Jabberwocky_47:

(Start: 42 @42599 has 67 MA's), (54, 42638), (61, 42731), (65, 42773), (66, 42779), (73, 42830), (81, 42863), (95, 42938), (100, 42959), (116, 43040), (123, 43082), (129, 43115), (134, 43136), (145, 43211), (163, 43349), (189, 43463), (196, 43511), (198, 43526), (204, 43586), (213, 43652), (216, 43667), (220, 43685),

Gene: Jace_31 Start: 25322, Stop: 26353, Start Num: 41

Candidate Starts for Jace_31:

(Start: 41 @25322 has 1 MA's), (Start: 50 @25343 has 25 MA's), (68, 25523), (77, 25571), (95, 25664), (100, 25685), (121, 25793), (122, 25796), (126, 25820), (147, 25934), (152, 25955), (190, 26132), (192, 26150),

Gene: Jamie19_45 Start: 31639, Stop: 32649, Start Num: 49

Candidate Starts for Jamie19_45:

(Start: 49 @31639 has 43 MA's), (59, 31714), (61, 31753), (63, 31762), (65, 31789), (73, 31840), (74, 31843), (89, 31909), (94, 31936), (116, 32044), (118, 32062), (121, 32080), (166, 32329), (187, 32419), (190, 32431), (203, 32479), (215, 32560),

Gene: Jamun_37 Start: 25352, Stop: 26377, Start Num: 40

Candidate Starts for Jamun_37:

(34, 25319), (Start: 40 @25352 has 41 MA's), (Start: 46 @25367 has 6 MA's), (65, 25517), (68, 25541), (86, 25637), (88, 25649), (95, 25691), (98, 25703), (99, 25712), (136, 25916), (143, 25970), (189, 26189), (218, 26342),

Gene: Jawnski_32 Start: 28461, Stop: 29489, Start Num: 50

Candidate Starts for Jawnski_32:

(Start: 50 @28461 has 25 MA's), (62, 28578), (69, 28644), (73, 28662), (80, 28692), (86, 28722), (121, 28902), (135, 28965), (146, 29040), (150, 29052), (151, 29064), (185, 29229), (204, 29307),

Gene: Jerole_41 Start: 25183, Stop: 26205, Start Num: 40

Candidate Starts for Jerole_41:

(Start: 40 @25183 has 41 MA's), (Start: 46 @25198 has 6 MA's), (55, 25225), (58, 25261), (65, 25348), (81, 25441), (95, 25522), (102, 25549), (112, 25594), (115, 25642), (118, 25663), (127, 25711), (143, 25807), (149, 25834), (189, 26026), (191, 26047), (200, 26071),

Gene: Jollymon_82 Start: 52837, Stop: 53850, Start Num: 46

Candidate Starts for Jollymon_82:

(22, 52675), (30, 52744), (Start: 42 @52828 has 67 MA's), (Start: 46 @52837 has 6 MA's), (67, 53023), (73, 53062), (78, 53080), (95, 53173), (113, 53242), (123, 53323), (131, 53362), (141, 53422), (146, 53458), (148, 53464), (154, 53497), (165, 53563), (179, 53620), (220, 53827),

Gene: Jordan_34 Start: 28716, Stop: 29735, Start Num: 50

Candidate Starts for Jordan_34:

(Start: 50 @28716 has 25 MA's), (73, 28917), (76, 28929), (80, 28947), (86, 28977), (121, 29157), (123, 29163), (135, 29220), (146, 29295), (151, 29319), (167, 29406), (183, 29478), (185, 29484), (220, 29661),

Gene: JrWilcox_97 Start: 53551, Stop: 54615, Start Num: 52

Candidate Starts for JrWilcox_97:

(14, 53251), (Start: 52 @53551 has 1 MA's), (73, 53749), (87, 53824), (110, 53944), (121, 54049), (133, 54106), (153, 54220), (166, 54289), (171, 54307), (178, 54337), (189, 54385), (218, 54541), (223, 54580),

Gene: Juno112_39 Start: 25003, Stop: 26016, Start Num: 40

Candidate Starts for Juno112_39:

(34, 24979), (Start: 40 @25003 has 41 MA's), (Start: 46 @25018 has 6 MA's), (72, 25207), (80, 25249), (81, 25255), (83, 25264), (95, 25336), (102, 25363), (114, 25444), (115, 25453), (118, 25474), (127, 25522), (158, 25693), (162, 25723), (168, 25750), (177, 25789), (189, 25837), (200, 25882),

Gene: KHumphrey_40 Start: 25002, Stop: 26015, Start Num: 40

Candidate Starts for KHumphrey_40:

(34, 24978), (Start: 40 @25002 has 41 MA's), (Start: 46 @25017 has 6 MA's), (72, 25206), (80, 25248), (81, 25254), (83, 25263), (95, 25335), (102, 25362), (114, 25443), (115, 25452), (118, 25473), (127, 25521), (158, 25692), (162, 25722), (168, 25749), (177, 25788), (189, 25836), (200, 25881),

Gene: Kamashten_46 Start: 40534, Stop: 41661, Start Num: 42

Candidate Starts for Kamashten_46:

(Start: 42 @40534 has 67 MA's), (54, 40573), (61, 40666), (65, 40708), (66, 40714), (73, 40765), (81, 40798), (95, 40873), (100, 40894), (123, 41017), (129, 41050), (134, 41071), (145, 41146), (163, 41284), (189, 41398), (193, 41425), (204, 41485), (213, 41551), (216, 41566), (220, 41584),

Gene: Keitabear_48 Start: 42189, Stop: 43352, Start Num: 42

Candidate Starts for Keitabear_48:

(Start: 42 @42189 has 67 MA's), (54, 42228), (61, 42321), (65, 42363), (66, 42369), (73, 42420), (81, 42453), (95, 42528), (100, 42549), (123, 42672), (129, 42705), (134, 42726), (145, 42801), (163, 42939), (189, 43053), (196, 43101), (198, 43116), (204, 43176), (213, 43242), (216, 43257), (220, 43275),

Gene: KendraB23_48 Start: 26357, Stop: 27385, Start Num: 40

Candidate Starts for KendraB23_48:

(34, 26315), (Start: 40 @26357 has 41 MA's), (Start: 46 @26372 has 6 MA's), (65, 26522), (77, 26594), (95, 26696), (118, 26834), (123, 26858), (127, 26882), (134, 26915), (143, 26978), (149, 27005), (158, 27053), (189, 27197),

Gene: Kepler_42 Start: 25807, Stop: 26829, Start Num: 40

Candidate Starts for Kepler_42:

(Start: 40 @25807 has 41 MA's), (Start: 46 @25822 has 6 MA's), (55, 25849), (58, 25885), (65, 25972), (81, 26065), (95, 26146), (102, 26173), (112, 26218), (115, 26266), (118, 26287), (127, 26335), (143, 26431), (149, 26458), (168, 26563), (189, 26650), (191, 26671), (200, 26695),

Gene: Kevin1_49 Start: 32486, Stop: 33493, Start Num: 49

Candidate Starts for Kevin1_49:

(Start: 49 @32486 has 43 MA's), (61, 32597), (63, 32606), (65, 32633), (73, 32684), (74, 32687), (86, 32744), (89, 32753), (111, 32837), (116, 32888), (119, 32912), (121, 32924), (163, 33155), (166, 33173), (172, 33194), (174, 33209), (187, 33263), (188, 33266), (190, 33275), (192, 33293), (203, 33323), (215, 33404),

Gene: Kewpiedoll_48 Start: 41475, Stop: 42602, Start Num: 42

Candidate Starts for Kewpiedoll_48:

(Start: 42 @41475 has 67 MA's), (54, 41514), (61, 41607), (66, 41655), (73, 41706), (81, 41739), (95, 41814), (100, 41835), (123, 41958), (129, 41991), (134, 42012), (145, 42087), (163, 42225), (189, 42339), (193, 42366), (204, 42426), (213, 42492), (216, 42507), (220, 42525),

Gene: King2_32 Start: 28450, Stop: 29478, Start Num: 50

Candidate Starts for King2_32:

(Start: 50 @28450 has 25 MA's), (69, 28633), (73, 28651), (80, 28681), (84, 28696), (119, 28879), (121, 28891), (150, 29041), (151, 29053), (185, 29218), (194, 29260), (204, 29296),

Gene: KingstonB_84 Start: 52239, Stop: 53261, Start Num: 42

Candidate Starts for KingstonB_84:

(22, 52086), (Start: 42 @52239 has 67 MA's), (Start: 46 @52248 has 6 MA's), (67, 52434), (73, 52473), (78, 52491), (95, 52584), (113, 52653), (123, 52734), (131, 52773), (141, 52833), (146, 52869), (148, 52875), (154, 52908), (165, 52974), (179, 53031), (220, 53238),

Gene: Klevey_37 Start: 28353, Stop: 29405, Start Num: 43

Candidate Starts for Klevey_37:

(Start: 43 @28353 has 7 MA's), (73, 28563), (78, 28581), (95, 28671), (140, 28908), (141, 28911),

