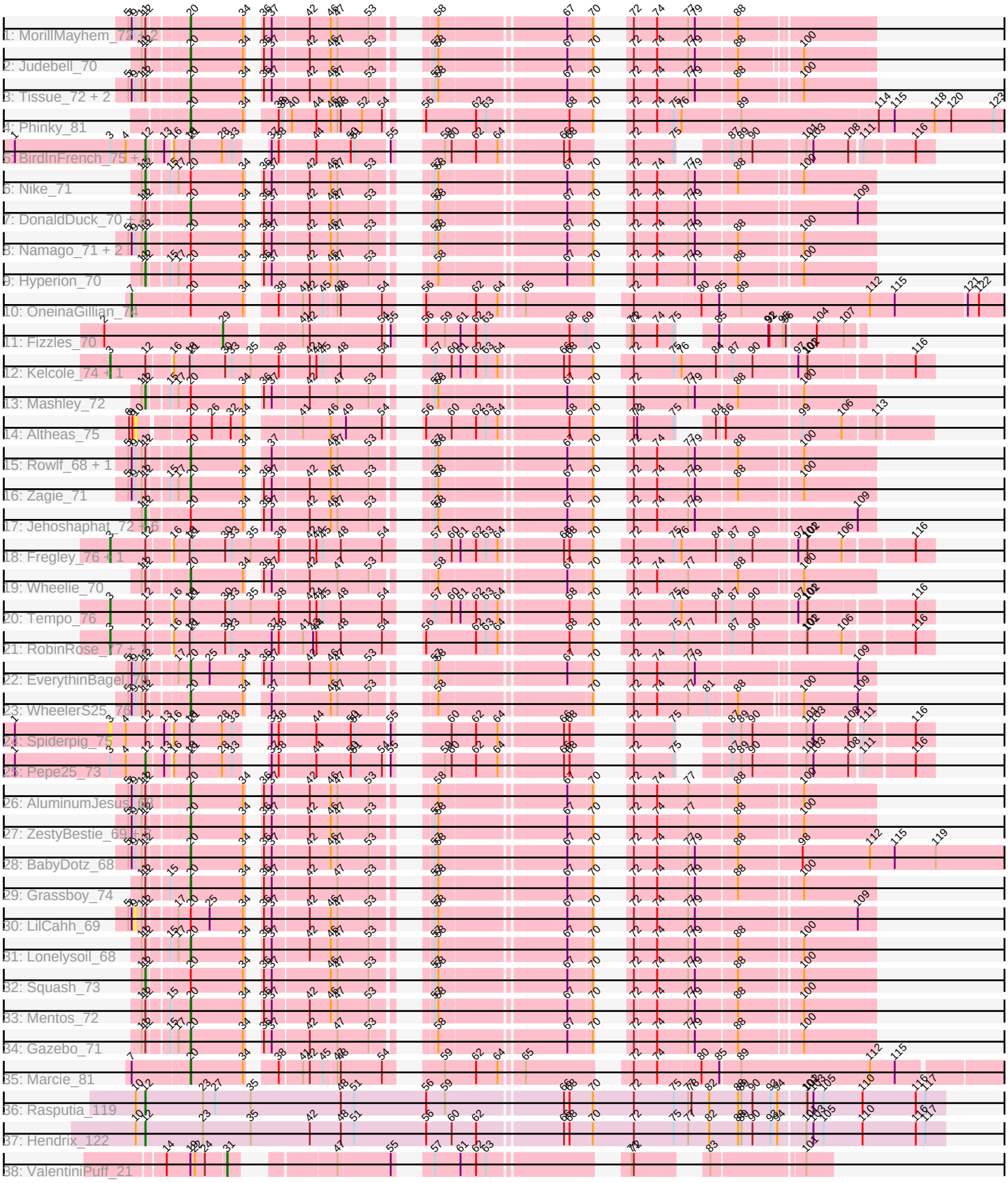
Pham 347636


1: MorillMayhem_72 + 2
2: Judebell_70
3: Tissue_72 + 2
4: Phinky_81
5: BirdInFrench_75 + 1
6: Nike_71
7: DonaldDuck_70 + 4
8: Namago_71 + 2
9: Hyperion_70
10: OneinaGillian_74
11: Fizzles_70
12: Kelcole_74 + 1
13: Mashley_72
14: Altheas_75
15: Rowlf_68 + 1
16: Zagie_71
17: Jehoshaphat_72 + 6
18: Fregley_76 + 1
19: Wheelie_70
20: Tempo_76
21: RobinRose_77 + 4
22: EverythinBagel_74
23: WheelerS25_76
24: Spiderpig_75
25: Pepe25_73
26: AluminumJesus_68
27: ZestyBestie_69
28: BabyDotz_68
29: Grassboy_74
30: LilCahh_69
31: Lonelysoil_68
32: Squash_73
33: Mentos_72
34: Gazebo_71
35: Marcie_81
36: Rasputia_119
37: Hendrix_122
38: ValentiniPuff_21

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 347636 Report

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

Pham number 347636 has 61 members, 5 are drafts.

Phages represented in each track:
- Track 1 : MorillMayhem_72, BaconCheese_74, Mila11_73
- Track 2 : Judebell_70
- Track 3 : Tissue_72, SallyK_73, Kyva_74
- Track 4 : Phinky_81
- Track 5 : BirdInFrench_75, Wilca_75
- Track 6 : Nike_71
- Track 7 : DonaldDuck_70, Viceroy_69, Zhafia_73, Sillytadpoles_71, Llemily_70
- Track 8 : Namago_71, Blab_68, StrawberryJamm_75
- Track 9 : Hyperion_70
- Track 10 : OneinaGillian_74
- Track 11 : Fizzles_70
- Track 12 : Kelcole_74, KillerQueen_78
- Track 13 : Mashley_72
- Track 14 : Altheas_75
- Track 15 : Rowlf_68, Statler_74
- Track 16 : Zagie_71
- Track 17 : Jehoshaphat_72, Wayne3_72, Casend_71, Quammi_69, Teehee_71, Phabia_70, Rudy_68
- Track 18 : Fregley_76, CandC_73
- Track 19 : Wheelie_70
- Track 20 : Tempo_76
- Track 21 : RobinRose_77, Romm_77
- Track 22 : EverythinBagel_70
- Track 23 : WheelerS25_76
- Track 24 : Spiderpig_75
- Track 25 : Pepe25_73
- Track 26 : AluminumJesus_68
- Track 27 : ZestyBestie_69, SlySloth_72, FrankDeliGuy_67
- Track 28 : BabyDotz_68
- Track 29 : Grassboy_74
- Track 30 : LilCahh_69
- Track 31 : Lonelysoil_68
- Track 32 : Squash_73
- Track 33 : Mentos_72
- Track 34 : Gazebo_71
- Track 35 : Marcie_81
- Track 36 : Rasputia_119

