Pham 283518

Pham 283518

51: Hughesyang_237 + 21
52: Kaian2_224
53: Hidrated_220 + 5
54: Halley_237 + 2
55: NihilNomen_236
56: Lucky2013_232 + 3
57: LittleE_224 + 1
58: Gonephishing_231
59: HokkenD_227
60: KashFlow_227
61: DmpstrDiver_233
62: Duke13_235

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 283518 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283518 has 182 members, 34 are drafts.

Phages represented in each track:
• Track 1 : IgnatiusPatJac_87, BluSpix_85, Alsfro_94
• Track 2 : Pari_92, EnzoK_94, PherrisBueller_88, Killigrew_87, Zeeculate_91
• Track 3 : Big3_91
• Track 4 : Turj99_86
• Track 5 : Raid_89, Lesedi_88
• Track 6 : Goose_85
• Track 7 : Jabith_89
• Track 8 : Salz_85, Sham4_86, Et2Brutus_89, Wolpertinger_89, Mulciber_88, Hutc2_86, Fibonacci_89, Insomnia_89
• Track 9 : Bachome_87, Saskia_86
• Track 10 : Phlei_72
• Track 11 : SororFago_85
• Track 12 : Gail_88
• Track 13 : PainterBoy_85, Lucyedi_86, EagleEye_87
• Track 14 : 40AC_82
• Track 15 : Kerberos_86, DBQu4n_86, Tomathan_86, Duplo_87, StarStuff_86, ANI8_85, Travvers_86, Pomar16_86, VC3_84, AN9_85, C3_78
• Track 16 : EZMoney23_82
• Track 17 : Jsquared_90
• Track 18 : Journey13_69
• Track 19 : Drake55_87, HarryHoudini_86, Piro94_85
• Track 20 : Sknot_86, NaSiaTalie_87, Baehexic_85, Flare16_86, WideWale_87, Equemioh13_86, MiculUcigas_86, Terrific_87, Updawg_87, Gratitude_84, Centaur_86
• Track 21 : Bradman_89, Quokka_88, MajorMajor_83
• Track 22 : Serenity_89, TipsytheTRex_85
• Track 23 : BabyBack_81
• Track 24 : Kalpine_88
• Track 25 : Loser_89
• Track 26 : GaugeLDP_80
• Track 27 : L5_79
• Track 28 : AnnaL29_88
• Track 29 : Malec_85
• Track 30 : Changeling_84
• Track 31 : Larenn_85
• Track 32 : Colin_85
• Track 33 : MissWhite_79

• Track 34 : RedRock_86
• Track 35 : Hookmount_86, EtoileNova_83, Popcicle_86, Caviar_75, ResDef_84, Panamaxus_82, Noella_87, Pocahontas_85, Norbert_82, Texage_84
• Track 36 : Chiqui_69, BabyJohn_69
• Track 37 : DropBear_84, Roimos_85, HelDan_86, Heathen_86, Scout_86, Kachowdy_84, Marchesa_86
• Track 38 : BabyRay_87
• Track 39 : Isca_83
• Track 40 : Todacoro_86, QuinnKiro_85, Veracruz_83, Margo_86, Lambert1_86
• Track 41 : Rockstar_75, Phantastic_87
• Track 42 : Zarafa_84
• Track 43 : Backyardigan_80, Wile_81, Badger_81, Achebe_81, Cici_82, Wizard007_82, Druantia_84
• Track 44 : Katalie136_82, PetiteSangsue_82, Perplexer_82, Morpher26_82, Bumblebee11_81, AbbysRanger_82
• Track 45 : Kremtemulon_82
• Track 46 : Cintron_85
• Track 47 : Hexamo_88, CloudWang3_89, Roksolana_89, Rifter_89, Gruunaga_88, Artemis2UCLA_88, Gladiator_85
• Track 48 : Hammer_89, BlessJoy_89, Lilbunny_88, ToneTone_86, Tucker_89
• Track 49 : Sheen_83, FlyCatcher_86, Toro_84
• Track 50 : Courthouse_237, Ariel_241, Superphikiman_233
• Track 51 : Hughesyang_237, Redno2_226, Beem_238, JuicyJay_230, Shaboozey_232, Squint_233, Klein_242, Hannaconda_225, ThreeRngTarjay_234, Dove_217, Nibley_225, Yeet_229, Bombitas_219, Bagrid_240, EricMillard_232, Nekros_235, Ejimix_226, Schatzie_227, Zelink_228, Phoebus_233, BronnyJames_226, Odette_234
• Track 52 : Kalah2_224
• Track 53 : Hidrated_220, Marleymoo_215, Constella_224, Bobby_213, Thibault_209, Xiaokay_220
• Track 54 : Halley_237, Dallas_233, Minerva_233
• Track 55 : NihilNomen_236
• Track 56 : Lucky2013_232, Porcelain_236, MiaZeal_245, Wanda_234
• Track 57 : LittleE_224, Rearden_235
• Track 58 : Gonephishing_231
• Track 59 : HokkenD_227
• Track 60 : KashFlow_227
• Track 61 : DmpstrDiver_233
• Track 62 : Duke13_235

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

The start number called the most often in the published annotations is 24, it was called in 49 of the 148 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• 40AC_82, AN9_85, ANI8_85, Artemis2UCLA_88, BabyBack_81, Bachome_87, Baehexic_85, BlessJoy_89, Bradman_89, C3_78, Centaur_86, Changeling_84, CloudWang3_89, Colin_85, DBQu4n_86, Drake55_87, Duplo_87, EZMoney23_82, Equemioh13_86, Flare16_86, Gail_88, GaugeLDP_80, Gladiator_85, Gratitude_84,

Gruunaga_88, Hammer_89, HarryHoudini_86, Hexamo_88, Journey13_69,
Kalpine_88, Kerberos_86, Larenn_85, Lilbunny_88, Loser_89, MajorMajor_83,
Malec_85, MiculUcigas_86, MissWhite_79, NaSiaTalie_87, Piro94_85, Pomar16_86,
Quokka_88, RedRock_86, Rifter_89, Roksolana_89, Saskia_86, Serenity_89,
Sknot_86, SororFago_85, StarStuff_86, Terrific_87, TipsytheTRex_85, Tomathan_86,
ToneTone_86, Travvers_86, Tucker_89, Updawg_87, VC3_84, WideWale_87,

Genes that have the "Most Annotated" start but do not call it:
• AnnaL29_88, Jsquared_90, L5_79,

Genes that do not have the "Most Annotated" start:
• AbbysRanger_82, Achebe_81, Alsfro_94, Ariel_241, BabyJohn_69, BabyRay_87,
Backyardigan_80, Badger_81, Bagrid_240, Beem_238, Big3_91, BluSpix_85,
Bobby_213, Bombitas_219, BronnyJames_226, Bumblebee11_81, Caviar_75,
Chiqui_69, Cici_82, Cintron_85, Constella_224, Courthouse_237, Dallas_233,
DmpstrDiver_233, Dove_217, DropBear_84, Druantia_84, Duke13_235,
EagleEye_87, Ejimix_226, EnzoK_94, EricMillard_232, Et2Brutus_89, EtoileNova_83,
Fibonacci_89, FlyCatcher_86, Gonephishing_231, Goose_85, Halley_237,
Hannaconda_225, Heathen_86, HelDan_86, Hidrated_220, HokkenD_227,
Hookmount_86, Hughesyang_237, Hutc2_86, IgnatiusPatJac_87, Insomnia_89,
Isca_83, Jabith_89, JuicyJay_230, Kachowdy_84, Kalah2_224, KashFlow_227,
Katalie136_82, Killigrew_87, Klein_242, Kremtemulon_82, Lambert1_86, Lesedi_88,
LittleE_224, Lucky2013_232, Lucyedi_86, Marchesa_86, Margo_86, Marleymoo_215,
MiaZeal_245, Minerva_233, Morpher26_82, Mulciber_88, Nekros_235, Nibley_225,
NihilNomen_236, Noella_87, Norbert_82, Odette_234, PainterBoy_85,
Panamaxus_82, Pari_92, Perplexer_82, PetiteSangsue_82, Phantastic_87,
PherrisBueller_88, Phlei_72, Phoebus_233, Pocahontas_85, Popcicle_86,
Porcelain_236, QuinnKiro_85, Raid_89, Rearden_235, Redno2_226, ResDef_84,
Rockstar_75, Roimos_85, Salz_85, Schatzie_227, Scout_86, Shaboozey_232,
Sham4_86, Sheen_83, Squint_233, Superphikiman_233, Texage_84, Thibault_209,
ThreeRngTarjay_234, Todacoro_86, Toro_84, Turj99_86, Veracruz_83, Wanda_234,
Wile_81, Wizard007_82, Wolpertinger_89, Xiaokay_220, Yeet_229, Zarafa_84,
Zeeculate_91, Zelink_228,

