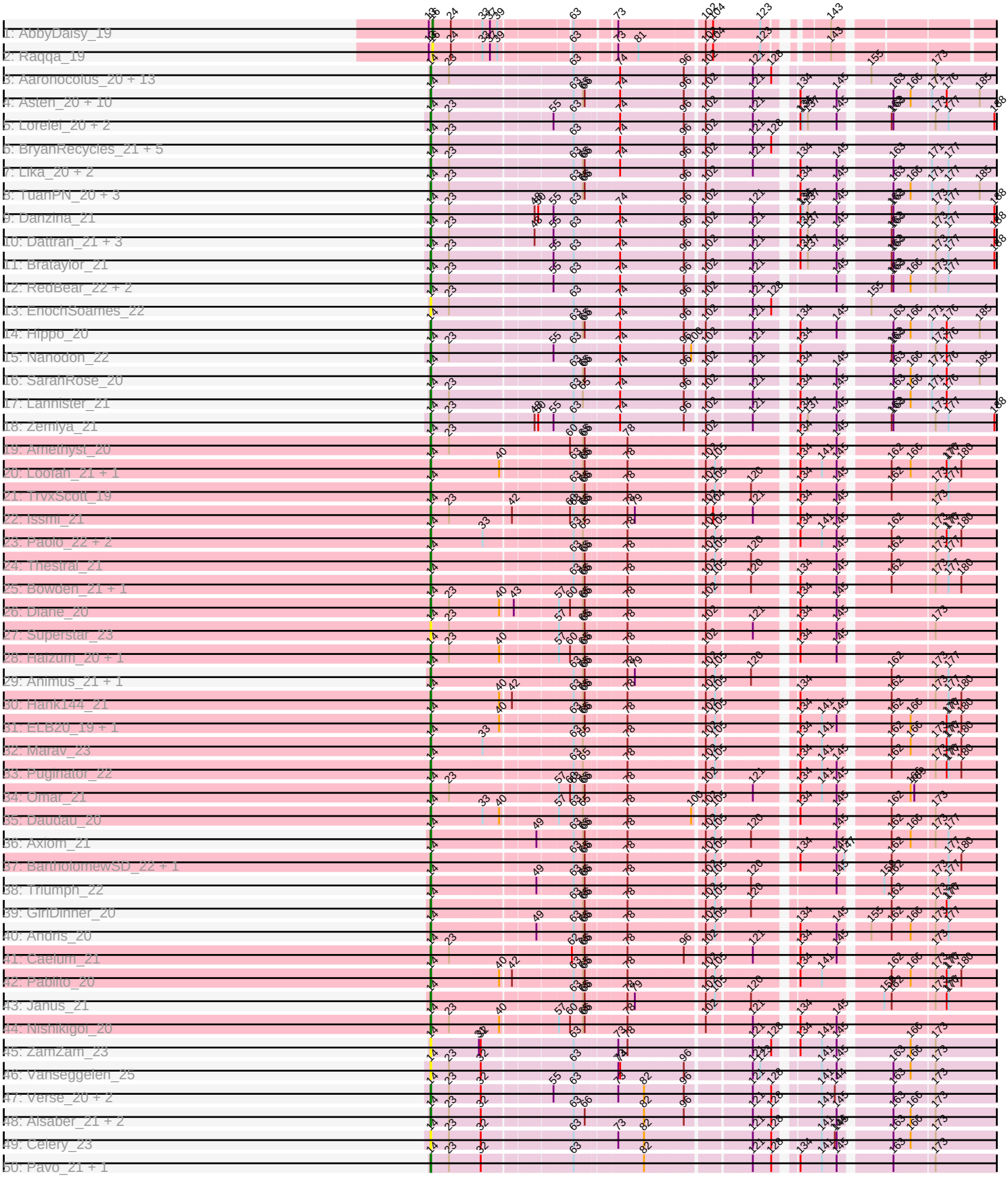
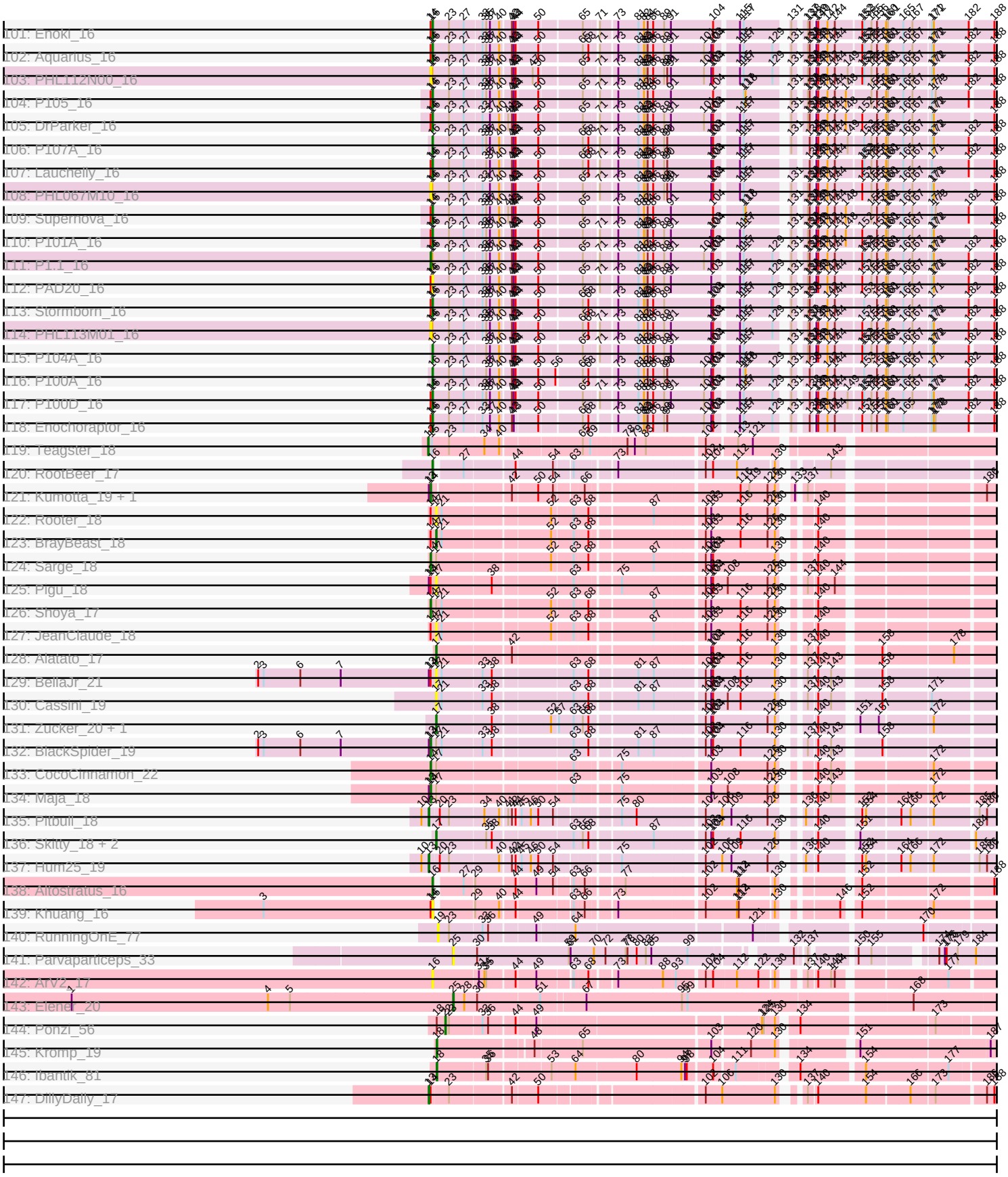
Zoomed Pham 285272



Zoomed Pham 285272

Zoomed Pham 285272



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 285272 Report

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

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 285272 has 212 members, 33 are drafts.

Phages represented in each track:
- Track 1 : AbbyDaisy_19
- Track 2 : Raqqa_19
- Track 3 : Aaronocolus_20, Caliburn_20, Esperer_20, BeardedLady_21, Nerdos_20, Leviticus_20, Unstoppable_20, Phettuccine_20, Hydra_22, Indigo_20, SunsetPointe_20, Legacy_20, Bovely_20, Ozzie_20
- Track 4 : Asten_20, Werner_20, Dwayne_20, Chucky_20, OzzyJ_21, Emaanora_22, TagePhighter_21, Whatever_20, BarryBee_22, Snorlax_20, Triste_20
- Track 5 : Lorelei_20, Rana_20, Nabi_20
- Track 6 : BryanRecycles_21, Oliynyk_21, Eddasa_21, Izzy_21, Jash_21, Rusticus_21
- Track 7 : Lika_20, Godpower_21, Sujidade_21
- Track 8 : TuanPN_20, Yasdnil_20, Maneekul_20, Ejemplo_20
- Track 9 : Danzina_21
- Track 10 : Dattran_21, Celeste_20, Goby_20, Toma_20
- Track 11 : Brataylor_21
- Track 12 : RedBear_22, South40_21, Katalie_21
- Track 13 : EnochSoames_22
- Track 14 : Hippo_20
- Track 15 : Nanodon_22
- Track 16 : SarahRose_20
- Track 17 : Lannister_21
- Track 18 : Zemlya_21
- Track 19 : Amethyst_20
- Track 20 : Loofah_21, Paedore_20
- Track 21 : TrvxScott_19
- Track 22 : Issmi_21
- Track 23 : Paolo_22, Zainub_22, Jevington_22
- Track 24 : Thestral_21
- Track 25 : Bowden_21, TinaBelcher_20
- Track 26 : Diane_20
- Track 27 : Superstar_23
- Track 28 : Haizum_20, Tefunt_20
- Track 29 : Animus_21, SqueakyClean_21

- Track 30 : Hank144_21
- Track 31 : ELB20_19, R4_20
- Track 32 : Marav_23
- Track 33 : Puginator_22
- Track 34 : Omar_21
- Track 35 : Daudau_20
- Track 36 : Axiom_21
- Track 37 : BartholomewSD_22, Alvy_22
- Track 38 : Triumph_22
- Track 39 : GirlDinner_20
- Track 40 : Andris_20
- Track 41 : Caelum_21
- Track 42 : Pablito_20
- Track 43 : Janus_21
- Track 44 : Nishikigoi_20
- Track 45 : ZamZam_23
- Track 46 : Vanseggelen_25
- Track 47 : Verse_20, Amela_20, SunkenRoot_22
- Track 48 : Alsaber_21, Kaine_20, Sudan_21
- Track 49 : Celery_23
- Track 50 : Pavo_21, Conan_21
- Track 51 : Yosif_21
- Track 52 : Saftant_20
- Track 53 : phiCAM_21
- Track 54 : Jhitchelle_20
- Track 55 : ElGato_21
- Track 56 : Speedwell_25
- Track 57 : Verabelle_21
- Track 58 : Provolone_21
- Track 59 : Dexers_19
- Track 60 : phiHau3_22
- Track 61 : BroPlease_21, GreenWeasel_22
- Track 62 : Itza_20, Celia_20, Urza_20
- Track 63 : VieEnRose_20
- Track 64 : Success_63
- Track 65 : Spooks_62
- Track 66 : Bimmel_61
- Track 67 : Keiki_16, Pirate_16
- Track 68 : Kubed_16
- Track 69 : Attacne_16
- Track 70 : P9.1_16
- Track 71 : PHL010M04_16
- Track 72 : PHL071N05_16
- Track 73 : MEAK_16
- Track 74 : LilBandit_16
- Track 75 : P106A_16
- Track 76 : Solid_16
- Track 77 : P106M_16, P106I_16, P106C_16, P106L_16
- Track 78 : Ouroboros_16
- Track 79 : Cota_16
- Track 80 : P14.4_16
- Track 81 : MrAK_16
- Track 82 : Procrass1_16

- Track 83 : PAS50_16
- Track 84 : PA6_16
- Track 85 : PHL114L00_16
- Track 86 : ATCC29399BT_16
- Track 87 : SKKY_16
- Track 88 : Leviosa_16
- Track 89 : ATCC29399BC_16, P107C_16
- Track 90 : P104B_16
- Track 91 : Rileysaurus_16
- Track 92 : BruceLethal_16
- Track 93 : PHL037M02_16
- Track 94 : PHL060L00_16
- Track 95 : PHL111M01_16
- Track 96 : P100.1_16
- Track 97 : Wizzo_16
- Track 98 : Moyashi_16
- Track 99 : P108C_16
- Track 100 : QueenBey_16
- Track 101 : Enoki_16
- Track 102 : Aquarius_16
- Track 103 : PHL112N00_16
- Track 104 : P105_16
- Track 105 : DrParker_16
- Track 106 : P107A_16
- Track 107 : Lauchelly_16
- Track 108 : PHL067M10_16
- Track 109 : Supernova_16
- Track 110 : P101A_16
- Track 111 : P1.1_16
- Track 112 : PAD20_16
- Track 113 : Stormborn_16
- Track 114 : PHL113M01_16
- Track 115 : P104A_16
- Track 116 : P100A_16
- Track 117 : P100D_16
- Track 118 : Enochoraptor_16
- Track 119 : Teagster_18
- Track 120 : RootBeer_17
- Track 121 : Kumotta_19, MargaretKali_19
- Track 122 : Rooter_18
- Track 123 : BrayBeast_18
- Track 124 : Sarge_18
- Track 125 : Pigu_18
- Track 126 : Shoya_17
- Track 127 : JeanClaude_18
- Track 128 : Alatato_17
- Track 129 : BellaJr_21
- Track 130 : Cassini_19
- Track 131 : Zucker_20, Bauer_21
- Track 132 : BlackSpider_19
- Track 133 : CocoCinnamon_22
- Track 134 : Maja_18
- Track 135 : Pitbull_18

• Track 136 : Skitty_18, MrSmee_18, Merpity_20
• Track 137 : Hum25_19
• Track 138 : Altostratus_16
• Track 139 : Khuang_16
• Track 140 : RunningOnE_77
• Track 141 : Parvaparticeps_33
• Track 142 : ArV2_17
• Track 143 : Elener_20
• Track 144 : Ponzi_56
• Track 145 : Kromp_19
• Track 146 : Ibantik_81
• Track 147 : DillyDally_17

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

The start number called the most often in the published annotations is 14, it was called in 117 of the 179 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aaronocolus_20, Alsaber_21, Alvy_22, Amela_20, Amethyst_20, Andris_20, Animus_21, Asten_20, Axiom_21, BarryBee_22, BartholomewSD_22, BeardedLady_21, BlackSpider_19, Bovely_20, Bowden_21, Brataylor_21, BroPlease_21, BryanRecycles_21, Caelum_21, Caliburn_20, Celery_23, Celeste_20, Celia_20, Chucky_20, CocoCinnamon_22, Conan_21, Danzina_21, Dattran_21, Daudau_20, Dexers_19, Diane_20, Dwayne_20, ELB20_19, Eddasa_21, Ejemplo_20, ElGato_21, Emaanora_22, EnochSoames_22, Esperer_20, GirlDinner_20, Goby_20, Godpower_21, GreenWeasel_22, Haizum_20, Hank144_21, Hippo_20, Hydra_22, Indigo_20, Issmi_21, Itza_20, Izzy_21, Janus_21, Jash_21, Jevington_22, Jhitchelle_20, Kaine_20, Katalie_21, Kumotta_19, Lannister_21, Legacy_20, Leviticus_20, Lika_20, LilBandit_16, Loofah_21, Lorelei_20, Maja_18, Maneekul_20, Marav_23, MargaretKali_19, Nabi_20, Nanodon_22, Nerdos_20, Nishikigoi_20, Oliynyk_21, Omar_21, Ozzie_20, OzzyJ_21, P1.1_16, P14.4_16, P9.1_16, PHL010M04_16, PHL060L00_16, PHL067M10_16, PHL071N05_16, PHL112N00_16, PHL113M01_16, PHL114L00_16, Pablito_20, Paedore_20, Paolo_22, Pavo_21, Phettuccine_20, Provolone_21, Puginator_22, R4_20, Rana_20, RedBear_22, Rusticus_21, Saftant_20, SarahRose_20, Sarge_18, Shoya_17, Snorlax_20, South40_21, Speedwell_25, SqueakyClean_21, Sudan_21, Sujidade_21, SunkenRoot_22, SunsetPointe_20, Superstar_23, TagePhighter_21, Tefunt_20, Thestral_21, TinaBelcher_20, Toma_20, Triste_20, Triumph_22, TrvxScott_19, TuanPN_20, Unstoppable_20, Urza_20, Vanseggelen_25, Verabelle_21, Verse_20, VieEnRose_20, Werner_20, Whatever_20, Yasdnil_20, Yosif_21, Zainub_22, ZamZam_23, Zemlya_21,

Genes that have the "Most Annotated" start but do not call it:
• ATCC29399BC_16, Aquarius_16, BellaJr_21, BrayBeast_18, Cota_16, DillyDally_17, DrParker_16, Enochoraptor_16, Enoki_16, JeanClaude_18, Khuang_16, Lauchelly_16, MEAK_16, Moyashi_16, MrAK_16, P100.1_16, P100D_16, P101A_16, P104B_16, P105_16, P106A_16, P106C_16, P106I_16, P106L_16, P106M_16, P107C_16, P108C_16, PA6_16, PAD20_16, PAS50_16, Pigu_18, Procrass1_16, QueenBey_16, Rooter_18, SKKY_16, Solid_16,

Stormborn_16, Supernova_16, Wizzo_16, phiCAM_21, phiHau3_22,

Genes that do not have the "Most Annotated" start:
• ATCC29399BT_16, AbbyDaisy_19, Alatato_17, Altostratus_16, ArV2_17, Attacne_16, Bauer_21, Bimmel_61, BruceLethal_16, Cassini_19, Elener_20, Hum25_19, Ibantik_81, Keiki_16, Kromp_19, Kubed_16, Leviosa_16, Merpity_20, MrSmee_18, Ouroboros_16, P100A_16, P104A_16, P107A_16, PHL037M02_16, PHL111M01_16, Parvaparticeps_33, Pirate_16, Pitbull_18, Ponzi_56, Raqqa_19, Rileysaurus_16, RootBeer_17, RunningOnE_77, Skitty_18, Spooks_62, Success_63, Teagster_18, Zucker_20,

Summary by start number:

Start 11:
• Found in 3 of 212 (1.4%) of genes in pham
• Manual Annotations of this start: 1 of 179
• Called 33.3% of time when present
• Phage (with cluster) where this start called: phiHau3_22 (BD4),

Start 12:
• Found in 1 of 212 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 179
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Teagster_18 (EB),

Start 13:
• Found in 11 of 212 (5.2%) of genes in pham
• Manual Annotations of this start: 3 of 179
• Called 27.3% of time when present
• Phage (with cluster) where this start called: DillyDally_17 (singleton), Hum25_19 (FQ), Pitbull_18 (FQ),

Start 14:
• Found in 174 of 212 (82.1%) of genes in pham
• Manual Annotations of this start: 117 of 179
• Called 76.4% of time when present
• Phage (with cluster) where this start called: Aaronocolus_20 (BD1), Alsaber_21 (BD3), Alvy_22 (BD2), Amela_20 (BD3), Amethyst_20 (BD2), Andris_20 (BD2), Animus_21 (BD2), Asten_20 (BD1), Axiom_21 (BD2), BarryBee_22 (BD1), BartholomewSD_22 (BD2), BeardedLady_21 (BD1), BlackSpider_19 (FN), Bovely_20 (BD1), Bowden_21 (BD2), Brataylor_21 (BD1), BroPlease_21 (BD4), BryanRecycles_21 (BD1), Caelum_21 (BD2), Caliburn_20 (BD1), Celery_23 (BD3), Celeste_20 (BD1), Celia_20 (BD6), Chucky_20 (BD1), CocoCinnamon_22 (FO), Conan_21 (BD3), Danzina_21 (BD1), Dattran_21 (BD1), Daudau_20 (BD2), Dexers_19 (BD3), Diane_20 (BD2), Dwayne_20 (BD1), ELB20_19 (BD2), Eddasa_21 (BD1), Ejemplo_20 (BD1), ElGato_21 (BD3), Emaanora_22 (BD1), EnochSoames_22 (BD1), Esperer_20 (BD1), GirlDinner_20 (BD2), Goby_20 (BD1), Godpower_21 (BD1), GreenWeasel_22 (BD4), Haizum_20 (BD2), Hank144_21 (BD2), Hippo_20 (BD1), Hydra_22 (BD1), Indigo_20 (BD1), Issmi_21 (BD2), Itza_20 (BD6), Izzy_21 (BD1), Janus_21 (BD2), Jash_21 (BD1), Jevington_22 (BD2), Jhitchelle_20 (BD3), Kaine_20 (BD3), Katalie_21 (BD1), Kumotta_19 (FB), Lannister_21 (BD1), Legacy_20 (BD1), Leviticus_20 (BD1), Lika_20 (BD1), LilBandit_16 (BU), Loofah_21 (BD2), Lorelei_20 (BD1), Maja_18 (FO), Maneekul_20 (BD1), Marav_23 (BD2),

MargaretKali_19 (FB), Nabi_20 (BD1), Nanodon_22 (BD1), Nerdos_20 (BD1), Nishikigoi_20 (BD2), Oliynyk_21 (BD1), Omar_21 (BD2), Ozzie_20 (BD1), OzzyJ_21 (BD1), P1.1_16 (BU), P14.4_16 (BU), P9.1_16 (BU), PHL010M04_16 (BU), PHL060L00_16 (BU), PHL067M10_16 (BU), PHL071N05_16 (BU), PHL112N00_16 (BU), PHL113M01_16 (BU), PHL114L00_16 (BU), Pablito_20 (BD2), Paedore_20 (BD2), Paolo_22 (BD2), Pavo_21 (BD3), Phettuccine_20 (BD1), Provolone_21 (BD3), Puginator_22 (BD2), R4_20 (BD2), Rana_20 (BD1), RedBear_22 (BD1), Rusticus_21 (BD1), Saftant_20 (BD3), SarahRose_20 (BD1), Sarge_18 (FB), Shoya_17 (FB), Snorlax_20 (BD1), South40_21 (BD1), Speedwell_25 (BD3), SqueakyClean_21 (BD2), Sudan_21 (BD3), Sujidade_21 (BD1), SunkenRoot_22 (BD3), SunsetPointe_20 (BD1), Superstar_23 (BD2), TagePhighter_21 (BD1), Tefunt_20 (BD2), Thestral_21 (BD2), TinaBelcher_20 (BD2), Toma_20 (BD1), Triste_20 (BD1), Triumph_22 (BD2), TrvxScott_19 (BD2), TuanPN_20 (BD1), Unstoppable_20 (BD1), Urza_20 (BD6), Vanseggelen_25 (BD3), Verabelle_21 (BD3), Verse_20 (BD3), VieEnRose_20 (BD6), Werner_20 (BD1), Whatever_20 (BD1), Yasdnil_20 (BD1), Yosif_21 (BD3), Zainub_22 (BD2), ZamZam_23 (BD3), Zemlya_21 (BD1),

