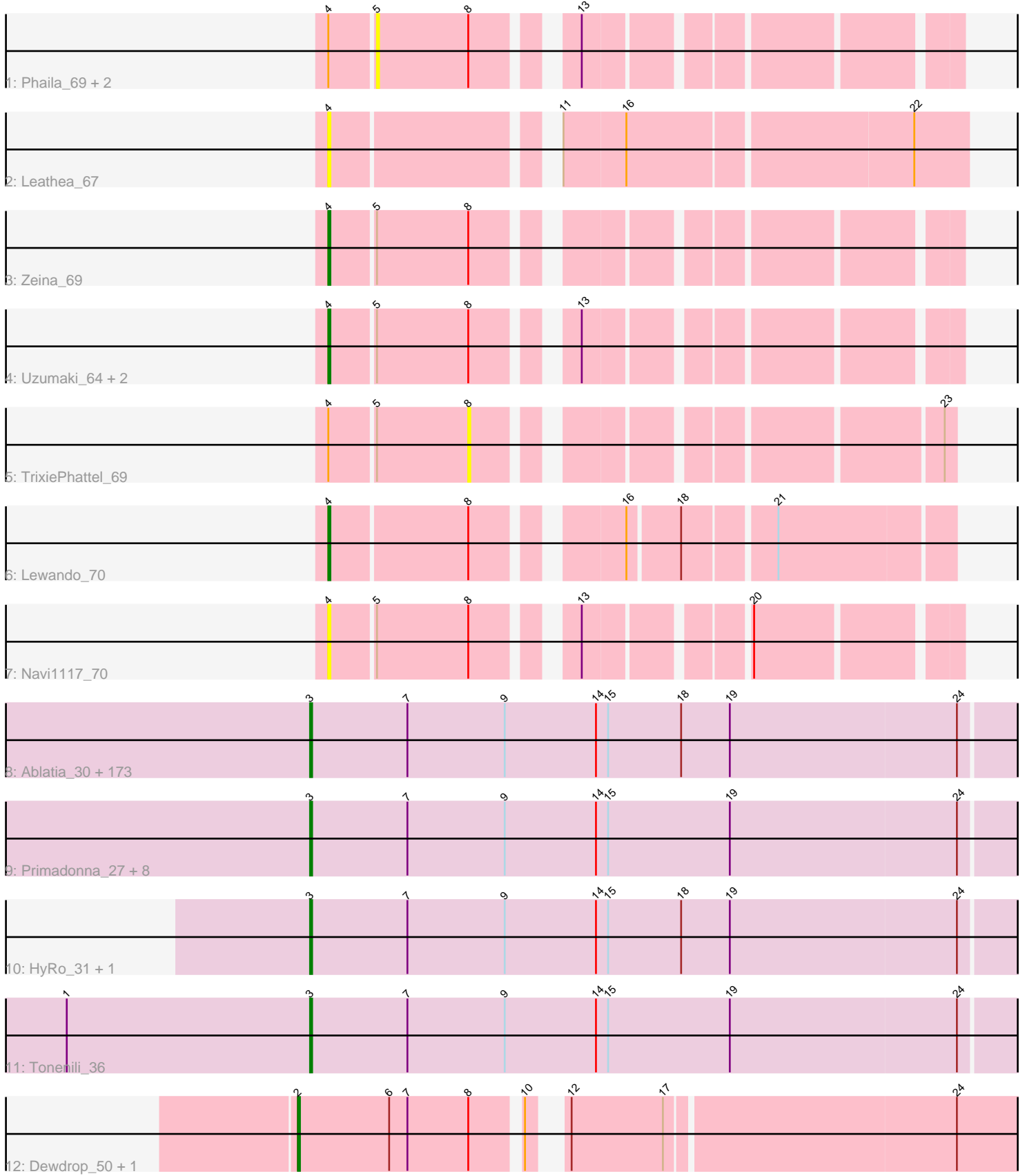


Pham 224304



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 224304 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224304 has 199 members, 30 are drafts.

Phages represented in each track:

- Track 1 : Phaila_69, Tenney120_70, KevinMinion_66
- Track 2 : Leathea_67
- Track 3 : Zeina_69
- Track 4 : Uzumaki_64, GantcherGoblin_65, Argan_64
- Track 5 : TrixiePhattel_69
- Track 6 : Lewando_70
- Track 7 : Navi1117_70
- Track 8 : Ablatia_30, MoMoMixon_33, Matsumoto_31, Gizmo_34, Astraea_33, Blackbrain_30, Rahel_32, JayJay_35, Darko_31, Maby2021_33, IkeLoa_28, LifeSavor_33, Essence_31, Caravan_30, Pio_35, ArcherS7_31, Grungle_25, Drazdys_32, Mangeria_35, McWolfish_31, Ewok_32, Phlegm_34, DTDevon_33, Napoleon13_31, YemiJoy2021_33, Iota_29, Phox_31, Bangla1971_31, Kboogie_32, Asterius_33, Specks_37, Lee7_31, ET08_27, Pleione_34, Fludd_31, Tortoise16_31, InigoMontoya_33, Issimir_32, Adlitam_32, JustHall_31, Morizzled23_31, Ading_32, Shrimp_32, ChickenPhender_31, Amataga_32, EmToTheThree_35, Bigswole_38, PurduePete_31, Koguma_28, Izajani_33, CindyLou_32, InterFolia_39, Turret_30, Rizal_30, Shnickers_32, ChaylaJr_31, NedWong_33, SilverDipper_33, CharlieB_32, Tyke_34, Zalkecks_34, Trinitium_31, Bxz1_32, Pier_34, JigglyPuff_32, SrishMeg2525_31, LRRHood_29, Daffodil_34, TinyTim_32, Cactojaque_29, Bread_33, SmallFry_32, Phusco_32, Delilah_32, Halldule_28, EggyFarm_36, Littleton_32, Concombre_31, Yucca_32, Spud_34, Atlantean_32, Shaqnato_28, Janiyra_32, Norm_32, Khaleesi_31, Sauce_33, Catera_30, ParkTD_31, ErnieJ_33, MikeLiesIn_32, Burrough_32, Sprinklers_32, Ronan_27, Fongie_32, Teardrop_31, LolaVinca_35, FoxtrotP1_32, ShiaLabeouf_32, Jezreel_31, ValleyTerrace_32, Chomp_32, Gamgam_32, Derek_33, Basquiat_31, Capablanca_34, BigCity_36, JulietS_27, Breeniome_32, YoungMoneyMata_32, Jessibeth14_31, Momo_31, Jedediah_32, BananaFence_33, Gabriel_32, Loanshark_32, Ghost_32, NoodleTree_31, EmmaElysia_30, Lethe_31, Babyland_31, Erdmann_33, SVoro_31, EasyJones_31, Kamryn_32, Blackdragon_27, Nidhogg_33, Guwapp_32, Dandelion_36, Patter_32, Cali_32, FudgeTart_33, Spec_30, RoMag_27, Melpomini_31, Latch_32, Audrick_34, StubbySaigey_31, DrPhinkDaddy_32, Demodog_30, Sebata_32, Willis_32, Pivoine_32, Jemmno_32, Bipolarisk_31, Naval22_34, JPickles_30, Yassified_29, Nappy_33, Belieber_28, Grasshills_36, Salacia_34, BadAgartude_33, Wally_31, Naija_32, Mikro_30, Quasimodo_32, QBert_30, McGee_31, BeanWater_28, Ngannou_30, ScottMcG_32, ZygoTaiga_32, Lukilu_25, GlutenPhree_30, BackyardAgain_29, Zeenon_34, Megamind_32, Ava3_33, StephanieG_32, NuevoMundo_35, Chargie21_31, Bonray_32, Jaygup_32,

Roots515_32

- Track 9 : Primadonna_27, FrayBell_38, Dietrick_27, Tainan_37, DirtMonster_31, Blubba_26, LordLeafolot_37, Domi_27, I3_34
- Track 10 : HyRo_31, Shifa_29
- Track 11 : Tonenili_36
- Track 12 : Dewdrop_50, Leaf_50

