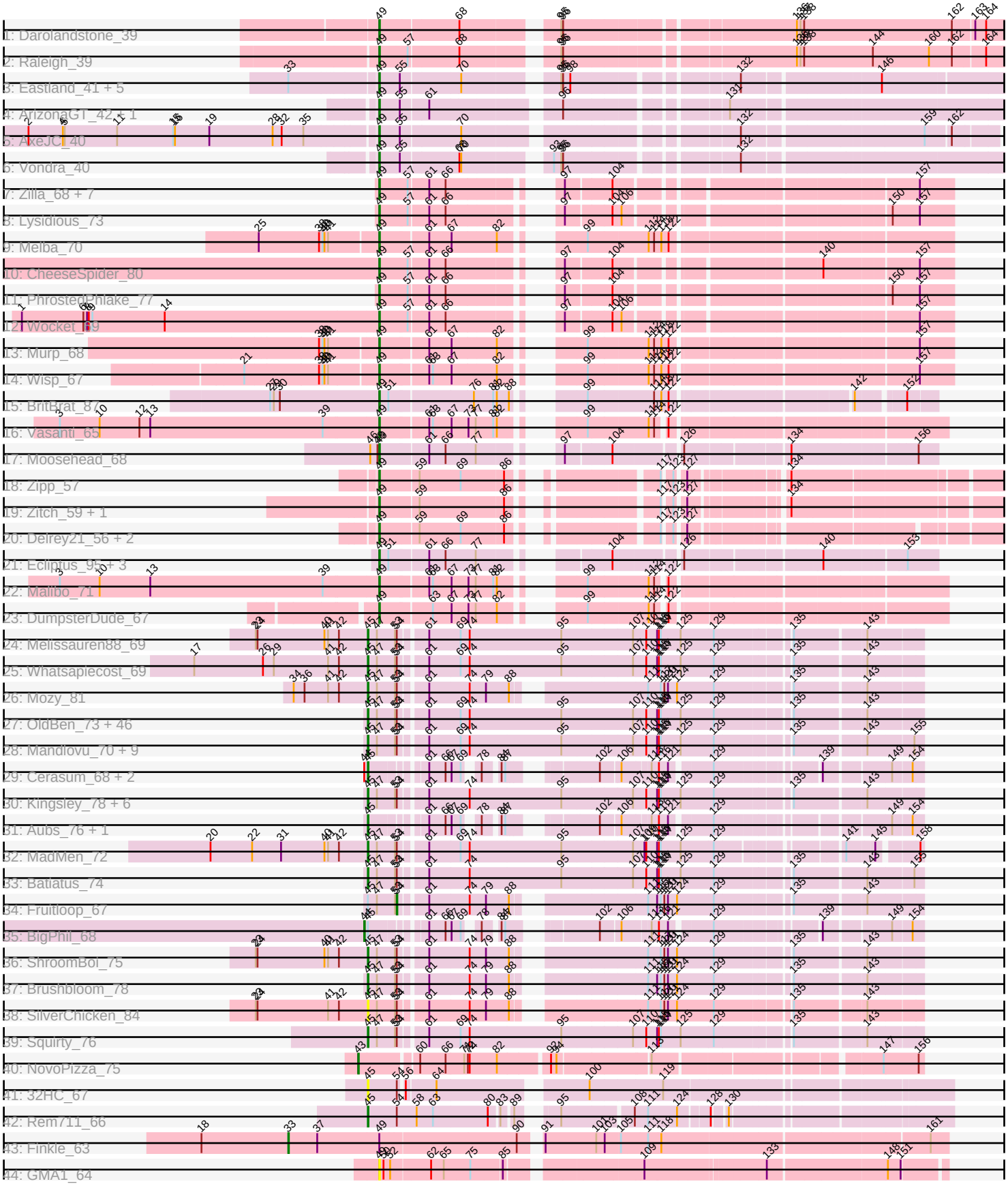
Pham 347386


1: Darolandstone_39
2: Raleigh_39
3: Eastland_41 + 5
4: ArizonaGT_42 + 1
5: AxeJCI_40
6: Vondra_40
7: Zilla_68 + 7
8: Lysidious_73
9: Melba_70
10: CheeseSpider_80
11: PhrostedFlake_77
12: Wocket_69
13: Murp_68
14: Wisp_67
15: BritBrat_87
16: Vasanti_65
17: Moosehead_68
18: Zipp_57
19: Zitch_59 + 1
20: Delrey21_56 + 2
21: Ecliptus_95 + 3
22: Malibo_71
23: DumpsterDude_67
24: Melissauren88_69
25: Whatsapiecost_69
26: Mozy_81
27: OldBen_73 + 46
28: Mandlovu_70 + 9
29: Cerasum_68 + 2
30: Kingsley_78 + 6
31: Aubs_76 + 1
32: MadMen_72
33: Batiatus_74
34: Fruitloop_67
35: BigPhil_68
36: ShroomBoi_75
37: Brushbloom_78
38: SilverChicken_84
39: Squirty_76
40: NovoPizza_75
41: 32HC_67
42: Rem711_66
43: Finkie_63
44: GMA1_64

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 347386 Report

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

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 347386 has 127 members, 8 are drafts.

Phages represented in each track:
• Track 1 : Darolandstone_39
• Track 2 : Raleigh_39
• Track 3 : Eastland_41, Piccadilly_41, Ignacio_41, HFrancette_42, Schlegelian_42, FrumpyGal_42
• Track 4 : ArizonaGT_42, Cumberbatch_42
• Track 5 : AxeJC_40
• Track 6 : Vondra_40
• Track 7 : Zilla_68, BlingBling_67, UmaThurman_71, Fenry_70, Samba_71, Barco_68, Zarbodnamra_74, Petra_75
• Track 8 : Lysidious_73
• Track 9 : Melba_70
• Track 10 : CheeseSpider_80
• Track 11 : PhrostedPhlake_77
• Track 12 : Wocket_69
• Track 13 : Murp_68
• Track 14 : Wisp_67
• Track 15 : BritBrat_87
• Track 16 : Vasanti_65
• Track 17 : Moosehead_68
• Track 18 : Zipp_57
• Track 19 : Zitch_59, BigHunkinEater_59
• Track 20 : Delrey21_56, DoctorFroggo_56, Verity_56
• Track 21 : Ecliptus_95, Crater_88, Phistory_86, Apricot_88
• Track 22 : Malibo_71
• Track 23 : DumpsterDude_67
• Track 24 : Melissauren88_69
• Track 25 : Whatsapiecost_69
• Track 26 : Mozy_81
• Track 27 : OldBen_73, JoeyJr_76, PopTart_65, Hamulus_75, JalFarm20_83, Okabe_70, EleanorGeorge_77, Doomphist_79, KingMidas_75, Harley_74, Polka14_80, SiSi_71, Poenanya_79, Minnie_72, Fastidio_69, Nimbo_68, Taj_81, Juice456_71, Flathead_74, DillTech15_76, SG4_72, Daenerys_75, PHappiness_76, Leperchaun_74, Quico_84, Geralt_69, Wee_80, KristaRAM_73, Doomslug_91,

Akhila_69, Girafales_84, Inventum_74, RedBird_77, SassyB_65, Seagreen_76, LittleShirley_75, Dorothy_77, Filuzino_76, Empress_74, Deb65_69, Sandalphon_70, MilanaBonita_68, RitaG_76, Scottish_74, Sassafras_77, Florinda_87, DaddyRickover_79
• Track 28 : Mandlovu_70, Bobi_82, DLane_72, Phalconet_72, PhesterPhotato_78, IMpilo_65, Hlubikazi_70, Strokeseat_70, StAnnes_72, Medindi_75
• Track 29 : Cerasum_68, Brookers_69, Coco12_71
• Track 30 : Kingsley_78, DeadP_76, Ms6_73, Shauna1_74, Bipolar_78, Ogopogo_80, Phanphagia_73
• Track 31 : Aubs_76, Guppsters_69
• Track 32 : MadMen_72
• Track 33 : Batiatus_74
• Track 34 : Fruitloop_67
• Track 35 : BigPhil_68
• Track 36 : ShroomBoi_75
• Track 37 : Brushbloom_78
• Track 38 : SilverChicken_84
• Track 39 : Squirty_76
• Track 40 : NovoPizza_75
• Track 41 : 32HC_67
• Track 42 : Rem711_66
• Track 43 : Finkle_63
• Track 44 : GMA1_64

