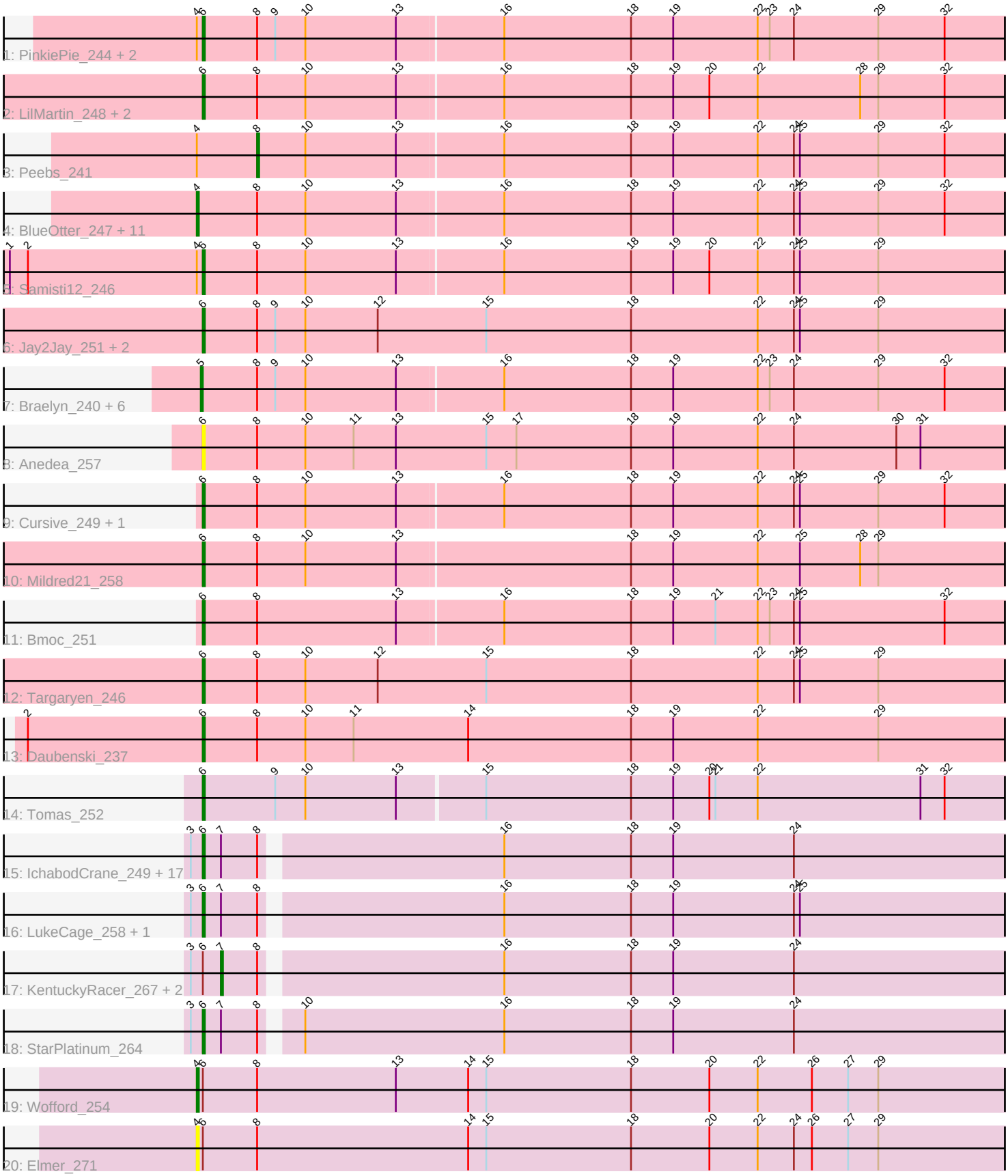
Pham 2030


1: PinkiePie_244 + 2
2: LilMartin_248 + 2
3: Peebs_241
4: BlueOtter_247 + 11
5: Samisti12_246
6: Jay2Jay_251 + 2
7: Braelyn_240 + 6
8: Anedea_257
9: Cursive_249 + 1
10: Mildred21_258
11: Bmoc_251
12: Targaryen_246
13: Daubenski_237
14: Tomas_252
15: IchabodCrane_249 + 17
16: LukeCage_258 + 1
17: KentuckyRacer_267 + 2
18: StarPlatinum_264
19: Wofford_254
20: Elmer_271

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 2030 Report

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

Pham number 2030 has 64 members, 14 are drafts.