Summary by start number:

Start 17:
• Found in 3 of 182 (1.6%) of genes in pham
• Manual Annotations of this start: 3 of 148
• Called 100.0% of time when present
• Phage (with cluster) where this start called: EagleEye_87 (A16), Lucyedi_86 (A16),
PainterBoy_85 (A16),

Start 18:
• Found in 1 of 182 (0.5%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Phlei_72 (A13),

Start 19:
• Found in 36 of 182 (19.8%) of genes in pham
• Manual Annotations of this start: 3 of 148
• Called 8.3% of time when present

• Phage (with cluster) where this start called: AnnaL29_88 (A2), Jsquared_90 (A2), L5_79 (A2),

Start 22:
• Found in 8 of 182 (4.4%) of genes in pham
• Manual Annotations of this start: 3 of 148
• Called 37.5% of time when present
• Phage (with cluster) where this start called: HokkenD_227 (J), Kalah2_224 (J), NihilNomen_236 (J),

Start 23:
• Found in 1 of 182 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 148
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BabyRay_87 (A3),

Start 24:
• Found in 62 of 182 (34.1%) of genes in pham
• Manual Annotations of this start: 49 of 148
• Called 95.2% of time when present
• Phage (with cluster) where this start called: 40AC_82 (A17), AN9_85 (A2), ANI8_85 (A2), Artemis2UCLA_88 (A6), BabyBack_81 (A2), Bachome_87 (A11), Baehexic_85 (A2), BlessJoy_89 (A6), Bradman_89 (A2), C3_78 (A2), Centaur_86 (A2), Changeling_84 (A2), CloudWang3_89 (A6), Colin_85 (A2), DBQu4n_86 (A2), Drake55_87 (A2), Duplo_87 (A2), EZMoney23_82 (A2), Equemioh13_86 (A2), Flare16_86 (A2), Gail_88 (A14), GaugeLDP_80 (A2), Gladiator_85 (A6), Gratitude_84 (A2), Gruunaga_88 (A6), Hammer_89 (A6), HarryHoudini_86 (A2), Hexamo_88 (A6), Journey13_69 (A2), Kalpine_88 (A2), Kerberos_86 (A2), Larenn_85 (A2), Lilbunny_88 (A6), Loser_89 (A2), MajorMajor_83 (A2), Malec_85 (A2), MiculUcigas_86 (A2), MissWhite_79 (A2), NaSiaTalie_87 (A2), Piro94_85 (A2), Pomar16_86 (A2), Quokka_88 (A2), RedRock_86 (A2), Rifter_89 (A6), Roksolana_89 (A6), Saskia_86 (A11), Serenity_89 (A2), Sknot_86 (A2), SororFago_85 (A14), StarStuff_86 (A2), Terrific_87 (A2), TipsytheTRex_85 (A2), Tomathan_86 (A2), ToneTone_86 (A6), Travvers_86 (A2), Tucker_89 (A6), Updawg_87 (A2), VC3_84 (A2), WideWale_87 (A2),

Start 26:
• Found in 13 of 182 (7.1%) of genes in pham
• Manual Annotations of this start: 7 of 148
• Called 53.8% of time when present
• Phage (with cluster) where this start called: Achebe_81 (A4), Backyardigan_80 (A4), Badger_81 (A4), Cici_82 (A4), Druantia_84 (A4), Wile_81 (A4), Wizard007_82 (A4),

Start 27:
• Found in 62 of 182 (34.1%) of genes in pham
• Manual Annotations of this start: 45 of 148
• Called 95.2% of time when present
• Phage (with cluster) where this start called: Alsfro_94 (A1), Ariel_241 (J), Bagrid_240 (J), Beem_238 (J), Big3_91 (A1), BluSpix_85 (A1), Bobby_213 (J), Bombitas_219 (J), BronnyJames_226 (J), Constella_224 (J), Courthouse_237 (J), Dallas_233 (J), DmpstrDiver_233 (J), Dove_217 (J), Duke13_235 (J), Ejimix_226 (J), EnzoK_94 (A1), EricMillard_232 (J), FlyCatcher_86 (A7), Gonephishing_231 (J), Halley_237 (J), Hannaconda_225 (J), Hidrated_220 (J), Hughesyang_237 (J),

IgnatiusPatJac_87 (A1), JuicyJay_230 (J), KashFlow_227 (J), Killigrew_87 (A1), Klein_242 (J), Lesedi_88 (A1), LittleE_224 (J), Lucky2013_232 (J), Marleymoo_215 (J), MiaZeal_245 (J), Minerva_233 (J), Nekros_235 (J), Nibley_225 (J), Odette_234 (J), Pari_92 (A1), PherrisBueller_88 (A1), Phoebus_233 (J), Porcelain_236 (J), Raid_89 (A1), Rearden_235 (J), Redno2_226 (J), Schatzie_227 (J), Shaboozey_232 (J), Sheen_83 (A7), Squint_233 (J), Superphikiman_233 (J), Thibault_209 (J), ThreeRngTarjay_234 (J), Toro_84 (A7), Turj99_86 (A1), Wanda_234 (J), Xiaokay_220 (J), Yeet_229 (J), Zeeculate_91 (A1), Zelink_228 (J),

Start 28:
• Found in 9 of 182 (4.9%) of genes in pham
• Manual Annotations of this start: 8 of 148
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Et2Brutus_89 (A11), Fibonacci_89 (A11), Hutc2_86 (A11), Insomnia_89 (A11), Jabith_89 (A11), Mulciber_88 (A11), Salz_85 (A11), Sham4_86 (A11), Wolpertinger_89 (A11),

Start 30:
• Found in 27 of 182 (14.8%) of genes in pham
• Manual Annotations of this start: 18 of 148
• Called 96.3% of time when present
• Phage (with cluster) where this start called: BabyJohn_69 (A3), Caviar_75 (A3), Chiqui_69 (A3), DropBear_84 (A3), EtoileNova_83 (A3), Goose_85 (A10), Heathen_86 (A3), HelDan_86 (A3), Hookmount_86 (A3), Kachowdy_84 (A3), Lambert1_86 (A3), Marchesa_86 (A3), Margo_86 (A3), Noella_87 (A3), Norbert_82 (A3), Panamaxus_82 (A3), Pocahontas_85 (A3), Popcicle_86 (A3), QuinnKiro_85 (A3), ResDef_84 (A3), Roimos_85 (A3), Scout_86 (A3), Texage_84 (A3), Todacoro_86 (A3), Veracruz_83 (A3), Zarafa_84 (A3),

Start 31:
• Found in 3 of 182 (1.6%) of genes in pham
• Manual Annotations of this start: 3 of 148
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Isca_83 (A3), Phantastic_87 (A3), Rockstar_75 (A3),

Start 37:
• Found in 18 of 182 (9.9%) of genes in pham
• Manual Annotations of this start: 8 of 148
• Called 44.4% of time when present
• Phage (with cluster) where this start called: AbbysRanger_82 (A4), Bumblebee11_81 (A4), Cintron_85 (A4), Katalie136_82 (A4), Kremtemulon_82 (A4), Morpher26_82 (A4), Perplexer_82 (A4), PetiteSangsue_82 (A4),

Summary by clusters:

There are 13 clusters represented in this pham: A14, A17, A16, A11, A10, A13, J, A1, A3, A2, A4, A7, A6,

Info for manual annotations of cluster A1:
•Start number 27 was manually annotated 11 times for cluster A1.

