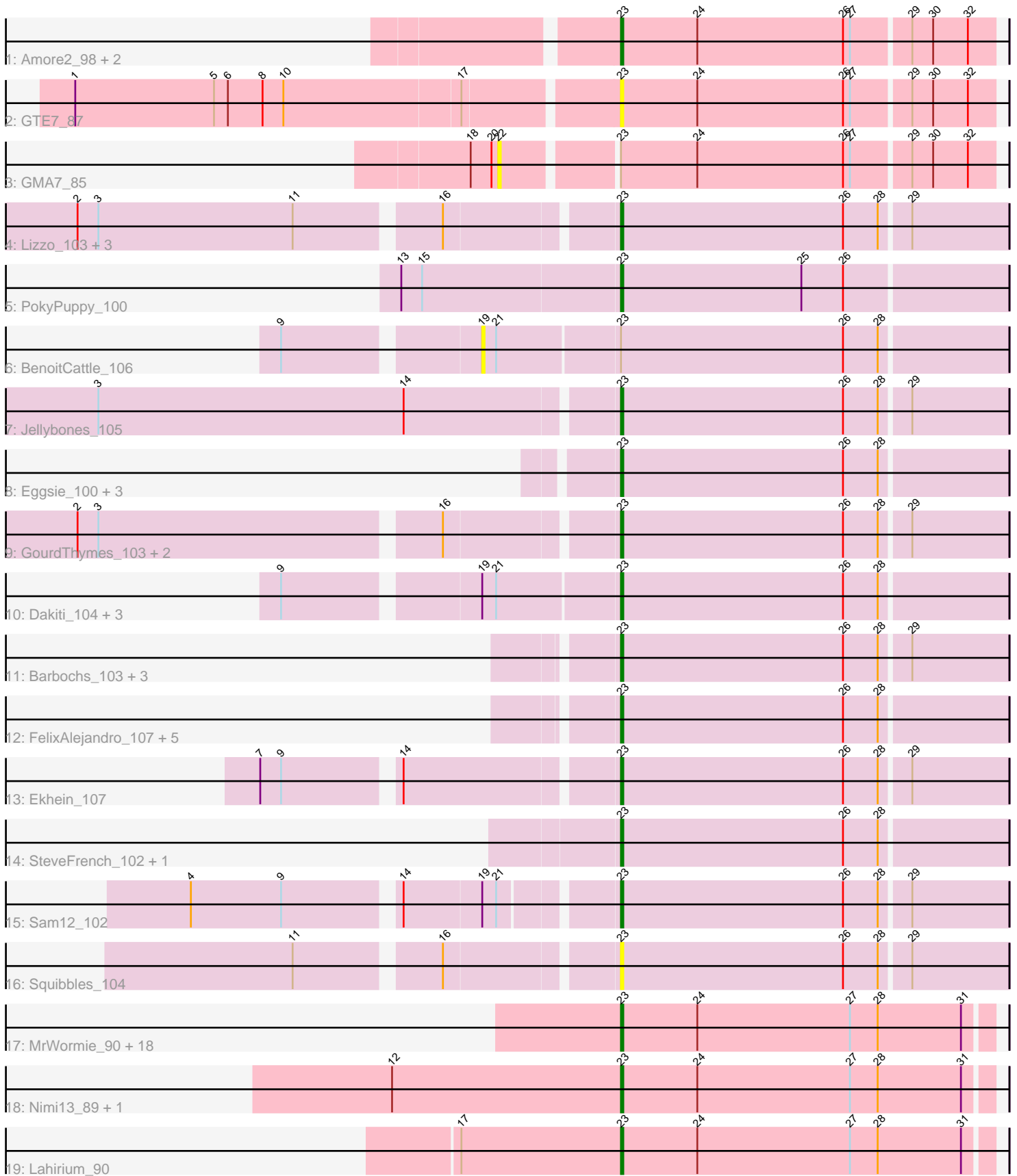


# Pham 171478



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 171478 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171478 has 60 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Amore2\_98, Austin\_96, HayZem\_98
- Track 2 : GTE7\_87
- Track 3 : GMA7\_85
- Track 4 : Lizzo\_103, RemRem\_107, CathyBurgh\_102, Exiguo\_101
- Track 5 : PokyPuppy\_100
- Track 6 : BenoitCattle\_106
- Track 7 : Jellybones\_105
- Track 8 : Eggsie\_100, Linetti\_104, Diabla\_107, Adgers\_106
- Track 9 : GourdThymes\_103, Gorko\_102, Monty\_103
- Track 10 : Dakiti\_104, Chelms\_103, BigShaq\_104, PierreThree\_103
- Track 11 : Barbochs\_103, Breezic\_105, Sombrero\_105, Beaver\_107
- Track 12 : FelixAlejandro\_107, Poland\_109, Msay19\_108, BirksAndSocks\_107, Butterball\_105, Boneham\_106
- Track 13 : Ekhein\_107
- Track 14 : SteveFrench\_102, RoyalG\_103
- Track 15 : Sam12\_102
- Track 16 : Squibbles\_104
- Track 17 : MrWormie\_90, Neoevie\_89, Harambe\_89, Lidong\_90, Jormungandr\_89, Woes\_89, Damp\_87, Newt\_91, Hail2Pitt\_88, Shelley\_90, Hello\_89, GalacticEye\_90, Sticker17\_90, Berries\_90, Teal\_89, Luker\_91, Jams\_90, Minos\_91, Kaseim\_89
- Track 18 : Nimi13\_89, Guillaume\_89
- Track 19 : Lahirium\_90

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

The start number called the most often in the published annotations is 23, it was called in 49 of the 49 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adgers\_106, Amore2\_98, Austin\_96, Barbochs\_103, Beaver\_107, Berries\_90, BigShaq\_104, BirksAndSocks\_107, Boneham\_106, Breezic\_105, Butterball\_105, CathyBurgh\_102, Chelms\_103, Dakiti\_104, Damp\_87, Diabla\_107, Eggsie\_100, Ekhein\_107, Exiguo\_101, FelixAlejandro\_107, GTE7\_87, GalacticEye\_90, Gorko\_102, GourdThymes\_103, Guillaume\_89, Hail2Pitt\_88, Harambe\_89,

