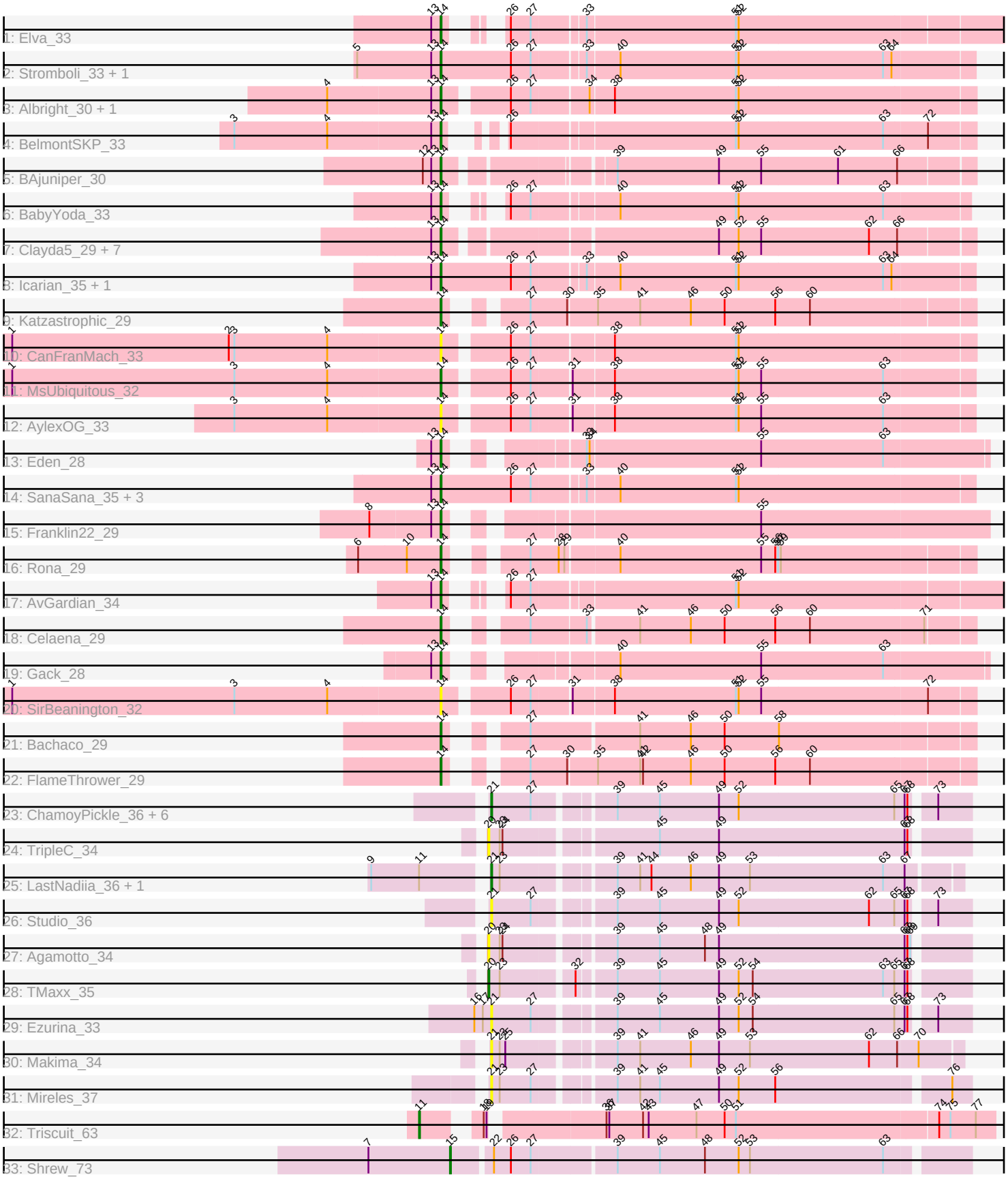
Pham 292745


1: Elva_33
2: Stromboli_33 + 1
3: Albright_30 + 1
4: BelmontSKP_33
5: BAjuniper_30
6: BabyYoda_33
7: Clayda5_29 + 7
8: Icarian_35 + 1
9: Katzastrophic_29
10: CanFranMach_33
11: MsUbiquitous_32
12: AylexOG_33
13: Eden_28
14: SanaSana_35 + 3
15: Franklin22_29
16: Rona_29
17: AvGardian_34
18: Celaena_29
19: Gack_28
20: SirBeanington_32
21: Bachaco_29
22: FlameThrower_29
23: ChamoyPickle_36 + 6
24: TripleC_34
25: LastNadiia_36 + 1
26: Studio_36
27: Agamotto_34
28: TMaxx_35
29: Ezurina_33
30: Makima_34
31: Mireles_37
32: Triscuit_63
33: Shrew_73

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 292745 Report

This analysis was run 04/18/26 on database version 643.

Pham number 292745 has 53 members, 17 are drafts.

Phages represented in each track:
- Track 1 : Elva_33
- Track 2 : Stromboli_33, DirtyBubble_32
- Track 3 : Albright_30, CroZenni_31
- Track 4 : BelmontSKP_33
- Track 5 : BAjuniper_30
- Track 6 : BabyYoda_33
- Track 7 : Clayda5_29, Bernstein_28, Rollins_28, Coltrane_28, Armstrong_28, Skylord_28, Vitas_28, Brahms_28
- Track 8 : Icarian_35, Stoor_33
- Track 9 : Katzastrophic_29
- Track 10 : CanFranMach_33
- Track 11 : MsUbiquitous_32
- Track 12 : AylexOG_33
- Track 13 : Eden_28
- Track 14 : SanaSana_35, Loviatar_34, Akino08_33, PondAmelia_42
- Track 15 : Franklin22_29
- Track 16 : Rona_29
- Track 17 : AvGardian_34
- Track 18 : Celaena_29
- Track 19 : Gack_28
- Track 20 : SirBeanington_32
- Track 21 : Bachaco_29
- Track 22 : FlameThrower_29