• Track 37 : Hendrix_122
• Track 38 : ValentiniPuff_21

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

The start number called the most often in the published annotations is 20, it was called in 28 of the 56 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AluminumJesus_68, BabyDotz_68, BaconCheese_74, DonaldDuck_70, EverythinBagel_70, FrankDeliGuy_67, Gazebo_71, Grassboy_74, Judebell_70, Kyva_74, Llemily_70, Lonelysoil_68, Marcie_81, Mentos_72, Mila11_73, MorillMayhem_72, Phinky_81, Rowlf_68, SallyK_73, Sillytadpoles_71, SlySloth_72, Statler_74, Tissue_72, Viceroy_69, WheelerS25_76, Wheelie_70, Zagie_71, ZestyBestie_69, Zhafia_73,

Genes that have the "Most Annotated" start but do not call it:
• Altheas_75, Blab_68, Casend_71, Hyperion_70, Jehoshaphat_72, LilCahh_69, Mashley_72, Namago_71, Nike_71, OneinaGillian_74, Phabia_70, Quammi_69, Rudy_68, Squash_73, StrawberryJamm_75, Teehee_71, Wayne3_72,

Genes that do not have the "Most Annotated" start:
• BirdInFrench_75, CandC_73, Fizzles_70, Fregley_76, Hendrix_122, Kelcole_74, KillerQueen_78, Pepe25_73, Rasputia_119, RobinRose_77, Romm_77, Spiderpig_75, Tempo_76, ValentiniPuff_21, Wilca_75,

Summary by start number:

Start 3:
• Found in 11 of 61 (18.0%) of genes in pham
• Manual Annotations of this start: 6 of 56
• Called 72.7% of time when present
• Phage (with cluster) where this start called: CandC_73 (EG), Fregley_76 (EG), Kelcole_74 (EG), KillerQueen_78 (EG), RobinRose_77 (EG), Romm_77 (EG), Spiderpig_75 (EG), Tempo_76 (EG),

Start 7:
• Found in 22 of 61 (36.1%) of genes in pham
• Manual Annotations of this start: 1 of 56
• Called 4.5% of time when present
• Phage (with cluster) where this start called: OneinaGillian_74 (EG),

Start 9:
• Found in 20 of 61 (32.8%) of genes in pham
• No Manual Annotations of this start.
• Called 5.0% of time when present
• Phage (with cluster) where this start called: LilCahh_69 (EG),

Start 10:
• Found in 3 of 61 (4.9%) of genes in pham

• No Manual Annotations of this start.
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Altheas_75 (EG),

Start 12:
• Found in 55 of 61 (90.2%) of genes in pham
• Manual Annotations of this start: 19 of 56
• Called 34.5% of time when present
• Phage (with cluster) where this start called: BirdInFrench_75 (EG), Blab_68 (EG), Casend_71 (EG), Hendrix_122 (GC), Hyperion_70 (EG), Jehoshaphat_72 (EG), Mashley_72 (EG), Namago_71 (EG), Nike_71 (EG), Pepe25_73 (EG), Phabia_70 (EG), Quammi_69 (EG), Rasputia_119 (GC), Rudy_68 (EG), Squash_73 (EG), StrawberryJamm_75 (EG), Teehee_71 (EG), Wayne3_72 (EG), Wilca_75 (EG),

Start 20:
• Found in 46 of 61 (75.4%) of genes in pham
• Manual Annotations of this start: 28 of 56
• Called 63.0% of time when present
• Phage (with cluster) where this start called: AluminumJesus_68 (EG), BabyDotz_68 (EG), BaconCheese_74 (EG), DonaldDuck_70 (EG), EverythinBagel_70 (EG), FrankDeliGuy_67 (EG), Gazebo_71 (EG), Grassboy_74 (EG), Judebell_70 (EG), Kyva_74 (EG), Llemily_70 (EG), Lonelysoil_68 (EG), Marcie_81 (EG), Mentos_72 (EG), Mila11_73 (EG), MorillMayhem_72 (EG), Phinky_81 (EG), Rowlf_68 (EG), SallyK_73 (EG), Sillytadpoles_71 (EG), SlySloth_72 (EG), Statler_74 (EG), Tissue_72 (EG), Viceroy_69 (EG), WheelerS25_76 (EG), Wheelie_70 (EG), Zagie_71 (EG), ZestyBestie_69 (EG), Zhafia_73 (EG),

Start 29:
• Found in 1 of 61 (1.6%) of genes in pham
• Manual Annotations of this start: 1 of 56
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Fizzles_70 (EG),

Start 31:
• Found in 1 of 61 (1.6%) of genes in pham
• Manual Annotations of this start: 1 of 56
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ValentiniPuff_21 (GL),

Summary by clusters:

There are 3 clusters represented in this pham: EG, GL, GC,

Info for manual annotations of cluster EG:
•Start number 3 was manually annotated 6 times for cluster EG.
•Start number 7 was manually annotated 1 time for cluster EG.
•Start number 12 was manually annotated 17 times for cluster EG.
•Start number 20 was manually annotated 28 times for cluster EG.
•Start number 29 was manually annotated 1 time for cluster EG.

Info for manual annotations of cluster GC:
•Start number 12 was manually annotated 2 times for cluster GC.

Info for manual annotations of cluster GL:
•Start number 31 was manually annotated 1 time for cluster GL.

