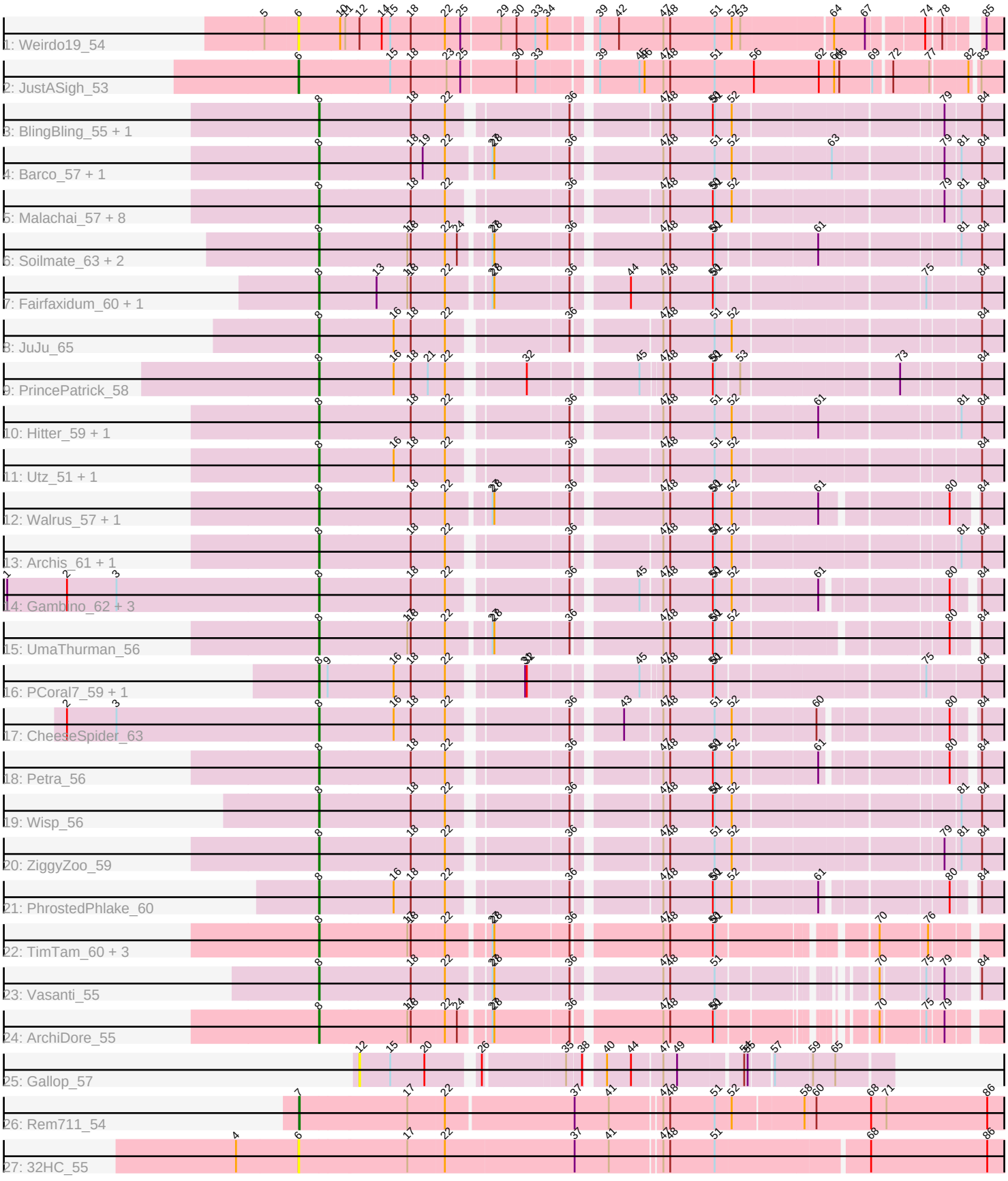
Pham 344091


1: Weirdo19_54
2: JustASigh_53
3: BlingBling_55 + 1
4: Barco_57 + 1
5: Malachai_57 + 8
6: Soilmate_63 + 2
7: Fairfaxidum_60 + 1
8: JuJu_65
9: PrincePatrick_58
10: Hitter_59 + 1
11: Utz_51 + 1
12: Walrus_57 + 1
13: Archis_61 + 1
14: Gambino_62 + 3
15: UmaThurman_56
16: PCoral7_59 + 1
17: CheeseSpider_63
18: Petra_56
19: Wisp_56
20: ZiggyZoo_59
21: PhrostedPhlake_60
22: TimTam_60 + 3
23: Vasanti_55
24: ArchiDore_55
25: Gallop_57
26: Rem711_54
27: 32HC_55

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 344091 Report

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

Pham number 344091 has 51 members, 4 are drafts.

