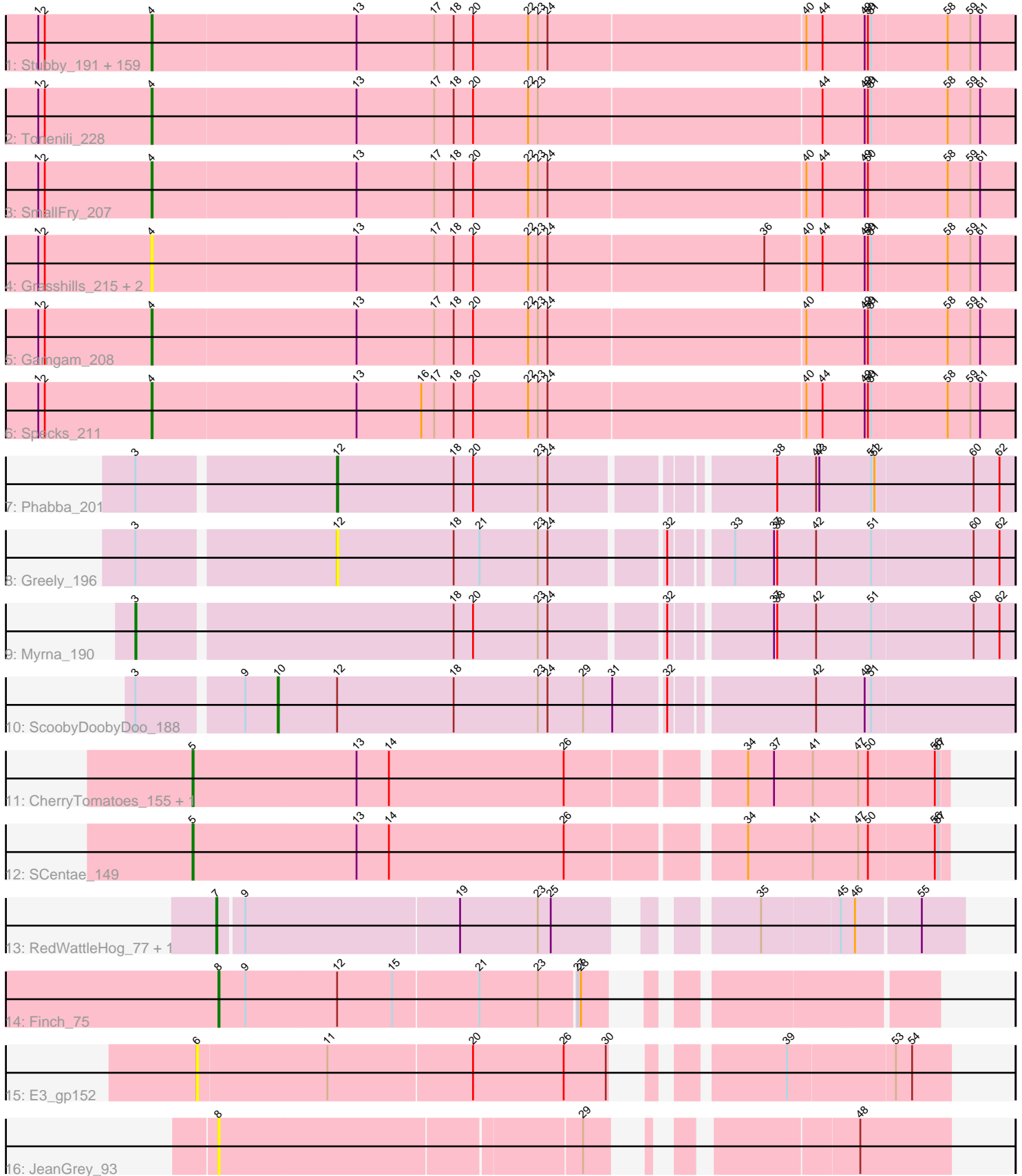


Pham 156151



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 156151 Report

This analysis was run 04/12/24 on database version 558.

Pham number 156151 has 179 members, 16 are drafts.

Phages represented in each track:

- Track 1 : Stubby_191, NuevoMundo_210, Amataga_208, Burrough_209, Concombres_212, Napoleon13_204, Morizzled23_204, Willis_208, InigoMontoya_210, Drazdys_205, JustHall_201, Breeniome_206, RoMag_202, Shelob_208, Jemmno_206, Ghost_207, Blubba_203, Bonray_209, Blackbrain_204, ParkTD_206, MikeLiesIn_209, Derek_204, LifeSavor_206, Rahel_208, Basquiat_204, Littleton_210, Yassified_204, Patter_208, I3_217, SilverDipper_211, CindyLou_208, Latch_207, Naval22_212, Ngannou_204, LolaVinca_205, Teardrop_204, Daffodil_212, Colt_198, Khaleesi_206, Bipolarisk_205, HyRo_195, Chomp_206, Melpomini_202, Fludd_207, BadAgartude_201, Shrimp_209, Dietrick_196, Ading_208, Issimir_203, Janiyra_210, Turret_200, Darko_206, YemiJoy2021_208, Norm_207, Megamind_204, StubbySaigey_212, Audrick_209, ZygoTaiga_204, Koguma_206, Phusco_205, Erdmann_208, Astraea_201, Kboogie_211, ChickenPhender_203, Phlegm_211, MoMoMixon_205, ChaylaJr_204, Zeenon_209, FudgeTart_202, Gabriel_210, EmToTheThree_207, Quasimodo_209, Gizmo_213, Sauce_203, FrayBell_210, Asterius_203, JayJay_205, Chargie21_204, McGee_206, Salacia_207, Mikro_203, Babyland_210, Pinkcreek_191, Lukilu_198, Capablanca_212, Delilah_205, Ava3_206, Grungle_191, Zalkecks_206, Maby2021_207, Cactojaque_202, EasyJones_210, Ewok_206, DrPhinkDaddy_204, Shaqato_198, ErnieJ_200, EmmaElysia_210, Phox_208, Momo_208, NoodleTree_213, Alice_194, DirtMonster_200, Pleione_211, Mangeria_208, CharlieB_201, Tyke_205, Cane17_198, Sprinklers_205, Matsumoto_206, StephanieG_203, Wally_205, Iota_202, Yucca_207, YoungMoneyMata_205, QBert_199, Pier_208, Bread_202, Naija_208, Atlantean_207, Shnickers_205, BeanWater_199, Trinitium_203, FoxtrotP1_205, Tortoise16_205, BackyardAgain_202, NedWong_206, Izajani_205, BananaFence_204, InterFolia_210, Kamryn_206, Pivoine_208, Bigswole_212, Jessibeth14_207, LRRHood_200, LinStu_206, Ronan_203, Nappy_208, Jedediah_207, Lee7_207, Essence_204, SrishMeg2525_204, Dandelion_215, Flabslab_202, ShiaLabeouf_204, Roots515_209, Guwapp_202, IkeLoa_199, Rabinovish_200, Nidhogg_208, McWolfish_204, Adlitam_206, Delylah_209, Loanshark_204, ValleyTerrace_208, Pio_215, Shifa_184, Sebata_208, TinyTim_205, Caravan_198, PurduePete_207
- Track 2 : Tonenili_228
- Track 3 : SmallFry_207
- Track 4 : Grasshills_215, EggyFarm_216, BigCity_216
- Track 5 : Gamgam_208
- Track 6 : Specks_211
- Track 7 : Phabba_201

- Track 8 : Greely_196
- Track 9 : Myrna_190
- Track 10 : ScoobyDoobyDoo_188
- Track 11 : CherryTomatoes_155, Pupper_150
- Track 12 : SCentae_149
- Track 13 : RedWattleHog_77, Stormageddon_74
- Track 14 : Finch_75
- Track 15 : E3_gp152
- Track 16 : JeanGrey_93

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

The start number called the most often in the published annotations is 4, it was called in 155 of the 163 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Ading_208, Adlitam_206, Alice_194, Amataga_208, Asterius_203, Astraea_201, Atlantean_207, Audrick_209, Ava3_206, Babyland_210, BackyardAgain_202, BadAgartude_201, BananaFence_204, Basquiat_204, BeanWater_199, BigCity_216, Bigswole_212, Bipolarisk_205, Blackbrain_204, Blubba_203, Bonray_209, Bread_202, Breeniome_206, Burrough_209, Cactojaque_202, Cane17_198, Capablanca_212, Caravan_198, Chargie21_204, CharlieB_201, ChaylaJr_204, ChickenPhender_203, Chomp_206, CindyLou_208, Colt_198, Concombre_212, Daffodil_212, Dandelion_215, Darko_206, Delilah_205, Delylah_209, Derek_204, Dietrick_196, DirtMonster_200, DrPhinkDaddy_204, Drazdys_205, EasyJones_210, EggyFarm_216, EmToTheThree_207, EmmaElysia_210, Erdmann_208, ErnieJ_200, Essence_204, Ewok_206, Flabslab_202, Fludd_207, FoxtrotP1_205, FrayBell_210, FudgeTart_202, Gabriel_210, Gamgam_208, Ghost_207, Gizmo_213, Grasshills_215, Grungle_191, Guwapp_202, HyRo_195, I3_217, IkeLoa_199, InigoMontoya_210, InterFolia_210, Iota_202, Issimir_203, Izajani_205, Janiyra_210, JayJay_205, Jedediah_207, Jemmno_206, Jessibeth14_207, JustHall_201, Kamryn_206, Kboogie_211, Khaleesi_206, Koguma_206, LRRHood_200, Latch_207, Lee7_207, LifeSavor_206, LinStu_206, Littleton_210, Loanshark_204, LolaVinca_205, Lukilu_198, Maby2021_207, Mangeria_208, Matsumoto_206, McGee_206, McWolfish_204, Megamind_204, Melpomini_202, MikeLiesIn_209, Mikro_203, MoMoMixon_205, Momo_208, Morizzled23_204, Naija_208, Napoleon13_204, Nappy_208, Naval22_212, NedWong_206, Ngannou_204, Nidhogg_208, NoodleTree_213, Norm_207, NuevoMundo_210, ParkTD_206, Patter_208, Phlegm_211, Phox_208, Phusco_205, Pier_208, Pinkcreek_191, Pio_215, Pivoine_208, Pleione_211, PurduePete_207, QBert_199, Quasimodo_209, Rabinovish_200, Rahel_208, RoMag_202, Ronan_203, Roots515_209, Salacia_207, Sauce_203, Sebata_208, Shaqnato_198, Shelob_208, ShiaLabeouf_204, Shifa_184, Shnickers_205, Shrimp_209, SilverDipper_211, SmallFry_207, Specks_211, Sprinklers_205, SrishMeg2525_204, StephanieG_203, StubbySaigey_212, Stubby_191, Teardrop_204, TinyTim_205, Tonenili_228, Tortoise16_205, Trinitium_203, Turret_200, Tyke_205, ValleyTerrace_208, Wally_205, Willis_208, Yassified_204, YemiJoy2021_208, YoungMoneyMata_205, Yucca_207, Zalkecks_206, Zeenon_209, ZygoTaiga_204,

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

•

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

- CherryTomatoes_155, E3_gp152, Finch_75, Greely_196, JeanGrey_93, Myrna_190, Phabba_201, Pupper_150, RedWattleHog_77, SCentae_149, ScoobyDoobyDoo_188, Stormageddon_74,

Summary by start number:

Start 3:

- Found in 4 of 179 (2.2%) of genes in pham
- Manual Annotations of this start: 1 of 163
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Myrna_190 (C2),

Start 4:

