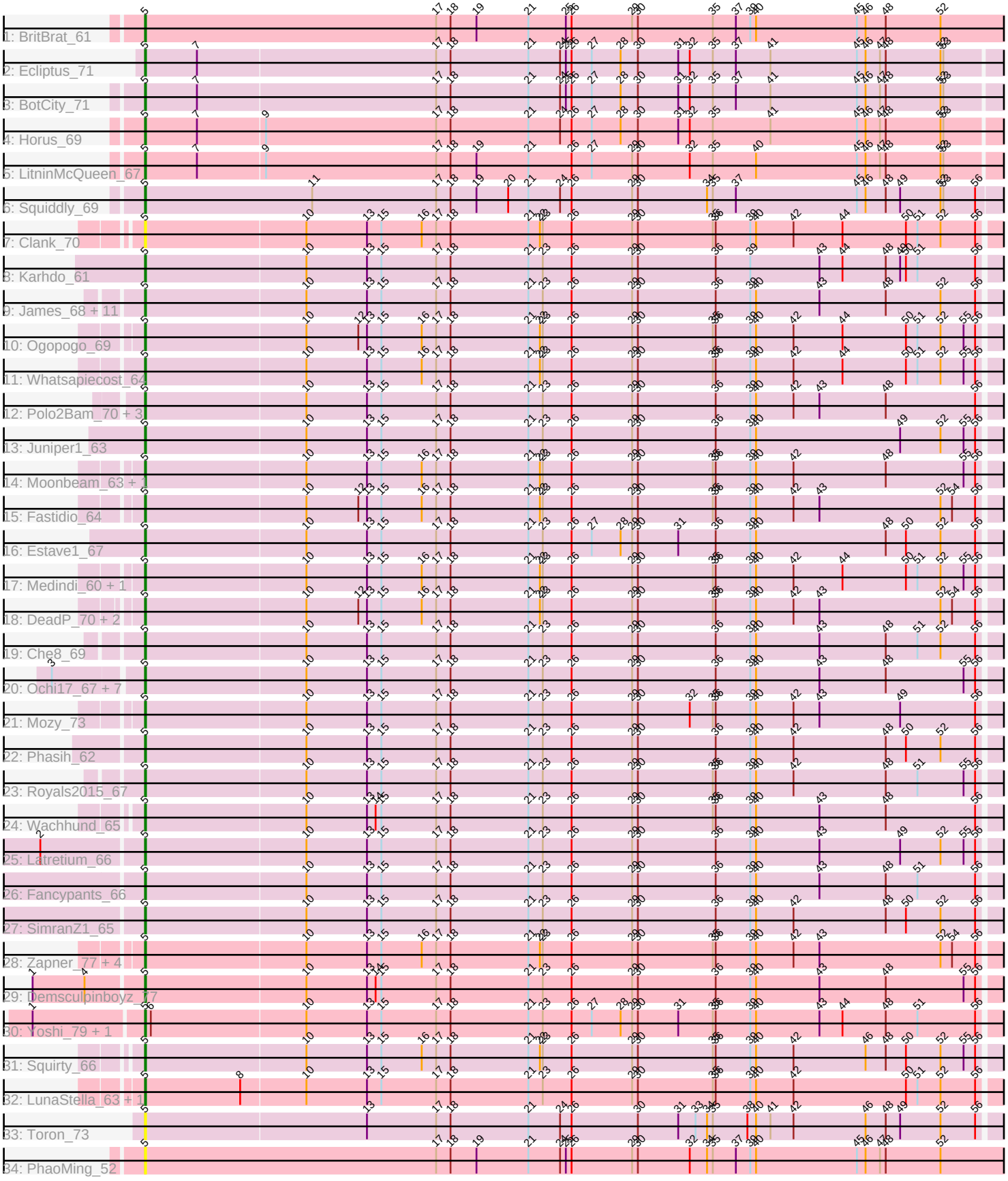
Pham 345733


1: BritBrat_61
2: Ecliptus_71
3: BotCity_71
4: Horus_69
5: LitninMcQueen_67
6: Squiddly_69
7: Clank_70
8: Karhdo_61
9: James_68 + 11
10: Ogopogo_69
11: Whatsapiecost_64
12: Polo2Bam_70 + 3
13: Juniper1_63
14: Moonbeam_63 + 1
15: Fastidio_64
16: Estave1_67
17: Medindi_60 + 1
18: DeadP_70 + 2
19: Che8_69
20: Ochi17_67 + 7
21: Mozy_73
22: Phasih_62
23: Royals2015_67
24: Wachhund_65
25: Latretium_66
26: Fancypants_66
27: SimranZ1_65
28: Zapner_77 + 4
29: Demsculpinboyz_77
30: Yoshi_79 + 1
31: Squirty_66
32: LunaStella_63 + 1
33: Toron_73
34: PhaoMing_52

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 345733 Report

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

Pham number 345733 has 65 members, 8 are drafts.

