Pham 1008

1: PinkiePie_6 + 51
2: Jay2Jay_8 + 7
3: WhereRU_6 + 3
4: Angela_263 + 1
5: MulchMansion_262 + 3
6: Daubenski_251 + 1
7: Bmoc_262 + 1
8: MindFlayer_5 + 47
9: Yaboi_268 + 13
10: Tomas_6 + 1

Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 1008 Report

This analysis was run 04/28/24 on database version 559.

Pham number 1008 has 138 members, 28 are drafts.

Phages represented in each track:
• Track 1 : PinkiePie_6, Navo_255, Watermoore_6, Cursive_258, Braelyn_6, Sushi23_257, Bartholomune_6, EGole_6, BlueOtter_6, HangryHippo_6, Mildred21_6, Sushi23_7, Watermoore_253, HangryHippo_258, Paradiddles_6, Lululemon_255, Anedea_7, Peebs_6, Leo04_257, PacManQ_256, Cursive_4, Cross_6, Squillium_6, Peebs_253, Braelyn_251, Cross_254, Tribute_252, Lululemon_5, Liandry_255, Mildred21_269, Pepperwood_7, Navo_5, Larnav_8, NootNoot_6, EGole_260, NootNoot_251, Leo04_6, Teutsch_6, Larnav_267, Pepperwood_256, Paradiddles_247, Teutsch_253, Liandry_6, PacManQ_5, Tribute_6, PinkiePie_256, BlueOtter_258, Samisti12_257, Squillium_258, Samisti12_6, Anedea_269, Bartholomune_256
• Track 2 : Jay2Jay_8, Jay2Jay_263, Evy_6, Evy_244, Warpy_8, Targaryen_257, Targaryen_6, Warpy_260
• Track 3 : WhereRU_6, Persimmon_256, Persimmon_5, WhereRU_262
• Track 4 : Angela_263, Angela_6
• Track 5 : MulchMansion_262, LilMartin_258, LilMartin_6, MulchMansion_6
• Track 6 : Daubenski_251, Daubenski_7
• Track 7 : Bmoc_262, Bmoc_6
• Track 8 : MindFlayer_5, Karimac_6, Gibbi_5, Battuta_263, Starbow_6, KentuckyRacer_6, Battuta_6, Jollison_270, Spilled_5, SaltySpitoon_6, PumpkinSpice_6, KentuckyRacer_280, Starbow_263, PumpkinSpice_270, MindFlayer_257, Quaran19_267, JimJam_274, Enygma_273, Mugiwara_277, CeilingFan_279, LukeCage_268, Wipeout_5, Karimac_264, StarPlatinum_275, TomSawyer_6, CeilingFan_5, Gibbi_276, Spelly_272, Bordeaux_263, Amabiko_6, Birchlyn_3, Spilled_273, Amabiko_270, SaltySpitoon_266, Wipeout_258, Bordeaux_6, Jollison_6, TomSawyer_271, Spelly_6, JimJam_6, Birchlyn_263, StarPlatinum_5, Enygma_5, LukeCage_5, Quaran19_6, Mugiwara_5, IchabodCrane_258, IchabodCrane_5
• Track 9 : Yaboi_268, Yaboi_7, Stanimal_262, BoomerJR_7, Genie2_7, Elmer_6, Wofford_6, Stanimal_7, Genie2_262, BoomerJR_262, Elmer_282, Wofford_264, Sollertia_7, Sollertia_263
• Track 10 : Tomas_6, Tomas_262

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

The start number called the most often in the published annotations is 1, it was called in 110 of the 110 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Amabiko_270, Amabiko_6, Anedea_269, Anedea_7, Angela_263, Angela_6, Bartholomune_256, Bartholomune_6, Battuta_263, Battuta_6, Birchlyn_263, Birchlyn_3, BlueOtter_258, BlueOtter_6, Bmoc_262, Bmoc_6, BoomerJR_262, BoomerJR_7, Bordeaux_263, Bordeaux_6, Braelyn_251, Braelyn_6, CeilingFan_279, CeilingFan_5, Cross_254, Cross_6, Cursive_258, Cursive_4, Daubenski_251, Daubenski_7, EGole_260, EGole_6, Elmer_282, Elmer_6, Enygma_273, Enygma_5, Evy_244, Evy_6, Genie2_262, Genie2_7, Gibbi_276, Gibbi_5, HangryHippo_258, HangryHippo_6, IchabodCrane_258, IchabodCrane_5, Jay2Jay_263, Jay2Jay_8, JimJam_274, JimJam_6, Jollison_270, Jollison_6, Karimac_264, Karimac_6, KentuckyRacer_280, KentuckyRacer_6, Larnav_267, Larnav_8, Leo04_257, Leo04_6, Liandry_255, Liandry_6, LilMartin_258, LilMartin_6, LukeCage_268, LukeCage_5, Lululemon_255, Lululemon_5, Mildred21_269, Mildred21_6, MindFlayer_257, MindFlayer_5, Mugiwara_277, Mugiwara_5, MulchMansion_262, MulchMansion_6, Navo_255, Navo_5, NootNoot_251, NootNoot_6, PacManQ_256, PacManQ_5, Paradiddles_247, Paradiddles_6, Peebs_253, Peebs_6, Pepperwood_256, Pepperwood_7, Persimmon_256, Persimmon_5, PinkiePie_256, PinkiePie_6, PumpkinSpice_270, PumpkinSpice_6, Quaran19_267, Quaran19_6, SaltySpitoon_266, SaltySpitoon_6, Samisti12_257, Samisti12_6, Sollertia_263, Sollertia_7, Spelly_272, Spelly_6, Spilled_273, Spilled_5, Squillium_258, Squillium_6, Stanimal_262, Stanimal_7, StarPlatinum_275, StarPlatinum_5, Starbow_263, Starbow_6, Sushi23_257, Sushi23_7, Targaryen_257, Targaryen_6, Teutsch_253, Teutsch_6, TomSawyer_271, TomSawyer_6, Tomas_262, Tomas_6, Tribute_252, Tribute_6, Warpy_260, Warpy_8, Watermoore_253, Watermoore_6, WhereRU_262, WhereRU_6, Wipeout_258, Wipeout_5, Wofford_264, Wofford_6, Yaboi_268, Yaboi_7,