Phages represented in each track:
• Track 1 : Weirdo19_54
• Track 2 : JustASigh_53
• Track 3 : BlingBling_55, Melba_57
• Track 4 : Barco_57, Zilla_57
• Track 5 : Malachai_57, Begonia_57, MintFen_59, Guacamole_56, Delian_62, Jalammah_62, JasperJr_56, CaptainKirk2_59, Zarbodnamra_58
• Track 6 : Soilmate_63, CarolAnn_60, Blino_61
• Track 7 : Fairfaxidum_60, William_61
• Track 8 : JuJu_65
• Track 9 : PrincePatrick_58
• Track 10 : Hitter_59, Fenry_57
• Track 11 : Utz_51, Obliviate_55
• Track 12 : Walrus_57, Pipp_61
• Track 13 : Archis_61, Samba_58
• Track 14 : Gambino_62, Azula_60, Blueberry_59, MissRona_60
• Track 15 : UmaThurman_56
• Track 16 : PCoral7_59, Toast_59
• Track 17 : CheeseSpider_63
• Track 18 : Petra_56
• Track 19 : Wisp_56
• Track 20 : ZiggyZoo_59
• Track 21 : PhrostedPhlake_60
• Track 22 : TimTam_60, Eviarto_60, Nymphadora_60, BatStarr_59
• Track 23 : Vasanti_55
• Track 24 : ArchiDore_55
• Track 25 : Gallop_57
• Track 26 : Rem711_54
• Track 27 : 32HC_55

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

The start number called the most often in the published annotations is 8, it was called in 45 of the 47 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ArchiDore_55, Archis_61, Azula_60, Barco_57, BatStarr_59, Begonia_57, BlingBling_55, Blino_61, Blueberry_59, CaptainKirk2_59, CarolAnn_60, CheeseSpider_63, Delian_62, Eviarto_60, Fairfaxidum_60, Fenry_57, Gambino_62, Guacamole_56, Hitter_59, Jalammah_62, JasperJr_56, JuJu_65, Malachai_57, Melba_57, MintFen_59, MissRona_60, Nymphadora_60, Obliviate_55, PCoral7_59, Petra_56, PhrostedPhlake_60, Pipp_61, PrincePatrick_58, Samba_58, Soilmate_63, TimTam_60, Toast_59, UmaThurman_56, Utz_51, Vasanti_55, Walrus_57, William_61, Wisp_56, Zarbodnamra_58, ZiggyZoo_59, Zilla_57,

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

Genes that do not have the "Most Annotated" start:
• 32HC_55, Gallop_57, JustASigh_53, Rem711_54, Weirdo19_54,

Summary by start number:

Start 6:
• Found in 3 of 51 (5.9%) of genes in pham
• Manual Annotations of this start: 1 of 47
• Called 100.0% of time when present
• Phage (with cluster) where this start called: 32HC_55 (Z), JustASigh_53 (AH), Weirdo19_54 (AH),

Start 7:
• Found in 1 of 51 (2.0%) of genes in pham
• Manual Annotations of this start: 1 of 47
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Rem711_54 (Z),

Start 8:
• Found in 46 of 51 (90.2%) of genes in pham
• Manual Annotations of this start: 45 of 47
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ArchiDore_55 (DW), Archis_61 (CV), Azula_60 (CV), Barco_57 (CV), BatStarr_59 (CZ1), Begonia_57 (CV), BlingBling_55 (CV), Blino_61 (CV), Blueberry_59 (CV), CaptainKirk2_59 (CV), CarolAnn_60 (CV), CheeseSpider_63 (CV), Delian_62 (CV), Eviarto_60 (CZ1), Fairfaxidum_60 (CV), Fenry_57 (CV), Gambino_62 (CV), Guacamole_56 (CV), Hitter_59 (CV), Jalammah_62 (CV), JasperJr_56 (CV), JuJu_65 (CV), Malachai_57 (CV), Melba_57 (CV), MintFen_59 (CV), MissRona_60 (CV), Nymphadora_60 (CZ1), Obliviate_55 (CV), PCoral7_59 (CV), Petra_56 (CV), PhrostedPhlake_60 (CV), Pipp_61 (CV), PrincePatrick_58 (CV), Samba_58 (CV), Soilmate_63 (CV), TimTam_60 (CZ1), Toast_59 (CV), UmaThurman_56 (CV), Utz_51 (CV), Vasanti_55 (CZ2), Walrus_57 (CV), William_61 (CV), Wisp_56 (CV), Zarbodnamra_58 (CV), ZiggyZoo_59 (CV), Zilla_57 (CV),