Phages represented in each track:
- Track 1 : BritBrat_61
- Track 2 : Ecliptus_71
- Track 3 : BotCity_71
- Track 4 : Horus_69
- Track 5 : LitninMcQueen_67
- Track 6 : Squiddly_69
- Track 7 : Clank_70
- Track 8 : Karhdo_61
- Track 9 : James_68, Saal_66, Yorick_63, GUmbie_62, Mattes_68, Eradicator_57, Gorge_68, OlympiaSaint_66, BuzzLyseyear_70, Lizziana_70, Tchotchke_65, Pollywog_65
- Track 10 : Ogopogo_69
- Track 11 : Whatsapiecost_64
- Track 12 : Polo2Bam_70, NewHope4_65, SeaLumen_69, Enzomatic_71
- Track 13 : Juniper1_63
- Track 14 : Moonbeam_63, Emma_66
- Track 15 : Fastidio_64
- Track 16 : Estave1_67
- Track 17 : Medindi_60, VRedHorse_64
- Track 18 : DeadP_70, Wee_68, Taj_68
- Track 19 : Che8_69
- Track 20 : Ochi17_67, Llama_68, Jinglebell_69, Modragons_67, OfUltron_69, AlpineSix_69, Seabastian_69, Nichirin_70
- Track 21 : Mozy_73
- Track 22 : Phasih_62
- Track 23 : Royals2015_67
- Track 24 : Wachhund_65
- Track 25 : Latretium_66
- Track 26 : Fancypants_66
- Track 27 : SimranZ1_65
- Track 28 : Zapner_77, DillTech15_61, Mantra_60, Jabbawokkie_78, Blarby_76
- Track 29 : Demsculpinboyz_77
- Track 30 : Yoshi_79, ThetaBob_71
- Track 31 : Squirty_66
- Track 32 : LunaStella_63, TChen_65
- Track 33 : Toron_73
- Track 34 : PhaoMing_52

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

The start number called the most often in the published annotations is 5, it was called in 57 of the 57 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AlpineSix_69, Blarby_76, BotCity_71, BritBrat_61, BuzzLyseyear_70, Che8_69, Clank_70, DeadP_70, Demsculpinboyz_77, DillTech15_61, Ecliptus_71, Emma_66, Enzomatic_71, Eradicator_57, Estave1_67, Fancypants_66, Fastidio_64, GUmbie_62, Gorge_68, Horus_69, Jabbawokkie_78, James_68, Jinglebell_69, Juniper1_63, Karhdo_61, Latretium_66, LitninMcQueen_67, Lizziana_70, Llama_68, LunaStella_63, Mantra_60, Mattes_68, Medindi_60, Modragons_67, Moonbeam_63, Mozy_73, NewHope4_65, Nichirin_70, Ochi17_67, OfUltron_69, Ogopogo_69, OlympiaSaint_66, PhaoMing_52, Phasih_62, Pollywog_65, Polo2Bam_70, Royals2015_67, Saal_66, SeaLumen_69, Seabastian_69, SimranZ1_65, Squiddly_69, Squirty_66, TChen_65, Taj_68, Tchotchke_65, ThetaBob_71, Toron_73, VRedHorse_64, Wachhund_65, Wee_68, Whatsapiecost_64, Yorick_63, Yoshi_79, Zapner_77,

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

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

Summary by start number:

Start 5:
• Found in 65 of 65 (100.0%) of genes in pham
• Manual Annotations of this start: 57 of 57
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AlpineSix_69 (F1), Blarby_76 (F), BotCity_71 (DN), BritBrat_61 (CY2), BuzzLyseyear_70 (F1), Che8_69 (F1), Clank_70 (F), DeadP_70 (F1), Demsculpinboyz_77 (F2), DillTech15_61 (F1), Ecliptus_71 (DN), Emma_66 (F1), Enzomatic_71 (F1), Eradicator_57 (F1), Estave1_67 (F1), Fancypants_66 (F1), Fastidio_64 (F1), GUmbie_62 (F1), Gorge_68 (F1), Horus_69 (DN1), Jabbawokkie_78 (F2), James_68 (F1), Jinglebell_69 (F1), Juniper1_63 (F1), Karhdo_61 (F1), Latretium_66 (F1), LitninMcQueen_67 (DN1), Lizziana_70 (F1), Llama_68 (F1), LunaStella_63 (F4), Mantra_60 (F1), Mattes_68 (F1), Medindi_60 (F1), Modragons_67 (F1), Moonbeam_63 (F1), Mozy_73 (F1), NewHope4_65 (F1), Nichirin_70 (F1), Ochi17_67 (F1), OfUltron_69 (F1), Ogopogo_69 (F1), OlympiaSaint_66 (F1), PhaoMing_52 (UNK), Phasih_62 (F1), Pollywog_65 (F1), Polo2Bam_70 (F1), Royals2015_67 (F1), Saal_66 (F1), SeaLumen_69 (F1), Seabastian_69 (F1), SimranZ1_65 (F1), Squiddly_69 (DN2), Squirty_66 (F3), TChen_65 (F4), Taj_68 (F1), Tchotchke_65 (F1), ThetaBob_71 (F4), Toron_73 (F6), VRedHorse_64 (F1), Wachhund_65 (F1), Wee_68 (F1), Whatsapiecost_64 (F1), Yorick_63 (F1), Yoshi_79 (F2), Zapner_77 (F2),

Summary by clusters:

There are 11 clusters represented in this pham: DN, F1, F2, F3, F4, F6, F, UNK, DN1, DN2, CY2,

Info for manual annotations of cluster CY2:
•Start number 5 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster DN:
•Start number 5 was manually annotated 2 times for cluster DN.

Info for manual annotations of cluster DN1:
•Start number 5 was manually annotated 2 times for cluster DN1.

Info for manual annotations of cluster DN2:
•Start number 5 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster F1:
•Start number 5 was manually annotated 43 times for cluster F1.

Info for manual annotations of cluster F2:
•Start number 5 was manually annotated 4 times for cluster F2.

Info for manual annotations of cluster F3:
•Start number 5 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster F4:
•Start number 5 was manually annotated 3 times for cluster F4.