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

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

Summary by start number:

Start 1:
• Found in 138 of 138 (100.0%) of genes in pham
• Manual Annotations of this start: 110 of 110
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Amabiko_270 (BE2), Amabiko_6 (BE2), Anedea_269 (BE1), Anedea_7 (BE1), Angela_263 (BE1), Angela_6 (BE1), Bartholomune_256 (BE1), Bartholomune_6 (BE1), Battuta_263 (BE2), Battuta_6 (BE2), Birchlyn_263 (BE2), Birchlyn_3 (BE2), BlueOtter_258 (BE1), BlueOtter_6 (BE1), Bmoc_262 (BE1), Bmoc_6 (BE1), BoomerJR_262 (BE2), BoomerJR_7 (BE2), Bordeaux_263 (BE2), Bordeaux_6 (BE2), Braelyn_251 (BE1), Braelyn_6 (BE1), CeilingFan_279 (BE2), CeilingFan_5 (BE2), Cross_254 (BE1), Cross_6 (BE1), Cursive_258 (BE1), Cursive_4 (BE1), Daubenski_251 (BE1), Daubenski_7 (BE1), EGole_260 (BE1), EGole_6 (BE1), Elmer_282 (BE2), Elmer_6 (BE2), Enygma_273 (BE2), Enygma_5 (BE2), Evy_244 (BE1), Evy_6 (BE1), Genie2_262 (BE2), Genie2_7 (BE2), Gibbi_276 (BE2), Gibbi_5 (BE2), HangryHippo_258 (BE1), HangryHippo_6

(BE1), IchabodCrane_258 (BE2), IchabodCrane_5 (BE2), Jay2Jay_263 (BE1), Jay2Jay_8 (BE1), JimJam_274 (BE2), JimJam_6 (BE2), Jollison_270 (BE2), Jollison_6 (BE2), Karimac_264 (BE2), Karimac_6 (BE2), KentuckyRacer_280 (BE2), KentuckyRacer_6 (BE2), Larnav_267 (BE1), Larnav_8 (BE1), Leo04_257 (BE1), Leo04_6 (BE1), Liandry_255 (BE1), Liandry_6 (BE1), LilMartin_258 (BE1), LilMartin_6 (BE1), LukeCage_268 (BE2), LukeCage_5 (BE2), Lululemon_255 (BE1), Lululemon_5 (BE1), Mildred21_269 (BE1), Mildred21_6 (BE1), MindFlayer_257 (BE2), MindFlayer_5 (BE2), Mugiwara_277 (BE2), Mugiwara_5 (BE2), MulchMansion_262 (BE1), MulchMansion_6 (BE1), Navo_255 (BE1), Navo_5 (BE1), NootNoot_251 (BE1), NootNoot_6 (BE1), PacManQ_256 (BE1), PacManQ_5 (BE1), Paradiddles_247 (BE1), Paradiddles_6 (BE1), Peebs_253 (BE1), Peebs_6 (BE1), Pepperwood_256 (BE1), Pepperwood_7 (BE1), Persimmon_256 (BE1), Persimmon_5 (BE1), PinkiePie_256 (BE1), PinkiePie_6 (BE1), PumpkinSpice_270 (BE2), PumpkinSpice_6 (BE2), Quaran19_267 (BE2), Quaran19_6 (BE2), SaltySpitoon_266 (BE2), SaltySpitoon_6 (BE2), Samisti12_257 (BE1), Samisti12_6 (BE1), Sollertia_263 (BE2), Sollertia_7 (BE2), Spelly_272 (BE2), Spelly_6 (BE2), Spilled_273 (BE2), Spilled_5 (BE2), Squillium_258 (BE1), Squillium_6 (BE1), Stanimal_262 (BE2), Stanimal_7 (BE2), StarPlatinum_275 (BE2), StarPlatinum_5 (BE2), Starbow_263 (BE2), Starbow_6 (BE2), Sushi23_257 (BE1), Sushi23_7 (BE1), Targaryen_257 (BE1), Targaryen_6 (BE1), Teutsch_253 (BE1), Teutsch_6 (BE1), TomSawyer_271 (BE2), TomSawyer_6 (BE2), Tomas_262 (BE2), Tomas_6 (BE2), Tribute_252 (BE1), Tribute_6 (BE1), Warpy_260 (BE1), Warpy_8 (BE1), Watermoore_253 (BE1), Watermoore_6 (BE1), WhereRU_262 (BE1), WhereRU_6 (BE1), Wipeout_258 (BE2), Wipeout_5 (BE2), Wofford_264 (BE2), Wofford_6 (BE2), Yaboi_268 (BE2), Yaboi_7 (BE2),

Summary by clusters:

There are 2 clusters represented in this pham: BE2, BE1,

Info for manual annotations of cluster BE1:
•Start number 1 was manually annotated 58 times for cluster BE1.

