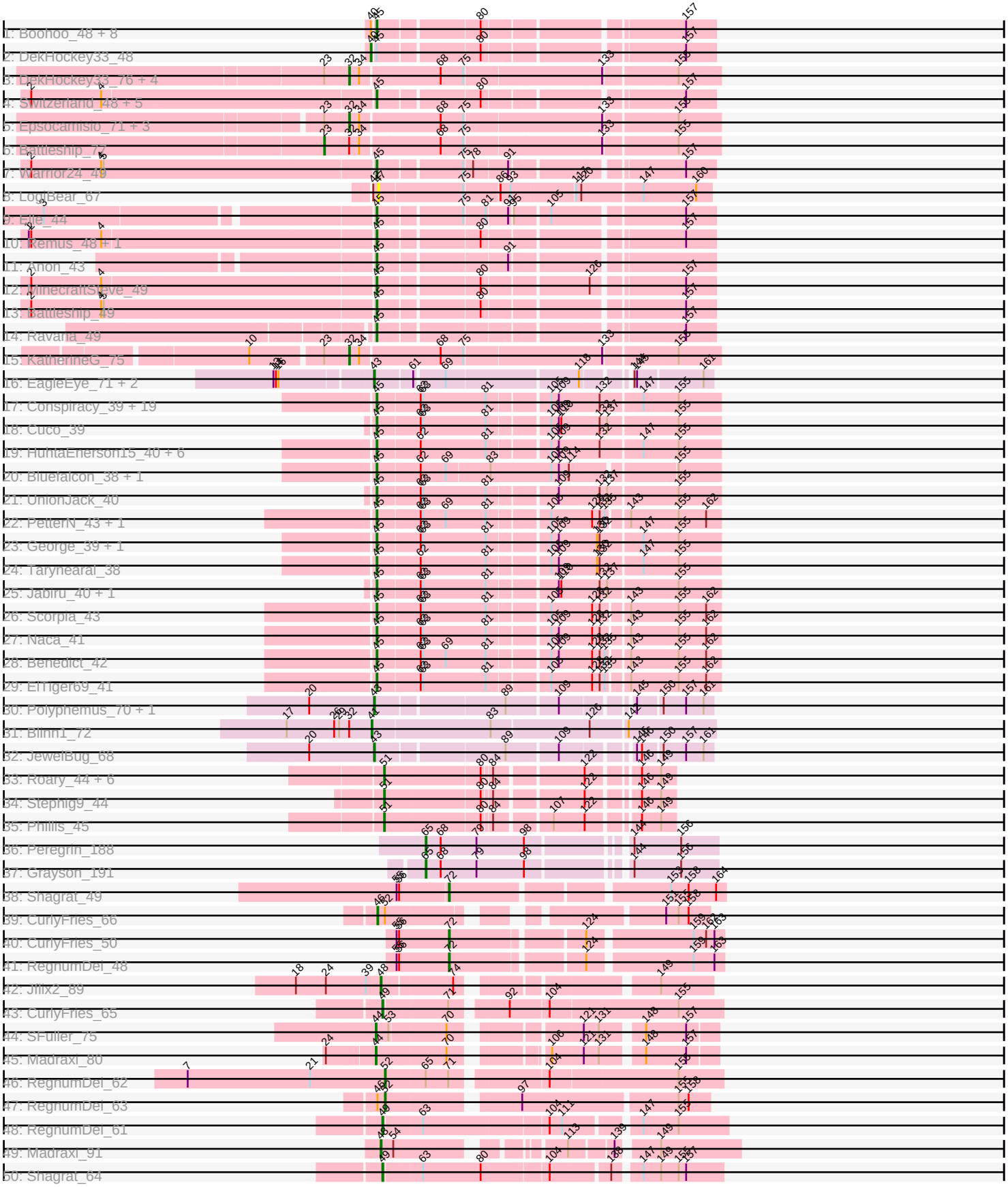
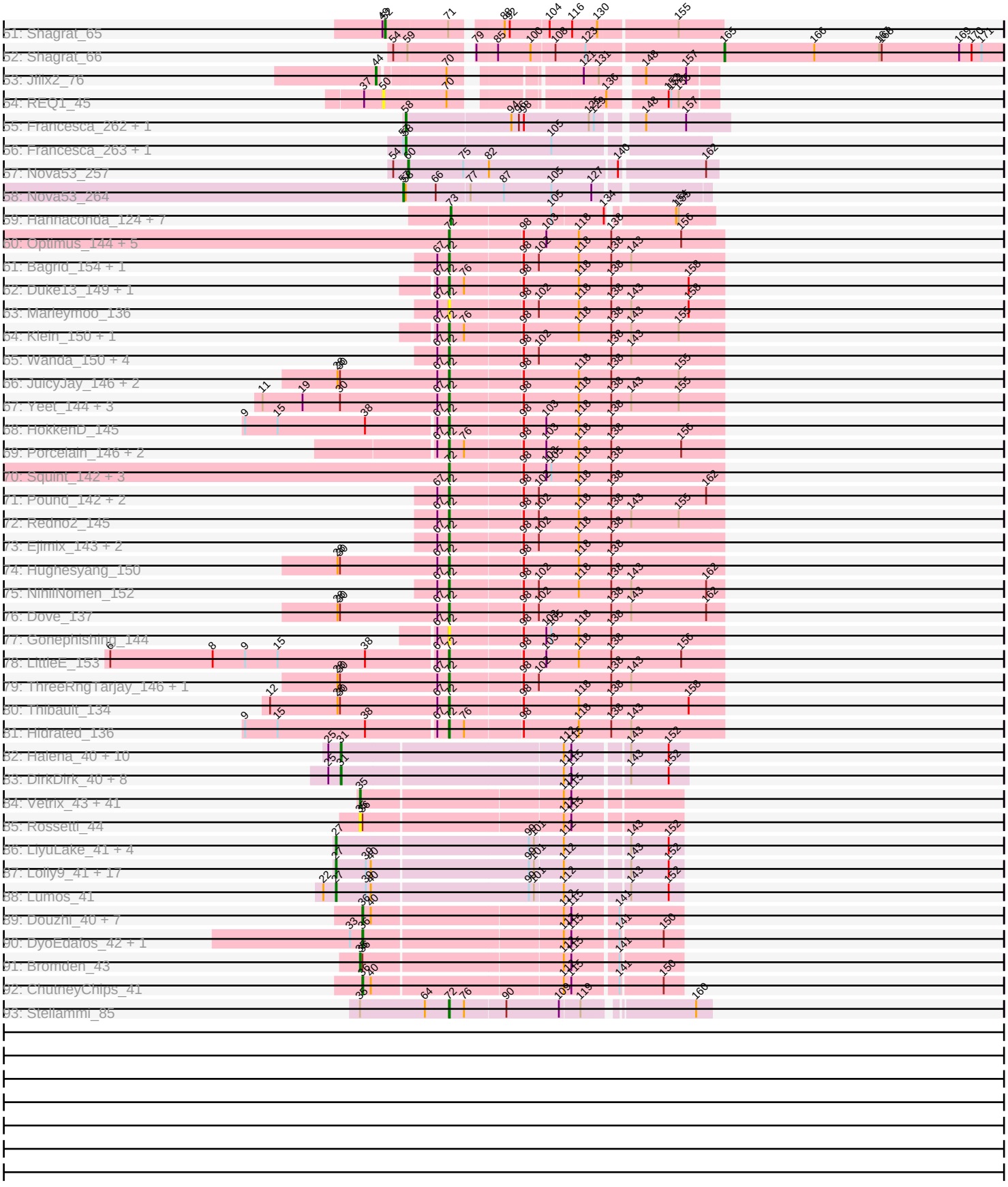
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1: Boohoo_48 + 8
2: DekHockey33_48
3: DekHockey33_76 + 4
4: Switzerland_48 + 5
5: Epsocamisio_71 + 3
6: Battleship_72
7: Warrior24_49
8: LogBear_67
9: Ellie_44
10: Remus_48 + 1
11: Anon_43
12: MinecraftSteve_49
13: Battleship_49
14: Ravana_49
15: KatherineG_75
16: EagleEye_71 + 2
17: Conspiracy_39 + 19
18: Cuco_39
19: HuntaEnerson15_40 + 6
20: Bluefalcon_38 + 1
21: UnionJack_40
22: PetterN_43 + 1
23: George_39 + 1
24: Tarynearal_38
25: Jabiru_40 + 1
26: Scorpia_43
27: Naca_41
28: Benedict_42
29: ElTiger69_41
30: Polyphemus_70 + 1
31: Blinn1_72
32: JewelBug_68
33: Roary_44 + 6
34: Stephig9_44
35: Phillis_45
36: Peregrin_188
37: Grayson_191
38: Shagrat_49
39: CurlyFries_66
40: CurlyFries_50
41: RegnumDei_48
42: Jflix2_89
43: CurlyFries_65
44: SFuller_75
45: Madraxl_80
46: RegnumDei_62
47: RegnumDei_63
48: RegnumDei_61
49: Madraxl_91
50: Shagrat_64

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51: Shagrat_65
52: Shagrat_66
53: Jflix2_76
54: REQ1_45
55: Francesca_262 + 1
56: Francesca_263 + 1
57: Nova53_257
58: Nova53_264
59: Hannaconda_124 + 7
60: Optimus_144 + 5
61: Bagrid_154 + 1
62: Duke13_149 + 1
63: Marleymoo_136
64: Klein_150 + 1
65: Wanda_150 + 4
66: JuicyJay_146 + 2
67: Yeet_144 + 3
68: HokkenD_145
69: Porcelain_146 + 2
70: Squint_142 + 3
71: Pound_142 + 2
72: Redno2_145
73: Ejimix_143 + 2
74: Hughesyang_150
75: NihilNomen_152
76: Dove_137
77: Gonephishing_144
78: LittleE_153
79: ThreeRngTarjay_146 + 1
80: Thibault_134
81: Hidrated_136
82: Halena_40 + 10
83: DirkDirk_40 + 8
84: Vetrix_43 + 41
85: Rossetti_44
86: LlyuLake_41 + 4
87: Lolly9_41 + 17
88: Lumos_41
89: Douzhi_40 + 7
90: DyoEdalos_42 + 1
91: Bromden_43
92: ChutneyChips_41
93: Stellammi_85

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 347192 Report

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

Pham number 347192 has 276 members, 39 are drafts.

Phages represented in each track:
• Track 1 : Boohoo_48, Nebulosus_47, Anaysia_48, LastResort_47, ShayRa_49, KatherineG_49, Looper_48, ReMo_47, Soups_48
• Track 2 : DekHockey33_48
• Track 3 : DekHockey33_76, Rosalind_73, ShayRa_75, Switzerland_74, Soups_75
• Track 4 : Switzerland_48, Oofda_48, Epsocamisio_47, Waits_48, JSwag_47, Rosalind_47
• Track 5 : Epsocamisio_71, JSwag_74, Nebulosus_72, MinecraftSteve_75
• Track 6 : Battleship_77
• Track 7 : Warrior24_49
• Track 8 : LogiBear_67
• Track 9 : Elle_44
• Track 10 : Remus_48, Strosahl_48
• Track 11 : Anon_43
• Track 12 : MinecraftSteve_49
• Track 13 : Battleship_49
• Track 14 : Ravana_49
• Track 15 : KatherineG_75
• Track 16 : EagleEye_71, Lucyedi_70, PainterBoy_69
• Track 17 : Conspiracy_39, Jovo_39, Phlorence_38, Milcery_40, Discoknowium_38, Midas2_39, Lev2_39, Twigg_40, AgentM_38, Aragog_38, Dublin_38, Zolita_40, Coog_39, Tiger_38, Ghoulboy_41, PickleBack_39, Theia_37, ForGetIt_39, Archetta_39, SydNat_41
• Track 18 : Cuco_39
• Track 19 : HuhtaEnerson15_40, Florence4_39, LittleCherry_40, Florence1_38, Bonamassa_40, Swirley_42, Micasa_41
• Track 20 : Bluefalcon_38, MarysWell_38
• Track 21 : UnionJack_40
• Track 22 : PetterN_43, Chadwick_43
• Track 23 : George_39, Prinashe11_39
• Track 24 : Tarynearal_38
• Track 25 : Jabiru_40, Airmid_40
• Track 26 : Scorpia_43
• Track 27 : Naca_41
• Track 28 : Benedict_42
• Track 29 : ElTiger69_41
• Track 30 : Polyphemus_70, SuperAwesome_68
• Track 31 : Blinn1_72

• Track 32 : JewelBug_68
• Track 33 : Roary_44, Smeadley_44, Groundhog_42, Astro_43, Danforth_43, Caitlin_43, Expelliarmus_43
• Track 34 : Stephig9_44
• Track 35 : Phillis_45
• Track 36 : Peregrin_188
• Track 37 : Grayson_191
• Track 38 : Shagrat_49
• Track 39 : CurlyFries_66
• Track 40 : CurlyFries_50
• Track 41 : RegnumDei_48
• Track 42 : Jflix2_89
• Track 43 : CurlyFries_65
• Track 44 : SFuller_75
• Track 45 : Madraxi_80
• Track 46 : RegnumDei_62
• Track 47 : RegnumDei_63
• Track 48 : RegnumDei_61
• Track 49 : Madraxi_91
• Track 50 : Shagrat_64
• Track 51 : Shagrat_65
• Track 52 : Shagrat_66
• Track 53 : Jflix2_76
• Track 54 : REQ1_45
• Track 55 : Francesca_262, Dorin_262
• Track 56 : Francesca_263, Dorin_263
• Track 57 : Nova53_257
• Track 58 : Nova53_264
• Track 59 : Hannaconda_124, Odette_135, HokkenD_123, Yeet_125, Gonephishing_125, Courthouse_126, Superphikiman_128, Rearden_129
• Track 60 : Optimus_144, Omega_157, BronnyJames_145, Shaboozey_148, Nibley_144, Odette_156
• Track 61 : Bagrid_154, Constella_144
• Track 62 : Duke13_149, EricMillard_145
• Track 63 : Marleymoo_136
• Track 64 : Klein_150, BAKA_153
• Track 65 : Wanda_150, Kalah2_142, Zelink_145, Bobby_141, Minerva_150
• Track 66 : JuicyJay_146, Bombitas_138, Beem_153
• Track 67 : Yeet_144, Superphikiman_147, Courthouse_145, Ariel_149
• Track 68 : HokkenD_145
• Track 69 : Porcelain_146, Lucky2013_142, MiaZeal_149
• Track 70 : Squint_142, Nekros_148, Hannaconda_144, KashFlow_150
• Track 71 : Pound_142, DmpstrDiver_151, Schatzie_146
• Track 72 : Redno2_145
• Track 73 : Ejimix_143, Halley_152, Dallas_151
• Track 74 : Hughesyang_150
• Track 75 : NihilNomen_152
• Track 76 : Dove_137
• Track 77 : Gonephishing_144
• Track 78 : LittleE_153
• Track 79 : ThreeRngTarjay_146, Phoebus_151
• Track 80 : Thibault_134
• Track 81 : Hidrated_136

