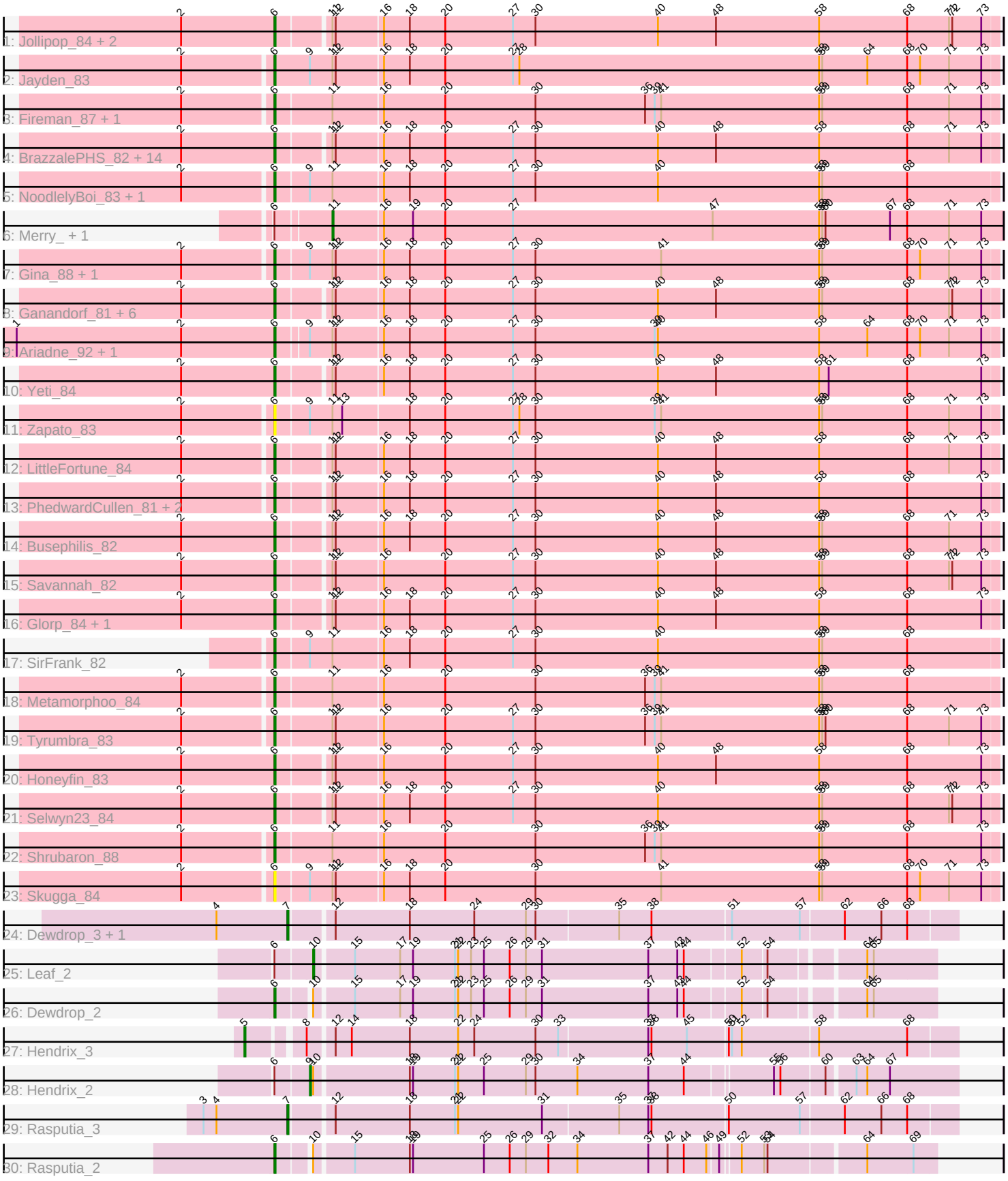
# Pham 347639


1: Jollipop_84 + 2
2: Jayden_83
3: Fireman_87 + 1
4: BrazzalePHS_82 + 14
5: NoodlelyBoi_83 + 1
6: Merry_ + 1
7: Gina_88 + 1
8: Ganandorf_81 + 6
9: Ariadne_92 + 1
10: Yeti_84
11: Zapato_83
12: LittleFortune_84
13: PhedwardCullen_81 + 2
14: Busephilis_82
15: Savannah_82
16: Glorp_84 + 1
17: SirFrank_82
18: Metamorphoo_84
19: Tyrumbra_83
20: Honeyfin_83
21: Selwyn23_84
22: Shrubaron_88
23: Skugga_84
24: Dewdrop_3 + 1
25: Leaf_2
26: Dewdrop_2
27: Hendrix_3
28: Hendrix_2
29: Rasputia_3
30: Rasputia_2

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 347639 Report

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

Pham number 347639 has 61 members, 6 are drafts.