Gene Information:

Gene: Altheas_75 Start: 50727, Stop: 49027, Start Num: 10
Candidate Starts for Altheas_75:
(6, 50745), (8, 50736), (10, 50727), (Start: 20 @50604 has 28 MA's), (26, 50547), (32, 50496), (34, 50466), (41, 50358), (46, 50283), (49, 50247), (54, 50154), (56, 50124), (60, 50055), (62, 49989), (63, 49965), (64, 49935), (68, 49770), (70, 49707), (72, 49686), (73, 49677), (75, 49587), (84, 49548), (86, 49530), (99, 49350), (106, 49251), (113, 49167),

Gene: AluminumJesus_68 Start: 49210, Stop: 47717, Start Num: 20
Candidate Starts for AluminumJesus_68:
(5, 49351), (Start: 7 @49342 has 1 MA's), (9, 49333), (11, 49315), (Start: 12 @49306 has 19 MA's), (Start: 20 @49210 has 28 MA's), (34, 49072), (36, 49060), (37, 49039), (42, 48946), (46, 48889), (47, 48871), (53, 48787), (58, 48703), (67, 48388), (70, 48325), (72, 48307), (74, 48250), (77, 48166), (88, 48040), (100, 47902),

Gene: BabyDotz_68 Start: 50440, Stop: 48572, Start Num: 20
Candidate Starts for BabyDotz_68:
(5, 50581), (Start: 7 @50572 has 1 MA's), (9, 50563), (11, 50545), (Start: 12 @50536 has 19 MA's), (Start: 20 @50440 has 28 MA's), (34, 50302), (36, 50290), (37, 50269), (42, 50176), (46, 50119), (47, 50101), (53, 50017), (57, 49942), (58, 49933), (67, 49618), (70, 49555), (72, 49537), (74, 49480), (77, 49396), (79, 49378), (88, 49270), (98, 49111), (112, 48934), (115, 48868), (119, 48757),

Gene: BaconCheese_74 Start: 51370, Stop: 49877, Start Num: 20
Candidate Starts for BaconCheese_74:
(5, 51511), (Start: 7 @51502 has 1 MA's), (9, 51493), (11, 51475), (Start: 12 @51466 has 19 MA's), (Start: 20 @51370 has 28 MA's), (34, 51232), (36, 51220), (37, 51199), (42, 51106), (46, 51049), (47, 51031), (53, 50947), (58, 50863), (67, 50548), (70, 50485), (72, 50467), (74, 50410), (77, 50326), (79, 50308), (88, 50200),

Gene: BirdInFrench_75 Start: 49965, Stop: 48313, Start Num: 12
Candidate Starts for BirdInFrench_75:
(1, 50307), (Start: 3 @50055 has 6 MA's), (4, 50016), (Start: 12 @49965 has 19 MA's), (13, 49926), (16, 49908), (18, 49866), (21, 49860), (28, 49779), (33, 49752), (37, 49722), (38, 49704), (44, 49611), (50, 49527), (51, 49518), (55, 49434), (59, 49362), (60, 49344), (62, 49278), (64, 49224), (66, 49074), (68, 49059), (72, 48975), (75, 48876), (87, 48801), (89, 48780), (90, 48753), (101, 48630), (103, 48612), (108, 48519), (111, 48489), (116, 48360),

Gene: Blab_68 Start: 49597, Stop: 48008, Start Num: 12
Candidate Starts for Blab_68:
(5, 49642), (Start: 7 @49633 has 1 MA's), (9, 49624), (11, 49606), (Start: 12 @49597 has 19 MA's), (Start: 20 @49501 has 28 MA's), (34, 49363), (36, 49351), (37, 49330), (42, 49237), (46, 49180), (47, 49162), (53, 49078), (57, 49003), (58, 48994), (67, 48679), (70, 48616), (72, 48598), (74, 48541), (77, 48457), (79, 48439), (88, 48331), (100, 48193),

Gene: CandC_73 Start: 49420, Stop: 47504, Start Num: 3
Candidate Starts for CandC_73:

(Start: 3 @49420 has 6 MA's), (Start: 12 @49330 has 19 MA's), (16, 49273), (18, 49231), (21, 49225), (30, 49135), (33, 49117), (35, 49069), (38, 48994), (42, 48919), (44, 48901), (45, 48883), (48, 48835), (54, 48733), (57, 48664), (60, 48619), (61, 48595), (62, 48553), (63, 48529), (64, 48499), (66, 48349), (68, 48334), (70, 48271), (72, 48235), (75, 48136), (76, 48115), (84, 48022), (87, 47986), (90, 47938), (97, 47836), (101, 47815), (102, 47812), (106, 47722), (116, 47551),

Gene: Casend_71 Start: 50094, Stop: 48505, Start Num: 12
Candidate Starts for Casend_71:
(11, 50103), (Start: 12 @50094 has 19 MA's), (Start: 20 @49998 has 28 MA's), (34, 49860), (36, 49848), (37, 49827), (42, 49734), (46, 49677), (47, 49659), (53, 49575), (57, 49500), (58, 49491), (67, 49176), (70, 49113), (72, 49095), (74, 49038), (77, 48954), (79, 48936), (109, 48552),

Gene: DonaldDuck_70 Start: 49347, Stop: 47854, Start Num: 20
Candidate Starts for DonaldDuck_70:
(11, 49452), (Start: 12 @49443 has 19 MA's), (Start: 20 @49347 has 28 MA's), (34, 49209), (36, 49197), (37, 49176), (42, 49083), (46, 49026), (47, 49008), (53, 48924), (57, 48849), (58, 48840), (67, 48525), (70, 48462), (72, 48444), (74, 48387), (77, 48303), (79, 48285), (109, 47901),

Gene: EverythinBagel_70 Start: 49828, Stop: 48335, Start Num: 20
Candidate Starts for EverythinBagel_70:
(5, 49972), (Start: 7 @49963 has 1 MA's), (9, 49954), (11, 49936), (Start: 12 @49927 has 19 MA's), (17, 49861), (Start: 20 @49828 has 28 MA's), (25, 49777), (34, 49690), (36, 49678), (37, 49657), (42, 49564), (46, 49507), (47, 49489), (53, 49405), (57, 49330), (58, 49321), (67, 49006), (70, 48943), (72, 48925), (74, 48868), (77, 48784), (79, 48766), (109, 48382),

