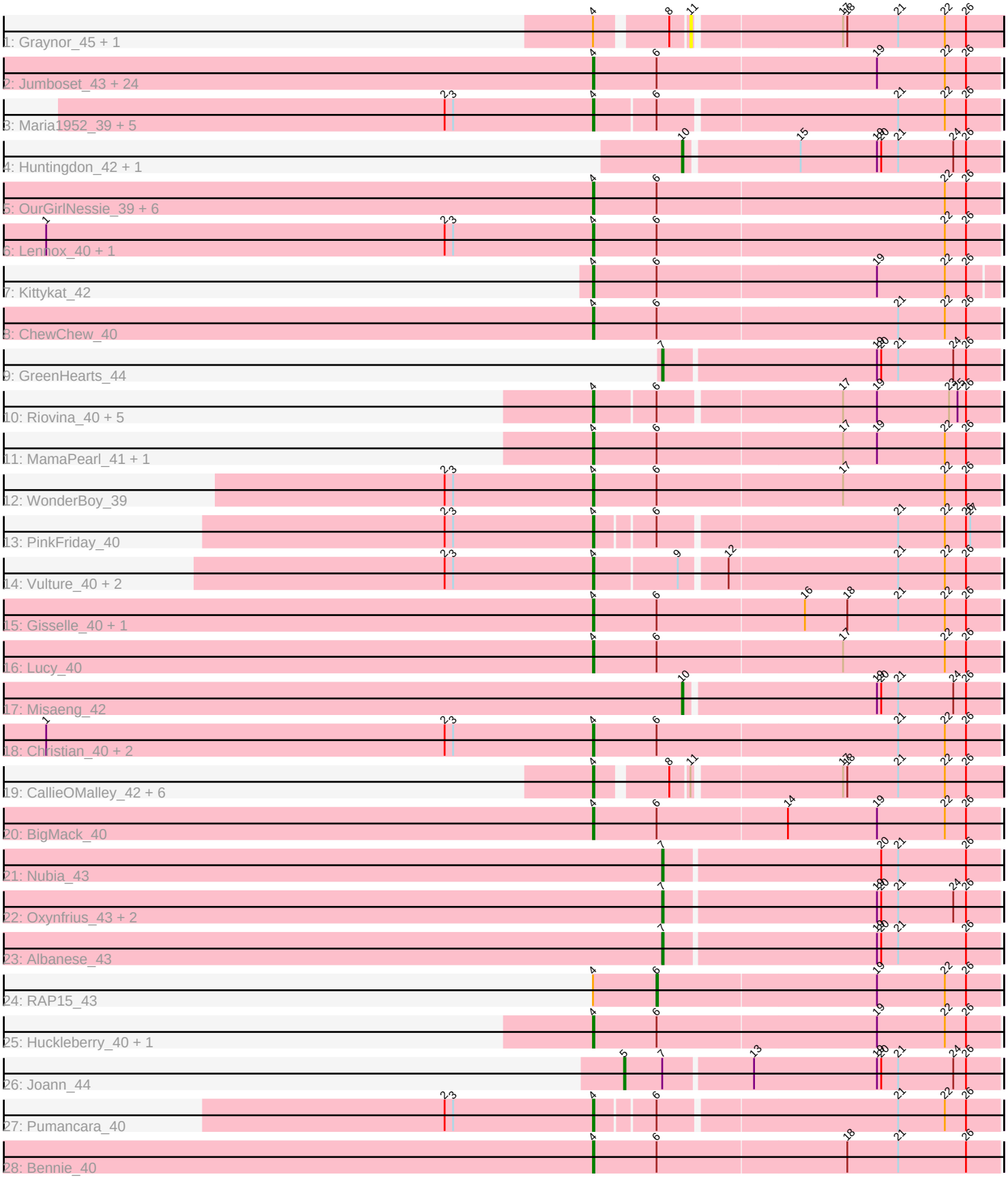
Pham 347502


1: Graynor_45 + 1
2: Jumboset_43 + 24
3: Maria1952_39 + 5
4: Huntingdon_42 + 1
5: OurGirlNessie_39 + 6
6: Lennox_40 + 1
7: Kittykat_42
8: ChewChew_40
9: GreenHearts_44
10: Riovina_40 + 5
11: MamaPearl_41 + 1
12: WonderBoy_39
13: PinkFriday_40
14: Vulture_40 + 2
15: Gisselle_40 + 1
16: Lucy_40
17: Misaeng_42
18: Christian_40 + 2
19: CallieOMalley_42 + 6
20: BigMack_40
21: Nubia_43
22: Oxynfrius_43 + 2
23: Albanese_43
24: RAP15_43
25: Huckleberry_40 + 1
26: Joann_44
27: Pumancara_40
28: Bennie_40

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 347502 Report

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

Pham number 347502 has 86 members, 2 are drafts.