Phages represented in each track:
• Track 1 : Jollipop_84, Germa_85, Hermeonysus_83
• Track 2 : Jayden_83
• Track 3 : Fireman_87, RobsFeet_90
• Track 4 : BrazzalePHS_82, Onika_82, Paschalis_83, PierreOrion_82, Kowalski_82, Phrancesco_83, Rockwell_82, KaiHaiDragon_84, BeagleBug_82, Jefe_83, Quhwah_87, Ramiel05_82, EarickHC_84, Shotgun_82, Antares_83
• Track 5 : NoodlelyBoi_83, ClearAsMud_86
• Track 6 : Merry_, Sunny_
• Track 7 : Gina_88, Teamocil_88
• Track 8 : Ganandorf_81, Piperis_84, Crisis_84, Cranjis_84, Scumberland_85, Pulchra_85, Lucretia_83
• Track 9 : Ariadne_92, Smarties_92
• Track 10 : Yeti_84
• Track 11 : Zapato_83
• Track 12 : LittleFortune_84
• Track 13 : PhedwardCullen_81, PiperSansNom_84, CrazyRich_81
• Track 14 : Busephilis_82
• Track 15 : Savannah_82
• Track 16 : Glorp_84, Phorgeous_83
• Track 17 : SirFrank_82
• Track 18 : Metamorphoo_84
• Track 19 : Tyrumbra_83
• Track 20 : Honeyfin_83
• Track 21 : Selwyn23_84
• Track 22 : Shrubaron_88
• Track 23 : Skugga_84
• Track 24 : Dewdrop_3, Leaf_3
• Track 25 : Leaf_2
• Track 26 : Dewdrop_2
• Track 27 : Hendrix_3
• Track 28 : Hendrix_2
• Track 29 : Rasputia_3
• Track 30 : Rasputia_2

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

The start number called the most often in the published annotations is 6, it was called in 47 of the 55 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Antares_83, Ariadne_92, BeagleBug_82, BrazzalePHS_82, Busephilis_82, ClearAsMud_86, Cranjis_84, CrazyRich_81, Crisis_84, Dewdrop_2, EarickHC_84, Fireman_87, Ganandorf_81, Germa_85, Gina_88, Glorp_84, Hermeonysus_83, Honeyfin_83, Jayden_83, Jefe_83, Jollipop_84, KaiHaiDragon_84, Kowalski_82, LittleFortune_84, Lucretia_83, Metamorphoo_84, NoodlelyBoi_83, Onika_82, Paschalis_83, PhedwardCullen_81, Phorgeous_83, Phrancesco_83, PierreOrion_82, PiperSansNom_84, Piperis_84, Pulchra_85, Quhwah_87, Ramiel05_82, Rasputia_2, RobsFeet_90, Rockwell_82, Savannah_82, Scumberland_85, Selwyn23_84, Shotgun_82, Shrubaron_88, SirFrank_82, Skugga_84, Smarties_92, Teamocil_88, Tyrumbra_83, Yeti_84, Zapato_83,

Genes that have the "Most Annotated" start but do not call it:
• Hendrix_2, Leaf_2, Merry_, Sunny_,

Genes that do not have the "Most Annotated" start:
• Dewdrop_3, Hendrix_3, Leaf_3, Rasputia_3,

**Summary by start number:**

Start 5:
• Found in 1 of 61 ( 1.6% ) of genes in pham
• Manual Annotations of this start: 1 of 55
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Hendrix_3 (GC),

Start 6:
• Found in 57 of 61 ( 93.4% ) of genes in pham
• Manual Annotations of this start: 47 of 55
• Called 93.0% of time when present
• Phage (with cluster) where this start called: Antares_83 (EC), Ariadne_92 (EC), BeagleBug_82 (EC), BrazzalePHS_82 (EC), Busephilis_82 (EC), ClearAsMud_86 (EC), Cranjis_84 (EC), CrazyRich_81 (EC), Crisis_84 (EC), Dewdrop_2 (GC), EarickHC_84 (EC), Fireman_87 (EC), Ganandorf_81 (EC), Germa_85 (EC), Gina_88 (EC), Glorp_84 (EC), Hermeonysus_83 (EC), Honeyfin_83 (EC), Jayden_83 (EC), Jefe_83 (EC), Jollipop_84 (EC), KaiHaiDragon_84 (EC), Kowalski_82 (EC), LittleFortune_84 (EC), Lucretia_83 (EC), Metamorphoo_84 (EC), NoodlelyBoi_83 (EC), Onika_82 (EC), Paschalis_83 (EC), PhedwardCullen_81 (EC), Phorgeous_83 (EC), Phrancesco_83 (EC), PierreOrion_82 (EC), PiperSansNom_84 (EC), Piperis_84 (EC), Pulchra_85 (EC), Quhwah_87 (EC), Ramiel05_82 (EC), Rasputia_2 (GC), RobsFeet_90 (EC), Rockwell_82 (EC), Savannah_82 (EC), Scumberland_85 (EC), Selwyn23_84 (EC), Shotgun_82 (EC), Shrubaron_88 (EC), SirFrank_82 (EC), Skugga_84 (EC), Smarties_92 (EC), Teamocil_88 (EC), Tyrumbra_83 (EC), Yeti_84 (EC), Zapato_83 (EC),

