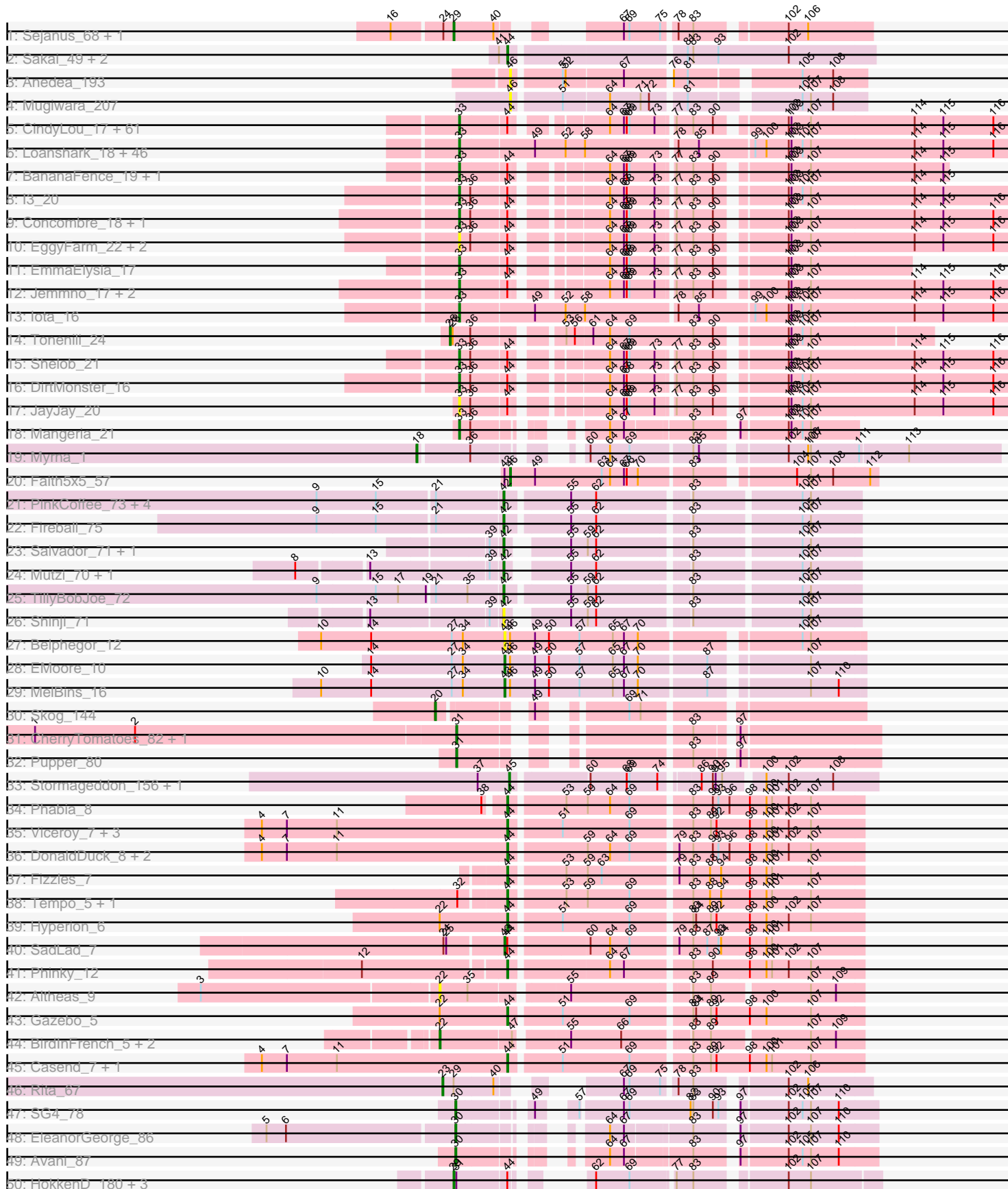


Pham 156122



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 156122 Report

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

Pham number 156122 has 196 members, 23 are drafts.

Phages represented in each track:

- Track 1 : Sejanus_68, Mask_69
- Track 2 : Sakai_49, Richie_52, Gorpy_50
- Track 3 : Anedeia_193
- Track 4 : Mugiwara_207
- Track 5 : CindyLou_17, Shnickers_17, SilverDipper_18, Cactojaque_16, Rizal_17, Patter_17, JPickles_17, BackyardAgain_16, Naija_17, Ngannou_17, Babyland_17, Atlantean_17, StubbySaigey_18, Audrick_19, Chargie21_17, Spec_16, Ghost_18, Catera_17, Derek_18, Rahel_17, Essence_17, ShiaLabeouf_17, LifeSavor_18, ArcherS7_17, ValleyTerrace_17, Kboogie_18, Jedediah_18, JustHall_17, Amataga_17, Dietrick_15, Melpomini_17, Guwapp_17, Turret_17, Fludd_17, Napoleon13_17, Trinitium_17, Wally_17, InigoMontoya_19, ErnieJ_21, Quasimodo_17, Phlegm_19, Phusco_17, McGee_18, Janiyra_17, Ading_17, Latch_17, Tortoise16_16, Morizzled23_17, Chomp_16, Littleton_18, Basquiat_17, Gamgam_17, Willis_19, Pivoine_17, Matsumoto_16, Momo_17, Breeniome_18, Bangla1971_17, Gabriel_18, EasyJones_18, Teardrop_17, Adlitam_17
- Track 6 : Loanshark_18, Pleione_20, EmToTheThree_21, McWolfish_18, Delylah_21, FoxtrotP1_19, Megamind_18, TinyTim_18, Zeenon_21, Zalkecks_20, Roots515_18, ParkTD_18, Izajani_19, ChaylaJr_17, Ewok_18, MikeLiesIn_19, Asterius_18, Bipolarisk_18, Blackbrain_17, Erdmann_19, ScottMcG_20, Daffodil_20, DrPhinkDaddy_18, Salacia_20, NedWong_19, Jessibeth14_18, Bread_19, SrishMeg2525_18, ZygoTaiga_19, Norm_18, Khaleesi_18, Ava3_19, Yucca_18, Burrough_19, Issimir_18, Bonray_18, YemiJoy2021_19, Capablanca_19, Maby2021_19, FudgeTart_19, YoungMoneyMata_18, Gizmo_20, Shrimp_18, ChickenPhender_17, Lee7_18, PurduePete_18, Delilah_18
- Track 7 : BananaFence_19, Darko_17
- Track 8 : l3_20
- Track 9 : Concombre_18, Nappy_20
- Track 10 : EggyFarm_22, Grasshills_22, BigCity_22
- Track 11 : EmmaElysia_17
- Track 12 : Jemmno_17, SmallFry_17, Jaygup_17
- Track 13 : Iota_16
- Track 14 : Tonenili_24
- Track 15 : Shelob_21
- Track 16 : DirtMonster_16
- Track 17 : JayJay_20
- Track 18 : Mangeria_21
- Track 19 : Myrna_1

- Track 20 : Faith5x5_57
- Track 21 : PinkCoffee_73, Barb_73, Danyall_72, ClamChowder_73, Fugax_74
- Track 22 : Fireball_75
- Track 23 : Salvador_71, Evamon_71
- Track 24 : Mutzi_70, YungMoney_71
- Track 25 : TillyBobJoe_72
- Track 26 : Shinji_71
- Track 27 : Belphegor_12
- Track 28 : EMoore_10
- Track 29 : MelBins_16
- Track 30 : Skog_144
- Track 31 : CherryTomatoes_82, SCentae_78
- Track 32 : Pupper_80
- Track 33 : Stormageddon_156, RedWattleHog_155
- Track 34 : Phabia_8
- Track 35 : Viceroy_7, Quammi_6, Rudy_6, Sillytadpoles_8
- Track 36 : DonaldDuck_8, Wheelie_7, Llemily_8
- Track 37 : Fizzles_7
- Track 38 : Tempo_5, Kelcole_4
- Track 39 : Hyperion_6
- Track 40 : SadLad_7
- Track 41 : Phinky_12
- Track 42 : Altheas_9
- Track 43 : Gazebo_5
- Track 44 : BirdInFrench_5, Wilca_5, Pepe25_4
- Track 45 : Casend_7, Wayne3_7
- Track 46 : Rita_67
- Track 47 : SG4_78
- Track 48 : EleanorGeorge_86
- Track 49 : Avani_87
- Track 50 : HokkenD_180, Ejimix_176, Zelink_179, Klein_191
- Track 51 : Duke13_188, Phoebus_187, Minerva_187, EricMillard_183, Redno2_179, Wanda_184, Schatzie_181, Optimus_185, BAKA_193
- Track 52 : Serenabean_80

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

The start number called the most often in the published annotations is 33, it was called in 115 of the 173 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ading_17, Adlitam_17, Amataga_17, ArcherS7_17, Asterius_18, Atlantean_17, Audrick_19, Ava3_19, Babyland_17, BackyardAgain_16, BananaFence_19, Bangla1971_17, Basquiat_17, BigCity_22, Bipolarisk_18, Blackbrain_17, Bonray_18, Bread_19, Breeniome_18, Burrough_19, Cactojaque_16, Capablanca_19, Catera_17, Chargie21_17, ChaylaJr_17, ChickenPhender_17, Chomp_16, CindyLou_17, Concombre_18, Daffodil_20, Darko_17, Delilah_18, Delylah_21, Derek_18, Dietrick_15, DirtMonster_16, DrPhinkDaddy_18, EasyJones_18, EggyFarm_22, EmToTheThree_21, EmmaElysia_17, Erdmann_19, ErnieJ_21, Essence_17, Ewok_18, Fludd_17, FoxtrotP1_19, FudgeTart_19, Gabriel_18,

