Pham 347393


1: Gage_114 + 84
2: Petra64142_116
3: Pound_159 + 19
4: Hannaconda_158 + 4
5: Bobby_158
6: Dove_152 + 6
7: Xiaokay_161
8: Hidrated_155
9: Bagrid_174
10: Bollgate_51
11: Gaia_127 + 1

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 347393 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347393 has 125 members, 13 are drafts.

Phages represented in each track:
• Track 1 : Gage_114, Eureka_112, Murphy_111, Lilpickle_111, HanKaySha_112, Paperbeatsrock_111, PhatBacter_115, Adnama_116, RiverMonster_111, Contagion_109, Bench_114, Murica_116, Lilizi_112, Greep_116, ChosenOne_112, Hopey_112, Phaux_114, Stark_112, Moldemort_114, Emmina_112, Pumpkin_113, Bruin_109, Brewer_108, Tarkin_111, Sassay_107, Elite2014_111, Misfit_113, GoldenSpark_116, Miniwave_107, Manda_113, xkcd_116, NelitzaMV_109, Maxxinista_114, Kanye_109, StolenFromERC_114, Buck_113, FairyPath_113, Ukulele_107, TeamEdward_112, PaddyBaddy_111, Dumbo_112, Saints25_108, Cjw1_112, Quallification_113, MPhalcon_113, YassJohnny_109, Easy2Say_112, Becksu_110, Hoonter_115, Youngblood_116, AmericanBeauty_115, Gemini_117, Ptowny_108, FireRed_115, Lilac_113, Czyszczon1_112, Policronamos_115, Thresher_113, Rimmer_110, Argent26_116, StellaBean_110, Pharsalus_109, Terminus_115, Palpatine_113, BugsBunny_111, Bogg_113, Nala_114, Thimble_114, Highbury_108, Elph10_111, NoSleep_112, Willez_107, ShereKhan_110, MollyToe_107, Mosby_109, HufflyPuff_114, MadamMonkfish_111, OrionPax_110, Livelaughbron_113, MISSy_113, Tomaszewski_107, Phrux_108, GooberAzure_115, NonchalantPear_112, Simpliphy_110
• Track 2 : Petra64142_116
• Track 3 : Pound_159, Beem_166, BAKA_171, Minerva_165, Constella_161, Klein_169, Optimus_164, Kalah2_162, Ejimix_156, Halley_166, Duke13_168, Yeet_157, Hughesyang_164, Odette_169, Zelink_158, ThreeRngTarjay_162, Schatzie_160, EricMillard_163, Dallas_165, Wanda_163
• Track 4 : Hannaconda_158, KashFlow_163, Omega_174, Rearden_165, Gonephishing_159
• Track 5 : Bobby_158
• Track 6 : Dove_152, Phoebus_166, HokkenD_160, Redno2_159, Bombitas_152, JuicyJay_160, NihilNomen_167
• Track 7 : Xiaokay_161
• Track 8 : Hidrated_155
• Track 9 : Bagrid_174
• Track 10 : Boilgate_51
• Track 11 : Gaia_127, Nebkiss_128

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

The start number called the most often in the published annotations is 14, it was called in 78 of the 112 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Adnama_116, AmericanBeauty_115, Argent26_116, Becksu_110, Bench_114, Bogg_113, Brewer_108, Bruin_109, Buck_113, BugsBunny_111, ChosenOne_112, Cjw1_112, Contagion_109, Czyszczon1_112, Dumbo_112, Easy2Say_112, Elite2014_111, Elph10_111, Emmina_112, Eureka_112, FairyPath_113, FireRed_115, Gage_114, Gemini_117, GoldenSpark_116, GooberAzure_115, Greep_116, HanKaySha_112, Highbury_108, Hoonter_115, Hopey_112, HufflyPuff_114, Kanye_109, Lilac_113, Lilizi_112, Lilpickle_111, Livelaughbron_113, MISSy_113, MPhalcon_113, MadamMonkfish_111, Manda_113, Maxxinista_114, Miniwave_107, Misfit_113, Moldemort_114, MollyToe_107, Mosby_109, Murica_116, Murphy_111, Nala_114, NelitzaMV_109, NoSleep_112, NonchalantPear_112, OrionPax_110, PaddyBaddy_111, Palpatine_113, Paperbeatsrock_111, Petra64142_116, Pharsalus_109, PhatBacter_115, Phaux_114, Phrux_108, Policronamos_115, Ptowny_108, Pumpkin_113, Quallification_113, Rimmer_110, RiverMonster_111, Saints25_108, Sassay_107, ShereKhan_110, Simpliphy_110, Stark_112, StellaBean_110, StolenFromERC_114, Tarkin_111, TeamEdward_112, Terminus_115, Thimble_114, Thresher_113, Tomaszewski_107, Ukulele_107, Willez_107, YassJohnny_109, Youngblood_116, xkcd_116,

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

Genes that do not have the "Most Annotated" start:
• BAKA_171, Bagrid_174, Beem_166, Bobby_158, Boilgate_51, Bombitas_152, Constella_161, Dallas_165, Dove_152, Duke13_168, Ejimix_156, EricMillard_163, Gaia_127, Gonephishing_159, Halley_166, Hannaconda_158, Hidrated_155, HokkenD_160, Hughesyang_164, JuicyJay_160, Kalah2_162, KashFlow_163, Klein_169, Minerva_165, Nebkiss_128, NihilNomen_167, Odette_169, Omega_174, Optimus_164, Phoebus_166, Pound_159, Rearden_165, Redno2_159, Schatzie_160, ThreeRngTarjay_162, Wanda_163, Xiaokay_161, Yeet_157, Zelink_158,

Summary by start number:

Start 3:
• Found in 2 of 125 (1.6%) of genes in pham
• Manual Annotations of this start: 2 of 112
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gaia_127 (X), Nebkiss_128 (X),

Start 8:
• Found in 5 of 125 (4.0%) of genes in pham
• Manual Annotations of this start: 3 of 112
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gonephishing_159 (J), Hannaconda_158 (J), KashFlow_163 (J), Omega_174 (J), Rearden_165 (J),