- Found in 167 of 179 (93.3%) of genes in pham
- Manual Annotations of this start: 155 of 163
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ading_208 (C1), Adlitam_206 (C1), Alice_194 (C1), Amataga_208 (C1), Asterius_203 (C1), Astraea_201 (C1), Atlantean_207 (C1), Audrick_209 (C1), Ava3_206 (C1), Babyland_210 (C1), BackyardAgain_202 (C1), BadAgartude_201 (C1), BananaFence_204 (C1), Basquiat_204 (C1), BeanWater_199 (C1), BigCity_216 (C1), Bigswole_212 (C1), Bipolarisk_205 (C1), Blackbrain_204 (C1), Blubba_203 (C1), Bonray_209 (C1), Bread_202 (C1), Breeniome_206 (C1), Burrough_209 (C1), Cactojaque_202 (C1), Cane17_198 (C1), Capablanca_212 (C1), Caravan_198 (C1), Chargie21_204 (C1), CharlieB_201 (C1), ChaylaJr_204 (C1), ChickenPhender_203 (C1), Chomp_206 (C1), CindyLou_208 (C1), Colt_198 (C1), Concombre_212 (C1), Daffodil_212 (C1), Dandelion_215 (C1), Darko_206 (C1), Delilah_205 (C1), Delylah_209 (C1), Derek_204 (C1), Dietrick_196 (C1), DirtMonster_200 (C1), DrPhinkDaddy_204 (C1), Drazdys_205 (C1), EasyJones_210 (C1), EggyFarm_216 (C1), EmToTheThree_207 (C1), EmmaElysia_210 (C1), Erdmann_208 (C1), ErnieJ_200 (C1), Essence_204 (C1), Ewok_206 (C1), Flabslab_202 (C1), Fludd_207 (C1), FoxtrotP1_205 (C1), FrayBell_210 (C1), FudgeTart_202 (C1), Gabriel_210 (C1), Gamgam_208 (C1), Ghost_207 (C1), Gizmo_213 (C1), Grasshills_215 (C1), Grungle_191 (C1), Guwapp_202 (C1), HyRo_195 (C1), I3_217 (C1), IkeLoa_199 (C1), InigoMontoya_210 (C1), InterFolia_210 (C1), Iota_202 (C1), Issimir_203 (C1), Izajani_205 (C1), Janiyra_210 (C1), JayJay_205 (C1), Jedediah_207 (C1), Jemmno_206 (C1), Jessibeth14_207 (C1), JustHall_201 (C1), Kamryn_206 (C1), Kboogie_211 (C1), Khaleesi_206 (C1), Koguma_206 (C1), LRRHood_200 (C1), Latch_207 (C1), Lee7_207 (C1), LifeSavor_206 (C1), LinStu_206 (C1), Littleton_210 (C1), Loanshark_204 (C1), LolaVinca_205 (C1), Lukilu_198 (C1), Maby2021_207 (C1), Mangeria_208 (C1), Matsumoto_206 (C1), McGee_206 (C1), McWolfish_204 (C1), Megamind_204 (C1), Melpomini_202 (C1), MikeLiesIn_209 (C1), Mikro_203 (C1), MoMoMixon_205 (C1), Momo_208 (C1), Morizzled23_204 (C1), Naija_208 (C1), Napoleon13_204 (C1), Nappy_208 (C1), Naval22_212 (C1), NedWong_206 (C1), Ngannou_204 (C1), Nidhogg_208 (C1), NoodleTree_213 (C1), Norm_207 (C1), NuevoMundo_210 (C1), ParkTD_206 (C1), Patter_208 (C1), Phlegm_211 (C1), Phox_208 (C1), Phusco_205 (C1), Pier_208 (C1), Pinkcreek_191 (C1), Pio_215 (C1), Pivoine_208 (C1), Pleione_211 (C1), PurduePete_207 (C1), QBert_199 (C1), Quasimodo_209 (C1), Rabinovish_200 (C1), Rahel_208 (C1), RoMag_202 (C1), Ronan_203 (C1), Roots515_209 (C1), Salacia_207 (C1), Sauce_203 (C1),

Sebata_208 (C1), Shaqnato_198 (C1), Shelob_208 (C1), ShiaLabeouf_204 (C1), Shifa_184 (C1), Shnickers_205 (C1), Shrimp_209 (C1), SilverDipper_211 (C1), SmallFry_207 (C1), Specks_211 (C1), Sprinklers_205 (C1), SrishMeg2525_204 (C1), StephanieG_203 (C1), StubbySaigey_212 (C1), Stubby_191 (C1), Teardrop_204 (C1), TinyTim_205 (C1), Tonenili_228 (C1), Tortoise16_205 (C1), Trinitium_203 (C1), Turret_200 (C1), Tyke_205 (C1), ValleyTerrace_208 (C1), Wally_205 (C1), Willis_208 (C1), Yassified_204 (C1), YemiJoy2021_208 (C1), YoungMoneyMata_205 (C1), Yucca_207 (C1), Zalkecks_206 (C1), Zeenon_209 (C1), ZygoTaiga_204 (C1),

Start 5:

- Found in 3 of 179 (1.7%) of genes in pham
- Manual Annotations of this start: 2 of 163
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes_155 (DO), Pupper_150 (DO), SCentae_149 (DO),

Start 6:

- Found in 1 of 179 (0.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: E3_gp152 (singleton),

Start 7:

- Found in 2 of 179 (1.1%) of genes in pham
- Manual Annotations of this start: 2 of 163
- Called 100.0% of time when present
- Phage (with cluster) where this start called: RedWattleHog_77 (DX), Stormageddon_74 (DX),

Start 8:

- Found in 2 of 179 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 163
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Finch_75 (singleton), JeanGrey_93 (singleton),

Start 10:

- Found in 1 of 179 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 163
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ScoobyDoobyDoo_188 (C2),

Start 12:

- Found in 4 of 179 (2.2%) of genes in pham
- Manual Annotations of this start: 1 of 163
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Greely_196 (C2), Phabba_201 (C2),

Summary by clusters:

There are 5 clusters represented in this pham: C2, C1, singleton, DX, DO,

Info for manual annotations of cluster C1:

- Start number 4 was manually annotated 155 times for cluster C1.

Info for manual annotations of cluster C2:

- Start number 3 was manually annotated 1 time for cluster C2.
- Start number 10 was manually annotated 1 time for cluster C2.
- Start number 12 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster DO:

- Start number 5 was manually annotated 2 times for cluster DO.

Info for manual annotations of cluster DX:

- Start number 7 was manually annotated 2 times for cluster DX.

Gene Information:

Gene: Ading_208 Start: 111928, Stop: 112716, Start Num: 4

Candidate Starts for Ading_208:

(1, 111823), (2, 111829), (Start: 4 @111928 has 155 MA's), (13, 112114), (17, 112186), (18, 112204), (20, 112222), (22, 112273), (23, 112282), (24, 112291), (40, 112525), (44, 112540), (49, 112579), (50, 112582), (51, 112585), (58, 112654), (59, 112675), (61, 112684),

Gene: Adlitam_206 Start: 110532, Stop: 111320, Start Num: 4

Candidate Starts for Adlitam_206:

(1, 110427), (2, 110433), (Start: 4 @110532 has 155 MA's), (13, 110718), (17, 110790), (18, 110808), (20, 110826), (22, 110877), (23, 110886), (24, 110895), (40, 111129), (44, 111144), (49, 111183), (50, 111186), (51, 111189), (58, 111258), (59, 111279), (61, 111288),

Gene: Alice_194 Start: 110500, Stop: 111288, Start Num: 4

Candidate Starts for Alice_194:

(1, 110395), (2, 110401), (Start: 4 @110500 has 155 MA's), (13, 110686), (17, 110758), (18, 110776), (20, 110794), (22, 110845), (23, 110854), (24, 110863), (40, 111097), (44, 111112), (49, 111151), (50, 111154), (51, 111157), (58, 111226), (59, 111247), (61, 111256),

Gene: Amataga_208 Start: 110344, Stop: 111132, Start Num: 4

Candidate Starts for Amataga_208:

(1, 110239), (2, 110245), (Start: 4 @110344 has 155 MA's), (13, 110530), (17, 110602), (18, 110620), (20, 110638), (22, 110689), (23, 110698), (24, 110707), (40, 110941), (44, 110956), (49, 110995), (50, 110998), (51, 111001), (58, 111070), (59, 111091), (61, 111100),

Gene: Asterius_203 Start: 110753, Stop: 111541, Start Num: 4

Candidate Starts for Asterius_203:

(1, 110648), (2, 110654), (Start: 4 @110753 has 155 MA's), (13, 110939), (17, 111011), (18, 111029), (20, 111047), (22, 111098), (23, 111107), (24, 111116), (40, 111350), (44, 111365), (49, 111404), (50, 111407), (51, 111410), (58, 111479), (59, 111500), (61, 111509),

Gene: Astraea_201 Start: 109948, Stop: 110736, Start Num: 4

Candidate Starts for Astraea_201:

(1, 109843), (2, 109849), (Start: 4 @109948 has 155 MA's), (13, 110134), (17, 110206), (18, 110224), (20, 110242), (22, 110293), (23, 110302), (24, 110311), (40, 110545), (44, 110560), (49, 110599), (50, 110602), (51, 110605), (58, 110674), (59, 110695), (61, 110704),

Gene: Atlantean_207 Start: 110344, Stop: 111132, Start Num: 4

Candidate Starts for Atlantean_207:

(1, 110239), (2, 110245), (Start: 4 @110344 has 155 MA's), (13, 110530), (17, 110602), (18, 110620), (20, 110638), (22, 110689), (23, 110698), (24, 110707), (40, 110941), (44, 110956), (49, 110995), (50, 110998), (51, 111001), (58, 111070), (59, 111091), (61, 111100),

Gene: Audrick_209 Start: 110234, Stop: 111022, Start Num: 4

Candidate Starts for Audrick_209:

(1, 110129), (2, 110135), (Start: 4 @110234 has 155 MA's), (13, 110420), (17, 110492), (18, 110510), (20, 110528), (22, 110579), (23, 110588), (24, 110597), (40, 110831), (44, 110846), (49, 110885), (50, 110888), (51, 110891), (58, 110960), (59, 110981), (61, 110990),

Gene: Ava3_206 Start: 110778, Stop: 111566, Start Num: 4

Candidate Starts for Ava3_206:

(1, 110673), (2, 110679), (Start: 4 @110778 has 155 MA's), (13, 110964), (17, 111036), (18, 111054), (20, 111072), (22, 111123), (23, 111132), (24, 111141), (40, 111375), (44, 111390), (49, 111429), (50, 111432), (51, 111435), (58, 111504), (59, 111525), (61, 111534),

Gene: Babyland_210 Start: 111121, Stop: 111909, Start Num: 4

Candidate Starts for Babyland_210:

(1, 111016), (2, 111022), (Start: 4 @111121 has 155 MA's), (13, 111307), (17, 111379), (18, 111397), (20, 111415), (22, 111466), (23, 111475), (24, 111484), (40, 111718), (44, 111733), (49, 111772), (50, 111775), (51, 111778), (58, 111847), (59, 111868), (61, 111877),

Gene: BackyardAgain_202 Start: 109030, Stop: 109818, Start Num: 4

Candidate Starts for BackyardAgain_202:

(1, 108925), (2, 108931), (Start: 4 @109030 has 155 MA's), (13, 109216), (17, 109288), (18, 109306), (20, 109324), (22, 109375), (23, 109384), (24, 109393), (40, 109627), (44, 109642), (49, 109681), (50, 109684), (51, 109687), (58, 109756), (59, 109777), (61, 109786),

Gene: BadAgartude_201 Start: 110443, Stop: 111231, Start Num: 4

Candidate Starts for BadAgartude_201:

(1, 110338), (2, 110344), (Start: 4 @110443 has 155 MA's), (13, 110629), (17, 110701), (18, 110719), (20, 110737), (22, 110788), (23, 110797), (24, 110806), (40, 111040), (44, 111055), (49, 111094), (50, 111097), (51, 111100), (58, 111169), (59, 111190), (61, 111199),

Gene: BananaFence_204 Start: 110577, Stop: 111365, Start Num: 4

Candidate Starts for BananaFence_204:

(1, 110472), (2, 110478), (Start: 4 @110577 has 155 MA's), (13, 110763), (17, 110835), (18, 110853), (20, 110871), (22, 110922), (23, 110931), (24, 110940), (40, 111174), (44, 111189), (49, 111228), (50, 111231), (51, 111234), (58, 111303), (59, 111324), (61, 111333),

Gene: Basquiat_204 Start: 109856, Stop: 110644, Start Num: 4

Candidate Starts for Basquiat_204:

(1, 109751), (2, 109757), (Start: 4 @109856 has 155 MA's), (13, 110042), (17, 110114), (18, 110132), (20, 110150), (22, 110201), (23, 110210), (24, 110219), (40, 110453), (44, 110468), (49, 110507), (50, 110510), (51, 110513), (58, 110582), (59, 110603), (61, 110612),

Gene: BeanWater_199 Start: 110382, Stop: 111170, Start Num: 4

Candidate Starts for BeanWater_199:

(1, 110277), (2, 110283), (Start: 4 @110382 has 155 MA's), (13, 110568), (17, 110640), (18, 110658), (20, 110676), (22, 110727), (23, 110736), (24, 110745), (40, 110979), (44, 110994), (49, 111033), (50, 111036), (51, 111039), (58, 111108), (59, 111129), (61, 111138),

Gene: BigCity_216 Start: 113953, Stop: 114741, Start Num: 4

Candidate Starts for BigCity_216:

(1, 113848), (2, 113854), (Start: 4 @113953 has 155 MA's), (13, 114139), (17, 114211), (18, 114229), (20, 114247), (22, 114298), (23, 114307), (24, 114316), (36, 114514), (40, 114550), (44, 114565), (49, 114604), (50, 114607), (51, 114610), (58, 114679), (59, 114700), (61, 114709),

Gene: Bigswole_212 Start: 113804, Stop: 114592, Start Num: 4

Candidate Starts for Bigswole_212:

(1, 113699), (2, 113705), (Start: 4 @113804 has 155 MA's), (13, 113990), (17, 114062), (18, 114080), (20, 114098), (22, 114149), (23, 114158), (24, 114167), (40, 114401), (44, 114416), (49, 114455), (50, 114458), (51, 114461), (58, 114530), (59, 114551), (61, 114560),

Gene: Bipolarisk_205 Start: 111047, Stop: 111835, Start Num: 4

Candidate Starts for Bipolarisk_205:

(1, 110942), (2, 110948), (Start: 4 @111047 has 155 MA's), (13, 111233), (17, 111305), (18, 111323), (20, 111341), (22, 111392), (23, 111401), (24, 111410), (40, 111644), (44, 111659), (49, 111698), (50, 111701), (51, 111704), (58, 111773), (59, 111794), (61, 111803),

Gene: Blackbrain_204 Start: 110941, Stop: 111729, Start Num: 4

Candidate Starts for Blackbrain_204:

(1, 110836), (2, 110842), (Start: 4 @110941 has 155 MA's), (13, 111127), (17, 111199), (18, 111217), (20, 111235), (22, 111286), (23, 111295), (24, 111304), (40, 111538), (44, 111553), (49, 111592), (50, 111595), (51, 111598), (58, 111667), (59, 111688), (61, 111697),

Gene: Blubba_203 Start: 114066, Stop: 114854, Start Num: 4

Candidate Starts for Blubba_203:

(1, 113961), (2, 113967), (Start: 4 @114066 has 155 MA's), (13, 114252), (17, 114324), (18, 114342), (20, 114360), (22, 114411), (23, 114420), (24, 114429), (40, 114663), (44, 114678), (49, 114717), (50, 114720), (51, 114723), (58, 114792), (59, 114813), (61, 114822),

Gene: Bonray_209 Start: 112449, Stop: 113237, Start Num: 4

Candidate Starts for Bonray_209:

(1, 112344), (2, 112350), (Start: 4 @112449 has 155 MA's), (13, 112635), (17, 112707), (18, 112725), (20, 112743), (22, 112794), (23, 112803), (24, 112812), (40, 113046), (44, 113061), (49, 113100), (50, 113103), (51, 113106), (58, 113175), (59, 113196), (61, 113205),

Gene: Bread_202 Start: 110447, Stop: 111235, Start Num: 4

Candidate Starts for Bread_202:

(1, 110342), (2, 110348), (Start: 4 @110447 has 155 MA's), (13, 110633), (17, 110705), (18, 110723), (20, 110741), (22, 110792), (23, 110801), (24, 110810), (40, 111044), (44, 111059), (49, 111098), (50, 111101), (51, 111104), (58, 111173), (59, 111194), (61, 111203),

Gene: Breeniome_206 Start: 109901, Stop: 110689, Start Num: 4

Candidate Starts for Breeniome_206:

(1, 109796), (2, 109802), (Start: 4 @109901 has 155 MA's), (13, 110087), (17, 110159), (18, 110177), (20, 110195), (22, 110246), (23, 110255), (24, 110264), (40, 110498), (44, 110513), (49, 110552), (50, 110555), (51, 110558), (58, 110627), (59, 110648), (61, 110657),

Gene: Burrough_209 Start: 112217, Stop: 113005, Start Num: 4

Candidate Starts for Burrough_209:

(1, 112112), (2, 112118), (Start: 4 @112217 has 155 MA's), (13, 112403), (17, 112475), (18, 112493), (20, 112511), (22, 112562), (23, 112571), (24, 112580), (40, 112814), (44, 112829), (49, 112868), (50,

112871), (51, 112874), (58, 112943), (59, 112964), (61, 112973),

Gene: Cactojaque_202 Start: 109876, Stop: 110664, Start Num: 4

Candidate Starts for Cactojaque_202:

(1, 109771), (2, 109777), (Start: 4 @109876 has 155 MA's), (13, 110062), (17, 110134), (18, 110152), (20, 110170), (22, 110221), (23, 110230), (24, 110239), (40, 110473), (44, 110488), (49, 110527), (50, 110530), (51, 110533), (58, 110602), (59, 110623), (61, 110632),

Gene: Cane17_198 Start: 114475, Stop: 115263, Start Num: 4

Candidate Starts for Cane17_198:

(1, 114370), (2, 114376), (Start: 4 @114475 has 155 MA's), (13, 114661), (17, 114733), (18, 114751), (20, 114769), (22, 114820), (23, 114829), (24, 114838), (40, 115072), (44, 115087), (49, 115126), (50, 115129), (51, 115132), (58, 115201), (59, 115222), (61, 115231),

Gene: Capablanca_212 Start: 113044, Stop: 113832, Start Num: 4

Candidate Starts for Capablanca_212:

(1, 112939), (2, 112945), (Start: 4 @113044 has 155 MA's), (13, 113230), (17, 113302), (18, 113320), (20, 113338), (22, 113389), (23, 113398), (24, 113407), (40, 113641), (44, 113656), (49, 113695), (50, 113698), (51, 113701), (58, 113770), (59, 113791), (61, 113800),

Gene: Caravan_198 Start: 111164, Stop: 111952, Start Num: 4

Candidate Starts for Caravan_198:

(1, 111059), (2, 111065), (Start: 4 @111164 has 155 MA's), (13, 111350), (17, 111422), (18, 111440), (20, 111458), (22, 111509), (23, 111518), (24, 111527), (40, 111761), (44, 111776), (49, 111815), (50, 111818), (51, 111821), (58, 111890), (59, 111911), (61, 111920),

Gene: Chargie21_204 Start: 109856, Stop: 110644, Start Num: 4

Candidate Starts for Chargie21_204:

(1, 109751), (2, 109757), (Start: 4 @109856 has 155 MA's), (13, 110042), (17, 110114), (18, 110132), (20, 110150), (22, 110201), (23, 110210), (24, 110219), (40, 110453), (44, 110468), (49, 110507), (50, 110510), (51, 110513), (58, 110582), (59, 110603), (61, 110612),

Gene: CharlieB_201 Start: 110584, Stop: 111372, Start Num: 4

Candidate Starts for CharlieB_201:

(1, 110479), (2, 110485), (Start: 4 @110584 has 155 MA's), (13, 110770), (17, 110842), (18, 110860), (20, 110878), (22, 110929), (23, 110938), (24, 110947), (40, 111181), (44, 111196), (49, 111235), (50, 111238), (51, 111241), (58, 111310), (59, 111331), (61, 111340),

Gene: ChaylaJr_204 Start: 110284, Stop: 111072, Start Num: 4

Candidate Starts for ChaylaJr_204:

(1, 110179), (2, 110185), (Start: 4 @110284 has 155 MA's), (13, 110470), (17, 110542), (18, 110560), (20, 110578), (22, 110629), (23, 110638), (24, 110647), (40, 110881), (44, 110896), (49, 110935), (50, 110938), (51, 110941), (58, 111010), (59, 111031), (61, 111040),

Gene: CherryTomatoes_155 Start: 104131, Stop: 104805, Start Num: 5

Candidate Starts for CherryTomatoes_155:

(Start: 5 @104131 has 2 MA's), (13, 104281), (14, 104311), (26, 104473), (34, 104623), (37, 104647), (41, 104683), (47, 104725), (50, 104734), (56, 104794), (57, 104797),

Gene: ChickenPhender_203 Start: 110003, Stop: 110791, Start Num: 4

Candidate Starts for ChickenPhender_203:

(1, 109898), (2, 109904), (Start: 4 @110003 has 155 MA's), (13, 110189), (17, 110261), (18, 110279), (20, 110297), (22, 110348), (23, 110357), (24, 110366), (40, 110600), (44, 110615), (49, 110654), (50,

110657), (51, 110660), (58, 110729), (59, 110750), (61, 110759),

Gene: Chomp_206 Start: 111633, Stop: 112421, Start Num: 4

Candidate Starts for Chomp_206:

(1, 111528), (2, 111534), (Start: 4 @111633 has 155 MA's), (13, 111819), (17, 111891), (18, 111909), (20, 111927), (22, 111978), (23, 111987), (24, 111996), (40, 112230), (44, 112245), (49, 112284), (50, 112287), (51, 112290), (58, 112359), (59, 112380), (61, 112389),

Gene: CindyLou_208 Start: 111893, Stop: 112681, Start Num: 4

Candidate Starts for CindyLou_208:

(1, 111788), (2, 111794), (Start: 4 @111893 has 155 MA's), (13, 112079), (17, 112151), (18, 112169), (20, 112187), (22, 112238), (23, 112247), (24, 112256), (40, 112490), (44, 112505), (49, 112544), (50, 112547), (51, 112550), (58, 112619), (59, 112640), (61, 112649),

Gene: Colt_198 Start: 113706, Stop: 114494, Start Num: 4

Candidate Starts for Colt_198:

(1, 113601), (2, 113607), (Start: 4 @113706 has 155 MA's), (13, 113892), (17, 113964), (18, 113982), (20, 114000), (22, 114051), (23, 114060), (24, 114069), (40, 114303), (44, 114318), (49, 114357), (50, 114360), (51, 114363), (58, 114432), (59, 114453), (61, 114462),

Gene: Concombres_212 Start: 113496, Stop: 114284, Start Num: 4

Candidate Starts for Concombres_212:

(1, 113391), (2, 113397), (Start: 4 @113496 has 155 MA's), (13, 113682), (17, 113754), (18, 113772), (20, 113790), (22, 113841), (23, 113850), (24, 113859), (40, 114093), (44, 114108), (49, 114147), (50, 114150), (51, 114153), (58, 114222), (59, 114243), (61, 114252),

Gene: Daffodil_212 Start: 111347, Stop: 112135, Start Num: 4

Candidate Starts for Daffodil_212:

(1, 111242), (2, 111248), (Start: 4 @111347 has 155 MA's), (13, 111533), (17, 111605), (18, 111623), (20, 111641), (22, 111692), (23, 111701), (24, 111710), (40, 111944), (44, 111959), (49, 111998), (50, 112001), (51, 112004), (58, 112073), (59, 112094), (61, 112103),

Gene: Dandelion_215 Start: 114980, Stop: 115768, Start Num: 4

Candidate Starts for Dandelion_215:

(1, 114875), (2, 114881), (Start: 4 @114980 has 155 MA's), (13, 115166), (17, 115238), (18, 115256), (20, 115274), (22, 115325), (23, 115334), (24, 115343), (40, 115577), (44, 115592), (49, 115631), (50, 115634), (51, 115637), (58, 115706), (59, 115727), (61, 115736),

Gene: Darko_206 Start: 110581, Stop: 111369, Start Num: 4

Candidate Starts for Darko_206:

(1, 110476), (2, 110482), (Start: 4 @110581 has 155 MA's), (13, 110767), (17, 110839), (18, 110857), (20, 110875), (22, 110926), (23, 110935), (24, 110944), (40, 111178), (44, 111193), (49, 111232), (50, 111235), (51, 111238), (58, 111307), (59, 111328), (61, 111337),

Gene: Delilah_205 Start: 111465, Stop: 112253, Start Num: 4

Candidate Starts for Delilah_205:

(1, 111360), (2, 111366), (Start: 4 @111465 has 155 MA's), (13, 111651), (17, 111723), (18, 111741), (20, 111759), (22, 111810), (23, 111819), (24, 111828), (40, 112062), (44, 112077), (49, 112116), (50, 112119), (51, 112122), (58, 112191), (59, 112212), (61, 112221),

Gene: Delylah_209 Start: 111754, Stop: 112542, Start Num: 4

Candidate Starts for Delylah_209:

(1, 111649), (2, 111655), (Start: 4 @111754 has 155 MA's), (13, 111940), (17, 112012), (18, 112030), (20, 112048), (22, 112099), (23, 112108), (24, 112117), (40, 112351), (44, 112366), (49, 112405), (50, 112408), (51, 112411), (58, 112480), (59, 112501), (61, 112510),

Gene: Derek_204 Start: 110910, Stop: 111698, Start Num: 4

Candidate Starts for Derek_204:

(1, 110805), (2, 110811), (Start: 4 @110910 has 155 MA's), (13, 111096), (17, 111168), (18, 111186), (20, 111204), (22, 111255), (23, 111264), (24, 111273), (40, 111507), (44, 111522), (49, 111561), (50, 111564), (51, 111567), (58, 111636), (59, 111657), (61, 111666),

Gene: Dietrick_196 Start: 109586, Stop: 110374, Start Num: 4

Candidate Starts for Dietrick_196:

(1, 109481), (2, 109487), (Start: 4 @109586 has 155 MA's), (13, 109772), (17, 109844), (18, 109862), (20, 109880), (22, 109931), (23, 109940), (24, 109949), (40, 110183), (44, 110198), (49, 110237), (50, 110240), (51, 110243), (58, 110312), (59, 110333), (61, 110342),

Gene: DirtMonster_200 Start: 110826, Stop: 111614, Start Num: 4

Candidate Starts for DirtMonster_200:

(1, 110721), (2, 110727), (Start: 4 @110826 has 155 MA's), (13, 111012), (17, 111084), (18, 111102), (20, 111120), (22, 111171), (23, 111180), (24, 111189), (40, 111423), (44, 111438), (49, 111477), (50, 111480), (51, 111483), (58, 111552), (59, 111573), (61, 111582),

Gene: DrPhinkDaddy_204 Start: 112125, Stop: 112913, Start Num: 4

Candidate Starts for DrPhinkDaddy_204:

(1, 112020), (2, 112026), (Start: 4 @112125 has 155 MA's), (13, 112311), (17, 112383), (18, 112401), (20, 112419), (22, 112470), (23, 112479), (24, 112488), (40, 112722), (44, 112737), (49, 112776), (50, 112779), (51, 112782), (58, 112851), (59, 112872), (61, 112881),

Gene: Drazdys_205 Start: 111027, Stop: 111815, Start Num: 4

Candidate Starts for Drazdys_205:

(1, 110922), (2, 110928), (Start: 4 @111027 has 155 MA's), (13, 111213), (17, 111285), (18, 111303), (20, 111321), (22, 111372), (23, 111381), (24, 111390), (40, 111624), (44, 111639), (49, 111678), (50, 111681), (51, 111684), (58, 111753), (59, 111774), (61, 111783),

Gene: E3_gp152 Start: 101849, Stop: 102472, Start Num: 6

Candidate Starts for E3_gp152:

(6, 101849), (11, 101966), (20, 102098), (26, 102182), (30, 102221), (39, 102326), (53, 102422), (54, 102437),

Gene: EasyJones_210 Start: 111099, Stop: 111887, Start Num: 4

Candidate Starts for EasyJones_210:

(1, 110994), (2, 111000), (Start: 4 @111099 has 155 MA's), (13, 111285), (17, 111357), (18, 111375), (20, 111393), (22, 111444), (23, 111453), (24, 111462), (40, 111696), (44, 111711), (49, 111750), (50, 111753), (51, 111756), (58, 111825), (59, 111846), (61, 111855),

Gene: EggyFarm_216 Start: 113954, Stop: 114742, Start Num: 4

Candidate Starts for EggyFarm_216:

(1, 113849), (2, 113855), (Start: 4 @113954 has 155 MA's), (13, 114140), (17, 114212), (18, 114230), (20, 114248), (22, 114299), (23, 114308), (24, 114317), (36, 114515), (40, 114551), (44, 114566), (49, 114605), (50, 114608), (51, 114611), (58, 114680), (59, 114701), (61, 114710),

Gene: EmToTheThree_207 Start: 111498, Stop: 112286, Start Num: 4

Candidate Starts for EmToTheThree_207:

(1, 111393), (2, 111399), (Start: 4 @111498 has 155 MA's), (13, 111684), (17, 111756), (18, 111774), (20, 111792), (22, 111843), (23, 111852), (24, 111861), (40, 112095), (44, 112110), (49, 112149), (50, 112152), (51, 112155), (58, 112224), (59, 112245), (61, 112254),

Gene: EmmaElysia_210 Start: 111517, Stop: 112305, Start Num: 4

Candidate Starts for EmmaElysia_210:

(1, 111412), (2, 111418), (Start: 4 @111517 has 155 MA's), (13, 111703), (17, 111775), (18, 111793), (20, 111811), (22, 111862), (23, 111871), (24, 111880), (40, 112114), (44, 112129), (49, 112168), (50, 112171), (51, 112174), (58, 112243), (59, 112264), (61, 112273),

Gene: Erdmann_208 Start: 111456, Stop: 112244, Start Num: 4

Candidate Starts for Erdmann_208:

(1, 111351), (2, 111357), (Start: 4 @111456 has 155 MA's), (13, 111642), (17, 111714), (18, 111732), (20, 111750), (22, 111801), (23, 111810), (24, 111819), (40, 112053), (44, 112068), (49, 112107), (50, 112110), (51, 112113), (58, 112182), (59, 112203), (61, 112212),

Gene: ErnieJ_200 Start: 109278, Stop: 110066, Start Num: 4

Candidate Starts for ErnieJ_200:

(1, 109173), (2, 109179), (Start: 4 @109278 has 155 MA's), (13, 109464), (17, 109536), (18, 109554), (20, 109572), (22, 109623), (23, 109632), (24, 109641), (40, 109875), (44, 109890), (49, 109929), (50, 109932), (51, 109935), (58, 110004), (59, 110025), (61, 110034),

Gene: Essence_204 Start: 110239, Stop: 111027, Start Num: 4

Candidate Starts for Essence_204:

(1, 110134), (2, 110140), (Start: 4 @110239 has 155 MA's), (13, 110425), (17, 110497), (18, 110515), (20, 110533), (22, 110584), (23, 110593), (24, 110602), (40, 110836), (44, 110851), (49, 110890), (50, 110893), (51, 110896), (58, 110965), (59, 110986), (61, 110995),

Gene: Ewok_206 Start: 111375, Stop: 112163, Start Num: 4

Candidate Starts for Ewok_206:

(1, 111270), (2, 111276), (Start: 4 @111375 has 155 MA's), (13, 111561), (17, 111633), (18, 111651), (20, 111669), (22, 111720), (23, 111729), (24, 111738), (40, 111972), (44, 111987), (49, 112026), (50, 112029), (51, 112032), (58, 112101), (59, 112122), (61, 112131),

Gene: Finch_75 Start: 63700, Stop: 64284, Start Num: 8

Candidate Starts for Finch_75:

(Start: 8 @63700 has 1 MA's), (9, 63724), (Start: 12 @63808 has 1 MA's), (15, 63859), (21, 63937), (23, 63991), (27, 64024), (28, 64027),

Gene: Flabslab_202 Start: 109420, Stop: 110208, Start Num: 4

Candidate Starts for Flabslab_202:

(1, 109315), (2, 109321), (Start: 4 @109420 has 155 MA's), (13, 109606), (17, 109678), (18, 109696), (20, 109714), (22, 109765), (23, 109774), (24, 109783), (40, 110017), (44, 110032), (49, 110071), (50, 110074), (51, 110077), (58, 110146), (59, 110167), (61, 110176),

Gene: Fludd_207 Start: 110811, Stop: 111599, Start Num: 4

Candidate Starts for Fludd_207:

(1, 110706), (2, 110712), (Start: 4 @110811 has 155 MA's), (13, 110997), (17, 111069), (18, 111087), (20, 111105), (22, 111156), (23, 111165), (24, 111174), (40, 111408), (44, 111423), (49, 111462), (50, 111465), (51, 111468), (58, 111537), (59, 111558), (61, 111567),

Gene: FoxtrotP1_205 Start: 112055, Stop: 112843, Start Num: 4

Candidate Starts for FoxtrotP1_205:

(1, 111950), (2, 111956), (Start: 4 @112055 has 155 MA's), (13, 112241), (17, 112313), (18, 112331), (20, 112349), (22, 112400), (23, 112409), (24, 112418), (40, 112652), (44, 112667), (49, 112706), (50, 112709), (51, 112712), (58, 112781), (59, 112802), (61, 112811),

Gene: FrayBell_210 Start: 110900, Stop: 111688, Start Num: 4

Candidate Starts for FrayBell_210:

(1, 110795), (2, 110801), (Start: 4 @110900 has 155 MA's), (13, 111086), (17, 111158), (18, 111176), (20, 111194), (22, 111245), (23, 111254), (24, 111263), (40, 111497), (44, 111512), (49, 111551), (50, 111554), (51, 111557), (58, 111626), (59, 111647), (61, 111656),

Gene: FudgeTart_202 Start: 110522, Stop: 111310, Start Num: 4

Candidate Starts for FudgeTart_202:

(1, 110417), (2, 110423), (Start: 4 @110522 has 155 MA's), (13, 110708), (17, 110780), (18, 110798), (20, 110816), (22, 110867), (23, 110876), (24, 110885), (40, 111119), (44, 111134), (49, 111173), (50, 111176), (51, 111179), (58, 111248), (59, 111269), (61, 111278),

Gene: Gabriel_210 Start: 109977, Stop: 110765, Start Num: 4

Candidate Starts for Gabriel_210:

(1, 109872), (2, 109878), (Start: 4 @109977 has 155 MA's), (13, 110163), (17, 110235), (18, 110253), (20, 110271), (22, 110322), (23, 110331), (24, 110340), (40, 110574), (44, 110589), (49, 110628), (50, 110631), (51, 110634), (58, 110703), (59, 110724), (61, 110733),

Gene: Gamgam_208 Start: 110334, Stop: 111122, Start Num: 4

Candidate Starts for Gamgam_208:

(1, 110229), (2, 110235), (Start: 4 @110334 has 155 MA's), (13, 110520), (17, 110592), (18, 110610), (20, 110628), (22, 110679), (23, 110688), (24, 110697), (40, 110931), (49, 110985), (50, 110988), (51, 110991), (58, 111060), (59, 111081), (61, 111090),

Gene: Ghost_207 Start: 110255, Stop: 111043, Start Num: 4

Candidate Starts for Ghost_207:

(1, 110150), (2, 110156), (Start: 4 @110255 has 155 MA's), (13, 110441), (17, 110513), (18, 110531), (20, 110549), (22, 110600), (23, 110609), (24, 110618), (40, 110852), (44, 110867), (49, 110906), (50, 110909), (51, 110912), (58, 110981), (59, 111002), (61, 111011),

Gene: Gizmo_213 Start: 113373, Stop: 114161, Start Num: 4

Candidate Starts for Gizmo_213:

(1, 113268), (2, 113274), (Start: 4 @113373 has 155 MA's), (13, 113559), (17, 113631), (18, 113649), (20, 113667), (22, 113718), (23, 113727), (24, 113736), (40, 113970), (44, 113985), (49, 114024), (50, 114027), (51, 114030), (58, 114099), (59, 114120), (61, 114129),

Gene: Grasshills_215 Start: 113953, Stop: 114741, Start Num: 4

Candidate Starts for Grasshills_215:

(1, 113848), (2, 113854), (Start: 4 @113953 has 155 MA's), (13, 114139), (17, 114211), (18, 114229), (20, 114247), (22, 114298), (23, 114307), (24, 114316), (36, 114514), (40, 114550), (44, 114565), (49, 114604), (50, 114607), (51, 114610), (58, 114679), (59, 114700), (61, 114709),

Gene: Greely_196 Start: 108382, Stop: 108978, Start Num: 12

Candidate Starts for Greely_196:

(Start: 3 @108208 has 1 MA's), (Start: 12 @108382 has 1 MA's), (18, 108490), (21, 108514), (23, 108568), (24, 108577), (32, 108673), (33, 108721), (37, 108757), (38, 108760), (42, 108796), (51, 108847), (60, 108940), (62, 108964),

Gene: Grungle_191 Start: 108292, Stop: 109080, Start Num: 4

Candidate Starts for Grungle_191:

(1, 108187), (2, 108193), (Start: 4 @108292 has 155 MA's), (13, 108478), (17, 108550), (18, 108568), (20, 108586), (22, 108637), (23, 108646), (24, 108655), (40, 108889), (44, 108904), (49, 108943), (50, 108946), (51, 108949), (58, 109018), (59, 109039), (61, 109048),

Gene: Guwapp_202 Start: 109089, Stop: 109877, Start Num: 4

Candidate Starts for Guwapp_202:

(1, 108984), (2, 108990), (Start: 4 @109089 has 155 MA's), (13, 109275), (17, 109347), (18, 109365), (20, 109383), (22, 109434), (23, 109443), (24, 109452), (40, 109686), (44, 109701), (49, 109740), (50, 109743), (51, 109746), (58, 109815), (59, 109836), (61, 109845),