Gamgam_17, Ghost_18, Gizmo_20, Grasshills_22, Guwapp_17, I3_20, InigoMontoya_19, Iota_16, Issimir_18, Izajani_19, JPickles_17, Janiyra_17, JayJay_20, Jaygup_17, Jedediah_18, Jemmno_17, Jessibeth14_18, JustHall_17, Kboogie_18, Khaleesi_18, Latch_17, Lee7_18, LifeSavor_18, Littleton_18, Loanshark_18, Maby2021_19, Mangeria_21, Matsumoto_16, McGee_18, McWolfish_18, Megamind_18, Melpomini_17, MikeLiesIn_19, Momo_17, Morizzled23_17, Naija_17, Napoleon13_17, Nappy_20, NedWong_19, Ngannou_17, Norm_18, ParkTD_18, Patter_17, Phlegm_19, Phusco_17, Pivoine_17, Pleione_20, PurduePete_18, Quasimodo_17, Rahel_17, Rizal_17, Roots515_18, Salacia_20, ScottMcG_20, Shelob_21, ShiaLabeouf_17, Shnickers_17, Shrimp_18, SilverDipper_18, SmallFry_17, Spec_16, SrishMeg2525_18, StubbySaigey_18, Teardrop_17, TinyTim_18, Tortoise16_16, Trinitium_17, Turret_17, ValleyTerrace_17, Wally_17, Willis_19, YemiJoy2021_19, YoungMoneyMata_18, Yucca_18, Zalkecks_20, Zeenon_21, ZygoTaiga_19,

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

-

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

- Altheas_9, Anedea_193, Avani_87, BAKA_193, Barb_73, Belphegor_12, BirdInFrench_5, Casend_7, CherryTomatoes_82, ClamChowder_73, Danyall_72, DonaldDuck_8, Duke13_188, EMoore_10, Ejimix_176, EleanorGeorge_86, EricMillard_183, Evamon_71, Faith5x5_57, Fireball_75, Fizzles_7, Fugax_74, Gazebo_5, Gorpy_50, HokkenD_180, Hyperion_6, Kelcole_4, Klein_191, Llemily_8, Mask_69, MelBins_16, Minerva_187, Mugiwara_207, Mutzi_70, Myrna_1, Optimus_185, Pepe25_4, Phabia_8, Phinky_12, Phoebus_187, PinkCoffee_73, Pupper_80, Quammi_6, RedWattleHog_155, Redno2_179, Richie_52, Rita_67, Rudy_6, SCentae_78, SG4_78, SadLad_7, Sakai_49, Salvador_71, Schatzie_181, Sejanus_68, Serenabean_80, Shinji_71, Sillytadpoles_8, Skog_144, Stormageddon_156, Tempo_5, TillyBobJoe_72, Tonerili_24, Viceroy_7, Wanda_184, Wayne3_7, Wheelie_7, Wilca_5, YungMoney_71, Zelink_179,

Summary by start number:

Start 18:

- Found in 1 of 196 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 173
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Myrna_1 (C2),

Start 20:

- Found in 1 of 196 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 173
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Skog_144 (DO),

Start 22:

- Found in 6 of 196 (3.1%) of genes in pham
- Manual Annotations of this start: 1 of 173
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Altheas_9 (EG), BirdInFrench_5 (EG), Pepe25_4 (EG), Wilca_5 (EG),

Start 23:

- Found in 1 of 196 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 173
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rita_67 (F1),

Start 26:

- Found in 1 of 196 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 173
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tonenili_24 (C1),

Start 29:

- Found in 16 of 196 (8.2%) of genes in pham
- Manual Annotations of this start: 6 of 173
- Called 37.5% of time when present
- Phage (with cluster) where this start called: Ejimix_176 (J), HokkenD_180 (J), Klein_191 (J), Mask_69 (AD), Sejanus_68 (AD), Zelink_179 (J),

Start 30:

- Found in 3 of 196 (1.5%) of genes in pham
- Manual Annotations of this start: 3 of 173
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Avani_87 (F2), EleanorGeorge_86 (F1), SG4_78 (F1),

Start 31:

- Found in 16 of 196 (8.2%) of genes in pham
- Manual Annotations of this start: 11 of 173
- Called 75.0% of time when present
- Phage (with cluster) where this start called: BAKA_193 (J), CherryTomatoes_82 (DO), Duke13_188 (J), EricMillard_183 (J), Minerva_187 (J), Optimus_185 (J), Phoebus_187 (J), Pupper_80 (DO), Redno2_179 (J), SCentae_78 (DO), Schatzie_181 (J), Wanda_184 (J),

Start 33:

- Found in 126 of 196 (64.3%) of genes in pham
- Manual Annotations of this start: 115 of 173
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ading_17 (C1), Adlitam_17 (C1), Amataga_17 (C1), ArcherS7_17 (C1), Asterius_18 (C1), Atlantean_17 (C1), Audrick_19 (C1), Ava3_19 (C1), Babyland_17 (C1), BackyardAgain_16 (C1), BananaFence_19 (C1), Bangla1971_17 (C1), Basquiat_17 (C1), BigCity_22 (C1), Bipolarisk_18 (C1), Blackbrain_17 (C1), Bonray_18 (C1), Bread_19 (C1), Breeniome_18 (C1), Burrough_19 (C1), Cactojaque_16 (C1), Capablanca_19 (C1), Catera_17 (C1), Chargie21_17 (C1), ChaylaJr_17 (C1), ChickenPhender_17 (C1), Chomp_16 (C1), CindyLou_17 (C1), Concombre_18 (C1), Daffodil_20 (C1), Darko_17 (C1), Delilah_18 (C1), Delylah_21 (C1), Derek_18 (C1), Dietrick_15 (C1), DirtMonster_16 (C1), DrPhinkDaddy_18 (C1), EasyJones_18 (C1), EggyFarm_22 (C1), EmToTheThree_21 (C1), EmmaElysia_17 (C1), Erdmann_19 (C1), ErnieJ_21 (C1), Essence_17 (C1), Ewok_18 (C1), Fludd_17 (C1), FoxtrotP1_19 (C1), FudgeTart_19 (C1), Gabriel_18 (C1), Gamgam_17 (C1), Ghost_18 (C1), Gizmo_20 (C1), Grasshills_22 (C1), Guwapp_17 (C1), I3_20 (C1), InigoMontoya_19 (C1),

Iota_16 (C1), Issimir_18 (C1), Izajani_19 (C1), JPickles_17 (C1), Janiyra_17 (C1), JayJay_20 (C1), Jaygup_17 (C1), Jedediah_18 (C1), Jemmno_17 (C1), Jessibeth14_18 (C1), JustHall_17 (C1), Kboogie_18 (C1), Khaleesi_18 (C1), Latch_17 (C1), Lee7_18 (C1), LifeSavor_18 (C1), Littleton_18 (C1), Loanshark_18 (C1), Maby2021_19 (C1), Mangeria_21 (C1), Matsumoto_16 (C1), McGee_18 (C1), McWolfish_18 (C1), Megamind_18 (C1), Melpomini_17 (C1), MikeLiesIn_19 (C1), Momo_17 (C1), Morizzled23_17 (C1), Naija_17 (C1), Napoleon13_17 (C1), Nappy_20 (C1), NedWong_19 (C1), Ngannou_17 (C1), Norm_18 (C1), ParkTD_18 (C1), Patter_17 (C1), Phlegm_19 (C1), Phusco_17 (C1), Pivoine_17 (C1), Pleione_20 (C1), PurduePete_18 (C1), Quasimodo_17 (C1), Rahel_17 (C1), Rizal_17 (C1), Roots515_18 (C1), Salacia_20 (C1), ScottMcG_20 (C1), Shelob_21 (C1), ShiaLabeouf_17 (C1), Shnickers_17 (C1), Shrimp_18 (C1), SilverDipper_18 (C1), SmallFry_17 (C1), Spec_16 (C1), SrishMeg2525_18 (C1), StubbySaigey_18 (C1), Teardrop_17 (C1), TinyTim_18 (C1), Tortoise16_16 (C1), Trinitium_17 (C1), Turret_17 (C1), ValleyTerrace_17 (C1), Wally_17 (C1), Willis_19 (C1), YemiJoy2021_19 (C1), YoungMoneyMata_18 (C1), Yucca_18 (C1), Zalkecks_20 (C1), Zeenon_21 (C1), ZygoTaiga_19 (C1),

Start 42:

- Found in 12 of 196 (6.1%) of genes in pham
- Manual Annotations of this start: 11 of 173
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Barb_73 (DC1), ClamChowder_73 (DC1), Danyall_72 (DC1), Evamon_71 (DC1), Fireball_75 (DC1), Fugax_74 (DC1), Mutzi_70 (DC1), PinkCoffee_73 (DC1), Salvador_71 (DC1), Shinji_71 (DC1), TillyBobJoe_72 (DC1), YungMoney_71 (DC1),