Start 15:
• Found in 2 of 212 (0.9%) of genes in pham
• No Manual Annotations of this start.
• Called 50.0% of time when present
• Phage (with cluster) where this start called: PHL111M01_16 (BU),

Start 16:
• Found in 62 of 212 (29.2%) of genes in pham
• Manual Annotations of this start: 44 of 179
• Called 82.3% of time when present
• Phage (with cluster) where this start called: ATCC29399BC_16 (BU), ATCC29399BT_16 (BU), AbbyDaisy_19 (AY), Altostratus_16 (FS), Aquarius_16 (BU), ArV2_17 (singleton), Attacne_16 (BU), BruceLethal_16 (BU), Cota_16 (BU), DrParker_16 (BU), Enochoraptor_16 (BU), Enoki_16 (BU), Keiki_16 (BU), Khuang_16 (FS), Kubed_16 (BU), Lauchelly_16 (BU), Leviosa_16 (BU), MEAK_16 (BU), Moyashi_16 (BU), MrAK_16 (BU), Ouroboros_16 (BU), P100.1_16 (BU), P100A_16 (BU), P100D_16 (BU), P101A_16 (BU), P104A_16 (BU), P104B_16 (BU), P105_16 (BU), P106A_16 (BU), P106C_16 (BU), P106I_16 (BU), P106L_16 (BU), P106M_16 (BU), P107A_16 (BU), P107C_16 (BU), P108C_16 (BU), PA6_16 (BU), PAD20_16 (BU), PAS50_16 (BU), PHL037M02_16 (BU), Pirate_16 (BU), Procrass1_16 (BU), QueenBey_16 (BU), Raqqa_19 (AY), Rileysaurus_16 (BU), RootBeer_17 (FA), SKKY_16 (BU), Solid_16 (BU), Stormborn_16 (BU), Supernova_16 (BU), Wizzo_16 (BU),

Start 17:
• Found in 17 of 212 (8.0%) of genes in pham
• Manual Annotations of this start: 6 of 179
• Called 70.6% of time when present
• Phage (with cluster) where this start called: Alatato_17 (FB), Bauer_21 (FN), BellaJr_21 (FN), BrayBeast_18 (FB), Cassini_19 (FN), JeanClaude_18 (FB), Merpity_20 (FQ), MrSmee_18 (FQ), Pigu_18 (FB), Rooter_18 (FB), Skitty_18 (FQ), Zucker_20 (FN),

Start 18:
• Found in 6 of 212 (2.8%) of genes in pham
• Manual Annotations of this start: 5 of 179

• Called 83.3% of time when present
• Phage (with cluster) where this start called: Bimmel_61 (BT), Ibantik_81 (singleton), Kromp_19 (singleton), Spooks_62 (BT), Success_63 (BT),

Start 19:
• Found in 1 of 212 (0.5%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: RunningOnE_77 (UNK),

Start 22:
• Found in 1 of 212 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 179
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ponzi_56 (singleton),

Start 25:
• Found in 2 of 212 (0.9%) of genes in pham
• Manual Annotations of this start: 1 of 179
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Elener_20 (singleton), Parvaparticeps_33 (UNK),

Start 63:
• Found in 129 of 212 (60.8%) of genes in pham
• No Manual Annotations of this start.
• Called 0.8% of time when present
• Phage (with cluster) where this start called: phiCAM_21 (BD3),

Summary by clusters:

There are 17 clusters represented in this pham: FQ, singleton, FS, FA, EB, BT, BU, FB, BD6, BD1, BD3, BD2, AY, BD4, UNK, FN, FO,

Info for manual annotations of cluster AY:
•Start number 16 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster BD1:
•Start number 14 was manually annotated 55 times for cluster BD1.

Info for manual annotations of cluster BD2:
•Start number 14 was manually annotated 33 times for cluster BD2.

Info for manual annotations of cluster BD3:
•Start number 14 was manually annotated 12 times for cluster BD3.

Info for manual annotations of cluster BD4:
•Start number 11 was manually annotated 1 time for cluster BD4.
•Start number 14 was manually annotated 2 times for cluster BD4.

Info for manual annotations of cluster BD6:
•Start number 14 was manually annotated 4 times for cluster BD6.

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

Info for manual annotations of cluster BU:
•Start number 14 was manually annotated 4 times for cluster BU.
•Start number 16 was manually annotated 41 times for cluster BU.

Info for manual annotations of cluster EB:
•Start number 12 was manually annotated 1 time for cluster EB.

Info for manual annotations of cluster FA:
•Start number 16 was manually annotated 1 time for cluster FA.

Info for manual annotations of cluster FB:
•Start number 14 was manually annotated 4 times for cluster FB.
•Start number 17 was manually annotated 2 times for cluster FB.

Info for manual annotations of cluster FN:
•Start number 14 was manually annotated 1 time for cluster FN.
•Start number 17 was manually annotated 2 times for cluster FN.

Info for manual annotations of cluster FO:
•Start number 14 was manually annotated 2 times for cluster FO.

Info for manual annotations of cluster FQ:
•Start number 13 was manually annotated 2 times for cluster FQ.
•Start number 17 was manually annotated 2 times for cluster FQ.

Info for manual annotations of cluster FS:
•Start number 16 was manually annotated 1 time for cluster FS.

Gene Information:

Gene: ATCC29399BC_16 Start: 12232, Stop: 13389, Start Num: 16
Candidate Starts for ATCC29399BC_16:
(Start: 14 @12229 has 117 MA's), (Start: 16 @12232 has 44 MA's), (23, 12259), (27, 12283), (33, 12310), (35, 12316), (37, 12322), (40, 12337), (42, 12352), (43, 12355), (44, 12358), (50, 12388), (65, 12451), (73, 12493), (81, 12526), (82, 12535), (84, 12541), (86, 12550), (89, 12568), (90, 12571), (103, 12643), (104, 12646), (115, 12679), (117, 12685), (129, 12730), (131, 12742), (137, 12757), (139, 12766), (140, 12769), (142, 12784), (144, 12796), (153, 12838), (155, 12850), (156, 12859), (160, 12874), (161, 12877), (165, 12901), (167, 12916), (171, 12943), (172, 12946), (182, 13003), (188, 13036), (193, 13072), (199, 13099), (211, 13141), (214, 13156), (215, 13159), (221, 13183), (224, 13195), (227, 13204), (229, 13210), (240, 13252), (247, 13288), (255, 13333), (257, 13345), (258, 13354), (261, 13366), (264, 13375),

Gene: ATCC29399BT_16 Start: 12235, Stop: 13392, Start Num: 16
Candidate Starts for ATCC29399BT_16:
(Start: 16 @12235 has 44 MA's), (23, 12262), (27, 12286), (37, 12325), (40, 12340), (42, 12355), (43, 12358), (44, 12361), (50, 12391), (65, 12454), (73, 12496), (81, 12529), (82, 12538), (83, 12541), (84, 12544), (86, 12553), (89, 12571), (90, 12574), (101, 12634), (103, 12646), (104, 12649), (115, 12682),

(117, 12688), (131, 12745), (137, 12760), (138, 12763), (139, 12769), (140, 12772), (142, 12787), (144, 12799), (149, 12820), (152, 12838), (153, 12841), (155, 12853), (156, 12862), (161, 12880), (165, 12904), (167, 12919), (171, 12946), (182, 13006), (188, 13039), (193, 13075), (199, 13102), (211, 13144), (214, 13159), (215, 13162), (221, 13186), (224, 13198), (229, 13213), (236, 13240), (240, 13255), (247, 13291), (255, 13336), (258, 13357), (261, 13369), (264, 13378),

Gene: Aaronocolus_20 Start: 15854, Stop: 17068, Start Num: 14
Candidate Starts for Aaronocolus_20:
(Start: 14 @15854 has 117 MA's), (23, 15881), (63, 16064), (74, 16127), (96, 16226), (102, 16253), (121, 16322), (128, 16352), (155, 16472), (173, 16571), (210, 16769), (212, 16775), (221, 16814), (228, 16838), (235, 16865), (237, 16874), (243, 16907), (257, 16967), (264, 16997), (278, 17045), (280, 17054), (281, 17060),

Gene: AbbyDaisy_19 Start: 15422, Stop: 16528, Start Num: 16
Candidate Starts for AbbyDaisy_19:
(Start: 13 @15416 has 3 MA's), (Start: 16 @15422 has 44 MA's), (24, 15452), (33, 15500), (37, 15512), (39, 15524), (63, 15629), (73, 15680), (102, 15806), (104, 15818), (123, 15887), (143, 15959), (222, 16334), (238, 16394), (258, 16493),

Gene: Alatato_17 Start: 13394, Stop: 14512, Start Num: 17
Candidate Starts for Alatato_17:
(Start: 17 @13394 has 6 MA's), (42, 13508), (103, 13793), (104, 13796), (116, 13838), (130, 13892), (137, 13913), (140, 13925), (158, 14012), (178, 14117), (199, 14234), (209, 14270), (223, 14327), (225, 14333), (248, 14420), (265, 14498), (267, 14504),

Gene: Alsaber_21 Start: 16538, Stop: 17755, Start Num: 14
Candidate Starts for Alsaber_21:
(Start: 14 @16538 has 117 MA's), (23, 16565), (32, 16616), (63, 16748), (66, 16763), (82, 16850), (96, 16910), (121, 17006), (128, 17036), (141, 17093), (145, 17117), (163, 17192), (166, 17219), (173, 17255), (207, 17444), (212, 17459), (215, 17474), (227, 17519), (232, 17540), (237, 17558), (257, 17651), (264, 17681), (280, 17741), (281, 17747),

Gene: Altostratus_16 Start: 13849, Stop: 14961, Start Num: 16
Candidate Starts for Altostratus_16:
(Start: 16 @13849 has 44 MA's), (27, 13888), (29, 13903), (44, 13963), (49, 13993), (54, 14020), (63, 14044), (66, 14059), (77, 14110), (102, 14227), (112, 14275), (114, 14278), (130, 14329), (152, 14416), (188, 14611), (207, 14701), (237, 14815), (240, 14824), (241, 14830), (256, 14905),

Gene: Alvy_22 Start: 15862, Stop: 17073, Start Num: 14
Candidate Starts for Alvy_22:
(Start: 14 @15862 has 117 MA's), (63, 16072), (65, 16084), (66, 16087), (78, 16147), (102, 16261), (105, 16276), (134, 16384), (145, 16441), (147, 16453), (162, 16513), (177, 16600), (180, 16621), (200, 16738), (212, 16783), (215, 16798), (232, 16864), (237, 16882), (246, 16924), (252, 16951), (257, 16975), (280, 17059), (281, 17065),

Gene: Amela_20 Start: 16831, Stop: 18048, Start Num: 14
Candidate Starts for Amela_20:
(Start: 14 @16831 has 117 MA's), (23, 16858), (32, 16909), (55, 17011), (63, 17041), (73, 17101), (82, 17143), (96, 17203), (121, 17299), (128, 17329), (141, 17386), (144, 17407), (163, 17485), (173, 17548), (212, 17752), (215, 17767), (232, 17833), (237, 17851), (257, 17944), (264, 17974), (280, 18034), (281, 18040),

Gene: Amethyst_20 Start: 16313, Stop: 17527, Start Num: 14

Candidate Starts for Amethyst_20:
(Start: 14 @16313 has 117 MA's), (23, 16340), (60, 16517), (65, 16535), (66, 16538), (78, 16598), (102, 16712), (134, 16835), (145, 16892), (200, 17189), (212, 17234), (228, 17297), (257, 17426), (278, 17504), (280, 17513), (281, 17519),

Gene: Andris_20 Start: 15567, Stop: 16778, Start Num: 14
Candidate Starts for Andris_20:
(Start: 14 @15567 has 117 MA's), (49, 15723), (63, 15777), (65, 15789), (66, 15792), (78, 15852), (102, 15966), (105, 15981), (134, 16089), (145, 16146), (155, 16185), (162, 16218), (166, 16248), (173, 16284), (177, 16305), (200, 16443), (212, 16488), (215, 16503), (227, 16548), (228, 16551), (235, 16578), (237, 16587), (257, 16680), (280, 16764), (281, 16770),

Gene: Animus_21 Start: 15903, Stop: 17114, Start Num: 14
Candidate Starts for Animus_21:
(Start: 14 @15903 has 117 MA's), (63, 16113), (65, 16125), (66, 16128), (78, 16188), (79, 16200), (102, 16302), (105, 16317), (120, 16368), (162, 16554), (173, 16620), (177, 16641), (200, 16779), (212, 16824), (215, 16839), (227, 16884), (228, 16887), (235, 16914), (237, 16923), (257, 17016), (280, 17100), (281, 17106),

Gene: Aquarius_16 Start: 12255, Stop: 13412, Start Num: 16
Candidate Starts for Aquarius_16:
(Start: 14 @12252 has 117 MA's), (Start: 16 @12255 has 44 MA's), (23, 12282), (27, 12306), (33, 12333), (35, 12339), (37, 12345), (40, 12360), (42, 12375), (43, 12378), (44, 12381), (50, 12411), (65, 12474), (68, 12483), (71, 12492), (73, 12516), (81, 12549), (82, 12558), (83, 12561), (84, 12564), (86, 12573), (89, 12591), (91, 12600), (101, 12654), (103, 12666), (104, 12669), (115, 12702), (117, 12708), (129, 12753), (131, 12765), (137, 12780), (138, 12783), (139, 12789), (140, 12792), (142, 12807), (144, 12819), (152, 12858), (153, 12861), (155, 12873), (156, 12882), (160, 12897), (161, 12900), (165, 12924), (167, 12939), (171, 12966), (172, 12969), (182, 13026), (188, 13059), (193, 13095), (199, 13122), (211, 13164), (214, 13179), (215, 13182), (221, 13206), (224, 13218), (227, 13227), (229, 13233), (236, 13260), (240, 13275), (247, 13311), (254, 13353), (255, 13356), (257, 13368), (258, 13377), (261, 13389), (264, 13398),

Gene: ArV2_17 Start: 13763, Stop: 14869, Start Num: 16
Candidate Starts for ArV2_17:
(Start: 16 @13763 has 44 MA's), (31, 13835), (34, 13844), (35, 13847), (44, 13889), (49, 13919), (63, 13970), (68, 13991), (73, 14021), (88, 14093), (93, 14108), (102, 14147), (104, 14159), (112, 14192), (122, 14225), (130, 14246), (137, 14267), (140, 14279), (143, 14300), (144, 14306), (177, 14462), (193, 14564), (203, 14609), (209, 14624), (229, 14699), (253, 14807), (263, 14849), (266, 14858),

Gene: Asten_20 Start: 15820, Stop: 17031, Start Num: 14
Candidate Starts for Asten_20:
(Start: 14 @15820 has 117 MA's), (63, 16030), (65, 16042), (66, 16045), (74, 16093), (96, 16192), (102, 16219), (121, 16288), (134, 16342), (145, 16399), (163, 16474), (166, 16501), (171, 16531), (176, 16555), (185, 16609), (198, 16687), (212, 16741), (221, 16780), (226, 16798), (235, 16831), (237, 16840), (243, 16873), (246, 16882), (257, 16933), (280, 17017), (281, 17023),

Gene: Attacne_16 Start: 12235, Stop: 13392, Start Num: 16
Candidate Starts for Attacne_16:
(Start: 16 @12235 has 44 MA's), (23, 12262), (27, 12286), (33, 12313), (35, 12319), (37, 12325), (40, 12340), (41, 12349), (42, 12355), (43, 12358), (44, 12361), (50, 12391), (65, 12454), (71, 12472), (73, 12496), (81, 12529), (82, 12538), (83, 12541), (84, 12544), (86, 12553), (89, 12571), (101, 12634), (103, 12646), (104, 12649), (115, 12682), (117, 12688), (131, 12745), (137, 12760), (138, 12763), (139, 12769), (140, 12772), (142, 12787), (144, 12799), (153, 12841), (155, 12853), (156, 12862),

(160, 12877), (161, 12880), (165, 12904), (167, 12919), (171, 12946), (173, 12952), (182, 13006), (188, 13039), (193, 13075), (199, 13102), (211, 13144), (214, 13159), (215, 13162), (221, 13186), (224, 13198), (227, 13207), (229, 13213), (236, 13240), (240, 13255), (247, 13291), (254, 13333), (255, 13336), (258, 13357), (261, 13369), (264, 13378),

Gene: Axiom_21 Start: 15716, Stop: 16927, Start Num: 14
Candidate Starts for Axiom_21:
(Start: 14 @15716 has 117 MA's), (49, 15872), (63, 15926), (65, 15938), (66, 15941), (78, 16001), (102, 16115), (105, 16130), (120, 16181), (145, 16295), (162, 16367), (166, 16397), (173, 16433), (177, 16454), (200, 16592), (209, 16628), (212, 16637), (215, 16652), (227, 16697), (228, 16700), (235, 16727), (237, 16736), (257, 16829), (271, 16877), (278, 16904), (280, 16913), (281, 16919),

Gene: BarryBee_22 Start: 15830, Stop: 17041, Start Num: 14
Candidate Starts for BarryBee_22:
(Start: 14 @15830 has 117 MA's), (63, 16040), (65, 16052), (66, 16055), (74, 16103), (96, 16202), (102, 16229), (121, 16298), (134, 16352), (145, 16409), (163, 16484), (166, 16511), (171, 16541), (176, 16565), (185, 16619), (198, 16697), (212, 16751), (221, 16790), (226, 16808), (235, 16841), (237, 16850), (243, 16883), (246, 16892), (257, 16943), (280, 17027), (281, 17033),

Gene: BartholomewSD_22 Start: 15862, Stop: 17073, Start Num: 14
Candidate Starts for BartholomewSD_22:
(Start: 14 @15862 has 117 MA's), (63, 16072), (65, 16084), (66, 16087), (78, 16147), (102, 16261), (105, 16276), (134, 16384), (145, 16441), (147, 16453), (162, 16513), (177, 16600), (180, 16621), (200, 16738), (212, 16783), (215, 16798), (232, 16864), (237, 16882), (246, 16924), (252, 16951), (257, 16975), (280, 17059), (281, 17065),

Gene: Bauer_21 Start: 16040, Stop: 17158, Start Num: 17
Candidate Starts for Bauer_21:
(Start: 17 @16040 has 6 MA's), (38, 16127), (52, 16214), (57, 16223), (63, 16247), (65, 16259), (68, 16268), (102, 16430), (103, 16439), (104, 16442), (126, 16526), (130, 16538), (140, 16571), (151, 16622), (157, 16652), (172, 16730), (199, 16880), (209, 16916), (211, 16922), (230, 16994), (233, 17003), (267, 17150),

Gene: BeardedLady_21 Start: 16101, Stop: 17315, Start Num: 14
Candidate Starts for BeardedLady_21:
(Start: 14 @16101 has 117 MA's), (23, 16128), (63, 16311), (74, 16374), (96, 16473), (102, 16500), (121, 16569), (128, 16599), (155, 16719), (173, 16818), (210, 17016), (212, 17022), (221, 17061), (228, 17085), (235, 17112), (237, 17121), (243, 17154), (257, 17214), (264, 17244), (278, 17292), (280, 17301), (281, 17307),

Gene: BellaJr_21 Start: 16838, Stop: 17956, Start Num: 17
Candidate Starts for BellaJr_21:
(2, 16550), (3, 16559), (6, 16619), (7, 16685), (Start: 13 @16829 has 3 MA's), (Start: 14 @16832 has 117 MA's), (Start: 17 @16838 has 6 MA's), (21, 16847), (33, 16910), (38, 16925), (63, 17045), (68, 17066), (81, 17132), (87, 17156), (102, 17228), (103, 17237), (104, 17240), (116, 17282), (130, 17336), (137, 17357), (140, 17369), (143, 17390), (158, 17456), (199, 17678), (235, 17807), (245, 17855), (248, 17864), (256, 17903), (265, 17942),

Gene: Bimmel_61 Start: 38728, Stop: 39987, Start Num: 18
Candidate Starts for Bimmel_61:
(Start: 18 @38728 has 5 MA's), (23, 38746), (26, 38761), (27, 38770), (65, 38941), (117, 39187), (119, 39196), (159, 39403), (186, 39556), (197, 39622), (202, 39643), (218, 39679), (243, 39784), (250, 39808), (256, 39835), (264, 39874), (282, 39949), (286, 39982),

Gene: BlackSpider_19 Start: 15678, Stop: 16802, Start Num: 14
Candidate Starts for BlackSpider_19:
(2, 15396), (3, 15405), (6, 15465), (7, 15531), (Start: 13 @15675 has 3 MA's), (Start: 14 @15678 has 117 MA's), (Start: 17 @15684 has 6 MA's), (21, 15693), (33, 15756), (38, 15771), (63, 15891), (68, 15912), (81, 15978), (87, 16002), (102, 16074), (103, 16083), (104, 16086), (116, 16128), (130, 16182), (137, 16203), (140, 16215), (143, 16236), (158, 16302), (199, 16524), (235, 16653), (245, 16701), (248, 16710), (256, 16749), (265, 16788),

Gene: Bovely_20 Start: 15860, Stop: 17074, Start Num: 14
Candidate Starts for Bovely_20:
(Start: 14 @15860 has 117 MA's), (23, 15887), (63, 16070), (74, 16133), (96, 16232), (102, 16259), (121, 16328), (128, 16358), (155, 16478), (173, 16577), (210, 16775), (212, 16781), (221, 16820), (228, 16844), (235, 16871), (237, 16880), (243, 16913), (257, 16973), (264, 17003), (278, 17051), (280, 17060), (281, 17066),

Gene: Bowden_21 Start: 15794, Stop: 17005, Start Num: 14
Candidate Starts for Bowden_21:
(Start: 14 @15794 has 117 MA's), (63, 16004), (65, 16016), (66, 16019), (78, 16079), (102, 16193), (105, 16208), (120, 16259), (134, 16316), (145, 16373), (162, 16445), (173, 16511), (177, 16532), (180, 16553), (200, 16670), (212, 16715), (215, 16730), (232, 16796), (237, 16814), (246, 16856), (252, 16883), (257, 16907), (280, 16991), (281, 16997),