Phages represented in each track:
• Track 1 : PinkiePie_244, Liandry_243, Squillium_246
• Track 2 : LilMartin_248, Angela_252, MulchMansion_252
• Track 3 : Peebs_241
• Track 4 : BlueOtter_247, Leo04_246, Pepperwood_244, Teutsch_243, PacManQ_246, Cross_243, HangryHippo_247, Lululemon_245, EGole_250, Larnav_253, Sushi23_245, Watermoore_242
• Track 5 : Samisti12_246
• Track 6 : Jay2Jay_251, Evy_234, Warpy_248
• Track 7 : Braelyn_240, Persimmon_246, NootNoot_240, WhereRU_251, Navo_245, Bartholomune_244, Paradiddles_235
• Track 8 : Anedea_257
• Track 9 : Cursive_249, Tribute_240
• Track 10 : Mildred21_258
• Track 11 : Bmoc_251
• Track 12 : Targaryen_246
• Track 13 : Daubenski_237
• Track 14 : Tomas_252
• Track 15 : IchabodCrane_249, Birchlyn_255, SaltySpitoon_255, Wipeout_246, Amabiko_260, Karimac_255, PumpkinSpice_258, Spilled_263, Starbow_251, MindFlayer_248, Spelly_260, JimJam_263, Gibbi_264, Jollison_259, Quaran19_256, Battuta_252, TomSawyer_260, Enygma_263
• Track 16 : LukeCage_258, Mugiwara_268
• Track 17 : KentuckyRacer_267, CeilingFan_268, Bordeaux_253
• Track 18 : StarPlatinum_264
• Track 19 : Wofford_254
• Track 20 : Elmer_271

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

The start number called the most often in the published annotations is 6, it was called in 35 of the 50 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Amabiko_260, Anedea_257, Angela_252, Battuta_252, Birchlyn_255, Bmoc_251, Cursive_249, Daubenski_237, Enygma_263, Evy_234, Gibbi_264, IchabodCrane_249, Jay2Jay_251, JimJam_263, Jollison_259, Karimac_255, Liandry_243, LilMartin_248, LukeCage_258, Mildred21_258, MindFlayer_248, Mugiwara_268, MulchMansion_252, PinkiePie_244, PumpkinSpice_258, Quaran19_256, SaltySpitoon_255, Samisti12_246, Spelly_260, Spilled_263, Squillium_246, StarPlatinum_264, Starbow_251, Targaryen_246, TomSawyer_260, Tomas_252, Tribute_240, Warpy_248, Wipeout_246,

Genes that have the "Most Annotated" start but do not call it:
• Bordeaux_253, CeilingFan_268, Elmer_271, KentuckyRacer_267, Wofford_254,

Genes that do not have the "Most Annotated" start:
• Bartholomune_244, BlueOtter_247, Braelyn_240, Cross_243, EGole_250, HangryHippo_247, Larnav_253, Leo04_246, Lululemon_245, Navo_245, NootNoot_240, PacManQ_246, Paradiddles_235, Peebs_241, Pepperwood_244, Persimmon_246, Sushi23_245, Teutsch_243, Watermoore_242, WhereRU_251,

Summary by start number:

Start 4:
• Found in 19 of 64 (29.7%) of genes in pham
• Manual Annotations of this start: 8 of 50
• Called 73.7% of time when present
• Phage (with cluster) where this start called: BlueOtter_247 (BE1), Cross_243 (BE1), EGole_250 (BE1), Elmer_271 (BE2), HangryHippo_247 (BE1), Larnav_253 (BE1), Leo04_246 (BE1), Lululemon_245 (BE1), PacManQ_246 (BE1), Pepperwood_244 (BE1), Sushi23_245 (BE1), Teutsch_243 (BE1), Watermoore_242 (BE1), Wofford_254 (BE2),

Start 5:
• Found in 7 of 64 (10.9%) of genes in pham
• Manual Annotations of this start: 5 of 50
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bartholomune_244 (BE1), Braelyn_240 (BE1), Navo_245 (BE1), NootNoot_240 (BE1), Paradiddles_235 (BE1), Persimmon_246 (BE1), WhereRU_251 (BE1),