Gene: Fizzles_70 Start: 49488, Stop: 48133, Start Num: 29
Candidate Starts for Fizzles_70:
(2, 49803), (Start: 29 @49488 has 1 MA's), (41, 49314), (42, 49296), (54, 49110), (55, 49101), (56, 49080), (59, 49029), (61, 48987), (62, 48945), (63, 48921), (68, 48702), (69, 48657), (71, 48624), (72, 48618), (74, 48555), (75, 48519), (85, 48471), (91, 48354), (92, 48351), (95, 48315), (96, 48312), (104, 48249), (107, 48180),

Gene: FrankDeliGuy_67 Start: 49442, Stop: 47949, Start Num: 20
Candidate Starts for FrankDeliGuy_67:
(5, 49583), (Start: 7 @49574 has 1 MA's), (9, 49565), (11, 49547), (Start: 12 @49538 has 19 MA's), (Start: 20 @49442 has 28 MA's), (34, 49304), (36, 49292), (37, 49271), (42, 49178), (46, 49121), (47, 49103), (53, 49019), (57, 48944), (58, 48935), (67, 48620), (70, 48557), (72, 48539), (74, 48482), (77, 48398), (88, 48272), (100, 48134),

Gene: Fregley_76 Start: 49769, Stop: 47853, Start Num: 3
Candidate Starts for Fregley_76:
(Start: 3 @49769 has 6 MA's), (Start: 12 @49679 has 19 MA's), (16, 49622), (18, 49580), (21, 49574), (30, 49484), (33, 49466), (35, 49418), (38, 49343), (42, 49268), (44, 49250), (45, 49232), (48, 49184), (54, 49082), (57, 49013), (60, 48968), (61, 48944), (62, 48902), (63, 48878), (64, 48848), (66, 48698), (68, 48683), (70, 48620), (72, 48584), (75, 48485), (76, 48464), (84, 48371), (87, 48335), (90, 48287), (97, 48185), (101, 48164), (102, 48161), (106, 48071), (116, 47900),

Gene: Gazebo_71 Start: 50158, Stop: 48665, Start Num: 20
Candidate Starts for Gazebo_71:
(11, 50266), (Start: 12 @50257 has 19 MA's), (15, 50206), (17, 50191), (Start: 20 @50158 has 28 MA's), (34, 50020), (36, 50008), (37, 49987), (42, 49894), (47, 49819), (53, 49735), (58, 49651), (67, 49336), (70, 49273), (72, 49255), (74, 49198), (77, 49114), (79, 49096), (88, 48988), (100, 48850),

Gene: Grassboy_74 Start: 50127, Stop: 48634, Start Num: 20
Candidate Starts for Grassboy_74:
(11, 50232), (Start: 12 @50223 has 19 MA's), (15, 50172), (Start: 20 @50127 has 28 MA's), (34, 49989), (36, 49977), (37, 49956), (42, 49863), (47, 49788), (53, 49704), (57, 49629), (58, 49620), (67, 49305), (70, 49242), (72, 49224), (74, 49167), (77, 49083), (79, 49065), (88, 48957), (100, 48819),

Gene: Hendrix_122 Start: 77168, Stop: 79243, Start Num: 12
Candidate Starts for Hendrix_122:
(10, 77144), (Start: 12 @77168 has 19 MA's), (23, 77324), (35, 77450), (42, 77609), (48, 77693), (51, 77720), (56, 77915), (60, 77984), (62, 78050), (66, 78254), (68, 78269), (70, 78332), (72, 78443), (75, 78542), (77, 78581), (82, 78638), (88, 78716), (89, 78722), (90, 78749), (93, 78797), (94, 78815), (101, 78872), (103, 78890), (105, 78917), (110, 79022), (116, 79166), (117, 79190),

Gene: Hyperion_70 Start: 49788, Stop: 48196, Start Num: 12
Candidate Starts for Hyperion_70:
(11, 49797), (Start: 12 @49788 has 19 MA's), (15, 49737), (17, 49722), (Start: 20 @49689 has 28 MA's), (34, 49551), (36, 49539), (37, 49518), (42, 49425), (46, 49368), (47, 49350), (53, 49266), (58, 49182), (67, 48867), (70, 48804), (72, 48786), (74, 48729), (77, 48645), (79, 48627), (88, 48519), (100, 48381),

Gene: Jehoshaphat_72 Start: 50362, Stop: 48773, Start Num: 12
Candidate Starts for Jehoshaphat_72:
(11, 50371), (Start: 12 @50362 has 19 MA's), (Start: 20 @50266 has 28 MA's), (34, 50128), (36, 50116), (37, 50095), (42, 50002), (46, 49945), (47, 49927), (53, 49843), (57, 49768), (58, 49759), (67, 49444), (70, 49381), (72, 49363), (74, 49306), (77, 49222), (79, 49204), (109, 48820),

Gene: Judebell_70 Start: 49490, Stop: 48006, Start Num: 20
Candidate Starts for Judebell_70:
(11, 49595), (Start: 12 @49586 has 19 MA's), (Start: 20 @49490 has 28 MA's), (34, 49352), (36, 49340), (37, 49319), (42, 49226), (46, 49169), (47, 49151), (53, 49067), (57, 48992), (58, 48983), (67, 48668), (70, 48605), (72, 48587), (74, 48530), (77, 48446), (79, 48428), (88, 48320), (100, 48191),

Gene: Kelcole_74 Start: 49992, Stop: 48076, Start Num: 3
Candidate Starts for Kelcole_74:
(Start: 3 @49992 has 6 MA's), (Start: 12 @49902 has 19 MA's), (16, 49845), (18, 49803), (21, 49797), (30, 49707), (33, 49689), (35, 49641), (38, 49566), (42, 49491), (44, 49473), (45, 49455), (48, 49407), (54, 49305), (57, 49236), (60, 49191), (61, 49167), (62, 49125), (63, 49101), (64, 49071), (66, 48921), (68, 48906), (70, 48843), (72, 48807), (75, 48708), (76, 48687), (84, 48594), (87, 48558), (90, 48510), (97, 48408), (101, 48387), (102, 48384), (116, 48123),