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

The start number called the most often in the published annotations is 3, it was called in 162 of the 169 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ablatia_30, Ading_32, Adlitam_32, Amataga_32, ArcherS7_31, Asterius_33, Astraea_33, Atlantean_32, Audrick_34, Ava3_33, Babyland_31, BackyardAgain_29, BadAgartude_33, BananaFence_33, Bangla1971_31, Basquiat_31, BeanWater_28, Belieber_28, BigCity_36, Bigswole_38, Bipolarisk_31, Blackbrain_30, Blackdragon_27, Blubba_26, Bonray_32, Bread_33, Breeniome_32, Burrough_32, Bxz1_32, Cactojaque_29, Cali_32, Capablanca_34, Caravan_30, Catera_30, Chargie21_31, CharlieB_32, ChaylaJr_31, ChickenPhender_31, Chomp_32, CindyLou_32, Concombre_31, DTDevon_33, Daffodil_34, Dandelion_36, Darko_31, Delilah_32, Demodog_30, Derek_33, Dietrick_27, DirtMonster_31, Domi_27, DrPhinkDaddy_32, Drazdys_32, ET08_27, EasyJones_31, EggyFarm_36, EmToTheThree_35, EmmaElysia_30, Erdmann_33, ErnieJ_33, Essence_31, Ewok_32, Fludd_31, Fongie_32, FoxtrotP1_32, FrayBell_38, FudgeTart_33, Gabriel_32, Gamgam_32, Ghost_32, Gizmo_34, GlutenPhree_30, Grasshills_36, Grungle_25, Guwapp_32, Halldule_28, HyRo_31, I3_34, IkeLoa_28, InigoMontoya_33, InterFolia_39, Iota_29, Issimir_32, Izajani_33, JPickles_30, Janiyra_32, JayJay_35, Jaygup_32, Jedediah_32, Jemmno_32, Jessibeth14_31, Jezreel_31, JigglyPuff_32, JulietS_27, JustHall_31, Kamryn_32, Kboogie_32, Khaleesi_31, Koguma_28, LRRHood_29, Latch_32, Lee7_31, Lethe_31, LifeSavor_33, Littleton_32, Loanshark_32, LolaVinca_35, LordLeafolot_37, Lukilu_25, Maby2021_33, Mangeria_35, Matsumoto_31, McGee_31, McWolfish_31, Megamind_32, Melpomini_31, MikeLiesIn_32, Mikro_30, MoMoMixon_33, Momo_31, Morizzled23_31, Naija_32, Napoleon13_31, Nappy_33, Naval22_34, NedWong_33, Ngannou_30, Nidhogg_33, NoodleTree_31, Norm_32, NuevoMundo_35, ParkTD_31, Patter_32, Phlegm_34, Phox_31, Phusco_32, Pier_34, Pio_35, Pivoine_32, Pleione_34, Primadonna_27, PurduePete_31, QBert_30, Quasimodo_32, Rahel_32, Rizal_30, RoMag_27, Ronan_27, Roots515_32, SVoro_31, Salacia_34, Sauce_33, ScottMcG_32, Sebata_32, Shaqnato_28, ShiaLabeouf_32, Shifa_29, Shnickers_32, Shrimp_32, SilverDipper_33, SmallFry_32, Spec_30, Specks_37, Sprinklers_32, Spud_34, SrishMeg2525_31, StephanieG_32, StubbySaigey_31, Tainan_37, Teardrop_31, TinyTim_32, Tonenili_36, Tortoise16_31, Trinitium_31, Turret_30, Tyke_34, ValleyTerrace_32, Wally_31, Willis_32, Yassified_29, YemiJoy2021_33, YoungMoneyMata_32, Yucca_32, Zalkecks_34, Zeenon_34, ZygoTaiga_32,

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

-

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

• Argan_64, Dewdrop_50, GantcherGoblin_65, KevinMinion_66, Leaf_50, Leathea_67, Lewando_70, Navi1117_70, Phaila_69, Tenney120_70, TrixiePhattel_69, Uzumaki_64, Zeina_69,

Summary by start number:

Start 2:

- Found in 2 of 199 (1.0%) of genes in pham
- Manual Annotations of this start: 2 of 169
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dewdrop_50 (GC), Leaf_50 (GC),

Start 3:

- Found in 186 of 199 (93.5%) of genes in pham
- Manual Annotations of this start: 162 of 169
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ablatia_30 (C1), Ading_32 (C1), Adlitam_32 (C1), Amataga_32 (C1), ArcherS7_31 (C1), Asterius_33 (C1), Astraea_33 (C1), Atlantean_32 (C1), Audrick_34 (C1), Ava3_33 (C1), Babyland_31 (C1), BackyardAgain_29 (C1), BadAgartude_33 (C1), BananaFence_33 (C1), Bangla1971_31 (C1), Basquiat_31 (C1), BeanWater_28 (C1), Belieber_28 (C1), BigCity_36 (C1), Bigswole_38 (C1), Bipolarisk_31 (C1), Blackbrain_30 (C1), Blackdragon_27 (C1), Blubba_26 (C1), Bonray_32 (C1), Bread_33 (C1), Breeniome_32 (C1), Burrough_32 (C1), Bxz1_32 (C1), Cactojaque_29 (C1), Cali_32 (C1), Capablanca_34 (C1), Caravan_30 (C1), Catera_30 (C1), Chargie21_31 (C1), CharlieB_32 (C1), ChaylaJr_31 (C1), ChickenPhender_31 (C1), Chomp_32 (C1), CindyLou_32 (C1), Concombre_31 (C1), DTDevon_33 (C1), Daffodil_34 (C1), Dandelion_36 (C1), Darko_31 (C1), Delilah_32 (C1), Demodog_30 (C1), Derek_33 (C1), Dietrick_27 (C1), DirtMonster_31 (C1), Domi_27 (C1), DrPhinkDaddy_32 (C1), Drazdys_32 (C1), ET08_27 (C1), EasyJones_31 (C1), EggyFarm_36 (C1), EmToTheThree_35 (C1), EmmaElysia_30 (C1), Erdmann_33 (C1), ErnieJ_33 (C1), Essence_31 (C1), Ewok_32 (C1), Fludd_31 (C1), Fongie_32 (C1), FoxtrotP1_32 (C1), FrayBell_38 (C1), FudgeTart_33 (C1), Gabriel_32 (C1), Gamgam_32 (C1), Ghost_32 (C1), Gizmo_34 (C1), GlutenPhree_30 (C1), Grasshills_36 (C1), Grungle_25 (C1), Guwapp_32 (C1), Halldule_28 (C1), HyRo_31 (C1), I3_34 (C1), IkeLoa_28 (C1), InigoMontoya_33 (C1), InterFolia_39 (C1), Iota_29 (C1), Issimir_32 (C1), Izajani_33 (C1), JPickles_30 (C1), Janiyra_32 (C1), JayJay_35 (C1), Jaygup_32 (C1), Jedediah_32 (C1), Jemmno_32 (C1), Jessibeth14_31 (C1), Jezreel_31 (C1), JigglyPuff_32 (C1), JulietS_27 (C1), JustHall_31 (C1), Kamryn_32 (C1), Kboogie_32 (C1), Khaleesi_31 (C1), Koguma_28 (C1), LRRHood_29 (C1), Latch_32 (C1), Lee7_31 (C1), Lethe_31 (C1), LifeSavor_33 (C1), Littleton_32 (C1), Loanshark_32 (C1), LolaVinca_35 (C1), LordLeafolot_37 (C1), Lukilu_25 (C1), Maby2021_33 (C1), Mangeria_35 (C1), Matsumoto_31 (C1), McGee_31 (C1), McWolfish_31 (C1), Megamind_32 (C1), Melpomini_31 (C1), MikeLiesIn_32 (C1), Mikro_30 (C1), MoMoMixon_33 (C1), Momo_31 (C1), Morizzled23_31 (C1), Naija_32 (C1), Napoleon13_31 (C1), Nappy_33 (C1), Naval22_34 (C1), NedWong_33 (C1), Ngannou_30 (C1), Nidhogg_33 (C1), NoodleTree_31 (C1), Norm_32 (C1), NuevoMundo_35 (C1), ParkTD_31 (C1), Patter_32 (C1), Phlegm_34 (C1), Phox_31 (C1), Phusco_32 (C1), Pier_34 (C1), Pio_35 (C1), Pivoine_32 (C1), Pleione_34 (C1), Primadonna_27 (C1), PurduePete_31 (C1), QBert_30 (C1), Quasimodo_32 (C1), Rahel_32 (C1), Rizal_30 (C1), RoMag_27 (C1), Ronan_27 (C1), Roots515_32 (C1), SVoro_31 (C1), Salacia_34 (C1), Sauce_33 (C1), ScottMcG_32 (C1), Sebata_32 (C1), Shaqnato_28 (C1), ShiaLabeouf_32 (C1), Shifa_29 (C1), Shnickers_32 (C1),

Shrimp_32 (C1), SilverDipper_33 (C1), SmallFry_32 (C1), Spec_30 (C1), Specks_37 (C1), Sprinklers_32 (C1), Spud_34 (C1), SrishMeg2525_31 (C1), StephanieG_32 (C1), StubbySaigey_31 (C1), Tainan_37 (C1), Teardrop_31 (C1), TinyTim_32 (C1), Tonenili_36 (C1), Tortoise16_31 (C1), Trinitium_31 (C1), Turret_30 (C1), Tyke_34 (C1), ValleyTerrace_32 (C1), Wally_31 (C1), Willis_32 (C1), Yassified_29 (C1), YemiJoy2021_33 (C1), YoungMoneyMata_32 (C1), Yucca_32 (C1), Zalkecks_34 (C1), Zeenon_34 (C1), ZygoTaiga_32 (C1),

Start 4:

- Found in 11 of 199 (5.5%) of genes in pham
- Manual Annotations of this start: 5 of 169
- Called 63.6% of time when present
- Phage (with cluster) where this start called: Argan_64 (AU6), GantcherGoblin_65 (AU6), Leathea_67 (AU6), Lewando_70 (AU6), Navi1117_70 (AU6), Uzumaki_64 (AU6), Zeina_69 (AU6),

Start 5:

- Found in 9 of 199 (4.5%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: KevinMinion_66 (AU6), Phaila_69 (AU6), Tenney120_70 (AU6),

Start 8:

- Found in 12 of 199 (6.0%) of genes in pham
- No Manual Annotations of this start.
- Called 8.3% of time when present
- Phage (with cluster) where this start called: TrixiePhattel_69 (AU6),

Summary by clusters:

There are 3 clusters represented in this pham: C1, GC, AU6,

Info for manual annotations of cluster AU6:

- Start number 4 was manually annotated 5 times for cluster AU6.

