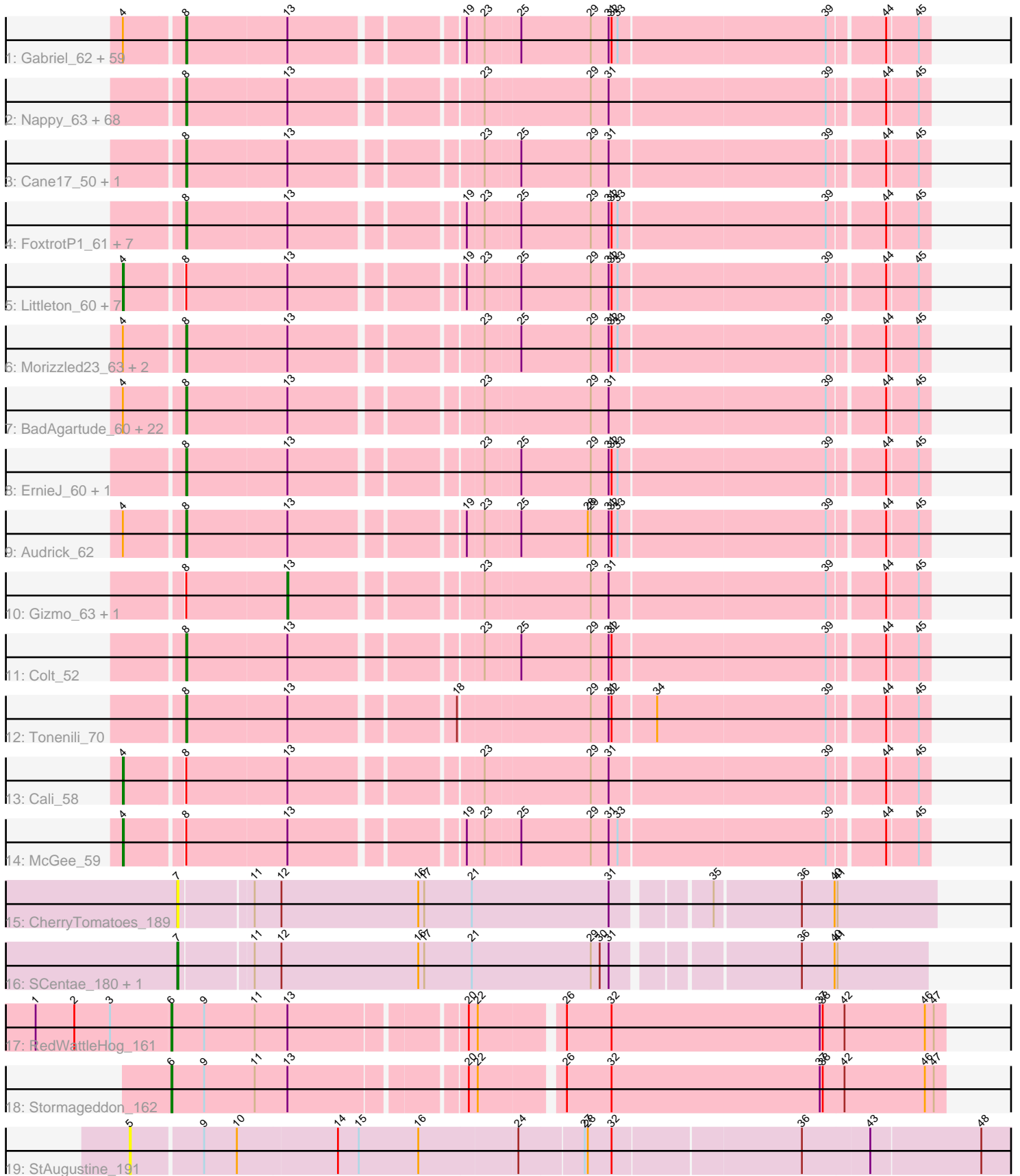


Pham 154497



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 154497 Report

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

Pham number 154497 has 188 members, 17 are drafts.

Phages represented in each track:

- Track 1 : Gabriel_62, HyRo_56, Jedediah_61, Sprinklers_57, Stubby_56, CindyLou_61, Ading_60, Momo_59, StephanieG_61, Jemmno_60, ShiaLabeouf_60, ValleyTerrace_60, YoungMoneyMata_60, Quasimodo_60, BananaFence_62, Jaygup_60, Pivoine_59, Matsumoto_59, Chomp_58, SilverDipper_61, Pio_65, QBert_55, Rahel_61, Tortoise16_58, JayJay_64, Amataga_60, Phlegm_62, Pinkcreek_53, Pier_63, Ghost_60, Atlantean_59, JPickles_58, Naija_59, BackyardAgain_58, RoMag_55, Adlitam_60, Ngannou_55, Guwapp_59, InigoMontoya_61, Shnickers_60, Babyland_59, Patter_60, ArcherS7_60, Drazdys_60, JulietS_55, Caravan_57, Bangla1971_61, SmallFry_60, EmmaElysia_59, Burrough_61, Shifa_54, Latch_60, Darko_60, Phusco_60, Melpomini_56, Tyke_62, JustHall_56, Bxz1_61, Gamgam_60, Capablanca_62
- Track 2 : Nappy_63, FudgeTart_62, Salacia_63, Jessibeth14_59, Daffodil_63, Bipolarisk_60, Kamryn_60, Nidhogg_61, Delilah_61, Wally_59, StubbySaigey_60, McWolfish_59, Roots515_60, Mikro_59, EggyFarm_66, LolaVinca_64, Norm_61, Naval22_67, BigCity_66, Mangeria_64, Erdmann_62, ChickenPhender_56, Basquiat_56, Lee7_59, Flabslab_57, Issimir_60, Grasshills_66, DrPhinkDaddy_60, Ewok_61, Maby2021_61, Cactojaque_55, Kboogie_61, ChaylaJr_56, ZygoTaiga_61, Dietrick_54, Pleione_63, Rizal_59, Ava3_62, EmToTheThree_64, MikeLiesIn_61, Chargie21_56, Yucca_61, Izajani_62, MoMoMixon_61, Zeenon_63, Zalkecks_62, NedWong_62, Blackbrain_55, LordLeafolot_66, NuevoMundo_66, PurduePete_60, SrishMeg2525_60, YemiJoy2021_61, Bigswole_67, TinyTim_61, Fludd_60, Catera_59, Spud_61, Khaleesi_60, Bread_61, Napoleon13_58, Shrimp_61, Bonray_61, Janiyra_62, FrayBell_67, ParkTD_60, Willis_61, Loanshark_61, Megamind_60
- Track 3 : Cane17_50, Blubba_50
- Track 4 : FoxtrotP1_61, Trinitium_56, Dandelion_66, Turret_55, LinStu_62, Spec_58, Essence_59, Sebata_63
- Track 5 : Littleton_60, Breeniome_62, Derek_61, Alice_55, DTDevon_61, Astraea_62, LifeSavor_60, Rabinovish_60
- Track 6 : Morizzled23_63, EasyJones_63, Yassified_58
- Track 7 : BadAgartude_60, Shaqnato_55, Iota_55, IkeLoa_55, Lukilu_54, Koguma_57, Phox_59, I3_63, Grungle_52, Shelob_63, Teardrop_60, CharlieB_58, Specks_66, NoodleTree_61, BeanWater_54, LRRHood_57, ET08_52, Concombre_66, ScottMcG_59, Sauce_62, Ronan_55, Asterius_58, InterFolia_69
- Track 8 : ErnieJ_60, DirtMonster_57
- Track 9 : Audrick_62
- Track 10 : Gizmo_63, Delylah_62

- Track 11 : Colt_52
- Track 12 : Tonenili_70
- Track 13 : Cali_58
- Track 14 : McGee_59
- Track 15 : CherryTomatoes_189
- Track 16 : SCentae_180, Pupper_181
- Track 17 : RedWattleHog_161
- Track 18 : Stormageddon_162
- Track 19 : StAugustine_191

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

The start number called the most often in the published annotations is 8, it was called in 155 of the 171 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ading_60, Adlitam_60, Amataga_60, ArcherS7_60, Asterius_58, Atlantean_59, Audrick_62, Ava3_62, Babyland_59, BackyardAgain_58, BadAgartude_60, BananaFence_62, Bangla1971_61, Basquiat_56, BeanWater_54, BigCity_66, Bigswole_67, Bipolarisk_60, Blackbrain_55, Blubba_50, Bonray_61, Bread_61, Burrough_61, Bxz1_61, Cactojaque_55, Cane17_50, Capablanca_62, Caravan_57, Catera_59, Chargie21_56, CharlieB_58, ChaylaJr_56, ChickenPhender_56, Chomp_58, CindyLou_61, Colt_52, Concombre_66, Daffodil_63, Dandelion_66, Darko_60, Delilah_61, Dietrick_54, DirtMonster_57, DrPhinkDaddy_60, Drazdys_60, ET08_52, EasyJones_63, EggyFarm_66, EmToTheThree_64, EmmaElysia_59, Erdmann_62, ErnieJ_60, Essence_59, Ewok_61, Flabslab_57, Fludd_60, FoxtrotP1_61, FrayBell_67, FudgeTart_62, Gabriel_62, Gamgam_60, Ghost_60, Grasshills_66, Grungle_52, Guwapp_59, HyRo_56, I3_63, IkeLoa_55, InigoMontoya_61, InterFolia_69, Iota_55, Issimir_60, Izajani_62, JPickles_58, Janiyra_62, JayJay_64, Jaygup_60, Jedediah_61, Jemmno_60, Jessibeth14_59, JulietS_55, JustHall_56, Kamryn_60, Kboogie_61, Khaleesi_60, Koguma_57, LRRHood_57, Latch_60, Lee7_59, LinStu_62, Loanshark_61, LolaVinca_64, LordLeafolot_66, Lukilu_54, Maby2021_61, Mangeria_64, Matsumoto_59, McWolfish_59, Megamind_60, Melpomini_56, MikeLiesIn_61, Mikro_59, MoMoMixon_61, Momo_59, Morizzled23_63, Naija_59, Napoleon13_58, Nappy_63, Naval22_67, NedWong_62, Ngannou_55, Nidhogg_61, NoodleTree_61, Norm_61, NuevoMundo_66, ParkTD_60, Patter_60, Phlegm_62, Phox_59, Phusco_60, Pier_63, Pinkcreek_53, Pio_65, Pivoine_59, Pleione_63, PurduePete_60, QBert_55, Quasimodo_60, Rahel_61, Rizal_59, RoMag_55, Ronan_55, Roots515_60, Salacia_63, Sauce_62, ScottMcG_59, Sebata_63, Shaqnato_55, Shelob_63, ShiaLabeouf_60, Shifa_54, Shnickers_60, Shrimp_61, SilverDipper_61, SmallFry_60, Spec_58, Specks_66, Sprinklers_57, Spud_61, SrishMeg2525_60, StephanieG_61, StubbySaigey_60, Stubby_56, Teardrop_60, TinyTim_61, Tonenili_70, Tortoise16_58, Trinitium_56, Turret_55, Tyke_62, ValleyTerrace_60, Wally_59, Willis_61, Yassified_58, YemiJoy2021_61, YoungMoneyMata_60, Yucca_61, Zalkecks_62, Zeenon_63, ZygoTaiga_61,