Info for manual annotations of cluster BE2:
•Start number 1 was manually annotated 52 times for cluster BE2.

Gene Information:

Gene: Amabiko_6 Start: 3902, Stop: 3741, Start Num: 1
Candidate Starts for Amabiko_6:
(Start: 1 @3902 has 110 MA's), (2, 3893), (3, 3890), (5, 3839), (8, 3797),

Gene: Amabiko_270 Start: 122728, Stop: 122567, Start Num: 1
Candidate Starts for Amabiko_270:
(Start: 1 @122728 has 110 MA's), (2, 122719), (3, 122716), (5, 122665), (8, 122623),

Gene: Anedea_7 Start: 4138, Stop: 3971, Start Num: 1
Candidate Starts for Anedea_7:
(Start: 1 @4138 has 110 MA's), (6, 4054), (7, 4045),

Gene: Anedea_269 Start: 127187, Stop: 127020, Start Num: 1

Candidate Starts for Anedea_269:
(Start: 1 @127187 has 110 MA's), (6, 127103), (7, 127094),

Gene: Angela_263 Start: 126508, Stop: 126344, Start Num: 1
Candidate Starts for Angela_263:
(Start: 1 @126508 has 110 MA's), (7, 126418),

Gene: Angela_6 Start: 4105, Stop: 3941, Start Num: 1
Candidate Starts for Angela_6:
(Start: 1 @4105 has 110 MA's), (7, 4015),

Gene: Bartholomune_6 Start: 3694, Stop: 3527, Start Num: 1
Candidate Starts for Bartholomune_6:
(Start: 1 @3694 has 110 MA's), (6, 3610), (7, 3601),

Gene: Bartholomune_256 Start: 124793, Stop: 124626, Start Num: 1
Candidate Starts for Bartholomune_256:
(Start: 1 @124793 has 110 MA's), (6, 124709), (7, 124700),

Gene: Battuta_263 Start: 122057, Stop: 121896, Start Num: 1
Candidate Starts for Battuta_263:
(Start: 1 @122057 has 110 MA's), (2, 122048), (3, 122045), (5, 121994), (8, 121952),

Gene: Battuta_6 Start: 3902, Stop: 3741, Start Num: 1
Candidate Starts for Battuta_6:
(Start: 1 @3902 has 110 MA's), (2, 3893), (3, 3890), (5, 3839), (8, 3797),

Gene: Birchlyn_3 Start: 1755, Stop: 1594, Start Num: 1
Candidate Starts for Birchlyn_3:
(Start: 1 @1755 has 110 MA's), (2, 1746), (3, 1743), (5, 1692), (8, 1650),

Gene: Birchlyn_263 Start: 117846, Stop: 117685, Start Num: 1
Candidate Starts for Birchlyn_263:
(Start: 1 @117846 has 110 MA's), (2, 117837), (3, 117834), (5, 117783), (8, 117741),

Gene: BlueOtter_6 Start: 4046, Stop: 3879, Start Num: 1
Candidate Starts for BlueOtter_6:
(Start: 1 @4046 has 110 MA's), (6, 3962), (7, 3953),

Gene: BlueOtter_258 Start: 125133, Stop: 124966, Start Num: 1
Candidate Starts for BlueOtter_258:
(Start: 1 @125133 has 110 MA's), (6, 125049), (7, 125040),

Gene: Bmoc_262 Start: 125992, Stop: 125825, Start Num: 1
Candidate Starts for Bmoc_262:
(Start: 1 @125992 has 110 MA's), (6, 125908), (8, 125890),

Gene: Bmoc_6 Start: 4170, Stop: 4003, Start Num: 1
Candidate Starts for Bmoc_6:
(Start: 1 @4170 has 110 MA's), (6, 4086), (8, 4068),

Gene: BoomerJR_7 Start: 3876, Stop: 3715, Start Num: 1
Candidate Starts for BoomerJR_7:

(Start: 1 @3876 has 110 MA's), (3, 3864), (5, 3813), (8, 3771),

Gene: BoomerJR_262 Start: 122664, Stop: 122503, Start Num: 1
Candidate Starts for BoomerJR_262:
(Start: 1 @122664 has 110 MA's), (3, 122652), (5, 122601), (8, 122559),

Gene: Bordeaux_263 Start: 122640, Stop: 122479, Start Num: 1
Candidate Starts for Bordeaux_263:
(Start: 1 @122640 has 110 MA's), (2, 122631), (3, 122628), (5, 122577), (8, 122535),

Gene: Bordeaux_6 Start: 3902, Stop: 3741, Start Num: 1
Candidate Starts for Bordeaux_6:
(Start: 1 @3902 has 110 MA's), (2, 3893), (3, 3890), (5, 3839), (8, 3797),

Gene: Braelyn_6 Start: 3706, Stop: 3539, Start Num: 1
Candidate Starts for Braelyn_6:
(Start: 1 @3706 has 110 MA's), (6, 3622), (7, 3613),

Gene: Braelyn_251 Start: 124116, Stop: 123949, Start Num: 1
Candidate Starts for Braelyn_251:
(Start: 1 @124116 has 110 MA's), (6, 124032), (7, 124023),

