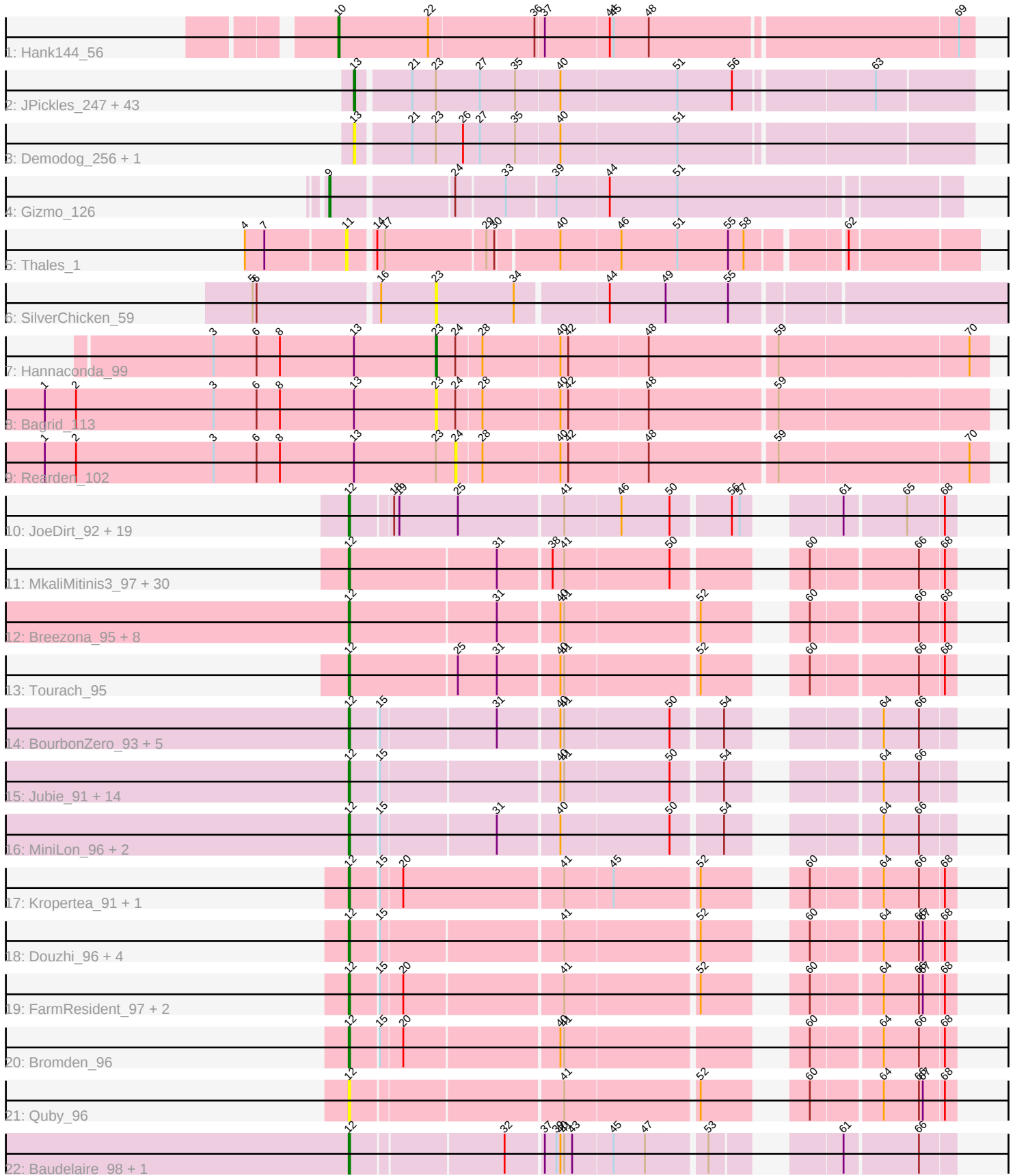


Pham 280162



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 280162 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280162 has 152 members, 40 are drafts.

Phages represented in each track:

- Track 1 : Hank144_56
- Track 2 : JPickles_247, StubbySaigey_256, Asterius_250, Darko_249, Blackbrain_248, Maby2021_250, Issimir_243, TinyTim_248, Erdmann_251, Ablatia_249, PharkleMinkus_252, OrediggerDelux_245, Ading_252, Shrimp_252, Gizmo_255, Belieber_242, Chargie21_247, Trinitium_246, ZygoTaiga_246, Basquiat_247, Bowman_247, Yucca_250, Specks_254, Bread_246, Astraea_245, Lee7_249, Janiyr_253, Fixie_249, Bonray_252, Cleatunium_242, McGee_251, ErnieJ_243, BananaFence_247, Salacia_251, FoxtrotP1_248, Morizzled23_247, PurduePete_250, FudgeTart_245, Primadonna_244, Cactojaque_244, BobaPhatt_241, SrishMeg2525_247, EmToTheThree_250, Teardrop_248
- Track 3 : Demodog_256, Concombre_255
- Track 4 : Gizmo_126
- Track 5 : Thales_1
- Track 6 : SilverChicken_59
- Track 7 : Hannaconda_99
- Track 8 : Bagrid_113
- Track 9 : Rearden_102
- Track 10 : JoeDirt_92, Zaria_91, AvadaKedavra_91, Wyatt2_92, Appletree2_90, LeBron_90, Rose5_92, Silverleaf_90, Tyson_92, DirkDirk_88, Enceladus_88, Acquire49_91, CicholasNage_88, Halena_88, MAckerman_89, Poochiewood_89, Calm_92, UPIE_90, OhShagHennessy_87, Wamburgexpress_90
- Track 11 : MkaliMitinis3_97, Rossetti_95, DHan_98, LilDestine_93, DanBing_94, Loadrie_94, Bazzle_92, Finemlucis_96, Underpass_87, BigCheese_95, Archie_92, Claus_94, GuuelaD_92, Baoshan_92, Lewan_96, Kahlid_94, Zakai_96, Hafay_96, Nicholasp3_95, Crossroads_95, Vetrux_93, Sarshaun_96, OverPar_97, Soap141_95, Wilder_96, Lynnae_96, ZhongYanYuan_92, Gardann_95, Rumpelstiltskin_91, SoJulia_97, BobsGarage_94
- Track 12 : Breezona_95, Faith1_95, DrSeegs_94, Miley16_95, Wigglewiggle_95, Itos_95, Winky_95, Netyap_94, Gabriela_95
- Track 13 : Tourach_95
- Track 14 : BourbonZero_93, Ellson_91, Krypton555_94, KirDoubleO7_90, DuncansLeg_92, LiyuLake_91
- Track 15 : Jubie_91, Snenia_91, TriFive_93, Moostard_89, Red305_93, Finnry_92, Jobypre_92, Nicholas_90, MsGreen_92, Bellis_92, Kingsolomon_90, Samty_91, Clautastrophe_90, Lumos_92, Whirlwind_93
- Track 16 : MiniLon_96, MiniMac_96, Lolly9_91
- Track 17 : Kropertea_91, DyoEdafos_98

- Track 18 : Douzhi_96, Sheng711_97, Douge_96, BrainDrainer_97, PYPDinur_96
- Track 19 : FarmResident_97, ChutneyChips_97, Chaser_95
- Track 20 : Bromden_96
- Track 21 : Quby_96
- Track 22 : Baudelaire_98, Aegeus_98

