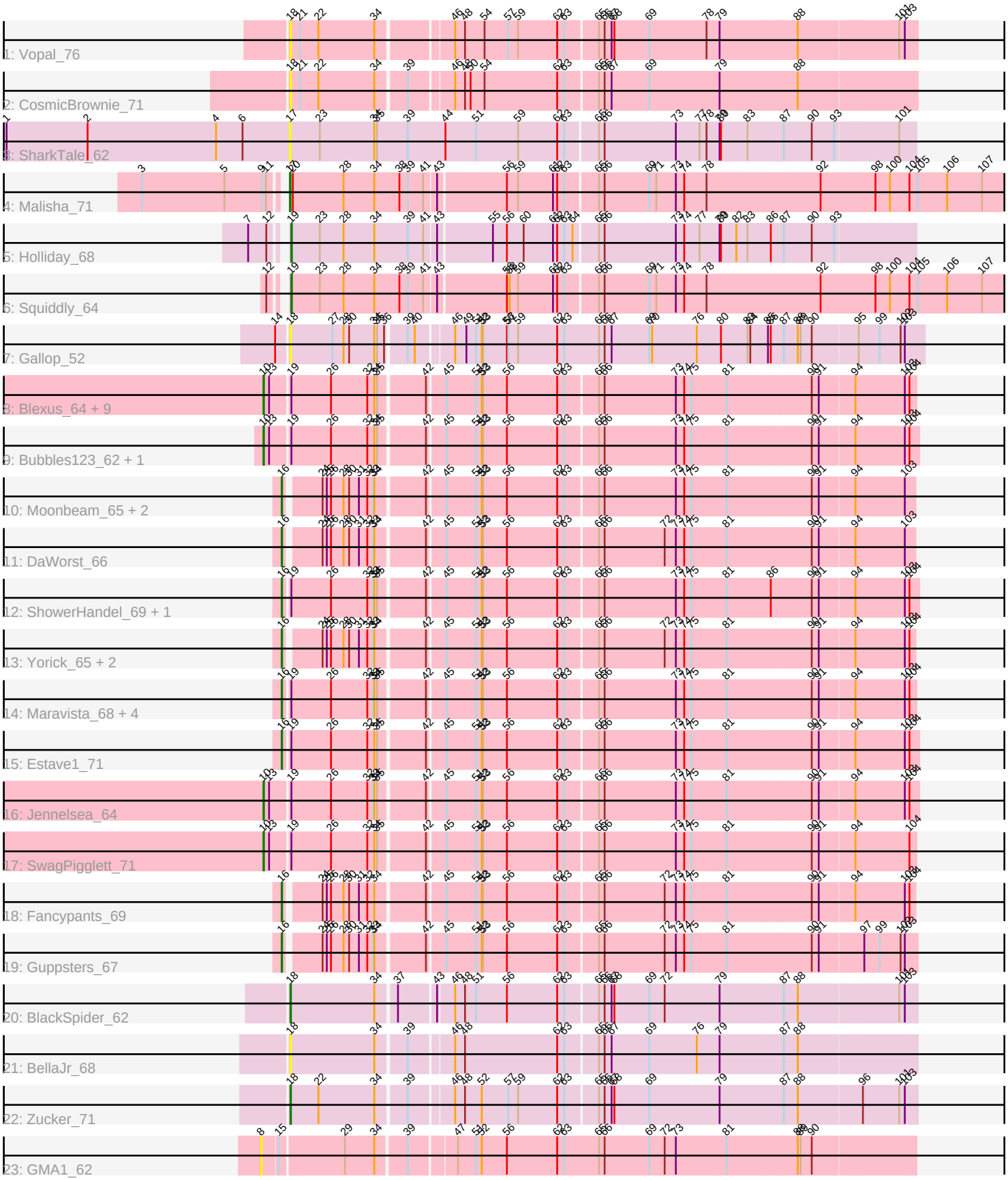
Zoomed Pham 347775



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 347775 Report

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

Pham number 347775 has 42 members, 6 are drafts.