Start 7:
• Found in 3 of 61 ( 4.9% ) of genes in pham
• Manual Annotations of this start: 3 of 55
• Called 100.0% of time when present

• Phage (with cluster) where this start called: Dewdrop_3 (GC), Leaf_3 (GC), Rasputia_3 (GC),

Start 9:
• Found in 11 of 61 ( 18.0% ) of genes in pham
• Manual Annotations of this start: 1 of 55
• Called 9.1% of time when present
• Phage (with cluster) where this start called: Hendrix_2 (GC),

Start 10:
• Found in 4 of 61 ( 6.6% ) of genes in pham
• Manual Annotations of this start: 1 of 55
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Leaf_2 (GC),

Start 11:
• Found in 53 of 61 ( 86.9% ) of genes in pham
• Manual Annotations of this start: 2 of 55
• Called 3.8% of time when present
• Phage (with cluster) where this start called: Merry_ (EC), Sunny_ (EC),

**Summary by clusters:**

There are 2 clusters represented in this pham: GC, EC,

Info for manual annotations of cluster EC:
•Start number 6 was manually annotated 45 times for cluster EC.
•Start number 11 was manually annotated 2 times for cluster EC.

Info for manual annotations of cluster GC:
•Start number 5 was manually annotated 1 time for cluster GC.
•Start number 6 was manually annotated 2 times for cluster GC.
•Start number 7 was manually annotated 3 times for cluster GC.
•Start number 9 was manually annotated 1 time for cluster GC.
•Start number 10 was manually annotated 1 time for cluster GC.

***Gene Information:***

Gene: Antares_83 Start: 49113, Stop: 49772, Start Num: 6
Candidate Starts for Antares_83:
(2, 49029), (Start: 6 @49113 has 47 MA's), (Start: 11 @49158 has 2 MA's), (12, 49161), (16, 49203), (18, 49227), (20, 49260), (27, 49323), (30, 49344), (40, 49458), (48, 49512), (58, 49608), (68, 49689), (71, 49728), (73, 49758),

Gene: Ariadne_92 Start: 49948, Stop: 50610, Start Num: 6
Candidate Starts for Ariadne_92:
(1, 49711), (2, 49864), (Start: 6 @49948 has 47 MA's), (Start: 9 @49975 has 1 MA's), (Start: 11 @49996 has 2 MA's), (12, 49999), (16, 50041), (18, 50065), (20, 50098), (27, 50161), (30, 50182), (39, 50293), (40, 50296), (58, 50446), (64, 50491), (68, 50527), (70, 50539), (71, 50566), (73, 50596),

Gene: BeagleBug_82 Start: 48916, Stop: 49575, Start Num: 6

Candidate Starts for BeagleBug_82:
(2, 48832), (Start: 6 @48916 has 47 MA's), (Start: 11 @48961 has 2 MA's), (12, 48964), (16, 49006), (18, 49030), (20, 49063), (27, 49126), (30, 49147), (40, 49261), (48, 49315), (58, 49411), (68, 49492), (71, 49531), (73, 49561),

Gene: BrazzalePHS_82 Start: 48913, Stop: 49572, Start Num: 6
Candidate Starts for BrazzalePHS_82:
(2, 48829), (Start: 6 @48913 has 47 MA's), (Start: 11 @48958 has 2 MA's), (12, 48961), (16, 49003), (18, 49027), (20, 49060), (27, 49123), (30, 49144), (40, 49258), (48, 49312), (58, 49408), (68, 49489), (71, 49528), (73, 49558),

Gene: Busephilis_82 Start: 48820, Stop: 49479, Start Num: 6
Candidate Starts for Busephilis_82:
(2, 48736), (Start: 6 @48820 has 47 MA's), (Start: 11 @48865 has 2 MA's), (12, 48868), (16, 48910), (18, 48934), (20, 48967), (27, 49030), (30, 49051), (40, 49165), (48, 49219), (58, 49315), (59, 49318), (68, 49396), (71, 49435), (73, 49465),

Gene: ClearAsMud_86 Start: 49132, Stop: 49797, Start Num: 6
Candidate Starts for ClearAsMud_86:
(2, 49054), (Start: 6 @49132 has 47 MA's), (Start: 9 @49162 has 1 MA's), (Start: 11 @49183 has 2 MA's), (16, 49228), (18, 49252), (20, 49285), (27, 49348), (30, 49369), (40, 49483), (58, 49633), (59, 49636), (68, 49714),

Gene: Cranjis_84 Start: 49100, Stop: 49759, Start Num: 6
Candidate Starts for Cranjis_84:
(2, 49016), (Start: 6 @49100 has 47 MA's), (Start: 11 @49145 has 2 MA's), (12, 49148), (16, 49190), (18, 49214), (20, 49247), (27, 49310), (30, 49331), (40, 49445), (48, 49499), (58, 49595), (59, 49598), (68, 49676), (71, 49715), (72, 49718), (73, 49745),