Gene: CeilingFan_279 Start: 124120, Stop: 123959, Start Num: 1
Candidate Starts for CeilingFan_279:
(Start: 1 @124120 has 110 MA's), (2, 124111), (3, 124108), (5, 124057), (8, 124015),

Gene: CeilingFan_5 Start: 3513, Stop: 3352, Start Num: 1
Candidate Starts for CeilingFan_5:
(Start: 1 @3513 has 110 MA's), (2, 3504), (3, 3501), (5, 3450), (8, 3408),

Gene: Cross_6 Start: 4046, Stop: 3879, Start Num: 1
Candidate Starts for Cross_6:
(Start: 1 @4046 has 110 MA's), (6, 3962), (7, 3953),

Gene: Cross_254 Start: 125778, Stop: 125611, Start Num: 1
Candidate Starts for Cross_254:
(Start: 1 @125778 has 110 MA's), (6, 125694), (7, 125685),

Gene: Cursive_258 Start: 124873, Stop: 124706, Start Num: 1
Candidate Starts for Cursive_258:
(Start: 1 @124873 has 110 MA's), (6, 124789), (7, 124780),

Gene: Cursive_4 Start: 2864, Stop: 2697, Start Num: 1
Candidate Starts for Cursive_4:
(Start: 1 @2864 has 110 MA's), (6, 2780), (7, 2771),

Gene: Daubenski_251 Start: 126447, Stop: 126286, Start Num: 1
Candidate Starts for Daubenski_251:
(Start: 1 @126447 has 110 MA's), (7, 126351), (9, 126336),

Gene: Daubenski_7 Start: 4071, Stop: 3910, Start Num: 1
Candidate Starts for Daubenski_7:
(Start: 1 @4071 has 110 MA's), (7, 3975), (9, 3960),

Gene: EGole_6 Start: 4466, Stop: 4302, Start Num: 1
Candidate Starts for EGole_6:
(Start: 1 @4466 has 110 MA's), (6, 4385), (7, 4376),

Gene: EGole_260 Start: 128778, Stop: 128614, Start Num: 1
Candidate Starts for EGole_260:
(Start: 1 @128778 has 110 MA's), (6, 128697), (7, 128688),

Gene: Elmer_6 Start: 3781, Stop: 3614, Start Num: 1
Candidate Starts for Elmer_6:
(Start: 1 @3781 has 110 MA's), (3, 3769), (5, 3718), (8, 3676),

Gene: Elmer_282 Start: 126149, Stop: 125982, Start Num: 1
Candidate Starts for Elmer_282:
(Start: 1 @126149 has 110 MA's), (3, 126137), (5, 126086), (8, 126044),

Gene: Enygma_273 Start: 125884, Stop: 125723, Start Num: 1
Candidate Starts for Enygma_273:
(Start: 1 @125884 has 110 MA's), (2, 125875), (3, 125872), (5, 125821), (8, 125779),

Gene: Enygma_5 Start: 3460, Stop: 3299, Start Num: 1
Candidate Starts for Enygma_5:
(Start: 1 @3460 has 110 MA's), (2, 3451), (3, 3448), (5, 3397), (8, 3355),

Gene: Evy_6 Start: 4162, Stop: 3995, Start Num: 1
Candidate Starts for Evy_6:
(Start: 1 @4162 has 110 MA's), (7, 4069), (8, 4060), (9, 4054),

Gene: Evy_244 Start: 125891, Stop: 125724, Start Num: 1
Candidate Starts for Evy_244:
(Start: 1 @125891 has 110 MA's), (7, 125798), (8, 125789), (9, 125783),

Gene: Genie2_7 Start: 3876, Stop: 3715, Start Num: 1
Candidate Starts for Genie2_7:
(Start: 1 @3876 has 110 MA's), (3, 3864), (5, 3813), (8, 3771),

Gene: Genie2_262 Start: 122777, Stop: 122616, Start Num: 1
Candidate Starts for Genie2_262:
(Start: 1 @122777 has 110 MA's), (3, 122765), (5, 122714), (8, 122672),

Gene: Gibbi_5 Start: 3513, Stop: 3352, Start Num: 1
Candidate Starts for Gibbi_5:
(Start: 1 @3513 has 110 MA's), (2, 3504), (3, 3501), (5, 3450), (8, 3408),

Gene: Gibbi_276 Start: 123613, Stop: 123452, Start Num: 1
Candidate Starts for Gibbi_276:
(Start: 1 @123613 has 110 MA's), (2, 123604), (3, 123601), (5, 123550), (8, 123508),

Gene: HangryHippo_6 Start: 4046, Stop: 3879, Start Num: 1
Candidate Starts for HangryHippo_6:
(Start: 1 @4046 has 110 MA's), (6, 3962), (7, 3953),

Gene: HangryHippo_258 Start: 125133, Stop: 124966, Start Num: 1
Candidate Starts for HangryHippo_258:
(Start: 1 @125133 has 110 MA's), (6, 125049), (7, 125040),

Gene: IchabodCrane_258 Start: 122053, Stop: 121892, Start Num: 1
Candidate Starts for IchabodCrane_258:
(Start: 1 @122053 has 110 MA's), (2, 122044), (3, 122041), (5, 121990), (8, 121948),