Phages represented in each track:
• Track 1 : Vopal_76
• Track 2 : CosmicBrownie_71
• Track 3 : SharkTale_62
• Track 4 : Malisha_71
• Track 5 : Holliday_68
• Track 6 : Squiddly_64
• Track 7 : Gallop_52
• Track 8 : Blexus_64, Ramsey_65, NormanBulbieJr_66, Burwell21_64, Beanstalk_64, Priscilla_66, MinionDave_65, CaptainTrips_64, Cabrinians_67, Koella_60
• Track 9 : Bubbles123_62, Spikelee_73
• Track 10 : Moonbeam_65, Jarcob_65, Emma_68
• Track 11 : DaWorst_66
• Track 12 : ShowerHandel_69, ByChance_59
• Track 13 : Yorick_65, Whouxphf_63, Aubs_66
• Track 14 : Maravista_68, Crumble_61, BobaPhett_70, Zizzle_70, Pippy_65
• Track 15 : Estave1_71
• Track 16 : Jennelsea_64
• Track 17 : SwagPigglett_71
• Track 18 : Fancypants_69
• Track 19 : Guppsters_67
• Track 20 : BlackSpider_62
• Track 21 : BellaJr_68
• Track 22 : Zucker_71
• Track 23 : GMA1_62

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

The start number called the most often in the published annotations is 16, it was called in 17 of the 36 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aubs_66, BobaPhett_70, ByChance_59, Crumble_61, DaWorst_66, Emma_68, Estave1_71, Fancypants_69, Guppsters_67, Jarcob_65, Maravista_68,

Moonbeam_65, Pippy_65, ShowerHandel_69, Whouxphf_63, Yorick_65, Zizzle_70,

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

Genes that do not have the "Most Annotated" start:
• Beanstalk_64, BellaJr_68, BlackSpider_62, Blexus_64, Bubbles123_62, Burwell21_64, Cabrinians_67, CaptainTrips_64, CosmicBrownie_71, GMA1_62, Gallop_52, Holliday_68, Jennelsea_64, Koella_60, Malisha_71, MinionDave_65, NormanBulbieJr_66, Priscilla_66, Ramsey_65, SharkTale_62, Spikelee_73, Squiddly_64, SwagPigglett_71, Vopal_76, Zucker_71,

Summary by start number:

Start 8:
• Found in 1 of 42 (2.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GMA1_62 (singleton),

Start 10:
• Found in 14 of 42 (33.3%) of genes in pham
• Manual Annotations of this start: 14 of 36
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Beanstalk_64 (F1), Blexus_64 (F1), Bubbles123_62 (F1), Burwell21_64 (F1), Cabrinians_67 (F1), CaptainTrips_64 (F1), Jennelsea_64 (F1), Koella_60 (F1), MinionDave_65 (F1), NormanBulbieJr_66 (F1), Priscilla_66 (F1), Ramsey_65 (F1), Spikelee_73 (F1), SwagPigglett_71 (F1),

Start 16:
• Found in 17 of 42 (40.5%) of genes in pham
• Manual Annotations of this start: 17 of 36
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aubs_66 (F1), BobaPhett_70 (F1), ByChance_59 (F1), Crumble_61 (F1), DaWorst_66 (F1), Emma_68 (F1), Estave1_71 (F1), Fancypants_69 (F1), Guppsters_67 (F1), Jarcob_65 (F1), Maravista_68 (F1), Moonbeam_65 (F1), Pippy_65 (F1), ShowerHandel_69 (F1), Whouxphf_63 (F1), Yorick_65 (F1), Zizzle_70 (F1),

Start 17:
• Found in 2 of 42 (4.8%) 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: Malisha_71 (DN), SharkTale_62 (DC1),

Start 18:
• Found in 6 of 42 (14.3%) 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: BellaJr_68 (FN), BlackSpider_62 (FN), CosmicBrownie_71 (AY), Gallop_52 (ES), Vopal_76 (AY), Zucker_71 (FN),

Start 19:

• Found in 24 of 42 (57.1%) of genes in pham
• Manual Annotations of this start: 2 of 36
• Called 8.3% of time when present
• Phage (with cluster) where this start called: Holliday_68 (DN1), Squiddly_64 (DN2),

Summary by clusters:

There are 9 clusters represented in this pham: DN, F1, singleton, DN1, ES, DN2, AY, FN, DC1,

Info for manual annotations of cluster DN:
•Start number 17 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:
•Start number 19 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DN2:
•Start number 19 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster F1:
•Start number 10 was manually annotated 14 times for cluster F1.
•Start number 16 was manually annotated 17 times for cluster F1.

Info for manual annotations of cluster FN:
•Start number 18 was manually annotated 2 times for cluster FN.