Gene: CrazyRich_81 Start: 48604, Stop: 49263, Start Num: 6
Candidate Starts for CrazyRich_81:
(2, 48526), (Start: 6 @48604 has 47 MA's), (Start: 11 @48649 has 2 MA's), (12, 48652), (16, 48694), (18, 48718), (20, 48751), (27, 48814), (30, 48835), (40, 48949), (48, 49003), (58, 49099), (68, 49180), (73, 49249),

Gene: Crisis_84 Start: 49056, Stop: 49715, Start Num: 6
Candidate Starts for Crisis_84:
(2, 48972), (Start: 6 @49056 has 47 MA's), (Start: 11 @49101 has 2 MA's), (12, 49104), (16, 49146), (18, 49170), (20, 49203), (27, 49266), (30, 49287), (40, 49401), (48, 49455), (58, 49551), (59, 49554), (68, 49632), (71, 49671), (72, 49674), (73, 49701),

Gene: Dewdrop_3 Start: 1282, Stop: 1884, Start Num: 7
Candidate Starts for Dewdrop_3:
(4, 1216), (Start: 7 @1282 has 3 MA's), (12, 1318), (18, 1387), (24, 1447), (29, 1495), (30, 1504), (35, 1579), (38, 1609), (51, 1681), (57, 1744), (62, 1783), (66, 1816), (68, 1840),

Gene: Dewdrop_2 Start: 713, Stop: 1285, Start Num: 6
Candidate Starts for Dewdrop_2:
(Start: 6 @713 has 47 MA's), (Start: 10 @740 has 1 MA's), (15, 773), (17, 815), (19, 827), (21, 866), (22, 869), (23, 881), (25, 893), (26, 917), (29, 932), (31, 947), (37, 1046), (43, 1073), (44, 1079), (52, 1127), (54, 1148), (64, 1223), (65, 1229),

Gene: EarickHC_84 Start: 48978, Stop: 49637, Start Num: 6

Candidate Starts for EarickHC_84:
(2, 48894), (Start: 6 @48978 has 47 MA's), (Start: 11 @49023 has 2 MA's), (12, 49026), (16, 49068), (18, 49092), (20, 49125), (27, 49188), (30, 49209), (40, 49323), (48, 49377), (58, 49473), (68, 49554), (71, 49593), (73, 49623),

Gene: Fireman_87 Start: 50364, Stop: 51029, Start Num: 6
Candidate Starts for Fireman_87:
(2, 50286), (Start: 6 @50364 has 47 MA's), (Start: 11 @50415 has 2 MA's), (16, 50460), (20, 50517), (30, 50601), (36, 50703), (39, 50712), (41, 50718), (58, 50865), (59, 50868), (68, 50946), (71, 50985), (73, 51015),

Gene: Ganandorf_81 Start: 48464, Stop: 49123, Start Num: 6
Candidate Starts for Ganandorf_81:
(2, 48380), (Start: 6 @48464 has 47 MA's), (Start: 11 @48509 has 2 MA's), (12, 48512), (16, 48554), (18, 48578), (20, 48611), (27, 48674), (30, 48695), (40, 48809), (48, 48863), (58, 48959), (59, 48962), (68, 49040), (71, 49079), (72, 49082), (73, 49109),

Gene: Germa_85 Start: 48908, Stop: 49567, Start Num: 6
Candidate Starts for Germa_85:
(2, 48824), (Start: 6 @48908 has 47 MA's), (Start: 11 @48953 has 2 MA's), (12, 48956), (16, 48998), (18, 49022), (20, 49055), (27, 49118), (30, 49139), (40, 49253), (48, 49307), (58, 49403), (68, 49484), (71, 49523), (72, 49526), (73, 49553),

Gene: Gina_88 Start: 48970, Stop: 49635, Start Num: 6
Candidate Starts for Gina_88:
(2, 48892), (Start: 6 @48970 has 47 MA's), (Start: 9 @49000 has 1 MA's), (Start: 11 @49021 has 2 MA's), (12, 49024), (16, 49066), (18, 49090), (20, 49123), (27, 49186), (30, 49207), (41, 49324), (58, 49471), (59, 49474), (68, 49552), (70, 49564), (71, 49591), (73, 49621),

Gene: Glorp_84 Start: 48865, Stop: 49524, Start Num: 6
Candidate Starts for Glorp_84:
(2, 48781), (Start: 6 @48865 has 47 MA's), (Start: 11 @48910 has 2 MA's), (12, 48913), (16, 48955), (18, 48979), (20, 49012), (27, 49075), (30, 49096), (40, 49210), (48, 49264), (58, 49360), (68, 49441), (73, 49510),

Gene: Hendrix_3 Start: 1375, Stop: 2007, Start Num: 5
Candidate Starts for Hendrix_3:
(Start: 5 @1375 has 1 MA's), (8, 1420), (12, 1441), (14, 1456), (18, 1510), (22, 1555), (24, 1570), (30, 1627), (33, 1648), (37, 1729), (38, 1732), (45, 1765), (50, 1801), (51, 1804), (52, 1813), (58, 1882), (68, 1963),