Gene: KillerQueen_78 Start: 50227, Stop: 48311, Start Num: 3
Candidate Starts for KillerQueen_78:
(Start: 3 @50227 has 6 MA's), (Start: 12 @50137 has 19 MA's), (16, 50080), (18, 50038), (21, 50032), (30, 49942), (33, 49924), (35, 49876), (38, 49801), (42, 49726), (44, 49708), (45, 49690), (48, 49642), (54, 49540), (57, 49471), (60, 49426), (61, 49402), (62, 49360), (63, 49336), (64, 49306), (66, 49156), (68, 49141), (70, 49078), (72, 49042), (75, 48943), (76, 48922), (84, 48829), (87, 48793), (90, 48745), (97, 48643), (101, 48622), (102, 48619), (116, 48358),

Gene: Kyva_74 Start: 50150, Stop: 48657, Start Num: 20
Candidate Starts for Kyva_74:
(5, 50291), (Start: 7 @50282 has 1 MA's), (9, 50273), (11, 50255), (Start: 12 @50246 has 19 MA's), (Start: 20 @50150 has 28 MA's), (34, 50012), (36, 50000), (37, 49979), (42, 49886), (46, 49829), (47, 49811), (53, 49727), (57, 49652), (58, 49643), (67, 49328), (70, 49265), (72, 49247), (74, 49190), (77,

49106), (79, 49088), (88, 48980), (100, 48842),

Gene: LilCahh_69 Start: 49585, Stop: 47966, Start Num: 9
Candidate Starts for LilCahh_69:
(5, 49603), (Start: 7 @49594 has 1 MA's), (9, 49585), (11, 49567), (Start: 12 @49558 has 19 MA's), (17, 49492), (Start: 20 @49459 has 28 MA's), (25, 49408), (34, 49321), (36, 49309), (37, 49288), (42, 49195), (46, 49138), (47, 49120), (53, 49036), (57, 48961), (58, 48952), (67, 48637), (70, 48574), (72, 48556), (74, 48499), (77, 48415), (79, 48397), (109, 48013),

Gene: Llemily_70 Start: 49042, Stop: 47549, Start Num: 20
Candidate Starts for Llemily_70:
(11, 49147), (Start: 12 @49138 has 19 MA's), (Start: 20 @49042 has 28 MA's), (34, 48904), (36, 48892), (37, 48871), (42, 48778), (46, 48721), (47, 48703), (53, 48619), (57, 48544), (58, 48535), (67, 48220), (70, 48157), (72, 48139), (74, 48082), (77, 47998), (79, 47980), (109, 47596),

Gene: Lonelysoil_68 Start: 48799, Stop: 47306, Start Num: 20
Candidate Starts for Lonelysoil_68:
(11, 48907), (Start: 12 @48898 has 19 MA's), (15, 48847), (17, 48832), (Start: 20 @48799 has 28 MA's), (34, 48661), (36, 48649), (37, 48628), (42, 48535), (46, 48478), (47, 48460), (53, 48376), (57, 48301), (58, 48292), (67, 47977), (70, 47914), (72, 47896), (74, 47839), (77, 47755), (79, 47737), (88, 47629), (100, 47491),

Gene: Marcie_81 Start: 50907, Stop: 48991, Start Num: 20
Candidate Starts for Marcie_81:
(Start: 7 @51054 has 1 MA's), (Start: 20 @50907 has 28 MA's), (34, 50769), (38, 50718), (41, 50661), (42, 50643), (45, 50607), (47, 50574), (48, 50565), (54, 50463), (59, 50367), (62, 50283), (64, 50229), (65, 50178), (72, 49965), (74, 49902), (80, 49797), (85, 49749), (89, 49701), (112, 49365), (115, 49299),

Gene: Mashley_72 Start: 50310, Stop: 48718, Start Num: 12
Candidate Starts for Mashley_72:
(11, 50319), (Start: 12 @50310 has 19 MA's), (15, 50259), (17, 50244), (Start: 20 @50211 has 28 MA's), (34, 50073), (36, 50061), (37, 50040), (42, 49947), (47, 49872), (53, 49788), (57, 49713), (58, 49704), (67, 49389), (70, 49326), (72, 49308), (77, 49167), (79, 49149), (88, 49041), (100, 48903),

Gene: Mentos_72 Start: 50714, Stop: 49221, Start Num: 20
Candidate Starts for Mentos_72:
(11, 50819), (Start: 12 @50810 has 19 MA's), (15, 50759), (Start: 20 @50714 has 28 MA's), (34, 50576), (36, 50564), (37, 50543), (42, 50450), (46, 50393), (47, 50375), (53, 50291), (57, 50216), (58, 50207), (67, 49892), (70, 49829), (72, 49811), (74, 49754), (77, 49670), (79, 49652), (88, 49544), (100, 49406),

Gene: Mila11_73 Start: 51421, Stop: 49928, Start Num: 20
Candidate Starts for Mila11_73:
(5, 51562), (Start: 7 @51553 has 1 MA's), (9, 51544), (11, 51526), (Start: 12 @51517 has 19 MA's), (Start: 20 @51421 has 28 MA's), (34, 51283), (36, 51271), (37, 51250), (42, 51157), (46, 51100), (47, 51082), (53, 50998), (58, 50914), (67, 50599), (70, 50536), (72, 50518), (74, 50461), (77, 50377), (79, 50359), (88, 50251),

Gene: MorillMayhem_72 Start: 50260, Stop: 48767, Start Num: 20
Candidate Starts for MorillMayhem_72:
(5, 50401), (Start: 7 @50392 has 1 MA's), (9, 50383), (11, 50365), (Start: 12 @50356 has 19 MA's), (Start: 20 @50260 has 28 MA's), (34, 50122), (36, 50110), (37, 50089), (42, 49996), (46, 49939), (47,

49921), (53, 49837), (58, 49753), (67, 49438), (70, 49375), (72, 49357), (74, 49300), (77, 49216), (79, 49198), (88, 49090),