- Track 23 : ChamoyPickle_36, Gerri43_35, Roberts_34, AnnabelLee_34, CardboardBox_35, Neuvillette_34, ChipsNGuac_35
- Track 24 : TripleC_34
- Track 25 : LastNadiia_36, Audell_33
- Track 26 : Studio_36
- Track 27 : Agamotto_34
- Track 28 : TMaxx_35
- Track 29 : Ezurina_33
- Track 30 : Makima_34
- Track 31 : Mireles_37
- Track 32 : Triscuit_63
- Track 33 : Shrew_73

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

The start number called the most often in the published annotations is 14, it was called in 31 of the 36 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Akino08_33, Albright_30, Armstrong_28, AvGardian_34, AylexOG_33, BAjuniper_30, BabyYoda_33, Bachaco_29, BelmontSKP_33, Bernstein_28, Brahms_28, CanFranMach_33, Celaena_29, Clayda5_29, Coltrane_28, CroZenni_31, DirtyBubble_32, Eden_28, Elva_33, FlameThrower_29, Franklin22_29, Gack_28, Icarian_35, Katzastrophic_29, Loviatar_34, MsUbiquitous_32, PondAmelia_42, Rollins_28, Rona_29, SanaSana_35, SirBeanington_32, Skylord_28, Stoor_33, Stromboli_33, Vitas_28,

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

Genes that do not have the "Most Annotated" start:
• Agamotto_34, AnnabelLee_34, Audell_33, CardboardBox_35, ChamoyPickle_36, ChipsNGuac_35, Ezurina_33, Gerri43_35, LastNadiia_36, Makima_34, Mireles_37, Neuvillette_34, Roberts_34, Shrew_73, Studio_36, TMaxx_35, TripleC_34, Triscuit_63,

Summary by start number:

Start 11:
• Found in 3 of 53 (5.7%) of genes in pham
• Manual Annotations of this start: 1 of 36
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Triscuit_63 (GG),