Gene: Hendrix_2 Start: 803, Stop: 1378, Start Num: 9
Candidate Starts for Hendrix_2:
(Start: 6 @773 has 47 MA's), (Start: 9 @803 has 1 MA's), (Start: 10 @806 has 1 MA's), (18, 890), (19, 893), (21, 932), (22, 935), (25, 959), (29, 998), (30, 1007), (34, 1046), (37, 1112), (44, 1145), (55, 1220), (56, 1226), (60, 1265), (63, 1286), (64, 1295), (67, 1316),

Gene: Hermeonysus_83 Start: 48821, Stop: 49480, Start Num: 6
Candidate Starts for Hermeonysus_83:
(2, 48737), (Start: 6 @48821 has 47 MA's), (Start: 11 @48866 has 2 MA's), (12, 48869), (16, 48911), (18, 48935), (20, 48968), (27, 49031), (30, 49052), (40, 49166), (48, 49220), (58, 49316), (68, 49397), (71, 49436), (72, 49439), (73, 49466),

Gene: Honeyfin_83 Start: 48654, Stop: 49313, Start Num: 6
Candidate Starts for Honeyfin_83:
(2, 48570), (Start: 6 @48654 has 47 MA's), (Start: 11 @48699 has 2 MA's), (12, 48702), (16, 48744), (20, 48801), (27, 48864), (30, 48885), (40, 48999), (48, 49053), (58, 49149), (68, 49230), (73, 49299),

Gene: Jayden_83 Start: 48575, Stop: 49243, Start Num: 6
Candidate Starts for Jayden_83:
(2, 48497), (Start: 6 @48575 has 47 MA's), (Start: 9 @48608 has 1 MA's), (Start: 11 @48629 has 2 MA's), (12, 48632), (16, 48674), (18, 48698), (20, 48731), (27, 48794), (28, 48800), (58, 49079), (59, 49082), (64, 49124), (68, 49160), (70, 49172), (71, 49199), (73, 49229),

Gene: Jefe_83 Start: 48876, Stop: 49535, Start Num: 6
Candidate Starts for Jefe_83:
(2, 48792), (Start: 6 @48876 has 47 MA's), (Start: 11 @48921 has 2 MA's), (12, 48924), (16, 48966), (18, 48990), (20, 49023), (27, 49086), (30, 49107), (40, 49221), (48, 49275), (58, 49371), (68, 49452), (71, 49491), (73, 49521),

Gene: Jollipop_84 Start: 49241, Stop: 49900, Start Num: 6
Candidate Starts for Jollipop_84:
(2, 49157), (Start: 6 @49241 has 47 MA's), (Start: 11 @49286 has 2 MA's), (12, 49289), (16, 49331), (18, 49355), (20, 49388), (27, 49451), (30, 49472), (40, 49586), (48, 49640), (58, 49736), (68, 49817), (71, 49856), (72, 49859), (73, 49886),

Gene: KaiHaiDragon_84 Start: 48978, Stop: 49637, Start Num: 6
Candidate Starts for KaiHaiDragon_84:
(2, 48894), (Start: 6 @48978 has 47 MA's), (Start: 11 @49023 has 2 MA's), (12, 49026), (16, 49068), (18, 49092), (20, 49125), (27, 49188), (30, 49209), (40, 49323), (48, 49377), (58, 49473), (68, 49554), (71, 49593), (73, 49623),

Gene: Kowalski_82 Start: 48908, Stop: 49567, Start Num: 6
Candidate Starts for Kowalski_82:
(2, 48824), (Start: 6 @48908 has 47 MA's), (Start: 11 @48953 has 2 MA's), (12, 48956), (16, 48998), (18, 49022), (20, 49055), (27, 49118), (30, 49139), (40, 49253), (48, 49307), (58, 49403), (68, 49484), (71, 49523), (73, 49553),

Gene: Leaf_2 Start: 740, Stop: 1285, Start Num: 10
Candidate Starts for Leaf_2:
(Start: 6 @713 has 47 MA's), (Start: 10 @740 has 1 MA's), (15, 773), (17, 815), (19, 827), (21, 866), (22, 869), (23, 881), (25, 893), (26, 917), (29, 932), (31, 947), (37, 1046), (43, 1073), (44, 1079), (52, 1127), (54, 1148), (64, 1223), (65, 1229),

Gene: Leaf_3 Start: 1282, Stop: 1884, Start Num: 7
Candidate Starts for Leaf_3:
(4, 1216), (Start: 7 @1282 has 3 MA's), (12, 1318), (18, 1387), (24, 1447), (29, 1495), (30, 1504), (35, 1579), (38, 1609), (51, 1681), (57, 1744), (62, 1783), (66, 1816), (68, 1840),

Gene: LittleFortune_84 Start: 48891, Stop: 49550, Start Num: 6
Candidate Starts for LittleFortune_84:
(2, 48813), (Start: 6 @48891 has 47 MA's), (Start: 11 @48936 has 2 MA's), (12, 48939), (16, 48981), (18, 49005), (20, 49038), (27, 49101), (30, 49122), (40, 49236), (48, 49290), (58, 49386), (68, 49467), (71, 49506), (73, 49536),