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

The start number called the most often in the published annotations is 45, it was called in 73 of the 119 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• 32HC_67, Akhila_69, Aubs_76, Batiatus_74, Bipolar_78, Bobi_82, Brookers_69, Brushbloom_78, Cerasum_68, Coco12_71, DLane_72, DaddyRickover_79, Daenerys_75, DeadP_76, Deb65_69, DillTech15_76, Doomphist_79, Doomslug_91, Dorothy_77, EleanorGeorge_77, Empress_74, Fastidio_69, Filuzino_76, Flathead_74, Florinda_87, Geralt_69, Girafales_84, Guppsters_69, Hamulus_75, Harley_74, Hlubikazi_70, IMpilo_65, Inventum_74, JalFarm20_83, JoeyJr_76, Juice456_71, KingMidas_75, Kingsley_78, KristaRAM_73, Leperchaun_74, LittleShirley_75, MadMen_72, Mandlovu_70, Medindi_75, Melissauren88_69, MilanaBonita_68, Minnie_72, Mozy_81, Ms6_73, Nimbo_68, Ogopogo_80, Okabe_70, OldBen_73, PHappiness_76, Phalconet_72, Phanphagia_73, PhesterPhotato_78, Poenanya_79, Polka14_80, PopTart_65, Quico_84, RedBird_77, Rem711_66, RitaG_76, SG4_72, Sandalphon_70, Sassafras_77, SassyB_65, Scottish_74, Seagreen_76, Shauna1_74, ShroomBoi_75, SiSi_71, SilverChicken_84, Squirty_76, StAnnes_72, Strokeseat_70, Taj_81, Wee_80, Whatsapiecost_69,

Genes that have the "Most Annotated" start but do not call it:
• BigPhil_68, Fruitloop_67,

Genes that do not have the "Most Annotated" start:

• Apricot_88, ArizonaGT_42, AxeJC_40, Barco_68, BigHunkinEater_59, BlingBling_67, BritBrat_87, CheeseSpider_80, Crater_88, Cumberbatch_42, Darolandstone_39, Delrey21_56, DoctorFroggo_56, DumpsterDude_67, Eastland_41, Ecliptus_95, Fenry_70, Finkle_63, FrumpyGal_42, GMA1_64, HFrancette_42, Ignacio_41, Lysidious_73, Malibo_71, Melba_70, Moosehead_68, Murp_68, NovoPizza_75, Petra_75, Phistory_86, PhrostedPhlake_77, Piccadilly_41, Raleigh_39, Samba_71, Schlegelian_42, UmaThurman_71, Vasanti_65, Verity_56, Vondra_40, Wisp_67, Wocket_69, Zarbodnamra_74, Zilla_68, Zipp_57, Zitch_59,

Summary by start number:

Start 33:
• Found in 7 of 127 (5.5%) of genes in pham
• Manual Annotations of this start: 1 of 119
• Called 14.3% of time when present
• Phage (with cluster) where this start called: Finkle_63 (singleton),

Start 43:
• Found in 1 of 127 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 119
• Called 100.0% of time when present
• Phage (with cluster) where this start called: NovoPizza_75 (Q),

Start 44:
• Found in 4 of 127 (3.1%) of genes in pham
• Manual Annotations of this start: 1 of 119
• Called 25.0% of time when present
• Phage (with cluster) where this start called: BigPhil_68 (F1),

Start 45:
• Found in 82 of 127 (64.6%) of genes in pham
• Manual Annotations of this start: 73 of 119
• Called 97.6% of time when present
• Phage (with cluster) where this start called: 32HC_67 (Z), Akhila_69 (F1), Aubs_76 (F1), Batiatus_74 (F1), Bipolar_78 (F1), Bobi_82 (F1), Brookers_69 (F1), Brushbloom_78 (F1), Cerasum_68 (F1), Coco12_71 (F1), DLane_72 (F1), DaddyRickover_79 (F1), Daenerys_75 (F1), DeadP_76 (F1), Deb65_69 (F1), DillTech15_76 (F1), Doomphist_79 (F1), Doomslug_91 (F), Dorothy_77 (F1), EleanorGeorge_77 (F1), Empress_74 (F1), Fastidio_69 (F1), Filuzino_76 (F1), Flathead_74 (F1), Florinda_87 (F1), Geralt_69 (F1), Girafales_84 (F1), Guppsters_69 (F1), Hamulus_75 (F1), Harley_74 (F1), Hlubikazi_70 (F1), IMpilo_65 (F1), Inventum_74 (F1), JalFarm20_83 (F1), JoeyJr_76 (F1), Juice456_71 (F1), KingMidas_75 (F1), Kingsley_78 (F1), KristaRAM_73 (F1), Leperchaun_74 (F1), LittleShirley_75 (F1), MadMen_72 (F1), Mandlovu_70 (F1), Medindi_75 (F1), Melissauren88_69 (F1), MilanaBonita_68 (F1), Minnie_72 (F1), Mozy_81 (F1), Ms6_73 (F1), Nimbo_68 (F1), Ogopogo_80 (F1), Okabe_70 (F8), OldBen_73 (F1), PHappiness_76 (F1), Phalconet_72 (F1), Phanphagia_73 (F1), PhesterPhotato_78 (F1), Poenanya_79 (F1), Polka14_80 (F1), PopTart_65 (F1), Quico_84 (F1), RedBird_77 (F1), Rem711_66 (Z), RitaG_76 (F1), SG4_72 (F1), Sandalphon_70 (F1), Sassafras_77 (F1), SassyB_65 (F1), Scottish_74 (F1), Seagreen_76 (F1), Shauna1_74 (F1), ShroomBoi_75 (F1), SiSi_71 (F1), SilverChicken_84 (F2), Squirty_76 (F3), StAnnes_72 (F1), Strokeseat_70 (F1), Taj_81 (F1), Wee_80 (F1), Whatsapiecost_69 (F1),

Start 49:
• Found in 44 of 127 (34.6%) of genes in pham
• Manual Annotations of this start: 42 of 119
• Called 97.7% of time when present
• Phage (with cluster) where this start called: Apricot_88 (DN3), ArizonaGT_42 (BP), AxeJC_40 (BP), Barco_68 (CV), BigHunkinEater_59 (DE4), BlingBling_67 (CV), BritBrat_87 (CY2), CheeseSpider_80 (CV), Crater_88 (DN3), Cumberbatch_42 (BP), Darolandstone_39 (BC2), Delrey21_56 (DE4), DoctorFroggo_56 (DE4), DumpsterDude_67 (DW), Eastland_41 (BP), Ecliptus_95 (DN), Fenry_70 (CV), FrumpyGal_42 (BP), GMA1_64 (singleton), HFrancette_42 (BP), Ignacio_41 (BP), Lysidious_73 (CV), Malibo_71 (DW), Melba_70 (CV), Moosehead_68 (CZ6), Murp_68 (CV), Petra_75 (CV), Phistory_86 (DN1), PhrostedPhlake_77 (CV), Piccadilly_41 (BP), Raleigh_39 (BC2), Samba_71 (CV), Schlegelian_42 (BP), UmaThurman_71 (CV), Vasanti_65 (CZ2), Verity_56 (DE4), Vondra_40 (BP), Wisp_67 (CV), Wocket_69 (CV), Zarbodnamra_74 (CV), Zilla_68 (CV), Zipp_57 (DE4), Zitch_59 (DE4),

Start 54:
• Found in 76 of 127 (59.8%) of genes in pham
• Manual Annotations of this start: 1 of 119
• Called 1.3% of time when present
• Phage (with cluster) where this start called: Fruitloop_67 (F1),

Summary by clusters:

There are 19 clusters represented in this pham: DN, F1, F2, F3, CY2, F8, CZ6, F, DE4, singleton, Q, CZ2, BP, DN3, DW, DN1, Z, CV, BC2,

Info for manual annotations of cluster BC2:
•Start number 49 was manually annotated 2 times for cluster BC2.

Info for manual annotations of cluster BP:
•Start number 49 was manually annotated 10 times for cluster BP.

Info for manual annotations of cluster CV:
•Start number 49 was manually annotated 15 times for cluster CV.

Info for manual annotations of cluster CY2:
•Start number 49 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CZ2:
•Start number 49 was manually annotated 1 time for cluster CZ2.

Info for manual annotations of cluster CZ6:
•Start number 49 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster DE4:
•Start number 49 was manually annotated 6 times for cluster DE4.

Info for manual annotations of cluster DN:
•Start number 49 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:
•Start number 49 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DN3:
•Start number 49 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DW:
•Start number 49 was manually annotated 2 times for cluster DW.

Info for manual annotations of cluster F1:
•Start number 44 was manually annotated 1 time for cluster F1.
•Start number 45 was manually annotated 71 times for cluster F1.
•Start number 54 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F3:
•Start number 45 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster Q:
•Start number 43 was manually annotated 1 time for cluster Q.

Info for manual annotations of cluster Z:
•Start number 45 was manually annotated 1 time for cluster Z.