Gene Information:

Gene: Aubs_66 Start: 43049, Stop: 44338, Start Num: 16
Candidate Starts for Aubs_66:
(Start: 16 @43049 has 17 MA's), (24, 43118), (25, 43127), (26, 43136), (28, 43163), (30, 43175), (31, 43196), (32, 43214), (33, 43226), (34, 43229), (42, 43328), (45, 43364), (51, 43427), (52, 43439), (53, 43442), (56, 43493), (62, 43601), (63, 43616), (65, 43682), (66, 43694), (72, 43820), (73, 43844), (74, 43862), (75, 43877), (81, 43949), (90, 44129), (91, 44144), (94, 44213), (103, 44318), (104, 44327),

Gene: Beanstalk_64 Start: 41039, Stop: 42379, Start Num: 10
Candidate Starts for Beanstalk_64:
(Start: 10 @41039 has 14 MA's), (13, 41051), (Start: 19 @41090 has 2 MA's), (26, 41174), (32, 41252), (34, 41267), (35, 41273), (42, 41366), (45, 41402), (51, 41465), (52, 41477), (53, 41480), (56, 41531), (62, 41639), (63, 41654), (65, 41720), (66, 41732), (73, 41882), (74, 41900), (75, 41915), (81, 41987), (90, 42167), (91, 42182), (94, 42251), (103, 42356), (104, 42365),

Gene: BellaJr_68 Start: 38975, Stop: 40267, Start Num: 18
Candidate Starts for BellaJr_68:
(Start: 18 @38975 has 2 MA's), (34, 39152), (39, 39212), (46, 39299), (48, 39320), (62, 39518), (63, 39533), (65, 39599), (66, 39611), (67, 39626), (69, 39707), (76, 39809), (79, 39857), (87, 39992), (88, 40022),

Gene: BlackSpider_62 Start: 36669, Stop: 37961, Start Num: 18
Candidate Starts for BlackSpider_62:
(Start: 18 @36669 has 2 MA's), (34, 36846), (37, 36885), (43, 36960), (46, 36993), (48, 37014), (51, 37038), (56, 37104), (62, 37212), (63, 37227), (65, 37293), (66, 37305), (67, 37320), (68, 37326), (69, 37401), (72, 37434), (79, 37551), (87, 37686), (88, 37716), (101, 37923), (103, 37935),

Gene: Blexus_64 Start: 43178, Stop: 44518, Start Num: 10
Candidate Starts for Blexus_64:
(Start: 10 @43178 has 14 MA's), (13, 43190), (Start: 19 @43229 has 2 MA's), (26, 43313), (32, 43391), (34, 43406), (35, 43412), (42, 43505), (45, 43541), (51, 43604), (52, 43616), (53, 43619), (56, 43670), (62, 43778), (63, 43793), (65, 43859), (66, 43871), (73, 44021), (74, 44039), (75, 44054), (81, 44126), (90, 44306), (91, 44321), (94, 44390), (103, 44495), (104, 44504),

Gene: BobaPhett_70 Start: 45473, Stop: 46780, Start Num: 16
Candidate Starts for BobaPhett_70:
(Start: 16 @45473 has 17 MA's), (Start: 19 @45485 has 2 MA's), (26, 45569), (32, 45647), (33, 45659), (34, 45662), (35, 45668), (42, 45761), (45, 45797), (51, 45860), (52, 45872), (53, 45875), (56, 45926), (62, 46034), (63, 46049), (65, 46115), (66, 46127), (73, 46277), (74, 46295), (75, 46310), (81, 46382), (90, 46562), (91, 46577), (94, 46646), (103, 46751), (104, 46760),

Gene: Bubbles123_62 Start: 42191, Stop: 43537, Start Num: 10
Candidate Starts for Bubbles123_62:
(Start: 10 @42191 has 14 MA's), (13, 42203), (Start: 19 @42242 has 2 MA's), (26, 42326), (32, 42404), (34, 42419), (35, 42425), (42, 42518), (45, 42554), (51, 42617), (52, 42629), (53, 42632), (56, 42683), (62, 42791), (63, 42806), (65, 42872), (66, 42884), (73, 43034), (74, 43052), (75, 43067), (81, 43139), (90, 43319), (91, 43334), (94, 43403), (103, 43508), (104, 43517),

Gene: Burwell21_64 Start: 42756, Stop: 44096, Start Num: 10
Candidate Starts for Burwell21_64:
(Start: 10 @42756 has 14 MA's), (13, 42768), (Start: 19 @42807 has 2 MA's), (26, 42891), (32, 42969), (34, 42984), (35, 42990), (42, 43083), (45, 43119), (51, 43182), (52, 43194), (53, 43197), (56, 43248), (62, 43356), (63, 43371), (65, 43437), (66, 43449), (73, 43599), (74, 43617), (75, 43632), (81, 43704), (90, 43884), (91, 43899), (94, 43968), (103, 44073), (104, 44082),