Phages represented in each track:
• Track 1 : Graynor_45, MrBoss_44
• Track 2 : Jumboset_43, Vallejo_43, TattModd_41, Riverdale_43, Beethoven_42, Moki_40, Zorro_43, Dino_43, Immaculata_42, Wawa_42, Scuttle_42, Preamble_41, Potatoes_42, BrotherBLo_42, MeganNoll_42, MrGloopy_43, Kalizoi_42, Urla_41, Carpal_42, Cholula_42, Glenn_43, Savage2526_43, Rozby_42, Korra_42, Fluke_43
• Track 3 : Maria1952_39, Herb_40, Daiboju_40, KingBob_40, Sergei_40, Temper16_40
• Track 4 : Huntingdon_42, RcigaStruga_42
• Track 5 : OurGirlNessie_39, CristinaYang_40, Pterodactyl_40, LilStuart_40, Makoto_40, PitaDog_41, Lasagna_39
• Track 6 : Lennox_40, DrRobert_39
• Track 7 : Kittykat_42
• Track 8 : ChewChew_40
• Track 9 : GreenHearts_44
• Track 10 : Riovina_40, AustinPowers_40, Supakev_40, OMalley_40, Eunoia_40, Aledel_40
• Track 11 : MamaPearl_41, EstebanJulior_41
• Track 12 : WonderBoy_39
• Track 13 : PinkFriday_40
• Track 14 : Vulture_40, HunterDalle_40, Chridison_39
• Track 15 : Gisselle_40, DreamTeam_40
• Track 16 : Lucy_40
• Track 17 : Misaeng_42
• Track 18 : Christian_40, Bodacious_40, Nancia_40
• Track 19 : CallieOMalley_42, AppleCider_42, Suppi_42, Wayne_42, Canowicakte_42, Litotes_42, PartyCup_43
• Track 20 : BigMack_40
• Track 21 : Nubia_43
• Track 22 : Oxynfrius_43, Greenhouse_44, Lakshmi_43
• Track 23 : Albanese_43
• Track 24 : RAP15_43
• Track 25 : Huckleberry_40, HeadNerd_40
• Track 26 : Joann_44
• Track 27 : Pumancara_40
• Track 28 : Bennie_40

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

The start number called the most often in the published annotations is 4, it was called in 73 of the 84 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aledel_40, AppleCider_42, AustinPowers_40, Beethoven_42, Bennie_40, BigMack_40, Bodacious_40, BrotherBLo_42, CallieOMalley_42, Canowicakte_42, Carpal_42, ChewChew_40, Cholula_42, Chridison_39, Christian_40, CristinaYang_40, Daiboju_40, Dino_43, DrRobert_39, DreamTeam_40, EstebanJulior_41, Eunoia_40, Fluke_43, Gisselle_40, Glenn_43, HeadNerd_40, Herb_40, Huckleberry_40, HunterDalle_40, Immaculata_42, Jumboset_43, Kalizoi_42, KingBob_40, Kittykat_42, Korra_42, Lasagna_39, Lennox_40, LilStuart_40, Litotes_42, Lucy_40, Makoto_40, MamaPearl_41, Maria1952_39, MeganNoll_42, Moki_40, MrGloopy_43, Nancia_40, OMalley_40, OurGirlNessie_39, PartyCup_43, PinkFriday_40, PitaDog_41, Potatoes_42, Preamble_41, Pterodactyl_40, Pumancara_40, Riovina_40, Riverdale_43, Rozby_42, Savage2526_43, Scuttle_42, Sergei_40, Supakev_40, Suppi_42, TattModd_41, Temper16_40, Urla_41, Vallejo_43, Vulture_40, Wawa_42, Wayne_42, WonderBoy_39, Zorro_43,

Genes that have the "Most Annotated" start but do not call it:
• Graynor_45, MrBoss_44, RAP15_43,

Genes that do not have the "Most Annotated" start:
• Albanese_43, GreenHearts_44, Greenhouse_44, Huntingdon_42, Joann_44, Lakshmi_43, Misaeng_42, Nubia_43, Oxynfrius_43, RcigaStruga_42,

Summary by start number:

Start 4:
• Found in 76 of 86 (88.4%) of genes in pham
• Manual Annotations of this start: 73 of 84
• Called 96.1% of time when present
• Phage (with cluster) where this start called: Aledel_40 (AK), AppleCider_42 (AK), AustinPowers_40 (AK), Beethoven_42 (AK), Bennie_40 (AK), BigMack_40 (AK), Bodacious_40 (AK), BrotherBLo_42 (AK), CallieOMalley_42 (AK), Canowicakte_42 (AK), Carpal_42 (AK), ChewChew_40 (AK), Cholula_42 (AK), Chridison_39 (AK), Christian_40 (AK), CristinaYang_40 (AK), Daiboju_40 (AK), Dino_43 (AK), DrRobert_39 (AK), DreamTeam_40 (AK), EstebanJulior_41 (AK), Eunoia_40 (AK), Fluke_43 (AK), Gisselle_40 (AK), Glenn_43 (AK), HeadNerd_40 (AK), Herb_40 (AK), Huckleberry_40 (AK), HunterDalle_40 (AK), Immaculata_42 (AK), Jumboset_43 (AK), Kalizoi_42 (AK), KingBob_40 (AK), Kittykat_42 (AK), Korra_42 (AK), Lasagna_39 (AK), Lennox_40 (AK), LilStuart_40 (AK), Litotes_42 (AK), Lucy_40 (AK), Makoto_40 (AK), MamaPearl_41 (AK), Maria1952_39 (AK), MeganNoll_42 (AK), Moki_40 (AK), MrGloopy_43 (AK), Nancia_40 (AK), OMalley_40 (AK), OurGirlNessie_39 (AK), PartyCup_43 (AK), PinkFriday_40 (AK), PitaDog_41 (AK), Potatoes_42 (AK), Preamble_41 (AK), Pterodactyl_40 (AK), Pumancara_40 (AK), Riovina_40 (AK), Riverdale_43 (AK), Rozby_42 (AK), Savage2526_43 (AK), Scuttle_42 (AK), Sergei_40 (AK), Supakev_40 (AK), Suppi_42 (AK), TattModd_41 (AK), Temper16_40 (AK), Urla_41 (AK), Vallejo_43 (AK), Vulture_40 (AK), Wawa_42 (AK), Wayne_42 (AK), WonderBoy_39 (AK), Zorro_43 (AK),

Start 5:
• Found in 1 of 86 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 84
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Joann_44 (AK),

Start 6:
• Found in 64 of 86 (74.4%) of genes in pham
• Manual Annotations of this start: 1 of 84
• Called 1.6% of time when present
• Phage (with cluster) where this start called: RAP15_43 (AK),

Start 7:
• Found in 7 of 86 (8.1%) of genes in pham
• Manual Annotations of this start: 6 of 84
• Called 85.7% of time when present
• Phage (with cluster) where this start called: Albanese_43 (AK), GreenHearts_44 (AK), Greenhouse_44 (AK), Lakshmi_43 (AK), Nubia_43 (AK), Oxynfrius_43 (AK),

Start 10:
• Found in 3 of 86 (3.5%) of genes in pham
• Manual Annotations of this start: 3 of 84
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Huntingdon_42 (AK), Misaeng_42 (AK), RcigaStruga_42 (AK),

Start 11:
• Found in 9 of 86 (10.5%) of genes in pham
• No Manual Annotations of this start.
• Called 22.2% of time when present
• Phage (with cluster) where this start called: Graynor_45 (AK), MrBoss_44 (AK),

Summary by clusters:

There is one cluster represented in this pham: AK

Info for manual annotations of cluster AK:
•Start number 4 was manually annotated 73 times for cluster AK.
•Start number 5 was manually annotated 1 time for cluster AK.
•Start number 6 was manually annotated 1 time for cluster AK.
•Start number 7 was manually annotated 6 times for cluster AK.
•Start number 10 was manually annotated 3 times for cluster AK.

Gene Information:

Gene: Albanese_43 Start: 29112, Stop: 29345, Start Num: 7
Candidate Starts for Albanese_43:
(Start: 7 @29112 has 6 MA's), (19, 29259), (20, 29262), (21, 29274), (26, 29322),

Gene: Aledel_40 Start: 28451, Stop: 28726, Start Num: 4

Candidate Starts for Aledel_40:
(Start: 4 @28451 has 73 MA's), (Start: 6 @28493 has 1 MA's), (17, 28616), (19, 28640), (23, 28691), (25, 28697), (26, 28703),

Gene: AppleCider_42 Start: 28492, Stop: 28761, Start Num: 4
Candidate Starts for AppleCider_42:
(Start: 4 @28492 has 73 MA's), (8, 28537), (11, 28549), (17, 28648), (18, 28651), (21, 28687), (22, 28720), (26, 28735),

Gene: AustinPowers_40 Start: 28449, Stop: 28724, Start Num: 4
Candidate Starts for AustinPowers_40:
(Start: 4 @28449 has 73 MA's), (Start: 6 @28491 has 1 MA's), (17, 28614), (19, 28638), (23, 28689), (25, 28695), (26, 28701),

Gene: Beethoven_42 Start: 28424, Stop: 28708, Start Num: 4
Candidate Starts for Beethoven_42:
(Start: 4 @28424 has 73 MA's), (Start: 6 @28469 has 1 MA's), (19, 28622), (22, 28670), (26, 28685),