Gene Information:

Gene: 32HC_67 Start: 42023, Stop: 42889, Start Num: 45
Candidate Starts for 32HC_67:
(Start: 45 @42023 has 73 MA's), (Start: 54 @42071 has 1 MA's), (56, 42077), (64, 42122), (100, 42338), (119, 42455),

Gene: Akhila_69 Start: 45149, Stop: 46000, Start Num: 45
Candidate Starts for Akhila_69:
(Start: 45 @45149 has 73 MA's), (47, 45164), (53, 45194), (Start: 54 @45197 has 1 MA's), (61, 45236), (69, 45287), (74, 45302), (95, 45452), (107, 45566), (110, 45584), (115, 45599), (116, 45602), (117, 45605), (125, 45638), (129, 45692), (135, 45803), (143, 45914),

Gene: Apricot_88 Start: 47456, Stop: 48217, Start Num: 49
Candidate Starts for Apricot_88:
(Start: 49 @47456 has 42 MA's), (51, 47471), (61, 47531), (66, 47558), (77, 47606), (104, 47750), (126, 47843), (140, 48044), (153, 48167),

Gene: ArizonaGT_42 Start: 28364, Stop: 29290, Start Num: 49
Candidate Starts for ArizonaGT_42:
(Start: 49 @28364 has 42 MA's), (55, 28397), (61, 28439), (96, 28625), (131, 28853),

Gene: Aubs_76 Start: 47632, Stop: 48345, Start Num: 45
Candidate Starts for Aubs_76:

(Start: 45 @47632 has 73 MA's), (61, 47707), (66, 47734), (67, 47743), (69, 47758), (78, 47773), (84, 47794), (87, 47800), (102, 47902), (106, 47932), (113, 47974), (116, 47986), (121, 47998), (129, 48058), (149, 48301), (154, 48328),

Gene: AxeJC_40 Start: 28086, Stop: 28979, Start Num: 49
Candidate Starts for AxeJC_40:
(2, 27522), (4, 27579), (5, 27582), (11, 27669), (15, 27762), (16, 27765), (19, 27822), (28, 27927), (32, 27942), (35, 27978), (Start: 49 @28086 has 42 MA's), (55, 28119), (70, 28212), (132, 28590), (159, 28869), (162, 28908),

Gene: Barco_68 Start: 43101, Stop: 43886, Start Num: 49
Candidate Starts for Barco_68:
(Start: 49 @43101 has 42 MA's), (57, 43146), (61, 43176), (66, 43203), (97, 43326), (104, 43395), (157, 43830),

Gene: Batiatus_74 Start: 46887, Stop: 47738, Start Num: 45
Candidate Starts for Batiatus_74:
(Start: 45 @46887 has 73 MA's), (47, 46902), (53, 46932), (Start: 54 @46935 has 1 MA's), (61, 46974), (74, 47040), (95, 47190), (107, 47304), (110, 47322), (115, 47337), (116, 47340), (117, 47343), (125, 47376), (129, 47430), (135, 47541), (143, 47652), (155, 47724),

Gene: BigHunkinEater_59 Start: 45066, Stop: 45911, Start Num: 49
Candidate Starts for BigHunkinEater_59:
(Start: 49 @45066 has 42 MA's), (59, 45126), (86, 45261), (117, 45441), (123, 45453), (127, 45465), (134, 45597),

Gene: BigPhil_68 Start: 42702, Stop: 43418, Start Num: 44
Candidate Starts for BigPhil_68:
(Start: 44 @42702 has 1 MA's), (Start: 45 @42705 has 73 MA's), (61, 42780), (66, 42807), (67, 42816), (69, 42831), (78, 42846), (84, 42867), (87, 42873), (102, 42975), (106, 43005), (113, 43047), (116, 43059), (121, 43071), (129, 43131), (139, 43275), (149, 43374), (154, 43401),

Gene: Bipolar_78 Start: 48531, Stop: 49382, Start Num: 45
Candidate Starts for Bipolar_78:
(Start: 45 @48531 has 73 MA's), (47, 48546), (53, 48576), (Start: 54 @48579 has 1 MA's), (61, 48618), (74, 48684), (95, 48834), (107, 48948), (110, 48966), (115, 48981), (116, 48984), (117, 48987), (125, 49020), (129, 49074), (135, 49185), (143, 49296),

Gene: BlingBling_67 Start: 43983, Stop: 44768, Start Num: 49
Candidate Starts for BlingBling_67:
(Start: 49 @43983 has 42 MA's), (57, 44028), (61, 44058), (66, 44085), (97, 44208), (104, 44277), (157, 44712),

Gene: Bobi_82 Start: 49186, Stop: 50037, Start Num: 45
Candidate Starts for Bobi_82:
(Start: 45 @49186 has 73 MA's), (47, 49201), (53, 49231), (Start: 54 @49234 has 1 MA's), (61, 49273), (69, 49324), (74, 49339), (95, 49489), (107, 49603), (110, 49621), (115, 49636), (116, 49639), (117, 49642), (125, 49675), (129, 49729), (135, 49840), (143, 49951), (155, 50023),

Gene: BritBrat_87 Start: 50794, Stop: 51558, Start Num: 49
Candidate Starts for BritBrat_87:
(27, 50614), (29, 50620), (30, 50629), (Start: 49 @50794 has 42 MA's), (51, 50809), (76, 50941), (81, 50971), (82, 50974), (88, 50992), (99, 51055), (114, 51160), (118, 51172), (122, 51184), (142, 51445),

(152, 51511),

Gene: Brookers_69 Start: 45656, Stop: 46369, Start Num: 45
Candidate Starts for Brookers_69:
(Start: 44 @45653 has 1 MA's), (Start: 45 @45656 has 73 MA's), (61, 45731), (66, 45758), (67, 45767), (69, 45782), (78, 45797), (84, 45818), (87, 45824), (102, 45926), (106, 45956), (113, 45998), (116, 46010), (121, 46022), (129, 46082), (139, 46226), (149, 46325), (154, 46352),

Gene: Brushbloom_78 Start: 48327, Stop: 49139, Start Num: 45
Candidate Starts for Brushbloom_78:
(Start: 45 @48327 has 73 MA's), (47, 48342), (53, 48372), (Start: 54 @48375 has 1 MA's), (61, 48414), (74, 48480), (79, 48507), (88, 48543), (111, 48723), (115, 48738), (117, 48744), (120, 48750), (121, 48756), (124, 48771), (129, 48831), (135, 48942), (143, 49053),

Gene: Cerasum_68 Start: 42723, Stop: 43436, Start Num: 45
Candidate Starts for Cerasum_68:
(Start: 44 @42720 has 1 MA's), (Start: 45 @42723 has 73 MA's), (61, 42798), (66, 42825), (67, 42834), (69, 42849), (78, 42864), (84, 42885), (87, 42891), (102, 42993), (106, 43023), (113, 43065), (116, 43077), (121, 43089), (129, 43149), (139, 43293), (149, 43392), (154, 43419),

Gene: CheeseSpider_80 Start: 47097, Stop: 47882, Start Num: 49
Candidate Starts for CheeseSpider_80:
(Start: 49 @47097 has 42 MA's), (57, 47142), (61, 47172), (66, 47199), (97, 47322), (104, 47391), (140, 47679), (157, 47826),

Gene: Coco12_71 Start: 46780, Stop: 47493, Start Num: 45
Candidate Starts for Coco12_71:
(Start: 44 @46777 has 1 MA's), (Start: 45 @46780 has 73 MA's), (61, 46855), (66, 46882), (67, 46891), (69, 46906), (78, 46921), (84, 46942), (87, 46948), (102, 47050), (106, 47080), (113, 47122), (116, 47134), (121, 47146), (129, 47206), (139, 47350), (149, 47449), (154, 47476),

Gene: Crater_88 Start: 47800, Stop: 48561, Start Num: 49
Candidate Starts for Crater_88:
(Start: 49 @47800 has 42 MA's), (51, 47815), (61, 47875), (66, 47902), (77, 47950), (104, 48094), (126, 48187), (140, 48388), (153, 48511),

Gene: Cumberbatch_42 Start: 28364, Stop: 29290, Start Num: 49
Candidate Starts for Cumberbatch_42:
(Start: 49 @28364 has 42 MA's), (55, 28397), (61, 28439), (96, 28625), (131, 28853),

Gene: DLane_72 Start: 46465, Stop: 47316, Start Num: 45
Candidate Starts for DLane_72:
(Start: 45 @46465 has 73 MA's), (47, 46480), (53, 46510), (Start: 54 @46513 has 1 MA's), (61, 46552), (69, 46603), (74, 46618), (95, 46768), (107, 46882), (110, 46900), (115, 46915), (116, 46918), (117, 46921), (125, 46954), (129, 47008), (135, 47119), (143, 47230), (155, 47302),

Gene: DaddyRickover_79 Start: 48497, Stop: 49348, Start Num: 45
Candidate Starts for DaddyRickover_79:
(Start: 45 @48497 has 73 MA's), (47, 48512), (53, 48542), (Start: 54 @48545 has 1 MA's), (61, 48584), (69, 48635), (74, 48650), (95, 48800), (107, 48914), (110, 48932), (115, 48947), (116, 48950), (117, 48953), (125, 48986), (129, 49040), (135, 49151), (143, 49262),

Gene: Daenerys_75 Start: 48094, Stop: 48945, Start Num: 45

Candidate Starts for Daenerys_75:
(Start: 45 @48094 has 73 MA's), (47, 48109), (53, 48139), (Start: 54 @48142 has 1 MA's), (61, 48181), (69, 48232), (74, 48247), (95, 48397), (107, 48511), (110, 48529), (115, 48544), (116, 48547), (117, 48550), (125, 48583), (129, 48637), (135, 48748), (143, 48859),