Gene: Lucretia_83 Start: 48950, Stop: 49609, Start Num: 6

Candidate Starts for Lucretia_83:
(2, 48866), (Start: 6 @48950 has 47 MA's), (Start: 11 @48995 has 2 MA's), (12, 48998), (16, 49040), (18, 49064), (20, 49097), (27, 49160), (30, 49181), (40, 49295), (48, 49349), (58, 49445), (59, 49448), (68, 49526), (71, 49565), (72, 49568), (73, 49595),

Gene: Merry_ Start: 49109, Stop: 49729, Start Num: 11
Candidate Starts for Merry_:
(Start: 6 @49061 has 47 MA's), (Start: 11 @49109 has 2 MA's), (16, 49154), (19, 49181), (20, 49211), (27, 49274), (47, 49460), (58, 49559), (59, 49562), (60, 49565), (67, 49625), (68, 49640), (71, 49679), (73, 49709),

Gene: Metamorphoo_84 Start: 49657, Stop: 50322, Start Num: 6
Candidate Starts for Metamorphoo_84:
(2, 49579), (Start: 6 @49657 has 47 MA's), (Start: 11 @49708 has 2 MA's), (16, 49753), (20, 49810), (30, 49894), (36, 49996), (39, 50005), (41, 50011), (58, 50158), (59, 50161), (68, 50239),

Gene: NoodlelyBoi_83 Start: 49237, Stop: 49902, Start Num: 6
Candidate Starts for NoodlelyBoi_83:
(2, 49159), (Start: 6 @49237 has 47 MA's), (Start: 9 @49267 has 1 MA's), (Start: 11 @49288 has 2 MA's), (16, 49333), (18, 49357), (20, 49390), (27, 49453), (30, 49474), (40, 49588), (58, 49738), (59, 49741), (68, 49819),

Gene: Onika_82 Start: 48879, Stop: 49538, Start Num: 6
Candidate Starts for Onika_82:
(2, 48795), (Start: 6 @48879 has 47 MA's), (Start: 11 @48924 has 2 MA's), (12, 48927), (16, 48969), (18, 48993), (20, 49026), (27, 49089), (30, 49110), (40, 49224), (48, 49278), (58, 49374), (68, 49455), (71, 49494), (73, 49524),

Gene: Paschalis_83 Start: 48906, Stop: 49565, Start Num: 6
Candidate Starts for Paschalis_83:
(2, 48822), (Start: 6 @48906 has 47 MA's), (Start: 11 @48951 has 2 MA's), (12, 48954), (16, 48996), (18, 49020), (20, 49053), (27, 49116), (30, 49137), (40, 49251), (48, 49305), (58, 49401), (68, 49482), (71, 49521), (73, 49551),

Gene: PhedwardCullen_81 Start: 48351, Stop: 49010, Start Num: 6
Candidate Starts for PhedwardCullen_81:
(2, 48273), (Start: 6 @48351 has 47 MA's), (Start: 11 @48396 has 2 MA's), (12, 48399), (16, 48441), (18, 48465), (20, 48498), (27, 48561), (30, 48582), (40, 48696), (48, 48750), (58, 48846), (68, 48927), (73, 48996),

Gene: Phorgeous_83 Start: 48695, Stop: 49354, Start Num: 6
Candidate Starts for Phorgeous_83:
(2, 48611), (Start: 6 @48695 has 47 MA's), (Start: 11 @48740 has 2 MA's), (12, 48743), (16, 48785), (18, 48809), (20, 48842), (27, 48905), (30, 48926), (40, 49040), (48, 49094), (58, 49190), (68, 49271), (73, 49340),

Gene: Phrancesco_83 Start: 49006, Stop: 49665, Start Num: 6
Candidate Starts for Phrancesco_83:
(2, 48922), (Start: 6 @49006 has 47 MA's), (Start: 11 @49051 has 2 MA's), (12, 49054), (16, 49096), (18, 49120), (20, 49153), (27, 49216), (30, 49237), (40, 49351), (48, 49405), (58, 49501), (68, 49582), (71, 49621), (73, 49651),

Gene: PierreOrion_82 Start: 48715, Stop: 49374, Start Num: 6

Candidate Starts for PierreOrion_82:
(2, 48631), (Start: 6 @48715 has 47 MA's), (Start: 11 @48760 has 2 MA's), (12, 48763), (16, 48805), (18, 48829), (20, 48862), (27, 48925), (30, 48946), (40, 49060), (48, 49114), (58, 49210), (68, 49291), (71, 49330), (73, 49360),

Gene: PiperSansNom_84 Start: 49209, Stop: 49868, Start Num: 6
Candidate Starts for PiperSansNom_84:
(2, 49131), (Start: 6 @49209 has 47 MA's), (Start: 11 @49254 has 2 MA's), (12, 49257), (16, 49299), (18, 49323), (20, 49356), (27, 49419), (30, 49440), (40, 49554), (48, 49608), (58, 49704), (68, 49785), (73, 49854),