Start 43:

- Found in 5 of 196 (2.6%) of genes in pham
- Manual Annotations of this start: 3 of 173
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Belphegor_12 (DE), EMoore_10 (DE2), MelBins_16 (DE2), SadLad_7 (EG),

Start 44:

- Found in 110 of 196 (56.1%) of genes in pham
- Manual Annotations of this start: 16 of 173
- Called 17.3% of time when present
- Phage (with cluster) where this start called: Casend_7 (EG), DonaldDuck_8 (EG), Fizzles_7 (EG), Gazebo_5 (EG), Gorpy_50 (AY), Hyperion_6 (EG), Kelcole_4 (EG), Llemily_8 (EG), Phabia_8 (EG), Phinky_12 (EG), Quammi_6 (EG), Richie_52 (AY), Rudy_6 (EG), Sakai_49 (AY), Sillytadpoles_8 (EG), Tempo_5 (EG), Viceroy_7 (EG), Wayne3_7 (EG), Wheelie_7 (EG),

Start 45:

- Found in 2 of 196 (1.0%) of genes in pham
- Manual Annotations of this start: 2 of 173
- Called 100.0% of time when present
- Phage (with cluster) where this start called: RedWattleHog_155 (DX), Stormageddon_156 (DX),

Start 46:

- Found in 6 of 196 (3.1%) of genes in pham

- Manual Annotations of this start: 1 of 173
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Anedea_193 (BE1), Faith5x5_57 (CZ6), Mugiwara_207 (BE2),

Start 48:

- Found in 1 of 196 (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: Serenabean_80 (singleton),

Summary by clusters:

There are 17 clusters represented in this pham: F1, F2, DE, AD, DO, EG, J, CZ6, singleton, AY, DX, BE2, C2, C1, BE1, DE2, DC1,

Info for manual annotations of cluster AD:

- Start number 29 was manually annotated 2 times for cluster AD.

Info for manual annotations of cluster AY:

- Start number 44 was manually annotated 3 times for cluster AY.

Info for manual annotations of cluster C1:

- Start number 26 was manually annotated 1 time for cluster C1.
- Start number 33 was manually annotated 115 times for cluster C1.

Info for manual annotations of cluster C2:

- Start number 18 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster CZ6:

- Start number 46 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster DC1:

- Start number 42 was manually annotated 11 times for cluster DC1.

Info for manual annotations of cluster DE2:

- Start number 43 was manually annotated 2 times for cluster DE2.

Info for manual annotations of cluster DO:

- Start number 20 was manually annotated 1 time for cluster DO.
- Start number 31 was manually annotated 2 times for cluster DO.

Info for manual annotations of cluster DX:

- Start number 45 was manually annotated 2 times for cluster DX.

Info for manual annotations of cluster EG:

- Start number 22 was manually annotated 1 time for cluster EG.
- Start number 43 was manually annotated 1 time for cluster EG.
- Start number 44 was manually annotated 13 times for cluster EG.

Info for manual annotations of cluster F1:

- Start number 23 was manually annotated 1 time for cluster F1.
- Start number 30 was manually annotated 2 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 30 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster J:

- Start number 29 was manually annotated 4 times for cluster J.
- Start number 31 was manually annotated 9 times for cluster J.

Gene Information:

Gene: Ading_17 Start: 5194, Stop: 5727, Start Num: 33

Candidate Starts for Ading_17:

(Start: 33 @5194 has 115 MA's), (Start: 44 @5242 has 16 MA's), (64, 5323), (67, 5338), (68, 5341), (69, 5344), (73, 5371), (77, 5386), (83, 5404), (90, 5425), (102, 5488), (103, 5491), (107, 5512), (114, 5623), (115, 5653), (116, 5707),

Gene: Adlitam_17 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for Adlitam_17:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: Altheas_9 Start: 2820, Stop: 2407, Start Num: 22

Candidate Starts for Altheas_9:

(3, 3069), (Start: 22 @2820 has 1 MA's), (35, 2790), (55, 2697), (83, 2580), (89, 2562), (107, 2463), (109, 2436),

Gene: Amataga_17 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for Amataga_17:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Anedea_193 Start: 99583, Stop: 99927, Start Num: 46

Candidate Starts for Anedea_193:

(Start: 46 @99583 has 1 MA's), (51, 99631), (52, 99634), (67, 99694), (76, 99739), (81, 99754), (105, 99859), (108, 99892),

Gene: ArcherS7_17 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for ArcherS7_17:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: Asterius_18 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Asterius_18:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Atlantean_17 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for Atlantean_17:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Audrick_19 Start: 5194, Stop: 5727, Start Num: 33

Candidate Starts for Audrick_19:

(Start: 33 @5194 has 115 MA's), (Start: 44 @5242 has 16 MA's), (64, 5323), (67, 5338), (68, 5341), (69, 5344), (73, 5371), (77, 5386), (83, 5404), (90, 5425), (102, 5488), (103, 5491), (107, 5512), (114, 5623), (115, 5653), (116, 5707),

Gene: Ava3_19 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Ava3_19:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Avani_87 Start: 46430, Stop: 46795, Start Num: 30

Candidate Starts for Avani_87:

(Start: 30 @46430 has 3 MA's), (64, 46535), (67, 46550), (83, 46616), (97, 46652), (102, 46700), (105, 46715), (107, 46724), (110, 46754),

Gene: BAKA_193 Start: 96785, Stop: 97141, Start Num: 31

Candidate Starts for BAKA_193:

(Start: 29 @96782 has 6 MA's), (Start: 31 @96785 has 11 MA's), (Start: 44 @96836 has 16 MA's), (62, 96866), (69, 96902), (77, 96944), (83, 96962), (102, 97046), (107, 97070),

Gene: Babyland_17 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for Babyland_17:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: BackyardAgain_16 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for BackyardAgain_16:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: BananaFence_19 Start: 6216, Stop: 6680, Start Num: 33

Candidate Starts for BananaFence_19:

(Start: 33 @6216 has 115 MA's), (Start: 44 @6264 has 16 MA's), (64, 6345), (67, 6360), (68, 6363), (69, 6366), (73, 6393), (77, 6408), (83, 6426), (90, 6447), (102, 6510), (103, 6513), (107, 6534), (114, 6645), (115, 6675),

Gene: Bangla1971_17 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for Bangla1971_17:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: Barb_73 Start: 50062, Stop: 50412, Start Num: 42

Candidate Starts for Barb_73:

(9, 49870), (15, 49933), (21, 49993), (Start: 42 @50062 has 11 MA's), (55, 50125), (62, 50152), (83, 50242), (105, 50350), (107, 50359),

Gene: Basquiat_17 Start: 5196, Stop: 5729, Start Num: 33

Candidate Starts for Basquiat_17:

(Start: 33 @5196 has 115 MA's), (Start: 44 @5244 has 16 MA's), (64, 5325), (67, 5340), (68, 5343), (69, 5346), (73, 5373), (77, 5388), (83, 5406), (90, 5427), (102, 5490), (103, 5493), (107, 5514), (114, 5625), (115, 5655), (116, 5709),

Gene: Belphegor_12 Start: 9683, Stop: 10045, Start Num: 43

Candidate Starts for Belphegor_12:

(10, 9485), (14, 9539), (27, 9626), (34, 9638), (Start: 43 @9683 has 3 MA's), (Start: 46 @9689 has 1 MA's), (49, 9716), (50, 9731), (57, 9764), (65, 9800), (67, 9812), (70, 9827), (105, 9980), (107, 9989),

Gene: BigCity_22 Start: 7585, Stop: 8118, Start Num: 33

Candidate Starts for BigCity_22:

(Start: 33 @7585 has 115 MA's), (36, 7597), (Start: 44 @7633 has 16 MA's), (64, 7714), (67, 7729), (68, 7732), (69, 7735), (73, 7762), (77, 7777), (83, 7795), (90, 7816), (102, 7879), (103, 7882), (107, 7903), (114, 8014), (115, 8044), (116, 8098),

Gene: Bipolarisk_18 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Bipolarisk_18:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: BirdInFrench_5 Start: 1900, Stop: 1487, Start Num: 22

Candidate Starts for BirdInFrench_5:

(Start: 22 @1900 has 1 MA's), (47, 1825), (55, 1777), (66, 1723), (83, 1660), (89, 1642), (107, 1543), (109, 1516),

Gene: Blackbrain_17 Start: 5211, Stop: 5789, Start Num: 33

Candidate Starts for Blackbrain_17:

(Start: 33 @5211 has 115 MA's), (49, 5289), (52, 5322), (58, 5343), (78, 5436), (85, 5457), (99, 5514), (100, 5526), (102, 5550), (103, 5553), (105, 5565), (107, 5574), (114, 5685), (115, 5715), (116, 5769),

Gene: Bonray_18 Start: 6274, Stop: 6852, Start Num: 33

Candidate Starts for Bonray_18:

(Start: 33 @6274 has 115 MA's), (49, 6352), (52, 6385), (58, 6406), (78, 6499), (85, 6520), (99, 6577), (100, 6589), (102, 6613), (103, 6616), (105, 6628), (107, 6637), (114, 6748), (115, 6778), (116, 6832),