Gene: Kroos_48 Start: 41345, Stop: 42472, Start Num: 42

Candidate Starts for Kroos_48:

(31, 41276), (Start: 42 @41345 has 67 MA's), (54, 41384), (61, 41477), (65, 41519), (66, 41525), (73, 41576), (82, 41615), (100, 41705), (129, 41861), (134, 41882), (139, 41915), (145, 41957), (163, 42095), (189, 42209), (193, 42236), (204, 42296), (213, 42362), (220, 42395),

Gene: Kuleana_42 Start: 25383, Stop: 26405, Start Num: 40

Candidate Starts for Kuleana_42:

(Start: 40 @25383 has 41 MA's), (Start: 46 @25398 has 6 MA's), (55, 25425), (80, 25635), (81, 25641), (83, 25650), (95, 25722), (102, 25749), (108, 25776), (112, 25794), (118, 25863), (123, 25887), (127, 25911), (143, 26007), (149, 26034), (156, 26073), (189, 26226), (191, 26247), (200, 26271),

Gene: Kwekel_45 Start: 37890, Stop: 39044, Start Num: 42

Candidate Starts for Kwekel_45:

(Start: 42 @37890 has 67 MA's), (61, 38019), (65, 38061), (66, 38067), (73, 38118), (100, 38247), (104, 38253), (116, 38331), (123, 38373), (129, 38406), (134, 38427), (161, 38646), (172, 38691), (177, 38715), (181, 38739), (192, 38790), (204, 38859), (206, 38871), (210, 38910), (211, 38919), (213, 38925), (216, 38940), (218, 38949), (224, 39006),

Gene: Kwobi_49 Start: 41331, Stop: 42458, Start Num: 42

Candidate Starts for Kwobi_49:

(31, 41262), (Start: 42 @41331 has 67 MA's), (54, 41370), (61, 41463), (65, 41505), (66, 41511), (73, 41562), (82, 41601), (100, 41691), (129, 41847), (134, 41868), (139, 41901), (145, 41943), (163, 42081), (189, 42195), (199, 42261), (202, 42270), (204, 42282), (213, 42348), (216, 42363), (220, 42381),

Gene: Laphuphu24k_39 Start: 24987, Stop: 26000, Start Num: 40

Candidate Starts for Laphuphu24k_39:

(34, 24963), (Start: 40 @24987 has 41 MA's), (Start: 46 @25002 has 6 MA's), (72, 25191), (80, 25233), (81, 25239), (83, 25248), (95, 25320), (102, 25347), (114, 25428), (115, 25437), (118, 25458), (127, 25506), (158, 25677), (162, 25707), (168, 25734), (177, 25773), (189, 25821), (200, 25866),

Gene: LeeroyJ_34 Start: 28804, Stop: 29823, Start Num: 50

Candidate Starts for LeeroyJ_34:

(Start: 50 @28804 has 25 MA's), (62, 28921), (73, 29005), (76, 29017), (80, 29035), (87, 29071), (121, 29245), (123, 29251), (135, 29308), (141, 29347), (146, 29383), (150, 29395), (151, 29407), (204, 29650), (222, 29770),

Gene: Lennon_48 Start: 42278, Stop: 43441, Start Num: 42

Candidate Starts for Lennon_48:

(Start: 42 @42278 has 67 MA's), (54, 42317), (61, 42410), (65, 42452), (66, 42458), (73, 42509), (81, 42542), (95, 42617), (100, 42638), (123, 42761), (129, 42794), (134, 42815), (145, 42890), (163, 43028), (189, 43142), (196, 43190), (198, 43205), (204, 43265), (213, 43331), (216, 43346), (220, 43364),

Gene: Leona_39 Start: 25074, Stop: 26087, Start Num: 40

Candidate Starts for Leona_39:

(34, 25050), (Start: 40 @25074 has 41 MA's), (Start: 46 @25089 has 6 MA's), (53, 25107), (68, 25257), (72, 25278), (80, 25320), (95, 25407), (102, 25434), (114, 25515), (115, 25524), (118, 25545), (127, 25593), (158, 25764), (162, 25794), (168, 25821), (177, 25860), (189, 25908), (200, 25953),

Gene: Leonard_47 Start: 40587, Stop: 41741, Start Num: 39

Candidate Starts for Leonard_47:

(Start: 39 @40587 has 9 MA's), (44, 40602), (57, 40671), (61, 40728), (63, 40737), (65, 40770), (66, 40776), (73, 40824), (82, 40863), (88, 40893), (92, 40911), (93, 40914), (94, 40923), (114, 41031),

(121, 41076), (123, 41082), (129, 41115), (134, 41136), (144, 41199), (156, 41313), (161, 41355), (163, 41361), (192, 41499), (216, 41643), (224, 41709),

Gene: LilHam_45 Start: 39953, Stop: 41077, Start Num: 42

Candidate Starts for LilHam_45:

(31, 39884), (Start: 42 @39953 has 67 MA's), (54, 39989), (61, 40082), (65, 40124), (66, 40130), (73, 40181), (82, 40220), (100, 40310), (129, 40466), (134, 40487), (139, 40520), (145, 40562), (163, 40700), (189, 40814), (193, 40841), (204, 40901), (213, 40967), (220, 41000),

Gene: Lilbeanie_51 Start: 37513, Stop: 38625, Start Num: 36

Candidate Starts for Lilbeanie_51:

(Start: 36 @37513 has 2 MA's), (Start: 46 @37537 has 6 MA's), (63, 37675), (68, 37723), (73, 37753), (78, 37771), (91, 37837), (92, 37840), (95, 37864), (118, 37981), (123, 38005), (127, 38029), (146, 38137), (156, 38179), (203, 38395), (213, 38467), (219, 38497), (224, 38548),

Gene: Lilmac1015_39 Start: 28926, Stop: 29978, Start Num: 43

Candidate Starts for Lilmac1015_39:

(Start: 43 @28926 has 7 MA's), (73, 29136), (78, 29154), (95, 29244), (140, 29481), (141, 29484),

Gene: LittleTokyo_40 Start: 24933, Stop: 25961, Start Num: 40

Candidate Starts for LittleTokyo_40:

(Start: 40 @24933 has 41 MA's), (Start: 46 @24948 has 6 MA's), (68, 25128), (72, 25149), (81, 25197), (95, 25278), (98, 25290), (102, 25305), (124, 25452), (125, 25461), (127, 25467), (137, 25515), (152, 25608), (189, 25782), (191, 25803), (200, 25827), (207, 25857),

Gene: Love_52 Start: 42726, Stop: 43853, Start Num: 42

Candidate Starts for Love_52:

(Start: 42 @42726 has 67 MA's), (54, 42765), (61, 42858), (65, 42900), (66, 42906), (73, 42957), (81, 42990), (95, 43065), (100, 43086), (123, 43209), (129, 43242), (134, 43263), (145, 43338), (163, 43476), (189, 43590), (193, 43617), (204, 43677), (213, 43743), (216, 43758), (220, 43776),

Gene: Lukepolites_36 Start: 28340, Stop: 29587, Start Num: 45

Candidate Starts for Lukepolites_36:

(45, 28340), (56, 28394), (95, 28667), (117, 28769), (123, 28805), (128, 28832), (134, 28862), (146, 28937), (169, 29060), (218, 29315), (226, 29510),

Gene: Lunar_42 Start: 25723, Stop: 26745, Start Num: 40

Candidate Starts for Lunar_42:

(Start: 40 @25723 has 41 MA's), (Start: 46 @25738 has 6 MA's), (55, 25765), (58, 25801), (65, 25888), (81, 25981), (95, 26062), (102, 26089), (112, 26134), (115, 26182), (118, 26203), (127, 26251), (143, 26347), (149, 26374), (189, 26566), (191, 26587), (200, 26611),

Gene: Magsby_47 Start: 32459, Stop: 33469, Start Num: 49

Candidate Starts for Magsby_47:

(Start: 49 @32459 has 43 MA's), (59, 32534), (61, 32573), (63, 32582), (65, 32609), (73, 32660), (74, 32663), (79, 32687), (111, 32813), (116, 32864), (119, 32888), (121, 32900), (127, 32930), (159, 33122), (163, 33131), (166, 33149), (176, 33191), (187, 33239), (190, 33251), (215, 33380),

Gene: Makar_85 Start: 52565, Stop: 53590, Start Num: 42

Candidate Starts for Makar_85:

(8, 52163), (18, 52355), (22, 52412), (30, 52481), (Start: 42 @52565 has 67 MA's), (Start: 46 @52574 has 6 MA's), (67, 52763), (73, 52802), (78, 52820), (95, 52913), (122, 53060), (141, 53162), (146, 53198), (160, 53282), (179, 53360), (180, 53369), (190, 53411), (220, 53567),

Gene: Martha_34 Start: 28721, Stop: 29740, Start Num: 50

Candidate Starts for Martha_34:

(Start: 50 @28721 has 25 MA's), (73, 28922), (76, 28934), (80, 28952), (86, 28982), (87, 28988), (121, 29162), (123, 29168), (135, 29225), (146, 29300), (151, 29324), (153, 29333), (167, 29411), (183, 29483), (185, 29489), (220, 29666),

Gene: Mask_63 Start: 49866, Stop: 50870, Start Num: 49

Candidate Starts for Mask_63:

(Start: 49 @49866 has 43 MA's), (63, 49989), (65, 50016), (73, 50067), (74, 50070), (79, 50094), (111, 50220), (116, 50271), (119, 50295), (121, 50307), (123, 50313), (127, 50337), (130, 50349), (159, 50529), (163, 50538), (169, 50559), (172, 50571), (186, 50634), (188, 50643), (203, 50700), (212, 50766), (215, 50781),

Gene: McCrothy_48 Start: 41885, Stop: 43006, Start Num: 42

Candidate Starts for McCrothy_48:

(35, 41846), (Start: 42 @41885 has 67 MA's), (54, 41921), (61, 42014), (65, 42056), (66, 42062), (73, 42113), (81, 42146), (95, 42221), (100, 42242), (123, 42365), (129, 42398), (134, 42419), (145, 42494), (163, 42632), (189, 42746), (193, 42773), (204, 42833), (213, 42899), (216, 42914), (220, 42932),

Gene: McKinley_50 Start: 42099, Stop: 43259, Start Num: 42

Candidate Starts for McKinley_50:

(Start: 42 @42099 has 67 MA's), (54, 42138), (61, 42231), (65, 42273), (66, 42279), (73, 42330), (81, 42363), (95, 42438), (100, 42459), (123, 42582), (129, 42615), (134, 42636), (145, 42711), (163, 42849), (189, 42963), (198, 43026), (204, 43086), (213, 43152), (216, 43167), (220, 43185),

Gene: MelBins_48 Start: 40737, Stop: 41921, Start Num: 39

Candidate Starts for MelBins_48:

(Start: 39 @40737 has 9 MA's), (57, 40821), (63, 40887), (65, 40920), (66, 40926), (73, 40974), (82, 41013), (88, 41043), (92, 41061), (93, 41064), (94, 41073), (121, 41223), (123, 41229), (129, 41262), (134, 41283), (144, 41346), (156, 41460), (161, 41502), (192, 41646), (196, 41667), (198, 41682), (216, 41823), (224, 41889),

Gene: Melons_42 Start: 25537, Stop: 26559, Start Num: 40

Candidate Starts for Melons_42:

(Start: 40 @25537 has 41 MA's), (Start: 46 @25552 has 6 MA's), (55, 25579), (58, 25615), (65, 25702), (81, 25795), (95, 25876), (102, 25903), (112, 25948), (115, 25996), (118, 26017), (127, 26065), (143, 26161), (149, 26188), (189, 26380), (191, 26401), (200, 26425),

Gene: Melville_50 Start: 32443, Stop: 33453, Start Num: 49

Candidate Starts for Melville_50:

(Start: 49 @32443 has 43 MA's), (59, 32518), (61, 32557), (63, 32566), (65, 32593), (73, 32644), (74, 32647), (79, 32671), (111, 32797), (116, 32848), (119, 32872), (121, 32884), (127, 32914), (159, 33106), (163, 33115), (166, 33133), (176, 33175), (187, 33223), (190, 33235), (215, 33364),

Gene: MoontowerMania_48 Start: 41934, Stop: 43061, Start Num: 42

Candidate Starts for MoontowerMania_48:

(Start: 42 @41934 has 67 MA's), (54, 41973), (61, 42066), (65, 42108), (66, 42114), (73, 42165), (81, 42198), (95, 42273), (100, 42294), (123, 42417), (129, 42450), (134, 42471), (145, 42546), (163, 42684), (189, 42798), (193, 42825), (204, 42885), (213, 42951), (216, 42966), (220, 42984),

Gene: Nandito_37 Start: 28626, Stop: 29672, Start Num: 43

Candidate Starts for Nandito_37:

(Start: 43 @28626 has 7 MA's), (73, 28836), (78, 28854), (95, 28944), (163, 29313),

Gene: NathanVaag_32 Start: 28464, Stop: 29492, Start Num: 50

Candidate Starts for NathanVaag_32:

(Start: 50 @28464 has 25 MA's), (62, 28581), (69, 28647), (73, 28665), (80, 28695), (86, 28725), (121, 28905), (135, 28968), (151, 29067), (185, 29232), (204, 29310),

Gene: Natkenzie_50 Start: 42409, Stop: 43563, Start Num: 42

Candidate Starts for Natkenzie_50:

(Start: 42 @42409 has 67 MA's), (54, 42448), (61, 42541), (63, 42550), (65, 42583), (66, 42589), (71, 42625), (73, 42640), (81, 42673), (82, 42679), (100, 42772), (129, 42928), (132, 42943), (144, 43012), (145, 43024), (146, 43042), (172, 43213), (189, 43288), (202, 43372), (211, 43444), (213, 43450), (224, 43531),

Gene: Nenae_51 Start: 33350, Stop: 34360, Start Num: 49

Candidate Starts for Nenae_51:

(Start: 49 @33350 has 43 MA's), (61, 33464), (63, 33473), (65, 33500), (73, 33551), (74, 33554), (89, 33620), (94, 33647), (116, 33755), (118, 33773), (121, 33791), (166, 34040), (187, 34130), (190, 34142), (203, 34190), (215, 34271),

Gene: Niblet_41 Start: 25739, Stop: 26767, Start Num: 40

Candidate Starts for Niblet_41:

(34, 25706), (Start: 40 @25739 has 41 MA's), (Start: 46 @25754 has 6 MA's), (65, 25904), (77, 25976), (80, 25991), (81, 25997), (92, 26054), (95, 26078), (99, 26099), (118, 26216), (124, 26249), (134, 26297), (143, 26360), (149, 26387), (158, 26435), (189, 26579),

Gene: Nordenberg_43 Start: 40917, Stop: 42038, Start Num: 42

Candidate Starts for Nordenberg_43:

(35, 40878), (Start: 42 @40917 has 67 MA's), (54, 40953), (61, 41046), (65, 41088), (66, 41094), (73, 41145), (81, 41178), (95, 41253), (100, 41274), (123, 41397), (129, 41430), (134, 41451), (145, 41526), (163, 41664), (189, 41778), (193, 41805), (204, 41865), (213, 41931), (216, 41946), (220, 41964),

Gene: Nostromo_33 Start: 27783, Stop: 28817, Start Num: 50

Candidate Starts for Nostromo_33:

(20, 27585), (Start: 50 @27783 has 25 MA's), (62, 27900), (65, 27933), (70, 27966), (73, 27984), (80, 28014), (85, 28038), (95, 28092), (121, 28224), (146, 28362), (151, 28386), (153, 28395), (184, 28545), (213, 28689), (216, 28704), (225, 28770),

Gene: Oppalora_39 Start: 25001, Stop: 26014, Start Num: 40

Candidate Starts for Oppalora_39:

(34, 24977), (Start: 40 @25001 has 41 MA's), (Start: 46 @25016 has 6 MA's), (72, 25205), (80, 25247), (81, 25253), (83, 25262), (95, 25334), (102, 25361), (114, 25442), (115, 25451), (118, 25472), (127, 25520), (158, 25691), (162, 25721), (168, 25748), (177, 25787), (189, 25835), (200, 25880),

Gene: Orcanus_38 Start: 25714, Stop: 26742, Start Num: 40

Candidate Starts for Orcanus_38:

(Start: 40 @25714 has 41 MA's), (Start: 46 @25729 has 6 MA's), (65, 25879), (77, 25951), (95, 26053), (99, 26074), (118, 26191), (123, 26215), (127, 26239), (134, 26272), (143, 26335), (149, 26362), (158, 26410), (189, 26554),

Gene: OtsoOtso_41 Start: 24913, Stop: 25935, Start Num: 40

Candidate Starts for OtsoOtso_41:

(Start: 40 @24913 has 41 MA's), (Start: 46 @24928 has 6 MA's), (55, 24955), (58, 24991), (65, 25078), (81, 25171), (95, 25252), (102, 25279), (112, 25324), (115, 25372), (118, 25393), (127, 25441), (143, 25537), (149, 25564), (189, 25756), (191, 25777), (200, 25801),

Gene: Panchino_44 Start: 32985, Stop: 33995, Start Num: 49

Candidate Starts for Panchino_44:

(Start: 49 @32985 has 43 MA's), (59, 33060), (61, 33099), (63, 33108), (65, 33135), (73, 33186), (74, 33189), (89, 33255), (94, 33282), (116, 33390), (118, 33408), (121, 33426), (166, 33675), (187, 33765), (190, 33777), (203, 33825), (215, 33906),

Gene: Paries_51 Start: 42388, Stop: 43509, Start Num: 42

Candidate Starts for Paries_51:

(35, 42349), (Start: 42 @42388 has 67 MA's), (54, 42424), (61, 42517), (65, 42559), (66, 42565), (73, 42616), (81, 42649), (95, 42724), (100, 42745), (123, 42868), (129, 42901), (134, 42922), (145, 42997), (163, 43135), (189, 43249), (193, 43276), (204, 43336), (213, 43402), (216, 43417), (220, 43435),

Gene: Parmesanjohn_47 Start: 32462, Stop: 33472, Start Num: 49

Candidate Starts for Parmesanjohn_47:

(Start: 49 @32462 has 43 MA's), (59, 32537), (61, 32576), (63, 32585), (65, 32612), (73, 32663), (74, 32666), (79, 32690), (111, 32816), (116, 32867), (119, 32891), (121, 32903), (127, 32933), (159, 33125), (163, 33134), (166, 33152), (176, 33194), (187, 33242), (190, 33254), (215, 33383),

Gene: Pelletreau_47 Start: 26164, Stop: 27192, Start Num: 40

Candidate Starts for Pelletreau_47:

(Start: 40 @26164 has 41 MA's), (Start: 46 @26179 has 6 MA's), (65, 26329), (77, 26401), (95, 26503), (118, 26641), (123, 26665), (127, 26689), (134, 26722), (143, 26785), (149, 26812), (158, 26860), (189, 27004),

Gene: PhancyPhin_51 Start: 33344, Stop: 34354, Start Num: 49

Candidate Starts for PhancyPhin_51:

(Start: 49 @33344 has 43 MA's), (61, 33458), (63, 33467), (65, 33494), (73, 33545), (74, 33548), (89, 33614), (94, 33641), (116, 33749), (118, 33767), (121, 33785), (166, 34034), (187, 34124), (190, 34136), (203, 34184), (215, 34265),

Gene: Phauci_40 Start: 37439, Stop: 38590, Start Num: 39

Candidate Starts for Phauci_40:

(Start: 39 @37439 has 9 MA's), (57, 37523), (63, 37589), (65, 37622), (66, 37628), (73, 37676), (82, 37715), (88, 37745), (90, 37754), (92, 37763), (93, 37766), (94, 37775), (121, 37925), (123, 37931), (129, 37964), (134, 37985), (144, 38048), (156, 38162), (161, 38204), (216, 38492), (224, 38558),

Gene: Phinally_47 Start: 40584, Stop: 41738, Start Num: 39

Candidate Starts for Phinally_47:

(Start: 39 @40584 has 9 MA's), (44, 40599), (57, 40668), (61, 40725), (63, 40734), (65, 40767), (66, 40773), (73, 40821), (82, 40860), (88, 40890), (92, 40908), (93, 40911), (94, 40920), (114, 41028), (121, 41073), (123, 41079), (129, 41112), (134, 41133), (144, 41196), (156, 41310), (161, 41352), (163, 41358), (192, 41496), (216, 41640), (224, 41706),

Gene: PhirstandPhine_49 Start: 25683, Stop: 26705, Start Num: 40

Candidate Starts for PhirstandPhine_49:

(Start: 40 @25683 has 41 MA's), (Start: 46 @25698 has 6 MA's), (55, 25725), (58, 25761), (65, 25848), (81, 25941), (95, 26022), (102, 26049), (112, 26094), (115, 26142), (118, 26163), (127, 26211), (143,

26307), (149, 26334), (189, 26526), (191, 26547), (200, 26571),

Gene: Phloss_45 Start: 31869, Stop: 32879, Start Num: 49

Candidate Starts for Phloss_45:

(Start: 49 @31869 has 43 MA's), (59, 31944), (61, 31983), (63, 31992), (65, 32019), (73, 32070), (74, 32073), (79, 32097), (111, 32223), (116, 32274), (119, 32298), (121, 32310), (127, 32340), (159, 32532), (163, 32541), (166, 32559), (176, 32601), (187, 32649), (190, 32661), (215, 32790),

Gene: PhluffyCoco_40 Start: 24999, Stop: 26012, Start Num: 40

Candidate Starts for PhluffyCoco_40:

(34, 24975), (Start: 40 @24999 has 41 MA's), (Start: 46 @25014 has 6 MA's), (72, 25203), (80, 25245), (81, 25251), (83, 25260), (95, 25332), (102, 25359), (114, 25440), (115, 25449), (118, 25470), (127, 25518), (158, 25689), (162, 25719), (168, 25746), (177, 25785), (189, 25833), (200, 25878),

Gene: Phrann_48 Start: 33627, Stop: 34637, Start Num: 49

Candidate Starts for Phrann_48:

(Start: 49 @33627 has 43 MA's), (61, 33741), (63, 33750), (65, 33777), (73, 33828), (74, 33831), (89, 33897), (94, 33924), (116, 34032), (118, 34050), (121, 34068), (166, 34317), (187, 34407), (190, 34419), (203, 34467), (215, 34548),

Gene: Piccoletto_32 Start: 28465, Stop: 29493, Start Num: 50

Candidate Starts for Piccoletto_32:

(Start: 50 @28465 has 25 MA's), (62, 28582), (69, 28648), (73, 28666), (80, 28696), (86, 28726), (121, 28906), (135, 28969), (151, 29068), (185, 29233), (204, 29311),

Gene: Pineda_43 Start: 25209, Stop: 26231, Start Num: 40

Candidate Starts for Pineda_43:

(Start: 40 @25209 has 41 MA's), (Start: 46 @25224 has 6 MA's), (55, 25251), (58, 25287), (65, 25374), (81, 25467), (95, 25548), (102, 25575), (112, 25620), (115, 25668), (118, 25689), (127, 25737), (143, 25833), (149, 25860), (189, 26052), (191, 26073), (200, 26097),

Gene: Pippa_34 Start: 28845, Stop: 29864, Start Num: 50

Candidate Starts for Pippa_34:

(Start: 50 @28845 has 25 MA's), (73, 29046), (76, 29058), (80, 29076), (87, 29112), (116, 29250), (121, 29286), (135, 29349), (146, 29424), (151, 29448), (153, 29457), (220, 29790), (222, 29811), (225, 29838),

Gene: Pipsqueaks_47 Start: 32439, Stop: 33449, Start Num: 49

Candidate Starts for Pipsqueaks_47:

(Start: 49 @32439 has 43 MA's), (59, 32514), (61, 32553), (63, 32562), (65, 32589), (73, 32640), (74, 32643), (79, 32667), (111, 32793), (116, 32844), (119, 32868), (121, 32880), (127, 32910), (159, 33102), (163, 33111), (166, 33129), (176, 33171), (187, 33219), (190, 33231), (215, 33360),

Gene: Polka_40 Start: 24913, Stop: 25935, Start Num: 40

Candidate Starts for Polka_40:

(Start: 40 @24913 has 41 MA's), (Start: 46 @24928 has 6 MA's), (55, 24955), (58, 24991), (65, 25078), (81, 25171), (95, 25252), (102, 25279), (112, 25324), (115, 25372), (118, 25393), (127, 25441), (143, 25537), (149, 25564), (189, 25756), (191, 25777), (200, 25801),

Gene: Prairie_36 Start: 28272, Stop: 29321, Start Num: 43

Candidate Starts for Prairie_36:

(Start: 43 @28272 has 7 MA's), (73, 28482), (78, 28500), (95, 28590), (140, 28827), (141, 28830),

Gene: Pumpkiney_51 Start: 39724, Stop: 40899, Start Num: 42

Candidate Starts for Pumpkiney_51:

(Start: 42 @39724 has 67 MA's), (Start: 47 @39736 has 2 MA's), (54, 39763), (61, 39856), (63, 39865), (65, 39898), (66, 39904), (71, 39940), (73, 39955), (81, 39988), (82, 39994), (100, 40087), (103, 40096), (123, 40231), (129, 40264), (132, 40279), (134, 40285), (144, 40348), (146, 40378), (172, 40549), (189, 40624), (202, 40708), (211, 40780), (213, 40786), (216, 40801), (224, 40867),

Gene: Purgamenstris_51 Start: 33348, Stop: 34358, Start Num: 49

Candidate Starts for Purgamenstris_51:

(Start: 49 @33348 has 43 MA's), (61, 33462), (63, 33471), (65, 33498), (73, 33549), (74, 33552), (89, 33618), (94, 33645), (116, 33753), (118, 33771), (121, 33789), (166, 34038), (187, 34128), (190, 34140), (203, 34188), (215, 34269),

Gene: Purplicious_82 Start: 52080, Stop: 53093, Start Num: 46

Candidate Starts for Purplicious_82:

(22, 51918), (30, 51987), (Start: 42 @52071 has 67 MA's), (Start: 46 @52080 has 6 MA's), (67, 52266), (73, 52305), (78, 52323), (95, 52416), (113, 52485), (123, 52566), (131, 52605), (141, 52665), (146, 52701), (148, 52707), (154, 52740), (165, 52806), (179, 52863), (220, 53070),

Gene: Rattail_40 Start: 25085, Stop: 26098, Start Num: 40

Candidate Starts for Rattail_40:

(34, 25061), (Start: 40 @25085 has 41 MA's), (Start: 46 @25100 has 6 MA's), (72, 25289), (80, 25331), (81, 25337), (83, 25346), (95, 25418), (102, 25445), (114, 25526), (115, 25535), (118, 25556), (127, 25604), (158, 25775), (162, 25805), (168, 25832), (177, 25871), (189, 25919), (200, 25964),

Gene: Raymond7_45 Start: 33136, Stop: 34146, Start Num: 49

Candidate Starts for Raymond7_45:

(Start: 49 @33136 has 43 MA's), (61, 33250), (63, 33259), (65, 33286), (73, 33337), (74, 33340), (89, 33406), (94, 33433), (116, 33541), (118, 33559), (121, 33577), (166, 33826), (187, 33916), (190, 33928), (203, 33976), (215, 34057),

Gene: Rebel_43 Start: 29478, Stop: 30488, Start Num: 49

Candidate Starts for Rebel_43:

(Start: 49 @29478 has 43 MA's), (61, 29592), (63, 29601), (65, 29628), (73, 29679), (74, 29682), (89, 29748), (94, 29775), (116, 29883), (118, 29901), (121, 29919), (166, 30168), (187, 30258), (190, 30270), (203, 30318), (215, 30399),

Gene: RedFox_40 Start: 24998, Stop: 26011, Start Num: 40

Candidate Starts for RedFox_40:

(34, 24974), (Start: 40 @24998 has 41 MA's), (Start: 46 @25013 has 6 MA's), (72, 25202), (80, 25244), (81, 25250), (83, 25259), (95, 25331), (102, 25358), (114, 25439), (115, 25448), (118, 25469), (127, 25517), (158, 25688), (162, 25718), (168, 25745), (177, 25784), (189, 25832), (200, 25877),

Gene: Redi_51 Start: 33347, Stop: 34357, Start Num: 49

Candidate Starts for Redi_51:

(Start: 49 @33347 has 43 MA's), (61, 33461), (63, 33470), (65, 33497), (73, 33548), (74, 33551), (89, 33617), (94, 33644), (116, 33752), (118, 33770), (121, 33788), (166, 34037), (187, 34127), (190, 34139), (203, 34187), (215, 34268),

Gene: Renna12_39 Start: 25056, Stop: 26069, Start Num: 40

Candidate Starts for Renna12_39:

(33, 25014), (Start: 40 @25056 has 41 MA's), (Start: 46 @25071 has 6 MA's), (67, 25230), (72, 25260), (80, 25302), (81, 25308), (83, 25317), (95, 25389), (102, 25416), (114, 25497), (115, 25506), (118,

25527), (158, 25746), (162, 25776), (168, 25803), (189, 25890), (200, 25935), (217, 26037), (219, 26046),

Gene: Ribeye_48 Start: 41766, Stop: 42890, Start Num: 42

Candidate Starts for Ribeye_48:

(31, 41697), (Start: 42 @41766 has 67 MA's), (54, 41802), (61, 41895), (65, 41937), (66, 41943), (73, 41994), (82, 42033), (100, 42123), (129, 42279), (134, 42300), (139, 42333), (145, 42375), (163, 42513), (189, 42627), (193, 42654), (204, 42714), (213, 42780), (220, 42813),

Gene: RiverRaider_49 Start: 40177, Stop: 41307, Start Num: 42

Candidate Starts for RiverRaider_49:

(Start: 42 @40177 has 67 MA's), (61, 40315), (63, 40324), (65, 40357), (66, 40363), (73, 40414), (81, 40447), (82, 40453), (90, 40489), (100, 40543), (123, 40666), (129, 40699), (134, 40720), (145, 40795), (163, 40933), (174, 40987), (189, 41047), (202, 41122), (205, 41137), (211, 41194), (213, 41200), (220, 41233),

Gene: RoadKill_43 Start: 37465, Stop: 38649, Start Num: 42

Candidate Starts for RoadKill_43:

(21, 37324), (Start: 42 @37465 has 67 MA's), (61, 37594), (65, 37636), (66, 37642), (73, 37693), (100, 37822), (123, 37948), (129, 37981), (134, 38002), (161, 38221), (172, 38266), (177, 38290), (181, 38314), (192, 38365), (197, 38392), (204, 38464), (206, 38476), (210, 38515), (211, 38524), (213, 38530), (216, 38545), (218, 38554), (224, 38611),

Gene: Rofo_48 Start: 41463, Stop: 42809, Start Num: 15

Candidate Starts for Rofo_48:

(4, 40968), (11, 41394), (Start: 15 @41463 has 1 MA's), (19, 41526), (23, 41565), (25, 41592), (54, 41721), (61, 41814), (65, 41856), (66, 41862), (73, 41913), (81, 41946), (95, 42021), (100, 42042), (123, 42165), (129, 42198), (134, 42219), (145, 42294), (163, 42432), (189, 42546), (193, 42573), (204, 42633), (213, 42699), (216, 42714), (220, 42732),

Gene: Rubeelu_50 Start: 33050, Stop: 34057, Start Num: 49

Candidate Starts for Rubeelu_50:

(16, 32807), (17, 32819), (24, 32885), (28, 32930), (Start: 49 @33050 has 43 MA's), (61, 33161), (63, 33170), (65, 33197), (73, 33248), (74, 33251), (86, 33308), (89, 33317), (111, 33401), (116, 33452), (119, 33476), (121, 33488), (163, 33719), (166, 33737), (172, 33758), (174, 33773), (187, 33827), (188, 33830), (190, 33839), (192, 33857), (203, 33887), (215, 33968),

Gene: Ruchi_37 Start: 25758, Stop: 26786, Start Num: 40

Candidate Starts for Ruchi_37:

(34, 25725), (Start: 40 @25758 has 41 MA's), (Start: 46 @25773 has 6 MA's), (65, 25923), (77, 25995), (81, 26016), (95, 26097), (101, 26121), (123, 26259), (127, 26283), (134, 26316), (143, 26379), (157, 26451), (189, 26598),

Gene: Sampson_50 Start: 42354, Stop: 43508, Start Num: 42

Candidate Starts for Sampson_50:

(Start: 42 @42354 has 67 MA's), (54, 42393), (61, 42486), (63, 42495), (65, 42528), (66, 42534), (71, 42570), (73, 42585), (81, 42618), (82, 42624), (100, 42717), (129, 42873), (132, 42888), (144, 42957), (145, 42969), (146, 42987), (172, 43158), (189, 43233), (202, 43317), (211, 43389), (213, 43395), (224, 43476),

Gene: Sanjuju_47 Start: 42328, Stop: 43452, Start Num: 42

Candidate Starts for Sanjuju_47:

(Start: 42 @42328 has 67 MA's), (54, 42364), (61, 42457), (65, 42499), (66, 42505), (73, 42556), (81, 42589), (95, 42664), (100, 42685), (116, 42766), (123, 42808), (129, 42841), (134, 42862), (145, 42937), (163, 43075), (189, 43189), (204, 43276), (213, 43342), (216, 43357), (220, 43375),

Gene: Saronaya_47 Start: 40605, Stop: 41738, Start Num: 42

Candidate Starts for Saronaya_47:

(31, 40536), (Start: 42 @40605 has 67 MA's), (61, 40743), (65, 40785), (66, 40791), (73, 40842), (81, 40875), (82, 40881), (83, 40884), (100, 40971), (129, 41127), (134, 41148), (145, 41223), (163, 41361), (189, 41475), (193, 41502), (204, 41562), (213, 41628), (216, 41643), (220, 41661),

Gene: Schnauzer_48 Start: 32462, Stop: 33472, Start Num: 49

Candidate Starts for Schnauzer_48:

(Start: 49 @32462 has 43 MA's), (59, 32537), (61, 32576), (63, 32585), (65, 32612), (73, 32663), (74, 32666), (79, 32690), (111, 32816), (116, 32867), (119, 32891), (121, 32903), (127, 32933), (159, 33125), (163, 33134), (166, 33152), (176, 33194), (187, 33242), (190, 33254), (215, 33383),

Gene: SchottB_46 Start: 41605, Stop: 42732, Start Num: 42

Candidate Starts for SchottB_46:

(31, 41536), (Start: 42 @41605 has 67 MA's), (54, 41644), (61, 41737), (65, 41779), (66, 41785), (73, 41836), (82, 41875), (100, 41965), (129, 42121), (134, 42142), (139, 42175), (145, 42217), (163, 42355), (189, 42469), (193, 42496), (204, 42556), (213, 42622), (220, 42655),

Gene: Scioto_51 Start: 42410, Stop: 43564, Start Num: 42

Candidate Starts for Scioto_51:

(Start: 42 @42410 has 67 MA's), (54, 42449), (61, 42542), (63, 42551), (65, 42584), (66, 42590), (71, 42626), (73, 42641), (81, 42674), (82, 42680), (100, 42773), (129, 42929), (132, 42944), (144, 43013), (145, 43025), (146, 43043), (172, 43214), (189, 43289), (202, 43373), (211, 43445), (213, 43451), (224, 43532),