Gene: ByChance_59 Start: 38815, Stop: 40122, Start Num: 16
Candidate Starts for ByChance_59:
(Start: 16 @38815 has 17 MA's), (Start: 19 @38827 has 2 MA's), (26, 38911), (32, 38989), (33, 39001), (34, 39004), (35, 39010), (42, 39103), (45, 39139), (51, 39202), (52, 39214), (53, 39217), (56, 39268), (62, 39376), (63, 39391), (65, 39457), (66, 39469), (73, 39619), (74, 39637), (75, 39652), (81, 39724), (86, 39817), (90, 39904), (91, 39919), (94, 39988), (103, 40093), (104, 40102),

Gene: Cabrinians_67 Start: 42834, Stop: 44174, Start Num: 10
Candidate Starts for Cabrinians_67:
(Start: 10 @42834 has 14 MA's), (13, 42846), (Start: 19 @42885 has 2 MA's), (26, 42969), (32, 43047), (34, 43062), (35, 43068), (42, 43161), (45, 43197), (51, 43260), (52, 43272), (53, 43275), (56, 43326), (62, 43434), (63, 43449), (65, 43515), (66, 43527), (73, 43677), (74, 43695), (75, 43710), (81, 43782), (90, 43962), (91, 43977), (94, 44046), (103, 44151), (104, 44160),

Gene: CaptainTrips_64 Start: 42569, Stop: 43909, Start Num: 10
Candidate Starts for CaptainTrips_64:
(Start: 10 @42569 has 14 MA's), (13, 42581), (Start: 19 @42620 has 2 MA's), (26, 42704), (32, 42782), (34, 42797), (35, 42803), (42, 42896), (45, 42932), (51, 42995), (52, 43007), (53, 43010), (56, 43061), (62, 43169), (63, 43184), (65, 43250), (66, 43262), (73, 43412), (74, 43430), (75, 43445), (81, 43517),

(90, 43697), (91, 43712), (94, 43781), (103, 43886), (104, 43895),

Gene: CosmicBrownie_71 Start: 38887, Stop: 40179, Start Num: 18
Candidate Starts for CosmicBrownie_71:
(Start: 18 @38887 has 2 MA's), (21, 38905), (22, 38944), (34, 39064), (39, 39124), (46, 39211), (48, 39232), (50, 39244), (54, 39274), (62, 39430), (63, 39445), (65, 39511), (66, 39523), (67, 39538), (69, 39619), (79, 39769), (88, 39934),

Gene: Crumble_61 Start: 38770, Stop: 40077, Start Num: 16
Candidate Starts for Crumble_61:
(Start: 16 @38770 has 17 MA's), (Start: 19 @38782 has 2 MA's), (26, 38866), (32, 38944), (33, 38956), (34, 38959), (35, 38965), (42, 39058), (45, 39094), (51, 39157), (52, 39169), (53, 39172), (56, 39223), (62, 39331), (63, 39346), (65, 39412), (66, 39424), (73, 39574), (74, 39592), (75, 39607), (81, 39679), (90, 39859), (91, 39874), (94, 39943), (103, 40048), (104, 40057),

Gene: DaWorst_66 Start: 42381, Stop: 43670, Start Num: 16
Candidate Starts for DaWorst_66:
(Start: 16 @42381 has 17 MA's), (24, 42450), (25, 42459), (26, 42468), (28, 42495), (30, 42507), (31, 42528), (32, 42546), (33, 42558), (34, 42561), (42, 42660), (45, 42696), (51, 42759), (52, 42771), (53, 42774), (56, 42825), (62, 42933), (63, 42948), (65, 43014), (66, 43026), (72, 43152), (73, 43176), (74, 43194), (75, 43209), (81, 43281), (90, 43461), (91, 43476), (94, 43545), (103, 43650),

Gene: Emma_68 Start: 42404, Stop: 43693, Start Num: 16
Candidate Starts for Emma_68:
(Start: 16 @42404 has 17 MA's), (24, 42473), (25, 42482), (26, 42491), (28, 42518), (30, 42530), (31, 42551), (32, 42569), (33, 42581), (34, 42584), (42, 42683), (45, 42719), (51, 42782), (52, 42794), (53, 42797), (56, 42848), (62, 42956), (63, 42971), (65, 43037), (66, 43049), (73, 43199), (74, 43217), (75, 43232), (81, 43304), (90, 43484), (91, 43499), (94, 43568), (103, 43673),