HayZem\_98, Hello\_89, Jams\_90, Jellybones\_105, Jormungandr\_89, Kaseim\_89, Lahirium\_90, Lidong\_90, Linetti\_104, Lizzo\_103, Luker\_91, Minos\_91, Monty\_103, MrWormie\_90, Msay19\_108, Neevie\_89, Newt\_91, Nimi13\_89, PierreThree\_103, PokyPuppy\_100, Poland\_109, RemRem\_107, RoyalG\_103, Sam12\_102, Shelley\_90, Sombrero\_105, Squibbles\_104, SteveFrench\_102, Sticker17\_90, Teal\_89, Woes\_89,

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

- BenoitCattle\_106, GMA7\_85,

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

- 

### Summary by start number:

Start 19:

- Found in 6 of 60 ( 10.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 16.7% of time when present
- Phage (with cluster) where this start called: BenoitCattle\_106 (CS2),

Start 22:

- Found in 1 of 60 ( 1.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA7\_85 (CS1),

Start 23:

- Found in 60 of 60 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 49 of 49
- Called 96.7% of time when present
- Phage (with cluster) where this start called: Adgers\_106 (CS2), Amore2\_98 (CS1), Austin\_96 (CS1), Barbochs\_103 (CS2), Beaver\_107 (CS2), Berries\_90 (CS3), BigShaq\_104 (CS2), BirksAndSocks\_107 (CS2), Boneham\_106 (CS2), Breezic\_105 (CS2), Butterball\_105 (CS2), CathyBurgh\_102 (CS2), Chelms\_103 (CS2), Dakiti\_104 (CS2), Damp\_87 (CS3), Diabla\_107 (CS2), Eggsie\_100 (CS2), Ekhein\_107 (CS2), Exiguo\_101 (CS2), FelixAlejandro\_107 (CS2), GTE7\_87 (CS1), GalacticEye\_90 (CS3), Gorko\_102 (CS2), GourdThymes\_103 (CS2), Guillaume\_89 (CS3), Hail2Pitt\_88 (CS3), Harambe\_89 (CS3), HayZem\_98 (CS1), Hello\_89 (CS3), Jams\_90 (CS3), Jellybones\_105 (CS2), Jormungandr\_89 (CS3), Kaseim\_89 (CS3), Lahirium\_90 (CS3), Lidong\_90 (CS3), Linetti\_104 (CS2), Lizzo\_103 (CS2), Luker\_91 (CS3), Minos\_91 (CS3), Monty\_103 (CS2), MrWormie\_90 (CS3), Msay19\_108 (CS2), Neevie\_89 (CS3), Newt\_91 (CS3), Nimi13\_89 (CS3), PierreThree\_103 (CS2), PokyPuppy\_100 (CS2), Poland\_109 (CS2), RemRem\_107 (CS2), RoyalG\_103 (CS2), Sam12\_102 (CS2), Shelley\_90 (CS3), Sombrero\_105 (CS2), Squibbles\_104 (CS2), SteveFrench\_102 (CS2), Sticker17\_90 (CS3), Teal\_89 (CS3), Woes\_89 (CS3),

