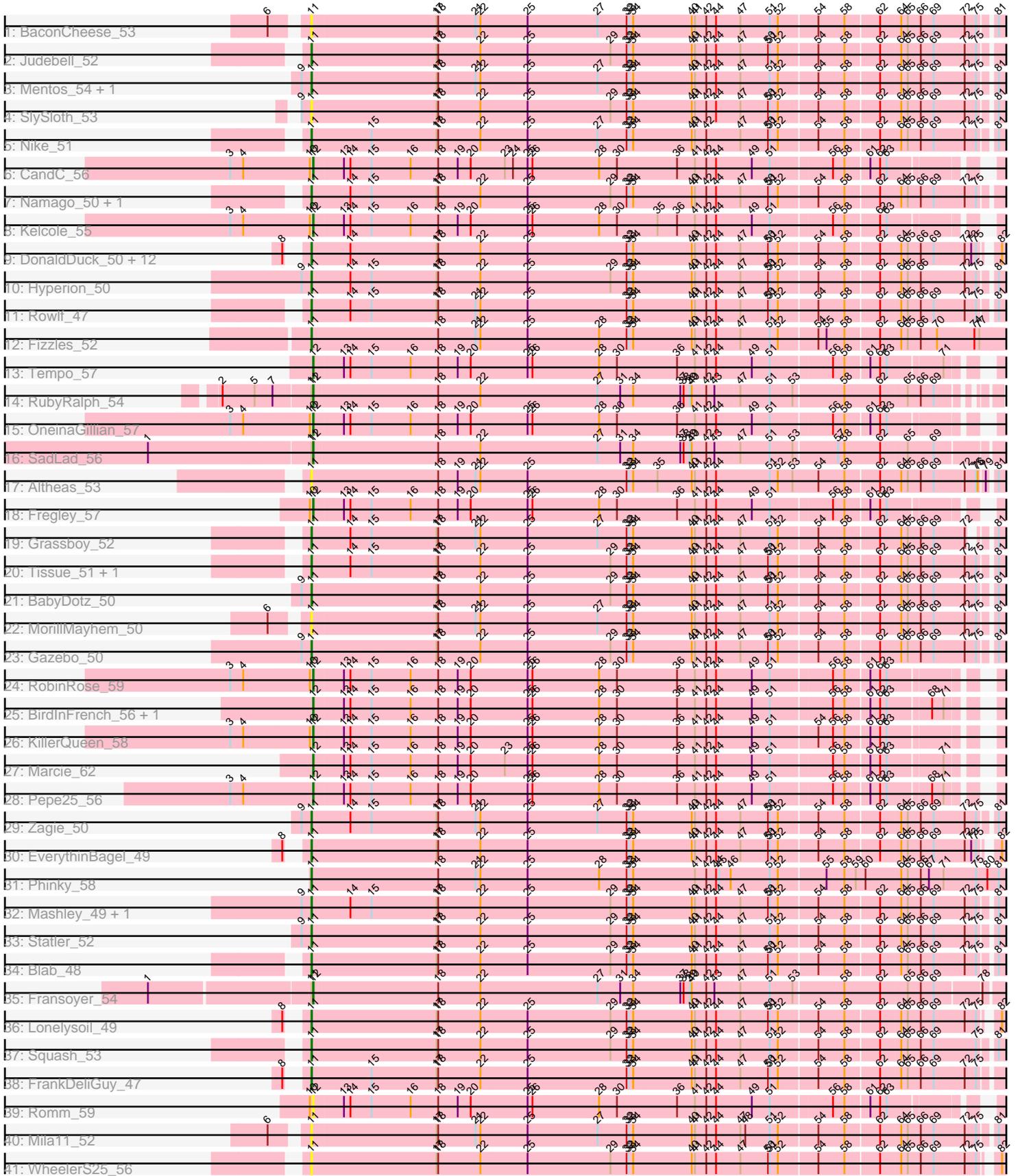# Zoomed Pham 291195

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 291195 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291195 has 58 members, 8 are drafts.

Phages represented in each track:
• Track 1 : BaconCheese_53
• Track 2 : Judebell_52
• Track 3 : Mentos_54, StrawberryJamm_53
• Track 4 : SlySloth_53
• Track 5 : Nike_51
• Track 6 : CandC_56
• Track 7 : Namago_50, Kyva_52
• Track 8 : Kelcole_55
• Track 9 : DonaldDuck_50, Llemily_50, Wheelie_50, Casend_51, Wayne3_52, Quammi_48, Rudy_48, Jehoshaphat_52, Viceroy_49, Zhafia_53, Teehee_51, Sillytadpoles_51, Phabia_50
• Track 10 : Hyperion_50
• Track 11 : Rowlf_47
• Track 12 : Fizzles_52
• Track 13 : Tempo_57
• Track 14 : RubyRalph_54
• Track 15 : OneinaGillian_57
• Track 16 : SadLad_56
• Track 17 : Altheas_53
• Track 18 : Fregley_57
• Track 19 : Grassboy_52
• Track 20 : Tissue_51, SallyK_51
• Track 21 : BabyDotz_50
• Track 22 : MorillMayhem_50
• Track 23 : Gazebo_50
• Track 24 : RobinRose_59
• Track 25 : BirdInFrench_56, Wilca_56
• Track 26 : KillerQueen_58
• Track 27 : Marcie_62
• Track 28 : Pepe25_56
• Track 29 : Zagie_50
• Track 30 : EverythinBagel_49
• Track 31 : Phinky_58
• Track 32 : Mashley_49, AluminumJesus_48
• Track 33 : Statler_52
• Track 34 : Blab_48
• Track 35 : Fransoyer_54

- Track 36 : Lonelysoil_49
- Track 37 : Squash_53
- Track 38 : FrankDeliGuy_47
- Track 39 : Romm_59
- Track 40 : Mila11_52
- Track 41 : WheelerS25_56

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

The start number called the most often in the published annotations is 11, it was called in 36 of the 50 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- Altheas_53, AluminumJesus_48, BabyDotz_50, BaconCheese_53, Blab_48, Casend_51, DonaldDuck_50, EverythinBagel_49, Fizzles_52, FrankDeliGuy_47, Gazebo_50, Grassboy_52, Hyperion_50, Jehoshaphat_52, Judebell_52, Kyva_52, Llemily_50, Lonelysoil_49, Mashley_49, Mentos_54, Mila11_52, MorillMayhem_50, Namago_50, Nike_51, Phabia_50, Phinky_58, Quammi_48, Rowlf_47, Rudy_48, SallyK_51, Sillytadpoles_51, SlySloth_53, Squash_53, Statler_52, StrawberryJamm_53, Teehee_51, Tissue_51, Viceroy_49, Wayne3_52, WheelerS25_56, Wheelie_50, Zagie_50, Zhafia_53,

Genes that have the "Most Annotated" start but do not call it:
- Fransoyer_54, RubyRalph_54, SadLad_56,

Genes that do not have the "Most Annotated" start:
- BirdInFrench_56, CandC_56, Fregley_57, Kelcole_55, KillerQueen_58, Marcie_62, OneinaGillian_57, Pepe25_56, RobinRose_59, Romm_59, Tempo_57, Wilca_56,

Summary by start number:

Start 11:
- Found in 46 of 58 (79.3%) of genes in pham
- Manual Annotations of this start: 36 of 50
- Called 93.5% of time when present
- Phage (with cluster) where this start called: Altheas_53 (EG), AluminumJesus_48 (EG), BabyDotz_50 (EG), BaconCheese_53 (EG), Blab_48 (EG), Casend_51 (EG), DonaldDuck_50 (EG), EverythinBagel_49 (EG), Fizzles_52 (EG), FrankDeliGuy_47 (EG), Gazebo_50 (EG), Grassboy_52 (EG), Hyperion_50 (EG), Jehoshaphat_52 (EG), Judebell_52 (EG), Kyva_52 (EG), Llemily_50 (EG), Lonelysoil_49 (EG), Mashley_49 (EG), Mentos_54 (EG), Mila11_52 (EG), MorillMayhem_50 (EG), Namago_50 (EG), Nike_51 (EG), Phabia_50 (EG), Phinky_58 (EG), Quammi_48 (EG), Rowlf_47 (EG), Rudy_48 (EG), SallyK_51 (EG), Sillytadpoles_51 (EG), SlySloth_53 (EG), Squash_53 (EG), Statler_52 (EG), StrawberryJamm_53 (EG), Teehee_51 (EG), Tissue_51 (EG), Viceroy_49 (EG), Wayne3_52 (EG), WheelerS25_56 (EG), Wheelie_50 (EG), Zagie_50 (EG), Zhafia_53 (EG),

Start 12:
- Found in 15 of 58 (25.9%) of genes in pham
- Manual Annotations of this start: 14 of 50

• Called 100.0% of time when present
• Phage (with cluster) where this start called: BirdInFrench_56 (EG), CandC_56 (EG), Fransoyer_54 (EG), Fregley_57 (EG), Kelcole_55 (EG), KillerQueen_58 (EG), Marcie_62 (EG), OneinaGillian_57 (EG), Pepe25_56 (EG), RobinRose_59 (EG), Romm_59 (EG), RubyRalph_54 (EG), SadLad_56 (EG), Tempo_57 (EG), Wilca_56 (EG),

Summary by clusters:

There is one cluster represented in this pham: EG

Info for manual annotations of cluster EG:
•Start number 11 was manually annotated 36 times for cluster EG.
•Start number 12 was manually annotated 14 times for cluster EG.

Gene Information:
Gene: Altheas_53 Start: 39964, Stop: 37784, Start Num: 11
Candidate Starts for Altheas_53:
(Start: 11 @39964 has 36 MA's), (18, 39730), (19, 39694), (21, 39661), (22, 39652), (25, 39568), (32, 39385), (33, 39382), (34, 39373), (35, 39331), (40, 39268), (41, 39262), (42, 39241), (44, 39223), (51, 39124), (52, 39109), (53, 39082), (54, 39034), (58, 38986), (62, 38926), (64, 38890), (65, 38878), (66, 38854), (69, 38830), (72, 38779), (75, 38758), (76, 38755), (79, 38746), (81, 38734), (83, 38716), (90, 38650), (94, 38581), (95, 38572), (96, 38560), (113, 38386), (117, 38374), (118, 38359), (127, 38248), (133, 38197), (137, 38104), (140, 38047), (147, 37954), (151, 37903), (154, 37876),

Gene: AluminumJesus_48 Start: 39011, Stop: 36867, Start Num: 11
Candidate Starts for AluminumJesus_48:
(9, 39029), (Start: 11 @39011 has 36 MA's), (14, 38939), (15, 38900), (17, 38780), (18, 38777), (22, 38699), (25, 38615), (29, 38462), (32, 38432), (33, 38429), (34, 38420), (40, 38315), (41, 38309), (42, 38288), (44, 38270), (47, 38225), (50, 38174), (51, 38171), (52, 38156), (54, 38087), (58, 38039), (62, 37979), (64, 37943), (65, 37931), (66, 37907), (69, 37883), (72, 37829), (75, 37808), (81, 37787), (94, 37679), (95, 37670), (96, 37658), (104, 37508), (117, 37418), (124, 37328), (125, 37313), (130, 37283), (133, 37229), (135, 37175), (136, 37172), (140, 37127), (147, 37034), (151, 36983), (158, 36905),

Gene: BabyDotz_50 Start: 40022, Stop: 37881, Start Num: 11
Candidate Starts for BabyDotz_50:
(9, 40040), (Start: 11 @40022 has 36 MA's), (17, 39791), (18, 39788), (22, 39710), (25, 39626), (29, 39473), (32, 39443), (33, 39440), (34, 39431), (40, 39326), (41, 39320), (42, 39299), (44, 39281), (47, 39236), (50, 39185), (51, 39182), (52, 39167), (54, 39098), (58, 39050), (62, 38990), (64, 38954), (65, 38942), (66, 38918), (69, 38894), (72, 38840), (75, 38819), (81, 38798), (84, 38777), (86, 38738), (90, 38708), (94, 38639), (95, 38630), (104, 38468), (121, 38390), (124, 38342), (125, 38327), (130, 38297), (133, 38243), (135, 38189), (136, 38186), (140, 38141), (143, 38093), (147, 38048), (151, 37997), (158, 37919),

Gene: BaconCheese_53 Start: 40707, Stop: 38407, Start Num: 11
Candidate Starts for BaconCheese_53:
(6, 40761), (Start: 11 @40707 has 36 MA's), (17, 40479), (18, 40476), (21, 40407), (22, 40398), (25, 40314), (27, 40185), (32, 40131), (33, 40128), (34, 40119), (40, 40014), (41, 40008), (42, 39987), (44, 39969), (47, 39924), (51, 39870), (52, 39855), (54, 39786), (58, 39738), (62, 39678), (64, 39642), (65,

39630), (66, 39606), (69, 39582), (72, 39528), (75, 39507), (81, 39486), (91, 39402), (94, 39336), (95, 39327), (96, 39315), (115, 39075), (119, 38949), (124, 38868), (130, 38823), (133, 38769), (135, 38715), (136, 38712), (140, 38667), (146, 38580), (147, 38574), (151, 38523), (158, 38445),

Gene: BirdInFrench_56 Start: 39724, Stop: 37787, Start Num: 12
Candidate Starts for BirdInFrench_56:
(Start: 12 @39724 has 14 MA's), (13, 39670), (14, 39658), (15, 39619), (16, 39547), (18, 39496), (19, 39460), (20, 39436), (25, 39334), (26, 39325), (28, 39202), (30, 39169), (36, 39061), (41, 39028), (42, 39007), (44, 38989), (49, 38923), (51, 38890), (56, 38782), (58, 38761), (61, 38719), (62, 38701), (63, 38689), (68, 38617), (71, 38596), (84, 38524), (97, 38410), (98, 38395), (107, 38287), (110, 38272), (112, 38254), (127, 38134), (128, 38128), (152, 37858), (157, 37792),

Gene: Blab_48 Start: 38894, Stop: 36780, Start Num: 11
Candidate Starts for Blab_48:
(Start: 11 @38894 has 36 MA's), (17, 38663), (18, 38660), (22, 38582), (25, 38498), (29, 38345), (32, 38315), (33, 38312), (34, 38303), (40, 38198), (41, 38192), (42, 38171), (44, 38153), (47, 38108), (50, 38057), (51, 38054), (52, 38039), (54, 37970), (58, 37922), (62, 37862), (64, 37826), (65, 37814), (66, 37790), (69, 37766), (72, 37712), (75, 37691), (81, 37670), (94, 37562), (95, 37553), (105, 37394), (122, 37334), (127, 37250), (133, 37199), (140, 37040), (147, 36947), (151, 36896), (158, 36818),