Gene: Scitech_44 Start: 30478, Stop: 31488, Start Num: 49

Candidate Starts for Scitech_44:

(Start: 49 @30478 has 43 MA's), (59, 30553), (61, 30592), (63, 30601), (65, 30628), (73, 30679), (74, 30682), (79, 30706), (111, 30832), (116, 30883), (119, 30907), (121, 30919), (127, 30949), (159, 31141), (163, 31150), (166, 31168), (176, 31210), (187, 31258), (190, 31270), (215, 31399),

Gene: Sedona_48 Start: 41923, Stop: 43047, Start Num: 42

Candidate Starts for Sedona_48:

(35, 41884), (Start: 42 @41923 has 67 MA's), (54, 41959), (61, 42052), (65, 42094), (66, 42100), (73, 42151), (81, 42184), (95, 42259), (100, 42280), (123, 42403), (129, 42436), (134, 42457), (145, 42532), (163, 42670), (189, 42784), (204, 42871), (213, 42937), (216, 42952), (220, 42970),

Gene: Shade_34 Start: 28686, Stop: 29714, Start Num: 50

Candidate Starts for Shade_34:

(Start: 50 @28686 has 25 MA's), (56, 28722), (73, 28887), (80, 28917), (84, 28932), (91, 28968), (119, 29115), (121, 29127), (129, 29166), (146, 29265), (151, 29289), (153, 29298), (156, 29313), (185, 29454), (194, 29496),

Gene: Shen_37 Start: 24271, Stop: 25299, Start Num: 40

Candidate Starts for Shen_37:

(34, 24229), (Start: 40 @24271 has 41 MA's), (Start: 46 @24286 has 6 MA's), (65, 24436), (77, 24508), (95, 24610), (118, 24748), (123, 24772), (127, 24796), (134, 24829), (143, 24892), (149, 24919), (158, 24967), (189, 25111),

Gene: Shivanishola_48 Start: 40593, Stop: 41753, Start Num: 42

Candidate Starts for Shivanishola_48:

(35, 40554), (Start: 42 @40593 has 67 MA's), (54, 40629), (61, 40722), (65, 40764), (66, 40770), (73, 40821), (81, 40854), (95, 40929), (100, 40950), (123, 41073), (129, 41106), (134, 41127), (145, 41202), (163, 41340), (189, 41454), (196, 41502), (198, 41517), (204, 41577), (213, 41643), (216, 41658), (220, 41676),

Gene: ShrimpFriedEgg_51 Start: 33347, Stop: 34357, Start Num: 49

Candidate Starts for ShrimpFriedEgg_51:

(Start: 49 @33347 has 43 MA's), (61, 33461), (63, 33470), (65, 33497), (73, 33548), (74, 33551), (89, 33617), (94, 33644), (116, 33752), (118, 33770), (121, 33788), (166, 34037), (187, 34127), (190, 34139), (203, 34187), (215, 34268),

Gene: Shweta_45 Start: 31406, Stop: 32416, Start Num: 49

Candidate Starts for Shweta_45:

(Start: 49 @31406 has 43 MA's), (61, 31520), (63, 31529), (65, 31556), (73, 31607), (74, 31610), (79, 31634), (83, 31649), (104, 31742), (111, 31760), (116, 31811), (119, 31835), (121, 31847), (123, 31853), (127, 31877), (130, 31889), (166, 32096), (187, 32186), (190, 32198), (203, 32246), (215, 32327),

Gene: Sicarius2_35 Start: 28313, Stop: 29347, Start Num: 47

Candidate Starts for Sicarius2_35:

(Start: 47 @28313 has 2 MA's), (51, 28322), (56, 28352), (73, 28520), (80, 28550), (84, 28565), (113, 28685), (119, 28748), (121, 28760), (127, 28790), (146, 28898), (151, 28922), (156, 28946), (183, 29081), (185, 29087), (202, 29153), (204, 29165),

Gene: Silvafighter_48 Start: 32435, Stop: 33445, Start Num: 49

Candidate Starts for Silvafighter_48:

(Start: 49 @32435 has 43 MA's), (59, 32510), (61, 32549), (63, 32558), (65, 32585), (73, 32636), (74, 32639), (79, 32663), (111, 32789), (116, 32840), (119, 32864), (121, 32876), (127, 32906), (159, 33098), (163, 33107), (166, 33125), (176, 33167), (187, 33215), (190, 33227), (215, 33356),

Gene: Sitar_48 Start: 42278, Stop: 43441, Start Num: 42

Candidate Starts for Sitar_48:

(Start: 42 @42278 has 67 MA's), (54, 42317), (61, 42410), (65, 42452), (66, 42458), (73, 42509), (81, 42542), (95, 42617), (100, 42638), (123, 42761), (129, 42794), (134, 42815), (145, 42890), (163, 43028), (189, 43142), (196, 43190), (198, 43205), (204, 43265), (213, 43331), (216, 43346), (220, 43364),

Gene: Smurph_47 Start: 32462, Stop: 33472, Start Num: 49

Candidate Starts for Smurph_47:

(Start: 49 @32462 has 43 MA's), (59, 32537), (61, 32576), (63, 32585), (65, 32612), (73, 32663), (74, 32666), (79, 32690), (111, 32816), (116, 32867), (119, 32891), (121, 32903), (127, 32933), (159, 33125), (163, 33134), (166, 33152), (176, 33194), (187, 33242), (190, 33254), (215, 33383),

Gene: Snekmaggedon_45 Start: 31639, Stop: 32649, Start Num: 49

Candidate Starts for Snekmaggedon_45:

(Start: 49 @31639 has 43 MA's), (59, 31714), (61, 31753), (63, 31762), (65, 31789), (73, 31840), (74, 31843), (89, 31909), (94, 31936), (116, 32044), (118, 32062), (121, 32080), (166, 32329), (187, 32419), (190, 32431), (203, 32479), (215, 32560),

Gene: Sonny_34 Start: 28716, Stop: 29744, Start Num: 50

Candidate Starts for Sonny_34:

(Start: 50 @28716 has 25 MA's), (56, 28752), (73, 28917), (80, 28947), (84, 28962), (119, 29145), (121, 29157), (129, 29196), (146, 29295), (151, 29319), (153, 29328), (156, 29343), (175, 29442), (185, 29484),

Gene: Soos_78 Start: 52041, Stop: 53054, Start Num: 46

Candidate Starts for Soos_78:

(22, 51879), (30, 51948), (Start: 42 @52032 has 67 MA's), (Start: 46 @52041 has 6 MA's), (67, 52227), (73, 52266), (78, 52284), (95, 52377), (113, 52446), (123, 52527), (131, 52566), (141, 52626), (146, 52662), (148, 52668), (154, 52701), (165, 52767), (179, 52824), (220, 53031),

Gene: Spinach_51 Start: 33347, Stop: 34357, Start Num: 49

Candidate Starts for Spinach_51:

(Start: 49 @33347 has 43 MA's), (61, 33461), (63, 33470), (65, 33497), (73, 33548), (74, 33551), (89, 33617), (94, 33644), (116, 33752), (118, 33770), (121, 33788), (166, 34037), (187, 34127), (190, 34139), (203, 34187), (215, 34268),

Gene: SpongeBob_45 Start: 31639, Stop: 32649, Start Num: 49

Candidate Starts for SpongeBob_45:

(Start: 49 @31639 has 43 MA's), (59, 31714), (61, 31753), (63, 31762), (65, 31789), (73, 31840), (74, 31843), (89, 31909), (94, 31936), (116, 32044), (118, 32062), (121, 32080), (166, 32329), (187, 32419), (190, 32431), (203, 32479), (215, 32560),

Gene: StevieBAY_34 Start: 28804, Stop: 29823, Start Num: 50

Candidate Starts for StevieBAY_34:

(Start: 50 @28804 has 25 MA's), (62, 28921), (73, 29005), (76, 29017), (80, 29035), (87, 29071), (121, 29245), (123, 29251), (135, 29308), (141, 29347), (146, 29383), (150, 29395), (151, 29407), (204, 29650),

Gene: Stillion_84 Start: 52962, Stop: 53975, Start Num: 46

Candidate Starts for Stillion_84:

(22, 52800), (Start: 42 @52953 has 67 MA's), (Start: 46 @52962 has 6 MA's), (67, 53148), (73, 53187), (78, 53205), (95, 53298), (113, 53367), (123, 53448), (131, 53487), (141, 53547), (146, 53583), (148, 53589), (154, 53622), (165, 53688), (179, 53745), (220, 53952),

Gene: Sting_81 Start: 52480, Stop: 53493, Start Num: 46

Candidate Starts for Sting_81:

(22, 52318), (30, 52387), (Start: 42 @52471 has 67 MA's), (Start: 46 @52480 has 6 MA's), (67, 52666), (73, 52705), (78, 52723), (95, 52816), (113, 52885), (123, 52966), (131, 53005), (141, 53065), (146, 53101), (148, 53107), (154, 53140), (165, 53206), (179, 53263), (220, 53470),

