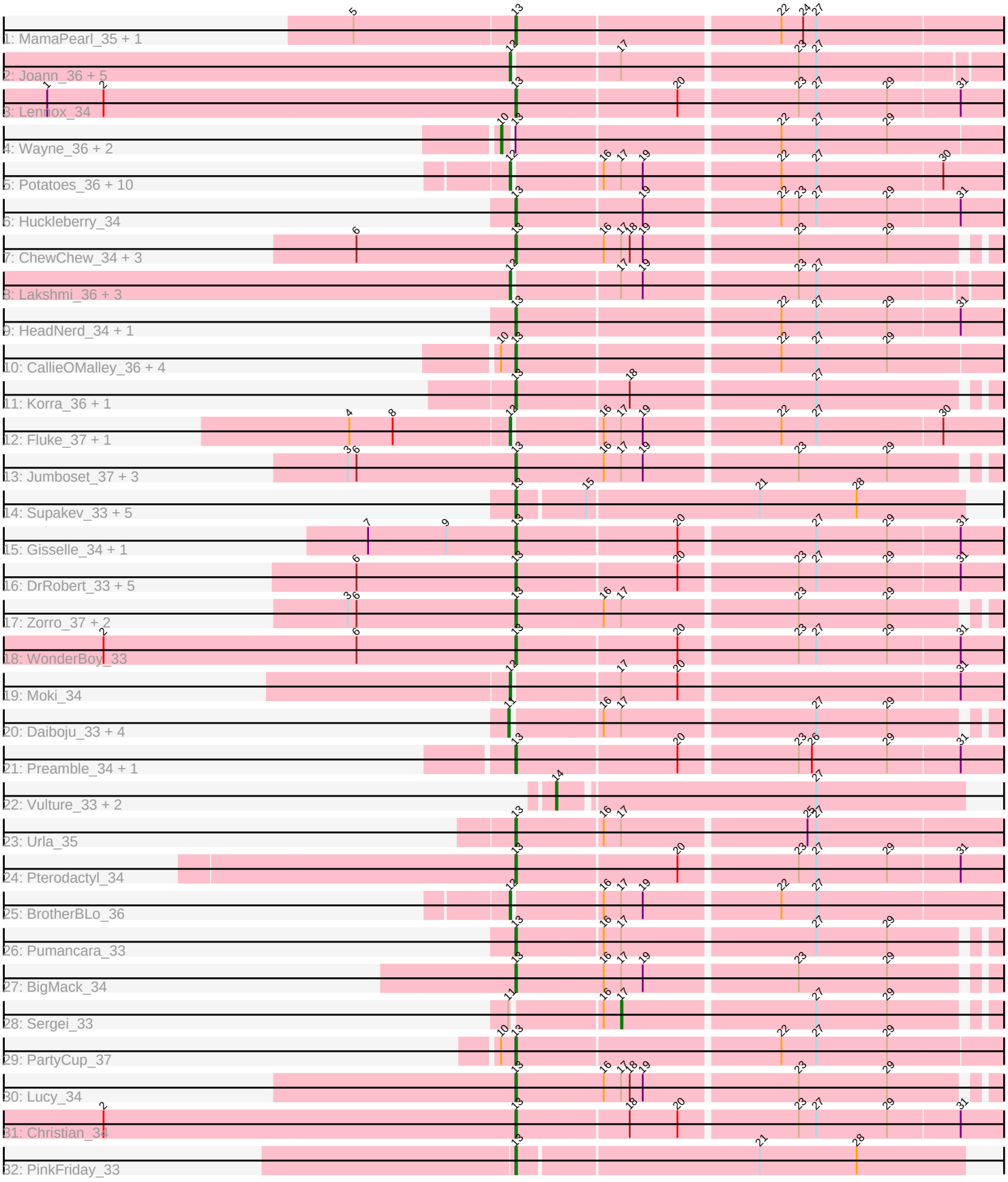
Pham 345624


1: MamaPearl_35 + 1
2: Joann_36 + 5
3: Lennox_34
4: Wayne_36 + 2
5: Potatoes_36 + 10
6: Huckleberry_34
7: ChewChew_34 + 3
8: Lakshmi_36 + 3
9: HeadNerd_34 + 1
10: CallieOMalley_36 + 4
11: Korra_36 + 1
12: Fluke_37 + 1
13: Jumboset_37 + 3
14: Supakev_33 + 5
15: Gisselle_34 + 1
16: DrRobert_33 + 5
17: Zorro_37 + 2
18: WonderBoy!_33
19: Moki_34
20: Daiboju_33 + 4
21: Preamble_34 + 1
22: Vulture_33 + 2
23: Urla_35
24: Pterodactyl_34
25: BrotherBLo_36
26: Pumancara_33
27: BigMack_34
28: Sergei_33
29: PartyCup_37
30: Lucy_34
31: Christian_34
32: PinkFriday_33

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 345624 Report

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

Pham number 345624 has 86 members, 2 are drafts.