Start 14:
• Found in 35 of 53 (66.0%) of genes in pham
• Manual Annotations of this start: 31 of 36
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Akino08_33 (EB), Albright_30 (EB), Armstrong_28 (EB), AvGardian_34 (EB), AylexOG_33 (EB), BAjuniper_30 (EB), BabyYoda_33 (EB), Bachaco_29 (EB), BelmontSKP_33 (EB), Bernstein_28 (EB), Brahms_28 (EB), CanFranMach_33 (EB), Celaena_29 (EB), Clayda5_29 (EB), Coltrane_28 (EB), CroZenni_31 (EB), DirtyBubble_32 (EB), Eden_28 (EB), Elva_33 (EB), FlameThrower_29 (EB), Franklin22_29 (EB), Gack_28 (EB), Icarian_35 (EB), Katzastrophic_29 (EB), Loviatar_34 (EB), MsUbiquitous_32 (EB), PondAmelia_42 (EB), Rollins_28 (EB), Rona_29 (EB), SanaSana_35 (EB), SirBeanington_32 (EB), Skylord_28 (EB), Stoor_33 (EB), Stromboli_33 (EB), Vitas_28 (EB),

Start 15:
• Found in 1 of 53 (1.9%) of genes in pham
• Manual Annotations of this start: 1 of 36
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Shrew_73 (singleton),

Start 20:

• Found in 3 of 53 (5.7%) of genes in pham
• Manual Annotations of this start: 1 of 36
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Agamotto_34 (FR), TMaxx_35 (FR), TripleC_34 (FR),

Start 21:
• Found in 13 of 53 (24.5%) of genes in pham
• Manual Annotations of this start: 2 of 36
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AnnabelLee_34 (FR), Audell_33 (FR), CardboardBox_35 (FR), ChamoyPickle_36 (FR), ChipsNGuac_35 (FR), Ezurina_33 (FR), Gerri43_35 (FR), LastNadiia_36 (FR), Makima_34 (FR), Mireles_37 (FR), Neuvillette_34 (FR), Roberts_34 (FR), Studio_36 (FR),

Summary by clusters:

There are 4 clusters represented in this pham: GG, FR, singleton, EB,

Info for manual annotations of cluster EB:
•Start number 14 was manually annotated 31 times for cluster EB.

Info for manual annotations of cluster FR:
•Start number 20 was manually annotated 1 time for cluster FR.
•Start number 21 was manually annotated 2 times for cluster FR.

Info for manual annotations of cluster GG:
•Start number 11 was manually annotated 1 time for cluster GG.

Gene Information:

Gene: Agamotto_34 Start: 24994, Stop: 24515, Start Num: 20
Candidate Starts for Agamotto_34:
(Start: 20 @24994 has 1 MA's), (23, 24982), (24, 24979), (39, 24877), (45, 24832), (48, 24784), (49, 24769), (67, 24574), (68, 24571), (69, 24568),

Gene: Akino08_33 Start: 24925, Stop: 25521, Start Num: 14
Candidate Starts for Akino08_33:
(13, 24916), (Start: 14 @24925 has 31 MA's), (26, 25000), (27, 25021), (33, 25072), (40, 25105), (51, 25228), (52, 25231),

Gene: Albright_30 Start: 22216, Stop: 22803, Start Num: 14
Candidate Starts for Albright_30:
(4, 22099), (13, 22207), (Start: 14 @22216 has 31 MA's), (26, 22276), (27, 22297), (34, 22354), (38, 22378), (51, 22507), (52, 22510),

Gene: AnnabelLee_34 Start: 22212, Stop: 21736, Start Num: 21
Candidate Starts for AnnabelLee_34:
(Start: 21 @22212 has 2 MA's), (27, 22170), (39, 22098), (45, 22053), (49, 21990), (52, 21969), (65, 21804), (67, 21795), (68, 21792), (73, 21771),