Gene Information:

Gene: AlpineSix_69 Start: 43940, Stop: 44821, Start Num: 5
Candidate Starts for AlpineSix_69:
(3, 43853), (Start: 5 @43940 has 57 MA's), (10, 44105), (13, 44168), (15, 44183), (17, 44240), (18, 44255), (21, 44336), (23, 44351), (26, 44381), (29, 44444), (30, 44450), (36, 44531), (39, 44567), (40, 44573), (43, 44639), (48, 44708), (55, 44789), (56, 44801),

Gene: Blarby_76 Start: 43102, Stop: 43983, Start Num: 5
Candidate Starts for Blarby_76:
(Start: 5 @43102 has 57 MA's), (10, 43267), (13, 43330), (15, 43345), (16, 43387), (17, 43402), (18, 43417), (21, 43498), (22, 43510), (23, 43513), (26, 43543), (29, 43606), (30, 43612), (35, 43690), (36, 43693), (39, 43729), (40, 43735), (42, 43774), (43, 43801), (52, 43927), (54, 43939), (56, 43963),

Gene: BotCity_71 Start: 42307, Stop: 43245, Start Num: 5
Candidate Starts for BotCity_71:
(Start: 5 @42307 has 57 MA's), (7, 42361), (17, 42607), (18, 42622), (21, 42703), (24, 42736), (25, 42742), (26, 42748), (27, 42769), (28, 42799), (30, 42817), (31, 42859), (32, 42871), (35, 42895), (37, 42919), (41, 42955), (45, 43045), (46, 43054), (47, 43069), (48, 43075), (52, 43132), (53, 43135),

Gene: BritBrat_61 Start: 41289, Stop: 42236, Start Num: 5
Candidate Starts for BritBrat_61:
(Start: 5 @41289 has 57 MA's), (17, 41592), (18, 41607), (19, 41634), (21, 41688), (25, 41727), (26, 41733), (29, 41796), (30, 41802), (35, 41880), (37, 41904), (39, 41919), (40, 41925), (45, 42030), (46, 42039), (48, 42060), (52, 42117),

Gene: BuzzLyseyear_70 Start: 42721, Stop: 43602, Start Num: 5
Candidate Starts for BuzzLyseyear_70:
(Start: 5 @42721 has 57 MA's), (10, 42886), (13, 42949), (15, 42964), (17, 43021), (18, 43036), (21, 43117), (23, 43132), (26, 43162), (29, 43225), (30, 43231), (36, 43312), (39, 43348), (40, 43354), (43, 43420), (48, 43489), (52, 43546), (56, 43582),

Gene: Che8_69 Start: 44217, Stop: 45098, Start Num: 5
Candidate Starts for Che8_69:
(Start: 5 @44217 has 57 MA's), (10, 44382), (13, 44445), (15, 44460), (17, 44517), (18, 44532), (21, 44613), (23, 44628), (26, 44658), (29, 44721), (30, 44727), (36, 44808), (39, 44844), (40, 44850), (43, 44916), (48, 44985), (51, 45018), (52, 45042), (56, 45078),

Gene: Clank_70 Start: 42434, Stop: 43315, Start Num: 5
Candidate Starts for Clank_70:
(Start: 5 @42434 has 57 MA's), (10, 42599), (13, 42662), (15, 42677), (16, 42719), (17, 42734), (18, 42749), (21, 42830), (22, 42842), (23, 42845), (26, 42875), (29, 42938), (30, 42944), (35, 43022), (36, 43025), (39, 43061), (40, 43067), (42, 43106), (44, 43157), (50, 43223), (51, 43235), (52, 43259), (56, 43295),

Gene: DeadP_70 Start: 43847, Stop: 44728, Start Num: 5
Candidate Starts for DeadP_70:
(Start: 5 @43847 has 57 MA's), (10, 44012), (12, 44066), (13, 44075), (15, 44090), (16, 44132), (17, 44147), (18, 44162), (21, 44243), (22, 44255), (23, 44258), (26, 44288), (29, 44351), (30, 44357), (35, 44435), (36, 44438), (39, 44474), (40, 44480), (42, 44519), (43, 44546), (52, 44672), (54, 44684), (56, 44708),

Gene: Demsculpinboyz_77 Start: 41733, Stop: 42614, Start Num: 5
Candidate Starts for Demsculpinboyz_77:
(1, 41622), (4, 41676), (Start: 5 @41733 has 57 MA's), (10, 41898), (13, 41961), (14, 41970), (15, 41976), (17, 42033), (18, 42048), (21, 42129), (23, 42144), (26, 42174), (29, 42237), (30, 42243), (36, 42324), (39, 42360), (40, 42366), (43, 42432), (48, 42501), (55, 42582), (56, 42594),

Gene: DillTech15_61 Start: 39862, Stop: 40743, Start Num: 5
Candidate Starts for DillTech15_61:
(Start: 5 @39862 has 57 MA's), (10, 40027), (13, 40090), (15, 40105), (16, 40147), (17, 40162), (18, 40177), (21, 40258), (22, 40270), (23, 40273), (26, 40303), (29, 40366), (30, 40372), (35, 40450), (36, 40453), (39, 40489), (40, 40495), (42, 40534), (43, 40561), (52, 40687), (54, 40699), (56, 40723),

Gene: Ecliptus_71 Start: 42822, Stop: 43760, Start Num: 5
Candidate Starts for Ecliptus_71:
(Start: 5 @42822 has 57 MA's), (7, 42876), (17, 43122), (18, 43137), (21, 43218), (24, 43251), (25, 43257), (26, 43263), (27, 43284), (28, 43314), (30, 43332), (31, 43374), (32, 43386), (35, 43410), (37, 43434), (41, 43470), (45, 43560), (46, 43569), (47, 43584), (48, 43590), (52, 43647), (53, 43650),