Gene: Bennie_40 Start: 27235, Stop: 27519, Start Num: 4
Candidate Starts for Bennie_40:
(Start: 4 @27235 has 73 MA's), (Start: 6 @27280 has 1 MA's), (18, 27412), (21, 27448), (26, 27496),

Gene: BigMack_40 Start: 27335, Stop: 27619, Start Num: 4
Candidate Starts for BigMack_40:
(Start: 4 @27335 has 73 MA's), (Start: 6 @27380 has 1 MA's), (14, 27470), (19, 27533), (22, 27581), (26, 27596),

Gene: Bodacious_40 Start: 27293, Stop: 27577, Start Num: 4
Candidate Starts for Bodacious_40:
(1, 26906), (2, 27188), (3, 27194), (Start: 4 @27293 has 73 MA's), (Start: 6 @27338 has 1 MA's), (21, 27506), (22, 27539), (26, 27554),

Gene: BrotherBLo_42 Start: 28456, Stop: 28740, Start Num: 4
Candidate Starts for BrotherBLo_42:
(Start: 4 @28456 has 73 MA's), (Start: 6 @28501 has 1 MA's), (19, 28654), (22, 28702), (26, 28717),

Gene: CallieOMalley_42 Start: 28492, Stop: 28761, Start Num: 4
Candidate Starts for CallieOMalley_42:
(Start: 4 @28492 has 73 MA's), (8, 28537), (11, 28549), (17, 28648), (18, 28651), (21, 28687), (22, 28720), (26, 28735),

Gene: Canowicakte_42 Start: 28527, Stop: 28796, Start Num: 4
Candidate Starts for Canowicakte_42:
(Start: 4 @28527 has 73 MA's), (8, 28572), (11, 28584), (17, 28683), (18, 28686), (21, 28722), (22, 28755), (26, 28770),

Gene: Carpal_42 Start: 28436, Stop: 28720, Start Num: 4
Candidate Starts for Carpal_42:
(Start: 4 @28436 has 73 MA's), (Start: 6 @28481 has 1 MA's), (19, 28634), (22, 28682), (26, 28697),

Gene: ChewChew_40 Start: 27424, Stop: 27708, Start Num: 4
Candidate Starts for ChewChew_40:
(Start: 4 @27424 has 73 MA's), (Start: 6 @27469 has 1 MA's), (21, 27637), (22, 27670), (26, 27685),

Gene: Cholula_42 Start: 28482, Stop: 28766, Start Num: 4
Candidate Starts for Cholula_42:
(Start: 4 @28482 has 73 MA's), (Start: 6 @28527 has 1 MA's), (19, 28680), (22, 28728), (26, 28743),

Gene: Chridison_39 Start: 28383, Stop: 28658, Start Num: 4
Candidate Starts for Chridison_39:
(2, 28278), (3, 28284), (Start: 4 @28383 has 73 MA's), (9, 28440), (12, 28470), (21, 28587), (22, 28620), (26, 28635),

Gene: Christian_40 Start: 27281, Stop: 27565, Start Num: 4
Candidate Starts for Christian_40:
(1, 26894), (2, 27176), (3, 27182), (Start: 4 @27281 has 73 MA's), (Start: 6 @27326 has 1 MA's), (21, 27494), (22, 27527), (26, 27542),

Gene: CristinaYang_40 Start: 27420, Stop: 27704, Start Num: 4
Candidate Starts for CristinaYang_40:
(Start: 4 @27420 has 73 MA's), (Start: 6 @27465 has 1 MA's), (22, 27666), (26, 27681),

Gene: Daiboju_40 Start: 28464, Stop: 28739, Start Num: 4
Candidate Starts for Daiboju_40:
(2, 28359), (3, 28365), (Start: 4 @28464 has 73 MA's), (Start: 6 @28506 has 1 MA's), (21, 28668), (22, 28701), (26, 28716),

Gene: Dino_43 Start: 28583, Stop: 28867, Start Num: 4
Candidate Starts for Dino_43:
(Start: 4 @28583 has 73 MA's), (Start: 6 @28628 has 1 MA's), (19, 28781), (22, 28829), (26, 28844),

Gene: DrRobert_39 Start: 27061, Stop: 27345, Start Num: 4
Candidate Starts for DrRobert_39:
(1, 26674), (2, 26956), (3, 26962), (Start: 4 @27061 has 73 MA's), (Start: 6 @27106 has 1 MA's), (22, 27307), (26, 27322),

Gene: DreamTeam_40 Start: 27389, Stop: 27673, Start Num: 4
Candidate Starts for DreamTeam_40:
(Start: 4 @27389 has 73 MA's), (Start: 6 @27434 has 1 MA's), (16, 27536), (18, 27566), (21, 27602), (22, 27635), (26, 27650),