Phages represented in each track:
• Track 1 : MamaPearl_35, EstebanJulior_35
• Track 2 : Joann_36, Nubia_36, GreenHearts_36, Oxynfrius_36, Albanese_36, Greenhouse_37
• Track 3 : Lennox_34
• Track 4 : Wayne_36, Canowicakte_36, Suppi_36
• Track 5 : Potatoes_36, Immaculata_36, Kalizoi_37, Glenn_37, Rozby_37, Carpal_36, Riverdale_37, Beethoven_37, Cholula_36, Vallejo_37, TattModd_36
• Track 6 : Huckleberry_34
• Track 7 : ChewChew_34, PitaDog_34, Bodacious_34, Nancia_34
• Track 8 : Lakshmi_36, Misaeng_35, RcigaStruga_35, Huntingdon_35
• Track 9 : HeadNerd_34, Bennie_34
• Track 10 : CallieOMalley_36, AppleCider_36, Litotes_36, Graynor_39, MrBoss_38
• Track 11 : Korra_36, Wawa_36
• Track 12 : Fluke_37, Scuttle_36
• Track 13 : Jumboset_37, Savage2526_37, MeganNoll_36, RAP15_37
• Track 14 : Supakev_33, AustinPowers_33, Eunoia_33, Riovina_33, OMalley_33, Aledel_33
• Track 15 : Gisselle_34, DreamTeam_34
• Track 16 : DrRobert_33, OurGirlNessie_33, Makoto_34, CristinaYang_34, Lasagna_33, LilStuart_34
• Track 17 : Zorro_37, MrGloopy_37, Dino_37
• Track 18 : WonderBoy_33
• Track 19 : Moki_34
• Track 20 : Daiboju_33, Maria1952_32, Temper16_33, Herb_33, KingBob_33
• Track 21 : Preamble_34, Kittykat_35
• Track 22 : Vulture_33, HunterDalle_33, Chridison_32
• Track 23 : Urla_35
• Track 24 : Pterodactyl_34
• Track 25 : BrotherBLo_36
• Track 26 : Pumancara_33
• Track 27 : BigMack_34
• Track 28 : Sergei_33
• Track 29 : PartyCup_37
• Track 30 : Lucy_34
• Track 31 : Christian_34
• Track 32 : PinkFriday_33

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

The start number called the most often in the published annotations is 13, it was called in 47 of the 84 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aledel_33, AppleCider_36, AustinPowers_33, Bennie_34, BigMack_34, Bodacious_34, CallieOMalley_36, ChewChew_34, Christian_34, CristinaYang_34, Dino_37, DrRobert_33, DreamTeam_34, EstebanJulior_35, Eunoia_33, Gisselle_34, Graynor_39, HeadNerd_34, Huckleberry_34, Jumboset_37, Kittykat_35, Korra_36, Lasagna_33, Lennox_34, LilStuart_34, Litotes_36, Lucy_34, Makoto_34, MamaPearl_35, MeganNoll_36, MrBoss_38, MrGloopy_37, Nancia_34, OMalley_33, OurGirlNessie_33, PartyCup_37, PinkFriday_33, PitaDog_34, Preamble_34, Pterodactyl_34, Pumancara_33, RAP15_37, Riovina_33, Savage2526_37, Supakev_33, Urla_35, Wawa_36, WonderBoy_33, Zorro_37,

Genes that have the "Most Annotated" start but do not call it:
• Canowicakte_36, Suppi_36, Wayne_36,

Genes that do not have the "Most Annotated" start:
• Albanese_36, Beethoven_37, BrotherBLo_36, Carpal_36, Cholula_36, Chridison_32, Daiboju_33, Fluke_37, Glenn_37, GreenHearts_36, Greenhouse_37, Herb_33, HunterDalle_33, Huntingdon_35, Immaculata_36, Joann_36, Kalizoi_37, KingBob_33, Lakshmi_36, Maria1952_32, Misaeng_35, Moki_34, Nubia_36, Oxynfrius_36, Potatoes_36, RcigaStruga_35, Riverdale_37, Rozby_37, Scuttle_36, Sergei_33, TattModd_36, Temper16_33, Vallejo_37, Vulture_33,

Summary by start number:

Start 10:
• Found in 9 of 86 (10.5%) of genes in pham
• Manual Annotations of this start: 3 of 84
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Canowicakte_36 (AK), Suppi_36 (AK), Wayne_36 (AK),