Gene: HyRo_195 Start: 110598, Stop: 111386, Start Num: 4

Candidate Starts for HyRo_195:

(1, 110493), (2, 110499), (Start: 4 @110598 has 155 MA's), (13, 110784), (17, 110856), (18, 110874), (20, 110892), (22, 110943), (23, 110952), (24, 110961), (40, 111195), (44, 111210), (49, 111249), (50, 111252), (51, 111255), (58, 111324), (59, 111345), (61, 111354),

Gene: I3_217 Start: 113334, Stop: 114122, Start Num: 4

Candidate Starts for I3_217:

(1, 113229), (2, 113235), (Start: 4 @113334 has 155 MA's), (13, 113520), (17, 113592), (18, 113610), (20, 113628), (22, 113679), (23, 113688), (24, 113697), (40, 113931), (44, 113946), (49, 113985), (50, 113988), (51, 113991), (58, 114060), (59, 114081), (61, 114090),

Gene: IkeLoa_199 Start: 109996, Stop: 110784, Start Num: 4

Candidate Starts for IkeLoa_199:

(1, 109891), (2, 109897), (Start: 4 @109996 has 155 MA's), (13, 110182), (17, 110254), (18, 110272), (20, 110290), (22, 110341), (23, 110350), (24, 110359), (40, 110593), (44, 110608), (49, 110647), (50, 110650), (51, 110653), (58, 110722), (59, 110743), (61, 110752),

Gene: InigoMontoya_210 Start: 111008, Stop: 111796, Start Num: 4

Candidate Starts for InigoMontoya_210:

(1, 110903), (2, 110909), (Start: 4 @111008 has 155 MA's), (13, 111194), (17, 111266), (18, 111284), (20, 111302), (22, 111353), (23, 111362), (24, 111371), (40, 111605), (44, 111620), (49, 111659), (50, 111662), (51, 111665), (58, 111734), (59, 111755), (61, 111764),

Gene: InterFolia_210 Start: 112706, Stop: 113494, Start Num: 4

Candidate Starts for InterFolia_210:

(1, 112601), (2, 112607), (Start: 4 @112706 has 155 MA's), (13, 112892), (17, 112964), (18, 112982), (20, 113000), (22, 113051), (23, 113060), (24, 113069), (40, 113303), (44, 113318), (49, 113357), (50, 113360), (51, 113363), (58, 113432), (59, 113453), (61, 113462),

Gene: Iota_202 Start: 110693, Stop: 111481, Start Num: 4

Candidate Starts for Iota_202:

(1, 110588), (2, 110594), (Start: 4 @110693 has 155 MA's), (13, 110879), (17, 110951), (18, 110969), (20, 110987), (22, 111038), (23, 111047), (24, 111056), (40, 111290), (44, 111305), (49, 111344), (50, 111347), (51, 111350), (58, 111419), (59, 111440), (61, 111449),

Gene: Issimir_203 Start: 110646, Stop: 111434, Start Num: 4

Candidate Starts for Issimir_203:

(1, 110541), (2, 110547), (Start: 4 @110646 has 155 MA's), (13, 110832), (17, 110904), (18, 110922), (20, 110940), (22, 110991), (23, 111000), (24, 111009), (40, 111243), (44, 111258), (49, 111297), (50, 111300), (51, 111303), (58, 111372), (59, 111393), (61, 111402),

Gene: Izajani_205 Start: 111515, Stop: 112303, Start Num: 4

Candidate Starts for Izajani_205:

(1, 111410), (2, 111416), (Start: 4 @111515 has 155 MA's), (13, 111701), (17, 111773), (18, 111791), (20, 111809), (22, 111860), (23, 111869), (24, 111878), (40, 112112), (44, 112127), (49, 112166), (50, 112169), (51, 112172), (58, 112241), (59, 112262), (61, 112271),

Gene: Janiyra_210 Start: 111233, Stop: 112021, Start Num: 4

Candidate Starts for Janiyra_210:

(1, 111128), (2, 111134), (Start: 4 @111233 has 155 MA's), (13, 111419), (17, 111491), (18, 111509), (20, 111527), (22, 111578), (23, 111587), (24, 111596), (40, 111830), (44, 111845), (49, 111884), (50, 111887), (51, 111890), (58, 111959), (59, 111980), (61, 111989),

Gene: JayJay_205 Start: 111930, Stop: 112718, Start Num: 4

Candidate Starts for JayJay_205:

(1, 111825), (2, 111831), (Start: 4 @111930 has 155 MA's), (13, 112116), (17, 112188), (18, 112206), (20, 112224), (22, 112275), (23, 112284), (24, 112293), (40, 112527), (44, 112542), (49, 112581), (50, 112584), (51, 112587), (58, 112656), (59, 112677), (61, 112686),

Gene: JeanGrey_93 Start: 73402, Stop: 73989, Start Num: 8

Candidate Starts for JeanGrey_93:

(Start: 8 @73402 has 1 MA's), (29, 73726), (48, 73906),

Gene: Jedediah_207 Start: 111107, Stop: 111895, Start Num: 4

Candidate Starts for Jedediah_207:

(1, 111002), (2, 111008), (Start: 4 @111107 has 155 MA's), (13, 111293), (17, 111365), (18, 111383), (20, 111401), (22, 111452), (23, 111461), (24, 111470), (40, 111704), (44, 111719), (49, 111758), (50, 111761), (51, 111764), (58, 111833), (59, 111854), (61, 111863),

Gene: Jemmno_206 Start: 109936, Stop: 110724, Start Num: 4

Candidate Starts for Jemmno_206:

(1, 109831), (2, 109837), (Start: 4 @109936 has 155 MA's), (13, 110122), (17, 110194), (18, 110212), (20, 110230), (22, 110281), (23, 110290), (24, 110299), (40, 110533), (44, 110548), (49, 110587), (50, 110590), (51, 110593), (58, 110662), (59, 110683), (61, 110692),

Gene: Jessibeth14_207 Start: 112124, Stop: 112912, Start Num: 4

Candidate Starts for Jessibeth14_207:

(1, 112019), (2, 112025), (Start: 4 @112124 has 155 MA's), (13, 112310), (17, 112382), (18, 112400), (20, 112418), (22, 112469), (23, 112478), (24, 112487), (40, 112721), (44, 112736), (49, 112775), (50, 112778), (51, 112781), (58, 112850), (59, 112871), (61, 112880),

Gene: JustHall_201 Start: 110140, Stop: 110928, Start Num: 4

Candidate Starts for JustHall_201:

(1, 110035), (2, 110041), (Start: 4 @110140 has 155 MA's), (13, 110326), (17, 110398), (18, 110416), (20, 110434), (22, 110485), (23, 110494), (24, 110503), (40, 110737), (44, 110752), (49, 110791), (50, 110794), (51, 110797), (58, 110866), (59, 110887), (61, 110896),

Gene: Kamryn_206 Start: 111770, Stop: 112558, Start Num: 4

Candidate Starts for Kamryn_206:

(1, 111665), (2, 111671), (Start: 4 @111770 has 155 MA's), (13, 111956), (17, 112028), (18, 112046), (20, 112064), (22, 112115), (23, 112124), (24, 112133), (40, 112367), (44, 112382), (49, 112421), (50, 112424), (51, 112427), (58, 112496), (59, 112517), (61, 112526),

Gene: Kboogie_211 Start: 110798, Stop: 111586, Start Num: 4

Candidate Starts for Kboogie_211:

(1, 110693), (2, 110699), (Start: 4 @110798 has 155 MA's), (13, 110984), (17, 111056), (18, 111074), (20, 111092), (22, 111143), (23, 111152), (24, 111161), (40, 111395), (44, 111410), (49, 111449), (50, 111452), (51, 111455), (58, 111524), (59, 111545), (61, 111554),

Gene: Khaleesi_206 Start: 111591, Stop: 112379, Start Num: 4

Candidate Starts for Khaleesi_206:

(1, 111486), (2, 111492), (Start: 4 @111591 has 155 MA's), (13, 111777), (17, 111849), (18, 111867), (20, 111885), (22, 111936), (23, 111945), (24, 111954), (40, 112188), (44, 112203), (49, 112242), (50, 112245), (51, 112248), (58, 112317), (59, 112338), (61, 112347),

Gene: Koguma_206 Start: 110451, Stop: 111239, Start Num: 4

Candidate Starts for Koguma_206:

(1, 110346), (2, 110352), (Start: 4 @110451 has 155 MA's), (13, 110637), (17, 110709), (18, 110727), (20, 110745), (22, 110796), (23, 110805), (24, 110814), (40, 111048), (44, 111063), (49, 111102), (50, 111105), (51, 111108), (58, 111177), (59, 111198), (61, 111207),

Gene: LRRHood_200 Start: 110796, Stop: 111584, Start Num: 4

Candidate Starts for LRRHood_200:

(1, 110691), (2, 110697), (Start: 4 @110796 has 155 MA's), (13, 110982), (17, 111054), (18, 111072), (20, 111090), (22, 111141), (23, 111150), (24, 111159), (40, 111393), (44, 111408), (49, 111447), (50, 111450), (51, 111453), (58, 111522), (59, 111543), (61, 111552),

Gene: Latch_207 Start: 110344, Stop: 111132, Start Num: 4

Candidate Starts for Latch_207:

(1, 110239), (2, 110245), (Start: 4 @110344 has 155 MA's), (13, 110530), (17, 110602), (18, 110620), (20, 110638), (22, 110689), (23, 110698), (24, 110707), (40, 110941), (44, 110956), (49, 110995), (50, 110998), (51, 111001), (58, 111070), (59, 111091), (61, 111100),

Gene: Lee7_207 Start: 112971, Stop: 113759, Start Num: 4

Candidate Starts for Lee7_207:

(1, 112866), (2, 112872), (Start: 4 @112971 has 155 MA's), (13, 113157), (17, 113229), (18, 113247), (20, 113265), (22, 113316), (23, 113325), (24, 113334), (40, 113568), (44, 113583), (49, 113622), (50, 113625), (51, 113628), (58, 113697), (59, 113718), (61, 113727),

Gene: LifeSavor_206 Start: 110869, Stop: 111657, Start Num: 4

Candidate Starts for LifeSavor_206:

(1, 110764), (2, 110770), (Start: 4 @110869 has 155 MA's), (13, 111055), (17, 111127), (18, 111145), (20, 111163), (22, 111214), (23, 111223), (24, 111232), (40, 111466), (44, 111481), (49, 111520), (50, 111523), (51, 111526), (58, 111595), (59, 111616), (61, 111625),

Gene: LinStu_206 Start: 111083, Stop: 111871, Start Num: 4

Candidate Starts for LinStu_206:

(1, 110978), (2, 110984), (Start: 4 @111083 has 155 MA's), (13, 111269), (17, 111341), (18, 111359), (20, 111377), (22, 111428), (23, 111437), (24, 111446), (40, 111680), (44, 111695), (49, 111734), (50, 111737), (51, 111740), (58, 111809), (59, 111830), (61, 111839),

Gene: Littleton_210 Start: 111581, Stop: 112369, Start Num: 4

Candidate Starts for Littleton_210:

(1, 111476), (2, 111482), (Start: 4 @111581 has 155 MA's), (13, 111767), (17, 111839), (18, 111857), (20, 111875), (22, 111926), (23, 111935), (24, 111944), (40, 112178), (44, 112193), (49, 112232), (50, 112235), (51, 112238), (58, 112307), (59, 112328), (61, 112337),

Gene: Loanshark_204 Start: 110906, Stop: 111694, Start Num: 4

Candidate Starts for Loanshark_204:

(1, 110801), (2, 110807), (Start: 4 @110906 has 155 MA's), (13, 111092), (17, 111164), (18, 111182), (20, 111200), (22, 111251), (23, 111260), (24, 111269), (40, 111503), (44, 111518), (49, 111557), (50, 111560), (51, 111563), (58, 111632), (59, 111653), (61, 111662),

Gene: LolaVinca_205 Start: 112136, Stop: 112924, Start Num: 4

Candidate Starts for LolaVinca_205:

(1, 112031), (2, 112037), (Start: 4 @112136 has 155 MA's), (13, 112322), (17, 112394), (18, 112412), (20, 112430), (22, 112481), (23, 112490), (24, 112499), (40, 112733), (44, 112748), (49, 112787), (50, 112790), (51, 112793), (58, 112862), (59, 112883), (61, 112892),