• Track 82 : Halena_40, CicholasNage_41, Calm_41, Rose5_40, Silverleaf_40, Zaria_41, Wyatt2_41, AvadaKedavra_41, Acquire49_41, Tyson_40, MAckerman_41
• Track 83 : DirkDirk_40, Wamburgrxpress_41, JoeDirt_40, Appletree2_40, Enceladus_40, LeBron_41, Poochiewood_40, OhShagHennessy_40, UPIE_41
• Track 84 : Vetrix_43, Hiraya_43, GuuelaD_43, Sarshaun_43, Lewan_43, Zakai_43, Kahlid_43, Hafay_43, Winky_43, Crossroads_43, Finemlucis_43, Breezona_43, Claus_43, BobsGarage_43, Loadrie_43, SoJulia_44, Bazzle_43, Nicholasp3_43, Gabriela_43, Itos_42, Lynnae_43, BigCheese_43, Molivier_43, Faith1_43, DHan_44, ZhongYanYuan_41, Gardann_43, Netyap_43, Wilder_43, MkaliMitinis3_43, Rumpelstiltskin_43, OverPar_43, Archie_43, Underpass_43, Soap141_43, DrSeegs_43, ChengKai98_43, Wigglewiggle_43, Miley16_43, LilDestine_43, DanBing_42, Baoshan_42
• Track 85 : Rossetti_44
• Track 86 : LiyuLake_41, Krypton555_41, Whirlwind_42, BourbonZero_40, Ellson_41
• Track 87 : Lolly9_41, MsGreen_41, Jobypre_41, Clautastrophe_41, MiniLon_41, Kingsolomon_41, Bellis_41, Red305_41, Snenia_41, Finnry_41, Samty_41, TriFive_41, DuncansLeg_41, MiniMac_41, KirDoubleO7_39, Jubie_41, Nicholas_41, Moostard_41
• Track 88 : Lumos_41
• Track 89 : Douzhi_40, Chaser_40, Quby_41, PYPDinur_40, FarmResident_41, BrainDrainer_41, Sheng711_41, Douge_40
• Track 90 : DyoEdafos_42, Kropertea_41
• Track 91 : Bromden_43
• Track 92 : ChutneyChips_41
• Track 93 : Stellammi_85

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

The start number called the most often in the published annotations is 45, it was called in 63 of the 237 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AgentM_38, Airmid_40, Anaysia_48, Anon_43, Aragog_38, Archetta_39, Battleship_49, Benedict_42, Bluefalcon_38, Bonamassa_40, Boohoo_48, Chadwick_43, Conspiracy_39, Coog_39, Cuco_39, Discoknowium_38, Dublin_38, ElTiger69_41, Elle_44, Epsocamisio_47, Florence1_38, Florence4_39, ForGetIt_39, George_39, Ghoulboy_41, HuhtaEnerson15_40, JSwag_47, Jabiru_40, Jovo_39, KatherineG_49, LastResort_47, Lev2_39, LittleCherry_40, Looper_48, MarysWell_38, Micasa_41, Midas2_39, Milcery_40, MinecraftSteve_49, Naca_41, Nebulosus_47, Oofda_48, PetterN_43, Phlorence_38, PickleBack_39, Prinashe11_39, Ravana_49, ReMo_47, Remus_48, Rosalind_47, Scorpia_43, ShayRa_49, Soups_48, Strosahl_48, Swirley_42, Switzerland_48, SydNat_41, Tarynearal_38, Theia_37, Tiger_38, Twigg_40, UnionJack_40, Waits_48, Warrior24_49, Zolita_40,

Genes that have the "Most Annotated" start but do not call it:
• DekHockey33_48,

Genes that do not have the "Most Annotated" start:
• Acquire49_41, Appletree2_40, Archie_43, Ariel_149, Astro_43, AvadaKedavra_41, BAKA_153, Bagrid_154, Baoshan_42, Battleship_77, Bazzle_43, Beem_153,

Bellis_41, BigCheese_43, Blinn1_72, Bobby_141, BobsGarage_43, Bombitas_138, BourbonZero_40, BrainDrainer_41, Breezona_43, Bromden_43, BronnyJames_145, Caitlin_43, Calm_41, Chaser_40, ChengKai98_43, ChutneyChips_41, CicholasNage_41, Claus_43, Clautastrophe_41, Constella_144, Courthouse_126, Courthouse_145, Crossroads_43, CurlyFries_50, CurlyFries_65, CurlyFries_66, DHan_44, Dallas_151, DanBing_42, Danforth_43, DekHockey33_76, DirkDirk_40, DmpstrDiver_151, Dorin_262, Dorin_263, Douge_40, Douzhi_40, Dove_137, DrSeegs_43, Duke13_149, DuncansLeg_41, DyoEdafos_42, EagleEye_71, Ejimix_143, Ellson_41, Enceladus_40, Epsocamisio_71, EricMillard_145, Expelliarmus_43, Faith1_43, FarmResident_41, Finemlucis_43, Finnry_41, Francesca_262, Francesca_263, Gabriela_43, Gardann_43, Gonephishing_125, Gonephishing_144, Grayson_191, Groundhog_42, GuuelaD_43, Hafay_43, Halena_40, Halley_152, Hannaconda_124, Hannaconda_144, Hidrated_136, Hiraya_43, HokkenD_123, HokkenD_145, Hughesyang_150, Itos_42, JSwag_74, JewelBug_68, Jflix2_76, Jflix2_89, Jobypre_41, JoeDirt_40, Jubie_41, JuicyJay_146, Kahlid_43, Kalah2_142, KashFlow_150, KatherineG_75, Kingsolomon_41, KirDoubleO7_39, Klein_150, Kropertea_41, Krypton555_41, LeBron_41, Lewan_43, LilDestine_43, LittleE_153, LiyuLake_41, Loadrie_43, LogiBear_67, Lolly9_41, Lucky2013_142, Lucyedi_70, Lumos_41, Lynnae_43, MAckerman_41, Madraxi_80, Madraxi_91, Marleymoo_136, MiaZeal_149, Miley16_43, MinecraftSteve_75, Minerva_150, MiniLon_41, MiniMac_41, MkaliMitinis3_43, Molivier_43, Moostard_41, MsGreen_41, Nebulosus_72, Nekros_148, Netyap_43, Nibley_144, Nicholas_41, Nicholasp3_43, NihilNomen_152, Nova53_257, Nova53_264, Odette_135, Odette_156, OhShagHennessy_40, Omega_157, Optimus_144, OverPar_43, PYPDinur_40, PainterBoy_69, Peregrin_188, Phillis_45, Phoebus_151, Polyphemus_70, Poochiewood_40, Porcelain_146, Pound_142, Quby_41, REQ1_45, Rearden_129, Red305_41, Redno2_145, RegnumDei_48, RegnumDei_61, RegnumDei_62, RegnumDei_63, Roary_44, Rosalind_73, Rose5_40, Rossetti_44, Rumpelstiltskin_43, SFuller_75, Samty_41, Sarshaun_43, Schatzie_146, Shaboozey_148, Shagrat_49, Shagrat_64, Shagrat_65, Shagrat_66, ShayRa_75, Sheng711_41, Silverleaf_40, Smeadley_44, Snenia_41, SoJulia_44, Soap141_43, Soups_75, Squint_142, Stellammi_85, Stephig9_44, SuperAwesome_68, Superphikiman_128, Superphikiman_147, Switzerland_74, Thibault_134, ThreeRngTarjay_146, TriFive_41, Tyson_40, UPIE_41, Underpass_43, Vetrix_43, Wamburgrxpress_41, Wanda_150, Whirlwind_42, Wigglewiggle_43, Wilder_43, Winky_43, Wyatt2_41, Yeet_125, Yeet_144, Zakai_43, Zaria_41, Zelink_145, ZhongYanYuan_41,

Summary by start number:

Start 23:
• Found in 11 of 276 (4.0%) of genes in pham
• Manual Annotations of this start: 1 of 237
• Called 9.1% of time when present
• Phage (with cluster) where this start called: Battleship_77 (A15),

Start 27:
• Found in 24 of 276 (8.7%) of genes in pham
• Manual Annotations of this start: 19 of 237
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bellis_41 (L3), BourbonZero_40 (L3), Clautastrophe_41 (L3), DuncansLeg_41 (L3), Ellson_41 (L3), Finnry_41 (L3), Jobypre_41 (L3), Jubie_41 (L3), Kingsolomon_41 (L3), KirDoubleO7_39 (L3),

Krypton555_41 (L3), LiyuLake_41 (L3), Lolly9_41 (L3), Lumos_41 (L3), MiniLon_41 (L3), MiniMac_41 (L3), Moostard_41 (L3), MsGreen_41 (L3), Nicholas_41 (L3), Red305_41 (L3), Samty_41 (L3), Snenia_41 (L3), TriFive_41 (L3), Whirlwind_42 (L3),

Start 31:
• Found in 20 of 276 (7.2%) of genes in pham
• Manual Annotations of this start: 19 of 237
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Acquire49_41 (L1), Appletree2_40 (L1), AvadaKedavra_41 (L1), Calm_41 (L1), CicholasNage_41 (L1), DirkDirk_40 (L1), Enceladus_40 (L1), Halena_40 (L1), JoeDirt_40 (L1), LeBron_41 (L1), MAckerman_41 (L1), OhShagHennessy_40 (L1), Poochiewood_40 (L1), Rose5_40 (L1), Silverleaf_40 (L1), Tyson_40 (L1), UPIE_41 (L1), Wamburgrxpress_41 (L1), Wyatt2_41 (L1), Zaria_41 (L1),

Start 32:
• Found in 12 of 276 (4.3%) of genes in pham
• Manual Annotations of this start: 10 of 237
• Called 83.3% of time when present
• Phage (with cluster) where this start called: DekHockey33_76 (A15), Epsocamisio_71 (A15), JSwag_74 (A15), KatherineG_75 (A15), MinecraftSteve_75 (A15), Nebulosus_72 (A15), Rosalind_73 (A15), ShayRa_75 (A15), Soups_75 (A15), Switzerland_74 (A15),

Start 35:
• Found in 45 of 276 (16.3%) of genes in pham
• Manual Annotations of this start: 32 of 237
• Called 97.8% of time when present
• Phage (with cluster) where this start called: Archie_43 (L2), Baoshan_42 (L2), Bazzle_43 (L2), BigCheese_43 (L2), BobsGarage_43 (L2), Breezona_43 (L2), Bromden_43 (L4), ChengKai98_43 (L2), Claus_43 (L2), Crossroads_43 (L2), DHan_44 (L2), DanBing_42 (L2), DrSeegs_43 (L2), Faith1_43 (L2), Finemlucis_43 (L2), Gabriela_43 (L2), Gardann_43 (L2), GuuelaD_43 (L2), Hafay_43 (L2), Hiraya_43 (L2), Itos_42 (L2), Kahlid_43 (L2), Lewan_43 (L2), LilDestine_43 (L2), Loadrie_43 (L2), Lynnae_43 (L2), Miley16_43 (L2), MkaliMitinis3_43 (L2), Molivier_43 (L2), Netyap_43 (L2), Nicholasp3_43 (L2), OverPar_43 (L2), Rossetti_44 (L2), Rumpelstiltskin_43 (L2), Sarshaun_43 (L2), SoJulia_44 (L2), Soap141_43 (L2), Underpass_43 (L2), Vetrix_43 (L2), Wigglewiggle_43 (L2), Wilder_43 (L2), Winky_43 (L2), Zakai_43 (L2), ZhongYanYuan_41 (L2),

Start 36:
• Found in 13 of 276 (4.7%) of genes in pham
• Manual Annotations of this start: 5 of 237
• Called 84.6% of time when present
• Phage (with cluster) where this start called: BrainDrainer_41 (L4), Chaser_40 (L4), ChutneyChips_41 (L4), Douge_40 (L4), Douzhi_40 (L4), DyoEdafos_42 (L4), FarmResident_41 (L4), Kropertea_41 (L4), PYPDinur_40 (L4), Quby_41 (L4), Sheng711_41 (L4),

Start 40:
• Found in 38 of 276 (13.8%) of genes in pham
• Manual Annotations of this start: 1 of 237
• Called 2.6% of time when present

• Phage (with cluster) where this start called: DekHockey33_48 (A15),

Start 41:
• Found in 1 of 276 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 237
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Blinn1_72 (A6),

Start 43:
• Found in 6 of 276 (2.2%) of genes in pham
• Manual Annotations of this start: 6 of 237
• Called 100.0% of time when present
• Phage (with cluster) where this start called: EagleEye_71 (A16), JewelBug_68 (A6), Lucyedi_70 (A16), PainterBoy_69 (A16), Polyphemus_70 (A6), SuperAwesome_68 (A6),

Start 44:
• Found in 3 of 276 (1.1%) of genes in pham
• Manual Annotations of this start: 3 of 237
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Jflix2_76 (CF), Madraxi_80 (CF), SFuller_75 (CF),