Gene: CandC_56 Start: 39618, Stop: 37729, Start Num: 12
Candidate Starts for CandC_56:
(3, 39765), (4, 39741), (10, 39621), (Start: 12 @39618 has 14 MA's), (13, 39564), (14, 39552), (15, 39513), (16, 39441), (18, 39390), (19, 39354), (20, 39330), (23, 39270), (24, 39255), (25, 39228), (26, 39219), (28, 39096), (30, 39063), (36, 38955), (41, 38922), (42, 38901), (44, 38883), (49, 38817), (51, 38784), (56, 38676), (58, 38655), (61, 38613), (62, 38595), (63, 38583), (84, 38418), (95, 38340), (97, 38304), (98, 38289), (100, 38250), (110, 38157), (112, 38139), (141, 37893), (142, 37890), (149, 37824), (153, 37791), (157, 37734),

Gene: Casend_51 Start: 39802, Stop: 37565, Start Num: 11
Candidate Starts for Casend_51:
(8, 39820), (Start: 11 @39802 has 36 MA's), (14, 39730), (17, 39571), (18, 39568), (22, 39490), (25, 39406), (32, 39223), (33, 39220), (34, 39211), (40, 39106), (41, 39100), (42, 39079), (44, 39061), (47, 39016), (50, 38965), (51, 38962), (52, 38947), (54, 38878), (58, 38830), (62, 38770), (64, 38734), (65, 38722), (66, 38698), (69, 38674), (72, 38620), (73, 38608), (75, 38599), (82, 38578), (85, 38539), (90, 38509), (94, 38440), (95, 38431), (99, 38332), (117, 38185), (122, 38143), (127, 38059), (133, 37927), (135, 37873), (136, 37870), (140, 37825), (147, 37732), (151, 37681),

Gene: DonaldDuck_50 Start: 39151, Stop: 36914, Start Num: 11
Candidate Starts for DonaldDuck_50:
(8, 39169), (Start: 11 @39151 has 36 MA's), (14, 39079), (17, 38920), (18, 38917), (22, 38839), (25, 38755), (32, 38572), (33, 38569), (34, 38560), (40, 38455), (41, 38449), (42, 38428), (44, 38410), (47, 38365), (50, 38314), (51, 38311), (52, 38296), (54, 38227), (58, 38179), (62, 38119), (64, 38083), (65, 38071), (66, 38047), (69, 38023), (72, 37969), (73, 37957), (75, 37948), (82, 37927), (85, 37888), (90, 37858), (94, 37789), (95, 37780), (99, 37681), (117, 37534), (122, 37492), (127, 37408), (133, 37276), (135, 37222), (136, 37219), (140, 37174), (147, 37081), (151, 37030),

Gene: EverythinBagel_49 Start: 39539, Stop: 37302, Start Num: 11
Candidate Starts for EverythinBagel_49:
(8, 39557), (Start: 11 @39539 has 36 MA's), (17, 39308), (18, 39305), (22, 39227), (25, 39143), (32, 38960), (33, 38957), (34, 38948), (40, 38843), (41, 38837), (42, 38816), (44, 38798), (47, 38753), (50, 38702), (51, 38699), (52, 38684), (54, 38615), (58, 38567), (62, 38507), (64, 38471), (65, 38459), (66, 38435), (69, 38411), (72, 38357), (73, 38345), (75, 38336), (82, 38315), (85, 38276), (90, 38246), (94,

38177), (95, 38168), (99, 38069), (117, 37922), (122, 37880), (127, 37796), (133, 37664), (135, 37610), (136, 37607), (140, 37562), (147, 37469), (151, 37418),

Gene: Fizzles_52 Start: 39934, Stop: 37724, Start Num: 11
Candidate Starts for Fizzles_52:
(Start: 11 @39934 has 36 MA's), (18, 39700), (21, 39631), (22, 39622), (25, 39538), (28, 39406), (32, 39355), (33, 39352), (34, 39343), (40, 39238), (41, 39232), (42, 39211), (44, 39193), (47, 39148), (51, 39094), (52, 39079), (54, 39010), (55, 38995), (58, 38962), (62, 38902), (64, 38866), (65, 38854), (66, 38830), (70, 38800), (74, 38731), (77, 38722), (95, 38527), (106, 38344), (111, 38305), (126, 38173), (140, 37987), (147, 37894), (151, 37843), (154, 37816),

Gene: FrankDeliGuy_47 Start: 39162, Stop: 36895, Start Num: 11
Candidate Starts for FrankDeliGuy_47:
(8, 39180), (Start: 11 @39162 has 36 MA's), (15, 39051), (17, 38931), (18, 38928), (22, 38850), (25, 38766), (32, 38583), (33, 38580), (34, 38571), (40, 38466), (41, 38460), (42, 38439), (44, 38421), (47, 38376), (50, 38325), (51, 38322), (52, 38307), (54, 38238), (58, 38190), (62, 38130), (64, 38094), (65, 38082), (66, 38058), (69, 38034), (72, 37980), (75, 37959), (88, 37863), (89, 37854), (90, 37845), (94, 37776), (95, 37767), (117, 37515), (122, 37473), (127, 37389), (133, 37257), (135, 37203), (136, 37200), (140, 37155), (147, 37062), (151, 37011),

Gene: Fransoyer_54 Start: 41748, Stop: 39766, Start Num: 12
Candidate Starts for Fransoyer_54:
(1, 42033), (Start: 11 @41751 has 36 MA's), (Start: 12 @41748 has 14 MA's), (18, 41520), (22, 41442), (27, 41226), (31, 41184), (34, 41160), (37, 41073), (38, 41067), (39, 41055), (40, 41052), (42, 41025), (43, 41010), (47, 40965), (51, 40911), (53, 40869), (58, 40779), (62, 40713), (65, 40665), (66, 40641), (69, 40617), (78, 40539), (94, 40368), (95, 40359), (109, 40221), (123, 40143), (134, 40104), (140, 40041), (144, 39981), (154, 39873), (159, 39819),

Gene: Fregley_57 Start: 39883, Stop: 37994, Start Num: 12
Candidate Starts for Fregley_57:
(10, 39886), (Start: 12 @39883 has 14 MA's), (13, 39829), (14, 39817), (15, 39778), (16, 39706), (18, 39655), (19, 39619), (20, 39595), (25, 39493), (26, 39484), (28, 39361), (30, 39328), (36, 39220), (41, 39187), (42, 39166), (44, 39148), (49, 39082), (51, 39049), (56, 38941), (58, 38920), (61, 38878), (62, 38860), (63, 38848), (84, 38683), (93, 38617), (95, 38605), (97, 38569), (98, 38554), (100, 38515), (110, 38422), (112, 38404), (141, 38158), (149, 38089), (150, 38083), (153, 38056), (157, 37999),

Gene: Gazebo_50 Start: 39682, Stop: 37481, Start Num: 11
Candidate Starts for Gazebo_50:
(9, 39700), (Start: 11 @39682 has 36 MA's), (17, 39451), (18, 39448), (22, 39370), (25, 39286), (29, 39133), (32, 39103), (33, 39100), (34, 39091), (40, 38986), (41, 38980), (42, 38959), (44, 38941), (47, 38896), (50, 38845), (51, 38842), (52, 38827), (54, 38758), (58, 38710), (62, 38650), (64, 38614), (65, 38602), (66, 38578), (69, 38554), (72, 38500), (75, 38479), (81, 38458), (84, 38437), (92, 38401), (94, 38350), (95, 38341), (96, 38329), (104, 38179), (117, 38089), (124, 37999), (125, 37984), (130, 37954), (133, 37900), (140, 37741), (147, 37648), (158, 37519),