Start 6:
• Found in 44 of 64 (68.8%) of genes in pham
• Manual Annotations of this start: 35 of 50
• Called 88.6% of time when present
• Phage (with cluster) where this start called: Amabiko_260 (BE2), Anedea_257 (BE1), Angela_252 (BE1), Battuta_252 (BE2), Birchlyn_255 (BE2), Bmoc_251 (BE1), Cursive_249 (BE1), Daubenski_237 (BE1), Enygma_263 (BE2), Evy_234 (BE1), Gibbi_264 (BE2), IchabodCrane_249 (BE2), Jay2Jay_251 (BE1), JimJam_263 (BE2), Jollison_259 (BE2), Karimac_255 (BE2), Liandry_243 (BE1), LilMartin_248 (BE1), LukeCage_258 (BE2), Mildred21_258 (BE1), MindFlayer_248 (BE2), Mugiwara_268 (BE2), MulchMansion_252 (BE1), PinkiePie_244 (BE1), PumpkinSpice_258 (BE2), Quaran19_256 (BE2), SaltySpitoon_255 (BE2), Samisti12_246 (BE1), Spelly_260 (BE2), Spilled_263 (BE2), Squillium_246 (BE1), StarPlatinum_264 (BE2), Starbow_251 (BE2), Targaryen_246 (BE1), TomSawyer_260 (BE2), Tomas_252 (BE2), Tribute_240 (BE1), Warpy_248 (BE1), Wipeout_246 (BE2),

Start 7:
• Found in 24 of 64 (37.5%) of genes in pham
• Manual Annotations of this start: 1 of 50
• Called 12.5% of time when present
• Phage (with cluster) where this start called: Bordeaux_253 (BE2), CeilingFan_268 (BE2), KentuckyRacer_267 (BE2),

Start 8:
• Found in 63 of 64 (98.4%) of genes in pham
• Manual Annotations of this start: 1 of 50
• Called 1.6% of time when present
• Phage (with cluster) where this start called: Peebs_241 (BE1),

Summary by clusters:

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

Info for manual annotations of cluster BE1:
•Start number 4 was manually annotated 7 times for cluster BE1.
•Start number 5 was manually annotated 5 times for cluster BE1.
•Start number 6 was manually annotated 16 times for cluster BE1.
•Start number 8 was manually annotated 1 time for cluster BE1.

Info for manual annotations of cluster BE2:
•Start number 4 was manually annotated 1 time for cluster BE2.
•Start number 6 was manually annotated 19 times for cluster BE2.
•Start number 7 was manually annotated 1 time for cluster BE2.

Gene Information:

Gene: Amabiko_260 Start: 116918, Stop: 117409, Start Num: 6
Candidate Starts for Amabiko_260:
(3, 116912), (Start: 6 @116918 has 35 MA's), (Start: 7 @116927 has 1 MA's), (Start: 8 @116945 has 1 MA's), (16, 117059), (18, 117122), (19, 117143), (24, 117203),

Gene: Anedea_257 Start: 120862, Stop: 121362, Start Num: 6
Candidate Starts for Anedea_257:
(Start: 6 @120862 has 35 MA's), (Start: 8 @120889 has 1 MA's), (10, 120913), (11, 120937), (13, 120958), (15, 121003), (17, 121018), (18, 121075), (19, 121096), (22, 121138), (24, 121156), (30, 121207), (31, 121219),

Gene: Angela_252 Start: 120208, Stop: 120705, Start Num: 6
Candidate Starts for Angela_252:
(Start: 6 @120208 has 35 MA's), (Start: 8 @120235 has 1 MA's), (10, 120259), (13, 120304), (16, 120355), (18, 120418), (19, 120439), (20, 120457), (22, 120481), (28, 120532), (29, 120541), (32, 120574),

Gene: Bartholomune_244 Start: 118866, Stop: 119363, Start Num: 5
Candidate Starts for Bartholomune_244:

(Start: 5 @118866 has 5 MA's), (Start: 8 @118893 has 1 MA's), (9, 118902), (10, 118917), (13, 118962), (16, 119013), (18, 119076), (19, 119097), (22, 119139), (23, 119145), (24, 119157), (29, 119199), (32, 119232),

Gene: Battuta_252 Start: 116233, Stop: 116724, Start Num: 6
Candidate Starts for Battuta_252:
(3, 116227), (Start: 6 @116233 has 35 MA's), (Start: 7 @116242 has 1 MA's), (Start: 8 @116260 has 1 MA's), (16, 116374), (18, 116437), (19, 116458), (24, 116518),

Gene: Birchlyn_255 Start: 114166, Stop: 114657, Start Num: 6
Candidate Starts for Birchlyn_255:
(3, 114160), (Start: 6 @114166 has 35 MA's), (Start: 7 @114175 has 1 MA's), (Start: 8 @114193 has 1 MA's), (16, 114307), (18, 114370), (19, 114391), (24, 114451),