Gene: Estave1_71 Start: 45232, Stop: 46539, Start Num: 16
Candidate Starts for Estave1_71:
(Start: 16 @45232 has 17 MA's), (Start: 19 @45244 has 2 MA's), (26, 45328), (32, 45406), (34, 45421), (35, 45427), (42, 45520), (45, 45556), (51, 45619), (52, 45631), (53, 45634), (56, 45685), (62, 45793), (63, 45808), (65, 45874), (66, 45886), (73, 46036), (74, 46054), (75, 46069), (81, 46141), (90, 46321), (91, 46336), (94, 46405), (103, 46510), (104, 46519),

Gene: Fancypants_69 Start: 43416, Stop: 44705, Start Num: 16
Candidate Starts for Fancypants_69:
(Start: 16 @43416 has 17 MA's), (24, 43485), (25, 43494), (26, 43503), (28, 43530), (30, 43542), (31, 43563), (32, 43581), (34, 43596), (42, 43695), (45, 43731), (51, 43794), (52, 43806), (53, 43809), (56, 43860), (62, 43968), (63, 43983), (65, 44049), (66, 44061), (72, 44187), (73, 44211), (74, 44229), (75, 44244), (81, 44316), (90, 44496), (91, 44511), (94, 44580), (103, 44685), (104, 44694),

Gene: GMA1_62 Start: 35817, Stop: 37163, Start Num: 8
Candidate Starts for GMA1_62:
(8, 35817), (15, 35850), (29, 35982), (34, 36045), (39, 36105), (47, 36198), (51, 36237), (52, 36249), (56, 36303), (62, 36411), (63, 36426), (65, 36501), (66, 36513), (69, 36609), (72, 36639), (73, 36663), (81, 36771), (88, 36921), (89, 36927), (90, 36951),

Gene: Gallop_52 Start: 35896, Stop: 37209, Start Num: 18
Candidate Starts for Gallop_52:
(14, 35872), (Start: 18 @35896 has 2 MA's), (27, 35983), (28, 36007), (30, 36019), (34, 36073), (35, 36079), (36, 36094), (39, 36133), (40, 36148), (46, 36220), (49, 36244), (51, 36265), (52, 36277), (53,

36280), (56, 36331), (57, 36334), (59, 36355), (62, 36439), (63, 36454), (65, 36529), (66, 36541), (67, 36556), (69, 36637), (70, 36643), (76, 36736), (80, 36787), (83, 36844), (84, 36850), (85, 36886), (86, 36892), (87, 36919), (88, 36949), (89, 36955), (90, 36979), (95, 37069), (99, 37114), (102, 37159), (103, 37168),

Gene: Guppsters_67 Start: 42336, Stop: 43631, Start Num: 16
Candidate Starts for Guppsters_67:
(Start: 16 @42336 has 17 MA's), (24, 42405), (25, 42414), (26, 42423), (28, 42450), (30, 42462), (31, 42483), (32, 42501), (33, 42513), (34, 42516), (42, 42615), (45, 42651), (51, 42714), (52, 42726), (53, 42729), (56, 42780), (62, 42888), (63, 42903), (65, 42969), (66, 42981), (72, 43107), (73, 43131), (74, 43149), (75, 43164), (81, 43236), (90, 43416), (91, 43431), (97, 43518), (99, 43551), (102, 43596), (103, 43605),

Gene: Holliday_68 Start: 41613, Stop: 42908, Start Num: 19
Candidate Starts for Holliday_68:
(7, 41556), (12, 41592), (Start: 19 @41613 has 2 MA's), (23, 41673), (28, 41724), (34, 41790), (39, 41862), (41, 41895), (43, 41919), (55, 42027), (56, 42057), (60, 42093), (61, 42156), (62, 42165), (63, 42180), (64, 42198), (65, 42246), (66, 42258), (73, 42408), (74, 42426), (77, 42459), (79, 42501), (80, 42504), (82, 42537), (83, 42561), (86, 42609), (87, 42636), (90, 42696), (93, 42744),

Gene: Jarcob_65 Start: 42805, Stop: 44094, Start Num: 16
Candidate Starts for Jarcob_65:
(Start: 16 @42805 has 17 MA's), (24, 42874), (25, 42883), (26, 42892), (28, 42919), (30, 42931), (31, 42952), (32, 42970), (33, 42982), (34, 42985), (42, 43084), (45, 43120), (51, 43183), (52, 43195), (53, 43198), (56, 43249), (62, 43357), (63, 43372), (65, 43438), (66, 43450), (73, 43600), (74, 43618), (75, 43633), (81, 43705), (90, 43885), (91, 43900), (94, 43969), (103, 44074),