Gene: Grassboy_52 Start: 39706, Stop: 37532, Start Num: 11
Candidate Starts for Grassboy_52:
(Start: 11 @39706 has 36 MA's), (14, 39634), (15, 39595), (17, 39475), (18, 39472), (21, 39403), (22, 39394), (25, 39310), (27, 39181), (32, 39127), (33, 39124), (34, 39115), (40, 39010), (41, 39004), (42, 38983), (44, 38965), (47, 38920), (51, 38866), (52, 38851), (54, 38782), (58, 38734), (62, 38674), (64, 38638), (65, 38626), (66, 38602), (69, 38578), (72, 38524), (81, 38503), (84, 38482), (86, 38443), (90, 38413), (95, 38335), (104, 38173), (117, 38083), (124, 37993), (125, 37978), (130, 37948), (133, 37894), (135, 37840), (136, 37837), (140, 37792), (147, 37699), (151, 37648), (153, 37630),

Gene: Hyperion_50 Start: 39486, Stop: 37282, Start Num: 11
Candidate Starts for Hyperion_50:
(9, 39504), (Start: 11 @39486 has 36 MA's), (14, 39414), (15, 39375), (17, 39255), (18, 39252), (22, 39174), (25, 39090), (29, 38937), (32, 38907), (33, 38904), (34, 38895), (40, 38790), (41, 38784), (42, 38763), (44, 38745), (47, 38700), (50, 38649), (51, 38646), (52, 38631), (54, 38562), (58, 38514), (62, 38454), (64, 38418), (65, 38406), (66, 38382), (72, 38307), (75, 38286), (81, 38265), (84, 38244), (92, 38208), (94, 38157), (95, 38148), (96, 38136), (114, 37908), (119, 37824), (124, 37743), (125, 37728), (130, 37698), (133, 37644), (135, 37590), (136, 37587), (140, 37542), (147, 37449), (151, 37398),

Gene: Jehoshaphat_52 Start: 40070, Stop: 37833, Start Num: 11
Candidate Starts for Jehoshaphat_52:
(8, 40088), (Start: 11 @40070 has 36 MA's), (14, 39998), (17, 39839), (18, 39836), (22, 39758), (25, 39674), (32, 39491), (33, 39488), (34, 39479), (40, 39374), (41, 39368), (42, 39347), (44, 39329), (47, 39284), (50, 39233), (51, 39230), (52, 39215), (54, 39146), (58, 39098), (62, 39038), (64, 39002), (65, 38990), (66, 38966), (69, 38942), (72, 38888), (73, 38876), (75, 38867), (82, 38846), (85, 38807), (90, 38777), (94, 38708), (95, 38699), (99, 38600), (117, 38453), (122, 38411), (127, 38327), (133, 38195), (135, 38141), (136, 38138), (140, 38093), (147, 38000), (151, 37949),

Gene: Judebell_52 Start: 39579, Stop: 37330, Start Num: 11
Candidate Starts for Judebell_52:
(Start: 11 @39579 has 36 MA's), (17, 39348), (18, 39345), (22, 39267), (25, 39183), (29, 39030), (32, 39000), (33, 38997), (34, 38988), (40, 38883), (41, 38877), (42, 38856), (44, 38838), (47, 38793), (50, 38742), (51, 38739), (52, 38724), (54, 38655), (58, 38607), (62, 38547), (64, 38511), (65, 38499), (66, 38475), (69, 38451), (72, 38397), (75, 38376), (88, 38280), (89, 38271), (90, 38262), (94, 38193), (95, 38184), (103, 38028), (119, 37884), (133, 37692), (135, 37638), (136, 37635), (140, 37590), (147, 37497), (151, 37446), (153, 37428),

Gene: Kelcole_55 Start: 39846, Stop: 37921, Start Num: 12
Candidate Starts for Kelcole_55:
(3, 39993), (4, 39969), (10, 39849), (Start: 12 @39846 has 14 MA's), (13, 39792), (14, 39780), (15, 39741), (16, 39669), (18, 39618), (19, 39582), (20, 39558), (25, 39456), (26, 39447), (28, 39324), (30, 39291), (35, 39219), (36, 39183), (41, 39150), (42, 39129), (44, 39111), (49, 39045), (51, 39012), (56, 38904), (58, 38883), (62, 38823), (63, 38811), (84, 38646), (93, 38580), (95, 38568), (97, 38532), (98, 38517), (110, 38394), (112, 38376), (138, 38121), (141, 38085), (149, 38016), (153, 37983), (157, 37926),

Gene: KillerQueen_58 Start: 40096, Stop: 38171, Start Num: 12
Candidate Starts for KillerQueen_58:
(3, 40243), (4, 40219), (10, 40099), (Start: 12 @40096 has 14 MA's), (13, 40042), (14, 40030), (15, 39991), (16, 39919), (18, 39868), (19, 39832), (20, 39808), (25, 39706), (26, 39697), (28, 39574), (30, 39541), (36, 39433), (41, 39400), (42, 39379), (44, 39361), (49, 39295), (51, 39262), (54, 39181), (56, 39154), (58, 39133), (61, 39091), (62, 39073), (63, 39061), (84, 38896), (93, 38830), (95, 38818), (97, 38782), (98, 38767), (110, 38644), (112, 38626), (138, 38371), (141, 38335), (149, 38266), (150, 38260), (153, 38233), (157, 38176),

Gene: Kyva_52 Start: 39730, Stop: 37532, Start Num: 11
Candidate Starts for Kyva_52:
(Start: 11 @39730 has 36 MA's), (14, 39658), (15, 39619), (17, 39499), (18, 39496), (22, 39418), (25, 39334), (29, 39181), (32, 39151), (33, 39148), (34, 39139), (40, 39034), (41, 39028), (42, 39007), (44, 38989), (47, 38944), (50, 38893), (51, 38890), (52, 38875), (54, 38806), (58, 38758), (62, 38698), (64, 38662), (65, 38650), (66, 38626), (69, 38602), (72, 38548), (75, 38527), (88, 38431), (89, 38422), (90, 38413), (94, 38344), (95, 38335), (104, 38173), (117, 38083), (124, 37993), (125, 37978), (130,

37948), (133, 37894), (135, 37840), (136, 37837), (140, 37792), (147, 37699), (151, 37648),

Gene: Llemily_50 Start: 38846, Stop: 36609, Start Num: 11
Candidate Starts for Llemily_50:
(8, 38864), (Start: 11 @38846 has 36 MA's), (14, 38774), (17, 38615), (18, 38612), (22, 38534), (25, 38450), (32, 38267), (33, 38264), (34, 38255), (40, 38150), (41, 38144), (42, 38123), (44, 38105), (47, 38060), (50, 38009), (51, 38006), (52, 37991), (54, 37922), (58, 37874), (62, 37814), (64, 37778), (65, 37766), (66, 37742), (69, 37718), (72, 37664), (73, 37652), (75, 37643), (82, 37622), (85, 37583), (90, 37553), (94, 37484), (95, 37475), (99, 37376), (117, 37229), (122, 37187), (127, 37103), (133, 36971), (135, 36917), (136, 36914), (140, 36869), (147, 36776), (151, 36725),

Gene: Lonelysoil_49 Start: 39088, Stop: 36851, Start Num: 11
Candidate Starts for Lonelysoil_49:
(8, 39106), (Start: 11 @39088 has 36 MA's), (17, 38857), (18, 38854), (22, 38776), (25, 38692), (29, 38539), (32, 38509), (33, 38506), (34, 38497), (40, 38392), (41, 38386), (42, 38365), (44, 38347), (47, 38302), (50, 38251), (51, 38248), (52, 38233), (54, 38164), (58, 38116), (62, 38056), (64, 38020), (65, 38008), (66, 37984), (69, 37960), (72, 37906), (75, 37885), (82, 37864), (85, 37825), (90, 37795), (95, 37717), (117, 37471), (122, 37429), (127, 37345), (133, 37213), (135, 37159), (136, 37156), (140, 37111), (147, 37018), (151, 36967),