Gene: Namago_71 Start: 49201, Stop: 47612, Start Num: 12
Candidate Starts for Namago_71:
(5, 49246), (Start: 7 @49237 has 1 MA's), (9, 49228), (11, 49210), (Start: 12 @49201 has 19 MA's), (Start: 20 @49105 has 28 MA's), (34, 48967), (36, 48955), (37, 48934), (42, 48841), (46, 48784), (47, 48766), (53, 48682), (57, 48607), (58, 48598), (67, 48283), (70, 48220), (72, 48202), (74, 48145), (77, 48061), (79, 48043), (88, 47935), (100, 47797),

Gene: Nike_71 Start: 50502, Stop: 48910, Start Num: 12
Candidate Starts for Nike_71:
(11, 50511), (Start: 12 @50502 has 19 MA's), (15, 50451), (17, 50436), (Start: 20 @50403 has 28 MA's), (34, 50265), (36, 50253), (37, 50232), (42, 50139), (46, 50082), (47, 50064), (53, 49980), (57, 49905), (58, 49896), (67, 49581), (70, 49518), (72, 49500), (74, 49443), (77, 49359), (79, 49341), (88, 49233), (100, 49095),

Gene: OneinaGillian_74 Start: 49692, Stop: 47611, Start Num: 7
Candidate Starts for OneinaGillian_74:
(Start: 7 @49692 has 1 MA's), (Start: 20 @49545 has 28 MA's), (34, 49407), (38, 49356), (41, 49299), (42, 49281), (45, 49245), (47, 49212), (48, 49203), (54, 49101), (56, 49056), (62, 48921), (64, 48867), (65, 48816), (72, 48603), (80, 48435), (85, 48387), (89, 48339), (112, 48003), (115, 47937), (121, 47754), (122, 47724),

Gene: Pepe25_73 Start: 48884, Stop: 47232, Start Num: 12
Candidate Starts for Pepe25_73:
(1, 49226), (Start: 3 @48974 has 6 MA's), (4, 48935), (Start: 12 @48884 has 19 MA's), (13, 48845), (16, 48827), (18, 48785), (21, 48779), (28, 48698), (33, 48671), (37, 48641), (38, 48623), (44, 48530), (50, 48446), (51, 48437), (54, 48362), (55, 48353), (59, 48281), (60, 48263), (62, 48197), (64, 48143), (66, 47993), (68, 47978), (72, 47894), (75, 47795), (87, 47720), (89, 47699), (90, 47672), (101, 47549), (103, 47531), (108, 47438), (111, 47408), (116, 47279),

Gene: Phabia_70 Start: 49553, Stop: 47964, Start Num: 12
Candidate Starts for Phabia_70:
(11, 49562), (Start: 12 @49553 has 19 MA's), (Start: 20 @49457 has 28 MA's), (34, 49319), (36, 49307), (37, 49286), (42, 49193), (46, 49136), (47, 49118), (53, 49034), (57, 48959), (58, 48950), (67, 48635), (70, 48572), (72, 48554), (74, 48497), (77, 48413), (79, 48395), (109, 48011),

Gene: Phinky_81 Start: 52756, Stop: 50837, Start Num: 20
Candidate Starts for Phinky_81:
(Start: 20 @52756 has 28 MA's), (34, 52618), (38, 52567), (39, 52558), (40, 52540), (44, 52474), (46, 52435), (47, 52417), (48, 52408), (52, 52360), (54, 52306), (56, 52276), (62, 52141), (63, 52117), (68, 51922), (70, 51859), (72, 51838), (74, 51775), (75, 51739), (76, 51718), (89, 51568), (114, 51217), (115, 51175), (118, 51067), (120, 51022), (123, 50908),

Gene: Quammi_69 Start: 49253, Stop: 47664, Start Num: 12
Candidate Starts for Quammi_69:
(11, 49262), (Start: 12 @49253 has 19 MA's), (Start: 20 @49157 has 28 MA's), (34, 49019), (36, 49007), (37, 48986), (42, 48893), (46, 48836), (47, 48818), (53, 48734), (57, 48659), (58, 48650), (67, 48335), (70, 48272), (72, 48254), (74, 48197), (77, 48113), (79, 48095), (109, 47711),

Gene: Rasputia_119 Start: 74845, Stop: 76920, Start Num: 12
Candidate Starts for Rasputia_119:

(10, 74821), (Start: 12 @74845 has 19 MA's), (23, 75001), (27, 75034), (35, 75127), (48, 75370), (51, 75397), (56, 75592), (59, 75643), (66, 75931), (68, 75946), (70, 76009), (72, 76120), (75, 76219), (77, 76258), (78, 76267), (82, 76315), (88, 76393), (89, 76399), (90, 76426), (93, 76474), (94, 76492), (101, 76549), (102, 76552), (103, 76567), (105, 76594), (110, 76699), (116, 76843), (117, 76867),

Gene: RobinRose_77 Start: 50176, Stop: 48260, Start Num: 3
Candidate Starts for RobinRose_77:
(Start: 3 @50176 has 6 MA's), (Start: 12 @50086 has 19 MA's), (16, 50029), (18, 49987), (21, 49981), (30, 49891), (33, 49873), (37, 49768), (38, 49750), (41, 49693), (43, 49666), (44, 49657), (48, 49591), (54, 49489), (56, 49444), (62, 49309), (63, 49285), (64, 49255), (68, 49090), (70, 49027), (72, 48991), (75, 48892), (77, 48853), (87, 48742), (90, 48694), (101, 48571), (102, 48568), (106, 48478), (116, 48307),

Gene: Romm_77 Start: 50173, Stop: 48257, Start Num: 3
Candidate Starts for Romm_77:
(Start: 3 @50173 has 6 MA's), (Start: 12 @50083 has 19 MA's), (16, 50026), (18, 49984), (21, 49978), (30, 49888), (33, 49870), (37, 49765), (38, 49747), (41, 49690), (43, 49663), (44, 49654), (48, 49588), (54, 49486), (56, 49441), (62, 49306), (63, 49282), (64, 49252), (68, 49087), (70, 49024), (72, 48988), (75, 48889), (77, 48850), (87, 48739), (90, 48691), (101, 48568), (102, 48565), (106, 48475), (116, 48304),