### Summary by clusters:

There are 3 clusters represented in this pham: CS1, CS3, CS2,

Info for manual annotations of cluster CS1:

- Start number 23 was manually annotated 3 times for cluster CS1.

Info for manual annotations of cluster CS2:

- Start number 23 was manually annotated 26 times for cluster CS2.

Info for manual annotations of cluster CS3:

- Start number 23 was manually annotated 20 times for cluster CS3.

### ***Gene Information:***

Gene: Adgers\_106 Start: 73212, Stop: 73048, Start Num: 23

Candidate Starts for Adgers\_106:

(Start: 23 @73212 has 49 MA's), (26, 73116), (28, 73101),

Gene: Amore2\_98 Start: 71254, Stop: 71096, Start Num: 23

Candidate Starts for Amore2\_98:

(Start: 23 @71254 has 49 MA's), (24, 71221), (26, 71158), (27, 71155), (29, 71131), (30, 71122), (32, 71107),

Gene: Austin\_96 Start: 71087, Stop: 70929, Start Num: 23

Candidate Starts for Austin\_96:

(Start: 23 @71087 has 49 MA's), (24, 71054), (26, 70991), (27, 70988), (29, 70964), (30, 70955), (32, 70940),

Gene: Barbochs\_103 Start: 72406, Stop: 72242, Start Num: 23

Candidate Starts for Barbochs\_103:

(Start: 23 @72406 has 49 MA's), (26, 72310), (28, 72295), (29, 72283),

Gene: Beaver\_107 Start: 74554, Stop: 74390, Start Num: 23

Candidate Starts for Beaver\_107:

(Start: 23 @74554 has 49 MA's), (26, 74458), (28, 74443), (29, 74431),

Gene: BenoitCattle\_106 Start: 73827, Stop: 73606, Start Num: 19

Candidate Starts for BenoitCattle\_106:

(9, 73905), (19, 73827), (21, 73821), (Start: 23 @73770 has 49 MA's), (26, 73674), (28, 73659),

Gene: Berries\_90 Start: 70699, Stop: 70541, Start Num: 23

Candidate Starts for Berries\_90:

(Start: 23 @70699 has 49 MA's), (24, 70666), (27, 70600), (28, 70588), (31, 70552),

Gene: BigShaq\_104 Start: 73565, Stop: 73401, Start Num: 23

Candidate Starts for BigShaq\_104:

(9, 73700), (19, 73622), (21, 73616), (Start: 23 @73565 has 49 MA's), (26, 73469), (28, 73454),

Gene: BirksAndSocks\_107 Start: 74167, Stop: 74003, Start Num: 23

Candidate Starts for BirksAndSocks\_107:

(Start: 23 @74167 has 49 MA's), (26, 74071), (28, 74056),

Gene: Boneham\_106 Start: 74092, Stop: 73928, Start Num: 23

Candidate Starts for Boneham\_106:

(Start: 23 @74092 has 49 MA's), (26, 73996), (28, 73981),

Gene: Breezic\_105 Start: 73104, Stop: 72940, Start Num: 23  
Candidate Starts for Breezic\_105:  
(Start: 23 @73104 has 49 MA's), (26, 73008), (28, 72993), (29, 72981),

Gene: Butterball\_105 Start: 74097, Stop: 73933, Start Num: 23  
Candidate Starts for Butterball\_105:  
(Start: 23 @74097 has 49 MA's), (26, 74001), (28, 73986),