Gene: BlueOtter_247 Start: 118880, Stop: 119380, Start Num: 4
Candidate Starts for BlueOtter_247:
(Start: 4 @118880 has 8 MA's), (Start: 8 @118910 has 1 MA's), (10, 118934), (13, 118979), (16, 119030), (18, 119093), (19, 119114), (22, 119156), (24, 119174), (25, 119177), (29, 119216), (32, 119249),

Gene: Bmoc_251 Start: 119651, Stop: 120148, Start Num: 6
Candidate Starts for Bmoc_251:
(Start: 6 @119651 has 35 MA's), (Start: 8 @119678 has 1 MA's), (13, 119747), (16, 119798), (18, 119861), (19, 119882), (21, 119903), (22, 119924), (23, 119930), (24, 119942), (25, 119945), (32, 120017),

Gene: Bordeaux_253 Start: 116825, Stop: 117307, Start Num: 7
Candidate Starts for Bordeaux_253:
(3, 116810), (Start: 6 @116816 has 35 MA's), (Start: 7 @116825 has 1 MA's), (Start: 8 @116843 has 1 MA's), (16, 116957), (18, 117020), (19, 117041), (24, 117101),

Gene: Braelyn_240 Start: 118200, Stop: 118697, Start Num: 5
Candidate Starts for Braelyn_240:
(Start: 5 @118200 has 5 MA's), (Start: 8 @118227 has 1 MA's), (9, 118236), (10, 118251), (13, 118296), (16, 118347), (18, 118410), (19, 118431), (22, 118473), (23, 118479), (24, 118491), (29, 118533), (32, 118566),

Gene: CeilingFan_268 Start: 118080, Stop: 118562, Start Num: 7
Candidate Starts for CeilingFan_268:
(3, 118065), (Start: 6 @118071 has 35 MA's), (Start: 7 @118080 has 1 MA's), (Start: 8 @118098 has 1 MA's), (16, 118212), (18, 118275), (19, 118296), (24, 118356),

Gene: Cross_243 Start: 119525, Stop: 120025, Start Num: 4
Candidate Starts for Cross_243:
(Start: 4 @119525 has 8 MA's), (Start: 8 @119555 has 1 MA's), (10, 119579), (13, 119624), (16, 119675), (18, 119738), (19, 119759), (22, 119801), (24, 119819), (25, 119822), (29, 119861), (32, 119894),

Gene: Cursive_249 Start: 119805, Stop: 120302, Start Num: 6
Candidate Starts for Cursive_249:
(Start: 6 @119805 has 35 MA's), (Start: 8 @119832 has 1 MA's), (10, 119856), (13, 119901), (16, 119952), (18, 120015), (19, 120036), (22, 120078), (24, 120096), (25, 120099), (29, 120138), (32, 120171),

Gene: Daubenski_237 Start: 120183, Stop: 120683, Start Num: 6
Candidate Starts for Daubenski_237:
(2, 120096), (Start: 6 @120183 has 35 MA's), (Start: 8 @120210 has 1 MA's), (10, 120234), (11, 120258), (14, 120315), (18, 120396), (19, 120417), (22, 120459), (29, 120519),

Gene: EGole_250 Start: 122106, Stop: 122606, Start Num: 4
Candidate Starts for EGole_250:
(Start: 4 @122106 has 8 MA's), (Start: 8 @122136 has 1 MA's), (10, 122160), (13, 122205), (16, 122256), (18, 122319), (19, 122340), (22, 122382), (24, 122400), (25, 122403), (29, 122442), (32, 122475),

Gene: Elmer_271 Start: 120270, Stop: 120773, Start Num: 4
Candidate Starts for Elmer_271:
(Start: 4 @120270 has 8 MA's), (Start: 6 @120273 has 35 MA's), (Start: 8 @120300 has 1 MA's), (14, 120405), (15, 120414), (18, 120486), (20, 120525), (22, 120549), (24, 120567), (26, 120576), (27, 120594), (29, 120609),

Gene: Enygma_263 Start: 119868, Stop: 120359, Start Num: 6
Candidate Starts for Enygma_263:
(3, 119862), (Start: 6 @119868 has 35 MA's), (Start: 7 @119877 has 1 MA's), (Start: 8 @119895 has 1 MA's), (16, 120009), (18, 120072), (19, 120093), (24, 120153),

Gene: Evy_234 Start: 119750, Stop: 120250, Start Num: 6
Candidate Starts for Evy_234:
(Start: 6 @119750 has 35 MA's), (Start: 8 @119777 has 1 MA's), (9, 119786), (10, 119801), (12, 119837), (15, 119891), (18, 119963), (22, 120026), (24, 120044), (25, 120047), (29, 120086),