Info for manual annotations of cluster A10:

•Start number 30 was manually annotated 1 time for cluster A10.

Info for manual annotations of cluster A11:
•Start number 24 was manually annotated 1 time for cluster A11.
•Start number 28 was manually annotated 8 times for cluster A11.

Info for manual annotations of cluster A14:
•Start number 24 was manually annotated 2 times for cluster A14.

Info for manual annotations of cluster A16:
•Start number 17 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A2:
•Start number 19 was manually annotated 3 times for cluster A2.
•Start number 24 was manually annotated 34 times for cluster A2.

Info for manual annotations of cluster A3:
•Start number 23 was manually annotated 1 time for cluster A3.
•Start number 30 was manually annotated 17 times for cluster A3.
•Start number 31 was manually annotated 3 times for cluster A3.

Info for manual annotations of cluster A4:
•Start number 26 was manually annotated 7 times for cluster A4.
•Start number 37 was manually annotated 8 times for cluster A4.

Info for manual annotations of cluster A6:
•Start number 24 was manually annotated 12 times for cluster A6.

Info for manual annotations of cluster A7:
•Start number 27 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster J:
•Start number 22 was manually annotated 3 times for cluster J.
•Start number 27 was manually annotated 33 times for cluster J.

Gene Information:

Gene: 40AC_82 Start: 48479, Stop: 48276, Start Num: 24
Candidate Starts for 40AC_82:
(Start: 24 @48479 has 49 MA's), (38, 48428), (46, 48344),

Gene: AN9_85 Start: 47253, Stop: 47056, Start Num: 24
Candidate Starts for AN9_85:
(Start: 24 @47253 has 49 MA's), (38, 47199), (46, 47121),

Gene: ANI8_85 Start: 47253, Stop: 47056, Start Num: 24
Candidate Starts for ANI8_85:
(Start: 24 @47253 has 49 MA's), (38, 47199), (46, 47121),

Gene: AbbysRanger_82 Start: 48599, Stop: 48441, Start Num: 37
Candidate Starts for AbbysRanger_82:
(Start: 26 @48638 has 7 MA's), (Start: 37 @48599 has 8 MA's), (40, 48590), (46, 48503), (47, 48470),

Gene: Achebe_81 Start: 48782, Stop: 48585, Start Num: 26
Candidate Starts for Achebe_81:
(Start: 26 @48782 has 7 MA's), (Start: 37 @48743 has 8 MA's), (40, 48734), (46, 48647), (47, 48614),

Gene: Alsfro_94 Start: 49646, Stop: 49846, Start Num: 27
Candidate Starts for Alsfro_94:
(Start: 27 @49646 has 45 MA's), (45, 49778),

Gene: AnnaL29_88 Start: 49242, Stop: 49006, Start Num: 19
Candidate Starts for AnnaL29_88:
(10, 49371), (Start: 19 @49242 has 3 MA's), (Start: 24 @49227 has 49 MA's), (46, 49074), (47, 49041),

Gene: Ariel_241 Start: 107734, Stop: 107546, Start Num: 27
Candidate Starts for Ariel_241:
(20, 107755), (Start: 27 @107734 has 45 MA's), (40, 107692), (44, 107653), (47, 107581), (50, 107557),

Gene: Artemis2UCLA_88 Start: 46537, Stop: 46328, Start Num: 24
Candidate Starts for Artemis2UCLA_88:
(Start: 24 @46537 has 49 MA's), (40, 46477),

Gene: BabyBack_81 Start: 48271, Stop: 48068, Start Num: 24
Candidate Starts for BabyBack_81:
(13, 48391), (16, 48343), (Start: 24 @48271 has 49 MA's), (Start: 37 @48220 has 8 MA's), (46, 48136),

Gene: BabyJohn_69 Start: 44585, Stop: 44400, Start Num: 30
Candidate Starts for BabyJohn_69:
(20, 44612), (Start: 30 @44585 has 18 MA's), (43, 44522),

Gene: BabyRay_87 Start: 47952, Stop: 47743, Start Num: 23
Candidate Starts for BabyRay_87:
(Start: 23 @47952 has 1 MA's), (33, 47919), (40, 47889), (46, 47814), (47, 47781),

Gene: Bachome_87 Start: 47191, Stop: 46985, Start Num: 24
Candidate Starts for Bachome_87:
(Start: 19 @47206 has 3 MA's), (Start: 24 @47191 has 49 MA's), (38, 47137), (41, 47113), (46, 47053), (50, 46996),

Gene: Backyardigan_80 Start: 48654, Stop: 48457, Start Num: 26
Candidate Starts for Backyardigan_80:
(Start: 26 @48654 has 7 MA's), (Start: 37 @48615 has 8 MA's), (40, 48606), (46, 48519), (47, 48486),

Gene: Badger_81 Start: 48620, Stop: 48423, Start Num: 26
Candidate Starts for Badger_81:
(Start: 26 @48620 has 7 MA's), (Start: 37 @48581 has 8 MA's), (40, 48572), (46, 48485), (47, 48452),

Gene: Baehexic_85 Start: 48457, Stop: 48251, Start Num: 24
Candidate Starts for Baehexic_85:
(8, 48655), (Start: 19 @48472 has 3 MA's), (Start: 24 @48457 has 49 MA's), (38, 48403), (46, 48319),

Gene: Bagrid_240 Start: 111821, Stop: 111645, Start Num: 27
Candidate Starts for Bagrid_240:
(20, 111842), (Start: 27 @111821 has 45 MA's), (40, 111779), (44, 111752),

Gene: Beem_238 Start: 110940, Stop: 110764, Start Num: 27
Candidate Starts for Beem_238:
(20, 110961), (Start: 27 @110940 has 45 MA's), (40, 110898), (44, 110871),

Gene: Big3_91 Start: 53046, Stop: 52840, Start Num: 27
Candidate Starts for Big3_91:
(Start: 27 @53046 has 45 MA's),

Gene: BlessJoy_89 Start: 47058, Stop: 46849, Start Num: 24
Candidate Starts for BlessJoy_89:
(Start: 24 @47058 has 49 MA's), (40, 46998), (45, 46923),

Gene: BluSpix_85 Start: 44982, Stop: 45182, Start Num: 27
Candidate Starts for BluSpix_85:
(Start: 27 @44982 has 45 MA's), (45, 45114),

Gene: Bobby_213 Start: 108407, Stop: 108219, Start Num: 27
Candidate Starts for Bobby_213:
(Start: 27 @108407 has 45 MA's), (35, 108383), (40, 108365), (44, 108326), (47, 108254), (50, 108230),

Gene: Bombitas_219 Start: 107223, Stop: 107050, Start Num: 27
Candidate Starts for Bombitas_219:
(20, 107244), (Start: 27 @107223 has 45 MA's), (40, 107181), (44, 107154),

Gene: Bradman_89 Start: 47929, Stop: 47726, Start Num: 24
Candidate Starts for Bradman_89:
(Start: 19 @47944 has 3 MA's), (Start: 24 @47929 has 49 MA's), (38, 47875), (40, 47869), (46, 47791), (47, 47758),