Gene: Brataylor_21 Start: 15847, Stop: 17058, Start Num: 14
Candidate Starts for Brataylor_21:
(Start: 14 @15847 has 117 MA's), (23, 15874), (55, 16027), (63, 16057), (74, 16120), (96, 16219), (102, 16246), (121, 16315), (134, 16369), (137, 16381), (145, 16426), (162, 16498), (163, 16501), (173, 16564), (177, 16585), (188, 16660), (210, 16762), (212, 16768), (220, 16804), (221, 16807), (226, 16825), (237, 16867), (279, 17041), (280, 17044), (281, 17050),

Gene: BrayBeast_18 Start: 14080, Stop: 15198, Start Num: 17
Candidate Starts for BrayBeast_18:
(Start: 14 @14074 has 117 MA's), (Start: 17 @14080 has 6 MA's), (21, 14089), (52, 14254), (63, 14287), (68, 14308), (102, 14470), (103, 14479), (116, 14524), (126, 14566), (130, 14578), (140, 14611), (223, 15013), (235, 15049), (256, 15145), (265, 15184), (267, 15190),

Gene: BroPlease_21 Start: 16546, Stop: 17751, Start Num: 14
Candidate Starts for BroPlease_21:
(9, 16528), (Start: 11 @16540 has 1 MA's), (Start: 14 @16546 has 117 MA's), (35, 16633), (57, 16732), (65, 16768), (78, 16831), (102, 16945), (104, 16957), (120, 17011), (121, 17014), (128, 17044), (134, 17068), (145, 17125), (155, 17164), (162, 17197), (163, 17200), (170, 17248), (212, 17467), (215, 17482), (227, 17527), (235, 17557), (239, 17572), (246, 17608), (278, 17728), (280, 17737), (281, 17743),

Gene: BruceLethal_16 Start: 12244, Stop: 13401, Start Num: 16
Candidate Starts for BruceLethal_16:
(Start: 16 @12244 has 44 MA's), (23, 12271), (27, 12295), (35, 12328), (37, 12334), (40, 12349), (42, 12364), (43, 12367), (44, 12370), (50, 12400), (65, 12463), (68, 12472), (73, 12505), (81, 12538), (82, 12547), (83, 12550), (84, 12553), (89, 12580), (101, 12643), (103, 12655), (104, 12658), (115, 12691), (117, 12697), (129, 12742), (131, 12754), (137, 12769), (138, 12772), (139, 12778), (140, 12781), (142, 12796), (144, 12808), (149, 12829), (153, 12850), (155, 12862), (156, 12871), (160, 12886), (161, 12889), (165, 12913), (167, 12928), (171, 12955), (182, 13015), (188, 13048), (193, 13084), (199, 13111), (201, 13123), (211, 13153), (214, 13168), (215, 13171), (221, 13195), (224, 13207),

(227, 13216), (229, 13222), (240, 13264), (247, 13300), (258, 13366), (261, 13378), (264, 13387),

Gene: BryanRecycles_21 Start: 16017, Stop: 17219, Start Num: 14
Candidate Starts for BryanRecycles_21:
(Start: 14 @16017 has 117 MA's), (23, 16044), (63, 16227), (74, 16290), (96, 16389), (102, 16416), (121, 16485), (128, 16515), (210, 16932), (212, 16938), (221, 16977), (227, 16998), (235, 17028), (237, 17037), (243, 17070), (261, 17151), (277, 17193), (278, 17196), (280, 17205), (281, 17211),

Gene: Caelum_21 Start: 16340, Stop: 17551, Start Num: 14
Candidate Starts for Caelum_21:
(Start: 14 @16340 has 117 MA's), (23, 16367), (62, 16547), (65, 16562), (66, 16565), (78, 16625), (96, 16712), (102, 16739), (121, 16808), (134, 16862), (145, 16919), (173, 17057), (212, 17261), (225, 17315), (257, 17453), (278, 17528), (280, 17537), (281, 17543),

Gene: Caliburn_20 Start: 15834, Stop: 17048, Start Num: 14
Candidate Starts for Caliburn_20:
(Start: 14 @15834 has 117 MA's), (23, 15861), (63, 16044), (74, 16107), (96, 16206), (102, 16233), (121, 16302), (128, 16332), (155, 16452), (173, 16551), (210, 16749), (212, 16755), (221, 16794), (228, 16818), (235, 16845), (237, 16854), (243, 16887), (257, 16947), (264, 16977), (278, 17025), (280, 17034), (281, 17040),

Gene: Cassini_19 Start: 15921, Stop: 17039, Start Num: 17
Candidate Starts for Cassini_19:
(Start: 17 @15921 has 6 MA's), (21, 15930), (33, 15993), (38, 16008), (63, 16128), (68, 16149), (81, 16215), (87, 16239), (102, 16311), (103, 16320), (104, 16323), (108, 16347), (116, 16365), (130, 16419), (137, 16440), (140, 16452), (143, 16473), (158, 16539), (171, 16608), (199, 16761), (220, 16842), (235, 16890), (245, 16938), (248, 16947), (256, 16986), (265, 17025),

Gene: Celery_23 Start: 16489, Stop: 17706, Start Num: 14
Candidate Starts for Celery_23:
(Start: 14 @16489 has 117 MA's), (23, 16516), (32, 16567), (63, 16699), (73, 16759), (82, 16801), (121, 16957), (128, 16987), (141, 17044), (144, 17065), (145, 17068), (163, 17143), (166, 17170), (173, 17206), (212, 17410), (215, 17425), (223, 17458), (227, 17470), (237, 17509), (257, 17602), (264, 17632), (280, 17692), (281, 17698),

Gene: Celeste_20 Start: 15839, Stop: 17050, Start Num: 14
Candidate Starts for Celeste_20:
(Start: 14 @15839 has 117 MA's), (23, 15866), (48, 15992), (55, 16019), (63, 16049), (74, 16112), (96, 16211), (102, 16238), (121, 16307), (134, 16361), (137, 16373), (145, 16418), (162, 16490), (163, 16493), (173, 16556), (177, 16577), (188, 16652), (210, 16754), (212, 16760), (220, 16796), (221, 16799), (226, 16817), (237, 16859), (279, 17033), (280, 17036), (281, 17042),

Gene: Celia_20 Start: 16277, Stop: 17497, Start Num: 14
Candidate Starts for Celia_20:
(Start: 14 @16277 has 117 MA's), (26, 16319), (35, 16364), (49, 16433), (60, 16481), (63, 16487), (101, 16673), (102, 16676), (107, 16700), (121, 16745), (134, 16799), (166, 16958), (173, 16994), (205, 17177), (215, 17213), (221, 17237), (226, 17255), (228, 17261), (237, 17297), (246, 17339), (276, 17465), (280, 17483), (281, 17489),

Gene: Chucky_20 Start: 15831, Stop: 17042, Start Num: 14
Candidate Starts for Chucky_20:
(Start: 14 @15831 has 117 MA's), (63, 16041), (65, 16053), (66, 16056), (74, 16104), (96, 16203), (102, 16230), (121, 16299), (134, 16353), (145, 16410), (163, 16485), (166, 16512), (171, 16542),

(176, 16566), (185, 16620), (198, 16698), (212, 16752), (221, 16791), (226, 16809), (235, 16842), (237, 16851), (243, 16884), (246, 16893), (257, 16944), (280, 17028), (281, 17034),

Gene: CocoCinnamon_22 Start: 15713, Stop: 16837, Start Num: 14
Candidate Starts for CocoCinnamon_22:
(Start: 14 @15713 has 117 MA's), (Start: 17 @15719 has 6 MA's), (63, 15926), (75, 15986), (103, 16118), (126, 16205), (130, 16217), (140, 16250), (143, 16271), (172, 16409), (199, 16559), (200, 16562), (209, 16595), (223, 16652), (225, 16658), (230, 16673), (267, 16829),

Gene: Conan_21 Start: 16260, Stop: 17477, Start Num: 14
Candidate Starts for Conan_21:
(Start: 14 @16260 has 117 MA's), (23, 16287), (32, 16338), (63, 16470), (82, 16572), (121, 16728), (128, 16758), (134, 16782), (141, 16815), (145, 16839), (163, 16914), (173, 16977), (212, 17181), (215, 17196), (227, 17241), (232, 17262), (237, 17280), (257, 17373), (264, 17403), (280, 17463), (281, 17469),

Gene: Cota_16 Start: 12250, Stop: 13407, Start Num: 16
Candidate Starts for Cota_16:
(Start: 14 @12247 has 117 MA's), (Start: 16 @12250 has 44 MA's), (23, 12277), (27, 12301), (33, 12328), (35, 12334), (37, 12340), (40, 12355), (42, 12370), (43, 12373), (44, 12376), (50, 12406), (65, 12469), (71, 12487), (73, 12511), (81, 12544), (82, 12553), (84, 12559), (86, 12568), (89, 12586), (91, 12595), (101, 12649), (104, 12664), (117, 12703), (118, 12706), (129, 12748), (131, 12760), (137, 12775), (138, 12778), (139, 12784), (140, 12787), (142, 12802), (144, 12814), (148, 12832), (155, 12868), (156, 12877), (160, 12892), (161, 12895), (165, 12919), (167, 12934), (171, 12961), (172, 12964), (182, 13021), (188, 13054), (193, 13090), (199, 13117), (211, 13159), (214, 13174), (215, 13177), (221, 13201), (227, 13222), (229, 13228), (240, 13270), (247, 13306), (254, 13348), (258, 13372), (261, 13384), (264, 13393),

Gene: Danzina_21 Start: 16049, Stop: 17260, Start Num: 14
Candidate Starts for Danzina_21:
(Start: 14 @16049 has 117 MA's), (23, 16076), (48, 16202), (50, 16208), (55, 16229), (63, 16259), (74, 16322), (96, 16421), (102, 16448), (121, 16517), (134, 16571), (135, 16574), (137, 16583), (145, 16628), (162, 16700), (163, 16703), (173, 16766), (177, 16787), (188, 16862), (210, 16964), (212, 16970), (220, 17006), (221, 17009), (226, 17027), (237, 17069), (279, 17243), (280, 17246), (281, 17252),

Gene: Dattran_21 Start: 15838, Stop: 17049, Start Num: 14
Candidate Starts for Dattran_21:
(Start: 14 @15838 has 117 MA's), (23, 15865), (48, 15991), (55, 16018), (63, 16048), (74, 16111), (96, 16210), (102, 16237), (121, 16306), (134, 16360), (137, 16372), (145, 16417), (162, 16489), (163, 16492), (173, 16555), (177, 16576), (188, 16651), (210, 16753), (212, 16759), (220, 16795), (221, 16798), (226, 16816), (237, 16858), (279, 17032), (280, 17035), (281, 17041),

Gene: Daudau_20 Start: 15774, Stop: 16985, Start Num: 14
Candidate Starts for Daudau_20:
(Start: 14 @15774 has 117 MA's), (33, 15855), (40, 15882), (57, 15960), (63, 15984), (65, 15996), (78, 16059), (100, 16158), (102, 16173), (105, 16188), (134, 16296), (145, 16353), (162, 16425), (173, 16491), (200, 16650), (212, 16695), (215, 16710), (237, 16794), (239, 16800), (246, 16836), (252, 16863), (257, 16887), (280, 16971), (281, 16977),

Gene: Dexers_19 Start: 16241, Stop: 17458, Start Num: 14
Candidate Starts for Dexers_19:

(Start: 14 @16241 has 117 MA's), (23, 16268), (32, 16319), (63, 16451), (66, 16466), (82, 16553), (96, 16613), (121, 16709), (128, 16739), (145, 16820), (163, 16895), (166, 16922), (173, 16958), (207, 17147), (212, 17162), (215, 17177), (227, 17222), (232, 17243), (237, 17261), (257, 17354), (264, 17384), (280, 17444), (281, 17450),

Gene: Diane_20 Start: 16306, Stop: 17520, Start Num: 14
Candidate Starts for Diane_20:
(Start: 14 @16306 has 117 MA's), (23, 16333), (40, 16414), (43, 16432), (57, 16492), (60, 16510), (65, 16528), (66, 16531), (78, 16591), (102, 16705), (134, 16828), (145, 16885), (200, 17182), (210, 17221), (212, 17227), (228, 17290), (257, 17419), (278, 17497), (280, 17506), (281, 17512),

Gene: DillyDally_17 Start: 14366, Stop: 15832, Start Num: 13
Candidate Starts for DillyDally_17:
(Start: 13 @14366 has 3 MA's), (Start: 14 @14369 has 117 MA's), (23, 14396), (42, 14489), (50, 14528), (102, 14759), (106, 14786), (130, 14870), (137, 14891), (140, 14903), (154, 14981), (166, 15047), (173, 15083), (186, 15158), (188, 15170), (189, 15176), (250, 15419), (275, 15524), (285, 15575), (289, 15710), (290, 15731), (291, 15743), (292, 15752),

Gene: DrParker_16 Start: 12276, Stop: 13433, Start Num: 16
Candidate Starts for DrParker_16:
(Start: 14 @12273 has 117 MA's), (Start: 16 @12276 has 44 MA's), (23, 12303), (27, 12327), (33, 12354), (37, 12366), (40, 12381), (41, 12390), (42, 12396), (43, 12399), (44, 12402), (50, 12432), (65, 12495), (71, 12513), (73, 12537), (81, 12570), (82, 12579), (83, 12582), (84, 12585), (86, 12594), (89, 12612), (91, 12621), (101, 12675), (103, 12687), (104, 12690), (115, 12723), (117, 12729), (131, 12786), (137, 12801), (138, 12804), (139, 12810), (140, 12813), (142, 12828), (144, 12840), (148, 12858), (152, 12879), (156, 12903), (160, 12918), (161, 12921), (165, 12945), (167, 12960), (171, 12987), (172, 12990), (188, 13080), (193, 13116), (199, 13143), (211, 13185), (214, 13200), (215, 13203), (221, 13227), (224, 13239), (227, 13248), (229, 13254), (240, 13296), (247, 13332), (254, 13374), (255, 13377), (257, 13389), (258, 13398), (261, 13410), (264, 13419),

Gene: Dwayne_20 Start: 15827, Stop: 17038, Start Num: 14
Candidate Starts for Dwayne_20:
(Start: 14 @15827 has 117 MA's), (63, 16037), (65, 16049), (66, 16052), (74, 16100), (96, 16199), (102, 16226), (121, 16295), (134, 16349), (145, 16406), (163, 16481), (166, 16508), (171, 16538), (176, 16562), (185, 16616), (198, 16694), (212, 16748), (221, 16787), (226, 16805), (235, 16838), (237, 16847), (243, 16880), (246, 16889), (257, 16940), (280, 17024), (281, 17030),

Gene: ELB20_19 Start: 15893, Stop: 17104, Start Num: 14
Candidate Starts for ELB20_19:
(Start: 14 @15893 has 117 MA's), (40, 16001), (63, 16103), (65, 16115), (66, 16118), (78, 16178), (102, 16292), (105, 16307), (134, 16415), (141, 16448), (145, 16472), (162, 16544), (166, 16574), (176, 16628), (177, 16631), (180, 16652), (200, 16769), (212, 16814), (215, 16829), (237, 16913), (238, 16916), (239, 16919), (246, 16955), (255, 16994), (257, 17006), (268, 17045), (278, 17081), (280, 17090), (281, 17096),

Gene: Eddasa_21 Start: 16017, Stop: 17219, Start Num: 14
Candidate Starts for Eddasa_21:
(Start: 14 @16017 has 117 MA's), (23, 16044), (63, 16227), (74, 16290), (96, 16389), (102, 16416), (121, 16485), (128, 16515), (210, 16932), (212, 16938), (221, 16977), (227, 16998), (235, 17028), (237, 17037), (243, 17070), (261, 17151), (277, 17193), (278, 17196), (280, 17205), (281, 17211),

Gene: Ejemplo_20 Start: 15827, Stop: 17038, Start Num: 14
Candidate Starts for Ejemplo_20:

(Start: 14 @15827 has 117 MA's), (23, 15854), (63, 16037), (65, 16049), (66, 16052), (96, 16199), (102, 16226), (134, 16349), (145, 16406), (163, 16481), (166, 16508), (171, 16538), (177, 16565), (185, 16616), (212, 16748), (221, 16787), (226, 16805), (234, 16835), (235, 16838), (237, 16847), (243, 16880), (246, 16889), (257, 16940), (274, 17000), (280, 17024), (281, 17030),

Gene: ElGato_21 Start: 16263, Stop: 17480, Start Num: 14
Candidate Starts for ElGato_21:
(Start: 14 @16263 has 117 MA's), (23, 16290), (32, 16341), (63, 16473), (82, 16575), (121, 16731), (128, 16761), (134, 16785), (141, 16818), (145, 16842), (163, 16917), (173, 16980), (207, 17169), (212, 17184), (215, 17199), (227, 17244), (232, 17265), (237, 17283), (257, 17376), (264, 17406), (280, 17466), (281, 17472),

Gene: Elener_20 Start: 16464, Stop: 17870, Start Num: 25
Candidate Starts for Elener_20:
(1, 15846), (4, 16167), (5, 16203), (Start: 25 @16464 has 1 MA's), (28, 16482), (30, 16503), (51, 16602), (67, 16668), (95, 16821), (99, 16830), (168, 17175), (199, 17415), (205, 17442), (216, 17529), (219, 17544), (223, 17559), (251, 17673), (272, 17766), (284, 17826),

Gene: Emaanora_22 Start: 15830, Stop: 17041, Start Num: 14
Candidate Starts for Emaanora_22:
(Start: 14 @15830 has 117 MA's), (63, 16040), (65, 16052), (66, 16055), (74, 16103), (96, 16202), (102, 16229), (121, 16298), (134, 16352), (145, 16409), (163, 16484), (166, 16511), (171, 16541), (176, 16565), (185, 16619), (198, 16697), (212, 16751), (221, 16790), (226, 16808), (235, 16841), (237, 16850), (243, 16883), (246, 16892), (257, 16943), (280, 17027), (281, 17033),

Gene: EnochSoames_22 Start: 16013, Stop: 17215, Start Num: 14
Candidate Starts for EnochSoames_22:
(Start: 14 @16013 has 117 MA's), (23, 16040), (63, 16223), (74, 16286), (96, 16385), (102, 16412), (121, 16481), (128, 16511), (155, 16631), (210, 16928), (212, 16934), (221, 16973), (227, 16994), (235, 17024), (237, 17033), (243, 17066), (261, 17147), (277, 17189), (278, 17192), (280, 17201), (281, 17207),

Gene: Enochoraptor_16 Start: 12247, Stop: 13404, Start Num: 16
Candidate Starts for Enochoraptor_16:
(Start: 14 @12244 has 117 MA's), (Start: 16 @12247 has 44 MA's), (23, 12274), (27, 12298), (33, 12325), (37, 12337), (40, 12352), (42, 12367), (43, 12370), (50, 12403), (65, 12466), (68, 12475), (73, 12508), (81, 12541), (82, 12550), (83, 12553), (84, 12556), (86, 12565), (89, 12583), (90, 12586), (101, 12646), (103, 12658), (104, 12661), (115, 12694), (117, 12700), (129, 12745), (131, 12757), (138, 12775), (139, 12781), (140, 12784), (142, 12799), (144, 12811), (152, 12850), (155, 12865), (156, 12874), (160, 12889), (161, 12892), (165, 12916), (171, 12958), (172, 12961), (173, 12964), (182, 13018), (188, 13051), (193, 13087), (199, 13114), (200, 13117), (211, 13156), (214, 13171), (215, 13174), (221, 13198), (224, 13210), (227, 13219), (229, 13225), (236, 13252), (240, 13267), (247, 13303), (254, 13345), (255, 13348), (257, 13360), (258, 13369), (261, 13381), (264, 13390),

Gene: Enoki_16 Start: 12229, Stop: 13386, Start Num: 16
Candidate Starts for Enoki_16:
(Start: 14 @12226 has 117 MA's), (Start: 16 @12229 has 44 MA's), (23, 12256), (27, 12280), (33, 12307), (35, 12313), (37, 12319), (40, 12334), (42, 12349), (43, 12352), (44, 12355), (50, 12385), (65, 12448), (71, 12466), (73, 12490), (81, 12523), (82, 12532), (84, 12538), (86, 12547), (89, 12565), (91, 12574), (104, 12643), (115, 12676), (117, 12682), (131, 12739), (137, 12754), (138, 12757), (139, 12763), (140, 12766), (142, 12781), (144, 12793), (152, 12832), (153, 12835), (155, 12847), (156, 12856), (160, 12871), (161, 12874), (165, 12898), (167, 12913), (171, 12940), (172, 12943), (182, 13000), (188, 13033), (193, 13069), (199, 13096), (200, 13099), (211, 13138), (214, 13153), (215,

13156), (221, 13180), (224, 13192), (227, 13201), (229, 13207), (247, 13285), (254, 13327), (257, 13342), (258, 13351), (261, 13363), (264, 13372),

Gene: Esperer_20 Start: 15854, Stop: 17068, Start Num: 14
Candidate Starts for Esperer_20:
(Start: 14 @15854 has 117 MA's), (23, 15881), (63, 16064), (74, 16127), (96, 16226), (102, 16253), (121, 16322), (128, 16352), (155, 16472), (173, 16571), (210, 16769), (212, 16775), (221, 16814), (228, 16838), (235, 16865), (237, 16874), (243, 16907), (257, 16967), (264, 16997), (278, 17045), (280, 17054), (281, 17060),

Gene: GirlDinner_20 Start: 15565, Stop: 16776, Start Num: 14
Candidate Starts for GirlDinner_20:
(Start: 14 @15565 has 117 MA's), (63, 15775), (65, 15787), (66, 15790), (78, 15850), (102, 15964), (105, 15979), (120, 16030), (162, 16216), (173, 16282), (176, 16300), (177, 16303), (200, 16441), (212, 16486), (215, 16501), (227, 16546), (228, 16549), (231, 16564), (235, 16576), (237, 16585), (257, 16678), (280, 16762), (281, 16768),

Gene: Goby_20 Start: 15844, Stop: 17055, Start Num: 14
Candidate Starts for Goby_20:
(Start: 14 @15844 has 117 MA's), (23, 15871), (48, 15997), (55, 16024), (63, 16054), (74, 16117), (96, 16216), (102, 16243), (121, 16312), (134, 16366), (137, 16378), (145, 16423), (162, 16495), (163, 16498), (173, 16561), (177, 16582), (188, 16657), (210, 16759), (212, 16765), (220, 16801), (221, 16804), (226, 16822), (237, 16864), (279, 17038), (280, 17041), (281, 17047),

Gene: Godpower_21 Start: 15855, Stop: 17066, Start Num: 14
Candidate Starts for Godpower_21:
(Start: 14 @15855 has 117 MA's), (23, 15882), (63, 16065), (65, 16077), (66, 16080), (74, 16128), (96, 16227), (102, 16254), (121, 16323), (134, 16377), (145, 16434), (163, 16509), (171, 16566), (177, 16593), (212, 16776), (221, 16815), (234, 16863), (235, 16866), (237, 16875), (243, 16908), (280, 17052), (281, 17058),