Start 9:
• Found in 31 of 125 (24.8%) of genes in pham

• Manual Annotations of this start: 28 of 112
• Called 96.8% of time when present
• Phage (with cluster) where this start called: BAKA_171 (J), Beem_166 (J), Bobby_158 (J), Bombitas_152 (J), Constella_161 (J), Dallas_165 (J), Dove_152 (J), Duke13_168 (J), Ejimix_156 (J), EricMillard_163 (J), Halley_166 (J), Hidrated_155 (J), HokkenD_160 (J), Hughesyang_164 (J), JuicyJay_160 (J), Kalah2_162 (J), Klein_169 (J), Minerva_165 (J), NihilNomen_167 (J), Odette_169 (J), Optimus_164 (J), Phoebus_166 (J), Pound_159 (J), Redno2_159 (J), Schatzie_160 (J), ThreeRngTarjay_162 (J), Wanda_163 (J), Xiaokay_161 (J), Yeet_157 (J), Zelink_158 (J),

Start 13:
• Found in 1 of 125 (0.8%) 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: Boilgate_51 (K8),

Start 14:
• Found in 86 of 125 (68.8%) of genes in pham
• Manual Annotations of this start: 78 of 112
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Adnama_116 (E), AmericanBeauty_115 (E), Argent26_116 (E), Becksu_110 (E), Bench_114 (E), Bogg_113 (E), Brewer_108 (E), Bruin_109 (E), Buck_113 (E), BugsBunny_111 (E), ChosenOne_112 (E), Cjw1_112 (E), Contagion_109 (E), Czyszczon1_112 (E), Dumbo_112 (E), Easy2Say_112 (E), Elite2014_111 (E), Elph10_111 (E), Emmina_112 (E), Eureka_112 (E), FairyPath_113 (E), FireRed_115 (E), Gage_114 (E), Gemini_117 (E), GoldenSpark_116 (E), GooberAzure_115 (E), Greep_116 (E), HanKaySha_112 (E), Highbury_108 (E), Hoonter_115 (E), Hopey_112 (E), HufflyPuff_114 (E), Kanye_109 (E), Lilac_113 (E), Lilizi_112 (E), Lilpickle_111 (E), Livelaughbron_113 (E), MISSy_113 (E), MPhalcon_113 (E), MadamMonkfish_111 (E), Manda_113 (E), Maxxinista_114 (E), Miniwave_107 (E), Misfit_113 (E), Moldemort_114 (E), MollyToe_107 (E), Mosby_109 (E), Murica_116 (E), Murphy_111 (E), Nala_114 (E), NelitzaMV_109 (E), NoSleep_112 (E), NonchalantPear_112 (E), OrionPax_110 (E), PaddyBaddy_111 (E), Palpatine_113 (E), Paperbeatsrock_111 (E), Petra64142_116 (E), Pharsalus_109 (E), PhatBacter_115 (E), Phaux_114 (E), Phrux_108 (E), Policronamos_115 (E), Ptowny_108 (E), Pumpkin_113 (E), Quallification_113 (E), Rimmer_110 (E), RiverMonster_111 (E), Saints25_108 (E), Sassay_107 (E), ShereKhan_110 (E), Simpliphy_110 (E), Stark_112 (E), StellaBean_110 (E), StolenFromERC_114 (E), Tarkin_111 (E), TeamEdward_112 (E), Terminus_115 (E), Thimble_114 (E), Thresher_113 (E), Tomaszewski_107 (E), Ukulele_107 (E), Willez_107 (E), YassJohnny_109 (E), Youngblood_116 (E), xkcd_116 (E),

Start 16:
• Found in 36 of 125 (28.8%) of genes in pham
• No Manual Annotations of this start.
• Called 2.8% of time when present
• Phage (with cluster) where this start called: Bagrid_174 (J),

Summary by clusters:

There are 4 clusters represented in this pham: K8, X, J, E,

Info for manual annotations of cluster E:
•Start number 14 was manually annotated 78 times for cluster E.

Info for manual annotations of cluster J:
•Start number 8 was manually annotated 3 times for cluster J.
•Start number 9 was manually annotated 28 times for cluster J.

Info for manual annotations of cluster K8:
•Start number 13 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster X:
•Start number 3 was manually annotated 2 times for cluster X.

Gene Information:

Gene: Adnama_116 Start: 63697, Stop: 64176, Start Num: 14
Candidate Starts for Adnama_116:
(Start: 14 @63697 has 78 MA's), (18, 63775), (22, 63799), (23, 63802), (29, 63946), (32, 63967), (39, 64093), (42, 64141), (44, 64171),

Gene: AmericanBeauty_115 Start: 63739, Stop: 64218, Start Num: 14
Candidate Starts for AmericanBeauty_115:
(Start: 14 @63739 has 78 MA's), (18, 63817), (22, 63841), (23, 63844), (29, 63988), (32, 64009), (39, 64135), (42, 64183), (44, 64213),

Gene: Argent26_116 Start: 63621, Stop: 64100, Start Num: 14
Candidate Starts for Argent26_116:
(Start: 14 @63621 has 78 MA's), (18, 63699), (22, 63723), (23, 63726), (29, 63870), (32, 63891), (39, 64017), (42, 64065), (44, 64095),

Gene: BAKA_171 Start: 89814, Stop: 90299, Start Num: 9
Candidate Starts for BAKA_171:
(6, 89781), (Start: 9 @89814 has 28 MA's), (16, 89916), (20, 89955), (21, 89961), (22, 89967), (23, 89970), (29, 90114), (35, 90171), (40, 90282),

Gene: Bagrid_174 Start: 90278, Stop: 90661, Start Num: 16
Candidate Starts for Bagrid_174:
(6, 90143), (Start: 9 @90176 has 28 MA's), (16, 90278), (20, 90317), (21, 90323), (22, 90329), (23, 90332), (29, 90476), (35, 90533), (40, 90644),

Gene: Becksu_110 Start: 64010, Stop: 64489, Start Num: 14
Candidate Starts for Becksu_110:
(Start: 14 @64010 has 78 MA's), (18, 64088), (22, 64112), (23, 64115), (29, 64259), (32, 64280), (39, 64406), (42, 64454), (44, 64484),

Gene: Beem_166 Start: 88969, Stop: 89454, Start Num: 9
Candidate Starts for Beem_166:
(6, 88936), (Start: 9 @88969 has 28 MA's), (16, 89071), (20, 89110), (21, 89116), (22, 89122), (23, 89125), (29, 89269), (35, 89326), (40, 89437),

Gene: Bench_114 Start: 64378, Stop: 64857, Start Num: 14

Candidate Starts for Bench_114:
(Start: 14 @64378 has 78 MA's), (18, 64456), (22, 64480), (23, 64483), (29, 64627), (32, 64648), (39, 64774), (42, 64822), (44, 64852),