Start 12:
• Found in 2 of 51 (3.9%) of genes in pham
• No Manual Annotations of this start.
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Gallop_57 (ES),

Summary by clusters:

There are 7 clusters represented in this pham: CZ2, AH, CZ1, DW, Z, CV, ES,

Info for manual annotations of cluster AH:
•Start number 6 was manually annotated 1 time for cluster AH.

Info for manual annotations of cluster CV:
•Start number 8 was manually annotated 39 times for cluster CV.

Info for manual annotations of cluster CZ1:
•Start number 8 was manually annotated 4 times for cluster CZ1.

Info for manual annotations of cluster CZ2:
•Start number 8 was manually annotated 1 time for cluster CZ2.

Info for manual annotations of cluster DW:
•Start number 8 was manually annotated 1 time for cluster DW.

Info for manual annotations of cluster Z:
•Start number 7 was manually annotated 1 time for cluster Z.

Gene Information:

Gene: 32HC_55 Start: 37634, Stop: 38950, Start Num: 6
Candidate Starts for 32HC_55:
(4, 37526), (Start: 6 @37634 has 1 MA's), (17, 37820), (22, 37883), (37, 38108), (41, 38168), (47, 38252), (48, 38264), (51, 38342), (68, 38597), (86, 38801),

Gene: ArchiDore_55 Start: 41018, Stop: 42052, Start Num: 8
Candidate Starts for ArchiDore_55:
(Start: 8 @41018 has 45 MA's), (17, 41168), (18, 41174), (22, 41231), (24, 41252), (27, 41297), (28, 41300), (36, 41426), (47, 41564), (48, 41576), (50, 41651), (51, 41654), (70, 41849), (75, 41915), (79, 41942),

Gene: Archis_61 Start: 38380, Stop: 39471, Start Num: 8
Candidate Starts for Archis_61:
(Start: 8 @38380 has 45 MA's), (18, 38536), (22, 38593), (36, 38776), (47, 38905), (48, 38917), (50, 38992), (51, 38995), (52, 39022), (81, 39373), (84, 39409),

Gene: Azula_60 Start: 40662, Stop: 41723, Start Num: 8
Candidate Starts for Azula_60:
(1, 40119), (2, 40224), (3, 40311), (Start: 8 @40662 has 45 MA's), (18, 40818), (22, 40875), (36, 41058), (45, 41154), (47, 41187), (48, 41199), (50, 41274), (51, 41277), (52, 41304), (61, 41439), (80, 41628), (84, 41661),

Gene: Barco_57 Start: 37936, Stop: 39048, Start Num: 8
Candidate Starts for Barco_57:

(Start: 8 @37936 has 45 MA's), (18, 38092), (19, 38113), (22, 38149), (27, 38215), (28, 38218), (36, 38344), (47, 38482), (48, 38494), (51, 38572), (52, 38599), (63, 38755), (79, 38926), (81, 38950), (84, 38986),

Gene: BatStarr_59 Start: 42217, Stop: 43296, Start Num: 8
Candidate Starts for BatStarr_59:
(Start: 8 @42217 has 45 MA's), (17, 42367), (18, 42373), (22, 42430), (27, 42496), (28, 42499), (36, 42625), (47, 42763), (48, 42775), (50, 42850), (51, 42853), (70, 43084), (76, 43162),

Gene: Begonia_57 Start: 40175, Stop: 41266, Start Num: 8
Candidate Starts for Begonia_57:
(Start: 8 @40175 has 45 MA's), (18, 40331), (22, 40388), (36, 40571), (47, 40700), (48, 40712), (50, 40787), (51, 40790), (52, 40817), (79, 41144), (81, 41168), (84, 41204),