Info for manual annotations of cluster C1:

- Start number 3 was manually annotated 162 times for cluster C1.

Info for manual annotations of cluster GC:

- Start number 2 was manually annotated 2 times for cluster GC.

Gene Information:

Gene: Ablatia_30 Start: 10089, Stop: 10439, Start Num: 3

Candidate Starts for Ablatia_30:

(Start: 3 @10089 has 162 MA's), (7, 10137), (9, 10185), (14, 10230), (15, 10236), (18, 10272), (19, 10296), (24, 10407),

Gene: Ading_32 Start: 10352, Stop: 10702, Start Num: 3

Candidate Starts for Ading_32:

(Start: 3 @10352 has 162 MA's), (7, 10400), (9, 10448), (14, 10493), (15, 10499), (18, 10535), (19, 10559), (24, 10670),

Gene: Adlitam_32 Start: 10369, Stop: 10719, Start Num: 3

Candidate Starts for Adlitam_32:

(Start: 3 @10369 has 162 MA's), (7, 10417), (9, 10465), (14, 10510), (15, 10516), (18, 10552), (19, 10576), (24, 10687),

Gene: Amataga_32 Start: 10373, Stop: 10723, Start Num: 3

Candidate Starts for Amataga_32:

(Start: 3 @10373 has 162 MA's), (7, 10421), (9, 10469), (14, 10514), (15, 10520), (18, 10556), (19, 10580), (24, 10691),

Gene: ArcherS7_31 Start: 10363, Stop: 10713, Start Num: 3

Candidate Starts for ArcherS7_31:

(Start: 3 @10363 has 162 MA's), (7, 10411), (9, 10459), (14, 10504), (15, 10510), (18, 10546), (19, 10570), (24, 10681),

Gene: Argan_64 Start: 42700, Stop: 42966, Start Num: 4

Candidate Starts for Argan_64:

(Start: 4 @42700 has 5 MA's), (5, 42721), (8, 42766), (13, 42805),

Gene: Asterius_33 Start: 10638, Stop: 10988, Start Num: 3

Candidate Starts for Asterius_33:

(Start: 3 @10638 has 162 MA's), (7, 10686), (9, 10734), (14, 10779), (15, 10785), (18, 10821), (19, 10845), (24, 10956),

Gene: Astraea_33 Start: 10543, Stop: 10893, Start Num: 3

Candidate Starts for Astraea_33:

(Start: 3 @10543 has 162 MA's), (7, 10591), (9, 10639), (14, 10684), (15, 10690), (18, 10726), (19, 10750), (24, 10861),

Gene: Atlantean_32 Start: 10373, Stop: 10723, Start Num: 3

Candidate Starts for Atlantean_32:

(Start: 3 @10373 has 162 MA's), (7, 10421), (9, 10469), (14, 10514), (15, 10520), (18, 10556), (19, 10580), (24, 10691),

Gene: Audrick_34 Start: 10352, Stop: 10702, Start Num: 3

Candidate Starts for Audrick_34:

(Start: 3 @10352 has 162 MA's), (7, 10400), (9, 10448), (14, 10493), (15, 10499), (18, 10535), (19, 10559), (24, 10670),

Gene: Ava3_33 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for Ava3_33:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),

Gene: Babyland_31 Start: 9811, Stop: 10161, Start Num: 3

Candidate Starts for Babyland_31:

(Start: 3 @9811 has 162 MA's), (7, 9859), (9, 9907), (14, 9952), (15, 9958), (18, 9994), (19, 10018), (24, 10129),

Gene: BackyardAgain_29 Start: 9792, Stop: 10142, Start Num: 3

Candidate Starts for BackyardAgain_29:

(Start: 3 @9792 has 162 MA's), (7, 9840), (9, 9888), (14, 9933), (15, 9939), (18, 9975), (19, 9999), (24, 10110),

Gene: BadAgartude_33 Start: 11005, Stop: 11355, Start Num: 3

Candidate Starts for BadAgartude_33:

(Start: 3 @11005 has 162 MA's), (7, 11053), (9, 11101), (14, 11146), (15, 11152), (18, 11188), (19, 11212), (24, 11323),

Gene: BananaFence_33 Start: 10802, Stop: 11152, Start Num: 3

Candidate Starts for BananaFence_33:

(Start: 3 @10802 has 162 MA's), (7, 10850), (9, 10898), (14, 10943), (15, 10949), (18, 10985), (19, 11009), (24, 11120),

Gene: Bangla1971_31 Start: 10369, Stop: 10719, Start Num: 3

Candidate Starts for Bangla1971_31:

(Start: 3 @10369 has 162 MA's), (7, 10417), (9, 10465), (14, 10510), (15, 10516), (18, 10552), (19, 10576), (24, 10687),

Gene: Basquiat_31 Start: 9792, Stop: 10142, Start Num: 3

Candidate Starts for Basquiat_31:

(Start: 3 @9792 has 162 MA's), (7, 9840), (9, 9888), (14, 9933), (15, 9939), (18, 9975), (19, 9999), (24, 10110),

Gene: BeanWater_28 Start: 10762, Stop: 11112, Start Num: 3

Candidate Starts for BeanWater_28:

(Start: 3 @10762 has 162 MA's), (7, 10810), (9, 10858), (14, 10903), (15, 10909), (18, 10945), (19, 10969), (24, 11080),

Gene: Belieber_28 Start: 9559, Stop: 9909, Start Num: 3

Candidate Starts for Belieber_28:

(Start: 3 @9559 has 162 MA's), (7, 9607), (9, 9655), (14, 9700), (15, 9706), (18, 9742), (19, 9766), (24, 9877),

Gene: BigCity_36 Start: 11898, Stop: 12248, Start Num: 3

Candidate Starts for BigCity_36:

(Start: 3 @11898 has 162 MA's), (7, 11946), (9, 11994), (14, 12039), (15, 12045), (18, 12081), (19, 12105), (24, 12216),

Gene: Bigswole_38 Start: 12708, Stop: 13058, Start Num: 3

Candidate Starts for Bigswole_38:

(Start: 3 @12708 has 162 MA's), (7, 12756), (9, 12804), (14, 12849), (15, 12855), (18, 12891), (19, 12915), (24, 13026),

Gene: Bipolarisk_31 Start: 10629, Stop: 10979, Start Num: 3

Candidate Starts for Bipolarisk_31:

(Start: 3 @10629 has 162 MA's), (7, 10677), (9, 10725), (14, 10770), (15, 10776), (18, 10812), (19, 10836), (24, 10947),

Gene: Blackbrain_30 Start: 9608, Stop: 9958, Start Num: 3

Candidate Starts for Blackbrain_30:

(Start: 3 @9608 has 162 MA's), (7, 9656), (9, 9704), (14, 9749), (15, 9755), (18, 9791), (19, 9815), (24, 9926),

Gene: Blackdragon_27 Start: 9394, Stop: 9744, Start Num: 3

Candidate Starts for Blackdragon_27:

(Start: 3 @9394 has 162 MA's), (7, 9442), (9, 9490), (14, 9535), (15, 9541), (18, 9577), (19, 9601), (24, 9712),

Gene: Blubba_26 Start: 9089, Stop: 9439, Start Num: 3

Candidate Starts for Blubba_26:

(Start: 3 @9089 has 162 MA's), (7, 9137), (9, 9185), (14, 9230), (15, 9236), (19, 9296), (24, 9407),

Gene: Bonray_32 Start: 10906, Stop: 11256, Start Num: 3

Candidate Starts for Bonray_32:

(Start: 3 @10906 has 162 MA's), (7, 10954), (9, 11002), (14, 11047), (15, 11053), (18, 11089), (19, 11113), (24, 11224),

Gene: Bread_33 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for Bread_33:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),

Gene: Breeniome_32 Start: 9801, Stop: 10151, Start Num: 3

Candidate Starts for Breeniome_32:

(Start: 3 @9801 has 162 MA's), (7, 9849), (9, 9897), (14, 9942), (15, 9948), (18, 9984), (19, 10008), (24, 10119),

Gene: Burrough_32 Start: 10629, Stop: 10979, Start Num: 3

Candidate Starts for Burrough_32:

(Start: 3 @10629 has 162 MA's), (7, 10677), (9, 10725), (14, 10770), (15, 10776), (18, 10812), (19, 10836), (24, 10947),

Gene: Bxz1_32 Start: 11378, Stop: 11728, Start Num: 3

Candidate Starts for Bxz1_32:

(Start: 3 @11378 has 162 MA's), (7, 11426), (9, 11474), (14, 11519), (15, 11525), (18, 11561), (19, 11585), (24, 11696),

Gene: Cactojaque_29 Start: 9497, Stop: 9847, Start Num: 3

Candidate Starts for Cactojaque_29:

(Start: 3 @9497 has 162 MA's), (7, 9545), (9, 9593), (14, 9638), (15, 9644), (18, 9680), (19, 9704), (24, 9815),

Gene: Cali_32 Start: 11939, Stop: 12289, Start Num: 3

Candidate Starts for Cali_32:

(Start: 3 @11939 has 162 MA's), (7, 11987), (9, 12035), (14, 12080), (15, 12086), (18, 12122), (19, 12146), (24, 12257),

Gene: Capablanca_34 Start: 11498, Stop: 11848, Start Num: 3

Candidate Starts for Capablanca_34:

(Start: 3 @11498 has 162 MA's), (7, 11546), (9, 11594), (14, 11639), (15, 11645), (18, 11681), (19, 11705), (24, 11816),

Gene: Caravan_30 Start: 10188, Stop: 10538, Start Num: 3

Candidate Starts for Caravan_30:

(Start: 3 @10188 has 162 MA's), (7, 10236), (9, 10284), (14, 10329), (15, 10335), (18, 10371), (19, 10395), (24, 10506),

Gene: Catera_30 Start: 9796, Stop: 10146, Start Num: 3

Candidate Starts for Catera_30:

(Start: 3 @9796 has 162 MA's), (7, 9844), (9, 9892), (14, 9937), (15, 9943), (18, 9979), (19, 10003), (24, 10114),

Gene: Chargie21_31 Start: 9792, Stop: 10142, Start Num: 3

Candidate Starts for Chargie21_31:

(Start: 3 @9792 has 162 MA's), (7, 9840), (9, 9888), (14, 9933), (15, 9939), (18, 9975), (19, 9999), (24, 10110),

Gene: CharlieB_32 Start: 9937, Stop: 10287, Start Num: 3

Candidate Starts for CharlieB_32:

(Start: 3 @9937 has 162 MA's), (7, 9985), (9, 10033), (14, 10078), (15, 10084), (18, 10120), (19, 10144), (24, 10255),

Gene: ChaylaJr_31 Start: 9879, Stop: 10229, Start Num: 3

Candidate Starts for ChaylaJr_31:

(Start: 3 @9879 has 162 MA's), (7, 9927), (9, 9975), (14, 10020), (15, 10026), (18, 10062), (19, 10086), (24, 10197),

Gene: ChickenPhender_31 Start: 9837, Stop: 10187, Start Num: 3

Candidate Starts for ChickenPhender_31:

(Start: 3 @9837 has 162 MA's), (7, 9885), (9, 9933), (14, 9978), (15, 9984), (18, 10020), (19, 10044), (24, 10155),

Gene: Chomp_32 Start: 10373, Stop: 10723, Start Num: 3

Candidate Starts for Chomp_32:

(Start: 3 @10373 has 162 MA's), (7, 10421), (9, 10469), (14, 10514), (15, 10520), (18, 10556), (19, 10580), (24, 10691),

Gene: CindyLou_32 Start: 10373, Stop: 10723, Start Num: 3

Candidate Starts for CindyLou_32:

(Start: 3 @10373 has 162 MA's), (7, 10421), (9, 10469), (14, 10514), (15, 10520), (18, 10556), (19, 10580), (24, 10691),

Gene: Concombres_31 Start: 11144, Stop: 11494, Start Num: 3

Candidate Starts for Concombres_31:

(Start: 3 @11144 has 162 MA's), (7, 11192), (9, 11240), (14, 11285), (15, 11291), (18, 11327), (19, 11351), (24, 11462),

Gene: DTDevon_33 Start: 11537, Stop: 11887, Start Num: 3

Candidate Starts for DTDevon_33:

(Start: 3 @11537 has 162 MA's), (7, 11585), (9, 11633), (14, 11678), (15, 11684), (18, 11720), (19, 11744), (24, 11855),

Gene: Daffodil_34 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for Daffodil_34:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),

Gene: Dandelion_36 Start: 12233, Stop: 12583, Start Num: 3

Candidate Starts for Dandelion_36:

(Start: 3 @12233 has 162 MA's), (7, 12281), (9, 12329), (14, 12374), (15, 12380), (18, 12416), (19, 12440), (24, 12551),

Gene: Darko_31 Start: 10771, Stop: 11121, Start Num: 3

Candidate Starts for Darko_31:

(Start: 3 @10771 has 162 MA's), (7, 10819), (9, 10867), (14, 10912), (15, 10918), (18, 10954), (19, 10978), (24, 11089),

Gene: Delilah_32 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for Delilah_32:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),

Gene: Demodog_30 Start: 11144, Stop: 11494, Start Num: 3

Candidate Starts for Demodog_30:

(Start: 3 @11144 has 162 MA's), (7, 11192), (9, 11240), (14, 11285), (15, 11291), (18, 11327), (19, 11351), (24, 11462),

Gene: Derek_33 Start: 10330, Stop: 10680, Start Num: 3

Candidate Starts for Derek_33:

(Start: 3 @10330 has 162 MA's), (7, 10378), (9, 10426), (14, 10471), (15, 10477), (18, 10513), (19, 10537), (24, 10648),

Gene: Dewdrop_50 Start: 22009, Stop: 22341, Start Num: 2

Candidate Starts for Dewdrop_50:

(Start: 2 @22009 has 2 MA's), (6, 22054), (7, 22063), (8, 22093), (10, 22114), (12, 22123), (17, 22168), (24, 22306),

Gene: Dietrick_27 Start: 9565, Stop: 9915, Start Num: 3

Candidate Starts for Dietrick_27:

(Start: 3 @9565 has 162 MA's), (7, 9613), (9, 9661), (14, 9706), (15, 9712), (19, 9772), (24, 9883),

Gene: DirtMonster_31 Start: 11456, Stop: 11806, Start Num: 3

Candidate Starts for DirtMonster_31:

(Start: 3 @11456 has 162 MA's), (7, 11504), (9, 11552), (14, 11597), (15, 11603), (19, 11663), (24, 11774),

Gene: Domi_27 Start: 10190, Stop: 10540, Start Num: 3

Candidate Starts for Domi_27:

(Start: 3 @10190 has 162 MA's), (7, 10238), (9, 10286), (14, 10331), (15, 10337), (19, 10397), (24, 10508),

Gene: DrPhinkDaddy_32 Start: 10915, Stop: 11265, Start Num: 3

Candidate Starts for DrPhinkDaddy_32:

(Start: 3 @10915 has 162 MA's), (7, 10963), (9, 11011), (14, 11056), (15, 11062), (18, 11098), (19, 11122), (24, 11233),

Gene: Drazdys_32 Start: 10703, Stop: 11053, Start Num: 3

Candidate Starts for Drazdys_32:

(Start: 3 @10703 has 162 MA's), (7, 10751), (9, 10799), (14, 10844), (15, 10850), (18, 10886), (19, 10910), (24, 11021),

Gene: ET08_27 Start: 10374, Stop: 10724, Start Num: 3

Candidate Starts for ET08_27:

(Start: 3 @10374 has 162 MA's), (7, 10422), (9, 10470), (14, 10515), (15, 10521), (18, 10557), (19, 10581), (24, 10692),

Gene: EasyJones_31 Start: 9542, Stop: 9892, Start Num: 3

Candidate Starts for EasyJones_31:

(Start: 3 @9542 has 162 MA's), (7, 9590), (9, 9638), (14, 9683), (15, 9689), (18, 9725), (19, 9749), (24, 9860),

Gene: EggyFarm_36 Start: 11898, Stop: 12248, Start Num: 3

Candidate Starts for EggyFarm_36:

(Start: 3 @11898 has 162 MA's), (7, 11946), (9, 11994), (14, 12039), (15, 12045), (18, 12081), (19, 12105), (24, 12216),

Gene: EmToTheThree_35 Start: 12332, Stop: 12682, Start Num: 3

Candidate Starts for EmToTheThree_35:

(Start: 3 @12332 has 162 MA's), (7, 12380), (9, 12428), (14, 12473), (15, 12479), (18, 12515), (19, 12539), (24, 12650),

Gene: EmmaElysia_30 Start: 9557, Stop: 9907, Start Num: 3

Candidate Starts for EmmaElysia_30:

(Start: 3 @9557 has 162 MA's), (7, 9605), (9, 9653), (14, 9698), (15, 9704), (18, 9740), (19, 9764), (24, 9875),

Gene: Erdmann_33 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for Erdmann_33:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),

Gene: ErnieJ_33 Start: 10738, Stop: 11088, Start Num: 3

Candidate Starts for ErnieJ_33:

(Start: 3 @10738 has 162 MA's), (7, 10786), (9, 10834), (14, 10879), (15, 10885), (18, 10921), (19, 10945), (24, 11056),

Gene: Essence_31 Start: 10092, Stop: 10442, Start Num: 3

Candidate Starts for Essence_31:

(Start: 3 @10092 has 162 MA's), (7, 10140), (9, 10188), (14, 10233), (15, 10239), (18, 10275), (19, 10299), (24, 10410),

Gene: Ewok_32 Start: 10921, Stop: 11271, Start Num: 3

Candidate Starts for Ewok_32:

(Start: 3 @10921 has 162 MA's), (7, 10969), (9, 11017), (14, 11062), (15, 11068), (18, 11104), (19, 11128), (24, 11239),