Gene: IchabodCrane_5 Start: 3510, Stop: 3349, Start Num: 1
Candidate Starts for IchabodCrane_5:
(Start: 1 @3510 has 110 MA's), (2, 3501), (3, 3498), (5, 3447), (8, 3405),

Gene: Jay2Jay_8 Start: 3866, Stop: 3699, Start Num: 1
Candidate Starts for Jay2Jay_8:
(Start: 1 @3866 has 110 MA's), (7, 3773), (8, 3764), (9, 3758),

Gene: Jay2Jay_263 Start: 125959, Stop: 125792, Start Num: 1
Candidate Starts for Jay2Jay_263:
(Start: 1 @125959 has 110 MA's), (7, 125866), (8, 125857), (9, 125851),

Gene: JimJam_274 Start: 125437, Stop: 125276, Start Num: 1
Candidate Starts for JimJam_274:
(Start: 1 @125437 has 110 MA's), (2, 125428), (3, 125425), (5, 125374), (8, 125332),

Gene: JimJam_6 Start: 3901, Stop: 3740, Start Num: 1
Candidate Starts for JimJam_6:
(Start: 1 @3901 has 110 MA's), (2, 3892), (3, 3889), (5, 3838), (8, 3796),

Gene: Jollison_270 Start: 122577, Stop: 122416, Start Num: 1
Candidate Starts for Jollison_270:
(Start: 1 @122577 has 110 MA's), (2, 122568), (3, 122565), (5, 122514), (8, 122472),

Gene: Jollison_6 Start: 3902, Stop: 3741, Start Num: 1
Candidate Starts for Jollison_6:
(Start: 1 @3902 has 110 MA's), (2, 3893), (3, 3890), (5, 3839), (8, 3797),

Gene: Karimac_6 Start: 3904, Stop: 3743, Start Num: 1
Candidate Starts for Karimac_6:
(Start: 1 @3904 has 110 MA's), (2, 3895), (3, 3892), (5, 3841), (8, 3799),

Gene: Karimac_264 Start: 123223, Stop: 123062, Start Num: 1
Candidate Starts for Karimac_264:
(Start: 1 @123223 has 110 MA's), (2, 123214), (3, 123211), (5, 123160), (8, 123118),

Gene: KentuckyRacer_6 Start: 3514, Stop: 3353, Start Num: 1
Candidate Starts for KentuckyRacer_6:
(Start: 1 @3514 has 110 MA's), (2, 3505), (3, 3502), (5, 3451), (8, 3409),

Gene: KentuckyRacer_280 Start: 124965, Stop: 124804, Start Num: 1
Candidate Starts for KentuckyRacer_280:
(Start: 1 @124965 has 110 MA's), (2, 124956), (3, 124953), (5, 124902), (8, 124860),

Gene: Larnav_8 Start: 4046, Stop: 3879, Start Num: 1

Candidate Starts for Larnav_8:
(Start: 1 @4046 has 110 MA's), (6, 3962), (7, 3953),

Gene: Larnav_267 Start: 126051, Stop: 125884, Start Num: 1
Candidate Starts for Larnav_267:
(Start: 1 @126051 has 110 MA's), (6, 125967), (7, 125958),

Gene: Leo04_257 Start: 126163, Stop: 125996, Start Num: 1
Candidate Starts for Leo04_257:
(Start: 1 @126163 has 110 MA's), (6, 126079), (7, 126070),

Gene: Leo04_6 Start: 4045, Stop: 3878, Start Num: 1
Candidate Starts for Leo04_6:
(Start: 1 @4045 has 110 MA's), (6, 3961), (7, 3952),

Gene: Liandry_255 Start: 125215, Stop: 125048, Start Num: 1
Candidate Starts for Liandry_255:
(Start: 1 @125215 has 110 MA's), (6, 125131), (7, 125122),

Gene: Liandry_6 Start: 3694, Stop: 3527, Start Num: 1
Candidate Starts for Liandry_6:
(Start: 1 @3694 has 110 MA's), (6, 3610), (7, 3601),

Gene: LilMartin_258 Start: 125423, Stop: 125259, Start Num: 1
Candidate Starts for LilMartin_258:
(Start: 1 @125423 has 110 MA's), (7, 125333), (8, 125324),

Gene: LilMartin_6 Start: 4079, Stop: 3915, Start Num: 1
Candidate Starts for LilMartin_6:
(Start: 1 @4079 has 110 MA's), (7, 3989), (8, 3980),

Gene: LukeCage_268 Start: 124408, Stop: 124247, Start Num: 1
Candidate Starts for LukeCage_268:
(Start: 1 @124408 has 110 MA's), (2, 124399), (3, 124396), (5, 124345), (8, 124303),

Gene: LukeCage_5 Start: 3504, Stop: 3343, Start Num: 1
Candidate Starts for LukeCage_5:
(Start: 1 @3504 has 110 MA's), (2, 3495), (3, 3492), (5, 3441), (8, 3399),

Gene: Lululemon_255 Start: 124318, Stop: 124151, Start Num: 1
Candidate Starts for Lululemon_255:
(Start: 1 @124318 has 110 MA's), (6, 124234), (7, 124225),

Gene: Lululemon_5 Start: 3426, Stop: 3259, Start Num: 1
Candidate Starts for Lululemon_5:
(Start: 1 @3426 has 110 MA's), (6, 3342), (7, 3333),