Gene: Piperis_84 Start: 48814, Stop: 49473, Start Num: 6
Candidate Starts for Piperis_84:
(2, 48730), (Start: 6 @48814 has 47 MA's), (Start: 11 @48859 has 2 MA's), (12, 48862), (16, 48904), (18, 48928), (20, 48961), (27, 49024), (30, 49045), (40, 49159), (48, 49213), (58, 49309), (59, 49312), (68, 49390), (71, 49429), (72, 49432), (73, 49459),

Gene: Pulchra_85 Start: 49381, Stop: 50040, Start Num: 6
Candidate Starts for Pulchra_85:
(2, 49297), (Start: 6 @49381 has 47 MA's), (Start: 11 @49426 has 2 MA's), (12, 49429), (16, 49471), (18, 49495), (20, 49528), (27, 49591), (30, 49612), (40, 49726), (48, 49780), (58, 49876), (59, 49879), (68, 49957), (71, 49996), (72, 49999), (73, 50026),

Gene: Quhwah_87 Start: 49535, Stop: 50194, Start Num: 6
Candidate Starts for Quhwah_87:
(2, 49451), (Start: 6 @49535 has 47 MA's), (Start: 11 @49580 has 2 MA's), (12, 49583), (16, 49625), (18, 49649), (20, 49682), (27, 49745), (30, 49766), (40, 49880), (48, 49934), (58, 50030), (68, 50111), (71, 50150), (73, 50180),

Gene: Ramiel05_82 Start: 48908, Stop: 49567, Start Num: 6
Candidate Starts for Ramiel05_82:
(2, 48824), (Start: 6 @48908 has 47 MA's), (Start: 11 @48953 has 2 MA's), (12, 48956), (16, 48998), (18, 49022), (20, 49055), (27, 49118), (30, 49139), (40, 49253), (48, 49307), (58, 49403), (68, 49484), (71, 49523), (73, 49553),

Gene: Rasputia_3 Start: 1288, Stop: 1890, Start Num: 7
Candidate Starts for Rasputia_3:
(3, 1210), (4, 1222), (Start: 7 @1288 has 3 MA's), (12, 1324), (18, 1393), (21, 1435), (22, 1438), (31, 1516), (35, 1585), (37, 1612), (38, 1615), (50, 1684), (57, 1750), (62, 1789), (66, 1822), (68, 1846),

Gene: Rasputia_2 Start: 713, Stop: 1291, Start Num: 6
Candidate Starts for Rasputia_2:
(Start: 6 @713 has 47 MA's), (Start: 10 @740 has 1 MA's), (15, 773), (18, 824), (19, 827), (25, 893), (26, 917), (29, 932), (32, 953), (34, 980), (37, 1046), (42, 1064), (44, 1079), (46, 1100), (49, 1109), (52, 1124), (53, 1145), (54, 1148), (64, 1229), (69, 1271),

Gene: RobsFeet_90 Start: 49974, Stop: 50639, Start Num: 6
Candidate Starts for RobsFeet_90:
(2, 49896), (Start: 6 @49974 has 47 MA's), (Start: 11 @50025 has 2 MA's), (16, 50070), (20, 50127), (30, 50211), (36, 50313), (39, 50322), (41, 50328), (58, 50475), (59, 50478), (68, 50556), (71, 50595), (73, 50625),

Gene: Rockwell_82 Start: 48932, Stop: 49591, Start Num: 6

Candidate Starts for Rockwell_82:
(2, 48848), (Start: 6 @48932 has 47 MA's), (Start: 11 @48977 has 2 MA's), (12, 48980), (16, 49022), (18, 49046), (20, 49079), (27, 49142), (30, 49163), (40, 49277), (48, 49331), (58, 49427), (68, 49508), (71, 49547), (73, 49577),

Gene: Savannah_82 Start: 49100, Stop: 49759, Start Num: 6
Candidate Starts for Savannah_82:
(2, 49016), (Start: 6 @49100 has 47 MA's), (Start: 11 @49145 has 2 MA's), (12, 49148), (16, 49190), (20, 49247), (27, 49310), (30, 49331), (40, 49445), (48, 49499), (58, 49595), (59, 49598), (68, 49676), (71, 49715), (72, 49718), (73, 49745),

Gene: Scumberland_85 Start: 49154, Stop: 49813, Start Num: 6
Candidate Starts for Scumberland_85:
(2, 49070), (Start: 6 @49154 has 47 MA's), (Start: 11 @49199 has 2 MA's), (12, 49202), (16, 49244), (18, 49268), (20, 49301), (27, 49364), (30, 49385), (40, 49499), (48, 49553), (58, 49649), (59, 49652), (68, 49730), (71, 49769), (72, 49772), (73, 49799),