Gene: Jennelsea_64 Start: 41484, Stop: 42830, Start Num: 10
Candidate Starts for Jennelsea_64:
(Start: 10 @41484 has 14 MA's), (13, 41496), (Start: 19 @41535 has 2 MA's), (26, 41619), (32, 41697), (33, 41709), (34, 41712), (35, 41718), (42, 41811), (45, 41847), (51, 41910), (52, 41922), (53, 41925), (56, 41976), (62, 42084), (63, 42099), (65, 42165), (66, 42177), (73, 42327), (74, 42345), (75, 42360), (81, 42432), (90, 42612), (91, 42627), (94, 42696), (103, 42801), (104, 42810),

Gene: Koella_60 Start: 38732, Stop: 40072, Start Num: 10
Candidate Starts for Koella_60:
(Start: 10 @38732 has 14 MA's), (13, 38744), (Start: 19 @38783 has 2 MA's), (26, 38867), (32, 38945), (34, 38960), (35, 38966), (42, 39059), (45, 39095), (51, 39158), (52, 39170), (53, 39173), (56, 39224), (62, 39332), (63, 39347), (65, 39413), (66, 39425), (73, 39575), (74, 39593), (75, 39608), (81, 39680), (90, 39860), (91, 39875), (94, 39944), (103, 40049), (104, 40058),

Gene: Malisha_71 Start: 42853, Stop: 44712, Start Num: 17
Candidate Starts for Malisha_71:
(3, 42568), (5, 42745), (9, 42826), (11, 42832), (Start: 17 @42853 has 1 MA's), (20, 42859), (28, 42967), (34, 43033), (38, 43087), (39, 43105), (41, 43138), (43, 43162), (56, 43300), (59, 43324), (61, 43399), (62, 43408), (63, 43423), (65, 43489), (66, 43501), (69, 43597), (71, 43612), (73, 43651), (74, 43669), (78, 43717), (92, 43960), (98, 44077), (100, 44107), (104, 44149), (105, 44167), (106, 44230), (107, 44305), (108, 44383), (109, 44410), (110, 44413), (111, 44470), (112, 44476), (113, 44500), (115, 44548), (116, 44581),

Gene: Maravista_68 Start: 44721, Stop: 46022, Start Num: 16
Candidate Starts for Maravista_68:

(Start: 16 @44721 has 17 MA's), (Start: 19 @44733 has 2 MA's), (26, 44817), (32, 44895), (33, 44907), (34, 44910), (35, 44916), (42, 45009), (45, 45045), (51, 45108), (52, 45120), (53, 45123), (56, 45174), (62, 45282), (63, 45297), (65, 45363), (66, 45375), (73, 45525), (74, 45543), (75, 45558), (81, 45630), (90, 45810), (91, 45825), (94, 45894), (103, 45999), (104, 46008),

Gene: MinionDave_65 Start: 43105, Stop: 44445, Start Num: 10
Candidate Starts for MinionDave_65:
(Start: 10 @43105 has 14 MA's), (13, 43117), (Start: 19 @43156 has 2 MA's), (26, 43240), (32, 43318), (34, 43333), (35, 43339), (42, 43432), (45, 43468), (51, 43531), (52, 43543), (53, 43546), (56, 43597), (62, 43705), (63, 43720), (65, 43786), (66, 43798), (73, 43948), (74, 43966), (75, 43981), (81, 44053), (90, 44233), (91, 44248), (94, 44317), (103, 44422), (104, 44431),

Gene: Moonbeam_65 Start: 42333, Stop: 43622, Start Num: 16
Candidate Starts for Moonbeam_65:
(Start: 16 @42333 has 17 MA's), (24, 42402), (25, 42411), (26, 42420), (28, 42447), (30, 42459), (31, 42480), (32, 42498), (33, 42510), (34, 42513), (42, 42612), (45, 42648), (51, 42711), (52, 42723), (53, 42726), (56, 42777), (62, 42885), (63, 42900), (65, 42966), (66, 42978), (73, 43128), (74, 43146), (75, 43161), (81, 43233), (90, 43413), (91, 43428), (94, 43497), (103, 43602),