Start 11:
• Found in 6 of 86 (7.0%) of genes in pham
• Manual Annotations of this start: 5 of 84
• Called 83.3% of time when present
• Phage (with cluster) where this start called: Daiboju_33 (AK), Herb_33 (AK), KingBob_33 (AK), Maria1952_32 (AK), Temper16_33 (AK),

Start 12:
• Found in 25 of 86 (29.1%) of genes in pham
• Manual Annotations of this start: 25 of 84
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Albanese_36 (AK), Beethoven_37 (AK), BrotherBLo_36 (AK), Carpal_36 (AK), Cholula_36 (AK), Fluke_37 (AK), Glenn_37 (AK), GreenHearts_36 (AK), Greenhouse_37 (AK), Huntingdon_35 (AK),

Immaculata_36 (AK), Joann_36 (AK), Kalizoi_37 (AK), Lakshmi_36 (AK), Misaeng_35 (AK), Moki_34 (AK), Nubia_36 (AK), Oxynfrius_36 (AK), Potatoes_36 (AK), RcigaStruga_35 (AK), Riverdale_37 (AK), Rozby_37 (AK), Scuttle_36 (AK), TattModd_36 (AK), Vallejo_37 (AK),

Start 13:
• Found in 52 of 86 (60.5%) of genes in pham
• Manual Annotations of this start: 47 of 84
• Called 94.2% of time when present
• Phage (with cluster) where this start called: Aledel_33 (AK), AppleCider_36 (AK), AustinPowers_33 (AK), Bennie_34 (AK), BigMack_34 (AK), Bodacious_34 (AK), CallieOMalley_36 (AK), ChewChew_34 (AK), Christian_34 (AK), CristinaYang_34 (AK), Dino_37 (AK), DrRobert_33 (AK), DreamTeam_34 (AK), EstebanJulior_35 (AK), Eunoia_33 (AK), Gisselle_34 (AK), Graynor_39 (AK), HeadNerd_34 (AK), Huckleberry_34 (AK), Jumboset_37 (AK), Kittykat_35 (AK), Korra_36 (AK), Lasagna_33 (AK), Lennox_34 (AK), LilStuart_34 (AK), Litotes_36 (AK), Lucy_34 (AK), Makoto_34 (AK), MamaPearl_35 (AK), MeganNoll_36 (AK), MrBoss_38 (AK), MrGloopy_37 (AK), Nancia_34 (AK), OMalley_33 (AK), OurGirlNessie_33 (AK), PartyCup_37 (AK), PinkFriday_33 (AK), PitaDog_34 (AK), Preamble_34 (AK), Pterodactyl_34 (AK), Pumancara_33 (AK), RAP15_37 (AK), Riovina_33 (AK), Savage2526_37 (AK), Supakev_33 (AK), Urla_35 (AK), Wawa_36 (AK), WonderBoy_33 (AK), Zorro_37 (AK),

Start 14:
• 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: Chridison_32 (AK), HunterDalle_33 (AK), Vulture_33 (AK),

Start 17:
• Found in 46 of 86 (53.5%) of genes in pham
• Manual Annotations of this start: 1 of 84
• Called 2.2% of time when present
• Phage (with cluster) where this start called: Sergei_33 (AK),

Summary by clusters:

There is one cluster represented in this pham: AK

Info for manual annotations of cluster AK:
•Start number 10 was manually annotated 3 times for cluster AK.
•Start number 11 was manually annotated 5 times for cluster AK.
•Start number 12 was manually annotated 25 times for cluster AK.
•Start number 13 was manually annotated 47 times for cluster AK.
•Start number 14 was manually annotated 3 times for cluster AK.
•Start number 17 was manually annotated 1 time for cluster AK.

Gene Information:

Gene: Albanese_36 Start: 26381, Stop: 26731, Start Num: 12

Candidate Starts for Albanese_36:
(Start: 12 @26381 has 25 MA's), (Start: 17 @26450 has 1 MA's), (23, 26567), (27, 26579),

Gene: Aledel_33 Start: 25730, Stop: 26032, Start Num: 13
Candidate Starts for Aledel_33:
(Start: 13 @25730 has 47 MA's), (15, 25775), (21, 25892), (28, 25958),

Gene: AppleCider_36 Start: 26075, Stop: 26431, Start Num: 13
Candidate Starts for AppleCider_36:
(Start: 10 @26069 has 3 MA's), (Start: 13 @26075 has 47 MA's), (22, 26249), (27, 26273), (29, 26321),

Gene: AustinPowers_33 Start: 25728, Stop: 26030, Start Num: 13
Candidate Starts for AustinPowers_33:
(Start: 13 @25728 has 47 MA's), (15, 25773), (21, 25890), (28, 25956),