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

The start number called the most often in the published annotations is 12, it was called in 74 of the 112 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acquire49_91, Aegeus_98, Appletree2_90, Archie_92, AvadaKedavra_91, Baoshan_92, Baudelaire_98, Bazzle_92, Bellis_92, BigCheese_95, BobsGarage_94, BourbonZero_93, BrainDrainer_97, Breezonia_95, Bromden_96, Calm_92, Chaser_95, ChutneyChips_97, CicholasNage_88, Claus_94, Clautastrophe_90, Crossroads_95, DHan_98, DanBing_94, DirkDirk_88, Douge_96, Douzhi_96, DrSeegs_94, DuncansLeg_92, DyoEdafos_98, Ellson_91, Enceladus_88, Faith1_95, FarmResident_97, Finemlucis_96, Finnry_92, Gabriela_95, Gardann_95, GuuelaD_92, Hafay_96, Halena_88, Itos_95, Jobypre_92, JoeDirt_92, Jubie_91, Kahlid_94, Kingsolomon_90, KirDoubleO7_90, Kropertea_91, Krypton555_94, LeBron_90, Lewan_96, LilDestine_93, LiyuLake_91, Loadrie_94, Lolly9_91, Lumos_92, Lynnae_96, MAckerman_89, Miley16_95, MiniLon_96, MiniMac_96, MkaliMitinis3_97, Moostard_89, MsGreen_92, Netyap_94, Nicholas_90, Nicholasp3_95, OhShagHennessy_87, OverPar_97, PYPDinur_96, Poochiewood_89, Quby_96, Red305_93, Rose5_92, Rossetti_95, Rumpelstiltskin_91, Samty_91, Sarshaun_96, Sheng711_97, Silverleaf_90, Snenia_91, SoJulia_97, Soap141_95, Tourach_95, TriFive_93, Tyson_92, UPIE_90, Underpass_87, Vetrix_93, Wamburgxpress_90, Whirlwind_93, Wigglewiggle_95, Wilder_96, Winky_95, Wyatt2_92, Zakai_96, Zaria_91, ZhongYanYuan_92,

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

-

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

- Ablatia_249, Ading_252, Asterius_250, Astraea_245, Bagrid_113, BananaFence_247, Basquiat_247, Belieber_242, Blackbrain_248, BobaPhatt_241, Bonray_252, Bowman_247, Bread_246, Cactojaque_244, Chargie21_247, Cleatunium_242, Concombre_255, Darko_249, Demodog_256, EmToTheThree_250, Erdmann_251, ErnieJ_243, Fixie_249, FoxtrotP1_248, FudgeTart_245, Gizmo_126, Gizmo_255, Hank144_56, Hannaconda_99, Issimir_243, JPickles_247, Janiyra_253, Lee7_249, Maby2021_250, McGee_251, Morizzled23_247, OrediggerDelux_245, PharkleMinkus_252, Primadonna_244, PurduePete_250, Rearden_102, Salacia_251, Shrimp_252, SilverChicken_59, Specks_254, SrishMeg2525_247, StubbySaigey_256, Teardrop_248, Thales_1, TinyTim_248, Trinitium_246, Yucca_250, ZygoTaiga_246,

Summary by start number:

Start 9:

- Found in 1 of 152 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 112
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gizmo_126 (C1),

Start 10:

- Found in 1 of 152 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 112
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hank144_56 (BD2),

Start 11:

- Found in 1 of 152 (0.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Thales_1 (DQ),

Start 12:

- Found in 99 of 152 (65.1%) of genes in pham
- Manual Annotations of this start: 74 of 112
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acquire49_91 (L1), Aegeus_98 (L5), Appletree2_90 (L1), Archie_92 (L2), AvadaKedavra_91 (L1), Baoshan_92 (L2), Baudelaire_98 (L5), Bazzle_92 (L2), Bellis_92 (L3), BigCheese_95 (L2), BobsGarage_94 (L2), BourbonZero_93 (L3), BrainDrainer_97 (L4), Breezona_95 (L2), Bromden_96 (L4), Calm_92 (L1), Chaser_95 (L4), ChutneyChips_97 (L4), CicholasNage_88 (L1), Claus_94 (L2), Clautastrophe_90 (L3), Crossroads_95 (L2), DHan_98 (L2), DanBing_94 (L2), DirkDirk_88 (L1), Douge_96 (L4), Douzhi_96 (L4), DrSeegs_94 (L2), DuncansLeg_92 (L3), DyoEdafos_98 (L4), Ellson_91 (L3), Enceladus_88 (L1), Faith1_95 (L2), FarmResident_97 (L4), Finemlucis_96 (L2), Finnry_92 (L3), Gabriela_95 (L2), Gardann_95 (L2), GuuelaD_92 (L2), Hafay_96 (L2), Halena_88 (L1), Itos_95 (L2), Jobypre_92 (L3), JoeDirt_92 (L1), Jubie_91 (L3), Kahlid_94 (L2), Kingsolomon_90 (L3), KirDoubleO7_90 (L3), Kropertea_91 (L4), Krypton555_94 (L3), LeBron_90 (L1), Lewan_96 (L2), LilDestine_93 (L2), LiyuLake_91 (L3), Loadrie_94 (L2), Lolly9_91 (L3), Lumos_92 (L3), Lynnae_96 (L2), MAckerman_89 (L1), Miley16_95 (L2), MiniLon_96 (L3), MiniMac_96 (L3), MkaliMitinis3_97 (L2), Moostard_89 (L3), MsGreen_92 (L3), Netyap_94 (L2), Nicholas_90 (L3), Nicholasp3_95 (L2), OhShagHennessy_87 (L1), OverPar_97 (L2), PYPDinur_96 (L4), Poochiewood_89 (L1), Quby_96 (L4), Red305_93 (L3), Rose5_92 (L1), Rossetti_95 (L2), Rumpelstiltskin_91 (L2), Samty_91 (L3), Sarshaun_96 (L2), Sheng711_97 (L4), Silverleaf_90 (L1), Snenia_91 (L3), SoJulia_97 (L2), Soap141_95 (L2), Tourach_95 (L2), TriFive_93 (L3), Tyson_92 (L1), UPIE_90 (L1), Underpass_87 (L2), Vetrix_93 (L2), Wamburggrxpress_90 (L1), Whirlwind_93 (L3), Wigglewiggles_95 (L2), Wilder_96 (L2), Winky_95 (L2), Wyatt2_92 (L1), Zakai_96 (L2), Zaria_91 (L1), ZhongYanYuan_92 (L2),

Start 13:

- Found in 49 of 152 (32.2%) of genes in pham
- Manual Annotations of this start: 35 of 112
- Called 93.9% of time when present
- Phage (with cluster) where this start called: Ablatia_249 (C1), Ading_252 (C1), Asterius_250 (C1), Astraea_245 (C1), BananaFence_247 (C1), Basquiat_247 (C1), Belieber_242 (C1), Blackbrain_248 (C1), BobaPhatt_241 (C1), Bonray_252 (C1),

Bowman_247 (C1), Bread_246 (C1), Cactojaque_244 (C1), Chargie21_247 (C1), Cleatunium_242 (C1), Concombre_255 (C1), Darko_249 (C1), Demodog_256 (C1), EmToTheThree_250 (C1), Erdmann_251 (C1), ErnieJ_243 (C1), Fixie_249 (C1), FoxtrotP1_248 (C1), FudgeTart_245 (C1), Gizmo_255 (C1), Issimir_243 (C1), JPickles_247 (C1), Janiyra_253 (C1), Lee7_249 (C1), Maby2021_250 (C1), McGee_251 (C1), Morizzled23_247 (C1), OrediggerDelux_245 (C1), PharkleMinkus_252 (C1), Primadonna_244 (C1), PurduePete_250 (C1), Salacia_251 (C1), Shrimp_252 (C1), Specks_254 (C1), SrishMeg2525_247 (C1), StubbySaigey_256 (C1), Teardrop_248 (C1), TinyTim_248 (C1), Trinitium_246 (C1), Yucca_250 (C1), ZygoTaiga_246 (C1),

Start 23:

- Found in 50 of 152 (32.9%) of genes in pham
- Manual Annotations of this start: 1 of 112
- Called 6.0% of time when present
- Phage (with cluster) where this start called: Bagrid_113 (J), Hannaconda_99 (J), SilverChicken_59 (F2),

Start 24:

- Found in 4 of 152 (2.6%) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Rearden_102 (J),

Summary by clusters:

There are 10 clusters represented in this pham: F2, J, BD2, L4, L5, L2, L3, L1, C1, DQ,

Info for manual annotations of cluster BD2:

- Start number 10 was manually annotated 1 time for cluster BD2.

Info for manual annotations of cluster C1:

- Start number 9 was manually annotated 1 time for cluster C1.
- Start number 13 was manually annotated 35 times for cluster C1.

Info for manual annotations of cluster J:

- Start number 23 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster L1:

- Start number 12 was manually annotated 19 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 12 was manually annotated 30 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 12 was manually annotated 19 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 12 was manually annotated 4 times for cluster L4.

Info for manual annotations of cluster L5:

•Start number 12 was manually annotated 2 times for cluster L5.