Gene: Gibbi_264 Start: 117564, Stop: 118055, Start Num: 6
Candidate Starts for Gibbi_264:
(3, 117558), (Start: 6 @117564 has 35 MA's), (Start: 7 @117573 has 1 MA's), (Start: 8 @117591 has 1 MA's), (16, 117705), (18, 117768), (19, 117789), (24, 117849),

Gene: HangryHippo_247 Start: 118880, Stop: 119380, Start Num: 4
Candidate Starts for HangryHippo_247:
(Start: 4 @118880 has 8 MA's), (Start: 8 @118910 has 1 MA's), (10, 118934), (13, 118979), (16, 119030), (18, 119093), (19, 119114), (22, 119156), (24, 119174), (25, 119177), (29, 119216), (32, 119249),

Gene: IchabodCrane_249 Start: 116619, Stop: 117110, Start Num: 6
Candidate Starts for IchabodCrane_249:
(3, 116613), (Start: 6 @116619 has 35 MA's), (Start: 7 @116628 has 1 MA's), (Start: 8 @116646 has 1 MA's), (16, 116760), (18, 116823), (19, 116844), (24, 116904),

Gene: Jay2Jay_251 Start: 120114, Stop: 120614, Start Num: 6
Candidate Starts for Jay2Jay_251:
(Start: 6 @120114 has 35 MA's), (Start: 8 @120141 has 1 MA's), (9, 120150), (10, 120165), (12, 120201), (15, 120255), (18, 120327), (22, 120390), (24, 120408), (25, 120411), (29, 120450),

Gene: JimJam_263 Start: 119000, Stop: 119491, Start Num: 6
Candidate Starts for JimJam_263:
(3, 118994), (Start: 6 @119000 has 35 MA's), (Start: 7 @119009 has 1 MA's), (Start: 8 @119027 has 1 MA's), (16, 119141), (18, 119204), (19, 119225), (24, 119285),

Gene: Jollison_259 Start: 116750, Stop: 117241, Start Num: 6
Candidate Starts for Jollison_259:
(3, 116744), (Start: 6 @116750 has 35 MA's), (Start: 7 @116759 has 1 MA's), (Start: 8 @116777 has 1 MA's), (16, 116891), (18, 116954), (19, 116975), (24, 117035),

Gene: Karimac_255 Start: 117395, Stop: 117886, Start Num: 6
Candidate Starts for Karimac_255:
(3, 117389), (Start: 6 @117395 has 35 MA's), (Start: 7 @117404 has 1 MA's), (Start: 8 @117422 has 1 MA's), (16, 117536), (18, 117599), (19, 117620), (24, 117680),

Gene: KentuckyRacer_267 Start: 118924, Stop: 119406, Start Num: 7
Candidate Starts for KentuckyRacer_267:
(3, 118909), (Start: 6 @118915 has 35 MA's), (Start: 7 @118924 has 1 MA's), (Start: 8 @118942 has 1 MA's), (16, 119056), (18, 119119), (19, 119140), (24, 119200),

Gene: Larnav_253 Start: 119798, Stop: 120298, Start Num: 4
Candidate Starts for Larnav_253:
(Start: 4 @119798 has 8 MA's), (Start: 8 @119828 has 1 MA's), (10, 119852), (13, 119897), (16, 119948), (18, 120011), (19, 120032), (22, 120074), (24, 120092), (25, 120095), (29, 120134), (32, 120167),

Gene: Leo04_246 Start: 119911, Stop: 120411, Start Num: 4
Candidate Starts for Leo04_246:
(Start: 4 @119911 has 8 MA's), (Start: 8 @119941 has 1 MA's), (10, 119965), (13, 120010), (16, 120061), (18, 120124), (19, 120145), (22, 120187), (24, 120205), (25, 120208), (29, 120247), (32, 120280),

Gene: Liandry_243 Start: 119287, Stop: 119784, Start Num: 6
Candidate Starts for Liandry_243:
(Start: 4 @119284 has 8 MA's), (Start: 6 @119287 has 35 MA's), (Start: 8 @119314 has 1 MA's), (9, 119323), (10, 119338), (13, 119383), (16, 119434), (18, 119497), (19, 119518), (22, 119560), (23, 119566), (24, 119578), (29, 119620), (32, 119653),

Gene: LilMartin_248 Start: 119148, Stop: 119645, Start Num: 6
Candidate Starts for LilMartin_248:
(Start: 6 @119148 has 35 MA's), (Start: 8 @119175 has 1 MA's), (10, 119199), (13, 119244), (16, 119295), (18, 119358), (19, 119379), (20, 119397), (22, 119421), (28, 119472), (29, 119481), (32, 119514),