Gene: Bobby_158 Start: 89958, Stop: 90449, Start Num: 9
Candidate Starts for Bobby_158:
(2, 89877), (7, 89928), (Start: 9 @89958 has 28 MA's), (12, 90009), (16, 90066), (20, 90105), (21, 90111), (22, 90117), (23, 90120), (29, 90264), (35, 90321), (40, 90432),

Gene: Bogg_113 Start: 63897, Stop: 64376, Start Num: 14
Candidate Starts for Bogg_113:
(Start: 14 @63897 has 78 MA's), (18, 63975), (22, 63999), (23, 64002), (29, 64146), (32, 64167), (39, 64293), (42, 64341), (44, 64371),

Gene: Boilgate_51 Start: 39018, Stop: 39488, Start Num: 13
Candidate Starts for Boilgate_51:
(1, 38853), (4, 38895), (5, 38922), (Start: 13 @39018 has 1 MA's), (16, 39075), (17, 39090), (18, 39102), (21, 39120), (22, 39126), (23, 39129), (41, 39456), (43, 39483),

Gene: Bombitas_152 Start: 85199, Stop: 85684, Start Num: 9
Candidate Starts for Bombitas_152:
(6, 85166), (Start: 9 @85199 has 28 MA's), (16, 85301), (20, 85340), (21, 85346), (22, 85352), (23, 85355), (29, 85499), (35, 85556), (40, 85667),

Gene: Brewer_108 Start: 62534, Stop: 63013, Start Num: 14
Candidate Starts for Brewer_108:
(Start: 14 @62534 has 78 MA's), (18, 62612), (22, 62636), (23, 62639), (29, 62783), (32, 62804), (39, 62930), (42, 62978), (44, 63008),

Gene: Bruin_109 Start: 63062, Stop: 63541, Start Num: 14
Candidate Starts for Bruin_109:
(Start: 14 @63062 has 78 MA's), (18, 63140), (22, 63164), (23, 63167), (29, 63311), (32, 63332), (39, 63458), (42, 63506), (44, 63536),

Gene: Buck_113 Start: 64878, Stop: 65357, Start Num: 14
Candidate Starts for Buck_113:
(Start: 14 @64878 has 78 MA's), (18, 64956), (22, 64980), (23, 64983), (29, 65127), (32, 65148), (39, 65274), (42, 65322), (44, 65352),

Gene: BugsBunny_111 Start: 64376, Stop: 64855, Start Num: 14
Candidate Starts for BugsBunny_111:
(Start: 14 @64376 has 78 MA's), (18, 64454), (22, 64478), (23, 64481), (29, 64625), (32, 64646), (39, 64772), (42, 64820), (44, 64850),

Gene: ChosenOne_112 Start: 63262, Stop: 63741, Start Num: 14
Candidate Starts for ChosenOne_112:
(Start: 14 @63262 has 78 MA's), (18, 63340), (22, 63364), (23, 63367), (29, 63511), (32, 63532), (39, 63658), (42, 63706), (44, 63736),

Gene: Cjw1_112 Start: 65071, Stop: 65550, Start Num: 14
Candidate Starts for Cjw1_112:
(Start: 14 @65071 has 78 MA's), (18, 65149), (22, 65173), (23, 65176), (29, 65320), (32, 65341), (39, 65467), (42, 65515), (44, 65545),

Gene: Constella_161 Start: 87703, Stop: 88188, Start Num: 9
Candidate Starts for Constella_161:
(6, 87670), (Start: 9 @87703 has 28 MA's), (16, 87805), (20, 87844), (21, 87850), (22, 87856), (23, 87859), (29, 88003), (35, 88060), (40, 88171),

Gene: Contagion_109 Start: 63424, Stop: 63903, Start Num: 14
Candidate Starts for Contagion_109:
(Start: 14 @63424 has 78 MA's), (18, 63502), (22, 63526), (23, 63529), (29, 63673), (32, 63694), (39, 63820), (42, 63868), (44, 63898),

Gene: Czyszczon1_112 Start: 63417, Stop: 63896, Start Num: 14
Candidate Starts for Czyszczon1_112:
(Start: 14 @63417 has 78 MA's), (18, 63495), (22, 63519), (23, 63522), (29, 63666), (32, 63687), (39, 63813), (42, 63861), (44, 63891),

Gene: Dallas_165 Start: 88192, Stop: 88677, Start Num: 9
Candidate Starts for Dallas_165:
(6, 88159), (Start: 9 @88192 has 28 MA's), (16, 88294), (20, 88333), (21, 88339), (22, 88345), (23, 88348), (29, 88492), (35, 88549), (40, 88660),

Gene: Dove_152 Start: 83555, Stop: 84040, Start Num: 9
Candidate Starts for Dove_152:
(6, 83522), (Start: 9 @83555 has 28 MA's), (16, 83657), (20, 83696), (21, 83702), (22, 83708), (23, 83711), (29, 83855), (35, 83912), (40, 84023),

Gene: Duke13_168 Start: 88310, Stop: 88795, Start Num: 9
Candidate Starts for Duke13_168:
(6, 88277), (Start: 9 @88310 has 28 MA's), (16, 88412), (20, 88451), (21, 88457), (22, 88463), (23, 88466), (29, 88610), (35, 88667), (40, 88778),

Gene: Dumbo_112 Start: 63454, Stop: 63933, Start Num: 14
Candidate Starts for Dumbo_112:
(Start: 14 @63454 has 78 MA's), (18, 63532), (22, 63556), (23, 63559), (29, 63703), (32, 63724), (39, 63850), (42, 63898), (44, 63928),

Gene: Easy2Say_112 Start: 64088, Stop: 64567, Start Num: 14
Candidate Starts for Easy2Say_112:
(Start: 14 @64088 has 78 MA's), (18, 64166), (22, 64190), (23, 64193), (29, 64337), (32, 64358), (39, 64484), (42, 64532), (44, 64562),

Gene: Ejimix_156 Start: 87180, Stop: 87665, Start Num: 9
Candidate Starts for Ejimix_156:
(6, 87147), (Start: 9 @87180 has 28 MA's), (16, 87282), (20, 87321), (21, 87327), (22, 87333), (23, 87336), (29, 87480), (35, 87537), (40, 87648),