Gene: NormanBulbieJr_66 Start: 42745, Stop: 44085, Start Num: 10
Candidate Starts for NormanBulbieJr_66:
(Start: 10 @42745 has 14 MA's), (13, 42757), (Start: 19 @42796 has 2 MA's), (26, 42880), (32, 42958), (34, 42973), (35, 42979), (42, 43072), (45, 43108), (51, 43171), (52, 43183), (53, 43186), (56, 43237), (62, 43345), (63, 43360), (65, 43426), (66, 43438), (73, 43588), (74, 43606), (75, 43621), (81, 43693), (90, 43873), (91, 43888), (94, 43957), (103, 44062), (104, 44071),

Gene: Pippy_65 Start: 42083, Stop: 43390, Start Num: 16
Candidate Starts for Pippy_65:
(Start: 16 @42083 has 17 MA's), (Start: 19 @42095 has 2 MA's), (26, 42179), (32, 42257), (33, 42269), (34, 42272), (35, 42278), (42, 42371), (45, 42407), (51, 42470), (52, 42482), (53, 42485), (56, 42536), (62, 42644), (63, 42659), (65, 42725), (66, 42737), (73, 42887), (74, 42905), (75, 42920), (81, 42992), (90, 43172), (91, 43187), (94, 43256), (103, 43361), (104, 43370),

Gene: Priscilla_66 Start: 42844, Stop: 44184, Start Num: 10
Candidate Starts for Priscilla_66:
(Start: 10 @42844 has 14 MA's), (13, 42856), (Start: 19 @42895 has 2 MA's), (26, 42979), (32, 43057), (34, 43072), (35, 43078), (42, 43171), (45, 43207), (51, 43270), (52, 43282), (53, 43285), (56, 43336), (62, 43444), (63, 43459), (65, 43525), (66, 43537), (73, 43687), (74, 43705), (75, 43720), (81, 43792), (90, 43972), (91, 43987), (94, 44056), (103, 44161), (104, 44170),

Gene: Ramsey_65 Start: 42573, Stop: 43913, Start Num: 10
Candidate Starts for Ramsey_65:
(Start: 10 @42573 has 14 MA's), (13, 42585), (Start: 19 @42624 has 2 MA's), (26, 42708), (32, 42786), (34, 42801), (35, 42807), (42, 42900), (45, 42936), (51, 42999), (52, 43011), (53, 43014), (56, 43065), (62, 43173), (63, 43188), (65, 43254), (66, 43266), (73, 43416), (74, 43434), (75, 43449), (81, 43521), (90, 43701), (91, 43716), (94, 43785), (103, 43890), (104, 43899),

Gene: SharkTale_62 Start: 45437, Stop: 46753, Start Num: 17
Candidate Starts for SharkTale_62:
(1, 44828), (2, 45002), (4, 45278), (6, 45335), (Start: 17 @45437 has 1 MA's), (23, 45500), (34, 45617), (35, 45623), (39, 45689), (44, 45770), (51, 45836), (59, 45926), (62, 46010), (63, 46025), (65, 46091), (66, 46103), (73, 46253), (77, 46304), (78, 46319), (79, 46346), (80, 46349), (83, 46406), (87, 46481), (90, 46541), (93, 46589), (101, 46718),

Gene: ShowerHandel_69 Start: 42755, Stop: 44062, Start Num: 16
Candidate Starts for ShowerHandel_69:
(Start: 16 @42755 has 17 MA's), (Start: 19 @42767 has 2 MA's), (26, 42851), (32, 42929), (33, 42941), (34, 42944), (35, 42950), (42, 43043), (45, 43079), (51, 43142), (52, 43154), (53, 43157), (56, 43208), (62, 43316), (63, 43331), (65, 43397), (66, 43409), (73, 43559), (74, 43577), (75, 43592), (81, 43664), (86, 43757), (90, 43844), (91, 43859), (94, 43928), (103, 44033), (104, 44042),

Gene: Spikelee_73 Start: 44421, Stop: 45761, Start Num: 10
Candidate Starts for Spikelee_73:
(Start: 10 @44421 has 14 MA's), (13, 44433), (Start: 19 @44472 has 2 MA's), (26, 44556), (32, 44634), (34, 44649), (35, 44655), (42, 44748), (45, 44784), (51, 44847), (52, 44859), (53, 44862), (56, 44913), (62, 45021), (63, 45036), (65, 45102), (66, 45114), (73, 45264), (74, 45282), (75, 45297), (81, 45369), (90, 45549), (91, 45564), (94, 45633), (103, 45738), (104, 45747),