Gene: BronnyJames_226 Start: 105609, Stop: 105433, Start Num: 27
Candidate Starts for BronnyJames_226:
(20, 105630), (Start: 27 @105609 has 45 MA's), (40, 105567), (44, 105540),

Gene: Bumblebee11_81 Start: 48581, Stop: 48423, Start Num: 37
Candidate Starts for Bumblebee11_81:
(Start: 26 @48620 has 7 MA's), (Start: 37 @48581 has 8 MA's), (40, 48572), (46, 48485), (47, 48452),

Gene: C3_78 Start: 47253, Stop: 47056, Start Num: 24
Candidate Starts for C3_78:
(Start: 24 @47253 has 49 MA's), (38, 47199), (46, 47121),

Gene: Caviar_75 Start: 44830, Stop: 44630, Start Num: 30
Candidate Starts for Caviar_75:
(9, 45019), (Start: 30 @44830 has 18 MA's), (42, 44770), (46, 44704), (47, 44671),

Gene: Centaur_86 Start: 48324, Stop: 48118, Start Num: 24
Candidate Starts for Centaur_86:

(8, 48522), (Start: 19 @48339 has 3 MA's), (Start: 24 @48324 has 49 MA's), (38, 48270), (46, 48186),

Gene: Changeling_84 Start: 49033, Stop: 48812, Start Num: 24
Candidate Starts for Changeling_84:
(11, 49165), (Start: 19 @49048 has 3 MA's), (Start: 24 @49033 has 49 MA's), (34, 49000), (35, 48997), (45, 48883), (47, 48847),

Gene: Chiqui_69 Start: 44594, Stop: 44409, Start Num: 30
Candidate Starts for Chiqui_69:
(20, 44621), (Start: 30 @44594 has 18 MA's), (43, 44531),

Gene: Cici_82 Start: 48633, Stop: 48436, Start Num: 26
Candidate Starts for Cici_82:
(Start: 26 @48633 has 7 MA's), (Start: 37 @48594 has 8 MA's), (40, 48585), (46, 48498), (47, 48465),

Gene: Cintron_85 Start: 48872, Stop: 48702, Start Num: 37
Candidate Starts for Cintron_85:
(Start: 37 @48872 has 8 MA's), (40, 48863), (46, 48776), (47, 48743),

Gene: CloudWang3_89 Start: 47066, Stop: 46857, Start Num: 24
Candidate Starts for CloudWang3_89:
(Start: 24 @47066 has 49 MA's), (40, 47006),

Gene: Colin_85 Start: 49399, Stop: 49190, Start Num: 24
Candidate Starts for Colin_85:
(8, 49606), (10, 49546), (12, 49531), (Start: 19 @49414 has 3 MA's), (Start: 24 @49399 has 49 MA's), (32, 49375), (33, 49372), (46, 49258),

Gene: Constella_224 Start: 108319, Stop: 108131, Start Num: 27
Candidate Starts for Constella_224:
(Start: 27 @108319 has 45 MA's), (35, 108295), (40, 108277), (44, 108238), (47, 108166), (50, 108142),

Gene: Courthouse_237 Start: 108498, Stop: 108310, Start Num: 27
Candidate Starts for Courthouse_237:
(20, 108519), (Start: 27 @108498 has 45 MA's), (40, 108456), (44, 108417), (47, 108345), (50, 108321),

Gene: DBQu4n_86 Start: 48304, Stop: 48101, Start Num: 24
Candidate Starts for DBQu4n_86:
(Start: 24 @48304 has 49 MA's), (38, 48250), (46, 48166),

Gene: Dallas_233 Start: 109177, Stop: 108995, Start Num: 27
Candidate Starts for Dallas_233:
(Start: 22 @109192 has 3 MA's), (Start: 27 @109177 has 45 MA's), (40, 109141), (44, 109102), (47, 109030),

Gene: DmpstrDiver_233 Start: 109198, Stop: 109022, Start Num: 27
Candidate Starts for DmpstrDiver_233:
(Start: 27 @109198 has 45 MA's), (35, 109174), (40, 109156), (44, 109129), (47, 109057), (48, 109042),

Gene: Dove_217 Start: 105704, Stop: 105528, Start Num: 27

Candidate Starts for Dove_217:
(20, 105725), (Start: 27 @105704 has 45 MA's), (40, 105662), (44, 105635),

Gene: Drake55_87 Start: 48575, Stop: 48369, Start Num: 24
Candidate Starts for Drake55_87:
(8, 48773), (Start: 19 @48590 has 3 MA's), (Start: 24 @48575 has 49 MA's), (46, 48437),

Gene: DropBear_84 Start: 48015, Stop: 47824, Start Num: 30
Candidate Starts for DropBear_84:
(1, 48504), (2, 48471), (4, 48288), (Start: 30 @48015 has 18 MA's), (42, 47955), (46, 47889),

Gene: Druantia_84 Start: 48829, Stop: 48632, Start Num: 26
Candidate Starts for Druantia_84:
(Start: 26 @48829 has 7 MA's), (Start: 37 @48790 has 8 MA's), (40, 48781), (46, 48694), (47, 48661),

Gene: Duke13_235 Start: 110008, Stop: 109820, Start Num: 27
Candidate Starts for Duke13_235:
(Start: 22 @110023 has 3 MA's), (Start: 27 @110008 has 45 MA's), (35, 109984), (40, 109966), (44, 109927), (45, 109891), (47, 109855), (50, 109831),

Gene: Duplo_87 Start: 48361, Stop: 48158, Start Num: 24
Candidate Starts for Duplo_87:
(Start: 24 @48361 has 49 MA's), (38, 48307), (46, 48223),

Gene: EZMoney23_82 Start: 48034, Stop: 47822, Start Num: 24
Candidate Starts for EZMoney23_82:
(6, 48262), (10, 48181), (Start: 19 @48049 has 3 MA's), (Start: 24 @48034 has 49 MA's), (Start: 30 @48013 has 18 MA's), (Start: 37 @47983 has 8 MA's), (46, 47890),

Gene: EagleEye_87 Start: 48171, Stop: 47941, Start Num: 17
Candidate Starts for EagleEye_87:
(Start: 17 @48171 has 3 MA's), (21, 48147), (25, 48135), (29, 48123), (38, 48084),

Gene: Ejimix_226 Start: 109183, Stop: 109007, Start Num: 27
Candidate Starts for Ejimix_226:
(20, 109204), (Start: 27 @109183 has 45 MA's), (40, 109141), (44, 109114),

Gene: EnzoK_94 Start: 50479, Stop: 50279, Start Num: 27
Candidate Starts for EnzoK_94:
(Start: 27 @50479 has 45 MA's), (45, 50347),

Gene: Equemioh13_86 Start: 48553, Stop: 48347, Start Num: 24
Candidate Starts for Equemioh13_86:
(8, 48751), (Start: 19 @48568 has 3 MA's), (Start: 24 @48553 has 49 MA's), (38, 48499), (46, 48415),

Gene: EricMillard_232 Start: 111027, Stop: 110851, Start Num: 27
Candidate Starts for EricMillard_232:
(20, 111048), (Start: 27 @111027 has 45 MA's), (40, 110985), (44, 110958),

Gene: Et2Brutus_89 Start: 48147, Stop: 47950, Start Num: 28
Candidate Starts for Et2Brutus_89:
(Start: 28 @48147 has 8 MA's), (46, 48018), (50, 47961),

Gene: EtoileNova_83 Start: 47837, Stop: 47637, Start Num: 30
Candidate Starts for EtoileNova_83:
(9, 48026), (Start: 30 @47837 has 18 MA's), (42, 47777), (46, 47711), (47, 47678),

Gene: Fibonacci_89 Start: 48153, Stop: 47956, Start Num: 28
Candidate Starts for Fibonacci_89:
(Start: 28 @48153 has 8 MA's), (46, 48024), (50, 47967),