Gene: Beethoven_37 Start: 26264, Stop: 26617, Start Num: 12
Candidate Starts for Beethoven_37:
(Start: 12 @26264 has 25 MA's), (16, 26321), (Start: 17 @26333 has 1 MA's), (19, 26348), (22, 26438), (27, 26462), (30, 26546),

Gene: Bennie_34 Start: 24869, Stop: 25225, Start Num: 13
Candidate Starts for Bennie_34:
(Start: 13 @24869 has 47 MA's), (22, 25043), (27, 25067), (29, 25115), (31, 25163),

Gene: BigMack_34 Start: 24977, Stop: 25324, Start Num: 13
Candidate Starts for BigMack_34:
(Start: 13 @24977 has 47 MA's), (16, 25037), (Start: 17 @25049 has 1 MA's), (19, 25064), (23, 25166), (29, 25226),

Gene: Bodacious_34 Start: 24906, Stop: 25253, Start Num: 13
Candidate Starts for Bodacious_34:
(6, 24798), (Start: 13 @24906 has 47 MA's), (16, 24966), (Start: 17 @24978 has 1 MA's), (18, 24984), (19, 24993), (23, 25095), (29, 25155),

Gene: BrotherBLo_36 Start: 26087, Stop: 26440, Start Num: 12
Candidate Starts for BrotherBLo_36:
(Start: 12 @26087 has 25 MA's), (16, 26144), (Start: 17 @26156 has 1 MA's), (19, 26171), (22, 26261), (27, 26285),

Gene: CallieOMalley_36 Start: 26075, Stop: 26431, Start Num: 13
Candidate Starts for CallieOMalley_36:
(Start: 10 @26069 has 3 MA's), (Start: 13 @26075 has 47 MA's), (22, 26249), (27, 26273), (29, 26321),

Gene: Canowicakte_36 Start: 26104, Stop: 26466, Start Num: 10
Candidate Starts for Canowicakte_36:
(Start: 10 @26104 has 3 MA's), (Start: 13 @26110 has 47 MA's), (22, 26284), (27, 26308), (29, 26356),

Gene: Carpal_36 Start: 26067, Stop: 26420, Start Num: 12
Candidate Starts for Carpal_36:
(Start: 12 @26067 has 25 MA's), (16, 26124), (Start: 17 @26136 has 1 MA's), (19, 26151), (22, 26241), (27, 26265), (30, 26349),

Gene: ChewChew_34 Start: 24901, Stop: 25248, Start Num: 13

Candidate Starts for ChewChew_34:
(6, 24793), (Start: 13 @24901 has 47 MA's), (16, 24961), (Start: 17 @24973 has 1 MA's), (18, 24979), (19, 24988), (23, 25090), (29, 25150),

Gene: Cholula_36 Start: 26113, Stop: 26466, Start Num: 12
Candidate Starts for Cholula_36:
(Start: 12 @26113 has 25 MA's), (16, 26170), (Start: 17 @26182 has 1 MA's), (19, 26197), (22, 26287), (27, 26311), (30, 26395),

Gene: Chridison_32 Start: 25728, Stop: 26000, Start Num: 14
Candidate Starts for Chridison_32:
(Start: 14 @25728 has 3 MA's), (27, 25899),

Gene: Christian_34 Start: 24903, Stop: 25259, Start Num: 13
Candidate Starts for Christian_34:
(2, 24621), (Start: 13 @24903 has 47 MA's), (18, 24978), (20, 25011), (23, 25089), (27, 25101), (29, 25149), (31, 25197),

Gene: CristinaYang_34 Start: 24906, Stop: 25262, Start Num: 13
Candidate Starts for CristinaYang_34:
(6, 24798), (Start: 13 @24906 has 47 MA's), (20, 25014), (23, 25092), (27, 25104), (29, 25152), (31, 25200),

Gene: Daiboju_33 Start: 25714, Stop: 26058, Start Num: 11
Candidate Starts for Daiboju_33:
(Start: 11 @25714 has 5 MA's), (16, 25771), (Start: 17 @25783 has 1 MA's), (27, 25912), (29, 25960),

Gene: Dino_37 Start: 26225, Stop: 26572, Start Num: 13
Candidate Starts for Dino_37:
(3, 26111), (6, 26117), (Start: 13 @26225 has 47 MA's), (16, 26285), (Start: 17 @26297 has 1 MA's), (23, 26414), (29, 26474),

Gene: DrRobert_33 Start: 24665, Stop: 25021, Start Num: 13
Candidate Starts for DrRobert_33:
(6, 24557), (Start: 13 @24665 has 47 MA's), (20, 24773), (23, 24851), (27, 24863), (29, 24911), (31, 24959),