Gene: Armstrong_28 Start: 20941, Stop: 21507, Start Num: 14
Candidate Starts for Armstrong_28:
(13, 20932), (Start: 14 @20941 has 31 MA's), (49, 21208), (52, 21229), (55, 21253), (62, 21367), (66, 21397),

Gene: Audell_33 Start: 24613, Stop: 24143, Start Num: 21
Candidate Starts for Audell_33:
(9, 24724), (Start: 11 @24673 has 1 MA's), (Start: 21 @24613 has 2 MA's), (23, 24604), (39, 24499), (41, 24475), (44, 24463), (46, 24421), (49, 24391), (53, 24358), (63, 24217), (67, 24196),

Gene: AvGardian_34 Start: 23607, Stop: 24188, Start Num: 14
Candidate Starts for AvGardian_34:
(13, 23598), (Start: 14 @23607 has 31 MA's), (26, 23631), (27, 23652), (51, 23859), (52, 23862),

Gene: AylexOG_33 Start: 23405, Stop: 23989, Start Num: 14
Candidate Starts for AylexOG_33:
(3, 23189), (4, 23288), (Start: 14 @23405 has 31 MA's), (26, 23465), (27, 23486), (31, 23525), (38, 23567), (51, 23696), (52, 23699), (55, 23723), (63, 23852),

Gene: BAjuniper_30 Start: 23839, Stop: 24396, Start Num: 14
Candidate Starts for BAjuniper_30:
(12, 23821), (13, 23830), (Start: 14 @23839 has 31 MA's), (39, 23992), (49, 24100), (55, 24145), (61, 24226), (66, 24289),

Gene: BabyYoda_33 Start: 24127, Stop: 24666, Start Num: 14
Candidate Starts for BabyYoda_33:
(13, 24118), (Start: 14 @24127 has 31 MA's), (26, 24151), (27, 24172), (40, 24256), (51, 24379), (52, 24382), (63, 24535),

Gene: Bachaco_29 Start: 24051, Stop: 24608, Start Num: 14
Candidate Starts for Bachaco_29:
(Start: 14 @24051 has 31 MA's), (27, 24105), (41, 24216), (46, 24270), (50, 24306), (58, 24363),

Gene: BelmontSKP_33 Start: 23377, Stop: 23925, Start Num: 14
Candidate Starts for BelmontSKP_33:
(3, 23161), (4, 23260), (13, 23368), (Start: 14 @23377 has 31 MA's), (26, 23401), (51, 23629), (52, 23632), (63, 23785), (72, 23830),

Gene: Bernstein_28 Start: 20996, Stop: 21562, Start Num: 14
Candidate Starts for Bernstein_28:
(13, 20987), (Start: 14 @20996 has 31 MA's), (49, 21263), (52, 21284), (55, 21308), (62, 21422), (66, 21452),

Gene: Brahms_28 Start: 20943, Stop: 21509, Start Num: 14
Candidate Starts for Brahms_28:
(13, 20934), (Start: 14 @20943 has 31 MA's), (49, 21210), (52, 21231), (55, 21255), (62, 21369), (66, 21399),

Gene: CanFranMach_33 Start: 23077, Stop: 23664, Start Num: 14
Candidate Starts for CanFranMach_33:
(1, 22624), (2, 22855), (3, 22861), (4, 22960), (Start: 14 @23077 has 31 MA's), (26, 23137), (27, 23158), (38, 23239), (51, 23368), (52, 23371),

Gene: CardboardBox_35 Start: 22215, Stop: 21739, Start Num: 21
Candidate Starts for CardboardBox_35:
(Start: 21 @22215 has 2 MA's), (27, 22173), (39, 22101), (45, 22056), (49, 21993), (52, 21972), (65, 21807), (67, 21798), (68, 21795), (73, 21774),

Gene: Celaena_29 Start: 23736, Stop: 24290, Start Num: 14
Candidate Starts for Celaena_29:
(Start: 14 @23736 has 31 MA's), (27, 23790), (33, 23847), (41, 23898), (46, 23952), (50, 23988), (56, 24042), (60, 24078), (71, 24198),