Gene: Bread_19 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Bread_19:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Breeniome_18 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for Breeniome_18:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: Burrough_19 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Burrough_19:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Cactojaque_16 Start: 5145, Stop: 5678, Start Num: 33

Candidate Starts for Cactojaque_16:

(Start: 33 @5145 has 115 MA's), (Start: 44 @5193 has 16 MA's), (64, 5274), (67, 5289), (68, 5292), (69, 5295), (73, 5322), (77, 5337), (83, 5355), (90, 5376), (102, 5439), (103, 5442), (107, 5463), (114, 5574), (115, 5604), (116, 5658),

Gene: Capablanca_19 Start: 6295, Stop: 6873, Start Num: 33

Candidate Starts for Capablanca_19:

(Start: 33 @6295 has 115 MA's), (49, 6373), (52, 6406), (58, 6427), (78, 6520), (85, 6541), (99, 6598), (100, 6610), (102, 6634), (103, 6637), (105, 6649), (107, 6658), (114, 6769), (115, 6799), (116, 6853),

Gene: Casend_7 Start: 2333, Stop: 1968, Start Num: 44

Candidate Starts for Casend_7:

(4, 2597), (7, 2570), (11, 2516), (Start: 44 @2333 has 16 MA's), (51, 2282), (69, 2210), (83, 2150), (89, 2132), (92, 2126), (98, 2090), (100, 2072), (101, 2066), (107, 2024),

Gene: Catera_17 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for Catera_17:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Chargie21_17 Start: 5196, Stop: 5729, Start Num: 33

Candidate Starts for Chargie21_17:

(Start: 33 @5196 has 115 MA's), (Start: 44 @5244 has 16 MA's), (64, 5325), (67, 5340), (68, 5343), (69, 5346), (73, 5373), (77, 5388), (83, 5406), (90, 5427), (102, 5490), (103, 5493), (107, 5514), (114, 5625), (115, 5655), (116, 5709),

Gene: ChaylaJr_17 Start: 5238, Stop: 5816, Start Num: 33

Candidate Starts for ChaylaJr_17:

(Start: 33 @5238 has 115 MA's), (49, 5316), (52, 5349), (58, 5370), (78, 5463), (85, 5484), (99, 5541), (100, 5553), (102, 5577), (103, 5580), (105, 5592), (107, 5601), (114, 5712), (115, 5742), (116, 5796),

Gene: CherryTomatoes_82 Start: 30585, Stop: 30956, Start Num: 31

Candidate Starts for CherryTomatoes_82:

(1, 30135), (2, 30243), (Start: 31 @30585 has 11 MA's), (83, 30774), (97, 30810),

Gene: ChickenPhender_17 Start: 5196, Stop: 5774, Start Num: 33

Candidate Starts for ChickenPhender_17:

(Start: 33 @5196 has 115 MA's), (49, 5274), (52, 5307), (58, 5328), (78, 5421), (85, 5442), (99, 5499), (100, 5511), (102, 5535), (103, 5538), (105, 5550), (107, 5559), (114, 5670), (115, 5700), (116, 5754),

Gene: Chomp_16 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for Chomp_16:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: CindyLou_17 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for CindyLou_17:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: ClamChowder_73 Start: 50062, Stop: 50412, Start Num: 42

Candidate Starts for ClamChowder_73:

(9, 49870), (15, 49933), (21, 49993), (Start: 42 @50062 has 11 MA's), (55, 50125), (62, 50152), (83, 50242), (105, 50350), (107, 50359),

Gene: Concombres_18 Start: 6281, Stop: 6814, Start Num: 33

Candidate Starts for Concombres_18:

(Start: 33 @6281 has 115 MA's), (36, 6293), (Start: 44 @6329 has 16 MA's), (64, 6410), (67, 6425), (68, 6428), (69, 6431), (73, 6458), (77, 6473), (83, 6491), (90, 6512), (102, 6575), (103, 6578), (107, 6599), (114, 6710), (115, 6740), (116, 6794),

Gene: Daffodil_20 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Daffodil_20:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Danyall_72 Start: 50043, Stop: 50393, Start Num: 42

Candidate Starts for Danyall_72:

(9, 49851), (15, 49914), (21, 49974), (Start: 42 @50043 has 11 MA's), (55, 50106), (62, 50133), (83, 50223), (105, 50331), (107, 50340),

Gene: Darko_17 Start: 6185, Stop: 6649, Start Num: 33

Candidate Starts for Darko_17:

(Start: 33 @6185 has 115 MA's), (Start: 44 @6233 has 16 MA's), (64, 6314), (67, 6329), (68, 6332), (69, 6335), (73, 6362), (77, 6377), (83, 6395), (90, 6416), (102, 6479), (103, 6482), (107, 6503), (114, 6614), (115, 6644),

Gene: Delilah_18 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Delilah_18:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Delylah_21 Start: 6307, Stop: 6885, Start Num: 33

Candidate Starts for Delylah_21:

(Start: 33 @6307 has 115 MA's), (49, 6385), (52, 6418), (58, 6439), (78, 6532), (85, 6553), (99, 6610), (100, 6622), (102, 6646), (103, 6649), (105, 6661), (107, 6670), (114, 6781), (115, 6811), (116, 6865),

Gene: Derek_18 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for Derek_18:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: Dietrick_15 Start: 5213, Stop: 5746, Start Num: 33

Candidate Starts for Dietrick_15:

(Start: 33 @5213 has 115 MA's), (Start: 44 @5261 has 16 MA's), (64, 5342), (67, 5357), (68, 5360), (69, 5363), (73, 5390), (77, 5405), (83, 5423), (90, 5444), (102, 5507), (103, 5510), (107, 5531), (114, 5642), (115, 5672), (116, 5726),

Gene: DirtMonster_16 Start: 6340, Stop: 6873, Start Num: 33

Candidate Starts for DirtMonster_16:

(Start: 33 @6340 has 115 MA's), (36, 6352), (Start: 44 @6388 has 16 MA's), (64, 6469), (67, 6484), (68, 6487), (73, 6517), (77, 6532), (83, 6550), (90, 6571), (102, 6634), (103, 6637), (105, 6649), (107, 6658), (114, 6769), (115, 6799), (116, 6853),

Gene: DonaldDuck_8 Start: 2085, Stop: 1723, Start Num: 44

Candidate Starts for DonaldDuck_8:

(4, 2349), (7, 2322), (11, 2268), (Start: 44 @2085 has 16 MA's), (59, 2010), (64, 1986), (69, 1965), (79, 1920), (83, 1905), (90, 1884), (93, 1878), (96, 1866), (98, 1845), (100, 1827), (101, 1821), (102, 1803), (107, 1779),

Gene: DrPhinkDaddy_18 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for DrPhinkDaddy_18:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Duke13_188 Start: 95119, Stop: 95475, Start Num: 31

Candidate Starts for Duke13_188:

(Start: 29 @95116 has 6 MA's), (Start: 31 @95119 has 11 MA's), (Start: 44 @95170 has 16 MA's), (62, 95200), (69, 95236), (77, 95278), (83, 95296), (102, 95380), (107, 95404),

Gene: EMoore_10 Start: 8765, Stop: 9127, Start Num: 43

Candidate Starts for EMoore_10:

(14, 8621), (27, 8708), (34, 8720), (Start: 43 @8765 has 3 MA's), (Start: 46 @8771 has 1 MA's), (49, 8798), (50, 8813), (57, 8846), (65, 8882), (67, 8894), (70, 8909), (87, 8978), (107, 9071),

Gene: EasyJones_18 Start: 5196, Stop: 5729, Start Num: 33

Candidate Starts for EasyJones_18:

(Start: 33 @5196 has 115 MA's), (Start: 44 @5244 has 16 MA's), (64, 5325), (67, 5340), (68, 5343), (69, 5346), (73, 5373), (77, 5388), (83, 5406), (90, 5427), (102, 5490), (103, 5493), (107, 5514), (114, 5625), (115, 5655), (116, 5709),

Gene: EggyFarm_22 Start: 7585, Stop: 8118, Start Num: 33

Candidate Starts for EggyFarm_22:

(Start: 33 @7585 has 115 MA's), (36, 7597), (Start: 44 @7633 has 16 MA's), (64, 7714), (67, 7729), (68, 7732), (69, 7735), (73, 7762), (77, 7777), (83, 7795), (90, 7816), (102, 7879), (103, 7882), (107, 7903), (114, 8014), (115, 8044), (116, 8098),

Gene: Ejimix_176 Start: 94148, Stop: 94507, Start Num: 29

Candidate Starts for Ejimix_176:

(Start: 29 @94148 has 6 MA's), (Start: 31 @94151 has 11 MA's), (Start: 44 @94202 has 16 MA's), (62, 94232), (69, 94268), (77, 94310), (83, 94328), (102, 94412), (107, 94436),

Gene: EleanorGeorge_86 Start: 50747, Stop: 51112, Start Num: 30

Candidate Starts for EleanorGeorge_86:

(5, 50549), (6, 50570), (Start: 30 @50747 has 3 MA's), (64, 50852), (67, 50867), (83, 50933), (97, 50969), (102, 51017), (107, 51041), (110, 51071),