Gene: CathyBurgh\_102 Start: 72939, Stop: 72775, Start Num: 23  
Candidate Starts for CathyBurgh\_102:  
(2, 73158), (3, 73149), (11, 73065), (16, 73008), (Start: 23 @72939 has 49 MA's), (26, 72843), (28, 72828), (29, 72816),

Gene: Chelms\_103 Start: 73508, Stop: 73344, Start Num: 23  
Candidate Starts for Chelms\_103:  
(9, 73643), (19, 73565), (21, 73559), (Start: 23 @73508 has 49 MA's), (26, 73412), (28, 73397),

Gene: Dakiti\_104 Start: 74451, Stop: 74287, Start Num: 23  
Candidate Starts for Dakiti\_104:  
(9, 74586), (19, 74508), (21, 74502), (Start: 23 @74451 has 49 MA's), (26, 74355), (28, 74340),

Gene: Damp\_87 Start: 69595, Stop: 69437, Start Num: 23  
Candidate Starts for Damp\_87:  
(Start: 23 @69595 has 49 MA's), (24, 69562), (27, 69496), (28, 69484), (31, 69448),

Gene: Diabla\_107 Start: 73814, Stop: 73650, Start Num: 23  
Candidate Starts for Diabla\_107:  
(Start: 23 @73814 has 49 MA's), (26, 73718), (28, 73703),

Gene: Eggsie\_100 Start: 71370, Stop: 71206, Start Num: 23  
Candidate Starts for Eggsie\_100:  
(Start: 23 @71370 has 49 MA's), (26, 71274), (28, 71259),

Gene: Ekhein\_107 Start: 73157, Stop: 72993, Start Num: 23  
Candidate Starts for Ekhein\_107:  
(7, 73298), (9, 73289), (14, 73244), (Start: 23 @73157 has 49 MA's), (26, 73061), (28, 73046), (29, 73034),

Gene: Exiguo\_101 Start: 72370, Stop: 72206, Start Num: 23  
Candidate Starts for Exiguo\_101:  
(2, 72589), (3, 72580), (11, 72496), (16, 72439), (Start: 23 @72370 has 49 MA's), (26, 72274), (28, 72259), (29, 72247),

Gene: FelixAlejandro\_107 Start: 74610, Stop: 74446, Start Num: 23  
Candidate Starts for FelixAlejandro\_107:  
(Start: 23 @74610 has 49 MA's), (26, 74514), (28, 74499),

Gene: GMA7\_85 Start: 65061, Stop: 64858, Start Num: 22  
Candidate Starts for GMA7\_85:  
(18, 65073), (20, 65064), (22, 65061), (Start: 23 @65016 has 49 MA's), (24, 64983), (26, 64920), (27, 64917), (29, 64893), (30, 64884), (32, 64869),

Gene: GTE7\_87 Start: 65923, Stop: 65765, Start Num: 23

Candidate Starts for GTE7\_87:

(1, 66148), (5, 66088), (6, 66082), (8, 66067), (10, 66058), (17, 65983), (Start: 23 @65923 has 49 MA's), (24, 65890), (26, 65827), (27, 65824), (29, 65800), (30, 65791), (32, 65776),

Gene: GalacticEye\_90 Start: 70382, Stop: 70224, Start Num: 23

Candidate Starts for GalacticEye\_90:

(Start: 23 @70382 has 49 MA's), (24, 70349), (27, 70283), (28, 70271), (31, 70235),

Gene: Gorko\_102 Start: 72317, Stop: 72153, Start Num: 23

Candidate Starts for Gorko\_102:

(2, 72536), (3, 72527), (16, 72386), (Start: 23 @72317 has 49 MA's), (26, 72221), (28, 72206), (29, 72194),

Gene: GourdThymes\_103 Start: 72966, Stop: 72802, Start Num: 23

Candidate Starts for GourdThymes\_103:

(2, 73185), (3, 73176), (16, 73035), (Start: 23 @72966 has 49 MA's), (26, 72870), (28, 72855), (29, 72843),

Gene: Guillaume\_89 Start: 70460, Stop: 70302, Start Num: 23

Candidate Starts for Guillaume\_89:

(12, 70559), (Start: 23 @70460 has 49 MA's), (24, 70427), (27, 70361), (28, 70349), (31, 70313),