Start 45:
• Found in 66 of 276 (23.9%) of genes in pham
• Manual Annotations of this start: 63 of 237
• Called 98.5% of time when present
• Phage (with cluster) where this start called: AgentM_38 (A5), Airmid_40 (A5), Anaysia_48 (A15), Anon_43 (A15), Aragog_38 (A5), Archetta_39 (A5), Battleship_49 (A15), Benedict_42 (A5), Bluefalcon_38 (A5), Bonamassa_40 (A5), Boohoo_48 (A15), Chadwick_43 (A5), Conspiracy_39 (A5), Coog_39 (A5), Cuco_39 (A5), Discoknowium_38 (A5), Dublin_38 (A5), ElTiger69_41 (A5), Elle_44 (A15), Epsocamisio_47 (A15), Florence1_38 (A5), Florence4_39 (A5), ForGetIt_39 (A5), George_39 (A5), Ghoulboy_41 (A5), HuhtaEnerson15_40 (A5), JSwag_47 (A15), Jabiru_40 (A5), Jovo_39 (A5), KatherineG_49 (A15), LastResort_47 (A15), Lev2_39 (A5), LittleCherry_40 (A5), Looper_48 (A15), MarysWell_38 (A5), Micasa_41 (A5), Midas2_39 (A5), Milcery_40 (A5), MinecraftSteve_49 (A15), Naca_41 (A5), Nebulosus_47 (A15), Oofda_48 (A15), PetterN_43 (A5), Phlorence_38 (A5), PickleBack_39 (A5), Prinashe11_39 (A5), Ravana_49 (A15), ReMo_47 (A15), Remus_48 (A15), Rosalind_47 (A15), Scorpia_43 (A5), ShayRa_49 (A15), Soups_48 (A15), Strosahl_48 (A15), Swirley_42 (A5), Switzerland_48 (A15), SydNat_41 (A5), Tarynearal_38 (A5), Theia_37 (A5), Tiger_38 (A5), Twigg_40 (A5), UnionJack_40 (A5), Waits_48 (A15), Warrior24_49 (A15), Zolita_40 (A5),

Start 46:
• Found in 2 of 276 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 237
• Called 50.0% of time when present
• Phage (with cluster) where this start called: CurlyFries_66 (CF),

Start 47:
• Found in 1 of 276 (0.4%) of genes in pham
• No Manual Annotations of this start.

• Called 100.0% of time when present
• Phage (with cluster) where this start called: LogiBear_67 (A15),

Start 48:
• Found in 2 of 276 (0.7%) of genes in pham
• Manual Annotations of this start: 2 of 237
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Jflix2_89 (CF), Madraxi_91 (CF),

Start 49:
• Found in 4 of 276 (1.4%) of genes in pham
• Manual Annotations of this start: 3 of 237
• Called 75.0% of time when present
• Phage (with cluster) where this start called: CurlyFries_65 (CF), RegnumDei_61 (CF), Shagrat_64 (CF),

Start 50:
• Found in 1 of 276 (0.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: REQ1_45 (CF),

Start 51:
• Found in 9 of 276 (3.3%) of genes in pham
• Manual Annotations of this start: 9 of 237
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Astro_43 (A8), Caitlin_43 (A8), Danforth_43 (A8), Expelliarmus_43 (A8), Groundhog_42 (A8), Phillis_45 (A8), Roary_44 (A8), Smeadley_44 (A8), Stephig9_44 (A8),

Start 52:
• Found in 4 of 276 (1.4%) of genes in pham
• Manual Annotations of this start: 3 of 237
• Called 75.0% of time when present
• Phage (with cluster) where this start called: RegnumDei_62 (CF), RegnumDei_63 (CF), Shagrat_65 (CF),

Start 57:
• Found in 3 of 276 (1.1%) of genes in pham
• Manual Annotations of this start: 1 of 237
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Nova53_264 (CG),

Start 58:
• Found in 5 of 276 (1.8%) of genes in pham
• Manual Annotations of this start: 4 of 237
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Dorin_262 (CG), Dorin_263 (CG), Francesca_262 (CG), Francesca_263 (CG),

Start 60:
• Found in 1 of 276 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 237

• Called 100.0% of time when present
• Phage (with cluster) where this start called: Nova53_257 (CG),

Start 65:
• Found in 3 of 276 (1.1%) of genes in pham
• Manual Annotations of this start: 2 of 237
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Grayson_191 (CB), Peregrin_188 (CB),

Start 72:
• Found in 53 of 276 (19.2%) of genes in pham
• Manual Annotations of this start: 45 of 237
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ariel_149 (J), BAKA_153 (J), Bagrid_154 (J), Beem_153 (J), Bobby_141 (J), Bombitas_138 (J), BronnyJames_145 (J), Constella_144 (J), Courthouse_145 (J), CurlyFries_50 (CF), Dallas_151 (J), DmpstrDiver_151 (J), Dove_137 (J), Duke13_149 (J), Ejimix_143 (J), EricMillard_145 (J), Gonephishing_144 (J), Halley_152 (J), Hannaconda_144 (J), Hidrated_136 (J), HokkenD_145 (J), Hughesyang_150 (J), JuicyJay_146 (J), Kalah2_142 (J), KashFlow_150 (J), Klein_150 (J), LittleE_153 (J), Lucky2013_142 (J), Marleymoo_136 (J), MiaZeal_149 (J), Minerva_150 (J), Nekros_148 (J), Nibley_144 (J), NihilNomen_152 (J), Odette_156 (J), Omega_157 (J), Optimus_144 (J), Phoebus_151 (J), Porcelain_146 (J), Pound_142 (J), Redno2_145 (J), RegnumDei_48 (CF), Schatzie_146 (J), Shaboozey_148 (J), Shagrat_49 (CF), Squint_142 (J), Stellammi_85 (UNK), Superphikiman_147 (J), Thibault_134 (J), ThreeRngTarjay_146 (J), Wanda_150 (J), Yeet_144 (J), Zelink_145 (J),

Start 73:
• Found in 8 of 276 (2.9%) of genes in pham
• Manual Annotations of this start: 5 of 237
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Courthouse_126 (J), Gonephishing_125 (J), Hannaconda_124 (J), HokkenD_123 (J), Odette_135 (J), Rearden_129 (J), Superphikiman_128 (J), Yeet_125 (J),

Start 165:
• Found in 1 of 276 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 237
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Shagrat_66 (CF),

Summary by clusters:

There are 14 clusters represented in this pham: A15, J, CB, L1, CG, CF, L4, A16, A5, L3, A8, L2, UNK, A6,

Info for manual annotations of cluster A15:
•Start number 23 was manually annotated 1 time for cluster A15.
•Start number 32 was manually annotated 10 times for cluster A15.
•Start number 40 was manually annotated 1 time for cluster A15.
•Start number 45 was manually annotated 23 times for cluster A15.

Info for manual annotations of cluster A16:

•Start number 43 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A5:
•Start number 45 was manually annotated 40 times for cluster A5.

Info for manual annotations of cluster A6:
•Start number 41 was manually annotated 1 time for cluster A6.
•Start number 43 was manually annotated 3 times for cluster A6.

Info for manual annotations of cluster A8:
•Start number 51 was manually annotated 9 times for cluster A8.

Info for manual annotations of cluster CB:
•Start number 65 was manually annotated 2 times for cluster CB.

Info for manual annotations of cluster CF:
•Start number 44 was manually annotated 3 times for cluster CF.
•Start number 46 was manually annotated 1 time for cluster CF.
•Start number 48 was manually annotated 2 times for cluster CF.
•Start number 49 was manually annotated 3 times for cluster CF.
•Start number 52 was manually annotated 3 times for cluster CF.
•Start number 72 was manually annotated 3 times for cluster CF.
•Start number 165 was manually annotated 1 time for cluster CF.

Info for manual annotations of cluster CG:
•Start number 57 was manually annotated 1 time for cluster CG.
•Start number 58 was manually annotated 4 times for cluster CG.
•Start number 60 was manually annotated 1 time for cluster CG.

Info for manual annotations of cluster J:
•Start number 72 was manually annotated 41 times for cluster J.
•Start number 73 was manually annotated 5 times for cluster J.

Info for manual annotations of cluster L1:
•Start number 31 was manually annotated 19 times for cluster L1.

Info for manual annotations of cluster L2:
•Start number 35 was manually annotated 31 times for cluster L2.

Info for manual annotations of cluster L3:
•Start number 27 was manually annotated 19 times for cluster L3.

Info for manual annotations of cluster L4:
•Start number 35 was manually annotated 1 time for cluster L4.
•Start number 36 was manually annotated 5 times for cluster L4.

Info for manual annotations of cluster UNK:
•Start number 72 was manually annotated 1 time for cluster UNK.

Gene Information:

Gene: Acquire49_41 Start: 33548, Stop: 33943, Start Num: 31
Candidate Starts for Acquire49_41:
(25, 33533), (Start: 31 @33548 has 19 MA's), (112, 33806), (115, 33815), (143, 33875), (152, 33920),

Gene: AgentM_38 Start: 30504, Stop: 30118, Start Num: 45
Candidate Starts for AgentM_38:
(Start: 45 @30504 has 63 MA's), (62, 30456), (63, 30453), (81, 30378), (105, 30312), (109, 30303), (132, 30255), (147, 30207), (155, 30168),

Gene: Airmid_40 Start: 30562, Stop: 30173, Start Num: 45
Candidate Starts for Airmid_40:
(Start: 45 @30562 has 63 MA's), (62, 30514), (63, 30511), (81, 30436), (109, 30361), (110, 30358), (132, 30313), (137, 30304), (155, 30223),

Gene: Anaysia_48 Start: 30327, Stop: 29968, Start Num: 45
Candidate Starts for Anaysia_48:
(Start: 40 @30330 has 1 MA's), (Start: 45 @30327 has 63 MA's), (80, 30219), (157, 30003),

Gene: Anon_43 Start: 29368, Stop: 29009, Start Num: 45
Candidate Starts for Anon_43:
(Start: 45 @29368 has 63 MA's), (91, 29230),

Gene: Appletree2_40 Start: 33475, Stop: 33870, Start Num: 31
Candidate Starts for Appletree2_40:
(25, 33460), (Start: 31 @33475 has 19 MA's), (112, 33733), (115, 33742), (143, 33802), (152, 33847),

Gene: Aragog_38 Start: 30534, Stop: 30148, Start Num: 45
Candidate Starts for Aragog_38:
(Start: 45 @30534 has 63 MA's), (62, 30486), (63, 30483), (81, 30408), (105, 30342), (109, 30333), (132, 30285), (147, 30237), (155, 30198),

Gene: Archetta_39 Start: 31064, Stop: 30678, Start Num: 45
Candidate Starts for Archetta_39:
(Start: 45 @31064 has 63 MA's), (62, 31016), (63, 31013), (81, 30938), (105, 30872), (109, 30863), (132, 30815), (147, 30767), (155, 30728),

Gene: Archie_43 Start: 35110, Stop: 35472, Start Num: 35
Candidate Starts for Archie_43:
(Start: 35 @35110 has 32 MA's), (112, 35341), (115, 35350),

Gene: Ariel_149 Start: 76661, Stop: 76984, Start Num: 72
Candidate Starts for Ariel_149:
(11, 76439), (19, 76487), (30, 76532), (67, 76649), (Start: 72 @76661 has 45 MA's), (98, 76745), (118, 76811), (138, 76850), (143, 76874), (155, 76931),

Gene: Astro_43 Start: 30852, Stop: 30550, Start Num: 51
Candidate Starts for Astro_43:
(Start: 51 @30852 has 9 MA's), (80, 30741), (84, 30732), (122, 30639), (146, 30588), (149, 30567),

Gene: AvadaKedavra_41 Start: 33557, Stop: 33952, Start Num: 31
Candidate Starts for AvadaKedavra_41:
(25, 33542), (Start: 31 @33557 has 19 MA's), (112, 33815), (115, 33824), (143, 33884), (152, 33929),

Gene: BAKA_153 Start: 81330, Stop: 81653, Start Num: 72
Candidate Starts for BAKA_153:
(67, 81318), (Start: 72 @81330 has 45 MA's), (76, 81348), (98, 81414), (118, 81480), (138, 81519), (143, 81543), (155, 81600),

Gene: Bagrid_154 Start: 82037, Stop: 82360, Start Num: 72
Candidate Starts for Bagrid_154:
(67, 82025), (Start: 72 @82037 has 45 MA's), (98, 82121), (102, 82139), (118, 82187), (138, 82226), (143, 82250),

Gene: Baoshan_42 Start: 34767, Stop: 35129, Start Num: 35
Candidate Starts for Baoshan_42:
(Start: 35 @34767 has 32 MA's), (112, 34998), (115, 35007),

Gene: Battleship_77 Start: 41490, Stop: 41044, Start Num: 23
Candidate Starts for Battleship_77:
(Start: 23 @41490 has 1 MA's), (Start: 32 @41460 has 10 MA's), (34, 41448), (68, 41358), (75, 41331), (133, 41175), (155, 41094),

Gene: Battleship_49 Start: 30296, Stop: 29937, Start Num: 45
Candidate Starts for Battleship_49:
(2, 30701), (4, 30617), (5, 30614), (Start: 45 @30296 has 63 MA's), (80, 30188), (157, 29972),

Gene: Bazzle_43 Start: 35142, Stop: 35504, Start Num: 35
Candidate Starts for Bazzle_43:
(Start: 35 @35142 has 32 MA's), (112, 35373), (115, 35382),

Gene: Beem_153 Start: 81458, Stop: 81781, Start Num: 72
Candidate Starts for Beem_153:
(28, 81326), (30, 81329), (67, 81446), (Start: 72 @81458 has 45 MA's), (98, 81542), (118, 81608), (138, 81647), (155, 81728),

Gene: Bellis_41 Start: 35165, Stop: 35560, Start Num: 27
Candidate Starts for Bellis_41:
(Start: 27 @35165 has 19 MA's), (39, 35201), (Start: 40 @35207 has 1 MA's), (99, 35390), (101, 35396), (112, 35429), (143, 35498), (152, 35543),