Gene: Darolandstone_39 Start: 30667, Stop: 31617, Start Num: 49
Candidate Starts for Darolandstone_39:
(Start: 49 @30667 has 42 MA's), (68, 30790), (95, 30919), (96, 30922), (136, 31270), (137, 31276), (138, 31282), (162, 31525), (163, 31558), (164, 31576),

Gene: DeadP_76 Start: 45713, Stop: 46564, Start Num: 45
Candidate Starts for DeadP_76:
(Start: 45 @45713 has 73 MA's), (47, 45728), (53, 45758), (Start: 54 @45761 has 1 MA's), (61, 45800), (74, 45866), (95, 46016), (107, 46130), (110, 46148), (115, 46163), (116, 46166), (117, 46169), (125, 46202), (129, 46256), (135, 46367), (143, 46478),

Gene: Deb65_69 Start: 45816, Stop: 46667, Start Num: 45
Candidate Starts for Deb65_69:
(Start: 45 @45816 has 73 MA's), (47, 45831), (53, 45861), (Start: 54 @45864 has 1 MA's), (61, 45903), (69, 45954), (74, 45969), (95, 46119), (107, 46233), (110, 46251), (115, 46266), (116, 46269), (117, 46272), (125, 46305), (129, 46359), (135, 46470), (143, 46581),

Gene: Delrey21_56 Start: 46577, Stop: 47413, Start Num: 49
Candidate Starts for Delrey21_56:
(Start: 49 @46577 has 42 MA's), (59, 46637), (69, 46703), (86, 46772), (117, 46952), (123, 46964), (127, 46976),

Gene: DillTech15_76 Start: 45410, Stop: 46261, Start Num: 45
Candidate Starts for DillTech15_76:
(Start: 45 @45410 has 73 MA's), (47, 45425), (53, 45455), (Start: 54 @45458 has 1 MA's), (61, 45497), (69, 45548), (74, 45563), (95, 45713), (107, 45827), (110, 45845), (115, 45860), (116, 45863), (117, 45866), (125, 45899), (129, 45953), (135, 46064), (143, 46175),

Gene: DoctorFroggo_56 Start: 46577, Stop: 47413, Start Num: 49
Candidate Starts for DoctorFroggo_56:
(Start: 49 @46577 has 42 MA's), (59, 46637), (69, 46703), (86, 46772), (117, 46952), (123, 46964), (127, 46976),

Gene: Doomphist_79 Start: 47907, Stop: 48758, Start Num: 45
Candidate Starts for Doomphist_79:
(Start: 45 @47907 has 73 MA's), (47, 47922), (53, 47952), (Start: 54 @47955 has 1 MA's), (61, 47994), (69, 48045), (74, 48060), (95, 48210), (107, 48324), (110, 48342), (115, 48357), (116, 48360), (117, 48363), (125, 48396), (129, 48450), (135, 48561), (143, 48672),

Gene: Doomslug_91 Start: 49325, Stop: 50176, Start Num: 45
Candidate Starts for Doomslug_91:
(Start: 45 @49325 has 73 MA's), (47, 49340), (53, 49370), (Start: 54 @49373 has 1 MA's), (61, 49412), (69, 49463), (74, 49478), (95, 49628), (107, 49742), (110, 49760), (115, 49775), (116, 49778), (117, 49781), (125, 49814), (129, 49868), (135, 49979), (143, 50090),

Gene: Dorothy_77 Start: 48545, Stop: 49396, Start Num: 45
Candidate Starts for Dorothy_77:

(Start: 45 @48545 has 73 MA's), (47, 48560), (53, 48590), (Start: 54 @48593 has 1 MA's), (61, 48632), (69, 48683), (74, 48698), (95, 48848), (107, 48962), (110, 48980), (115, 48995), (116, 48998), (117, 49001), (125, 49034), (129, 49088), (135, 49199), (143, 49310),

Gene: DumpsterDude_67 Start: 49217, Stop: 50014, Start Num: 49
Candidate Starts for DumpsterDude_67:
(Start: 49 @49217 has 42 MA's), (63, 49298), (67, 49328), (73, 49355), (77, 49367), (82, 49397), (99, 49478), (112, 49574), (114, 49583), (122, 49595),

Gene: Eastland_41 Start: 28339, Stop: 29250, Start Num: 49
Candidate Starts for Eastland_41:
(Start: 33 @28204 has 1 MA's), (Start: 49 @28339 has 42 MA's), (55, 28372), (70, 28465), (95, 28591), (96, 28594), (98, 28606), (132, 28837), (146, 29047),

Gene: Ecliptus_95 Start: 50999, Stop: 51760, Start Num: 49
Candidate Starts for Ecliptus_95:
(Start: 49 @50999 has 42 MA's), (51, 51014), (61, 51074), (66, 51101), (77, 51149), (104, 51293), (126, 51386), (140, 51587), (153, 51710),

Gene: EleanorGeorge_77 Start: 47500, Stop: 48351, Start Num: 45
Candidate Starts for EleanorGeorge_77:
(Start: 45 @47500 has 73 MA's), (47, 47515), (53, 47545), (Start: 54 @47548 has 1 MA's), (61, 47587), (69, 47638), (74, 47653), (95, 47803), (107, 47917), (110, 47935), (115, 47950), (116, 47953), (117, 47956), (125, 47989), (129, 48043), (135, 48154), (143, 48265),

Gene: Empress_74 Start: 46718, Stop: 47569, Start Num: 45
Candidate Starts for Empress_74:
(Start: 45 @46718 has 73 MA's), (47, 46733), (53, 46763), (Start: 54 @46766 has 1 MA's), (61, 46805), (69, 46856), (74, 46871), (95, 47021), (107, 47135), (110, 47153), (115, 47168), (116, 47171), (117, 47174), (125, 47207), (129, 47261), (135, 47372), (143, 47483),

Gene: Fastidio_69 Start: 42216, Stop: 43067, Start Num: 45
Candidate Starts for Fastidio_69:
(Start: 45 @42216 has 73 MA's), (47, 42231), (53, 42261), (Start: 54 @42264 has 1 MA's), (61, 42303), (69, 42354), (74, 42369), (95, 42519), (107, 42633), (110, 42651), (115, 42666), (116, 42669), (117, 42672), (125, 42705), (129, 42759), (135, 42870), (143, 42981),

Gene: Fenry_70 Start: 44774, Stop: 45559, Start Num: 49
Candidate Starts for Fenry_70:
(Start: 49 @44774 has 42 MA's), (57, 44819), (61, 44849), (66, 44876), (97, 44999), (104, 45068), (157, 45503),

Gene: Filuzino_76 Start: 48444, Stop: 49295, Start Num: 45
Candidate Starts for Filuzino_76:
(Start: 45 @48444 has 73 MA's), (47, 48459), (53, 48489), (Start: 54 @48492 has 1 MA's), (61, 48531), (69, 48582), (74, 48597), (95, 48747), (107, 48861), (110, 48879), (115, 48894), (116, 48897), (117, 48900), (125, 48933), (129, 48987), (135, 49098), (143, 49209),

Gene: Finkle_63 Start: 39287, Stop: 40303, Start Num: 33
Candidate Starts for Finkle_63:
(18, 39143), (Start: 33 @39287 has 1 MA's), (37, 39335), (Start: 49 @39437 has 42 MA's), (90, 39656), (91, 39680), (101, 39764), (103, 39776), (105, 39800), (111, 39842), (118, 39863), (161, 40274),

Gene: Flathead_74 Start: 46158, Stop: 47009, Start Num: 45
Candidate Starts for Flathead_74:
(Start: 45 @46158 has 73 MA's), (47, 46173), (53, 46203), (Start: 54 @46206 has 1 MA's), (61, 46245), (69, 46296), (74, 46311), (95, 46461), (107, 46575), (110, 46593), (115, 46608), (116, 46611), (117, 46614), (125, 46647), (129, 46701), (135, 46812), (143, 46923),

Gene: Florinda_87 Start: 49360, Stop: 50211, Start Num: 45
Candidate Starts for Florinda_87:
(Start: 45 @49360 has 73 MA's), (47, 49375), (53, 49405), (Start: 54 @49408 has 1 MA's), (61, 49447), (69, 49498), (74, 49513), (95, 49663), (107, 49777), (110, 49795), (115, 49810), (116, 49813), (117, 49816), (125, 49849), (129, 49903), (135, 50014), (143, 50125),

Gene: Fruitloop_67 Start: 44726, Stop: 45490, Start Num: 54
Candidate Starts for Fruitloop_67:
(Start: 45 @44678 has 73 MA's), (47, 44693), (53, 44723), (Start: 54 @44726 has 1 MA's), (61, 44765), (74, 44831), (79, 44858), (88, 44894), (111, 45074), (115, 45089), (117, 45095), (120, 45101), (121, 45107), (124, 45122), (129, 45182), (135, 45293), (143, 45404),