Gene: EmToTheThree_21 Start: 7694, Stop: 8272, Start Num: 33

Candidate Starts for EmToTheThree_21:

(Start: 33 @7694 has 115 MA's), (49, 7772), (52, 7805), (58, 7826), (78, 7919), (85, 7940), (99, 7997), (100, 8009), (102, 8033), (103, 8036), (105, 8048), (107, 8057), (114, 8168), (115, 8198), (116, 8252),

Gene: EmmaElysia_17 Start: 5211, Stop: 5636, Start Num: 33

Candidate Starts for EmmaElysia_17:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529),

Gene: Erdmann_19 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Erdmann_19:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: EricMillard_183 Start: 95861, Stop: 96217, Start Num: 31

Candidate Starts for EricMillard_183:

(Start: 29 @95858 has 6 MA's), (Start: 31 @95861 has 11 MA's), (Start: 44 @95912 has 16 MA's), (62, 95942), (69, 95978), (77, 96020), (83, 96038), (102, 96122), (107, 96146),

Gene: ErnieJ_21 Start: 6386, Stop: 6919, Start Num: 33

Candidate Starts for ErnieJ_21:

(Start: 33 @6386 has 115 MA's), (Start: 44 @6434 has 16 MA's), (64, 6515), (67, 6530), (68, 6533), (69, 6536), (73, 6563), (77, 6578), (83, 6596), (90, 6617), (102, 6680), (103, 6683), (107, 6704), (114, 6815), (115, 6845), (116, 6899),

Gene: Essence_17 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for Essence_17:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: Evamon_71 Start: 49838, Stop: 50176, Start Num: 42

Candidate Starts for Evamon_71:

(39, 49826), (Start: 42 @49838 has 11 MA's), (55, 49889), (59, 49907), (62, 49916), (83, 50006), (105, 50114), (107, 50123),

Gene: Ewok_18 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Ewok_18:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Faith5x5_57 Start: 35656, Stop: 36027, Start Num: 46

Candidate Starts for Faith5x5_57:

(Start: 43 @35650 has 3 MA's), (Start: 46 @35656 has 1 MA's), (49, 35683), (63, 35755), (64, 35764), (67, 35779), (68, 35782), (70, 35794), (83, 35848), (104, 35941), (107, 35956), (108, 35980), (112, 36019),

Gene: Fireball_75 Start: 50740, Stop: 51090, Start Num: 42

Candidate Starts for Fireball_75:

(9, 50548), (15, 50611), (21, 50671), (Start: 42 @50740 has 11 MA's), (55, 50803), (62, 50830), (83, 50920), (105, 51028), (107, 51037),

Gene: Fizzles_7 Start: 2470, Stop: 2108, Start Num: 44

Candidate Starts for Fizzles_7:

(Start: 44 @2470 has 16 MA's), (53, 2416), (59, 2395), (63, 2380), (79, 2305), (83, 2290), (88, 2272), (94, 2260), (98, 2230), (100, 2212), (101, 2206), (107, 2164),

Gene: Fludd_17 Start: 5197, Stop: 5730, Start Num: 33

Candidate Starts for Fludd_17:

(Start: 33 @5197 has 115 MA's), (Start: 44 @5245 has 16 MA's), (64, 5326), (67, 5341), (68, 5344), (69, 5347), (73, 5374), (77, 5389), (83, 5407), (90, 5428), (102, 5491), (103, 5494), (107, 5515), (114, 5626), (115, 5656), (116, 5710),

Gene: FoxtrotP1_19 Start: 6839, Stop: 7417, Start Num: 33

Candidate Starts for FoxtrotP1_19:

(Start: 33 @6839 has 115 MA's), (49, 6917), (52, 6950), (58, 6971), (78, 7064), (85, 7085), (99, 7142), (100, 7154), (102, 7178), (103, 7181), (105, 7193), (107, 7202), (114, 7313), (115, 7343), (116, 7397),

Gene: FudgeTart_19 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for FudgeTart_19:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Fugax_74 Start: 50054, Stop: 50404, Start Num: 42

Candidate Starts for Fugax_74:

(9, 49862), (15, 49925), (21, 49985), (Start: 42 @50054 has 11 MA's), (55, 50117), (62, 50144), (83, 50234), (105, 50342), (107, 50351),

Gene: Gabriel_18 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for Gabriel_18:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: Gamgam_17 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for Gamgam_17:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Gazebo_5 Start: 2065, Stop: 1700, Start Num: 44

Candidate Starts for Gazebo_5:

(Start: 22 @2137 has 1 MA's), (Start: 44 @2065 has 16 MA's), (51, 2014), (69, 1942), (83, 1882), (84, 1879), (89, 1864), (92, 1858), (98, 1822), (100, 1804), (107, 1756),

Gene: Ghost_18 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for Ghost_18:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Gizmo_20 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Gizmo_20:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Gorpy_50 Start: 31667, Stop: 32041, Start Num: 44

Candidate Starts for Gorpy_50:

(41, 31658), (Start: 44 @31667 has 16 MA's), (81, 31841), (83, 31847), (93, 31874), (102, 31949),

Gene: Grasshills_22 Start: 7585, Stop: 8118, Start Num: 33

Candidate Starts for Grasshills_22:

(Start: 33 @7585 has 115 MA's), (36, 7597), (Start: 44 @7633 has 16 MA's), (64, 7714), (67, 7729), (68, 7732), (69, 7735), (73, 7762), (77, 7777), (83, 7795), (90, 7816), (102, 7879), (103, 7882), (107, 7903), (114, 8014), (115, 8044), (116, 8098),

Gene: Guwapp_17 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for Guwapp_17:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: HokkenD_180 Start: 96244, Stop: 96603, Start Num: 29

Candidate Starts for HokkenD_180:

(Start: 29 @96244 has 6 MA's), (Start: 31 @96247 has 11 MA's), (Start: 44 @96298 has 16 MA's), (62, 96328), (69, 96364), (77, 96406), (83, 96424), (102, 96508), (107, 96532),

Gene: Hyperion_6 Start: 2102, Stop: 1737, Start Num: 44

Candidate Starts for Hyperion_6:

(Start: 22 @2174 has 1 MA's), (Start: 44 @2102 has 16 MA's), (51, 2051), (69, 1979), (83, 1919), (84, 1916), (89, 1901), (92, 1895), (98, 1859), (100, 1841), (102, 1817), (107, 1793),

Gene: I3_20 Start: 6874, Stop: 7407, Start Num: 33

Candidate Starts for I3_20:

(Start: 33 @6874 has 115 MA's), (36, 6886), (Start: 44 @6922 has 16 MA's), (64, 7003), (67, 7018), (68, 7021), (73, 7051), (77, 7066), (83, 7084), (90, 7105), (102, 7168), (103, 7171), (105, 7183), (107, 7192), (114, 7303), (115, 7333),

Gene: InigoMontoya_19 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for InigoMontoya_19:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Iota_16 Start: 6059, Stop: 6637, Start Num: 33

Candidate Starts for Iota_16:

(Start: 33 @6059 has 115 MA's), (49, 6137), (52, 6170), (58, 6191), (78, 6284), (85, 6305), (99, 6362), (100, 6374), (102, 6398), (103, 6401), (105, 6413), (107, 6422), (114, 6533), (115, 6563), (116, 6617),

Gene: Issimir_18 Start: 6274, Stop: 6852, Start Num: 33

Candidate Starts for Issimir_18:

(Start: 33 @6274 has 115 MA's), (49, 6352), (52, 6385), (58, 6406), (78, 6499), (85, 6520), (99, 6577), (100, 6589), (102, 6613), (103, 6616), (105, 6628), (107, 6637), (114, 6748), (115, 6778), (116, 6832),

Gene: Izajani_19 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Izajani_19:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: JPickles_17 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for JPickles_17:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Janiyra_17 Start: 5194, Stop: 5727, Start Num: 33

Candidate Starts for Janiyra_17:

(Start: 33 @5194 has 115 MA's), (Start: 44 @5242 has 16 MA's), (64, 5323), (67, 5338), (68, 5341), (69, 5344), (73, 5371), (77, 5386), (83, 5404), (90, 5425), (102, 5488), (103, 5491), (107, 5512), (114, 5623), (115, 5653), (116, 5707),

Gene: JayJay_20 Start: 6302, Stop: 6835, Start Num: 33

Candidate Starts for JayJay_20:

(Start: 33 @6302 has 115 MA's), (36, 6314), (Start: 44 @6350 has 16 MA's), (64, 6431), (67, 6446), (68, 6449), (69, 6452), (73, 6479), (77, 6494), (83, 6512), (90, 6533), (102, 6596), (103, 6599), (105, 6611), (107, 6620), (114, 6731), (115, 6761), (116, 6815),

Gene: Jaygup_17 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for Jaygup_17:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: Jedediah_18 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for Jedediah_18:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Jemmno_17 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for Jemmno_17:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Jessibeth14_18 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Jessibeth14_18:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: JustHall_17 Start: 6210, Stop: 6743, Start Num: 33

Candidate Starts for JustHall_17:

(Start: 33 @6210 has 115 MA's), (Start: 44 @6258 has 16 MA's), (64, 6339), (67, 6354), (68, 6357), (69, 6360), (73, 6387), (77, 6402), (83, 6420), (90, 6441), (102, 6504), (103, 6507), (107, 6528), (114, 6639), (115, 6669), (116, 6723),