Gene: Benedict_42 Start: 30735, Stop: 30355, Start Num: 45
Candidate Starts for Benedict_42:
(Start: 45 @30735 has 63 MA's), (62, 30687), (63, 30684), (69, 30657), (81, 30609), (105, 30543), (109, 30534), (128, 30495), (132, 30486), (135, 30480), (143, 30459), (155, 30405), (162, 30372),

Gene: BigCheese_43 Start: 34906, Stop: 35268, Start Num: 35
Candidate Starts for BigCheese_43:
(Start: 35 @34906 has 32 MA's), (112, 35137), (115, 35146),

Gene: Blinn1_72 Start: 40389, Stop: 39991, Start Num: 41
Candidate Starts for Blinn1_72:
(17, 40491), (26, 40434), (29, 40428), (Start: 32 @40416 has 10 MA's), (Start: 41 @40389 has 1 MA's), (83, 40251), (126, 40137), (142, 40095),

Gene: Bluefalcon_38 Start: 31022, Stop: 30636, Start Num: 45
Candidate Starts for Bluefalcon_38:

(Start: 45 @31022 has 63 MA's), (62, 30974), (69, 30944), (83, 30893), (105, 30821), (109, 30812), (114, 30800), (155, 30686),

Gene: Bobby_141 Start: 81455, Stop: 81778, Start Num: 72
Candidate Starts for Bobby_141:
(67, 81443), (Start: 72 @81455 has 45 MA's), (98, 81539), (102, 81557), (138, 81644), (143, 81668),

Gene: BobsGarage_43 Start: 34906, Stop: 35268, Start Num: 35
Candidate Starts for BobsGarage_43:
(Start: 35 @34906 has 32 MA's), (112, 35137), (115, 35146),

Gene: Bombitas_138 Start: 78311, Stop: 78634, Start Num: 72
Candidate Starts for Bombitas_138:
(28, 78179), (30, 78182), (67, 78299), (Start: 72 @78311 has 45 MA's), (98, 78395), (118, 78461), (138, 78500), (155, 78581),

Gene: Bonamassa_40 Start: 31053, Stop: 30667, Start Num: 45
Candidate Starts for Bonamassa_40:
(Start: 45 @31053 has 63 MA's), (62, 31005), (81, 30927), (105, 30861), (109, 30852), (132, 30804), (147, 30756), (155, 30717),

Gene: Boohoo_48 Start: 30327, Stop: 29968, Start Num: 45
Candidate Starts for Boohoo_48:
(Start: 40 @30330 has 1 MA's), (Start: 45 @30327 has 63 MA's), (80, 30219), (157, 30003),

Gene: BourbonZero_40 Start: 35147, Stop: 35542, Start Num: 27
Candidate Starts for BourbonZero_40:
(Start: 27 @35147 has 19 MA's), (99, 35372), (101, 35378), (112, 35411), (143, 35480), (152, 35525),

Gene: BrainDrainer_41 Start: 33839, Stop: 34198, Start Num: 36
Candidate Starts for BrainDrainer_41:
(Start: 36 @33839 has 5 MA's), (Start: 40 @33848 has 1 MA's), (112, 34067), (115, 34076), (141, 34127),

Gene: Breezona_43 Start: 34906, Stop: 35268, Start Num: 35
Candidate Starts for Breezona_43:
(Start: 35 @34906 has 32 MA's), (112, 35137), (115, 35146),

Gene: Bromden_43 Start: 34662, Stop: 35024, Start Num: 35
Candidate Starts for Bromden_43:
(Start: 35 @34662 has 32 MA's), (Start: 36 @34665 has 5 MA's), (112, 34893), (115, 34902), (141, 34953),

Gene: BronnyJames_145 Start: 77611, Stop: 77934, Start Num: 72
Candidate Starts for BronnyJames_145:
(Start: 72 @77611 has 45 MA's), (98, 77695), (103, 77722), (118, 77761), (138, 77800), (156, 77884),

Gene: Caitlin_43 Start: 30845, Stop: 30543, Start Num: 51
Candidate Starts for Caitlin_43:
(Start: 51 @30845 has 9 MA's), (80, 30734), (84, 30725), (122, 30632), (146, 30581), (149, 30560),

Gene: Calm_41 Start: 33563, Stop: 33958, Start Num: 31
Candidate Starts for Calm_41:

(25, 33548), (Start: 31 @33563 has 19 MA's), (112, 33821), (115, 33830), (143, 33890), (152, 33935),

Gene: Chadwick_43 Start: 30715, Stop: 30335, Start Num: 45
Candidate Starts for Chadwick_43:
(Start: 45 @30715 has 63 MA's), (62, 30667), (63, 30664), (69, 30637), (81, 30589), (105, 30523), (128, 30475), (132, 30466), (135, 30460), (143, 30439), (155, 30385), (162, 30352),

Gene: Chaser_40 Start: 33656, Stop: 34015, Start Num: 36
Candidate Starts for Chaser_40:
(Start: 36 @33656 has 5 MA's), (Start: 40 @33665 has 1 MA's), (112, 33884), (115, 33893), (141, 33944),

Gene: ChengKai98_43 Start: 34907, Stop: 35269, Start Num: 35
Candidate Starts for ChengKai98_43:
(Start: 35 @34907 has 32 MA's), (112, 35138), (115, 35147),

Gene: ChutneyChips_41 Start: 33836, Stop: 34195, Start Num: 36
Candidate Starts for ChutneyChips_41:
(Start: 36 @33836 has 5 MA's), (Start: 40 @33845 has 1 MA's), (112, 34064), (115, 34073), (141, 34124), (150, 34172),

Gene: CicholasNage_41 Start: 33584, Stop: 33979, Start Num: 31
Candidate Starts for CicholasNage_41:
(25, 33569), (Start: 31 @33584 has 19 MA's), (112, 33842), (115, 33851), (143, 33911), (152, 33956),

Gene: Claus_43 Start: 34925, Stop: 35287, Start Num: 35
Candidate Starts for Claus_43:
(Start: 35 @34925 has 32 MA's), (112, 35156), (115, 35165),

Gene: Clautastrophe_41 Start: 35163, Stop: 35558, Start Num: 27
Candidate Starts for Clautastrophe_41:
(Start: 27 @35163 has 19 MA's), (39, 35199), (Start: 40 @35205 has 1 MA's), (99, 35388), (101, 35394), (112, 35427), (143, 35496), (152, 35541),

Gene: Conspiracy_39 Start: 30746, Stop: 30360, Start Num: 45
Candidate Starts for Conspiracy_39:
(Start: 45 @30746 has 63 MA's), (62, 30698), (63, 30695), (81, 30620), (105, 30554), (109, 30545), (132, 30497), (147, 30449), (155, 30410),

Gene: Constella_144 Start: 79520, Stop: 79843, Start Num: 72
Candidate Starts for Constella_144:
(67, 79508), (Start: 72 @79520 has 45 MA's), (98, 79604), (102, 79622), (118, 79670), (138, 79709), (143, 79733),

Gene: Coog_39 Start: 30844, Stop: 30458, Start Num: 45
Candidate Starts for Coog_39:
(Start: 45 @30844 has 63 MA's), (62, 30796), (63, 30793), (81, 30718), (105, 30652), (109, 30643), (132, 30595), (147, 30547), (155, 30508),

Gene: Courthouse_145 Start: 76519, Stop: 76842, Start Num: 72
Candidate Starts for Courthouse_145:
(11, 76297), (19, 76345), (30, 76390), (67, 76507), (Start: 72 @76519 has 45 MA's), (98, 76603), (118, 76669), (138, 76708), (143, 76732), (155, 76789),

Gene: Courthouse_126 Start: 68736, Stop: 69029, Start Num: 73
Candidate Starts for Courthouse_126:
(Start: 73 @68736 has 5 MA's), (105, 68853), (134, 68913), (154, 68985), (155, 68988),

Gene: Crossroads_43 Start: 34908, Stop: 35270, Start Num: 35
Candidate Starts for Crossroads_43:
(Start: 35 @34908 has 32 MA's), (112, 35139), (115, 35148),

Gene: Cuco_39 Start: 30800, Stop: 30411, Start Num: 45
Candidate Starts for Cuco_39:
(Start: 45 @30800 has 63 MA's), (62, 30752), (63, 30749), (81, 30674), (105, 30608), (109, 30599), (110, 30596), (132, 30551), (137, 30542), (155, 30461),

Gene: CurlyFries_66 Start: 39792, Stop: 40115, Start Num: 46
Candidate Starts for CurlyFries_66:
(Start: 46 @39792 has 1 MA's), (Start: 52 @39801 has 3 MA's), (151, 40065), (155, 40080), (158, 40092),

Gene: CurlyFries_50 Start: 35699, Stop: 35998, Start Num: 72
Candidate Starts for CurlyFries_50:
(55, 35636), (56, 35639), (Start: 72 @35699 has 45 MA's), (124, 35846), (159, 35963), (162, 35978), (163, 35987),

Gene: CurlyFries_65 Start: 39422, Stop: 39799, Start Num: 49
Candidate Starts for CurlyFries_65:
(Start: 49 @39422 has 3 MA's), (71, 39494), (92, 39551), (104, 39596), (155, 39746),

Gene: DHan_44 Start: 34866, Stop: 35228, Start Num: 35
Candidate Starts for DHan_44:
(Start: 35 @34866 has 32 MA's), (112, 35097), (115, 35106),

Gene: Dallas_151 Start: 80367, Stop: 80690, Start Num: 72
Candidate Starts for Dallas_151:
(67, 80355), (Start: 72 @80367 has 45 MA's), (98, 80451), (102, 80469), (118, 80517), (138, 80556),

Gene: DanBing_42 Start: 34758, Stop: 35120, Start Num: 35
Candidate Starts for DanBing_42:
(Start: 35 @34758 has 32 MA's), (112, 34989), (115, 34998),

Gene: Danforth_43 Start: 30881, Stop: 30579, Start Num: 51
Candidate Starts for Danforth_43:
(Start: 51 @30881 has 9 MA's), (80, 30770), (84, 30761), (122, 30668), (146, 30617), (149, 30596),

Gene: DekHockey33_48 Start: 30545, Stop: 30183, Start Num: 40
Candidate Starts for DekHockey33_48:
(Start: 40 @30545 has 1 MA's), (Start: 45 @30542 has 63 MA's), (80, 30434), (157, 30218),

Gene: DekHockey33_76 Start: 41545, Stop: 41129, Start Num: 32
Candidate Starts for DekHockey33_76:
(Start: 23 @41575 has 1 MA's), (Start: 32 @41545 has 10 MA's), (34, 41533), (68, 41443), (75, 41416), (133, 41260), (155, 41179),

Gene: DirkDirk_40 Start: 33535, Stop: 33930, Start Num: 31
Candidate Starts for DirkDirk_40:
(25, 33520), (Start: 31 @33535 has 19 MA's), (112, 33793), (115, 33802), (143, 33862), (152, 33907),

Gene: Discoknowium_38 Start: 30543, Stop: 30157, Start Num: 45
Candidate Starts for Discoknowium_38:
(Start: 45 @30543 has 63 MA's), (62, 30495), (63, 30492), (81, 30417), (105, 30351), (109, 30342), (132, 30294), (147, 30246), (155, 30207),

Gene: DmpstrDiver_151 Start: 80286, Stop: 80609, Start Num: 72
Candidate Starts for DmpstrDiver_151:
(67, 80274), (Start: 72 @80286 has 45 MA's), (98, 80370), (102, 80388), (118, 80436), (138, 80475), (162, 80589),

Gene: Dorin_262 Start: 128550, Stop: 128915, Start Num: 58
Candidate Starts for Dorin_262:
(Start: 58 @128550 has 4 MA's), (94, 128673), (96, 128682), (98, 128688), (125, 128766), (129, 128772), (148, 128817), (157, 128865),

Gene: Dorin_263 Start: 128893, Stop: 129231, Start Num: 58
Candidate Starts for Dorin_263:
(Start: 57 @128890 has 1 MA's), (Start: 58 @128893 has 4 MA's), (105, 129061),

Gene: Douge_40 Start: 33594, Stop: 33953, Start Num: 36
Candidate Starts for Douge_40:
(Start: 36 @33594 has 5 MA's), (Start: 40 @33603 has 1 MA's), (112, 33822), (115, 33831), (141, 33882),

Gene: Douzhi_40 Start: 33700, Stop: 34059, Start Num: 36
Candidate Starts for Douzhi_40:
(Start: 36 @33700 has 5 MA's), (Start: 40 @33709 has 1 MA's), (112, 33928), (115, 33937), (141, 33988),

Gene: Dove_137 Start: 76474, Stop: 76797, Start Num: 72
Candidate Starts for Dove_137:
(28, 76342), (30, 76345), (67, 76462), (Start: 72 @76474 has 45 MA's), (98, 76558), (102, 76576), (138, 76663), (143, 76687), (162, 76777),

Gene: DrSeegs_43 Start: 34906, Stop: 35268, Start Num: 35
Candidate Starts for DrSeegs_43:
(Start: 35 @34906 has 32 MA's), (112, 35137), (115, 35146),

Gene: Dublin_38 Start: 30565, Stop: 30179, Start Num: 45
Candidate Starts for Dublin_38:
(Start: 45 @30565 has 63 MA's), (62, 30517), (63, 30514), (81, 30439), (105, 30373), (109, 30364), (132, 30316), (147, 30268), (155, 30229),

Gene: Duke13_149 Start: 79615, Stop: 79938, Start Num: 72
Candidate Starts for Duke13_149:
(67, 79603), (Start: 72 @79615 has 45 MA's), (76, 79633), (98, 79699), (118, 79765), (138, 79804), (158, 79897),

Gene: DuncansLeg_41 Start: 35184, Stop: 35579, Start Num: 27

Candidate Starts for DuncansLeg_41:
(Start: 27 @35184 has 19 MA's), (39, 35220), (Start: 40 @35226 has 1 MA's), (99, 35409), (101, 35415), (112, 35448), (143, 35517), (152, 35562),

Gene: DyoEdafos_42 Start: 33916, Stop: 34275, Start Num: 36
Candidate Starts for DyoEdafos_42:
(33, 33901), (Start: 36 @33916 has 5 MA's), (112, 34144), (115, 34153), (141, 34204), (150, 34252),