Gene: StorminNorm_47 Start: 40696, Stop: 41823, Start Num: 42

Candidate Starts for StorminNorm_47:

(31, 40627), (Start: 42 @40696 has 67 MA's), (54, 40735), (61, 40828), (65, 40870), (66, 40876), (73, 40927), (82, 40966), (100, 41056), (129, 41212), (134, 41233), (139, 41266), (145, 41308), (163, 41446), (189, 41560), (193, 41587), (204, 41647), (213, 41713), (220, 41746),

Gene: StuartMinion_32 Start: 22066, Stop: 23079, Start Num: 40

Candidate Starts for StuartMinion_32:

(34, 22033), (Start: 40 @22066 has 41 MA's), (Start: 46 @22081 has 6 MA's), (53, 22099), (67, 22240), (72, 22270), (80, 22312), (81, 22318), (95, 22399), (102, 22426), (114, 22507), (115, 22516), (118, 22537), (127, 22585), (158, 22756), (162, 22786), (189, 22900), (200, 22945), (219, 23056),

Gene: Stuck_61 Start: 41880, Stop: 42890, Start Num: 49

Candidate Starts for Stuck_61:

(Start: 49 @41880 has 43 MA's), (61, 41994), (63, 42003), (65, 42030), (73, 42081), (74, 42084), (79, 42108), (83, 42123), (104, 42216), (111, 42234), (116, 42285), (119, 42309), (121, 42321), (123, 42327), (127, 42351), (130, 42363), (166, 42570), (172, 42591), (187, 42660), (190, 42672), (215, 42801),

Gene: Stultus_47 Start: 41231, Stop: 42394, Start Num: 42

Candidate Starts for Stultus_47:

(Start: 42 @41231 has 67 MA's), (54, 41270), (61, 41363), (65, 41405), (66, 41411), (73, 41462), (81, 41495), (95, 41570), (100, 41591), (123, 41714), (129, 41747), (134, 41768), (145, 41843), (163, 41981), (189, 42095), (196, 42143), (198, 42158), (204, 42218), (213, 42284), (216, 42299), (220, 42317),

Gene: TaeYoung_34 Start: 28721, Stop: 29740, Start Num: 50

Candidate Starts for TaeYoung_34:

(Start: 50 @28721 has 25 MA's), (73, 28922), (76, 28934), (80, 28952), (86, 28982), (87, 28988), (121, 29162), (123, 29168), (135, 29225), (146, 29300), (151, 29324), (153, 29333), (167, 29411), (183, 29483), (185, 29489), (220, 29666),

Gene: Tangent_49 Start: 41305, Stop: 42432, Start Num: 42

Candidate Starts for Tangent_49:

(Start: 42 @41305 has 67 MA's), (54, 41344), (61, 41437), (65, 41479), (66, 41485), (73, 41536), (81, 41569), (95, 41644), (100, 41665), (123, 41788), (129, 41821), (134, 41842), (145, 41917), (163, 42055), (189, 42169), (193, 42196), (204, 42256), (213, 42322), (216, 42337), (220, 42355),

Gene: Tangerine_47 Start: 40477, Stop: 41601, Start Num: 42

Candidate Starts for Tangerine_47:

(31, 40408), (Start: 42 @40477 has 67 MA's), (54, 40513), (61, 40606), (65, 40648), (66, 40654), (73, 40705), (82, 40744), (100, 40834), (116, 40915), (129, 40990), (134, 41011), (145, 41086), (163, 41224), (189, 41338), (193, 41365), (199, 41404), (204, 41425), (213, 41491), (220, 41524),

Gene: Tapioca_49 Start: 32428, Stop: 33438, Start Num: 49

Candidate Starts for Tapioca_49:

(Start: 49 @32428 has 43 MA's), (59, 32503), (61, 32542), (63, 32551), (65, 32578), (73, 32629), (74, 32632), (79, 32656), (111, 32782), (116, 32833), (119, 32857), (121, 32869), (127, 32899), (159, 33091), (163, 33100), (166, 33118), (176, 33160), (187, 33208), (190, 33220), (215, 33349),

Gene: Tardus_52 Start: 42085, Stop: 43260, Start Num: 42

Candidate Starts for Tardus_52:

(Start: 42 @42085 has 67 MA's), (54, 42124), (61, 42217), (63, 42226), (65, 42259), (66, 42265), (73, 42316), (81, 42349), (82, 42355), (100, 42448), (103, 42457), (123, 42592), (129, 42625), (132, 42640), (134, 42646), (144, 42709), (146, 42739), (172, 42910), (189, 42985), (202, 43069), (211, 43141), (213, 43147), (224, 43228),

Gene: TaylorSipht_38 Start: 25131, Stop: 26156, Start Num: 40

Candidate Starts for TaylorSipht_38:

(34, 25098), (Start: 40 @25131 has 41 MA's), (Start: 46 @25146 has 6 MA's), (55, 25173), (64, 25290), (65, 25296), (68, 25320), (86, 25416), (88, 25428), (92, 25446), (95, 25470), (98, 25482), (101, 25494), (118, 25608), (124, 25641), (136, 25695), (137, 25701), (143, 25749), (149, 25776), (189, 25968),

Gene: Thing3_46 Start: 40534, Stop: 41661, Start Num: 42

Candidate Starts for Thing3_46:

(Start: 42 @40534 has 67 MA's), (54, 40573), (61, 40666), (65, 40708), (66, 40714), (73, 40765), (81, 40798), (95, 40873), (100, 40894), (123, 41017), (129, 41050), (134, 41071), (145, 41146), (163, 41284), (189, 41398), (193, 41425), (204, 41485), (213, 41551), (216, 41566), (220, 41584),

Gene: ThulaThula_52 Start: 36104, Stop: 37114, Start Num: 49

Candidate Starts for ThulaThula_52:

(Start: 49 @36104 has 43 MA's), (61, 36218), (63, 36227), (65, 36254), (73, 36305), (74, 36308), (79, 36332), (111, 36458), (116, 36509), (121, 36545), (127, 36575), (163, 36776), (166, 36794), (171, 36812), (187, 36884), (190, 36896), (212, 37010), (215, 37025),

Gene: Tiamoceli_46 Start: 38786, Stop: 39940, Start Num: 42

Candidate Starts for Tiamoceli_46:

(21, 38645), (Start: 42 @38786 has 67 MA's), (61, 38915), (65, 38957), (66, 38963), (73, 39014), (100, 39143), (104, 39149), (116, 39227), (123, 39269), (129, 39302), (134, 39323), (161, 39542), (172, 39587), (177, 39611), (181, 39635), (192, 39686), (204, 39755), (206, 39767), (210, 39806), (211, 39815), (213, 39821), (216, 39836), (218, 39845), (224, 39902),

Gene: Timinator_34 Start: 28804, Stop: 29823, Start Num: 50

Candidate Starts for Timinator_34:

(Start: 50 @28804 has 25 MA's), (62, 28921), (73, 29005), (76, 29017), (80, 29035), (87, 29071), (121, 29245), (123, 29251), (135, 29308), (141, 29347), (146, 29383), (150, 29395), (151, 29407), (204, 29650), (222, 29770),

Gene: Toad24_40 Start: 26410, Stop: 27438, Start Num: 40

Candidate Starts for Toad24_40:

(34, 26368), (Start: 40 @26410 has 41 MA's), (Start: 46 @26425 has 6 MA's), (65, 26575), (77, 26647), (95, 26749), (118, 26887), (123, 26911), (127, 26935), (134, 26968), (143, 27031), (149, 27058), (158, 27106), (189, 27250),

Gene: Tonitrus_67 Start: 48810, Stop: 49829, Start Num: 38

Candidate Starts for Tonitrus_67:

(Start: 38 @48810 has 1 MA's), (62, 48945), (65, 48984), (73, 49038), (78, 49056), (80, 49068), (95, 49146), (96, 49149), (109, 49194), (116, 49254), (121, 49287), (123, 49293), (130, 49329), (135, 49353), (140, 49389), (142, 49401), (146, 49428), (179, 49596), (193, 49668), (210, 49758),

Gene: Tortoise12_46 Start: 31145, Stop: 32155, Start Num: 49

Candidate Starts for Tortoise12_46:

(Start: 49 @31145 has 43 MA's), (59, 31220), (61, 31259), (63, 31268), (65, 31295), (73, 31346), (74, 31349), (79, 31373), (111, 31499), (116, 31550), (119, 31574), (121, 31586), (127, 31616), (159, 31808), (163, 31817), (166, 31835), (176, 31877), (187, 31925), (190, 31937), (215, 32066),

Gene: TripleJ_54 Start: 32997, Stop: 33923, Start Num: 46

Candidate Starts for TripleJ_54:

(26, 32865), (Start: 46 @32997 has 6 MA's), (48, 33003), (60, 33111), (73, 33207), (75, 33213), (79, 33234), (107, 33354), (120, 33441), (121, 33450), (129, 33489), (137, 33528), (142, 33567), (153, 33627), (172, 33711), (188, 33774), (199, 33819),