Gene: EstebanJulior_41 Start: 28439, Stop: 28723, Start Num: 4
Candidate Starts for EstebanJulior_41:
(Start: 4 @28439 has 73 MA's), (Start: 6 @28484 has 1 MA's), (17, 28613), (19, 28637), (22, 28685), (26, 28700),

Gene: Eunoia_40 Start: 28451, Stop: 28726, Start Num: 4
Candidate Starts for Eunoia_40:
(Start: 4 @28451 has 73 MA's), (Start: 6 @28493 has 1 MA's), (17, 28616), (19, 28640), (23, 28691), (25, 28697), (26, 28703),

Gene: Fluke_43 Start: 28699, Stop: 28983, Start Num: 4
Candidate Starts for Fluke_43:
(Start: 4 @28699 has 73 MA's), (Start: 6 @28744 has 1 MA's), (19, 28897), (22, 28945), (26, 28960),

Gene: Gisselle_40 Start: 27389, Stop: 27673, Start Num: 4

Candidate Starts for Gisselle_40:
(Start: 4 @27389 has 73 MA's), (Start: 6 @27434 has 1 MA's), (16, 27536), (18, 27566), (21, 27602), (22, 27635), (26, 27650),

Gene: Glenn_43 Start: 28690, Stop: 28974, Start Num: 4
Candidate Starts for Glenn_43:
(Start: 4 @28690 has 73 MA's), (Start: 6 @28735 has 1 MA's), (19, 28888), (22, 28936), (26, 28951),

Gene: Graynor_45 Start: 28570, Stop: 28782, Start Num: 11
Candidate Starts for Graynor_45:
(Start: 4 @28513 has 73 MA's), (8, 28558), (11, 28570), (17, 28669), (18, 28672), (21, 28708), (22, 28741), (26, 28756),

Gene: GreenHearts_44 Start: 29403, Stop: 29636, Start Num: 7
Candidate Starts for GreenHearts_44:
(Start: 7 @29403 has 6 MA's), (19, 29550), (20, 29553), (21, 29565), (24, 29604), (26, 29613),

Gene: Greenhouse_44 Start: 29123, Stop: 29356, Start Num: 7
Candidate Starts for Greenhouse_44:
(Start: 7 @29123 has 6 MA's), (19, 29270), (20, 29273), (21, 29285), (24, 29324), (26, 29333),

Gene: HeadNerd_40 Start: 27234, Stop: 27518, Start Num: 4
Candidate Starts for HeadNerd_40:
(Start: 4 @27234 has 73 MA's), (Start: 6 @27279 has 1 MA's), (19, 27432), (22, 27480), (26, 27495),

Gene: Herb_40 Start: 28463, Stop: 28738, Start Num: 4
Candidate Starts for Herb_40:
(2, 28358), (3, 28364), (Start: 4 @28463 has 73 MA's), (Start: 6 @28505 has 1 MA's), (21, 28667), (22, 28700), (26, 28715),

Gene: Huckleberry_40 Start: 27217, Stop: 27501, Start Num: 4
Candidate Starts for Huckleberry_40:
(Start: 4 @27217 has 73 MA's), (Start: 6 @27262 has 1 MA's), (19, 27415), (22, 27463), (26, 27478),

Gene: HunterDalle_40 Start: 28382, Stop: 28657, Start Num: 4
Candidate Starts for HunterDalle_40:
(2, 28277), (3, 28283), (Start: 4 @28382 has 73 MA's), (9, 28439), (12, 28469), (21, 28586), (22, 28619), (26, 28634),

Gene: Huntingdon_42 Start: 28950, Stop: 29168, Start Num: 10
Candidate Starts for Huntingdon_42:
(Start: 10 @28950 has 3 MA's), (15, 29028), (19, 29082), (20, 29085), (21, 29097), (24, 29136), (26, 29145),

Gene: Immaculata_42 Start: 28481, Stop: 28765, Start Num: 4
Candidate Starts for Immaculata_42:
(Start: 4 @28481 has 73 MA's), (Start: 6 @28526 has 1 MA's), (19, 28679), (22, 28727), (26, 28742),

Gene: Joann_44 Start: 29171, Stop: 29431, Start Num: 5
Candidate Starts for Joann_44:
(Start: 5 @29171 has 1 MA's), (Start: 7 @29198 has 6 MA's), (13, 29258), (19, 29345), (20, 29348), (21, 29360), (24, 29399), (26, 29408),

Gene: Jumboset_43 Start: 28598, Stop: 28882, Start Num: 4
Candidate Starts for Jumboset_43:
(Start: 4 @28598 has 73 MA's), (Start: 6 @28643 has 1 MA's), (19, 28796), (22, 28844), (26, 28859),