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

- Alice_55, Astraea_62, Breeniome_62, Cali_58, DTDevon_61, Delylah_62, Derek_61, Gizmo_63, LifeSavor_60, Littleton_60, McGee_59, Rabinovish_60,

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

- CherryTomatoes_189, Pupper_181, RedWattleHog_161, SCentae_180, StAugustine_191, Stormageddon_162,

Summary by start number:

Start 4:

- Found in 97 of 188 (51.6%) of genes in pham
- Manual Annotations of this start: 10 of 171
- Called 10.3% of time when present
- Phage (with cluster) where this start called: Alice_55 (C1), Astraea_62 (C1), Breeniome_62 (C1), Cali_58 (C1), DTDevon_61 (C1), Derek_61 (C1), LifeSavor_60 (C1), Littleton_60 (C1), McGee_59 (C1), Rabinovish_60 (C1),

Start 5:

- Found in 1 of 188 (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: StAugustine_191 (singleton),

Start 6:

- Found in 2 of 188 (1.1%) of genes in pham
- Manual Annotations of this start: 2 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: RedWattleHog_161 (DX), Stormageddon_162 (DX),

Start 7:

- Found in 3 of 188 (1.6%) of genes in pham
- Manual Annotations of this start: 2 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes_189 (DO), Pupper_181 (DO), SCentae_180 (DO),

Start 8:

- Found in 182 of 188 (96.8%) of genes in pham
- Manual Annotations of this start: 155 of 171
- Called 93.4% of time when present
- Phage (with cluster) where this start called: Ading_60 (C1), Adlitam_60 (C1), Amataga_60 (C1), ArcherS7_60 (C1), Asterius_58 (C1), Atlantean_59 (C1), Audrick_62 (C1), Ava3_62 (C1), Babyland_59 (C1), BackyardAgain_58 (C1), BadAgartude_60 (C1), BananaFence_62 (C1), Bangla1971_61 (C1), Basquiat_56 (C1), BeanWater_54 (C1), BigCity_66 (C1), Bigswole_67 (C1), Bipolarisk_60 (C1), Blackbrain_55 (C1), Blubba_50 (C1), Bonray_61 (C1), Bread_61 (C1), Burrough_61 (C1), Bxz1_61 (C1), Cactojaque_55 (C1), Cane17_50 (C1), Capablanca_62 (C1), Caravan_57 (C1), Catera_59 (C1), Chargie21_56 (C1), CharlieB_58 (C1), ChaylaJr_56 (C1), ChickenPhender_56 (C1), Chomp_58 (C1), CindyLou_61 (C1), Colt_52 (C1), Concombre_66 (C1), Daffodil_63 (C1), Dandelion_66 (C1), Darko_60 (C1), Delilah_61 (C1), Dietrick_54 (C1), DirtMonster_57 (C1), DrPhinkDaddy_60 (C1), Drazdys_60 (C1), ET08_52 (C1), EasyJones_63 (C1), EggyFarm_66 (C1), EmToTheThree_64 (C1), EmmaElysia_59 (C1), Erdmann_62 (C1), ErnieJ_60 (C1), Essence_59 (C1), Ewok_61 (C1), Flabslab_57 (C1), Fludd_60 (C1), FoxtrotP1_61

(C1), FrayBell_67 (C1), FudgeTart_62 (C1), Gabriel_62 (C1), Gamgam_60 (C1), Ghost_60 (C1), Grasshills_66 (C1), Grungle_52 (C1), Guwapp_59 (C1), HyRo_56 (C1), I3_63 (C1), IkeLoa_55 (C1), InigoMontoya_61 (C1), InterFolia_69 (C1), Iota_55 (C1), Issimir_60 (C1), Izajani_62 (C1), JPickles_58 (C1), Janiyra_62 (C1), JayJay_64 (C1), Jaygup_60 (C1), Jedediah_61 (C1), Jemmno_60 (C1), Jessibeth14_59 (C1), JulietS_55 (C1), JustHall_56 (C1), Kamryn_60 (C1), Kboogie_61 (C1), Khaleesi_60 (C1), Koguma_57 (C1), LRRHood_57 (C1), Latch_60 (C1), Lee7_59 (C1), LinStu_62 (C1), Loanshark_61 (C1), LolaVinca_64 (C1), LordLeafolot_66 (C1), Lukilu_54 (C1), Maby2021_61 (C1), Mangeria_64 (C1), Matsumoto_59 (C1), McWolfish_59 (C1), Megamind_60 (C1), Melpomini_56 (C1), MikeLiesIn_61 (C1), Mikro_59 (C1), MoMoMixon_61 (C1), Momo_59 (C1), Morizzled23_63 (C1), Naija_59 (C1), Napoleon13_58 (C1), Nappy_63 (C1), Naval22_67 (C1), NedWong_62 (C1), Ngannou_55 (C1), Nidhogg_61 (C1), NoodleTree_61 (C1), Norm_61 (C1), NuevoMundo_66 (C1), ParkTD_60 (C1), Patter_60 (C1), Phlegm_62 (C1), Phox_59 (C1), Phusco_60 (C1), Pier_63 (C1), Pinkcreek_53 (C1), Pio_65 (C1), Pivoine_59 (C1), Pleione_63 (C1), PurduePete_60 (C1), QBert_55 (C1), Quasimodo_60 (C1), Rahel_61 (C1), Rizal_59 (C1), RoMag_55 (C1), Ronan_55 (C1), Roots515_60 (C1), Salacia_63 (C1), Sauce_62 (C1), ScottMcG_59 (C1), Sebata_63 (C1), Shaqnato_55 (C1), Shelob_63 (C1), ShiaLabeouf_60 (C1), Shifa_54 (C1), Shnickers_60 (C1), Shrimp_61 (C1), SilverDipper_61 (C1), SmallFry_60 (C1), Spec_58 (C1), Specks_66 (C1), Sprinklers_57 (C1), Spud_61 (C1), SrishMeg2525_60 (C1), StephanieG_61 (C1), StubbySaigey_60 (C1), Stubby_56 (C1), Teardrop_60 (C1), TinyTim_61 (C1), Tonenili_70 (C1), Tortoise16_58 (C1), Trinitium_56 (C1), Turret_55 (C1), Tyke_62 (C1), ValleyTerrace_60 (C1), Wally_59 (C1), Willis_61 (C1), Yassified_58 (C1), YemiJoy2021_61 (C1), YoungMoneyMata_60 (C1), Yucca_61 (C1), Zalkecks_62 (C1), Zeenon_63 (C1), ZygoTaiga_61 (C1),

Start 13:

- Found in 184 of 188 (97.9%) of genes in pham
- Manual Annotations of this start: 2 of 171
- Called 1.1% of time when present
- Phage (with cluster) where this start called: Delylah_62 (C1), Gizmo_63 (C1),

Summary by clusters:

There are 4 clusters represented in this pham: DO, C1, singleton, DX,

Info for manual annotations of cluster C1:

- Start number 4 was manually annotated 10 times for cluster C1.
- Start number 8 was manually annotated 155 times for cluster C1.
- Start number 13 was manually annotated 2 times for cluster C1.

Info for manual annotations of cluster DO:

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

Info for manual annotations of cluster DX:

- Start number 6 was manually annotated 2 times for cluster DX.

Gene Information:

Gene: Ading_60 Start: 18438, Stop: 19133, Start Num: 8

Candidate Starts for Ading_60:

(Start: 4 @18384 has 10 MA's), (Start: 8 @18438 has 155 MA's), (Start: 13 @18537 has 2 MA's), (19, 18693), (23, 18708), (25, 18741), (29, 18810), (31, 18828), (32, 18831), (33, 18837), (39, 19041), (44, 19092), (45, 19122),

Gene: Adlitam_60 Start: 18455, Stop: 19150, Start Num: 8

Candidate Starts for Adlitam_60:

(Start: 4 @18401 has 10 MA's), (Start: 8 @18455 has 155 MA's), (Start: 13 @18554 has 2 MA's), (19, 18710), (23, 18725), (25, 18758), (29, 18827), (31, 18845), (32, 18848), (33, 18854), (39, 19058), (44, 19109), (45, 19139),

Gene: Alice_55 Start: 18458, Stop: 19207, Start Num: 4

Candidate Starts for Alice_55:

(Start: 4 @18458 has 10 MA's), (Start: 8 @18512 has 155 MA's), (Start: 13 @18611 has 2 MA's), (19, 18767), (23, 18782), (25, 18815), (29, 18884), (31, 18902), (32, 18905), (33, 18911), (39, 19115), (44, 19166), (45, 19196),

Gene: Amataga_60 Start: 18459, Stop: 19154, Start Num: 8

Candidate Starts for Amataga_60:

(Start: 4 @18405 has 10 MA's), (Start: 8 @18459 has 155 MA's), (Start: 13 @18558 has 2 MA's), (19, 18714), (23, 18729), (25, 18762), (29, 18831), (31, 18849), (32, 18852), (33, 18858), (39, 19062), (44, 19113), (45, 19143),

Gene: ArcherS7_60 Start: 18822, Stop: 19517, Start Num: 8

Candidate Starts for ArcherS7_60:

(Start: 4 @18768 has 10 MA's), (Start: 8 @18822 has 155 MA's), (Start: 13 @18921 has 2 MA's), (19, 19077), (23, 19092), (25, 19125), (29, 19194), (31, 19212), (32, 19215), (33, 19221), (39, 19425), (44, 19476), (45, 19506),

Gene: Asterius_58 Start: 18796, Stop: 19491, Start Num: 8

Candidate Starts for Asterius_58:

(Start: 4 @18742 has 10 MA's), (Start: 8 @18796 has 155 MA's), (Start: 13 @18895 has 2 MA's), (23, 19066), (29, 19168), (31, 19186), (39, 19399), (44, 19450), (45, 19480),

Gene: Astraea_62 Start: 19861, Stop: 20610, Start Num: 4

Candidate Starts for Astraea_62:

(Start: 4 @19861 has 10 MA's), (Start: 8 @19915 has 155 MA's), (Start: 13 @20014 has 2 MA's), (19, 20170), (23, 20185), (25, 20218), (29, 20287), (31, 20305), (32, 20308), (33, 20314), (39, 20518), (44, 20569), (45, 20599),

Gene: Atlantean_59 Start: 18459, Stop: 19154, Start Num: 8

Candidate Starts for Atlantean_59:

(Start: 4 @18405 has 10 MA's), (Start: 8 @18459 has 155 MA's), (Start: 13 @18558 has 2 MA's), (19, 18714), (23, 18729), (25, 18762), (29, 18831), (31, 18849), (32, 18852), (33, 18858), (39, 19062), (44, 19113), (45, 19143),

Gene: Audrick_62 Start: 18438, Stop: 19133, Start Num: 8

Candidate Starts for Audrick_62:

(Start: 4 @18384 has 10 MA's), (Start: 8 @18438 has 155 MA's), (Start: 13 @18537 has 2 MA's), (19, 18693), (23, 18708), (25, 18741), (28, 18807), (29, 18810), (31, 18828), (32, 18831), (33, 18837), (39, 19041), (44, 19092), (45, 19122),

Gene: Ava3_62 Start: 19513, Stop: 20208, Start Num: 8

Candidate Starts for Ava3_62:

(Start: 8 @19513 has 155 MA's), (Start: 13 @19612 has 2 MA's), (23, 19783), (29, 19885), (31, 19903), (39, 20116), (44, 20167), (45, 20197),

Gene: Babyland_59 Start: 17897, Stop: 18592, Start Num: 8

Candidate Starts for Babyland_59:

(Start: 4 @17843 has 10 MA's), (Start: 8 @17897 has 155 MA's), (Start: 13 @17996 has 2 MA's), (19, 18152), (23, 18167), (25, 18200), (29, 18269), (31, 18287), (32, 18290), (33, 18296), (39, 18500), (44, 18551), (45, 18581),

Gene: BackyardAgain_58 Start: 18390, Stop: 19085, Start Num: 8

Candidate Starts for BackyardAgain_58:

(Start: 4 @18336 has 10 MA's), (Start: 8 @18390 has 155 MA's), (Start: 13 @18489 has 2 MA's), (19, 18645), (23, 18660), (25, 18693), (29, 18762), (31, 18780), (32, 18783), (33, 18789), (39, 18993), (44, 19044), (45, 19074),

Gene: BadAgartude_60 Start: 20256, Stop: 20951, Start Num: 8

Candidate Starts for BadAgartude_60:

(Start: 4 @20202 has 10 MA's), (Start: 8 @20256 has 155 MA's), (Start: 13 @20355 has 2 MA's), (23, 20526), (29, 20628), (31, 20646), (39, 20859), (44, 20910), (45, 20940),

Gene: BananaFence_62 Start: 19397, Stop: 20092, Start Num: 8

Candidate Starts for BananaFence_62:

(Start: 4 @19343 has 10 MA's), (Start: 8 @19397 has 155 MA's), (Start: 13 @19496 has 2 MA's), (19, 19652), (23, 19667), (25, 19700), (29, 19769), (31, 19787), (32, 19790), (33, 19796), (39, 20000), (44, 20051), (45, 20081),

Gene: Bangla1971_61 Start: 18952, Stop: 19647, Start Num: 8

Candidate Starts for Bangla1971_61:

(Start: 4 @18898 has 10 MA's), (Start: 8 @18952 has 155 MA's), (Start: 13 @19051 has 2 MA's), (19, 19207), (23, 19222), (25, 19255), (29, 19324), (31, 19342), (32, 19345), (33, 19351), (39, 19555), (44, 19606), (45, 19636),

Gene: Basquiat_56 Start: 17883, Stop: 18578, Start Num: 8

Candidate Starts for Basquiat_56:

(Start: 8 @17883 has 155 MA's), (Start: 13 @17982 has 2 MA's), (23, 18153), (29, 18255), (31, 18273), (39, 18486), (44, 18537), (45, 18567),

Gene: BeanWater_54 Start: 18805, Stop: 19500, Start Num: 8

Candidate Starts for BeanWater_54:

(Start: 4 @18751 has 10 MA's), (Start: 8 @18805 has 155 MA's), (Start: 13 @18904 has 2 MA's), (23, 19075), (29, 19177), (31, 19195), (39, 19408), (44, 19459), (45, 19489),

Gene: BigCity_66 Start: 20720, Stop: 21415, Start Num: 8

Candidate Starts for BigCity_66:

(Start: 8 @20720 has 155 MA's), (Start: 13 @20819 has 2 MA's), (23, 20990), (29, 21092), (31, 21110), (39, 21323), (44, 21374), (45, 21404),

Gene: Bigswole_67 Start: 21754, Stop: 22449, Start Num: 8

Candidate Starts for Bigswole_67:

(Start: 8 @21754 has 155 MA's), (Start: 13 @21853 has 2 MA's), (23, 22024), (29, 22126), (31, 22144), (39, 22357), (44, 22408), (45, 22438),

Gene: Bipolarisk_60 Start: 19224, Stop: 19919, Start Num: 8
Candidate Starts for Bipolarisk_60:
(Start: 8 @19224 has 155 MA's), (Start: 13 @19323 has 2 MA's), (23, 19494), (29, 19596), (31, 19614), (39, 19827), (44, 19878), (45, 19908),

Gene: Blackbrain_55 Start: 17700, Stop: 18395, Start Num: 8
Candidate Starts for Blackbrain_55:
(Start: 8 @17700 has 155 MA's), (Start: 13 @17799 has 2 MA's), (23, 17970), (29, 18072), (31, 18090), (39, 18303), (44, 18354), (45, 18384),

Gene: Blubba_50 Start: 16623, Stop: 17318, Start Num: 8
Candidate Starts for Blubba_50:
(Start: 8 @16623 has 155 MA's), (Start: 13 @16722 has 2 MA's), (23, 16893), (25, 16926), (29, 16995), (31, 17013), (39, 17226), (44, 17277), (45, 17307),

Gene: Bonray_61 Start: 19501, Stop: 20196, Start Num: 8
Candidate Starts for Bonray_61:
(Start: 8 @19501 has 155 MA's), (Start: 13 @19600 has 2 MA's), (23, 19771), (29, 19873), (31, 19891), (39, 20104), (44, 20155), (45, 20185),

Gene: Bread_61 Start: 19194, Stop: 19889, Start Num: 8
Candidate Starts for Bread_61:
(Start: 8 @19194 has 155 MA's), (Start: 13 @19293 has 2 MA's), (23, 19464), (29, 19566), (31, 19584), (39, 19797), (44, 19848), (45, 19878),

Gene: Breeniome_62 Start: 18647, Stop: 19396, Start Num: 4
Candidate Starts for Breeniome_62:
(Start: 4 @18647 has 10 MA's), (Start: 8 @18701 has 155 MA's), (Start: 13 @18800 has 2 MA's), (19, 18956), (23, 18971), (25, 19004), (29, 19073), (31, 19091), (32, 19094), (33, 19100), (39, 19304), (44, 19355), (45, 19385),

Gene: Burrough_61 Start: 19227, Stop: 19922, Start Num: 8
Candidate Starts for Burrough_61:
(Start: 4 @19173 has 10 MA's), (Start: 8 @19227 has 155 MA's), (Start: 13 @19326 has 2 MA's), (19, 19482), (23, 19497), (25, 19530), (29, 19599), (31, 19617), (32, 19620), (33, 19626), (39, 19830), (44, 19881), (45, 19911),

Gene: Bxz1_61 Start: 20278, Stop: 20973, Start Num: 8
Candidate Starts for Bxz1_61:
(Start: 4 @20224 has 10 MA's), (Start: 8 @20278 has 155 MA's), (Start: 13 @20377 has 2 MA's), (19, 20533), (23, 20548), (25, 20581), (29, 20650), (31, 20668), (32, 20671), (33, 20677), (39, 20881), (44, 20932), (45, 20962),

Gene: Cactojaque_55 Start: 17807, Stop: 18502, Start Num: 8
Candidate Starts for Cactojaque_55:
(Start: 8 @17807 has 155 MA's), (Start: 13 @17906 has 2 MA's), (23, 18077), (29, 18179), (31, 18197), (39, 18410), (44, 18461), (45, 18491),

Gene: Cali_58 Start: 19988, Stop: 20737, Start Num: 4
Candidate Starts for Cali_58:
(Start: 4 @19988 has 10 MA's), (Start: 8 @20042 has 155 MA's), (Start: 13 @20141 has 2 MA's), (23, 20312), (29, 20414), (31, 20432), (39, 20645), (44, 20696), (45, 20726),

Gene: Cane17_50 Start: 16341, Stop: 17036, Start Num: 8

Candidate Starts for Cane17_50:

(Start: 8 @16341 has 155 MA's), (Start: 13 @16440 has 2 MA's), (23, 16611), (25, 16644), (29, 16713), (31, 16731), (39, 16944), (44, 16995), (45, 17025),

Gene: Capablanca_62 Start: 19584, Stop: 20279, Start Num: 8

Candidate Starts for Capablanca_62:

(Start: 4 @19530 has 10 MA's), (Start: 8 @19584 has 155 MA's), (Start: 13 @19683 has 2 MA's), (19, 19839), (23, 19854), (25, 19887), (29, 19956), (31, 19974), (32, 19977), (33, 19983), (39, 20187), (44, 20238), (45, 20268),

Gene: Caravan_57 Start: 18572, Stop: 19267, Start Num: 8

Candidate Starts for Caravan_57:

(Start: 4 @18518 has 10 MA's), (Start: 8 @18572 has 155 MA's), (Start: 13 @18671 has 2 MA's), (19, 18827), (23, 18842), (25, 18875), (29, 18944), (31, 18962), (32, 18965), (33, 18971), (39, 19175), (44, 19226), (45, 19256),

Gene: Catera_59 Start: 18393, Stop: 19088, Start Num: 8

Candidate Starts for Catera_59:

(Start: 8 @18393 has 155 MA's), (Start: 13 @18492 has 2 MA's), (23, 18663), (29, 18765), (31, 18783), (39, 18996), (44, 19047), (45, 19077),

Gene: Chargie21_56 Start: 17883, Stop: 18578, Start Num: 8

Candidate Starts for Chargie21_56:

(Start: 8 @17883 has 155 MA's), (Start: 13 @17982 has 2 MA's), (23, 18153), (29, 18255), (31, 18273), (39, 18486), (44, 18537), (45, 18567),

Gene: CharlieB_58 Start: 18040, Stop: 18735, Start Num: 8

Candidate Starts for CharlieB_58:

(Start: 4 @17986 has 10 MA's), (Start: 8 @18040 has 155 MA's), (Start: 13 @18139 has 2 MA's), (23, 18310), (29, 18412), (31, 18430), (39, 18643), (44, 18694), (45, 18724),

Gene: ChaylaJr_56 Start: 17972, Stop: 18667, Start Num: 8

Candidate Starts for ChaylaJr_56:

(Start: 8 @17972 has 155 MA's), (Start: 13 @18071 has 2 MA's), (23, 18242), (29, 18344), (31, 18362), (39, 18575), (44, 18626), (45, 18656),

Gene: CherryTomatoes_189 Start: 131711, Stop: 132439, Start Num: 7

Candidate Starts for CherryTomatoes_189:

(Start: 7 @131711 has 2 MA's), (11, 131780), (12, 131807), (16, 131945), (17, 131951), (21, 131999), (31, 132137), (35, 132221), (36, 132305), (40, 132338), (41, 132341),

Gene: ChickenPhender_56 Start: 17931, Stop: 18626, Start Num: 8

Candidate Starts for ChickenPhender_56:

(Start: 8 @17931 has 155 MA's), (Start: 13 @18030 has 2 MA's), (23, 18201), (29, 18303), (31, 18321), (39, 18534), (44, 18585), (45, 18615),

Gene: Chomp_58 Start: 18459, Stop: 19154, Start Num: 8

Candidate Starts for Chomp_58:

(Start: 4 @18405 has 10 MA's), (Start: 8 @18459 has 155 MA's), (Start: 13 @18558 has 2 MA's), (19, 18714), (23, 18729), (25, 18762), (29, 18831), (31, 18849), (32, 18852), (33, 18858), (39, 19062), (44, 19113), (45, 19143),

Gene: CindyLou_61 Start: 18984, Stop: 19679, Start Num: 8

Candidate Starts for CindyLou_61:

(Start: 4 @18930 has 10 MA's), (Start: 8 @18984 has 155 MA's), (Start: 13 @19083 has 2 MA's), (19, 19239), (23, 19254), (25, 19287), (29, 19356), (31, 19374), (32, 19377), (33, 19383), (39, 19587), (44, 19638), (45, 19668),