Gene: Flare16_86 Start: 48368, Stop: 48162, Start Num: 24
Candidate Starts for Flare16_86:
(8, 48566), (Start: 19 @48383 has 3 MA's), (Start: 24 @48368 has 49 MA's), (38, 48314), (46, 48230),

Gene: FlyCatcher_86 Start: 51563, Stop: 51378, Start Num: 27
Candidate Starts for FlyCatcher_86:
(Start: 27 @51563 has 45 MA's), (39, 51521), (45, 51446),

Gene: Gail_88 Start: 48344, Stop: 48141, Start Num: 24
Candidate Starts for Gail_88:
(Start: 19 @48359 has 3 MA's), (Start: 24 @48344 has 49 MA's), (38, 48293), (46, 48209),

Gene: GaugeLDP_80 Start: 47824, Stop: 47624, Start Num: 24
Candidate Starts for GaugeLDP_80:
(Start: 24 @47824 has 49 MA's), (Start: 37 @47773 has 8 MA's), (46, 47692),

Gene: Gladiator_85 Start: 46722, Stop: 46513, Start Num: 24
Candidate Starts for Gladiator_85:
(Start: 24 @46722 has 49 MA's), (40, 46662),

Gene: Gonephishing_231 Start: 108727, Stop: 108539, Start Num: 27
Candidate Starts for Gonephishing_231:
(Start: 22 @108742 has 3 MA's), (Start: 27 @108727 has 45 MA's), (35, 108703), (40, 108685), (44, 108646), (47, 108574), (50, 108550),

Gene: Goose_85 Start: 48375, Stop: 48187, Start Num: 30
Candidate Starts for Goose_85:
(20, 48408), (Start: 30 @48375 has 18 MA's), (45, 48255), (46, 48252),

Gene: Gratitude_84 Start: 48553, Stop: 48347, Start Num: 24
Candidate Starts for Gratitude_84:
(8, 48751), (Start: 19 @48568 has 3 MA's), (Start: 24 @48553 has 49 MA's), (38, 48499), (46, 48415),

Gene: Gruunaga_88 Start: 46677, Stop: 46468, Start Num: 24
Candidate Starts for Gruunaga_88:
(Start: 24 @46677 has 49 MA's), (40, 46617),

Gene: Halley_237 Start: 109664, Stop: 109482, Start Num: 27
Candidate Starts for Halley_237:
(Start: 22 @109679 has 3 MA's), (Start: 27 @109664 has 45 MA's), (40, 109628), (44, 109589), (47, 109517),

Gene: Hammer_89 Start: 46384, Stop: 46175, Start Num: 24
Candidate Starts for Hammer_89:
(Start: 24 @46384 has 49 MA's), (40, 46324), (45, 46249),

Gene: Hannaconda_225 Start: 109232, Stop: 109056, Start Num: 27
Candidate Starts for Hannaconda_225:
(20, 109253), (Start: 27 @109232 has 45 MA's), (40, 109190), (44, 109163),

Gene: HarryHoudini_86 Start: 48578, Stop: 48372, Start Num: 24
Candidate Starts for HarryHoudini_86:
(8, 48776), (Start: 19 @48593 has 3 MA's), (Start: 24 @48578 has 49 MA's), (46, 48440),

Gene: Heathen_86 Start: 47894, Stop: 47703, Start Num: 30
Candidate Starts for Heathen_86:
(1, 48383), (2, 48350), (4, 48167), (Start: 30 @47894 has 18 MA's), (42, 47834), (46, 47768),

Gene: HelDan_86 Start: 48117, Stop: 47926, Start Num: 30
Candidate Starts for HelDan_86:
(1, 48606), (2, 48573), (4, 48390), (Start: 30 @48117 has 18 MA's), (42, 48057), (46, 47991),

Gene: Hexamo_88 Start: 46552, Stop: 46343, Start Num: 24
Candidate Starts for Hexamo_88:
(Start: 24 @46552 has 49 MA's), (40, 46492),

Gene: Hidrated_220 Start: 109826, Stop: 109638, Start Num: 27
Candidate Starts for Hidrated_220:
(Start: 27 @109826 has 45 MA's), (35, 109802), (40, 109784), (44, 109745), (47, 109673), (50, 109649),

Gene: HokkenD_227 Start: 110994, Stop: 110791, Start Num: 22
Candidate Starts for HokkenD_227:
(Start: 22 @110994 has 3 MA's), (Start: 27 @110979 has 45 MA's), (35, 110955), (40, 110937), (44, 110898), (45, 110862), (47, 110826), (50, 110802),

Gene: Hookmount_86 Start: 47833, Stop: 47633, Start Num: 30
Candidate Starts for Hookmount_86:
(9, 48022), (Start: 30 @47833 has 18 MA's), (42, 47773), (46, 47707), (47, 47674),

Gene: Hughesyang_237 Start: 110914, Stop: 110738, Start Num: 27
Candidate Starts for Hughesyang_237:
(20, 110935), (Start: 27 @110914 has 45 MA's), (40, 110872), (44, 110845),

Gene: Hutc2_86 Start: 47037, Stop: 46840, Start Num: 28
Candidate Starts for Hutc2_86:
(Start: 28 @47037 has 8 MA's), (46, 46908), (50, 46851),

Gene: IgnatiusPatJac_87 Start: 48927, Stop: 49127, Start Num: 27
Candidate Starts for IgnatiusPatJac_87:
(Start: 27 @48927 has 45 MA's), (45, 49059),

Gene: Insomnia_89 Start: 48331, Stop: 48134, Start Num: 28
Candidate Starts for Insomnia_89:
(Start: 28 @48331 has 8 MA's), (46, 48202), (50, 48145),

Gene: Isca_83 Start: 47223, Stop: 47023, Start Num: 31
Candidate Starts for Isca_83:

(5, 47487), (Start: 31 @47223 has 3 MA's), (33, 47217), (42, 47163), (46, 47097), (47, 47064),

Gene: Jabith_89 Start: 48345, Stop: 48148, Start Num: 28
Candidate Starts for Jabith_89:
(3, 48675), (Start: 28 @48345 has 8 MA's), (46, 48216), (50, 48159),

Gene: Journey13_69 Start: 43468, Stop: 43256, Start Num: 24
Candidate Starts for Journey13_69:
(Start: 19 @43483 has 3 MA's), (Start: 24 @43468 has 49 MA's), (38, 43414), (41, 43390), (46, 43330), (47, 43297), (49, 43276),

Gene: Jsquared_90 Start: 48187, Stop: 47969, Start Num: 19
Candidate Starts for Jsquared_90:
(Start: 19 @48187 has 3 MA's), (Start: 24 @48172 has 49 MA's), (38, 48118), (46, 48034), (47, 48001),

Gene: JuicyJay_230 Start: 110889, Stop: 110713, Start Num: 27
Candidate Starts for JuicyJay_230:
(20, 110910), (Start: 27 @110889 has 45 MA's), (40, 110847), (44, 110820),

Gene: Kachowdy_84 Start: 48146, Stop: 47955, Start Num: 30
Candidate Starts for Kachowdy_84:
(1, 48635), (2, 48602), (4, 48419), (Start: 30 @48146 has 18 MA's), (42, 48086), (46, 48020),

Gene: Kalah2_224 Start: 108578, Stop: 108375, Start Num: 22
Candidate Starts for Kalah2_224:
(Start: 22 @108578 has 3 MA's), (Start: 27 @108563 has 45 MA's), (35, 108539), (40, 108521), (44, 108482), (45, 108446), (46, 108443), (47, 108410), (48, 108395),

Gene: Kalpine_88 Start: 49294, Stop: 49088, Start Num: 24
Candidate Starts for Kalpine_88:
(7, 49507), (Start: 19 @49309 has 3 MA's), (Start: 24 @49294 has 49 MA's), (46, 49156),