Gene: ChamoyPickle_36 Start: 22755, Stop: 22279, Start Num: 21
Candidate Starts for ChamoyPickle_36:
(Start: 21 @22755 has 2 MA's), (27, 22713), (39, 22641), (45, 22596), (49, 22533), (52, 22512), (65, 22347), (67, 22338), (68, 22335), (73, 22314),

Gene: ChipsNGuac_35 Start: 22215, Stop: 21739, Start Num: 21
Candidate Starts for ChipsNGuac_35:
(Start: 21 @22215 has 2 MA's), (27, 22173), (39, 22101), (45, 22056), (49, 21993), (52, 21972), (65, 21807), (67, 21798), (68, 21795), (73, 21774),

Gene: Clayda5_29 Start: 20930, Stop: 21496, Start Num: 14
Candidate Starts for Clayda5_29:
(13, 20921), (Start: 14 @20930 has 31 MA's), (49, 21197), (52, 21218), (55, 21242), (62, 21356), (66, 21386),

Gene: Coltrane_28 Start: 20943, Stop: 21509, Start Num: 14
Candidate Starts for Coltrane_28:
(13, 20934), (Start: 14 @20943 has 31 MA's), (49, 21210), (52, 21231), (55, 21255), (62, 21369), (66, 21399),

Gene: CroZenni_31 Start: 22800, Stop: 23387, Start Num: 14
Candidate Starts for CroZenni_31:
(4, 22683), (13, 22791), (Start: 14 @22800 has 31 MA's), (26, 22860), (27, 22881), (34, 22938), (38, 22962), (51, 23091), (52, 23094),

Gene: DirtyBubble_32 Start: 23754, Stop: 24350, Start Num: 14
Candidate Starts for DirtyBubble_32:
(5, 23667), (13, 23745), (Start: 14 @23754 has 31 MA's), (26, 23829), (27, 23850), (33, 23901), (40, 23934), (51, 24057), (52, 24060), (63, 24213), (64, 24222),

Gene: Eden_28 Start: 21161, Stop: 21682, Start Num: 14
Candidate Starts for Eden_28:
(13, 21152), (Start: 14 @21161 has 31 MA's), (33, 21263), (34, 21266), (55, 21446), (63, 21575),

Gene: Elva_33 Start: 23789, Stop: 24370, Start Num: 14
Candidate Starts for Elva_33:
(13, 23780), (Start: 14 @23789 has 31 MA's), (26, 23813), (27, 23834), (33, 23885), (51, 24041), (52, 24044),

Gene: Ezurina_33 Start: 23256, Stop: 22780, Start Num: 21
Candidate Starts for Ezurina_33:
(16, 23274), (17, 23265), (Start: 21 @23256 has 2 MA's), (27, 23214), (39, 23142), (45, 23097), (49, 23034), (52, 23013), (54, 22998), (65, 22848), (67, 22839), (68, 22836), (73, 22815),

Gene: FlameThrower_29 Start: 23222, Stop: 23782, Start Num: 14
Candidate Starts for FlameThrower_29:
(Start: 14 @23222 has 31 MA's), (27, 23276), (30, 23315), (35, 23345), (41, 23390), (42, 23393), (46, 23444), (50, 23480), (56, 23534), (60, 23570),

Gene: Franklin22_29 Start: 21323, Stop: 21847, Start Num: 14
Candidate Starts for Franklin22_29:
(8, 21251), (13, 21314), (Start: 14 @21323 has 31 MA's), (55, 21608),

Gene: Gack_28 Start: 21205, Stop: 21726, Start Num: 14
Candidate Starts for Gack_28:
(13, 21196), (Start: 14 @21205 has 31 MA's), (40, 21340), (55, 21490), (63, 21619),