Gene: EagleEye_71 Start: 41731, Stop: 41372, Start Num: 43
Candidate Starts for EagleEye_71:
(13, 41836), (14, 41833), (16, 41830), (Start: 43 @41731 has 6 MA's), (61, 41689), (69, 41656), (118, 41506), (144, 41461), (145, 41458), (161, 41383),

Gene: Ejimix_143 Start: 80435, Stop: 80758, Start Num: 72
Candidate Starts for Ejimix_143:
(67, 80423), (Start: 72 @80435 has 45 MA's), (98, 80519), (102, 80537), (118, 80585), (138, 80624),

Gene: ElTiger69_41 Start: 30732, Stop: 30352, Start Num: 45
Candidate Starts for ElTiger69_41:
(Start: 45 @30732 has 63 MA's), (62, 30684), (63, 30681), (81, 30606), (105, 30540), (128, 30492), (132, 30483), (135, 30477), (143, 30456), (155, 30402), (162, 30369),

Gene: Elle_44 Start: 28787, Stop: 28425, Start Num: 45
Candidate Starts for Elle_44:
(3, 29156), (Start: 45 @28787 has 63 MA's), (75, 28697), (81, 28673), (91, 28649), (95, 28646), (105, 28607), (157, 28460),

Gene: Ellson_41 Start: 35160, Stop: 35555, Start Num: 27
Candidate Starts for Ellson_41:
(Start: 27 @35160 has 19 MA's), (99, 35385), (101, 35391), (112, 35424), (143, 35493), (152, 35538),

Gene: Enceladus_40 Start: 33518, Stop: 33913, Start Num: 31
Candidate Starts for Enceladus_40:
(25, 33503), (Start: 31 @33518 has 19 MA's), (112, 33776), (115, 33785), (143, 33845), (152, 33890),

Gene: Epsocamisio_71 Start: 40692, Stop: 40276, Start Num: 32
Candidate Starts for Epsocamisio_71:
(Start: 23 @40722 has 1 MA's), (Start: 32 @40692 has 10 MA's), (34, 40680), (68, 40590), (75, 40563), (133, 40407), (155, 40326),

Gene: Epsocamisio_47 Start: 30101, Stop: 29742, Start Num: 45
Candidate Starts for Epsocamisio_47:
(2, 30503), (4, 30419), (Start: 45 @30101 has 63 MA's), (80, 29993), (157, 29777),

Gene: EricMillard_145 Start: 80967, Stop: 81290, Start Num: 72
Candidate Starts for EricMillard_145:
(67, 80955), (Start: 72 @80967 has 45 MA's), (76, 80985), (98, 81051), (118, 81117), (138, 81156), (158, 81249),

Gene: Expelliarmus_43 Start: 30910, Stop: 30608, Start Num: 51
Candidate Starts for Expelliarmus_43:
(Start: 51 @30910 has 9 MA's), (80, 30799), (84, 30790), (122, 30697), (146, 30646), (149, 30625),

Gene: Faith1_43 Start: 34906, Stop: 35268, Start Num: 35
Candidate Starts for Faith1_43:
(Start: 35 @34906 has 32 MA's), (112, 35137), (115, 35146),

Gene: FarmResident_41 Start: 33638, Stop: 33997, Start Num: 36
Candidate Starts for FarmResident_41:
(Start: 36 @33638 has 5 MA's), (Start: 40 @33647 has 1 MA's), (112, 33866), (115, 33875), (141, 33926),

Gene: Finemlucis_43 Start: 35182, Stop: 35544, Start Num: 35
Candidate Starts for Finemlucis_43:
(Start: 35 @35182 has 32 MA's), (112, 35413), (115, 35422),

Gene: Finnry_41 Start: 35166, Stop: 35561, Start Num: 27
Candidate Starts for Finnry_41:
(Start: 27 @35166 has 19 MA's), (39, 35202), (Start: 40 @35208 has 1 MA's), (99, 35391), (101, 35397), (112, 35430), (143, 35499), (152, 35544),

Gene: Florence1_38 Start: 30418, Stop: 30032, Start Num: 45
Candidate Starts for Florence1_38:
(Start: 45 @30418 has 63 MA's), (62, 30370), (81, 30292), (105, 30226), (109, 30217), (132, 30169), (147, 30121), (155, 30082),

Gene: Florence4_39 Start: 30418, Stop: 30032, Start Num: 45
Candidate Starts for Florence4_39:
(Start: 45 @30418 has 63 MA's), (62, 30370), (81, 30292), (105, 30226), (109, 30217), (132, 30169), (147, 30121), (155, 30082),

Gene: ForGetIt_39 Start: 30771, Stop: 30385, Start Num: 45
Candidate Starts for ForGetIt_39:
(Start: 45 @30771 has 63 MA's), (62, 30723), (63, 30720), (81, 30645), (105, 30579), (109, 30570), (132, 30522), (147, 30474), (155, 30435),

Gene: Francesca_262 Start: 129192, Stop: 129557, Start Num: 58
Candidate Starts for Francesca_262:
(Start: 58 @129192 has 4 MA's), (94, 129315), (96, 129324), (98, 129330), (125, 129408), (129, 129414), (148, 129459), (157, 129507),

Gene: Francesca_263 Start: 129535, Stop: 129873, Start Num: 58
Candidate Starts for Francesca_263:
(Start: 57 @129532 has 1 MA's), (Start: 58 @129535 has 4 MA's), (105, 129703),

Gene: Gabriela_43 Start: 35168, Stop: 35530, Start Num: 35
Candidate Starts for Gabriela_43:
(Start: 35 @35168 has 32 MA's), (112, 35399), (115, 35408),

Gene: Gardann_43 Start: 34907, Stop: 35269, Start Num: 35
Candidate Starts for Gardann_43:
(Start: 35 @34907 has 32 MA's), (112, 35138), (115, 35147),

Gene: George_39 Start: 30995, Stop: 30609, Start Num: 45
Candidate Starts for George_39:

(Start: 45 @30995 has 63 MA's), (62, 30947), (63, 30944), (81, 30869), (105, 30803), (109, 30794), (130, 30749), (132, 30746), (147, 30698), (155, 30659),

Gene: Ghoulboy_41 Start: 31508, Stop: 31122, Start Num: 45
Candidate Starts for Ghoulboy_41:
(Start: 45 @31508 has 63 MA's), (62, 31460), (63, 31457), (81, 31382), (105, 31316), (109, 31307), (132, 31259), (147, 31211), (155, 31172),

Gene: Gonephishing_144 Start: 78607, Stop: 78930, Start Num: 72
Candidate Starts for Gonephishing_144:
(67, 78595), (Start: 72 @78607 has 45 MA's), (98, 78691), (103, 78718), (105, 78724), (118, 78757), (138, 78796),

Gene: Gonephishing_125 Start: 68379, Stop: 68672, Start Num: 73
Candidate Starts for Gonephishing_125:
(Start: 73 @68379 has 5 MA's), (105, 68496), (134, 68556), (154, 68628), (155, 68631),

Gene: Grayson_191 Start: 99709, Stop: 100023, Start Num: 65
Candidate Starts for Grayson_191:
(Start: 65 @99709 has 2 MA's), (68, 99727), (79, 99769), (98, 99823), (144, 99925), (156, 99979),

Gene: Groundhog_42 Start: 30817, Stop: 30515, Start Num: 51
Candidate Starts for Groundhog_42:
(Start: 51 @30817 has 9 MA's), (80, 30706), (84, 30697), (122, 30604), (146, 30553), (149, 30532),

Gene: GuuelaD_43 Start: 34945, Stop: 35307, Start Num: 35
Candidate Starts for GuuelaD_43:
(Start: 35 @34945 has 32 MA's), (112, 35176), (115, 35185),

Gene: Hafay_43 Start: 34940, Stop: 35302, Start Num: 35
Candidate Starts for Hafay_43:
(Start: 35 @34940 has 32 MA's), (112, 35171), (115, 35180),

Gene: Halena_40 Start: 33559, Stop: 33954, Start Num: 31
Candidate Starts for Halena_40:
(25, 33544), (Start: 31 @33559 has 19 MA's), (112, 33817), (115, 33826), (143, 33886), (152, 33931),

Gene: Halley_152 Start: 80751, Stop: 81074, Start Num: 72
Candidate Starts for Halley_152:
(67, 80739), (Start: 72 @80751 has 45 MA's), (98, 80835), (102, 80853), (118, 80901), (138, 80940),

Gene: Hannaconda_124 Start: 69032, Stop: 69325, Start Num: 73
Candidate Starts for Hannaconda_124:
(Start: 73 @69032 has 5 MA's), (105, 69149), (134, 69209), (154, 69281), (155, 69284),

Gene: Hannaconda_144 Start: 79540, Stop: 79863, Start Num: 72
Candidate Starts for Hannaconda_144:
(Start: 72 @79540 has 45 MA's), (98, 79624), (103, 79651), (105, 79657), (118, 79690), (138, 79729),

Gene: Hidrated_136 Start: 79925, Stop: 80248, Start Num: 72
Candidate Starts for Hidrated_136:
(9, 79688), (15, 79727), (38, 79832), (67, 79913), (Start: 72 @79925 has 45 MA's), (76, 79943), (98, 80009), (118, 80075), (138, 80114), (143, 80138),

Gene: Hiraya_43 Start: 34907, Stop: 35269, Start Num: 35
Candidate Starts for Hiraya_43:
(Start: 35 @34907 has 32 MA's), (112, 35138), (115, 35147),

Gene: HokkenD_123 Start: 71913, Stop: 72206, Start Num: 73
Candidate Starts for HokkenD_123:
(Start: 73 @71913 has 5 MA's), (105, 72030), (134, 72090), (154, 72162), (155, 72165),

Gene: HokkenD_145 Start: 81876, Stop: 82199, Start Num: 72
Candidate Starts for HokkenD_145:
(9, 81639), (15, 81678), (38, 81783), (67, 81864), (Start: 72 @81876 has 45 MA's), (98, 81960), (103, 81987), (118, 82026), (138, 82065),

Gene: Hughesyang_150 Start: 81110, Stop: 81433, Start Num: 72
Candidate Starts for Hughesyang_150:
(28, 80978), (30, 80981), (67, 81098), (Start: 72 @81110 has 45 MA's), (98, 81194), (118, 81260), (138, 81299),

Gene: HuhtaEnerson15_40 Start: 30986, Stop: 30600, Start Num: 45
Candidate Starts for HuhtaEnerson15_40:
(Start: 45 @30986 has 63 MA's), (62, 30938), (81, 30860), (105, 30794), (109, 30785), (132, 30737), (147, 30689), (155, 30650),

Gene: Itos_42 Start: 33812, Stop: 34174, Start Num: 35
Candidate Starts for Itos_42:
(Start: 35 @33812 has 32 MA's), (112, 34043), (115, 34052),

Gene: JSwag_74 Start: 40977, Stop: 40561, Start Num: 32
Candidate Starts for JSwag_74:
(Start: 23 @41007 has 1 MA's), (Start: 32 @40977 has 10 MA's), (34, 40965), (68, 40875), (75, 40848), (133, 40692), (155, 40611),

Gene: JSwag_47 Start: 30039, Stop: 29680, Start Num: 45
Candidate Starts for JSwag_47:
(2, 30441), (4, 30357), (Start: 45 @30039 has 63 MA's), (80, 29931), (157, 29715),

Gene: Jabiru_40 Start: 30604, Stop: 30215, Start Num: 45
Candidate Starts for Jabiru_40:
(Start: 45 @30604 has 63 MA's), (62, 30556), (63, 30553), (81, 30478), (109, 30403), (110, 30400), (132, 30355), (137, 30346), (155, 30265),

Gene: JewelBug_68 Start: 40312, Stop: 39956, Start Num: 43
Candidate Starts for JewelBug_68:
(20, 40390), (Start: 43 @40312 has 6 MA's), (89, 40168), (109, 40111), (145, 40042), (146, 40036), (150, 40015), (157, 39988), (161, 39967),

Gene: Jflix2_89 Start: 50660, Stop: 51001, Start Num: 48
Candidate Starts for Jflix2_89:
(18, 50558), (24, 50594), (39, 50642), (Start: 48 @50660 has 2 MA's), (74, 50741), (149, 50939),

Gene: Jflix2_76 Start: 46571, Stop: 46909, Start Num: 44
Candidate Starts for Jflix2_76:

(Start: 44 @46571 has 3 MA's), (70, 46643), (121, 46766), (131, 46784), (148, 46826), (157, 46874),

Gene: Jobypre_41 Start: 35163, Stop: 35558, Start Num: 27
Candidate Starts for Jobypre_41:
(Start: 27 @35163 has 19 MA's), (39, 35199), (Start: 40 @35205 has 1 MA's), (99, 35388), (101, 35394), (112, 35427), (143, 35496), (152, 35541),

Gene: JoeDirt_40 Start: 33516, Stop: 33911, Start Num: 31
Candidate Starts for JoeDirt_40:
(25, 33501), (Start: 31 @33516 has 19 MA's), (112, 33774), (115, 33783), (143, 33843), (152, 33888),

Gene: Jovo_39 Start: 31027, Stop: 30641, Start Num: 45
Candidate Starts for Jovo_39:
(Start: 45 @31027 has 63 MA's), (62, 30979), (63, 30976), (81, 30901), (105, 30835), (109, 30826), (132, 30778), (147, 30730), (155, 30691),

Gene: Jubie_41 Start: 35164, Stop: 35559, Start Num: 27
Candidate Starts for Jubie_41:
(Start: 27 @35164 has 19 MA's), (39, 35200), (Start: 40 @35206 has 1 MA's), (99, 35389), (101, 35395), (112, 35428), (143, 35497), (152, 35542),

Gene: JuicyJay_146 Start: 82036, Stop: 82359, Start Num: 72
Candidate Starts for JuicyJay_146:
(28, 81904), (30, 81907), (67, 82024), (Start: 72 @82036 has 45 MA's), (98, 82120), (118, 82186), (138, 82225), (155, 82306),