Gene: KashFlow_227 Start: 109125, Stop: 108949, Start Num: 27
Candidate Starts for KashFlow_227:
(20, 109146), (Start: 27 @109125 has 45 MA's), (40, 109083), (44, 109056), (46, 109017),

Gene: Katalie136_82 Start: 48581, Stop: 48423, Start Num: 37
Candidate Starts for Katalie136_82:
(Start: 26 @48620 has 7 MA's), (Start: 37 @48581 has 8 MA's), (40, 48572), (46, 48485), (47, 48452),

Gene: Kerberos_86 Start: 48324, Stop: 48121, Start Num: 24
Candidate Starts for Kerberos_86:
(Start: 24 @48324 has 49 MA's), (38, 48270), (46, 48186),

Gene: Killigrew_87 Start: 50774, Stop: 50574, Start Num: 27
Candidate Starts for Killigrew_87:
(Start: 27 @50774 has 45 MA's), (45, 50642),

Gene: Klein_242 Start: 109911, Stop: 109735, Start Num: 27
Candidate Starts for Klein_242:
(20, 109932), (Start: 27 @109911 has 45 MA's), (40, 109869), (44, 109842),

Gene: Kremtemulon_82 Start: 48636, Stop: 48466, Start Num: 37

Candidate Starts for Kremtemulon_82:
(Start: 37 @48636 has 8 MA's), (46, 48540), (47, 48507),

Gene: L5_79 Start: 47417, Stop: 47199, Start Num: 19
Candidate Starts for L5_79:
(Start: 19 @47417 has 3 MA's), (Start: 24 @47402 has 49 MA's), (38, 47348), (40, 47342), (46, 47264),

Gene: Lambert1_86 Start: 47834, Stop: 47634, Start Num: 30
Candidate Starts for Lambert1_86:
(4, 48107), (9, 48023), (Start: 30 @47834 has 18 MA's), (42, 47774), (46, 47708), (47, 47675),

Gene: Larenn_85 Start: 48736, Stop: 48527, Start Num: 24
Candidate Starts for Larenn_85:
(Start: 19 @48751 has 3 MA's), (Start: 24 @48736 has 49 MA's), (38, 48682), (41, 48658), (46, 48598),
(47, 48565),

Gene: Lesedi_88 Start: 50089, Stop: 49889, Start Num: 27
Candidate Starts for Lesedi_88:
(Start: 27 @50089 has 45 MA's), (45, 49957),

Gene: Lilbunny_88 Start: 46631, Stop: 46422, Start Num: 24
Candidate Starts for Lilbunny_88:
(Start: 24 @46631 has 49 MA's), (40, 46571), (45, 46496),

Gene: LittleE_224 Start: 106916, Stop: 106728, Start Num: 27
Candidate Starts for LittleE_224:
(Start: 27 @106916 has 45 MA's), (35, 106892), (40, 106874), (44, 106835), (47, 106763), (50, 106739),

Gene: Loser_89 Start: 49477, Stop: 49256, Start Num: 24
Candidate Starts for Loser_89:
(10, 49621), (14, 49558), (Start: 19 @49492 has 3 MA's), (Start: 24 @49477 has 49 MA's), (47, 49291),

Gene: Lucky2013_232 Start: 106413, Stop: 106237, Start Num: 27
Candidate Starts for Lucky2013_232:
(20, 106434), (Start: 27 @106413 has 45 MA's), (40, 106371), (44, 106344),

Gene: Lucyedi_86 Start: 48370, Stop: 48140, Start Num: 17
Candidate Starts for Lucyedi_86:
(Start: 17 @48370 has 3 MA's), (21, 48346), (25, 48334), (29, 48322), (38, 48283),

Gene: MajorMajor_83 Start: 46221, Stop: 46018, Start Num: 24
Candidate Starts for MajorMajor_83:
(Start: 19 @46236 has 3 MA's), (Start: 24 @46221 has 49 MA's), (38, 46167), (40, 46161), (46, 46083),
(47, 46050),

Gene: Malec_85 Start: 49144, Stop: 48938, Start Num: 24
Candidate Starts for Malec_85:
(8, 49342), (Start: 19 @49159 has 3 MA's), (Start: 24 @49144 has 49 MA's), (38, 49090), (41, 49066),
(46, 49006),

Gene: Marchesa_86 Start: 48008, Stop: 47817, Start Num: 30
Candidate Starts for Marchesa_86:

(1, 48497), (2, 48464), (4, 48281), (Start: 30 @48008 has 18 MA's), (42, 47948), (46, 47882),

Gene: Margo_86 Start: 47859, Stop: 47659, Start Num: 30
Candidate Starts for Margo_86:
(4, 48132), (9, 48048), (Start: 30 @47859 has 18 MA's), (42, 47799), (46, 47733), (47, 47700),

Gene: Marleymoo_215 Start: 106507, Stop: 106319, Start Num: 27
Candidate Starts for Marleymoo_215:
(Start: 27 @106507 has 45 MA's), (35, 106483), (40, 106465), (44, 106426), (47, 106354), (50, 106330),

Gene: MiaZeal_245 Start: 108550, Stop: 108374, Start Num: 27
Candidate Starts for MiaZeal_245:
(20, 108571), (Start: 27 @108550 has 45 MA's), (40, 108508), (44, 108481),

Gene: MiculUcigas_86 Start: 48271, Stop: 48065, Start Num: 24
Candidate Starts for MiculUcigas_86:
(8, 48469), (Start: 19 @48286 has 3 MA's), (Start: 24 @48271 has 49 MA's), (38, 48217), (46, 48133),

Gene: Minerva_233 Start: 107908, Stop: 107726, Start Num: 27
Candidate Starts for Minerva_233:
(Start: 22 @107923 has 3 MA's), (Start: 27 @107908 has 45 MA's), (40, 107872), (44, 107833), (47, 107761),

Gene: MissWhite_79 Start: 45139, Stop: 44933, Start Num: 24
Candidate Starts for MissWhite_79:
(Start: 19 @45154 has 3 MA's), (Start: 24 @45139 has 49 MA's), (38, 45085), (41, 45061), (46, 45001),

Gene: Morpher26_82 Start: 48602, Stop: 48444, Start Num: 37
Candidate Starts for Morpher26_82:
(Start: 26 @48641 has 7 MA's), (Start: 37 @48602 has 8 MA's), (40, 48593), (46, 48506), (47, 48473),

Gene: Mulciber_88 Start: 48150, Stop: 47953, Start Num: 28
Candidate Starts for Mulciber_88:
(Start: 28 @48150 has 8 MA's), (46, 48021), (50, 47964),

Gene: NaSiaTalie_87 Start: 48558, Stop: 48352, Start Num: 24
Candidate Starts for NaSiaTalie_87:
(8, 48756), (Start: 19 @48573 has 3 MA's), (Start: 24 @48558 has 49 MA's), (38, 48504), (46, 48420),

Gene: Nekros_235 Start: 109893, Stop: 109717, Start Num: 27
Candidate Starts for Nekros_235:
(20, 109914), (Start: 27 @109893 has 45 MA's), (40, 109851), (44, 109824),

Gene: Nibley_225 Start: 105186, Stop: 105010, Start Num: 27
Candidate Starts for Nibley_225:
(20, 105207), (Start: 27 @105186 has 45 MA's), (40, 105144), (44, 105117),

Gene: NihilNomen_236 Start: 108748, Stop: 108545, Start Num: 22
Candidate Starts for NihilNomen_236:
(Start: 22 @108748 has 3 MA's), (Start: 27 @108733 has 45 MA's), (35, 108709), (40, 108691), (44, 108652), (47, 108580), (50, 108556),

Gene: Noella_87 Start: 47835, Stop: 47635, Start Num: 30
Candidate Starts for Noella_87:
(9, 48024), (Start: 30 @47835 has 18 MA's), (42, 47775), (46, 47709), (47, 47676),