Gene: Elite2014_111 Start: 63261, Stop: 63740, Start Num: 14
Candidate Starts for Elite2014_111:
(Start: 14 @63261 has 78 MA's), (18, 63339), (22, 63363), (23, 63366), (29, 63510), (32, 63531), (39, 63657), (42, 63705), (44, 63735),

Gene: Elph10_111 Start: 63100, Stop: 63579, Start Num: 14
Candidate Starts for Elph10_111:

(Start: 14 @63100 has 78 MA's), (18, 63178), (22, 63202), (23, 63205), (29, 63349), (32, 63370), (39, 63496), (42, 63544), (44, 63574),

Gene: Emmina_112 Start: 63039, Stop: 63518, Start Num: 14
Candidate Starts for Emmina_112:
(Start: 14 @63039 has 78 MA's), (18, 63117), (22, 63141), (23, 63144), (29, 63288), (32, 63309), (39, 63435), (42, 63483), (44, 63513),

Gene: EricMillard_163 Start: 88786, Stop: 89271, Start Num: 9
Candidate Starts for EricMillard_163:
(6, 88753), (Start: 9 @88786 has 28 MA's), (16, 88888), (20, 88927), (21, 88933), (22, 88939), (23, 88942), (29, 89086), (35, 89143), (40, 89254),

Gene: Eureka_112 Start: 64227, Stop: 64706, Start Num: 14
Candidate Starts for Eureka_112:
(Start: 14 @64227 has 78 MA's), (18, 64305), (22, 64329), (23, 64332), (29, 64476), (32, 64497), (39, 64623), (42, 64671), (44, 64701),

Gene: FairyPath_113 Start: 64532, Stop: 65011, Start Num: 14
Candidate Starts for FairyPath_113:
(Start: 14 @64532 has 78 MA's), (18, 64610), (22, 64634), (23, 64637), (29, 64781), (32, 64802), (39, 64928), (42, 64976), (44, 65006),

Gene: FireRed_115 Start: 64503, Stop: 64982, Start Num: 14
Candidate Starts for FireRed_115:
(Start: 14 @64503 has 78 MA's), (18, 64581), (22, 64605), (23, 64608), (29, 64752), (32, 64773), (39, 64899), (42, 64947), (44, 64977),

Gene: Gage_114 Start: 63759, Stop: 64238, Start Num: 14
Candidate Starts for Gage_114:
(Start: 14 @63759 has 78 MA's), (18, 63837), (22, 63861), (23, 63864), (29, 64008), (32, 64029), (39, 64155), (42, 64203), (44, 64233),

Gene: Gaia_127 Start: 69941, Stop: 70507, Start Num: 3
Candidate Starts for Gaia_127:
(Start: 3 @69941 has 2 MA's), (10, 70043), (11, 70055), (18, 70157), (19, 70160), (24, 70196), (25, 70232), (27, 70316), (28, 70325), (29, 70328), (31, 70346), (32, 70349), (33, 70352), (36, 70421), (37, 70430), (38, 70454), (39, 70475),

Gene: Gemini_117 Start: 64138, Stop: 64617, Start Num: 14
Candidate Starts for Gemini_117:
(Start: 14 @64138 has 78 MA's), (18, 64216), (22, 64240), (23, 64243), (29, 64387), (32, 64408), (39, 64534), (42, 64582), (44, 64612),

Gene: GoldenSpark_116 Start: 63621, Stop: 64100, Start Num: 14
Candidate Starts for GoldenSpark_116:
(Start: 14 @63621 has 78 MA's), (18, 63699), (22, 63723), (23, 63726), (29, 63870), (32, 63891), (39, 64017), (42, 64065), (44, 64095),

Gene: Gonephishing_159 Start: 86073, Stop: 86573, Start Num: 8
Candidate Starts for Gonephishing_159:
(Start: 8 @86073 has 3 MA's), (16, 86199), (18, 86226), (21, 86244), (22, 86250), (26, 86331), (27, 86385), (30, 86406), (34, 86424), (36, 86490), (39, 86544),

Gene: GooberAzure_115 Start: 63621, Stop: 64100, Start Num: 14
Candidate Starts for GooberAzure_115:
(Start: 14 @63621 has 78 MA's), (18, 63699), (22, 63723), (23, 63726), (29, 63870), (32, 63891), (39, 64017), (42, 64065), (44, 64095),

Gene: Greep_116 Start: 65193, Stop: 65672, Start Num: 14
Candidate Starts for Greep_116:
(Start: 14 @65193 has 78 MA's), (18, 65271), (22, 65295), (23, 65298), (29, 65442), (32, 65463), (39, 65589), (42, 65637), (44, 65667),

Gene: Halley_166 Start: 87496, Stop: 87981, Start Num: 9
Candidate Starts for Halley_166:
(6, 87463), (Start: 9 @87496 has 28 MA's), (16, 87598), (20, 87637), (21, 87643), (22, 87649), (23, 87652), (29, 87796), (35, 87853), (40, 87964),

Gene: HanKaySha_112 Start: 63809, Stop: 64288, Start Num: 14
Candidate Starts for HanKaySha_112:
(Start: 14 @63809 has 78 MA's), (18, 63887), (22, 63911), (23, 63914), (29, 64058), (32, 64079), (39, 64205), (42, 64253), (44, 64283),

Gene: Hannaconda_158 Start: 87994, Stop: 88494, Start Num: 8
Candidate Starts for Hannaconda_158:
(Start: 8 @87994 has 3 MA's), (16, 88120), (18, 88147), (21, 88165), (22, 88171), (26, 88252), (27, 88306), (30, 88327), (34, 88345), (36, 88411), (39, 88465),

Gene: Hidrated_155 Start: 89219, Stop: 89695, Start Num: 9
Candidate Starts for Hidrated_155:
(6, 89186), (Start: 9 @89219 has 28 MA's), (15, 89306), (18, 89348), (26, 89453), (27, 89507), (30, 89528), (36, 89612), (39, 89666),

Gene: Highbury_108 Start: 61966, Stop: 62445, Start Num: 14
Candidate Starts for Highbury_108:
(Start: 14 @61966 has 78 MA's), (18, 62044), (22, 62068), (23, 62071), (29, 62215), (32, 62236), (39, 62362), (42, 62410), (44, 62440),

Gene: HokkenD_160 Start: 89277, Stop: 89762, Start Num: 9
Candidate Starts for HokkenD_160:
(6, 89244), (Start: 9 @89277 has 28 MA's), (16, 89379), (20, 89418), (21, 89424), (22, 89430), (23, 89433), (29, 89577), (35, 89634), (40, 89745),