Gene: Colt_52 Start: 17327, Stop: 18022, Start Num: 8

Candidate Starts for Colt_52:

(Start: 8 @17327 has 155 MA's), (Start: 13 @17426 has 2 MA's), (23, 17597), (25, 17630), (29, 17699), (31, 17717), (32, 17720), (39, 17930), (44, 17981), (45, 18011),

Gene: Concombres_66 Start: 21281, Stop: 21976, Start Num: 8

Candidate Starts for Concombres_66:

(Start: 4 @21227 has 10 MA's), (Start: 8 @21281 has 155 MA's), (Start: 13 @21380 has 2 MA's), (23, 21551), (29, 21653), (31, 21671), (39, 21884), (44, 21935), (45, 21965),

Gene: DTDevon_61 Start: 19569, Stop: 20318, Start Num: 4

Candidate Starts for DTDevon_61:

(Start: 4 @19569 has 10 MA's), (Start: 8 @19623 has 155 MA's), (Start: 13 @19722 has 2 MA's), (19, 19878), (23, 19893), (25, 19926), (29, 19995), (31, 20013), (32, 20016), (33, 20022), (39, 20226), (44, 20277), (45, 20307),

Gene: Daffodil_63 Start: 19513, Stop: 20208, Start Num: 8

Candidate Starts for Daffodil_63:

(Start: 8 @19513 has 155 MA's), (Start: 13 @19612 has 2 MA's), (23, 19783), (29, 19885), (31, 19903), (39, 20116), (44, 20167), (45, 20197),

Gene: Dandelion_66 Start: 21300, Stop: 21995, Start Num: 8

Candidate Starts for Dandelion_66:

(Start: 8 @21300 has 155 MA's), (Start: 13 @21399 has 2 MA's), (19, 21555), (23, 21570), (25, 21603), (29, 21672), (31, 21690), (32, 21693), (33, 21699), (39, 21903), (44, 21954), (45, 21984),

Gene: Darko_60 Start: 19366, Stop: 20061, Start Num: 8

Candidate Starts for Darko_60:

(Start: 4 @19312 has 10 MA's), (Start: 8 @19366 has 155 MA's), (Start: 13 @19465 has 2 MA's), (19, 19621), (23, 19636), (25, 19669), (29, 19738), (31, 19756), (32, 19759), (33, 19765), (39, 19969), (44, 20020), (45, 20050),

Gene: Delilah_61 Start: 19513, Stop: 20208, Start Num: 8

Candidate Starts for Delilah_61:

(Start: 8 @19513 has 155 MA's), (Start: 13 @19612 has 2 MA's), (23, 19783), (29, 19885), (31, 19903), (39, 20116), (44, 20167), (45, 20197),

Gene: Delylah_62 Start: 19390, Stop: 19986, Start Num: 13

Candidate Starts for Delylah_62:

(Start: 8 @19291 has 155 MA's), (Start: 13 @19390 has 2 MA's), (23, 19561), (29, 19663), (31, 19681), (39, 19894), (44, 19945), (45, 19975),

Gene: Derek_61 Start: 18736, Stop: 19485, Start Num: 4

Candidate Starts for Derek_61:

(Start: 4 @18736 has 10 MA's), (Start: 8 @18790 has 155 MA's), (Start: 13 @18889 has 2 MA's), (19, 19045), (23, 19060), (25, 19093), (29, 19162), (31, 19180), (32, 19183), (33, 19189), (39, 19393), (44, 19444), (45, 19474),

Gene: Dietrick_54 Start: 17631, Stop: 18326, Start Num: 8

Candidate Starts for Dietrick_54:

(Start: 8 @17631 has 155 MA's), (Start: 13 @17730 has 2 MA's), (23, 17901), (29, 18003), (31, 18021), (39, 18234), (44, 18285), (45, 18315),

Gene: DirtMonster_57 Start: 19299, Stop: 19994, Start Num: 8

Candidate Starts for DirtMonster_57:

(Start: 8 @19299 has 155 MA's), (Start: 13 @19398 has 2 MA's), (23, 19569), (25, 19602), (29, 19671), (31, 19689), (32, 19692), (33, 19698), (39, 19902), (44, 19953), (45, 19983),

Gene: DrPhinkDaddy_60 Start: 19565, Stop: 20260, Start Num: 8

Candidate Starts for DrPhinkDaddy_60:

(Start: 8 @19565 has 155 MA's), (Start: 13 @19664 has 2 MA's), (23, 19835), (29, 19937), (31, 19955), (39, 20168), (44, 20219), (45, 20249),

Gene: Drazdys_60 Start: 19296, Stop: 19991, Start Num: 8

Candidate Starts for Drazdys_60:

(Start: 4 @19242 has 10 MA's), (Start: 8 @19296 has 155 MA's), (Start: 13 @19395 has 2 MA's), (19, 19551), (23, 19566), (25, 19599), (29, 19668), (31, 19686), (32, 19689), (33, 19695), (39, 19899), (44, 19950), (45, 19980),

Gene: ET08_52 Start: 17908, Stop: 18603, Start Num: 8

Candidate Starts for ET08_52:

(Start: 4 @17854 has 10 MA's), (Start: 8 @17908 has 155 MA's), (Start: 13 @18007 has 2 MA's), (23, 18178), (29, 18280), (31, 18298), (39, 18511), (44, 18562), (45, 18592),

Gene: EasyJones_63 Start: 19458, Stop: 20153, Start Num: 8

Candidate Starts for EasyJones_63:

(Start: 4 @19404 has 10 MA's), (Start: 8 @19458 has 155 MA's), (Start: 13 @19557 has 2 MA's), (23, 19728), (25, 19761), (29, 19830), (31, 19848), (32, 19851), (33, 19857), (39, 20061), (44, 20112), (45, 20142),

Gene: EggyFarm_66 Start: 20720, Stop: 21415, Start Num: 8

Candidate Starts for EggyFarm_66:

(Start: 8 @20720 has 155 MA's), (Start: 13 @20819 has 2 MA's), (23, 20990), (29, 21092), (31, 21110), (39, 21323), (44, 21374), (45, 21404),

Gene: EmToTheThree_64 Start: 20927, Stop: 21622, Start Num: 8

Candidate Starts for EmToTheThree_64:

(Start: 8 @20927 has 155 MA's), (Start: 13 @21026 has 2 MA's), (23, 21197), (29, 21299), (31, 21317), (39, 21530), (44, 21581), (45, 21611),

Gene: EmmaElysia_59 Start: 18029, Stop: 18724, Start Num: 8

Candidate Starts for EmmaElysia_59:

(Start: 4 @17975 has 10 MA's), (Start: 8 @18029 has 155 MA's), (Start: 13 @18128 has 2 MA's), (19, 18284), (23, 18299), (25, 18332), (29, 18401), (31, 18419), (32, 18422), (33, 18428), (39, 18632), (44, 18683), (45, 18713),

Gene: Erdmann_62 Start: 19513, Stop: 20208, Start Num: 8

Candidate Starts for Erdmann_62:

(Start: 8 @19513 has 155 MA's), (Start: 13 @19612 has 2 MA's), (23, 19783), (29, 19885), (31, 19903), (39, 20116), (44, 20167), (45, 20197),

Gene: ErnieJ_60 Start: 18802, Stop: 19497, Start Num: 8

Candidate Starts for ErnieJ_60:

(Start: 8 @18802 has 155 MA's), (Start: 13 @18901 has 2 MA's), (23, 19072), (25, 19105), (29, 19174), (31, 19192), (32, 19195), (33, 19201), (39, 19405), (44, 19456), (45, 19486),

Gene: Essence_59 Start: 18313, Stop: 19008, Start Num: 8

Candidate Starts for Essence_59:

(Start: 8 @18313 has 155 MA's), (Start: 13 @18412 has 2 MA's), (19, 18568), (23, 18583), (25, 18616), (29, 18685), (31, 18703), (32, 18706), (33, 18712), (39, 18916), (44, 18967), (45, 18997),

Gene: Ewok_61 Start: 19516, Stop: 20211, Start Num: 8

Candidate Starts for Ewok_61:

(Start: 8 @19516 has 155 MA's), (Start: 13 @19615 has 2 MA's), (23, 19786), (29, 19888), (31, 19906), (39, 20119), (44, 20170), (45, 20200),

Gene: Flabslab_57 Start: 18535, Stop: 19230, Start Num: 8

Candidate Starts for Flabslab_57:

(Start: 8 @18535 has 155 MA's), (Start: 13 @18634 has 2 MA's), (23, 18805), (29, 18907), (31, 18925), (39, 19138), (44, 19189), (45, 19219),

Gene: Fludd_60 Start: 18388, Stop: 19083, Start Num: 8

Candidate Starts for Fludd_60:

(Start: 8 @18388 has 155 MA's), (Start: 13 @18487 has 2 MA's), (23, 18658), (29, 18760), (31, 18778), (39, 18991), (44, 19042), (45, 19072),

Gene: FoxtrotP1_61 Start: 19841, Stop: 20536, Start Num: 8

Candidate Starts for FoxtrotP1_61:

(Start: 8 @19841 has 155 MA's), (Start: 13 @19940 has 2 MA's), (19, 20096), (23, 20111), (25, 20144), (29, 20213), (31, 20231), (32, 20234), (33, 20240), (39, 20444), (44, 20495), (45, 20525),

Gene: FrayBell_67 Start: 21027, Stop: 21722, Start Num: 8

Candidate Starts for FrayBell_67:

(Start: 8 @21027 has 155 MA's), (Start: 13 @21126 has 2 MA's), (23, 21297), (29, 21399), (31, 21417), (39, 21630), (44, 21681), (45, 21711),

Gene: FudgeTart_62 Start: 19377, Stop: 20072, Start Num: 8

Candidate Starts for FudgeTart_62:

(Start: 8 @19377 has 155 MA's), (Start: 13 @19476 has 2 MA's), (23, 19647), (29, 19749), (31, 19767), (39, 19980), (44, 20031), (45, 20061),

Gene: Gabriel_62 Start: 18692, Stop: 19387, Start Num: 8

Candidate Starts for Gabriel_62:

(Start: 4 @18638 has 10 MA's), (Start: 8 @18692 has 155 MA's), (Start: 13 @18791 has 2 MA's), (19, 18947), (23, 18962), (25, 18995), (29, 19064), (31, 19082), (32, 19085), (33, 19091), (39, 19295), (44, 19346), (45, 19376),

Gene: Gamgam_60 Start: 18459, Stop: 19154, Start Num: 8

Candidate Starts for Gamgam_60:

(Start: 4 @18405 has 10 MA's), (Start: 8 @18459 has 155 MA's), (Start: 13 @18558 has 2 MA's), (19, 18714), (23, 18729), (25, 18762), (29, 18831), (31, 18849), (32, 18852), (33, 18858), (39, 19062), (44, 19113), (45, 19143),

Gene: Ghost_60 Start: 18459, Stop: 19154, Start Num: 8

Candidate Starts for Ghost_60:

(Start: 4 @18405 has 10 MA's), (Start: 8 @18459 has 155 MA's), (Start: 13 @18558 has 2 MA's), (19, 18714), (23, 18729), (25, 18762), (29, 18831), (31, 18849), (32, 18852), (33, 18858), (39, 19062), (44, 19113), (45, 19143),