Gene: Norbert_82 Start: 47832, Stop: 47632, Start Num: 30
Candidate Starts for Norbert_82:
(9, 48021), (Start: 30 @47832 has 18 MA's), (42, 47772), (46, 47706), (47, 47673),

Gene: Odette_234 Start: 110012, Stop: 109836, Start Num: 27
Candidate Starts for Odette_234:
(20, 110033), (Start: 27 @110012 has 45 MA's), (40, 109970), (44, 109943),

Gene: PainterBoy_85 Start: 48081, Stop: 47851, Start Num: 17
Candidate Starts for PainterBoy_85:
(Start: 17 @48081 has 3 MA's), (21, 48057), (25, 48045), (29, 48033), (38, 47994),

Gene: Panamaxus_82 Start: 47834, Stop: 47634, Start Num: 30
Candidate Starts for Panamaxus_82:
(9, 48023), (Start: 30 @47834 has 18 MA's), (42, 47774), (46, 47708), (47, 47675),

Gene: Pari_92 Start: 50227, Stop: 50027, Start Num: 27
Candidate Starts for Pari_92:
(Start: 27 @50227 has 45 MA's), (45, 50095),

Gene: Perplexer_82 Start: 48582, Stop: 48424, Start Num: 37
Candidate Starts for Perplexer_82:
(Start: 26 @48621 has 7 MA's), (Start: 37 @48582 has 8 MA's), (40, 48573), (46, 48486), (47, 48453),

Gene: PetiteSangsue_82 Start: 48585, Stop: 48427, Start Num: 37
Candidate Starts for PetiteSangsue_82:
(Start: 26 @48624 has 7 MA's), (Start: 37 @48585 has 8 MA's), (40, 48576), (46, 48489), (47, 48456),

Gene: Phantastic_87 Start: 47341, Stop: 47150, Start Num: 31
Candidate Starts for Phantastic_87:
(5, 47605), (Start: 31 @47341 has 3 MA's), (33, 47335), (42, 47281), (46, 47215),

Gene: PherrisBueller_88 Start: 48812, Stop: 48612, Start Num: 27
Candidate Starts for PherrisBueller_88:
(Start: 27 @48812 has 45 MA's), (45, 48680),

Gene: Phlei_72 Start: 46175, Stop: 45936, Start Num: 18
Candidate Starts for Phlei_72:
(18, 46175), (45, 46019),

Gene: Phoebus_233 Start: 112122, Stop: 111946, Start Num: 27
Candidate Starts for Phoebus_233:
(20, 112143), (Start: 27 @112122 has 45 MA's), (40, 112080), (44, 112053),

Gene: Piro94_85 Start: 48506, Stop: 48300, Start Num: 24
Candidate Starts for Piro94_85:
(8, 48704), (Start: 19 @48521 has 3 MA's), (Start: 24 @48506 has 49 MA's), (46, 48368),

Gene: Pocahontas_85 Start: 47830, Stop: 47630, Start Num: 30

Candidate Starts for Pocahontas_85:
(9, 48019), (Start: 30 @47830 has 18 MA's), (42, 47770), (46, 47704), (47, 47671),

Gene: Pomar16_86 Start: 48397, Stop: 48194, Start Num: 24
Candidate Starts for Pomar16_86:
(Start: 24 @48397 has 49 MA's), (38, 48343), (46, 48259),

Gene: Popcicle_86 Start: 47830, Stop: 47630, Start Num: 30
Candidate Starts for Popcicle_86:
(9, 48019), (Start: 30 @47830 has 18 MA's), (42, 47770), (46, 47704), (47, 47671),

Gene: Porcelain_236 Start: 107360, Stop: 107184, Start Num: 27
Candidate Starts for Porcelain_236:
(20, 107381), (Start: 27 @107360 has 45 MA's), (40, 107318), (44, 107291),

Gene: QuinnKiro_85 Start: 47833, Stop: 47633, Start Num: 30
Candidate Starts for QuinnKiro_85:
(4, 48106), (9, 48022), (Start: 30 @47833 has 18 MA's), (42, 47773), (46, 47707), (47, 47674),

Gene: Quokka_88 Start: 47930, Stop: 47727, Start Num: 24
Candidate Starts for Quokka_88:
(Start: 19 @47945 has 3 MA's), (Start: 24 @47930 has 49 MA's), (38, 47876), (40, 47870), (46, 47792), (47, 47759),

Gene: Raid_89 Start: 51090, Stop: 50890, Start Num: 27
Candidate Starts for Raid_89:
(Start: 27 @51090 has 45 MA's), (45, 50958),

Gene: Rearden_235 Start: 108013, Stop: 107825, Start Num: 27
Candidate Starts for Rearden_235:
(Start: 27 @108013 has 45 MA's), (35, 107989), (40, 107971), (44, 107932), (47, 107860), (50, 107836),

Gene: RedRock_86 Start: 49130, Stop: 48909, Start Num: 24
Candidate Starts for RedRock_86:
(Start: 19 @49145 has 3 MA's), (Start: 24 @49130 has 49 MA's), (47, 48944),

Gene: Redno2_226 Start: 106231, Stop: 106055, Start Num: 27
Candidate Starts for Redno2_226:
(20, 106252), (Start: 27 @106231 has 45 MA's), (40, 106189), (44, 106162),

Gene: ResDef_84 Start: 47836, Stop: 47636, Start Num: 30
Candidate Starts for ResDef_84:
(9, 48025), (Start: 30 @47836 has 18 MA's), (42, 47776), (46, 47710), (47, 47677),

Gene: Rifter_89 Start: 46179, Stop: 45970, Start Num: 24
Candidate Starts for Rifter_89:
(Start: 24 @46179 has 49 MA's), (40, 46119),

Gene: Rockstar_75 Start: 45031, Stop: 44831, Start Num: 31
Candidate Starts for Rockstar_75:
(5, 45295), (Start: 31 @45031 has 3 MA's), (33, 45025), (42, 44971), (46, 44905),

Gene: Roimos_85 Start: 48032, Stop: 47841, Start Num: 30
Candidate Starts for Roimos_85:
(1, 48521), (2, 48488), (4, 48305), (Start: 30 @48032 has 18 MA's), (42, 47972), (46, 47906),

Gene: Roksolana_89 Start: 46895, Stop: 46686, Start Num: 24
Candidate Starts for Roksolana_89:
(Start: 24 @46895 has 49 MA's), (40, 46835),

Gene: Salz_85 Start: 46959, Stop: 46762, Start Num: 28
Candidate Starts for Salz_85:
(Start: 28 @46959 has 8 MA's), (46, 46830), (50, 46773),

Gene: Saskia_86 Start: 47205, Stop: 46999, Start Num: 24
Candidate Starts for Saskia_86:
(Start: 19 @47220 has 3 MA's), (Start: 24 @47205 has 49 MA's), (38, 47151), (41, 47127), (46, 47067),
(50, 47010),

Gene: Schatzie_227 Start: 109153, Stop: 108977, Start Num: 27
Candidate Starts for Schatzie_227:
(20, 109174), (Start: 27 @109153 has 45 MA's), (40, 109111), (44, 109084),

Gene: Scout_86 Start: 47357, Stop: 47166, Start Num: 30
Candidate Starts for Scout_86:
(1, 47846), (2, 47813), (4, 47630), (Start: 30 @47357 has 18 MA's), (42, 47297), (46, 47231),

Gene: Serenity_89 Start: 47970, Stop: 47767, Start Num: 24
Candidate Starts for Serenity_89:
(15, 48045), (Start: 19 @47985 has 3 MA's), (Start: 24 @47970 has 49 MA's), (38, 47916), (40, 47910),
(46, 47832), (47, 47799),

Gene: Shaboozey_232 Start: 106458, Stop: 106282, Start Num: 27
Candidate Starts for Shaboozey_232:
(20, 106479), (Start: 27 @106458 has 45 MA's), (40, 106416), (44, 106389),