Gene: Rowlf_68 Start: 49363, Stop: 47870, Start Num: 20
Candidate Starts for Rowlf_68:
(5, 49504), (Start: 7 @49495 has 1 MA's), (9, 49486), (11, 49468), (Start: 12 @49459 has 19 MA's), (Start: 20 @49363 has 28 MA's), (34, 49225), (37, 49192), (46, 49042), (47, 49024), (53, 48940), (57, 48865), (58, 48856), (67, 48541), (70, 48478), (72, 48460), (74, 48403), (77, 48319), (79, 48301), (88, 48193), (100, 48055),

Gene: Rudy_68 Start: 49289, Stop: 47700, Start Num: 12
Candidate Starts for Rudy_68:
(11, 49298), (Start: 12 @49289 has 19 MA's), (Start: 20 @49193 has 28 MA's), (34, 49055), (36, 49043), (37, 49022), (42, 48929), (46, 48872), (47, 48854), (53, 48770), (57, 48695), (58, 48686), (67, 48371), (70, 48308), (72, 48290), (74, 48233), (77, 48149), (79, 48131), (109, 47747),

Gene: SallyK_73 Start: 50894, Stop: 49401, Start Num: 20
Candidate Starts for SallyK_73:
(5, 51035), (Start: 7 @51026 has 1 MA's), (9, 51017), (11, 50999), (Start: 12 @50990 has 19 MA's), (Start: 20 @50894 has 28 MA's), (34, 50756), (36, 50744), (37, 50723), (42, 50630), (46, 50573), (47, 50555), (53, 50471), (57, 50396), (58, 50387), (67, 50072), (70, 50009), (72, 49991), (74, 49934), (77, 49850), (79, 49832), (88, 49724), (100, 49586),

Gene: Sillytadpoles_71 Start: 49030, Stop: 47537, Start Num: 20
Candidate Starts for Sillytadpoles_71:
(11, 49135), (Start: 12 @49126 has 19 MA's), (Start: 20 @49030 has 28 MA's), (34, 48892), (36, 48880), (37, 48859), (42, 48766), (46, 48709), (47, 48691), (53, 48607), (57, 48532), (58, 48523), (67, 48208), (70, 48145), (72, 48127), (74, 48070), (77, 47986), (79, 47968), (109, 47584),

Gene: SlySloth_72 Start: 49998, Stop: 48505, Start Num: 20
Candidate Starts for SlySloth_72:
(5, 50139), (Start: 7 @50130 has 1 MA's), (9, 50121), (11, 50103), (Start: 12 @50094 has 19 MA's), (Start: 20 @49998 has 28 MA's), (34, 49860), (36, 49848), (37, 49827), (42, 49734), (46, 49677), (47, 49659), (53, 49575), (57, 49500), (58, 49491), (67, 49176), (70, 49113), (72, 49095), (74, 49038), (77, 48954), (88, 48828), (100, 48690),

Gene: Spiderpig_75 Start: 50044, Stop: 48302, Start Num: 3
Candidate Starts for Spiderpig_75:
(1, 50296), (Start: 3 @50044 has 6 MA's), (4, 50005), (Start: 12 @49954 has 19 MA's), (13, 49915), (16, 49897), (18, 49855), (21, 49849), (28, 49768), (33, 49741), (37, 49711), (38, 49693), (44, 49600), (50, 49516), (51, 49507), (55, 49423), (60, 49333), (62, 49267), (64, 49213), (66, 49063), (68, 49048), (72, 48964), (75, 48865), (87, 48790), (89, 48769), (90, 48742), (101, 48619), (103, 48601), (108, 48508), (111, 48478), (116, 48349),

Gene: Squash_73 Start: 50224, Stop: 48638, Start Num: 12
Candidate Starts for Squash_73:
(11, 50233), (Start: 12 @50224 has 19 MA's), (Start: 20 @50128 has 28 MA's), (34, 49993), (36, 49981), (37, 49960), (46, 49810), (47, 49792), (53, 49708), (57, 49633), (58, 49624), (67, 49309), (70, 49246), (72, 49228), (74, 49171), (77, 49087), (79, 49069), (88, 48961), (100, 48823),

Gene: Statler_74 Start: 50079, Stop: 48586, Start Num: 20
Candidate Starts for Statler_74:
(5, 50220), (Start: 7 @50211 has 1 MA's), (9, 50202), (11, 50184), (Start: 12 @50175 has 19 MA's), (Start: 20 @50079 has 28 MA's), (34, 49941), (37, 49908), (46, 49758), (47, 49740), (53, 49656), (57, 49581), (58, 49572), (67, 49257), (70, 49194), (72, 49176), (74, 49119), (77, 49035), (79, 49017), (88, 48909), (100, 48771),

Gene: StrawberryJamm_75 Start: 49393, Stop: 47804, Start Num: 12
Candidate Starts for StrawberryJamm_75:
(5, 49438), (Start: 7 @49429 has 1 MA's), (9, 49420), (11, 49402), (Start: 12 @49393 has 19 MA's), (Start: 20 @49297 has 28 MA's), (34, 49159), (36, 49147), (37, 49126), (42, 49033), (46, 48976), (47, 48958), (53, 48874), (57, 48799), (58, 48790), (67, 48475), (70, 48412), (72, 48394), (74, 48337), (77, 48253), (79, 48235), (88, 48127), (100, 47989),

Gene: Teehee_71 Start: 50359, Stop: 48770, Start Num: 12
Candidate Starts for Teehee_71:
(11, 50368), (Start: 12 @50359 has 19 MA's), (Start: 20 @50263 has 28 MA's), (34, 50125), (36, 50113), (37, 50092), (42, 49999), (46, 49942), (47, 49924), (53, 49840), (57, 49765), (58, 49756), (67, 49441), (70, 49378), (72, 49360), (74, 49303), (77, 49219), (79, 49201), (109, 48817),