Gene: Marcie_62 Start: 40742, Stop: 38811, Start Num: 12
Candidate Starts for Marcie_62:
(Start: 12 @40742 has 14 MA's), (13, 40688), (14, 40676), (15, 40637), (16, 40565), (18, 40514), (19, 40478), (20, 40454), (23, 40394), (25, 40352), (26, 40343), (28, 40220), (30, 40187), (36, 40079), (41, 40046), (42, 40025), (44, 40007), (49, 39941), (51, 39908), (56, 39800), (58, 39779), (61, 39737), (62, 39719), (63, 39707), (71, 39614), (84, 39542), (97, 39428), (100, 39374), (110, 39284), (112, 39266), (129, 39134), (131, 39113), (149, 38906), (152, 38882), (157, 38816),

Gene: Mashley_49 Start: 39265, Stop: 37121, Start Num: 11
Candidate Starts for Mashley_49:
(9, 39283), (Start: 11 @39265 has 36 MA's), (14, 39193), (15, 39154), (17, 39034), (18, 39031), (22, 38953), (25, 38869), (29, 38716), (32, 38686), (33, 38683), (34, 38674), (40, 38569), (41, 38563), (42, 38542), (44, 38524), (47, 38479), (50, 38428), (51, 38425), (52, 38410), (54, 38341), (58, 38293), (62, 38233), (64, 38197), (65, 38185), (66, 38161), (69, 38137), (72, 38083), (75, 38062), (81, 38041), (94, 37933), (95, 37924), (96, 37912), (104, 37762), (117, 37672), (124, 37582), (125, 37567), (130, 37537), (133, 37483), (135, 37429), (136, 37426), (140, 37381), (147, 37288), (151, 37237), (158, 37159),

Gene: Mentos_54 Start: 40448, Stop: 38304, Start Num: 11
Candidate Starts for Mentos_54:
(9, 40466), (Start: 11 @40448 has 36 MA's), (17, 40217), (18, 40214), (21, 40145), (22, 40136), (25, 40052), (27, 39923), (32, 39869), (33, 39866), (34, 39857), (40, 39752), (41, 39746), (42, 39725), (44, 39707), (47, 39662), (51, 39608), (52, 39593), (54, 39524), (58, 39476), (62, 39416), (64, 39380), (65, 39368), (66, 39344), (69, 39320), (72, 39266), (75, 39245), (81, 39224), (84, 39203), (92, 39167), (94, 39116), (95, 39107), (96, 39095), (104, 38945), (117, 38855), (124, 38765), (125, 38750), (130, 38720), (133, 38666), (135, 38612), (136, 38609), (140, 38564), (147, 38471), (151, 38420), (153, 38402),

Gene: Mila11_52 Start: 40522, Stop: 38222, Start Num: 11
Candidate Starts for Mila11_52:
(6, 40576), (Start: 11 @40522 has 36 MA's), (17, 40294), (18, 40291), (21, 40222), (22, 40213), (25, 40129), (27, 40000), (32, 39946), (33, 39943), (34, 39934), (40, 39829), (41, 39823), (42, 39802), (44, 39784), (47, 39739), (48, 39730), (51, 39685), (52, 39670), (54, 39601), (58, 39553), (62, 39493), (64,

39457), (65, 39445), (66, 39421), (69, 39397), (72, 39343), (75, 39322), (81, 39301), (91, 39217), (94, 39151), (95, 39142), (96, 39130), (115, 38890), (119, 38764), (124, 38683), (125, 38668), (130, 38638), (133, 38584), (135, 38530), (136, 38527), (140, 38482), (146, 38395), (147, 38389), (151, 38338), (158, 38260),

Gene: MorillMayhem_50 Start: 39399, Stop: 37153, Start Num: 11
Candidate Starts for MorillMayhem_50:
(6, 39453), (Start: 11 @39399 has 36 MA's), (17, 39171), (18, 39168), (21, 39099), (22, 39090), (25, 39006), (27, 38877), (32, 38823), (33, 38820), (34, 38811), (40, 38706), (41, 38700), (42, 38679), (44, 38661), (47, 38616), (51, 38562), (52, 38547), (54, 38478), (58, 38430), (62, 38370), (64, 38334), (65, 38322), (66, 38298), (69, 38274), (72, 38220), (75, 38199), (81, 38178), (91, 38094), (94, 38028), (95, 38019), (96, 38007), (116, 37779), (119, 37695), (124, 37614), (125, 37599), (130, 37569), (133, 37515), (135, 37461), (136, 37458), (140, 37413), (146, 37326), (147, 37320), (151, 37269), (158, 37191),

Gene: Namago_50 Start: 38860, Stop: 36662, Start Num: 11
Candidate Starts for Namago_50:
(Start: 11 @38860 has 36 MA's), (14, 38788), (15, 38749), (17, 38629), (18, 38626), (22, 38548), (25, 38464), (29, 38311), (32, 38281), (33, 38278), (34, 38269), (40, 38164), (41, 38158), (42, 38137), (44, 38119), (47, 38074), (50, 38023), (51, 38020), (52, 38005), (54, 37936), (58, 37888), (62, 37828), (64, 37792), (65, 37780), (66, 37756), (69, 37732), (72, 37678), (75, 37657), (88, 37561), (89, 37552), (90, 37543), (94, 37474), (95, 37465), (104, 37303), (117, 37213), (124, 37123), (125, 37108), (130, 37078), (133, 37024), (135, 36970), (136, 36967), (140, 36922), (147, 36829), (151, 36778),

Gene: Nike_51 Start: 39824, Stop: 37617, Start Num: 11
Candidate Starts for Nike_51:
(Start: 11 @39824 has 36 MA's), (15, 39713), (17, 39593), (18, 39590), (22, 39512), (25, 39428), (27, 39299), (32, 39245), (33, 39242), (34, 39233), (40, 39128), (41, 39122), (42, 39101), (47, 39038), (50, 38987), (51, 38984), (52, 38969), (54, 38900), (58, 38852), (62, 38792), (64, 38756), (65, 38744), (66, 38720), (69, 38696), (72, 38642), (75, 38621), (81, 38600), (84, 38579), (92, 38543), (94, 38492), (95, 38483), (96, 38471), (114, 38243), (119, 38159), (124, 38078), (125, 38063), (130, 38033), (133, 37979), (135, 37925), (136, 37922), (140, 37877), (147, 37784), (151, 37733),

Gene: OneinaGillian_57 Start: 39748, Stop: 37823, Start Num: 12
Candidate Starts for OneinaGillian_57:
(3, 39895), (4, 39871), (10, 39751), (Start: 12 @39748 has 14 MA's), (13, 39694), (14, 39682), (15, 39643), (16, 39571), (18, 39520), (19, 39484), (20, 39460), (25, 39358), (26, 39349), (28, 39226), (30, 39193), (36, 39085), (41, 39052), (42, 39031), (44, 39013), (49, 38947), (51, 38914), (56, 38806), (58, 38785), (61, 38743), (62, 38725), (63, 38713), (84, 38548), (93, 38482), (95, 38470), (97, 38434), (98, 38419), (110, 38296), (112, 38278), (138, 38023), (141, 37987), (149, 37918), (150, 37912), (153, 37885), (157, 37828),