Gene: FrumpyGal_42 Start: 28339, Stop: 29250, Start Num: 49
Candidate Starts for FrumpyGal_42:
(Start: 33 @28204 has 1 MA's), (Start: 49 @28339 has 42 MA's), (55, 28372), (70, 28465), (95, 28591), (96, 28594), (98, 28606), (132, 28837), (146, 29047),

Gene: GMA1_64 Start: 38118, Stop: 38942, Start Num: 49
Candidate Starts for GMA1_64:
(Start: 49 @38118 has 42 MA's), (50, 38124), (52, 38133), (62, 38193), (65, 38214), (75, 38256), (85, 38304), (109, 38499), (133, 38673), (148, 38859), (151, 38880),

Gene: Geralt_69 Start: 45814, Stop: 46665, Start Num: 45
Candidate Starts for Geralt_69:
(Start: 45 @45814 has 73 MA's), (47, 45829), (53, 45859), (Start: 54 @45862 has 1 MA's), (61, 45901), (69, 45952), (74, 45967), (95, 46117), (107, 46231), (110, 46249), (115, 46264), (116, 46267), (117, 46270), (125, 46303), (129, 46357), (135, 46468), (143, 46579),

Gene: Girafales_84 Start: 48965, Stop: 49816, Start Num: 45
Candidate Starts for Girafales_84:
(Start: 45 @48965 has 73 MA's), (47, 48980), (53, 49010), (Start: 54 @49013 has 1 MA's), (61, 49052), (69, 49103), (74, 49118), (95, 49268), (107, 49382), (110, 49400), (115, 49415), (116, 49418), (117, 49421), (125, 49454), (129, 49508), (135, 49619), (143, 49730),

Gene: Guppsters_69 Start: 44386, Stop: 45099, Start Num: 45
Candidate Starts for Guppsters_69:
(Start: 45 @44386 has 73 MA's), (61, 44461), (66, 44488), (67, 44497), (69, 44512), (78, 44527), (84, 44548), (87, 44554), (102, 44656), (106, 44686), (113, 44728), (116, 44740), (121, 44752), (129, 44812), (149, 45055), (154, 45082),

Gene: HFrancette_42 Start: 29117, Stop: 30028, Start Num: 49
Candidate Starts for HFrancette_42:
(Start: 33 @28982 has 1 MA's), (Start: 49 @29117 has 42 MA's), (55, 29150), (70, 29243), (95, 29369), (96, 29372), (98, 29384), (132, 29615), (146, 29825),

Gene: Hamulus_75 Start: 46843, Stop: 47694, Start Num: 45
Candidate Starts for Hamulus_75:

(Start: 45 @46843 has 73 MA's), (47, 46858), (53, 46888), (Start: 54 @46891 has 1 MA's), (61, 46930), (69, 46981), (74, 46996), (95, 47146), (107, 47260), (110, 47278), (115, 47293), (116, 47296), (117, 47299), (125, 47332), (129, 47386), (135, 47497), (143, 47608),

Gene: Harley_74 Start: 46048, Stop: 46899, Start Num: 45
Candidate Starts for Harley_74:
(Start: 45 @46048 has 73 MA's), (47, 46063), (53, 46093), (Start: 54 @46096 has 1 MA's), (61, 46135), (69, 46186), (74, 46201), (95, 46351), (107, 46465), (110, 46483), (115, 46498), (116, 46501), (117, 46504), (125, 46537), (129, 46591), (135, 46702), (143, 46813),

Gene: Hlubikazi_70 Start: 44428, Stop: 45279, Start Num: 45
Candidate Starts for Hlubikazi_70:
(Start: 45 @44428 has 73 MA's), (47, 44443), (53, 44473), (Start: 54 @44476 has 1 MA's), (61, 44515), (69, 44566), (74, 44581), (95, 44731), (107, 44845), (110, 44863), (115, 44878), (116, 44881), (117, 44884), (125, 44917), (129, 44971), (135, 45082), (143, 45193), (155, 45265),

Gene: IMpilo_65 Start: 42573, Stop: 43424, Start Num: 45
Candidate Starts for IMpilo_65:
(Start: 45 @42573 has 73 MA's), (47, 42588), (53, 42618), (Start: 54 @42621 has 1 MA's), (61, 42660), (69, 42711), (74, 42726), (95, 42876), (107, 42990), (110, 43008), (115, 43023), (116, 43026), (117, 43029), (125, 43062), (129, 43116), (135, 43227), (143, 43338), (155, 43410),

Gene: Ignacio_41 Start: 29020, Stop: 29931, Start Num: 49
Candidate Starts for Ignacio_41:
(Start: 33 @28885 has 1 MA's), (Start: 49 @29020 has 42 MA's), (55, 29053), (70, 29146), (95, 29272), (96, 29275), (98, 29287), (132, 29518), (146, 29728),

Gene: Inventum_74 Start: 46730, Stop: 47581, Start Num: 45
Candidate Starts for Inventum_74:
(Start: 45 @46730 has 73 MA's), (47, 46745), (53, 46775), (Start: 54 @46778 has 1 MA's), (61, 46817), (69, 46868), (74, 46883), (95, 47033), (107, 47147), (110, 47165), (115, 47180), (116, 47183), (117, 47186), (125, 47219), (129, 47273), (135, 47384), (143, 47495),

Gene: JalFarm20_83 Start: 47508, Stop: 48359, Start Num: 45
Candidate Starts for JalFarm20_83:
(Start: 45 @47508 has 73 MA's), (47, 47523), (53, 47553), (Start: 54 @47556 has 1 MA's), (61, 47595), (69, 47646), (74, 47661), (95, 47811), (107, 47925), (110, 47943), (115, 47958), (116, 47961), (117, 47964), (125, 47997), (129, 48051), (135, 48162), (143, 48273),

Gene: JoeyJr_76 Start: 47719, Stop: 48570, Start Num: 45
Candidate Starts for JoeyJr_76:
(Start: 45 @47719 has 73 MA's), (47, 47734), (53, 47764), (Start: 54 @47767 has 1 MA's), (61, 47806), (69, 47857), (74, 47872), (95, 48022), (107, 48136), (110, 48154), (115, 48169), (116, 48172), (117, 48175), (125, 48208), (129, 48262), (135, 48373), (143, 48484),

Gene: Juice456_71 Start: 45464, Stop: 46315, Start Num: 45
Candidate Starts for Juice456_71:
(Start: 45 @45464 has 73 MA's), (47, 45479), (53, 45509), (Start: 54 @45512 has 1 MA's), (61, 45551), (69, 45602), (74, 45617), (95, 45767), (107, 45881), (110, 45899), (115, 45914), (116, 45917), (117, 45920), (125, 45953), (129, 46007), (135, 46118), (143, 46229),

Gene: KingMidas_75 Start: 47133, Stop: 47984, Start Num: 45
Candidate Starts for KingMidas_75:

(Start: 45 @47133 has 73 MA's), (47, 47148), (53, 47178), (Start: 54 @47181 has 1 MA's), (61, 47220), (69, 47271), (74, 47286), (95, 47436), (107, 47550), (110, 47568), (115, 47583), (116, 47586), (117, 47589), (125, 47622), (129, 47676), (135, 47787), (143, 47898),

Gene: Kingsley_78 Start: 48970, Stop: 49821, Start Num: 45
Candidate Starts for Kingsley_78:
(Start: 45 @48970 has 73 MA's), (47, 48985), (53, 49015), (Start: 54 @49018 has 1 MA's), (61, 49057), (74, 49123), (95, 49273), (107, 49387), (110, 49405), (115, 49420), (116, 49423), (117, 49426), (125, 49459), (129, 49513), (135, 49624), (143, 49735),

Gene: KristaRAM_73 Start: 45833, Stop: 46684, Start Num: 45
Candidate Starts for KristaRAM_73:
(Start: 45 @45833 has 73 MA's), (47, 45848), (53, 45878), (Start: 54 @45881 has 1 MA's), (61, 45920), (69, 45971), (74, 45986), (95, 46136), (107, 46250), (110, 46268), (115, 46283), (116, 46286), (117, 46289), (125, 46322), (129, 46376), (135, 46487), (143, 46598),

Gene: Leperchaun_74 Start: 46953, Stop: 47804, Start Num: 45
Candidate Starts for Leperchaun_74:
(Start: 45 @46953 has 73 MA's), (47, 46968), (53, 46998), (Start: 54 @47001 has 1 MA's), (61, 47040), (69, 47091), (74, 47106), (95, 47256), (107, 47370), (110, 47388), (115, 47403), (116, 47406), (117, 47409), (125, 47442), (129, 47496), (135, 47607), (143, 47718),

Gene: LittleShirley_75 Start: 45889, Stop: 46740, Start Num: 45
Candidate Starts for LittleShirley_75:
(Start: 45 @45889 has 73 MA's), (47, 45904), (53, 45934), (Start: 54 @45937 has 1 MA's), (61, 45976), (69, 46027), (74, 46042), (95, 46192), (107, 46306), (110, 46324), (115, 46339), (116, 46342), (117, 46345), (125, 46378), (129, 46432), (135, 46543), (143, 46654),