Gene: DreamTeam_34 Start: 24997, Stop: 25353, Start Num: 13
Candidate Starts for DreamTeam_34:
(7, 24895), (9, 24949), (Start: 13 @24997 has 47 MA's), (20, 25105), (27, 25195), (29, 25243), (31, 25291),

Gene: EstebanJulior_35 Start: 26057, Stop: 26410, Start Num: 13
Candidate Starts for EstebanJulior_35:
(5, 25949), (Start: 13 @26057 has 47 MA's), (22, 26231), (24, 26246), (27, 26255),

Gene: Eunoia_33 Start: 25730, Stop: 26032, Start Num: 13
Candidate Starts for Eunoia_33:
(Start: 13 @25730 has 47 MA's), (15, 25775), (21, 25892), (28, 25958),

Gene: Fluke_37 Start: 26335, Stop: 26688, Start Num: 12
Candidate Starts for Fluke_37:

(4, 26227), (8, 26257), (Start: 12 @26335 has 25 MA's), (16, 26392), (Start: 17 @26404 has 1 MA's), (19, 26419), (22, 26509), (27, 26533), (30, 26617),

Gene: Gisselle_34 Start: 24997, Stop: 25353, Start Num: 13
Candidate Starts for Gisselle_34:
(7, 24895), (9, 24949), (Start: 13 @24997 has 47 MA's), (20, 25105), (27, 25195), (29, 25243), (31, 25291),

Gene: Glenn_37 Start: 26321, Stop: 26674, Start Num: 12
Candidate Starts for Glenn_37:
(Start: 12 @26321 has 25 MA's), (16, 26378), (Start: 17 @26390 has 1 MA's), (19, 26405), (22, 26495), (27, 26519), (30, 26603),

Gene: Graynor_39 Start: 26096, Stop: 26452, Start Num: 13
Candidate Starts for Graynor_39:
(Start: 10 @26090 has 3 MA's), (Start: 13 @26096 has 47 MA's), (22, 26270), (27, 26294), (29, 26342),

Gene: GreenHearts_36 Start: 26473, Stop: 26823, Start Num: 12
Candidate Starts for GreenHearts_36:
(Start: 12 @26473 has 25 MA's), (Start: 17 @26542 has 1 MA's), (23, 26659), (27, 26671),

Gene: Greenhouse_37 Start: 26388, Stop: 26738, Start Num: 12
Candidate Starts for Greenhouse_37:
(Start: 12 @26388 has 25 MA's), (Start: 17 @26457 has 1 MA's), (23, 26574), (27, 26586),

Gene: HeadNerd_34 Start: 24869, Stop: 25225, Start Num: 13
Candidate Starts for HeadNerd_34:
(Start: 13 @24869 has 47 MA's), (22, 25043), (27, 25067), (29, 25115), (31, 25163),

Gene: Herb_33 Start: 25713, Stop: 26057, Start Num: 11
Candidate Starts for Herb_33:
(Start: 11 @25713 has 5 MA's), (16, 25770), (Start: 17 @25782 has 1 MA's), (27, 25911), (29, 25959),

Gene: Huckleberry_34 Start: 24852, Stop: 25208, Start Num: 13
Candidate Starts for Huckleberry_34:
(Start: 13 @24852 has 47 MA's), (19, 24936), (22, 25026), (23, 25038), (27, 25050), (29, 25098), (31, 25146),

Gene: HunterDalle_33 Start: 25727, Stop: 25999, Start Num: 14
Candidate Starts for HunterDalle_33:
(Start: 14 @25727 has 3 MA's), (27, 25898),

Gene: Huntingdon_35 Start: 26124, Stop: 26468, Start Num: 12
Candidate Starts for Huntingdon_35:
(Start: 12 @26124 has 25 MA's), (Start: 17 @26193 has 1 MA's), (19, 26208), (23, 26310), (27, 26322),

Gene: Immaculata_36 Start: 26112, Stop: 26465, Start Num: 12
Candidate Starts for Immaculata_36:
(Start: 12 @26112 has 25 MA's), (16, 26169), (Start: 17 @26181 has 1 MA's), (19, 26196), (22, 26286), (27, 26310), (30, 26394),

Gene: Joann_36 Start: 26350, Stop: 26700, Start Num: 12
Candidate Starts for Joann_36:

(Start: 12 @26350 has 25 MA's), (Start: 17 @26419 has 1 MA's), (23, 26536), (27, 26548),

Gene: Jumboset_37 Start: 26207, Stop: 26554, Start Num: 13
Candidate Starts for Jumboset_37:
(3, 26093), (6, 26099), (Start: 13 @26207 has 47 MA's), (16, 26267), (Start: 17 @26279 has 1 MA's), (19, 26294), (23, 26396), (29, 26456),