Gene: Pepe25_56 Start: 39306, Stop: 37387, Start Num: 12
Candidate Starts for Pepe25_56:
(3, 39456), (4, 39432), (Start: 12 @39306 has 14 MA's), (13, 39252), (14, 39240), (15, 39201), (16, 39129), (18, 39078), (19, 39042), (20, 39018), (25, 38916), (26, 38907), (28, 38784), (30, 38751), (36, 38643), (41, 38610), (42, 38589), (44, 38571), (49, 38505), (51, 38472), (56, 38364), (58, 38343), (61, 38301), (62, 38283), (63, 38271), (68, 38199), (71, 38178), (84, 38106), (97, 37992), (98, 37977), (107, 37869), (110, 37854), (112, 37836), (127, 37716), (149, 37482), (152, 37458), (155, 37401), (157, 37392),

Gene: Phabia_50 Start: 39261, Stop: 37024, Start Num: 11
Candidate Starts for Phabia_50:

(8, 39279), (Start: 11 @39261 has 36 MA's), (14, 39189), (17, 39030), (18, 39027), (22, 38949), (25, 38865), (32, 38682), (33, 38679), (34, 38670), (40, 38565), (41, 38559), (42, 38538), (44, 38520), (47, 38475), (50, 38424), (51, 38421), (52, 38406), (54, 38337), (58, 38289), (62, 38229), (64, 38193), (65, 38181), (66, 38157), (69, 38133), (72, 38079), (73, 38067), (75, 38058), (82, 38037), (85, 37998), (90, 37968), (94, 37899), (95, 37890), (99, 37791), (117, 37644), (122, 37602), (127, 37518), (133, 37386), (135, 37332), (136, 37329), (140, 37284), (147, 37191), (151, 37140),

Gene: Phinky_58 Start: 41459, Stop: 39381, Start Num: 11
Candidate Starts for Phinky_58:
(Start: 11 @41459 has 36 MA's), (18, 41225), (21, 41156), (22, 41147), (25, 41063), (28, 40931), (32, 40880), (33, 40877), (34, 40868), (41, 40757), (42, 40736), (44, 40718), (45, 40712), (46, 40691), (51, 40622), (52, 40607), (55, 40523), (58, 40490), (59, 40469), (60, 40451), (64, 40388), (65, 40376), (66, 40352), (67, 40337), (71, 40310), (75, 40256), (80, 40235), (81, 40214), (84, 40193), (94, 40106), (95, 40097), (124, 39845), (125, 39830), (130, 39800), (132, 39740), (133, 39722), (136, 39665), (140, 39620), (145, 39566), (148, 39545), (151, 39497), (154, 39470), (156, 39425), (158, 39419),

Gene: Quammi_48 Start: 38961, Stop: 36724, Start Num: 11
Candidate Starts for Quammi_48:
(8, 38979), (Start: 11 @38961 has 36 MA's), (14, 38889), (17, 38730), (18, 38727), (22, 38649), (25, 38565), (32, 38382), (33, 38379), (34, 38370), (40, 38265), (41, 38259), (42, 38238), (44, 38220), (47, 38175), (50, 38124), (51, 38121), (52, 38106), (54, 38037), (58, 37989), (62, 37929), (64, 37893), (65, 37881), (66, 37857), (69, 37833), (72, 37779), (73, 37767), (75, 37758), (82, 37737), (85, 37698), (90, 37668), (94, 37599), (95, 37590), (99, 37491), (117, 37344), (122, 37302), (127, 37218), (133, 37086), (135, 37032), (136, 37029), (140, 36984), (147, 36891), (151, 36840),

Gene: RobinRose_59 Start: 40260, Stop: 38335, Start Num: 12
Candidate Starts for RobinRose_59:
(3, 40407), (4, 40383), (10, 40263), (Start: 12 @40260 has 14 MA's), (13, 40206), (14, 40194), (15, 40155), (16, 40083), (18, 40032), (19, 39996), (20, 39972), (25, 39870), (26, 39861), (28, 39738), (30, 39705), (36, 39597), (41, 39564), (42, 39543), (44, 39525), (49, 39459), (51, 39426), (56, 39318), (58, 39297), (61, 39255), (62, 39237), (63, 39225), (84, 39060), (93, 38994), (95, 38982), (97, 38946), (110, 38808), (112, 38790), (138, 38535), (141, 38499), (149, 38430), (153, 38397), (157, 38340),

Gene: Romm_59 Start: 40257, Stop: 38332, Start Num: 12
Candidate Starts for Romm_59:
(10, 40260), (Start: 12 @40257 has 14 MA's), (13, 40203), (14, 40191), (15, 40152), (16, 40080), (18, 40029), (19, 39993), (20, 39969), (25, 39867), (26, 39858), (28, 39735), (30, 39702), (36, 39594), (41, 39561), (42, 39540), (44, 39522), (49, 39456), (51, 39423), (56, 39315), (58, 39294), (61, 39252), (62, 39234), (63, 39222), (84, 39057), (93, 38991), (95, 38979), (97, 38943), (98, 38928), (110, 38805), (112, 38787), (138, 38532), (141, 38496), (149, 38427), (150, 38421), (153, 38394), (157, 38337),

Gene: Rowlf_47 Start: 38966, Stop: 36771, Start Num: 11
Candidate Starts for Rowlf_47:
(Start: 11 @38966 has 36 MA's), (14, 38894), (15, 38855), (17, 38735), (18, 38732), (21, 38663), (22, 38654), (25, 38570), (32, 38387), (33, 38384), (34, 38375), (40, 38270), (41, 38264), (42, 38243), (44, 38225), (47, 38180), (50, 38129), (51, 38126), (52, 38111), (54, 38042), (58, 37994), (62, 37934), (64, 37898), (65, 37886), (66, 37862), (69, 37838), (72, 37784), (75, 37763), (81, 37742), (84, 37721), (86, 37682), (90, 37652), (94, 37583), (95, 37574), (96, 37562), (104, 37412), (117, 37322), (124, 37232), (125, 37217), (130, 37187), (133, 37133), (135, 37079), (136, 37076), (140, 37031), (146, 36944), (147, 36938), (151, 36887),

Gene: RubyRalph_54 Start: 41686, Stop: 39695, Start Num: 12
Candidate Starts for RubyRalph_54:

(2, 41842), (5, 41785), (7, 41752), (Start: 11 @41689 has 36 MA's), (Start: 12 @41686 has 14 MA's), (18, 41458), (22, 41380), (27, 41164), (31, 41122), (34, 41098), (37, 41011), (38, 41005), (39, 40993), (40, 40990), (42, 40963), (43, 40948), (47, 40903), (51, 40849), (53, 40807), (58, 40717), (62, 40651), (65, 40603), (66, 40579), (69, 40555), (87, 40438), (94, 40366), (95, 40357), (109, 40219), (123, 40141), (134, 40033), (140, 39970), (144, 39910), (154, 39802), (159, 39748),

Gene: Rudy_48 Start: 38994, Stop: 36757, Start Num: 11
Candidate Starts for Rudy_48:
(8, 39012), (Start: 11 @38994 has 36 MA's), (14, 38922), (17, 38763), (18, 38760), (22, 38682), (25, 38598), (32, 38415), (33, 38412), (34, 38403), (40, 38298), (41, 38292), (42, 38271), (44, 38253), (47, 38208), (50, 38157), (51, 38154), (52, 38139), (54, 38070), (58, 38022), (62, 37962), (64, 37926), (65, 37914), (66, 37890), (69, 37866), (72, 37812), (73, 37800), (75, 37791), (82, 37770), (85, 37731), (90, 37701), (94, 37632), (95, 37623), (99, 37524), (117, 37377), (122, 37335), (127, 37251), (133, 37119), (135, 37065), (136, 37062), (140, 37017), (147, 36924), (151, 36873),