Gene: Lysidious_73 Start: 45614, Stop: 46399, Start Num: 49
Candidate Starts for Lysidious_73:
(Start: 49 @45614 has 42 MA's), (57, 45659), (61, 45689), (66, 45716), (97, 45839), (104, 45908), (106, 45917), (150, 46298), (157, 46343),

Gene: MadMen_72 Start: 45229, Stop: 46047, Start Num: 45
Candidate Starts for MadMen_72:
(20, 44971), (22, 45040), (31, 45088), (40, 45160), (41, 45166), (42, 45184), (Start: 45 @45229 has 73 MA's), (47, 45244), (53, 45274), (Start: 54 @45277 has 1 MA's), (61, 45316), (69, 45367), (74, 45382), (95, 45532), (107, 45646), (109, 45661), (110, 45664), (115, 45679), (116, 45682), (117, 45685), (125, 45718), (129, 45772), (141, 45946), (145, 45985), (158, 46042),

Gene: Malibo_71 Start: 46632, Stop: 47426, Start Num: 49
Candidate Starts for Malibo_71:
(3, 46107), (10, 46173), (13, 46257), (39, 46542), (Start: 49 @46632 has 42 MA's), (61, 46707), (63, 46713), (67, 46743), (73, 46770), (77, 46782), (81, 46809), (82, 46812), (99, 46893), (112, 46989), (114, 46998), (122, 47010),

Gene: Mandlovu_70 Start: 44370, Stop: 45221, Start Num: 45
Candidate Starts for Mandlovu_70:
(Start: 45 @44370 has 73 MA's), (47, 44385), (53, 44415), (Start: 54 @44418 has 1 MA's), (61, 44457), (69, 44508), (74, 44523), (95, 44673), (107, 44787), (110, 44805), (115, 44820), (116, 44823), (117, 44826), (125, 44859), (129, 44913), (135, 45024), (143, 45135), (155, 45207),

Gene: Medindi_75 Start: 46270, Stop: 47121, Start Num: 45

Candidate Starts for Medindi_75:
(Start: 45 @46270 has 73 MA's), (47, 46285), (53, 46315), (Start: 54 @46318 has 1 MA's), (61, 46357), (69, 46408), (74, 46423), (95, 46573), (107, 46687), (110, 46705), (115, 46720), (116, 46723), (117, 46726), (125, 46759), (129, 46813), (135, 46924), (143, 47035), (155, 47107),

Gene: Melba_70 Start: 42725, Stop: 43543, Start Num: 49
Candidate Starts for Melba_70:
(25, 42542), (38, 42635), (39, 42641), (40, 42644), (41, 42650), (Start: 49 @42725 has 42 MA's), (61, 42800), (67, 42836), (82, 42905), (99, 42986), (112, 43082), (114, 43091), (118, 43103), (122, 43115),

Gene: Melissauren88_69 Start: 43991, Stop: 44842, Start Num: 45
Candidate Starts for Melissauren88_69:
(23, 43808), (24, 43811), (40, 43922), (41, 43928), (42, 43946), (Start: 45 @43991 has 73 MA's), (47, 44006), (53, 44036), (Start: 54 @44039 has 1 MA's), (61, 44078), (69, 44129), (74, 44144), (95, 44294), (107, 44408), (110, 44426), (115, 44441), (116, 44444), (117, 44447), (125, 44480), (129, 44534), (135, 44645), (143, 44756),

Gene: MilanaBonita_68 Start: 45149, Stop: 46000, Start Num: 45
Candidate Starts for MilanaBonita_68:
(Start: 45 @45149 has 73 MA's), (47, 45164), (53, 45194), (Start: 54 @45197 has 1 MA's), (61, 45236), (69, 45287), (74, 45302), (95, 45452), (107, 45566), (110, 45584), (115, 45599), (116, 45602), (117, 45605), (125, 45638), (129, 45692), (135, 45803), (143, 45914),

Gene: Minnie_72 Start: 48329, Stop: 49180, Start Num: 45
Candidate Starts for Minnie_72:
(Start: 45 @48329 has 73 MA's), (47, 48344), (53, 48374), (Start: 54 @48377 has 1 MA's), (61, 48416), (69, 48467), (74, 48482), (95, 48632), (107, 48746), (110, 48764), (115, 48779), (116, 48782), (117, 48785), (125, 48818), (129, 48872), (135, 48983), (143, 49094),

Gene: Moosehead_68 Start: 38475, Stop: 39236, Start Num: 49
Candidate Starts for Moosehead_68:
(46, 38460), (48, 38472), (Start: 49 @38475 has 42 MA's), (61, 38550), (66, 38577), (77, 38625), (97, 38700), (104, 38769), (126, 38862), (134, 39012), (156, 39204),

Gene: Mozy_81 Start: 46079, Stop: 46891, Start Num: 45
Candidate Starts for Mozy_81:
(34, 45959), (36, 45977), (41, 46016), (42, 46034), (Start: 45 @46079 has 73 MA's), (47, 46094), (53, 46124), (Start: 54 @46127 has 1 MA's), (61, 46166), (74, 46232), (79, 46259), (88, 46295), (111, 46475), (117, 46496), (120, 46502), (121, 46508), (124, 46523), (129, 46583), (135, 46694), (143, 46805),

Gene: Ms6_73 Start: 42712, Stop: 43563, Start Num: 45
Candidate Starts for Ms6_73:
(Start: 45 @42712 has 73 MA's), (47, 42727), (53, 42757), (Start: 54 @42760 has 1 MA's), (61, 42799), (74, 42865), (95, 43015), (107, 43129), (110, 43147), (115, 43162), (116, 43165), (117, 43168), (125, 43201), (129, 43255), (135, 43366), (143, 43477),

Gene: Murp_68 Start: 45979, Stop: 46797, Start Num: 49
Candidate Starts for Murp_68:
(38, 45889), (39, 45895), (40, 45898), (41, 45904), (Start: 49 @45979 has 42 MA's), (61, 46054), (67, 46090), (82, 46159), (99, 46240), (112, 46336), (114, 46345), (118, 46357), (122, 46369), (157, 46741),

Gene: Nimbo_68 Start: 45817, Stop: 46668, Start Num: 45
Candidate Starts for Nimbo_68:
(Start: 45 @45817 has 73 MA's), (47, 45832), (53, 45862), (Start: 54 @45865 has 1 MA's), (61, 45904), (69, 45955), (74, 45970), (95, 46120), (107, 46234), (110, 46252), (115, 46267), (116, 46270), (117, 46273), (125, 46306), (129, 46360), (135, 46471), (143, 46582),

Gene: NovoPizza_75 Start: 48204, Stop: 49034, Start Num: 43
Candidate Starts for NovoPizza_75:
(Start: 43 @48204 has 1 MA's), (60, 48291), (66, 48333), (71, 48363), (72, 48369), (74, 48372), (82, 48414), (92, 48492), (94, 48501), (113, 48642), (147, 48969), (156, 49026),

Gene: Ogopogo_80 Start: 46334, Stop: 47185, Start Num: 45
Candidate Starts for Ogopogo_80:
(Start: 45 @46334 has 73 MA's), (47, 46349), (53, 46379), (Start: 54 @46382 has 1 MA's), (61, 46421), (74, 46487), (95, 46637), (107, 46751), (110, 46769), (115, 46784), (116, 46787), (117, 46790), (125, 46823), (129, 46877), (135, 46988), (143, 47099),

Gene: Okabe_70 Start: 43743, Stop: 44594, Start Num: 45
Candidate Starts for Okabe_70:
(Start: 45 @43743 has 73 MA's), (47, 43758), (53, 43788), (Start: 54 @43791 has 1 MA's), (61, 43830), (69, 43881), (74, 43896), (95, 44046), (107, 44160), (110, 44178), (115, 44193), (116, 44196), (117, 44199), (125, 44232), (129, 44286), (135, 44397), (143, 44508),

Gene: OldBen_73 Start: 47209, Stop: 48060, Start Num: 45
Candidate Starts for OldBen_73:
(Start: 45 @47209 has 73 MA's), (47, 47224), (53, 47254), (Start: 54 @47257 has 1 MA's), (61, 47296), (69, 47347), (74, 47362), (95, 47512), (107, 47626), (110, 47644), (115, 47659), (116, 47662), (117, 47665), (125, 47698), (129, 47752), (135, 47863), (143, 47974),

Gene: PHappiness_76 Start: 48038, Stop: 48889, Start Num: 45
Candidate Starts for PHappiness_76:
(Start: 45 @48038 has 73 MA's), (47, 48053), (53, 48083), (Start: 54 @48086 has 1 MA's), (61, 48125), (69, 48176), (74, 48191), (95, 48341), (107, 48455), (110, 48473), (115, 48488), (116, 48491), (117, 48494), (125, 48527), (129, 48581), (135, 48692), (143, 48803),

Gene: Petra_75 Start: 45325, Stop: 46110, Start Num: 49
Candidate Starts for Petra_75:
(Start: 49 @45325 has 42 MA's), (57, 45370), (61, 45400), (66, 45427), (97, 45550), (104, 45619), (157, 46057),