Gene: Kalizoi_37 Start: 26263, Stop: 26616, Start Num: 12
Candidate Starts for Kalizoi_37:
(Start: 12 @26263 has 25 MA's), (16, 26320), (Start: 17 @26332 has 1 MA's), (19, 26347), (22, 26437), (27, 26461), (30, 26545),

Gene: KingBob_33 Start: 25714, Stop: 26058, Start Num: 11
Candidate Starts for KingBob_33:
(Start: 11 @25714 has 5 MA's), (16, 25771), (Start: 17 @25783 has 1 MA's), (27, 25912), (29, 25960),

Gene: Kittykat_35 Start: 25117, Stop: 25473, Start Num: 13
Candidate Starts for Kittykat_35:
(Start: 13 @25117 has 47 MA's), (20, 25225), (23, 25303), (26, 25312), (29, 25363), (31, 25411),

Gene: Korra_36 Start: 26080, Stop: 26424, Start Num: 13
Candidate Starts for Korra_36:
(Start: 13 @26080 has 47 MA's), (18, 26155), (27, 26278),

Gene: Lakshmi_36 Start: 26357, Stop: 26707, Start Num: 12
Candidate Starts for Lakshmi_36:
(Start: 12 @26357 has 25 MA's), (Start: 17 @26426 has 1 MA's), (19, 26441), (23, 26543), (27, 26555),

Gene: Lasagna_33 Start: 24680, Stop: 25036, Start Num: 13
Candidate Starts for Lasagna_33:
(6, 24572), (Start: 13 @24680 has 47 MA's), (20, 24788), (23, 24866), (27, 24878), (29, 24926), (31, 24974),

Gene: Lennox_34 Start: 24891, Stop: 25247, Start Num: 13
Candidate Starts for Lennox_34:
(1, 24570), (2, 24609), (Start: 13 @24891 has 47 MA's), (20, 24999), (23, 25077), (27, 25089), (29, 25137), (31, 25185),

Gene: LilStuart_34 Start: 24894, Stop: 25250, Start Num: 13
Candidate Starts for LilStuart_34:
(6, 24786), (Start: 13 @24894 has 47 MA's), (20, 25002), (23, 25080), (27, 25092), (29, 25140), (31, 25188),

Gene: Litotes_36 Start: 26060, Stop: 26416, Start Num: 13
Candidate Starts for Litotes_36:
(Start: 10 @26054 has 3 MA's), (Start: 13 @26060 has 47 MA's), (22, 26234), (27, 26258), (29, 26306),

Gene: Lucy_34 Start: 24882, Stop: 25229, Start Num: 13
Candidate Starts for Lucy_34:
(Start: 13 @24882 has 47 MA's), (16, 24942), (Start: 17 @24954 has 1 MA's), (18, 24960), (19, 24969), (23, 25071), (29, 25131),

Gene: Makoto_34 Start: 24902, Stop: 25258, Start Num: 13

Candidate Starts for Makoto_34:
(6, 24794), (Start: 13 @24902 has 47 MA's), (20, 25010), (23, 25088), (27, 25100), (29, 25148), (31, 25196),

Gene: MamaPearl_35 Start: 26057, Stop: 26410, Start Num: 13
Candidate Starts for MamaPearl_35:
(5, 25949), (Start: 13 @26057 has 47 MA's), (22, 26231), (24, 26246), (27, 26255),

Gene: Maria1952_32 Start: 25713, Stop: 26057, Start Num: 11
Candidate Starts for Maria1952_32:
(Start: 11 @25713 has 5 MA's), (16, 25770), (Start: 17 @25782 has 1 MA's), (27, 25911), (29, 25959),

Gene: MeganNoll_36 Start: 26264, Stop: 26611, Start Num: 13
Candidate Starts for MeganNoll_36:
(3, 26150), (6, 26156), (Start: 13 @26264 has 47 MA's), (16, 26324), (Start: 17 @26336 has 1 MA's), (19, 26351), (23, 26453), (29, 26513),

Gene: Misaeng_35 Start: 26357, Stop: 26701, Start Num: 12
Candidate Starts for Misaeng_35:
(Start: 12 @26357 has 25 MA's), (Start: 17 @26426 has 1 MA's), (19, 26441), (23, 26543), (27, 26555),

Gene: Moki_34 Start: 25018, Stop: 25374, Start Num: 12
Candidate Starts for Moki_34:
(Start: 12 @25018 has 25 MA's), (Start: 17 @25087 has 1 MA's), (20, 25126), (31, 25312),