Gene: Fludd_31 Start: 9793, Stop: 10143, Start Num: 3

Candidate Starts for Fludd_31:

(Start: 3 @9793 has 162 MA's), (7, 9841), (9, 9889), (14, 9934), (15, 9940), (18, 9976), (19, 10000), (24, 10111),

Gene: Fongie_32 Start: 11453, Stop: 11803, Start Num: 3

Candidate Starts for Fongie_32:

(Start: 3 @11453 has 162 MA's), (7, 11501), (9, 11549), (14, 11594), (15, 11600), (18, 11636), (19, 11660), (24, 11771),

Gene: FoxtrotP1_32 Start: 11246, Stop: 11596, Start Num: 3

Candidate Starts for FoxtrotP1_32:

(Start: 3 @11246 has 162 MA's), (7, 11294), (9, 11342), (14, 11387), (15, 11393), (18, 11429), (19, 11453), (24, 11564),

Gene: FrayBell_38 Start: 12486, Stop: 12836, Start Num: 3

Candidate Starts for FrayBell_38:

(Start: 3 @12486 has 162 MA's), (7, 12534), (9, 12582), (14, 12627), (15, 12633), (19, 12693), (24, 12804),

Gene: FudgeTart_33 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for FudgeTart_33:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),

Gene: Gabriel_32 Start: 9792, Stop: 10142, Start Num: 3

Candidate Starts for Gabriel_32:

(Start: 3 @9792 has 162 MA's), (7, 9840), (9, 9888), (14, 9933), (15, 9939), (18, 9975), (19, 9999), (24, 10110),

Gene: Gamgam_32 Start: 10373, Stop: 10723, Start Num: 3

Candidate Starts for Gamgam_32:

(Start: 3 @10373 has 162 MA's), (7, 10421), (9, 10469), (14, 10514), (15, 10520), (18, 10556), (19, 10580), (24, 10691),

Gene: GantcherGoblin_65 Start: 42756, Stop: 43022, Start Num: 4

Candidate Starts for GantcherGoblin_65:

(Start: 4 @42756 has 5 MA's), (5, 42777), (8, 42822), (13, 42861),

Gene: Ghost_32 Start: 10373, Stop: 10723, Start Num: 3

Candidate Starts for Ghost_32:

(Start: 3 @10373 has 162 MA's), (7, 10421), (9, 10469), (14, 10514), (15, 10520), (18, 10556), (19, 10580), (24, 10691),

Gene: Gizmo_34 Start: 10920, Stop: 11270, Start Num: 3

Candidate Starts for Gizmo_34:

(Start: 3 @10920 has 162 MA's), (7, 10968), (9, 11016), (14, 11061), (15, 11067), (18, 11103), (19, 11127), (24, 11238),

Gene: GlutenPhree_30 Start: 10373, Stop: 10723, Start Num: 3

Candidate Starts for GlutenPhree_30:

(Start: 3 @10373 has 162 MA's), (7, 10421), (9, 10469), (14, 10514), (15, 10520), (18, 10556), (19, 10580), (24, 10691),

Gene: Grasshills_36 Start: 11898, Stop: 12248, Start Num: 3

Candidate Starts for Grasshills_36:

(Start: 3 @11898 has 162 MA's), (7, 11946), (9, 11994), (14, 12039), (15, 12045), (18, 12081), (19, 12105), (24, 12216),

Gene: Grungle_25 Start: 8489, Stop: 8839, Start Num: 3

Candidate Starts for Grungle_25:

(Start: 3 @8489 has 162 MA's), (7, 8537), (9, 8585), (14, 8630), (15, 8636), (18, 8672), (19, 8696), (24, 8807),

Gene: Guwapp_32 Start: 10330, Stop: 10680, Start Num: 3

Candidate Starts for Guwapp_32:

(Start: 3 @10330 has 162 MA's), (7, 10378), (9, 10426), (14, 10471), (15, 10477), (18, 10513), (19, 10537), (24, 10648),

Gene: Halldule_28 Start: 9159, Stop: 9509, Start Num: 3

Candidate Starts for Halldule_28:

(Start: 3 @9159 has 162 MA's), (7, 9207), (9, 9255), (14, 9300), (15, 9306), (18, 9342), (19, 9366), (24, 9477),

Gene: HyRo_31 Start: 11105, Stop: 11455, Start Num: 3

Candidate Starts for HyRo_31:

(Start: 3 @11105 has 162 MA's), (7, 11153), (9, 11201), (14, 11246), (15, 11252), (18, 11288), (19, 11312), (24, 11423),

Gene: I3_34 Start: 11467, Stop: 11817, Start Num: 3

Candidate Starts for I3_34:

(Start: 3 @11467 has 162 MA's), (7, 11515), (9, 11563), (14, 11608), (15, 11614), (19, 11674), (24, 11785),

Gene: IkeLoa_28 Start: 10216, Stop: 10566, Start Num: 3

Candidate Starts for IkeLoa_28:

(Start: 3 @10216 has 162 MA's), (7, 10264), (9, 10312), (14, 10357), (15, 10363), (18, 10399), (19, 10423), (24, 10534),

Gene: InigoMontoya_33 Start: 10334, Stop: 10684, Start Num: 3

Candidate Starts for InigoMontoya_33:

(Start: 3 @10334 has 162 MA's), (7, 10382), (9, 10430), (14, 10475), (15, 10481), (18, 10517), (19, 10541), (24, 10652),

Gene: InterFolia_39 Start: 13024, Stop: 13374, Start Num: 3

Candidate Starts for InterFolia_39:

(Start: 3 @13024 has 162 MA's), (7, 13072), (9, 13120), (14, 13165), (15, 13171), (18, 13207), (19, 13231), (24, 13342),

Gene: Iota_29 Start: 10453, Stop: 10803, Start Num: 3

Candidate Starts for Iota_29:

(Start: 3 @10453 has 162 MA's), (7, 10501), (9, 10549), (14, 10594), (15, 10600), (18, 10636), (19, 10660), (24, 10771),

Gene: Issimir_32 Start: 10913, Stop: 11263, Start Num: 3

Candidate Starts for Issimir_32:

(Start: 3 @10913 has 162 MA's), (7, 10961), (9, 11009), (14, 11054), (15, 11060), (18, 11096), (19, 11120), (24, 11231),

Gene: Izajani_33 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for Izajani_33:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),

Gene: JPickles_30 Start: 9567, Stop: 9917, Start Num: 3

Candidate Starts for JPickles_30:

(Start: 3 @9567 has 162 MA's), (7, 9615), (9, 9663), (14, 9708), (15, 9714), (18, 9750), (19, 9774), (24, 9885),

Gene: Janiyra_32 Start: 10352, Stop: 10702, Start Num: 3

Candidate Starts for Janiyra_32:

(Start: 3 @10352 has 162 MA's), (7, 10400), (9, 10448), (14, 10493), (15, 10499), (18, 10535), (19, 10559), (24, 10670),

Gene: JayJay_35 Start: 10883, Stop: 11233, Start Num: 3

Candidate Starts for JayJay_35:

(Start: 3 @10883 has 162 MA's), (7, 10931), (9, 10979), (14, 11024), (15, 11030), (18, 11066), (19, 11090), (24, 11201),

Gene: Jaygup_32 Start: 10369, Stop: 10719, Start Num: 3

Candidate Starts for Jaygup_32:

(Start: 3 @10369 has 162 MA's), (7, 10417), (9, 10465), (14, 10510), (15, 10516), (18, 10552), (19, 10576), (24, 10687),

Gene: Jedediah_32 Start: 9838, Stop: 10188, Start Num: 3

Candidate Starts for Jedediah_32:

(Start: 3 @9838 has 162 MA's), (7, 9886), (9, 9934), (14, 9979), (15, 9985), (18, 10021), (19, 10045), (24, 10156),

Gene: Jemmno_32 Start: 10373, Stop: 10723, Start Num: 3

Candidate Starts for Jemmno_32:

(Start: 3 @10373 has 162 MA's), (7, 10421), (9, 10469), (14, 10514), (15, 10520), (18, 10556), (19, 10580), (24, 10691),

Gene: Jessibeth14_31 Start: 10638, Stop: 10988, Start Num: 3

Candidate Starts for Jessibeth14_31:

(Start: 3 @10638 has 162 MA's), (7, 10686), (9, 10734), (14, 10779), (15, 10785), (18, 10821), (19, 10845), (24, 10956),

Gene: Jezreel_31 Start: 10387, Stop: 10737, Start Num: 3

Candidate Starts for Jezreel_31:

(Start: 3 @10387 has 162 MA's), (7, 10435), (9, 10483), (14, 10528), (15, 10534), (18, 10570), (19, 10594), (24, 10705),

Gene: JigglyPuff_32 Start: 11194, Stop: 11544, Start Num: 3

Candidate Starts for JigglyPuff_32:

(Start: 3 @11194 has 162 MA's), (7, 11242), (9, 11290), (14, 11335), (15, 11341), (18, 11377), (19, 11401), (24, 11512),

Gene: JulietS_27 Start: 8792, Stop: 9142, Start Num: 3

Candidate Starts for JulietS_27:

(Start: 3 @8792 has 162 MA's), (7, 8840), (9, 8888), (14, 8933), (15, 8939), (18, 8975), (19, 8999), (24, 9110),

Gene: JustHall_31 Start: 10818, Stop: 11168, Start Num: 3

Candidate Starts for JustHall_31:

(Start: 3 @10818 has 162 MA's), (7, 10866), (9, 10914), (14, 10959), (15, 10965), (18, 11001), (19, 11025), (24, 11136),

Gene: Kamryn_32 Start: 10691, Stop: 11041, Start Num: 3

Candidate Starts for Kamryn_32:

(Start: 3 @10691 has 162 MA's), (7, 10739), (9, 10787), (14, 10832), (15, 10838), (18, 10874), (19, 10898), (24, 11009),

Gene: Kboogie_32 Start: 9848, Stop: 10198, Start Num: 3

Candidate Starts for Kboogie_32:

(Start: 3 @9848 has 162 MA's), (7, 9896), (9, 9944), (14, 9989), (15, 9995), (18, 10031), (19, 10055), (24, 10166),

Gene: KevinMinion_66 Start: 43672, Stop: 43917, Start Num: 5

Candidate Starts for KevinMinion_66:

(Start: 4 @43651 has 5 MA's), (5, 43672), (8, 43717), (13, 43756),

Gene: Khaleesi_31 Start: 10665, Stop: 11015, Start Num: 3

Candidate Starts for Khaleesi_31:

(Start: 3 @10665 has 162 MA's), (7, 10713), (9, 10761), (14, 10806), (15, 10812), (18, 10848), (19, 10872), (24, 10983),

Gene: Koguma_28 Start: 9135, Stop: 9485, Start Num: 3

Candidate Starts for Koguma_28:

(Start: 3 @9135 has 162 MA's), (7, 9183), (9, 9231), (14, 9276), (15, 9282), (18, 9318), (19, 9342), (24, 9453),

Gene: LRRHood_29 Start: 11058, Stop: 11408, Start Num: 3

Candidate Starts for LRRHood_29:

(Start: 3 @11058 has 162 MA's), (7, 11106), (9, 11154), (14, 11199), (15, 11205), (18, 11241), (19, 11265), (24, 11376),

Gene: Latch_32 Start: 10373, Stop: 10723, Start Num: 3

Candidate Starts for Latch_32:

(Start: 3 @10373 has 162 MA's), (7, 10421), (9, 10469), (14, 10514), (15, 10520), (18, 10556), (19, 10580), (24, 10691),

Gene: Leaf_50 Start: 22009, Stop: 22341, Start Num: 2

Candidate Starts for Leaf_50:

(Start: 2 @22009 has 2 MA's), (6, 22054), (7, 22063), (8, 22093), (10, 22114), (12, 22123), (17, 22168), (24, 22306),

Gene: Leathea_67 Start: 42633, Stop: 42920, Start Num: 4

Candidate Starts for Leathea_67:

(Start: 4 @42633 has 5 MA's), (11, 42729), (16, 42759), (22, 42894),

Gene: Lee7_31 Start: 10915, Stop: 11265, Start Num: 3

Candidate Starts for Lee7_31:

(Start: 3 @10915 has 162 MA's), (7, 10963), (9, 11011), (14, 11056), (15, 11062), (18, 11098), (19, 11122), (24, 11233),

Gene: Lethe_31 Start: 10609, Stop: 10959, Start Num: 3

Candidate Starts for Lethe_31:

(Start: 3 @10609 has 162 MA's), (7, 10657), (9, 10705), (14, 10750), (15, 10756), (18, 10792), (19, 10816), (24, 10927),

Gene: Lewando_70 Start: 44452, Stop: 44727, Start Num: 4

Candidate Starts for Lewando_70:

(Start: 4 @44452 has 5 MA's), (8, 44518), (16, 44578), (18, 44602), (21, 44644),

Gene: LifeSavor_33 Start: 10369, Stop: 10719, Start Num: 3

Candidate Starts for LifeSavor_33:

(Start: 3 @10369 has 162 MA's), (7, 10417), (9, 10465), (14, 10510), (15, 10516), (18, 10552), (19, 10576), (24, 10687),

Gene: Littleton_32 Start: 10373, Stop: 10723, Start Num: 3

Candidate Starts for Littleton_32:

(Start: 3 @10373 has 162 MA's), (7, 10421), (9, 10469), (14, 10514), (15, 10520), (18, 10556), (19, 10580), (24, 10691),

Gene: Loanshark_32 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for Loanshark_32:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),

Gene: LolaVinca_35 Start: 12130, Stop: 12480, Start Num: 3

Candidate Starts for LolaVinca_35:

(Start: 3 @12130 has 162 MA's), (7, 12178), (9, 12226), (14, 12271), (15, 12277), (18, 12313), (19, 12337), (24, 12448),

Gene: LordLeafolot_37 Start: 12485, Stop: 12835, Start Num: 3

Candidate Starts for LordLeafolot_37:

(Start: 3 @12485 has 162 MA's), (7, 12533), (9, 12581), (14, 12626), (15, 12632), (19, 12692), (24, 12803),

Gene: Lukilu_25 Start: 9509, Stop: 9859, Start Num: 3

Candidate Starts for Lukilu_25:

(Start: 3 @9509 has 162 MA's), (7, 9557), (9, 9605), (14, 9650), (15, 9656), (18, 9692), (19, 9716), (24, 9827),

Gene: Maby2021_33 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for Maby2021_33:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),

Gene: Mangeria_35 Start: 11441, Stop: 11791, Start Num: 3

Candidate Starts for Mangeria_35:

(Start: 3 @11441 has 162 MA's), (7, 11489), (9, 11537), (14, 11582), (15, 11588), (18, 11624), (19, 11648), (24, 11759),

Gene: Matsumoto_31 Start: 10334, Stop: 10684, Start Num: 3

Candidate Starts for Matsumoto_31:

(Start: 3 @10334 has 162 MA's), (7, 10382), (9, 10430), (14, 10475), (15, 10481), (18, 10517), (19, 10541), (24, 10652),

Gene: McGee_31 Start: 9557, Stop: 9907, Start Num: 3

Candidate Starts for McGee_31:

(Start: 3 @9557 has 162 MA's), (7, 9605), (9, 9653), (14, 9698), (15, 9704), (18, 9740), (19, 9764), (24, 9875),

Gene: McWolfish_31 Start: 10665, Stop: 11015, Start Num: 3

Candidate Starts for McWolfish_31:

(Start: 3 @10665 has 162 MA's), (7, 10713), (9, 10761), (14, 10806), (15, 10812), (18, 10848), (19, 10872), (24, 10983),

Gene: Megamind_32 Start: 10903, Stop: 11253, Start Num: 3

Candidate Starts for Megamind_32:

(Start: 3 @10903 has 162 MA's), (7, 10951), (9, 10999), (14, 11044), (15, 11050), (18, 11086), (19, 11110), (24, 11221),

Gene: Melpomini_31 Start: 9775, Stop: 10125, Start Num: 3

Candidate Starts for Melpomini_31:

(Start: 3 @9775 has 162 MA's), (7, 9823), (9, 9871), (14, 9916), (15, 9922), (18, 9958), (19, 9982), (24, 10093),

Gene: MikeLiesIn_32 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for MikeLiesIn_32:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),

Gene: Mikro_30 Start: 11404, Stop: 11754, Start Num: 3

Candidate Starts for Mikro_30:

(Start: 3 @11404 has 162 MA's), (7, 11452), (9, 11500), (14, 11545), (15, 11551), (18, 11587), (19, 11611), (24, 11722),

Gene: MoMoMixon_33 Start: 11232, Stop: 11582, Start Num: 3

Candidate Starts for MoMoMixon_33:

(Start: 3 @11232 has 162 MA's), (7, 11280), (9, 11328), (14, 11373), (15, 11379), (18, 11415), (19, 11439), (24, 11550),

Gene: Momo_31 Start: 10373, Stop: 10723, Start Num: 3

Candidate Starts for Momo_31:

(Start: 3 @10373 has 162 MA's), (7, 10421), (9, 10469), (14, 10514), (15, 10520), (18, 10556), (19, 10580), (24, 10691),

Gene: Morizzled23_31 Start: 9769, Stop: 10119, Start Num: 3

Candidate Starts for Morizzled23_31:

(Start: 3 @9769 has 162 MA's), (7, 9817), (9, 9865), (14, 9910), (15, 9916), (18, 9952), (19, 9976), (24, 10087),

Gene: Naija_32 Start: 10373, Stop: 10723, Start Num: 3

Candidate Starts for Naija_32:

(Start: 3 @10373 has 162 MA's), (7, 10421), (9, 10469), (14, 10514), (15, 10520), (18, 10556), (19, 10580), (24, 10691),

Gene: Napoleon13_31 Start: 9788, Stop: 10138, Start Num: 3

Candidate Starts for Napoleon13_31:

(Start: 3 @9788 has 162 MA's), (7, 9836), (9, 9884), (14, 9929), (15, 9935), (18, 9971), (19, 9995), (24, 10106),

Gene: Nappy_33 Start: 11083, Stop: 11433, Start Num: 3

Candidate Starts for Nappy_33:

(Start: 3 @11083 has 162 MA's), (7, 11131), (9, 11179), (14, 11224), (15, 11230), (18, 11266), (19, 11290), (24, 11401),

Gene: Naval22_34 Start: 10958, Stop: 11308, Start Num: 3

Candidate Starts for Naval22_34:

(Start: 3 @10958 has 162 MA's), (7, 11006), (9, 11054), (14, 11099), (15, 11105), (18, 11141), (19, 11165), (24, 11276),

Gene: Navi1117_70 Start: 43660, Stop: 43926, Start Num: 4

Candidate Starts for Navi1117_70:

(Start: 4 @43660 has 5 MA's), (5, 43681), (8, 43726), (13, 43765), (20, 43834),

Gene: NedWong_33 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for NedWong_33:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),

Gene: Ngannou_30 Start: 9549, Stop: 9899, Start Num: 3

Candidate Starts for Ngannou_30:

(Start: 3 @9549 has 162 MA's), (7, 9597), (9, 9645), (14, 9690), (15, 9696), (18, 9732), (19, 9756), (24, 9867),

Gene: Nidhogg_33 Start: 10982, Stop: 11332, Start Num: 3

Candidate Starts for Nidhogg_33:

(Start: 3 @10982 has 162 MA's), (7, 11030), (9, 11078), (14, 11123), (15, 11129), (18, 11165), (19, 11189), (24, 11300),

Gene: NoodleTree_31 Start: 10680, Stop: 11030, Start Num: 3

Candidate Starts for NoodleTree_31:

(Start: 3 @10680 has 162 MA's), (7, 10728), (9, 10776), (14, 10821), (15, 10827), (18, 10863), (19, 10887), (24, 10998),

Gene: Norm_32 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for Norm_32:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),

Gene: NuevoMundo_35 Start: 11972, Stop: 12322, Start Num: 3

Candidate Starts for NuevoMundo_35:

(Start: 3 @11972 has 162 MA's), (7, 12020), (9, 12068), (14, 12113), (15, 12119), (18, 12155), (19, 12179), (24, 12290),

Gene: ParkTD_31 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for ParkTD_31:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),

Gene: Patter_32 Start: 10390, Stop: 10740, Start Num: 3

Candidate Starts for Patter_32:

(Start: 3 @10390 has 162 MA's), (7, 10438), (9, 10486), (14, 10531), (15, 10537), (18, 10573), (19, 10597), (24, 10708),

Gene: Phaila_69 Start: 42904, Stop: 43149, Start Num: 5

Candidate Starts for Phaila_69:

(Start: 4 @42883 has 5 MA's), (5, 42904), (8, 42949), (13, 42988),

Gene: Phlegm_34 Start: 10373, Stop: 10723, Start Num: 3

Candidate Starts for Phlegm_34:

(Start: 3 @10373 has 162 MA's), (7, 10421), (9, 10469), (14, 10514), (15, 10520), (18, 10556), (19, 10580), (24, 10691),

Gene: Phox_31 Start: 11082, Stop: 11432, Start Num: 3

Candidate Starts for Phox_31:

(Start: 3 @11082 has 162 MA's), (7, 11130), (9, 11178), (14, 11223), (15, 11229), (18, 11265), (19, 11289), (24, 11400),

Gene: Phusco_32 Start: 10369, Stop: 10719, Start Num: 3

Candidate Starts for Phusco_32:

(Start: 3 @10369 has 162 MA's), (7, 10417), (9, 10465), (14, 10510), (15, 10516), (18, 10552), (19, 10576), (24, 10687),

Gene: Pier_34 Start: 11076, Stop: 11426, Start Num: 3

Candidate Starts for Pier_34:

(Start: 3 @11076 has 162 MA's), (7, 11124), (9, 11172), (14, 11217), (15, 11223), (18, 11259), (19, 11283), (24, 11394),

Gene: Pio_35 Start: 11767, Stop: 12117, Start Num: 3

Candidate Starts for Pio_35:

(Start: 3 @11767 has 162 MA's), (7, 11815), (9, 11863), (14, 11908), (15, 11914), (18, 11950), (19, 11974), (24, 12085),

Gene: Pivoine_32 Start: 10373, Stop: 10723, Start Num: 3

Candidate Starts for Pivoine_32:

(Start: 3 @10373 has 162 MA's), (7, 10421), (9, 10469), (14, 10514), (15, 10520), (18, 10556), (19, 10580), (24, 10691),

Gene: Pleione_34 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for Pleione_34:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),

Gene: Primadonna_27 Start: 10022, Stop: 10372, Start Num: 3

Candidate Starts for Primadonna_27:

(Start: 3 @10022 has 162 MA's), (7, 10070), (9, 10118), (14, 10163), (15, 10169), (19, 10229), (24, 10340),

Gene: PurduePete_31 Start: 10629, Stop: 10979, Start Num: 3

Candidate Starts for PurduePete_31:

(Start: 3 @10629 has 162 MA's), (7, 10677), (9, 10725), (14, 10770), (15, 10776), (18, 10812), (19, 10836), (24, 10947),

Gene: QBert_30 Start: 11082, Stop: 11432, Start Num: 3

Candidate Starts for QBert_30:

(Start: 3 @11082 has 162 MA's), (7, 11130), (9, 11178), (14, 11223), (15, 11229), (18, 11265), (19, 11289), (24, 11400),

Gene: Quasimodo_32 Start: 11333, Stop: 11683, Start Num: 3

Candidate Starts for Quasimodo_32:

(Start: 3 @11333 has 162 MA's), (7, 11381), (9, 11429), (14, 11474), (15, 11480), (18, 11516), (19, 11540), (24, 11651),

Gene: Rahel_32 Start: 10369, Stop: 10719, Start Num: 3

Candidate Starts for Rahel_32:

(Start: 3 @10369 has 162 MA's), (7, 10417), (9, 10465), (14, 10510), (15, 10516), (18, 10552), (19, 10576), (24, 10687),

Gene: Rizal_30 Start: 9835, Stop: 10185, Start Num: 3

Candidate Starts for Rizal_30:

(Start: 3 @9835 has 162 MA's), (7, 9883), (9, 9931), (14, 9976), (15, 9982), (18, 10018), (19, 10042), (24, 10153),

Gene: RoMag_27 Start: 10167, Stop: 10517, Start Num: 3

Candidate Starts for RoMag_27:

(Start: 3 @10167 has 162 MA's), (7, 10215), (9, 10263), (14, 10308), (15, 10314), (18, 10350), (19, 10374), (24, 10485),

Gene: Ronan_27 Start: 8475, Stop: 8825, Start Num: 3

Candidate Starts for Ronan_27:

(Start: 3 @8475 has 162 MA's), (7, 8523), (9, 8571), (14, 8616), (15, 8622), (18, 8658), (19, 8682), (24, 8793),

Gene: Roots515_32 Start: 10917, Stop: 11267, Start Num: 3

Candidate Starts for Roots515_32:

(Start: 3 @10917 has 162 MA's), (7, 10965), (9, 11013), (14, 11058), (15, 11064), (18, 11100), (19, 11124), (24, 11235),

Gene: SVoro_31 Start: 10912, Stop: 11262, Start Num: 3

Candidate Starts for SVoro_31:

(Start: 3 @10912 has 162 MA's), (7, 10960), (9, 11008), (14, 11053), (15, 11059), (18, 11095), (19, 11119), (24, 11230),

Gene: Salacia_34 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for Salacia_34:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),

Gene: Sauce_33 Start: 11045, Stop: 11395, Start Num: 3

Candidate Starts for Sauce_33:

(Start: 3 @11045 has 162 MA's), (7, 11093), (9, 11141), (14, 11186), (15, 11192), (18, 11228), (19, 11252), (24, 11363),

Gene: ScottMcG_32 Start: 11225, Stop: 11575, Start Num: 3

Candidate Starts for ScottMcG_32:

(Start: 3 @11225 has 162 MA's), (7, 11273), (9, 11321), (14, 11366), (15, 11372), (18, 11408), (19, 11432), (24, 11543),

Gene: Sebata_32 Start: 11268, Stop: 11618, Start Num: 3

Candidate Starts for Sebata_32:

(Start: 3 @11268 has 162 MA's), (7, 11316), (9, 11364), (14, 11409), (15, 11415), (18, 11451), (19, 11475), (24, 11586),

Gene: Shaqnato_28 Start: 9480, Stop: 9830, Start Num: 3

Candidate Starts for Shaqnato_28:

(Start: 3 @9480 has 162 MA's), (7, 9528), (9, 9576), (14, 9621), (15, 9627), (18, 9663), (19, 9687), (24, 9798),

Gene: ShiaLabeouf_32 Start: 10369, Stop: 10719, Start Num: 3

Candidate Starts for ShiaLabeouf_32:

(Start: 3 @10369 has 162 MA's), (7, 10417), (9, 10465), (14, 10510), (15, 10516), (18, 10552), (19, 10576), (24, 10687),

Gene: Shifa_29 Start: 10551, Stop: 10901, Start Num: 3

Candidate Starts for Shifa_29:

(Start: 3 @10551 has 162 MA's), (7, 10599), (9, 10647), (14, 10692), (15, 10698), (18, 10734), (19, 10758), (24, 10869),