Gene: Phalconet_72 Start: 45686, Stop: 46537, Start Num: 45
Candidate Starts for Phalconet_72:
(Start: 45 @45686 has 73 MA's), (47, 45701), (53, 45731), (Start: 54 @45734 has 1 MA's), (61, 45773), (69, 45824), (74, 45839), (95, 45989), (107, 46103), (110, 46121), (115, 46136), (116, 46139), (117, 46142), (125, 46175), (129, 46229), (135, 46340), (143, 46451), (155, 46523),

Gene: Phanphagia_73 Start: 46766, Stop: 47617, Start Num: 45
Candidate Starts for Phanphagia_73:
(Start: 45 @46766 has 73 MA's), (47, 46781), (53, 46811), (Start: 54 @46814 has 1 MA's), (61, 46853), (74, 46919), (95, 47069), (107, 47183), (110, 47201), (115, 47216), (116, 47219), (117, 47222), (125, 47255), (129, 47309), (135, 47420), (143, 47531),

Gene: PhesterPhotato_78 Start: 46854, Stop: 47705, Start Num: 45

Candidate Starts for PhesterPhotato_78:
(Start: 45 @46854 has 73 MA's), (47, 46869), (53, 46899), (Start: 54 @46902 has 1 MA's), (61, 46941), (69, 46992), (74, 47007), (95, 47157), (107, 47271), (110, 47289), (115, 47304), (116, 47307), (117, 47310), (125, 47343), (129, 47397), (135, 47508), (143, 47619), (155, 47691),

Gene: Phistory_86 Start: 47064, Stop: 47825, Start Num: 49
Candidate Starts for Phistory_86:
(Start: 49 @47064 has 42 MA's), (51, 47079), (61, 47139), (66, 47166), (77, 47214), (104, 47358), (126, 47451), (140, 47652), (153, 47775),

Gene: PhrostedPhlake_77 Start: 45573, Stop: 46358, Start Num: 49
Candidate Starts for PhrostedPhlake_77:
(Start: 49 @45573 has 42 MA's), (57, 45618), (61, 45648), (66, 45675), (97, 45798), (104, 45867), (150, 46257), (157, 46302),

Gene: Piccadilly_41 Start: 28338, Stop: 29249, Start Num: 49
Candidate Starts for Piccadilly_41:
(Start: 33 @28203 has 1 MA's), (Start: 49 @28338 has 42 MA's), (55, 28371), (70, 28464), (95, 28590), (96, 28593), (98, 28605), (132, 28836), (146, 29046),

Gene: Poenanya_79 Start: 47907, Stop: 48758, Start Num: 45
Candidate Starts for Poenanya_79:
(Start: 45 @47907 has 73 MA's), (47, 47922), (53, 47952), (Start: 54 @47955 has 1 MA's), (61, 47994), (69, 48045), (74, 48060), (95, 48210), (107, 48324), (110, 48342), (115, 48357), (116, 48360), (117, 48363), (125, 48396), (129, 48450), (135, 48561), (143, 48672),

Gene: Polka14_80 Start: 48697, Stop: 49548, Start Num: 45
Candidate Starts for Polka14_80:
(Start: 45 @48697 has 73 MA's), (47, 48712), (53, 48742), (Start: 54 @48745 has 1 MA's), (61, 48784), (69, 48835), (74, 48850), (95, 49000), (107, 49114), (110, 49132), (115, 49147), (116, 49150), (117, 49153), (125, 49186), (129, 49240), (135, 49351), (143, 49462),

Gene: PopTart_65 Start: 43552, Stop: 44403, Start Num: 45
Candidate Starts for PopTart_65:
(Start: 45 @43552 has 73 MA's), (47, 43567), (53, 43597), (Start: 54 @43600 has 1 MA's), (61, 43639), (69, 43690), (74, 43705), (95, 43855), (107, 43969), (110, 43987), (115, 44002), (116, 44005), (117, 44008), (125, 44041), (129, 44095), (135, 44206), (143, 44317),

Gene: Quico_84 Start: 49180, Stop: 50031, Start Num: 45
Candidate Starts for Quico_84:
(Start: 45 @49180 has 73 MA's), (47, 49195), (53, 49225), (Start: 54 @49228 has 1 MA's), (61, 49267), (69, 49318), (74, 49333), (95, 49483), (107, 49597), (110, 49615), (115, 49630), (116, 49633), (117, 49636), (125, 49669), (129, 49723), (135, 49834), (143, 49945),

Gene: Raleigh_39 Start: 31035, Stop: 31985, Start Num: 49
Candidate Starts for Raleigh_39:
(Start: 49 @31035 has 42 MA's), (57, 31080), (68, 31158), (95, 31287), (96, 31290), (136, 31638), (137, 31644), (138, 31650), (144, 31764), (160, 31857), (162, 31893), (164, 31944),

Gene: RedBird_77 Start: 48412, Stop: 49263, Start Num: 45
Candidate Starts for RedBird_77:
(Start: 45 @48412 has 73 MA's), (47, 48427), (53, 48457), (Start: 54 @48460 has 1 MA's), (61, 48499), (69, 48550), (74, 48565), (95, 48715), (107, 48829), (110, 48847), (115, 48862), (116, 48865), (117,

48868), (125, 48901), (129, 48955), (135, 49066), (143, 49177),

Gene: Rem711_66 Start: 42013, Stop: 42843, Start Num: 45
Candidate Starts for Rem711_66:
(Start: 45 @42013 has 73 MA's), (Start: 54 @42061 has 1 MA's), (58, 42094), (63, 42121), (80, 42211), (83, 42223), (89, 42238), (95, 42277), (108, 42385), (111, 42406), (124, 42454), (128, 42499), (130, 42517),

Gene: RitaG_76 Start: 47840, Stop: 48691, Start Num: 45
Candidate Starts for RitaG_76:
(Start: 45 @47840 has 73 MA's), (47, 47855), (53, 47885), (Start: 54 @47888 has 1 MA's), (61, 47927), (69, 47978), (74, 47993), (95, 48143), (107, 48257), (110, 48275), (115, 48290), (116, 48293), (117, 48296), (125, 48329), (129, 48383), (135, 48494), (143, 48605),

Gene: SG4_72 Start: 45615, Stop: 46466, Start Num: 45
Candidate Starts for SG4_72:
(Start: 45 @45615 has 73 MA's), (47, 45630), (53, 45660), (Start: 54 @45663 has 1 MA's), (61, 45702), (69, 45753), (74, 45768), (95, 45918), (107, 46032), (110, 46050), (115, 46065), (116, 46068), (117, 46071), (125, 46104), (129, 46158), (135, 46269), (143, 46380),

Gene: Samba_71 Start: 46102, Stop: 46887, Start Num: 49
Candidate Starts for Samba_71:
(Start: 49 @46102 has 42 MA's), (57, 46147), (61, 46177), (66, 46204), (97, 46327), (104, 46396), (157, 46831),

Gene: Sandalphon_70 Start: 46314, Stop: 47165, Start Num: 45
Candidate Starts for Sandalphon_70:
(Start: 45 @46314 has 73 MA's), (47, 46329), (53, 46359), (Start: 54 @46362 has 1 MA's), (61, 46401), (69, 46452), (74, 46467), (95, 46617), (107, 46731), (110, 46749), (115, 46764), (116, 46767), (117, 46770), (125, 46803), (129, 46857), (135, 46968), (143, 47079),

Gene: Sassafras_77 Start: 46729, Stop: 47580, Start Num: 45
Candidate Starts for Sassafras_77:
(Start: 45 @46729 has 73 MA's), (47, 46744), (53, 46774), (Start: 54 @46777 has 1 MA's), (61, 46816), (69, 46867), (74, 46882), (95, 47032), (107, 47146), (110, 47164), (115, 47179), (116, 47182), (117, 47185), (125, 47218), (129, 47272), (135, 47383), (143, 47494),

Gene: SassyB_65 Start: 43552, Stop: 44403, Start Num: 45
Candidate Starts for SassyB_65:
(Start: 45 @43552 has 73 MA's), (47, 43567), (53, 43597), (Start: 54 @43600 has 1 MA's), (61, 43639), (69, 43690), (74, 43705), (95, 43855), (107, 43969), (110, 43987), (115, 44002), (116, 44005), (117, 44008), (125, 44041), (129, 44095), (135, 44206), (143, 44317),

Gene: Schlegelian_42 Start: 28903, Stop: 29814, Start Num: 49
Candidate Starts for Schlegelian_42:
(Start: 33 @28768 has 1 MA's), (Start: 49 @28903 has 42 MA's), (55, 28936), (70, 29029), (95, 29155), (96, 29158), (98, 29170), (132, 29401), (146, 29611),

Gene: Scottish_74 Start: 46388, Stop: 47239, Start Num: 45
Candidate Starts for Scottish_74:
(Start: 45 @46388 has 73 MA's), (47, 46403), (53, 46433), (Start: 54 @46436 has 1 MA's), (61, 46475), (69, 46526), (74, 46541), (95, 46691), (107, 46805), (110, 46823), (115, 46838), (116, 46841), (117, 46844), (125, 46877), (129, 46931), (135, 47042), (143, 47153),