Gene: Mildred21_6 Start: 3665, Stop: 3501, Start Num: 1
Candidate Starts for Mildred21_6:
(Start: 1 @3665 has 110 MA's), (6, 3584), (7, 3575),

Gene: Mildred21_269 Start: 124823, Stop: 124659, Start Num: 1
Candidate Starts for Mildred21_269:

(Start: 1 @124823 has 110 MA's), (6, 124742), (7, 124733),

Gene: MindFlayer_5 Start: 3512, Stop: 3351, Start Num: 1
Candidate Starts for MindFlayer_5:
(Start: 1 @3512 has 110 MA's), (2, 3503), (3, 3500), (5, 3449), (8, 3407),

Gene: MindFlayer_257 Start: 121572, Stop: 121411, Start Num: 1
Candidate Starts for MindFlayer_257:
(Start: 1 @121572 has 110 MA's), (2, 121563), (3, 121560), (5, 121509), (8, 121467),

Gene: Mugiwara_277 Start: 124877, Stop: 124716, Start Num: 1
Candidate Starts for Mugiwara_277:
(Start: 1 @124877 has 110 MA's), (2, 124868), (3, 124865), (5, 124814), (8, 124772),

Gene: Mugiwara_5 Start: 3492, Stop: 3331, Start Num: 1
Candidate Starts for Mugiwara_5:
(Start: 1 @3492 has 110 MA's), (2, 3483), (3, 3480), (5, 3429), (8, 3387),

Gene: MulchMansion_262 Start: 127057, Stop: 126893, Start Num: 1
Candidate Starts for MulchMansion_262:
(Start: 1 @127057 has 110 MA's), (7, 126967), (8, 126958),

Gene: MulchMansion_6 Start: 4079, Stop: 3915, Start Num: 1
Candidate Starts for MulchMansion_6:
(Start: 1 @4079 has 110 MA's), (7, 3989), (8, 3980),

Gene: Navo_255 Start: 123117, Stop: 122950, Start Num: 1
Candidate Starts for Navo_255:
(Start: 1 @123117 has 110 MA's), (6, 123033), (7, 123024),

Gene: Navo_5 Start: 3492, Stop: 3325, Start Num: 1
Candidate Starts for Navo_5:
(Start: 1 @3492 has 110 MA's), (6, 3408), (7, 3399),

Gene: NootNoot_6 Start: 3704, Stop: 3537, Start Num: 1
Candidate Starts for NootNoot_6:
(Start: 1 @3704 has 110 MA's), (6, 3620), (7, 3611),

Gene: NootNoot_251 Start: 124003, Stop: 123836, Start Num: 1
Candidate Starts for NootNoot_251:
(Start: 1 @124003 has 110 MA's), (6, 123919), (7, 123910),

Gene: PacManQ_256 Start: 124318, Stop: 124151, Start Num: 1
Candidate Starts for PacManQ_256:
(Start: 1 @124318 has 110 MA's), (6, 124234), (7, 124225),

Gene: PacManQ_5 Start: 3426, Stop: 3259, Start Num: 1
Candidate Starts for PacManQ_5:
(Start: 1 @3426 has 110 MA's), (6, 3342), (7, 3333),

Gene: Paradiddles_6 Start: 3694, Stop: 3527, Start Num: 1
Candidate Starts for Paradiddles_6:
(Start: 1 @3694 has 110 MA's), (6, 3610), (7, 3601),

Gene: Paradiddles_247 Start: 126402, Stop: 126235, Start Num: 1
Candidate Starts for Paradiddles_247:
(Start: 1 @126402 has 110 MA's), (6, 126318), (7, 126309),

Gene: Peebs_6 Start: 4045, Stop: 3878, Start Num: 1
Candidate Starts for Peebs_6:
(Start: 1 @4045 has 110 MA's), (6, 3961), (7, 3952),

Gene: Peebs_253 Start: 126020, Stop: 125853, Start Num: 1
Candidate Starts for Peebs_253:
(Start: 1 @126020 has 110 MA's), (6, 125936), (7, 125927),

Gene: Pepperwood_7 Start: 4200, Stop: 4033, Start Num: 1
Candidate Starts for Pepperwood_7:
(Start: 1 @4200 has 110 MA's), (6, 4116), (7, 4107),

Gene: Pepperwood_256 Start: 125985, Stop: 125818, Start Num: 1
Candidate Starts for Pepperwood_256:
(Start: 1 @125985 has 110 MA's), (6, 125901), (7, 125892),

Gene: Persimmon_256 Start: 124303, Stop: 124136, Start Num: 1
Candidate Starts for Persimmon_256:
(Start: 1 @124303 has 110 MA's), (6, 124219), (7, 124210), (9, 124195),

Gene: Persimmon_5 Start: 3492, Stop: 3325, Start Num: 1
Candidate Starts for Persimmon_5:
(Start: 1 @3492 has 110 MA's), (6, 3408), (7, 3399), (9, 3384),

Gene: PinkiePie_6 Start: 3694, Stop: 3527, Start Num: 1
Candidate Starts for PinkiePie_6:
(Start: 1 @3694 has 110 MA's), (6, 3610), (7, 3601),

Gene: PinkiePie_256 Start: 125215, Stop: 125048, Start Num: 1
Candidate Starts for PinkiePie_256:
(Start: 1 @125215 has 110 MA's), (6, 125131), (7, 125122),