Gene: Emma_66 Start: 41167, Stop: 42048, Start Num: 5
Candidate Starts for Emma_66:

(Start: 5 @41167 has 57 MA's), (10, 41332), (13, 41395), (15, 41410), (16, 41452), (17, 41467), (18, 41482), (21, 41563), (22, 41575), (23, 41578), (26, 41608), (29, 41671), (30, 41677), (35, 41755), (36, 41758), (39, 41794), (40, 41800), (42, 41839), (48, 41935), (55, 42016), (56, 42028),

Gene: Enzomatic_71 Start: 41142, Stop: 42023, Start Num: 5
Candidate Starts for Enzomatic_71:
(Start: 5 @41142 has 57 MA's), (10, 41307), (13, 41370), (15, 41385), (17, 41442), (18, 41457), (21, 41538), (23, 41553), (26, 41583), (29, 41646), (30, 41652), (36, 41733), (39, 41769), (40, 41775), (42, 41814), (43, 41841), (48, 41910), (56, 42003),

Gene: Eradicator_57 Start: 39571, Stop: 40452, Start Num: 5
Candidate Starts for Eradicator_57:
(Start: 5 @39571 has 57 MA's), (10, 39736), (13, 39799), (15, 39814), (17, 39871), (18, 39886), (21, 39967), (23, 39982), (26, 40012), (29, 40075), (30, 40081), (36, 40162), (39, 40198), (40, 40204), (43, 40270), (48, 40339), (52, 40396), (56, 40432),

Gene: Estave1_67 Start: 42639, Stop: 43520, Start Num: 5
Candidate Starts for Estave1_67:
(Start: 5 @42639 has 57 MA's), (10, 42804), (13, 42867), (15, 42882), (17, 42939), (18, 42954), (21, 43035), (23, 43050), (26, 43080), (27, 43101), (28, 43131), (29, 43143), (30, 43149), (31, 43191), (36, 43230), (39, 43266), (40, 43272), (48, 43407), (50, 43428), (52, 43464), (56, 43500),

Gene: Fancypants_66 Start: 41997, Stop: 42878, Start Num: 5
Candidate Starts for Fancypants_66:
(Start: 5 @41997 has 57 MA's), (10, 42162), (13, 42225), (15, 42240), (17, 42297), (18, 42312), (21, 42393), (23, 42408), (26, 42438), (29, 42501), (30, 42507), (36, 42588), (39, 42624), (40, 42630), (43, 42696), (48, 42765), (51, 42798), (56, 42858),

Gene: Fastidio_64 Start: 40012, Stop: 40893, Start Num: 5
Candidate Starts for Fastidio_64:
(Start: 5 @40012 has 57 MA's), (10, 40177), (12, 40231), (13, 40240), (15, 40255), (16, 40297), (17, 40312), (18, 40327), (21, 40408), (22, 40420), (23, 40423), (26, 40453), (29, 40516), (30, 40522), (35, 40600), (36, 40603), (39, 40639), (40, 40645), (42, 40684), (43, 40711), (52, 40837), (54, 40849), (56, 40873),

Gene: GUmbie_62 Start: 40798, Stop: 41679, Start Num: 5
Candidate Starts for GUmbie_62:
(Start: 5 @40798 has 57 MA's), (10, 40963), (13, 41026), (15, 41041), (17, 41098), (18, 41113), (21, 41194), (23, 41209), (26, 41239), (29, 41302), (30, 41308), (36, 41389), (39, 41425), (40, 41431), (43, 41497), (48, 41566), (52, 41623), (56, 41659),

Gene: Gorge_68 Start: 42740, Stop: 43621, Start Num: 5
Candidate Starts for Gorge_68:
(Start: 5 @42740 has 57 MA's), (10, 42905), (13, 42968), (15, 42983), (17, 43040), (18, 43055), (21, 43136), (23, 43151), (26, 43181), (29, 43244), (30, 43250), (36, 43331), (39, 43367), (40, 43373), (43, 43439), (48, 43508), (52, 43565), (56, 43601),

Gene: Horus_69 Start: 42027, Stop: 42965, Start Num: 5
Candidate Starts for Horus_69:
(Start: 5 @42027 has 57 MA's), (7, 42081), (9, 42150), (17, 42327), (18, 42342), (21, 42423), (24, 42456), (26, 42468), (27, 42489), (28, 42519), (30, 42537), (31, 42579), (32, 42591), (35, 42615), (41, 42675), (45, 42765), (46, 42774), (47, 42789), (48, 42795), (52, 42852), (53, 42855),

Gene: Jabbawokkie_78 Start: 43022, Stop: 43903, Start Num: 5
Candidate Starts for Jabbawokkie_78:
(Start: 5 @43022 has 57 MA's), (10, 43187), (13, 43250), (15, 43265), (16, 43307), (17, 43322), (18, 43337), (21, 43418), (22, 43430), (23, 43433), (26, 43463), (29, 43526), (30, 43532), (35, 43610), (36, 43613), (39, 43649), (40, 43655), (42, 43694), (43, 43721), (52, 43847), (54, 43859), (56, 43883),

Gene: James_68 Start: 42865, Stop: 43746, Start Num: 5
Candidate Starts for James_68:
(Start: 5 @42865 has 57 MA's), (10, 43030), (13, 43093), (15, 43108), (17, 43165), (18, 43180), (21, 43261), (23, 43276), (26, 43306), (29, 43369), (30, 43375), (36, 43456), (39, 43492), (40, 43498), (43, 43564), (48, 43633), (52, 43690), (56, 43726),