Gene: BlingBling_55 Start: 38393, Stop: 39484, Start Num: 8
Candidate Starts for BlingBling_55:
(Start: 8 @38393 has 45 MA's), (18, 38549), (22, 38606), (36, 38789), (47, 38918), (48, 38930), (50, 39005), (51, 39008), (52, 39035), (79, 39362), (84, 39422),

Gene: Blino_61 Start: 43357, Stop: 44466, Start Num: 8
Candidate Starts for Blino_61:
(Start: 8 @43357 has 45 MA's), (17, 43507), (18, 43513), (22, 43570), (24, 43591), (27, 43636), (28, 43639), (36, 43765), (47, 43903), (48, 43915), (50, 43990), (51, 43993), (61, 44152), (81, 44368), (84, 44404),

Gene: Blueberry_59 Start: 40662, Stop: 41723, Start Num: 8
Candidate Starts for Blueberry_59:
(1, 40119), (2, 40224), (3, 40311), (Start: 8 @40662 has 45 MA's), (18, 40818), (22, 40875), (36, 41058), (45, 41154), (47, 41187), (48, 41199), (50, 41274), (51, 41277), (52, 41304), (61, 41439), (80, 41628), (84, 41661),

Gene: CaptainKirk2_59 Start: 38175, Stop: 39266, Start Num: 8
Candidate Starts for CaptainKirk2_59:
(Start: 8 @38175 has 45 MA's), (18, 38331), (22, 38388), (36, 38571), (47, 38700), (48, 38712), (50, 38787), (51, 38790), (52, 38817), (79, 39144), (81, 39168), (84, 39204),

Gene: CarolAnn_60 Start: 43356, Stop: 44465, Start Num: 8
Candidate Starts for CarolAnn_60:
(Start: 8 @43356 has 45 MA's), (17, 43506), (18, 43512), (22, 43569), (24, 43590), (27, 43635), (28, 43638), (36, 43764), (47, 43902), (48, 43914), (50, 43989), (51, 43992), (61, 44151), (81, 44367), (84, 44403),

Gene: CheeseSpider_63 Start: 39442, Stop: 40503, Start Num: 8
Candidate Starts for CheeseSpider_63:
(2, 39004), (3, 39091), (Start: 8 @39442 has 45 MA's), (16, 39568), (18, 39598), (22, 39655), (36, 39838), (43, 39907), (47, 39967), (48, 39979), (51, 40057), (52, 40084), (60, 40216), (80, 40408), (84, 40441),

Gene: Delian_62 Start: 38173, Stop: 39264, Start Num: 8
Candidate Starts for Delian_62:
(Start: 8 @38173 has 45 MA's), (18, 38329), (22, 38386), (36, 38569), (47, 38698), (48, 38710), (50, 38785), (51, 38788), (52, 38815), (79, 39142), (81, 39166), (84, 39202),

Gene: Eviarto_60 Start: 42192, Stop: 43271, Start Num: 8
Candidate Starts for Eviarto_60:
(Start: 8 @42192 has 45 MA's), (17, 42342), (18, 42348), (22, 42405), (27, 42471), (28, 42474), (36, 42600), (47, 42738), (48, 42750), (50, 42825), (51, 42828), (70, 43059), (76, 43137),

Gene: Fairfaxidum_60 Start: 40525, Stop: 41622, Start Num: 8
Candidate Starts for Fairfaxidum_60:
(Start: 8 @40525 has 45 MA's), (13, 40621), (17, 40675), (18, 40681), (22, 40738), (27, 40804), (28, 40807), (36, 40933), (44, 41014), (47, 41071), (48, 41083), (50, 41158), (51, 41161), (75, 41488), (84, 41575),

Gene: Fenry_57 Start: 39683, Stop: 40777, Start Num: 8
Candidate Starts for Fenry_57:
(Start: 8 @39683 has 45 MA's), (18, 39839), (22, 39896), (36, 40079), (47, 40208), (48, 40220), (51, 40298), (52, 40325), (61, 40460), (81, 40679), (84, 40715),

Gene: Gallop_57 Start: 39540, Stop: 40358, Start Num: 12
Candidate Starts for Gallop_57:
(12, 39540), (15, 39594), (20, 39654), (26, 39729), (35, 39855), (38, 39879), (40, 39903), (44, 39945), (47, 39996), (49, 40020), (54, 40122), (55, 40128), (57, 40164), (59, 40224), (65, 40263),