Gene: Kalizoi_42 Start: 28423, Stop: 28707, Start Num: 4
Candidate Starts for Kalizoi_42:
(Start: 4 @28423 has 73 MA's), (Start: 6 @28468 has 1 MA's), (19, 28621), (22, 28669), (26, 28684),

Gene: KingBob_40 Start: 28464, Stop: 28739, Start Num: 4
Candidate Starts for KingBob_40:
(2, 28359), (3, 28365), (Start: 4 @28464 has 73 MA's), (Start: 6 @28506 has 1 MA's), (21, 28668), (22, 28701), (26, 28716),

Gene: Kittykat_42 Start: 27685, Stop: 27966, Start Num: 4
Candidate Starts for Kittykat_42:
(Start: 4 @27685 has 73 MA's), (Start: 6 @27730 has 1 MA's), (19, 27883), (22, 27931), (26, 27946),

Gene: Korra_42 Start: 28435, Stop: 28719, Start Num: 4
Candidate Starts for Korra_42:
(Start: 4 @28435 has 73 MA's), (Start: 6 @28480 has 1 MA's), (19, 28633), (22, 28681), (26, 28696),

Gene: Lakshmi_43 Start: 29086, Stop: 29319, Start Num: 7
Candidate Starts for Lakshmi_43:
(Start: 7 @29086 has 6 MA's), (19, 29233), (20, 29236), (21, 29248), (24, 29287), (26, 29296),

Gene: Lasagna_39 Start: 27059, Stop: 27343, Start Num: 4
Candidate Starts for Lasagna_39:
(Start: 4 @27059 has 73 MA's), (Start: 6 @27104 has 1 MA's), (22, 27305), (26, 27320),

Gene: Lennox_40 Start: 27266, Stop: 27550, Start Num: 4
Candidate Starts for Lennox_40:
(1, 26879), (2, 27161), (3, 27167), (Start: 4 @27266 has 73 MA's), (Start: 6 @27311 has 1 MA's), (22, 27512), (26, 27527),

Gene: LilStuart_40 Start: 27408, Stop: 27692, Start Num: 4
Candidate Starts for LilStuart_40:
(Start: 4 @27408 has 73 MA's), (Start: 6 @27453 has 1 MA's), (22, 27654), (26, 27669),

Gene: Litotes_42 Start: 28480, Stop: 28749, Start Num: 4
Candidate Starts for Litotes_42:
(Start: 4 @28480 has 73 MA's), (8, 28525), (11, 28537), (17, 28636), (18, 28639), (21, 28675), (22, 28708), (26, 28723),

Gene: Lucy_40 Start: 27405, Stop: 27689, Start Num: 4
Candidate Starts for Lucy_40:
(Start: 4 @27405 has 73 MA's), (Start: 6 @27450 has 1 MA's), (17, 27579), (22, 27651), (26, 27666),

Gene: Makoto_40 Start: 27278, Stop: 27562, Start Num: 4
Candidate Starts for Makoto_40:
(Start: 4 @27278 has 73 MA's), (Start: 6 @27323 has 1 MA's), (22, 27524), (26, 27539),

Gene: MamaPearl_41 Start: 28439, Stop: 28723, Start Num: 4
Candidate Starts for MamaPearl_41:

(Start: 4 @28439 has 73 MA's), (Start: 6 @28484 has 1 MA's), (17, 28613), (19, 28637), (22, 28685), (26, 28700),

Gene: Maria1952_39 Start: 28463, Stop: 28738, Start Num: 4
Candidate Starts for Maria1952_39:
(2, 28358), (3, 28364), (Start: 4 @28463 has 73 MA's), (Start: 6 @28505 has 1 MA's), (21, 28667), (22, 28700), (26, 28715),

Gene: MeganNoll_42 Start: 28655, Stop: 28939, Start Num: 4
Candidate Starts for MeganNoll_42:
(Start: 4 @28655 has 73 MA's), (Start: 6 @28700 has 1 MA's), (19, 28853), (22, 28901), (26, 28916),

Gene: Misaeng_42 Start: 29074, Stop: 29292, Start Num: 10
Candidate Starts for Misaeng_42:
(Start: 10 @29074 has 3 MA's), (19, 29206), (20, 29209), (21, 29221), (24, 29260), (26, 29269),

Gene: Moki_40 Start: 27380, Stop: 27664, Start Num: 4
Candidate Starts for Moki_40:
(Start: 4 @27380 has 73 MA's), (Start: 6 @27425 has 1 MA's), (19, 27578), (22, 27626), (26, 27641),