Gene: Hoonter_115 Start: 64114, Stop: 64593, Start Num: 14
Candidate Starts for Hoonter_115:
(Start: 14 @64114 has 78 MA's), (18, 64192), (22, 64216), (23, 64219), (29, 64363), (32, 64384), (39, 64510), (42, 64558), (44, 64588),

Gene: Hopey_112 Start: 64420, Stop: 64899, Start Num: 14
Candidate Starts for Hopey_112:
(Start: 14 @64420 has 78 MA's), (18, 64498), (22, 64522), (23, 64525), (29, 64669), (32, 64690), (39, 64816), (42, 64864), (44, 64894),

Gene: HufflyPuff_114 Start: 64729, Stop: 65208, Start Num: 14
Candidate Starts for HufflyPuff_114:

(Start: 14 @64729 has 78 MA's), (18, 64807), (22, 64831), (23, 64834), (29, 64978), (32, 64999), (39, 65125), (42, 65173), (44, 65203),

Gene: Hughesyang_164 Start: 87978, Stop: 88463, Start Num: 9
Candidate Starts for Hughesyang_164:
(6, 87945), (Start: 9 @87978 has 28 MA's), (16, 88080), (20, 88119), (21, 88125), (22, 88131), (23, 88134), (29, 88278), (35, 88335), (40, 88446),

Gene: JuicyJay_160 Start: 88924, Stop: 89409, Start Num: 9
Candidate Starts for JuicyJay_160:
(6, 88891), (Start: 9 @88924 has 28 MA's), (16, 89026), (20, 89065), (21, 89071), (22, 89077), (23, 89080), (29, 89224), (35, 89281), (40, 89392),

Gene: Kalah2_162 Start: 89262, Stop: 89747, Start Num: 9
Candidate Starts for Kalah2_162:
(6, 89229), (Start: 9 @89262 has 28 MA's), (16, 89364), (20, 89403), (21, 89409), (22, 89415), (23, 89418), (29, 89562), (35, 89619), (40, 89730),

Gene: Kanye_109 Start: 63870, Stop: 64349, Start Num: 14
Candidate Starts for Kanye_109:
(Start: 14 @63870 has 78 MA's), (18, 63948), (22, 63972), (23, 63975), (29, 64119), (32, 64140), (39, 64266), (42, 64314), (44, 64344),

Gene: KashFlow_163 Start: 87807, Stop: 88307, Start Num: 8
Candidate Starts for KashFlow_163:
(Start: 8 @87807 has 3 MA's), (16, 87933), (18, 87960), (21, 87978), (22, 87984), (26, 88065), (27, 88119), (30, 88140), (34, 88158), (36, 88224), (39, 88278),

Gene: Klein_169 Start: 87601, Stop: 88086, Start Num: 9
Candidate Starts for Klein_169:
(6, 87568), (Start: 9 @87601 has 28 MA's), (16, 87703), (20, 87742), (21, 87748), (22, 87754), (23, 87757), (29, 87901), (35, 87958), (40, 88069),

Gene: Lilac_113 Start: 64563, Stop: 65042, Start Num: 14
Candidate Starts for Lilac_113:
(Start: 14 @64563 has 78 MA's), (18, 64641), (22, 64665), (23, 64668), (29, 64812), (32, 64833), (39, 64959), (42, 65007), (44, 65037),

Gene: Lilizi_112 Start: 63849, Stop: 64328, Start Num: 14
Candidate Starts for Lilizi_112:
(Start: 14 @63849 has 78 MA's), (18, 63927), (22, 63951), (23, 63954), (29, 64098), (32, 64119), (39, 64245), (42, 64293), (44, 64323),

Gene: Lilpickle_111 Start: 63261, Stop: 63740, Start Num: 14
Candidate Starts for Lilpickle_111:
(Start: 14 @63261 has 78 MA's), (18, 63339), (22, 63363), (23, 63366), (29, 63510), (32, 63531), (39, 63657), (42, 63705), (44, 63735),

Gene: Livelaughbron_113 Start: 64862, Stop: 65341, Start Num: 14
Candidate Starts for Livelaughbron_113:
(Start: 14 @64862 has 78 MA's), (18, 64940), (22, 64964), (23, 64967), (29, 65111), (32, 65132), (39, 65258), (42, 65306), (44, 65336),

Gene: MISSy_113 Start: 64546, Stop: 65025, Start Num: 14
Candidate Starts for MISSy_113:
(Start: 14 @64546 has 78 MA's), (18, 64624), (22, 64648), (23, 64651), (29, 64795), (32, 64816), (39, 64942), (42, 64990), (44, 65020),

Gene: MPhalcon_113 Start: 63964, Stop: 64443, Start Num: 14
Candidate Starts for MPhalcon_113:
(Start: 14 @63964 has 78 MA's), (18, 64042), (22, 64066), (23, 64069), (29, 64213), (32, 64234), (39, 64360), (42, 64408), (44, 64438),

Gene: MadamMonkfish_111 Start: 63271, Stop: 63750, Start Num: 14
Candidate Starts for MadamMonkfish_111:
(Start: 14 @63271 has 78 MA's), (18, 63349), (22, 63373), (23, 63376), (29, 63520), (32, 63541), (39, 63667), (42, 63715), (44, 63745),

Gene: Manda_113 Start: 64001, Stop: 64480, Start Num: 14
Candidate Starts for Manda_113:
(Start: 14 @64001 has 78 MA's), (18, 64079), (22, 64103), (23, 64106), (29, 64250), (32, 64271), (39, 64397), (42, 64445), (44, 64475),

Gene: Maxxinista_114 Start: 63748, Stop: 64227, Start Num: 14
Candidate Starts for Maxxinista_114:
(Start: 14 @63748 has 78 MA's), (18, 63826), (22, 63850), (23, 63853), (29, 63997), (32, 64018), (39, 64144), (42, 64192), (44, 64222),

Gene: Minerva_165 Start: 87342, Stop: 87827, Start Num: 9
Candidate Starts for Minerva_165:
(6, 87309), (Start: 9 @87342 has 28 MA's), (16, 87444), (20, 87483), (21, 87489), (22, 87495), (23, 87498), (29, 87642), (35, 87699), (40, 87810),