Gene: Gambino_62 Start: 40662, Stop: 41723, Start Num: 8
Candidate Starts for Gambino_62:
(1, 40119), (2, 40224), (3, 40311), (Start: 8 @40662 has 45 MA's), (18, 40818), (22, 40875), (36, 41058), (45, 41154), (47, 41187), (48, 41199), (50, 41274), (51, 41277), (52, 41304), (61, 41439), (80, 41628), (84, 41661),

Gene: Guacamole_56 Start: 38402, Stop: 39493, Start Num: 8
Candidate Starts for Guacamole_56:
(Start: 8 @38402 has 45 MA's), (18, 38558), (22, 38615), (36, 38798), (47, 38927), (48, 38939), (50, 39014), (51, 39017), (52, 39044), (79, 39371), (81, 39395), (84, 39431),

Gene: Hitter_59 Start: 37978, Stop: 39072, Start Num: 8
Candidate Starts for Hitter_59:
(Start: 8 @37978 has 45 MA's), (18, 38134), (22, 38191), (36, 38374), (47, 38503), (48, 38515), (51, 38593), (52, 38620), (61, 38755), (81, 38974), (84, 39010),

Gene: Jalammah_62 Start: 40981, Stop: 42072, Start Num: 8
Candidate Starts for Jalammah_62:
(Start: 8 @40981 has 45 MA's), (18, 41137), (22, 41194), (36, 41377), (47, 41506), (48, 41518), (50, 41593), (51, 41596), (52, 41623), (79, 41950), (81, 41974), (84, 42010),

Gene: JasperJr_56 Start: 38402, Stop: 39493, Start Num: 8
Candidate Starts for JasperJr_56:
(Start: 8 @38402 has 45 MA's), (18, 38558), (22, 38615), (36, 38798), (47, 38927), (48, 38939), (50, 39014), (51, 39017), (52, 39044), (79, 39371), (81, 39395), (84, 39431),

Gene: JuJu_65 Start: 42107, Stop: 43198, Start Num: 8
Candidate Starts for JuJu_65:
(Start: 8 @42107 has 45 MA's), (16, 42233), (18, 42263), (22, 42320), (36, 42503), (47, 42632), (48, 42644), (51, 42722), (52, 42749), (84, 43136),

Gene: JustASigh_53 Start: 37832, Stop: 38998, Start Num: 6

Candidate Starts for JustASigh_53:
(Start: 6 @37832 has 1 MA's), (15, 37988), (18, 38024), (23, 38084), (25, 38108), (30, 38201), (33, 38234), (39, 38318), (45, 38387), (46, 38396), (47, 38429), (48, 38441), (51, 38519), (56, 38585), (62, 38699), (64, 38726), (66, 38735), (69, 38789), (72, 38816), (77, 38873), (82, 38933), (83, 38945),

Gene: Malachai_57 Start: 40175, Stop: 41266, Start Num: 8
Candidate Starts for Malachai_57:
(Start: 8 @40175 has 45 MA's), (18, 40331), (22, 40388), (36, 40571), (47, 40700), (48, 40712), (50, 40787), (51, 40790), (52, 40817), (79, 41144), (81, 41168), (84, 41204),

Gene: Melba_57 Start: 38218, Stop: 39309, Start Num: 8
Candidate Starts for Melba_57:
(Start: 8 @38218 has 45 MA's), (18, 38374), (22, 38431), (36, 38614), (47, 38743), (48, 38755), (50, 38830), (51, 38833), (52, 38860), (79, 39187), (84, 39247),

Gene: MintFen_59 Start: 38789, Stop: 39880, Start Num: 8
Candidate Starts for MintFen_59:
(Start: 8 @38789 has 45 MA's), (18, 38945), (22, 39002), (36, 39185), (47, 39314), (48, 39326), (50, 39401), (51, 39404), (52, 39431), (79, 39758), (81, 39782), (84, 39818),

Gene: MissRona_60 Start: 40663, Stop: 41724, Start Num: 8
Candidate Starts for MissRona_60:
(1, 40120), (2, 40225), (3, 40312), (Start: 8 @40663 has 45 MA's), (18, 40819), (22, 40876), (36, 41059), (45, 41155), (47, 41188), (48, 41200), (50, 41275), (51, 41278), (52, 41305), (61, 41440), (80, 41629), (84, 41662),