Gene: PumpkinSpice_6 Start: 3902, Stop: 3741, Start Num: 1
Candidate Starts for PumpkinSpice_6:
(Start: 1 @3902 has 110 MA's), (2, 3893), (3, 3890), (5, 3839), (8, 3797),

Gene: PumpkinSpice_270 Start: 123794, Stop: 123633, Start Num: 1
Candidate Starts for PumpkinSpice_270:
(Start: 1 @123794 has 110 MA's), (2, 123785), (3, 123782), (5, 123731), (8, 123689),

Gene: Quaran19_267 Start: 123084, Stop: 122923, Start Num: 1
Candidate Starts for Quaran19_267:
(Start: 1 @123084 has 110 MA's), (2, 123075), (3, 123072), (5, 123021), (8, 122979),

Gene: Quaran19_6 Start: 3902, Stop: 3741, Start Num: 1
Candidate Starts for Quaran19_6:
(Start: 1 @3902 has 110 MA's), (2, 3893), (3, 3890), (5, 3839), (8, 3797),

Gene: SaltySpitoon_6 Start: 3902, Stop: 3741, Start Num: 1
Candidate Starts for SaltySpitoon_6:
(Start: 1 @3902 has 110 MA's), (2, 3893), (3, 3890), (5, 3839), (8, 3797),

Gene: SaltySpitoon_266 Start: 122166, Stop: 122005, Start Num: 1
Candidate Starts for SaltySpitoon_266:
(Start: 1 @122166 has 110 MA's), (2, 122157), (3, 122154), (5, 122103), (8, 122061),

Gene: Samisti12_257 Start: 127089, Stop: 126922, Start Num: 1
Candidate Starts for Samisti12_257:
(Start: 1 @127089 has 110 MA's), (6, 127005), (7, 126996),

Gene: Samisti12_6 Start: 4045, Stop: 3878, Start Num: 1
Candidate Starts for Samisti12_6:
(Start: 1 @4045 has 110 MA's), (6, 3961), (7, 3952),

Gene: Sollertia_7 Start: 3876, Stop: 3715, Start Num: 1
Candidate Starts for Sollertia_7:
(Start: 1 @3876 has 110 MA's), (3, 3864), (5, 3813), (8, 3771),

Gene: Sollertia_263 Start: 122766, Stop: 122605, Start Num: 1
Candidate Starts for Sollertia_263:
(Start: 1 @122766 has 110 MA's), (3, 122754), (5, 122703), (8, 122661),

Gene: Spelly_272 Start: 122706, Stop: 122545, Start Num: 1
Candidate Starts for Spelly_272:
(Start: 1 @122706 has 110 MA's), (2, 122697), (3, 122694), (5, 122643), (8, 122601),

Gene: Spelly_6 Start: 3902, Stop: 3741, Start Num: 1
Candidate Starts for Spelly_6:
(Start: 1 @3902 has 110 MA's), (2, 3893), (3, 3890), (5, 3839), (8, 3797),

Gene: Spilled_5 Start: 3512, Stop: 3351, Start Num: 1
Candidate Starts for Spilled_5:
(Start: 1 @3512 has 110 MA's), (2, 3503), (3, 3500), (5, 3449), (8, 3407),

Gene: Spilled_273 Start: 123981, Stop: 123820, Start Num: 1
Candidate Starts for Spilled_273:
(Start: 1 @123981 has 110 MA's), (2, 123972), (3, 123969), (5, 123918), (8, 123876),

Gene: Squillium_6 Start: 3694, Stop: 3527, Start Num: 1
Candidate Starts for Squillium_6:
(Start: 1 @3694 has 110 MA's), (6, 3610), (7, 3601),

Gene: Squillium_258 Start: 125218, Stop: 125051, Start Num: 1
Candidate Starts for Squillium_258:
(Start: 1 @125218 has 110 MA's), (6, 125134), (7, 125125),

Gene: Stanimal_262 Start: 123150, Stop: 122989, Start Num: 1
Candidate Starts for Stanimal_262:
(Start: 1 @123150 has 110 MA's), (3, 123138), (5, 123087), (8, 123045),

Gene: Stanimal_7 Start: 3876, Stop: 3715, Start Num: 1

Candidate Starts for Stanimal_7:
(Start: 1 @3876 has 110 MA's), (3, 3864), (5, 3813), (8, 3771),

Gene: StarPlatinum_275 Start: 125333, Stop: 125172, Start Num: 1
Candidate Starts for StarPlatinum_275:
(Start: 1 @125333 has 110 MA's), (2, 125324), (3, 125321), (5, 125270), (8, 125228),

Gene: StarPlatinum_5 Start: 3646, Stop: 3485, Start Num: 1
Candidate Starts for StarPlatinum_5:
(Start: 1 @3646 has 110 MA's), (2, 3637), (3, 3634), (5, 3583), (8, 3541),

Gene: Starbow_6 Start: 3902, Stop: 3741, Start Num: 1
Candidate Starts for Starbow_6:
(Start: 1 @3902 has 110 MA's), (2, 3893), (3, 3890), (5, 3839), (8, 3797),

Gene: Starbow_263 Start: 122750, Stop: 122589, Start Num: 1
Candidate Starts for Starbow_263:
(Start: 1 @122750 has 110 MA's), (2, 122741), (3, 122738), (5, 122687), (8, 122645),

Gene: Sushi23_257 Start: 126889, Stop: 126722, Start Num: 1
Candidate Starts for Sushi23_257:
(Start: 1 @126889 has 110 MA's), (6, 126805), (7, 126796),