Gene: Jinglebell_69 Start: 43939, Stop: 44820, Start Num: 5
Candidate Starts for Jinglebell_69:
(3, 43852), (Start: 5 @43939 has 57 MA's), (10, 44104), (13, 44167), (15, 44182), (17, 44239), (18, 44254), (21, 44335), (23, 44350), (26, 44380), (29, 44443), (30, 44449), (36, 44530), (39, 44566), (40, 44572), (43, 44638), (48, 44707), (55, 44788), (56, 44800),

Gene: Juniper1_63 Start: 41675, Stop: 42556, Start Num: 5
Candidate Starts for Juniper1_63:
(Start: 5 @41675 has 57 MA's), (10, 41840), (13, 41903), (15, 41918), (17, 41975), (18, 41990), (21, 42071), (23, 42086), (26, 42116), (29, 42179), (30, 42185), (36, 42266), (39, 42302), (40, 42308), (49, 42458), (52, 42500), (55, 42524), (56, 42536),

Gene: Karhdo_61 Start: 41017, Stop: 41898, Start Num: 5
Candidate Starts for Karhdo_61:
(Start: 5 @41017 has 57 MA's), (10, 41182), (13, 41245), (15, 41260), (17, 41317), (18, 41332), (21, 41413), (23, 41428), (26, 41458), (29, 41521), (30, 41527), (36, 41608), (39, 41644), (43, 41716), (44, 41740), (48, 41785), (49, 41800), (50, 41806), (51, 41818), (56, 41878),

Gene: Latretium_66 Start: 41901, Stop: 42782, Start Num: 5
Candidate Starts for Latretium_66:
(2, 41799), (Start: 5 @41901 has 57 MA's), (10, 42066), (13, 42129), (15, 42144), (17, 42201), (18, 42216), (21, 42297), (23, 42312), (26, 42342), (29, 42405), (30, 42411), (36, 42492), (39, 42528), (40, 42534), (43, 42600), (49, 42684), (52, 42726), (55, 42750), (56, 42762),

Gene: LitninMcQueen_67 Start: 40977, Stop: 41915, Start Num: 5
Candidate Starts for LitninMcQueen_67:
(Start: 5 @40977 has 57 MA's), (7, 41031), (9, 41100), (17, 41277), (18, 41292), (19, 41319), (21, 41373), (26, 41418), (27, 41439), (29, 41481), (30, 41487), (32, 41541), (35, 41565), (40, 41610), (45, 41715), (46, 41724), (47, 41739), (48, 41745), (52, 41802), (53, 41805),

Gene: Lizziana_70 Start: 42346, Stop: 43227, Start Num: 5
Candidate Starts for Lizziana_70:
(Start: 5 @42346 has 57 MA's), (10, 42511), (13, 42574), (15, 42589), (17, 42646), (18, 42661), (21, 42742), (23, 42757), (26, 42787), (29, 42850), (30, 42856), (36, 42937), (39, 42973), (40, 42979), (43, 43045), (48, 43114), (52, 43171), (56, 43207),

Gene: Llama_68 Start: 43794, Stop: 44675, Start Num: 5
Candidate Starts for Llama_68:
(3, 43707), (Start: 5 @43794 has 57 MA's), (10, 43959), (13, 44022), (15, 44037), (17, 44094), (18, 44109), (21, 44190), (23, 44205), (26, 44235), (29, 44298), (30, 44304), (36, 44385), (39, 44421), (40, 44427), (43, 44493), (48, 44562), (55, 44643), (56, 44655),

Gene: LunaStella_63 Start: 40779, Stop: 41660, Start Num: 5
Candidate Starts for LunaStella_63:
(Start: 5 @40779 has 57 MA's), (8, 40878), (10, 40944), (13, 41007), (15, 41022), (17, 41079), (18, 41094), (21, 41175), (23, 41190), (26, 41220), (29, 41283), (30, 41289), (35, 41367), (36, 41370), (39, 41406), (40, 41412), (42, 41451), (50, 41568), (51, 41580), (52, 41604), (56, 41640),

Gene: Mantra_60 Start: 40147, Stop: 41028, Start Num: 5
Candidate Starts for Mantra_60:
(Start: 5 @40147 has 57 MA's), (10, 40312), (13, 40375), (15, 40390), (16, 40432), (17, 40447), (18, 40462), (21, 40543), (22, 40555), (23, 40558), (26, 40588), (29, 40651), (30, 40657), (35, 40735), (36, 40738), (39, 40774), (40, 40780), (42, 40819), (43, 40846), (52, 40972), (54, 40984), (56, 41008),

Gene: Mattes_68 Start: 42865, Stop: 43746, Start Num: 5
Candidate Starts for Mattes_68:
(Start: 5 @42865 has 57 MA's), (10, 43030), (13, 43093), (15, 43108), (17, 43165), (18, 43180), (21, 43261), (23, 43276), (26, 43306), (29, 43369), (30, 43375), (36, 43456), (39, 43492), (40, 43498), (43, 43564), (48, 43633), (52, 43690), (56, 43726),

Gene: Medindi_60 Start: 38637, Stop: 39518, Start Num: 5
Candidate Starts for Medindi_60:
(Start: 5 @38637 has 57 MA's), (10, 38802), (13, 38865), (15, 38880), (16, 38922), (17, 38937), (18, 38952), (21, 39033), (22, 39045), (23, 39048), (26, 39078), (29, 39141), (30, 39147), (35, 39225), (36, 39228), (39, 39264), (40, 39270), (42, 39309), (44, 39360), (50, 39426), (51, 39438), (52, 39462), (55, 39486), (56, 39498),