Gene: Nymphadora_60 Start: 42216, Stop: 43295, Start Num: 8
Candidate Starts for Nymphadora_60:
(Start: 8 @42216 has 45 MA's), (17, 42366), (18, 42372), (22, 42429), (27, 42495), (28, 42498), (36, 42624), (47, 42762), (48, 42774), (50, 42849), (51, 42852), (70, 43083), (76, 43161),

Gene: Obliviate_55 Start: 36786, Stop: 37877, Start Num: 8
Candidate Starts for Obliviate_55:
(Start: 8 @36786 has 45 MA's), (16, 36912), (18, 36942), (22, 36999), (36, 37182), (47, 37311), (48, 37323), (51, 37401), (52, 37428), (84, 37815),

Gene: PCoral7_59 Start: 39933, Stop: 41009, Start Num: 8
Candidate Starts for PCoral7_59:
(Start: 8 @39933 has 45 MA's), (9, 39948), (16, 40059), (18, 40089), (22, 40146), (31, 40257), (32, 40260), (45, 40425), (47, 40458), (48, 40470), (50, 40545), (51, 40548), (75, 40875), (84, 40962),

Gene: Petra_56 Start: 37438, Stop: 38499, Start Num: 8
Candidate Starts for Petra_56:
(Start: 8 @37438 has 45 MA's), (18, 37594), (22, 37651), (36, 37834), (47, 37963), (48, 37975), (50, 38050), (51, 38053), (52, 38080), (61, 38215), (80, 38404), (84, 38437),

Gene: PhrostedPhlake_60 Start: 38220, Stop: 39281, Start Num: 8
Candidate Starts for PhrostedPhlake_60:
(Start: 8 @38220 has 45 MA's), (16, 38346), (18, 38376), (22, 38433), (36, 38616), (47, 38745), (48, 38757), (50, 38832), (51, 38835), (52, 38862), (61, 38997), (80, 39186), (84, 39219),

Gene: Pipp_61 Start: 39485, Stop: 40570, Start Num: 8
Candidate Starts for Pipp_61:

(Start: 8 @39485 has 45 MA's), (18, 39641), (22, 39698), (27, 39764), (28, 39767), (36, 39893), (47, 40031), (48, 40043), (50, 40118), (51, 40121), (52, 40148), (61, 40286), (80, 40475), (84, 40508),

Gene: PrincePatrick_58 Start: 38282, Stop: 39358, Start Num: 8
Candidate Starts for PrincePatrick_58:
(Start: 8 @38282 has 45 MA's), (16, 38408), (18, 38438), (21, 38468), (22, 38495), (32, 38609), (45, 38774), (47, 38807), (48, 38819), (50, 38894), (51, 38897), (53, 38936), (73, 39188), (84, 39311),

Gene: Rem711_54 Start: 37619, Stop: 38953, Start Num: 7
Candidate Starts for Rem711_54:
(Start: 7 @37619 has 1 MA's), (17, 37805), (22, 37868), (37, 38087), (41, 38147), (47, 38231), (48, 38243), (51, 38321), (52, 38348), (58, 38465), (60, 38483), (68, 38579), (71, 38606), (86, 38783),

Gene: Samba_58 Start: 41011, Stop: 42102, Start Num: 8
Candidate Starts for Samba_58:
(Start: 8 @41011 has 45 MA's), (18, 41167), (22, 41224), (36, 41407), (47, 41536), (48, 41548), (50, 41623), (51, 41626), (52, 41653), (81, 42004), (84, 42040),

Gene: Soilmate_63 Start: 43356, Stop: 44465, Start Num: 8
Candidate Starts for Soilmate_63:
(Start: 8 @43356 has 45 MA's), (17, 43506), (18, 43512), (22, 43569), (24, 43590), (27, 43635), (28, 43638), (36, 43764), (47, 43902), (48, 43914), (50, 43989), (51, 43992), (61, 44151), (81, 44367), (84, 44403),

Gene: TimTam_60 Start: 42216, Stop: 43295, Start Num: 8
Candidate Starts for TimTam_60:
(Start: 8 @42216 has 45 MA's), (17, 42366), (18, 42372), (22, 42429), (27, 42495), (28, 42498), (36, 42624), (47, 42762), (48, 42774), (50, 42849), (51, 42852), (70, 43083), (76, 43161),