Gene: Sushi23_7 Start: 4046, Stop: 3879, Start Num: 1
Candidate Starts for Sushi23_7:
(Start: 1 @4046 has 110 MA's), (6, 3962), (7, 3953),

Gene: Targaryen_257 Start: 127838, Stop: 127671, Start Num: 1
Candidate Starts for Targaryen_257:
(Start: 1 @127838 has 110 MA's), (7, 127745), (8, 127736), (9, 127730),

Gene: Targaryen_6 Start: 4162, Stop: 3995, Start Num: 1
Candidate Starts for Targaryen_6:
(Start: 1 @4162 has 110 MA's), (7, 4069), (8, 4060), (9, 4054),

Gene: Teutsch_6 Start: 4047, Stop: 3880, Start Num: 1
Candidate Starts for Teutsch_6:
(Start: 1 @4047 has 110 MA's), (6, 3963), (7, 3954),

Gene: Teutsch_253 Start: 126256, Stop: 126089, Start Num: 1
Candidate Starts for Teutsch_253:
(Start: 1 @126256 has 110 MA's), (6, 126172), (7, 126163),

Gene: TomSawyer_6 Start: 3496, Stop: 3335, Start Num: 1
Candidate Starts for TomSawyer_6:
(Start: 1 @3496 has 110 MA's), (2, 3487), (3, 3484), (5, 3433), (8, 3391),

Gene: TomSawyer_271 Start: 125275, Stop: 125114, Start Num: 1
Candidate Starts for TomSawyer_271:
(Start: 1 @125275 has 110 MA's), (2, 125266), (3, 125263), (5, 125212), (8, 125170),

Gene: Tomas_6 Start: 3912, Stop: 3760, Start Num: 1
Candidate Starts for Tomas_6:

(Start: 1 @3912 has 110 MA's), (4, 3885), (5, 3849), (10, 3795), (11, 3783),

Gene: Tomas_262 Start: 125619, Stop: 125467, Start Num: 1
Candidate Starts for Tomas_262:
(Start: 1 @125619 has 110 MA's), (4, 125592), (5, 125556), (10, 125502), (11, 125490),

Gene: Tribute_252 Start: 126590, Stop: 126423, Start Num: 1
Candidate Starts for Tribute_252:
(Start: 1 @126590 has 110 MA's), (6, 126506), (7, 126497),

Gene: Tribute_6 Start: 4046, Stop: 3879, Start Num: 1
Candidate Starts for Tribute_6:
(Start: 1 @4046 has 110 MA's), (6, 3962), (7, 3953),

Gene: Warpy_8 Start: 3887, Stop: 3720, Start Num: 1
Candidate Starts for Warpy_8:
(Start: 1 @3887 has 110 MA's), (7, 3794), (8, 3785), (9, 3779),

Gene: Warpy_260 Start: 125425, Stop: 125258, Start Num: 1
Candidate Starts for Warpy_260:
(Start: 1 @125425 has 110 MA's), (7, 125332), (8, 125323), (9, 125317),

Gene: Watermoore_6 Start: 4047, Stop: 3880, Start Num: 1
Candidate Starts for Watermoore_6:
(Start: 1 @4047 has 110 MA's), (6, 3963), (7, 3954),

Gene: Watermoore_253 Start: 126643, Stop: 126476, Start Num: 1
Candidate Starts for Watermoore_253:
(Start: 1 @126643 has 110 MA's), (6, 126559), (7, 126550),

Gene: WhereRU_6 Start: 3492, Stop: 3325, Start Num: 1
Candidate Starts for WhereRU_6:
(Start: 1 @3492 has 110 MA's), (6, 3408), (7, 3399), (9, 3384),

Gene: WhereRU_262 Start: 124637, Stop: 124470, Start Num: 1
Candidate Starts for WhereRU_262:
(Start: 1 @124637 has 110 MA's), (6, 124553), (7, 124544), (9, 124529),

Gene: Wipeout_5 Start: 3517, Stop: 3356, Start Num: 1
Candidate Starts for Wipeout_5:
(Start: 1 @3517 has 110 MA's), (2, 3508), (3, 3505), (5, 3454), (8, 3412),

Gene: Wipeout_258 Start: 124248, Stop: 124087, Start Num: 1
Candidate Starts for Wipeout_258:
(Start: 1 @124248 has 110 MA's), (2, 124239), (3, 124236), (5, 124185), (8, 124143),

Gene: Wofford_6 Start: 3786, Stop: 3619, Start Num: 1
Candidate Starts for Wofford_6:
(Start: 1 @3786 has 110 MA's), (3, 3774), (5, 3723), (8, 3681),

Gene: Wofford_264 Start: 125579, Stop: 125412, Start Num: 1
Candidate Starts for Wofford_264:
(Start: 1 @125579 has 110 MA's), (3, 125567), (5, 125516), (8, 125474),

Gene: Yaboi_268 Start: 122694, Stop: 122533, Start Num: 1
Candidate Starts for Yaboi_268:
(Start: 1 @122694 has 110 MA's), (3, 122682), (5, 122631), (8, 122589),

Gene: Yaboi_7 Start: 3876, Stop: 3715, Start Num: 1
Candidate Starts for Yaboi_7:
(Start: 1 @3876 has 110 MA's), (3, 3864), (5, 3813), (8, 3771),