Gene: Selwyn23_84 Start: 49039, Stop: 49698, Start Num: 6
Candidate Starts for Selwyn23_84:
(2, 48955), (Start: 6 @49039 has 47 MA's), (Start: 11 @49084 has 2 MA's), (12, 49087), (16, 49129), (18, 49153), (20, 49186), (27, 49249), (30, 49270), (40, 49384), (58, 49534), (59, 49537), (68, 49615), (71, 49654), (72, 49657), (73, 49684),

Gene: Shotgun_82 Start: 48410, Stop: 49069, Start Num: 6
Candidate Starts for Shotgun_82:
(2, 48326), (Start: 6 @48410 has 47 MA's), (Start: 11 @48455 has 2 MA's), (12, 48458), (16, 48500), (18, 48524), (20, 48557), (27, 48620), (30, 48641), (40, 48755), (48, 48809), (58, 48905), (68, 48986), (71, 49025), (73, 49055),

Gene: Shrubaron_88 Start: 49564, Stop: 50229, Start Num: 6
Candidate Starts for Shrubaron_88:
(2, 49486), (Start: 6 @49564 has 47 MA's), (Start: 11 @49615 has 2 MA's), (16, 49660), (20, 49717), (30, 49801), (36, 49903), (39, 49912), (41, 49918), (58, 50065), (59, 50068), (68, 50146), (73, 50215),

Gene: SirFrank_82 Start: 48824, Stop: 49489, Start Num: 6
Candidate Starts for SirFrank_82:
(Start: 6 @48824 has 47 MA's), (Start: 9 @48854 has 1 MA's), (Start: 11 @48875 has 2 MA's), (16, 48920), (18, 48944), (20, 48977), (27, 49040), (30, 49061), (40, 49175), (58, 49325), (59, 49328), (68, 49406),

Gene: Skugga_84 Start: 49246, Stop: 49911, Start Num: 6
Candidate Starts for Skugga_84:
(2, 49168), (Start: 6 @49246 has 47 MA's), (Start: 9 @49276 has 1 MA's), (Start: 11 @49297 has 2 MA's), (12, 49300), (16, 49342), (18, 49366), (20, 49399), (30, 49483), (41, 49600), (58, 49747), (59, 49750), (68, 49828), (70, 49840), (71, 49867), (73, 49897),

Gene: Smarties_92 Start: 49945, Stop: 50607, Start Num: 6
Candidate Starts for Smarties_92:
(1, 49708), (2, 49861), (Start: 6 @49945 has 47 MA's), (Start: 9 @49972 has 1 MA's), (Start: 11 @49993 has 2 MA's), (12, 49996), (16, 50038), (18, 50062), (20, 50095), (27, 50158), (30, 50179), (39, 50290), (40, 50293), (58, 50443), (64, 50488), (68, 50524), (70, 50536), (71, 50563), (73, 50593),

Gene: Sunny_ Start: 49111, Stop: 49731, Start Num: 11

Candidate Starts for Sunny_:
(Start: 6 @49063 has 47 MA's), (Start: 11 @49111 has 2 MA's), (16, 49156), (19, 49183), (20, 49213), (27, 49276), (47, 49462), (58, 49561), (59, 49564), (60, 49567), (67, 49627), (68, 49642), (71, 49681), (73, 49711),

Gene: Teamocil_88 Start: 49063, Stop: 49728, Start Num: 6
Candidate Starts for Teamocil_88:
(2, 48985), (Start: 6 @49063 has 47 MA's), (Start: 9 @49093 has 1 MA's), (Start: 11 @49114 has 2 MA's), (12, 49117), (16, 49159), (18, 49183), (20, 49216), (27, 49279), (30, 49300), (41, 49417), (58, 49564), (59, 49567), (68, 49645), (70, 49657), (71, 49684), (73, 49714),

Gene: Tyrumbra_83 Start: 49578, Stop: 50243, Start Num: 6
Candidate Starts for Tyrumbra_83:
(2, 49500), (Start: 6 @49578 has 47 MA's), (Start: 11 @49629 has 2 MA's), (12, 49632), (16, 49674), (20, 49731), (27, 49794), (30, 49815), (36, 49917), (39, 49926), (41, 49932), (58, 50079), (59, 50082), (60, 50085), (68, 50160), (71, 50199), (73, 50229),

Gene: Yeti_84 Start: 48436, Stop: 49095, Start Num: 6
Candidate Starts for Yeti_84:
(2, 48352), (Start: 6 @48436 has 47 MA's), (Start: 11 @48481 has 2 MA's), (12, 48484), (16, 48526), (18, 48550), (20, 48583), (27, 48646), (30, 48667), (40, 48781), (48, 48835), (58, 48931), (61, 48940), (68, 49012), (73, 49081),

Gene: Zapato_83 Start: 48903, Stop: 49568, Start Num: 6
Candidate Starts for Zapato_83:
(2, 48825), (Start: 6 @48903 has 47 MA's), (Start: 9 @48933 has 1 MA's), (Start: 11 @48954 has 2 MA's), (13, 48963), (18, 49023), (20, 49056), (27, 49119), (28, 49125), (30, 49140), (39, 49251), (41, 49257), (58, 49404), (59, 49407), (68, 49485), (71, 49524), (73, 49554),