Gene: Toast_59 Start: 39933, Stop: 41009, Start Num: 8
Candidate Starts for Toast_59:
(Start: 8 @39933 has 45 MA's), (9, 39948), (16, 40059), (18, 40089), (22, 40146), (31, 40257), (32, 40260), (45, 40425), (47, 40458), (48, 40470), (50, 40545), (51, 40548), (75, 40875), (84, 40962),

Gene: UmaThurman_56 Start: 38930, Stop: 40009, Start Num: 8
Candidate Starts for UmaThurman_56:
(Start: 8 @38930 has 45 MA's), (17, 39080), (18, 39086), (22, 39143), (27, 39209), (28, 39212), (36, 39338), (47, 39476), (48, 39488), (50, 39563), (51, 39566), (52, 39590), (80, 39914), (84, 39947),

Gene: Utz_51 Start: 38758, Stop: 39849, Start Num: 8
Candidate Starts for Utz_51:
(Start: 8 @38758 has 45 MA's), (16, 38884), (18, 38914), (22, 38971), (36, 39154), (47, 39283), (48, 39295), (51, 39373), (52, 39400), (84, 39787),

Gene: Vasanti_55 Start: 36701, Stop: 37735, Start Num: 8
Candidate Starts for Vasanti_55:
(Start: 8 @36701 has 45 MA's), (18, 36857), (22, 36914), (27, 36980), (28, 36983), (36, 37109), (47, 37247), (48, 37259), (51, 37337), (70, 37532), (75, 37598), (79, 37625), (84, 37667),

Gene: Walrus_57 Start: 38293, Stop: 39378, Start Num: 8
Candidate Starts for Walrus_57:
(Start: 8 @38293 has 45 MA's), (18, 38449), (22, 38506), (27, 38572), (28, 38575), (36, 38701), (47, 38839), (48, 38851), (50, 38926), (51, 38929), (52, 38956), (61, 39094), (80, 39283), (84, 39316),

Gene: Weirdo19_54 Start: 38200, Stop: 39324, Start Num: 6
Candidate Starts for Weirdo19_54:
(5, 38143), (Start: 6 @38200 has 1 MA's), (10, 38272), (11, 38281), (12, 38305), (14, 38344), (15, 38359), (18, 38395), (22, 38452), (25, 38479), (29, 38545), (30, 38572), (33, 38605), (34, 38626), (39, 38689), (42, 38722), (47, 38800), (48, 38812), (51, 38890), (52, 38920), (53, 38935), (64, 39082), (67, 39136), (74, 39217), (78, 39238), (85, 39283),

Gene: William_61 Start: 40608, Stop: 41705, Start Num: 8
Candidate Starts for William_61:
(Start: 8 @40608 has 45 MA's), (13, 40704), (17, 40758), (18, 40764), (22, 40821), (27, 40887), (28, 40890), (36, 41016), (44, 41097), (47, 41154), (48, 41166), (50, 41241), (51, 41244), (75, 41571), (84, 41658),

Gene: Wisp_56 Start: 39201, Stop: 40292, Start Num: 8
Candidate Starts for Wisp_56:
(Start: 8 @39201 has 45 MA's), (18, 39357), (22, 39414), (36, 39597), (47, 39726), (48, 39738), (50, 39813), (51, 39816), (52, 39843), (81, 40194), (84, 40230),

Gene: Zarbodnamra_58 Start: 38197, Stop: 39285, Start Num: 8
Candidate Starts for Zarbodnamra_58:
(Start: 8 @38197 has 45 MA's), (18, 38353), (22, 38410), (36, 38593), (47, 38722), (48, 38734), (50, 38809), (51, 38812), (52, 38839), (79, 39163), (81, 39187), (84, 39223),

Gene: ZiggyZoo_59 Start: 40251, Stop: 41342, Start Num: 8
Candidate Starts for ZiggyZoo_59:
(Start: 8 @40251 has 45 MA's), (18, 40407), (22, 40464), (36, 40647), (47, 40776), (48, 40788), (51, 40866), (52, 40893), (79, 41220), (81, 41244), (84, 41280),

Gene: Zilla_57 Start: 37953, Stop: 39065, Start Num: 8
Candidate Starts for Zilla_57:
(Start: 8 @37953 has 45 MA's), (18, 38109), (19, 38130), (22, 38166), (27, 38232), (28, 38235), (36, 38361), (47, 38499), (48, 38511), (51, 38589), (52, 38616), (63, 38772), (79, 38943), (81, 38967), (84, 39003),