Gene: LukeCage_258 Start: 118778, Stop: 119269, Start Num: 6
Candidate Starts for LukeCage_258:
(3, 118772), (Start: 6 @118778 has 35 MA's), (Start: 7 @118787 has 1 MA's), (Start: 8 @118805 has 1 MA's), (16, 118919), (18, 118982), (19, 119003), (24, 119063), (25, 119066),

Gene: Lululemon_245 Start: 118685, Stop: 119185, Start Num: 4
Candidate Starts for Lululemon_245:
(Start: 4 @118685 has 8 MA's), (Start: 8 @118715 has 1 MA's), (10, 118739), (13, 118784), (16, 118835), (18, 118898), (19, 118919), (22, 118961), (24, 118979), (25, 118982), (29, 119021), (32, 119054),

Gene: Mildred21_258 Start: 118949, Stop: 119446, Start Num: 6
Candidate Starts for Mildred21_258:

(Start: 6 @118949 has 35 MA's), (Start: 8 @118976 has 1 MA's), (10, 119000), (13, 119045), (18, 119159), (19, 119180), (22, 119222), (25, 119243), (28, 119273), (29, 119282),

Gene: MindFlayer_248 Start: 116135, Stop: 116626, Start Num: 6
Candidate Starts for MindFlayer_248:
(3, 116129), (Start: 6 @116135 has 35 MA's), (Start: 7 @116144 has 1 MA's), (Start: 8 @116162 has 1 MA's), (16, 116276), (18, 116339), (19, 116360), (24, 116420),

Gene: Mugiwara_268 Start: 119483, Stop: 119974, Start Num: 6
Candidate Starts for Mugiwara_268:
(3, 119477), (Start: 6 @119483 has 35 MA's), (Start: 7 @119492 has 1 MA's), (Start: 8 @119510 has 1 MA's), (16, 119624), (18, 119687), (19, 119708), (24, 119768), (25, 119771),

Gene: MulchMansion_252 Start: 120782, Stop: 121279, Start Num: 6
Candidate Starts for MulchMansion_252:
(Start: 6 @120782 has 35 MA's), (Start: 8 @120809 has 1 MA's), (10, 120833), (13, 120878), (16, 120929), (18, 120992), (19, 121013), (20, 121031), (22, 121055), (28, 121106), (29, 121115), (32, 121148),

Gene: Navo_245 Start: 117404, Stop: 117901, Start Num: 5
Candidate Starts for Navo_245:
(Start: 5 @117404 has 5 MA's), (Start: 8 @117431 has 1 MA's), (9, 117440), (10, 117455), (13, 117500), (16, 117551), (18, 117614), (19, 117635), (22, 117677), (23, 117683), (24, 117695), (29, 117737), (32, 117770),

Gene: NootNoot_240 Start: 118099, Stop: 118596, Start Num: 5
Candidate Starts for NootNoot_240:
(Start: 5 @118099 has 5 MA's), (Start: 8 @118126 has 1 MA's), (9, 118135), (10, 118150), (13, 118195), (16, 118246), (18, 118309), (19, 118330), (22, 118372), (23, 118378), (24, 118390), (29, 118432), (32, 118465),

Gene: PacManQ_246 Start: 118685, Stop: 119185, Start Num: 4
Candidate Starts for PacManQ_246:
(Start: 4 @118685 has 8 MA's), (Start: 8 @118715 has 1 MA's), (10, 118739), (13, 118784), (16, 118835), (18, 118898), (19, 118919), (22, 118961), (24, 118979), (25, 118982), (29, 119021), (32, 119054),

Gene: Paradiddles_235 Start: 120474, Stop: 120971, Start Num: 5
Candidate Starts for Paradiddles_235:
(Start: 5 @120474 has 5 MA's), (Start: 8 @120501 has 1 MA's), (9, 120510), (10, 120525), (13, 120570), (16, 120621), (18, 120684), (19, 120705), (22, 120747), (23, 120753), (24, 120765), (29, 120807), (32, 120840),

Gene: Peebs_241 Start: 119799, Stop: 120269, Start Num: 8
Candidate Starts for Peebs_241:
(Start: 4 @119769 has 8 MA's), (Start: 8 @119799 has 1 MA's), (10, 119823), (13, 119868), (16, 119919), (18, 119982), (19, 120003), (22, 120045), (24, 120063), (25, 120066), (29, 120105), (32, 120138),