Gene: SadLad_56 Start: 42740, Stop: 40638, Start Num: 12
Candidate Starts for SadLad_56:
(1, 43034), (Start: 11 @42743 has 36 MA's), (Start: 12 @42740 has 14 MA's), (18, 42512), (22, 42434), (27, 42218), (31, 42176), (34, 42152), (37, 42065), (38, 42059), (39, 42047), (40, 42044), (42, 42017), (43, 42002), (47, 41957), (51, 41903), (53, 41861), (57, 41783), (58, 41771), (62, 41705), (65, 41657), (69, 41609), (94, 41360), (95, 41351), (123, 41135), (139, 40925), (140, 40913), (154, 40745), (159, 40691),

Gene: SallyK_51 Start: 39973, Stop: 37676, Start Num: 11
Candidate Starts for SallyK_51:
(Start: 11 @39973 has 36 MA's), (14, 39901), (15, 39862), (17, 39742), (18, 39739), (22, 39661), (25, 39577), (29, 39424), (32, 39394), (33, 39391), (34, 39382), (40, 39277), (41, 39271), (42, 39250), (44, 39232), (47, 39187), (50, 39136), (51, 39133), (52, 39118), (54, 39049), (58, 39001), (62, 38941), (64, 38905), (65, 38893), (66, 38869), (69, 38845), (72, 38791), (75, 38770), (81, 38749), (91, 38665), (94, 38599), (95, 38590), (119, 38218), (124, 38137), (125, 38122), (130, 38092), (133, 38038), (135, 37984), (136, 37981), (140, 37936), (147, 37843), (151, 37792),

Gene: Sillytadpoles_51 Start: 38834, Stop: 36597, Start Num: 11
Candidate Starts for Sillytadpoles_51:
(8, 38852), (Start: 11 @38834 has 36 MA's), (14, 38762), (17, 38603), (18, 38600), (22, 38522), (25, 38438), (32, 38255), (33, 38252), (34, 38243), (40, 38138), (41, 38132), (42, 38111), (44, 38093), (47, 38048), (50, 37997), (51, 37994), (52, 37979), (54, 37910), (58, 37862), (62, 37802), (64, 37766), (65, 37754), (66, 37730), (69, 37706), (72, 37652), (73, 37640), (75, 37631), (82, 37610), (85, 37571), (90, 37541), (94, 37472), (95, 37463), (99, 37364), (117, 37217), (122, 37175), (127, 37091), (133, 36959), (135, 36905), (136, 36902), (140, 36857), (147, 36764), (151, 36713),

Gene: SlySloth_53 Start: 39580, Stop: 37394, Start Num: 11
Candidate Starts for SlySloth_53:
(9, 39598), (Start: 11 @39580 has 36 MA's), (17, 39349), (18, 39346), (22, 39268), (25, 39184), (29, 39031), (32, 39001), (33, 38998), (34, 38989), (40, 38884), (41, 38878), (42, 38857), (44, 38839), (47, 38794), (50, 38743), (51, 38740), (52, 38725), (54, 38656), (58, 38608), (62, 38548), (64, 38512), (65, 38500), (66, 38476), (69, 38452), (72, 38398), (75, 38377), (81, 38356), (91, 38272), (94, 38206), (95, 38197), (96, 38185), (117, 37945), (122, 37903), (124, 37855), (125, 37840), (130, 37810), (133, 37756), (135, 37702), (136, 37699), (140, 37654), (147, 37561), (151, 37510), (153, 37492),

Gene: Squash_53 Start: 39638, Stop: 37479, Start Num: 11
Candidate Starts for Squash_53:

(Start: 11 @39638 has 36 MA's), (17, 39407), (18, 39404), (22, 39326), (25, 39242), (29, 39089), (32, 39059), (33, 39056), (34, 39047), (40, 38942), (41, 38936), (42, 38915), (44, 38897), (47, 38852), (51, 38798), (52, 38783), (54, 38714), (58, 38666), (62, 38606), (64, 38570), (65, 38558), (66, 38534), (69, 38510), (75, 38435), (81, 38414), (94, 38306), (95, 38297), (96, 38285), (104, 38135), (122, 38057), (127, 37973), (133, 37841), (135, 37787), (136, 37784), (140, 37739), (147, 37646), (151, 37595), (158, 37517),

Gene: Statler_52 Start: 39658, Stop: 37568, Start Num: 11
Candidate Starts for Statler_52:
(9, 39676), (Start: 11 @39658 has 36 MA's), (17, 39427), (18, 39424), (22, 39346), (25, 39262), (29, 39109), (32, 39079), (33, 39076), (34, 39067), (40, 38962), (41, 38956), (42, 38935), (44, 38917), (47, 38872), (51, 38818), (52, 38803), (54, 38734), (58, 38686), (62, 38626), (64, 38590), (65, 38578), (66, 38554), (69, 38530), (72, 38476), (75, 38455), (81, 38434), (84, 38413), (92, 38377), (94, 38326), (95, 38317), (96, 38305), (104, 38155), (120, 38077), (124, 38029), (125, 38014), (130, 37984), (133, 37930), (135, 37876), (136, 37873), (140, 37828), (147, 37735), (151, 37684), (158, 37606),

Gene: StrawberryJamm_53 Start: 39109, Stop: 36965, Start Num: 11
Candidate Starts for StrawberryJamm_53:
(9, 39127), (Start: 11 @39109 has 36 MA's), (17, 38878), (18, 38875), (21, 38806), (22, 38797), (25, 38713), (27, 38584), (32, 38530), (33, 38527), (34, 38518), (40, 38413), (41, 38407), (42, 38386), (44, 38368), (47, 38323), (51, 38269), (52, 38254), (54, 38185), (58, 38137), (62, 38077), (64, 38041), (65, 38029), (66, 38005), (69, 37981), (72, 37927), (75, 37906), (81, 37885), (84, 37864), (92, 37828), (94, 37777), (95, 37768), (96, 37756), (104, 37606), (117, 37516), (124, 37426), (125, 37411), (130, 37381), (133, 37327), (135, 37273), (136, 37270), (140, 37225), (147, 37132), (151, 37081), (153, 37063),

Gene: Teehee_51 Start: 40067, Stop: 37830, Start Num: 11
Candidate Starts for Teehee_51:
(8, 40085), (Start: 11 @40067 has 36 MA's), (14, 39995), (17, 39836), (18, 39833), (22, 39755), (25, 39671), (32, 39488), (33, 39485), (34, 39476), (40, 39371), (41, 39365), (42, 39344), (44, 39326), (47, 39281), (50, 39230), (51, 39227), (52, 39212), (54, 39143), (58, 39095), (62, 39035), (64, 38999), (65, 38987), (66, 38963), (69, 38939), (72, 38885), (73, 38873), (75, 38864), (82, 38843), (85, 38804), (90, 38774), (94, 38705), (95, 38696), (99, 38597), (117, 38450), (122, 38408), (127, 38324), (133, 38192), (135, 38138), (136, 38135), (140, 38090), (147, 37997), (151, 37946),

Gene: Tempo_57 Start: 40122, Stop: 38215, Start Num: 12
Candidate Starts for Tempo_57:
(Start: 12 @40122 has 14 MA's), (13, 40068), (14, 40056), (15, 40017), (16, 39945), (18, 39894), (19, 39858), (20, 39834), (25, 39732), (26, 39723), (28, 39600), (30, 39567), (36, 39459), (41, 39426), (42, 39405), (44, 39387), (49, 39321), (51, 39288), (56, 39180), (58, 39159), (61, 39117), (62, 39099), (63, 39087), (71, 38994), (84, 38922), (93, 38856), (95, 38844), (97, 38808), (98, 38793), (101, 38721), (102, 38706), (110, 38643), (141, 38379), (149, 38310), (150, 38304), (153, 38277), (157, 38220),