Gene Information:

Gene: Ablatia_249 Start: 141923, Stop: 142372, Start Num: 13

Candidate Starts for Ablatia_249:

(Start: 13 @141923 has 35 MA's), (21, 141962), (Start: 23 @141980 has 1 MA's), (27, 142013), (35, 142040), (40, 142073), (51, 142160), (56, 142202), (63, 142301),

Gene: Acquire49_91 Start: 57365, Stop: 57775, Start Num: 12

Candidate Starts for Acquire49_91:

(Start: 12 @57365 has 74 MA's), (18, 57395), (19, 57398), (25, 57443), (41, 57521), (46, 57563), (50, 57599), (56, 57641), (57, 57647), (61, 57695), (65, 57740), (68, 57767),

Gene: Ading_252 Start: 144356, Stop: 144805, Start Num: 13

Candidate Starts for Ading_252:

(Start: 13 @144356 has 35 MA's), (21, 144395), (Start: 23 @144413 has 1 MA's), (27, 144446), (35, 144473), (40, 144506), (51, 144593), (56, 144635), (63, 144734),

Gene: Aegeus_98 Start: 59877, Stop: 60281, Start Num: 12

Candidate Starts for Aegeus_98:

(Start: 12 @59877 has 74 MA's), (32, 59988), (37, 60015), (39, 60024), (40, 60027), (41, 60030), (43, 60036), (45, 60066), (47, 60090), (53, 60132), (61, 60201), (66, 60255),

Gene: Appletree2_90 Start: 57125, Stop: 57535, Start Num: 12

Candidate Starts for Appletree2_90:

(Start: 12 @57125 has 74 MA's), (18, 57155), (19, 57158), (25, 57203), (41, 57281), (46, 57323), (50, 57359), (56, 57401), (57, 57407), (61, 57455), (65, 57500), (68, 57527),

Gene: Archie_92 Start: 59049, Stop: 59462, Start Num: 12

Candidate Starts for Archie_92:

(Start: 12 @59049 has 74 MA's), (31, 59160), (38, 59199), (41, 59208), (50, 59286), (60, 59358), (66, 59436), (68, 59454),

Gene: Asterius_250 Start: 142368, Stop: 142817, Start Num: 13

Candidate Starts for Asterius_250:

(Start: 13 @142368 has 35 MA's), (21, 142407), (Start: 23 @142425 has 1 MA's), (27, 142458), (35, 142485), (40, 142518), (51, 142605), (56, 142647), (63, 142746),

Gene: Astraea_245 Start: 141563, Stop: 142012, Start Num: 13

Candidate Starts for Astraea_245:

(Start: 13 @141563 has 35 MA's), (21, 141602), (Start: 23 @141620 has 1 MA's), (27, 141653), (35, 141680), (40, 141713), (51, 141800), (56, 141842), (63, 141941),

Gene: AvadaKedavra_91 Start: 57477, Stop: 57887, Start Num: 12

Candidate Starts for AvadaKedavra_91:

(Start: 12 @57477 has 74 MA's), (18, 57507), (19, 57510), (25, 57555), (41, 57633), (46, 57675), (50, 57711), (56, 57753), (57, 57759), (61, 57807), (65, 57852), (68, 57879),

Gene: Bagrid_113 Start: 63671, Stop: 64075, Start Num: 23

Candidate Starts for Bagrid_113:

(1, 63371), (2, 63395), (3, 63500), (6, 63533), (8, 63551), (Start: 13 @63608 has 35 MA's), (Start: 23 @63671 has 1 MA's), (24, 63686), (28, 63704), (40, 63761), (42, 63767), (48, 63827), (59, 63920),

Gene: BananaFence_247 Start: 142192, Stop: 142641, Start Num: 13

Candidate Starts for BananaFence_247:

(Start: 13 @142192 has 35 MA's), (21, 142231), (Start: 23 @142249 has 1 MA's), (27, 142282), (35, 142309), (40, 142342), (51, 142429), (56, 142471), (63, 142570),

Gene: Baoshan_92 Start: 59704, Stop: 60117, Start Num: 12

Candidate Starts for Baoshan_92:

(Start: 12 @59704 has 74 MA's), (31, 59815), (38, 59854), (41, 59863), (50, 59941), (60, 60013), (66, 60091), (68, 60109),

Gene: Basquiat_247 Start: 140478, Stop: 140927, Start Num: 13

Candidate Starts for Basquiat_247:

(Start: 13 @140478 has 35 MA's), (21, 140517), (Start: 23 @140535 has 1 MA's), (27, 140568), (35, 140595), (40, 140628), (51, 140715), (56, 140757), (63, 140856),

Gene: Baudelaire_98 Start: 59877, Stop: 60281, Start Num: 12

Candidate Starts for Baudelaire_98:

(Start: 12 @59877 has 74 MA's), (32, 59988), (37, 60015), (39, 60024), (40, 60027), (41, 60030), (43, 60036), (45, 60066), (47, 60090), (53, 60132), (61, 60201), (66, 60255),

Gene: Bazzle_92 Start: 59605, Stop: 60018, Start Num: 12

Candidate Starts for Bazzle_92:

(Start: 12 @59605 has 74 MA's), (31, 59716), (38, 59755), (41, 59764), (50, 59842), (60, 59914), (66, 59992), (68, 60010),

Gene: Belieber_242 Start: 140605, Stop: 141054, Start Num: 13

Candidate Starts for Belieber_242:

(Start: 13 @140605 has 35 MA's), (21, 140644), (Start: 23 @140662 has 1 MA's), (27, 140695), (35, 140722), (40, 140755), (51, 140842), (56, 140884), (63, 140983),

Gene: Bellis_92 Start: 59240, Stop: 59647, Start Num: 12

Candidate Starts for Bellis_92:

(Start: 12 @59240 has 74 MA's), (15, 59261), (40, 59390), (41, 59393), (50, 59471), (54, 59507), (64, 59594), (66, 59621),

Gene: BigCheese_95 Start: 59815, Stop: 60228, Start Num: 12

Candidate Starts for BigCheese_95:

(Start: 12 @59815 has 74 MA's), (31, 59926), (38, 59965), (41, 59974), (50, 60052), (60, 60124), (66, 60202), (68, 60220),

Gene: Blackbrain_248 Start: 142255, Stop: 142704, Start Num: 13

Candidate Starts for Blackbrain_248:

(Start: 13 @142255 has 35 MA's), (21, 142294), (Start: 23 @142312 has 1 MA's), (27, 142345), (35, 142372), (40, 142405), (51, 142492), (56, 142534), (63, 142633),

Gene: BobaPhatt_241 Start: 141373, Stop: 141822, Start Num: 13

Candidate Starts for BobaPhatt_241:

(Start: 13 @141373 has 35 MA's), (21, 141412), (Start: 23 @141430 has 1 MA's), (27, 141463), (35, 141490), (40, 141523), (51, 141610), (56, 141652), (63, 141751),

Gene: BobsGarage_94 Start: 59815, Stop: 60228, Start Num: 12
Candidate Starts for BobsGarage_94:
(Start: 12 @59815 has 74 MA's), (31, 59926), (38, 59965), (41, 59974), (50, 60052), (60, 60124), (66, 60202), (68, 60220),

Gene: Bonray_252 Start: 144055, Stop: 144504, Start Num: 13
Candidate Starts for Bonray_252:
(Start: 13 @144055 has 35 MA's), (21, 144094), (Start: 23 @144112 has 1 MA's), (27, 144145), (35, 144172), (40, 144205), (51, 144292), (56, 144334), (63, 144433),

Gene: BourbonZero_93 Start: 59266, Stop: 59673, Start Num: 12
Candidate Starts for BourbonZero_93:
(Start: 12 @59266 has 74 MA's), (15, 59287), (31, 59371), (40, 59416), (41, 59419), (50, 59497), (54, 59533), (64, 59620), (66, 59647),

Gene: Bowman_247 Start: 143170, Stop: 143619, Start Num: 13
Candidate Starts for Bowman_247:
(Start: 13 @143170 has 35 MA's), (21, 143209), (Start: 23 @143227 has 1 MA's), (27, 143260), (35, 143287), (40, 143320), (51, 143407), (56, 143449), (63, 143548),

Gene: BrainDrainer_97 Start: 59520, Stop: 59927, Start Num: 12
Candidate Starts for BrainDrainer_97:
(Start: 12 @59520 has 74 MA's), (15, 59541), (41, 59673), (52, 59769), (60, 59823), (64, 59874), (66, 59901), (67, 59904), (68, 59919),