Gene: GreenWeasel_22 Start: 16555, Stop: 17760, Start Num: 14
Candidate Starts for GreenWeasel_22:
(9, 16537), (Start: 11 @16549 has 1 MA's), (Start: 14 @16555 has 117 MA's), (35, 16642), (57, 16741), (65, 16777), (78, 16840), (102, 16954), (104, 16966), (120, 17020), (121, 17023), (128, 17053), (134, 17077), (145, 17134), (155, 17173), (162, 17206), (163, 17209), (170, 17257), (212, 17476), (215, 17491), (227, 17536), (235, 17566), (239, 17581), (246, 17617), (278, 17737), (280, 17746), (281, 17752),

Gene: Haizum_20 Start: 16338, Stop: 17552, Start Num: 14
Candidate Starts for Haizum_20:
(Start: 14 @16338 has 117 MA's), (23, 16365), (40, 16446), (57, 16524), (60, 16542), (65, 16560), (66, 16563), (78, 16623), (102, 16737), (134, 16860), (145, 16917), (200, 17214), (212, 17259), (228, 17322), (257, 17451), (278, 17529), (280, 17538), (281, 17544),

Gene: Hank144_21 Start: 15960, Stop: 17171, Start Num: 14
Candidate Starts for Hank144_21:
(Start: 14 @15960 has 117 MA's), (40, 16068), (42, 16083), (63, 16170), (65, 16182), (66, 16185), (78, 16245), (102, 16359), (105, 16374), (134, 16482), (162, 16611), (173, 16677), (177, 16698), (180, 16719), (200, 16836), (210, 16875), (212, 16881), (215, 16896), (235, 16971), (237, 16980), (257, 17073), (280, 17157), (281, 17163),

Gene: Hippo_20 Start: 15830, Stop: 17041, Start Num: 14

Candidate Starts for Hippo_20:
(Start: 14 @15830 has 117 MA's), (63, 16040), (65, 16052), (66, 16055), (74, 16103), (96, 16202), (102, 16229), (121, 16298), (134, 16352), (145, 16409), (163, 16484), (166, 16511), (171, 16541), (176, 16565), (185, 16619), (198, 16697), (212, 16751), (221, 16790), (226, 16808), (235, 16841), (237, 16850), (243, 16883), (246, 16892), (257, 16943), (264, 16973), (280, 17027), (281, 17033),

Gene: Hum25_19 Start: 13554, Stop: 15002, Start Num: 13
Candidate Starts for Hum25_19:
(10, 13542), (Start: 13 @13554 has 3 MA's), (20, 13569), (23, 13584), (40, 13662), (42, 13677), (44, 13683), (45, 13689), (46, 13704), (50, 13716), (54, 13740), (75, 13824), (102, 13947), (106, 13974), (109, 13989), (126, 14046), (136, 14076), (140, 14091), (152, 14145), (154, 14151), (164, 14202), (166, 14217), (172, 14250), (185, 14316), (186, 14328), (202, 14415), (211, 14436), (216, 14457), (242, 14556), (253, 14610), (262, 14649), (263, 14652), (275, 14694), (287, 14820), (288, 14853), (290, 14901),

Gene: Hydra_22 Start: 16382, Stop: 17596, Start Num: 14
Candidate Starts for Hydra_22:
(Start: 14 @16382 has 117 MA's), (23, 16409), (63, 16592), (74, 16655), (96, 16754), (102, 16781), (121, 16850), (128, 16880), (155, 17000), (173, 17099), (210, 17297), (212, 17303), (221, 17342), (228, 17366), (235, 17393), (237, 17402), (243, 17435), (257, 17495), (264, 17525), (278, 17573), (280, 17582), (281, 17588),

Gene: Ibantik_81 Start: 42960, Stop: 44192, Start Num: 18
Candidate Starts for Ibantik_81:
(Start: 18 @42960 has 5 MA's), (35, 43035), (36, 43038), (53, 43125), (64, 43161), (80, 43257), (94, 43329), (97, 43335), (98, 43338), (104, 43374), (111, 43404), (134, 43485), (154, 43578), (177, 43707), (192, 43803), (198, 43830), (243, 43989), (246, 43998), (250, 44013), (253, 44031), (255, 44037), (259, 44061), (268, 44088), (282, 44154), (286, 44187),

Gene: Indigo_20 Start: 15854, Stop: 17068, Start Num: 14
Candidate Starts for Indigo_20:
(Start: 14 @15854 has 117 MA's), (23, 15881), (63, 16064), (74, 16127), (96, 16226), (102, 16253), (121, 16322), (128, 16352), (155, 16472), (173, 16571), (210, 16769), (212, 16775), (221, 16814), (228, 16838), (235, 16865), (237, 16874), (243, 16907), (257, 16967), (264, 16997), (278, 17045), (280, 17054), (281, 17060),

Gene: Issmi_21 Start: 16769, Stop: 17983, Start Num: 14
Candidate Starts for Issmi_21:
(Start: 14 @16769 has 117 MA's), (23, 16796), (42, 16892), (60, 16973), (63, 16979), (65, 16991), (66, 16994), (78, 17054), (79, 17066), (102, 17168), (104, 17180), (121, 17237), (134, 17291), (145, 17348), (173, 17486), (212, 17690), (228, 17753), (235, 17780), (238, 17792), (257, 17882), (278, 17960), (280, 17969), (281, 17975),

Gene: Itza_20 Start: 16200, Stop: 17420, Start Num: 14
Candidate Starts for Itza_20:
(Start: 14 @16200 has 117 MA's), (26, 16242), (35, 16287), (49, 16356), (60, 16404), (63, 16410), (101, 16596), (102, 16599), (107, 16623), (121, 16668), (134, 16722), (166, 16881), (173, 16917), (205, 17100), (215, 17136), (221, 17160), (226, 17178), (228, 17184), (237, 17220), (246, 17262), (276, 17388), (280, 17406), (281, 17412),

Gene: Izzy_21 Start: 16064, Stop: 17266, Start Num: 14
Candidate Starts for Izzy_21:

(Start: 14 @16064 has 117 MA's), (23, 16091), (63, 16274), (74, 16337), (96, 16436), (102, 16463), (121, 16532), (128, 16562), (210, 16979), (212, 16985), (221, 17024), (227, 17045), (235, 17075), (237, 17084), (243, 17117), (261, 17198), (277, 17240), (278, 17243), (280, 17252), (281, 17258),

Gene: Janus_21 Start: 15903, Stop: 17114, Start Num: 14
Candidate Starts for Janus_21:
(Start: 14 @15903 has 117 MA's), (63, 16113), (65, 16125), (66, 16128), (78, 16188), (79, 16200), (102, 16302), (105, 16317), (120, 16368), (159, 16542), (162, 16554), (173, 16620), (176, 16638), (177, 16641), (200, 16779), (212, 16824), (215, 16839), (227, 16884), (228, 16887), (235, 16914), (237, 16923), (257, 17016), (280, 17100), (281, 17106),

Gene: Jash_21 Start: 16017, Stop: 17219, Start Num: 14
Candidate Starts for Jash_21:
(Start: 14 @16017 has 117 MA's), (23, 16044), (63, 16227), (74, 16290), (96, 16389), (102, 16416), (121, 16485), (128, 16515), (210, 16932), (212, 16938), (221, 16977), (227, 16998), (235, 17028), (237, 17037), (243, 17070), (261, 17151), (277, 17193), (278, 17196), (280, 17205), (281, 17211),

Gene: JeanClaude_18 Start: 13987, Stop: 15105, Start Num: 17
Candidate Starts for JeanClaude_18:
(Start: 14 @13981 has 117 MA's), (Start: 17 @13987 has 6 MA's), (21, 13996), (52, 14161), (63, 14194), (68, 14215), (87, 14305), (102, 14377), (103, 14386), (116, 14431), (126, 14473), (130, 14485), (140, 14518), (223, 14920), (256, 15052), (265, 15091), (267, 15097),

Gene: Jevington_22 Start: 16207, Stop: 17418, Start Num: 14
Candidate Starts for Jevington_22:
(Start: 14 @16207 has 117 MA's), (33, 16288), (63, 16417), (65, 16429), (78, 16492), (102, 16606), (105, 16621), (134, 16729), (141, 16762), (145, 16786), (162, 16858), (173, 16924), (176, 16942), (177, 16945), (180, 16966), (200, 17083), (212, 17128), (215, 17143), (237, 17227), (239, 17233), (255, 17308), (257, 17320), (278, 17395), (280, 17404), (281, 17410),

Gene: Jhitchelle_20 Start: 16170, Stop: 17387, Start Num: 14
Candidate Starts for Jhitchelle_20:
(Start: 14 @16170 has 117 MA's), (23, 16197), (32, 16248), (45, 16305), (63, 16380), (73, 16440), (121, 16638), (127, 16665), (141, 16725), (145, 16749), (163, 16824), (173, 16887), (207, 17076), (212, 17091), (215, 17106), (237, 17190), (257, 17283), (280, 17373), (281, 17379),

Gene: Kaine_20 Start: 16241, Stop: 17458, Start Num: 14
Candidate Starts for Kaine_20:
(Start: 14 @16241 has 117 MA's), (23, 16268), (32, 16319), (63, 16451), (66, 16466), (82, 16553), (96, 16613), (121, 16709), (128, 16739), (141, 16796), (145, 16820), (163, 16895), (166, 16922), (173, 16958), (207, 17147), (212, 17162), (215, 17177), (227, 17222), (232, 17243), (237, 17261), (257, 17354), (264, 17384), (280, 17444), (281, 17450),

Gene: Katalie_21 Start: 16096, Stop: 17307, Start Num: 14
Candidate Starts for Katalie_21:
(Start: 14 @16096 has 117 MA's), (23, 16123), (55, 16276), (63, 16306), (74, 16369), (96, 16468), (102, 16495), (121, 16564), (145, 16675), (162, 16747), (163, 16750), (166, 16777), (173, 16813), (177, 16834), (212, 17017), (220, 17053), (221, 17056), (226, 17074), (237, 17116), (257, 17209), (280, 17293), (281, 17299),

Gene: Keiki_16 Start: 12250, Stop: 13407, Start Num: 16
Candidate Starts for Keiki_16:

(Start: 16 @12250 has 44 MA's), (23, 12277), (27, 12301), (35, 12334), (37, 12340), (40, 12355), (42, 12370), (43, 12373), (44, 12376), (50, 12406), (65, 12469), (68, 12478), (73, 12511), (81, 12544), (82, 12553), (83, 12556), (84, 12559), (86, 12568), (89, 12586), (90, 12589), (101, 12649), (103, 12661), (104, 12664), (117, 12703), (118, 12706), (129, 12748), (131, 12760), (137, 12775), (138, 12778), (139, 12784), (140, 12787), (142, 12802), (144, 12814), (149, 12835), (153, 12856), (155, 12868), (156, 12877), (160, 12892), (161, 12895), (165, 12919), (167, 12934), (171, 12961), (182, 13021), (188, 13054), (193, 13090), (199, 13117), (211, 13159), (214, 13174), (215, 13177), (221, 13201), (224, 13213), (229, 13228), (240, 13270), (247, 13306), (254, 13348), (255, 13351), (258, 13372), (261, 13384), (264, 13393),

Gene: Khuang_16 Start: 13963, Stop: 15075, Start Num: 16
Candidate Starts for Khuang_16:
(3, 13687), (Start: 14 @13960 has 117 MA's), (Start: 16 @13963 has 44 MA's), (29, 14017), (40, 14056), (44, 14077), (63, 14158), (66, 14173), (73, 14212), (102, 14341), (112, 14389), (114, 14392), (130, 14443), (146, 14512), (152, 14530), (172, 14635), (207, 14815), (217, 14857), (237, 14929), (241, 14944), (265, 15058),

Gene: Kromp_19 Start: 17084, Stop: 18241, Start Num: 18
Candidate Starts for Kromp_19:
(Start: 18 @17084 has 5 MA's), (48, 17225), (65, 17294), (103, 17492), (120, 17549), (130, 17588), (151, 17687), (187, 17888), (189, 17900), (231, 18083), (244, 18140), (255, 18185), (256, 18188),

Gene: Kubed_16 Start: 12239, Stop: 13396, Start Num: 16
Candidate Starts for Kubed_16:
(Start: 16 @12239 has 44 MA's), (23, 12266), (27, 12290), (33, 12317), (37, 12329), (40, 12344), (42, 12359), (43, 12362), (44, 12365), (50, 12395), (58, 12422), (65, 12458), (68, 12467), (73, 12500), (81, 12533), (82, 12542), (83, 12545), (84, 12548), (86, 12557), (101, 12638), (103, 12650), (104, 12653), (115, 12686), (117, 12692), (131, 12749), (137, 12764), (138, 12767), (139, 12773), (140, 12776), (142, 12791), (152, 12842), (153, 12845), (155, 12857), (156, 12866), (160, 12881), (161, 12884), (165, 12908), (167, 12923), (171, 12950), (173, 12956), (181, 13001), (188, 13043), (193, 13079), (195, 13085), (199, 13106), (200, 13109), (211, 13148), (214, 13163), (215, 13166), (220, 13187), (221, 13190), (224, 13202), (229, 13217), (236, 13244), (240, 13259), (247, 13295), (254, 13337), (255, 13340), (258, 13361), (261, 13373), (264, 13382),

Gene: Kumotta_19 Start: 15048, Stop: 16172, Start Num: 14
Candidate Starts for Kumotta_19:
(Start: 13 @15045 has 3 MA's), (Start: 14 @15048 has 117 MA's), (42, 15162), (50, 15201), (54, 15225), (66, 15264), (116, 15489), (119, 15501), (126, 15531), (130, 15543), (133, 15555), (137, 15564), (186, 15813), (193, 15861), (194, 15864),

Gene: Lannister_21 Start: 15861, Stop: 17075, Start Num: 14
Candidate Starts for Lannister_21:
(Start: 14 @15861 has 117 MA's), (23, 15888), (63, 16071), (65, 16083), (74, 16134), (96, 16233), (102, 16260), (121, 16329), (134, 16383), (145, 16440), (163, 16515), (166, 16542), (171, 16572), (176, 16596), (212, 16782), (221, 16821), (226, 16839), (234, 16869), (235, 16872), (237, 16881), (243, 16914), (246, 16923), (279, 17058), (280, 17061), (281, 17067),

Gene: Lauchelly_16 Start: 12253, Stop: 13410, Start Num: 16
Candidate Starts for Lauchelly_16:
(Start: 14 @12250 has 117 MA's), (Start: 16 @12253 has 44 MA's), (23, 12280), (27, 12304), (35, 12337), (37, 12343), (40, 12358), (42, 12373), (43, 12376), (44, 12379), (50, 12409), (65, 12472), (68, 12481), (71, 12490), (73, 12514), (81, 12547), (82, 12556), (83, 12559), (84, 12562), (86, 12571), (89, 12589), (90, 12592), (103, 12664), (104, 12667), (115, 12700), (117, 12706), (138, 12781), (139,

12787), (140, 12790), (142, 12805), (144, 12817), (152, 12856), (153, 12859), (155, 12871), (156, 12880), (160, 12895), (161, 12898), (165, 12922), (167, 12937), (171, 12964), (182, 13024), (188, 13057), (193, 13093), (199, 13120), (200, 13123), (211, 13162), (214, 13177), (215, 13180), (221, 13204), (224, 13216), (229, 13231), (240, 13273), (247, 13309), (254, 13351), (255, 13354), (257, 13366), (258, 13375), (261, 13387), (264, 13396),

Gene: Legacy_20 Start: 15825, Stop: 17039, Start Num: 14
Candidate Starts for Legacy_20:
(Start: 14 @15825 has 117 MA's), (23, 15852), (63, 16035), (74, 16098), (96, 16197), (102, 16224), (121, 16293), (128, 16323), (155, 16443), (173, 16542), (210, 16740), (212, 16746), (221, 16785), (228, 16809), (235, 16836), (237, 16845), (243, 16878), (257, 16938), (264, 16968), (278, 17016), (280, 17025), (281, 17031),

Gene: Leviosa_16 Start: 12267, Stop: 13424, Start Num: 16
Candidate Starts for Leviosa_16:
(Start: 16 @12267 has 44 MA's), (23, 12294), (27, 12318), (35, 12351), (37, 12357), (40, 12372), (42, 12387), (43, 12390), (44, 12393), (50, 12423), (65, 12486), (73, 12528), (81, 12561), (82, 12570), (83, 12573), (84, 12576), (89, 12603), (90, 12606), (103, 12678), (104, 12681), (115, 12714), (117, 12720), (129, 12765), (131, 12777), (138, 12795), (139, 12801), (140, 12804), (142, 12819), (144, 12831), (152, 12870), (153, 12873), (155, 12885), (156, 12894), (160, 12909), (161, 12912), (165, 12936), (167, 12951), (171, 12978), (172, 12981), (182, 13038), (188, 13071), (193, 13107), (199, 13134), (200, 13137), (211, 13176), (214, 13191), (215, 13194), (221, 13218), (224, 13230), (229, 13245), (236, 13272), (240, 13287), (247, 13323), (254, 13365), (255, 13368), (258, 13389), (261, 13401),

Gene: Leviticus_20 Start: 15854, Stop: 17068, Start Num: 14
Candidate Starts for Leviticus_20:
(Start: 14 @15854 has 117 MA's), (23, 15881), (63, 16064), (74, 16127), (96, 16226), (102, 16253), (121, 16322), (128, 16352), (155, 16472), (173, 16571), (210, 16769), (212, 16775), (221, 16814), (228, 16838), (235, 16865), (237, 16874), (243, 16907), (257, 16967), (264, 16997), (278, 17045), (280, 17054), (281, 17060),

Gene: Lika_20 Start: 15859, Stop: 17070, Start Num: 14
Candidate Starts for Lika_20:
(Start: 14 @15859 has 117 MA's), (23, 15886), (63, 16069), (65, 16081), (66, 16084), (74, 16132), (96, 16231), (102, 16258), (121, 16327), (134, 16381), (145, 16438), (163, 16513), (171, 16570), (177, 16597), (212, 16780), (221, 16819), (234, 16867), (235, 16870), (237, 16879), (243, 16912), (280, 17056), (281, 17062),

Gene: LilBandit_16 Start: 12248, Stop: 13408, Start Num: 14
Candidate Starts for LilBandit_16:
(Start: 14 @12248 has 117 MA's), (Start: 16 @12251 has 44 MA's), (23, 12278), (27, 12302), (33, 12329), (35, 12335), (37, 12341), (42, 12371), (43, 12374), (44, 12377), (50, 12407), (65, 12470), (68, 12479), (71, 12488), (73, 12512), (81, 12545), (82, 12554), (83, 12557), (84, 12560), (86, 12569), (89, 12587), (91, 12596), (101, 12650), (103, 12662), (104, 12665), (115, 12698), (117, 12704), (129, 12749), (131, 12761), (137, 12776), (138, 12779), (139, 12785), (140, 12788), (142, 12803), (144, 12815), (152, 12854), (153, 12857), (155, 12869), (156, 12878), (160, 12893), (161, 12896), (165, 12920), (167, 12935), (171, 12962), (172, 12965), (188, 13055), (193, 13091), (199, 13118), (211, 13160), (214, 13175), (215, 13178), (221, 13202), (224, 13214), (227, 13223), (229, 13229), (240, 13271), (254, 13349), (257, 13364), (258, 13373), (261, 13385), (264, 13394),

Gene: Loofah_21 Start: 15822, Stop: 17033, Start Num: 14
Candidate Starts for Loofah_21:

(Start: 14 @15822 has 117 MA's), (40, 15930), (63, 16032), (65, 16044), (66, 16047), (78, 16107), (102, 16221), (105, 16236), (134, 16344), (141, 16377), (145, 16401), (162, 16473), (166, 16503), (176, 16557), (177, 16560), (180, 16581), (200, 16698), (212, 16743), (215, 16758), (237, 16842), (238, 16845), (239, 16848), (246, 16884), (255, 16923), (257, 16935), (268, 16974), (277, 17007), (278, 17010), (280, 17019), (281, 17025),

Gene: Lorelei_20 Start: 15829, Stop: 17040, Start Num: 14
Candidate Starts for Lorelei_20:
(Start: 14 @15829 has 117 MA's), (23, 15856), (55, 16009), (63, 16039), (74, 16102), (96, 16201), (102, 16228), (121, 16297), (134, 16351), (135, 16354), (137, 16363), (145, 16408), (162, 16480), (163, 16483), (173, 16546), (177, 16567), (188, 16642), (198, 16696), (210, 16744), (212, 16750), (220, 16786), (221, 16789), (226, 16807), (237, 16849), (279, 17023), (280, 17026), (281, 17032),

Gene: MEAK_16 Start: 12237, Stop: 13394, Start Num: 16
Candidate Starts for MEAK_16:
(Start: 14 @12234 has 117 MA's), (Start: 16 @12237 has 44 MA's), (23, 12264), (27, 12288), (33, 12315), (35, 12321), (37, 12327), (40, 12342), (42, 12357), (43, 12360), (44, 12363), (50, 12393), (65, 12456), (68, 12465), (73, 12498), (81, 12531), (82, 12540), (84, 12546), (86, 12555), (89, 12573), (90, 12576), (91, 12582), (101, 12636), (103, 12648), (104, 12651), (115, 12684), (117, 12690), (131, 12747), (137, 12762), (138, 12765), (139, 12771), (140, 12774), (142, 12789), (144, 12801), (149, 12822), (152, 12840), (153, 12843), (155, 12855), (156, 12864), (160, 12879), (161, 12882), (165, 12906), (167, 12921), (171, 12948), (172, 12951), (182, 13008), (188, 13041), (193, 13077), (199, 13104), (211, 13146), (214, 13161), (215, 13164), (221, 13188), (224, 13200), (227, 13209), (229, 13215), (240, 13257), (247, 13293), (255, 13338), (258, 13359), (264, 13380),

Gene: Maja_18 Start: 14689, Stop: 15813, Start Num: 14
Candidate Starts for Maja_18:
(Start: 13 @14686 has 3 MA's), (Start: 14 @14689 has 117 MA's), (Start: 17 @14695 has 6 MA's), (63, 14902), (75, 14962), (103, 15094), (108, 15121), (126, 15181), (130, 15193), (140, 15226), (143, 15247), (172, 15385), (199, 15535), (223, 15628), (225, 15634), (230, 15649), (267, 15805),