Gene: Tissue_51 Start: 39602, Stop: 37305, Start Num: 11
Candidate Starts for Tissue_51:
(Start: 11 @39602 has 36 MA's), (14, 39530), (15, 39491), (17, 39371), (18, 39368), (22, 39290), (25, 39206), (29, 39053), (32, 39023), (33, 39020), (34, 39011), (40, 38906), (41, 38900), (42, 38879), (44, 38861), (47, 38816), (50, 38765), (51, 38762), (52, 38747), (54, 38678), (58, 38630), (62, 38570), (64, 38534), (65, 38522), (66, 38498), (69, 38474), (72, 38420), (75, 38399), (81, 38378), (91, 38294), (94, 38228), (95, 38219), (119, 37847), (124, 37766), (125, 37751), (130, 37721), (133, 37667), (135, 37613), (136, 37610), (140, 37565), (147, 37472), (151, 37421),

Gene: Viceroy_49 Start: 38964, Stop: 36727, Start Num: 11

Candidate Starts for Viceroy_49:
(8, 38982), (Start: 11 @38964 has 36 MA's), (14, 38892), (17, 38733), (18, 38730), (22, 38652), (25, 38568), (32, 38385), (33, 38382), (34, 38373), (40, 38268), (41, 38262), (42, 38241), (44, 38223), (47, 38178), (50, 38127), (51, 38124), (52, 38109), (54, 38040), (58, 37992), (62, 37932), (64, 37896), (65, 37884), (66, 37860), (69, 37836), (72, 37782), (73, 37770), (75, 37761), (82, 37740), (85, 37701), (90, 37671), (94, 37602), (95, 37593), (99, 37494), (117, 37347), (122, 37305), (127, 37221), (133, 37089), (135, 37035), (136, 37032), (140, 36987), (147, 36894), (151, 36843),

Gene: Wayne3_52 Start: 39830, Stop: 37593, Start Num: 11
Candidate Starts for Wayne3_52:
(8, 39848), (Start: 11 @39830 has 36 MA's), (14, 39758), (17, 39599), (18, 39596), (22, 39518), (25, 39434), (32, 39251), (33, 39248), (34, 39239), (40, 39134), (41, 39128), (42, 39107), (44, 39089), (47, 39044), (50, 38993), (51, 38990), (52, 38975), (54, 38906), (58, 38858), (62, 38798), (64, 38762), (65, 38750), (66, 38726), (69, 38702), (72, 38648), (73, 38636), (75, 38627), (82, 38606), (85, 38567), (90, 38537), (94, 38468), (95, 38459), (99, 38360), (117, 38213), (122, 38171), (127, 38087), (133, 37955), (135, 37901), (136, 37898), (140, 37853), (147, 37760), (151, 37709),

Gene: WheelerS25_56 Start: 40438, Stop: 38219, Start Num: 11
Candidate Starts for WheelerS25_56:
(Start: 11 @40438 has 36 MA's), (17, 40207), (18, 40204), (22, 40126), (25, 40042), (29, 39889), (32, 39859), (33, 39856), (34, 39847), (40, 39742), (41, 39736), (42, 39715), (44, 39697), (47, 39652), (50, 39601), (51, 39598), (52, 39583), (54, 39514), (58, 39466), (62, 39406), (64, 39370), (65, 39358), (66, 39334), (69, 39310), (72, 39256), (75, 39235), (82, 39214), (85, 39175), (90, 39145), (94, 39076), (95, 39067), (96, 39055), (108, 38815), (117, 38758), (122, 38716), (127, 38632), (133, 38581), (135, 38527), (136, 38524), (140, 38479), (147, 38386), (151, 38335), (158, 38257),

Gene: Wheelie_50 Start: 39151, Stop: 36914, Start Num: 11
Candidate Starts for Wheelie_50:
(8, 39169), (Start: 11 @39151 has 36 MA's), (14, 39079), (17, 38920), (18, 38917), (22, 38839), (25, 38755), (32, 38572), (33, 38569), (34, 38560), (40, 38455), (41, 38449), (42, 38428), (44, 38410), (47, 38365), (50, 38314), (51, 38311), (52, 38296), (54, 38227), (58, 38179), (62, 38119), (64, 38083), (65, 38071), (66, 38047), (69, 38023), (72, 37969), (73, 37957), (75, 37948), (82, 37927), (85, 37888), (90, 37858), (94, 37789), (95, 37780), (99, 37681), (117, 37534), (122, 37492), (127, 37408), (133, 37276), (135, 37222), (136, 37219), (140, 37174), (147, 37081), (151, 37030),

Gene: Wilca_56 Start: 39724, Stop: 37787, Start Num: 12
Candidate Starts for Wilca_56:
(Start: 12 @39724 has 14 MA's), (13, 39670), (14, 39658), (15, 39619), (16, 39547), (18, 39496), (19, 39460), (20, 39436), (25, 39334), (26, 39325), (28, 39202), (30, 39169), (36, 39061), (41, 39028), (42, 39007), (44, 38989), (49, 38923), (51, 38890), (56, 38782), (58, 38761), (61, 38719), (62, 38701), (63, 38689), (68, 38617), (71, 38596), (84, 38524), (97, 38410), (98, 38395), (107, 38287), (110, 38272), (112, 38254), (127, 38134), (128, 38128), (152, 37858), (157, 37792),

Gene: Zagie_50 Start: 39306, Stop: 37162, Start Num: 11
Candidate Starts for Zagie_50:
(9, 39324), (Start: 11 @39306 has 36 MA's), (14, 39234), (15, 39195), (17, 39075), (18, 39072), (21, 39003), (22, 38994), (25, 38910), (27, 38781), (32, 38727), (33, 38724), (34, 38715), (40, 38610), (41, 38604), (42, 38583), (44, 38565), (47, 38520), (50, 38469), (51, 38466), (52, 38451), (54, 38382), (58, 38334), (62, 38274), (64, 38238), (65, 38226), (66, 38202), (69, 38178), (72, 38124), (75, 38103), (81, 38082), (84, 38061), (92, 38025), (94, 37974), (95, 37965), (96, 37953), (104, 37803), (117, 37713), (124, 37623), (125, 37608), (130, 37578), (133, 37524), (135, 37470), (136, 37467), (140, 37422), (147, 37329), (151, 37278), (153, 37260),

Gene: Zhafia_53 Start: 39631, Stop: 37394, Start Num: 11
Candidate Starts for Zhafia_53:
(8, 39649), (Start: 11 @39631 has 36 MA's), (14, 39559), (17, 39400), (18, 39397), (22, 39319), (25, 39235), (32, 39052), (33, 39049), (34, 39040), (40, 38935), (41, 38929), (42, 38908), (44, 38890), (47, 38845), (50, 38794), (51, 38791), (52, 38776), (54, 38707), (58, 38659), (62, 38599), (64, 38563), (65, 38551), (66, 38527), (69, 38503), (72, 38449), (73, 38437), (75, 38428), (82, 38407), (85, 38368), (90, 38338), (94, 38269), (95, 38260), (99, 38161), (117, 38014), (122, 37972), (127, 37888), (133, 37756), (135, 37702), (136, 37699), (140, 37654), (147, 37561), (151, 37510),