Gene: Pepperwood_244 Start: 119577, Stop: 120077, Start Num: 4
Candidate Starts for Pepperwood_244:
(Start: 4 @119577 has 8 MA's), (Start: 8 @119607 has 1 MA's), (10, 119631), (13, 119676), (16, 119727), (18, 119790), (19, 119811), (22, 119853), (24, 119871), (25, 119874), (29, 119913), (32,

119946),

Gene: Persimmon_246 Start: 118601, Stop: 119098, Start Num: 5
Candidate Starts for Persimmon_246:
(Start: 5 @118601 has 5 MA's), (Start: 8 @118628 has 1 MA's), (9, 118637), (10, 118652), (13, 118697), (16, 118748), (18, 118811), (19, 118832), (22, 118874), (23, 118880), (24, 118892), (29, 118934), (32, 118967),

Gene: PinkiePie_244 Start: 119287, Stop: 119784, Start Num: 6
Candidate Starts for PinkiePie_244:
(Start: 4 @119284 has 8 MA's), (Start: 6 @119287 has 35 MA's), (Start: 8 @119314 has 1 MA's), (9, 119323), (10, 119338), (13, 119383), (16, 119434), (18, 119497), (19, 119518), (22, 119560), (23, 119566), (24, 119578), (29, 119620), (32, 119653),

Gene: PumpkinSpice_258 Start: 117356, Stop: 117847, Start Num: 6
Candidate Starts for PumpkinSpice_258:
(3, 117350), (Start: 6 @117356 has 35 MA's), (Start: 7 @117365 has 1 MA's), (Start: 8 @117383 has 1 MA's), (16, 117497), (18, 117560), (19, 117581), (24, 117641),

Gene: Quaran19_256 Start: 117257, Stop: 117748, Start Num: 6
Candidate Starts for Quaran19_256:
(3, 117251), (Start: 6 @117257 has 35 MA's), (Start: 7 @117266 has 1 MA's), (Start: 8 @117284 has 1 MA's), (16, 117398), (18, 117461), (19, 117482), (24, 117542),

Gene: SaltySpitoon_255 Start: 116339, Stop: 116830, Start Num: 6
Candidate Starts for SaltySpitoon_255:
(3, 116333), (Start: 6 @116339 has 35 MA's), (Start: 7 @116348 has 1 MA's), (Start: 8 @116366 has 1 MA's), (16, 116480), (18, 116543), (19, 116564), (24, 116624),

Gene: Samisti12_246 Start: 120837, Stop: 121334, Start Num: 6
Candidate Starts for Samisti12_246:
(1, 120741), (2, 120750), (Start: 4 @120834 has 8 MA's), (Start: 6 @120837 has 35 MA's), (Start: 8 @120864 has 1 MA's), (10, 120888), (13, 120933), (16, 120984), (18, 121047), (19, 121068), (20, 121086), (22, 121110), (24, 121128), (25, 121131), (29, 121170),

Gene: Spelly_260 Start: 116268, Stop: 116759, Start Num: 6
Candidate Starts for Spelly_260:
(3, 116262), (Start: 6 @116268 has 35 MA's), (Start: 7 @116277 has 1 MA's), (Start: 8 @116295 has 1 MA's), (16, 116409), (18, 116472), (19, 116493), (24, 116553),

Gene: Spilled_263 Start: 117932, Stop: 118423, Start Num: 6
Candidate Starts for Spilled_263:
(3, 117926), (Start: 6 @117932 has 35 MA's), (Start: 7 @117941 has 1 MA's), (Start: 8 @117959 has 1 MA's), (16, 118073), (18, 118136), (19, 118157), (24, 118217),

Gene: Squillium_246 Start: 119289, Stop: 119786, Start Num: 6
Candidate Starts for Squillium_246:
(Start: 4 @119286 has 8 MA's), (Start: 6 @119289 has 35 MA's), (Start: 8 @119316 has 1 MA's), (9, 119325), (10, 119340), (13, 119385), (16, 119436), (18, 119499), (19, 119520), (22, 119562), (23, 119568), (24, 119580), (29, 119622), (32, 119655),

Gene: StarPlatinum_264 Start: 119554, Stop: 120045, Start Num: 6
Candidate Starts for StarPlatinum_264:

(3, 119548), (Start: 6 @119554 has 35 MA's), (Start: 7 @119563 has 1 MA's), (Start: 8 @119581 has 1 MA's), (10, 119596), (16, 119695), (18, 119758), (19, 119779), (24, 119839),