Gene: Modragons_67 Start: 43783, Stop: 44664, Start Num: 5
Candidate Starts for Modragons_67:
(3, 43696), (Start: 5 @43783 has 57 MA's), (10, 43948), (13, 44011), (15, 44026), (17, 44083), (18, 44098), (21, 44179), (23, 44194), (26, 44224), (29, 44287), (30, 44293), (36, 44374), (39, 44410), (40, 44416), (43, 44482), (48, 44551), (55, 44632), (56, 44644),

Gene: Moonbeam_63 Start: 41096, Stop: 41977, Start Num: 5
Candidate Starts for Moonbeam_63:
(Start: 5 @41096 has 57 MA's), (10, 41261), (13, 41324), (15, 41339), (16, 41381), (17, 41396), (18, 41411), (21, 41492), (22, 41504), (23, 41507), (26, 41537), (29, 41600), (30, 41606), (35, 41684), (36, 41687), (39, 41723), (40, 41729), (42, 41768), (48, 41864), (55, 41945), (56, 41957),

Gene: Mozy_73 Start: 43781, Stop: 44662, Start Num: 5
Candidate Starts for Mozy_73:
(Start: 5 @43781 has 57 MA's), (10, 43946), (13, 44009), (15, 44024), (17, 44081), (18, 44096), (21, 44177), (23, 44192), (26, 44222), (29, 44285), (30, 44291), (32, 44345), (35, 44369), (36, 44372), (39, 44408), (40, 44414), (42, 44453), (43, 44480), (49, 44564), (56, 44642),

Gene: NewHope4_65 Start: 41288, Stop: 42169, Start Num: 5
Candidate Starts for NewHope4_65:
(Start: 5 @41288 has 57 MA's), (10, 41453), (13, 41516), (15, 41531), (17, 41588), (18, 41603), (21, 41684), (23, 41699), (26, 41729), (29, 41792), (30, 41798), (36, 41879), (39, 41915), (40, 41921), (42, 41960), (43, 41987), (48, 42056), (56, 42149),

Gene: Nichirin_70 Start: 45324, Stop: 46205, Start Num: 5
Candidate Starts for Nichirin_70:

(3, 45237), (Start: 5 @45324 has 57 MA's), (10, 45489), (13, 45552), (15, 45567), (17, 45624), (18, 45639), (21, 45720), (23, 45735), (26, 45765), (29, 45828), (30, 45834), (36, 45915), (39, 45951), (40, 45957), (43, 46023), (48, 46092), (55, 46173), (56, 46185),

Gene: Ochi17_67 Start: 43390, Stop: 44271, Start Num: 5
Candidate Starts for Ochi17_67:
(3, 43303), (Start: 5 @43390 has 57 MA's), (10, 43555), (13, 43618), (15, 43633), (17, 43690), (18, 43705), (21, 43786), (23, 43801), (26, 43831), (29, 43894), (30, 43900), (36, 43981), (39, 44017), (40, 44023), (43, 44089), (48, 44158), (55, 44239), (56, 44251),

Gene: OfUltron_69 Start: 43939, Stop: 44820, Start Num: 5
Candidate Starts for OfUltron_69:
(3, 43852), (Start: 5 @43939 has 57 MA's), (10, 44104), (13, 44167), (15, 44182), (17, 44239), (18, 44254), (21, 44335), (23, 44350), (26, 44380), (29, 44443), (30, 44449), (36, 44530), (39, 44566), (40, 44572), (43, 44638), (48, 44707), (55, 44788), (56, 44800),

Gene: Ogopogo_69 Start: 41764, Stop: 42645, Start Num: 5
Candidate Starts for Ogopogo_69:
(Start: 5 @41764 has 57 MA's), (10, 41929), (12, 41983), (13, 41992), (15, 42007), (16, 42049), (17, 42064), (18, 42079), (21, 42160), (22, 42172), (23, 42175), (26, 42205), (29, 42268), (30, 42274), (35, 42352), (36, 42355), (39, 42391), (40, 42397), (42, 42436), (44, 42487), (50, 42553), (51, 42565), (52, 42589), (55, 42613), (56, 42625),

Gene: OlympiaSaint_66 Start: 41807, Stop: 42688, Start Num: 5
Candidate Starts for OlympiaSaint_66:
(Start: 5 @41807 has 57 MA's), (10, 41972), (13, 42035), (15, 42050), (17, 42107), (18, 42122), (21, 42203), (23, 42218), (26, 42248), (29, 42311), (30, 42317), (36, 42398), (39, 42434), (40, 42440), (43, 42506), (48, 42575), (52, 42632), (56, 42668),

Gene: PhaoMing_52 Start: 37123, Stop: 38070, Start Num: 5
Candidate Starts for PhaoMing_52:
(Start: 5 @37123 has 57 MA's), (17, 37426), (18, 37441), (19, 37468), (21, 37522), (24, 37555), (25, 37561), (26, 37567), (29, 37630), (30, 37636), (32, 37690), (34, 37708), (35, 37714), (37, 37738), (39, 37753), (40, 37759), (45, 37864), (46, 37873), (47, 37888), (48, 37894), (52, 37951),

Gene: Phasih_62 Start: 41721, Stop: 42602, Start Num: 5
Candidate Starts for Phasih_62:
(Start: 5 @41721 has 57 MA's), (10, 41886), (13, 41949), (15, 41964), (17, 42021), (18, 42036), (21, 42117), (23, 42132), (26, 42162), (29, 42225), (30, 42231), (36, 42312), (39, 42348), (40, 42354), (42, 42393), (48, 42489), (50, 42510), (52, 42546), (56, 42582),