Gene: Gizmo_63 Start: 19295, Stop: 19891, Start Num: 13

Candidate Starts for Gizmo_63:

(Start: 8 @19196 has 155 MA's), (Start: 13 @19295 has 2 MA's), (23, 19466), (29, 19568), (31, 19586), (39, 19799), (44, 19850), (45, 19880),

Gene: Grasshills_66 Start: 20720, Stop: 21415, Start Num: 8

Candidate Starts for Grasshills_66:

(Start: 8 @20720 has 155 MA's), (Start: 13 @20819 has 2 MA's), (23, 20990), (29, 21092), (31, 21110), (39, 21323), (44, 21374), (45, 21404),

Gene: Grungle_52 Start: 16990, Stop: 17685, Start Num: 8

Candidate Starts for Grungle_52:

(Start: 4 @16936 has 10 MA's), (Start: 8 @16990 has 155 MA's), (Start: 13 @17089 has 2 MA's), (23, 17260), (29, 17362), (31, 17380), (39, 17593), (44, 17644), (45, 17674),

Gene: Guwapp_59 Start: 18554, Stop: 19249, Start Num: 8

Candidate Starts for Guwapp_59:

(Start: 4 @18500 has 10 MA's), (Start: 8 @18554 has 155 MA's), (Start: 13 @18653 has 2 MA's), (19, 18809), (23, 18824), (25, 18857), (29, 18926), (31, 18944), (32, 18947), (33, 18953), (39, 19157), (44, 19208), (45, 19238),

Gene: HyRo_56 Start: 18920, Stop: 19615, Start Num: 8

Candidate Starts for HyRo_56:

(Start: 4 @18866 has 10 MA's), (Start: 8 @18920 has 155 MA's), (Start: 13 @19019 has 2 MA's), (19, 19175), (23, 19190), (25, 19223), (29, 19292), (31, 19310), (32, 19313), (33, 19319), (39, 19523), (44, 19574), (45, 19604),

Gene: I3_63 Start: 19132, Stop: 19827, Start Num: 8

Candidate Starts for I3_63:

(Start: 4 @19078 has 10 MA's), (Start: 8 @19132 has 155 MA's), (Start: 13 @19231 has 2 MA's), (23, 19402), (29, 19504), (31, 19522), (39, 19735), (44, 19786), (45, 19816),

Gene: IkeLoa_55 Start: 18198, Stop: 18893, Start Num: 8

Candidate Starts for IkeLoa_55:

(Start: 4 @18144 has 10 MA's), (Start: 8 @18198 has 155 MA's), (Start: 13 @18297 has 2 MA's), (23, 18468), (29, 18570), (31, 18588), (39, 18801), (44, 18852), (45, 18882),

Gene: InigoMontoya_61 Start: 18420, Stop: 19115, Start Num: 8

Candidate Starts for InigoMontoya_61:

(Start: 4 @18366 has 10 MA's), (Start: 8 @18420 has 155 MA's), (Start: 13 @18519 has 2 MA's), (19, 18675), (23, 18690), (25, 18723), (29, 18792), (31, 18810), (32, 18813), (33, 18819), (39, 19023), (44, 19074), (45, 19104),

Gene: InterFolia_69 Start: 21965, Stop: 22660, Start Num: 8

Candidate Starts for InterFolia_69:

(Start: 4 @21911 has 10 MA's), (Start: 8 @21965 has 155 MA's), (Start: 13 @22064 has 2 MA's), (23, 22235), (29, 22337), (31, 22355), (39, 22568), (44, 22619), (45, 22649),

Gene: Iota_55 Start: 18496, Stop: 19191, Start Num: 8

Candidate Starts for Iota_55:

(Start: 4 @18442 has 10 MA's), (Start: 8 @18496 has 155 MA's), (Start: 13 @18595 has 2 MA's), (23, 18766), (29, 18868), (31, 18886), (39, 19099), (44, 19150), (45, 19180),

Gene: Issimir_60 Start: 19456, Stop: 20151, Start Num: 8

Candidate Starts for Issimir_60:

(Start: 8 @19456 has 155 MA's), (Start: 13 @19555 has 2 MA's), (23, 19726), (29, 19828), (31, 19846), (39, 20059), (44, 20110), (45, 20140),

Gene: Izajani_62 Start: 19529, Stop: 20224, Start Num: 8

Candidate Starts for Izajani_62:

(Start: 8 @19529 has 155 MA's), (Start: 13 @19628 has 2 MA's), (23, 19799), (29, 19901), (31, 19919), (39, 20132), (44, 20183), (45, 20213),

Gene: JPickles_58 Start: 17653, Stop: 18348, Start Num: 8

Candidate Starts for JPickles_58:

(Start: 4 @17599 has 10 MA's), (Start: 8 @17653 has 155 MA's), (Start: 13 @17752 has 2 MA's), (19, 17908), (23, 17923), (25, 17956), (29, 18025), (31, 18043), (32, 18046), (33, 18052), (39, 18256), (44, 18307), (45, 18337),

Gene: Janiyra_62 Start: 19218, Stop: 19913, Start Num: 8

Candidate Starts for Janiyra_62:

(Start: 8 @19218 has 155 MA's), (Start: 13 @19317 has 2 MA's), (23, 19488), (29, 19590), (31, 19608), (39, 19821), (44, 19872), (45, 19902),

Gene: JayJay_64 Start: 20009, Stop: 20704, Start Num: 8

Candidate Starts for JayJay_64:

(Start: 4 @19955 has 10 MA's), (Start: 8 @20009 has 155 MA's), (Start: 13 @20108 has 2 MA's), (19, 20264), (23, 20279), (25, 20312), (29, 20381), (31, 20399), (32, 20402), (33, 20408), (39, 20612), (44, 20663), (45, 20693),

Gene: Jaygup_60 Start: 18455, Stop: 19150, Start Num: 8

Candidate Starts for Jaygup_60:

(Start: 4 @18401 has 10 MA's), (Start: 8 @18455 has 155 MA's), (Start: 13 @18554 has 2 MA's), (19, 18710), (23, 18725), (25, 18758), (29, 18827), (31, 18845), (32, 18848), (33, 18854), (39, 19058), (44, 19109), (45, 19139),

Gene: Jedediah_61 Start: 18956, Stop: 19651, Start Num: 8

Candidate Starts for Jedediah_61:

(Start: 4 @18902 has 10 MA's), (Start: 8 @18956 has 155 MA's), (Start: 13 @19055 has 2 MA's), (19, 19211), (23, 19226), (25, 19259), (29, 19328), (31, 19346), (32, 19349), (33, 19355), (39, 19559), (44, 19610), (45, 19640),

Gene: Jemmno_60 Start: 18459, Stop: 19154, Start Num: 8

Candidate Starts for Jemmno_60:

(Start: 4 @18405 has 10 MA's), (Start: 8 @18459 has 155 MA's), (Start: 13 @18558 has 2 MA's), (19, 18714), (23, 18729), (25, 18762), (29, 18831), (31, 18849), (32, 18852), (33, 18858), (39, 19062), (44, 19113), (45, 19143),

Gene: Jessibeth14_59 Start: 18917, Stop: 19612, Start Num: 8

Candidate Starts for Jessibeth14_59:

(Start: 8 @18917 has 155 MA's), (Start: 13 @19016 has 2 MA's), (23, 19187), (29, 19289), (31, 19307), (39, 19520), (44, 19571), (45, 19601),

Gene: JulietS_55 Start: 17418, Stop: 18113, Start Num: 8

Candidate Starts for JulietS_55:

(Start: 4 @17364 has 10 MA's), (Start: 8 @17418 has 155 MA's), (Start: 13 @17517 has 2 MA's), (19, 17673), (23, 17688), (25, 17721), (29, 17790), (31, 17808), (32, 17811), (33, 17817), (39, 18021), (44, 18072), (45, 18102),

Gene: JustHall_56 Start: 18778, Stop: 19473, Start Num: 8

Candidate Starts for JustHall_56:

(Start: 4 @18724 has 10 MA's), (Start: 8 @18778 has 155 MA's), (Start: 13 @18877 has 2 MA's), (19, 19033), (23, 19048), (25, 19081), (29, 19150), (31, 19168), (32, 19171), (33, 19177), (39, 19381), (44, 19432), (45, 19462),

Gene: Kamryn_60 Start: 19132, Stop: 19827, Start Num: 8

Candidate Starts for Kamryn_60:

(Start: 8 @19132 has 155 MA's), (Start: 13 @19231 has 2 MA's), (23, 19402), (29, 19504), (31, 19522), (39, 19735), (44, 19786), (45, 19816),

Gene: Kboogie_61 Start: 18442, Stop: 19137, Start Num: 8

Candidate Starts for Kboogie_61:

(Start: 8 @18442 has 155 MA's), (Start: 13 @18541 has 2 MA's), (23, 18712), (29, 18814), (31, 18832), (39, 19045), (44, 19096), (45, 19126),

Gene: Khaleesi_60 Start: 19260, Stop: 19955, Start Num: 8

Candidate Starts for Khaleesi_60:

(Start: 8 @19260 has 155 MA's), (Start: 13 @19359 has 2 MA's), (23, 19530), (29, 19632), (31, 19650), (39, 19863), (44, 19914), (45, 19944),

Gene: Koguma_57 Start: 17636, Stop: 18331, Start Num: 8

Candidate Starts for Koguma_57:

(Start: 4 @17582 has 10 MA's), (Start: 8 @17636 has 155 MA's), (Start: 13 @17735 has 2 MA's), (23, 17906), (29, 18008), (31, 18026), (39, 18239), (44, 18290), (45, 18320),

Gene: LRRHood_57 Start: 19559, Stop: 20254, Start Num: 8

Candidate Starts for LRRHood_57:

(Start: 4 @19505 has 10 MA's), (Start: 8 @19559 has 155 MA's), (Start: 13 @19658 has 2 MA's), (23, 19829), (29, 19931), (31, 19949), (39, 20162), (44, 20213), (45, 20243),

Gene: Latch_60 Start: 18459, Stop: 19154, Start Num: 8

Candidate Starts for Latch_60:

(Start: 4 @18405 has 10 MA's), (Start: 8 @18459 has 155 MA's), (Start: 13 @18558 has 2 MA's), (19, 18714), (23, 18729), (25, 18762), (29, 18831), (31, 18849), (32, 18852), (33, 18858), (39, 19062), (44, 19113), (45, 19143),

Gene: Lee7_59 Start: 19191, Stop: 19886, Start Num: 8

Candidate Starts for Lee7_59:

(Start: 8 @19191 has 155 MA's), (Start: 13 @19290 has 2 MA's), (23, 19461), (29, 19563), (31, 19581), (39, 19794), (44, 19845), (45, 19875),

Gene: LifeSavor_60 Start: 18124, Stop: 18873, Start Num: 4

Candidate Starts for LifeSavor_60:

(Start: 4 @18124 has 10 MA's), (Start: 8 @18178 has 155 MA's), (Start: 13 @18277 has 2 MA's), (19, 18433), (23, 18448), (25, 18481), (29, 18550), (31, 18568), (32, 18571), (33, 18577), (39, 18781), (44, 18832), (45, 18862),

Gene: LinStu_62 Start: 20266, Stop: 20961, Start Num: 8

Candidate Starts for LinStu_62:

(Start: 8 @20266 has 155 MA's), (Start: 13 @20365 has 2 MA's), (19, 20521), (23, 20536), (25, 20569), (29, 20638), (31, 20656), (32, 20659), (33, 20665), (39, 20869), (44, 20920), (45, 20950),

Gene: Littleton_60 Start: 18405, Stop: 19154, Start Num: 4

Candidate Starts for Littleton_60:

(Start: 4 @18405 has 10 MA's), (Start: 8 @18459 has 155 MA's), (Start: 13 @18558 has 2 MA's), (19, 18714), (23, 18729), (25, 18762), (29, 18831), (31, 18849), (32, 18852), (33, 18858), (39, 19062), (44, 19113), (45, 19143),

Gene: Loanshark_61 Start: 19513, Stop: 20208, Start Num: 8

Candidate Starts for Loanshark_61:

(Start: 8 @19513 has 155 MA's), (Start: 13 @19612 has 2 MA's), (23, 19783), (29, 19885), (31, 19903), (39, 20116), (44, 20167), (45, 20197),

Gene: LolaVınca_64 Start: 20674, Stop: 21369, Start Num: 8

Candidate Starts for LolaVınca_64:

(Start: 8 @20674 has 155 MA's), (Start: 13 @20773 has 2 MA's), (23, 20944), (29, 21046), (31, 21064), (39, 21277), (44, 21328), (45, 21358),

Gene: LordLeafolot_66 Start: 21026, Stop: 21721, Start Num: 8

Candidate Starts for LordLeafolot_66:

(Start: 8 @21026 has 155 MA's), (Start: 13 @21125 has 2 MA's), (23, 21296), (29, 21398), (31, 21416), (39, 21629), (44, 21680), (45, 21710),

Gene: Lukilu_54 Start: 18761, Stop: 19456, Start Num: 8

Candidate Starts for Lukilu_54:

(Start: 4 @18707 has 10 MA's), (Start: 8 @18761 has 155 MA's), (Start: 13 @18860 has 2 MA's), (23, 19031), (29, 19133), (31, 19151), (39, 19364), (44, 19415), (45, 19445),

Gene: Maby2021_61 Start: 19194, Stop: 19889, Start Num: 8

Candidate Starts for Maby2021_61:

(Start: 8 @19194 has 155 MA's), (Start: 13 @19293 has 2 MA's), (23, 19464), (29, 19566), (31, 19584), (39, 19797), (44, 19848), (45, 19878),

Gene: Mangeria_64 Start: 20537, Stop: 21232, Start Num: 8

Candidate Starts for Mangeria_64:

(Start: 8 @20537 has 155 MA's), (Start: 13 @20636 has 2 MA's), (23, 20807), (29, 20909), (31, 20927), (39, 21140), (44, 21191), (45, 21221),

Gene: Matsumoto_59 Start: 18420, Stop: 19115, Start Num: 8

Candidate Starts for Matsumoto_59:

(Start: 4 @18366 has 10 MA's), (Start: 8 @18420 has 155 MA's), (Start: 13 @18519 has 2 MA's), (19, 18675), (23, 18690), (25, 18723), (29, 18792), (31, 18810), (32, 18813), (33, 18819), (39, 19023), (44, 19074), (45, 19104),

Gene: McGee_59 Start: 17589, Stop: 18338, Start Num: 4

Candidate Starts for McGee_59:

(Start: 4 @17589 has 10 MA's), (Start: 8 @17643 has 155 MA's), (Start: 13 @17742 has 2 MA's), (19, 17898), (23, 17913), (25, 17946), (29, 18015), (31, 18033), (33, 18042), (39, 18246), (44, 18297), (45, 18327),

Gene: McWolfish_59 Start: 18941, Stop: 19636, Start Num: 8

Candidate Starts for McWolfish_59:

(Start: 8 @18941 has 155 MA's), (Start: 13 @19040 has 2 MA's), (23, 19211), (29, 19313), (31, 19331), (39, 19544), (44, 19595), (45, 19625),

Gene: Megamind_60 Start: 19179, Stop: 19874, Start Num: 8

Candidate Starts for Megamind_60:

(Start: 8 @19179 has 155 MA's), (Start: 13 @19278 has 2 MA's), (23, 19449), (29, 19551), (31, 19569), (39, 19782), (44, 19833), (45, 19863),

Gene: Melpomini_56 Start: 17870, Stop: 18565, Start Num: 8

Candidate Starts for Melpomini_56:

(Start: 4 @17816 has 10 MA's), (Start: 8 @17870 has 155 MA's), (Start: 13 @17969 has 2 MA's), (19, 18125), (23, 18140), (25, 18173), (29, 18242), (31, 18260), (32, 18263), (33, 18269), (39, 18473), (44, 18524), (45, 18554),

Gene: MikeLiesIn_61 Start: 19526, Stop: 20221, Start Num: 8

Candidate Starts for MikeLiesIn_61:

(Start: 8 @19526 has 155 MA's), (Start: 13 @19625 has 2 MA's), (23, 19796), (29, 19898), (31, 19916), (39, 20129), (44, 20180), (45, 20210),

Gene: Mikro_59 Start: 20000, Stop: 20695, Start Num: 8

Candidate Starts for Mikro_59:

(Start: 8 @20000 has 155 MA's), (Start: 13 @20099 has 2 MA's), (23, 20270), (29, 20372), (31, 20390), (39, 20603), (44, 20654), (45, 20684),

Gene: MoMoMixon_61 Start: 19611, Stop: 20306, Start Num: 8

Candidate Starts for MoMoMixon_61:

(Start: 8 @19611 has 155 MA's), (Start: 13 @19710 has 2 MA's), (23, 19881), (29, 19983), (31, 20001), (39, 20214), (44, 20265), (45, 20295),

Gene: Momo_59 Start: 18459, Stop: 19154, Start Num: 8

Candidate Starts for Momo_59:

(Start: 4 @18405 has 10 MA's), (Start: 8 @18459 has 155 MA's), (Start: 13 @18558 has 2 MA's), (19, 18714), (23, 18729), (25, 18762), (29, 18831), (31, 18849), (32, 18852), (33, 18858), (39, 19062), (44, 19113), (45, 19143),

Gene: Morizzled23_63 Start: 19485, Stop: 20180, Start Num: 8

Candidate Starts for Morizzled23_63:

(Start: 4 @19431 has 10 MA's), (Start: 8 @19485 has 155 MA's), (Start: 13 @19584 has 2 MA's), (23, 19755), (25, 19788), (29, 19857), (31, 19875), (32, 19878), (33, 19884), (39, 20088), (44, 20139), (45, 20169),

Gene: Naija_59 Start: 18459, Stop: 19154, Start Num: 8

Candidate Starts for Naija_59:

(Start: 4 @18405 has 10 MA's), (Start: 8 @18459 has 155 MA's), (Start: 13 @18558 has 2 MA's), (19, 18714), (23, 18729), (25, 18762), (29, 18831), (31, 18849), (32, 18852), (33, 18858), (39, 19062), (44, 19113), (45, 19143),

Gene: Napoleon13_58 Start: 17852, Stop: 18547, Start Num: 8

Candidate Starts for Napoleon13_58:

(Start: 8 @17852 has 155 MA's), (Start: 13 @17951 has 2 MA's), (23, 18122), (29, 18224), (31, 18242), (39, 18455), (44, 18506), (45, 18536),

Gene: Nappy_63 Start: 19814, Stop: 20509, Start Num: 8

Candidate Starts for Nappy_63:

(Start: 8 @19814 has 155 MA's), (Start: 13 @19913 has 2 MA's), (23, 20084), (29, 20186), (31, 20204), (39, 20417), (44, 20468), (45, 20498),

Gene: Naval22_67 Start: 20536, Stop: 21231, Start Num: 8

Candidate Starts for Naval22_67:

(Start: 8 @20536 has 155 MA's), (Start: 13 @20635 has 2 MA's), (23, 20806), (29, 20908), (31, 20926), (39, 21139), (44, 21190), (45, 21220),

Gene: NedWong_62 Start: 19513, Stop: 20208, Start Num: 8

Candidate Starts for NedWong_62:

(Start: 8 @19513 has 155 MA's), (Start: 13 @19612 has 2 MA's), (23, 19783), (29, 19885), (31, 19903), (39, 20116), (44, 20167), (45, 20197),

Gene: Ngannou_55 Start: 17441, Stop: 18136, Start Num: 8

Candidate Starts for Ngannou_55:

(Start: 4 @17387 has 10 MA's), (Start: 8 @17441 has 155 MA's), (Start: 13 @17540 has 2 MA's), (19, 17696), (23, 17711), (25, 17744), (29, 17813), (31, 17831), (32, 17834), (33, 17840), (39, 18044), (44, 18095), (45, 18125),

Gene: Nidhogg_61 Start: 19367, Stop: 20062, Start Num: 8

Candidate Starts for Nidhogg_61:

(Start: 8 @19367 has 155 MA's), (Start: 13 @19466 has 2 MA's), (23, 19637), (29, 19739), (31, 19757), (39, 19970), (44, 20021), (45, 20051),

Gene: NoodleTree_61 Start: 19316, Stop: 20011, Start Num: 8

Candidate Starts for NoodleTree_61:

(Start: 4 @19262 has 10 MA's), (Start: 8 @19316 has 155 MA's), (Start: 13 @19415 has 2 MA's), (23, 19586), (29, 19688), (31, 19706), (39, 19919), (44, 19970), (45, 20000),

Gene: Norm_61 Start: 19514, Stop: 20209, Start Num: 8

Candidate Starts for Norm_61:

(Start: 8 @19514 has 155 MA's), (Start: 13 @19613 has 2 MA's), (23, 19784), (29, 19886), (31, 19904), (39, 20117), (44, 20168), (45, 20198),

Gene: NuevoMundo_66 Start: 20515, Stop: 21210, Start Num: 8

Candidate Starts for NuevoMundo_66:

(Start: 8 @20515 has 155 MA's), (Start: 13 @20614 has 2 MA's), (23, 20785), (29, 20887), (31, 20905), (39, 21118), (44, 21169), (45, 21199),

Gene: ParkTD_60 Start: 19513, Stop: 20208, Start Num: 8

Candidate Starts for ParkTD_60:

(Start: 8 @19513 has 155 MA's), (Start: 13 @19612 has 2 MA's), (23, 19783), (29, 19885), (31, 19903), (39, 20116), (44, 20167), (45, 20197),

Gene: Patter_60 Start: 18476, Stop: 19171, Start Num: 8

Candidate Starts for Patter_60:

(Start: 4 @18422 has 10 MA's), (Start: 8 @18476 has 155 MA's), (Start: 13 @18575 has 2 MA's), (19, 18731), (23, 18746), (25, 18779), (29, 18848), (31, 18866), (32, 18869), (33, 18875), (39, 19079), (44, 19130), (45, 19160),

Gene: Phlegm_62 Start: 18459, Stop: 19154, Start Num: 8

Candidate Starts for Phlegm_62:

(Start: 4 @18405 has 10 MA's), (Start: 8 @18459 has 155 MA's), (Start: 13 @18558 has 2 MA's), (19, 18714), (23, 18729), (25, 18762), (29, 18831), (31, 18849), (32, 18852), (33, 18858), (39, 19062), (44, 19113), (45, 19143),