Gene: MrBoss_38 Start: 26060, Stop: 26416, Start Num: 13
Candidate Starts for MrBoss_38:
(Start: 10 @26054 has 3 MA's), (Start: 13 @26060 has 47 MA's), (22, 26234), (27, 26258), (29, 26306),

Gene: MrGloopy_37 Start: 26193, Stop: 26540, Start Num: 13
Candidate Starts for MrGloopy_37:
(3, 26079), (6, 26085), (Start: 13 @26193 has 47 MA's), (16, 26253), (Start: 17 @26265 has 1 MA's), (23, 26382), (29, 26442),

Gene: Nancia_34 Start: 24906, Stop: 25253, Start Num: 13
Candidate Starts for Nancia_34:
(6, 24798), (Start: 13 @24906 has 47 MA's), (16, 24966), (Start: 17 @24978 has 1 MA's), (18, 24984), (19, 24993), (23, 25095), (29, 25155),

Gene: Nubia_36 Start: 26306, Stop: 26656, Start Num: 12
Candidate Starts for Nubia_36:
(Start: 12 @26306 has 25 MA's), (Start: 17 @26375 has 1 MA's), (23, 26492), (27, 26504),

Gene: OMalley_33 Start: 25730, Stop: 26032, Start Num: 13
Candidate Starts for OMalley_33:
(Start: 13 @25730 has 47 MA's), (15, 25775), (21, 25892), (28, 25958),

Gene: OurGirlNessie_33 Start: 24646, Stop: 25002, Start Num: 13
Candidate Starts for OurGirlNessie_33:
(6, 24538), (Start: 13 @24646 has 47 MA's), (20, 24754), (23, 24832), (27, 24844), (29, 24892), (31, 24940),

Gene: Oxynfrius_36 Start: 26335, Stop: 26685, Start Num: 12

Candidate Starts for Oxynfrius_36:
(Start: 12 @26335 has 25 MA's), (Start: 17 @26404 has 1 MA's), (23, 26521), (27, 26533),

Gene: PartyCup_37 Start: 26305, Stop: 26661, Start Num: 13
Candidate Starts for PartyCup_37:
(Start: 10 @26299 has 3 MA's), (Start: 13 @26305 has 47 MA's), (22, 26479), (27, 26503), (29, 26551),

Gene: PinkFriday_33 Start: 24885, Stop: 25187, Start Num: 13
Candidate Starts for PinkFriday_33:
(Start: 13 @24885 has 47 MA's), (21, 25047), (28, 25113),

Gene: PitaDog_34 Start: 24894, Stop: 25241, Start Num: 13
Candidate Starts for PitaDog_34:
(6, 24786), (Start: 13 @24894 has 47 MA's), (16, 24954), (Start: 17 @24966 has 1 MA's), (18, 24972), (19, 24981), (23, 25083), (29, 25143),

Gene: Potatoes_36 Start: 26113, Stop: 26466, Start Num: 12
Candidate Starts for Potatoes_36:
(Start: 12 @26113 has 25 MA's), (16, 26170), (Start: 17 @26182 has 1 MA's), (19, 26197), (22, 26287), (27, 26311), (30, 26395),

Gene: Preamble_34 Start: 24974, Stop: 25330, Start Num: 13
Candidate Starts for Preamble_34:
(Start: 13 @24974 has 47 MA's), (20, 25082), (23, 25160), (26, 25169), (29, 25220), (31, 25268),

Gene: Pterodactyl_34 Start: 24883, Stop: 25239, Start Num: 13
Candidate Starts for Pterodactyl_34:
(Start: 13 @24883 has 47 MA's), (20, 24991), (23, 25069), (27, 25081), (29, 25129), (31, 25177),

Gene: Pumancara_33 Start: 24734, Stop: 25078, Start Num: 13
Candidate Starts for Pumancara_33:
(Start: 13 @24734 has 47 MA's), (16, 24791), (Start: 17 @24803 has 1 MA's), (27, 24932), (29, 24980),

Gene: RAP15_37 Start: 26264, Stop: 26611, Start Num: 13
Candidate Starts for RAP15_37:
(3, 26150), (6, 26156), (Start: 13 @26264 has 47 MA's), (16, 26324), (Start: 17 @26336 has 1 MA's), (19, 26351), (23, 26453), (29, 26513),

Gene: RcigaStruga_35 Start: 26124, Stop: 26468, Start Num: 12
Candidate Starts for RcigaStruga_35:
(Start: 12 @26124 has 25 MA's), (Start: 17 @26193 has 1 MA's), (19, 26208), (23, 26310), (27, 26322),

Gene: Riovina_33 Start: 25730, Stop: 26032, Start Num: 13
Candidate Starts for Riovina_33:
(Start: 13 @25730 has 47 MA's), (15, 25775), (21, 25892), (28, 25958),