Gene: Kahlid_43 Start: 34912, Stop: 35274, Start Num: 35
Candidate Starts for Kahlid_43:
(Start: 35 @34912 has 32 MA's), (112, 35143), (115, 35152),

Gene: Kalah2_142 Start: 80240, Stop: 80563, Start Num: 72
Candidate Starts for Kalah2_142:
(67, 80228), (Start: 72 @80240 has 45 MA's), (98, 80324), (102, 80342), (138, 80429), (143, 80453),

Gene: KashFlow_150 Start: 79539, Stop: 79862, Start Num: 72
Candidate Starts for KashFlow_150:
(Start: 72 @79539 has 45 MA's), (98, 79623), (103, 79650), (105, 79656), (118, 79689), (138, 79728),

Gene: KatherineG_49 Start: 30542, Stop: 30183, Start Num: 45
Candidate Starts for KatherineG_49:
(Start: 40 @30545 has 1 MA's), (Start: 45 @30542 has 63 MA's), (80, 30434), (157, 30218),

Gene: KatherineG_75 Start: 41450, Stop: 41034, Start Num: 32
Candidate Starts for KatherineG_75:
(10, 41561), (Start: 23 @41480 has 1 MA's), (Start: 32 @41450 has 10 MA's), (34, 41438), (68, 41348), (75, 41321), (133, 41165), (155, 41084),

Gene: Kingsolomon_41 Start: 35163, Stop: 35558, Start Num: 27
Candidate Starts for Kingsolomon_41:
(Start: 27 @35163 has 19 MA's), (39, 35199), (Start: 40 @35205 has 1 MA's), (99, 35388), (101, 35394), (112, 35427), (143, 35496), (152, 35541),

Gene: KirDoubleO7_39 Start: 35188, Stop: 35583, Start Num: 27

Candidate Starts for KirDoubleO7_39:
(Start: 27 @35188 has 19 MA's), (39, 35224), (Start: 40 @35230 has 1 MA's), (99, 35413), (101, 35419), (112, 35452), (143, 35521), (152, 35566),

Gene: Klein_150 Start: 80105, Stop: 80428, Start Num: 72
Candidate Starts for Klein_150:
(67, 80093), (Start: 72 @80105 has 45 MA's), (76, 80123), (98, 80189), (118, 80255), (138, 80294), (143, 80318), (155, 80375),

Gene: Kropertea_41 Start: 33739, Stop: 34098, Start Num: 36
Candidate Starts for Kropertea_41:
(33, 33724), (Start: 36 @33739 has 5 MA's), (112, 33967), (115, 33976), (141, 34027), (150, 34075),

Gene: Krypton555_41 Start: 35080, Stop: 35475, Start Num: 27
Candidate Starts for Krypton555_41:
(Start: 27 @35080 has 19 MA's), (99, 35305), (101, 35311), (112, 35344), (143, 35413), (152, 35458),

Gene: LastResort_47 Start: 30103, Stop: 29744, Start Num: 45
Candidate Starts for LastResort_47:
(Start: 40 @30106 has 1 MA's), (Start: 45 @30103 has 63 MA's), (80, 29995), (157, 29779),

Gene: LeBron_41 Start: 33560, Stop: 33955, Start Num: 31
Candidate Starts for LeBron_41:
(25, 33545), (Start: 31 @33560 has 19 MA's), (112, 33818), (115, 33827), (143, 33887), (152, 33932),

Gene: Lev2_39 Start: 30659, Stop: 30273, Start Num: 45
Candidate Starts for Lev2_39:
(Start: 45 @30659 has 63 MA's), (62, 30611), (63, 30608), (81, 30533), (105, 30467), (109, 30458), (132, 30410), (147, 30362), (155, 30323),

Gene: Lewan_43 Start: 34899, Stop: 35261, Start Num: 35
Candidate Starts for Lewan_43:
(Start: 35 @34899 has 32 MA's), (112, 35130), (115, 35139),

Gene: LilDestine_43 Start: 34904, Stop: 35266, Start Num: 35
Candidate Starts for LilDestine_43:
(Start: 35 @34904 has 32 MA's), (112, 35135), (115, 35144),

Gene: LittleCherry_40 Start: 30996, Stop: 30610, Start Num: 45
Candidate Starts for LittleCherry_40:
(Start: 45 @30996 has 63 MA's), (62, 30948), (81, 30870), (105, 30804), (109, 30795), (132, 30747), (147, 30699), (155, 30660),

Gene: LittleE_153 Start: 80985, Stop: 81308, Start Num: 72
Candidate Starts for LittleE_153:
(6, 80586), (8, 80709), (9, 80748), (15, 80787), (38, 80892), (67, 80973), (Start: 72 @80985 has 45 MA's), (98, 81069), (103, 81096), (118, 81135), (138, 81174), (156, 81258),

Gene: LiyuLake_41 Start: 35150, Stop: 35545, Start Num: 27
Candidate Starts for LiyuLake_41:
(Start: 27 @35150 has 19 MA's), (99, 35375), (101, 35381), (112, 35414), (143, 35483), (152, 35528),

Gene: Loadrie_43 Start: 34938, Stop: 35300, Start Num: 35

Candidate Starts for Loadrie_43:
(Start: 35 @34938 has 32 MA's), (112, 35169), (115, 35178),

Gene: LogiBear_67 Start: 40220, Stop: 39849, Start Num: 47
Candidate Starts for LogiBear_67:
(42, 40226), (47, 40220), (75, 40124), (86, 40085), (93, 40073), (117, 40004), (120, 39998), (147, 39929), (160, 39866),

Gene: Lolly9_41 Start: 34974, Stop: 35369, Start Num: 27
Candidate Starts for Lolly9_41:
(Start: 27 @34974 has 19 MA's), (39, 35010), (Start: 40 @35016 has 1 MA's), (99, 35199), (101, 35205), (112, 35238), (143, 35307), (152, 35352),

Gene: Looper_48 Start: 30080, Stop: 29721, Start Num: 45
Candidate Starts for Looper_48:
(Start: 40 @30083 has 1 MA's), (Start: 45 @30080 has 63 MA's), (80, 29972), (157, 29756),

Gene: Lucky2013_142 Start: 75897, Stop: 76220, Start Num: 72
Candidate Starts for Lucky2013_142:
(67, 75885), (Start: 72 @75897 has 45 MA's), (76, 75915), (98, 75981), (103, 76008), (118, 76047), (138, 76086), (156, 76170),

Gene: Lucyedi_70 Start: 41927, Stop: 41568, Start Num: 43
Candidate Starts for Lucyedi_70:
(13, 42032), (14, 42029), (16, 42026), (Start: 43 @41927 has 6 MA's), (61, 41885), (69, 41852), (118, 41702), (144, 41657), (145, 41654), (161, 41579),

Gene: Lumos_41 Start: 35160, Stop: 35555, Start Num: 27
Candidate Starts for Lumos_41:
(22, 35145), (Start: 27 @35160 has 19 MA's), (39, 35196), (Start: 40 @35202 has 1 MA's), (99, 35385), (101, 35391), (112, 35424), (143, 35493), (152, 35538),

Gene: Lynnae_43 Start: 34895, Stop: 35257, Start Num: 35
Candidate Starts for Lynnae_43:
(Start: 35 @34895 has 32 MA's), (112, 35126), (115, 35135),

Gene: MAckerman_41 Start: 33553, Stop: 33948, Start Num: 31
Candidate Starts for MAckerman_41:
(25, 33538), (Start: 31 @33553 has 19 MA's), (112, 33811), (115, 33820), (143, 33880), (152, 33925),

Gene: Madraxi_80 Start: 49350, Stop: 49697, Start Num: 44
Candidate Starts for Madraxi_80:
(24, 49296), (Start: 44 @49350 has 3 MA's), (70, 49431), (106, 49518), (121, 49554), (131, 49572), (148, 49614), (157, 49662),

Gene: Madraxi_91 Start: 52811, Stop: 53170, Start Num: 48
Candidate Starts for Madraxi_91:
(Start: 48 @52811 has 2 MA's), (54, 52826), (113, 52988), (139, 53033), (149, 53075),

Gene: Marleymoo_136 Start: 77201, Stop: 77524, Start Num: 72
Candidate Starts for Marleymoo_136:
(67, 77189), (Start: 72 @77201 has 45 MA's), (98, 77285), (102, 77303), (118, 77351), (138, 77390), (143, 77414), (158, 77483),

Gene: MarysWell_38 Start: 30859, Stop: 30467, Start Num: 45
Candidate Starts for MarysWell_38:
(Start: 45 @30859 has 63 MA's), (62, 30811), (69, 30781), (83, 30730), (105, 30658), (109, 30649), (114, 30637), (155, 30517),

Gene: MiaZeal_149 Start: 77044, Stop: 77367, Start Num: 72
Candidate Starts for MiaZeal_149:
(67, 77032), (Start: 72 @77044 has 45 MA's), (76, 77062), (98, 77128), (103, 77155), (118, 77194), (138, 77233), (156, 77317),

Gene: Micasa_41 Start: 31126, Stop: 30740, Start Num: 45
Candidate Starts for Micasa_41:
(Start: 45 @31126 has 63 MA's), (62, 31078), (81, 31000), (105, 30934), (109, 30925), (132, 30877), (147, 30829), (155, 30790),

Gene: Midas2_39 Start: 30844, Stop: 30458, Start Num: 45
Candidate Starts for Midas2_39:
(Start: 45 @30844 has 63 MA's), (62, 30796), (63, 30793), (81, 30718), (105, 30652), (109, 30643), (132, 30595), (147, 30547), (155, 30508),

Gene: Milcery_40 Start: 30963, Stop: 30577, Start Num: 45
Candidate Starts for Milcery_40:
(Start: 45 @30963 has 63 MA's), (62, 30915), (63, 30912), (81, 30837), (105, 30771), (109, 30762), (132, 30714), (147, 30666), (155, 30627),

Gene: Miley16_43 Start: 34906, Stop: 35268, Start Num: 35
Candidate Starts for Miley16_43:
(Start: 35 @34906 has 32 MA's), (112, 35137), (115, 35146),

Gene: MinecraftSteve_75 Start: 41265, Stop: 40849, Start Num: 32
Candidate Starts for MinecraftSteve_75:
(Start: 23 @41295 has 1 MA's), (Start: 32 @41265 has 10 MA's), (34, 41253), (68, 41163), (75, 41136), (133, 40980), (155, 40899),

Gene: MinecraftSteve_49 Start: 30303, Stop: 29944, Start Num: 45
Candidate Starts for MinecraftSteve_49:
(2, 30705), (4, 30621), (Start: 45 @30303 has 63 MA's), (80, 30195), (126, 30078), (157, 29979),

Gene: Minerva_150 Start: 80059, Stop: 80382, Start Num: 72
Candidate Starts for Minerva_150:
(67, 80047), (Start: 72 @80059 has 45 MA's), (98, 80143), (102, 80161), (138, 80248), (143, 80272),

Gene: MiniLon_41 Start: 34975, Stop: 35370, Start Num: 27
Candidate Starts for MiniLon_41:
(Start: 27 @34975 has 19 MA's), (39, 35011), (Start: 40 @35017 has 1 MA's), (99, 35200), (101, 35206), (112, 35239), (143, 35308), (152, 35353),

Gene: MiniMac_41 Start: 34972, Stop: 35367, Start Num: 27
Candidate Starts for MiniMac_41:
(Start: 27 @34972 has 19 MA's), (39, 35008), (Start: 40 @35014 has 1 MA's), (99, 35197), (101, 35203), (112, 35236), (143, 35305), (152, 35350),

Gene: MkaliMitinis3_43 Start: 34908, Stop: 35270, Start Num: 35
Candidate Starts for MkaliMitinis3_43:
(Start: 35 @34908 has 32 MA's), (112, 35139), (115, 35148),

Gene: Molivier_43 Start: 34903, Stop: 35265, Start Num: 35
Candidate Starts for Molivier_43:
(Start: 35 @34903 has 32 MA's), (112, 35134), (115, 35143),

Gene: Moostard_41 Start: 35165, Stop: 35560, Start Num: 27
Candidate Starts for Moostard_41:
(Start: 27 @35165 has 19 MA's), (39, 35201), (Start: 40 @35207 has 1 MA's), (99, 35390), (101, 35396), (112, 35429), (143, 35498), (152, 35543),

Gene: MsGreen_41 Start: 35163, Stop: 35558, Start Num: 27
Candidate Starts for MsGreen_41:
(Start: 27 @35163 has 19 MA's), (39, 35199), (Start: 40 @35205 has 1 MA's), (99, 35388), (101, 35394), (112, 35427), (143, 35496), (152, 35541),

Gene: Naca_41 Start: 31274, Stop: 30894, Start Num: 45
Candidate Starts for Naca_41:
(Start: 45 @31274 has 63 MA's), (62, 31226), (63, 31223), (81, 31148), (105, 31082), (109, 31073), (128, 31034), (132, 31025), (143, 30998), (155, 30944), (162, 30911),

Gene: Nebulosus_47 Start: 30099, Stop: 29740, Start Num: 45
Candidate Starts for Nebulosus_47:
(Start: 40 @30102 has 1 MA's), (Start: 45 @30099 has 63 MA's), (80, 29991), (157, 29775),

Gene: Nebulosus_72 Start: 40929, Stop: 40513, Start Num: 32
Candidate Starts for Nebulosus_72:
(Start: 23 @40959 has 1 MA's), (Start: 32 @40929 has 10 MA's), (34, 40917), (68, 40827), (75, 40800), (133, 40644), (155, 40563),

Gene: Nekros_148 Start: 79933, Stop: 80256, Start Num: 72
Candidate Starts for Nekros_148:
(Start: 72 @79933 has 45 MA's), (98, 80017), (103, 80044), (105, 80050), (118, 80083), (138, 80122),

Gene: Netyap_43 Start: 34906, Stop: 35268, Start Num: 35
Candidate Starts for Netyap_43:
(Start: 35 @34906 has 32 MA's), (112, 35137), (115, 35146),

Gene: Nibley_144 Start: 77188, Stop: 77511, Start Num: 72
Candidate Starts for Nibley_144:
(Start: 72 @77188 has 45 MA's), (98, 77272), (103, 77299), (118, 77338), (138, 77377), (156, 77461),