Gene: Maneekul_20 Start: 15826, Stop: 17037, Start Num: 14
Candidate Starts for Maneekul_20:
(Start: 14 @15826 has 117 MA's), (23, 15853), (63, 16036), (65, 16048), (66, 16051), (96, 16198), (102, 16225), (134, 16348), (145, 16405), (163, 16480), (166, 16507), (171, 16537), (177, 16564), (185, 16615), (212, 16747), (221, 16786), (226, 16804), (234, 16834), (235, 16837), (237, 16846), (243, 16879), (246, 16888), (257, 16939), (274, 16999), (280, 17023), (281, 17029),

Gene: Marav_23 Start: 16557, Stop: 17768, Start Num: 14
Candidate Starts for Marav_23:
(Start: 14 @16557 has 117 MA's), (33, 16638), (63, 16767), (65, 16779), (78, 16842), (102, 16956), (105, 16971), (134, 17079), (141, 17112), (162, 17208), (166, 17238), (173, 17274), (176, 17292), (177, 17295), (180, 17316), (200, 17433), (212, 17478), (215, 17493), (237, 17577), (239, 17583), (255, 17658), (257, 17670), (278, 17745), (280, 17754), (281, 17760),

Gene: MargaretKali_19 Start: 14683, Stop: 15807, Start Num: 14
Candidate Starts for MargaretKali_19:
(Start: 13 @14680 has 3 MA's), (Start: 14 @14683 has 117 MA's), (42, 14797), (50, 14836), (54, 14860), (66, 14899), (116, 15124), (119, 15136), (126, 15166), (130, 15178), (133, 15190), (137, 15199), (186, 15448), (193, 15496), (194, 15499),

Gene: Merpity_20 Start: 13774, Stop: 14892, Start Num: 17
Candidate Starts for Merpity_20:

(Start: 17 @13774 has 6 MA's), (35, 13852), (38, 13861), (63, 13981), (65, 13993), (68, 14002), (87, 14092), (102, 14164), (103, 14173), (104, 14176), (116, 14218), (130, 14272), (140, 14305), (151, 14356), (184, 14524), (199, 14614), (220, 14695), (235, 14743), (245, 14791), (248, 14800), (256, 14839), (265, 14878),

Gene: Moyashi_16 Start: 12273, Stop: 13430, Start Num: 16
Candidate Starts for Moyashi_16:
(Start: 14 @12270 has 117 MA's), (Start: 16 @12273 has 44 MA's), (23, 12300), (27, 12324), (33, 12351), (37, 12363), (40, 12378), (41, 12387), (42, 12393), (43, 12396), (44, 12399), (50, 12429), (65, 12492), (71, 12510), (73, 12534), (81, 12567), (82, 12576), (84, 12582), (86, 12591), (91, 12618), (104, 12687), (117, 12726), (118, 12729), (131, 12783), (137, 12798), (138, 12801), (139, 12807), (140, 12810), (142, 12825), (144, 12837), (148, 12855), (155, 12891), (156, 12900), (160, 12915), (161, 12918), (165, 12942), (167, 12957), (171, 12984), (173, 12990), (182, 13044), (188, 13077), (193, 13113), (199, 13140), (200, 13143), (211, 13182), (214, 13197), (215, 13200), (221, 13224), (224, 13236), (227, 13245), (229, 13251), (240, 13293), (247, 13329), (255, 13374), (257, 13386), (258, 13395), (261, 13407), (264, 13416), (268, 13425),

Gene: MrAK_16 Start: 12284, Stop: 13441, Start Num: 16
Candidate Starts for MrAK_16:
(Start: 14 @12281 has 117 MA's), (Start: 16 @12284 has 44 MA's), (23, 12311), (27, 12335), (33, 12362), (35, 12368), (37, 12374), (40, 12389), (41, 12398), (42, 12404), (43, 12407), (44, 12410), (50, 12440), (65, 12503), (71, 12521), (73, 12545), (81, 12578), (82, 12587), (84, 12593), (86, 12602), (91, 12629), (104, 12698), (117, 12737), (118, 12740), (131, 12794), (137, 12809), (138, 12812), (139, 12818), (140, 12821), (142, 12836), (144, 12848), (148, 12866), (155, 12902), (156, 12911), (160, 12926), (161, 12929), (165, 12953), (167, 12968), (171, 12995), (173, 13001), (182, 13055), (188, 13088), (193, 13124), (199, 13151), (200, 13154), (211, 13193), (214, 13208), (215, 13211), (221, 13235), (224, 13247), (227, 13256), (229, 13262), (240, 13304), (247, 13340), (255, 13385), (257, 13397), (258, 13406), (261, 13418), (264, 13427),

Gene: MrSmee_18 Start: 13774, Stop: 14892, Start Num: 17
Candidate Starts for MrSmee_18:
(Start: 17 @13774 has 6 MA's), (35, 13852), (38, 13861), (63, 13981), (65, 13993), (68, 14002), (87, 14092), (102, 14164), (103, 14173), (104, 14176), (116, 14218), (130, 14272), (140, 14305), (151, 14356), (184, 14524), (199, 14614), (220, 14695), (235, 14743), (245, 14791), (248, 14800), (256, 14839), (265, 14878),

Gene: Nabi_20 Start: 15829, Stop: 17040, Start Num: 14
Candidate Starts for Nabi_20:
(Start: 14 @15829 has 117 MA's), (23, 15856), (55, 16009), (63, 16039), (74, 16102), (96, 16201), (102, 16228), (121, 16297), (134, 16351), (135, 16354), (137, 16363), (145, 16408), (162, 16480), (163, 16483), (173, 16546), (177, 16567), (188, 16642), (198, 16696), (210, 16744), (212, 16750), (220, 16786), (221, 16789), (226, 16807), (237, 16849), (279, 17023), (280, 17026), (281, 17032),

Gene: Nanodon_22 Start: 16037, Stop: 17248, Start Num: 14
Candidate Starts for Nanodon_22:
(Start: 14 @16037 has 117 MA's), (23, 16064), (55, 16217), (63, 16247), (74, 16310), (96, 16409), (100, 16421), (102, 16436), (121, 16505), (134, 16559), (162, 16688), (163, 16691), (173, 16754), (176, 16772), (212, 16958), (220, 16994), (221, 16997), (226, 17015), (237, 17057), (257, 17150), (280, 17234), (281, 17240),

Gene: Nerdos_20 Start: 15854, Stop: 17068, Start Num: 14
Candidate Starts for Nerdos_20:

(Start: 14 @15854 has 117 MA's), (23, 15881), (63, 16064), (74, 16127), (96, 16226), (102, 16253), (121, 16322), (128, 16352), (155, 16472), (173, 16571), (210, 16769), (212, 16775), (221, 16814), (228, 16838), (235, 16865), (237, 16874), (243, 16907), (257, 16967), (264, 16997), (278, 17045), (280, 17054), (281, 17060),

Gene: Nishikigoi_20 Start: 16338, Stop: 17552, Start Num: 14
Candidate Starts for Nishikigoi_20:
(Start: 14 @16338 has 117 MA's), (23, 16365), (40, 16446), (57, 16524), (60, 16542), (65, 16560), (66, 16563), (78, 16623), (102, 16737), (121, 16806), (134, 16860), (145, 16917), (200, 17214), (212, 17259), (228, 17322), (257, 17451), (278, 17529), (280, 17538), (281, 17544),

Gene: Oliynyk_21 Start: 16017, Stop: 17219, Start Num: 14
Candidate Starts for Oliynyk_21:
(Start: 14 @16017 has 117 MA's), (23, 16044), (63, 16227), (74, 16290), (96, 16389), (102, 16416), (121, 16485), (128, 16515), (210, 16932), (212, 16938), (221, 16977), (227, 16998), (235, 17028), (237, 17037), (243, 17070), (261, 17151), (277, 17193), (278, 17196), (280, 17205), (281, 17211),

Gene: Omar_21 Start: 16673, Stop: 17887, Start Num: 14
Candidate Starts for Omar_21:
(Start: 14 @16673 has 117 MA's), (23, 16700), (57, 16859), (60, 16877), (63, 16883), (65, 16895), (66, 16898), (78, 16958), (102, 17072), (121, 17141), (134, 17195), (141, 17228), (145, 17252), (166, 17354), (169, 17360), (207, 17579), (209, 17585), (212, 17594), (238, 17696), (257, 17786), (278, 17864), (280, 17873), (281, 17879),

Gene: Ouroboros_16 Start: 12239, Stop: 13396, Start Num: 16
Candidate Starts for Ouroboros_16:
(Start: 16 @12239 has 44 MA's), (23, 12266), (27, 12290), (33, 12317), (35, 12323), (37, 12329), (40, 12344), (42, 12359), (43, 12362), (44, 12365), (50, 12395), (65, 12458), (68, 12467), (73, 12500), (81, 12533), (82, 12542), (83, 12545), (84, 12548), (86, 12557), (89, 12575), (90, 12578), (101, 12638), (103, 12650), (104, 12653), (115, 12686), (117, 12692), (118, 12695), (129, 12737), (131, 12749), (137, 12764), (138, 12767), (139, 12773), (140, 12776), (142, 12791), (144, 12803), (149, 12824), (153, 12845), (155, 12857), (156, 12866), (160, 12881), (161, 12884), (165, 12908), (167, 12923), (171, 12950), (182, 13010), (188, 13043), (193, 13079), (199, 13106), (211, 13148), (214, 13163), (221, 13190), (224, 13202), (229, 13217), (236, 13244), (240, 13259), (247, 13295), (254, 13337), (258, 13361), (261, 13373),

Gene: Ozzie_20 Start: 15834, Stop: 17048, Start Num: 14
Candidate Starts for Ozzie_20:
(Start: 14 @15834 has 117 MA's), (23, 15861), (63, 16044), (74, 16107), (96, 16206), (102, 16233), (121, 16302), (128, 16332), (155, 16452), (173, 16551), (210, 16749), (212, 16755), (221, 16794), (228, 16818), (235, 16845), (237, 16854), (243, 16887), (257, 16947), (264, 16977), (278, 17025), (280, 17034), (281, 17040),

Gene: OzzyJ_21 Start: 15821, Stop: 17032, Start Num: 14
Candidate Starts for OzzyJ_21:
(Start: 14 @15821 has 117 MA's), (63, 16031), (65, 16043), (66, 16046), (74, 16094), (96, 16193), (102, 16220), (121, 16289), (134, 16343), (145, 16400), (163, 16475), (166, 16502), (171, 16532), (176, 16556), (185, 16610), (198, 16688), (212, 16742), (221, 16781), (226, 16799), (235, 16832), (237, 16841), (243, 16874), (246, 16883), (257, 16934), (280, 17018), (281, 17024),

Gene: P1.1_16 Start: 12239, Stop: 13399, Start Num: 14
Candidate Starts for P1.1_16:

(Start: 14 @12239 has 117 MA's), (Start: 16 @12242 has 44 MA's), (23, 12269), (27, 12293), (33, 12320), (35, 12326), (37, 12332), (40, 12347), (42, 12362), (43, 12365), (44, 12368), (50, 12398), (65, 12461), (71, 12479), (73, 12503), (81, 12536), (82, 12545), (84, 12551), (86, 12560), (89, 12578), (91, 12587), (101, 12641), (103, 12653), (104, 12656), (115, 12689), (117, 12695), (129, 12740), (131, 12752), (137, 12767), (138, 12770), (139, 12776), (140, 12779), (142, 12794), (144, 12806), (152, 12845), (153, 12848), (155, 12860), (156, 12869), (160, 12884), (161, 12887), (165, 12911), (167, 12926), (171, 12953), (172, 12956), (182, 13013), (188, 13046), (193, 13082), (199, 13109), (200, 13112), (211, 13151), (214, 13166), (215, 13169), (221, 13193), (227, 13214), (229, 13220), (240, 13262), (247, 13298), (255, 13343), (257, 13355), (258, 13364), (264, 13385),

Gene: P100.1_16 Start: 12249, Stop: 13406, Start Num: 16
Candidate Starts for P100.1_16:
(Start: 14 @12246 has 117 MA's), (Start: 16 @12249 has 44 MA's), (23, 12276), (27, 12300), (33, 12327), (37, 12339), (40, 12354), (41, 12363), (42, 12369), (43, 12372), (44, 12375), (49, 12402), (50, 12405), (65, 12468), (71, 12486), (73, 12510), (81, 12543), (82, 12552), (83, 12555), (84, 12558), (86, 12567), (89, 12585), (91, 12594), (103, 12660), (104, 12663), (115, 12696), (117, 12702), (131, 12759), (138, 12777), (139, 12783), (140, 12786), (142, 12801), (144, 12813), (148, 12831), (152, 12852), (156, 12876), (160, 12891), (161, 12894), (165, 12918), (167, 12933), (171, 12960), (172, 12963), (182, 13020), (188, 13053), (193, 13089), (199, 13116), (211, 13158), (214, 13173), (215, 13176), (221, 13200), (224, 13212), (227, 13221), (229, 13227), (240, 13269), (247, 13305), (254, 13347), (255, 13350), (257, 13362), (258, 13371), (261, 13383), (264, 13392),

Gene: P100A_16 Start: 12249, Stop: 13406, Start Num: 16
Candidate Starts for P100A_16:
(Start: 16 @12249 has 44 MA's), (23, 12276), (27, 12300), (35, 12333), (37, 12339), (40, 12354), (42, 12369), (43, 12372), (44, 12375), (50, 12405), (56, 12429), (65, 12468), (68, 12477), (73, 12510), (81, 12543), (82, 12552), (84, 12558), (86, 12567), (89, 12585), (90, 12588), (101, 12648), (103, 12660), (104, 12663), (115, 12696), (117, 12702), (118, 12705), (129, 12747), (131, 12759), (138, 12777), (142, 12801), (144, 12813), (153, 12855), (156, 12876), (160, 12891), (161, 12894), (165, 12918), (167, 12933), (171, 12960), (182, 13020), (188, 13053), (193, 13089), (199, 13116), (200, 13119), (211, 13158), (214, 13173), (215, 13176), (221, 13200), (229, 13227), (236, 13254), (240, 13269), (247, 13305), (255, 13350), (258, 13371), (261, 13383), (264, 13392),

Gene: P100D_16 Start: 12245, Stop: 13402, Start Num: 16
Candidate Starts for P100D_16:
(Start: 14 @12242 has 117 MA's), (Start: 16 @12245 has 44 MA's), (23, 12272), (27, 12296), (33, 12323), (35, 12329), (37, 12335), (40, 12350), (42, 12365), (43, 12368), (44, 12371), (50, 12401), (65, 12464), (71, 12482), (73, 12506), (81, 12539), (82, 12548), (84, 12554), (86, 12563), (89, 12581), (91, 12590), (101, 12644), (103, 12656), (104, 12659), (115, 12692), (117, 12698), (129, 12743), (131, 12755), (138, 12773), (139, 12779), (140, 12782), (142, 12797), (144, 12809), (149, 12830), (152, 12848), (153, 12851), (155, 12863), (156, 12872), (160, 12887), (161, 12890), (165, 12914), (167, 12929), (171, 12956), (172, 12959), (182, 13016), (188, 13049), (193, 13085), (199, 13112), (211, 13154), (214, 13169), (215, 13172), (221, 13196), (224, 13208), (227, 13217), (229, 13223), (240, 13265), (247, 13301), (254, 13343), (258, 13367), (261, 13379), (264, 13388),

Gene: P101A_16 Start: 12257, Stop: 13414, Start Num: 16
Candidate Starts for P101A_16:
(Start: 14 @12254 has 117 MA's), (Start: 16 @12257 has 44 MA's), (23, 12284), (27, 12308), (33, 12335), (35, 12341), (37, 12347), (40, 12362), (42, 12377), (43, 12380), (44, 12383), (50, 12413), (65, 12476), (71, 12494), (73, 12518), (81, 12551), (82, 12560), (83, 12563), (84, 12566), (86, 12575), (89, 12593), (91, 12602), (103, 12668), (104, 12671), (115, 12704), (117, 12710), (131, 12767), (137, 12782), (138, 12785), (139, 12791), (140, 12794), (142, 12809), (144, 12821), (148, 12839), (152, 12860), (156, 12884), (160, 12899), (161, 12902), (165, 12926), (167, 12941), (171, 12968), (172,

12971), (188, 13061), (193, 13097), (199, 13124), (211, 13166), (214, 13181), (215, 13184), (221, 13208), (224, 13220), (227, 13229), (229, 13235), (240, 13277), (247, 13313), (254, 13355), (255, 13358), (257, 13370), (258, 13379), (261, 13391), (264, 13400),

Gene: P104A_16 Start: 12234, Stop: 13391, Start Num: 16
Candidate Starts for P104A_16:
(Start: 16 @12234 has 44 MA's), (23, 12261), (27, 12285), (35, 12318), (37, 12324), (40, 12339), (42, 12354), (43, 12357), (44, 12360), (50, 12390), (65, 12453), (71, 12471), (73, 12495), (81, 12528), (82, 12537), (84, 12543), (86, 12552), (89, 12570), (91, 12579), (103, 12645), (104, 12648), (115, 12681), (117, 12687), (131, 12744), (137, 12759), (138, 12762), (139, 12768), (140, 12771), (142, 12786), (144, 12798), (152, 12837), (153, 12840), (155, 12852), (156, 12861), (160, 12876), (161, 12879), (165, 12903), (167, 12918), (171, 12945), (172, 12948), (182, 13005), (188, 13038), (193, 13074), (199, 13101), (200, 13104), (211, 13143), (214, 13158), (215, 13161), (221, 13185), (229, 13212), (236, 13239), (240, 13254), (247, 13290), (254, 13332), (258, 13356), (261, 13368), (264, 13377),

Gene: P104B_16 Start: 12251, Stop: 13408, Start Num: 16
Candidate Starts for P104B_16:
(Start: 14 @12248 has 117 MA's), (Start: 16 @12251 has 44 MA's), (23, 12278), (27, 12302), (33, 12329), (35, 12335), (37, 12341), (40, 12356), (42, 12371), (43, 12374), (44, 12377), (50, 12407), (65, 12470), (68, 12479), (71, 12488), (73, 12512), (81, 12545), (82, 12554), (84, 12560), (86, 12569), (89, 12587), (91, 12596), (103, 12662), (104, 12665), (115, 12698), (117, 12704), (129, 12749), (137, 12776), (138, 12779), (139, 12785), (140, 12788), (142, 12803), (144, 12815), (152, 12854), (155, 12869), (156, 12878), (160, 12893), (161, 12896), (165, 12920), (167, 12935), (171, 12962), (172, 12965), (182, 13022), (188, 13055), (199, 13118), (211, 13160), (214, 13175), (215, 13178), (221, 13202), (224, 13214), (227, 13223), (229, 13229), (236, 13256), (240, 13271), (247, 13307), (255, 13352), (258, 13373), (261, 13385), (264, 13394),

Gene: P105_16 Start: 12154, Stop: 13311, Start Num: 16
Candidate Starts for P105_16:
(Start: 14 @12151 has 117 MA's), (Start: 16 @12154 has 44 MA's), (23, 12181), (27, 12205), (33, 12232), (35, 12238), (37, 12244), (40, 12259), (42, 12274), (43, 12277), (44, 12280), (50, 12310), (65, 12373), (71, 12391), (73, 12415), (81, 12448), (82, 12457), (84, 12463), (86, 12472), (91, 12499), (104, 12568), (117, 12607), (118, 12610), (131, 12664), (137, 12679), (138, 12682), (139, 12688), (140, 12691), (142, 12706), (144, 12718), (148, 12736), (155, 12772), (156, 12781), (160, 12796), (161, 12799), (165, 12823), (167, 12838), (171, 12865), (173, 12871), (182, 12925), (188, 12958), (193, 12994), (199, 13021), (200, 13024), (211, 13063), (214, 13078), (215, 13081), (221, 13105), (224, 13117), (227, 13126), (229, 13132), (247, 13210), (255, 13255), (257, 13267), (258, 13276), (261, 13288), (264, 13297),

Gene: P106A_16 Start: 12279, Stop: 13436, Start Num: 16
Candidate Starts for P106A_16:
(Start: 14 @12276 has 117 MA's), (Start: 16 @12279 has 44 MA's), (23, 12306), (27, 12330), (33, 12357), (37, 12369), (40, 12384), (41, 12393), (42, 12399), (43, 12402), (44, 12405), (50, 12435), (65, 12498), (71, 12516), (73, 12540), (81, 12573), (82, 12582), (83, 12585), (84, 12588), (86, 12597), (89, 12615), (91, 12624), (101, 12678), (103, 12690), (104, 12693), (115, 12726), (117, 12732), (131, 12789), (137, 12804), (138, 12807), (139, 12813), (140, 12816), (142, 12831), (144, 12843), (148, 12861), (152, 12882), (155, 12897), (156, 12906), (160, 12921), (161, 12924), (165, 12948), (167, 12963), (171, 12990), (172, 12993), (188, 13083), (193, 13119), (199, 13146), (211, 13188), (214, 13203), (215, 13206), (221, 13230), (227, 13251), (229, 13257), (236, 13284), (240, 13299), (247, 13335), (255, 13380), (258, 13401), (261, 13413), (264, 13422),

Gene: P106C_16 Start: 12279, Stop: 13436, Start Num: 16
Candidate Starts for P106C_16:

(Start: 14 @12276 has 117 MA's), (Start: 16 @12279 has 44 MA's), (23, 12306), (27, 12330), (33, 12357), (37, 12369), (40, 12384), (41, 12393), (42, 12399), (43, 12402), (44, 12405), (50, 12435), (65, 12498), (71, 12516), (73, 12540), (81, 12573), (82, 12582), (83, 12585), (84, 12588), (86, 12597), (89, 12615), (91, 12624), (101, 12678), (103, 12690), (104, 12693), (115, 12726), (117, 12732), (131, 12789), (137, 12804), (138, 12807), (139, 12813), (140, 12816), (142, 12831), (144, 12843), (148, 12861), (152, 12882), (155, 12897), (156, 12906), (160, 12921), (161, 12924), (165, 12948), (167, 12963), (171, 12990), (172, 12993), (188, 13083), (193, 13119), (199, 13146), (211, 13188), (214, 13203), (215, 13206), (221, 13230), (227, 13251), (229, 13257), (236, 13284), (240, 13299), (247, 13335), (255, 13380), (257, 13392), (258, 13401), (261, 13413), (264, 13422),