Gene: Gerri43_35 Start: 22215, Stop: 21739, Start Num: 21
Candidate Starts for Gerri43_35:
(Start: 21 @22215 has 2 MA's), (27, 22173), (39, 22101), (45, 22056), (49, 21993), (52, 21972), (65, 21807), (67, 21798), (68, 21795), (73, 21774),

Gene: Icarian_35 Start: 24388, Stop: 24984, Start Num: 14
Candidate Starts for Icarian_35:
(13, 24379), (Start: 14 @24388 has 31 MA's), (26, 24463), (27, 24484), (33, 24535), (40, 24568), (51, 24691), (52, 24694), (63, 24847), (64, 24856),

Gene: Katzastrophic_29 Start: 23340, Stop: 23900, Start Num: 14
Candidate Starts for Katzastrophic_29:
(Start: 14 @23340 has 31 MA's), (27, 23394), (30, 23433), (35, 23463), (41, 23508), (46, 23562), (50, 23598), (56, 23652), (60, 23688),

Gene: LastNadiia_36 Start: 24572, Stop: 24102, Start Num: 21
Candidate Starts for LastNadiia_36:
(9, 24683), (Start: 11 @24632 has 1 MA's), (Start: 21 @24572 has 2 MA's), (23, 24563), (39, 24458), (41, 24434), (44, 24422), (46, 24380), (49, 24350), (53, 24317), (63, 24176), (67, 24155),

Gene: Loviatar_34 Start: 24940, Stop: 25536, Start Num: 14
Candidate Starts for Loviatar_34:
(13, 24931), (Start: 14 @24940 has 31 MA's), (26, 25015), (27, 25036), (33, 25087), (40, 25120), (51, 25243), (52, 25246),

Gene: Makima_34 Start: 23688, Stop: 23212, Start Num: 21
Candidate Starts for Makima_34:
(Start: 21 @23688 has 2 MA's), (23, 23679), (25, 23673), (39, 23574), (41, 23550), (46, 23496), (49, 23466), (53, 23433), (62, 23307), (66, 23277), (70, 23256),

Gene: Mireles_37 Start: 23247, Stop: 22771, Start Num: 21
Candidate Starts for Mireles_37:
(Start: 21 @23247 has 2 MA's), (23, 23238), (27, 23205), (39, 23133), (41, 23109), (45, 23088), (49, 23025), (52, 23004), (56, 22965), (76, 22791),

Gene: MsUbiquitous_32 Start: 23092, Stop: 23676, Start Num: 14
Candidate Starts for MsUbiquitous_32:
(1, 22639), (3, 22876), (4, 22975), (Start: 14 @23092 has 31 MA's), (26, 23152), (27, 23173), (31, 23212), (38, 23254), (51, 23383), (52, 23386), (55, 23410), (63, 23539),

Gene: Neuvillette_34 Start: 22215, Stop: 21739, Start Num: 21
Candidate Starts for Neuvillette_34:
(Start: 21 @22215 has 2 MA's), (27, 22173), (39, 22101), (45, 22056), (49, 21993), (52, 21972), (65, 21807), (67, 21798), (68, 21795), (73, 21774),

Gene: PondAmelia_42 Start: 23954, Stop: 24535, Start Num: 14
Candidate Starts for PondAmelia_42:
(13, 23945), (Start: 14 @23954 has 31 MA's), (26, 23978), (27, 23999), (33, 24050), (40, 24083), (51, 24206), (52, 24209),

Gene: Roberts_34 Start: 22215, Stop: 21739, Start Num: 21
Candidate Starts for Roberts_34:
(Start: 21 @22215 has 2 MA's), (27, 22173), (39, 22101), (45, 22056), (49, 21993), (52, 21972), (65, 21807), (67, 21798), (68, 21795), (73, 21774),

Gene: Rollins_28 Start: 20996, Stop: 21562, Start Num: 14
Candidate Starts for Rollins_28:
(13, 20987), (Start: 14 @20996 has 31 MA's), (49, 21263), (52, 21284), (55, 21308), (62, 21422), (66, 21452),