Gene: Miniwave_107 Start: 63457, Stop: 63936, Start Num: 14
Candidate Starts for Miniwave_107:
(Start: 14 @63457 has 78 MA's), (18, 63535), (22, 63559), (23, 63562), (29, 63706), (32, 63727), (39, 63853), (42, 63901), (44, 63931),

Gene: Misfit_113 Start: 65060, Stop: 65539, Start Num: 14
Candidate Starts for Misfit_113:
(Start: 14 @65060 has 78 MA's), (18, 65138), (22, 65162), (23, 65165), (29, 65309), (32, 65330), (39, 65456), (42, 65504), (44, 65534),

Gene: Moldemort_114 Start: 63729, Stop: 64208, Start Num: 14
Candidate Starts for Moldemort_114:
(Start: 14 @63729 has 78 MA's), (18, 63807), (22, 63831), (23, 63834), (29, 63978), (32, 63999), (39, 64125), (42, 64173), (44, 64203),

Gene: MollyToe_107 Start: 61837, Stop: 62316, Start Num: 14
Candidate Starts for MollyToe_107:
(Start: 14 @61837 has 78 MA's), (18, 61915), (22, 61939), (23, 61942), (29, 62086), (32, 62107), (39, 62233), (42, 62281), (44, 62311),

Gene: Mosby_109 Start: 63424, Stop: 63903, Start Num: 14
Candidate Starts for Mosby_109:

(Start: 14 @63424 has 78 MA's), (18, 63502), (22, 63526), (23, 63529), (29, 63673), (32, 63694), (39, 63820), (42, 63868), (44, 63898),

Gene: Murica_116 Start: 65763, Stop: 66242, Start Num: 14
Candidate Starts for Murica_116:
(Start: 14 @65763 has 78 MA's), (18, 65841), (22, 65865), (23, 65868), (29, 66012), (32, 66033), (39, 66159), (42, 66207), (44, 66237),

Gene: Murphy_111 Start: 64121, Stop: 64600, Start Num: 14
Candidate Starts for Murphy_111:
(Start: 14 @64121 has 78 MA's), (18, 64199), (22, 64223), (23, 64226), (29, 64370), (32, 64391), (39, 64517), (42, 64565), (44, 64595),

Gene: Nala_114 Start: 64473, Stop: 64952, Start Num: 14
Candidate Starts for Nala_114:
(Start: 14 @64473 has 78 MA's), (18, 64551), (22, 64575), (23, 64578), (29, 64722), (32, 64743), (39, 64869), (42, 64917), (44, 64947),

Gene: Nebkiss_128 Start: 68867, Stop: 69433, Start Num: 3
Candidate Starts for Nebkiss_128:
(Start: 3 @68867 has 2 MA's), (10, 68969), (11, 68981), (18, 69083), (19, 69086), (24, 69122), (25, 69158), (27, 69242), (28, 69251), (29, 69254), (31, 69272), (32, 69275), (33, 69278), (36, 69347), (37, 69356), (38, 69380), (39, 69401),

Gene: NelitzaMV_109 Start: 62446, Stop: 62925, Start Num: 14
Candidate Starts for NelitzaMV_109:
(Start: 14 @62446 has 78 MA's), (18, 62524), (22, 62548), (23, 62551), (29, 62695), (32, 62716), (39, 62842), (42, 62890), (44, 62920),

Gene: NihilNomen_167 Start: 87050, Stop: 87535, Start Num: 9
Candidate Starts for NihilNomen_167:
(6, 87017), (Start: 9 @87050 has 28 MA's), (16, 87152), (20, 87191), (21, 87197), (22, 87203), (23, 87206), (29, 87350), (35, 87407), (40, 87518),

Gene: NoSleep_112 Start: 63281, Stop: 63760, Start Num: 14
Candidate Starts for NoSleep_112:
(Start: 14 @63281 has 78 MA's), (18, 63359), (22, 63383), (23, 63386), (29, 63530), (32, 63551), (39, 63677), (42, 63725), (44, 63755),

Gene: NonchalantPear_112 Start: 62714, Stop: 63193, Start Num: 14
Candidate Starts for NonchalantPear_112:
(Start: 14 @62714 has 78 MA's), (18, 62792), (22, 62816), (23, 62819), (29, 62963), (32, 62984), (39, 63110), (42, 63158), (44, 63188),

Gene: Odette_169 Start: 89731, Stop: 90216, Start Num: 9
Candidate Starts for Odette_169:
(6, 89698), (Start: 9 @89731 has 28 MA's), (16, 89833), (20, 89872), (21, 89878), (22, 89884), (23, 89887), (29, 90031), (35, 90088), (40, 90199),

Gene: Omega_174 Start: 89801, Stop: 90301, Start Num: 8
Candidate Starts for Omega_174:
(Start: 8 @89801 has 3 MA's), (16, 89927), (18, 89954), (21, 89972), (22, 89978), (26, 90059), (27, 90113), (30, 90134), (34, 90152), (36, 90218), (39, 90272),

Gene: Optimus_164 Start: 88257, Stop: 88742, Start Num: 9
Candidate Starts for Optimus_164:
(6, 88224), (Start: 9 @88257 has 28 MA's), (16, 88359), (20, 88398), (21, 88404), (22, 88410), (23, 88413), (29, 88557), (35, 88614), (40, 88725),

Gene: OrionPax_110 Start: 63354, Stop: 63833, Start Num: 14
Candidate Starts for OrionPax_110:
(Start: 14 @63354 has 78 MA's), (18, 63432), (22, 63456), (23, 63459), (29, 63603), (32, 63624), (39, 63750), (42, 63798), (44, 63828),

Gene: PaddyBaddy_111 Start: 63472, Stop: 63951, Start Num: 14
Candidate Starts for PaddyBaddy_111:
(Start: 14 @63472 has 78 MA's), (18, 63550), (22, 63574), (23, 63577), (29, 63721), (32, 63742), (39, 63868), (42, 63916), (44, 63946),

Gene: Palpatine_113 Start: 64758, Stop: 65237, Start Num: 14
Candidate Starts for Palpatine_113:
(Start: 14 @64758 has 78 MA's), (18, 64836), (22, 64860), (23, 64863), (29, 65007), (32, 65028), (39, 65154), (42, 65202), (44, 65232),

Gene: Paperbeatsrock_111 Start: 64135, Stop: 64614, Start Num: 14
Candidate Starts for Paperbeatsrock_111:
(Start: 14 @64135 has 78 MA's), (18, 64213), (22, 64237), (23, 64240), (29, 64384), (32, 64405), (39, 64531), (42, 64579), (44, 64609),