Gene: P106I_16 Start: 12279, Stop: 13436, Start Num: 16
Candidate Starts for P106I_16:
(Start: 14 @12276 has 117 MA's), (Start: 16 @12279 has 44 MA's), (23, 12306), (27, 12330), (33, 12357), (37, 12369), (40, 12384), (41, 12393), (42, 12399), (43, 12402), (44, 12405), (50, 12435), (65, 12498), (71, 12516), (73, 12540), (81, 12573), (82, 12582), (83, 12585), (84, 12588), (86, 12597), (89, 12615), (91, 12624), (101, 12678), (103, 12690), (104, 12693), (115, 12726), (117, 12732), (131, 12789), (137, 12804), (138, 12807), (139, 12813), (140, 12816), (142, 12831), (144, 12843), (148, 12861), (152, 12882), (155, 12897), (156, 12906), (160, 12921), (161, 12924), (165, 12948), (167, 12963), (171, 12990), (172, 12993), (188, 13083), (193, 13119), (199, 13146), (211, 13188), (214, 13203), (215, 13206), (221, 13230), (227, 13251), (229, 13257), (236, 13284), (240, 13299), (247, 13335), (255, 13380), (257, 13392), (258, 13401), (261, 13413), (264, 13422),

Gene: P106L_16 Start: 12279, Stop: 13436, Start Num: 16
Candidate Starts for P106L_16:
(Start: 14 @12276 has 117 MA's), (Start: 16 @12279 has 44 MA's), (23, 12306), (27, 12330), (33, 12357), (37, 12369), (40, 12384), (41, 12393), (42, 12399), (43, 12402), (44, 12405), (50, 12435), (65, 12498), (71, 12516), (73, 12540), (81, 12573), (82, 12582), (83, 12585), (84, 12588), (86, 12597), (89, 12615), (91, 12624), (101, 12678), (103, 12690), (104, 12693), (115, 12726), (117, 12732), (131, 12789), (137, 12804), (138, 12807), (139, 12813), (140, 12816), (142, 12831), (144, 12843), (148, 12861), (152, 12882), (155, 12897), (156, 12906), (160, 12921), (161, 12924), (165, 12948), (167, 12963), (171, 12990), (172, 12993), (188, 13083), (193, 13119), (199, 13146), (211, 13188), (214, 13203), (215, 13206), (221, 13230), (227, 13251), (229, 13257), (236, 13284), (240, 13299), (247, 13335), (255, 13380), (257, 13392), (258, 13401), (261, 13413), (264, 13422),

Gene: P106M_16 Start: 12279, Stop: 13436, Start Num: 16
Candidate Starts for P106M_16:
(Start: 14 @12276 has 117 MA's), (Start: 16 @12279 has 44 MA's), (23, 12306), (27, 12330), (33, 12357), (37, 12369), (40, 12384), (41, 12393), (42, 12399), (43, 12402), (44, 12405), (50, 12435), (65, 12498), (71, 12516), (73, 12540), (81, 12573), (82, 12582), (83, 12585), (84, 12588), (86, 12597), (89, 12615), (91, 12624), (101, 12678), (103, 12690), (104, 12693), (115, 12726), (117, 12732), (131, 12789), (137, 12804), (138, 12807), (139, 12813), (140, 12816), (142, 12831), (144, 12843), (148, 12861), (152, 12882), (155, 12897), (156, 12906), (160, 12921), (161, 12924), (165, 12948), (167, 12963), (171, 12990), (172, 12993), (188, 13083), (193, 13119), (199, 13146), (211, 13188), (214, 13203), (215, 13206), (221, 13230), (227, 13251), (229, 13257), (236, 13284), (240, 13299), (247, 13335), (255, 13380), (257, 13392), (258, 13401), (261, 13413), (264, 13422),

Gene: P107A_16 Start: 12255, Stop: 13412, Start Num: 16
Candidate Starts for P107A_16:
(Start: 16 @12255 has 44 MA's), (23, 12282), (27, 12306), (33, 12333), (35, 12339), (37, 12345), (40, 12360), (42, 12375), (43, 12378), (44, 12381), (50, 12411), (65, 12474), (68, 12483), (71, 12492), (73, 12516), (81, 12549), (82, 12558), (83, 12561), (84, 12564), (86, 12573), (89, 12591), (90, 12594), (103, 12666), (104, 12669), (115, 12702), (117, 12708), (131, 12765), (138, 12783), (139, 12789), (140, 12792), (142, 12807), (144, 12819), (149, 12840), (153, 12861), (155, 12873), (156, 12882), (160,

12897), (161, 12900), (165, 12924), (167, 12939), (171, 12966), (172, 12969), (182, 13026), (188, 13059), (193, 13095), (199, 13122), (200, 13125), (211, 13164), (214, 13179), (215, 13182), (221, 13206), (224, 13218), (229, 13233), (236, 13260), (240, 13275), (247, 13311), (255, 13356), (258, 13377), (261, 13389), (264, 13398),

Gene: P107C_16 Start: 12232, Stop: 13389, Start Num: 16
Candidate Starts for P107C_16:
(Start: 14 @12229 has 117 MA's), (Start: 16 @12232 has 44 MA's), (23, 12259), (27, 12283), (33, 12310), (35, 12316), (37, 12322), (40, 12337), (42, 12352), (43, 12355), (44, 12358), (50, 12388), (65, 12451), (73, 12493), (81, 12526), (82, 12535), (84, 12541), (86, 12550), (89, 12568), (90, 12571), (103, 12643), (104, 12646), (115, 12679), (117, 12685), (129, 12730), (131, 12742), (137, 12757), (139, 12766), (140, 12769), (142, 12784), (144, 12796), (153, 12838), (155, 12850), (156, 12859), (160, 12874), (161, 12877), (165, 12901), (167, 12916), (171, 12943), (172, 12946), (182, 13003), (188, 13036), (193, 13072), (199, 13099), (211, 13141), (214, 13156), (215, 13159), (221, 13183), (224, 13195), (227, 13204), (229, 13210), (240, 13252), (247, 13288), (255, 13333), (257, 13345), (258, 13354), (261, 13366), (264, 13375),

Gene: P108C_16 Start: 12240, Stop: 13397, Start Num: 16
Candidate Starts for P108C_16:
(Start: 14 @12237 has 117 MA's), (Start: 16 @12240 has 44 MA's), (23, 12267), (27, 12291), (35, 12324), (37, 12330), (40, 12345), (42, 12360), (43, 12363), (44, 12366), (50, 12396), (65, 12459), (71, 12477), (73, 12501), (81, 12534), (82, 12543), (83, 12546), (84, 12549), (86, 12558), (89, 12576), (91, 12585), (101, 12639), (103, 12651), (104, 12654), (115, 12687), (117, 12693), (131, 12750), (137, 12765), (138, 12768), (139, 12774), (142, 12792), (144, 12804), (148, 12822), (152, 12843), (155, 12858), (156, 12867), (160, 12882), (161, 12885), (165, 12909), (167, 12924), (171, 12951), (172, 12954), (188, 13044), (193, 13080), (199, 13107), (211, 13149), (214, 13164), (215, 13167), (221, 13191), (224, 13203), (229, 13218), (240, 13260), (247, 13296), (254, 13338), (255, 13341), (257, 13353), (258, 13362), (261, 13374), (264, 13383),

Gene: P14.4_16 Start: 12243, Stop: 13403, Start Num: 14
Candidate Starts for P14.4_16:
(Start: 14 @12243 has 117 MA's), (Start: 16 @12246 has 44 MA's), (23, 12273), (27, 12297), (33, 12324), (35, 12330), (37, 12336), (40, 12351), (42, 12366), (43, 12369), (44, 12372), (50, 12402), (65, 12465), (71, 12483), (73, 12507), (81, 12540), (82, 12549), (83, 12552), (84, 12555), (86, 12564), (89, 12582), (91, 12591), (101, 12645), (103, 12657), (104, 12660), (115, 12693), (117, 12699), (129, 12744), (131, 12756), (137, 12771), (138, 12774), (139, 12780), (140, 12783), (142, 12798), (144, 12810), (152, 12849), (153, 12852), (155, 12864), (156, 12873), (160, 12888), (161, 12891), (165, 12915), (167, 12930), (171, 12957), (172, 12960), (182, 13017), (193, 13086), (199, 13113), (200, 13116), (211, 13155), (214, 13170), (215, 13173), (221, 13197), (227, 13218), (229, 13224), (240, 13266), (247, 13302), (254, 13344), (257, 13359), (258, 13368), (261, 13380), (264, 13389),

Gene: P9.1_16 Start: 12238, Stop: 13398, Start Num: 14
Candidate Starts for P9.1_16:
(Start: 14 @12238 has 117 MA's), (Start: 16 @12241 has 44 MA's), (23, 12268), (27, 12292), (33, 12319), (37, 12331), (40, 12346), (41, 12355), (42, 12361), (43, 12364), (44, 12367), (50, 12397), (65, 12460), (71, 12478), (73, 12502), (81, 12535), (82, 12544), (84, 12550), (86, 12559), (89, 12577), (91, 12586), (103, 12652), (104, 12655), (105, 12658), (115, 12688), (117, 12694), (129, 12739), (131, 12751), (137, 12766), (138, 12769), (139, 12775), (140, 12778), (142, 12793), (144, 12805), (152, 12844), (155, 12859), (156, 12868), (160, 12883), (161, 12886), (165, 12910), (167, 12925), (171, 12952), (172, 12955), (188, 13045), (193, 13081), (199, 13108), (200, 13111), (211, 13150), (214, 13165), (215, 13168), (221, 13192), (229, 13219), (240, 13261), (247, 13297), (254, 13339), (257, 13354), (258, 13363), (261, 13375), (264, 13384),

Gene: PA6_16 Start: 12270, Stop: 13427, Start Num: 16
Candidate Starts for PA6_16:
(Start: 14 @12267 has 117 MA's), (Start: 16 @12270 has 44 MA's), (23, 12297), (27, 12321), (33, 12348), (35, 12354), (37, 12360), (40, 12375), (41, 12384), (42, 12390), (43, 12393), (44, 12396), (50, 12426), (65, 12489), (68, 12498), (71, 12507), (73, 12531), (81, 12564), (82, 12573), (83, 12576), (84, 12579), (86, 12588), (89, 12606), (91, 12615), (103, 12681), (104, 12684), (115, 12717), (117, 12723), (129, 12768), (131, 12780), (137, 12795), (138, 12798), (139, 12804), (140, 12807), (142, 12822), (144, 12834), (152, 12873), (153, 12876), (155, 12888), (156, 12897), (160, 12912), (161, 12915), (165, 12939), (167, 12954), (171, 12981), (172, 12984), (182, 13041), (188, 13074), (193, 13110), (199, 13137), (200, 13140), (211, 13179), (214, 13194), (215, 13197), (221, 13221), (227, 13242), (229, 13248), (236, 13275), (240, 13290), (247, 13326), (255, 13371), (257, 13383), (258, 13392), (261, 13404), (264, 13413),

Gene: PAD20_16 Start: 12238, Stop: 13395, Start Num: 16
Candidate Starts for PAD20_16:
(Start: 14 @12235 has 117 MA's), (Start: 16 @12238 has 44 MA's), (23, 12265), (27, 12289), (33, 12316), (35, 12322), (37, 12328), (40, 12343), (42, 12358), (43, 12361), (44, 12364), (50, 12394), (65, 12457), (71, 12475), (73, 12499), (81, 12532), (82, 12541), (83, 12544), (84, 12547), (86, 12556), (89, 12574), (91, 12583), (103, 12649), (115, 12685), (117, 12691), (129, 12736), (131, 12748), (137, 12763), (138, 12766), (139, 12772), (140, 12775), (142, 12790), (144, 12802), (152, 12841), (155, 12856), (156, 12865), (160, 12880), (161, 12883), (165, 12907), (167, 12922), (171, 12949), (172, 12952), (182, 13009), (188, 13042), (193, 13078), (199, 13105), (211, 13147), (214, 13162), (215, 13165), (221, 13189), (224, 13201), (227, 13210), (229, 13216), (240, 13258), (247, 13294), (255, 13339), (257, 13351), (258, 13360), (261, 13372), (264, 13381),

Gene: PAS50_16 Start: 12247, Stop: 13404, Start Num: 16
Candidate Starts for PAS50_16:
(Start: 14 @12244 has 117 MA's), (Start: 16 @12247 has 44 MA's), (23, 12274), (27, 12298), (33, 12325), (35, 12331), (37, 12337), (40, 12352), (42, 12367), (43, 12370), (44, 12373), (50, 12403), (65, 12466), (71, 12484), (73, 12508), (81, 12541), (82, 12550), (83, 12553), (84, 12556), (86, 12565), (89, 12583), (91, 12592), (103, 12658), (104, 12661), (117, 12700), (131, 12757), (137, 12772), (138, 12775), (139, 12781), (140, 12784), (142, 12799), (144, 12811), (148, 12829), (152, 12850), (156, 12874), (160, 12889), (161, 12892), (165, 12916), (167, 12931), (171, 12958), (172, 12961), (188, 13051), (193, 13087), (199, 13114), (211, 13156), (214, 13171), (215, 13174), (221, 13198), (224, 13210), (227, 13219), (229, 13225), (240, 13267), (247, 13303), (254, 13345), (255, 13348), (258, 13369), (261, 13381), (264, 13390),

Gene: PHL010M04_16 Start: 12238, Stop: 13398, Start Num: 14
Candidate Starts for PHL010M04_16:
(Start: 14 @12238 has 117 MA's), (Start: 16 @12241 has 44 MA's), (23, 12268), (27, 12292), (35, 12325), (37, 12331), (40, 12346), (42, 12361), (43, 12364), (44, 12367), (50, 12397), (65, 12460), (68, 12469), (71, 12478), (73, 12502), (81, 12535), (82, 12544), (83, 12547), (84, 12550), (86, 12559), (89, 12577), (90, 12580), (103, 12652), (104, 12655), (117, 12694), (129, 12739), (131, 12751), (137, 12766), (138, 12769), (139, 12775), (140, 12778), (142, 12793), (144, 12805), (149, 12826), (153, 12847), (155, 12859), (156, 12868), (160, 12883), (161, 12886), (165, 12910), (167, 12925), (171, 12952), (182, 13012), (188, 13045), (193, 13081), (199, 13108), (200, 13111), (211, 13150), (214, 13165), (215, 13168), (221, 13192), (224, 13204), (227, 13213), (229, 13219), (240, 13261), (247, 13297), (255, 13342), (257, 13354), (258, 13363), (261, 13375), (264, 13384),

Gene: PHL037M02_16 Start: 12249, Stop: 13406, Start Num: 16
Candidate Starts for PHL037M02_16:
(Start: 16 @12249 has 44 MA's), (23, 12276), (27, 12300), (35, 12333), (37, 12339), (40, 12354), (42, 12369), (43, 12372), (44, 12375), (50, 12405), (65, 12468), (68, 12477), (73, 12510), (81, 12543), (82,

12552), (83, 12555), (84, 12558), (89, 12585), (90, 12588), (103, 12660), (104, 12663), (115, 12696), (117, 12702), (129, 12747), (131, 12759), (137, 12774), (138, 12777), (142, 12801), (144, 12813), (153, 12855), (156, 12876), (160, 12891), (161, 12894), (165, 12918), (167, 12933), (171, 12960), (182, 13020), (188, 13053), (193, 13089), (199, 13116), (200, 13119), (211, 13158), (214, 13173), (215, 13176), (221, 13200), (224, 13212), (227, 13221), (229, 13227), (240, 13269), (247, 13305), (254, 13347), (255, 13350), (257, 13362), (258, 13371), (261, 13383), (264, 13392),

Gene: PHL060L00_16 Start: 12254, Stop: 13414, Start Num: 14
Candidate Starts for PHL060L00_16:
(Start: 14 @12254 has 117 MA's), (Start: 16 @12257 has 44 MA's), (23, 12284), (27, 12308), (33, 12335), (35, 12341), (37, 12347), (40, 12362), (41, 12371), (42, 12377), (43, 12380), (44, 12383), (49, 12410), (50, 12413), (65, 12476), (71, 12494), (73, 12518), (81, 12551), (82, 12560), (83, 12563), (84, 12566), (86, 12575), (89, 12593), (91, 12602), (103, 12668), (104, 12671), (115, 12704), (117, 12710), (129, 12755), (131, 12767), (138, 12785), (139, 12791), (140, 12794), (142, 12809), (144, 12821), (152, 12860), (153, 12863), (155, 12875), (156, 12884), (160, 12899), (161, 12902), (165, 12926), (167, 12941), (171, 12968), (172, 12971), (182, 13028), (188, 13061), (193, 13097), (199, 13124), (200, 13127), (201, 13136), (211, 13166), (214, 13181), (215, 13184), (221, 13208), (224, 13220), (227, 13229), (240, 13277), (247, 13313), (254, 13355), (255, 13358), (257, 13370), (258, 13379), (261, 13391), (264, 13400),

Gene: PHL067M10_16 Start: 12215, Stop: 13375, Start Num: 14
Candidate Starts for PHL067M10_16:
(Start: 14 @12215 has 117 MA's), (Start: 16 @12218 has 44 MA's), (23, 12245), (27, 12269), (33, 12296), (37, 12308), (40, 12323), (42, 12338), (43, 12341), (44, 12344), (50, 12374), (65, 12437), (71, 12455), (73, 12479), (81, 12512), (82, 12521), (83, 12524), (84, 12527), (86, 12536), (89, 12554), (90, 12557), (91, 12563), (103, 12629), (104, 12632), (115, 12665), (117, 12671), (131, 12728), (137, 12743), (138, 12746), (139, 12752), (140, 12755), (142, 12770), (144, 12782), (152, 12821), (155, 12836), (156, 12845), (160, 12860), (161, 12863), (165, 12887), (167, 12902), (171, 12929), (172, 12932), (188, 13022), (193, 13058), (199, 13085), (200, 13088), (211, 13127), (214, 13142), (215, 13145), (221, 13169), (224, 13181), (227, 13190), (229, 13196), (240, 13238), (247, 13274), (254, 13316), (255, 13319), (257, 13331), (258, 13340), (261, 13352), (264, 13361),

Gene: PHL071N05_16 Start: 12243, Stop: 13403, Start Num: 14
Candidate Starts for PHL071N05_16:
(Start: 14 @12243 has 117 MA's), (Start: 16 @12246 has 44 MA's), (23, 12273), (27, 12297), (33, 12324), (35, 12330), (37, 12336), (40, 12351), (42, 12366), (43, 12369), (44, 12372), (50, 12402), (65, 12465), (71, 12483), (73, 12507), (81, 12540), (82, 12549), (83, 12552), (84, 12555), (86, 12564), (89, 12582), (90, 12585), (101, 12645), (103, 12657), (104, 12660), (115, 12693), (117, 12699), (129, 12744), (131, 12756), (138, 12774), (139, 12780), (140, 12783), (142, 12798), (144, 12810), (148, 12828), (149, 12831), (152, 12849), (153, 12852), (155, 12864), (156, 12873), (160, 12888), (161, 12891), (165, 12915), (167, 12930), (171, 12957), (172, 12960), (182, 13017), (188, 13050), (193, 13086), (199, 13113), (200, 13116), (211, 13155), (214, 13170), (215, 13173), (221, 13197), (224, 13209), (227, 13218), (229, 13224), (240, 13266), (247, 13302), (254, 13344), (255, 13347), (257, 13359), (258, 13368), (261, 13380), (264, 13389),

Gene: PHL111M01_16 Start: 12241, Stop: 13398, Start Num: 15
Candidate Starts for PHL111M01_16:
(15, 12241), (23, 12268), (27, 12292), (33, 12319), (35, 12325), (37, 12331), (40, 12346), (41, 12355), (42, 12361), (43, 12364), (44, 12367), (50, 12397), (65, 12460), (71, 12478), (73, 12502), (81, 12535), (82, 12544), (83, 12547), (84, 12550), (86, 12559), (89, 12577), (91, 12586), (103, 12652), (104, 12655), (115, 12688), (117, 12694), (129, 12739), (131, 12751), (137, 12766), (138, 12769), (139, 12775), (140, 12778), (142, 12793), (144, 12805), (148, 12823), (152, 12844), (155, 12859), (156, 12868), (160, 12883), (161, 12886), (165, 12910), (167, 12925), (171, 12952), (173, 12958), (182,

13012), (188, 13045), (193, 13081), (199, 13108), (200, 13111), (211, 13150), (214, 13165), (215, 13168), (221, 13192), (224, 13204), (227, 13213), (229, 13219), (236, 13246), (240, 13261), (247, 13297), (255, 13342), (257, 13354), (258, 13363), (261, 13375), (264, 13384),

Gene: PHL112N00_16 Start: 12236, Stop: 13396, Start Num: 14
Candidate Starts for PHL112N00_16:
(Start: 14 @12236 has 117 MA's), (Start: 16 @12239 has 44 MA's), (23, 12266), (27, 12290), (33, 12317), (35, 12323), (37, 12329), (40, 12344), (42, 12359), (43, 12362), (44, 12365), (47, 12386), (50, 12395), (65, 12458), (71, 12476), (73, 12500), (81, 12533), (82, 12542), (83, 12545), (84, 12548), (86, 12557), (89, 12575), (90, 12578), (91, 12584), (101, 12638), (103, 12650), (104, 12653), (115, 12686), (117, 12692), (129, 12737), (131, 12749), (137, 12764), (138, 12767), (139, 12773), (140, 12776), (142, 12791), (144, 12803), (149, 12824), (152, 12842), (153, 12845), (155, 12857), (156, 12866), (160, 12881), (161, 12884), (165, 12908), (167, 12923), (171, 12950), (172, 12953), (182, 13010), (188, 13043), (193, 13079), (199, 13106), (211, 13148), (214, 13163), (215, 13166), (221, 13190), (224, 13202), (227, 13211), (229, 13217), (236, 13244), (240, 13259), (247, 13295), (255, 13340), (257, 13352), (258, 13361), (261, 13373), (264, 13382),

Gene: PHL113M01_16 Start: 12257, Stop: 13417, Start Num: 14
Candidate Starts for PHL113M01_16:
(Start: 14 @12257 has 117 MA's), (Start: 16 @12260 has 44 MA's), (23, 12287), (27, 12311), (33, 12338), (35, 12344), (37, 12350), (40, 12365), (42, 12380), (43, 12383), (44, 12386), (50, 12416), (65, 12479), (68, 12488), (71, 12497), (73, 12521), (81, 12554), (82, 12563), (84, 12569), (86, 12578), (89, 12596), (91, 12605), (103, 12671), (104, 12674), (115, 12707), (117, 12713), (129, 12758), (131, 12770), (137, 12785), (138, 12788), (139, 12794), (140, 12797), (142, 12812), (144, 12824), (152, 12863), (155, 12878), (156, 12887), (160, 12902), (161, 12905), (165, 12929), (167, 12944), (171, 12971), (172, 12974), (182, 13031), (188, 13064), (193, 13100), (199, 13127), (211, 13169), (214, 13184), (215, 13187), (221, 13211), (224, 13223), (227, 13232), (229, 13238), (240, 13280), (247, 13316), (255, 13361), (257, 13373), (258, 13382), (261, 13394), (264, 13403),