Gene: Pollywog_65 Start: 42125, Stop: 43006, Start Num: 5
Candidate Starts for Pollywog_65:
(Start: 5 @42125 has 57 MA's), (10, 42290), (13, 42353), (15, 42368), (17, 42425), (18, 42440), (21, 42521), (23, 42536), (26, 42566), (29, 42629), (30, 42635), (36, 42716), (39, 42752), (40, 42758), (43, 42824), (48, 42893), (52, 42950), (56, 42986),

Gene: Polo2Bam_70 Start: 41142, Stop: 42023, Start Num: 5
Candidate Starts for Polo2Bam_70:
(Start: 5 @41142 has 57 MA's), (10, 41307), (13, 41370), (15, 41385), (17, 41442), (18, 41457), (21, 41538), (23, 41553), (26, 41583), (29, 41646), (30, 41652), (36, 41733), (39, 41769), (40, 41775), (42, 41814), (43, 41841), (48, 41910), (56, 42003),

Gene: Royals2015_67 Start: 41543, Stop: 42424, Start Num: 5
Candidate Starts for Royals2015_67:
(Start: 5 @41543 has 57 MA's), (10, 41708), (13, 41771), (15, 41786), (17, 41843), (18, 41858), (21, 41939), (23, 41954), (26, 41984), (29, 42047), (30, 42053), (35, 42131), (36, 42134), (39, 42170), (40, 42176), (42, 42215), (48, 42311), (51, 42344), (55, 42392), (56, 42404),

Gene: Saal_66 Start: 42559, Stop: 43440, Start Num: 5
Candidate Starts for Saal_66:
(Start: 5 @42559 has 57 MA's), (10, 42724), (13, 42787), (15, 42802), (17, 42859), (18, 42874), (21, 42955), (23, 42970), (26, 43000), (29, 43063), (30, 43069), (36, 43150), (39, 43186), (40, 43192), (43, 43258), (48, 43327), (52, 43384), (56, 43420),

Gene: SeaLumen_69 Start: 41142, Stop: 42023, Start Num: 5
Candidate Starts for SeaLumen_69:
(Start: 5 @41142 has 57 MA's), (10, 41307), (13, 41370), (15, 41385), (17, 41442), (18, 41457), (21, 41538), (23, 41553), (26, 41583), (29, 41646), (30, 41652), (36, 41733), (39, 41769), (40, 41775), (42, 41814), (43, 41841), (48, 41910), (56, 42003),

Gene: Seabastian_69 Start: 43940, Stop: 44821, Start Num: 5
Candidate Starts for Seabastian_69:
(3, 43853), (Start: 5 @43940 has 57 MA's), (10, 44105), (13, 44168), (15, 44183), (17, 44240), (18, 44255), (21, 44336), (23, 44351), (26, 44381), (29, 44444), (30, 44450), (36, 44531), (39, 44567), (40, 44573), (43, 44639), (48, 44708), (55, 44789), (56, 44801),

Gene: SimranZ1_65 Start: 41732, Stop: 42613, Start Num: 5
Candidate Starts for SimranZ1_65:
(Start: 5 @41732 has 57 MA's), (10, 41897), (13, 41960), (15, 41975), (17, 42032), (18, 42047), (21, 42128), (23, 42143), (26, 42173), (29, 42236), (30, 42242), (36, 42323), (39, 42359), (40, 42365), (42, 42404), (48, 42500), (50, 42521), (52, 42557), (56, 42593),

Gene: Squiddly_69 Start: 44638, Stop: 45579, Start Num: 5
Candidate Starts for Squiddly_69:
(Start: 5 @44638 has 57 MA's), (11, 44812), (17, 44941), (18, 44956), (19, 44983), (20, 45016), (21, 45037), (24, 45070), (26, 45082), (29, 45145), (30, 45151), (34, 45223), (35, 45229), (37, 45253), (45, 45379), (46, 45388), (48, 45409), (49, 45424), (52, 45466), (53, 45469), (56, 45502),

Gene: Squirty_66 Start: 42518, Stop: 43399, Start Num: 5
Candidate Starts for Squirty_66:
(Start: 5 @42518 has 57 MA's), (10, 42683), (13, 42746), (15, 42761), (16, 42803), (17, 42818), (18, 42833), (21, 42914), (22, 42926), (23, 42929), (26, 42959), (29, 43022), (30, 43028), (35, 43106), (36, 43109), (39, 43145), (40, 43151), (42, 43190), (46, 43265), (48, 43286), (50, 43307), (52, 43343), (55, 43367), (56, 43379),

Gene: TChen_65 Start: 42730, Stop: 43611, Start Num: 5
Candidate Starts for TChen_65:
(Start: 5 @42730 has 57 MA's), (8, 42829), (10, 42895), (13, 42958), (15, 42973), (17, 43030), (18, 43045), (21, 43126), (23, 43141), (26, 43171), (29, 43234), (30, 43240), (35, 43318), (36, 43321), (39, 43357), (40, 43363), (42, 43402), (50, 43519), (51, 43531), (52, 43555), (56, 43591),

Gene: Taj_68 Start: 42961, Stop: 43842, Start Num: 5
Candidate Starts for Taj_68:
(Start: 5 @42961 has 57 MA's), (10, 43126), (12, 43180), (13, 43189), (15, 43204), (16, 43246), (17, 43261), (18, 43276), (21, 43357), (22, 43369), (23, 43372), (26, 43402), (29, 43465), (30, 43471), (35,