Gene: Petra64142_116 Start: 64603, Stop: 65082, Start Num: 14
Candidate Starts for Petra64142_116:
(1, 64432), (4, 64474), (Start: 14 @64603 has 78 MA's), (18, 64681), (22, 64705), (23, 64708), (29, 64852), (32, 64873), (39, 64999), (42, 65047), (44, 65077),

Gene: Pharsalus_109 Start: 63834, Stop: 64313, Start Num: 14
Candidate Starts for Pharsalus_109:
(Start: 14 @63834 has 78 MA's), (18, 63912), (22, 63936), (23, 63939), (29, 64083), (32, 64104), (39, 64230), (42, 64278), (44, 64308),

Gene: PhatBacter_115 Start: 64503, Stop: 64982, Start Num: 14
Candidate Starts for PhatBacter_115:
(Start: 14 @64503 has 78 MA's), (18, 64581), (22, 64605), (23, 64608), (29, 64752), (32, 64773), (39, 64899), (42, 64947), (44, 64977),

Gene: Phaux_114 Start: 65063, Stop: 65542, Start Num: 14
Candidate Starts for Phaux_114:
(Start: 14 @65063 has 78 MA's), (18, 65141), (22, 65165), (23, 65168), (29, 65312), (32, 65333), (39, 65459), (42, 65507), (44, 65537),

Gene: Phoebus_166 Start: 90737, Stop: 91222, Start Num: 9
Candidate Starts for Phoebus_166:
(6, 90704), (Start: 9 @90737 has 28 MA's), (16, 90839), (20, 90878), (21, 90884), (22, 90890), (23, 90893), (29, 91037), (35, 91094), (40, 91205),

Gene: Phrux_108 Start: 63141, Stop: 63620, Start Num: 14
Candidate Starts for Phrux_108:

(Start: 14 @63141 has 78 MA's), (18, 63219), (22, 63243), (23, 63246), (29, 63390), (32, 63411), (39, 63537), (42, 63585), (44, 63615),

Gene: Policronamos_115 Start: 64767, Stop: 65246, Start Num: 14
Candidate Starts for Policronamos_115:
(Start: 14 @64767 has 78 MA's), (18, 64845), (22, 64869), (23, 64872), (29, 65016), (32, 65037), (39, 65163), (42, 65211), (44, 65241),

Gene: Pound_159 Start: 86786, Stop: 87271, Start Num: 9
Candidate Starts for Pound_159:
(6, 86753), (Start: 9 @86786 has 28 MA's), (16, 86888), (20, 86927), (21, 86933), (22, 86939), (23, 86942), (29, 87086), (35, 87143), (40, 87254),

Gene: Ptowny_108 Start: 62175, Stop: 62654, Start Num: 14
Candidate Starts for Ptowny_108:
(Start: 14 @62175 has 78 MA's), (18, 62253), (22, 62277), (23, 62280), (29, 62424), (32, 62445), (39, 62571), (42, 62619), (44, 62649),

Gene: Pumpkin_113 Start: 63481, Stop: 63960, Start Num: 14
Candidate Starts for Pumpkin_113:
(Start: 14 @63481 has 78 MA's), (18, 63559), (22, 63583), (23, 63586), (29, 63730), (32, 63751), (39, 63877), (42, 63925), (44, 63955),

Gene: Quallification_113 Start: 64549, Stop: 65028, Start Num: 14
Candidate Starts for Quallification_113:
(Start: 14 @64549 has 78 MA's), (18, 64627), (22, 64651), (23, 64654), (29, 64798), (32, 64819), (39, 64945), (42, 64993), (44, 65023),

Gene: Rearden_165 Start: 85776, Stop: 86276, Start Num: 8
Candidate Starts for Rearden_165:
(Start: 8 @85776 has 3 MA's), (16, 85902), (18, 85929), (21, 85947), (22, 85953), (26, 86034), (27, 86088), (30, 86109), (34, 86127), (36, 86193), (39, 86247),

Gene: Redno2_159 Start: 84850, Stop: 85335, Start Num: 9
Candidate Starts for Redno2_159:
(6, 84817), (Start: 9 @84850 has 28 MA's), (16, 84952), (20, 84991), (21, 84997), (22, 85003), (23, 85006), (29, 85150), (35, 85207), (40, 85318),

Gene: Rimmer_110 Start: 63940, Stop: 64419, Start Num: 14
Candidate Starts for Rimmer_110:
(Start: 14 @63940 has 78 MA's), (18, 64018), (22, 64042), (23, 64045), (29, 64189), (32, 64210), (39, 64336), (42, 64384), (44, 64414),

Gene: RiverMonster_111 Start: 64036, Stop: 64515, Start Num: 14
Candidate Starts for RiverMonster_111:
(Start: 14 @64036 has 78 MA's), (18, 64114), (22, 64138), (23, 64141), (29, 64285), (32, 64306), (39, 64432), (42, 64480), (44, 64510),

Gene: Saints25_108 Start: 61966, Stop: 62445, Start Num: 14
Candidate Starts for Saints25_108:
(Start: 14 @61966 has 78 MA's), (18, 62044), (22, 62068), (23, 62071), (29, 62215), (32, 62236), (39, 62362), (42, 62410), (44, 62440),

Gene: Sassay_107 Start: 62386, Stop: 62865, Start Num: 14
Candidate Starts for Sassay_107:
(Start: 14 @62386 has 78 MA's), (18, 62464), (22, 62488), (23, 62491), (29, 62635), (32, 62656), (39, 62782), (42, 62830), (44, 62860),

Gene: Schatzie_160 Start: 87785, Stop: 88270, Start Num: 9
Candidate Starts for Schatzie_160:
(6, 87752), (Start: 9 @87785 has 28 MA's), (16, 87887), (20, 87926), (21, 87932), (22, 87938), (23, 87941), (29, 88085), (35, 88142), (40, 88253),

Gene: ShereKhan_110 Start: 64795, Stop: 65274, Start Num: 14
Candidate Starts for ShereKhan_110:
(Start: 14 @64795 has 78 MA's), (18, 64873), (22, 64897), (23, 64900), (29, 65044), (32, 65065), (39, 65191), (42, 65239), (44, 65269),