Gene: Hail2Pitt\_88 Start: 70933, Stop: 70775, Start Num: 23

Candidate Starts for Hail2Pitt\_88:

(Start: 23 @70933 has 49 MA's), (24, 70900), (27, 70834), (28, 70822), (31, 70786),

Gene: Harambe\_89 Start: 70727, Stop: 70569, Start Num: 23

Candidate Starts for Harambe\_89:

(Start: 23 @70727 has 49 MA's), (24, 70694), (27, 70628), (28, 70616), (31, 70580),

Gene: HayZem\_98 Start: 71094, Stop: 70936, Start Num: 23

Candidate Starts for HayZem\_98:

(Start: 23 @71094 has 49 MA's), (24, 71061), (26, 70998), (27, 70995), (29, 70971), (30, 70962), (32, 70947),

Gene: Hello\_89 Start: 70682, Stop: 70524, Start Num: 23

Candidate Starts for Hello\_89:

(Start: 23 @70682 has 49 MA's), (24, 70649), (27, 70583), (28, 70571), (31, 70535),

Gene: Jams\_90 Start: 69737, Stop: 69579, Start Num: 23

Candidate Starts for Jams\_90:

(Start: 23 @69737 has 49 MA's), (24, 69704), (27, 69638), (28, 69626), (31, 69590),

Gene: Jellybones\_105 Start: 74298, Stop: 74134, Start Num: 23

Candidate Starts for Jellybones\_105:

(3, 74517), (14, 74385), (Start: 23 @74298 has 49 MA's), (26, 74202), (28, 74187), (29, 74175),

Gene: Jormungandr\_89 Start: 70442, Stop: 70284, Start Num: 23

Candidate Starts for Jormungandr\_89:

(Start: 23 @70442 has 49 MA's), (24, 70409), (27, 70343), (28, 70331), (31, 70295),

Gene: Kaseim\_89 Start: 69884, Stop: 69726, Start Num: 23

Candidate Starts for Kaseim\_89:

(Start: 23 @69884 has 49 MA's), (24, 69851), (27, 69785), (28, 69773), (31, 69737),

Gene: Lahirium\_90 Start: 71478, Stop: 71320, Start Num: 23

Candidate Starts for Lahirium\_90:

(17, 71547), (Start: 23 @71478 has 49 MA's), (24, 71445), (27, 71379), (28, 71367), (31, 71331),

Gene: Lidong\_90 Start: 70699, Stop: 70541, Start Num: 23

Candidate Starts for Lidong\_90:

(Start: 23 @70699 has 49 MA's), (24, 70666), (27, 70600), (28, 70588), (31, 70552),

Gene: Linetti\_104 Start: 74728, Stop: 74564, Start Num: 23

Candidate Starts for Linetti\_104:

(Start: 23 @74728 has 49 MA's), (26, 74632), (28, 74617),

Gene: Lizzo\_103 Start: 72939, Stop: 72775, Start Num: 23

Candidate Starts for Lizzo\_103:

(2, 73158), (3, 73149), (11, 73065), (16, 73008), (Start: 23 @72939 has 49 MA's), (26, 72843), (28, 72828), (29, 72816),

Gene: Luker\_91 Start: 70752, Stop: 70594, Start Num: 23

Candidate Starts for Luker\_91:

(Start: 23 @70752 has 49 MA's), (24, 70719), (27, 70653), (28, 70641), (31, 70605),

Gene: Minos\_91 Start: 70426, Stop: 70268, Start Num: 23

Candidate Starts for Minos\_91:

(Start: 23 @70426 has 49 MA's), (24, 70393), (27, 70327), (28, 70315), (31, 70279),

Gene: Monty\_103 Start: 72841, Stop: 72677, Start Num: 23

Candidate Starts for Monty\_103:

(2, 73060), (3, 73051), (16, 72910), (Start: 23 @72841 has 49 MA's), (26, 72745), (28, 72730), (29, 72718),

Gene: MrWormie\_90 Start: 69440, Stop: 69282, Start Num: 23

Candidate Starts for MrWormie\_90:

(Start: 23 @69440 has 49 MA's), (24, 69407), (27, 69341), (28, 69329), (31, 69293),

Gene: Msay19\_108 Start: 74914, Stop: 74750, Start Num: 23

Candidate Starts for Msay19\_108:

(Start: 23 @74914 has 49 MA's), (26, 74818), (28, 74803),

Gene: Neoevie\_89 Start: 70700, Stop: 70542, Start Num: 23

Candidate Starts for Neoevie\_89:

(Start: 23 @70700 has 49 MA's), (24, 70667), (27, 70601), (28, 70589), (31, 70553),

Gene: Newt\_91 Start: 70769, Stop: 70611, Start Num: 23

Candidate Starts for Newt\_91:

(Start: 23 @70769 has 49 MA's), (24, 70736), (27, 70670), (28, 70658), (31, 70622),

Gene: Nimi13\_89 Start: 70450, Stop: 70292, Start Num: 23

Candidate Starts for Nimi13\_89:

(12, 70549), (Start: 23 @70450 has 49 MA's), (24, 70417), (27, 70351), (28, 70339), (31, 70303),

Gene: PierreThree\_103 Start: 74082, Stop: 73918, Start Num: 23  
Candidate Starts for PierreThree\_103:  
(9, 74217), (19, 74139), (21, 74133), (Start: 23 @74082 has 49 MA's), (26, 73986), (28, 73971),

Gene: PokyPuppy\_100 Start: 73128, Stop: 72964, Start Num: 23  
Candidate Starts for PokyPuppy\_100:  
(13, 73221), (15, 73212), (Start: 23 @73128 has 49 MA's), (25, 73050), (26, 73032),

Gene: Poland\_109 Start: 74875, Stop: 74711, Start Num: 23  
Candidate Starts for Poland\_109:  
(Start: 23 @74875 has 49 MA's), (26, 74779), (28, 74764),

Gene: RemRem\_107 Start: 73125, Stop: 72961, Start Num: 23  
Candidate Starts for RemRem\_107:  
(2, 73344), (3, 73335), (11, 73251), (16, 73194), (Start: 23 @73125 has 49 MA's), (26, 73029), (28, 73014), (29, 73002),

Gene: RoyalG\_103 Start: 72840, Stop: 72676, Start Num: 23  
Candidate Starts for RoyalG\_103:  
(Start: 23 @72840 has 49 MA's), (26, 72744), (28, 72729),

Gene: Sam12\_102 Start: 72367, Stop: 72203, Start Num: 23  
Candidate Starts for Sam12\_102:  
(4, 72535), (9, 72496), (14, 72451), (19, 72418), (21, 72412), (Start: 23 @72367 has 49 MA's), (26, 72271), (28, 72256), (29, 72244),

Gene: Shelley\_90 Start: 69926, Stop: 69768, Start Num: 23  
Candidate Starts for Shelley\_90:  
(Start: 23 @69926 has 49 MA's), (24, 69893), (27, 69827), (28, 69815), (31, 69779),

Gene: Sombrero\_105 Start: 73178, Stop: 73014, Start Num: 23  
Candidate Starts for Sombrero\_105:  
(Start: 23 @73178 has 49 MA's), (26, 73082), (28, 73067), (29, 73055),

Gene: Squibbles\_104 Start: 73651, Stop: 73487, Start Num: 23  
Candidate Starts for Squibbles\_104:  
(11, 73777), (16, 73720), (Start: 23 @73651 has 49 MA's), (26, 73555), (28, 73540), (29, 73528),

Gene: SteveFrench\_102 Start: 73079, Stop: 72915, Start Num: 23  
Candidate Starts for SteveFrench\_102:  
(Start: 23 @73079 has 49 MA's), (26, 72983), (28, 72968),

Gene: Sticker17\_90 Start: 70399, Stop: 70241, Start Num: 23  
Candidate Starts for Sticker17\_90:  
(Start: 23 @70399 has 49 MA's), (24, 70366), (27, 70300), (28, 70288), (31, 70252),

Gene: Teal\_89 Start: 70905, Stop: 70747, Start Num: 23  
Candidate Starts for Teal\_89:  
(Start: 23 @70905 has 49 MA's), (24, 70872), (27, 70806), (28, 70794), (31, 70758),

Gene: Woes\_89 Start: 70949, Stop: 70791, Start Num: 23  
Candidate Starts for Woes\_89:  
(Start: 23 @70949 has 49 MA's), (24, 70916), (27, 70850), (28, 70838), (31, 70802),