43549), (36, 43552), (39, 43588), (40, 43594), (42, 43633), (43, 43660), (52, 43786), (54, 43798), (56, 43822),

Gene: Tchotchke_65 Start: 41050, Stop: 41931, Start Num: 5
Candidate Starts for Tchotchke_65:
(Start: 5 @41050 has 57 MA's), (10, 41215), (13, 41278), (15, 41293), (17, 41350), (18, 41365), (21, 41446), (23, 41461), (26, 41491), (29, 41554), (30, 41560), (36, 41641), (39, 41677), (40, 41683), (43, 41749), (48, 41818), (52, 41875), (56, 41911),

Gene: ThetaBob_71 Start: 43215, Stop: 44096, Start Num: 5
Candidate Starts for ThetaBob_71:
(1, 43104), (Start: 5 @43215 has 57 MA's), (6, 43221), (10, 43380), (13, 43443), (15, 43458), (17, 43515), (18, 43530), (21, 43611), (23, 43626), (26, 43656), (27, 43677), (28, 43707), (29, 43719), (30, 43725), (31, 43767), (35, 43803), (36, 43806), (39, 43842), (40, 43848), (43, 43914), (44, 43938), (48, 43983), (51, 44016), (56, 44076),

Gene: Toron_73 Start: 44999, Stop: 45895, Start Num: 5
Candidate Starts for Toron_73:
(Start: 5 @44999 has 57 MA's), (13, 45227), (17, 45299), (18, 45314), (21, 45395), (24, 45428), (26, 45440), (30, 45509), (31, 45551), (33, 45569), (34, 45581), (35, 45587), (38, 45623), (40, 45632), (41, 45647), (42, 45671), (46, 45746), (48, 45767), (49, 45782), (52, 45824), (56, 45860),

Gene: VRedHorse_64 Start: 40519, Stop: 41400, Start Num: 5
Candidate Starts for VRedHorse_64:
(Start: 5 @40519 has 57 MA's), (10, 40684), (13, 40747), (15, 40762), (16, 40804), (17, 40819), (18, 40834), (21, 40915), (22, 40927), (23, 40930), (26, 40960), (29, 41023), (30, 41029), (35, 41107), (36, 41110), (39, 41146), (40, 41152), (42, 41191), (44, 41242), (50, 41308), (51, 41320), (52, 41344), (55, 41368), (56, 41380),

Gene: Wachhund_65 Start: 41150, Stop: 42031, Start Num: 5
Candidate Starts for Wachhund_65:
(Start: 5 @41150 has 57 MA's), (10, 41315), (13, 41378), (14, 41387), (15, 41393), (17, 41450), (18, 41465), (21, 41546), (23, 41561), (26, 41591), (29, 41654), (30, 41660), (35, 41738), (36, 41741), (39, 41777), (40, 41783), (43, 41849), (48, 41918), (56, 42011),

Gene: Wee_68 Start: 43037, Stop: 43918, Start Num: 5
Candidate Starts for Wee_68:
(Start: 5 @43037 has 57 MA's), (10, 43202), (12, 43256), (13, 43265), (15, 43280), (16, 43322), (17, 43337), (18, 43352), (21, 43433), (22, 43445), (23, 43448), (26, 43478), (29, 43541), (30, 43547), (35, 43625), (36, 43628), (39, 43664), (40, 43670), (42, 43709), (43, 43736), (52, 43862), (54, 43874), (56, 43898),

Gene: Whatsapiecost_64 Start: 40446, Stop: 41327, Start Num: 5
Candidate Starts for Whatsapiecost_64:
(Start: 5 @40446 has 57 MA's), (10, 40611), (13, 40674), (15, 40689), (16, 40731), (17, 40746), (18, 40761), (21, 40842), (22, 40854), (23, 40857), (26, 40887), (29, 40950), (30, 40956), (35, 41034), (36, 41037), (39, 41073), (40, 41079), (42, 41118), (44, 41169), (50, 41235), (51, 41247), (52, 41271), (55, 41295), (56, 41307),

Gene: Yorick_63 Start: 41673, Stop: 42554, Start Num: 5
Candidate Starts for Yorick_63:
(Start: 5 @41673 has 57 MA's), (10, 41838), (13, 41901), (15, 41916), (17, 41973), (18, 41988), (21, 42069), (23, 42084), (26, 42114), (29, 42177), (30, 42183), (36, 42264), (39, 42300), (40, 42306), (43,

42372), (48, 42441), (52, 42498), (56, 42534),

Gene: Yoshi_79 Start: 43479, Stop: 44360, Start Num: 5
Candidate Starts for Yoshi_79:
(1, 43368), (Start: 5 @43479 has 57 MA's), (6, 43485), (10, 43644), (13, 43707), (15, 43722), (17, 43779), (18, 43794), (21, 43875), (23, 43890), (26, 43920), (27, 43941), (28, 43971), (29, 43983), (30, 43989), (31, 44031), (35, 44067), (36, 44070), (39, 44106), (40, 44112), (43, 44178), (44, 44202), (48, 44247), (51, 44280), (56, 44340),

Gene: Zapner_77 Start: 43116, Stop: 43997, Start Num: 5
Candidate Starts for Zapner_77:
(Start: 5 @43116 has 57 MA's), (10, 43281), (13, 43344), (15, 43359), (16, 43401), (17, 43416), (18, 43431), (21, 43512), (22, 43524), (23, 43527), (26, 43557), (29, 43620), (30, 43626), (35, 43704), (36, 43707), (39, 43743), (40, 43749), (42, 43788), (43, 43815), (52, 43941), (54, 43953), (56, 43977),