Gene: Nicholas_41 Start: 35163, Stop: 35558, Start Num: 27
Candidate Starts for Nicholas_41:
(Start: 27 @35163 has 19 MA's), (39, 35199), (Start: 40 @35205 has 1 MA's), (99, 35388), (101, 35394), (112, 35427), (143, 35496), (152, 35541),

Gene: Nicholasp3_43 Start: 34907, Stop: 35269, Start Num: 35
Candidate Starts for Nicholasp3_43:
(Start: 35 @34907 has 32 MA's), (112, 35138), (115, 35147),

Gene: NihilNomen_152 Start: 79960, Stop: 80283, Start Num: 72
Candidate Starts for NihilNomen_152:
(67, 79948), (Start: 72 @79960 has 45 MA's), (98, 80044), (102, 80062), (118, 80110), (138, 80149), (143, 80173), (162, 80263),

Gene: Nova53_257 Start: 128188, Stop: 128547, Start Num: 60
Candidate Starts for Nova53_257:
(54, 128170), (Start: 60 @128188 has 1 MA's), (75, 128254), (82, 128284), (140, 128434), (162, 128533),

Gene: Nova53_264 Start: 130197, Stop: 130535, Start Num: 57
Candidate Starts for Nova53_264:
(Start: 57 @130197 has 1 MA's), (Start: 58 @130200 has 4 MA's), (66, 130236), (77, 130275), (87, 130311), (105, 130368), (127, 130416),

Gene: Odette_135 Start: 73830, Stop: 74123, Start Num: 73
Candidate Starts for Odette_135:
(Start: 73 @73830 has 5 MA's), (105, 73947), (134, 74007), (154, 74079), (155, 74082),

Gene: Odette_156 Start: 82653, Stop: 82976, Start Num: 72
Candidate Starts for Odette_156:
(Start: 72 @82653 has 45 MA's), (98, 82737), (103, 82764), (118, 82803), (138, 82842), (156, 82926),

Gene: OhShagHennessy_40 Start: 33506, Stop: 33901, Start Num: 31
Candidate Starts for OhShagHennessy_40:
(25, 33491), (Start: 31 @33506 has 19 MA's), (112, 33764), (115, 33773), (143, 33833), (152, 33878),

Gene: Omega_157 Start: 82149, Stop: 82472, Start Num: 72
Candidate Starts for Omega_157:
(Start: 72 @82149 has 45 MA's), (98, 82233), (103, 82260), (118, 82299), (138, 82338), (156, 82422),

Gene: Oofda_48 Start: 30194, Stop: 29835, Start Num: 45
Candidate Starts for Oofda_48:
(2, 30596), (4, 30512), (Start: 45 @30194 has 63 MA's), (80, 30086), (157, 29870),

Gene: Optimus_144 Start: 79658, Stop: 79981, Start Num: 72
Candidate Starts for Optimus_144:
(Start: 72 @79658 has 45 MA's), (98, 79742), (103, 79769), (118, 79808), (138, 79847), (156, 79931),

Gene: OverPar_43 Start: 34938, Stop: 35300, Start Num: 35
Candidate Starts for OverPar_43:
(Start: 35 @34938 has 32 MA's), (112, 35169), (115, 35178),

Gene: PYPDinur_40 Start: 33700, Stop: 34059, Start Num: 36
Candidate Starts for PYPDinur_40:
(Start: 36 @33700 has 5 MA's), (Start: 40 @33709 has 1 MA's), (112, 33928), (115, 33937), (141, 33988),

Gene: PainterBoy_69 Start: 41636, Stop: 41277, Start Num: 43
Candidate Starts for PainterBoy_69:
(13, 41741), (14, 41738), (16, 41735), (Start: 43 @41636 has 6 MA's), (61, 41594), (69, 41561), (118, 41411), (144, 41366), (145, 41363), (161, 41288),

Gene: Peregrin_188 Start: 100106, Stop: 100420, Start Num: 65
Candidate Starts for Peregrin_188:
(Start: 65 @100106 has 2 MA's), (68, 100124), (79, 100166), (98, 100220), (144, 100322), (156, 100376),

Gene: PetterN_43 Start: 30715, Stop: 30335, Start Num: 45
Candidate Starts for PetterN_43:
(Start: 45 @30715 has 63 MA's), (62, 30667), (63, 30664), (69, 30637), (81, 30589), (105, 30523), (128, 30475), (132, 30466), (135, 30460), (143, 30439), (155, 30385), (162, 30352),

Gene: Phillis_45 Start: 31235, Stop: 30933, Start Num: 51
Candidate Starts for Phillis_45:
(Start: 51 @31235 has 9 MA's), (80, 31124), (84, 31115), (107, 31055), (122, 31022), (146, 30971), (149, 30950),

Gene: Phlorence_38 Start: 30534, Stop: 30148, Start Num: 45
Candidate Starts for Phlorence_38:
(Start: 45 @30534 has 63 MA's), (62, 30486), (63, 30483), (81, 30408), (105, 30342), (109, 30333), (132, 30285), (147, 30237), (155, 30198),

Gene: Phoebus_151 Start: 82464, Stop: 82787, Start Num: 72
Candidate Starts for Phoebus_151:
(28, 82332), (30, 82335), (67, 82452), (Start: 72 @82464 has 45 MA's), (98, 82548), (102, 82566), (138, 82653), (143, 82677),

Gene: PickleBack_39 Start: 30660, Stop: 30274, Start Num: 45
Candidate Starts for PickleBack_39:
(Start: 45 @30660 has 63 MA's), (62, 30612), (63, 30609), (81, 30534), (105, 30468), (109, 30459), (132, 30411), (147, 30363), (155, 30324),

Gene: Polyphemus_70 Start: 40393, Stop: 40037, Start Num: 43
Candidate Starts for Polyphemus_70:
(20, 40471), (Start: 43 @40393 has 6 MA's), (89, 40249), (109, 40192), (145, 40123), (150, 40096), (157, 40069), (161, 40048),

Gene: Poochiewood_40 Start: 33534, Stop: 33929, Start Num: 31
Candidate Starts for Poochiewood_40:
(25, 33519), (Start: 31 @33534 has 19 MA's), (112, 33792), (115, 33801), (143, 33861), (152, 33906),

Gene: Porcelain_146 Start: 76843, Stop: 77166, Start Num: 72
Candidate Starts for Porcelain_146:
(67, 76831), (Start: 72 @76843 has 45 MA's), (76, 76861), (98, 76927), (103, 76954), (118, 76993), (138, 77032), (156, 77116),

Gene: Pound_142 Start: 79694, Stop: 80017, Start Num: 72
Candidate Starts for Pound_142:
(67, 79682), (Start: 72 @79694 has 45 MA's), (98, 79778), (102, 79796), (118, 79844), (138, 79883), (162, 79997),

Gene: Prinashe11_39 Start: 30826, Stop: 30440, Start Num: 45
Candidate Starts for Prinashe11_39:
(Start: 45 @30826 has 63 MA's), (62, 30778), (63, 30775), (81, 30700), (105, 30634), (109, 30625), (130, 30580), (132, 30577), (147, 30529), (155, 30490),

Gene: Quby_41 Start: 33594, Stop: 33953, Start Num: 36
Candidate Starts for Quby_41:
(Start: 36 @33594 has 5 MA's), (Start: 40 @33603 has 1 MA's), (112, 33822), (115, 33831), (141, 33882),

Gene: REQ1_45 Start: 18020, Stop: 18358, Start Num: 50
Candidate Starts for REQ1_45:
(37, 17999), (50, 18020), (70, 18092), (136, 18242), (152, 18302), (153, 18305), (155, 18314),

Gene: Ravana_49 Start: 30731, Stop: 30372, Start Num: 45
Candidate Starts for Ravana_49:
(Start: 45 @30731 has 63 MA's), (157, 30407),

Gene: ReMo_47 Start: 30100, Stop: 29741, Start Num: 45
Candidate Starts for ReMo_47:
(Start: 40 @30103 has 1 MA's), (Start: 45 @30100 has 63 MA's), (80, 29992), (157, 29776),

Gene: Rearden_129 Start: 69937, Stop: 70230, Start Num: 73
Candidate Starts for Rearden_129:
(Start: 73 @69937 has 5 MA's), (105, 70054), (134, 70114), (154, 70186), (155, 70189),

Gene: Red305_41 Start: 35163, Stop: 35558, Start Num: 27
Candidate Starts for Red305_41:
(Start: 27 @35163 has 19 MA's), (39, 35199), (Start: 40 @35205 has 1 MA's), (99, 35388), (101, 35394), (112, 35427), (143, 35496), (152, 35541),

Gene: Redno2_145 Start: 77962, Stop: 78285, Start Num: 72
Candidate Starts for Redno2_145:
(67, 77950), (Start: 72 @77962 has 45 MA's), (98, 78046), (102, 78064), (118, 78112), (138, 78151), (143, 78175), (155, 78232),

Gene: RegnumDei_48 Start: 35958, Stop: 36257, Start Num: 72
Candidate Starts for RegnumDei_48:
(55, 35895), (56, 35898), (Start: 72 @35958 has 45 MA's), (124, 36105), (159, 36222), (163, 36246),

Gene: RegnumDei_62 Start: 40266, Stop: 40643, Start Num: 52
Candidate Starts for RegnumDei_62:
(7, 40029), (21, 40176), (Start: 52 @40266 has 3 MA's), (Start: 65 @40311 has 2 MA's), (71, 40338), (104, 40440), (155, 40590),

Gene: RegnumDei_63 Start: 40645, Stop: 40995, Start Num: 52
Candidate Starts for RegnumDei_63:
(Start: 46 @40636 has 1 MA's), (Start: 52 @40645 has 3 MA's), (97, 40783), (155, 40960), (158, 40972),

Gene: RegnumDei_61 Start: 39892, Stop: 40269, Start Num: 49
Candidate Starts for RegnumDei_61:
(Start: 49 @39892 has 3 MA's), (63, 39934), (104, 40078), (111, 40093), (147, 40168), (155, 40210),

Gene: Remus_48 Start: 30019, Stop: 29660, Start Num: 45
Candidate Starts for Remus_48:
(1, 30424), (2, 30421), (4, 30337), (Start: 45 @30019 has 63 MA's), (80, 29911), (157, 29695),

Gene: Roary_44 Start: 30866, Stop: 30564, Start Num: 51
Candidate Starts for Roary_44:
(Start: 51 @30866 has 9 MA's), (80, 30755), (84, 30746), (122, 30653), (146, 30602), (149, 30581),

Gene: Rosalind_73 Start: 41184, Stop: 40768, Start Num: 32
Candidate Starts for Rosalind_73:
(Start: 23 @41214 has 1 MA's), (Start: 32 @41184 has 10 MA's), (34, 41172), (68, 41082), (75, 41055), (133, 40899), (155, 40818),

Gene: Rosalind_47 Start: 30222, Stop: 29863, Start Num: 45
Candidate Starts for Rosalind_47:
(2, 30624), (4, 30540), (Start: 45 @30222 has 63 MA's), (80, 30114), (157, 29898),

Gene: Rose5_40 Start: 33548, Stop: 33943, Start Num: 31
Candidate Starts for Rose5_40:
(25, 33533), (Start: 31 @33548 has 19 MA's), (112, 33806), (115, 33815), (143, 33875), (152, 33920),

Gene: Rossetti_44 Start: 35454, Stop: 35816, Start Num: 35
Candidate Starts for Rossetti_44:
(Start: 35 @35454 has 32 MA's), (Start: 36 @35457 has 5 MA's), (112, 35685), (115, 35694),

Gene: Rumpelstiltskin_43 Start: 35173, Stop: 35535, Start Num: 35
Candidate Starts for Rumpelstiltskin_43:
(Start: 35 @35173 has 32 MA's), (112, 35404), (115, 35413),

Gene: SFuller_75 Start: 46761, Stop: 47108, Start Num: 44
Candidate Starts for SFuller_75:
(Start: 44 @46761 has 3 MA's), (53, 46776), (70, 46839), (121, 46965), (131, 46983), (148, 47025), (157, 47073),

Gene: Samty_41 Start: 35164, Stop: 35559, Start Num: 27
Candidate Starts for Samty_41:
(Start: 27 @35164 has 19 MA's), (39, 35200), (Start: 40 @35206 has 1 MA's), (99, 35389), (101, 35395), (112, 35428), (143, 35497), (152, 35542),

Gene: Sarshaun_43 Start: 34940, Stop: 35302, Start Num: 35
Candidate Starts for Sarshaun_43:
(Start: 35 @34940 has 32 MA's), (112, 35171), (115, 35180),

Gene: Schatzie_146 Start: 80543, Stop: 80866, Start Num: 72
Candidate Starts for Schatzie_146:
(67, 80531), (Start: 72 @80543 has 45 MA's), (98, 80627), (102, 80645), (118, 80693), (138, 80732), (162, 80846),

Gene: Scorpia_43 Start: 30792, Stop: 30412, Start Num: 45
Candidate Starts for Scorpia_43:
(Start: 45 @30792 has 63 MA's), (62, 30744), (63, 30741), (81, 30666), (105, 30600), (128, 30552), (132, 30543), (143, 30516), (155, 30462), (162, 30429),

Gene: Shaboozey_148 Start: 77632, Stop: 77955, Start Num: 72
Candidate Starts for Shaboozey_148:
(Start: 72 @77632 has 45 MA's), (98, 77716), (103, 77743), (118, 77782), (138, 77821), (156, 77905),

Gene: Shagrat_49 Start: 36435, Stop: 36740, Start Num: 72
Candidate Starts for Shagrat_49:
(55, 36375), (56, 36378), (Start: 72 @36435 has 45 MA's), (153, 36675), (158, 36696), (164, 36729),

Gene: Shagrat_64 Start: 40165, Stop: 40536, Start Num: 49
Candidate Starts for Shagrat_64:
(Start: 49 @40165 has 3 MA's), (63, 40207), (80, 40276), (104, 40351), (138, 40414), (147, 40441), (149, 40462), (155, 40483), (157, 40492),