Gene: PHL114L00_16 Start: 12241, Stop: 13401, Start Num: 14
Candidate Starts for PHL114L00_16:
(Start: 14 @12241 has 117 MA's), (Start: 16 @12244 has 44 MA's), (23, 12271), (27, 12295), (33, 12322), (35, 12328), (37, 12334), (40, 12349), (43, 12367), (50, 12400), (65, 12463), (68, 12472), (73, 12505), (81, 12538), (82, 12547), (84, 12553), (86, 12562), (90, 12583), (103, 12655), (104, 12658), (115, 12691), (117, 12697), (118, 12700), (129, 12742), (131, 12754), (137, 12769), (138, 12772), (139, 12778), (140, 12781), (142, 12796), (144, 12808), (153, 12850), (155, 12862), (160, 12886), (161, 12889), (165, 12913), (167, 12928), (171, 12955), (173, 12961), (182, 13015), (188, 13048), (193, 13084), (199, 13111), (200, 13114), (211, 13153), (214, 13168), (215, 13171), (221, 13195), (227, 13216), (229, 13222), (240, 13264), (247, 13300), (254, 13342), (258, 13366), (261, 13378), (264, 13387),

Gene: Pablito_20 Start: 15663, Stop: 16874, Start Num: 14
Candidate Starts for Pablito_20:
(Start: 14 @15663 has 117 MA's), (40, 15771), (42, 15786), (63, 15873), (65, 15885), (66, 15888), (78, 15948), (102, 16062), (105, 16077), (134, 16185), (141, 16218), (162, 16314), (166, 16344), (173, 16380), (176, 16398), (177, 16401), (180, 16422), (200, 16539), (212, 16584), (215, 16599), (227, 16644), (235, 16674), (255, 16764), (257, 16776), (277, 16848), (278, 16851), (280, 16860), (281, 16866),

Gene: Paedore_20 Start: 15822, Stop: 17033, Start Num: 14
Candidate Starts for Paedore_20:
(Start: 14 @15822 has 117 MA's), (40, 15930), (63, 16032), (65, 16044), (66, 16047), (78, 16107), (102, 16221), (105, 16236), (134, 16344), (141, 16377), (145, 16401), (162, 16473), (166, 16503),

(176, 16557), (177, 16560), (180, 16581), (200, 16698), (212, 16743), (215, 16758), (237, 16842), (238, 16845), (239, 16848), (246, 16884), (255, 16923), (257, 16935), (268, 16974), (277, 17007), (278, 17010), (280, 17019), (281, 17025),

Gene: Paolo_22 Start: 16220, Stop: 17431, Start Num: 14
Candidate Starts for Paolo_22:
(Start: 14 @16220 has 117 MA's), (33, 16301), (63, 16430), (65, 16442), (78, 16505), (102, 16619), (105, 16634), (134, 16742), (141, 16775), (145, 16799), (162, 16871), (173, 16937), (176, 16955), (177, 16958), (180, 16979), (200, 17096), (212, 17141), (215, 17156), (237, 17240), (239, 17246), (255, 17321), (257, 17333), (278, 17408), (280, 17417), (281, 17423),

Gene: Parvaparticeps_33 Start: 23477, Stop: 22143, Start Num: 25
Candidate Starts for Parvaparticeps_33:
(Start: 25 @23477 has 1 MA's), (30, 23438), (59, 23294), (61, 23291), (70, 23255), (72, 23237), (77, 23204), (78, 23201), (80, 23186), (83, 23171), (85, 23162), (99, 23105), (132, 22967), (137, 22955), (150, 22895), (155, 22874), (174, 22793), (175, 22784), (176, 22781), (179, 22763), (184, 22733), (190, 22688), (191, 22685), (199, 22592), (206, 22547), (208, 22535), (210, 22529), (216, 22478), (219, 22463), (235, 22406), (236, 22403), (247, 22352), (249, 22343), (251, 22334), (260, 22280), (270, 22250), (272, 22244), (273, 22241), (274, 22232), (283, 22190),

Gene: Pavo_21 Start: 16533, Stop: 17750, Start Num: 14
Candidate Starts for Pavo_21:
(Start: 14 @16533 has 117 MA's), (23, 16560), (32, 16611), (63, 16743), (82, 16845), (121, 17001), (128, 17031), (134, 17055), (141, 17088), (145, 17112), (163, 17187), (173, 17250), (212, 17454), (215, 17469), (227, 17514), (232, 17535), (237, 17553), (257, 17646), (264, 17676), (280, 17736), (281, 17742),

Gene: Phettuccine_20 Start: 15854, Stop: 17068, Start Num: 14
Candidate Starts for Phettuccine_20:
(Start: 14 @15854 has 117 MA's), (23, 15881), (63, 16064), (74, 16127), (96, 16226), (102, 16253), (121, 16322), (128, 16352), (155, 16472), (173, 16571), (210, 16769), (212, 16775), (221, 16814), (228, 16838), (235, 16865), (237, 16874), (243, 16907), (257, 16967), (264, 16997), (278, 17045), (280, 17054), (281, 17060),

Gene: Pigu_18 Start: 13784, Stop: 14902, Start Num: 17
Candidate Starts for Pigu_18:
(Start: 13 @13775 has 3 MA's), (Start: 14 @13778 has 117 MA's), (Start: 17 @13784 has 6 MA's), (38, 13871), (63, 13991), (75, 14051), (102, 14174), (103, 14183), (104, 14186), (108, 14210), (126, 14270), (130, 14282), (137, 14303), (140, 14315), (144, 14342), (199, 14624), (223, 14717), (225, 14723), (230, 14738), (235, 14753), (245, 14801), (267, 14894),

Gene: Pirate_16 Start: 12235, Stop: 13392, Start Num: 16
Candidate Starts for Pirate_16:
(Start: 16 @12235 has 44 MA's), (23, 12262), (27, 12286), (35, 12319), (37, 12325), (40, 12340), (42, 12355), (43, 12358), (44, 12361), (50, 12391), (65, 12454), (68, 12463), (73, 12496), (81, 12529), (82, 12538), (83, 12541), (84, 12544), (86, 12553), (89, 12571), (90, 12574), (101, 12634), (103, 12646), (104, 12649), (117, 12688), (118, 12691), (129, 12733), (131, 12745), (137, 12760), (138, 12763), (139, 12769), (140, 12772), (142, 12787), (144, 12799), (149, 12820), (153, 12841), (155, 12853), (156, 12862), (160, 12877), (161, 12880), (165, 12904), (167, 12919), (171, 12946), (182, 13006), (188, 13039), (193, 13075), (199, 13102), (211, 13144), (214, 13159), (215, 13162), (221, 13186), (224, 13198), (229, 13213), (240, 13255), (247, 13291), (254, 13333), (255, 13336), (258, 13357), (261, 13369), (264, 13378),

Gene: Pitbull_18 Start: 13184, Stop: 14632, Start Num: 13
Candidate Starts for Pitbull_18:
(10, 13172), (Start: 13 @13184 has 3 MA's), (20, 13199), (23, 13214), (34, 13268), (40, 13292), (41, 13301), (42, 13307), (44, 13313), (45, 13319), (46, 13334), (50, 13346), (54, 13370), (75, 13454), (80, 13478), (102, 13577), (106, 13604), (109, 13619), (126, 13676), (136, 13706), (140, 13721), (152, 13775), (154, 13781), (164, 13832), (166, 13847), (172, 13880), (185, 13946), (186, 13958), (202, 14045), (211, 14066), (216, 14087), (242, 14186), (253, 14240), (262, 14279), (275, 14324), (287, 14450), (288, 14483), (290, 14531),

Gene: Ponzi_56 Start: 37563, Stop: 38783, Start Num: 22
Candidate Starts for Ponzi_56:
(Start: 18 @37551 has 5 MA's), (Start: 22 @37563 has 1 MA's), (23, 37569), (33, 37620), (36, 37629), (44, 37668), (49, 37695), (124, 38034), (125, 38037), (130, 38052), (134, 38076), (173, 38277), (198, 38421), (247, 38592), (256, 38631), (259, 38652), (282, 38745), (286, 38778),

Gene: Procrass1_16 Start: 12243, Stop: 13400, Start Num: 16
Candidate Starts for Procrass1_16:
(Start: 14 @12240 has 117 MA's), (Start: 16 @12243 has 44 MA's), (23, 12270), (27, 12294), (33, 12321), (35, 12327), (37, 12333), (40, 12348), (41, 12357), (42, 12363), (43, 12366), (44, 12369), (50, 12399), (65, 12462), (68, 12471), (73, 12504), (81, 12537), (82, 12546), (84, 12552), (86, 12561), (89, 12579), (90, 12582), (91, 12588), (101, 12642), (103, 12654), (104, 12657), (115, 12690), (117, 12696), (131, 12753), (137, 12768), (138, 12771), (139, 12777), (140, 12780), (142, 12795), (144, 12807), (152, 12846), (155, 12861), (156, 12870), (160, 12885), (161, 12888), (165, 12912), (167, 12927), (171, 12954), (172, 12957), (182, 13014), (188, 13047), (193, 13083), (199, 13110), (200, 13113), (201, 13122), (211, 13152), (214, 13167), (215, 13170), (221, 13194), (227, 13215), (229, 13221), (240, 13263), (247, 13299), (254, 13341), (257, 13356), (258, 13365), (261, 13377), (264, 13386),

Gene: Provolone_21 Start: 16263, Stop: 17480, Start Num: 14
Candidate Starts for Provolone_21:
(Start: 14 @16263 has 117 MA's), (23, 16290), (32, 16341), (63, 16473), (82, 16575), (121, 16731), (128, 16761), (134, 16785), (141, 16818), (145, 16842), (163, 16917), (173, 16980), (180, 17022), (207, 17169), (212, 17184), (215, 17199), (227, 17244), (232, 17265), (237, 17283), (257, 17376), (264, 17406), (280, 17466), (281, 17472),

Gene: Puginator_22 Start: 16265, Stop: 17476, Start Num: 14
Candidate Starts for Puginator_22:
(Start: 14 @16265 has 117 MA's), (63, 16475), (65, 16487), (78, 16550), (102, 16664), (105, 16679), (134, 16787), (141, 16820), (145, 16844), (162, 16916), (173, 16982), (176, 17000), (177, 17003), (180, 17024), (200, 17141), (212, 17186), (215, 17201), (255, 17366), (257, 17378), (278, 17453), (280, 17462), (281, 17468),

Gene: QueenBey_16 Start: 12243, Stop: 13400, Start Num: 16
Candidate Starts for QueenBey_16:
(Start: 14 @12240 has 117 MA's), (Start: 16 @12243 has 44 MA's), (23, 12270), (27, 12294), (35, 12327), (37, 12333), (40, 12348), (42, 12363), (43, 12366), (44, 12369), (50, 12399), (65, 12462), (68, 12471), (71, 12480), (73, 12504), (81, 12537), (82, 12546), (83, 12549), (84, 12552), (86, 12561), (89, 12579), (90, 12582), (101, 12642), (103, 12654), (104, 12657), (117, 12696), (118, 12699), (129, 12741), (131, 12753), (138, 12771), (139, 12777), (140, 12780), (142, 12795), (144, 12807), (149, 12828), (153, 12849), (155, 12861), (156, 12870), (160, 12885), (161, 12888), (165, 12912), (167, 12927), (171, 12954), (182, 13014), (188, 13047), (193, 13083), (199, 13110), (200, 13113), (211, 13152), (214, 13167), (215, 13170), (221, 13194), (227, 13215), (229, 13221), (240, 13263), (247, 13299), (254, 13341), (255, 13344), (257, 13356), (258, 13365), (261, 13377), (264, 13386),

Gene: R4_20 Start: 15904, Stop: 17115, Start Num: 14
Candidate Starts for R4_20:
(Start: 14 @15904 has 117 MA's), (40, 16012), (63, 16114), (65, 16126), (66, 16129), (78, 16189), (102, 16303), (105, 16318), (134, 16426), (141, 16459), (145, 16483), (162, 16555), (166, 16585), (176, 16639), (177, 16642), (180, 16663), (200, 16780), (212, 16825), (215, 16840), (237, 16924), (238, 16927), (239, 16930), (246, 16966), (255, 17005), (257, 17017), (268, 17056), (278, 17092), (280, 17101), (281, 17107),

Gene: Rana_20 Start: 15829, Stop: 17040, Start Num: 14
Candidate Starts for Rana_20:
(Start: 14 @15829 has 117 MA's), (23, 15856), (55, 16009), (63, 16039), (74, 16102), (96, 16201), (102, 16228), (121, 16297), (134, 16351), (135, 16354), (137, 16363), (145, 16408), (162, 16480), (163, 16483), (173, 16546), (177, 16567), (188, 16642), (198, 16696), (210, 16744), (212, 16750), (220, 16786), (221, 16789), (226, 16807), (237, 16849), (279, 17023), (280, 17026), (281, 17032),

Gene: Raqqa_19 Start: 15720, Stop: 16826, Start Num: 16
Candidate Starts for Raqqa_19:
(Start: 13 @15714 has 3 MA's), (Start: 16 @15720 has 44 MA's), (24, 15750), (33, 15798), (37, 15810), (39, 15822), (63, 15927), (73, 15978), (81, 16011), (102, 16104), (104, 16116), (123, 16185), (143, 16257), (193, 16521), (222, 16632), (258, 16791),

Gene: RedBear_22 Start: 16096, Stop: 17307, Start Num: 14
Candidate Starts for RedBear_22:
(Start: 14 @16096 has 117 MA's), (23, 16123), (55, 16276), (63, 16306), (74, 16369), (96, 16468), (102, 16495), (121, 16564), (145, 16675), (162, 16747), (163, 16750), (166, 16777), (173, 16813), (177, 16834), (212, 17017), (220, 17053), (221, 17056), (226, 17074), (237, 17116), (257, 17209), (280, 17293), (281, 17299),

Gene: Rileysaurus_16 Start: 12238, Stop: 13395, Start Num: 16
Candidate Starts for Rileysaurus_16:
(Start: 16 @12238 has 44 MA's), (23, 12265), (27, 12289), (35, 12322), (37, 12328), (40, 12343), (42, 12358), (43, 12361), (44, 12364), (50, 12394), (65, 12457), (68, 12466), (73, 12499), (81, 12532), (82, 12541), (83, 12544), (84, 12547), (86, 12556), (89, 12574), (90, 12577), (101, 12637), (103, 12649), (104, 12652), (115, 12685), (117, 12691), (118, 12694), (129, 12736), (131, 12748), (138, 12766), (139, 12772), (140, 12775), (142, 12790), (144, 12802), (152, 12841), (153, 12844), (155, 12856), (156, 12865), (160, 12880), (161, 12883), (165, 12907), (167, 12922), (171, 12949), (182, 13009), (188, 13042), (193, 13078), (199, 13105), (200, 13108), (211, 13147), (214, 13162), (215, 13165), (221, 13189), (224, 13201), (229, 13216), (236, 13243), (240, 13258), (247, 13294), (255, 13339), (258, 13360), (261, 13372), (264, 13381),

Gene: RootBeer_17 Start: 14184, Stop: 15296, Start Num: 16
Candidate Starts for RootBeer_17:
(Start: 16 @14184 has 44 MA's), (27, 14223), (44, 14298), (54, 14355), (63, 14379), (73, 14433), (102, 14562), (104, 14574), (112, 14610), (130, 14664), (143, 14718), (241, 15165),

Gene: Rooter_18 Start: 13624, Stop: 14742, Start Num: 17
Candidate Starts for Rooter_18:
(Start: 14 @13618 has 117 MA's), (Start: 17 @13624 has 6 MA's), (21, 13633), (52, 13798), (63, 13831), (68, 13852), (87, 13942), (102, 14014), (103, 14023), (116, 14068), (126, 14110), (130, 14122), (140, 14155), (209, 14500), (223, 14557), (256, 14689), (265, 14728), (267, 14734),

Gene: RunningOnE_77 Start: 41644, Stop: 43035, Start Num: 19

Candidate Starts for RunningOnE_77:
(19, 41644), (23, 41662), (33, 41713), (36, 41722), (49, 41788), (64, 41845), (121, 42115), (170, 42358), (196, 42532), (204, 42625), (213, 42706), (253, 42874), (255, 42880), (278, 42976), (282, 42997), (286, 43030),

Gene: Rusticus_21 Start: 16017, Stop: 17219, Start Num: 14
Candidate Starts for Rusticus_21:
(Start: 14 @16017 has 117 MA's), (23, 16044), (63, 16227), (74, 16290), (96, 16389), (102, 16416), (121, 16485), (128, 16515), (210, 16932), (212, 16938), (221, 16977), (227, 16998), (235, 17028), (237, 17037), (243, 17070), (261, 17151), (277, 17193), (278, 17196), (280, 17205), (281, 17211),

Gene: SKKY_16 Start: 12278, Stop: 13435, Start Num: 16
Candidate Starts for SKKY_16:
(Start: 14 @12275 has 117 MA's), (Start: 16 @12278 has 44 MA's), (23, 12305), (27, 12329), (33, 12356), (37, 12368), (40, 12383), (41, 12392), (42, 12398), (43, 12401), (44, 12404), (50, 12434), (65, 12497), (71, 12515), (73, 12539), (81, 12572), (82, 12581), (84, 12587), (86, 12596), (91, 12623), (104, 12692), (117, 12731), (118, 12734), (131, 12788), (137, 12803), (138, 12806), (139, 12812), (140, 12815), (142, 12830), (144, 12842), (148, 12860), (155, 12896), (156, 12905), (160, 12920), (161, 12923), (165, 12947), (167, 12962), (171, 12989), (173, 12995), (182, 13049), (188, 13082), (193, 13118), (199, 13145), (200, 13148), (211, 13187), (214, 13202), (215, 13205), (221, 13229), (227, 13250), (229, 13256), (240, 13298), (247, 13334), (255, 13379), (257, 13391), (258, 13400), (261, 13412), (264, 13421),

Gene: Saftant_20 Start: 16811, Stop: 18028, Start Num: 14
Candidate Starts for Saftant_20:
(Start: 14 @16811 has 117 MA's), (31, 16886), (32, 16889), (63, 17021), (121, 17279), (128, 17309), (134, 17333), (141, 17366), (145, 17390), (166, 17492), (173, 17528), (212, 17732), (215, 17747), (227, 17792), (235, 17822), (237, 17831), (261, 17945), (264, 17954), (280, 18014), (281, 18020),

Gene: SarahRose_20 Start: 15827, Stop: 17038, Start Num: 14
Candidate Starts for SarahRose_20:
(Start: 14 @15827 has 117 MA's), (63, 16037), (65, 16049), (66, 16052), (74, 16100), (96, 16199), (102, 16226), (121, 16295), (134, 16349), (145, 16406), (163, 16481), (166, 16508), (171, 16538), (176, 16562), (185, 16616), (198, 16694), (212, 16748), (226, 16805), (235, 16838), (237, 16847), (243, 16880), (246, 16889), (257, 16940), (280, 17024), (281, 17030),

Gene: Sarge_18 Start: 13985, Stop: 15109, Start Num: 14
Candidate Starts for Sarge_18:
(Start: 14 @13985 has 117 MA's), (Start: 17 @13991 has 6 MA's), (52, 14165), (63, 14198), (68, 14219), (87, 14309), (102, 14381), (103, 14390), (104, 14393), (130, 14489), (140, 14522), (209, 14867), (223, 14924), (230, 14945), (256, 15056), (265, 15095), (267, 15101),

Gene: Shoya_17 Start: 13621, Stop: 14745, Start Num: 14
Candidate Starts for Shoya_17:
(Start: 14 @13621 has 117 MA's), (Start: 17 @13627 has 6 MA's), (21, 13636), (52, 13801), (63, 13834), (68, 13855), (87, 13945), (102, 14017), (103, 14026), (116, 14071), (126, 14113), (130, 14125), (140, 14158), (223, 14560), (235, 14596), (256, 14692), (265, 14731), (267, 14737),

Gene: Skitty_18 Start: 13774, Stop: 14892, Start Num: 17
Candidate Starts for Skitty_18:
(Start: 17 @13774 has 6 MA's), (35, 13852), (38, 13861), (63, 13981), (65, 13993), (68, 14002), (87, 14092), (102, 14164), (103, 14173), (104, 14176), (116, 14218), (130, 14272), (140, 14305), (151, 14356), (184, 14524), (199, 14614), (220, 14695), (235, 14743), (245, 14791), (248, 14800), (256,

14839), (265, 14878),

Gene: Snorlax_20 Start: 15830, Stop: 17041, Start Num: 14
Candidate Starts for Snorlax_20:
(Start: 14 @15830 has 117 MA's), (63, 16040), (65, 16052), (66, 16055), (74, 16103), (96, 16202), (102, 16229), (121, 16298), (134, 16352), (145, 16409), (163, 16484), (166, 16511), (171, 16541), (176, 16565), (185, 16619), (198, 16697), (212, 16751), (221, 16790), (226, 16808), (235, 16841), (237, 16850), (243, 16883), (246, 16892), (257, 16943), (280, 17027), (281, 17033),

Gene: Solid_16 Start: 12232, Stop: 13389, Start Num: 16
Candidate Starts for Solid_16:
(Start: 14 @12229 has 117 MA's), (Start: 16 @12232 has 44 MA's), (23, 12259), (27, 12283), (33, 12310), (35, 12316), (37, 12322), (40, 12337), (42, 12352), (43, 12355), (44, 12358), (50, 12388), (65, 12451), (73, 12493), (81, 12526), (82, 12535), (83, 12538), (84, 12541), (86, 12550), (89, 12568), (91, 12577), (101, 12631), (103, 12643), (104, 12646), (115, 12679), (117, 12685), (129, 12730), (131, 12742), (137, 12757), (138, 12760), (139, 12766), (140, 12769), (142, 12784), (144, 12796), (152, 12835), (153, 12838), (155, 12850), (156, 12859), (160, 12874), (161, 12877), (165, 12901), (167, 12916), (171, 12943), (172, 12946), (182, 13003), (188, 13036), (193, 13072), (199, 13099), (214, 13156), (215, 13159), (221, 13183), (227, 13204), (229, 13210), (236, 13237), (240, 13252), (247, 13288), (255, 13333), (257, 13345), (258, 13354), (261, 13366), (264, 13375),

Gene: South40_21 Start: 16096, Stop: 17307, Start Num: 14
Candidate Starts for South40_21:
(Start: 14 @16096 has 117 MA's), (23, 16123), (55, 16276), (63, 16306), (74, 16369), (96, 16468), (102, 16495), (121, 16564), (145, 16675), (162, 16747), (163, 16750), (166, 16777), (173, 16813), (177, 16834), (212, 17017), (220, 17053), (221, 17056), (226, 17074), (237, 17116), (257, 17209), (280, 17293), (281, 17299),