Gene: TurkishDelight_59 Start: 49631, Stop: 50719, Start Num: 36

Candidate Starts for TurkishDelight_59:

(Start: 36 @49631 has 2 MA's), (60, 49781), (63, 49799), (65, 49826), (73, 49874), (82, 49913), (97, 49991), (106, 50042), (121, 50150), (123, 50156), (127, 50180), (137, 50222), (138, 50240), (152, 50312), (164, 50384), (185, 50483), (214, 50621),

Gene: Twonlo_43 Start: 37416, Stop: 38570, Start Num: 42

Candidate Starts for Twonlo_43:

(21, 37275), (Start: 42 @37416 has 67 MA's), (61, 37545), (65, 37587), (66, 37593), (73, 37644), (100, 37773), (123, 37899), (129, 37932), (134, 37953), (161, 38172), (172, 38217), (177, 38241), (181, 38265), (192, 38316), (204, 38385), (206, 38397), (210, 38436), (211, 38445), (213, 38451), (216, 38466), (218, 38475), (224, 38532),

Gene: Tycho_47 Start: 40564, Stop: 41691, Start Num: 42

Candidate Starts for Tycho_47:

(31, 40495), (Start: 42 @40564 has 67 MA's), (54, 40603), (61, 40696), (65, 40738), (66, 40744), (73, 40795), (82, 40834), (100, 40924), (129, 41080), (134, 41101), (139, 41134), (145, 41176), (163, 41314), (189, 41428), (193, 41455), (204, 41515), (213, 41581), (220, 41614),

Gene: ValentiniPuff_95 Start: 54258, Stop: 55337, Start Num: 52

Candidate Starts for ValentiniPuff_95:

(37, 54216), (Start: 52 @54258 has 1 MA's), (63, 54375), (73, 54453), (87, 54528), (111, 54639), (119, 54729), (121, 54741), (137, 54813), (170, 54993), (182, 55053), (189, 55077), (195, 55116), (200, 55122), (208, 55161), (218, 55233), (221, 55266),

Gene: Verity_50 Start: 43180, Stop: 44334, Start Num: 42

Candidate Starts for Verity_50:

(Start: 42 @43180 has 67 MA's), (54, 43219), (61, 43312), (63, 43321), (65, 43354), (66, 43360), (73, 43411), (81, 43444), (82, 43450), (100, 43543), (123, 43666), (129, 43699), (132, 43714), (134, 43720), (144, 43783), (145, 43795), (146, 43813), (172, 43984), (202, 44143), (213, 44221), (224, 44302),

Gene: ViaConlectus_50 Start: 41038, Stop: 42213, Start Num: 42

Candidate Starts for ViaConlectus_50:

(Start: 42 @41038 has 67 MA's), (Start: 47 @41050 has 2 MA's), (54, 41077), (61, 41170), (63, 41179), (65, 41212), (66, 41218), (71, 41254), (73, 41269), (81, 41302), (82, 41308), (100, 41401), (103, 41410), (123, 41545), (129, 41578), (130, 41581), (132, 41593), (134, 41599), (144, 41662), (146, 41692), (172, 41863), (189, 41938), (202, 42022), (211, 42094), (213, 42100), (216, 42115),

Gene: Vivi2_51 Start: 42332, Stop: 43459, Start Num: 42

Candidate Starts for Vivi2_51:

(Start: 42 @42332 has 67 MA's), (54, 42371), (61, 42464), (65, 42506), (66, 42512), (73, 42563), (81, 42596), (95, 42671), (100, 42692), (123, 42815), (129, 42848), (134, 42869), (145, 42944), (163, 43082), (189, 43196), (193, 43223), (204, 43283), (213, 43349), (216, 43364), (220, 43382),

Gene: Vulpecula_37 Start: 25435, Stop: 26463, Start Num: 40

Candidate Starts for Vulpecula_37:

(34, 25402), (Start: 40 @25435 has 41 MA's), (Start: 46 @25450 has 6 MA's), (65, 25600), (77, 25672), (80, 25687), (81, 25693), (95, 25774), (101, 25798), (123, 25936), (127, 25960), (134, 25993), (143, 26056), (157, 26128), (189, 26275),

Gene: Westrich_46 Start: 26088, Stop: 27116, Start Num: 40

Candidate Starts for Westrich_46:

(Start: 40 @26088 has 41 MA's), (Start: 46 @26103 has 6 MA's), (65, 26253), (77, 26325), (95, 26427), (118, 26565), (123, 26589), (127, 26613), (134, 26646), (143, 26709), (149, 26736), (158, 26784), (189, 26928),

Gene: WileyE_43 Start: 25312, Stop: 26337, Start Num: 40

Candidate Starts for WileyE_43:

(34, 25279), (Start: 40 @25312 has 41 MA's), (Start: 46 @25327 has 6 MA's), (65, 25477), (68, 25501), (86, 25597), (88, 25609), (95, 25651), (98, 25663), (136, 25876), (143, 25930), (189, 26149), (218, 26302),

Gene: Wyborn_35 Start: 28951, Stop: 29985, Start Num: 47

Candidate Starts for Wyborn_35:

(Start: 47 @28951 has 2 MA's), (51, 28960), (56, 28990), (73, 29158), (80, 29188), (84, 29203), (119, 29386), (121, 29398), (127, 29428), (146, 29536), (151, 29560), (156, 29584), (183, 29719), (185, 29725), (202, 29791), (204, 29803),

Gene: Xerxes_47 Start: 32459, Stop: 33469, Start Num: 49

Candidate Starts for Xerxes_47:

(Start: 49 @32459 has 43 MA's), (59, 32534), (61, 32573), (63, 32582), (65, 32609), (73, 32660), (74, 32663), (79, 32687), (111, 32813), (116, 32864), (119, 32888), (121, 32900), (127, 32930), (159, 33122), (163, 33131), (166, 33149), (176, 33191), (187, 33239), (190, 33251), (215, 33380),

Gene: YorkOnyx_48 Start: 40821, Stop: 41948, Start Num: 42

Candidate Starts for YorkOnyx_48:

(31, 40752), (Start: 42 @40821 has 67 MA's), (54, 40860), (61, 40953), (65, 40995), (66, 41001), (73, 41052), (82, 41091), (100, 41181), (129, 41337), (134, 41358), (139, 41391), (145, 41433), (163, 41571), (173, 41616), (189, 41685), (202, 41760), (204, 41772), (213, 41838), (216, 41853), (220, 41871),

Gene: Zartrosa_34 Start: 28629, Stop: 29648, Start Num: 50

Candidate Starts for Zartrosa_34:

(Start: 50 @28629 has 25 MA's), (73, 28830), (76, 28842), (80, 28860), (86, 28890), (121, 29070), (123, 29076), (135, 29133), (146, 29208), (151, 29232), (167, 29319), (183, 29391), (185, 29397), (220, 29574),

Gene: Zhuangyuan_44 Start: 25780, Stop: 26808, Start Num: 40

Candidate Starts for Zhuangyuan_44:

(Start: 40 @25780 has 41 MA's), (Start: 46 @25795 has 6 MA's), (64, 25945), (81, 26044), (95, 26125), (98, 26137), (102, 26152), (105, 26164), (124, 26299), (125, 26308), (127, 26314), (137, 26362), (152, 26455), (169, 26545), (189, 26629), (191, 26650), (200, 26674),

Gene: Zipp_51 Start: 43095, Stop: 44249, Start Num: 42

Candidate Starts for Zipp_51:

(Start: 42 @43095 has 67 MA's), (54, 43134), (61, 43227), (63, 43236), (65, 43269), (66, 43275), (73, 43326), (81, 43359), (82, 43365), (100, 43458), (123, 43581), (129, 43614), (132, 43629), (134, 43635), (144, 43698), (145, 43710), (146, 43728), (172, 43899), (202, 44058), (213, 44136), (224, 44217),

Gene: Zitch_53 Start: 41194, Stop: 42369, Start Num: 42

Candidate Starts for Zitch_53:

(Start: 42 @41194 has 67 MA's), (Start: 47 @41206 has 2 MA's), (54, 41233), (61, 41326), (63, 41335), (65, 41368), (66, 41374), (73, 41425), (81, 41458), (82, 41464), (100, 41557), (103, 41566), (123, 41701), (129, 41734), (132, 41749), (134, 41755), (144, 41818), (146, 41848), (172, 42019), (189, 42094), (202, 42178), (211, 42250), (213, 42256), (224, 42337),

Gene: Zixiang_41 Start: 25775, Stop: 26803, Start Num: 40

Candidate Starts for Zixiang_41:

(34, 25733), (Start: 40 @25775 has 41 MA's), (Start: 46 @25790 has 6 MA's), (65, 25940), (77, 26012), (95, 26114), (118, 26252), (123, 26276), (127, 26300), (134, 26333), (143, 26396), (149, 26423), (158,

26471), (189, 26615),