Gene: MrBoss_44 Start: 28534, Stop: 28746, Start Num: 11
Candidate Starts for MrBoss_44:
(Start: 4 @28477 has 73 MA's), (8, 28522), (11, 28534), (17, 28633), (18, 28636), (21, 28672), (22, 28705), (26, 28720),

Gene: MrGloopy_43 Start: 28584, Stop: 28868, Start Num: 4
Candidate Starts for MrGloopy_43:
(Start: 4 @28584 has 73 MA's), (Start: 6 @28629 has 1 MA's), (19, 28782), (22, 28830), (26, 28845),

Gene: Nancia_40 Start: 27293, Stop: 27577, Start Num: 4
Candidate Starts for Nancia_40:
(1, 26906), (2, 27188), (3, 27194), (Start: 4 @27293 has 73 MA's), (Start: 6 @27338 has 1 MA's), (21, 27506), (22, 27539), (26, 27554),

Gene: Nubia_43 Start: 29031, Stop: 29264, Start Num: 7
Candidate Starts for Nubia_43:
(Start: 7 @29031 has 6 MA's), (20, 29181), (21, 29193), (26, 29241),

Gene: OMalley_40 Start: 28451, Stop: 28726, Start Num: 4
Candidate Starts for OMalley_40:
(Start: 4 @28451 has 73 MA's), (Start: 6 @28493 has 1 MA's), (17, 28616), (19, 28640), (23, 28691), (25, 28697), (26, 28703),

Gene: OurGirlNessie_39 Start: 27022, Stop: 27306, Start Num: 4
Candidate Starts for OurGirlNessie_39:
(Start: 4 @27022 has 73 MA's), (Start: 6 @27067 has 1 MA's), (22, 27268), (26, 27283),

Gene: Oxynfrius_43 Start: 29052, Stop: 29285, Start Num: 7
Candidate Starts for Oxynfrius_43:
(Start: 7 @29052 has 6 MA's), (19, 29199), (20, 29202), (21, 29214), (24, 29253), (26, 29262),

Gene: PartyCup_43 Start: 28706, Stop: 28975, Start Num: 4
Candidate Starts for PartyCup_43:

(Start: 4 @28706 has 73 MA's), (8, 28751), (11, 28763), (17, 28862), (18, 28865), (21, 28901), (22, 28934), (26, 28949),

Gene: PinkFriday_40 Start: 27570, Stop: 27842, Start Num: 4
Candidate Starts for PinkFriday_40:
(2, 27465), (3, 27471), (Start: 4 @27570 has 73 MA's), (Start: 6 @27609 has 1 MA's), (21, 27771), (22, 27804), (26, 27819), (27, 27822),

Gene: PitaDog_41 Start: 27417, Stop: 27701, Start Num: 4
Candidate Starts for PitaDog_41:
(Start: 4 @27417 has 73 MA's), (Start: 6 @27462 has 1 MA's), (22, 27663), (26, 27678),

Gene: Potatoes_42 Start: 28482, Stop: 28766, Start Num: 4
Candidate Starts for Potatoes_42:
(Start: 4 @28482 has 73 MA's), (Start: 6 @28527 has 1 MA's), (19, 28680), (22, 28728), (26, 28743),

Gene: Preamble_41 Start: 27551, Stop: 27832, Start Num: 4
Candidate Starts for Preamble_41:
(Start: 4 @27551 has 73 MA's), (Start: 6 @27596 has 1 MA's), (19, 27749), (22, 27797), (26, 27812),

Gene: Pterodactyl_40 Start: 27259, Stop: 27543, Start Num: 4
Candidate Starts for Pterodactyl_40:
(Start: 4 @27259 has 73 MA's), (Start: 6 @27304 has 1 MA's), (22, 27505), (26, 27520),

Gene: Pumancara_40 Start: 27482, Stop: 27754, Start Num: 4
Candidate Starts for Pumancara_40:
(2, 27377), (3, 27383), (Start: 4 @27482 has 73 MA's), (Start: 6 @27521 has 1 MA's), (21, 27683), (22, 27716), (26, 27731),

Gene: RAP15_43 Start: 28700, Stop: 28939, Start Num: 6
Candidate Starts for RAP15_43:
(Start: 4 @28655 has 73 MA's), (Start: 6 @28700 has 1 MA's), (19, 28853), (22, 28901), (26, 28916),

Gene: RcigaStruga_42 Start: 28950, Stop: 29168, Start Num: 10
Candidate Starts for RcigaStruga_42:
(Start: 10 @28950 has 3 MA's), (15, 29028), (19, 29082), (20, 29085), (21, 29097), (24, 29136), (26, 29145),

Gene: Riovina_40 Start: 28451, Stop: 28726, Start Num: 4
Candidate Starts for Riovina_40:
(Start: 4 @28451 has 73 MA's), (Start: 6 @28493 has 1 MA's), (17, 28616), (19, 28640), (23, 28691), (25, 28697), (26, 28703),