Gene: Sham4_86 Start: 47045, Stop: 46848, Start Num: 28
Candidate Starts for Sham4_86:
(Start: 28 @47045 has 8 MA's), (46, 46916), (50, 46859),

Gene: Sheen_83 Start: 50900, Stop: 50715, Start Num: 27
Candidate Starts for Sheen_83:
(Start: 27 @50900 has 45 MA's), (39, 50858), (45, 50783),

Gene: Sknot_86 Start: 48365, Stop: 48159, Start Num: 24
Candidate Starts for Sknot_86:
(8, 48563), (Start: 19 @48380 has 3 MA's), (Start: 24 @48365 has 49 MA's), (38, 48311), (46, 48227),

Gene: SororFago_85 Start: 48106, Stop: 47903, Start Num: 24
Candidate Starts for SororFago_85:
(Start: 19 @48121 has 3 MA's), (Start: 24 @48106 has 49 MA's), (38, 48055),

Gene: Squint_233 Start: 108166, Stop: 107990, Start Num: 27
Candidate Starts for Squint_233:
(20, 108187), (Start: 27 @108166 has 45 MA's), (40, 108124), (44, 108097),

Gene: StarStuff_86 Start: 48359, Stop: 48156, Start Num: 24
Candidate Starts for StarStuff_86:
(Start: 24 @48359 has 49 MA's), (38, 48305), (46, 48221),

Gene: Superphikiman_233 Start: 107294, Stop: 107106, Start Num: 27
Candidate Starts for Superphikiman_233:
(20, 107315), (Start: 27 @107294 has 45 MA's), (40, 107252), (44, 107213), (47, 107141), (50, 107117),

Gene: Terrific_87 Start: 48339, Stop: 48133, Start Num: 24
Candidate Starts for Terrific_87:
(8, 48537), (Start: 19 @48354 has 3 MA's), (Start: 24 @48339 has 49 MA's), (38, 48285), (46, 48201),

Gene: Texage_84 Start: 47834, Stop: 47634, Start Num: 30
Candidate Starts for Texage_84:
(9, 48023), (Start: 30 @47834 has 18 MA's), (42, 47774), (46, 47708), (47, 47675),

Gene: Thibault_209 Start: 104098, Stop: 103910, Start Num: 27
Candidate Starts for Thibault_209:
(Start: 27 @104098 has 45 MA's), (35, 104074), (40, 104056), (44, 104017), (47, 103945), (50, 103921),

Gene: ThreeRngTarjay_234 Start: 111335, Stop: 111162, Start Num: 27
Candidate Starts for ThreeRngTarjay_234:
(20, 111356), (Start: 27 @111335 has 45 MA's), (40, 111293), (44, 111266),

Gene: TipsytheTRex_85 Start: 47972, Stop: 47769, Start Num: 24
Candidate Starts for TipsytheTRex_85:
(15, 48047), (Start: 19 @47987 has 3 MA's), (Start: 24 @47972 has 49 MA's), (38, 47918), (40, 47912), (46, 47834), (47, 47801),

Gene: Todacoro_86 Start: 47833, Stop: 47633, Start Num: 30
Candidate Starts for Todacoro_86:
(4, 48106), (9, 48022), (Start: 30 @47833 has 18 MA's), (42, 47773), (46, 47707), (47, 47674),

Gene: Tomathan_86 Start: 48437, Stop: 48234, Start Num: 24
Candidate Starts for Tomathan_86:
(Start: 24 @48437 has 49 MA's), (38, 48383), (46, 48299),

Gene: ToneTone_86 Start: 46559, Stop: 46350, Start Num: 24
Candidate Starts for ToneTone_86:
(Start: 24 @46559 has 49 MA's), (40, 46499), (45, 46424),

Gene: Toro_84 Start: 51563, Stop: 51378, Start Num: 27
Candidate Starts for Toro_84:
(Start: 27 @51563 has 45 MA's), (39, 51521), (45, 51446),

Gene: Travvers_86 Start: 48354, Stop: 48151, Start Num: 24
Candidate Starts for Travvers_86:
(Start: 24 @48354 has 49 MA's), (38, 48300), (46, 48216),

Gene: Tucker_89 Start: 46762, Stop: 46553, Start Num: 24

Candidate Starts for Tucker_89:
(Start: 24 @46762 has 49 MA's), (40, 46702), (45, 46627),

Gene: Turj99_86 Start: 50763, Stop: 50560, Start Num: 27
Candidate Starts for Turj99_86:
(Start: 27 @50763 has 45 MA's), (45, 50628),

Gene: Updawg_87 Start: 48553, Stop: 48347, Start Num: 24
Candidate Starts for Updawg_87:
(8, 48751), (Start: 19 @48568 has 3 MA's), (Start: 24 @48553 has 49 MA's), (38, 48499), (46, 48415),

Gene: VC3_84 Start: 47253, Stop: 47056, Start Num: 24
Candidate Starts for VC3_84:
(Start: 24 @47253 has 49 MA's), (38, 47199), (46, 47121),

Gene: Veracruz_83 Start: 47834, Stop: 47634, Start Num: 30
Candidate Starts for Veracruz_83:
(4, 48107), (9, 48023), (Start: 30 @47834 has 18 MA's), (42, 47774), (46, 47708), (47, 47675),

Gene: Wanda_234 Start: 107541, Stop: 107365, Start Num: 27
Candidate Starts for Wanda_234:
(20, 107562), (Start: 27 @107541 has 45 MA's), (40, 107499), (44, 107472),

Gene: WideWale_87 Start: 48553, Stop: 48347, Start Num: 24
Candidate Starts for WideWale_87:
(8, 48751), (Start: 19 @48568 has 3 MA's), (Start: 24 @48553 has 49 MA's), (38, 48499), (46, 48415),

Gene: Wile_81 Start: 48650, Stop: 48453, Start Num: 26
Candidate Starts for Wile_81:
(Start: 26 @48650 has 7 MA's), (Start: 37 @48611 has 8 MA's), (40, 48602), (46, 48515), (47, 48482),

Gene: Wizard007_82 Start: 48376, Stop: 48179, Start Num: 26
Candidate Starts for Wizard007_82:
(Start: 26 @48376 has 7 MA's), (Start: 37 @48337 has 8 MA's), (40, 48328), (46, 48241), (47, 48208),

Gene: Wolpertinger_89 Start: 48164, Stop: 47967, Start Num: 28
Candidate Starts for Wolpertinger_89:
(Start: 28 @48164 has 8 MA's), (46, 48035), (50, 47978),

Gene: Xiaokay_220 Start: 108420, Stop: 108232, Start Num: 27
Candidate Starts for Xiaokay_220:
(Start: 27 @108420 has 45 MA's), (35, 108396), (40, 108378), (44, 108339), (47, 108267), (50, 108243),

Gene: Yeet_229 Start: 109251, Stop: 109075, Start Num: 27
Candidate Starts for Yeet_229:
(20, 109272), (Start: 27 @109251 has 45 MA's), (40, 109209), (44, 109182),

Gene: Zarafa_84 Start: 48022, Stop: 47831, Start Num: 30
Candidate Starts for Zarafa_84:
(1, 48511), (2, 48478), (4, 48295), (Start: 30 @48022 has 18 MA's), (36, 48001), (42, 47962), (46, 47896),

Gene: Zeeculate_91 Start: 53471, Stop: 53271, Start Num: 27
Candidate Starts for Zeeculate_91:
(Start: 27 @53471 has 45 MA's), (45, 53339),

Gene: Zelink_228 Start: 108839, Stop: 108663, Start Num: 27
Candidate Starts for Zelink_228:
(20, 108860), (Start: 27 @108839 has 45 MA's), (40, 108797), (44, 108770),