Gene: Phox_59 Start: 20241, Stop: 20936, Start Num: 8

Candidate Starts for Phox_59:

(Start: 4 @20187 has 10 MA's), (Start: 8 @20241 has 155 MA's), (Start: 13 @20340 has 2 MA's), (23, 20511), (29, 20613), (31, 20631), (39, 20844), (44, 20895), (45, 20925),

Gene: Phusco_60 Start: 19269, Stop: 19964, Start Num: 8

Candidate Starts for Phusco_60:

(Start: 4 @19215 has 10 MA's), (Start: 8 @19269 has 155 MA's), (Start: 13 @19368 has 2 MA's), (19, 19524), (23, 19539), (25, 19572), (29, 19641), (31, 19659), (32, 19662), (33, 19668), (39, 19872), (44, 19923), (45, 19953),

Gene: Pier_63 Start: 19213, Stop: 19908, Start Num: 8

Candidate Starts for Pier_63:

(Start: 4 @19159 has 10 MA's), (Start: 8 @19213 has 155 MA's), (Start: 13 @19312 has 2 MA's), (19, 19468), (23, 19483), (25, 19516), (29, 19585), (31, 19603), (32, 19606), (33, 19612), (39, 19816), (44, 19867), (45, 19897),

Gene: Pinkcreek_53 Start: 17819, Stop: 18514, Start Num: 8

Candidate Starts for Pinkcreek_53:

(Start: 4 @17765 has 10 MA's), (Start: 8 @17819 has 155 MA's), (Start: 13 @17918 has 2 MA's), (19, 18074), (23, 18089), (25, 18122), (29, 18191), (31, 18209), (32, 18212), (33, 18218), (39, 18422), (44, 18473), (45, 18503),

Gene: Pio_65 Start: 20667, Stop: 21362, Start Num: 8

Candidate Starts for Pio_65:

(Start: 4 @20613 has 10 MA's), (Start: 8 @20667 has 155 MA's), (Start: 13 @20766 has 2 MA's), (19, 20922), (23, 20937), (25, 20970), (29, 21039), (31, 21057), (32, 21060), (33, 21066), (39, 21270), (44, 21321), (45, 21351),

Gene: Pivoine_59 Start: 18459, Stop: 19154, Start Num: 8

Candidate Starts for Pivoine_59:

(Start: 4 @18405 has 10 MA's), (Start: 8 @18459 has 155 MA's), (Start: 13 @18558 has 2 MA's), (19, 18714), (23, 18729), (25, 18762), (29, 18831), (31, 18849), (32, 18852), (33, 18858), (39, 19062), (44, 19113), (45, 19143),

Gene: Pleione_63 Start: 19512, Stop: 20207, Start Num: 8

Candidate Starts for Pleione_63:

(Start: 8 @19512 has 155 MA's), (Start: 13 @19611 has 2 MA's), (23, 19782), (29, 19884), (31, 19902), (39, 20115), (44, 20166), (45, 20196),

Gene: Pupper_181 Start: 131295, Stop: 132014, Start Num: 7

Candidate Starts for Pupper_181:

(Start: 7 @131295 has 2 MA's), (11, 131364), (12, 131391), (16, 131529), (17, 131535), (21, 131583), (29, 131703), (30, 131712), (31, 131721), (36, 131889), (40, 131922), (41, 131925),

Gene: PurduePete_60 Start: 19237, Stop: 19932, Start Num: 8

Candidate Starts for PurduePete_60:

(Start: 8 @19237 has 155 MA's), (Start: 13 @19336 has 2 MA's), (23, 19507), (29, 19609), (31, 19627), (39, 19840), (44, 19891), (45, 19921),

Gene: QBert_55 Start: 19250, Stop: 19945, Start Num: 8

Candidate Starts for QBert_55:

(Start: 4 @19196 has 10 MA's), (Start: 8 @19250 has 155 MA's), (Start: 13 @19349 has 2 MA's), (19, 19505), (23, 19520), (25, 19553), (29, 19622), (31, 19640), (32, 19643), (33, 19649), (39, 19853), (44, 19904), (45, 19934),

Gene: Quasimodo_60 Start: 19477, Stop: 20172, Start Num: 8

Candidate Starts for Quasimodo_60:

(Start: 4 @19423 has 10 MA's), (Start: 8 @19477 has 155 MA's), (Start: 13 @19576 has 2 MA's), (19, 19732), (23, 19747), (25, 19780), (29, 19849), (31, 19867), (32, 19870), (33, 19876), (39, 20080), (44, 20131), (45, 20161),

Gene: Rabinovish_60 Start: 20483, Stop: 21232, Start Num: 4

Candidate Starts for Rabinovish_60:

(Start: 4 @20483 has 10 MA's), (Start: 8 @20537 has 155 MA's), (Start: 13 @20636 has 2 MA's), (19, 20792), (23, 20807), (25, 20840), (29, 20909), (31, 20927), (32, 20930), (33, 20936), (39, 21140), (44, 21191), (45, 21221),

Gene: Rahel_61 Start: 18828, Stop: 19523, Start Num: 8

Candidate Starts for Rahel_61:

(Start: 4 @18774 has 10 MA's), (Start: 8 @18828 has 155 MA's), (Start: 13 @18927 has 2 MA's), (19, 19083), (23, 19098), (25, 19131), (29, 19200), (31, 19218), (32, 19221), (33, 19227), (39, 19431), (44, 19482), (45, 19512),

Gene: RedWattleHog_161 Start: 107048, Stop: 107791, Start Num: 6

Candidate Starts for RedWattleHog_161:

(1, 106913), (2, 106952), (3, 106988), (Start: 6 @107048 has 2 MA's), (9, 107081), (11, 107132), (Start: 13 @107165 has 2 MA's), (20, 107327), (22, 107336), (26, 107411), (32, 107456), (37, 107666), (38, 107669), (42, 107690), (46, 107771), (47, 107780),

Gene: Rizal_59 Start: 18430, Stop: 19125, Start Num: 8

Candidate Starts for Rizal_59:

(Start: 8 @18430 has 155 MA's), (Start: 13 @18529 has 2 MA's), (23, 18700), (29, 18802), (31, 18820), (39, 19033), (44, 19084), (45, 19114),

Gene: RoMag_55 Start: 18432, Stop: 19127, Start Num: 8

Candidate Starts for RoMag_55:

(Start: 4 @18378 has 10 MA's), (Start: 8 @18432 has 155 MA's), (Start: 13 @18531 has 2 MA's), (19, 18687), (23, 18702), (25, 18735), (29, 18804), (31, 18822), (32, 18825), (33, 18831), (39, 19035), (44, 19086), (45, 19116),

Gene: Ronan_55 Start: 17058, Stop: 17753, Start Num: 8

Candidate Starts for Ronan_55:

(Start: 4 @17004 has 10 MA's), (Start: 8 @17058 has 155 MA's), (Start: 13 @17157 has 2 MA's), (23, 17328), (29, 17430), (31, 17448), (39, 17661), (44, 17712), (45, 17742),

Gene: Roots515_60 Start: 19314, Stop: 20009, Start Num: 8

Candidate Starts for Roots515_60:

(Start: 8 @19314 has 155 MA's), (Start: 13 @19413 has 2 MA's), (23, 19584), (29, 19686), (31, 19704), (39, 19917), (44, 19968), (45, 19998),

Gene: SCentae_180 Start: 131487, Stop: 132206, Start Num: 7

Candidate Starts for SCentae_180:

(Start: 7 @131487 has 2 MA's), (11, 131556), (12, 131583), (16, 131721), (17, 131727), (21, 131775), (29, 131895), (30, 131904), (31, 131913), (36, 132081), (40, 132114), (41, 132117),

Gene: Salacia_63 Start: 19513, Stop: 20208, Start Num: 8

Candidate Starts for Salacia_63:

(Start: 8 @19513 has 155 MA's), (Start: 13 @19612 has 2 MA's), (23, 19783), (29, 19885), (31, 19903), (39, 20116), (44, 20167), (45, 20197),

Gene: Sauce_62 Start: 19459, Stop: 20154, Start Num: 8

Candidate Starts for Sauce_62:

(Start: 4 @19405 has 10 MA's), (Start: 8 @19459 has 155 MA's), (Start: 13 @19558 has 2 MA's), (23, 19729), (29, 19831), (31, 19849), (39, 20062), (44, 20113), (45, 20143),

Gene: ScottMcG_59 Start: 19291, Stop: 19986, Start Num: 8

Candidate Starts for ScottMcG_59:

(Start: 4 @19237 has 10 MA's), (Start: 8 @19291 has 155 MA's), (Start: 13 @19390 has 2 MA's), (23, 19561), (29, 19663), (31, 19681), (39, 19894), (44, 19945), (45, 19975),

Gene: Sebata_63 Start: 20385, Stop: 21080, Start Num: 8

Candidate Starts for Sebata_63:

(Start: 8 @20385 has 155 MA's), (Start: 13 @20484 has 2 MA's), (19, 20640), (23, 20655), (25, 20688), (29, 20757), (31, 20775), (32, 20778), (33, 20784), (39, 20988), (44, 21039), (45, 21069),

Gene: Shaqnato_55 Start: 17981, Stop: 18676, Start Num: 8

Candidate Starts for Shaqnato_55:

(Start: 4 @17927 has 10 MA's), (Start: 8 @17981 has 155 MA's), (Start: 13 @18080 has 2 MA's), (23, 18251), (29, 18353), (31, 18371), (39, 18584), (44, 18635), (45, 18665),

Gene: Shelob_63 Start: 20505, Stop: 21200, Start Num: 8

Candidate Starts for Shelob_63:

(Start: 4 @20451 has 10 MA's), (Start: 8 @20505 has 155 MA's), (Start: 13 @20604 has 2 MA's), (23, 20775), (29, 20877), (31, 20895), (39, 21108), (44, 21159), (45, 21189),

Gene: ShiaLabeouf_60 Start: 18896, Stop: 19591, Start Num: 8

Candidate Starts for ShiaLabeouf_60:

(Start: 4 @18842 has 10 MA's), (Start: 8 @18896 has 155 MA's), (Start: 13 @18995 has 2 MA's), (19, 19151), (23, 19166), (25, 19199), (29, 19268), (31, 19286), (32, 19289), (33, 19295), (39, 19499), (44, 19550), (45, 19580),

Gene: Shifa_54 Start: 18366, Stop: 19061, Start Num: 8

Candidate Starts for Shifa_54:

(Start: 4 @18312 has 10 MA's), (Start: 8 @18366 has 155 MA's), (Start: 13 @18465 has 2 MA's), (19, 18621), (23, 18636), (25, 18669), (29, 18738), (31, 18756), (32, 18759), (33, 18765), (39, 18969), (44, 19020), (45, 19050),

Gene: Shnickers_60 Start: 18455, Stop: 19150, Start Num: 8

Candidate Starts for Shnickers_60:

(Start: 4 @18401 has 10 MA's), (Start: 8 @18455 has 155 MA's), (Start: 13 @18554 has 2 MA's), (19, 18710), (23, 18725), (25, 18758), (29, 18827), (31, 18845), (32, 18848), (33, 18854), (39, 19058), (44, 19109), (45, 19139),

Gene: Shrimp_61 Start: 19517, Stop: 20212, Start Num: 8

Candidate Starts for Shrimp_61:

(Start: 8 @19517 has 155 MA's), (Start: 13 @19616 has 2 MA's), (23, 19787), (29, 19889), (31, 19907), (39, 20120), (44, 20171), (45, 20201),

Gene: SilverDipper_61 Start: 18459, Stop: 19154, Start Num: 8

Candidate Starts for SilverDipper_61:

(Start: 4 @18405 has 10 MA's), (Start: 8 @18459 has 155 MA's), (Start: 13 @18558 has 2 MA's), (19, 18714), (23, 18729), (25, 18762), (29, 18831), (31, 18849), (32, 18852), (33, 18858), (39, 19062), (44, 19113), (45, 19143),

Gene: SmallFry_60 Start: 18455, Stop: 19150, Start Num: 8

Candidate Starts for SmallFry_60:

(Start: 4 @18401 has 10 MA's), (Start: 8 @18455 has 155 MA's), (Start: 13 @18554 has 2 MA's), (19, 18710), (23, 18725), (25, 18758), (29, 18827), (31, 18845), (32, 18848), (33, 18854), (39, 19058), (44, 19109), (45, 19139),

Gene: Spec_58 Start: 18599, Stop: 19294, Start Num: 8

Candidate Starts for Spec_58:

(Start: 8 @18599 has 155 MA's), (Start: 13 @18698 has 2 MA's), (19, 18854), (23, 18869), (25, 18902), (29, 18971), (31, 18989), (32, 18992), (33, 18998), (39, 19202), (44, 19253), (45, 19283),

Gene: Specks_66 Start: 20988, Stop: 21683, Start Num: 8

Candidate Starts for Specks_66:

(Start: 4 @20934 has 10 MA's), (Start: 8 @20988 has 155 MA's), (Start: 13 @21087 has 2 MA's), (23, 21258), (29, 21360), (31, 21378), (39, 21591), (44, 21642), (45, 21672),

Gene: Sprinklers_57 Start: 18431, Stop: 19126, Start Num: 8

Candidate Starts for Sprinklers_57:

(Start: 4 @18377 has 10 MA's), (Start: 8 @18431 has 155 MA's), (Start: 13 @18530 has 2 MA's), (19, 18686), (23, 18701), (25, 18734), (29, 18803), (31, 18821), (32, 18824), (33, 18830), (39, 19034), (44, 19085), (45, 19115),

Gene: Spud_61 Start: 19828, Stop: 20523, Start Num: 8

Candidate Starts for Spud_61:

(Start: 8 @19828 has 155 MA's), (Start: 13 @19927 has 2 MA's), (23, 20098), (29, 20200), (31, 20218), (39, 20431), (44, 20482), (45, 20512),

Gene: SrishMeg2525_60 Start: 19224, Stop: 19919, Start Num: 8

Candidate Starts for SrishMeg2525_60:

(Start: 8 @19224 has 155 MA's), (Start: 13 @19323 has 2 MA's), (23, 19494), (29, 19596), (31, 19614), (39, 19827), (44, 19878), (45, 19908),

Gene: StAugustine_191 Start: 100406, Stop: 99534, Start Num: 5

Candidate Starts for StAugustine_191:

(5, 100406), (9, 100337), (10, 100304), (14, 100205), (15, 100184), (16, 100124), (24, 100028), (27, 99965), (28, 99962), (32, 99938), (36, 99755), (43, 99689), (48, 99581),

Gene: StephanieG_61 Start: 19831, Stop: 20526, Start Num: 8

Candidate Starts for StephanieG_61:

(Start: 4 @19777 has 10 MA's), (Start: 8 @19831 has 155 MA's), (Start: 13 @19930 has 2 MA's), (19, 20086), (23, 20101), (25, 20134), (29, 20203), (31, 20221), (32, 20224), (33, 20230), (39, 20434), (44, 20485), (45, 20515),

Gene: Stormageddon_162 Start: 108013, Stop: 108756, Start Num: 6

Candidate Starts for Stormageddon_162:

(Start: 6 @108013 has 2 MA's), (9, 108046), (11, 108097), (Start: 13 @108130 has 2 MA's), (20, 108292), (22, 108301), (26, 108376), (32, 108421), (37, 108631), (38, 108634), (42, 108655), (46, 108736), (47, 108745),

Gene: Stubby_56 Start: 19150, Stop: 19845, Start Num: 8

Candidate Starts for Stubby_56:

(Start: 4 @19096 has 10 MA's), (Start: 8 @19150 has 155 MA's), (Start: 13 @19249 has 2 MA's), (19, 19405), (23, 19420), (25, 19453), (29, 19522), (31, 19540), (32, 19543), (33, 19549), (39, 19753), (44, 19804), (45, 19834),

Gene: StubbySaigey_60 Start: 18153, Stop: 18848, Start Num: 8

Candidate Starts for StubbySaigey_60:

(Start: 8 @18153 has 155 MA's), (Start: 13 @18252 has 2 MA's), (23, 18423), (29, 18525), (31, 18543), (39, 18756), (44, 18807), (45, 18837),

Gene: Teardrop_60 Start: 18312, Stop: 19007, Start Num: 8

Candidate Starts for Teardrop_60:

(Start: 4 @18258 has 10 MA's), (Start: 8 @18312 has 155 MA's), (Start: 13 @18411 has 2 MA's), (23, 18582), (29, 18684), (31, 18702), (39, 18915), (44, 18966), (45, 18996),

Gene: TinyTim_61 Start: 19513, Stop: 20208, Start Num: 8

Candidate Starts for TinyTim_61:

(Start: 8 @19513 has 155 MA's), (Start: 13 @19612 has 2 MA's), (23, 19783), (29, 19885), (31, 19903), (39, 20116), (44, 20167), (45, 20197),

Gene: Tonenili_70 Start: 21859, Stop: 22554, Start Num: 8

Candidate Starts for Tonenili_70:

(Start: 8 @21859 has 155 MA's), (Start: 13 @21958 has 2 MA's), (18, 22108), (29, 22231), (31, 22249), (32, 22252), (34, 22294), (39, 22462), (44, 22513), (45, 22543),

Gene: Tortoise16_58 Start: 18963, Stop: 19658, Start Num: 8

Candidate Starts for Tortoise16_58:

(Start: 4 @18909 has 10 MA's), (Start: 8 @18963 has 155 MA's), (Start: 13 @19062 has 2 MA's), (19, 19218), (23, 19233), (25, 19266), (29, 19335), (31, 19353), (32, 19356), (33, 19362), (39, 19566), (44, 19617), (45, 19647),

Gene: Trinitium_56 Start: 17916, Stop: 18611, Start Num: 8

Candidate Starts for Trinitium_56:

(Start: 8 @17916 has 155 MA's), (Start: 13 @18015 has 2 MA's), (19, 18171), (23, 18186), (25, 18219), (29, 18288), (31, 18306), (32, 18309), (33, 18315), (39, 18519), (44, 18570), (45, 18600),

Gene: Turret_55 Start: 17640, Stop: 18335, Start Num: 8

Candidate Starts for Turret_55:

(Start: 8 @17640 has 155 MA's), (Start: 13 @17739 has 2 MA's), (19, 17895), (23, 17910), (25, 17943), (29, 18012), (31, 18030), (32, 18033), (33, 18039), (39, 18243), (44, 18294), (45, 18324),

Gene: Tyke_62 Start: 19867, Stop: 20562, Start Num: 8

Candidate Starts for Tyke_62:

(Start: 4 @19813 has 10 MA's), (Start: 8 @19867 has 155 MA's), (Start: 13 @19966 has 2 MA's), (19, 20122), (23, 20137), (25, 20170), (29, 20239), (31, 20257), (32, 20260), (33, 20266), (39, 20470), (44, 20521), (45, 20551),

Gene: ValleyTerrace_60 Start: 18459, Stop: 19154, Start Num: 8

Candidate Starts for ValleyTerrace_60:

(Start: 4 @18405 has 10 MA's), (Start: 8 @18459 has 155 MA's), (Start: 13 @18558 has 2 MA's), (19, 18714), (23, 18729), (25, 18762), (29, 18831), (31, 18849), (32, 18852), (33, 18858), (39, 19062), (44, 19113), (45, 19143),

Gene: Wally_59 Start: 18068, Stop: 18763, Start Num: 8

Candidate Starts for Wally_59:

(Start: 8 @18068 has 155 MA's), (Start: 13 @18167 has 2 MA's), (23, 18338), (29, 18440), (31, 18458), (39, 18671), (44, 18722), (45, 18752),

Gene: Willis_61 Start: 19408, Stop: 20103, Start Num: 8

Candidate Starts for Willis_61:

(Start: 8 @19408 has 155 MA's), (Start: 13 @19507 has 2 MA's), (23, 19678), (29, 19780), (31, 19798), (39, 20011), (44, 20062), (45, 20092),

Gene: Yassified_58 Start: 18818, Stop: 19513, Start Num: 8

Candidate Starts for Yassified_58:

(Start: 4 @18764 has 10 MA's), (Start: 8 @18818 has 155 MA's), (Start: 13 @18917 has 2 MA's), (23, 19088), (25, 19121), (29, 19190), (31, 19208), (32, 19211), (33, 19217), (39, 19421), (44, 19472), (45, 19502),

Gene: YemiJoy2021_61 Start: 19194, Stop: 19889, Start Num: 8

Candidate Starts for YemiJoy2021_61:

(Start: 8 @19194 has 155 MA's), (Start: 13 @19293 has 2 MA's), (23, 19464), (29, 19566), (31, 19584), (39, 19797), (44, 19848), (45, 19878),

Gene: YoungMoneyMata_60 Start: 18210, Stop: 18905, Start Num: 8

Candidate Starts for YoungMoneyMata_60:

(Start: 4 @18156 has 10 MA's), (Start: 8 @18210 has 155 MA's), (Start: 13 @18309 has 2 MA's), (19, 18465), (23, 18480), (25, 18513), (29, 18582), (31, 18600), (32, 18603), (33, 18609), (39, 18813), (44, 18864), (45, 18894),

Gene: Yucca_61 Start: 19435, Stop: 20130, Start Num: 8

Candidate Starts for Yucca_61:

(Start: 8 @19435 has 155 MA's), (Start: 13 @19534 has 2 MA's), (23, 19705), (29, 19807), (31, 19825), (39, 20038), (44, 20089), (45, 20119),

Gene: Zalkecks_62 Start: 19198, Stop: 19893, Start Num: 8

Candidate Starts for Zalkecks_62:

(Start: 8 @19198 has 155 MA's), (Start: 13 @19297 has 2 MA's), (23, 19468), (29, 19570), (31, 19588), (39, 19801), (44, 19852), (45, 19882),

Gene: Zeenon_63 Start: 19500, Stop: 20195, Start Num: 8

Candidate Starts for Zeenon_63:

(Start: 8 @19500 has 155 MA's), (Start: 13 @19599 has 2 MA's), (23, 19770), (29, 19872), (31, 19890), (39, 20103), (44, 20154), (45, 20184),

Gene: ZygoTaiga_61 Start: 19514, Stop: 20209, Start Num: 8

Candidate Starts for ZygoTaiga_61:

(Start: 8 @19514 has 155 MA's), (Start: 13 @19613 has 2 MA's), (23, 19784), (29, 19886), (31, 19904), (39, 20117), (44, 20168), (45, 20198),