Gene: Bread_246 Start: 142022, Stop: 142471, Start Num: 13
Candidate Starts for Bread_246:
(Start: 13 @142022 has 35 MA's), (21, 142061), (Start: 23 @142079 has 1 MA's), (27, 142112), (35, 142139), (40, 142172), (51, 142259), (56, 142301), (63, 142400),

Gene: Breezona_95 Start: 59815, Stop: 60228, Start Num: 12
Candidate Starts for Breezona_95:
(Start: 12 @59815 has 74 MA's), (31, 59926), (40, 59971), (41, 59974), (52, 60070), (60, 60124), (66, 60202), (68, 60220),

Gene: Bromden_96 Start: 60413, Stop: 60820, Start Num: 12
Candidate Starts for Bromden_96:
(Start: 12 @60413 has 74 MA's), (15, 60434), (20, 60449), (40, 60563), (41, 60566), (60, 60716), (64, 60767), (66, 60794), (68, 60812),

Gene: Cactojaque_244 Start: 141201, Stop: 141650, Start Num: 13
Candidate Starts for Cactojaque_244:
(Start: 13 @141201 has 35 MA's), (21, 141240), (Start: 23 @141258 has 1 MA's), (27, 141291), (35, 141318), (40, 141351), (51, 141438), (56, 141480), (63, 141579),

Gene: Calm_92 Start: 57376, Stop: 57786, Start Num: 12
Candidate Starts for Calm_92:
(Start: 12 @57376 has 74 MA's), (18, 57406), (19, 57409), (25, 57454), (41, 57532), (46, 57574), (50, 57610), (56, 57652), (57, 57658), (61, 57706), (65, 57751), (68, 57778),

Gene: Chargie21_247 Start: 140478, Stop: 140927, Start Num: 13
Candidate Starts for Chargie21_247:

(Start: 13 @140478 has 35 MA's), (21, 140517), (Start: 23 @140535 has 1 MA's), (27, 140568), (35, 140595), (40, 140628), (51, 140715), (56, 140757), (63, 140856),

Gene: Chaser_95 Start: 58821, Stop: 59228, Start Num: 12

Candidate Starts for Chaser_95:

(Start: 12 @58821 has 74 MA's), (15, 58842), (20, 58857), (41, 58974), (52, 59070), (60, 59124), (64, 59175), (66, 59202), (67, 59205), (68, 59220),

Gene: ChutneyChips_97 Start: 59567, Stop: 59974, Start Num: 12

Candidate Starts for ChutneyChips_97:

(Start: 12 @59567 has 74 MA's), (15, 59588), (20, 59603), (41, 59720), (52, 59816), (60, 59870), (64, 59921), (66, 59948), (67, 59951), (68, 59966),

Gene: CicholasNage_88 Start: 57029, Stop: 57439, Start Num: 12

Candidate Starts for CicholasNage_88:

(Start: 12 @57029 has 74 MA's), (18, 57059), (19, 57062), (25, 57107), (41, 57185), (46, 57227), (50, 57263), (56, 57305), (57, 57311), (61, 57359), (65, 57404), (68, 57431),

Gene: Claus_94 Start: 59528, Stop: 59941, Start Num: 12

Candidate Starts for Claus_94:

(Start: 12 @59528 has 74 MA's), (31, 59639), (38, 59678), (41, 59687), (50, 59765), (60, 59837), (66, 59915), (68, 59933),

Gene: Clautastrophe_90 Start: 59235, Stop: 59642, Start Num: 12

Candidate Starts for Clautastrophe_90:

(Start: 12 @59235 has 74 MA's), (15, 59256), (40, 59385), (41, 59388), (50, 59466), (54, 59502), (64, 59589), (66, 59616),

Gene: Cleatunium_242 Start: 141882, Stop: 142331, Start Num: 13

Candidate Starts for Cleatunium_242:

(Start: 13 @141882 has 35 MA's), (21, 141921), (Start: 23 @141939 has 1 MA's), (27, 141972), (35, 141999), (40, 142032), (51, 142119), (56, 142161), (63, 142260),

Gene: Concombre_255 Start: 144217, Stop: 144666, Start Num: 13

Candidate Starts for Concombre_255:

(Start: 13 @144217 has 35 MA's), (21, 144256), (Start: 23 @144274 has 1 MA's), (26, 144295), (27, 144307), (35, 144334), (40, 144367), (51, 144454),

Gene: Crossroads_95 Start: 59527, Stop: 59940, Start Num: 12

Candidate Starts for Crossroads_95:

(Start: 12 @59527 has 74 MA's), (31, 59638), (38, 59677), (41, 59686), (50, 59764), (60, 59836), (66, 59914), (68, 59932),

Gene: DHan_98 Start: 59751, Stop: 60164, Start Num: 12

Candidate Starts for DHan_98:

(Start: 12 @59751 has 74 MA's), (31, 59862), (38, 59901), (41, 59910), (50, 59988), (60, 60060), (66, 60138), (68, 60156),

Gene: DanBing_94 Start: 59444, Stop: 59857, Start Num: 12

Candidate Starts for DanBing_94:

(Start: 12 @59444 has 74 MA's), (31, 59555), (38, 59594), (41, 59603), (50, 59681), (60, 59753), (66, 59831), (68, 59849),

Gene: Darko_249 Start: 142196, Stop: 142645, Start Num: 13

Candidate Starts for Darko_249:

(Start: 13 @142196 has 35 MA's), (21, 142235), (Start: 23 @142253 has 1 MA's), (27, 142286), (35, 142313), (40, 142346), (51, 142433), (56, 142475), (63, 142574),

Gene: Demodog_256 Start: 144227, Stop: 144676, Start Num: 13

Candidate Starts for Demodog_256:

(Start: 13 @144227 has 35 MA's), (21, 144266), (Start: 23 @144284 has 1 MA's), (26, 144305), (27, 144317), (35, 144344), (40, 144377), (51, 144464),

Gene: DirkDirk_88 Start: 56705, Stop: 57115, Start Num: 12

Candidate Starts for DirkDirk_88:

(Start: 12 @56705 has 74 MA's), (18, 56735), (19, 56738), (25, 56783), (41, 56861), (46, 56903), (50, 56939), (56, 56981), (57, 56987), (61, 57035), (65, 57080), (68, 57107),

Gene: Douge_96 Start: 58940, Stop: 59347, Start Num: 12

Candidate Starts for Douge_96:

(Start: 12 @58940 has 74 MA's), (15, 58961), (41, 59093), (52, 59189), (60, 59243), (64, 59294), (66, 59321), (67, 59324), (68, 59339),

Gene: Douzhi_96 Start: 59209, Stop: 59616, Start Num: 12

Candidate Starts for Douzhi_96:

(Start: 12 @59209 has 74 MA's), (15, 59230), (41, 59362), (52, 59458), (60, 59512), (64, 59563), (66, 59590), (67, 59593), (68, 59608),

Gene: DrSeegs_94 Start: 59815, Stop: 60228, Start Num: 12

Candidate Starts for DrSeegs_94:

(Start: 12 @59815 has 74 MA's), (31, 59926), (40, 59971), (41, 59974), (52, 60070), (60, 60124), (66, 60202), (68, 60220),

Gene: DuncansLeg_92 Start: 59254, Stop: 59661, Start Num: 12

Candidate Starts for DuncansLeg_92:

(Start: 12 @59254 has 74 MA's), (15, 59275), (31, 59359), (40, 59404), (41, 59407), (50, 59485), (54, 59521), (64, 59608), (66, 59635),

Gene: DyoEdafos_98 Start: 59531, Stop: 59938, Start Num: 12

Candidate Starts for DyoEdafos_98:

(Start: 12 @59531 has 74 MA's), (15, 59552), (20, 59567), (41, 59684), (45, 59720), (52, 59780), (60, 59834), (64, 59885), (66, 59912), (68, 59930),

Gene: Ellson_91 Start: 59569, Stop: 59976, Start Num: 12

Candidate Starts for Ellson_91:

(Start: 12 @59569 has 74 MA's), (15, 59590), (31, 59674), (40, 59719), (41, 59722), (50, 59800), (54, 59836), (64, 59923), (66, 59950),