Gene: Simpliphy_110 Start: 63607, Stop: 64086, Start Num: 14
Candidate Starts for Simpliphy_110:
(Start: 14 @63607 has 78 MA's), (18, 63685), (22, 63709), (23, 63712), (29, 63856), (32, 63877), (39, 64003), (42, 64051), (44, 64081),

Gene: Stark_112 Start: 63920, Stop: 64399, Start Num: 14
Candidate Starts for Stark_112:
(Start: 14 @63920 has 78 MA's), (18, 63998), (22, 64022), (23, 64025), (29, 64169), (32, 64190), (39, 64316), (42, 64364), (44, 64394),

Gene: StellaBean_110 Start: 64217, Stop: 64696, Start Num: 14
Candidate Starts for StellaBean_110:
(Start: 14 @64217 has 78 MA's), (18, 64295), (22, 64319), (23, 64322), (29, 64466), (32, 64487), (39, 64613), (42, 64661), (44, 64691),

Gene: StolenFromERC_114 Start: 63759, Stop: 64238, Start Num: 14
Candidate Starts for StolenFromERC_114:
(Start: 14 @63759 has 78 MA's), (18, 63837), (22, 63861), (23, 63864), (29, 64008), (32, 64029), (39, 64155), (42, 64203), (44, 64233),

Gene: Tarkin_111 Start: 64660, Stop: 65139, Start Num: 14
Candidate Starts for Tarkin_111:
(Start: 14 @64660 has 78 MA's), (18, 64738), (22, 64762), (23, 64765), (29, 64909), (32, 64930), (39, 65056), (42, 65104), (44, 65134),

Gene: TeamEdward_112 Start: 64301, Stop: 64780, Start Num: 14
Candidate Starts for TeamEdward_112:
(Start: 14 @64301 has 78 MA's), (18, 64379), (22, 64403), (23, 64406), (29, 64550), (32, 64571), (39, 64697), (42, 64745), (44, 64775),

Gene: Terminus_115 Start: 65060, Stop: 65539, Start Num: 14
Candidate Starts for Terminus_115:
(Start: 14 @65060 has 78 MA's), (18, 65138), (22, 65162), (23, 65165), (29, 65309), (32, 65330), (39, 65456), (42, 65504), (44, 65534),

Gene: Thimble_114 Start: 63021, Stop: 63500, Start Num: 14
Candidate Starts for Thimble_114:

(Start: 14 @63021 has 78 MA's), (18, 63099), (22, 63123), (23, 63126), (29, 63270), (32, 63291), (39, 63417), (42, 63465), (44, 63495),

Gene: ThreeRngTarjay_162 Start: 88659, Stop: 89144, Start Num: 9
Candidate Starts for ThreeRngTarjay_162:
(6, 88626), (Start: 9 @88659 has 28 MA's), (16, 88761), (20, 88800), (21, 88806), (22, 88812), (23, 88815), (29, 88959), (35, 89016), (40, 89127),

Gene: Thresher_113 Start: 64700, Stop: 65179, Start Num: 14
Candidate Starts for Thresher_113:
(Start: 14 @64700 has 78 MA's), (18, 64778), (22, 64802), (23, 64805), (29, 64949), (32, 64970), (39, 65096), (42, 65144), (44, 65174),

Gene: Tomaszewski_107 Start: 63598, Stop: 64077, Start Num: 14
Candidate Starts for Tomaszewski_107:
(Start: 14 @63598 has 78 MA's), (18, 63676), (22, 63700), (23, 63703), (29, 63847), (32, 63868), (39, 63994), (42, 64042), (44, 64072),

Gene: Ukulele_107 Start: 63417, Stop: 63896, Start Num: 14
Candidate Starts for Ukulele_107:
(Start: 14 @63417 has 78 MA's), (18, 63495), (22, 63519), (23, 63522), (29, 63666), (32, 63687), (39, 63813), (42, 63861), (44, 63891),

Gene: Wanda_163 Start: 85250, Stop: 85735, Start Num: 9
Candidate Starts for Wanda_163:
(6, 85217), (Start: 9 @85250 has 28 MA's), (16, 85352), (20, 85391), (21, 85397), (22, 85403), (23, 85406), (29, 85550), (35, 85607), (40, 85718),

Gene: Willez_107 Start: 62386, Stop: 62865, Start Num: 14
Candidate Starts for Willez_107:
(Start: 14 @62386 has 78 MA's), (18, 62464), (22, 62488), (23, 62491), (29, 62635), (32, 62656), (39, 62782), (42, 62830), (44, 62860),

Gene: Xiaokay_161 Start: 88667, Stop: 89170, Start Num: 9
Candidate Starts for Xiaokay_161:
(6, 88634), (Start: 9 @88667 has 28 MA's), (16, 88787), (19, 88817), (20, 88826), (21, 88832), (22, 88838), (23, 88841), (29, 88985), (35, 89042), (40, 89153),

Gene: YassJohnny_109 Start: 62407, Stop: 62886, Start Num: 14
Candidate Starts for YassJohnny_109:
(Start: 14 @62407 has 78 MA's), (18, 62485), (22, 62509), (23, 62512), (29, 62656), (32, 62677), (39, 62803), (42, 62851), (44, 62881),

Gene: Yeet_157 Start: 86638, Stop: 87123, Start Num: 9
Candidate Starts for Yeet_157:
(6, 86605), (Start: 9 @86638 has 28 MA's), (16, 86740), (20, 86779), (21, 86785), (22, 86791), (23, 86794), (29, 86938), (35, 86995), (40, 87106),

Gene: Youngblood_116 Start: 64556, Stop: 65035, Start Num: 14
Candidate Starts for Youngblood_116:
(Start: 14 @64556 has 78 MA's), (18, 64634), (22, 64658), (23, 64661), (29, 64805), (32, 64826), (39, 64952), (42, 65000), (44, 65030),

Gene: Zelink_158 Start: 86973, Stop: 87458, Start Num: 9
Candidate Starts for Zelink_158:
(6, 86940), (Start: 9 @86973 has 28 MA's), (16, 87075), (20, 87114), (21, 87120), (22, 87126), (23, 87129), (29, 87273), (35, 87330), (40, 87441),

Gene: xkcd_116 Start: 64741, Stop: 65220, Start Num: 14
Candidate Starts for xkcd_116:
(Start: 14 @64741 has 78 MA's), (18, 64819), (22, 64843), (23, 64846), (29, 64990), (32, 65011), (39, 65137), (42, 65185), (44, 65215),