Gene: Riverdale_37 Start: 26251, Stop: 26604, Start Num: 12
Candidate Starts for Riverdale_37:
(Start: 12 @26251 has 25 MA's), (16, 26308), (Start: 17 @26320 has 1 MA's), (19, 26335), (22, 26425), (27, 26449), (30, 26533),

Gene: Rozby_37 Start: 26252, Stop: 26605, Start Num: 12
Candidate Starts for Rozby_37:

(Start: 12 @26252 has 25 MA's), (16, 26309), (Start: 17 @26321 has 1 MA's), (19, 26336), (22, 26426), (27, 26450), (30, 26534),

Gene: Savage2526_37 Start: 26258, Stop: 26605, Start Num: 13
Candidate Starts for Savage2526_37:
(3, 26144), (6, 26150), (Start: 13 @26258 has 47 MA's), (16, 26318), (Start: 17 @26330 has 1 MA's), (19, 26345), (23, 26447), (29, 26507),

Gene: Scuttle_36 Start: 26245, Stop: 26598, Start Num: 12
Candidate Starts for Scuttle_36:
(4, 26137), (8, 26167), (Start: 12 @26245 has 25 MA's), (16, 26302), (Start: 17 @26314 has 1 MA's), (19, 26329), (22, 26419), (27, 26443), (30, 26527),

Gene: Sergei_33 Start: 25783, Stop: 26058, Start Num: 17
Candidate Starts for Sergei_33:
(Start: 11 @25714 has 5 MA's), (16, 25771), (Start: 17 @25783 has 1 MA's), (27, 25912), (29, 25960),

Gene: Supakev_33 Start: 25730, Stop: 26032, Start Num: 13
Candidate Starts for Supakev_33:
(Start: 13 @25730 has 47 MA's), (15, 25775), (21, 25892), (28, 25958),

Gene: Suppi_36 Start: 26104, Stop: 26466, Start Num: 10
Candidate Starts for Suppi_36:
(Start: 10 @26104 has 3 MA's), (Start: 13 @26110 has 47 MA's), (22, 26284), (27, 26308), (29, 26356),

Gene: TattModd_36 Start: 26109, Stop: 26462, Start Num: 12
Candidate Starts for TattModd_36:
(Start: 12 @26109 has 25 MA's), (16, 26166), (Start: 17 @26178 has 1 MA's), (19, 26193), (22, 26283), (27, 26307), (30, 26391),

Gene: Temper16_33 Start: 25714, Stop: 26058, Start Num: 11
Candidate Starts for Temper16_33:
(Start: 11 @25714 has 5 MA's), (16, 25771), (Start: 17 @25783 has 1 MA's), (27, 25912), (29, 25960),

Gene: Urla_35 Start: 26069, Stop: 26437, Start Num: 13
Candidate Starts for Urla_35:
(Start: 13 @26069 has 47 MA's), (16, 26126), (Start: 17 @26138 has 1 MA's), (25, 26261), (27, 26267),

Gene: Vallejo_37 Start: 26254, Stop: 26607, Start Num: 12
Candidate Starts for Vallejo_37:
(Start: 12 @26254 has 25 MA's), (16, 26311), (Start: 17 @26323 has 1 MA's), (19, 26338), (22, 26428), (27, 26452), (30, 26536),

Gene: Vulture_33 Start: 25727, Stop: 25999, Start Num: 14
Candidate Starts for Vulture_33:
(Start: 14 @25727 has 3 MA's), (27, 25898),

Gene: Wawa_36 Start: 26101, Stop: 26445, Start Num: 13
Candidate Starts for Wawa_36:
(Start: 13 @26101 has 47 MA's), (18, 26176), (27, 26299),

Gene: Wayne_36 Start: 26150, Stop: 26512, Start Num: 10
Candidate Starts for Wayne_36:

(Start: 10 @26150 has 3 MA's), (Start: 13 @26156 has 47 MA's), (22, 26330), (27, 26354), (29, 26402),

Gene: WonderBoy_33 Start: 24875, Stop: 25231, Start Num: 13
Candidate Starts for WonderBoy_33:
(2, 24593), (6, 24767), (Start: 13 @24875 has 47 MA's), (20, 24983), (23, 25061), (27, 25073), (29, 25121), (31, 25169),

Gene: Zorro_37 Start: 26225, Stop: 26572, Start Num: 13
Candidate Starts for Zorro_37:
(3, 26111), (6, 26117), (Start: 13 @26225 has 47 MA's), (16, 26285), (Start: 17 @26297 has 1 MA's), (23, 26414), (29, 26474),