Gene: Speedwell_25 Start: 18557, Stop: 19774, Start Num: 14
Candidate Starts for Speedwell_25:
(Start: 14 @18557 has 117 MA's), (23, 18584), (32, 18635), (63, 18767), (73, 18827), (74, 18830), (96, 18929), (121, 19025), (141, 19112), (163, 19211), (166, 19238), (173, 19274), (212, 19478), (215, 19493), (227, 19538), (237, 19577), (238, 19580), (261, 19691), (280, 19760), (281, 19766),

Gene: Spooks_62 Start: 40032, Stop: 41291, Start Num: 18
Candidate Starts for Spooks_62:
(8, 39885), (Start: 18 @40032 has 5 MA's), (23, 40050), (27, 40074), (88, 40371), (117, 40491), (119, 40500), (170, 40770), (186, 40860), (198, 40929), (202, 40947), (213, 40974), (247, 41100), (250, 41112), (268, 41187), (282, 41253), (286, 41286),

Gene: SqueakyClean_21 Start: 15829, Stop: 17040, Start Num: 14
Candidate Starts for SqueakyClean_21:
(Start: 14 @15829 has 117 MA's), (63, 16039), (65, 16051), (66, 16054), (78, 16114), (79, 16126), (102, 16228), (105, 16243), (120, 16294), (162, 16480), (173, 16546), (177, 16567), (200, 16705), (212, 16750), (215, 16765), (227, 16810), (228, 16813), (235, 16840), (237, 16849), (257, 16942), (280, 17026), (281, 17032),

Gene: Stormborn_16 Start: 12254, Stop: 13411, Start Num: 16
Candidate Starts for Stormborn_16:
(Start: 14 @12251 has 117 MA's), (Start: 16 @12254 has 44 MA's), (23, 12281), (27, 12305), (33, 12332), (35, 12338), (37, 12344), (40, 12359), (42, 12374), (43, 12377), (44, 12380), (50, 12410), (65, 12473), (68, 12482), (73, 12515), (81, 12548), (82, 12557), (83, 12560), (84, 12563), (86, 12572), (89, 12590), (103, 12665), (104, 12668), (115, 12701), (117, 12707), (129, 12752), (131, 12764), (137,

12779), (138, 12782), (142, 12806), (144, 12818), (153, 12860), (156, 12881), (160, 12896), (161, 12899), (165, 12923), (167, 12938), (171, 12965), (182, 13025), (188, 13058), (193, 13094), (199, 13121), (200, 13124), (211, 13163), (214, 13178), (215, 13181), (221, 13205), (224, 13217), (227, 13226), (229, 13232), (240, 13274), (247, 13310), (254, 13352), (258, 13376), (261, 13388), (264, 13397),

Gene: Success_63 Start: 39166, Stop: 40425, Start Num: 18
Candidate Starts for Success_63:
(Start: 18 @39166 has 5 MA's), (23, 39184), (26, 39199), (27, 39208), (65, 39379), (110, 39610), (117, 39625), (119, 39634), (159, 39841), (170, 39904), (186, 39994), (193, 40045), (202, 40081), (218, 40117), (247, 40234), (250, 40246), (256, 40273), (259, 40294), (264, 40312), (282, 40387), (286, 40420),

Gene: Sudan_21 Start: 16528, Stop: 17745, Start Num: 14
Candidate Starts for Sudan_21:
(Start: 14 @16528 has 117 MA's), (23, 16555), (32, 16606), (63, 16738), (66, 16753), (82, 16840), (96, 16900), (121, 16996), (128, 17026), (141, 17083), (145, 17107), (163, 17182), (166, 17209), (173, 17245), (207, 17434), (212, 17449), (215, 17464), (227, 17509), (232, 17530), (237, 17548), (257, 17641), (264, 17671), (280, 17731), (281, 17737),

Gene: Sujidade_21 Start: 16135, Stop: 17346, Start Num: 14
Candidate Starts for Sujidade_21:
(Start: 14 @16135 has 117 MA's), (23, 16162), (63, 16345), (65, 16357), (66, 16360), (74, 16408), (96, 16507), (102, 16534), (121, 16603), (134, 16657), (145, 16714), (163, 16789), (171, 16846), (177, 16873), (212, 17056), (221, 17095), (234, 17143), (235, 17146), (237, 17155), (243, 17188), (280, 17332), (281, 17338),

Gene: SunkenRoot_22 Start: 16824, Stop: 18041, Start Num: 14
Candidate Starts for SunkenRoot_22:
(Start: 14 @16824 has 117 MA's), (23, 16851), (32, 16902), (55, 17004), (63, 17034), (73, 17094), (82, 17136), (96, 17196), (121, 17292), (128, 17322), (141, 17379), (144, 17400), (163, 17478), (173, 17541), (212, 17745), (215, 17760), (232, 17826), (237, 17844), (257, 17937), (264, 17967), (280, 18027), (281, 18033),

Gene: SunsetPointe_20 Start: 15844, Stop: 17058, Start Num: 14
Candidate Starts for SunsetPointe_20:
(Start: 14 @15844 has 117 MA's), (23, 15871), (63, 16054), (74, 16117), (96, 16216), (102, 16243), (121, 16312), (128, 16342), (155, 16462), (173, 16561), (210, 16759), (212, 16765), (221, 16804), (228, 16828), (235, 16855), (237, 16864), (243, 16897), (257, 16957), (264, 16987), (278, 17035), (280, 17044), (281, 17050),

Gene: Supernova_16 Start: 12250, Stop: 13407, Start Num: 16
Candidate Starts for Supernova_16:
(Start: 14 @12247 has 117 MA's), (Start: 16 @12250 has 44 MA's), (23, 12277), (27, 12301), (33, 12328), (35, 12334), (37, 12340), (40, 12355), (41, 12364), (42, 12370), (43, 12373), (44, 12376), (50, 12406), (65, 12469), (73, 12511), (81, 12544), (82, 12553), (84, 12559), (86, 12568), (91, 12595), (104, 12664), (117, 12703), (118, 12706), (131, 12760), (137, 12775), (138, 12778), (139, 12784), (140, 12787), (142, 12802), (144, 12814), (148, 12832), (155, 12868), (156, 12877), (160, 12892), (161, 12895), (165, 12919), (167, 12934), (171, 12961), (173, 12967), (182, 13021), (188, 13054), (193, 13090), (199, 13117), (200, 13120), (211, 13159), (214, 13174), (221, 13201), (224, 13213), (227, 13222), (229, 13228), (236, 13255), (240, 13270), (247, 13306), (255, 13351), (257, 13363), (258, 13372), (261, 13384), (264, 13393),

Gene: Superstar_23 Start: 17541, Stop: 18755, Start Num: 14
Candidate Starts for Superstar_23:
(Start: 14 @17541 has 117 MA's), (23, 17568), (57, 17727), (65, 17763), (66, 17766), (78, 17826), (102, 17940), (121, 18009), (134, 18063), (145, 18120), (173, 18258), (212, 18462), (246, 18603), (257, 18654), (278, 18732), (280, 18741), (281, 18747),

Gene: TagePhighter_21 Start: 15830, Stop: 17041, Start Num: 14
Candidate Starts for TagePhighter_21:
(Start: 14 @15830 has 117 MA's), (63, 16040), (65, 16052), (66, 16055), (74, 16103), (96, 16202), (102, 16229), (121, 16298), (134, 16352), (145, 16409), (163, 16484), (166, 16511), (171, 16541), (176, 16565), (185, 16619), (198, 16697), (212, 16751), (221, 16790), (226, 16808), (235, 16841), (237, 16850), (243, 16883), (246, 16892), (257, 16943), (280, 17027), (281, 17033),

Gene: Teagster_18 Start: 15351, Stop: 16520, Start Num: 12
Candidate Starts for Teagster_18:
(Start: 12 @15351 has 1 MA's), (15, 15357), (23, 15381), (34, 15438), (40, 15462), (65, 15579), (69, 15591), (78, 15642), (79, 15654), (83, 15672), (102, 15753), (113, 15798), (121, 15822), (250, 16431), (269, 16509),

Gene: Tefunt_20 Start: 16338, Stop: 17552, Start Num: 14
Candidate Starts for Tefunt_20:
(Start: 14 @16338 has 117 MA's), (23, 16365), (40, 16446), (57, 16524), (60, 16542), (65, 16560), (66, 16563), (78, 16623), (102, 16737), (134, 16860), (145, 16917), (200, 17214), (212, 17259), (228, 17322), (257, 17451), (278, 17529), (280, 17538), (281, 17544),

Gene: Thestral_21 Start: 15797, Stop: 17008, Start Num: 14
Candidate Starts for Thestral_21:
(Start: 14 @15797 has 117 MA's), (63, 16007), (65, 16019), (66, 16022), (78, 16082), (102, 16196), (105, 16211), (120, 16262), (145, 16376), (162, 16448), (173, 16514), (177, 16535), (200, 16673), (212, 16718), (215, 16733), (232, 16799), (237, 16817), (246, 16859), (252, 16886), (257, 16910), (280, 16994), (281, 17000),

Gene: TinaBelcher_20 Start: 15745, Stop: 16956, Start Num: 14
Candidate Starts for TinaBelcher_20:
(Start: 14 @15745 has 117 MA's), (63, 15955), (65, 15967), (66, 15970), (78, 16030), (102, 16144), (105, 16159), (120, 16210), (134, 16267), (145, 16324), (162, 16396), (173, 16462), (177, 16483), (180, 16504), (200, 16621), (212, 16666), (215, 16681), (232, 16747), (237, 16765), (246, 16807), (252, 16834), (257, 16858), (280, 16942), (281, 16948),

Gene: Toma_20 Start: 15844, Stop: 17055, Start Num: 14
Candidate Starts for Toma_20:
(Start: 14 @15844 has 117 MA's), (23, 15871), (48, 15997), (55, 16024), (63, 16054), (74, 16117), (96, 16216), (102, 16243), (121, 16312), (134, 16366), (137, 16378), (145, 16423), (162, 16495), (163, 16498), (173, 16561), (177, 16582), (188, 16657), (210, 16759), (212, 16765), (220, 16801), (221, 16804), (226, 16822), (237, 16864), (279, 17038), (280, 17041), (281, 17047),

Gene: Triste_20 Start: 15821, Stop: 17032, Start Num: 14
Candidate Starts for Triste_20:
(Start: 14 @15821 has 117 MA's), (63, 16031), (65, 16043), (66, 16046), (74, 16094), (96, 16193), (102, 16220), (121, 16289), (134, 16343), (145, 16400), (163, 16475), (166, 16502), (171, 16532), (176, 16556), (185, 16610), (198, 16688), (212, 16742), (221, 16781), (226, 16799), (235, 16832), (237, 16841), (243, 16874), (246, 16883), (257, 16934), (280, 17018), (281, 17024),

Gene: Triumph_22 Start: 15746, Stop: 16957, Start Num: 14
Candidate Starts for Triumph_22:
(Start: 14 @15746 has 117 MA's), (49, 15902), (63, 15956), (65, 15968), (66, 15971), (78, 16031), (102, 16145), (105, 16160), (120, 16211), (145, 16325), (159, 16385), (162, 16397), (173, 16463), (177, 16484), (200, 16622), (209, 16658), (212, 16667), (215, 16682), (227, 16727), (228, 16730), (235, 16757), (237, 16766), (257, 16859), (271, 16907), (278, 16934), (280, 16943), (281, 16949),

Gene: TrvxScott_19 Start: 15747, Stop: 16958, Start Num: 14
Candidate Starts for TrvxScott_19:
(Start: 14 @15747 has 117 MA's), (63, 15957), (65, 15969), (66, 15972), (78, 16032), (102, 16146), (105, 16161), (120, 16212), (134, 16269), (145, 16326), (162, 16398), (173, 16464), (177, 16485), (200, 16623), (212, 16668), (215, 16683), (232, 16749), (237, 16767), (246, 16809), (252, 16836), (257, 16860), (280, 16944), (281, 16950),

Gene: TuanPN_20 Start: 15827, Stop: 17038, Start Num: 14
Candidate Starts for TuanPN_20:
(Start: 14 @15827 has 117 MA's), (23, 15854), (63, 16037), (65, 16049), (66, 16052), (96, 16199), (102, 16226), (134, 16349), (145, 16406), (163, 16481), (166, 16508), (171, 16538), (177, 16565), (185, 16616), (212, 16748), (221, 16787), (226, 16805), (234, 16835), (235, 16838), (237, 16847), (243, 16880), (246, 16889), (257, 16940), (274, 17000), (280, 17024), (281, 17030),

Gene: Unstoppable_20 Start: 15845, Stop: 17059, Start Num: 14
Candidate Starts for Unstoppable_20:
(Start: 14 @15845 has 117 MA's), (23, 15872), (63, 16055), (74, 16118), (96, 16217), (102, 16244), (121, 16313), (128, 16343), (155, 16463), (173, 16562), (210, 16760), (212, 16766), (221, 16805), (228, 16829), (235, 16856), (237, 16865), (243, 16898), (257, 16958), (264, 16988), (278, 17036), (280, 17045), (281, 17051),

Gene: Urza_20 Start: 16212, Stop: 17432, Start Num: 14
Candidate Starts for Urza_20:
(Start: 14 @16212 has 117 MA's), (26, 16254), (35, 16299), (49, 16368), (60, 16416), (63, 16422), (101, 16608), (102, 16611), (107, 16635), (121, 16680), (134, 16734), (166, 16893), (173, 16929), (205, 17112), (215, 17148), (221, 17172), (226, 17190), (228, 17196), (237, 17232), (246, 17274), (276, 17400), (280, 17418), (281, 17424),

Gene: Vanseggelen_25 Start: 16195, Stop: 17409, Start Num: 14
Candidate Starts for Vanseggelen_25:
(Start: 14 @16195 has 117 MA's), (23, 16222), (32, 16273), (63, 16405), (73, 16465), (74, 16468), (96, 16567), (121, 16663), (123, 16675), (141, 16750), (145, 16774), (163, 16849), (166, 16876), (173, 16912), (212, 17116), (215, 17131), (226, 17173), (227, 17176), (237, 17215), (261, 17329), (280, 17395), (281, 17401),

Gene: Verabelle_21 Start: 16526, Stop: 17743, Start Num: 14
Candidate Starts for Verabelle_21:
(Start: 14 @16526 has 117 MA's), (23, 16553), (32, 16604), (55, 16706), (63, 16736), (73, 16796), (74, 16799), (82, 16838), (121, 16994), (128, 17024), (141, 17081), (144, 17102), (163, 17180), (166, 17207), (173, 17243), (212, 17447), (215, 17462), (237, 17546), (257, 17639), (261, 17660), (280, 17729), (281, 17735),

Gene: Verse_20 Start: 16825, Stop: 18042, Start Num: 14
Candidate Starts for Verse_20:
(Start: 14 @16825 has 117 MA's), (23, 16852), (32, 16903), (55, 17005), (63, 17035), (73, 17095), (82, 17137), (96, 17197), (121, 17293), (128, 17323), (141, 17380), (144, 17401), (163, 17479), (173,

17542), (212, 17746), (215, 17761), (232, 17827), (237, 17845), (257, 17938), (264, 17968), (280, 18028), (281, 18034),

Gene: VieEnRose_20 Start: 16278, Stop: 17498, Start Num: 14
Candidate Starts for VieEnRose_20:
(Start: 14 @16278 has 117 MA's), (26, 16320), (35, 16365), (49, 16434), (60, 16482), (63, 16488), (101, 16674), (102, 16677), (121, 16746), (134, 16800), (150, 16875), (166, 16959), (173, 16995), (183, 17055), (205, 17178), (215, 17214), (221, 17238), (226, 17256), (228, 17262), (237, 17298), (246, 17340), (261, 17412), (280, 17484), (281, 17490),

Gene: Werner_20 Start: 15831, Stop: 17042, Start Num: 14
Candidate Starts for Werner_20:
(Start: 14 @15831 has 117 MA's), (63, 16041), (65, 16053), (66, 16056), (74, 16104), (96, 16203), (102, 16230), (121, 16299), (134, 16353), (145, 16410), (163, 16485), (166, 16512), (171, 16542), (176, 16566), (185, 16620), (198, 16698), (212, 16752), (221, 16791), (226, 16809), (235, 16842), (237, 16851), (243, 16884), (246, 16893), (257, 16944), (280, 17028), (281, 17034),

Gene: Whatever_20 Start: 15831, Stop: 17042, Start Num: 14
Candidate Starts for Whatever_20:
(Start: 14 @15831 has 117 MA's), (63, 16041), (65, 16053), (66, 16056), (74, 16104), (96, 16203), (102, 16230), (121, 16299), (134, 16353), (145, 16410), (163, 16485), (166, 16512), (171, 16542), (176, 16566), (185, 16620), (198, 16698), (212, 16752), (221, 16791), (226, 16809), (235, 16842), (237, 16851), (243, 16884), (246, 16893), (257, 16944), (280, 17028), (281, 17034),

Gene: Wizzo_16 Start: 12265, Stop: 13422, Start Num: 16
Candidate Starts for Wizzo_16:
(Start: 14 @12262 has 117 MA's), (Start: 16 @12265 has 44 MA's), (23, 12292), (27, 12316), (33, 12343), (35, 12349), (37, 12355), (40, 12370), (42, 12385), (43, 12388), (44, 12391), (50, 12421), (65, 12484), (71, 12502), (73, 12526), (76, 12535), (81, 12559), (82, 12568), (83, 12571), (84, 12574), (86, 12583), (89, 12601), (91, 12610), (101, 12664), (103, 12676), (104, 12679), (115, 12712), (117, 12718), (131, 12775), (137, 12790), (138, 12793), (139, 12799), (140, 12802), (142, 12817), (144, 12829), (152, 12868), (155, 12883), (156, 12892), (160, 12907), (161, 12910), (165, 12934), (167, 12949), (171, 12976), (172, 12979), (182, 13036), (188, 13069), (193, 13105), (199, 13132), (211, 13174), (214, 13189), (215, 13192), (221, 13216), (227, 13237), (229, 13243), (240, 13285), (247, 13321), (254, 13363), (257, 13378), (258, 13387), (261, 13399), (264, 13408),

Gene: Yasdnil_20 Start: 15823, Stop: 17034, Start Num: 14
Candidate Starts for Yasdnil_20:
(Start: 14 @15823 has 117 MA's), (23, 15850), (63, 16033), (65, 16045), (66, 16048), (96, 16195), (102, 16222), (134, 16345), (145, 16402), (163, 16477), (166, 16504), (171, 16534), (177, 16561), (185, 16612), (212, 16744), (221, 16783), (226, 16801), (234, 16831), (235, 16834), (237, 16843), (243, 16876), (246, 16885), (257, 16936), (274, 16996), (280, 17020), (281, 17026),

Gene: Yosif_21 Start: 16799, Stop: 17983, Start Num: 14
Candidate Starts for Yosif_21:
(Start: 14 @16799 has 117 MA's), (32, 16877), (33, 16880), (35, 16886), (60, 17003), (63, 17009), (73, 17069), (92, 17153), (95, 17168), (102, 17198), (134, 17321), (141, 17354), (166, 17480), (173, 17516), (198, 17642), (215, 17711), (221, 17735), (237, 17795), (280, 17969), (281, 17975),

Gene: Zainub_22 Start: 16178, Stop: 17389, Start Num: 14
Candidate Starts for Zainub_22:
(Start: 14 @16178 has 117 MA's), (33, 16259), (63, 16388), (65, 16400), (78, 16463), (102, 16577), (105, 16592), (134, 16700), (141, 16733), (145, 16757), (162, 16829), (173, 16895), (176, 16913),

(177, 16916), (180, 16937), (200, 17054), (212, 17099), (215, 17114), (237, 17198), (239, 17204), (255, 17279), (257, 17291), (278, 17366), (280, 17375), (281, 17381),

Gene: ZamZam_23 Start: 16817, Stop: 18034, Start Num: 14
Candidate Starts for ZamZam_23:
(Start: 14 @16817 has 117 MA's), (31, 16892), (32, 16895), (63, 17027), (73, 17087), (78, 17102), (121, 17285), (128, 17315), (134, 17339), (141, 17372), (145, 17396), (166, 17498), (173, 17534), (200, 17693), (207, 17723), (212, 17738), (215, 17753), (227, 17798), (237, 17837), (278, 18011), (280, 18020), (281, 18026),

Gene: Zemlya_21 Start: 15855, Stop: 17066, Start Num: 14
Candidate Starts for Zemlya_21:
(Start: 14 @15855 has 117 MA's), (23, 15882), (48, 16008), (50, 16014), (55, 16035), (63, 16065), (74, 16128), (96, 16227), (102, 16254), (121, 16323), (134, 16377), (137, 16389), (145, 16434), (162, 16506), (163, 16509), (173, 16572), (177, 16593), (188, 16668), (210, 16770), (212, 16776), (220, 16812), (221, 16815), (226, 16833), (237, 16875), (279, 17049), (280, 17052), (281, 17058),

Gene: Zucker_20 Start: 15353, Stop: 16471, Start Num: 17
Candidate Starts for Zucker_20:
(Start: 17 @15353 has 6 MA's), (38, 15440), (52, 15527), (57, 15536), (63, 15560), (65, 15572), (68, 15581), (102, 15743), (103, 15752), (104, 15755), (126, 15839), (130, 15851), (140, 15884), (151, 15935), (157, 15965), (172, 16043), (199, 16193), (209, 16229), (211, 16235), (230, 16307), (233, 16316), (267, 16463),

Gene: phiCAM_21 Start: 18698, Stop: 19705, Start Num: 63
Candidate Starts for phiCAM_21:
(Start: 14 @18488 has 117 MA's), (23, 18515), (32, 18566), (63, 18698), (73, 18758), (82, 18800), (121, 18956), (128, 18986), (141, 19043), (145, 19067), (163, 19142), (166, 19169), (173, 19205), (212, 19409), (215, 19424), (227, 19469), (237, 19508), (257, 19601), (264, 19631), (280, 19691), (281, 19697),

Gene: phiHau3_22 Start: 16517, Stop: 17728, Start Num: 11
Candidate Starts for phiHau3_22:
(9, 16505), (Start: 11 @16517 has 1 MA's), (Start: 14 @16523 has 117 MA's), (35, 16610), (57, 16709), (65, 16745), (78, 16808), (102, 16922), (104, 16934), (120, 16988), (121, 16991), (128, 17021), (134, 17045), (145, 17102), (155, 17141), (162, 17174), (163, 17177), (170, 17225), (212, 17444), (215, 17459), (227, 17504), (235, 17534), (239, 17549), (246, 17585), (278, 17705), (280, 17714), (281, 17720),