Gene: EmToTheThree_250 Start: 143104, Stop: 143553, Start Num: 13

Candidate Starts for EmToTheThree_250:

(Start: 13 @143104 has 35 MA's), (21, 143143), (Start: 23 @143161 has 1 MA's), (27, 143194), (35, 143221), (40, 143254), (51, 143341), (56, 143383), (63, 143482),

Gene: Enceladus_88 Start: 57406, Stop: 57816, Start Num: 12

Candidate Starts for Enceladus_88:

(Start: 12 @57406 has 74 MA's), (18, 57436), (19, 57439), (25, 57484), (41, 57562), (46, 57604), (50, 57640), (56, 57682), (57, 57688), (61, 57736), (65, 57781), (68, 57808),

Gene: Erdmann_251 Start: 143072, Stop: 143521, Start Num: 13

Candidate Starts for Erdmann_251:

(Start: 13 @143072 has 35 MA's), (21, 143111), (Start: 23 @143129 has 1 MA's), (27, 143162), (35, 143189), (40, 143222), (51, 143309), (56, 143351), (63, 143450),

Gene: ErnieJ_243 Start: 139900, Stop: 140349, Start Num: 13

Candidate Starts for ErnieJ_243:

(Start: 13 @139900 has 35 MA's), (21, 139939), (Start: 23 @139957 has 1 MA's), (27, 139990), (35, 140017), (40, 140050), (51, 140137), (56, 140179), (63, 140278),

Gene: Faith1_95 Start: 59452, Stop: 59865, Start Num: 12

Candidate Starts for Faith1_95:

(Start: 12 @59452 has 74 MA's), (31, 59563), (40, 59608), (41, 59611), (52, 59707), (60, 59761), (66, 59839), (68, 59857),

Gene: FarmResident_97 Start: 59091, Stop: 59498, Start Num: 12

Candidate Starts for FarmResident_97:

(Start: 12 @59091 has 74 MA's), (15, 59112), (20, 59127), (41, 59244), (52, 59340), (60, 59394), (64, 59445), (66, 59472), (67, 59475), (68, 59490),

Gene: Finemlucis_96 Start: 60566, Stop: 60979, Start Num: 12

Candidate Starts for Finemlucis_96:

(Start: 12 @60566 has 74 MA's), (31, 60677), (38, 60716), (41, 60725), (50, 60803), (60, 60875), (66, 60953), (68, 60971),

Gene: Finnry_92 Start: 59588, Stop: 59995, Start Num: 12

Candidate Starts for Finnry_92:

(Start: 12 @59588 has 74 MA's), (15, 59609), (40, 59738), (41, 59741), (50, 59819), (54, 59855), (64, 59942), (66, 59969),

Gene: Fixie_249 Start: 143337, Stop: 143786, Start Num: 13

Candidate Starts for Fixie_249:

(Start: 13 @143337 has 35 MA's), (21, 143376), (Start: 23 @143394 has 1 MA's), (27, 143427), (35, 143454), (40, 143487), (51, 143574), (56, 143616), (63, 143715),

Gene: FoxtrotP1_248 Start: 143658, Stop: 144107, Start Num: 13

Candidate Starts for FoxtrotP1_248:

(Start: 13 @143658 has 35 MA's), (21, 143697), (Start: 23 @143715 has 1 MA's), (27, 143748), (35, 143775), (40, 143808), (51, 143895), (56, 143937), (63, 144036),

Gene: FudgeTart_245 Start: 142162, Stop: 142611, Start Num: 13

Candidate Starts for FudgeTart_245:

(Start: 13 @142162 has 35 MA's), (21, 142201), (Start: 23 @142219 has 1 MA's), (27, 142252), (35, 142279), (40, 142312), (51, 142399), (56, 142441), (63, 142540),

Gene: Gabriela_95 Start: 58798, Stop: 59211, Start Num: 12

Candidate Starts for Gabriela_95:

(Start: 12 @58798 has 74 MA's), (31, 58909), (40, 58954), (41, 58957), (52, 59053), (60, 59107), (66, 59185), (68, 59203),

Gene: Gardann_95 Start: 59299, Stop: 59712, Start Num: 12

Candidate Starts for Gardann_95:

(Start: 12 @59299 has 74 MA's), (31, 59410), (38, 59449), (41, 59458), (50, 59536), (60, 59608), (66, 59686), (68, 59704),

Gene: Gizmo_255 Start: 144989, Stop: 145438, Start Num: 13

Candidate Starts for Gizmo_255:

(Start: 13 @144989 has 35 MA's), (21, 145028), (Start: 23 @145046 has 1 MA's), (27, 145079), (35, 145106), (40, 145139), (51, 145226), (56, 145268), (63, 145367),

Gene: Gizmo_126 Start: 66298, Stop: 65843, Start Num: 9

Candidate Starts for Gizmo_126:

(Start: 9 @66298 has 1 MA's), (24, 66211), (33, 66175), (39, 66139), (44, 66100), (51, 66049),

Gene: GuuelaD_92 Start: 59411, Stop: 59824, Start Num: 12

Candidate Starts for GuuelaD_92:

(Start: 12 @59411 has 74 MA's), (31, 59522), (38, 59561), (41, 59570), (50, 59648), (60, 59720), (66, 59798), (68, 59816),

Gene: Hafay_96 Start: 59523, Stop: 59936, Start Num: 12

Candidate Starts for Hafay_96:

(Start: 12 @59523 has 74 MA's), (31, 59634), (38, 59673), (41, 59682), (50, 59760), (60, 59832), (66, 59910), (68, 59928),

Gene: Halena_88 Start: 56292, Stop: 56702, Start Num: 12

Candidate Starts for Halena_88:

(Start: 12 @56292 has 74 MA's), (18, 56322), (19, 56325), (25, 56370), (41, 56448), (46, 56490), (50, 56526), (56, 56568), (57, 56574), (61, 56622), (65, 56667), (68, 56694),

Gene: Hank144_56 Start: 39762, Stop: 39295, Start Num: 10

Candidate Starts for Hank144_56:

(Start: 10 @39762 has 1 MA's), (22, 39693), (36, 39615), (37, 39609), (44, 39561), (45, 39558), (48, 39531), (69, 39306),

Gene: Hannaconda_99 Start: 57411, Stop: 57815, Start Num: 23

Candidate Starts for Hannaconda_99:

(3, 57240), (6, 57273), (8, 57291), (Start: 13 @57348 has 35 MA's), (Start: 23 @57411 has 1 MA's), (24, 57426), (28, 57444), (40, 57501), (42, 57507), (48, 57567), (59, 57660), (70, 57801),

Gene: Issimir_243 Start: 142261, Stop: 142710, Start Num: 13

Candidate Starts for Issimir_243:

(Start: 13 @142261 has 35 MA's), (21, 142300), (Start: 23 @142318 has 1 MA's), (27, 142351), (35, 142378), (40, 142411), (51, 142498), (56, 142540), (63, 142639),

Gene: Itos_95 Start: 58358, Stop: 58771, Start Num: 12

Candidate Starts for Itos_95:

(Start: 12 @58358 has 74 MA's), (31, 58469), (40, 58514), (41, 58517), (52, 58613), (60, 58667), (66, 58745), (68, 58763),

Gene: JPickles_247 Start: 141311, Stop: 141760, Start Num: 13

Candidate Starts for JPickles_247:

(Start: 13 @141311 has 35 MA's), (21, 141350), (Start: 23 @141368 has 1 MA's), (27, 141401), (35, 141428), (40, 141461), (51, 141548), (56, 141590), (63, 141689),

Gene: Janiyra_253 Start: 142848, Stop: 143297, Start Num: 13

Candidate Starts for Janiyra_253:

(Start: 13 @142848 has 35 MA's), (21, 142887), (Start: 23 @142905 has 1 MA's), (27, 142938), (35, 142965), (40, 142998), (51, 143085), (56, 143127), (63, 143226),

Gene: Jobypre_92 Start: 59235, Stop: 59642, Start Num: 12

Candidate Starts for Jobypre_92:

(Start: 12 @59235 has 74 MA's), (15, 59256), (40, 59385), (41, 59388), (50, 59466), (54, 59502), (64, 59589), (66, 59616),

Gene: JoeDirt_92 Start: 57967, Stop: 58377, Start Num: 12

Candidate Starts for JoeDirt_92:

(Start: 12 @57967 has 74 MA's), (18, 57997), (19, 58000), (25, 58045), (41, 58123), (46, 58165), (50, 58201), (56, 58243), (57, 58249), (61, 58297), (65, 58342), (68, 58369),

Gene: Jubie_91 Start: 59370, Stop: 59777, Start Num: 12

Candidate Starts for Jubie_91:

(Start: 12 @59370 has 74 MA's), (15, 59391), (40, 59520), (41, 59523), (50, 59601), (54, 59637), (64, 59724), (66, 59751),

Gene: Kahlid_94 Start: 59217, Stop: 59630, Start Num: 12

Candidate Starts for Kahlid_94:

(Start: 12 @59217 has 74 MA's), (31, 59328), (38, 59367), (41, 59376), (50, 59454), (60, 59526), (66, 59604), (68, 59622),

Gene: Kingsolomon_90 Start: 59344, Stop: 59751, Start Num: 12

Candidate Starts for Kingsolomon_90:

(Start: 12 @59344 has 74 MA's), (15, 59365), (40, 59494), (41, 59497), (50, 59575), (54, 59611), (64, 59698), (66, 59725),

Gene: KirDoubleO7_90 Start: 59256, Stop: 59663, Start Num: 12

Candidate Starts for KirDoubleO7_90:

(Start: 12 @59256 has 74 MA's), (15, 59277), (31, 59361), (40, 59406), (41, 59409), (50, 59487), (54, 59523), (64, 59610), (66, 59637),

Gene: Kropertea_91 Start: 58811, Stop: 59221, Start Num: 12

Candidate Starts for Kropertea_91:

(Start: 12 @58811 has 74 MA's), (15, 58832), (20, 58847), (41, 58967), (45, 59003), (52, 59063), (60, 59117), (64, 59168), (66, 59195), (68, 59213),

Gene: Krypton555_94 Start: 59747, Stop: 60154, Start Num: 12

Candidate Starts for Krypton555_94:

(Start: 12 @59747 has 74 MA's), (15, 59768), (31, 59852), (40, 59897), (41, 59900), (50, 59978), (54, 60014), (64, 60101), (66, 60128),

Gene: LeBron_90 Start: 56599, Stop: 57009, Start Num: 12

Candidate Starts for LeBron_90:

(Start: 12 @56599 has 74 MA's), (18, 56629), (19, 56632), (25, 56677), (41, 56755), (46, 56797), (50, 56833), (56, 56875), (57, 56881), (61, 56929), (65, 56974), (68, 57001),

Gene: Lee7_249 Start: 144611, Stop: 145060, Start Num: 13

Candidate Starts for Lee7_249:

(Start: 13 @144611 has 35 MA's), (21, 144650), (Start: 23 @144668 has 1 MA's), (27, 144701), (35, 144728), (40, 144761), (51, 144848), (56, 144890), (63, 144989),

Gene: Lewan_96 Start: 59451, Stop: 59864, Start Num: 12

Candidate Starts for Lewan_96:

(Start: 12 @59451 has 74 MA's), (31, 59562), (38, 59601), (41, 59610), (50, 59688), (60, 59760), (66, 59838), (68, 59856),

Gene: LilDestine_93 Start: 59128, Stop: 59541, Start Num: 12

Candidate Starts for LilDestine_93:

(Start: 12 @59128 has 74 MA's), (31, 59239), (38, 59278), (41, 59287), (50, 59365), (60, 59437), (66, 59515), (68, 59533),

Gene: LiyuLake_91 Start: 59329, Stop: 59736, Start Num: 12

Candidate Starts for LiyuLake_91:

(Start: 12 @59329 has 74 MA's), (15, 59350), (31, 59434), (40, 59479), (41, 59482), (50, 59560), (54, 59596), (64, 59683), (66, 59710),

Gene: Loadrie_94 Start: 59619, Stop: 60032, Start Num: 12

Candidate Starts for Loadrie_94:

(Start: 12 @59619 has 74 MA's), (31, 59730), (38, 59769), (41, 59778), (50, 59856), (60, 59928), (66, 60006), (68, 60024),

Gene: Lolly9_91 Start: 59420, Stop: 59827, Start Num: 12

Candidate Starts for Lolly9_91:

(Start: 12 @59420 has 74 MA's), (15, 59441), (31, 59525), (40, 59570), (50, 59651), (54, 59687), (64, 59774), (66, 59801),

Gene: Lumos_92 Start: 59232, Stop: 59639, Start Num: 12

Candidate Starts for Lumos_92:

(Start: 12 @59232 has 74 MA's), (15, 59253), (40, 59382), (41, 59385), (50, 59463), (54, 59499), (64, 59586), (66, 59613),

Gene: Lynnae_96 Start: 59229, Stop: 59642, Start Num: 12

Candidate Starts for Lynnae_96:

(Start: 12 @59229 has 74 MA's), (31, 59340), (38, 59379), (41, 59388), (50, 59466), (60, 59538), (66, 59616), (68, 59634),

Gene: MAckerman_89 Start: 56285, Stop: 56695, Start Num: 12

Candidate Starts for MAckerman_89:

(Start: 12 @56285 has 74 MA's), (18, 56315), (19, 56318), (25, 56363), (41, 56441), (46, 56483), (50, 56519), (56, 56561), (57, 56567), (61, 56615), (65, 56660), (68, 56687),

Gene: Maby2021_250 Start: 143650, Stop: 144099, Start Num: 13

Candidate Starts for Maby2021_250:

(Start: 13 @143650 has 35 MA's), (21, 143689), (Start: 23 @143707 has 1 MA's), (27, 143740), (35, 143767), (40, 143800), (51, 143887), (56, 143929), (63, 144028),

Gene: McGee_251 Start: 142298, Stop: 142747, Start Num: 13

Candidate Starts for McGee_251:

(Start: 13 @142298 has 35 MA's), (21, 142337), (Start: 23 @142355 has 1 MA's), (27, 142388), (35, 142415), (40, 142448), (51, 142535), (56, 142577), (63, 142676),

Gene: Miley16_95 Start: 59815, Stop: 60228, Start Num: 12

Candidate Starts for Miley16_95:

(Start: 12 @59815 has 74 MA's), (31, 59926), (40, 59971), (41, 59974), (52, 60070), (60, 60124), (66, 60202), (68, 60220),

Gene: MiniLon_96 Start: 59421, Stop: 59828, Start Num: 12

Candidate Starts for MiniLon_96:

(Start: 12 @59421 has 74 MA's), (15, 59442), (31, 59526), (40, 59571), (50, 59652), (54, 59688), (64, 59775), (66, 59802),

Gene: MiniMac_96 Start: 59416, Stop: 59823, Start Num: 12

Candidate Starts for MiniMac_96:

(Start: 12 @59416 has 74 MA's), (15, 59437), (31, 59521), (40, 59566), (50, 59647), (54, 59683), (64, 59770), (66, 59797),

Gene: MkaliMitinis3_97 Start: 59582, Stop: 59995, Start Num: 12

Candidate Starts for MkaliMitinis3_97:

(Start: 12 @59582 has 74 MA's), (31, 59693), (38, 59732), (41, 59741), (50, 59819), (60, 59891), (66, 59969), (68, 59987),

Gene: Moostard_89 Start: 59339, Stop: 59746, Start Num: 12

Candidate Starts for Moostard_89:

(Start: 12 @59339 has 74 MA's), (15, 59360), (40, 59489), (41, 59492), (50, 59570), (54, 59606), (64, 59693), (66, 59720),

Gene: Morizzled23_247 Start: 141326, Stop: 141775, Start Num: 13

Candidate Starts for Morizzled23_247:

(Start: 13 @141326 has 35 MA's), (21, 141365), (Start: 23 @141383 has 1 MA's), (27, 141416), (35, 141443), (40, 141476), (51, 141563), (56, 141605), (63, 141704),

Gene: MsGreen_92 Start: 59234, Stop: 59641, Start Num: 12

Candidate Starts for MsGreen_92:

(Start: 12 @59234 has 74 MA's), (15, 59255), (40, 59384), (41, 59387), (50, 59465), (54, 59501), (64, 59588), (66, 59615),

Gene: Netyap_94 Start: 59453, Stop: 59866, Start Num: 12

Candidate Starts for Netyap_94:

(Start: 12 @59453 has 74 MA's), (31, 59564), (40, 59609), (41, 59612), (52, 59708), (60, 59762), (66, 59840), (68, 59858),

Gene: Nicholas_90 Start: 59344, Stop: 59751, Start Num: 12

Candidate Starts for Nicholas_90:

(Start: 12 @59344 has 74 MA's), (15, 59365), (40, 59494), (41, 59497), (50, 59575), (54, 59611), (64, 59698), (66, 59725),

Gene: Nicholasp3_95 Start: 59299, Stop: 59712, Start Num: 12

Candidate Starts for Nicholasp3_95:

(Start: 12 @59299 has 74 MA's), (31, 59410), (38, 59449), (41, 59458), (50, 59536), (60, 59608), (66, 59686), (68, 59704),

Gene: OhShagHennessy_87 Start: 56542, Stop: 56952, Start Num: 12

Candidate Starts for OhShagHennessy_87:

(Start: 12 @56542 has 74 MA's), (18, 56572), (19, 56575), (25, 56620), (41, 56698), (46, 56740), (50, 56776), (56, 56818), (57, 56824), (61, 56872), (65, 56917), (68, 56944),

Gene: OrediggerDelux_245 Start: 143615, Stop: 144064, Start Num: 13

Candidate Starts for OrediggerDelux_245:

(Start: 13 @143615 has 35 MA's), (21, 143654), (Start: 23 @143672 has 1 MA's), (27, 143705), (35, 143732), (40, 143765), (51, 143852), (56, 143894), (63, 143993),

Gene: OverPar_97 Start: 59619, Stop: 60032, Start Num: 12

Candidate Starts for OverPar_97:

(Start: 12 @59619 has 74 MA's), (31, 59730), (38, 59769), (41, 59778), (50, 59856), (60, 59928), (66, 60006), (68, 60024),

Gene: PYPDinur_96 Start: 59772, Stop: 60179, Start Num: 12

Candidate Starts for PYPDinur_96:

(Start: 12 @59772 has 74 MA's), (15, 59793), (41, 59925), (52, 60021), (60, 60075), (64, 60126), (66, 60153), (67, 60156), (68, 60171),

Gene: PharkleMinkus_252 Start: 141563, Stop: 142012, Start Num: 13

Candidate Starts for PharkleMinkus_252:

(Start: 13 @141563 has 35 MA's), (21, 141602), (Start: 23 @141620 has 1 MA's), (27, 141653), (35, 141680), (40, 141713), (51, 141800), (56, 141842), (63, 141941),

Gene: Poochiewood_89 Start: 57939, Stop: 58349, Start Num: 12

Candidate Starts for Poochiewood_89:

(Start: 12 @57939 has 74 MA's), (18, 57969), (19, 57972), (25, 58017), (41, 58095), (46, 58137), (50, 58173), (56, 58215), (57, 58221), (61, 58269), (65, 58314), (68, 58341),

Gene: Primadonna_244 Start: 142325, Stop: 142774, Start Num: 13

Candidate Starts for Primadonna_244:

(Start: 13 @142325 has 35 MA's), (21, 142364), (Start: 23 @142382 has 1 MA's), (27, 142415), (35, 142442), (40, 142475), (51, 142562), (56, 142604), (63, 142703),

Gene: PurduePete_250 Start: 143690, Stop: 144139, Start Num: 13

Candidate Starts for PurduePete_250:

(Start: 13 @143690 has 35 MA's), (21, 143729), (Start: 23 @143747 has 1 MA's), (27, 143780), (35, 143807), (40, 143840), (51, 143927), (56, 143969), (63, 144068),

Gene: Quby_96 Start: 59183, Stop: 59590, Start Num: 12

Candidate Starts for Quby_96:

(Start: 12 @59183 has 74 MA's), (41, 59336), (52, 59432), (60, 59486), (64, 59537), (66, 59564), (67, 59567), (68, 59582),

Gene: Rearden_102 Start: 60176, Stop: 60565, Start Num: 24

Candidate Starts for Rearden_102:

(1, 59861), (2, 59885), (3, 59990), (6, 60023), (8, 60041), (Start: 13 @60098 has 35 MA's), (Start: 23 @60161 has 1 MA's), (24, 60176), (28, 60194), (40, 60251), (42, 60257), (48, 60317), (59, 60410), (70, 60551),

Gene: Red305_93 Start: 59235, Stop: 59642, Start Num: 12

Candidate Starts for Red305_93:

(Start: 12 @59235 has 74 MA's), (15, 59256), (40, 59385), (41, 59388), (50, 59466), (54, 59502), (64, 59589), (66, 59616),

Gene: Rose5_92 Start: 57809, Stop: 58219, Start Num: 12

Candidate Starts for Rose5_92:

(Start: 12 @57809 has 74 MA's), (18, 57839), (19, 57842), (25, 57887), (41, 57965), (46, 58007), (50, 58043), (56, 58085), (57, 58091), (61, 58139), (65, 58184), (68, 58211),

Gene: Rossetti_95 Start: 59618, Stop: 60031, Start Num: 12

Candidate Starts for Rossetti_95:

(Start: 12 @59618 has 74 MA's), (31, 59729), (38, 59768), (41, 59777), (50, 59855), (60, 59927), (66, 60005), (68, 60023),

Gene: Rumpelstiltskin_91 Start: 59092, Stop: 59505, Start Num: 12

Candidate Starts for Rumpelstiltskin_91:

(Start: 12 @59092 has 74 MA's), (31, 59203), (38, 59242), (41, 59251), (50, 59329), (60, 59401), (66, 59479), (68, 59497),

Gene: Salacia_251 Start: 144116, Stop: 144565, Start Num: 13

Candidate Starts for Salacia_251:

(Start: 13 @144116 has 35 MA's), (21, 144155), (Start: 23 @144173 has 1 MA's), (27, 144206), (35, 144233), (40, 144266), (51, 144353), (56, 144395), (63, 144494),

Gene: Samty_91 Start: 59332, Stop: 59739, Start Num: 12

Candidate Starts for Samty_91:

(Start: 12 @59332 has 74 MA's), (15, 59353), (40, 59482), (41, 59485), (50, 59563), (54, 59599), (64, 59686), (66, 59713),

Gene: Sarshaun_96 Start: 60210, Stop: 60623, Start Num: 12

Candidate Starts for Sarshaun_96:

(Start: 12 @60210 has 74 MA's), (31, 60321), (38, 60360), (41, 60369), (50, 60447), (60, 60519), (66, 60597), (68, 60615),

Gene: Sheng711_97 Start: 59248, Stop: 59655, Start Num: 12

Candidate Starts for Sheng711_97:

(Start: 12 @59248 has 74 MA's), (15, 59269), (41, 59401), (52, 59497), (60, 59551), (64, 59602), (66, 59629), (67, 59632), (68, 59647),

Gene: Shrimp_252 Start: 143727, Stop: 144176, Start Num: 13

Candidate Starts for Shrimp_252:

(Start: 13 @143727 has 35 MA's), (21, 143766), (Start: 23 @143784 has 1 MA's), (27, 143817), (35, 143844), (40, 143877), (51, 143964), (56, 144006), (63, 144105),

Gene: SilverChicken_59 Start: 36550, Stop: 36966, Start Num: 23

Candidate Starts for SilverChicken_59:

(5, 36415), (6, 36418), (16, 36508), (Start: 23 @36550 has 1 MA's), (34, 36610), (44, 36676), (49, 36718), (55, 36766),

Gene: Silverleaf_90 Start: 57305, Stop: 57715, Start Num: 12

Candidate Starts for Silverleaf_90:

(Start: 12 @57305 has 74 MA's), (18, 57335), (19, 57338), (25, 57383), (41, 57461), (46, 57503), (50, 57539), (56, 57581), (57, 57587), (61, 57635), (65, 57680), (68, 57707),

Gene: Snenia_91 Start: 59236, Stop: 59643, Start Num: 12

Candidate Starts for Snenia_91:

(Start: 12 @59236 has 74 MA's), (15, 59257), (40, 59386), (41, 59389), (50, 59467), (54, 59503), (64, 59590), (66, 59617),

Gene: SoJulia_97 Start: 60975, Stop: 61388, Start Num: 12

Candidate Starts for SoJulia_97:

(Start: 12 @60975 has 74 MA's), (31, 61086), (38, 61125), (41, 61134), (50, 61212), (60, 61284), (66, 61362), (68, 61380),