Gene: Rona_29 Start: 23391, Stop: 23948, Start Num: 14
Candidate Starts for Rona_29:
(6, 23304), (10, 23355), (Start: 14 @23391 has 31 MA's), (27, 23445), (28, 23475), (29, 23481), (40, 23535), (55, 23685), (56, 23700), (57, 23703), (59, 23706),

Gene: SanaSana_35 Start: 24590, Stop: 25186, Start Num: 14
Candidate Starts for SanaSana_35:
(13, 24581), (Start: 14 @24590 has 31 MA's), (26, 24665), (27, 24686), (33, 24737), (40, 24770), (51, 24893), (52, 24896),

Gene: Shrew_73 Start: 43134, Stop: 43658, Start Num: 15
Candidate Starts for Shrew_73:
(7, 43047), (Start: 15 @43134 has 1 MA's), (22, 43173), (26, 43191), (27, 43212), (39, 43296), (45, 43341), (48, 43389), (52, 43425), (53, 43437), (63, 43578),

Gene: SirBeanington_32 Start: 23102, Stop: 23689, Start Num: 14
Candidate Starts for SirBeanington_32:
(1, 22649), (3, 22886), (4, 22985), (Start: 14 @23102 has 31 MA's), (26, 23162), (27, 23183), (31, 23222), (38, 23264), (51, 23393), (52, 23396), (55, 23420), (72, 23594),

Gene: Skylord_28 Start: 20927, Stop: 21493, Start Num: 14
Candidate Starts for Skylord_28:
(13, 20918), (Start: 14 @20927 has 31 MA's), (49, 21194), (52, 21215), (55, 21239), (62, 21353), (66, 21383),

Gene: Stoor_33 Start: 24258, Stop: 24854, Start Num: 14
Candidate Starts for Stoor_33:
(13, 24249), (Start: 14 @24258 has 31 MA's), (26, 24333), (27, 24354), (33, 24405), (40, 24438), (51, 24561), (52, 24564), (63, 24717), (64, 24726),

Gene: Stromboli_33 Start: 24124, Stop: 24720, Start Num: 14
Candidate Starts for Stromboli_33:

(5, 24037), (13, 24115), (Start: 14 @24124 has 31 MA's), (26, 24199), (27, 24220), (33, 24271), (40, 24304), (51, 24427), (52, 24430), (63, 24583), (64, 24592),

Gene: Studio_36 Start: 23580, Stop: 23104, Start Num: 21
Candidate Starts for Studio_36:
(Start: 21 @23580 has 2 MA's), (27, 23538), (39, 23466), (45, 23421), (49, 23358), (52, 23337), (62, 23199), (65, 23172), (67, 23163), (68, 23160), (73, 23139),

Gene: TMaxx_35 Start: 22869, Stop: 22390, Start Num: 20
Candidate Starts for TMaxx_35:
(Start: 20 @22869 has 1 MA's), (23, 22857), (32, 22788), (39, 22752), (45, 22707), (49, 22644), (52, 22623), (54, 22608), (63, 22470), (65, 22458), (67, 22449), (68, 22446),

Gene: TripleC_34 Start: 25213, Stop: 24734, Start Num: 20
Candidate Starts for TripleC_34:
(Start: 20 @25213 has 1 MA's), (23, 25201), (24, 25198), (45, 25051), (49, 24988), (67, 24793), (68, 24790),

Gene: Triscuit_63 Start: 39489, Stop: 40052, Start Num: 11
Candidate Starts for Triscuit_63:
(Start: 11 @39489 has 1 MA's), (18, 39534), (19, 39537), (36, 39645), (37, 39648), (42, 39684), (43, 39690), (47, 39741), (50, 39771), (51, 39783), (74, 39993), (75, 40005), (77, 40032),

Gene: Vitas_28 Start: 20936, Stop: 21502, Start Num: 14
Candidate Starts for Vitas_28:
(13, 20927), (Start: 14 @20936 has 31 MA's), (49, 21203), (52, 21224), (55, 21248), (62, 21362), (66, 21392),