Gene: Tempo_76 Start: 50116, Stop: 48200, Start Num: 3
Candidate Starts for Tempo_76:
(Start: 3 @50116 has 6 MA's), (Start: 12 @50026 has 19 MA's), (16, 49969), (18, 49927), (21, 49921), (30, 49831), (33, 49813), (35, 49765), (38, 49690), (42, 49615), (44, 49597), (45, 49579), (48, 49531), (54, 49429), (57, 49360), (60, 49315), (61, 49291), (62, 49249), (63, 49225), (64, 49195), (68, 49030), (70, 48967), (72, 48931), (75, 48832), (76, 48811), (84, 48718), (87, 48682), (90, 48634), (97, 48532), (101, 48511), (102, 48508), (116, 48247),

Gene: Tissue_72 Start: 49757, Stop: 48264, Start Num: 20
Candidate Starts for Tissue_72:
(5, 49898), (Start: 7 @49889 has 1 MA's), (9, 49880), (11, 49862), (Start: 12 @49853 has 19 MA's), (Start: 20 @49757 has 28 MA's), (34, 49619), (36, 49607), (37, 49586), (42, 49493), (46, 49436), (47, 49418), (53, 49334), (57, 49259), (58, 49250), (67, 48935), (70, 48872), (72, 48854), (74, 48797), (77, 48713), (79, 48695), (88, 48587), (100, 48449),

Gene: ValentiniPuff_21 Start: 13459, Stop: 14676, Start Num: 31
Candidate Starts for ValentiniPuff_21:

(14, 13306), (19, 13366), (22, 13378), (24, 13405), (Start: 31 @13459 has 1 MA's), (47, 13651), (55, 13786), (57, 13831), (61, 13900), (62, 13942), (63, 13966), (71, 14254), (72, 14260), (83, 14383), (101, 14608),

Gene: Viceroy_69 Start: 49163, Stop: 47670, Start Num: 20
Candidate Starts for Viceroy_69:
(11, 49268), (Start: 12 @49259 has 19 MA's), (Start: 20 @49163 has 28 MA's), (34, 49025), (36, 49013), (37, 48992), (42, 48899), (46, 48842), (47, 48824), (53, 48740), (57, 48665), (58, 48656), (67, 48341), (70, 48278), (72, 48260), (74, 48203), (77, 48119), (79, 48101), (109, 47717),

Gene: Wayne3_72 Start: 50122, Stop: 48533, Start Num: 12
Candidate Starts for Wayne3_72:
(11, 50131), (Start: 12 @50122 has 19 MA's), (Start: 20 @50026 has 28 MA's), (34, 49888), (36, 49876), (37, 49855), (42, 49762), (46, 49705), (47, 49687), (53, 49603), (57, 49528), (58, 49519), (67, 49204), (70, 49141), (72, 49123), (74, 49066), (77, 48982), (79, 48964), (109, 48580),

Gene: WheelerS25_76 Start: 50660, Stop: 49179, Start Num: 20
Candidate Starts for WheelerS25_76:
(5, 50801), (Start: 7 @50792 has 1 MA's), (9, 50783), (11, 50765), (Start: 12 @50756 has 19 MA's), (Start: 20 @50660 has 28 MA's), (34, 50525), (37, 50492), (46, 50342), (47, 50324), (53, 50240), (58, 50156), (70, 49778), (72, 49760), (74, 49703), (77, 49619), (81, 49568), (88, 49493), (100, 49364), (109, 49226),

Gene: Wheelie_70 Start: 49347, Stop: 47854, Start Num: 20
Candidate Starts for Wheelie_70:
(11, 49452), (Start: 12 @49443 has 19 MA's), (Start: 20 @49347 has 28 MA's), (34, 49209), (36, 49197), (37, 49176), (42, 49083), (47, 49008), (53, 48924), (58, 48840), (67, 48525), (70, 48462), (72, 48444), (74, 48387), (77, 48303), (88, 48177), (100, 48039),

Gene: Wilca_75 Start: 49965, Stop: 48313, Start Num: 12
Candidate Starts for Wilca_75:
(1, 50307), (Start: 3 @50055 has 6 MA's), (4, 50016), (Start: 12 @49965 has 19 MA's), (13, 49926), (16, 49908), (18, 49866), (21, 49860), (28, 49779), (33, 49752), (37, 49722), (38, 49704), (44, 49611), (50, 49527), (51, 49518), (55, 49434), (59, 49362), (60, 49344), (62, 49278), (64, 49224), (66, 49074), (68, 49059), (72, 48975), (75, 48876), (87, 48801), (89, 48780), (90, 48753), (101, 48630), (103, 48612), (108, 48519), (111, 48489), (116, 48360),

Gene: Zagie_71 Start: 49571, Stop: 48078, Start Num: 20
Candidate Starts for Zagie_71:
(5, 49715), (Start: 7 @49706 has 1 MA's), (9, 49697), (11, 49679), (Start: 12 @49670 has 19 MA's), (15, 49619), (17, 49604), (Start: 20 @49571 has 28 MA's), (34, 49433), (36, 49421), (37, 49400), (42, 49307), (46, 49250), (47, 49232), (53, 49148), (57, 49073), (58, 49064), (67, 48749), (70, 48686), (72, 48668), (74, 48611), (77, 48527), (79, 48509), (88, 48401), (100, 48263),

Gene: ZestyBestie_69 Start: 49437, Stop: 47944, Start Num: 20
Candidate Starts for ZestyBestie_69:
(5, 49578), (Start: 7 @49569 has 1 MA's), (9, 49560), (11, 49542), (Start: 12 @49533 has 19 MA's), (Start: 20 @49437 has 28 MA's), (34, 49299), (36, 49287), (37, 49266), (42, 49173), (46, 49116), (47, 49098), (53, 49014), (57, 48939), (58, 48930), (67, 48615), (70, 48552), (72, 48534), (74, 48477), (77, 48393), (88, 48267), (100, 48129),

Gene: Zhafia_73 Start: 49827, Stop: 48334, Start Num: 20
Candidate Starts for Zhafia_73:

(11, 49932), (Start: 12 @49923 has 19 MA's), (Start: 20 @49827 has 28 MA's), (34, 49689), (36, 49677), (37, 49656), (42, 49563), (46, 49506), (47, 49488), (53, 49404), (57, 49329), (58, 49320), (67, 49005), (70, 48942), (72, 48924), (74, 48867), (77, 48783), (79, 48765), (109, 48381),