Gene: Kboogie_18 Start: 5213, Stop: 5746, Start Num: 33

Candidate Starts for Kboogie_18:

(Start: 33 @5213 has 115 MA's), (Start: 44 @5261 has 16 MA's), (64, 5342), (67, 5357), (68, 5360), (69, 5363), (73, 5390), (77, 5405), (83, 5423), (90, 5444), (102, 5507), (103, 5510), (107, 5531), (114, 5642), (115, 5672), (116, 5726),

Gene: Kelcole_4 Start: 1820, Stop: 1458, Start Num: 44

Candidate Starts for Kelcole_4:

(32, 1865), (Start: 44 @1820 has 16 MA's), (53, 1766), (59, 1745), (69, 1700), (83, 1640), (88, 1622), (94, 1610), (98, 1580), (100, 1562), (101, 1556), (107, 1514),

Gene: Khaleesi_18 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Khaleesi_18:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Klein_191 Start: 94673, Stop: 95032, Start Num: 29

Candidate Starts for Klein_191:

(Start: 29 @94673 has 6 MA's), (Start: 31 @94676 has 11 MA's), (Start: 44 @94727 has 16 MA's), (62, 94757), (69, 94793), (77, 94835), (83, 94853), (102, 94937), (107, 94961),

Gene: Latch_17 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for Latch_17:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Lee7_18 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Lee7_18:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: LifeSavor_18 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for LifeSavor_18:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: Littleton_18 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for Littleton_18:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Llemily_8 Start: 2086, Stop: 1724, Start Num: 44

Candidate Starts for Llemily_8:

(4, 2350), (7, 2323), (11, 2269), (Start: 44 @2086 has 16 MA's), (59, 2011), (64, 1987), (69, 1966), (79, 1921), (83, 1906), (90, 1885), (93, 1879), (96, 1867), (98, 1846), (100, 1828), (101, 1822), (102, 1804), (107, 1780),

Gene: Loanshark_18 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Loanshark_18:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Maby2021_19 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Maby2021_19:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Mangeria_21 Start: 6912, Stop: 7253, Start Num: 33

Candidate Starts for Mangeria_21:

(Start: 33 @6912 has 115 MA's), (36, 6924), (64, 7014), (67, 7029), (83, 7095), (97, 7131), (102, 7179), (103, 7182), (105, 7194), (107, 7203),

Gene: Mask_69 Start: 53936, Stop: 54289, Start Num: 29

Candidate Starts for Mask_69:

(16, 53876), (24, 53927), (Start: 29 @53936 has 6 MA's), (40, 53978), (67, 54050), (69, 54056), (75, 54089), (78, 54101), (83, 54116), (102, 54200), (106, 54221),

Gene: Matsumoto_16 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for Matsumoto_16:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: McGee_18 Start: 5213, Stop: 5746, Start Num: 33

Candidate Starts for McGee_18:

(Start: 33 @5213 has 115 MA's), (Start: 44 @5261 has 16 MA's), (64, 5342), (67, 5357), (68, 5360), (69, 5363), (73, 5390), (77, 5405), (83, 5423), (90, 5444), (102, 5507), (103, 5510), (107, 5531), (114, 5642), (115, 5672), (116, 5726),

Gene: McWolfish_18 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for McWolfish_18:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Megamind_18 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Megamind_18:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: MelBins_16 Start: 11228, Stop: 11590, Start Num: 43

Candidate Starts for MelBins_16:

(10, 11030), (14, 11084), (27, 11171), (34, 11183), (Start: 43 @11228 has 3 MA's), (Start: 46 @11234 has 1 MA's), (49, 11261), (50, 11276), (57, 11309), (65, 11345), (67, 11357), (70, 11372), (87, 11441), (107, 11534), (110, 11564),

Gene: Melpomini_17 Start: 5194, Stop: 5727, Start Num: 33

Candidate Starts for Melpomini_17:

(Start: 33 @5194 has 115 MA's), (Start: 44 @5242 has 16 MA's), (64, 5323), (67, 5338), (68, 5341), (69, 5344), (73, 5371), (77, 5386), (83, 5404), (90, 5425), (102, 5488), (103, 5491), (107, 5512), (114, 5623), (115, 5653), (116, 5707),

Gene: MikeLiesIn_19 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for MikeLiesIn_19:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Minerva_187 Start: 94312, Stop: 94668, Start Num: 31

Candidate Starts for Minerva_187:

(Start: 29 @94309 has 6 MA's), (Start: 31 @94312 has 11 MA's), (Start: 44 @94363 has 16 MA's), (62, 94393), (69, 94429), (77, 94471), (83, 94489), (102, 94573), (107, 94597),

Gene: Momo_17 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for Momo_17:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Morizzled23_17 Start: 5194, Stop: 5727, Start Num: 33

Candidate Starts for Morizzled23_17:

(Start: 33 @5194 has 115 MA's), (Start: 44 @5242 has 16 MA's), (64, 5323), (67, 5338), (68, 5341), (69, 5344), (73, 5371), (77, 5386), (83, 5404), (90, 5425), (102, 5488), (103, 5491), (107, 5512), (114, 5623), (115, 5653), (116, 5707),

Gene: Mugiwara_207 Start: 101653, Stop: 101997, Start Num: 46

Candidate Starts for Mugiwara_207:

(Start: 46 @101653 has 1 MA's), (51, 101701), (64, 101749), (71, 101782), (72, 101791), (81, 101824), (105, 101929), (107, 101938), (108, 101962),

Gene: Mutzi_70 Start: 50930, Stop: 51268, Start Num: 42

Candidate Starts for Mutzi_70:

(8, 50729), (13, 50798), (39, 50918), (Start: 42 @50930 has 11 MA's), (55, 50981), (62, 51008), (83, 51098), (105, 51206), (107, 51215),

Gene: Myrna_1 Start: 1, Stop: 540, Start Num: 18

Candidate Starts for Myrna_1:

(Start: 18 @1 has 1 MA's), (36, 52), (60, 124), (64, 145), (69, 166), (83, 229), (85, 235), (102, 316), (106, 337), (107, 340), (111, 391), (113, 442),

Gene: Naija_17 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for Naija_17:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Napoleon13_17 Start: 5213, Stop: 5746, Start Num: 33

Candidate Starts for Napoleon13_17:

(Start: 33 @5213 has 115 MA's), (Start: 44 @5261 has 16 MA's), (64, 5342), (67, 5357), (68, 5360), (69, 5363), (73, 5390), (77, 5405), (83, 5423), (90, 5444), (102, 5507), (103, 5510), (107, 5531), (114, 5642), (115, 5672), (116, 5726),

Gene: Nappy_20 Start: 6498, Stop: 7031, Start Num: 33

Candidate Starts for Nappy_20:

(Start: 33 @6498 has 115 MA's), (36, 6510), (Start: 44 @6546 has 16 MA's), (64, 6627), (67, 6642), (68, 6645), (69, 6648), (73, 6675), (77, 6690), (83, 6708), (90, 6729), (102, 6792), (103, 6795), (107, 6816), (114, 6927), (115, 6957), (116, 7011),

Gene: NedWong_19 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for NedWong_19:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Ngannou_17 Start: 5194, Stop: 5727, Start Num: 33

Candidate Starts for Ngannou_17:

(Start: 33 @5194 has 115 MA's), (Start: 44 @5242 has 16 MA's), (64, 5323), (67, 5338), (68, 5341), (69, 5344), (73, 5371), (77, 5386), (83, 5404), (90, 5425), (102, 5488), (103, 5491), (107, 5512), (114, 5623), (115, 5653), (116, 5707),

Gene: Norm_18 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Norm_18:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Optimus_185 Start: 95228, Stop: 95584, Start Num: 31

Candidate Starts for Optimus_185:

(Start: 29 @95225 has 6 MA's), (Start: 31 @95228 has 11 MA's), (Start: 44 @95279 has 16 MA's), (62, 95309), (69, 95345), (77, 95387), (83, 95405), (102, 95489), (107, 95513),

Gene: ParkTD_18 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for ParkTD_18:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Patter_17 Start: 5232, Stop: 5765, Start Num: 33

Candidate Starts for Patter_17:

(Start: 33 @5232 has 115 MA's), (Start: 44 @5280 has 16 MA's), (64, 5361), (67, 5376), (68, 5379), (69, 5382), (73, 5409), (77, 5424), (83, 5442), (90, 5463), (102, 5526), (103, 5529), (107, 5550), (114, 5661), (115, 5691), (116, 5745),

Gene: Pepe25_4 Start: 1900, Stop: 1487, Start Num: 22

Candidate Starts for Pepe25_4:

(Start: 22 @1900 has 1 MA's), (47, 1825), (55, 1777), (66, 1723), (83, 1660), (89, 1642), (107, 1543), (109, 1516),

Gene: Phabia_8 Start: 2516, Stop: 2154, Start Num: 44

Candidate Starts for Phabia_8:

(38, 2534), (Start: 44 @2516 has 16 MA's), (53, 2462), (59, 2441), (64, 2417), (69, 2396), (83, 2336), (90, 2315), (93, 2309), (96, 2297), (98, 2276), (100, 2258), (101, 2252), (102, 2234), (107, 2210),