Gene: Soap141_95 Start: 60210, Stop: 60623, Start Num: 12

Candidate Starts for Soap141_95:

(Start: 12 @60210 has 74 MA's), (31, 60321), (38, 60360), (41, 60369), (50, 60447), (60, 60519), (66, 60597), (68, 60615),

Gene: Specks_254 Start: 143067, Stop: 143516, Start Num: 13

Candidate Starts for Specks_254:

(Start: 13 @143067 has 35 MA's), (21, 143106), (Start: 23 @143124 has 1 MA's), (27, 143157), (35, 143184), (40, 143217), (51, 143304), (56, 143346), (63, 143445),

Gene: SrishMeg2525_247 Start: 143222, Stop: 143671, Start Num: 13

Candidate Starts for SrishMeg2525_247:

(Start: 13 @143222 has 35 MA's), (21, 143261), (Start: 23 @143279 has 1 MA's), (27, 143312), (35, 143339), (40, 143372), (51, 143459), (56, 143501), (63, 143600),

Gene: StubbySaigey_256 Start: 142752, Stop: 143201, Start Num: 13

Candidate Starts for StubbySaigey_256:

(Start: 13 @142752 has 35 MA's), (21, 142791), (Start: 23 @142809 has 1 MA's), (27, 142842), (35, 142869), (40, 142902), (51, 142989), (56, 143031), (63, 143130),

Gene: Teardrop_248 Start: 142079, Stop: 142528, Start Num: 13

Candidate Starts for Teardrop_248:

(Start: 13 @142079 has 35 MA's), (21, 142118), (Start: 23 @142136 has 1 MA's), (27, 142169), (35, 142196), (40, 142229), (51, 142316), (56, 142358), (63, 142457),

Gene: Thales_1 Start: 76, Stop: 522, Start Num: 11

Candidate Starts for Thales_1:

(4, 1), (7, 16), (11, 76), (14, 94), (17, 100), (29, 175), (30, 181), (40, 226), (46, 271), (51, 313), (55, 352), (58, 364), (62, 430),

Gene: TinyTim_248 Start: 142046, Stop: 142495, Start Num: 13

Candidate Starts for TinyTim_248:

(Start: 13 @142046 has 35 MA's), (21, 142085), (Start: 23 @142103 has 1 MA's), (27, 142136), (35, 142163), (40, 142196), (51, 142283), (56, 142325), (63, 142424),

Gene: Tourach_95 Start: 60189, Stop: 60602, Start Num: 12

Candidate Starts for Tourach_95:

(Start: 12 @60189 has 74 MA's), (25, 60270), (31, 60300), (40, 60345), (41, 60348), (52, 60444), (60, 60498), (66, 60576), (68, 60594),

Gene: TriFive_93 Start: 59348, Stop: 59755, Start Num: 12

Candidate Starts for TriFive_93:

(Start: 12 @59348 has 74 MA's), (15, 59369), (40, 59498), (41, 59501), (50, 59579), (54, 59615), (64, 59702), (66, 59729),

Gene: Trinitium_246 Start: 140800, Stop: 141249, Start Num: 13

Candidate Starts for Trinitium_246:

(Start: 13 @140800 has 35 MA's), (21, 140839), (Start: 23 @140857 has 1 MA's), (27, 140890), (35, 140917), (40, 140950), (51, 141037), (56, 141079), (63, 141178),

Gene: Tyson_92 Start: 57702, Stop: 58112, Start Num: 12

Candidate Starts for Tyson_92:

(Start: 12 @57702 has 74 MA's), (18, 57732), (19, 57735), (25, 57780), (41, 57858), (46, 57900), (50, 57936), (56, 57978), (57, 57984), (61, 58032), (65, 58077), (68, 58104),

Gene: UPIE_90 Start: 57298, Stop: 57708, Start Num: 12

Candidate Starts for UPIE_90:

(Start: 12 @57298 has 74 MA's), (18, 57328), (19, 57331), (25, 57376), (41, 57454), (46, 57496), (50, 57532), (56, 57574), (57, 57580), (61, 57628), (65, 57673), (68, 57700),

Gene: Underpass_87 Start: 54335, Stop: 54748, Start Num: 12

Candidate Starts for Underpass_87:

(Start: 12 @54335 has 74 MA's), (31, 54446), (38, 54485), (41, 54494), (50, 54572), (60, 54644), (66, 54722), (68, 54740),

Gene: Vetrix_93 Start: 59073, Stop: 59486, Start Num: 12

Candidate Starts for Vetrix_93:

(Start: 12 @59073 has 74 MA's), (31, 59184), (38, 59223), (41, 59232), (50, 59310), (60, 59382), (66, 59460), (68, 59478),

Gene: Wamburgxpress_90 Start: 57426, Stop: 57836, Start Num: 12

Candidate Starts for Wamburgxpress_90:

(Start: 12 @57426 has 74 MA's), (18, 57456), (19, 57459), (25, 57504), (41, 57582), (46, 57624), (50, 57660), (56, 57702), (57, 57708), (61, 57756), (65, 57801), (68, 57828),

Gene: Whirlwind_93 Start: 59575, Stop: 59982, Start Num: 12

Candidate Starts for Whirlwind_93:

(Start: 12 @59575 has 74 MA's), (15, 59596), (40, 59725), (41, 59728), (50, 59806), (54, 59842), (64, 59929), (66, 59956),

Gene: Wigglewigggle_95 Start: 59375, Stop: 59788, Start Num: 12

Candidate Starts for Wigglewigggle_95:

(Start: 12 @59375 has 74 MA's), (31, 59486), (40, 59531), (41, 59534), (52, 59630), (60, 59684), (66, 59762), (68, 59780),

Gene: Wilder_96 Start: 59217, Stop: 59630, Start Num: 12

Candidate Starts for Wilder_96:

(Start: 12 @59217 has 74 MA's), (31, 59328), (38, 59367), (41, 59376), (50, 59454), (60, 59526), (66, 59604), (68, 59622),

Gene: Winky_95 Start: 59815, Stop: 60228, Start Num: 12

Candidate Starts for Winky_95:

(Start: 12 @59815 has 74 MA's), (31, 59926), (40, 59971), (41, 59974), (52, 60070), (60, 60124), (66, 60202), (68, 60220),

Gene: Wyatt2_92 Start: 57733, Stop: 58143, Start Num: 12

Candidate Starts for Wyatt2_92:

(Start: 12 @57733 has 74 MA's), (18, 57763), (19, 57766), (25, 57811), (41, 57889), (46, 57931), (50, 57967), (56, 58009), (57, 58015), (61, 58063), (65, 58108), (68, 58135),

Gene: Yucca_250 Start: 143605, Stop: 144054, Start Num: 13

Candidate Starts for Yucca_250:

(Start: 13 @143605 has 35 MA's), (21, 143644), (Start: 23 @143662 has 1 MA's), (27, 143695), (35, 143722), (40, 143755), (51, 143842), (56, 143884), (63, 143983),

Gene: Zakai_96 Start: 59860, Stop: 60273, Start Num: 12

Candidate Starts for Zakai_96:

(Start: 12 @59860 has 74 MA's), (31, 59971), (38, 60010), (41, 60019), (50, 60097), (60, 60169), (66, 60247), (68, 60265),

Gene: Zaria_91 Start: 56841, Stop: 57251, Start Num: 12

Candidate Starts for Zaria_91:

(Start: 12 @56841 has 74 MA's), (18, 56871), (19, 56874), (25, 56919), (41, 56997), (46, 57039), (50, 57075), (56, 57117), (57, 57123), (61, 57171), (65, 57216), (68, 57243),

Gene: ZhongYanYuan_92 Start: 59271, Stop: 59684, Start Num: 12

Candidate Starts for ZhongYanYuan_92:

(Start: 12 @59271 has 74 MA's), (31, 59382), (38, 59421), (41, 59430), (50, 59508), (60, 59580), (66, 59658), (68, 59676),

Gene: ZygoTaiga_246 Start: 143902, Stop: 144351, Start Num: 13

Candidate Starts for ZygoTaiga_246:

(Start: 13 @143902 has 35 MA's), (21, 143941), (Start: 23 @143959 has 1 MA's), (27, 143992), (35, 144019), (40, 144052), (51, 144139), (56, 144181), (63, 144280),