Gene: Shnickers_32 Start: 10369, Stop: 10719, Start Num: 3

Candidate Starts for Shnickers_32:

(Start: 3 @10369 has 162 MA's), (7, 10417), (9, 10465), (14, 10510), (15, 10516), (18, 10552), (19, 10576), (24, 10687),

Gene: Shrimp_32 Start: 10922, Stop: 11272, Start Num: 3

Candidate Starts for Shrimp_32:

(Start: 3 @10922 has 162 MA's), (7, 10970), (9, 11018), (14, 11063), (15, 11069), (18, 11105), (19, 11129), (24, 11240),

Gene: SilverDipper_33 Start: 10373, Stop: 10723, Start Num: 3

Candidate Starts for SilverDipper_33:

(Start: 3 @10373 has 162 MA's), (7, 10421), (9, 10469), (14, 10514), (15, 10520), (18, 10556), (19, 10580), (24, 10691),

Gene: SmallFry_32 Start: 10369, Stop: 10719, Start Num: 3

Candidate Starts for SmallFry_32:

(Start: 3 @10369 has 162 MA's), (7, 10417), (9, 10465), (14, 10510), (15, 10516), (18, 10552), (19, 10576), (24, 10687),

Gene: Spec_30 Start: 10375, Stop: 10725, Start Num: 3

Candidate Starts for Spec_30:

(Start: 3 @10375 has 162 MA's), (7, 10423), (9, 10471), (14, 10516), (15, 10522), (18, 10558), (19, 10582), (24, 10693),

Gene: Specks_37 Start: 12207, Stop: 12557, Start Num: 3

Candidate Starts for Specks_37:

(Start: 3 @12207 has 162 MA's), (7, 12255), (9, 12303), (14, 12348), (15, 12354), (18, 12390), (19, 12414), (24, 12525),

Gene: Sprinklers_32 Start: 10407, Stop: 10757, Start Num: 3

Candidate Starts for Sprinklers_32:

(Start: 3 @10407 has 162 MA's), (7, 10455), (9, 10503), (14, 10548), (15, 10554), (18, 10590), (19, 10614), (24, 10725),

Gene: Spud_34 Start: 11764, Stop: 12114, Start Num: 3

Candidate Starts for Spud_34:

(Start: 3 @11764 has 162 MA's), (7, 11812), (9, 11860), (14, 11905), (15, 11911), (18, 11947), (19, 11971), (24, 12082),

Gene: SrishMeg2525_31 Start: 10629, Stop: 10979, Start Num: 3

Candidate Starts for SrishMeg2525_31:

(Start: 3 @10629 has 162 MA's), (7, 10677), (9, 10725), (14, 10770), (15, 10776), (18, 10812), (19, 10836), (24, 10947),

Gene: StephanieG_32 Start: 11098, Stop: 11448, Start Num: 3

Candidate Starts for StephanieG_32:

(Start: 3 @11098 has 162 MA's), (7, 11146), (9, 11194), (14, 11239), (15, 11245), (18, 11281), (19, 11305), (24, 11416),

Gene: StubbySaigey_31 Start: 9558, Stop: 9908, Start Num: 3

Candidate Starts for StubbySaigey_31:

(Start: 3 @9558 has 162 MA's), (7, 9606), (9, 9654), (14, 9699), (15, 9705), (18, 9741), (19, 9765), (24, 9876),

Gene: Tainan_37 Start: 12485, Stop: 12835, Start Num: 3

Candidate Starts for Tainan_37:

(Start: 3 @12485 has 162 MA's), (7, 12533), (9, 12581), (14, 12626), (15, 12632), (19, 12692), (24, 12803),

Gene: Teardrop_31 Start: 9834, Stop: 10184, Start Num: 3

Candidate Starts for Teardrop_31:

(Start: 3 @9834 has 162 MA's), (7, 9882), (9, 9930), (14, 9975), (15, 9981), (18, 10017), (19, 10041), (24, 10152),

Gene: Tenney120_70 Start: 43437, Stop: 43682, Start Num: 5

Candidate Starts for Tenney120_70:

(Start: 4 @43416 has 5 MA's), (5, 43437), (8, 43482), (13, 43521),

Gene: TinyTim_32 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for TinyTim_32:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),

Gene: Tonenili_36 Start: 12007, Stop: 12357, Start Num: 3

Candidate Starts for Tonenili_36:

(1, 11887), (Start: 3 @12007 has 162 MA's), (7, 12055), (9, 12103), (14, 12148), (15, 12154), (19, 12214), (24, 12325),

Gene: Tortoise16_31 Start: 10369, Stop: 10719, Start Num: 3

Candidate Starts for Tortoise16_31:

(Start: 3 @10369 has 162 MA's), (7, 10417), (9, 10465), (14, 10510), (15, 10516), (18, 10552), (19, 10576), (24, 10687),

Gene: Trinitium_31 Start: 9823, Stop: 10173, Start Num: 3

Candidate Starts for Trinitium_31:

(Start: 3 @9823 has 162 MA's), (7, 9871), (9, 9919), (14, 9964), (15, 9970), (18, 10006), (19, 10030), (24, 10141),

Gene: TrixiePhattel_69 Start: 43109, Stop: 43309, Start Num: 8

Candidate Starts for TrixiePhattel_69:

(Start: 4 @43043 has 5 MA's), (5, 43064), (8, 43109), (23, 43304),

Gene: Turret_30 Start: 9546, Stop: 9896, Start Num: 3

Candidate Starts for Turret_30:

(Start: 3 @9546 has 162 MA's), (7, 9594), (9, 9642), (14, 9687), (15, 9693), (18, 9729), (19, 9753), (24, 9864),

Gene: Tyke_34 Start: 11781, Stop: 12131, Start Num: 3

Candidate Starts for Tyke_34:

(Start: 3 @11781 has 162 MA's), (7, 11829), (9, 11877), (14, 11922), (15, 11928), (18, 11964), (19, 11988), (24, 12099),

Gene: Uzumaki_64 Start: 42857, Stop: 43123, Start Num: 4

Candidate Starts for Uzumaki_64:

(Start: 4 @42857 has 5 MA's), (5, 42878), (8, 42923), (13, 42962),

Gene: ValleyTerrace_32 Start: 10373, Stop: 10723, Start Num: 3

Candidate Starts for ValleyTerrace_32:

(Start: 3 @10373 has 162 MA's), (7, 10421), (9, 10469), (14, 10514), (15, 10520), (18, 10556), (19, 10580), (24, 10691),

Gene: Wally_31 Start: 9790, Stop: 10140, Start Num: 3

Candidate Starts for Wally_31:

(Start: 3 @9790 has 162 MA's), (7, 9838), (9, 9886), (14, 9931), (15, 9937), (18, 9973), (19, 9997), (24, 10108),

Gene: Willis_32 Start: 10813, Stop: 11163, Start Num: 3

Candidate Starts for Willis_32:

(Start: 3 @10813 has 162 MA's), (7, 10861), (9, 10909), (14, 10954), (15, 10960), (18, 10996), (19, 11020), (24, 11131),

Gene: Yassified_29 Start: 9570, Stop: 9920, Start Num: 3

Candidate Starts for Yassified_29:

(Start: 3 @9570 has 162 MA's), (7, 9618), (9, 9666), (14, 9711), (15, 9717), (18, 9753), (19, 9777), (24, 9888),

Gene: YemiJoy2021_33 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for YemiJoy2021_33:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),

Gene: YoungMoneyMata_32 Start: 10124, Stop: 10474, Start Num: 3

Candidate Starts for YoungMoneyMata_32:

(Start: 3 @10124 has 162 MA's), (7, 10172), (9, 10220), (14, 10265), (15, 10271), (18, 10307), (19, 10331), (24, 10442),

Gene: Yucca_32 Start: 10840, Stop: 11190, Start Num: 3

Candidate Starts for Yucca_32:

(Start: 3 @10840 has 162 MA's), (7, 10888), (9, 10936), (14, 10981), (15, 10987), (18, 11023), (19, 11047), (24, 11158),

Gene: Zalkecks_34 Start: 10922, Stop: 11272, Start Num: 3

Candidate Starts for Zalkecks_34:

(Start: 3 @10922 has 162 MA's), (7, 10970), (9, 11018), (14, 11063), (15, 11069), (18, 11105), (19, 11129), (24, 11240),

Gene: Zeenon_34 Start: 10904, Stop: 11254, Start Num: 3

Candidate Starts for Zeenon_34:

(Start: 3 @10904 has 162 MA's), (7, 10952), (9, 11000), (14, 11045), (15, 11051), (18, 11087), (19, 11111), (24, 11222),

Gene: Zeina_69 Start: 43551, Stop: 43817, Start Num: 4

Candidate Starts for Zeina_69:

(Start: 4 @43551 has 5 MA's), (5, 43572), (8, 43617),

Gene: ZygoTaiga_32 Start: 10918, Stop: 11268, Start Num: 3

Candidate Starts for ZygoTaiga_32:

(Start: 3 @10918 has 162 MA's), (7, 10966), (9, 11014), (14, 11059), (15, 11065), (18, 11101), (19, 11125), (24, 11236),