Gene: Squiddly_64 Start: 41175, Stop: 43031, Start Num: 19
Candidate Starts for Squiddly_64:
(12, 41154), (Start: 19 @41175 has 2 MA's), (23, 41235), (28, 41286), (34, 41352), (38, 41406), (39, 41424), (41, 41457), (43, 41481), (56, 41619), (58, 41625), (59, 41643), (61, 41718), (62, 41727), (63, 41742), (65, 41808), (66, 41820), (69, 41916), (71, 41931), (73, 41970), (74, 41988), (78, 42036), (92, 42279), (98, 42396), (100, 42426), (104, 42468), (105, 42486), (106, 42549), (107, 42624), (108, 42702), (109, 42729), (110, 42732), (111, 42789), (112, 42795), (113, 42819), (114, 42828), (115, 42867), (117, 42903),

Gene: SwagPigglett_71 Start: 45063, Stop: 46403, Start Num: 10
Candidate Starts for SwagPigglett_71:
(Start: 10 @45063 has 14 MA's), (13, 45075), (Start: 19 @45114 has 2 MA's), (26, 45198), (32, 45276), (34, 45291), (35, 45297), (42, 45390), (45, 45426), (51, 45489), (52, 45501), (53, 45504), (56, 45555), (62, 45663), (63, 45678), (65, 45744), (66, 45756), (73, 45906), (74, 45924), (75, 45939), (81, 46011), (90, 46191), (91, 46206), (94, 46275), (104, 46389),

Gene: Vopal_76 Start: 41915, Stop: 43207, Start Num: 18
Candidate Starts for Vopal_76:
(Start: 18 @41915 has 2 MA's), (21, 41933), (22, 41972), (34, 42092), (46, 42239), (48, 42260), (54, 42302), (57, 42353), (59, 42374), (62, 42458), (63, 42473), (65, 42539), (66, 42551), (67, 42566), (68, 42572), (69, 42647), (78, 42770), (79, 42797), (88, 42962), (101, 43169), (103, 43181),

Gene: Whouxphf_63 Start: 42670, Stop: 43959, Start Num: 16
Candidate Starts for Whouxphf_63:
(Start: 16 @42670 has 17 MA's), (24, 42739), (25, 42748), (26, 42757), (28, 42784), (30, 42796), (31, 42817), (32, 42835), (33, 42847), (34, 42850), (42, 42949), (45, 42985), (51, 43048), (52, 43060), (53, 43063), (56, 43114), (62, 43222), (63, 43237), (65, 43303), (66, 43315), (72, 43441), (73, 43465), (74, 43483), (75, 43498), (81, 43570), (90, 43750), (91, 43765), (94, 43834), (103, 43939), (104, 43948),

Gene: Yorick_65 Start: 42910, Stop: 44199, Start Num: 16
Candidate Starts for Yorick_65:
(Start: 16 @42910 has 17 MA's), (24, 42979), (25, 42988), (26, 42997), (28, 43024), (30, 43036), (31, 43057), (32, 43075), (33, 43087), (34, 43090), (42, 43189), (45, 43225), (51, 43288), (52, 43300), (53, 43303), (56, 43354), (62, 43462), (63, 43477), (65, 43543), (66, 43555), (72, 43681), (73, 43705), (74, 43723), (75, 43738), (81, 43810), (90, 43990), (91, 44005), (94, 44074), (103, 44179), (104, 44188),

Gene: Zizzle_70 Start: 44388, Stop: 45695, Start Num: 16
Candidate Starts for Zizzle_70:

(Start: 16 @44388 has 17 MA's), (Start: 19 @44400 has 2 MA's), (26, 44484), (32, 44562), (33, 44574), (34, 44577), (35, 44583), (42, 44676), (45, 44712), (51, 44775), (52, 44787), (53, 44790), (56, 44841), (62, 44949), (63, 44964), (65, 45030), (66, 45042), (73, 45192), (74, 45210), (75, 45225), (81, 45297), (90, 45477), (91, 45492), (94, 45561), (103, 45666), (104, 45675),

Gene: Zucker_71 Start: 40903, Stop: 42195, Start Num: 18
Candidate Starts for Zucker_71:
(Start: 18 @40903 has 2 MA's), (22, 40960), (34, 41080), (39, 41140), (46, 41227), (48, 41248), (52, 41284), (57, 41341), (59, 41362), (62, 41446), (63, 41461), (65, 41527), (66, 41539), (67, 41554), (68, 41560), (69, 41635), (79, 41785), (87, 41920), (88, 41950), (96, 42079), (101, 42157), (103, 42169),