Gene: Lukilu_198 Start: 111806, Stop: 112594, Start Num: 4

Candidate Starts for Lukilu_198:

(1, 111701), (2, 111707), (Start: 4 @111806 has 155 MA's), (13, 111992), (17, 112064), (18, 112082), (20, 112100), (22, 112151), (23, 112160), (24, 112169), (40, 112403), (44, 112418), (49, 112457), (50, 112460), (51, 112463), (58, 112532), (59, 112553), (61, 112562),

Gene: Maby2021_207 Start: 112035, Stop: 112823, Start Num: 4

Candidate Starts for Maby2021_207:

(1, 111930), (2, 111936), (Start: 4 @112035 has 155 MA's), (13, 112221), (17, 112293), (18, 112311), (20, 112329), (22, 112380), (23, 112389), (24, 112398), (40, 112632), (44, 112647), (49, 112686), (50, 112689), (51, 112692), (58, 112761), (59, 112782), (61, 112791),

Gene: Mangeria_208 Start: 112137, Stop: 112925, Start Num: 4

Candidate Starts for Mangeria_208:

(1, 112032), (2, 112038), (Start: 4 @112137 has 155 MA's), (13, 112323), (17, 112395), (18, 112413), (20, 112431), (22, 112482), (23, 112491), (24, 112500), (40, 112734), (44, 112749), (49, 112788), (50, 112791), (51, 112794), (58, 112863), (59, 112884), (61, 112893),

Gene: Matsumoto_206 Start: 110786, Stop: 111574, Start Num: 4

Candidate Starts for Matsumoto_206:

(1, 110681), (2, 110687), (Start: 4 @110786 has 155 MA's), (13, 110972), (17, 111044), (18, 111062), (20, 111080), (22, 111131), (23, 111140), (24, 111149), (40, 111383), (44, 111398), (49, 111437), (50, 111440), (51, 111443), (58, 111512), (59, 111533), (61, 111542),

Gene: McGee_206 Start: 109980, Stop: 110768, Start Num: 4

Candidate Starts for McGee_206:

(1, 109875), (2, 109881), (Start: 4 @109980 has 155 MA's), (13, 110166), (17, 110238), (18, 110256), (20, 110274), (22, 110325), (23, 110334), (24, 110343), (40, 110577), (44, 110592), (49, 110631), (50, 110634), (51, 110637), (58, 110706), (59, 110727), (61, 110736),

Gene: McWolfish_204 Start: 110802, Stop: 111590, Start Num: 4

Candidate Starts for McWolfish_204:

(1, 110697), (2, 110703), (Start: 4 @110802 has 155 MA's), (13, 110988), (17, 111060), (18, 111078), (20, 111096), (22, 111147), (23, 111156), (24, 111165), (40, 111399), (44, 111414), (49, 111453), (50, 111456), (51, 111459), (58, 111528), (59, 111549), (61, 111558),

Gene: Megamind_204 Start: 111093, Stop: 111881, Start Num: 4

Candidate Starts for Megamind_204:

(1, 110988), (2, 110994), (Start: 4 @111093 has 155 MA's), (13, 111279), (17, 111351), (18, 111369), (20, 111387), (22, 111438), (23, 111447), (24, 111456), (40, 111690), (44, 111705), (49, 111744), (50, 111747), (51, 111750), (58, 111819), (59, 111840), (61, 111849),

Gene: Melpomini_202 Start: 109878, Stop: 110666, Start Num: 4

Candidate Starts for Melpomini_202:

(1, 109773), (2, 109779), (Start: 4 @109878 has 155 MA's), (13, 110064), (17, 110136), (18, 110154), (20, 110172), (22, 110223), (23, 110232), (24, 110241), (40, 110475), (44, 110490), (49, 110529), (50, 110532), (51, 110535), (58, 110604), (59, 110625), (61, 110634),

Gene: MikeLiesIn_209 Start: 112229, Stop: 113017, Start Num: 4

Candidate Starts for MikeLiesIn_209:

(1, 112124), (2, 112130), (Start: 4 @112229 has 155 MA's), (13, 112415), (17, 112487), (18, 112505), (20, 112523), (22, 112574), (23, 112583), (24, 112592), (40, 112826), (44, 112841), (49, 112880), (50, 112883), (51, 112886), (58, 112955), (59, 112976), (61, 112985),

Gene: Mikro_203 Start: 112778, Stop: 113566, Start Num: 4

Candidate Starts for Mikro_203:

(1, 112673), (2, 112679), (Start: 4 @112778 has 155 MA's), (13, 112964), (17, 113036), (18, 113054), (20, 113072), (22, 113123), (23, 113132), (24, 113141), (40, 113375), (44, 113390), (49, 113429), (50, 113432), (51, 113435), (58, 113504), (59, 113525), (61, 113534),

Gene: MoMoMixon_205 Start: 111268, Stop: 112056, Start Num: 4

Candidate Starts for MoMoMixon_205:

(1, 111163), (2, 111169), (Start: 4 @111268 has 155 MA's), (13, 111454), (17, 111526), (18, 111544), (20, 111562), (22, 111613), (23, 111622), (24, 111631), (40, 111865), (44, 111880), (49, 111919), (50, 111922), (51, 111925), (58, 111994), (59, 112015), (61, 112024),

Gene: Momo_208 Start: 110344, Stop: 111132, Start Num: 4

Candidate Starts for Momo_208:

(1, 110239), (2, 110245), (Start: 4 @110344 has 155 MA's), (13, 110530), (17, 110602), (18, 110620), (20, 110638), (22, 110689), (23, 110698), (24, 110707), (40, 110941), (44, 110956), (49, 110995), (50, 110998), (51, 111001), (58, 111070), (59, 111091), (61, 111100),

Gene: Morizzled23_204 Start: 109711, Stop: 110499, Start Num: 4

Candidate Starts for Morizzled23_204:

(1, 109606), (2, 109612), (Start: 4 @109711 has 155 MA's), (13, 109897), (17, 109969), (18, 109987), (20, 110005), (22, 110056), (23, 110065), (24, 110074), (40, 110308), (44, 110323), (49, 110362), (50, 110365), (51, 110368), (58, 110437), (59, 110458), (61, 110467),

Gene: Myrna_190 Start: 107878, Stop: 108648, Start Num: 3

Candidate Starts for Myrna_190:

(Start: 3 @107878 has 1 MA's), (18, 108160), (20, 108178), (23, 108238), (24, 108247), (32, 108343), (37, 108427), (38, 108430), (42, 108466), (51, 108517), (60, 108610), (62, 108634),

Gene: Naija_208 Start: 111047, Stop: 111835, Start Num: 4

Candidate Starts for Naija_208:

(1, 110942), (2, 110948), (Start: 4 @111047 has 155 MA's), (13, 111233), (17, 111305), (18, 111323), (20, 111341), (22, 111392), (23, 111401), (24, 111410), (40, 111644), (44, 111659), (49, 111698), (50, 111701), (51, 111704), (58, 111773), (59, 111794), (61, 111803),

Gene: Napoleon13_204 Start: 110075, Stop: 110863, Start Num: 4

Candidate Starts for Napoleon13_204:

(1, 109970), (2, 109976), (Start: 4 @110075 has 155 MA's), (13, 110261), (17, 110333), (18, 110351), (20, 110369), (22, 110420), (23, 110429), (24, 110438), (40, 110672), (44, 110687), (49, 110726), (50, 110729), (51, 110732), (58, 110801), (59, 110822), (61, 110831),

Gene: Nappy_208 Start: 112741, Stop: 113529, Start Num: 4

Candidate Starts for Nappy_208:

(1, 112636), (2, 112642), (Start: 4 @112741 has 155 MA's), (13, 112927), (17, 112999), (18, 113017), (20, 113035), (22, 113086), (23, 113095), (24, 113104), (40, 113338), (44, 113353), (49, 113392), (50, 113395), (51, 113398), (58, 113467), (59, 113488), (61, 113497),

Gene: Naval22_212 Start: 112824, Stop: 113612, Start Num: 4

Candidate Starts for Naval22_212:

(1, 112719), (2, 112725), (Start: 4 @112824 has 155 MA's), (13, 113010), (17, 113082), (18, 113100), (20, 113118), (22, 113169), (23, 113178), (24, 113187), (40, 113421), (44, 113436), (49, 113475), (50, 113478), (51, 113481), (58, 113550), (59, 113571), (61, 113580),

Gene: NedWong_206 Start: 111480, Stop: 112268, Start Num: 4

Candidate Starts for NedWong_206:

(1, 111375), (2, 111381), (Start: 4 @111480 has 155 MA's), (13, 111666), (17, 111738), (18, 111756), (20, 111774), (22, 111825), (23, 111834), (24, 111843), (40, 112077), (44, 112092), (49, 112131), (50, 112134), (51, 112137), (58, 112206), (59, 112227), (61, 112236),

Gene: Ngannou_204 Start: 109326, Stop: 110114, Start Num: 4

Candidate Starts for Ngannou_204:

(1, 109221), (2, 109227), (Start: 4 @109326 has 155 MA's), (13, 109512), (17, 109584), (18, 109602), (20, 109620), (22, 109671), (23, 109680), (24, 109689), (40, 109923), (44, 109938), (49, 109977), (50, 109980), (51, 109983), (58, 110052), (59, 110073), (61, 110082),

Gene: Nidhogg_208 Start: 111873, Stop: 112661, Start Num: 4

Candidate Starts for Nidhogg_208:

(1, 111768), (2, 111774), (Start: 4 @111873 has 155 MA's), (13, 112059), (17, 112131), (18, 112149), (20, 112167), (22, 112218), (23, 112227), (24, 112236), (40, 112470), (44, 112485), (49, 112524), (50, 112527), (51, 112530), (58, 112599), (59, 112620), (61, 112629),

Gene: NoodleTree_213 Start: 111780, Stop: 112568, Start Num: 4

Candidate Starts for NoodleTree_213:

(1, 111675), (2, 111681), (Start: 4 @111780 has 155 MA's), (13, 111966), (17, 112038), (18, 112056), (20, 112074), (22, 112125), (23, 112134), (24, 112143), (40, 112377), (44, 112392), (49, 112431), (50, 112434), (51, 112437), (58, 112506), (59, 112527), (61, 112536),

Gene: Norm_207 Start: 111782, Stop: 112570, Start Num: 4

Candidate Starts for Norm_207:

(1, 111677), (2, 111683), (Start: 4 @111782 has 155 MA's), (13, 111968), (17, 112040), (18, 112058), (20, 112076), (22, 112127), (23, 112136), (24, 112145), (40, 112379), (44, 112394), (49, 112433), (50, 112436), (51, 112439), (58, 112508), (59, 112529), (61, 112538),

Gene: NuevoMundo_210 Start: 113334, Stop: 114122, Start Num: 4

Candidate Starts for NuevoMundo_210:

(1, 113229), (2, 113235), (Start: 4 @113334 has 155 MA's), (13, 113520), (17, 113592), (18, 113610), (20, 113628), (22, 113679), (23, 113688), (24, 113697), (40, 113931), (44, 113946), (49, 113985), (50, 113988), (51, 113991), (58, 114060), (59, 114081), (61, 114090),

Gene: ParkTD_206 Start: 111344, Stop: 112132, Start Num: 4

Candidate Starts for ParkTD_206:

(1, 111239), (2, 111245), (Start: 4 @111344 has 155 MA's), (13, 111530), (17, 111602), (18, 111620), (20, 111638), (22, 111689), (23, 111698), (24, 111707), (40, 111941), (44, 111956), (49, 111995), (50,

111998), (51, 112001), (58, 112070), (59, 112091), (61, 112100),

Gene: Patter_208 Start: 110358, Stop: 111146, Start Num: 4

Candidate Starts for Patter_208:

(1, 110253), (2, 110259), (Start: 4 @110358 has 155 MA's), (13, 110544), (17, 110616), (18, 110634), (20, 110652), (22, 110703), (23, 110712), (24, 110721), (40, 110955), (44, 110970), (49, 111009), (50, 111012), (51, 111015), (58, 111084), (59, 111105), (61, 111114),

Gene: Phabba_201 Start: 107957, Stop: 108553, Start Num: 12

Candidate Starts for Phabba_201:

(Start: 3 @107783 has 1 MA's), (Start: 12 @107957 has 1 MA's), (18, 108065), (20, 108083), (23, 108143), (24, 108152), (38, 108335), (42, 108371), (43, 108374), (51, 108422), (52, 108425), (60, 108515), (62, 108539),

Gene: Phlegm_211 Start: 111047, Stop: 111835, Start Num: 4

Candidate Starts for Phlegm_211:

(1, 110942), (2, 110948), (Start: 4 @111047 has 155 MA's), (13, 111233), (17, 111305), (18, 111323), (20, 111341), (22, 111392), (23, 111401), (24, 111410), (40, 111644), (44, 111659), (49, 111698), (50, 111701), (51, 111704), (58, 111773), (59, 111794), (61, 111803),

Gene: Phox_208 Start: 112002, Stop: 112790, Start Num: 4

Candidate Starts for Phox_208:

(1, 111897), (2, 111903), (Start: 4 @112002 has 155 MA's), (13, 112188), (17, 112260), (18, 112278), (20, 112296), (22, 112347), (23, 112356), (24, 112365), (40, 112599), (44, 112614), (49, 112653), (50, 112656), (51, 112659), (58, 112728), (59, 112749), (61, 112758),

Gene: Phusco_205 Start: 109879, Stop: 110667, Start Num: 4

Candidate Starts for Phusco_205:

(1, 109774), (2, 109780), (Start: 4 @109879 has 155 MA's), (13, 110065), (17, 110137), (18, 110155), (20, 110173), (22, 110224), (23, 110233), (24, 110242), (40, 110476), (44, 110491), (49, 110530), (50, 110533), (51, 110536), (58, 110605), (59, 110626), (61, 110635),

Gene: Pier_208 Start: 112876, Stop: 113664, Start Num: 4

Candidate Starts for Pier_208:

(1, 112771), (2, 112777), (Start: 4 @112876 has 155 MA's), (13, 113062), (17, 113134), (18, 113152), (20, 113170), (22, 113221), (23, 113230), (24, 113239), (40, 113473), (44, 113488), (49, 113527), (50, 113530), (51, 113533), (58, 113602), (59, 113623), (61, 113632),

Gene: Pinkcreek_191 Start: 110255, Stop: 111043, Start Num: 4

Candidate Starts for Pinkcreek_191:

(1, 110150), (2, 110156), (Start: 4 @110255 has 155 MA's), (13, 110441), (17, 110513), (18, 110531), (20, 110549), (22, 110600), (23, 110609), (24, 110618), (40, 110852), (44, 110867), (49, 110906), (50, 110909), (51, 110912), (58, 110981), (59, 111002), (61, 111011),

Gene: Pio_215 Start: 114071, Stop: 114859, Start Num: 4

Candidate Starts for Pio_215:

(1, 113966), (2, 113972), (Start: 4 @114071 has 155 MA's), (13, 114257), (17, 114329), (18, 114347), (20, 114365), (22, 114416), (23, 114425), (24, 114434), (40, 114668), (44, 114683), (49, 114722), (50, 114725), (51, 114728), (58, 114797), (59, 114818), (61, 114827),

Gene: Pivoine_208 Start: 111047, Stop: 111835, Start Num: 4

Candidate Starts for Pivoine_208:

(1, 110942), (2, 110948), (Start: 4 @111047 has 155 MA's), (13, 111233), (17, 111305), (18, 111323), (20, 111341), (22, 111392), (23, 111401), (24, 111410), (40, 111644), (44, 111659), (49, 111698), (50, 111701), (51, 111704), (58, 111773), (59, 111794), (61, 111803),

Gene: Pleione_211 Start: 111822, Stop: 112610, Start Num: 4

Candidate Starts for Pleione_211:

(1, 111717), (2, 111723), (Start: 4 @111822 has 155 MA's), (13, 112008), (17, 112080), (18, 112098), (20, 112116), (22, 112167), (23, 112176), (24, 112185), (40, 112419), (44, 112434), (49, 112473), (50, 112476), (51, 112479), (58, 112548), (59, 112569), (61, 112578),

Gene: Pupper_150 Start: 104371, Stop: 105045, Start Num: 5

Candidate Starts for Pupper_150:

(Start: 5 @104371 has 2 MA's), (13, 104521), (14, 104551), (26, 104713), (34, 104863), (37, 104887), (41, 104923), (47, 104965), (50, 104974), (56, 105034), (57, 105037),

Gene: PurduePete_207 Start: 112050, Stop: 112838, Start Num: 4

Candidate Starts for PurduePete_207:

(1, 111945), (2, 111951), (Start: 4 @112050 has 155 MA's), (13, 112236), (17, 112308), (18, 112326), (20, 112344), (22, 112395), (23, 112404), (24, 112413), (40, 112647), (44, 112662), (49, 112701), (50, 112704), (51, 112707), (58, 112776), (59, 112797), (61, 112806),

Gene: QBert_199 Start: 110403, Stop: 111191, Start Num: 4

Candidate Starts for QBert_199:

(1, 110298), (2, 110304), (Start: 4 @110403 has 155 MA's), (13, 110589), (17, 110661), (18, 110679), (20, 110697), (22, 110748), (23, 110757), (24, 110766), (40, 111000), (44, 111015), (49, 111054), (50, 111057), (51, 111060), (58, 111129), (59, 111150), (61, 111159),

Gene: Quasimodo_209 Start: 111673, Stop: 112461, Start Num: 4

Candidate Starts for Quasimodo_209:

(1, 111568), (2, 111574), (Start: 4 @111673 has 155 MA's), (13, 111859), (17, 111931), (18, 111949), (20, 111967), (22, 112018), (23, 112027), (24, 112036), (40, 112270), (44, 112285), (49, 112324), (50, 112327), (51, 112330), (58, 112399), (59, 112420), (61, 112429),

Gene: Rabinovish_200 Start: 111948, Stop: 112736, Start Num: 4

Candidate Starts for Rabinovish_200:

(1, 111843), (2, 111849), (Start: 4 @111948 has 155 MA's), (13, 112134), (17, 112206), (18, 112224), (20, 112242), (22, 112293), (23, 112302), (24, 112311), (40, 112545), (44, 112560), (49, 112599), (50, 112602), (51, 112605), (58, 112674), (59, 112695), (61, 112704),

Gene: Rahel_208 Start: 110782, Stop: 111570, Start Num: 4

Candidate Starts for Rahel_208:

(1, 110677), (2, 110683), (Start: 4 @110782 has 155 MA's), (13, 110968), (17, 111040), (18, 111058), (20, 111076), (22, 111127), (23, 111136), (24, 111145), (40, 111379), (44, 111394), (49, 111433), (50, 111436), (51, 111439), (58, 111508), (59, 111529), (61, 111538),

Gene: RedWattleHog_77 Start: 69602, Stop: 70216, Start Num: 7

Candidate Starts for RedWattleHog_77:

(Start: 7 @69602 has 2 MA's), (9, 69623), (19, 69818), (23, 69890), (25, 69902), (35, 70040), (45, 70109), (46, 70121), (55, 70178),

Gene: RoMag_202 Start: 111093, Stop: 111881, Start Num: 4

Candidate Starts for RoMag_202:

(1, 110988), (2, 110994), (Start: 4 @111093 has 155 MA's), (13, 111279), (17, 111351), (18, 111369), (20, 111387), (22, 111438), (23, 111447), (24, 111456), (40, 111690), (44, 111705), (49, 111744), (50, 111747), (51, 111750), (58, 111819), (59, 111840), (61, 111849),

Gene: Ronan_203 Start: 109485, Stop: 110273, Start Num: 4

Candidate Starts for Ronan_203:

(1, 109380), (2, 109386), (Start: 4 @109485 has 155 MA's), (13, 109671), (17, 109743), (18, 109761), (20, 109779), (22, 109830), (23, 109839), (24, 109848), (40, 110082), (44, 110097), (49, 110136), (50, 110139), (51, 110142), (58, 110211), (59, 110232), (61, 110241),

Gene: Roots515_209 Start: 112601, Stop: 113389, Start Num: 4

Candidate Starts for Roots515_209:

(1, 112496), (2, 112502), (Start: 4 @112601 has 155 MA's), (13, 112787), (17, 112859), (18, 112877), (20, 112895), (22, 112946), (23, 112955), (24, 112964), (40, 113198), (44, 113213), (49, 113252), (50, 113255), (51, 113258), (58, 113327), (59, 113348), (61, 113357),

Gene: SCentae_149 Start: 104522, Stop: 105196, Start Num: 5

Candidate Starts for SCentae_149:

(Start: 5 @104522 has 2 MA's), (13, 104672), (14, 104702), (26, 104864), (34, 105014), (41, 105074), (47, 105116), (50, 105125), (56, 105185), (57, 105188),

Gene: Salacia_207 Start: 111185, Stop: 111973, Start Num: 4

Candidate Starts for Salacia_207:

(1, 111080), (2, 111086), (Start: 4 @111185 has 155 MA's), (13, 111371), (17, 111443), (18, 111461), (20, 111479), (22, 111530), (23, 111539), (24, 111548), (40, 111782), (44, 111797), (49, 111836), (50, 111839), (51, 111842), (58, 111911), (59, 111932), (61, 111941),

Gene: Sauce_203 Start: 109999, Stop: 110787, Start Num: 4

Candidate Starts for Sauce_203:

(1, 109894), (2, 109900), (Start: 4 @109999 has 155 MA's), (13, 110185), (17, 110257), (18, 110275), (20, 110293), (22, 110344), (23, 110353), (24, 110362), (40, 110596), (44, 110611), (49, 110650), (50, 110653), (51, 110656), (58, 110725), (59, 110746), (61, 110755),

Gene: ScoobyDoobyDoo_188 Start: 105071, Stop: 105730, Start Num: 10

Candidate Starts for ScoobyDoobyDoo_188:

(Start: 3 @104951 has 1 MA's), (9, 105041), (Start: 10 @105071 has 1 MA's), (Start: 12 @105125 has 1 MA's), (18, 105233), (23, 105311), (24, 105320), (29, 105353), (31, 105380), (32, 105425), (42, 105548), (49, 105593), (51, 105599),

Gene: Sebata_208 Start: 112508, Stop: 113296, Start Num: 4

Candidate Starts for Sebata_208:

(1, 112403), (2, 112409), (Start: 4 @112508 has 155 MA's), (13, 112694), (17, 112766), (18, 112784), (20, 112802), (22, 112853), (23, 112862), (24, 112871), (40, 113105), (44, 113120), (49, 113159), (50, 113162), (51, 113165), (58, 113234), (59, 113255), (61, 113264),

Gene: Shaqnato_198 Start: 110216, Stop: 111004, Start Num: 4

Candidate Starts for Shaqnato_198:

(1, 110111), (2, 110117), (Start: 4 @110216 has 155 MA's), (13, 110402), (17, 110474), (18, 110492), (20, 110510), (22, 110561), (23, 110570), (24, 110579), (40, 110813), (44, 110828), (49, 110867), (50, 110870), (51, 110873), (58, 110942), (59, 110963), (61, 110972),

Gene: Shelob_208 Start: 112956, Stop: 113744, Start Num: 4

Candidate Starts for Shelob_208:

(1, 112851), (2, 112857), (Start: 4 @112956 has 155 MA's), (13, 113142), (17, 113214), (18, 113232), (20, 113250), (22, 113301), (23, 113310), (24, 113319), (40, 113553), (44, 113568), (49, 113607), (50, 113610), (51, 113613), (58, 113682), (59, 113703), (61, 113712),

Gene: ShiaLabeouf_204 Start: 109990, Stop: 110778, Start Num: 4

Candidate Starts for ShiaLabeouf_204:

(1, 109885), (2, 109891), (Start: 4 @109990 has 155 MA's), (13, 110176), (17, 110248), (18, 110266), (20, 110284), (22, 110335), (23, 110344), (24, 110353), (40, 110587), (44, 110602), (49, 110641), (50, 110644), (51, 110647), (58, 110716), (59, 110737), (61, 110746),

Gene: Shifa_184 Start: 110567, Stop: 111355, Start Num: 4

Candidate Starts for Shifa_184:

(1, 110462), (2, 110468), (Start: 4 @110567 has 155 MA's), (13, 110753), (17, 110825), (18, 110843), (20, 110861), (22, 110912), (23, 110921), (24, 110930), (40, 111164), (44, 111179), (49, 111218), (50, 111221), (51, 111224), (58, 111293), (59, 111314), (61, 111323),

Gene: Shnickers_205 Start: 110054, Stop: 110842, Start Num: 4

Candidate Starts for Shnickers_205:

(1, 109949), (2, 109955), (Start: 4 @110054 has 155 MA's), (13, 110240), (17, 110312), (18, 110330), (20, 110348), (22, 110399), (23, 110408), (24, 110417), (40, 110651), (44, 110666), (49, 110705), (50, 110708), (51, 110711), (58, 110780), (59, 110801), (61, 110810),