Gene: Seagreen_76 Start: 47662, Stop: 48513, Start Num: 45
Candidate Starts for Seagreen_76:
(Start: 45 @47662 has 73 MA's), (47, 47677), (53, 47707), (Start: 54 @47710 has 1 MA's), (61, 47749), (69, 47800), (74, 47815), (95, 47965), (107, 48079), (110, 48097), (115, 48112), (116, 48115), (117, 48118), (125, 48151), (129, 48205), (135, 48316), (143, 48427),

Gene: Shauna1_74 Start: 47016, Stop: 47867, Start Num: 45
Candidate Starts for Shauna1_74:
(Start: 45 @47016 has 73 MA's), (47, 47031), (53, 47061), (Start: 54 @47064 has 1 MA's), (61, 47103), (74, 47169), (95, 47319), (107, 47433), (110, 47451), (115, 47466), (116, 47469), (117, 47472), (125, 47505), (129, 47559), (135, 47670), (143, 47781),

Gene: ShroomBoi_75 Start: 46810, Stop: 47622, Start Num: 45
Candidate Starts for ShroomBoi_75:
(23, 46627), (24, 46630), (40, 46741), (41, 46747), (42, 46765), (Start: 45 @46810 has 73 MA's), (47, 46825), (53, 46855), (Start: 54 @46858 has 1 MA's), (61, 46897), (74, 46963), (79, 46990), (88, 47026), (111, 47206), (117, 47227), (120, 47233), (121, 47239), (124, 47254), (129, 47314), (135, 47425), (143, 47536),

Gene: SiSi_71 Start: 45846, Stop: 46697, Start Num: 45
Candidate Starts for SiSi_71:
(Start: 45 @45846 has 73 MA's), (47, 45861), (53, 45891), (Start: 54 @45894 has 1 MA's), (61, 45933), (69, 45984), (74, 45999), (95, 46149), (107, 46263), (110, 46281), (115, 46296), (116, 46299), (117, 46302), (125, 46335), (129, 46389), (135, 46500), (143, 46611),

Gene: SilverChicken_84 Start: 46746, Stop: 47558, Start Num: 45
Candidate Starts for SilverChicken_84:
(23, 46563), (24, 46566), (41, 46683), (42, 46701), (Start: 45 @46746 has 73 MA's), (47, 46761), (53, 46791), (Start: 54 @46794 has 1 MA's), (61, 46833), (74, 46899), (79, 46926), (88, 46962), (111, 47142), (117, 47163), (120, 47169), (121, 47175), (124, 47190), (129, 47250), (135, 47361), (143, 47472),

Gene: Squirty_76 Start: 49943, Stop: 50794, Start Num: 45
Candidate Starts for Squirty_76:
(Start: 45 @49943 has 73 MA's), (47, 49958), (53, 49988), (Start: 54 @49991 has 1 MA's), (61, 50030), (69, 50081), (74, 50096), (95, 50246), (107, 50360), (110, 50378), (115, 50393), (116, 50396), (117, 50399), (125, 50432), (129, 50486), (135, 50597), (143, 50708),

Gene: StAnnes_72 Start: 47004, Stop: 47855, Start Num: 45
Candidate Starts for StAnnes_72:
(Start: 45 @47004 has 73 MA's), (47, 47019), (53, 47049), (Start: 54 @47052 has 1 MA's), (61, 47091), (69, 47142), (74, 47157), (95, 47307), (107, 47421), (110, 47439), (115, 47454), (116, 47457), (117, 47460), (125, 47493), (129, 47547), (135, 47658), (143, 47769), (155, 47841),

Gene: Strokeseat_70 Start: 44427, Stop: 45278, Start Num: 45
Candidate Starts for Strokeseat_70:
(Start: 45 @44427 has 73 MA's), (47, 44442), (53, 44472), (Start: 54 @44475 has 1 MA's), (61, 44514), (69, 44565), (74, 44580), (95, 44730), (107, 44844), (110, 44862), (115, 44877), (116, 44880), (117, 44883), (125, 44916), (129, 44970), (135, 45081), (143, 45192), (155, 45264),

Gene: Taj_81 Start: 48470, Stop: 49321, Start Num: 45
Candidate Starts for Taj_81:

(Start: 45 @48470 has 73 MA's), (47, 48485), (53, 48515), (Start: 54 @48518 has 1 MA's), (61, 48557), (69, 48608), (74, 48623), (95, 48773), (107, 48887), (110, 48905), (115, 48920), (116, 48923), (117, 48926), (125, 48959), (129, 49013), (135, 49124), (143, 49235),

Gene: UmaThurman_71 Start: 44454, Stop: 45239, Start Num: 49
Candidate Starts for UmaThurman_71:
(Start: 49 @44454 has 42 MA's), (57, 44499), (61, 44529), (66, 44556), (97, 44679), (104, 44748), (157, 45183),

Gene: Vasanti_65 Start: 43214, Stop: 44008, Start Num: 49
Candidate Starts for Vasanti_65:
(3, 42689), (10, 42755), (12, 42821), (13, 42839), (39, 43124), (Start: 49 @43214 has 42 MA's), (61, 43289), (63, 43295), (67, 43325), (73, 43352), (77, 43364), (81, 43391), (82, 43394), (99, 43475), (112, 43571), (114, 43580), (122, 43592),

Gene: Verity_56 Start: 46577, Stop: 47413, Start Num: 49
Candidate Starts for Verity_56:
(Start: 49 @46577 has 42 MA's), (59, 46637), (69, 46703), (86, 46772), (117, 46952), (123, 46964), (127, 46976),

Gene: Vondra_40 Start: 28184, Stop: 29101, Start Num: 49
Candidate Starts for Vondra_40:
(Start: 49 @28184 has 42 MA's), (55, 28217), (68, 28307), (70, 28310), (93, 28424), (95, 28436), (96, 28439), (132, 28682),

Gene: Wee_80 Start: 48546, Stop: 49397, Start Num: 45
Candidate Starts for Wee_80:
(Start: 45 @48546 has 73 MA's), (47, 48561), (53, 48591), (Start: 54 @48594 has 1 MA's), (61, 48633), (69, 48684), (74, 48699), (95, 48849), (107, 48963), (110, 48981), (115, 48996), (116, 48999), (117, 49002), (125, 49035), (129, 49089), (135, 49200), (143, 49311),

Gene: Whatsapiecost_69 Start: 42354, Stop: 43205, Start Num: 45
Candidate Starts for Whatsapiecost_69:
(17, 42069), (26, 42183), (29, 42201), (41, 42291), (42, 42309), (Start: 45 @42354 has 73 MA's), (47, 42369), (53, 42399), (Start: 54 @42402 has 1 MA's), (61, 42441), (69, 42492), (74, 42507), (95, 42657), (107, 42771), (110, 42789), (115, 42804), (116, 42807), (117, 42810), (125, 42843), (129, 42897), (135, 43008), (143, 43119),

Gene: Wisp_67 Start: 43753, Stop: 44571, Start Num: 49
Candidate Starts for Wisp_67:
(21, 43546), (38, 43663), (39, 43669), (40, 43672), (41, 43678), (Start: 49 @43753 has 42 MA's), (61, 43828), (63, 43834), (67, 43864), (82, 43933), (99, 44014), (112, 44110), (114, 44119), (118, 44131), (122, 44143), (157, 44515),

Gene: Wocket_69 Start: 44140, Stop: 44925, Start Num: 49
Candidate Starts for Wocket_69:
(1, 43552), (6, 43654), (7, 43660), (8, 43663), (9, 43669), (14, 43789), (Start: 49 @44140 has 42 MA's), (57, 44185), (61, 44215), (66, 44242), (97, 44365), (104, 44434), (106, 44443), (157, 44869),

Gene: Zarbodnamra_74 Start: 44266, Stop: 45051, Start Num: 49
Candidate Starts for Zarbodnamra_74:
(Start: 49 @44266 has 42 MA's), (57, 44311), (61, 44341), (66, 44368), (97, 44491), (104, 44560), (157, 44995),

Gene: Zilla_68 Start: 43118, Stop: 43903, Start Num: 49
Candidate Starts for Zilla_68:
(Start: 49 @43118 has 42 MA's), (57, 43163), (61, 43193), (66, 43220), (97, 43343), (104, 43412), (157, 43847),

Gene: Zipp_57 Start: 46492, Stop: 47337, Start Num: 49
Candidate Starts for Zipp_57:
(Start: 49 @46492 has 42 MA's), (59, 46552), (69, 46618), (86, 46687), (117, 46867), (123, 46879), (127, 46891), (134, 47023),

Gene: Zitch_59 Start: 44615, Stop: 45460, Start Num: 49
Candidate Starts for Zitch_59:
(Start: 49 @44615 has 42 MA's), (59, 44675), (86, 44810), (117, 44990), (123, 45002), (127, 45014), (134, 45146),