Gene: Shagrat_65 Start: 40539, Stop: 40913, Start Num: 52
Candidate Starts for Shagrat_65:
(Start: 49 @40536 has 3 MA's), (Start: 52 @40539 has 3 MA's), (71, 40611), (88, 40662), (92, 40668), (104, 40713), (116, 40740), (130, 40770), (155, 40860),

Gene: Shagrat_66 Start: 40915, Stop: 41250, Start Num: 165
Candidate Starts for Shagrat_66:
(54, 40549), (59, 40564), (79, 40630), (85, 40654), (100, 40693), (108, 40720), (123, 40756), (Start: 165 @40915 has 1 MA's), (166, 41023), (167, 41101), (168, 41104), (169, 41197), (170, 41212), (171, 41224),

Gene: ShayRa_49 Start: 30304, Stop: 29945, Start Num: 45
Candidate Starts for ShayRa_49:
(Start: 40 @30307 has 1 MA's), (Start: 45 @30304 has 63 MA's), (80, 30196), (157, 29980),

Gene: ShayRa_75 Start: 41213, Stop: 40797, Start Num: 32
Candidate Starts for ShayRa_75:
(Start: 23 @41243 has 1 MA's), (Start: 32 @41213 has 10 MA's), (34, 41201), (68, 41111), (75, 41084), (133, 40928), (155, 40847),

Gene: Sheng711_41 Start: 33700, Stop: 34059, Start Num: 36
Candidate Starts for Sheng711_41:
(Start: 36 @33700 has 5 MA's), (Start: 40 @33709 has 1 MA's), (112, 33928), (115, 33937), (141, 33988),

Gene: Silverleaf_40 Start: 33548, Stop: 33943, Start Num: 31
Candidate Starts for Silverleaf_40:
(25, 33533), (Start: 31 @33548 has 19 MA's), (112, 33806), (115, 33815), (143, 33875), (152, 33920),

Gene: Smeadley_44 Start: 31032, Stop: 30730, Start Num: 51
Candidate Starts for Smeadley_44:
(Start: 51 @31032 has 9 MA's), (80, 30921), (84, 30912), (122, 30819), (146, 30768), (149, 30747),

Gene: Snenia_41 Start: 35164, Stop: 35559, Start Num: 27
Candidate Starts for Snenia_41:
(Start: 27 @35164 has 19 MA's), (39, 35200), (Start: 40 @35206 has 1 MA's), (99, 35389), (101, 35395), (112, 35428), (143, 35497), (152, 35542),

Gene: SoJulia_44 Start: 35166, Stop: 35528, Start Num: 35
Candidate Starts for SoJulia_44:
(Start: 35 @35166 has 32 MA's), (112, 35397), (115, 35406),

Gene: Soap141_43 Start: 34940, Stop: 35302, Start Num: 35

Candidate Starts for Soap141_43:
(Start: 35 @34940 has 32 MA's), (112, 35171), (115, 35180),

Gene: Soups_48 Start: 30303, Stop: 29944, Start Num: 45
Candidate Starts for Soups_48:
(Start: 40 @30306 has 1 MA's), (Start: 45 @30303 has 63 MA's), (80, 30195), (157, 29979),

Gene: Soups_75 Start: 41477, Stop: 41061, Start Num: 32
Candidate Starts for Soups_75:
(Start: 23 @41507 has 1 MA's), (Start: 32 @41477 has 10 MA's), (34, 41465), (68, 41375), (75, 41348), (133, 41192), (155, 41111),

Gene: Squint_142 Start: 76328, Stop: 76651, Start Num: 72
Candidate Starts for Squint_142:
(Start: 72 @76328 has 45 MA's), (98, 76412), (103, 76439), (105, 76445), (118, 76478), (138, 76517),

Gene: Stellammi_85 Start: 44564, Stop: 44845, Start Num: 72
Candidate Starts for Stellammi_85:
(Start: 35 @44459 has 32 MA's), (64, 44537), (Start: 72 @44564 has 45 MA's), (76, 44582), (90, 44630), (109, 44690), (119, 44711), (160, 44828),

Gene: Stephig9_44 Start: 30891, Stop: 30589, Start Num: 51
Candidate Starts for Stephig9_44:
(Start: 51 @30891 has 9 MA's), (80, 30780), (84, 30771), (122, 30678), (146, 30627), (149, 30606),

Gene: Strosahl_48 Start: 30019, Stop: 29660, Start Num: 45
Candidate Starts for Strosahl_48:
(1, 30424), (2, 30421), (4, 30337), (Start: 45 @30019 has 63 MA's), (80, 29911), (157, 29695),

Gene: SuperAwesome_68 Start: 40045, Stop: 39689, Start Num: 43
Candidate Starts for SuperAwesome_68:
(20, 40123), (Start: 43 @40045 has 6 MA's), (89, 39901), (109, 39844), (145, 39775), (150, 39748), (157, 39721), (161, 39700),

Gene: Superphikiman_147 Start: 76801, Stop: 77124, Start Num: 72
Candidate Starts for Superphikiman_147:
(11, 76579), (19, 76627), (30, 76672), (67, 76789), (Start: 72 @76801 has 45 MA's), (98, 76885), (118, 76951), (138, 76990), (143, 77014), (155, 77071),

Gene: Superphikiman_128 Start: 69018, Stop: 69311, Start Num: 73
Candidate Starts for Superphikiman_128:
(Start: 73 @69018 has 5 MA's), (105, 69135), (134, 69195), (154, 69267), (155, 69270),

Gene: Swirley_42 Start: 31327, Stop: 30941, Start Num: 45
Candidate Starts for Swirley_42:
(Start: 45 @31327 has 63 MA's), (62, 31279), (81, 31201), (105, 31135), (109, 31126), (132, 31078), (147, 31030), (155, 30991),

Gene: Switzerland_48 Start: 30402, Stop: 30043, Start Num: 45
Candidate Starts for Switzerland_48:
(2, 30804), (4, 30720), (Start: 45 @30402 has 63 MA's), (80, 30294), (157, 30078),

Gene: Switzerland_74 Start: 41352, Stop: 40936, Start Num: 32

Candidate Starts for Switzerland_74:
(Start: 23 @41382 has 1 MA's), (Start: 32 @41352 has 10 MA's), (34, 41340), (68, 41250), (75, 41223), (133, 41067), (155, 40986),

Gene: SydNat_41 Start: 31517, Stop: 31131, Start Num: 45
Candidate Starts for SydNat_41:
(Start: 45 @31517 has 63 MA's), (62, 31469), (63, 31466), (81, 31391), (105, 31325), (109, 31316), (132, 31268), (147, 31220), (155, 31181),

Gene: Tarynearal_38 Start: 30769, Stop: 30383, Start Num: 45
Candidate Starts for Tarynearal_38:
(Start: 45 @30769 has 63 MA's), (62, 30721), (81, 30643), (105, 30577), (109, 30568), (130, 30523), (132, 30520), (147, 30472), (155, 30433),

Gene: Theia_37 Start: 30792, Stop: 30406, Start Num: 45
Candidate Starts for Theia_37:
(Start: 45 @30792 has 63 MA's), (62, 30744), (63, 30741), (81, 30666), (105, 30600), (109, 30591), (132, 30543), (147, 30495), (155, 30456),

Gene: Thibault_134 Start: 77417, Stop: 77740, Start Num: 72
Candidate Starts for Thibault_134:
(12, 77204), (28, 77285), (30, 77288), (67, 77405), (Start: 72 @77417 has 45 MA's), (98, 77501), (118, 77567), (138, 77606), (158, 77699),

Gene: ThreeRngTarjay_146 Start: 81055, Stop: 81378, Start Num: 72
Candidate Starts for ThreeRngTarjay_146:
(28, 80923), (30, 80926), (67, 81043), (Start: 72 @81055 has 45 MA's), (98, 81139), (102, 81157), (138, 81244), (143, 81268),

Gene: Tiger_38 Start: 30325, Stop: 29939, Start Num: 45
Candidate Starts for Tiger_38:
(Start: 45 @30325 has 63 MA's), (62, 30277), (63, 30274), (81, 30199), (105, 30133), (109, 30124), (132, 30076), (147, 30028), (155, 29989),

Gene: TriFive_41 Start: 35163, Stop: 35558, Start Num: 27
Candidate Starts for TriFive_41:
(Start: 27 @35163 has 19 MA's), (39, 35199), (Start: 40 @35205 has 1 MA's), (99, 35388), (101, 35394), (112, 35427), (143, 35496), (152, 35541),

Gene: Twigg_40 Start: 30966, Stop: 30580, Start Num: 45
Candidate Starts for Twigg_40:
(Start: 45 @30966 has 63 MA's), (62, 30918), (63, 30915), (81, 30840), (105, 30774), (109, 30765), (132, 30717), (147, 30669), (155, 30630),

Gene: Tyson_40 Start: 33549, Stop: 33944, Start Num: 31
Candidate Starts for Tyson_40:
(25, 33534), (Start: 31 @33549 has 19 MA's), (112, 33807), (115, 33816), (143, 33876), (152, 33921),

Gene: UPIE_41 Start: 33532, Stop: 33927, Start Num: 31
Candidate Starts for UPIE_41:
(25, 33517), (Start: 31 @33532 has 19 MA's), (112, 33790), (115, 33799), (143, 33859), (152, 33904),

Gene: Underpass_43 Start: 34907, Stop: 35269, Start Num: 35

Candidate Starts for Underpass_43:
(Start: 35 @34907 has 32 MA's), (112, 35138), (115, 35147),

Gene: UnionJack_40 Start: 30292, Stop: 29903, Start Num: 45
Candidate Starts for UnionJack_40:
(Start: 45 @30292 has 63 MA's), (62, 30244), (63, 30241), (81, 30166), (109, 30091), (132, 30043), (137, 30034), (155, 29953),

Gene: Vetrix_43 Start: 34913, Stop: 35275, Start Num: 35
Candidate Starts for Vetrix_43:
(Start: 35 @34913 has 32 MA's), (112, 35144), (115, 35153),

Gene: Waits_48 Start: 30191, Stop: 29832, Start Num: 45
Candidate Starts for Waits_48:
(2, 30593), (4, 30509), (Start: 45 @30191 has 63 MA's), (80, 30083), (157, 29867),

Gene: Wamburgrxpress_41 Start: 33547, Stop: 33942, Start Num: 31
Candidate Starts for Wamburgrxpress_41:
(25, 33532), (Start: 31 @33547 has 19 MA's), (112, 33805), (115, 33814), (143, 33874), (152, 33919),

Gene: Wanda_150 Start: 78530, Stop: 78853, Start Num: 72
Candidate Starts for Wanda_150:
(67, 78518), (Start: 72 @78530 has 45 MA's), (98, 78614), (102, 78632), (138, 78719), (143, 78743),

Gene: Warrior24_49 Start: 30398, Stop: 30039, Start Num: 45
Candidate Starts for Warrior24_49:
(2, 30803), (4, 30719), (5, 30716), (Start: 45 @30398 has 63 MA's), (75, 30308), (78, 30299), (91, 30260), (157, 30074),

Gene: Whirlwind_42 Start: 34922, Stop: 35317, Start Num: 27
Candidate Starts for Whirlwind_42:
(Start: 27 @34922 has 19 MA's), (99, 35147), (101, 35153), (112, 35186), (143, 35255), (152, 35300),

Gene: Wigglewiggle_43 Start: 34939, Stop: 35301, Start Num: 35
Candidate Starts for Wigglewiggle_43:
(Start: 35 @34939 has 32 MA's), (112, 35170), (115, 35179),

Gene: Wilder_43 Start: 34912, Stop: 35274, Start Num: 35
Candidate Starts for Wilder_43:
(Start: 35 @34912 has 32 MA's), (112, 35143), (115, 35152),

Gene: Winky_43 Start: 34906, Stop: 35268, Start Num: 35
Candidate Starts for Winky_43:
(Start: 35 @34906 has 32 MA's), (112, 35137), (115, 35146),

Gene: Wyatt2_41 Start: 33548, Stop: 33943, Start Num: 31
Candidate Starts for Wyatt2_41:
(25, 33533), (Start: 31 @33548 has 19 MA's), (112, 33806), (115, 33815), (143, 33875), (152, 33920),

Gene: Yeet_125 Start: 71942, Stop: 72235, Start Num: 73
Candidate Starts for Yeet_125:
(Start: 73 @71942 has 5 MA's), (105, 72059), (134, 72119), (154, 72191), (155, 72194),

Gene: Yeet_144 Start: 79906, Stop: 80229, Start Num: 72
Candidate Starts for Yeet_144:
(11, 79684), (19, 79732), (30, 79777), (67, 79894), (Start: 72 @79906 has 45 MA's), (98, 79990), (118, 80056), (138, 80095), (143, 80119), (155, 80176),

Gene: Zakai_43 Start: 35164, Stop: 35526, Start Num: 35
Candidate Starts for Zakai_43:
(Start: 35 @35164 has 32 MA's), (112, 35395), (115, 35404),

Gene: Zaria_41 Start: 33563, Stop: 33958, Start Num: 31
Candidate Starts for Zaria_41:
(25, 33548), (Start: 31 @33563 has 19 MA's), (112, 33821), (115, 33830), (143, 33890), (152, 33935),

Gene: Zelink_145 Start: 81372, Stop: 81695, Start Num: 72
Candidate Starts for Zelink_145:
(67, 81360), (Start: 72 @81372 has 45 MA's), (98, 81456), (102, 81474), (138, 81561), (143, 81585),

Gene: ZhongYanYuan_41 Start: 34767, Stop: 35129, Start Num: 35
Candidate Starts for ZhongYanYuan_41:
(Start: 35 @34767 has 32 MA's), (112, 34998), (115, 35007),

Gene: Zolita_40 Start: 31521, Stop: 31135, Start Num: 45
Candidate Starts for Zolita_40:
(Start: 45 @31521 has 63 MA's), (62, 31473), (63, 31470), (81, 31395), (105, 31329), (109, 31320), (132, 31272), (147, 31224), (155, 31185),