Gene: Shrimp_209 Start: 112111, Stop: 112899, Start Num: 4

Candidate Starts for Shrimp_209:

(1, 112006), (2, 112012), (Start: 4 @112111 has 155 MA's), (13, 112297), (17, 112369), (18, 112387), (20, 112405), (22, 112456), (23, 112465), (24, 112474), (40, 112708), (44, 112723), (49, 112762), (50, 112765), (51, 112768), (58, 112837), (59, 112858), (61, 112867),

Gene: SilverDipper_211 Start: 111603, Stop: 112391, Start Num: 4

Candidate Starts for SilverDipper_211:

(1, 111498), (2, 111504), (Start: 4 @111603 has 155 MA's), (13, 111789), (17, 111861), (18, 111879), (20, 111897), (22, 111948), (23, 111957), (24, 111966), (40, 112200), (44, 112215), (49, 112254), (50, 112257), (51, 112260), (58, 112329), (59, 112350), (61, 112359),

Gene: SmallFry_207 Start: 110148, Stop: 110936, Start Num: 4

Candidate Starts for SmallFry_207:

(1, 110043), (2, 110049), (Start: 4 @110148 has 155 MA's), (13, 110334), (17, 110406), (18, 110424), (20, 110442), (22, 110493), (23, 110502), (24, 110511), (40, 110745), (44, 110760), (49, 110799), (50, 110802), (58, 110874), (59, 110895), (61, 110904),

Gene: Specks_211 Start: 112455, Stop: 113243, Start Num: 4

Candidate Starts for Specks_211:

(1, 112350), (2, 112356), (Start: 4 @112455 has 155 MA's), (13, 112641), (16, 112701), (17, 112713), (18, 112731), (20, 112749), (22, 112800), (23, 112809), (24, 112818), (40, 113052), (44, 113067), (49, 113106), (50, 113109), (51, 113112), (58, 113181), (59, 113202), (61, 113211),

Gene: Sprinklers_205 Start: 110706, Stop: 111494, Start Num: 4

Candidate Starts for Sprinklers_205:

(1, 110601), (2, 110607), (Start: 4 @110706 has 155 MA's), (13, 110892), (17, 110964), (18, 110982), (20, 111000), (22, 111051), (23, 111060), (24, 111069), (40, 111303), (44, 111318), (49, 111357), (50, 111360), (51, 111363), (58, 111432), (59, 111453), (61, 111462),

Gene: SrishMeg2525_204 Start: 111582, Stop: 112370, Start Num: 4

Candidate Starts for SrishMeg2525_204:

(1, 111477), (2, 111483), (Start: 4 @111582 has 155 MA's), (13, 111768), (17, 111840), (18, 111858), (20, 111876), (22, 111927), (23, 111936), (24, 111945), (40, 112179), (44, 112194), (49, 112233), (50, 112236), (51, 112239), (58, 112308), (59, 112329), (61, 112338),

Gene: StephanieG_203 Start: 111613, Stop: 112401, Start Num: 4

Candidate Starts for StephanieG_203:

(1, 111508), (2, 111514), (Start: 4 @111613 has 155 MA's), (13, 111799), (17, 111871), (18, 111889), (20, 111907), (22, 111958), (23, 111967), (24, 111976), (40, 112210), (44, 112225), (49, 112264), (50, 112267), (51, 112270), (58, 112339), (59, 112360), (61, 112369),

Gene: Stormageddon_74 Start: 69583, Stop: 70197, Start Num: 7

Candidate Starts for Stormageddon_74:

(Start: 7 @69583 has 2 MA's), (9, 69604), (19, 69799), (23, 69871), (25, 69883), (35, 70021), (45, 70090), (46, 70102), (55, 70159),

Gene: Stubby_191 Start: 110458, Stop: 111246, Start Num: 4

Candidate Starts for Stubby_191:

(1, 110353), (2, 110359), (Start: 4 @110458 has 155 MA's), (13, 110644), (17, 110716), (18, 110734), (20, 110752), (22, 110803), (23, 110812), (24, 110821), (40, 111055), (44, 111070), (49, 111109), (50, 111112), (51, 111115), (58, 111184), (59, 111205), (61, 111214),

Gene: StubbySaigey_212 Start: 111137, Stop: 111925, Start Num: 4

Candidate Starts for StubbySaigey_212:

(1, 111032), (2, 111038), (Start: 4 @111137 has 155 MA's), (13, 111323), (17, 111395), (18, 111413), (20, 111431), (22, 111482), (23, 111491), (24, 111500), (40, 111734), (44, 111749), (49, 111788), (50, 111791), (51, 111794), (58, 111863), (59, 111884), (61, 111893),

Gene: Teardrop_204 Start: 109650, Stop: 110438, Start Num: 4

Candidate Starts for Teardrop_204:

(1, 109545), (2, 109551), (Start: 4 @109650 has 155 MA's), (13, 109836), (17, 109908), (18, 109926), (20, 109944), (22, 109995), (23, 110004), (24, 110013), (40, 110247), (44, 110262), (49, 110301), (50, 110304), (51, 110307), (58, 110376), (59, 110397), (61, 110406),

Gene: TinyTim_205 Start: 110431, Stop: 111219, Start Num: 4

Candidate Starts for TinyTim_205:

(1, 110326), (2, 110332), (Start: 4 @110431 has 155 MA's), (13, 110617), (17, 110689), (18, 110707), (20, 110725), (22, 110776), (23, 110785), (24, 110794), (40, 111028), (44, 111043), (49, 111082), (50, 111085), (51, 111088), (58, 111157), (59, 111178), (61, 111187),

Gene: Tonenili_228 Start: 117252, Stop: 118040, Start Num: 4

Candidate Starts for Tonenili_228:

(1, 117147), (2, 117153), (Start: 4 @117252 has 155 MA's), (13, 117438), (17, 117510), (18, 117528), (20, 117546), (22, 117597), (23, 117606), (44, 117864), (49, 117903), (50, 117906), (51, 117909), (58, 117978), (59, 117999), (61, 118008),

Gene: Tortoise16_205 Start: 110893, Stop: 111681, Start Num: 4

Candidate Starts for Tortoise16_205:

(1, 110788), (2, 110794), (Start: 4 @110893 has 155 MA's), (13, 111079), (17, 111151), (18, 111169), (20, 111187), (22, 111238), (23, 111247), (24, 111256), (40, 111490), (44, 111505), (49, 111544), (50, 111547), (51, 111550), (58, 111619), (59, 111640), (61, 111649),

Gene: Trinitium_203 Start: 110178, Stop: 110966, Start Num: 4

Candidate Starts for Trinitium_203:

(1, 110073), (2, 110079), (Start: 4 @110178 has 155 MA's), (13, 110364), (17, 110436), (18, 110454), (20, 110472), (22, 110523), (23, 110532), (24, 110541), (40, 110775), (44, 110790), (49, 110829), (50, 110832), (51, 110835), (58, 110904), (59, 110925), (61, 110934),

Gene: Turret_200 Start: 109760, Stop: 110548, Start Num: 4

Candidate Starts for Turret_200:

(1, 109655), (2, 109661), (Start: 4 @109760 has 155 MA's), (13, 109946), (17, 110018), (18, 110036), (20, 110054), (22, 110105), (23, 110114), (24, 110123), (40, 110357), (44, 110372), (49, 110411), (50, 110414), (51, 110417), (58, 110486), (59, 110507), (61, 110516),

Gene: Tyke_205 Start: 112260, Stop: 113048, Start Num: 4

Candidate Starts for Tyke_205:

(1, 112155), (2, 112161), (Start: 4 @112260 has 155 MA's), (13, 112446), (17, 112518), (18, 112536), (20, 112554), (22, 112605), (23, 112614), (24, 112623), (40, 112857), (44, 112872), (49, 112911), (50, 112914), (51, 112917), (58, 112986), (59, 113007), (61, 113016),

Gene: ValleyTerrace_208 Start: 110344, Stop: 111132, Start Num: 4

Candidate Starts for ValleyTerrace_208:

(1, 110239), (2, 110245), (Start: 4 @110344 has 155 MA's), (13, 110530), (17, 110602), (18, 110620), (20, 110638), (22, 110689), (23, 110698), (24, 110707), (40, 110941), (44, 110956), (49, 110995), (50, 110998), (51, 111001), (58, 111070), (59, 111091), (61, 111100),

Gene: Wally_205 Start: 110328, Stop: 111116, Start Num: 4

Candidate Starts for Wally_205:

(1, 110223), (2, 110229), (Start: 4 @110328 has 155 MA's), (13, 110514), (17, 110586), (18, 110604), (20, 110622), (22, 110673), (23, 110682), (24, 110691), (40, 110925), (44, 110940), (49, 110979), (50, 110982), (51, 110985), (58, 111054), (59, 111075), (61, 111084),

Gene: Willis_208 Start: 111242, Stop: 112030, Start Num: 4

Candidate Starts for Willis_208:

(1, 111137), (2, 111143), (Start: 4 @111242 has 155 MA's), (13, 111428), (17, 111500), (18, 111518), (20, 111536), (22, 111587), (23, 111596), (24, 111605), (40, 111839), (44, 111854), (49, 111893), (50, 111896), (51, 111899), (58, 111968), (59, 111989), (61, 111998),

Gene: Yassified_204 Start: 110683, Stop: 111471, Start Num: 4

Candidate Starts for Yassified_204:

(1, 110578), (2, 110584), (Start: 4 @110683 has 155 MA's), (13, 110869), (17, 110941), (18, 110959), (20, 110977), (22, 111028), (23, 111037), (24, 111046), (40, 111280), (44, 111295), (49, 111334), (50, 111337), (51, 111340), (58, 111409), (59, 111430), (61, 111439),

Gene: YemiJoy2021_208 Start: 111998, Stop: 112786, Start Num: 4

Candidate Starts for YemiJoy2021_208:

(1, 111893), (2, 111899), (Start: 4 @111998 has 155 MA's), (13, 112184), (17, 112256), (18, 112274), (20, 112292), (22, 112343), (23, 112352), (24, 112361), (40, 112595), (44, 112610), (49, 112649), (50, 112652), (51, 112655), (58, 112724), (59, 112745), (61, 112754),

Gene: YoungMoneyMata_205 Start: 110540, Stop: 111328, Start Num: 4

Candidate Starts for YoungMoneyMata_205:

(1, 110435), (2, 110441), (Start: 4 @110540 has 155 MA's), (13, 110726), (17, 110798), (18, 110816), (20, 110834), (22, 110885), (23, 110894), (24, 110903), (40, 111137), (44, 111152), (49, 111191), (50, 111194), (51, 111197), (58, 111266), (59, 111287), (61, 111296),

Gene: Yucca_207 Start: 111990, Stop: 112778, Start Num: 4

Candidate Starts for Yucca_207:

(1, 111885), (2, 111891), (Start: 4 @111990 has 155 MA's), (13, 112176), (17, 112248), (18, 112266), (20, 112284), (22, 112335), (23, 112344), (24, 112353), (40, 112587), (44, 112602), (49, 112641), (50, 112644), (51, 112647), (58, 112716), (59, 112737), (61, 112746),

Gene: Zalkecks_206 Start: 111071, Stop: 111859, Start Num: 4

Candidate Starts for Zalkecks_206:

(1, 110966), (2, 110972), (Start: 4 @111071 has 155 MA's), (13, 111257), (17, 111329), (18, 111347), (20, 111365), (22, 111416), (23, 111425), (24, 111434), (40, 111668), (44, 111683), (49, 111722), (50, 111725), (51, 111728), (58, 111797), (59, 111818), (61, 111827),

Gene: Zeenon_209 Start: 111642, Stop: 112430, Start Num: 4

Candidate Starts for Zeenon_209:

(1, 111537), (2, 111543), (Start: 4 @111642 has 155 MA's), (13, 111828), (17, 111900), (18, 111918), (20, 111936), (22, 111987), (23, 111996), (24, 112005), (40, 112239), (44, 112254), (49, 112293), (50, 112296), (51, 112299), (58, 112368), (59, 112389), (61, 112398),

Gene: ZygoTaiga_204 Start: 112262, Stop: 113050, Start Num: 4

Candidate Starts for ZygoTaiga_204:

(1, 112157), (2, 112163), (Start: 4 @112262 has 155 MA's), (13, 112448), (17, 112520), (18, 112538), (20, 112556), (22, 112607), (23, 112616), (24, 112625), (40, 112859), (44, 112874), (49, 112913), (50, 112916), (51, 112919), (58, 112988), (59, 113009), (61, 113018),