Gene: Starbow_251 Start: 116312, Stop: 116803, Start Num: 6
Candidate Starts for Starbow_251:
(3, 116306), (Start: 6 @116312 has 35 MA's), (Start: 7 @116321 has 1 MA's), (Start: 8 @116339 has 1 MA's), (16, 116453), (18, 116516), (19, 116537), (24, 116597),

Gene: Sushi23_245 Start: 120635, Stop: 121135, Start Num: 4
Candidate Starts for Sushi23_245:
(Start: 4 @120635 has 8 MA's), (Start: 8 @120665 has 1 MA's), (10, 120689), (13, 120734), (16, 120785), (18, 120848), (19, 120869), (22, 120911), (24, 120929), (25, 120932), (29, 120971), (32, 121004),

Gene: Targaryen_246 Start: 121696, Stop: 122196, Start Num: 6
Candidate Starts for Targaryen_246:
(Start: 6 @121696 has 35 MA's), (Start: 8 @121723 has 1 MA's), (10, 121747), (12, 121783), (15, 121837), (18, 121909), (22, 121972), (24, 121990), (25, 121993), (29, 122032),

Gene: Teutsch_243 Start: 120000, Stop: 120500, Start Num: 4
Candidate Starts for Teutsch_243:
(Start: 4 @120000 has 8 MA's), (Start: 8 @120030 has 1 MA's), (10, 120054), (13, 120099), (16, 120150), (18, 120213), (19, 120234), (22, 120276), (24, 120294), (25, 120297), (29, 120336), (32, 120369),

Gene: TomSawyer_260 Start: 119243, Stop: 119734, Start Num: 6
Candidate Starts for TomSawyer_260:
(3, 119237), (Start: 6 @119243 has 35 MA's), (Start: 7 @119252 has 1 MA's), (Start: 8 @119270 has 1 MA's), (16, 119384), (18, 119447), (19, 119468), (24, 119528),

Gene: Tomas_252 Start: 119859, Stop: 120356, Start Num: 6
Candidate Starts for Tomas_252:
(Start: 6 @119859 has 35 MA's), (9, 119895), (10, 119910), (13, 119955), (15, 119997), (18, 120069), (19, 120090), (20, 120108), (21, 120111), (22, 120132), (31, 120213), (32, 120225),

Gene: Tribute_240 Start: 120338, Stop: 120835, Start Num: 6
Candidate Starts for Tribute_240:
(Start: 6 @120338 has 35 MA's), (Start: 8 @120365 has 1 MA's), (10, 120389), (13, 120434), (16, 120485), (18, 120548), (19, 120569), (22, 120611), (24, 120629), (25, 120632), (29, 120671), (32, 120704),

Gene: Warpy_248 Start: 119559, Stop: 120059, Start Num: 6
Candidate Starts for Warpy_248:
(Start: 6 @119559 has 35 MA's), (Start: 8 @119586 has 1 MA's), (9, 119595), (10, 119610), (12, 119646), (15, 119700), (18, 119772), (22, 119835), (24, 119853), (25, 119856), (29, 119895),

Gene: Watermoore_242 Start: 120389, Stop: 120889, Start Num: 4
Candidate Starts for Watermoore_242:
(Start: 4 @120389 has 8 MA's), (Start: 8 @120419 has 1 MA's), (10, 120443), (13, 120488), (16, 120539), (18, 120602), (19, 120623), (22, 120665), (24, 120683), (25, 120686), (29, 120725), (32, 120758),

Gene: WhereRU_251 Start: 118935, Stop: 119432, Start Num: 5

Candidate Starts for WhereRU_251:
(Start: 5 @118935 has 5 MA's), (Start: 8 @118962 has 1 MA's), (9, 118971), (10, 118986), (13, 119031), (16, 119082), (18, 119145), (19, 119166), (22, 119208), (23, 119214), (24, 119226), (29, 119268), (32, 119301),

Gene: Wipeout_246 Start: 118195, Stop: 118686, Start Num: 6
Candidate Starts for Wipeout_246:
(3, 118189), (Start: 6 @118195 has 35 MA's), (Start: 7 @118204 has 1 MA's), (Start: 8 @118222 has 1 MA's), (16, 118336), (18, 118399), (19, 118420), (24, 118480),

Gene: Wofford_254 Start: 119712, Stop: 120215, Start Num: 4
Candidate Starts for Wofford_254:
(Start: 4 @119712 has 8 MA's), (Start: 6 @119715 has 35 MA's), (Start: 8 @119742 has 1 MA's), (13, 119811), (14, 119847), (15, 119856), (18, 119928), (20, 119967), (22, 119991), (26, 120018), (27, 120036), (29, 120051),