Gene: Phinky_12 Start: 3235, Stop: 2873, Start Num: 44

Candidate Starts for Phinky_12:

(12, 3382), (Start: 44 @3235 has 16 MA's), (64, 3136), (67, 3121), (83, 3055), (90, 3034), (98, 2995), (100, 2977), (101, 2971), (102, 2953), (107, 2929),

Gene: Phlegm_19 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for Phlegm_19:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Phoebus_187 Start: 97707, Stop: 98063, Start Num: 31

Candidate Starts for Phoebus_187:

(Start: 29 @97704 has 6 MA's), (Start: 31 @97707 has 11 MA's), (Start: 44 @97758 has 16 MA's), (62, 97788), (69, 97824), (77, 97866), (83, 97884), (102, 97968), (107, 97992),

Gene: Phusco_17 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for Phusco_17:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: PinkCoffee_73 Start: 50084, Stop: 50434, Start Num: 42

Candidate Starts for PinkCoffee_73:

(9, 49892), (15, 49955), (21, 50015), (Start: 42 @50084 has 11 MA's), (55, 50147), (62, 50174), (83, 50264), (105, 50372), (107, 50381),

Gene: Pivoine_17 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for Pivoine_17:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Pleione_20 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Pleione_20:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Pupper_80 Start: 30770, Stop: 31141, Start Num: 31

Candidate Starts for Pupper_80:

(Start: 31 @30770 has 11 MA's), (83, 30959), (97, 30995),

Gene: PurduePete_18 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for PurduePete_18:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Quammi_6 Start: 2093, Stop: 1728, Start Num: 44

Candidate Starts for Quammi_6:

(4, 2357), (7, 2330), (11, 2276), (Start: 44 @2093 has 16 MA's), (51, 2042), (69, 1970), (83, 1910), (89, 1892), (92, 1886), (98, 1850), (100, 1832), (101, 1826), (102, 1808), (107, 1784),

Gene: Quasimodo_17 Start: 6214, Stop: 6747, Start Num: 33

Candidate Starts for Quasimodo_17:

(Start: 33 @6214 has 115 MA's), (Start: 44 @6262 has 16 MA's), (64, 6343), (67, 6358), (68, 6361), (69, 6364), (73, 6391), (77, 6406), (83, 6424), (90, 6445), (102, 6508), (103, 6511), (107, 6532), (114, 6643), (115, 6673), (116, 6727),

Gene: Rahel_17 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for Rahel_17:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: RedWattleHog_155 Start: 105039, Stop: 105395, Start Num: 45

Candidate Starts for RedWattleHog_155:

(37, 105006), (Start: 45 @105039 has 2 MA's), (60, 105114), (68, 105153), (69, 105156), (74, 105186), (86, 105219), (90, 105231), (91, 105234), (95, 105240), (100, 105276), (102, 105300), (108, 105348),

Gene: Redno2_179 Start: 91820, Stop: 92176, Start Num: 31

Candidate Starts for Redno2_179:

(Start: 29 @91817 has 6 MA's), (Start: 31 @91820 has 11 MA's), (Start: 44 @91871 has 16 MA's), (62, 91901), (69, 91937), (77, 91979), (83, 91997), (102, 92081), (107, 92105),

Gene: Richie_52 Start: 31345, Stop: 31719, Start Num: 44

Candidate Starts for Richie_52:

(41, 31336), (Start: 44 @31345 has 16 MA's), (81, 31519), (83, 31525), (93, 31552), (102, 31627),

Gene: Rita_67 Start: 40872, Stop: 41237, Start Num: 23

Candidate Starts for Rita_67:

(Start: 23 @40872 has 1 MA's), (Start: 29 @40884 has 6 MA's), (40, 40926), (67, 40998), (69, 41004), (75, 41037), (78, 41049), (83, 41064), (102, 41148), (106, 41169),

Gene: Rizal_17 Start: 5210, Stop: 5743, Start Num: 33

Candidate Starts for Rizal_17:

(Start: 33 @5210 has 115 MA's), (Start: 44 @5258 has 16 MA's), (64, 5339), (67, 5354), (68, 5357), (69, 5360), (73, 5387), (77, 5402), (83, 5420), (90, 5441), (102, 5504), (103, 5507), (107, 5528), (114, 5639), (115, 5669), (116, 5723),

Gene: Roots515_18 Start: 6279, Stop: 6857, Start Num: 33

Candidate Starts for Roots515_18:

(Start: 33 @6279 has 115 MA's), (49, 6357), (52, 6390), (58, 6411), (78, 6504), (85, 6525), (99, 6582), (100, 6594), (102, 6618), (103, 6621), (105, 6633), (107, 6642), (114, 6753), (115, 6783), (116, 6837),

Gene: Rudy_6 Start: 2093, Stop: 1728, Start Num: 44

Candidate Starts for Rudy_6:

(4, 2357), (7, 2330), (11, 2276), (Start: 44 @2093 has 16 MA's), (51, 2042), (69, 1970), (83, 1910), (89, 1892), (92, 1886), (98, 1850), (100, 1832), (101, 1826), (102, 1808), (107, 1784),

Gene: SCentae_78 Start: 30443, Stop: 30814, Start Num: 31

Candidate Starts for SCentae_78:

(1, 29993), (2, 30101), (Start: 31 @30443 has 11 MA's), (83, 30632), (97, 30668),

Gene: SG4_78 Start: 48359, Stop: 48742, Start Num: 30

Candidate Starts for SG4_78:

(Start: 30 @48359 has 3 MA's), (49, 48422), (57, 48446), (67, 48488), (69, 48494), (82, 48560), (83, 48563), (90, 48584), (93, 48590), (97, 48599), (102, 48647), (105, 48662), (107, 48671), (110, 48701),

Gene: SadLad_7 Start: 2504, Stop: 2139, Start Num: 43

Candidate Starts for SadLad_7:

(24, 2564), (25, 2561), (Start: 43 @2504 has 3 MA's), (Start: 44 @2501 has 16 MA's), (60, 2423), (64, 2402), (69, 2381), (79, 2336), (83, 2321), (87, 2306), (93, 2294), (94, 2291), (98, 2261), (100, 2243), (101, 2237),

Gene: Sakai_49 Start: 30378, Stop: 30752, Start Num: 44

Candidate Starts for Sakai_49:

(41, 30369), (Start: 44 @30378 has 16 MA's), (81, 30552), (83, 30558), (93, 30585), (102, 30660),

Gene: Salacia_20 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Salacia_20:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Salvador_71 Start: 49836, Stop: 50174, Start Num: 42

Candidate Starts for Salvador_71:

(39, 49824), (Start: 42 @49836 has 11 MA's), (55, 49887), (59, 49905), (62, 49914), (83, 50004), (105, 50112), (107, 50121),

Gene: Schatzie_181 Start: 94754, Stop: 95110, Start Num: 31

Candidate Starts for Schatzie_181:

(Start: 29 @94751 has 6 MA's), (Start: 31 @94754 has 11 MA's), (Start: 44 @94805 has 16 MA's), (62, 94835), (69, 94871), (77, 94913), (83, 94931), (102, 95015), (107, 95039),

Gene: ScottMcG_20 Start: 6836, Stop: 7414, Start Num: 33

Candidate Starts for ScottMcG_20:

(Start: 33 @6836 has 115 MA's), (49, 6914), (52, 6947), (58, 6968), (78, 7061), (85, 7082), (99, 7139), (100, 7151), (102, 7175), (103, 7178), (105, 7190), (107, 7199), (114, 7310), (115, 7340), (116, 7394),

Gene: Sejanus_68 Start: 52397, Stop: 52750, Start Num: 29

Candidate Starts for Sejanus_68:

(16, 52337), (24, 52388), (Start: 29 @52397 has 6 MA's), (40, 52439), (67, 52511), (69, 52517), (75, 52550), (78, 52562), (83, 52577), (102, 52661), (106, 52682),

Gene: Serenabean_80 Start: 49415, Stop: 49765, Start Num: 48

Candidate Starts for Serenabean_80:

(48, 49415), (54, 49463), (57, 49475), (60, 49487), (64, 49508), (80, 49574), (83, 49586), (84, 49589), (90, 49607),

Gene: Shelob_21 Start: 7454, Stop: 7987, Start Num: 33

Candidate Starts for Shelob_21:

(Start: 33 @7454 has 115 MA's), (36, 7466), (Start: 44 @7502 has 16 MA's), (64, 7583), (67, 7598), (68, 7601), (69, 7604), (73, 7631), (77, 7646), (83, 7664), (90, 7685), (102, 7748), (103, 7751), (107, 7772), (114, 7883), (115, 7913), (116, 7967),

Gene: ShiaLabeouf_17 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for ShiaLabeouf_17:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: Shinji_71 Start: 49826, Stop: 50164, Start Num: 42

Candidate Starts for Shinji_71:

(13, 49694), (39, 49814), (Start: 42 @49826 has 11 MA's), (55, 49877), (59, 49895), (62, 49904), (83, 49994), (105, 50102), (107, 50111),

Gene: Shnickers_17 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for Shnickers_17:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: Shrimp_18 Start: 6284, Stop: 6862, Start Num: 33

Candidate Starts for Shrimp_18:

(Start: 33 @6284 has 115 MA's), (49, 6362), (52, 6395), (58, 6416), (78, 6509), (85, 6530), (99, 6587), (100, 6599), (102, 6623), (103, 6626), (105, 6638), (107, 6647), (114, 6758), (115, 6788), (116, 6842),

Gene: Sillytadpoles_8 Start: 2091, Stop: 1726, Start Num: 44

Candidate Starts for Sillytadpoles_8:

(4, 2355), (7, 2328), (11, 2274), (Start: 44 @2091 has 16 MA's), (51, 2040), (69, 1968), (83, 1908), (89, 1890), (92, 1884), (98, 1848), (100, 1830), (101, 1824), (102, 1806), (107, 1782),

Gene: SilverDipper_18 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for SilverDipper_18:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Skog_144 Start: 60432, Stop: 60806, Start Num: 20

Candidate Starts for Skog_144:

(Start: 20 @60432 has 1 MA's), (49, 60507), (69, 60576), (71, 60588),

Gene: SmallFry_17 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for SmallFry_17:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: Spec_16 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for Spec_16:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: SrishMeg2525_18 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for SrishMeg2525_18:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Stormageddon_156 Start: 106003, Stop: 106359, Start Num: 45

Candidate Starts for Stormageddon_156:

(37, 105970), (Start: 45 @106003 has 2 MA's), (60, 106078), (68, 106117), (69, 106120), (74, 106150), (86, 106183), (90, 106195), (91, 106198), (95, 106204), (100, 106240), (102, 106264), (108, 106312),

Gene: StubbySaigey_18 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for StubbySaigey_18:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Teardrop_17 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for Teardrop_17:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: Tempo_5 Start: 1841, Stop: 1479, Start Num: 44

Candidate Starts for Tempo_5:

(32, 1886), (Start: 44 @1841 has 16 MA's), (53, 1787), (59, 1766), (69, 1721), (83, 1661), (88, 1643), (94, 1631), (98, 1601), (100, 1583), (101, 1577), (107, 1535),

Gene: TillyBobJoe_72 Start: 50340, Stop: 50690, Start Num: 42

Candidate Starts for TillyBobJoe_72:

(9, 50148), (15, 50211), (17, 50235), (19, 50265), (21, 50271), (35, 50304), (Start: 42 @50340 has 11 MA's), (55, 50403), (59, 50421), (62, 50430), (83, 50520), (105, 50628), (107, 50637),

Gene: TinyTim_18 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for TinyTim_18:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Tonenili_24 Start: 7642, Stop: 8109, Start Num: 26

Candidate Starts for Tonenili_24:

(Start: 26 @7642 has 1 MA's), (28, 7645), (36, 7663), (53, 7741), (56, 7750), (61, 7768), (64, 7786), (69, 7807), (83, 7876), (90, 7897), (102, 7960), (103, 7963), (105, 7975), (107, 7984),

Gene: Tortoise16_16 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for Tortoise16_16:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: Trinitium_17 Start: 5211, Stop: 5744, Start Num: 33

Candidate Starts for Trinitium_17:

(Start: 33 @5211 has 115 MA's), (Start: 44 @5259 has 16 MA's), (64, 5340), (67, 5355), (68, 5358), (69, 5361), (73, 5388), (77, 5403), (83, 5421), (90, 5442), (102, 5505), (103, 5508), (107, 5529), (114, 5640), (115, 5670), (116, 5724),

Gene: Turret_17 Start: 5194, Stop: 5727, Start Num: 33

Candidate Starts for Turret_17:

(Start: 33 @5194 has 115 MA's), (Start: 44 @5242 has 16 MA's), (64, 5323), (67, 5338), (68, 5341), (69, 5344), (73, 5371), (77, 5386), (83, 5404), (90, 5425), (102, 5488), (103, 5491), (107, 5512), (114, 5623), (115, 5653), (116, 5707),

Gene: ValleyTerrace_17 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for ValleyTerrace_17:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Viceroy_7 Start: 2093, Stop: 1728, Start Num: 44

Candidate Starts for Viceroy_7:

(4, 2357), (7, 2330), (11, 2276), (Start: 44 @2093 has 16 MA's), (51, 2042), (69, 1970), (83, 1910), (89, 1892), (92, 1886), (98, 1850), (100, 1832), (101, 1826), (102, 1808), (107, 1784),

Gene: Wally_17 Start: 5215, Stop: 5748, Start Num: 33

Candidate Starts for Wally_17:

(Start: 33 @5215 has 115 MA's), (Start: 44 @5263 has 16 MA's), (64, 5344), (67, 5359), (68, 5362), (69, 5365), (73, 5392), (77, 5407), (83, 5425), (90, 5446), (102, 5509), (103, 5512), (107, 5533), (114, 5644), (115, 5674), (116, 5728),

Gene: Wanda_184 Start: 92325, Stop: 92681, Start Num: 31

Candidate Starts for Wanda_184:

(Start: 29 @92322 has 6 MA's), (Start: 31 @92325 has 11 MA's), (Start: 44 @92376 has 16 MA's), (62, 92406), (69, 92442), (77, 92484), (83, 92502), (102, 92586), (107, 92610),

Gene: Wayne3_7 Start: 2328, Stop: 1963, Start Num: 44

Candidate Starts for Wayne3_7:

(4, 2592), (7, 2565), (11, 2511), (Start: 44 @2328 has 16 MA's), (51, 2277), (69, 2205), (83, 2145), (89, 2127), (92, 2121), (98, 2085), (100, 2067), (101, 2061), (107, 2019),

Gene: Wheelie_7 Start: 2085, Stop: 1723, Start Num: 44

Candidate Starts for Wheelie_7:

(4, 2349), (7, 2322), (11, 2268), (Start: 44 @2085 has 16 MA's), (59, 2010), (64, 1986), (69, 1965), (79, 1920), (83, 1905), (90, 1884), (93, 1878), (96, 1866), (98, 1845), (100, 1827), (101, 1821), (102, 1803), (107, 1779),

Gene: Wilca_5 Start: 1900, Stop: 1487, Start Num: 22

Candidate Starts for Wilca_5:

(Start: 22 @1900 has 1 MA's), (47, 1825), (55, 1777), (66, 1723), (83, 1660), (89, 1642), (107, 1543), (109, 1516),

Gene: Willis_19 Start: 6220, Stop: 6753, Start Num: 33

Candidate Starts for Willis_19:

(Start: 33 @6220 has 115 MA's), (Start: 44 @6268 has 16 MA's), (64, 6349), (67, 6364), (68, 6367), (69, 6370), (73, 6397), (77, 6412), (83, 6430), (90, 6451), (102, 6514), (103, 6517), (107, 6538), (114, 6649), (115, 6679), (116, 6733),

Gene: YemiJoy2021_19 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for YemiJoy2021_19:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: YoungMoneyMata_18 Start: 5213, Stop: 5791, Start Num: 33

Candidate Starts for YoungMoneyMata_18:

(Start: 33 @5213 has 115 MA's), (49, 5291), (52, 5324), (58, 5345), (78, 5438), (85, 5459), (99, 5516), (100, 5528), (102, 5552), (103, 5555), (105, 5567), (107, 5576), (114, 5687), (115, 5717), (116, 5771),

Gene: Yucca_18 Start: 6202, Stop: 6780, Start Num: 33

Candidate Starts for Yucca_18:

(Start: 33 @6202 has 115 MA's), (49, 6280), (52, 6313), (58, 6334), (78, 6427), (85, 6448), (99, 6505), (100, 6517), (102, 6541), (103, 6544), (105, 6556), (107, 6565), (114, 6676), (115, 6706), (116, 6760),

Gene: YungMoney_71 Start: 51770, Stop: 52108, Start Num: 42

Candidate Starts for YungMoney_71:

(8, 51569), (13, 51638), (39, 51758), (Start: 42 @51770 has 11 MA's), (55, 51821), (62, 51848), (83, 51938), (105, 52046), (107, 52055),

Gene: Zalkecks_20 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for Zalkecks_20:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),

Gene: Zeenon_21 Start: 6281, Stop: 6859, Start Num: 33

Candidate Starts for Zeenon_21:

(Start: 33 @6281 has 115 MA's), (49, 6359), (52, 6392), (58, 6413), (78, 6506), (85, 6527), (99, 6584), (100, 6596), (102, 6620), (103, 6623), (105, 6635), (107, 6644), (114, 6755), (115, 6785), (116, 6839),

Gene: Zelink_179 Start: 93941, Stop: 94300, Start Num: 29

Candidate Starts for Zelink_179:

(Start: 29 @93941 has 6 MA's), (Start: 31 @93944 has 11 MA's), (Start: 44 @93995 has 16 MA's), (62, 94025), (69, 94061), (77, 94103), (83, 94121), (102, 94205), (107, 94229),

Gene: ZygoTaiga_19 Start: 6280, Stop: 6858, Start Num: 33

Candidate Starts for ZygoTaiga_19:

(Start: 33 @6280 has 115 MA's), (49, 6358), (52, 6391), (58, 6412), (78, 6505), (85, 6526), (99, 6583), (100, 6595), (102, 6619), (103, 6622), (105, 6634), (107, 6643), (114, 6754), (115, 6784), (116, 6838),