Gene: Riverdale_43 Start: 28620, Stop: 28904, Start Num: 4
Candidate Starts for Riverdale_43:
(Start: 4 @28620 has 73 MA's), (Start: 6 @28665 has 1 MA's), (19, 28818), (22, 28866), (26, 28881),

Gene: Rozby_42 Start: 28412, Stop: 28696, Start Num: 4
Candidate Starts for Rozby_42:
(Start: 4 @28412 has 73 MA's), (Start: 6 @28457 has 1 MA's), (19, 28610), (22, 28658), (26, 28673),

Gene: Savage2526_43 Start: 28649, Stop: 28933, Start Num: 4
Candidate Starts for Savage2526_43:

(Start: 4 @28649 has 73 MA's), (Start: 6 @28694 has 1 MA's), (19, 28847), (22, 28895), (26, 28910),

Gene: Scuttle_42 Start: 28609, Stop: 28893, Start Num: 4
Candidate Starts for Scuttle_42:
(Start: 4 @28609 has 73 MA's), (Start: 6 @28654 has 1 MA's), (19, 28807), (22, 28855), (26, 28870),

Gene: Sergei_40 Start: 28464, Stop: 28739, Start Num: 4
Candidate Starts for Sergei_40:
(2, 28359), (3, 28365), (Start: 4 @28464 has 73 MA's), (Start: 6 @28506 has 1 MA's), (21, 28668), (22, 28701), (26, 28716),

Gene: Supakev_40 Start: 28451, Stop: 28726, Start Num: 4
Candidate Starts for Supakev_40:
(Start: 4 @28451 has 73 MA's), (Start: 6 @28493 has 1 MA's), (17, 28616), (19, 28640), (23, 28691), (25, 28697), (26, 28703),

Gene: Suppi_42 Start: 28527, Stop: 28796, Start Num: 4
Candidate Starts for Suppi_42:
(Start: 4 @28527 has 73 MA's), (8, 28572), (11, 28584), (17, 28683), (18, 28686), (21, 28722), (22, 28755), (26, 28770),

Gene: TattModd_41 Start: 28269, Stop: 28553, Start Num: 4
Candidate Starts for TattModd_41:
(Start: 4 @28269 has 73 MA's), (Start: 6 @28314 has 1 MA's), (19, 28467), (22, 28515), (26, 28530),

Gene: Temper16_40 Start: 28464, Stop: 28739, Start Num: 4
Candidate Starts for Temper16_40:
(2, 28359), (3, 28365), (Start: 4 @28464 has 73 MA's), (Start: 6 @28506 has 1 MA's), (21, 28668), (22, 28701), (26, 28716),

Gene: Urla_41 Start: 28433, Stop: 28717, Start Num: 4
Candidate Starts for Urla_41:
(Start: 4 @28433 has 73 MA's), (Start: 6 @28478 has 1 MA's), (19, 28631), (22, 28679), (26, 28694),

Gene: Vallejo_43 Start: 28623, Stop: 28907, Start Num: 4
Candidate Starts for Vallejo_43:
(Start: 4 @28623 has 73 MA's), (Start: 6 @28668 has 1 MA's), (19, 28821), (22, 28869), (26, 28884),

Gene: Vulture_40 Start: 28382, Stop: 28657, Start Num: 4
Candidate Starts for Vulture_40:
(2, 28277), (3, 28283), (Start: 4 @28382 has 73 MA's), (9, 28439), (12, 28469), (21, 28586), (22, 28619), (26, 28634),

Gene: Wawa_42 Start: 28456, Stop: 28740, Start Num: 4
Candidate Starts for Wawa_42:
(Start: 4 @28456 has 73 MA's), (Start: 6 @28501 has 1 MA's), (19, 28654), (22, 28702), (26, 28717),

Gene: Wayne_42 Start: 28573, Stop: 28842, Start Num: 4
Candidate Starts for Wayne_42:
(Start: 4 @28573 has 73 MA's), (8, 28618), (11, 28630), (17, 28729), (18, 28732), (21, 28768), (22, 28801), (26, 28816),

Gene: WonderBoy_39 Start: 27253, Stop: 27537, Start Num: 4

Candidate Starts for WonderBoy_39:
(2, 27148), (3, 27154), (Start: 4 @27253 has 73 MA's), (Start: 6 @27298 has 1 MA's), (17, 27427), (22, 27499), (26, 27514),

Gene: Zorro_43 Start: 28583, Stop: 28867, Start Num: 4
Candidate Starts for Zorro_43:
(Start: 4 @28583 has 73 MA's), (Start: 6 @28628 has 1 MA's), (19, 28781), (22, 28829), (26, 28844),